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ภาคผนวก

ภาคผนวก ก

ตัวอย่างการคำนวณ

ตัวอย่างการคำนวณค่าพลังงานแสงอาทิตย์ที่ผ่านทะลุระนาบกระจกใสหนา 3 mm. (แฟคเตอร์แสงอาทิตย์) ที่เวลาและทิศทางใด ๆ

ต้องการคำนวณหาค่าพลังงานแสงอาทิตย์ที่ผ่านทะลุระนาบกระจกใสหนา 3 mm. (แฟคเตอร์แสงอาทิตย์) ที่หันหน้าไปทางทิศตะวันตก มุมเอียงของระนาบ = 90° ที่เวลา 15.00 น. เดือนมกราคม ที่กรุงเทพฯ

การคำนวณ

กรุงเทพฯ อยู่บนเส้นแวงที่ 100.50° ตะวันออก และเส้นรุ้ง, ϕ, ที่ 13.73° เหนือ เวลาท้องถิ่น = 15.00 น. เดือนมกราคม

ค่าพลังงานแสงอาทิตย์แบบรวมรายชั่วโมง = 624 W/m² (จากตารางที่ 3.1)

ค่าพลังงานแสงอาทิตย์แบบตรงรายชั่วโมง = 548 W/m² (จากตารางที่ 3.2)

$\beta = 90^\circ$, $\gamma = 90^\circ$

ขั้นตอนการคำนวณ

1. เปลี่ยนเวลาท้องถิ่นให้เป็นเวลาสุริยะ เพื่อหาค่ามุมของเวลา, ω, จากสมการที่ (2.1) และ (2.2)

เวลาสุริยะ = เวลาท้องถิ่น - 4(L_{st}-L_{loc}) + E ...(ก.1)

E = 9.87sin2B-7.53cosB-1.5sinB ....(ก.2)

เมื่อ

$$B = \frac{360(n-81)}{364}$$

n = 17 (ค่า n หาได้จากตารางที่ 2.1)

$$B = \frac{360(17-81)}{364}$$

$$= -63.296703$$

แทนค่า B ในสมการที่ (ก.2)

E = 9.87sin2(-63.296703)
- 7.53cos(-63.296703)
- 1.5sin(-63.296703)
= - 9.9414261

สำหรับกรุงเทพฯ ใช้เส้นแวงมาตรฐานที่ 105° ตะวันออก
แทนค่าต่าง ๆ ลงในสมการที่ (ก.1)

เวลาสุริยะ = 15.00 - 4(105-100.5) + (-9.9414261)
= 14.32 น.

ที่เวลาเที่ยงสุริยะ มุมของเวลา, ω, จะมีค่าเท่ากับศูนย์ และจะเพิ่ม 15° ทุก ๆ ชั่วโมง ดังนั้นจากการเปรียบเทียบจะได้ว่า ที่เวลาสุริยะ 14.32 น.

มุมของเวลา,ω, มีค่าเท่ากับ 38.01

$$\omega = 38.01$$

2. คำนวณหาค่าเดคคลีเนชั่น, δ

จากสมการที่ (2.3)

$$\delta = 23.45\sin\left[360.\frac{284+n}{365}\right]$$

$$= 23.45\sin\left[360.\frac{284+17}{365}\right]$$

$$= -20.9172$$

3. คำนวณหาค่าโคซายน์ของมุมเซนิธ, $\cos\theta_z$

จากสมการที่ (2.5)

$$\cos\theta_z = \cos\delta\cos\phi\cos\omega + \sin\delta\sin\phi$$

$$= \cos(-20.9172)\cos13.73\cos38.01 + \sin(-20.9172)\sin13.73$$

$$= 0.630213$$

4. คำนวณหาค่ามุมตกกระทบ,θ

จากสมการที่ (2.4)

$$\cos\theta = \sin\delta\sin\phi\cos\beta - \sin\delta\cos\phi\sin\beta\cos\gamma + \cos\delta\cos\phi\cos\beta\cos\omega + \cos\delta\sin\phi\sin\beta\cos\gamma\cos\omega$$

$$+ \cos\delta\sin\beta\sin\gamma\sin\omega$$

$$\cos\theta = \sin(-20.9172)\sin13.73\cos90$$
$$- \sin(-20.9172)\cos13.73\sin90\cos90$$
$$+ \cos(-20.9172)\cos13.73\cos90\cos38.01$$
$$+ \cos(-20.9172)\sin13.73\sin90\cos90\cos38.01$$
$$+ \cos(-20.9172)\sin90\sin90\sin38.01$$
$$\cos\theta = 0.575223$$
$$\theta = 54.88471$$

5. หาค่าพลังงานแสงอาทิตย์แบบตรงบนระนาบระดับ

พลังงานแสงอาทิตย์แบบตรงบนระนาบระดับ(I_b) = พลังงานแสงอาทิตย์แบบตรงที่อ่านได้ x $\cos\theta_z$

พลังงานแสงอาทิตย์แบบตรงบนระนาบระดับ(I_b) = 548x0.630213

= 345.3571 W/m^2

6. หาค่าพลังงานแสงอาทิตย์แบบกระจายบนระนาบระดับ

พลังงานแสงอาทิตย์แบบกระจายบนระนาบระดับ(I_d)

= พลังงานแสงอาทิตย์แบบรวม

- พลังงานแสงอาทิตย์แบบตรงบนระนาบระดับ(I_b)

= 624 - 345.3571

= 278.6429 W/m^2

7. คำนวณมุมของดวงอาทิตย์ขึ้นหรือตก, ω_s

จากสมการที่ (2.6)

$\cos\omega_s = -\tan\phi\tan\delta$

$= -\tan(13.73)\tan(-20.9172)$

$= 0.093384$

$\omega_s = 84.641$

เมื่อเปรียบเทียบกับค่า $\omega = 38.01$ จะเห็นว่า ω_s มีค่ามากกว่า แสดงว่าดวงอาทิตย์ยังไม่ตก

8. คำนวณหาพลังงานแสงอาทิตย์บนระนาบ

พลังงานแสงอาทิตย์แบบตรงบนระนาบ

$= I_b \cdot \frac{\cos\theta}{\cos\theta_z}$

$= 345.3571 \times 0.575223$

$= 315.2224 \ W/m^2$

พลังงานแสงอาทิตย์แบบกระจายจากท้องฟ้าบนระนาบ

$= I_d (1+\cos\beta)/2$

$= 278.6429(1+\cos 90)/2$

$= 139.3226 \ W/m^2$

พลังงานแสงอาทิตย์แบบกระจายจากพื้นบนระนาบ

$= (I_b+I_d)(1-\cos\beta)\rho/2$

$= (345.3571+278.6429)\cdot(1-\cos 90) \times 0.2/2$

$= 62.39948 \ W/m^2$

9. คำนวณหาค่าพลังงานแสงอาทิตย์ที่ผ่านทะลุระนาบกระจกใสหนา 3 mm.

ค่าการผ่านทะลุเมื่อคำนึงถึงค่าการสะท้อนเพียงอย่างเดียว (τ_r) สำหรับพลังงานแสงอาทิตย์แบบตรง

จากสมการที่ (2.16)

$$\frac{n_1}{n_2} = \frac{\sin\theta_2}{\sin\theta_1}$$

$$\theta_1 = \theta = 54.88471$$

$$\theta_2 = \sin^{-1}\left\{\frac{\sin(54.88471)}{1.526}\right\}$$

$$= 32.41430$$

จากสมการที่ (2.13)

$$r_\perp = \frac{\sin^2(\theta_2 - \theta_1)}{\sin^2(\theta_2 + \theta_1)}$$

$$r_\perp = \frac{\sin^2(32.41430 - 54.88471)}{\sin^2(32.41430 + 54.88471)}$$

$$r_\perp = 0.146405$$

จากสมการที่ (2.14)

$$r_{||} = \frac{\tan^2(\theta_2 - \theta_1)}{\tan^2(\theta_2 + \theta_1)}$$

$$r_{||} = \frac{\tan^2(32.41430 - 54.88471)}{\tan^2(32.41430 + 54.88471)}$$

$$r_{||} = 0.00038$$

จากสมการที่ (2.18)

$$\tau_r = \frac{1}{2}\left[\frac{1-r_{\parallel}}{1+r_{\parallel}} + \frac{1-r_{\perp}}{1+r_{\perp}}\right]$$

$$\tau_r = \frac{1}{2}\left[\frac{1-0.00038}{1+0.00038} + \frac{1-0.146405}{1+0.146405}\right]$$

$$\tau_r = 0.871911$$

τ_r สำหรับพลังงานแสงอาทิตย์แบบตรง = 0.871911

พลังงานแสงอาทิตย์แบบตรงที่ทะลุผ่านระนาบกระจก

= พลังงานแสงอาทิตย์แบบตรงบนระนาบ x τ_r

= 315.2224 x 0.871911

= 275 W/m^2

ในทำนองเดียวกัน ค่าการผ่านทะลุเมื่อคำนึงถึงค่าการสะท้อนเพียงอย่างเดียว, τ_r, สำหรับพลังงานแสงอาทิตย์แบบกระจายจากพื้นและจากฟ้า ก็สามารถหาได้โดยวิธีเดียวกันโดยที่ค่า สำหรับพลังงานแสงอาทิตย์แบบกระจายจากพื้นและจากฟ้า หาได้จากสมการที่ (2.27) และ (2.28)

จากสมการที่ (2.27)

สำหรับพลังงานแสงอาทิตย์แบบกระจายจากพื้น

$$\theta_e = 90 - 0.5788\beta + 0.002693\beta^2$$

$$= 90 - 0.5788 \times 90 + 0.002693(90)^2$$

$$= 59.72$$

จากสมการที่ (2.28)

สำหรับพลังงานแสงอาทิตย์แบบกระจายจากฟ้า

$$\theta_e = 59.68 - 0.1388\beta + 0.001497\beta^2$$
$$= 59.68 - 0.1388x90 + 0.001497(90)^2$$
$$= 59.31$$

ดังนั้นด้วยวิธีเดียวกัน

สำหรับพลังงานแสงอาทิตย์แบบกระจายจากพื้น $\tau_r = 0.844$

สำหรับพลังงานแสงอาทิตย์แบบกระจายจากฟ้า $\tau_r = 0.847$

เพราะฉะนั้น

พลังงานแสงอาทิตย์แบบกระจายจากพื้นที่ทะลุผ่านระนาบกระจก

= พลังงานแสงอาทิตย์แบบกระจายจากพื้นบนระนาบ x τ_r
= 62.39948 x 0.844
= 53 W/m²

พลังงานแสงอาทิตย์แบบกระจายจากฟ้าที่ทะลุผ่านระนาบกระจก

= พลังงานแสงอาทิตย์แบบกระจายจากฟ้าบนระนาบ x τ_r
= 139.3226 x 0.847
= 118 W/m²

รวมพลังงานแสงอาทิตย์แบบกระจายที่ทะลุผ่านระนาบกระจก

$$= 53 + 118 = 171 \ W/m^2$$

10. รวมค่าพลังงานแสงอาทิตย์ที่ทะลุผ่านระนาบกระจก

พลังงานแสงอาทิตย์แบบตรงที่ทะลุผ่านระนาบกระจก = 275 W/m^2

พลังงานแสงอาทิตย์แบบกระจายที่ทะลุผ่านระนาบกระจก = 171 W/m^2

พลังงานแสงอาทิตย์ที่ทะลุผ่านระนาบกระจกทั้งหมด = 275+171 W/m^2

= 446 W/m^2

การคำนวณหาค่าพลังงานแสงอาทิตย์ที่ทะลุผ่านกระจกใสหนา 3 mm. หรือค่าแฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ จะคำนวณใน 8 ทิศทาง คือ ทิศตะวันออกเฉียงเหนือ, ทิศตะวันออก, ทิศตะวันออกเฉียงใต้, ทิศใต้, ทิศตะวันตกเฉียงใต้, ทิศตะวันตก, ทิศตะวันตกเฉียงเหนือ และทิศเหนือ และแปรเปลี่ยนมุมเอียงของระนาบตั้งแต่ 0° ถึง 90°

ผลการคำนวณหาค่าแฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ สำหรับมุมเอียงของระนาบ = 90° และระนาบระดับ ได้แสดงไว้ในตารางที่ ก.1 และ ก.2

ตัวอย่างการคำนวณค่าความร้อนที่ได้รับเนื่องจากพลังงานแสงอาทิตย์ผ่านระนาบกระจกใสหนา 3 mm. (แฟคเตอร์แสงอาทิตย์) ที่เวลาและทิศทางใด ๆ โดยคำนึงถึงค่าการดูดกลืนในกระจก

ต้องการคำนวณหาค่าความร้อนที่ได้รับเนื่องจากพลังงานแสงอาทิตย์ที่ผ่านระนาบกระจกใสหนา 3 mm. (แฟคเตอร์แสงอาทิตย์) ที่หันหน้าไปทางทิศตะวันตก มุมเอียงของระนาบ = 90° ที่เวลา 15.00 น. เดือนมกราคมที่กรุงเทพฯ

การคำนวณเหมือนดังหัวข้อที่ผ่านมาจะได้ว่า

พลังงานแสงอาทิตย์แบบตรงบนระนาบ = 315.2224 W/m^2

สำหรับพลังงานแสงอาทิตย์แบบตรง τ_r = 0.871911

หาค่า τ_a จากสมการที่ (2.20)

$$\tau_a = e^{-KL/\cos\theta_2}$$
$$= 0.985885$$

หาค่า τ จากสมการที่ (2.24)

$$\tau = \tau_a \tau_r$$
$$= 0.985885 \times 0.871911$$
$$= 0.859604$$

หาค่า α จากสมการที่ (2.25)

$$\alpha = 1 - \tau_a$$
$$= 1 - 0.985885$$
$$= 0.014114$$

หาค่าความร้อนที่เกิดจากพลังงานแสงอาทิตย์แบบตรง

ความร้อนที่เกิดขึ้น (H_b) = τ x พลังงานแสงอาทิตย์แบบตรงบนระนาบ + $U_f\alpha/h_o$ x พลังงานแสงอาทิตย์แบบตรงบนระนาบ

U_f/h_o = 0.316666

ความร้อนที่เกิดขึ้น (H_b) = 0.859604 x 315.2224
+ 0.316666 x 0.014114 x 315.2224
= 270.9667 + 1.408881
= 272.37558

ในทำนองเดียวกัน การคำนวณสำหรับพลังงานแสงอาทิตย์แบบกระจายจากพื้นและจากท้องฟ้า ก็สามารถทำได้แบบเดียวกัน ดังนั้น

ความร้อนที่เกิดขึ้นเนื่องจากพลังงานแสงอาทิตย์ (H_t)
$= \tau I_t + U_f\alpha I_t/h_o$
$= 439.1768 + 2.330652$
$= 442 \ W/m^2$

เมื่อพิจารณาเทอม $U_f\alpha I_t/h_o$ จะเห็นว่าเทอม $U_f \ I_t/h_o$ มีค่าน้อยมาก เมื่อคิดเป็นเบอร์เซ็นต์ต่อความร้อนที่เกิด (H_t) จะได้เท่ากับ 0.53 เมื่อพิจารณาเทอมนี้ที่เวลาอื่น ๆ จากการคำนวณจะได้ค่าประมาณ 0.5 %

ดังนั้นเทอมนี้จึงสามารถตัดทิ้งได้

ตารางที่ ก.3 และ ก.4 แสดงการเปรียบเทียบผลที่คำนวณได้จากที่พิจารณาและไม่พิจารณาค่าการดูดกลืนในกระจก ที่มุมเอียงของระนาบเท่ากับ 90° หันหน้าไปทางทิศตะวันตก และที่ระนาบระดับ จะเห็นว่าค่าที่ได้แตกต่างกันไม่เกิน 1 %

ตารางที่ ก.1 แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -135
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JANUARY						
7.00	0.0417	87.23	2	0	2	2
8.00	0.2700	72.46	68	21	31	52
9.00	0.4740	79.71	144	28	70	99
10.00	0.6400	88.45	136	1	106	107
11.00	0.7557	98.24	150	0	127	127
12.00	0.8159	108.69	202	0	171	171
13.00	0.8138	119.51	178	0	151	151
14.00	0.7505	130.37	180	0	152	152
15.00	0.6302	140.85	167	0	142	142
16.00	0.4612	150.13	148	0	125	125
17.00	0.2550	156.40	105	0	89	89
18.00	0.0257	156.31	29	0	25	25
					average =	103
	max =	171	min =	2	sum =	1242
FEBRUARY						
7.00	0.0599	89.29	3	0	3	3
8.00	0.2993	64.87	82	38	29	67
9.00	0.5147	72.59	164	35	95	130
10.00	0.6914	81.78	239	15	169	185
11.00	0.8173	91.92	222	0	128	138
12.00	0.8840	102.61	256	0	217	217
13.00	0.8867	113.50	264	0	224	224
14.00	0.8254	124.22	266	0	226	226
15.00	0.7042	134.28	247	0	209	209
16.00	0.5315	142.84	199	0	168	168
17.00	0.3188	148.42	142	0	120	120
18.00	0.0808	149.24	46	0	39	39
					average =	148
	max =	226	min =	3	sum =	1775
MARCH						
7.00	0.1278	49.72	9	1	6	8
8.00	0.3717	56.32	119	61	40	102
9.00	0.5897	64.98	205	76	93	168
10.00	0.7667	74.90	236	54	125	179
11.00	0.8909	85.51	222	7	161	168
12.00	0.9536	96.39	216	0	182	182
13.00	0.9507	107.17	227	0	192	192
14.00	0.8823	117.45	212	0	179	179
15.00	0.7531	126.68	222	0	188	188
16.00	0.5719	134.02	185	0	157	157
17.00	0.3511	138.34	124	0	105	105
18.00	0.1056	138.63	60	0	51	51
					average =	140
	max =	192	min =	8	sum =	1680

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -135
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
APRIL						
7.00	0.2125	39.79	32	11	16	28
8.00	0.4505	47.84	145	56	69	125
9.00	0.6605	57.60	232	63	134	198
10.00	0.8280	68.18	308	59	194	253
11.00	0.9419	79.05	334	25	241	265
12.00	0.9941	89.84	318	0	268	268
13.00	0.9813	100.19	309	0	261	261
14.00	0.9042	109.68	260	0	220	220
15.00	0.7682	117.78	216	0	183	183
16.00	0.5825	123.78	191	0	162	162
17.00	0.3597	126.90	139	0	118	118
18.00	0.1150	126.60	62	0	52	52
					average =	178
	max =	268	min =	28	sum =	2133
MAY						
6.00	0.0194	25.94	5	3	1	5
7.00	0.2589	32.23	95	57	27	85
8.00	0.4859	41.42	246	144	74	218
9.00	0.6851	51.83	318	148	127	275
10.00	0.8428	62.68	363	129	174	303
11.00	0.9483	73.52	344	67	204	271
12.00	0.9943	84.02	302	12	221	233
13.00	0.9778	93.85	204	0	173	173
14.00	0.8999	102.65	203	0	172	172
15.00	0.7659	109.93	180	0	152	152
16.00	0.5848	115.11	165	0	139	139
17.00	0.3692	117.64	114	0	97	97
18.00	0.1336	117.18	55	0	46	46
					average =	180
	max =	303	min =	46	sum =	2164
JUNE						
6.00	0.0251	21.62	6	3	2	5
7.00	0.2581	28.34	65	31	26	57
8.00	0.4798	37.91	156	57	78	136
9.00	0.6751	48.52	240	81	126	208
10.00	0.8308	59.40	318	100	169	269
11.00	0.9362	70.16	311	51	203	254
12.00	0.9841	80.51	278	14	208	222
13.00	0.9713	90.14	236	0	200	200
14.00	0.8987	98.70	218	0	185	185
15.00	0.7712	105.75	185	0	157	157
16.00	0.5974	110.78	161	0	137	137
17.00	0.3893	113.30	107	0	91	91
18.00	0.1610	113.02	48	0	41	41
					average =	163
	max =	269	min =	41	sum =	1954

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -135
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JULY						
7.00	0.2283	23.99	46	10	30	39
8.00	0.4549	38.14	175	74	80	153
9.00	0.6564	48.57	279	111	131	242
10.00	0.8190	59.43	339	124	162	287
11.00	0.9317	70.26	329	86	177	263
12.00	0.9867	80.74	304	22	214	236
13.00	0.9803	90.57	239	0	202	202
14.00	0.9129	99.40	238	0	201	201
15.00	0.7892	106.78	227	0	192	192
16.00	0.6175	112.17	187	0	158	158
17.00	0.4096	115.05	106	0	90	90
18.00	0.1797	115.07	55	0	47	47
					average =	176
	max =	287	min =	39	sum =	2111
AUGUST						
7.00	0.2117	35.80	36	9	22	31
8.00	0.4475	44.13	141	41	81	122
9.00	0.6566	54.10	276	85	151	237
10.00	0.8247	64.79	328	60	214	274
11.00	0.9403	75.67	330	19	252	271
12.00	0.9957	86.39	335	1	277	278
13.00	0.9870	96.60	313	0	265	265
14.00	0.9147	105.91	266	0	225	225
15.00	0.7839	113.81	222	0	188	188
16.00	0.6035	119.67	152	0	129	129
17.00	0.3856	122.79	90	0	76	76
18.00	0.1453	122.70	37	0	31	31
					average =	177
	max =	278	min =	31	sum =	2126
SEPTEMBER						
7.00	0.2097	46.90	41	21	15	36
8.00	0.4487	54.50	121	45	59	104
9.00	0.6577	63.88	208	60	113	173
10.00	0.8225	74.23	251	36	165	200
11.00	0.9320	85.04	246	5	190	195
12.00	0.9785	95.91	230	0	194	194
13.00	0.9590	106.47	224	0	190	190
14.00	0.8747	116.29	187	0	158	158
15.00	0.7315	124.77	183	0	155	155
16.00	0.5390	131.07	134	0	113	113
17.00	0.3104	134.20	95	0	80	80
18.00	0.0613	133.47	36	0	30	30
					average =	136
	max =	200	min =	30	sum =	1629

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -135
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
OCTOBER						
7.00	0.1960	58.63	35	11	18	29
8.00	0.4283	65.61	111	32	59	91
9.00	0.6287	74.36	175	29	110	139
10.00	0.7835	84.27	200	5	154	159
11.00	0.8822	94.84	212	0	180	180
12.00	0.9182	105.71	245	0	207	207
13.00	0.8888	116.51	223	0	189	189
14.00	0.7962	126.83	207	0	175	175
15.00	0.6466	136.01	178	0	150	150
16.00	0.4503	142.97	123	0	104	104
17.00	0.2206	146.15	63	0	54	54
18.00	-0.0269	144.48	0	0	0	0
					average =	123
	max =	207	min =	0	sum =	1477
NOVEMBER						
7.00	0.1491	67.25	25	7	13	21
8.00	0.3720	73.53	120	40	50	90
9.00	0.5642	81.61	160	19	95	114
10.00	0.7128	90.97	141	0	119	119
11.00	0.8075	101.17	166	0	141	141
12.00	0.8420	111.87	155	0	131	131
13.00	0.8138	122.76	165	0	140	140
14.00	0.7250	133.47	176	0	149	149
15.00	0.5815	143.42	137	0	116	116
16.00	0.3931	151.48	103	0	88	88
17.00	0.1727	155.44	59	0	50	50
18.00	-0.0647	153.33	0	0	0	0
					average =	97
	max =	149	min =	0	sum =	1158
DECEMBER						
7.00	0.0934	70.41	15	5	7	12
8.00	0.3133	76.09	100	33	36	70
9.00	0.5055	83.63	132	16	68	84
10.00	0.6570	92.54	83	0	70	70
11.00	0.7573	102.42	106	0	90	90
12.00	0.7997	112.92	110	0	93	93
13.00	0.7813	123.75	121	0	103	103
14.00	0.7033	134.60	131	0	111	111
15.00	0.5710	145.01	125	0	106	106
16.00	0.2935	154.01	107	0	91	91
17.00	0.1829	159.31	68	0	58	58
18.00	-0.0466	157.93	0	0	0	0
					average =	74
	max =	111	min =	0	sum =	887

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.72
slope = 90 azimuth angle = -90
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JANUARY						
7.00	0.0417	92.33	2	0	2	2
8.00	0.2700	80.71	126	81	31	112
9.00	0.4740	42.61	334	227	70	297
10.00	0.6400	55.80	349	194	106	300
11.00	0.7567	69.53	377	137	161	298
12.00	0.8159	83.47	298	18	205	223
13.00	0.8138	97.48	178	0	151	151
14.00	0.7505	111.41	180	0	152	152
15.00	0.6302	125.11	167	0	142	142
16.00	0.4612	138.25	148	3	125	125
17.00	0.2550	150.01	105	2	89	89
18.00	0.0257	157.99	29	0	25	25
					average =	160
	max =	300	min =	2	sum =	1916
FEBRUARY						
7.00	0.0599	14.63	3	0	3	3
8.00	0.2993	25.25	136	93	29	122
9.00	0.5147	38.76	248	123	95	219
10.00	0.6914	53.00	365	145	169	314
11.00	0.8173	67.48	387	104	212	317
12.00	0.8840	82.07	350	21	248	269
13.00	0.8867	96.68	264	0	224	224
14.00	0.8254	111.28	266	0	226	226
15.00	0.7042	125.77	247	0	209	209
16.00	0.5315	140.04	199	0	168	168
17.00	0.3188	153.65	142	0	120	120
18.00	0.0808	164.74	46	0	39	39
					average =	186
	max =	317	min =	3	sum =	2229
MARCH						
7.00	0.1278	8.51	10	2	6	8
8.00	0.3717	23.28	165	108	40	148
9.00	0.5897	38.22	286	161	93	253
10.00	0.7667	53.20	351	179	125	304
11.00	0.8909	68.18	341	113	161	275
12.00	0.9536	83.17	309	17	218	235
13.00	0.9507	98.15	227	0	192	192
14.00	0.8823	113.14	212	0	179	179
15.00	0.7531	128.12	222	0	188	188
16.00	0.5719	143.09	185	0	157	157
17.00	0.3511	158.03	124	0	105	105
18.00	0.1056	172.75	60	0	51	51
					average =	175
	max =	304	min =	8	sum =	2095

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -90
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
APRIL						
7.00	0.2125	14.02	35	14	16	31
8.00	0.4505	27.02	165	77	69	146
9.00	0.6605	41.34	262	94	134	228
10.00	0.8280	55.97	348	102	194	297
11.00	0.9419	70.71	371	62	241	303
12.00	0.9941	85.50	342	5	268	274
13.00	0.9813	100.30	309	0	261	261
14.00	0.9042	115.07	260	0	220	220
15.00	0.7682	129.78	216	0	183	183
16.00	0.5825	144.33	191	0	162	162
17.00	0.3597	158.37	139	0	118	118
18.00	0.1150	169.55	62	0	62	62
					average =	189
	max =	303	min =	31	sum =	2273
MAY						
6.00	0.0194	19.11	6	3	2	5
7.00	0.2589	21.89	101	63	27	90
8.00	0.4859	32.04	267	164	74	238
9.00	0.6851	44.79	342	173	127	300
10.00	0.8428	58.44	385	154	174	327
11.00	0.9483	72.46	351	74	204	278
12.00	0.9943	86.63	284	4	221	225
13.00	0.9778	100.82	204	0	173	173
14.00	0.8999	114.93	203	0	172	172
15.00	0.7659	128.80	180	0	152	152
16.00	0.5848	142.08	165	0	139	139
17.00	0.3692	153.83	114	0	97	97
18.00	0.1336	160.89	55	0	46	46
					average =	187
	max =	327	min =	46	sum =	2238
JUNE						
6.00	0.0251	23.47	6	3	2	5
7.00	0.2581	25.30	65	31	26	58
8.00	0.4798	33.97	159	61	78	139
9.00	0.6751	45.73	245	86	126	212
10.00	0.8308	58.72	320	102	169	272
11.00	0.9362	72.24	303	43	203	246
12.00	0.9841	85.99	259	3	208	211
13.00	0.9713	99.78	236	0	200	200
14.00	0.8987	113.46	218	0	185	185
15.00	0.7712	126.81	185	0	157	157
16.00	0.5974	139.41	161	0	137	137
17.00	0.3893	150.22	107	0	91	91
18.00	0.1610	156.53	48	0	41	41
					average =	162
	max =	272	min =	41	sum =	1947

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -90
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JULY						
7.00	0.2283	22.95	46	10	30	40
8.00	0.4549	31.63	182	80	80	160
9.00	0.6564	43.60	291	122	131	254
10.00	0.8190	56.81	350	136	162	299
11.00	0.9317	70.52	328	84	177	262
12.00	0.9867	84.45	284	3	214	222
13.00	0.9803	98.43	239	0	202	202
14.00	0.9129	112.33	238	0	201	201
15.00	0.7892	125.97	227	0	192	192
16.00	0.6175	139.01	187	0	158	158
17.00	0.4096	150.55	106	0	90	90
18.00	0.1797	158.03	55	0	47	47
					average =	177
	max =	299	min =	40	sum =	2126
AUGUST						
7.00	0.2117	16.44	53	11	22	33
8.00	0.4475	27.78	151	51	81	132
9.00	0.6566	41.40	303	113	151	264
10.00	0.8247	55.64	352	86	214	300
11.00	0.9403	70.12	342	32	252	284
12.00	0.9957	84.68	339	3	277	280
13.00	0.9870	99.27	313	0	265	265
14.00	0.9147	113.81	266	0	225	225
15.00	0.7839	128.24	222	0	188	188
16.00	0.6035	142.38	152	0	129	129
17.00	0.3856	155.66	90	0	76	76
18.00	0.1453	165.49	37	0	31	31
					average =	184
	max =	300	min =	31	sum =	2206
SEPTEMBER						
7.00	0.2097	12.12	51	30	15	45
8.00	0.4487	27.00	148	72	59	131
9.00	0.6577	41.97	259	114	113	227
10.00	0.8225	56.95	307	97	165	262
11.00	0.9320	71.93	303	54	190	243
12.00	0.9785	86.92	263	2	213	215
13.00	0.9590	101.91	224	0	190	190
14.00	0.8747	116.90	187	0	158	158
15.00	0.7315	131.88	183	0	155	155
16.00	0.5390	146.85	134	0	113	113
17.00	0.3104	161.79	95	0	80	80
18.00	0.0613	176.20	36	0	30	30
					average =	154
	max =	262	min =	30	sum =	1850

ตารางที่ ก.1 (ต่อ) แพคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -90
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
OCTOBER						
7.00	0.1960	17.12	45	22	18	40
8.00	0.4283	30.64	155	77	59	137
9.00	0.6287	45.06	250	108	110	218
10.00	0.7835	59.72	275	78	154	232
11.00	0.8822	74.47	282	33	194	227
12.00	0.9182	89.25	262	0	220	220
13.00	0.8888	104.04	223	0	189	189
14.00	0.7962	118.79	207	0	175	175
15.00	0.6466	133.46	178	0	150	150
16.00	0.4503	147.92	123	0	104	104
17.00	0.2206	161.61	63	0	54	54
18.00	-0.0269	170.37	0	0	0	0
					average =	145
	max =	282	min =	0	sum =	1746
NOVEMBER						
7.00	0.1491	33.51	38	21	13	34
8.00	0.3720	34.36	236	162	50	212
9.00	0.5642	47.33	334	199	95	294
10.00	0.7128	61.06	377	171	145	316
11.00	0.8075	75.11	319	71	172	243
12.00	0.8420	89.28	205	0	168	168
13.00	0.8138	103.46	165	0	140	140
14.00	0.7250	117.62	176	0	149	149
15.00	0.5815	131.30	137	0	116	116
16.00	0.3931	144.38	103	0	88	88
17.00	0.1727	155.57	59	0	50	50
18.00	-0.0647	161.07	0	0	0	0
					average =	151
	max =	316	min =	0	sum =	1810
DECEMBER						
7.00	0.0934	25.85	26	16	7	23
8.00	0.3133	34.95	238	178	36	214
9.00	0.5055	46.88	395	282	68	350
10.00	0.6570	59.95	400	236	101	337
11.00	0.7573	73.51	327	114	129	243
12.00	0.7997	87.27	197	4	139	144
13.00	0.7813	101.06	121	0	103	103
14.00	0.7033	114.72	131	0	111	111
15.00	0.5710	128.03	125	0	106	106
16.00	0.3935	140.53	107	0	91	91
17.00	0.1829	151.08	68	0	58	58
18.00	-0.0466	156.77	0	0	0	0
					average =	148
	max =	350	min =	0	sum =	1780

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -45
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JANUARY						
7.00	0.0417	92.91	2	0	2	2
8.00	0.2700	83.87	131	86	31	118
9.00	0.4740	80.44	377	269	70	339
10.00	0.6400	69.84	431	278	106	383
11.00	0.7567	60.36	531	303	161	464
12.00	0.8159	61.23	479	197	205	402
13.00	0.8138	72.03	414	128	192	320
14.00	0.7505	82.45	303	28	190	218
15.00	0.6302	92.18	167	0	142	142
16.00	0.4612	100.84	148	0	125	125
17.00	0.2550	107.97	105	0	39	39
18.00	0.0257	113.03	29	0	25	25
					average =	219
	max =	464	min =	2	sum =	2627
FEBRUARY						
7.00	0.0599	30.94	3	0	3	3
8.00	0.2993	31.30	131	87	29	117
9.00	0.5147	36.54	252	127	95	223
10.00	0.6914	44.91	394	174	169	344
11.00	0.8173	54.89	456	179	212	391
12.00	0.8840	65.58	464	135	248	383
13.00	0.8867	76.46	403	58	256	314
14.00	0.8254	87.18	322	3	255	258
15.00	0.7042	97.38	247	0	209	209
16.00	0.5315	106.68	199	0	168	168
17.00	0.3188	114.54	142	0	120	120
18.00	0.0808	120.33	46	0	39	39
					average =	214
	max =	391	min =	3	sum =	2568
MARCH						
7.00	0.1278	41.23	9	1	6	8
8.00	0.3717	41.89	143	86	40	127
9.00	0.5897	46.52	264	139	93	232
10.00	0.7667	54.07	347	174	125	299
11.00	0.8909	63.42	372	147	161	308
12.00	0.9536	73.76	380	79	218	297
13.00	0.9507	84.57	325	13	234	247
14.00	0.8823	95.43	212	0	179	179
15.00	0.7531	106.00	222	0	188	188
16.00	0.5719	115.84	185	0	157	157
17.00	0.3511	124.36	124	0	105	105
18.00	0.1056	130.73	60	0	51	51
					average =	183
	max =	308	min =	8	sum =	2197

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -45
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 69.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
APRIL						
7.00	0.2125	82.87	29	9	16	25
8.00	0.4505	63.93	137	48	69	117
9.00	0.6605	68.27	231	62	134	196
10.00	0.8280	65.13	318	70	194	264
11.00	0.9419	73.91	357	47	241	288
12.00	0.9941	83.79	351	10	268	278
13.00	0.9813	94.35	309	0	261	261
14.00	0.9042	105.22	260	0	220	220
15.00	0.7682	116.03	216	0	133	133
16.00	0.5825	126.36	191	0	162	162
17.00	0.3597	135.58	139	0	118	118
18.00	0.1150	142.61	62	0	52	52
					average =	180
	max =	288	min =	25	sum =	3165
MAY						
6.00	0.0194	64.09	4	1	1	3
7.00	0.2589	62.20	67	28	27	56
8.00	0.4359	63.33	182	77	74	151
9.00	0.6851	67.31	255	80	127	207
10.00	0.8428	73.67	302	63	174	236
11.00	0.9483	81.81	293	20	204	224
12.00	0.9943	91.21	222	0	188	188
13.00	0.9778	101.44	204	0	173	173
14.00	0.8999	112.15	203	0	172	172
15.00	0.7659	123.04	180	0	152	152
16.00	0.5848	133.73	165	0	139	139
17.00	0.3692	143.64	114	0	97	97
18.00	0.1336	151.58	55	0	46	46
					average =	154
	max =	236	min =	46	sum =	1842
JUNE						
6.00	0.0251	68.44	4	1	2	3
7.00	0.2581	66.52	46	12	26	38
8.00	0.4798	67.42	123	23	78	102
9.00	0.6751	71.05	194	31	126	158
10.00	0.8308	76.98	252	29	169	198
11.00	0.9362	84.72	259	5	203	208
12.00	0.9841	93.78	226	0	192	192
13.00	0.9713	103.75	236	0	200	200
14.00	0.8987	114.31	218	0	185	185
15.00	0.7712	125.16	185	0	157	157
16.00	0.5974	135.99	161	0	137	137
17.00	0.3893	146.29	107	0	91	91
18.00	0.1610	154.98	48	0	41	41
					average =	142
	max =	208	min =	38	sum =	1705

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 azimuth angle = -45
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JULY						
7.00	0.2283	64.69	40	4	30	34
8.00	0.4549	65.31	137	24	90	114
9.00	0.6564	68.75	223	50	131	182
10.00	0.8190	74.60	269	48	162	210
11.00	0.9317	82.32	257	17	177	194
12.00	0.9867	91.39	222	0	138	138
13.00	0.9803	101.38	239	0	202	202
14.00	0.9129	111.96	238	0	201	201
15.00	0.7892	122.82	227	0	192	192
16.00	0.6175	133.64	187	0	158	158
17.00	0.4096	143.90	106	0	90	90
18.00	0.1797	152.59	55	0	47	47
					average =	151
	max =	210	min =	34	sum =	1812
AUGUST						
7.00	0.2117	56.95	33	6	22	28
8.00	0.4475	57.75	129	29	81	110
9.00	0.6566	61.68	258	65	151	217
10.00	0.8247	68.15	318	49	214	263
11.00	0.9403	76.49	328	18	252	269
12.00	0.9957	86.09	336	2	277	278
13.00	0.9870	96.47	313	0	265	265
14.00	0.9147	107.27	266	0	225	225
15.00	0.7839	118.14	222	0	188	188
16.00	0.6035	128.70	152	0	129	129
17.00	0.3856	138.33	90	0	76	76
18.00	0.1453	145.98	37	0	31	31
					average =	173
	max =	278	min =	28	sum =	2078
SEPTEMBER						
7.00	0.2097	45.62	41	21	15	36
8.00	0.4487	47.21	129	54	59	113
9.00	0.6577	52.32	237	92	113	204
10.00	0.8225	60.03	298	87	165	252
11.00	0.9320	69.38	313	65	190	255
12.00	0.9785	79.70	291	19	213	231
13.00	0.9590	90.48	224	0	190	190
14.00	0.8747	101.36	187	0	158	158
15.00	0.7315	111.95	183	0	155	155
16.00	0.5390	121.31	134	0	113	113
17.00	0.3104	130.26	95	0	80	80
18.00	0.0613	136.31	36	0	30	30
					average =	152
	max =	255	min =	30	sum =	1818

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = -45
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
OCTOBER						
7.00	0.1960	33.80	42	19	18	37
8.00	0.4283	36.51	149	72	59	131
9.00	0.6287	43.16	254	112	110	222
10.00	0.7835	52.17	295	100	154	253
11.00	0.8822	62.41	320	74	194	269
12.00	0.9182	73.19	308	32	220	252
13.00	0.8888	84.06	254	5	201	206
14.00	0.7962	94.68	207	0	175	175
15.00	0.6466	104.67	178	0	150	150
16.00	0.4503	113.57	123	0	104	104
17.00	0.2206	120.76	63	0	54	54
18.00	-0.0269	125.48	0	0	0	0
					average =	154
	max =	269	min =	0	sum =	1852
NOVEMBER						
7.00	0.1491	24.49	38	21	13	34
8.00	0.3720	27.89	249	174	50	224
9.00	0.5642	35.65	378	242	95	337
10.00	0.7128	45.48	469	268	145	413
11.00	0.8075	56.14	455	219	172	390
12.00	0.8420	67.03	398	154	168	322
13.00	0.8138	77.76	314	57	175	232
14.00	0.7250	88.03	224	2	177	178
15.00	0.5815	97.49	137	0	116	116
16.00	0.3931	105.72	103	0	88	88
17.00	0.1727	112.21	59	0	50	50
18.00	-0.0647	116.37	0	0	0	0
					average =	199
	max =	413	min =	0	sum =	2384
DECEMBER						
7.00	0.0934	20.37	27	17	7	24
8.00	0.3133	23.26	262	200	36	237
9.00	0.5055	31.17	474	360	68	428
10.00	0.6570	41.18	541	381	101	483
11.00	0.7573	51.93	531	335	129	464
12.00	0.7997	62.81	475	254	139	393
13.00	0.7813	73.48	375	130	149	279
14.00	0.7033	83.64	247	22	149	171
15.00	0.5710	92.98	125	0	106	106
16.00	0.3935	101.12	107	0	91	91
17.00	0.1329	107.60	68	0	58	58
18.00	-0.0466	111.89	0	0	0	0
					average =	228
	max =	483	min =	0	sum =	2733

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 . azimuth angle = 0
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR Hb W/m^2	FACTOR Hd W/m^2	Htotal W/m^2
JANUARY						
7.00	0.0417	87.31	2	0	2	2
8.00	0.2700	84.31	82	36	31	67
9.00	0.4740	81.10	248	137	70	208
10.00	0.6400	78.41	334	178	106	284
11.00	0.7567	76.47	485	255	161	416
12.00	0.8159	75.47	521	242	205	447
13.00	0.8133	75.50	571	298	192	491
14.00	0.7505	76.57	555	285	190	475
15.00	0.6302	78.57	488	243	171	414
16.00	0.4612	81.50	358	160	141	301
17.00	0.2550	84.54	217	84	95	179
18.00	0.0257	88.05	48	14	25	39
					average =	277
	max =	491	min =	2	sum =	3322
FEBRUARY						
7.00	0.0599	75.79	3	0	3	3
8.00	0.2993	72.31	69	23	29	53
9.00	0.5147	69.11	174	46	95	141
10.00	0.6914	66.44	309	35	169	254
11.00	0.8173	64.50	404	123	212	335
12.00	0.8840	63.46	478	150	248	398
13.00	0.8867	63.42	495	156	256	412
14.00	0.8254	64.38	485	147	255	402
15.00	0.7042	66.24	441	129	233	363
16.00	0.5315	68.86	348	96	185	281
17.00	0.3188	72.02	222	50	126	176
18.00	0.0808	75.49	69	13	40	53
					average =	239
	max =	412	min =	3	sum =	2871
MARCH						
7.00	0.1278	85.72	8	0	6	7
8.00	0.3717	82.28	65	6	40	47
9.00	0.5897	79.19	152	20	93	113
10.00	0.7667	76.66	226	44	125	169
11.00	0.8909	74.86	296	65	161	227
12.00	0.9536	73.95	378	78	218	295
13.00	0.9507	73.99	419	91	234	325
14.00	0.8823	74.99	383	78	216	294
15.00	0.7531	76.85	338	49	212	261
16.00	0.5719	79.44	271	31	174	205
17.00	0.3511	82.58	174	14	114	128
18.00	0.1056	86.03	69	2	52	53
					average =	177
	max =	325	min =	7	sum =	2124

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 0
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
APRIL						
7.00	0.2125	96.69	19	0	16	16
8.00	0.4505	93.34	77	0	65	65
9.00	0.6605	90.40	149	0	126	126
10.00	0.8280	88.05	237	1	194	195
11.00	0.9419	86.46	301	3	241	243
12.00	0.9941	85.73	340	5	268	273
13.00	0.9813	85.91	370	5	291	297
14.00	0.9042	86.99	316	2	250	253
15.00	0.7682	88.89	253	0	208	208
16.00	0.5825	91.49	191	0	162	162
17.00	0.3597	94.62	139	0	118	118
18.00	0.1150	98.06	62	0	52	52
					average =	167
	max =	297	min =	16	sum =	2009
MAY						
6.00	0.0194	109.08	2	0	1	1
7.00	0.2589	105.57	31	0	26	26
8.00	0.4859	102.29	77	0	65	65
9.00	0.6851	99.45	132	0	111	111
10.00	0.8428	97.22	176	0	149	149
11.00	0.9483	95.73	206	0	175	175
12.00	0.9943	95.09	222	0	188	188
13.00	0.9778	95.32	204	0	173	173
14.00	0.8999	96.41	203	0	172	172
15.00	0.7659	98.31	180	0	152	152
16.00	0.5848	100.88	165	0	139	139
17.00	0.3692	103.97	114	0	97	97
18.00	0.1336	107.40	55	0	46	46
					average =	124
	max =	188	min =	26	sum =	1494
JUNE						
6.00	0.0251	113.42	2	0	2	2
7.00	0.2581	109.91	30	0	25	25
8.00	0.4798	106.64	89	0	75	75
9.00	0.6751	103.81	140	0	119	119
10.00	0.8308	101.58	181	0	153	153
11.00	0.9362	100.07	221	0	187	187
12.00	0.9841	99.39	226	0	192	192
13.00	0.9713	99.57	236	0	200	200
14.00	0.8987	100.61	218	0	185	185
15.00	0.7712	102.43	185	0	157	157
16.00	0.5974	104.93	161	0	137	137
17.00	0.3893	107.97	107	0	91	91
18.00	0.1610	111.36	48	0	41	41
					average =	130
	max =	200	min =	25	sum =	1560

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 . azimuth angle = 0
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Rb W/m^2	Rd W/m^2	Rtotal W/m^2
JULY						
7.00	0.2233	108.43	15	0	30	30
8.00	0.4549	105.12	89	0	76	76
9.00	0.6564	102.02	143	0	121	121
10.00	0.8190	99.90	168	0	142	142
11.00	0.9317	98.30	187	0	149	149
12.00	0.9867	97.52	222	0	188	188
13.00	0.9803	97.61	239	0	202	202
14.00	0.9129	98.57	238	0	201	201
15.00	0.7892	100.32	227	0	192	192
16.00	0.6175	102.77	187	0	158	158
17.00	0.4096	105.78	106	0	90	90
18.00	0.1797	109.15	55	0	47	47
					average =	133
	max =	202	min =	30	sum =	1596
AUGUST						
7.00	0.2117	100.83	26	0	22	22
8.00	0.4475	97.48	93	0	79	79
9.00	0.6566	94.54	168	0	142	142
10.00	0.8247	92.18	238	0	202	202
11.00	0.9403	90.56	285	0	241	241
12.00	0.9957	89.79	327	0	277	277
13.00	0.9870	89.91	325	0	275	275
14.00	0.9147	90.92	266	0	225	225
15.00	0.7839	92.75	222	0	188	188
16.00	0.6035	95.28	152	0	129	129
17.00	0.3856	98.36	90	0	76	76
18.00	0.1453	101.77	37	0	31	31
					average =	157
	max =	277	min =	22	sum =	1886
SEPTEMBER						
7.00	0.2097	89.35	18	0	15	15
8.00	0.4487	86.00	76	1	59	60
9.00	0.6577	83.06	154	7	113	119
10.00	0.8225	80.73	228	14	165	179
11.00	0.9320	79.17	272	23	190	213
12.00	0.9785	78.51	296	22	213	235
13.00	0.9590	78.79	288	21	208	229
14.00	0.8747	79.99	237	15	173	188
15.00	0.7315	82.02	215	8	164	172
16.00	0.5390	84.73	154	3	120	123
17.00	0.3104	87.94	100	0	82	82
18.00	0.0613	91.42	36	0	30	30
					average =	137
	max =	235	min =	15	sum =	1645

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 . azimuth angle = 0
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.347
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.344

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
OCTOBER						
7.00	0.1960	77.32	27	3	18	21
8.00	0.4283	73.96	97	17	59	77
9.00	0.6287	71.02	185	39	110	149
10.00	0.7835	68.71	249	50	154	204
11.00	0.8822	67.22	305	58	194	252
12.00	0.9182	66.67	326	61	220	271
13.00	0.8888	67.12	300	48	201	249
14.00	0.7962	68.52	271	39	185	225
15.00	0.6466	70.75	236	34	158	193
16.00	0.4503	73.64	156	19	108	127
17.00	0.2206	76.97	82	9	55	64
18.00	-0.0269	80.50	0	0	0	0
					average =	153
	max =	271	min =	0	sum =	1831
NOVEMBER						
7.00	0.1491	68.28	25	7	13	20
8.00	0.3720	64.88	150	73	50	123
9.00	0.5642	61.37	267	128	95	223
10.00	0.7128	59.48	387	183	145	327
11.00	0.8075	57.93	443	206	172	378
12.00	0.8420	57.36	475	237	168	405
13.00	0.8138	57.83	476	231	175	405
14.00	0.7250	59.28	435	192	177	369
15.00	0.5815	61.59	375	176	138	313
16.00	0.3931	64.55	268	120	99	220
17.00	0.1727	67.92	135	55	53	108
18.00	-0.0647	71.47	0	0	0	0
					average =	241
	max =	405	min =	0	sum =	2891
DECEMBER						
7.00	0.0934	64.80	17	7	7	14
8.00	0.3133	61.34	157	95	36	131
9.00	0.5055	58.23	323	207	68	275
10.00	0.6570	55.70	435	273	101	375
11.00	0.7573	53.08	514	316	129	445
12.00	0.7997	53.24	571	357	139	496
13.00	0.7810	53.56	593	365	149	514
14.00	0.7033	54.91	546	323	149	472
15.00	0.5710	57.14	462	263	124	401
16.00	0.3935	60.05	312	200	107	313
17.00	0.1829	63.40	212	112	63	175
18.00	-0.0466	66.94	0	0	0	0
					average =	301
	max =	514	min =	0	sum =	3612

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 45
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JANUARY						
7.00	0.0417	112.77	2	0	2	2
8.00	0.2700	107.54	34	0	29	29
9.00	0.4740	100.29	67	0	57	57
10.00	0.6400	91.54	100	0	84	84
11.00	0.7567	81.76	267	30	161	191
12.00	0.8159	71.31	400	110	205	315
13.00	0.8138	60.49	526	250	192	443
14.00	0.7505	49.63	613	346	190	536
15.00	0.6302	39.15	627	386	171	557
16.00	0.4612	29.37	513	317	141	458
17.00	0.2550	23.60	335	205	95	299
18.00	0.0227	23.00	76	43	25	68
					average =	253
	max =	557	min =	2	sum =	3038
FEBRUARY						
7.00	0.0509	110.71	3	0	3	3
8.00	0.2983	105.44	31	0	27	27
9.00	0.5147	97.41	103	0	88	88
10.00	0.6914	88.22	181	0	134	134
11.00	0.8173	78.07	263	1	212	214
12.00	0.8840	67.39	383	49	248	297
13.00	0.8867	56.50	474	133	256	389
14.00	0.8254	45.73	540	207	255	462
15.00	0.7042	35.71	563	258	233	492
16.00	0.5315	27.16	505	261	185	446
17.00	0.3188	21.58	349	183	126	309
18.00	0.0808	20.76	122	69	40	109
					average =	249
	max =	492	min =	3	sum =	2988
MARCH						
7.00	0.1278	130.28	8	0	6	6
8.00	0.3717	123.68	43	0	36	36
9.00	0.5897	115.02	96	0	81	81
10.00	0.7667	105.09	122	0	103	103
11.00	0.8909	94.48	155	0	131	131
12.00	0.9536	83.61	306	15	218	233
13.00	0.9507	72.83	429	102	234	336
14.00	0.8823	62.55	483	187	216	403
15.00	0.7531	53.32	479	200	212	413
16.00	0.5719	45.98	452	222	174	396
17.00	0.3511	41.66	362	206	114	320
18.00	0.1056	41.37	149	80	52	131
					average =	216
	max =	413	min =	6	sum =	2589

ตารางที่ ก.1 (ต่อ) เพคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 azimuth angle = 45
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
APRIL						
7.00	0.2125	140.21	19	0	16	16
8.00	0.4505	132.16	77	0	65	65
9.00	0.6605	122.40	149	0	126	126
10.00	0.8280	111.32	212	0	179	179
11.00	0.9419	100.95	259	0	220	220
12.00	0.9941	90.16	286	0	242	242
13.00	0.9813	79.81	408	80	291	321
14.00	0.9042	70.32	427	95	250	345
15.00	0.7682	62.22	427	149	208	357
16.00	0.5825	56.22	395	160	178	338
17.00	0.3597	53.10	282	119	125	243
18.00	0.1150	53.40	111	42	53	95
					average =	212
	max =	357	min =	16	sum =	2548
MAY						
6.00	0.0194	154.06	2	0	1	1
7.00	0.2589	147.76	31	0	26	26
8.00	0.4859	138.58	77	0	65	65
9.00	0.6351	128.17	132	0	111	111
10.00	0.8428	117.32	176	0	149	149
11.00	0.9483	106.48	206	0	175	175
12.00	0.9943	95.98	222	0	188	188
13.00	0.9778	86.14	231	6	211	217
14.00	0.8999	77.35	344	55	207	261
15.00	0.7659	70.07	362	108	180	288
16.00	0.5848	64.89	328	114	156	270
17.00	0.3692	62.36	271	119	107	226
18.00	0.1336	62.82	116	49	48	97
					average =	173
	max =	288	min =	26	sum =	2074
JUNE						
6.00	0.0251	158.38	2	0	2	2
7.00	0.2581	151.66	30	0	25	25
8.00	0.4798	142.09	89	0	75	75
9.00	0.6751	131.13	140	0	119	119
10.00	0.8308	120.30	181	0	153	153
11.00	0.9362	109.83	221	0	187	187
12.00	0.9941	99.49	226	0	192	192
13.00	0.9713	89.86	262	0	222	222
14.00	0.8997	81.30	290	21	220	241
15.00	0.7712	74.25	301	67	178	225
16.00	0.5974	69.22	268	67	150	217
17.00	0.3893	66.70	184	54	96	150
18.00	0.1610	66.98	71	17	41	58
					average =	155
	max =	235	min =	25	sum =	1864

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาต่ ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
Slope = 90 . azimuth angle = 45
Eff. incidence angle (for sky) = 59.31
Transmittance (for sky) = 0.847
Eff. incidence angle (for ground) = 59.72
Transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JULY						
7.00	0.2283	151.01	35	0	30	30
8.00	0.4549	141.86	89	0	76	76
9.00	0.6564	131.43	143	0	121	121
10.00	0.8190	120.57	168	0	142	142
11.00	0.9317	109.74	177	0	149	149
12.00	0.9867	99.26	222	0	188	188
13.00	0.9803	89.43	270	0	226	226
14.00	0.9129	80.60	321	23	227	250
15.00	0.7892	73.22	312	44	207	251
16.00	0.6175	67.83	243	37	165	201
17.00	0.4096	64.95	171	47	95	142
18.00	0.1797	64.93	65	8	47	55
					average =	153
	max =	251	min =	30	sum =	1831
AUGUST						
7.00	0.2117	144.20	26	0	22	22
8.00	0.4475	135.36	93	0	79	79
9.00	0.6566	125.90	168	0	142	142
10.00	0.8247	115.21	238	0	202	202
11.00	0.9403	104.32	285	0	241	241
12.00	0.9957	93.61	314	0	265	265
13.00	0.9870	83.40	339	4	275	279
14.00	0.9147	74.09	319	25	236	261
15.00	0.7839	66.19	272	33	195	227
16.00	0.6035	60.33	225	65	135	190
17.00	0.3856	57.21	143	42	79	121
18.00	0.1453	57.30	44	7	31	38
					average =	172
	max =	279	min =	22	sum =	2068
SEPTEMBER						
7.00	0.2097	133.10	17	0	14	14
8.00	0.4487	125.50	66	0	56	56
9.00	0.6577	116.12	122	0	103	103
10.00	0.8225	105.77	177	0	150	150
11.00	0.9320	94.96	201	0	170	170
12.00	0.9785	84.09	274	7	213	219
13.00	0.9590	73.53	307	40	208	248
14.00	0.8747	63.71	289	69	173	242
15.00	0.7315	55.23	279	74	164	238
16.00	0.5390	48.93	230	79	120	199
17.00	0.3104	45.80	151	49	82	131
18.00	0.0613	46.53	63	25	30	55
					average =	152
	max =	248	min =	14	sum =	1825

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 45
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.344

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR Hb W/m^2	FACTOR Hd W/m^2	Htotal W/m^2
OCTOBER						
7.00	0.1960	121.37	21	0	18	18
8.00	0.4283	114.39	66	0	56	56
9.00	0.6287	105.63	119	0	101	101
10.00	0.7835	95.73	167	0	142	142
11.00	0.8822	85.16	246	4	194	198
12.00	0.9182	74.29	305	28	220	248
13.00	0.8888	63.48	309	58	201	259
14.00	0.7962	53.17	305	76	185	261
15.00	0.6466	43.99	293	95	158	254
16.00	0.4503	37.03	210	76	108	183
17.00	0.2206	33.85	126	56	55	111
18.00	-0.0269	25.52	0	0	0	0
					average =	153
	max =	261	min =	0	sum =	1831
NOVEMBER						
7.00	0.1491	112.75	15	0	13	13
8.00	0.3720	106.47	51	0	43	43
9.00	0.5642	98.39	94	0	79	79
10.00	0.7128	89.03	179	0	145	145
11.00	0.8075	78.83	291	44	172	215
12.00	0.8420	68.13	389	144	168	312
13.00	0.8138	57.24	480	235	175	410
14.00	0.7250	46.53	514	274	177	451
15.00	0.5815	36.58	520	326	138	463
16.00	0.3931	28.52	425	281	99	381
17.00	0.1727	24.56	239	162	53	214
18.00	-0.0647	26.67	0	0	0	0
					average =	227
	max =	463	min =	0	sum =	2727
DECEMBER						
7.00	0.0934	109.59	8	0	7	7
8.00	0.3133	103.91	36	0	30	30
9.00	0.5055	96.37	57	0	48	48
10.00	0.6570	87.45	145	3	101	105
11.00	0.7573	77.58	285	71	129	200
12.00	0.7997	67.08	429	203	139	343
13.00	0.7813	56.25	566	337	149	486
14.00	0.7033	45.40	628	407	149	556
15.00	0.5710	34.99	627	428	134	562
16.00	0.3935	25.99	568	404	107	511
17.00	0.1829	20.69	363	265	62	327
18.00	-0.0466	22.07	0	0	0	0
					average =	265
	max =	562	min =	0	sum =	3176

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 90
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR Hb W/m^2	FACTOR Hd W/m^2	Htotal W/m^2
JANUARY						
7.00	0.0417	157.67	2	0	2	2
8.00	0.2700	149.29	34	0	29	29
9.00	0.4740	137.39	67	0	57	57
10.00	0.6400	124.20	100	0	84	84
11.00	0.7567	110.47	150	0	127	127
12.00	0.8159	96.53	202	0	171	171
13.00	0.8138	82.52	306	28	192	220
14.00	0.7505	68.58	443	163	190	353
15.00	0.6302	54.83	617	275	171	446
16.00	0.4612	41.75	465	270	141	411
17.00	0.2550	29.99	323	193	95	288
18.00	0.0257	22.00	77	43	25	68
					average =	188
	max =	446	min =	2	sum =	2257
FEBRUARY						
7.00	0.0599	165.37	3	0	3	3
8.00	0.2993	154.75	31	0	27	27
9.00	0.5147	141.24	103	0	88	88
10.00	0.6914	127.00	181	0	154	154
11.00	0.8173	112.52	222	0	188	188
12.00	0.8340	97.93	256	0	217	217
13.00	0.8867	83.31	353	16	256	272
14.00	0.8254	68.72	455	115	255	370
15.00	0.7042	54.23	516	210	233	444
16.00	0.5315	39.96	494	251	185	435
17.00	0.3188	26.34	360	193	126	319
18.00	0.0808	15.26	132	78	40	117
					average =	219
	max =	444	min =	3	sum =	2632
MARCH						
7.00	0.1278	171.49	8	0	6	6
8.00	0.3717	156.72	43	0	36	36
9.00	0.5897	141.77	96	0	81	81
10.00	0.7667	126.80	122	0	103	103
11.00	0.8909	111.82	155	0	131	131
12.00	0.9536	96.83	216	0	182	182
13.00	0.9507	81.85	350	28	234	262
14.00	0.8823	66.86	449	150	216	366
15.00	0.7531	51.88	487	208	212	421
16.00	0.5719	36.91	490	259	174	433
17.00	0.3511	21.97	416	258	114	372
18.00	0.1056	7.25	177	106	52	158
					average =	213
	max =	433	min =	6	sum =	2552

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 90
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
APRIL						
7.00	0.2125	165.98	19	0	16	16
8.00	0.4505	152.98	77	0	65	65
9.00	0.6605	138.66	149	0	126	126
10.00	0.8280	124.03	212	0	179	179
11.00	0.9419	109.29	259	0	220	220
12.00	0.9941	94.50	286	0	242	242
13.00	0.9813	79.70	409	30	291	322
14.00	0.9042	64.93	462	133	250	382
15.00	0.7682	50.21	494	221	208	429
16.00	0.5825	35.66	480	246	178	424
17.00	0.3597	21.63	356	192	125	316
18.00	0.1150	10.45	142	73	53	126
					average =	237
	max =	429	min =	16	sum =	2848
MAY						
6.00	0.0194	160.89	2	0	1	1
7.00	0.2589	158.11	31	0	26	26
8.00	0.4859	147.96	77	0	65	65
9.00	0.6851	135.21	132	0	111	111
10.00	0.8428	121.56	176	0	149	149
11.00	0.9483	107.54	206	0	175	175
12.00	0.9943	93.37	222	0	188	188
13.00	0.9778	79.13	337	42	211	253
14.00	0.8999	65.07	437	153	207	360
15.00	0.7659	51.20	487	243	180	423
16.00	0.5848	37.92	451	243	156	399
17.00	0.3692	26.17	406	256	107	363
18.00	0.1336	19.11	180	113	48	161
					average =	223
	max =	423	min =	26	sum =	2674
JUNE						
6.00	0.0251	156.53	2	0	2	2
7.00	0.2581	154.70	30	0	25	25
8.00	0.4798	146.03	89	0	75	75
9.00	0.6751	134.27	140	0	119	119
10.00	0.8308	121.28	181	0	153	153
11.00	0.9362	107.76	221	0	187	187
12.00	0.9841	94.01	226	0	192	192
13.00	0.9713	80.22	307	20	222	242
14.00	0.8987	66.54	381	103	210	313
15.00	0.7712	53.19	410	175	178	354
16.00	0.5974	40.59	373	178	150	327
17.00	0.3893	29.78	267	140	96	236
18.00	0.1610	23.47	101	48	41	89
					average =	193
	max =	354	min =	25	sum =	2311

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 90
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JULY						
7.00	0.2283	157.05	35	0	30	30
8.00	0.4549	148.37	89	0	76	76
9.00	0.6564	136.39	143	0	121	121
10.00	0.8190	123.19	168	0	142	142
11.00	0.9317	109.47	177	0	149	149
12.00	0.9867	95.55	222	0	188	188
13.00	0.9803	81.67	209	17	226	243
14.00	0.9129	67.67	392	95	227	321
15.00	0.7892	54.03	381	119	207	327
16.00	0.6175	40.99	291	38	165	252
17.00	0.4096	29.45	234	112	95	206
18.00	0.1797	21.97	77	20	47	67
					average =	177
	max =	327	min =	30	sum =	2121
AUGUST						
7.00	0.2117	163.56	26	0	22	22
8.00	0.4475	152.22	93	0	79	79
9.00	0.6566	138.60	168	0	142	142
10.00	0.8247	124.36	238	0	202	202
11.00	0.9403	109.88	285	0	241	241
12.00	[illegible]	[illegible]	314	0	265	265
13.00	[illegible]	[illegible]	[illegible]	8	275	283
14.00	[illegible]	66.10	[illegible]	47	236	282
15.00	[illegible]	[illegible]	294	57	[illegible]	251
16.00	[illegible]	[illegible]	265	95	[illegible]	221
17.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18.00	0.1453	14.51	[illegible]	[illegible]	[illegible]	[illegible]
					[illegible]	[illegible]
	max =	283	min =	32	sum =	[illegible]
SEPTEMBER						
7.00	0.2097	167.88	17	0	14	14
8.00	0.4487	152.99	66	0	56	56
9.00	0.6577	138.03	122	0	103	103
10.00	0.8225	123.05	177	0	150	150
11.00	0.9320	108.07	201	0	170	170
12.00	0.9785	93.08	230	0	194	194
13.00	0.9590	78.09	291	24	208	231
14.00	0.8747	63.10	291	71	173	244
15.00	0.7315	48.12	293	89	164	253
16.00	0.5390	32.15	254	103	120	223
17.00	0.3104	18.21	171	63	88	150
18.00	0.0613	3.80	76	27	10	37
					average =	155
	max =	253	min =	14	sum =	1855

ตารางที่ ก.1 (ต่อ) แพคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 90
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
OCTOBER						
7.00	0.1960	162.88	21	0	18	18
8.00	0.4283	149.36	66	0	56	56
9.00	0.6287	134.94	119	0	101	101
10.00	0.7835	120.28	167	0	142	142
11.00	0.8822	105.53	212	0	180	180
12.00	0.9182	90.75	245	0	207	207
13.00	0.8888	75.96	277	23	201	224
14.00	0.7962	61.21	288	58	185	243
15.00	0.6466	46.54	288	91	158	249
16.00	0.4503	32.08	215	81	108	188
17.00	0.2206	18.19	135	64	55	119
18.00	-0.0269	9.63	0	0	0	0
					average =	144
	max =	249	min =	0	sum =	1726
NOVEMBER						
7.00	0.1491	156.48	15	0	13	13
8.00	0.3720	145.64	51	0	43	43
9.00	0.5642	132.67	94	0	79	79
10.00	0.7128	118.94	141	0	119	119
11.00	0.8075	104.89	166	0	141	141
12.00	0.8420	90.72	155	0	131	131
13.00	0.8138	76.54	324	67	175	242
14.00	0.7250	62.48	414	169	177	345
15.00	0.5815	48.70	457	262	138	400
16.00	0.3931	35.62	402	259	99	359
17.00	0.1727	24.43	239	162	53	215
18.00	-0.0647	18.93	0	0	0	0
					average =	174
	max =	400	min =	0	sum =	2087
DECEMBER						
7.00	0.0934	154.15	8	0	7	7
8.00	0.3133	145.05	36	0	30	30
9.00	0.5055	133.12	57	0	48	48
10.00	0.6570	120.05	83	0	70	70
11.00	0.7573	106.49	106	0	90	90
12.00	0.7997	92.73	110	0	93	93
13.00	0.7813	78.94	311	66	149	215
14.00	0.7033	65.28	445	213	149	362
15.00	0.5710	51.97	511	312	134	446
16.00	0.3935	39.47	506	344	107	451
17.00	0.1829	28.92	344	247	62	310
18.00	-0.0466	23.23	0	0	0	0
					average =	177
	max =	451	min =	0	sum =	2124

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 135
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 69.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR Hb W/m^2	FACTOR Hd W/m^2	Htotal W/m^2
JANUARY						
7.00	0.0417	157.09	3	0	2	2
8.00	0.2700	156.13	54	0	29	29
9.00	0.4740	149.56	67	0	57	57
10.00	0.6400	140.16	100	0	84	84
11.00	0.7567	129.64	150	0	127	127
12.00	0.8159	118.76	202	0	171	171
13.00	0.8138	107.96	178	0	151	151
14.00	0.7505	97.55	180	0	152	152
15.00	0.6302	87.82	223	2	171	173
16.00	0.4612	78.16	242	37	141	177
17.00	0.2550	72.03	137	62	85	146
18.00	0.0257	66.96	49	15	25	40
					average =	109
	max =	177	min =	2	sum =	1310
FEBRUARY						
7.00	0.0599	149.86	3	0	3	3
8.00	0.2993	148.70	31	0	27	27
9.00	0.5147	143.46	103	0	88	88
10.00	0.6914	135.09	181	0	154	154
11.00	0.8173	125.11	322	0	188	188
12.00	0.8840	114.42	256	0	217	217
13.00	0.8867	103.54	264	0	224	224
14.00	0.8254	92.82	266	0	226	226
15.00	0.7042	82.62	329	19	233	252
16.00	0.5315	73.32	321	68	185	252
17.00	0.3138	65.45	247	77	126	203
18.00	0.0808	59.67	91	38	40	77
					average =	159
	max =	252	min =	3	sum =	1909
MARCH						
7.00	0.1278	138.77	8	0	6	6
8.00	0.3717	138.11	43	0	36	36
9.00	0.5897	133.48	96	0	81	81
10.00	0.7667	125.93	122	0	103	103
11.00	0.8909	116.58	155	0	131	131
12.00	0.9536	106.24	216	0	182	182
13.00	0.9507	95.43	227	0	192	192
14.00	0.8823	84.56	302	12	216	228
15.00	0.7531	74.00	356	67	212	280
16.00	0.5719	64.16	360	125	174	299
17.00	0.3511	55.64	306	149	114	263
18.00	0.1056	49.27	137	68	52	120
					average =	160
	max =	299	min =	6	sum =	1922

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 135
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance (for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
APRIL						
7.00	0.2125	127.13	19	0	16	16
8.00	0.4505	126.07	77	0	65	65
9.00	0.6605	121.73	149	0	126	126
10.00	0.8280	114.82	212	0	179	179
11.00	0.9419	106.09	259	0	220	220
12.00	0.9941	96.21	286	0	242	242
13.00	0.9813	85.64	372	6	291	297
14.00	0.9042	74.78	398	64	250	314
15.00	0.7682	63.97	416	137	208	345
16.00	0.5825	53.64	407	173	178	351
17.00	0.3597	44.42	308	145	125	270
18.00	0.1150	37.38	127	59	53	112
					average =	211
	max =	351	min =	16	sum =	2537
MAY						
6.00	0.0194	115.91	2	0	1	1
7.00	0.2589	117.80	31	0	26	26
8.00	0.4859	116.67	77	0	65	65
9.00	0.6851	112.69	132	0	111	111
10.00	0.8428	106.33	176	0	149	149
11.00	0.9483	98.19	206	0	175	175
12.00	0.9943	88.79	270	1	221	222
13.00	0.9778	78.56	342	47	211	258
14.00	0.3999	67.85	417	131	207	337
15.00	0.7659	56.96	451	205	180	386
16.00	0.5848	46.27	418	210	156	366
17.00	0.3692	36.36	377	229	107	336
18.00	0.1336	28.41	172	105	48	153
					average =	215
	max =	386	min =	26	sum =	2584
JUNE						
6.00	0.0251	111.56	2	0	2	2
7.00	0.2581	113.48	30	0	25	25
8.00	0.4798	112.58	89	0	75	75
9.00	0.6751	108.95	140	0	119	119
10.00	0.8308	103.02	181	0	153	153
11.00	0.9362	95.28	221	0	187	187
12.00	0.9841	86.22	258	2	208	210
13.00	0.9713	76.25	325	36	222	258
14.00	0.8987	65.69	385	108	210	318
15.00	0.7712	54.84	402	167	178	345
16.00	0.5974	44.01	362	168	150	317
17.00	0.3893	33.71	260	134	96	230
18.00	0.1610	25.01	100	47	41	89
					average =	194
	max =	345	min =	25	sum =	2326

ตารางที่ ก.1 (ต่อ) แพคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 azimuth angle = 135
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance.for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JULY						
7.00	0.2283	115.31	35	0	30	30
8.00	0.4549	114.69	89	0	76	76
9.00	0.6564	111.25	143	0	121	121
10.00	0.8190	105.40	168	0	142	142
11.00	0.9317	97.68	177	0	149	149
12.00	0.9867	88.61	261	1	214	215
13.00	0.9803	78.62	324	28	226	255
14.00	0.9129	68.04	290	92	227	319
15.00	0.7892	57.17	271	108	207	316
16.00	0.6175	46.16	203	79	165	244
17.00	0.4096	36.13	205	103	95	198
18.00	0.1797	27.40	76	19	47	66
					average =	177
	max =	319	min =	30	sum =	2129
AUGUST						
7.00	0.2117	123.05	26	0	22	22
8.00	0.4475	122.25	93	0	79	79
9.00	0.6566	118.32	168	0	142	142
10.00	0.8247	111.85	238	0	202	202
11.00	0.9403	103.51	285	0	241	241
12.00	0.9957	93.91	314	0	265	265
13.00	0.9870	83.53	338	4	275	279
14.00	0.9147	72.73	322	29	236	265
15.00	0.7839	61.86	279	41	195	235
16.00	0.6035	51.30	243	73	135	208
17.00	0.3856	41.67	161	62	79	141
18.00	0.1453	34.02	48	11	31	42
					average =	177
	max =	279	min =	22	sum =	2121
SEPTEMBER						
7.00	0.2097	134.38	17	0	14	14
8.00	0.4487	132.79	66	0	56	56
9.00	0.6577	127.68	122	0	103	103
10.00	0.8225	119.97	177	0	150	150
11.00	0.9320	110.62	201	0	170	170
12.00	0.9785	100.30	230	0	194	194
13.00	0.9590	89.52	247	0	208	208
14.00	0.8747	78.64	242	19	173	192
15.00	0.7315	68.05	250	42	164	206
16.00	0.5390	58.19	212	61	120	180
17.00	0.3104	49.74	147	45	82	127
18.00	0.0613	43.69	65	26	30	57
					average =	138
	max =	208	min =	14	sum =	1657

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาต่ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 . azimuth angle = 135
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR Hb W/m^2	FACTOR Hd W/m^2	Htotal W/m^2
OCTOBER						
7.00	0.1960	146.20	31	0	18	13
8.00	0.4283	143.49	66	0	56	56
9.00	0.6287	136.84	119	0	101	101
10.00	0.7835	127.83	167	0	142	142
11.00	0.8822	117.59	212	0	130	130
12.00	0.9182	106.81	245	0	207	207
13.00	0.8888	95.94	223	0	189	189
14.00	0.7962	85.32	230	3	135	188
15.00	0.6466	75.32	224	23	158	181
16.00	0.4503	66.42	169	32	108	140
17.00	0.2206	59.23	103	32	55	87
18.00	-0.0269	54.52	0	0	0	0
					average =	124
	max =	207	min =	0	sum =	1487
NOVEMBER						
7.00	0.1491	155.51	15	0	13	13
8.00	0.3720	152.11	51	0	43	43
9.00	0.5642	144.35	94	0	79	79
10.00	0.7128	134.52	141	0	119	119
11.00	0.8075	123.86	166	0	141	141
12.00	0.8420	112.97	155	0	131	131
13.00	0.8138	102.24	165	0	140	140
14.00	0.7250	91.97	176	0	149	149
15.00	0.5815	82.51	221	21	138	158
16.00	0.3931	74.28	212	60	99	159
17.00	0.1727	67.79	136	56	53	109
18.00	-0.0647	63.63	0	0	0	0
					average =	104
	max =	159	min =	0	sum =	1242
DECEMBER						
7.00	0.0934	159.64	8	0	7	7
8.00	0.3133	156.74	36	0	30	30
9.00	0.5055	148.83	57	0	48	48
10.00	0.6570	138.81	83	0	70	70
11.00	0.7573	128.07	106	0	90	90
12.00	0.7997	117.18	110	0	93	93
13.00	0.7813	106.52	121	0	103	103
14.00	0.7033	96.36	131	0	111	111
15.00	0.5710	87.02	188	4	134	138
16.00	0.3935	78.88	221	47	107	154
17.00	0.1829	72.40	167	63	62	126
18.00	-0.0466	68.11	0	0	0	0
					average =	81
	max =	154	min =	0	sum =	970

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 180
ref. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
ref. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR Hb W/m^2	FACTOR Hd W/m^2	Htotal W/m^2
JANUARY						
7.00	0.0417	112.19	2	0	2	2
8.00	0.2700	115.69	34	0	29	29
9.00	0.4740	118.90	67	0	57	57
10.00	0.6400	121.59	100	0	84	84
11.00	0.7567	123.53	150	0	127	127
12.00	0.8159	124.53	202	0	171	171
13.00	0.8138	124.50	178	0	151	151
14.00	0.7505	123.43	180	0	152	152
15.00	0.6302	121.43	167	0	142	142
16.00	0.4612	118.70	148	0	125	125
17.00	0.2550	115.46	105	0	89	89
18.00	0.0257	111.95	29	0	25	25
					average =	96
	max =	171	min =	2	sum =	1154
FEBRUARY						
7.00	0.0599	104.21	3	0	3	3
8.00	0.2993	107.69	31	0	27	27
9.00	0.5147	110.89	103	0	88	88
10.00	0.6914	113.56	181	0	154	154
11.00	0.8173	115.50	222	0	188	188
12.00	0.8840	116.54	256	0	217	217
13.00	0.8367	116.58	264	0	224	224
14.00	0.8254	115.62	266	0	226	226
15.00	0.7042	113.76	247	0	209	209
16.00	0.5315	111.14	199	0	168	168
17.00	0.3188	107.98	142	0	120	120
18.00	0.0808	104.51	46	0	39	39
					average =	138
	max =	226	min =	3	sum =	1661
MARCH						
7.00	0.1278	94.28	8	0	6	6
8.00	0.3717	97.72	43	0	36	36
9.00	0.5897	100.81	96	0	81	81
10.00	0.7667	103.34	122	0	103	103
11.00	0.8909	105.14	155	0	131	131
12.00	0.9536	106.05	216	0	182	182
13.00	0.9507	106.00	227	0	192	192
14.00	0.8823	105.01	212	0	179	179
15.00	0.7531	103.15	222	0	188	188
16.00	0.5719	100.55	185	0	157	157
17.00	0.3511	97.42	124	0	105	105
18.00	0.1056	93.97	60	0	51	51
					average =	118
	max =	192	min =	6	sum =	1413

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 180
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR Hb W/m^2	FACTOR Hd W/m^2	Htotal W/m^2
APRIL						
7.00	0.2125	83.31	21	1	16	17
8.00	0.4505	86.66	87	1	69	70
9.00	0.6605	89.60	159	0	134	134
10.00	0.8280	91.94	212	0	179	179
11.00	0.9419	93.54	259	0	220	220
12.00	0.9941	94.27	286	0	242	242
13.00	0.9813	94.09	309	0	261	261
14.00	0.9042	93.01	260	0	220	220
15.00	0.7682	91.11	216	0	183	183
16.00	0.5825	88.51	219	1	178	179
17.00	0.3597	85.38	165	4	125	129
18.00	0.1150	81.94	74	4	53	57
					average =	158
	max =	261	min =	17	sum =	1890
MAY						
6.00	0.0194	70.92	3	1	1	2
7.00	0.2589	74.43	52	12	27	40
8.00	0.4359	77.71	132	24	74	98
9.00	0.6851	80.55	195	19	127	146
10.00	0.8428	82.78	249	15	174	189
11.00	0.9483	84.27	277	10	204	214
12.00	0.9943	84.91	296	9	221	230
13.00	0.9778	84.68	293	11	211	222
14.00	0.8999	83.58	295	16	207	223
15.00	0.7659	81.69	276	25	180	205
16.00	0.5848	79.12	248	31	156	187
17.00	0.3692	76.03	201	44	107	151
18.00	0.1336	72.60	96	26	48	74
					average =	165
	max =	230	min =	40	sum =	1978
JUNE						
6.00	0.0251	66.58	4	1	2	3
7.00	0.2581	70.09	44	9	26	36
8.00	0.4798	73.36	115	15	78	93
9.00	0.6751	76.19	182	19	126	145
10.00	0.8308	78.42	247	24	169	193
11.00	0.9362	79.93	277	17	203	220
12.00	0.9841	80.61	278	14	208	222
13.00	0.9713	80.43	306	19	222	241
14.00	0.8987	79.39	309	29	210	239
15.00	0.7712	77.57	282	39	178	217
16.00	0.5974	75.07	243	41	150	190
17.00	0.3893	72.03	168	37	96	134
18.00	0.1610	68.63	70	16	41	57
					average =	166
	max =	241	min =	36	sum =	1987

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 180
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JULY						
7.00	0.2283	71.57	39	3	30	32
8.00	0.4549	74.38	121	17	80	96
9.00	0.6564	77.73	195	21	131	152
10.00	0.8190	80.10	242	22	162	185
11.00	0.9317	81.70	261	20	177	197
12.00	0.9867	82.48	295	15	214	229
13.00	0.9803	82.39	305	14	226	240
14.00	0.9129	81.43	316	19	227	246
15.00	0.7892	79.68	287	19	207	227
16.00	0.6175	77.22	223	16	165	180
17.00	0.4096	74.22	150	24	95	119
18.00	0.1797	70.35	63	5	47	52
					average =	163
	max =	246	min =	32	sum =	1956
AUGUST						
7.00	0.2117	79.17	29	1	22	23
8.00	0.4475	82.52	104	3	81	84
9.00	0.6566	85.46	192	3	151	154
10.00	0.8247	87.82	259	1	214	215
11.00	0.9403	89.44	298	0	252	252
12.00	0.9957	90.21	314	0	265	265
13.00	0.9870	90.09	313	0	265	265
14.00	0.9147	89.08	281	0	236	236
15.00	0.7839	87.25	235	1	195	195
16.00	0.6035	84.71	172	3	135	139
17.00	0.3856	81.64	107	5	79	84
18.00	0.1453	78.23	40	1	31	33
					average =	162
	max =	265	min =	23	sum =	1945
SEPTEMBER						
7.00	0.2097	90.65	17	0	14	14
8.00	0.4487	94.00	66	0	56	56
9.00	0.6577	96.94	122	0	103	103
10.00	0.8225	99.27	177	0	150	150
11.00	0.9320	100.83	201	0	170	170
12.00	0.9785	101.49	230	0	194	194
13.00	0.9590	101.21	224	0	190	190
14.00	0.8747	100.01	187	0	158	158
15.00	0.7315	97.98	183	0	155	155
16.00	0.5390	95.27	134	0	113	113
17.00	0.3104	92.06	95	0	80	80
18.00	0.0613	88.57	37	0	30	31
					average =	118
	max =	194	min =	14	sum =	1415

ตารางที่ ก.1 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบเอียง 90°

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 90 , azimuth angle = 180
eff. incidence angle (for sky) = 59.31
transmittance (for sky) = 0.847
eff. incidence angle (for ground) = 59.72
transmittance(for ground) = 0.844

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
OCTOBER						
7.00	0.1960	102.68	21	0	18	18
8.00	0.4283	106.04	66	0	56	56
9.00	0.6287	108.98	119	0	101	101
10.00	0.7835	111.29	167	0	142	142
11.00	0.8822	112.78	212	0	180	180
12.00	0.9182	113.33	245	0	207	207
13.00	0.8888	112.88	223	0	189	189
14.00	0.7952	111.48	207	0	175	175
15.00	0.6436	109.25	178	0	150	150
16.00	0.4503	106.36	123	0	104	104
17.00	0.2206	103.03	63	0	54	54
18.00	-0.0269	99.50	0	0	0	0
					average =	115
	max =	207	min =	0	sum =	1375
NOVEMBER						
7.00	0.1491	111.72	15	0	13	13
8.00	0.3720	115.12	51	0	43	43
9.00	0.5642	118.13	94	0	79	79
10.00	0.7128	120.52	141	0	119	119
11.00	0.8075	122.07	166	0	141	141
12.00	0.8420	122.64	155	0	131	131
13.00	0.8138	122.17	165	0	140	140
14.00	0.7250	120.71	176	0	149	149
15.00	0.5815	118.40	137	0	116	116
16.00	0.3931	115.45	103	0	88	88
17.00	0.1727	112.07	59	0	50	50
18.00	-0.0647	108.53	0	0	0	0
					average =	89
	max =	149	min =	0	sum =	1070
DECEMBER						
7.00	0.0934	115.21	8	0	7	7
8.00	0.3133	118.66	36	0	30	30
9.00	0.5055	121.77	57	0	48	48
10.00	0.6570	124.30	83	0	70	70
11.00	0.7573	126.02	106	0	90	90
12.00	0.7997	126.76	110	0	93	93
13.00	0.7813	126.44	121	0	103	103
14.00	0.7033	125.09	131	0	111	111
15.00	0.5710	122.86	125	0	106	106
16.00	0.3935	119.95	107	0	91	91
17.00	0.1829	116.60	68	0	58	58
18.00	-0.0466	113.06	0	0	0	0
					average =	67
	max =	111	min =	0	sum =	807

ตารางที่ ก.2 แพคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของวะนาบระดับ

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 0
eff. incidence angle (for sky) = 59.68
transmittance (for sky) = 0.844
eff. incidence angle (for ground) = 90.00
transmittance(for ground) = 0.000

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR Hb W/m^2	FACTOR Hd W/m^2	Htotal W/m^2
JANUARY						
7.00	0.0417	87.61	4	0	3	3
8.00	0.2700	74.34	85	18	48	66
9.00	0.4740	61.70	273	134	94	228
10.00	0.6400	50.20	421	226	140	367
11.00	0.7567	40.83	554	367	211	578
12.00	0.8159	35.02	738	465	285	650
13.00	0.8138	35.53	790	450	251	700
14.00	0.7505	41.37	749	407	253	660
15.00	0.6302	50.93	624	306	235	542
16.00	0.4612	62.53	431	162	208	360
17.00	0.2550	75.22	222	32	142	126
18.00	0.0257	88.53	50	4	41	41
					average =	355
	max =	700	min =	0	sum =	4381
FEBRUARY						
7.00	0.0599	86.57	5	0	4	4
8.00	0.2993	72.59	96	23	44	67
9.00	0.5147	59.02	262	76	146	222
10.00	0.6914	46.26	491	170	255	425
11.00	0.8173	35.13	661	265	312	578
12.00	0.8840	27.88	793	335	361	696
13.00	0.8867	27.54	822	349	372	721
14.00	0.8254	34.37	784	319	375	694
15.00	0.7042	45.23	701	261	348	608
16.00	0.5315	57.90	523	164	280	444
17.00	0.3188	71.41	311	52	199	252
18.00	0.0808	85.36	84	2	65	67
					average =	398
	max =	721	min =	4	sum =	4776
MARCH						
7.00	0.1278	82.66	13	0	11	11
8.00	0.3717	68.18	119	36	60	96
9.00	0.5897	53.87	293	116	135	252
10.00	0.7667	39.94	463	236	171	408
11.00	0.8909	27.02	618	329	218	547
12.00	0.9536	17.52	777	383	303	686
13.00	0.9507	18.06	870	451	320	770
14.00	0.8823	28.08	788	398	298	696
15.00	0.7531	41.14	658	261	313	574
16.00	0.5719	55.12	512	177	261	438
17.00	0.3511	69.45	313	78	174	252
18.00	0.1056	83.94	112	4	84	88
					average =	401
	max =	770	min =	11	sum =	4818

ตารางที่ ก.2 (ต่อ) แพคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบระดับ

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 0
eff. incidence angle (for sky) = 59.68
transmittance (for sky) = 0.844
eff. incidence angle (for ground) = 90.00
transmittance(for ground) = 0.000

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
APRIL						
7.00	0.2125	77.73	35	2	27	28
8.00	0.4505	63.22	171	34	109	143
9.00	0.6605	48.67	340	81	210	292
10.00	0.8280	34.10	528	159	298	458
11.00	0.9419	19.63	681	228	365	593
12.00	0.9941	6.21	790	288	402	690
13.00	0.9813	11.10	870	326	435	760
14.00	0.9042	25.28	788	325	365	691
15.00	0.7682	39.81	658	271	304	575
16.00	0.5825	54.38	512	169	269	438
17.00	0.3597	68.92	313	60	196	256
18.00	0.1150	83.40	112	3	87	90
					average =	413
	max =	760	min =	28	sum =	5013
MAY						
6.00	0.0194	88.89	3	0	2	2
7.00	0.2589	75.00	70	12	43	55
8.00	0.4859	60.93	231	86	108	194
9.00	0.6851	46.76	405	167	185	352
10.00	0.8428	32.56	584	265	248	513
11.00	0.9483	18.51	689	316	290	607
12.00	0.9943	6.11	762	359	313	672
13.00	0.9778	12.09	794	416	287	703
14.00	0.8999	25.85	750	377	286	663
15.00	0.7659	40.02	634	304	253	557
16.00	0.5848	54.21	472	173	232	405
17.00	0.3692	68.33	306	87	161	248
18.00	0.1336	82.32	109	6	77	84
					average =	421
	max =	703	min =	55	sum =	5051
JUNE						
6.00	0.0251	88.56	4	0	3	3
7.00	0.2581	75.04	60	6	42	48
8.00	0.4798	61.33	186	32	125	157
9.00	0.6751	47.54	326	83	197	280
10.00	0.8308	33.82	494	176	254	430
11.00	0.9362	20.58	562	178	311	489
12.00	0.9841	10.23	570	177	318	495
13.00	0.9713	13.75	650	235	332	567
14.00	0.8987	26.01	663	274	307	581
15.00	0.7712	39.54	565	233	260	494
16.00	0.5974	53.31	423	135	227	362
17.00	0.3893	67.09	247	53	151	203
18.00	0.1610	80.73	39	4	67	71
					average =	348
	max =	581	min =	48	sum =	4178

ตารางที่ ก.2 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบระดับ

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
slope = 0
eff. incidence angle (for sky) = 59.68
transmittance (for sky) = 0.844
eff. incidence angle (for ground) = 90.00
transmittance(for ground) = 0.000

LOCAL TIME	zenith angle cosine	incidence angle	I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
JULY						
7.00	0.2283	76.81	61	2	49	51
8.00	0.4549	62.94	196	38	126	164
9.00	0.6564	48.97	361	110	201	311
10.00	0.8190	35.01	517	216	237	453
11.00	0.9317	21.30	624	302	248	551
12.00	0.9867	9.37	684	289	312	600
13.00	0.9803	11.40	679	257	337	594
14.00	0.9129	24.09	595	273	335	608
15.00	0.7892	37.89	561	167	319	486
16.00	0.6175	51.86	390	70	263	332
17.00	0.4096	65.82	234	45	149	194
18.00	0.1797	79.65	96	2	78	80
					average =	369
	max =	608	min =	51	sum =	4423
AUGUST						
7.00	0.2117	77.78	46	1	37	38
8.00	0.4475	63.42	183	23	131	154
9.00	0.6566	48.96	389	97	236	334
10.00	0.8247	34.45	542	132	335	468
11.00	0.9403	19.89	598	113	401	514
12.00	0.9957	5.32	654	121	441	562
13.00	0.9870	9.27	640	109	440	549
14.00	0.9147	23.83	575	121	374	495
15.00	0.7839	38.38	451	74	312	386
16.00	0.6035	52.88	333	70	214	284
17.00	0.3856	67.32	185	27	127	153
18.00	0.1453	81.65	63	1	51	52
					average =	332
	max =	562	min =	38	sum =	3988
SEPTEMBER						
7.00	0.2097	77.90	35	4	24	27
8.00	0.4487	63.34	149	32	92	125
9.00	0.6577	48.87	315	100	172	271
10.00	0.8225	34.66	466	155	250	405
11.00	0.9320	21.26	570	216	282	498
12.00	0.9785	11.91	600	199	323	522
13.00	0.9590	16.47	584	193	316	508
14.00	0.8747	28.99	480	154	264	417
15.00	0.7315	42.99	414	99	258	356
16.00	0.5390	57.38	296	63	188	251
17.00	0.3104	71.91	182	17	133	150
18.00	0.0613	86.48	62	0	50	51
					average =	299
	max =	522	min =	27	sum =	3582

ตารางที่ ก.2 (ต่อ) แฟคเตอร์แสงอาทิตย์ที่เวลาใด ๆ ของระนาบระดับ

SOLAR FACTOR FOR BANGKOK. latitude = 13.73
Slope = 0
eff. incidance angle (for sky) = 59.68
transmittance (for sky) = 0.844
eff. incidence angle (for ground) = 90.00
transmittance(for ground) = 0.000

LOCAL TIME	zenith angle cosine	incidence angle	on plane I(total) W/m^2	SOLAR FACTOR Hb W/m^2	Hd W/m^2	Htotal W/m^2
OCTOBER						
7.00	0.1960	78.69	40	2	30	32
8.00	0.4283	64.64	152	34	93	126
9.00	0.6287	51.05	305	95	167	262
10.00	0.7835	38.42	423	131	235	367
11.00	0.8822	28.09	526	157	299	456
12.00	0.9182	23.34	560	140	344	484
13.00	0.8888	27.27	515	131	314	445
14.00	0.7962	37.23	460	104	292	396
15.00	0.6466	49.71	391	85	250	335
16.00	0.4503	63.24	251	38	172	211
17.00	0.2206	77.26	122	9	89	98
18.00	-0.0269	91.54	0	0	0	0
					average =	268
	max =	484	min =	0	sum =	3212
NOVEMBER						
7.00	0.1491	81.42	29	1	21	23
8.00	0.3720	68.16	165	60	72	132
9.00	0.5642	55.65	341	160	132	292
10.00	0.7128	44.54	538	273	198	472
11.00	0.8075	36.15	643	333	234	567
12.00	0.8420	32.65	690	394	219	612
13.00	0.8133	35.53	687	375	232	608
14.00	0.7250	43.53	616	291	248	539
15.00	0.5815	54.45	487	226	193	419
16.00	0.3931	66.85	310	106	146	252
17.00	0.1727	80.06	132	15	83	98
18.00	-0.0647	93.71	0	0	0	0
					average =	335
	max =	612	min =	0	sum =	4015
DECEMBER						
7.00	0.0934	84.64	15	0	11	12
8.00	0.3133	71.74	134	51	50	102
9.00	0.5055	59.63	328	196	81	277
10.00	0.6570	48.93	506	328	117	445
11.00	0.7573	40.77	642	422	149	571
12.00	0.7997	36.89	727	495	155	650
13.00	0.7813	38.62	750	498	171	669
14.00	0.7033	45.31	671	408	184	592
15.00	0.5710	55.18	536	285	176	461
16.00	0.3935	66.83	372	149	151	300
17.00	0.1829	79.46	170	27	96	123
18.00	-0.0466	92.67	0	0	0	0
					average =	350
	max =	669	min =	0	sum =	4202

ตารางที่ ก.3 การเปรียบเทียบค่าแฟคเตอร์แสงอาทิตย์เมื่อพิจารณาและ-ไม่พิจารณาค่าการดูดกลืนในกระจกของระนาบเอียง 90° หันไปทางทิศตะวันตก

SOLAR FACTOR FOR BANGKOK. (included absorptance) [illegible] = [illegible]
slope = [illegible] azimuth angle = [illegible]
eff. incidence angle (for sky) = [illegible]
transmittance (for sky ,included absorptance) = 0.835
eff. incidence angle (for ground) = 59.72
transmittance (for ground ,included absorptance) = 0.832

LOCAL TIME	SOLAR FACTOR (ex. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	SOLAR FACTOR (in. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	% diff Htotal
JANUARY							
7.00	0	1	1	0	1	1	0.91
8.00	0	20	20	0	19	19	0.91
9.00	0	57	57	0	56	56	0.91
10.00	0	84	84	0	84	84	0.91
11.00	0	127	127	0	126	126	0.91
12.00	0	171	171	0	170	170	0.91
13.00	18	102	120	18	101	119	0.92
14.00	183	130	313	182	128	310	0.89
15.00	175	171	346	172	169	342	0.91
16.00	270	141	411	268	140	408	0.88
17.00	193	95	288	192	94	286	0.86
18.00	42	22	65	41	21	63	0.85
	average =		128		average =	126	0.88
FEBRUARY							
7.00	0	3	3	0	3	3	0.91
8.00	0	27	27	0	26	26	0.91
9.00	0	38	38	0	37	37	0.91
10.00	0	154	154	0	152	152	0.91
11.00	0	138	138	0	136	136	0.91
12.00	0	217	217	0	215	215	0.91
13.00	16	256	272	16	254	270	0.86
14.00	115	255	370	114	253	366	0.90
15.00	210	233	444	208	231	440	0.91
16.00	351	135	486	348	133	481	0.88
17.00	193	126	319	191	125	316	0.86
18.00	78	40	117	77	39	117	0.84
	average =		219		average =	217	0.89
MARCH							
7.00	0	6	6	0	6	6	0.91
8.00	0	36	36	0	36	36	0.91
9.00	0	81	81	0	81	81	0.91
10.00	0	103	103	0	102	102	0.91
11.00	0	131	131	0	130	130	0.91
12.00	0	182	182	0	181	181	0.91
13.00	28	234	262	28	232	260	0.84
14.00	150	216	366	148	214	362	0.90
15.00	208	212	421	207	210	417	0.91
16.00	259	174	433	256	172	429	0.88
17.00	158	114	272	156	113	269	0.84
18.00	106	52	158	106	51	157	0.83
	average =		213		average =	211	0.88

ตารางที่ ก.3 (ต่อ) การเปรียบเทียบค่าแฟคเตอร์แสงอาทิตย์เมื่อพิจารณาและไม่พิจารณาค่าการดูดกลืนในกระจกของระนาบเอียง 90° หันไปทางทิศตะวันตก

SOLAR FACTOR FOR BANGKOK. (included absorptance) latitude = 13.73
slope = 90 , azimuth angle = 90
eff. incidence angle (for sky) = 69.31
transmittance (for sky ,included absorptance) = 0.835
eff. incidence angle (for ground) = 69.72
transmittance (for ground ,included absorptance) = 0.832

LOCAL TIME	SOLAR FACTOR (ex. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	SOLAR FACTOR (in. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	% diff Htotal
APRIL							
7.00	0	16	16	0	16	16	0.91
8.00	0	65	65	0	65	65	0.91
9.00	0	126	126	0	125	125	0.91
10.00	0	179	179	0	178	178	0.91
11.00	0	220	220	0	218	218	0.91
12.00	0	242	242	0	240	240	0.91
13.00	80	291	322	80	289	319	0.87
14.00	133	250	382	131	247	379	0.91
15.00	221	208	429	219	206	425	0.90
16.00	246	178	424	244	177	420	0.88
17.00	192	125	316	190	124	314	0.85
18.00	73	53	126	72	53	125	0.84
		average =	237		average =	235	0.89
MAY							
6.00	0	1	1	0	1	1	0.91
7.00	0	26	26	0	26	26	0.91
8.00	0	65	65	0	64	64	0.91
9.00	0	111	111	0	110	110	0.91
10.00	0	149	149	0	148	148	0.91
11.00	0	175	175	0	173	173	0.91
12.00	0	138	138	0	136	136	0.91
13.00	42	211	253	42	209	251	0.85
14.00	153	207	360	152	205	357	0.91
15.00	243	180	423	240	179	419	0.90
16.00	243	156	399	241	155	395	0.83
17.00	256	107	363	254	106	360	0.35
18.00	113	48	161	113	48	160	0.84
		average =	223		average =	221	0.89
JUNE							
6.00	0	2	2	0	2	2	0.91
7.00	0	25	25	0	25	25	0.91
8.00	0	75	75	0	74	74	0.91
9.00	0	119	119	0	118	118	0.91
10.00	0	153	153	0	152	152	0.91
11.00	0	137	137	0	135	135	0.91
12.00	0	132	132	0	130	130	0.91
13.00	20	222	242	20	220	239	0.87
14.00	103	210	313	102	208	310	0.91
15.00	175	178	354	174	177	350	0.91
16.00	173	150	327	176	148	324	0.89
17.00	140	96	236	139	96	234	0.86
18.00	48	41	89	48	41	88	0.86
		average =	193		average =	191	0.90

ตารางที่ ก.3 (ต่อ) การเปรียบเทียบค่าแฟคเตอร์แสงอาทิตย์เมื่อพิจารณาและไม่พิจารณาค่าการดูดกลืนในกระจกของระนาบเอียง 90° ห้นไปทางทิศตะวันตก

SOLAR FACTOR FOR BANGKOK. (included absorptance) latitude = 13.73
Slope = 90 ; azimuth angle = 90
eff. incidence angle (for sky) = 59.31
Transmittance (for sky ,included absorptance) = 0.835
eff. incidence angle (for ground) = 89.72
Transmittance (for ground ,included absorptance) = 0.832

LOCAL TIME	SOLAR FACTOR (ex. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	SOLAR FACTOR (in. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	% diff Htotal
JULY							
7.00	0	30	30	0	29	29	0.91
8.00	0	75	76	0	75	75	0.91
9.00	0	121	121	0	120	120	0.91
10.00	0	142	142	0	141	141	0.91
11.00	0	149	149	0	148	148	0.91
12.00		132	132	0	126	126	0.91
13.00	17	126	143	17	124	141	0.87
14.00	95	127	221	94	125	219	0.90
15.00	119	107	227	118	106	224	0.91
16.00	38	165	152	37	163	150	0.90
17.00	112	95	106	111	94	104	0.97
18.00	20	47	67	19	47	66	0.83
	average =		177	average =		175	0.90
AUGUST							
7.00	0	22	22	0	22	20	0.91
8.00	0	79	79	0	78	78	0.91
9.00	0	142	142	0	141	141	0.91
10.00	0	202	202	0	200	200	0.91
11.00	0	241	241	0	239	239	0.91
12.00	0	265	265	0	263	263	0.91
13.00	8	275	283	8	272	281	0.90
14.00	45	236	282	45	234	279	0.91
15.00	57	195	251	56	193	249	0.91
16.00	95	135	231	94	134	229	0.89
17.00	76	79	155	75	78	154	0.87
18.00	12	31	44	12	31	43	0.88
	average =		183	average =		181	0.90
SEPTEMBER							
7.00	0	14	14	0	14	14	0.91
8.00	0	56	56	0	55	55	0.91
9.00	0	103	103	0	102	102	0.91
10.00	0	150	150	0	149	149	0.91
11.00	0	170	170	0	168	168	0.91
12.00	0	194	194	0	193	193	0.91
13.00	24	208	231	23	206	229	0.88
14.00	71	173	244	70	171	241	0.91
15.00	89	164	253	88	163	251	0.90
16.00	103	120	223	102	118	221	0.88
17.00	63	82	150	67	81	149	0.86
18.00	37	30	67	36	30	66	0.84
	average =		155	average =		153	0.90

ตารางที่ ก.3 (ต่อ) การเปรียบเทียบค่าแฟคเตอร์แสงอาทิตย์เมื่อพิจารณาและไม่พิจารณาค่าการดูดกลืนในกระจกของระนาบเอียง 90° หันไปทางทิศตะวันตก

SOLAR FACTOR FOR BANGKOK. (included absorptance) latitude = 13.73
slope = 90 , azimuth angle = 90
eff. incidence angle (for sky) = 59.31
transmittance (for sky ,included absorptance) = 0.835
eff. incidence angle (for ground) = 59.72
transmittance (for ground ,included absorptance) = 0.832

LOCAL TIME	SOLAR FACTOR (ex. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	SOLAR FACTOR (in. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	% diff Htotal
OCTOBER							
7.00	0	13	13	0	13	13	0.91
8.00	0	56	56	0	55	55	0.91
9.00	0	101	101	0	100	100	0.91
10.00	0	142	142	0	140	140	0.91
11.00	0	180	180	0	178	178	0.91
12.00	0	207	207	0	205	205	0.91
13.00	23	201	224	23	199	222	0.89
14.00	58	185	243	57	183	241	0.91
15.00	91	158	249	90	157	247	0.90
16.00	71	108	178	70	107	177	0.88
17.00	64	55	119	64	55	119	0.85
18.00	0	0	1	0	0	0	ERR
		average =	144		average =	143	0.90
NOVEMBER							
7.00	0	13	13	0	13	13	0.91
8.00	0	43	43	0	43	43	0.91
9.00	0	79	79	0	79	79	0.91
10.00	0	119	119	0	118	118	0.91
11.00	0	141	141	0	140	140	0.91
12.00	0	131	131	0	130	130	0.91
13.00	67	175	242	67	173	240	0.85
14.00	169	177	345	167	175	342	0.91
15.00	262	138	400	260	137	397	0.90
16.00	259	99	359	257	98	356	0.87
17.00	162	53	215	160	52	213	0.84
18.00	0	0	0	0	0	0	ERR
		average =	174		average =	172	0.89
DECEMBER							
7.00	0	7	7	0	7	7	0.91
8.00	0	30	30	0	30	30	0.91
9.00	0	48	48	0	48	48	0.91
10.00	0	70	70	0	70	70	0.91
11.00	0	90	90	0	89	89	0.91
12.00	0	93	93	0	93	93	0.91
13.00	66	149	215	66	148	214	0.80
14.00	213	149	362	212	148	359	0.90
15.00	312	134	446	309	132	442	0.90
16.00	344	107	451	341	106	448	0.87
17.00	247	62	310	245	62	307	0.85
18.00	0	0	0	0	0	0	ERR
		average =	177		average =	175	0.88

ตารางที่ ก.4 การเปรียบเทียบค่าแฟคเตอร์แสงอาทิตย์เมื่อพิจารณาและ-ไม่พิจารณาค่าการดูดกลืนในกระจกของระนาบระดับ

SOLAR FACTOR FOR BANGKOK. (included absorptance) latitude = 13.73
mode = 3
diff. incidence angle (for sky) = 59.68
transmittance (for sky ,included absorptance) = 0.832
diff. incidence angle (for ground) = 90.00
transmittance (for ground ,included absorptance) = 0.000

LOCAL TIME	SOLAR FACTOR (ex. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	SOLAR FACTOR (in. absorp. Hb W/m^2	Hd W/m^2	Htotal W/m^2	% diff Htotal
JANUARY							
7.00	0	3	3	0	3	3	0.91
8.00	18	48	66	17	48	65	0.87
9.00	134	94	228	133	93	225	0.91
10.00	226	140	367	224	139	364	0.90
11.00	367	211	578	363	209	573	0.88
12.00	365	285	650	362	282	645	0.88
13.00	450	251	700	446	248	694	0.87
14.00	407	253	660	404	251	655	0.88
15.00	306	235	542	304	233	537	0.90
16.00	152	108	260	150	106	256	0.91
17.00	40	148	186	38	147	185	0.88
18.00	0	41	41	0	41	41	0.90
	average =		365	average =		362	0.89
FEBRUARY							
7.00	0	4	4	0	4	4	0.91
8.00	23	44	67	22	44	66	0.88
9.00	76	146	222	75	144	220	0.91
10.00	170	255	425	168	253	421	0.90
11.00	265	312	578	263	310	573	0.88
12.00	335	361	696	332	357	690	0.87
13.00	349	372	721	346	369	715	0.87
14.00	319	375	694	317	372	688	0.85
15.00	261	348	608	258	344	603	0.90
16.00	164	280	444	162	278	440	0.91
17.00	52	199	252	52	198	249	0.90
18.00	2	65	67	2	64	66	0.87
	average =		398	average =		395	0.89
MARCH							
7.00	0	11	11	0	11	11	0.90
8.00	36	60	96	36	60	95	0.90
9.00	116	135	252	115	134	249	0.91
10.00	236	171	408	234	170	404	0.88
11.00	329	218	547	327	216	543	0.86
12.00	383	303	686	380	301	680	0.85
13.00	451	320	770	447	317	764	0.85
14.00	398	298	696	395	295	690	0.86
15.00	261	313	574	259	310	568	0.89
16.00	177	261	438	175	259	434	0.91
17.00	78	174	252	78	173	250	0.90
18.00	4	84	88	4	83	87	0.87
	average =		401	average =		398	0.87

ตารางที่ ก.4 (ต่อ) การเปรียบเทียบค่าแฟคเตอร์แสงอาทิตย์เมื่อพิจารณาและไม่พิจารณาค่าการดูดกลืนในกระจกของระนาบระดับ

SOLAR FACTOR FOR BANGKOK. (included absorptance) latitude = 13.73
Slope = 0
Inf. incidence angle (for sky) = 59.68
Transmittance (for sky ,included absorptance) = 0.832
Inf. incidence angle (for ground) = 90.00
Transmittance (for ground ,included absorptance) = 0.000

LOCAL TIME	SOLAR FACTOR (ex. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	SOLAR FACTOR (in. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	% diff Htotal
APRIL							
7.00	1	17	18	1	16	18	0.99
8.00	34	109	143	34	108	142	0.91
9.00	81	110	192	81	108	189	0.91
10.00	159	198	458	158	196	454	0.89
11.00	123	365	593	126	362	588	0.87
12.00	138	402	690	286	398	684	0.86
13.00	126	435	760	123	431	754	0.86
14.00	125	165	491	123	362	585	0.87
15.00	171	104	375	168	101	370	0.89
16.00	169	139	438	168	137	434	0.91
17.00	10	136	166	10	134	164	0.90
18.00	1	17	20	1	16	19	0.88
		average =	418		average =	414	0.88
MAY							
6.00	0	2	2	0	2	2	0.90
7.00	12	43	55	12	42	54	0.88
8.00	86	108	194	85	107	192	0.91
9.00	167	185	352	165	184	349	0.90
10.00	265	248	513	263	246	509	0.87
11.00	316	290	607	314	288	602	0.86
12.00	359	313	672	356	310	666	0.85
13.00	416	287	703	413	285	697	0.84
14.00	377	286	663	374	283	657	0.86
15.00	304	253	557	301	250	552	0.89
16.00	173	232	405	171	230	401	0.91
17.00	87	161	248	86	160	245	0.90
18.00	6	77	84	6	77	83	0.86
		average =	421		average =	417	0.87
JUNE							
6.00	0	3	3	0	3	3	0.90
7.00	6	42	48	6	42	48	0.89
8.00	32	125	157	32	124	155	0.91
9.00	83	197	280	82	195	278	0.90
10.00	176	254	430	174	252	427	0.88
11.00	178	311	489	176	308	484	0.87
12.00	177	318	495	175	315	491	0.87
13.00	235	332	567	233	329	563	0.86
14.00	274	307	581	272	304	576	0.87
15.00	233	260	494	231	258	489	0.89
16.00	135	227	362	134	225	359	0.91
17.00	53	151	203	52	149	202	0.90
18.00	4	67	71	4	67	71	0.88
		average =	348		average =	345	0.88

ตารางที่ ก.4 (ต่อ) การเปรียบเทียบค่าแฟคเตอร์แสงอาทิตย์เมื่อพิจารณาและไม่พิจารณาค่าการดูดกลืนในกระจกของระนาบระดับ

SOLAR FACTOR FOR BANGKOK. (included absorptance) latitude = 13.73
slope =
eff. incidance angle (for sky) = 39.68
transmittance (for sky ,included absorptance) = 0.832
eff. incidance angle (for ground) = 90.00
transmittance (for ground ,included absorptance) = 0.000

LOCAL TIME	SOLAR FACTOR (ex. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	SOLAR FACTOR (in. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	% diff Htotal
JULY							
7.00	2	49	51	2	49	50	0.90
8.00	38	126	164	38	125	163	0.91
9.00	110	201	311	109	199	308	0.90
10.00	216	237	453	214	235	449	0.88
11.00	302	248	551	300	246	546	0.86
12.00	339	262	600	336	259	595	0.85
13.00	357	237	594	355	234	589	0.86
14.00	373	235	608	371	232	603	0.87
15.00	167	319	486	165	316	481	0.89
16.00	70	263	332	69	260	329	0.91
17.00	45	149	194	45	148	192	0.91
18.00	1	78	80	1	77	79	0.90
		average =	369		average =	365	0.88
AUGUST							
7.00	1	37	38	1	36	38	0.90
8.00	23	131	154	23	130	152	0.91
9.00	97	236	334	96	234	331	0.91
10.00	132	335	468	131	332	463	0.89
11.00	113	401	514	112	397	509	0.89
12.00	121	441	562	120	437	557	0.88
13.00	109	440	549	108	436	544	0.89
14.00	121	374	495	120	371	491	0.89
15.00	74	312	386	74	309	383	0.90
16.00	70	214	284	69	212	281	0.91
17.00	27	127	153	27	125	152	0.91
18.00	1	51	52	1	51	52	0.90
		average =	332		average =	329	0.89
SEPTEMBER							
7.00	4	24	27	4	23	27	0.87
8.00	32	92	125	32	92	123	0.91
9.00	100	172	271	99	170	269	0.90
10.00	155	250	405	154	247	402	0.89
11.00	216	282	498	214	280	494	0.87
12.00	199	323	522	198	320	518	0.87
13.00	193	316	508	191	313	504	0.87
14.00	154	264	417	152	261	414	0.88
15.00	99	258	356	98	255	353	0.90
16.00	63	138	151	62	137	149	0.91
17.00	17	133	150	16	132	149	0.90
18.00	0	50	51	0	50	50	0.89
		average =	299		average =	295	0.88

ตารางที่ ก.4 (ต่อ) การเปรียบเทียบค่าแฟคเตอร์แสงอาทิตย์เมื่อพิจารณา และไม่พิจารณาค่าการดูดกลืนในกระจกของระนาบระดับ

SOLAR FACTOR FOR BANGKOK. (included absorptance) latitude = 13.73
slope = [illegible]
eff. incidence angle (for sky) = 57.68
transmittance (for sky included absorptance) = 0.832
eff. incidence angle (for ground) = 90.00
transmittance (for ground included absorptance) = 0.000

LOCAL TIME	SOLAR FACTOR (ex. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	SOLAR FACTOR (in. absorp.) Hb W/m^2	Hd W/m^2	Htotal W/m^2	% diff Htotal
OCTOBER							
7.00	[illegible]	10	12	2	13	12	0.89
8.00	34	93	126	33	92	125	0.91
9.00	95	167	262	94	166	260	0.91
10.00	131	235	367	130	233	363	0.89
11.00	157	299	456	156	296	452	0.88
12.00	140	344	484	138	341	480	0.83
13.00	131	314	445	130	311	441	0.89
14.00	104	292	396	104	289	392	0.90
15.00	85	250	335	84	248	332	0.91
16.00	39	172	211	38	171	209	0.91
17.00	[illegible]	30	33	[illegible]	[illegible]	[illegible]	0.89
18.00	0	0	0	0	0	0	ERR
		average =	268		average =	265	0.89
NOVEMBER							
7.00	1	22	23	1	22	23	0.87
8.00	60	72	132	60	71	131	0.90
9.00	160	132	292	159	131	290	0.91
10.00	273	198	472	271	197	468	0.89
11.00	333	234	567	331	232	563	0.88
12.00	394	219	612	390	217	607	0.87
13.00	375	232	608	372	230	603	0.87
14.00	291	248	539	288	246	534	0.89
15.00	226	193	419	224	191	415	0.91
16.00	106	146	252	105	144	250	0.90
17.00	15	33	48	15	32	48	0.84
18.00	0	0	0	0	0	0	ERR
		average =	335		average =	332	0.89
DECEMBER							
7.00	0	11	12	0	11	11	0.86
8.00	51	50	102	51	50	101	0.87
9.00	196	81	277	195	80	275	0.91
10.00	328	117	445	325	116	441	0.90
11.00	422	149	571	418	148	566	0.88
12.00	495	155	650	490	154	644	0..87
13.00	498	171	669	494	169	663	0.87
14.00	408	184	592	404	182	587	0.89
15.00	285	176	461	282	175	457	0.91
16.00	149	151	300	148	150	298	0.90
17.00	27	96	123	27	95	122	0.88
18.00	0	0	0	0	0	0	ERR
		average =	350		average =	347	0.88

ตารางที่ ก.5 ค่าแฟคเตอร์แสงอาทิตย์เฉลี่ยตลอดเดือนและปี

AVERAGE SOLAR FACTOR THROUGHOUT THE YEAR..

SLOPE 0

	SOLAR FACTOR (W/m^2)							
MONTH	NE	E	SE	S	SW	W	NW	N
JAN	93	160	219	227	253	188	109	76
FEB	148	186	214	229	249	219	159	128
MAR	140	175	183	177	216	213	160	118
APR	178	189	180	167	212	207	211	158
MAY	80	137	154	124	173	223	215	165
JUN	163	162	142	130	155	193	194	166
JUL	174	177	151	133	153	177	177	163
AUG	177	184	172	157	172	183	177	162
SEP	136	154	152	137	152	155	138	118
OCT	123	145	154	153	153	144	124	115
NOV	97	151	199	241	227	174	104	89
DEC	74	148	228	301	265	177	81	67
AVERAGE	141	168	179	186	198	190	154	130

SLOPE 90

	SOLAR FACTOR (W/m^2)							
MONTH	NE	E	SE	S	SW	W	NW	N
JAN	119	190	260	324	296	221	129	108
FEB	171	217	251	287	289	254	186	155
MAR	167	207	222	229	257	249	191	132
APR	206	219	213	203	252	275	248	194
MAY	216	217	186	153	210	261	255	212
JUN	193	188	166	149	184	223	226	205
JUL	209	208	180	157	181	207	210	204
AUG	204	210	200	184	198	209	203	190
SEP	159	178	179	168	178	178	159	133
OCT	142	166	179	181	176	165	142	129
NOV	114	176	234	285	264	204	122	100
DEC	88	175	271	350	307	209	97	76
AVERAGE	166	196	212	223	233	221	181	153

ตารางที่ ก.5 (ต่อ) ค่าแฟคเตอร์แสงอาทิตย์เฉลี่ยตลอดเดือนและปี

AVERAGE SOLAR FACTOR THROUGHOUT THE YEAR..

SLOPE 90

	SOLAR FACTOR (W/m^2)							
MONTH	NE	E	SE	S	SW	W	NW	N
JAN	139	217	297	363	332	251	148	119
FEB	197	247	289	329	327	286	215	172
MAR	197	238	259	277	297	282	224	180
APR	238	251	248	247	291	310	285	235
MAY	254	251	221	189	249	297	295	265
JUN	222	213	192	175	215	252	258	243
JUL	244	238	212	185	211	237	243	245
AUG	230	235	227	212	224	234	228	220
SEP	183	202	206	200	205	202	182	159
OCT	162	188	201	207	199	185	161	142
NOV	133	204	268	321	298	233	143	111
DEC	105	205	308	389	345	238	116	84
AVERAGE	192	224	244	258	266	251	208	180

ตารางที่ ก.5 (ต่อ) ค่าแฟคเตอร์แสงอาทิตย์เฉลี่ยตลอดเดือนและปี

AVERAGE SOLAR FACTOR THROUGHOUT THE YEAR..

SLOPE 40

MONTH	NE	E	SOLAR FACTOR (W/m^2) SE	S	SW	W	NW	N
JAN	162	246	330	392	363	281	175	130
FEB	226	278	323	363	359	317	246	194
MAR	230	270	296	320	333	314	259	196
APR	273	282	283	291	328	342	321	280
MAY	292	285	258	235	287	330	332	313
JUN	252	239	220	206	244	279	287	277
JUL	277	268	245	222	242	266	276	283
AUG	255	259	252	241	249	257	253	250
SEP	207	225	231	228	229	224	206	188
OCT	182	207	222	229	220	204	180	160
NOV	156	230	298	349	326	259	168	121
DEC	127	233	340	416	375	268	139	91
AVERAGE	220	252	275	291	296	278	237	207

SLOPE 50

MONTH	NE	E	SOLAR FACTOR (W/m^2) SE	S	SW	W	NW	N
JAN	191	274	357	412	386	307	206	148
FEB	257	307	352	390	386	344	279	225
MAR	265	302	330	355	364	344	294	244
APR	307	313	316	330	360	371	354	321
MAY	329	317	295	282	323	360	366	353
JUN	280	264	247	241	273	303	313	305
JUL	307	296	276	260	274	294	306	314
AUG	278	281	275	268	272	278	277	277
SEP	231	246	253	253	252	245	230	218
OCT	202	225	240	247	239	222	199	182
NOV	183	255	322	369	348	283	196	140
DEC	154	261	364	433	396	294	168	103
AVERAGE	249	278	302	320	323	304	266	236

ตารางที่ ก.5 (ต่อ) ค่าแฟคเตอร์แสงอาทิตย์เฉลี่ยตลอดเดือนและปี

AVERAGE SOLAR FACTOR THROUGHOUT THE YEAR

SLOPE 10

MONTH	SOLAR FACTOR (W/m^2)							
	NE	E	SE	S	SW	W	NW	N
JAN	124	300	376	423	401	330	340	283
FEB	290	333	376	409	405	368	311	287
MAR	300	330	358	381	388	368	328	290
APR	340	341	347	363	386	395	381	356
MAY	361	347	330	325	356	386	394	384
JUN	305	288	274	273	298	323	333	327
JUL	353	321	305	294	303	319	332	339
AUG	299	299	295	291	293	297	297	298
SEP	252	265	271	273	271	264	252	244
OCT	220	240	255	261	253	238	218	206
NOV	214	278	339	380	362	303	227	175
DEC	189	286	380	479	408	316	203	135
AVERAGE	277	302	326	343	344	326	293	267

SLOPE 30

MONTH	SOLAR FACTOR (W/m^2)							
	NE	E	SE	S	SW	W	NW	N
JAN	262	324	386	423	406	348	277	233
FEB	322	357	393	420	416	386	342	310
MAR	334	356	379	400	404	388	357	331
APR	369	368	374	388	406	412	403	384
MAY	388	373	362	361	383	406	414	407
JUN	325	310	299	301	320	339	348	343
JUL	352	342	330	323	329	341	352	358
AUG	315	314	312	310	311	313	314	315
SEP	271	280	286	288	286	279	271	266
OCT	237	253	265	270	264	251	236	228
NOV	246	299	350	382	368	320	259	221
DEC	229	309	387	433	409	334	242	188
AVERAGE	304	324	344	358	359	343	318	299

ตารางที่ ก.5 (ต่อ) ค่าแฟคเตอร์แสงอาทิตย์เฉลี่ยตลอดเดือนและปี

AVERAGE SOLAR FACTOR THROUGHOUT THE YEAR..

SLOPE 20

MONTH	SOLAR FACTOR (W/m^2) NE	E	SE	S	SW	W	NW	N
JAN	300	343	389	414	403	361	312	284
FEB	353	376	403	421	419	398	368	347
MAR	363	377	395	410	412	400	380	363
APR	393	390	395	407	418	422	416	404
MAY	408	396	388	390	404	419	426	421
JUN	340	328	321	324	336	349	355	352
JUL	365	357	349	346	349	357	365	369
AUG	326	325	324	323	324	325	326	327
SEP	285	291	296	297	296	291	285	283
OCT	252	262	271	275	271	261	251	246
NOV	279	315	353	375	366	331	289	265
DEC	272	328	385	417	400	346	283	248
AVERAGE	328	341	356	367	367	355	338	326

SLOPE 10

MONTH	SOLAR FACTOR (W/m^2) NE	E	SE	S	SW	W	NW	N
JAN	336	358	382	395	389	367	342	329
FEB	379	391	405	414	413	402	387	377
MAR	386	393	403	410	412	406	395	387
APR	409	408	411	417	423	425	422	415
MAY	419	412	408	410	417	425	428	426
JUN	348	341	338	340	346	352	356	354
JUL	371	367	363	361	363	367	371	373
AUG	333	332	331	331	331	332	333	333
SEP	295	298	300	301	300	298	295	294
OCT	262	267	272	274	272	267	262	260
NOV	310	328	348	359	355	337	315	304
DEC	313	342	373	389	381	352	320	303
AVERAGE	347	353	361	367	367	361	352	346

ตารางที่ ก.5 (ต่อ) ค่าแฟคเตอร์แสงอาทิตย์เฉลี่ยตลอดเดือนและปี

AVERAGE SOLAR FACTOR THROUGHOUT THE YEAR

SLOPE 90

MONTH	SOLAR FACTOR (W/m^2)							
	NE	E	SE	S	SW	W	NW	N
JAN	165	165	165	165	165	165	165	165
FEB	198	198	198	198	198	198	198	198
MAR	401	401	401	401	401	401	401	401
APR	418	418	418	418	418	418	418	418
MAY	421	421	421	421	421	421	421	421
JUN	348	348	348	348	348	348	348	348
JUL	369	369	369	369	369	369	369	369
AUG	332	332	332	332	332	332	332	332
SEP	299	299	299	299	299	299	299	299
OCT	268	268	268	268	268	268	268	268
NOV	135	135	135	135	135	135	135	135
DEC	150	150	150	150	150	150	150	150
AVERAGE	259	259	259	259	259	259	259	259

ตารางที่ ก.6 อุณหภูมิโซล-แอร์ของระนาบที่มีผิวสีปานกลาง

SOL-AIR TEMPERATURES FOR BANGKOK..
Absorptance/ho = 0.039 (medium-colored)

TIME	AIR TEMP C	SOL-AIR TEMPERATURE (C) NE	E	SE	S	SW	W	NW	N	HOR
JANUARY										
1.00	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	19.0
2.00	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	18.6
3.00	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	18.2
4.00	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	17.9
5.00	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.6
6.00	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	17.3
7.00	20.9	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	17.2
8.00	21.6	24.8	26.5	26.7	24.8	22.9	22.9	22.9	22.9	21.0
9.00	23.7	29.3	36.7	38.4	33.4	26.3	26.3	26.3	26.3	30.4
10.00	26.0	31.3	39.6	42.8	39.0	29.9	29.9	29.9	29.9	38.5
11.00	27.7	33.6	42.4	43.4	46.6	38.1	33.6	33.6	33.6	49.3
12.00	29.1	37.0	40.7	47.8	49.4	44.7	37.0	37.0	37.0	54.0
13.00	30.2	37.1	37.1	46.3	52.5	50.7	42.1	37.1	37.1	57.1
14.00	31.0	33.0	33.0	42.8	52.6	54.9	48.3	33.0	33.0	56.2
15.00	30.3	36.3	36.3	36.8	49.3	54.8	50.5	39.0	36.8	50.7
16.00	31.0	37.0	37.0	37.0	45.2	51.2	49.0	40.6	37.0	44.1
17.00	30.8	34.8	34.8	34.8	39.0	43.6	43.1	37.3	34.8	35.9
18.00	28.9	30.0	30.0	30.0	30.8	31.9	31.3	30.8	30.0	27.0
19.00	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	23.2
20.00	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	22.2
21.00	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	21.5
22.00	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	20.8
23.00	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	20.2
24.00	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	19.6
FEBRUARY										
1.00	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	22.0
2.00	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	21.8
3.00	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	21.6
4.00	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	21.3
5.00	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	21.0
6.00	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	20.7
7.00	24.4	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	20.7
8.00	25.3	28.5	30.6	30.4	28.0	26.5	26.5	26.5	26.5	24.8
9.00	27.2	33.6	36.9	37.0	34.0	31.2	31.2	31.2	31.2	33.5
10.00	29.0	38.3	43.2	44.4	41.1	36.1	36.1	36.1	36.1	44.2
11.00	30.2	38.9	45.3	48.0	46.0	40.5	38.9	38.9	38.9	52.1
12.00	31.2	41.2	44.9	49.3	49.8	46.1	41.2	41.2	41.2	58.2
13.00	31.8	42.1	42.1	47.5	51.1	50.3	45.6	42.1	42.1	60.0
14.00	32.2	42.6	42.6	44.3	51.1	53.3	49.9	42.6	42.6	59.3
15.00	32.3	41.9	41.9	41.9	49.5	54.3	52.4	45.1	41.9	55.7
16.00	32.1	39.9	39.9	39.9	45.7	51.8	51.4	44.6	39.9	48.6
17.00	31.3	36.8	36.8	36.8	40.0	44.9	45.3	40.9	36.3	39.5
18.00	29.5	31.3	31.3	31.3	32.2	34.3	34.6	33.0	31.3	28.9
19.00	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	23.9
20.00	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	23.1
21.00	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	22.7
22.00	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	22.5
23.00	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	22.4
24.00	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	22.2

ตารางที่ ก.6 (ต่อ) อุณหภูมิโซล-แอร์ของระนาบที่มีผิวสีปานกลาง

SOL-AIR TEMPERATURES FOR BANGKOK..
absorptance/ho = 0.039 (medium-colored)

TIME	AIR TEMP C	SOL-AIR TEMPERATURE (C) NE	E	SE	S	SW	W	NW	N	HOR
MARCH										
1.00	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	23.2
2.00	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	23.0
3.00	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	22.8
4.00	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	22.6
5.00	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	22.3
6.00	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	22.1
7.00	26.2	26.6	26.6	26.6	26.5	26.5	26.5	26.5	26.5	22.8
8.00	27.0	31.6	33.4	32.6	29.5	28.7	28.7	28.7	28.7	27.7
9.00	28.3	36.3	40.0	39.1	34.7	32.5	32.5	32.5	32.5	36.3
10.00	30.5	39.7	44.2	44.0	39.3	35.3	35.3	35.3	35.3	44.7
11.00	31.3	40.2	44.3	46.3	43.2	37.5	37.5	37.5	37.5	51.7
12.00	32.2	40.6	44.3	47.0	46.9	44.1	40.6	40.6	40.6	59.6
13.00	32.8	41.7	41.7	45.5	49.1	49.5	46.5	41.7	41.7	62.8
14.00	33.1	41.4	41.4	41.4	48.3	51.9	50.6	44.9	41.1	59.9
15.00	33.3	42.0	42.0	42.0	46.3	52.4	52.4	47.2	42.0	55.1
16.00	32.9	40.1	40.1	40.1	43.3	50.5	52.2	46.9	40.1	49.0
17.00	32.4	36.8	36.8	36.8	38.2	46.1	48.2	43.9	36.8	40.2
18.00	30.5	32.8	32.8	32.8	33.2	36.5	37.4	35.8	32.8	31.0
19.00	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	24.9
20.00	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	24.2
21.00	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	23.9
22.00	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	23.7
23.00	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	23.5
24.00	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	23.4
APRIL										
1.00	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	24.7
2.00	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	24.7
3.00	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	24.6
4.00	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	24.4
5.00	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	24.3
6.00	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	24.1
7.00	28.2	29.4	29.6	29.3	28.9	28.9	28.9	28.9	29.0	25.7
8.00	29.5	35.2	35.9	34.8	32.5	32.5	32.5	32.5	32.9	32.3
9.00	31.1	40.1	41.3	40.1	36.9	36.9	36.9	36.9	37.3	40.5
10.00	32.4	44.4	46.0	44.8	41.5	40.7	40.7	40.7	40.7	49.1
11.00	33.4	46.4	47.9	47.3	45.1	43.5	43.5	43.5	43.5	56.1
12.00	34.4	46.3	47.7	48.1	47.7	45.6	45.6	45.6	45.6	61.3
13.00	34.6	46.7	46.7	46.7	49.0	50.5	50.5	49.1	46.7	64.6
14.00	34.9	45.0	45.0	45.0	47.2	51.6	52.9	50.4	45.0	61.7
15.00	34.8	43.2	43.2	43.2	44.7	51.5	54.1	51.0	43.2	56.8
16.00	34.3	41.7	41.7	41.7	41.7	49.7	53.0	50.2	42.8	50.4
17.00	33.1	38.5	38.5	38.5	38.5	44.1	47.0	45.1	39.5	41.4
18.00	31.5	33.9	33.9	33.9	33.9	35.3	37.0	36.5	34.4	32.0
19.00	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	26.3
20.00	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	25.8
21.00	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	25.5
22.00	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	25.2
23.00	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	25.1
24.00	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	24.9

ตารางที่ ก.6 (ต่อ) อุณหภูมิโซล-แอร์ของระนาบที่มีผิวสีปานกลาง

SOL-AIR TEMPERATURES FOR BANGKOK.
absorptance(a) = [illegible] (medium-colored)

TIME	AIR TEMP C	NE	E	SE	S	SW	W	NW	N	HOR
MAY										
1.00	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	25.0
2.00	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	24.8
3.00	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	24.6
4.00	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	24.4
5.00	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	24.1
6.00	27.7	27.9	27.9	27.9	27.8	27.8	27.8	27.8	27.8	23.9
7.00	28.0	31.7	31.9	30.5	29.2	29.2	29.2	29.2	30.0	26.6
8.00	29.7	39.3	40.1	36.8	32.7	32.7	32.7	32.7	34.3	34.3
9.00	31.0	43.7	44.6	41.2	36.4	36.4	36.4	36.4	38.9	43.2
10.00	32.4	46.6	47.4	44.2	39.0	39.0	39.0	39.0	42.1	51.0
11.00	33.4	46.3	47.2	44.8	41.4	41.4	41.4	41.4	44.2	56.4
12.00	34.3	46.1	45.4	43.0	43.0	43.0	43.0	44.2	45.6	60.1
13.00	34.5	42.6	42.6	42.6	42.6	45.6	47.7	47.9	46.0	61.7
14.00	34.5	42.4	42.4	42.4	42.4	47.9	51.5	50.8	46.0	59.9
15.00	34.5	41.5	41.5	41.5	41.5	48.6	53.5	52.1	45.0	55.2
16.00	34.2	40.6	40.6	40.6	40.6	47.0	51.6	50.5	43.9	48.7
17.00	33.2	37.6	37.6	37.6	37.6	43.0	49.1	47.3	41.0	41.2
18.00	31.8	33.9	33.9	33.9	33.9	36.0	38.0	38.5	35.5	32.2
19.00	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	26.6
20.00	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	25.9
21.00	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	25.5
22.00	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	25.3
23.00	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	25.2
24.00	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	25.0
JUNE										
1.00	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	23.9
2.00	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	23.7
3.00	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	23.6
4.00	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	23.4
5.00	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	23.1
6.00	26.8	27.0	27.0	27.0	26.9	26.9	26.9	26.9	27.0	23.1
7.00	27.1	29.6	29.6	28.9	28.3	28.3	28.3	28.3	28.8	25.5
8.00	28.4	34.5	34.6	33.2	31.9	31.9	31.9	31.9	32.9	31.3
9.00	29.6	39.0	39.2	37.2	35.1	35.1	35.1	35.1	36.7	38.4
10.00	30.6	43.0	43.1	40.4	37.7	37.7	37.7	37.7	40.2	46.0
11.00	31.5	43.6	43.3	41.6	40.1	40.1	40.1	40.1	42.3	49.5
12.00	32.1	42.9	42.2	40.9	40.9	40.9	40.9	42.2	42.9	50.4
13.00	32.6	41.3	41.3	41.3	41.3	42.8	44.6	45.3	44.5	54.1
14.00	32.9	41.4	41.4	41.4	41.4	44.6	47.3	47.9	45.0	54.9
15.00	33.0	40.2	40.2	40.2	40.2	44.7	49.0	48.7	44.0	51.1
16.00	32.6	38.9	38.9	38.9	38.9	43.1	47.1	46.7	42.1	45.2
17.00	31.7	35.9	35.9	35.9	35.9	38.9	42.1	41.8	38.3	37.4
18.00	30.5	32.4	32.4	32.4	32.4	33.3	34.4	34.4	33.2	30.1
19.00	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	25.3
20.00	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	25.0
21.00	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	24.8
22.00	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	24.5
23.00	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	24.2
24.00	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	24.1

ตารางที่ ก.6 (ต่อ) อุณหภูมิโซล-แอร์ของระนาบที่มีผิวสีปานกลาง

SOL-AIR TEMPERATURES FOR BANGKOK..
absorptance/ho = [illegible]029 (medium-colored)

TIME	AIR TEMP C	NE	E	SE	S	SW	W	NW	N	HOR
		SOL-AIR TEMPERATURE (C)								
JULY										
1.00	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	23.4
2.00	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	23.0
3.00	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	22.8
4.00	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	22.7
5.00	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	22.5
6.00	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	22.2
7.00	26.4	28.2	28.2	28.0	27.8	27.8	27.8	27.8	27.9	24.9
8.00	27.8	34.6	34.9	33.1	31.3	31.3	31.3	31.3	32.5	31.5
9.00	29.0	39.3	40.3	37.7	34.6	34.6	34.6	34.6	36.6	39.2
10.00	30.4	43.6	44.1	40.9	37.0	37.0	37.0	37.0	39.3	46.7
11.00	31.4	44.2	44.2	41.4	38.3	38.3	38.3	38.3	41.6	51.3
12.00	32.1	44.0	43.2	40.8	40.8	40.8	40.8	42.3	43.6	54.9
13.00	32.6	41.9	41.9	41.9	41.9	43.1	44.7	45.2	44.5	55.2
14.00	32.9	42.2	42.2	42.2	42.2	45.4	48.2	48.1	45.2	56.1
15.00	32.8	41.7	41.7	41.7	41.7	45.0	47.7	47.0	44.0	50.8
16.00	32.3	39.6	39.6	39.6	39.6	41.8	43.6	43.3	41.0	43.6
17.00	31.4	35.5	35.5	35.5	35.5	38.1	40.5	40.2	37.3	36.8
18.00	30.2	32.3	32.3	32.3	32.3	32.7	33.2	33.2	32.7	30.0
19.00	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	25.3
20.00	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	24.6
21.00	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	24.2
22.00	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	24.1
23.00	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	23.8
24.00	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	23.5
AUGUST										
1.00	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	22.4
2.00	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	22.3
3.00	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	22.2
4.00	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	22.0
5.00	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	21.8
6.00	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	21.7
7.00	25.8	27.2	27.2	27.1	26.8	26.8	26.8	26.8	26.9	23.7
8.00	27.0	32.5	32.9	32.0	30.6	30.6	30.6	30.6	31.1	30.2
9.00	28.5	39.3	40.3	38.6	35.1	35.1	35.1	35.1	36.0	39.8
10.00	29.6	42.4	43.3	42.0	38.9	38.9	38.9	38.9	39.7	46.8
11.00	30.5	43.4	43.3	43.3	41.6	41.6	41.6	41.6	42.1	49.9
12.00	31.4	44.5	44.6	44.5	44.2	43.6	43.6	43.6	43.6	53.0
13.00	31.4	43.6	43.6	43.6	44.1	44.6	44.8	44.6	43.6	52.5
14.00	31.8	42.2	42.2	42.2	42.2	44.2	44.9	44.4	42.8	50.3
15.00	31.5	40.2	40.2	40.2	40.2	42.1	43.0	42.4	40.7	45.2
16.00	31.3	37.2	37.2	37.2	37.2	40.1	41.6	40.8	38.0	40.4
17.00	30.0	33.5	33.5	33.5	33.5	35.6	36.9	36.3	34.2	33.3
18.00	28.7	30.1	30.1	30.1	30.1	30.4	30.7	30.6	30.3	27.2
19.00	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	24.1
20.00	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	23.3
21.00	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	23.1
22.00	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	22.8
23.00	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	22.6
24.00	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	22.5

ตารางที่ ก.6 (ต่อ) อุณหภูมิโซล-แอร์ของระนาบที่มีผิวสีปานกลาง

SOL-AIR TEMPERATURES FOR BANGKOK..
Absorptance/ho = 0.038 (medium-colored)

TIME	AIR TEMP C	SOL-AIR TEMPERATURE (C)									
		NE	E	SE	S	SW	W	NW	N	HOR
SEPTEMBER											
1.00	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	22.1
2.00	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	21.9
3.00	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	21.7
4.00	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	21.6
5.00	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	21.5
6.00	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	21.4
7.00	25.5	27.1	27.5	27.1	26.2	26.2	26.2	26.2	26.2	23.0
8.00	26.7	31.4	32.5	31.7	29.7	29.3	29.3	29.3	29.3	28.6
9.00	28.1	35.2	38.2	37.3	34.1	32.9	32.9	32.9	32.9	36.5
10.00	29.4	39.2	41.4	41.0	38.3	36.3	36.3	36.3	36.3	43.7
11.00	30.4	40.0	42.2	42.6	41.0	38.2	38.2	38.2	38.2	48.7
12.00	30.9	39.9	41.2	42.2	42.4	41.6	39.9	39.9	39.9	50.4
13.00	31.0	39.7	39.7	39.7	42.2	43.0	42.3	40.6	39.7	49.9
14.00	30.8	38.1	38.1	38.1	40.0	42.1	42.1	40.2	38.1	45.8
15.00	30.6	37.7	37.7	37.7	39.0	41.5	42.0	40.4	37.7	42.3
16.00	30.4	36.6	36.6	36.6	36.4	39.4	40.3	38.7	36.6	38.0
17.00	29.8	33.5	33.5	33.5	33.7	35.7	36.5	35.5	33.5	33.0
18.00	29.1	30.5	30.5	30.5	30.5	31.6	32.2	31.6	30.5	27.6
19.00	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	24.1
20.00	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	23.5
21.00	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	23.1
22.00	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	22.8
23.00	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	22.5
24.00	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	22.2
OCTOBER											
1.00	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	21.6
2.00	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	21.4
3.00	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	21.3
4.00	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	21.3
5.00	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1	21.2
6.00	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	21.1
7.00	25.1	26.5	26.9	26.7	26.2	25.9	25.9	25.9	25.9	22.8
8.00	26.3	30.6	32.3	32.1	30.1	28.9	28.9	28.9	28.9	28.3
9.00	27.7	34.5	37.5	37.6	34.9	32.3	32.3	32.3	32.3	35.7
10.00	28.7	36.5	39.4	40.2	38.4	35.2	35.2	35.2	35.2	41.3
11.00	29.6	37.9	40.6	42.1	41.5	39.2	37.9	37.9	37.9	46.2
12.00	30.0	39.6	40.2	42.0	42.7	41.9	39.6	39.6	39.6	47.9
13.00	30.0	38.7	38.7	39.9	41.7	42.1	40.8	38.7	38.7	46.2
14.00	30.6	38.7	38.7	38.7	41.2	42.5	41.8	39.6	38.7	44.6
15.00	30.1	37.0	37.0	37.0	39.3	41.5	41.3	38.8	37.0	41.4
16.00	29.7	34.5	34.5	34.5	35.8	37.9	38.1	36.3	34.5	35.6
17.00	29.2	31.7	31.7	31.7	32.4	34.1	34.5	33.2	31.7	30.1
18.00	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	24.3
19.00	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	23.4
20.00	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	23.0
21.00	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	22.6
22.00	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	22.3
23.00	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	22.1
24.00	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	21.8

ตารางที่ ก.6 (ต่อ) อุณหภูมิโซล-แอร์ของระนาบที่มีผิวสีปานกลาง

SOL-AIR TEMPERATURES FOR BANGKOK,,
absorptance/ho = 0.039 (medium-colored)

TIME	AIR TEMP	NE	E	SE	S	SW	W	NW	N	HOR
NOVEMBER										
1.00	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	19.7
2.00	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	19.5
3.00	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	19.4
4.00	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	19.2
5.00	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	18.9
6.00	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	18.6
7.00	23.5	23.5	24.0	24.0	23.6	23.1	23.1	23.1	23.1	19.7
8.00	24.0	28.7	28.2	28.7	29.9	26.0	26.0	26.0	26.0	26.5
9.00	25.3	32.3	38.8	40.5	36.2	29.5	29.5	29.5	29.5	35.2
10.00	27.3	32.8	42.0	46.6	42.4	34.3	32.8	32.8	32.8	44.4
11.00	28.2	34.7	40.8	45.9	45.5	39.5	34.7	34.7	34.7	49.4
12.00	28.8	34.8	36.8	44.3	47.3	44.0	34.8	34.8	34.8	51.3
13.00	29.3	35.7	35.7	41.5	47.9	48.0	41.2	35.7	35.7	52.1
14.00	29.6	36.5	36.5	38.3	46.6	49.6	45.7	36.5	36.5	49.7
15.00	29.6	34.9	34.9	34.9	44.2	49.9	47.4	38.2	34.9	44.7
16.00	29.2	33.2	33.2	33.2	39.7	45.8	44.9	37.3	33.2	37.4
17.00	28.4	30.7	30.7	30.7	33.7	37.7	37.7	33.7	30.7	29.8
18.00	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	23.1
19.00	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	22.4
20.00	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	21.6
21.00	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1	21.2
22.00	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	20.7
23.00	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.1
24.00	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	19.8
DECEMBER										
1.00	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	19.8
2.00	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	19.4
3.00	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	19.0
4.00	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	18.7
5.00	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	18.3
6.00	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	18.0
7.00	21.7	22.3	22.7	22.8	22.4	22.0	22.0	22.0	22.0	18.4
8.00	22.5	25.4	31.8	32.7	28.6	23.9	23.9	23.9	23.9	23.8
9.00	24.9	30.0	40.3	43.4	37.5	27.1	27.1	27.1	27.1	33.3
10.00	26.8	30.0	42.4	47.9	43.8	32.5	30.0	30.0	30.0	42.6
11.00	28.0	32.1	40.8	48.7	48.0	39.1	32.1	32.1	32.1	49.1
12.00	29.0	33.3	36.7	47.5	51.3	45.7	33.3	33.3	33.3	53.5
13.00	29.7	34.4	34.4	44.3	52.3	51.3	41.8	34.4	34.4	55.1
14.00	30.1	35.2	35.2	39.7	51.4	54.6	47.5	35.2	35.2	52.4
15.00	30.2	35.1	35.1	35.1	48.5	54.7	50.1	37.5	35.1	47.2
16.00	30.0	34.2	34.2	34.2	44.5	52.2	49.7	38.6	34.2	40.6
17.00	29.5	32.2	32.2	32.2	37.3	43.7	42.9	36.0	32.2	32.2
18.00	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	24.0
19.00	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	22.9
20.00	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	22.3
21.00	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	21.8
22.00	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	21.4
23.00	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	20.8
24.00	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	20.2

ตารางที่ ก.7 ตัวอย่างการคำนวณความร้อนที่ถ่ายเทผ่านกำแพงคอนกรีตบล็อค หนา 10 cm. ที่เวลาและทิศทางต่าง ๆ เดือน มค.และ กพ.

EQUIVALENT TEMPERATURE DIFFERENCE..
by Transfer Function Method, absorptance/ho = 0.039(medium-colored)

10 cm. h.w. concrete block

Transfer function coefficients

n	0	1	2	3	4	5	6
bn	0.05735	0.50538	0.25950	0.00852	0.00000	0.00000	0.00000
dn	1	-0.7809	0.0861	-0.0002	0	0	0

sum(cn) = 0.83075
U = 2.726 W/m^2-C
weight = 177 kg/m^2
indoor air temp = 25 C

	HEAT GAIN (W/m^2)							
TIME	NE	E	SE	S	SW	W	NW	N
JANUARY (period 1)								
1.00	-1.11	-1.11	-1.11	-1.11	-1.11	-1.11	-1.11	-1.11
2.00	-2.47	-2.47	-2.47	-2.47	-2.47	-2.47	-2.47	-2.47
3.00	-3.82	-3.82	-3.82	-3.82	-3.82	-3.82	-3.82	-3.82
4.00	-5.09	-5.09	-5.09	-5.09	-5.09	-5.09	-5.09	-5.09
5.00	-6.24	-6.24	-6.24	-6.24	-6.24	-6.24	-6.24	-6.24
6.00	-7.27	-7.27	-7.27	-7.27	-7.27	-7.27	-7.27	-7.27
7.00	-8.23	-8.23	-8.23	-8.23	-8.23	-8.23	-8.23	-8.23
8.00	-8.89	-8.76	-8.75	-8.86	-8.97	-8.97	-8.97	-8.97
9.00	-7.44	-5.78	-5.57	-6.91	-8.35	-8.35	-8.35	-8.35
10.00	-2.74	3.37	4.61	0.31	-5.38	-5.38	-5.38	-5.38
11.00	3.29	14.56	17.91	11.34	0.07	-0.19	-0.19	-0.19
12.00	9.49	24.67	31.46	24.86	9.56	6.60	6.60	6.60
13.00	16.15	31.29	41.99	38.08	22.33	14.47	14.18	14.18
14.00	21.86	33.43	48.01	49.59	36.55	23.90	20.57	20.57
15.00	26.19	33.96	49.29	58.15	50.28	35.20	25.48	25.35
16.00	28.71	33.78	45.83	62.01	60.64	45.88	29.58	28.17
17.00	29.95	33.24	41.37	60.97	65.32	52.94	33.29	29.60
18.00	29.26	31.40	36.72	55.11	62.63	53.47	34.43	29.04
19.00	25.53	26.92	30.37	44.63	51.92	45.72	30.54	25.39
20.00	19.94	20.84	23.08	32.86	38.23	34.18	23.63	19.84
21.00	14.54	15.13	16.58	23.00	26.58	23.95	17.00	14.48
22.00	10.13	10.51	11.45	15.63	17.96	16.26	11.74	10.09
23.00	6.58	6.82	7.43	10.14	11.66	10.55	7.62	6.55
24.00	3.65	3.81	4.21	5.96	6.95	6.23	4.33	3.63

ตารางที่ ก.7 (ต่อ) ตัวอย่างการคำนวณความร้อนที่ถ่ายเทผ่านกำแพง-
คอนกรีตบล็อคหนา 10 cm. ที่เวลาและทิศทางต่าง ๆ
เดือน มค.และ กพ.

EQUIVALENT TEMPERATURE DIFFERENCE..
by Transfer Function Method, absorptance/ho = 0.039 (medium-colored)

10 cm. h.w. concrete block

Transfer function coefficients

n	0	1	2	3	4	5	6
bn	0.05735	0.50538	0.25950	0.00852	0.00000	0.00000	0.00000
dn	1	-0.7809	0.0861	-0.0002	0	0	0

sum(cn) = 0.83075
U = 2.726 W/m^2-C
Weight = 177 kg/m^2
Indoor air temp = 25 C

	HEAT GAIN (W/m^2)							
TIME	NE	E	SE	S	SW	W	NW	N
JANUARY (period 2)								
1.00	1.17	1.27	1.53	2.67	3.31	2.84	1.61	1.16
2.00	-1.00	-0.93	-0.77	-0.03	0.39	0.08	-0.72	-1.01
3.00	-2.87	-2.82	-2.72	-2.24	-1.97	-2.16	-2.68	-2.87
4.00	-4.47	-4.44	-4.37	-4.06	-3.89	-4.01	-4.35	-4.47
5.00	-5.84	-5.82	-5.77	-5.57	-5.46	-5.54	-5.76	-5.84
6.00	-7.01	-7.00	-6.97	-6.84	-6.77	-6.82	-6.96	-7.02
7.00	-8.06	-8.05	-8.04	-7.95	-7.90	-7.94	-8.03	-8.06
8.00	-8.78	-8.65	-8.63	-8.68	-8.76	-8.78	-8.84	-8.86
9.00	-7.37	-5.70	-5.49	-6.79	-8.21	-8.22	-8.26	-8.28
10.00	-2.69	3.41	4.66	0.39	-5.29	-5.29	-5.32	-5.33
11.00	3.32	14.59	17.94	11.39	0.13	-0.14	-0.16	-0.16
12.00	9.51	24.69	31.48	24.89	9.59	6.64	6.63	6.62
13.00	16.16	31.31	42.00	38.10	22.35	14.49	14.20	14.19
14.00	21.86	33.44	48.02	49.60	36.57	23.92	20.58	20.58
15.00	26.20	33.96	49.30	58.16	50.29	35.20	25.49	25.36
16.00	28.72	33.79	45.83	62.02	60.65	45.89	29.59	28.17
17.00	29.95	33.24	41.38	60.97	65.32	52.95	33.29	29.60
18.00	29.27	31.40	36.72	55.11	62.63	53.48	34.43	29.04
19.00	25.54	26.92	30.37	44.63	51.93	45.72	30.54	25.39
20.00	19.94	20.84	23.08	32.86	38.23	34.18	23.63	19.84
21.00	14.54	15.13	16.58	23.00	26.58	23.95	17.00	14.48
22.00	10.13	10.51	11.46	15.63	17.96	16.26	11.74	10.09
23.00	6.58	6.82	7.43	10.14	11.66	10.55	7.62	6.55
24.00	3.65	3.81	4.21	5.96	6.95	6.23	4.33	3.63

ตารางที่ ก.7 (ต่อ) ตัวอย่างการคำนวณความร้อนที่ถ่ายเทผ่านกำแพง-
คอนกรีตบล็อคหนา 10 cm. ที่เวลาและทิศทางต่าง ๆ
เดือน มค.และ กพ.

EQUIVALENT TEMPERATURE DIFFERENCE..
by Transfer Function Method, absorptance/ho = 0.039 (medium-colored)

10 cm. h.w. concrete block

Transfer function coefficients

n	0	1	2	3	4	5	6
bn	0.05735	0.50538	0.25950	0.00852	0.00000	0.00000	0.00000
dn	1	-0.7809	0.0861	-0.0002	0	0	0

sum(cn) = 0.83075
U = 2.726 W/m^2-C
weight = 177 kg/m^2
indoor air temp = 25 C

	HEAT GAIN (W/m^2)							
TIME	NE	E	SE	S	SW	W	NW	N
JANUARY (period 3)								
1.00	1.17	1.27	1.53	2.67	3.31	2.84	1.61	1.16
2.00	-1.00	-0.93	-0.77	-0.03	0.39	0.08	-0.72	-1.01
3.00	-2.87	-2.82	-2.72	-2.24	-1.97	-2.16	-2.68	-2.87
4.00	-4.47	-4.44	-4.37	-4.06	-3.89	-4.01	-4.35	-4.47
5.00	-5.84	-5.82	-5.77	-5.57	-5.46	-5.54	-5.76	-5.84
6.00	-7.01	-7.00	-6.97	-6.84	-6.77	-6.82	-6.96	-7.02
7.00	-8.06	-8.05	-8.04	-7.95	-7.90	-7.94	-8.03	-8.06
8.00	-8.78	-8.65	-8.63	-8.68	-8.76	-8.78	-8.84	-8.86
9.00	-7.37	-5.70	-5.49	-6.79	-8.21	-8.22	-8.26	-8.28
10.00	-2.69	3.41	4.66	0.39	-5.29	-5.29	-5.32	-5.33
11.00	3.32	14.59	17.94	11.39	0.13	-0.14	-0.16	-0.16
12.00	9.51	24.69	31.48	24.89	9.59	6.64	6.63	6.62
13.00	16.16	31.31	42.00	38.10	22.35	14.49	14.20	14.19
14.00	21.86	33.44	48.02	49.60	36.57	23.92	20.58	20.58
15.00	26.20	33.96	49.30	58.16	50.29	35.20	25.49	25.36
16.00	28.72	33.79	45.83	62.02	60.65	45.89	29.59	28.17
17.00	29.95	33.24	41.38	60.97	65.32	52.95	33.29	29.60
18.00	29.27	31.40	36.72	55.11	62.63	53.48	34.43	29.04
19.00	25.54	26.92	30.37	44.63	51.93	45.72	30.54	25.39
20.00	19.94	20.84	23.08	32.86	38.23	34.18	23.63	19.84
21.00	14.54	15.13	16.58	23.00	26.58	23.95	17.00	14.48
22.00	10.13	10.51	11.46	15.63	17.96	16.26	11.74	10.09
23.00	6.58	6.82	7.43	10.14	11.66	10.55	7.62	6.55
24.00	3.65	3.81	4.21	5.96	6.95	6.23	4.33	3.63

ตารางที่ ก.7 (ต่อ) ตัวอย่างการคำนวณความร้อนที่ถ่ายเทผ่านกำแพง-คอนกรีตบล็อคหนา 10 cm. ที่เวลาและทิศทางต่าง ๆ เดือน มค.และ กพ.

EQUIVALENT TEMPERATURE DIFFERENCE..
by Transfer Function Method, absorptance/ho = 0.039 (medium-colored)

10 cm. h.w. concrete block

Transfer function coefficients

n	0	1	2	3	4	5	6
bn	0.05735	0.50538	0.25950	0.00852	0.00000	0.00000	0.00000
dn	1	-0.7809	0.0861	-0.0002	0	0	0

sum(cn) = 0.83075
U = 2.726 W/m^2-C
Weight = 177 kg/m^2
Indoor air temp = 25 C

TIME	HEAT GAIN (W/m^2) NE	E	SE	S	SW	W	NW	N
JANUARY (period 4)								
1.00	1.17	1.27	1.53	2.67	3.31	2.84	1.61	1.16
2.00	-1.00	-0.93	-0.77	-0.03	0.39	0.08	-0.72	-1.01
3.00	-2.87	-2.82	-2.72	-2.24	-1.97	-2.16	-2.68	-2.87
4.00	-4.47	-4.44	-4.37	-4.06	-3.89	-4.01	-4.35	-4.47
5.00	-5.84	-5.82	-5.77	-5.57	-5.46	-5.54	-5.76	-5.84
6.00	-7.01	-7.00	-6.97	-6.84	-6.77	-6.82	-6.96	-7.02
7.00	-8.06	-8.05	-8.04	-7.95	-7.90	-7.94	-8.03	-8.06
8.00	-8.78	-8.65	-8.63	-8.68	-8.76	-8.78	-8.84	-8.86
9.00	-7.37	-5.70	-5.49	-6.79	-8.21	-8.22	-8.26	-8.28
10.00	-2.69	3.41	4.66	0.39	-5.29	-5.29	-5.32	-5.33
11.00	3.32	14.59	17.94	11.39	0.13	-0.14	-0.16	-0.16
12.00	9.51	24.69	31.48	24.89	9.59	6.64	6.63	6.62
13.00	16.16	31.31	42.00	38.10	22.35	14.49	14.20	14.19
14.00	21.86	33.44	48.02	49.60	36.57	23.92	20.58	20.58
15.00	26.20	33.96	49.30	58.16	50.29	35.20	25.49	25.36
16.00	28.72	33.79	45.83	62.02	60.65	45.89	29.59	28.17
17.00	29.95	33.24	41.38	60.97	65.32	52.95	33.29	29.60
18.00	29.27	31.40	36.72	55.11	62.63	53.48	34.43	29.04
19.00	25.54	26.92	30.37	44.63	51.93	45.72	30.54	25.39
20.00	19.94	20.84	23.08	32.86	38.23	34.18	23.63	19.84
21.00	14.54	15.13	16.58	23.00	26.58	23.95	17.00	14.48
22.00	10.13	10.51	11.46	15.63	17.96	16.26	11.74	10.09
23.00	6.58	6.82	7.43	10.14	11.66	10.55	7.62	6.55
24.00	3.65	3.81	4.21	5.96	6.95	6.23	4.33	3.63

ตารางที่ ก.7 (ต่อ) ตัวอย่างการคำนวณความร้อนที่ถ่ายเทผ่านกำแพง-คอนกรีตบล็อคหนา 10 cm. ที่เวลาและทิศทางต่าง ๆ เดือน มค.และ กพ.

EQUIVALENT TEMPERATURE DIFFERENCE..
by Transfer Function Method, absorptance/ho = 0.039 (medium-colored)

10 cm. h.w. concrete block

Transfer function coefficients

n	0	1	2	3	4	5	6
bn	0.05735	0.50538	0.25950	0.00852	0.00000	0.00000	0.00000
dn	1	-0.7809	0.0861	-0.0002	0	0	0

sum(cn) = 0.83075
U = 2.726 W/m^2-C
weight = 177 kg/m^2
indoor air temp = 25 C

	HEAT GAIN (W/m^2)							
TIME	NE	E	SE	S	SW	W	NW	N
FEBRUARY (period 1)								
1.00	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
2.00	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
3.00	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74
4.00	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68
5.00	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
6.00	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
7.00	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
8.00	0.05	0.17	0.16	0.02	-0.07	-0.07	-0.07	-0.07
9.00	2.14	3.48	3.39	1.88	0.91	0.91	0.91	0.91
10.00	7.68	11.20	11.22	7.70	4.88	4.88	4.88	4.88
11.00	15.60	21.96	22.74	17.52	11.83	11.74	11.74	11.74
12.00	22.98	32.41	34.93	29.28	20.77	19.60	19.60	19.60
13.00	29.47	39.85	45.02	40.98	31.44	27.35	27.15	27.15
14.00	35.01	43.31	51.17	50.80	42.78	35.81	33.48	33.48
15.00	39.23	44.85	53.09	57.74	53.41	45.27	38.42	38.24
16.00	41.74	45.42	51.79	61.29	61.90	54.29	43.13	41.10
17.00	41.96	44.35	48.64	60.78	66.26	60.33	46.58	41.54
18.00	39.52	41.07	43.88	55.75	64.22	60.35	46.45	39.25
19.00	33.80	34.81	36.63	46.16	54.69	52.49	40.80	33.62
20.00	26.26	26.92	28.10	34.78	41.30	40.01	31.62	26.15
21.00	19.49	19.91	20.68	25.09	29.46	28.65	23.09	19.42
22.00	14.40	14.67	15.17	18.04	20.89	20.37	16.75	14.35
23.00	10.78	10.96	11.28	13.15	15.00	14.66	12.31	10.75
24.00	8.28	8.40	8.61	9.82	11.02	10.80	9.27	8.26

ตารางที่ ก.7 (ต่อ) ตัวอย่างการคำนวณความร้อนที่ถ่ายเทผ่านกำแพง-คอนกรีตบล็อคหนา 10 cm. ที่เวลาและทิศทางต่าง ๆ เดือน มค.และ กพ.

EQUIVALENT TEMPERATURE DIFFERENCE..
by Transfer Function Method, absorptance/ho = 0.039 (medium-colored)

10 cm. h.w. concrete block

Transfer function coefficients

n	0	1	2	3	4	5	6
bn	0.05735	0.50538	0.25950	0.00852	0.00000	0.00000	0.00000
dn	1	-0.7809	0.0861	-0.0002	0	0	0

sum(cn) = 0.83075
U = 2.726 W/m^2-C
Weight = 177 kg/m^2
Indoor air temp = 25 C

	HEAT GAIN (W/m^2)							
TIME	NE	E	SE	S	SW	W	NW	N
FEBRUARY (period 2)								
1.00	6.50	6.57	6.71	7.49	8.27	8.13	7.14	6.49
2.00	5.16	5.20	5.29	5.80	6.31	6.21	5.57	5.15
3.00	4.09	4.12	4.18	4.51	4.84	4.78	4.36	4.09
4.00	3.21	3.23	3.26	3.48	3.69	3.65	3.38	3.20
5.00	2.38	2.40	2.42	2.56	2.70	2.67	2.50	2.38
6.00	1.57	1.58	1.59	1.68	1.77	1.76	1.64	1.57
7.00	0.77	0.77	0.78	0.84	0.90	0.89	0.81	0.77
8.00	0.32	0.44	0.44	0.33	0.29	0.28	0.23	0.20
9.00	2.31	3.66	3.57	2.09	1.14	1.13	1.10	1.08
10.00	7.79	11.32	11.34	7.84	5.03	5.02	5.00	4.99
11.00	15.67	22.03	22.82	17.61	11.93	11.84	11.82	11.81
12.00	23.03	32.46	34.98	29.33	20.83	19.67	19.66	19.65
13.00	29.51	39.88	45.05	41.02	31.48	27.39	27.18	27.18
14.00	35.03	43.33	51.19	50.83	42.81	35.84	33.50	33.50
15.00	39.24	44.87	53.11	57.75	53.42	45.29	38.44	38.25
16.00	41.75	45.43	51.80	61.30	61.91	54.30	43.14	41.11
17.00	41.96	44.35	48.64	60.79	66.27	60.33	46.59	41.55
18.00	39.53	41.08	43.88	55.75	64.23	60.36	46.45	39.26
19.00	33.80	34.81	36.63	46.17	54.70	52.49	40.80	33.63
20.00	26.27	26.92	28.10	34.79	41.30	40.01	31.63	26.15
21.00	19.49	19.91	20.68	25.09	29.46	28.65	23.09	19.42
22.00	14.40	14.67	15.17	18.04	20.89	20.37	16.75	14.35
23.00	10.78	10.96	11.28	13.15	15.00	14.66	12.31	10.75
24.00	8.28	8.40	8.61	9.82	11.02	10.80	9.27	8.26

ตารางที่ ก.7 (ต่อ) ตัวอย่างการคำนวณความร้อนที่ถ่ายเทผ่านกำแพง-
คอนกรีตบล็อคหนา 10 cm. ที่เวลาและทิศทางต่าง ๆ
เดือน มค.และ กพ.

EQUIVALENT TEMPERATURE DIFFERENCE..
by Transfer Function Method, absorptance/ho = 0.039 (medium-colored)

10 cm. h.w. concrete block

Transfer function coefficients

n	0	1	2	3	4	5	6
bn	0.05735	0.50538	0.25950	0.00852	0.00000	0.00000	0.00000
dn	1	-0.7809	0.0861	-0.0002	0	0	0

sum(cn) = 0.83075
U = 2.726 W/m^2-C
weight = 177 kg/m^2
Indoor air temp = 25 C

	HEAT GAIN (W/m^2)							
TIME	NE	E	SE	S	SW	W	NW	N
FEBRUARY (period 3)								
1.00	6.50	6.57	6.71	7.49	8.27	8.13	7.14	6.49
2.00	5.16	5.20	5.29	5.80	6.31	6.21	5.57	5.15
3.00	4.09	4.13	4.18	4.51	4.84	4.78	4.36	4.09
4.00	3.21	3.23	3.26	3.48	3.69	3.65	3.38	3.20
5.00	2.38	2.40	2.42	2.56	2.70	2.67	2.50	2.38
6.00	1.57	1.58	1.59	1.68	1.77	1.76	1.64	1.57
7.00	0.77	0.77	0.78	0.84	0.90	0.89	0.81	0.77
8.00	0.32	0.44	0.44	0.33	0.29	0.28	0.23	0.20
9.00	2.31	3.66	3.57	2.09	1.14	1.13	1.10	1.08
10.00	7.79	11.32	11.34	7.84	5.03	5.02	5.00	4.99
11.00	15.67	22.03	22.82	17.61	11.93	11.84	11.82	11.81
12.00	23.03	32.46	34.98	29.33	20.83	19.67	19.66	19.65
13.00	29.51	39.88	45.05	41.02	31.48	27.39	27.18	27.18
14.00	35.03	43.33	51.19	50.83	42.81	35.84	33.50	33.50
15.00	39.24	44.87	53.11	57.75	53.42	45.29	38.44	38.25
16.00	41.75	45.43	51.80	61.30	61.91	54.30	43.14	41.11
17.00	41.96	44.35	48.64	60.79	66.27	60.33	46.59	41.55
18.00	39.53	41.08	43.88	55.75	64.23	60.36	46.45	39.26
19.00	33.80	34.81	36.63	46.17	54.70	52.49	40.80	33.63
20.00	26.27	26.92	28.10	34.79	41.30	40.01	31.63	26.15
21.00	19.49	19.91	20.68	25.09	29.46	28.65	23.09	19.42
22.00	14.40	14.67	15.17	18.04	20.89	20.37	16.75	14.35
23.00	10.78	10.96	11.28	13.15	15.00	14.66	12.31	10.75
24.00	8.28	8.40	8.61	9.82	11.02	10.80	9.27	8.26

ตารางที่ ก.7 (ต่อ) ตัวอย่างการคำนวณความร้อนที่ถ่ายเทผ่านกำแพง-คอนกรีตบล็อคหนา 10 cm. ที่เวลาและทิศทางต่าง ๆ เดือน มค.และ กพ.

EQUIVALENT TEMPERATURE DIFFERENCE..
by Transfer Function Method. absorptance/ho = 0.039 (medium-colored)

10 cm. h.w. concrete block

Transfer function coefficients

n	0	1	2	3	4	5	6
bn	0.05735	0.50538	0.25950	0.00852	0.00000	0.00000	0.00000
dn	1	-0.7809	0.0861	-0.0002	0	0	0

sum(cn) = 0.83075
U = 2.726 W/m^2-C
weight = 177 kg/m^2
indoor air temp = 25 C

	HEAT GAIN (W/m^2)							
TIME	NE	E	SE	S	SW	W	NW	N
FEBRUARY (period 4)								
1.00	6.50	6.57	6.71	7.49	8.27	8.13	7.14	6.49
2.00	5.16	5.20	5.29	5.80	6.31	6.21	5.57	5.15
3.00	4.09	4.13	4.18	4.51	4.84	4.78	4.36	4.09
4.00	3.21	3.23	3.26	3.48	3.69	3.65	3.38	3.20
5.00	2.38	2.40	2.42	2.56	2.70	2.67	2.50	2.38
6.00	1.57	1.58	1.59	1.68	1.77	1.76	1.64	1.57
7.00	0.77	0.77	0.78	0.84	0.90	0.89	0.81	0.77
8.00	0.32	0.44	0.44	0.33	0.29	0.28	0.23	0.20
9.00	2.31	3.66	3.57	2.09	1.14	1.13	1.10	1.08
10.00	7.79	11.32	11.34	7.84	5.03	5.02	5.00	4.99
11.00	15.67	22.03	22.82	17.61	11.93	11.84	11.82	11.81
12.00	23.03	32.46	34.98	29.33	20.83	19.67	19.66	19.65
13.00	29.51	39.88	45.05	41.02	31.48	27.39	27.18	27.18
14.00	35.03	43.33	51.19	50.83	42.81	35.84	33.50	33.50
15.00	39.24	44.87	53.11	57.75	53.42	45.29	38.44	38.25
16.00	41.75	45.43	51.80	61.30	61.91	54.30	43.14	41.11
17.00	41.96	44.35	48.64	60.79	66.27	60.33	46.59	41.55
18.00	39.53	41.08	43.88	55.75	64.23	60.36	46.45	39.26
19.00	33.80	34.81	36.63	46.17	54.70	52.49	40.80	33.63
20.00	26.27	26.92	28.10	34.79	41.30	40.01	31.63	26.15
21.00	19.49	19.91	20.68	25.09	29.46	28.65	23.09	19.42
22.00	14.40	14.67	15.17	18.04	20.89	20.37	16.75	14.35
23.00	10.78	10.96	11.28	13.15	15.00	14.66	12.31	10.75
24.00	8.28	8.40	8.61	9.82	11.02	10.80	9.27	8.26

ตารางที่ ก.8 อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค
หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.03 medium-colored)

4-in. n.w.concrete block
U = 2.72 W/m^2-C Weight = 177 kg/m^2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE (C)								
	NE	E	SE	S	SW	W	NW		AVG
JANUARY									
1.00	0	0	1	1	1	1	1	1	1
2.00	0	0	0	0	0	0	0	0	0
3.00	-1	-1	-1	-1	-1	-1	-1	-1	-1
4.00	-2	-2	-2	-1	-1	-1	-2	-2	-2
5.00	-2	-2	-2	-2	-2	-1	-2	-2	-2
6.00	-3	-3	-3	-3	-2	-3	-3	-3	-3
7.00	-3	-3	-3	-3	-3	-3	-3	-3	-3
8.00	-3	-3	-3	-3	-3	-3	-3	-3	-3
9.00	-3	-1	-1	-2	-3	-3	-3	-3	-3
10.00	-1	1	2	0	-2	-2	-2	-2	-1
11.00	1	5	7	4	0	0	0	0	2
12.00	3	9	12	9	4	2	2	2	6
13.00	6	11	15	14	9	5	5	5	9
14.00	8	12	18	18	13	9	8	8	12
15.00	10	12	18	21	18	13	9	9	14
16.00	11	12	17	23	22	17	11	10	15
17.00	11	12	15	22	24	19	12	11	16
18.00	11	12	13	20	23	20	13	11	15
19.00	9	10	11	16	19	17	11	9	13
20.00	7	8	8	12	14	13	9	7	10
21.00	6	6	6	8	10	9	6	5	7
22.00	4	4	4	6	7	6	4	4	5
23.00	2	3	3	4	4	4	3	2	3
24.00	1	1	2	2	3	2	2	1	2
* AVG	4	7	9	10	8	6	4	4	7
* MAX	11	12	18	23	24	20	13	11	16
* MIN	-3	-3	-3	-3	-3	-3	-3	-3	-3

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.03 (medium-colored)

4-in. h.w.concrete block
U = 2.72 W/m^2-C weight = 177 kg/m^2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE (C) NE	E	SE	S	SW	W	NW	N	AVG
FEBRUARY									
1.00	0	0	0	0	0	0	0	1	0
2.00	0	0	0	0	0	0	0	0	0
3.00	0	0	0	0	0	0	0	0	0
4.00	1	1	1	0	0	1	1	1	1
5.00	1	1	1	1	0	1	1	1	1
6.00	1	1	1	1	1	1	1	1	1
7.00	0	0	0	0	0	0	0	1	0
8.00	0	0	0	0	0	0	0	0	0
9.00	1	1	1	1	0	0	0	0	1
10.00	3	4	4	3	2	2	2	2	3
11.00	6	8	8	6	4	4	4	4	6
12.00	8	12	13	11	8	7	7	7	9
13.00	11	15	17	15	12	10	10	10	12
14.00	13	16	19	19	16	13	12	12	15
15.00	14	16	19	21	20	17	14	14	17
16.00	15	17	19	22	23	20	16	15	18
17.00	15	16	18	22	24	22	17	15	19
18.00	15	15	16	20	24	22	17	14	18
19.00	12	13	13	17	20	19	15	12	15
20.00	10	10	10	13	15	15	12	10	12
21.00	7	7	8	9	11	11	8	7	9
22.00	5	5	6	7	8	7	6	5	6
23.00	4	4	4	5	6	5	5	4	5
24.00	3	3	3	4	4	4	3	3	3
* AVG	8	10	11	12	11	10	8	8	10
* MAX	15	17	19	22	24	22	17	15	19
* MIN	0	0	0	0	0	0	0	0	0

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.039 (medium-colored)

4-in. h.w.concrete block
U = 2.72 W/m^2-C weight = 177 kg/m^2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE (C)								
	NE	E	SE	S	SW	W	NW	N	AVG
MARCH									
1.00	3	4	4	4	4	4	4	3	4
2.00	3	3	3	2	3	3	3	3	3
3.00	3	3	3	3	3	3	3	3	3
4.00	2	2	2	2	3	3	2	2	2
5.00	2	2	2	2	2	2	2	2	2
6.00	2	2	2	2	2	2	2	1	2
7.00	2	2	2	2	2	2	2	2	2
8.00	2	2	2	2	2	2	2	2	2
9.00	3	3	3	2	2	2	2	2	2
10.00	5	6	6	4	3	3	3	3	4
11.00	8	10	10	7	5	5	5	5	7
12.00	10	13	13	10	8	8	8	8	10
13.00	12	15	16	14	11	10	10	10	12
14.00	14	16	18	17	15	13	12	12	15
15.00	15	16	18	19	19	17	14	14	16
16.00	15	16	18	20	21	20	17	15	18
17.00	15	16	17	20	23	22	18	15	18
18.00	15	15	16	18	23	23	19	14	18
19.00	13	13	13	16	20	21	17	13	16
20.00	10	10	11	12	16	16	14	10	12
21.00	8	8	8	9	12	12	10	8	9
22.00	6	6	6	7	9	9	8	6	7
23.00	5	5	5	6	6	7	6	5	6
24.00	4	4	4	4	5	5	5	4	4
* AVG	10	11	11	11	11	11	9	8	10
* MAX	15	16	18	20	23	23	19	15	18
* MIN	2	2	2	2	2	2	2	2	2

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.039 (medium-colored)

4-in. L.W.concrete block
'U' = 3.72 W/m^2-C ,weight = 177 kg/m^2
Indoor air temp. = 25 C

	EQUIVALENT TEMPERATURE DIFFERENCE (C)								
TIME	NE	E	SE	S	SW	W	NW	N	AVG
APRIL									
1.00	3	3	3	3	3	3	3	3	3
2.00	3	3	3	3	3	3	3	3	3
3.00	4	4	4	4	4	4	4	4	4
4.00	4	4	4	4	4	4	4	4	4
5.00	4	4	4	4	4	4	4	4	4
6.00	4	4	4	4	4	4	4	4	4
7.00	3	3	3	3	3	3	3	3	3
8.00	4	4	4	4	4	4	4	4	4
9.00	5	5	5	5	5	5	5	5	5
10.00	8	8	8	6	6	6	6	7	7
11.00	11	12	11	9	9	9	9	9	10
12.00	14	15	15	13	12	12	12	12	13
13.00	17	18	17	16	15	15	15	15	16
14.00	19	19	19	18	18	18	17	17	18
15.00	19	20	20	20	21	21	20	18	20
16.00	19	20	19	20	23	24	22	18	21
17.00	18	19	19	19	23	25	23	18	21
18.00	17	17	17	18	23	25	23	17	20
19.00	15	15	15	15	20	22	20	15	17
20.00	12	12	12	12	16	17	16	12	14
21.00	10	10	10	10	12	13	12	10	11
22.00	8	8	8	8	9	10	9	8	9
23.00	7	7	7	7	8	8	8	7	7
24.00	6	6	6	6	6	7	6	6	6
* AVG	13	13	13	13	13	14	13	12	13
* MAX	19	20	20	20	23	25	23	18	21
* MIN	3	3	3	3	3	3	3	3	3

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ...
absorptance/ho =0.039 (medium-colored)

4-in. h.w.concrete block
U = 2.72 W/m`2-C weight = 177 kg/m`2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE C) NE	E	SE	S	SW	W	NW	J	AVG
MAY									
1.00	5	5	5	5	5	6	6	5	5
2.00	5	5	5	5	5	5	5	5	5
3.00	4	4	4	4	5	5	5	4	4
4.00	4	4	4	4	4	4	4	4	4
5.00	4	4	4	4	4	4	4	4	4
6.00	4	4	4	4	4	4	4	4	4
7.00	3	3	3	3	3	3	3	3	3
8.00	4	4	4	4	4	4	4	4	4
9.00	7	7	6	5	5	5	5	5	5
10.00	10	11	9	6	6	6	6	8	8
11.00	14	14	12	9	9	9	9	10	11
12.00	16	17	14	11	11	11	11	13	13
13.00	18	18	16	13	13	13	14	16	15
14.00	18	18	17	15	15	16	16	17	17
15.00	18	18	17	16	18	19	19	19	18
16.00	18	18	17	16	20	22	22	19	19
17.00	17	17	17	16	21	24	23	19	19
18.00	16	16	16	15	20	24	23	18	19
19.00	14	14	14	14	18	22	21	16	17
20.00	12	12	11	11	15	17	17	13	14
21.00	9	9	9	9	11	13	13	11	11
22.00	8	8	8	8	9	10	10	9	9
23.00	6	7	6	6	7	8	8	7	7
24.00	6	6	6	6	6	7	7	6	6
* AVG	13	14	12	11	12	13	13	13	13
* MAX	18	18	17	16	21	24	23	19	19
* MIN	3	3	3	3	3	3	3	3	3

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.039 (medium-colored)

4-in. h.w.concrete block
U = 2.72 W/m^2-C ,weight = 177 kg/m^2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE (C) NE	E	SE	S	SW	W	NW	N	AVG
JUNE									
1.00	4	4	4	4	4	5	5	4	4
2.00	4	4	4	4	4	4	4	4	4
3.00	3	3	3	3	3	4	3	3	3
4.00	3	3	3	3	3	3	3	3	3
5.00	3	3	3	3	3	3	3	3	3
6.00	3	3	3	3	3	3	3	3	3
7.00	2	2	2	2	2	2	2	2	2
8.00	3	3	3	3	3	3	3	3	3
9.00	5	5	4	4	4	4	4	4	4
10.00	7	7	6	5	5	5	5	6	6
11.00	10	10	9	8	8	8	8	9	9
12.00	13	13	11	10	10	10	10	11	11
13.00	15	15	13	12	12	12	12	14	13
14.00	16	15	14	13	14	14	15	15	15
15.00	16	16	15	14	15	17	17	17	16
16.00	16	16	15	15	17	19	19	18	17
17.00	15	15	15	15	17	20	20	18	17
18.00	14	14	14	14	17	20	20	17	16
19.00	12	12	12	12	15	17	17	14	14
20.00	10	10	10	10	12	14	13	11	11
21.00	8	8	8	8	9	10	10	9	9
22.00	6	6	6	6	7	8	8	7	7
23.00	5	5	5	5	6	6	6	6	6
24.00	5	5	5	5	5	5	5	5	5
* AVG	11	11	10	10	10	11	11	11	11
* MAX	16	16	15	15	17	20	20	18	17
* MIN	2	2	2	2	2	2	2	2	2

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.3 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.039 (medium-colored)

4-in. H.W.concrete block
U = 2.72 W/m^2-C , weight = 177 kg/m^2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE (C)								
	NE	E	SE	S	SW	W	NW	N	AVG
JULY									
1.00	4	4	4	4	4	4	4	4	4
2.00	3	3	3	3	3	3	3	3	3
3.00	3	3	3	3	3	3	3	3	3
4.00	2	2	2	2	2	3	3	2	2
5.00	2	2	2	2	2	2	2	2	2
6.00	2	2	2	2	2	2	2	2	2
7.00	2	2	2	2	2	2	2	2	2
8.00	2	2	2	2	2	2	2	2	2
9.00	4	4	3	3	3	3	3	3	3
10.00	7	7	6	5	5	5	5	6	6
11.00	10	11	9	7	7	7	7	8	8
12.00	13	13	11	9	9	9	9	11	11
13.00	15	15	13	11	11	11	11	13	13
14.00	16	16	14	13	13	14	14	15	14
15.00	16	16	15	14	15	16	17	17	16
16.00	17	17	16	15	17	18	19	18	17
17.00	16	16	16	15	17	19	19	17	17
18.00	15	15	14	14	16	18	18	16	16
19.00	13	13	12	12	14	16	16	14	14
20.00	10	10	10	10	11	12	12	11	11
21.00	8	8	8	8	9	9	9	9	8
22.00	6	6	6	6	7	7	7	7	7
23.00	5	5	5	5	5	6	6	5	5
24.00	4	4	4	4	5	5	5	5	4
* AVG	11	11	10	9	10	10	10	11	10
* MAX	17	17	16	15	17	19	19	18	17
* MIN	2	2	2	2	2	2	2	2	2

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.[illegible] (medium-colored)

4-in. h.w.concrete block
U = 2.72 W/m^2-C ,Weight = 177 kg/m^2
Indoor air temp. = [illegible] C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE (C)								
	NE	E	SE	S	SW	W	NW	H	AVG
AUGUST									
1.00	2	3	2	2	2	2	2	3	2
2.00	2	2	2	2	2	2	2	2	2
3.00	2	2	2	2	2	2	2	2	2
4.00	2	2	2	2	2	2	2	2	2
5.00	1	1	1	1	1	1	1	1	1
6.00	1	1	1	1	1	1	1	1	1
7.00	1	1	1	1	1	1	1	1	1
8.00	1	1	1	1	1	1	1	1	1
9.00	3	3	3	2	2	2	2	2	3
10.00	6	6	6	4	4	4	4	5	5
11.00	9	10	9	7	7	7	7	8	8
12.00	12	13	12	10	10	10	10	11	11
13.00	15	15	14	13	13	13	13	13	14
14.00	15	16	16	15	15	15	15	15	15
15.00	17	17	17	16	16	17	16	16	16
16.00	16	17	16	16	17	17	17	16	17
17.00	15	15	15	15	17	17	17	15	16
18.00	13	13	13	13	15	16	15	14	14
19.00	11	11	11	11	12	13	13	11	12
20.00	9	9	9	9	10	10	10	9	9
21.00	7	7	7	6	7	8	7	7	7
22.00	5	5	5	5	5	6	6	5	5
23.00	4	4	4	4	4	4	4	4	4
24.00	3	3	3	3	3	3	3	3	3
* AVG	10	11	10	9	10	10	10	10	10
* MAX	17	17	17	16	17	17	17	16	17
* MIN	1	1	1	1	1	1	1	1	1

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.039 (medium-colored)

4-in. h.w.concrete block
U = 2.72 W/m^2-C weight = 177 kg/m^2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE C)								
	NE	E	SE	S	SW	W	NW	H	AVG
SEPTEMBER									
1.00	2	2	2	2	3	3	2	2	2
2.00	2	2	2	2	3	3	2	2	2
3.00	2	2	2	2	2	2	2	2	2
4.00	1	1	1	1	1	1	1	1	1
5.00	1	1	1	1	1	1	1	1	1
6.00	1	1	1	1	1	1	1	1	1
7.00	1	1	1	1	1	1	1	1	1
8.00	1	1	1	1	1	1	1	1	1
9.00	2	3	2	2	2	3	2	1	2
10.00	5	6	5	4	3	3	3	3	4
11.00	8	9	8	6	6	6	6	6	7
12.00	10	12	11	9	8	8	8	8	9
13.00	12	13	13	12	10	10	10	10	11
14.00	13	14	14	14	13	12	12	12	13
15.00	13	14	14	14	14	14	13	12	14
16.00	13	14	14	14	15	15	14	13	14
17.00	12	13	13	14	15	15	14	12	14
18.00	11	12	12	12	14	14	13	11	12
19.00	10	10	10	10	12	12	11	10	11
20.00	8	8	8	8	9	10	9	8	8
21.00	6	6	6	6	7	7	7	6	6
22.00	5	5	5	5	5	6	5	5	5
23.00	4	4	4	4	4	4	4	4	4
24.00	3	3	3	3	3	3	3	3	3
* AVG	8	9	9	9	9	8	8	7	8
* MAX	13	14	14	14	15	15	14	13	14
* MIN	1	1	1	1	1	1	1	1	1

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.039 (medium-colored)

4-in. h.w.concrete block
U = 2.72 W/m^2-C Weight = 177 kg/m^2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE (C) NE	E	SE	S	SW	W	NW	H	AVG
OCTOBER									
1.00	2	2	2	1	2	2	1	2	2
2.00	2	1	1	1	1	1	1	1	1
3.00	1	1	1	1	1	1	1	1	1
4.00	1	1	1	1	1	1	1	1	1
5.00	1	1	1	1	1	1	1	1	1
6.00	0	0	0	0	0	0	0	0	0
7.00	0	0	0	0	0	0	0	0	0
8.00	1	1	1	1	0	0	0	0	1
9.00	2	2	2	2	1	1	1	1	2
10.00	4	5	5	4	3	3	3	3	4
11.00	6	8	8	7	5	5	5	5	6
12.00	8	10	11	10	8	7	7	7	9
13.00	10	12	13	12	10	10	10	10	11
14.00	12	13	14	14	13	12	11	11	12
15.00	12	13	14	15	14	13	12	12	13
16.00	12	13	14	15	15	14	13	12	13
17.00	12	12	12	14	15	14	13	12	13
18.00	10	11	11	12	13	13	11	10	11
19.00	8	9	9	10	11	11	9	8	9
20.00	6	7	7	8	8	8	7	6	7
21.00	5	5	5	6	6	6	5	5	5
22.00	4	4	4	4	4	4	4	4	4
23.00	3	3	3	3	3	3	3	3	3
24.00	2	2	2	2	3	3	2	2	2
* AVG	7	8	9	9	8	8	7	7	8
* MAX	12	13	14	15	15	14	13	12	13
* MIN	0	0	0	0	0	0	0	0	0

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE
absorptance/ho =0.039 (medium-colored)

4-in. h.w.concrete block
U = 2.72 W/m^2-C ,weight = 177 kg/m^2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE (C) NE	E	SE	S	SW	W	NW	N	AVG
NOVEMBER									
1.00	0	0	0	0	1	1	0	0	0
2.00	0	0	0	0	0	0	0	0	0
3.00	-1	-1	-1	-1	-1	-1	-1	-1	-1
4.00	-1	-1	-1	-1	-1	-1	-1	-1	-1
5.00	-1	-1	-1	-1	-1	-1	-1	-1	-1
6.00	-2	-2	-2	-2	-2	-2	-2	-2	-2
7.00	-2	-2	-2	-2	-2	-2	-2	-2	-2
8.00	-2	-2	-2	-2	-2	-2	-2	-2	-2
9.00	-1	1	1	0	-1	-1	-1	-1	-1
10.00	2	4	5	3	0	0	0	0	2
11.00	4	8	10	7	3	2	2	2	5
12.00	5	11	13	11	6	5	5	5	8
13.00	7	12	16	15	10	7	6	6	10
14.00	8	12	16	17	14	9	8	8	12
15.00	9	11	16	19	17	13	9	9	13
16.00	10	11	14	19	20	16	10	9	14
17.00	9	10	12	18	21	17	11	9	14
18.00	8	9	10	16	19	17	11	8	12
19.00	7	7	8	12	15	13	9	7	10
20.00	5	5	6	9	10	9	6	5	7
21.00	4	4	4	6	7	6	4	4	5
22.00	2	3	3	4	5	4	3	2	3
23.00	1	2	2	2	3	3	2	1	2
24.00	1	1	1	1	2	1	1	1	1
* AVG	5	7	9	10	9	7	5	4	7
* MAX	10	12	16	19	21	17	11	9	14
* MIN	-2	-2	-2	-2	-2	-2	-2	-2	-2

REMARK.. * AVG ,* MAX ,* MIN - INTERVAL 7.00-18.00

ตารางที่ ก.8 (ต่อ) อุณหภูมิแตกต่างเทียบเท่าสำหรับกำแพงคอนกรีตบล็อค หนาประมาณ 10 cm.

EQUIVALENT TEMPERATURE DIFFERENCE ..
absorptance/ho =0.039 (medium-colored)

4-in. h.w.concrete block
U = 2.72 W/m^2-C ,weight = 177 kg/m 2
indoor air temp. = 25 C

TIME	EQUIVALENT TEMPERATURE DIFFERENCE C								
	NE	E	SE	S	SW	W	NW		AVG
DECEMBER									
1.00	1	1	1	-	3	-	1	1	1
2.00	0	0	0	0	1	0	0	0	0
3.00	-1	-1	0	0	0	0	0	-1	0
4.00	-1	-1	-1	-1	-1	-1	-1	-1	-1
5.00	-1	-1	-1	-1	-1	-1	-1	-1	-1
6.00	-2	-2	-2	-2	-2	-2	-2	-2	-2
7.00	-2	-2	-2	-2	-2	-2	-2	-2	-2
8.00	-2	-2	-2	-2	-2	-2	-2	-2	-2
9.00	-2	0	0	-1	-2	-2	-2	-2	-1
10.00	0	4	5	3	-1	-1	-1	-1	1
11.00	2	8	10	7	1	1	1	1	4
12.00	3	11	15	12	5	3	3	3	7
13.00	5	12	18	17	9	5	4	4	9
14.00	6	11	19	20	15	8	6	6	11
15.00	8	11	18	22	19	12	7	7	13
16.00	8	11	16	23	23	16	9	8	14
17.00	9	10	14	22	24	19	10	9	15
18.00	8	9	12	20	23	19	11	8	14
19.00	7	8	9	15	19	16	9	7	11
20.00	5	6	7	11	13	11	7	5	8
21.00	4	4	5	8	9	8	5	4	6
22.00	3	3	4	5	6	5	4	3	4
23.00	2	2	2	4	4	4	2	2	3
24.00	1	1	2	2	3	2	2	1	2
* AVG	4	7	10	12	9	6	4	3	7
* MAX	9	12	19	23	24	19	11	9	15
* MIN	-2	-2	-2	-2	-2	-2	-2	-2	-2

REMARK.. * AVG ,* MAX ,* MIN - ENTERVAL 7.00-18.00

ภาคผนวก ข

ค่าความร้อนเฉลี่ยที่ผ่านเข้าสู่แบบจำลอง

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE,R = N OR S SIDE / E OR W SIDE

WWR (%)				AVERAGE HEAT GAIN (W)								
N	S	E	W	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	502.3819	466.48	428.7288	390.436	361.7601	376.9728	406.7317	437.92	468.3221
20	0	0	0	530.7723	498.2215	465.3789	435.3253	425.2431	466.7513	516.6875	564.886	610.2745
40	0	0	0	559.1628	529.963	502.029	480.2146	488.726	556.5298	626.6433	691.852	752.2267
60	0	0	0	587.5533	561.7045	538.679	525.1038	552.2091	646.3084	736.5991	818.8179	894.1789
80	0	0	0	615.9438	593.446	575.3291	569.9931	615.692	736.0869	846.5548	945.7839	1036.131
100	0	0	0	644.3343	625.1875	611.9792	614.8823	679.1751	825.8654	956.5106	1072.75	1178.084
0	20	20	20	908.7546	838.5055	763.2718	683.7433	611.9331	614.3627	649.9503	691.327	733.234
20	20	20	20	937.1451	870.247	799.9219	728.6326	675.416	704.1411	759.9061	818.293	875.1864
40	20	20	20	965.5355	901.9884	836.5719	773.5218	738.899	793.9197	869.8619	945.259	1017.139
60	20	20	20	993.9259	933.7301	873.2221	818.4111	802.382	883.6982	979.8178	1072.225	1159.091
80	20	20	20	1022.316	965.4715	909.8721	863.3003	865.8651	973.4767	1089.774	1199.191	1301.043
100	20	20	20	1050.707	997.213	946.5222	908.1896	929.3481	1063.255	1199.729	1326.157	1442.996
0	40	40	40	1315.128	1210.531	1097.815	977.0504	862.1061	851.7526	893.1689	944.7339	998.146
20	40	40	40	1343.518	1242.273	1134.465	1021.94	925.5891	941.531	1003.125	1071.7	1140.098
40	40	40	40	1371.908	1274.014	1171.115	1066.829	989.072	1031.31	1113.081	1198.666	1282.051
60	40	40	40	1400.299	1305.756	1207.765	1111.718	1052.555	1121.088	1223.036	1325.632	1424.003
80	40	40	40	1428.689	1337.497	1244.415	1156.607	1116.038	1210.867	1332.992	1452.598	1565.955
100	40	40	40	1457.08	1369.239	1281.065	1201.497	1179.521	1300.645	1442.948	1579.564	1707.908
0	60	60	60	1721.5	1582.556	1432.358	1270.358	1112.279	1089.142	1136.388	1198.141	1263.058
20	60	60	60	1749.891	1614.298	1469.008	1315.247	1175.762	1178.921	1246.343	1325.107	1405.01
40	60	60	60	1778.281	1646.039	1505.658	1360.136	1239.245	1268.7	1356.299	1452.073	1546.963
60	60	60	60	1806.671	1677.781	1542.308	1405.025	1302.728	1358.478	1466.255	1579.039	1688.915
80	60	60	60	1835.062	1709.523	1578.958	1449.915	1366.211	1448.257	1576.211	1706.005	1830.867
100	60	60	60	1863.452	1741.264	1615.608	1494.804	1429.694	1538.035	1686.167	1832.971	1972.82
0	80	80	80	2127.873	1954.582	1766.901	1563.665	1362.452	1326.532	1379.606	1451.548	1527.97
20	80	80	80	2156.263	1986.324	1803.551	1608.554	1425.935	1416.311	1489.562	1578.514	1669.922
40	80	80	80	2184.654	2018.065	1840.201	1653.443	1489.418	1506.089	1599.518	1705.48	1811.874
60	80	80	80	2213.044	2049.807	1876.851	1698.333	1552.901	1595.868	1709.474	1832.446	1953.827
80	80	80	80	2241.435	2081.548	1913.501	1743.222	1616.384	1685.646	1819.43	1959.412	2095.779
100	80	80	80	2269.825	2113.29	1950.151	1788.111	1679.867	1775.425	1929.385	2086.378	2237.732
0	100	100	100	2536.246	2326.608	2101.444	1856.972	1612.625	1563.922	1622.825	1704.955	1792.882
20	100	100	100	2562.636	2358.349	2138.094	1901.861	1676.108	1653.701	1732.781	1831.921	1934.834
40	100	100	100	2591.026	2390.09	2174.744	1946.751	1739.591	1743.479	1842.737	1958.887	2076.786
60	100	100	100	2619.417	2421.832	2211.394	1991.64	1803.074	1833.258	1952.692	2085.853	2218.739
80	100	100	100	2647.808	2453.574	2248.044	2036.529	1866.557	1923.036	2062.648	2212.819	2360.691
100	100	100	100	2676.198	2485.315	2284.694	2081.418	1930.04	2012.815	2172.604	2339.785	2502.643

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE.R = N OR S SIDE / E OR W SIDE

WWR (%)				AVERAGE HEAT GAIN (W)								
N	S	E	W	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	502.3819	466.48	428.7288	390.436	361.7601	376.9728	406.7317	437.92	468.3221
0	20	0	0	540.6396	509.2535	478.1169	450.927	447.3071	497.9545	554.9035	609.014	659.611
0	40	0	0	578.8975	552.027	527.505	511.4178	532.8541	618.9363	703.0752	780.108	850.8999
0	60	0	0	617.1553	594.8006	576.8931	571.9086	618.4011	739.918	851.2469	951.2018	1042.189
0	80	0	0	655.413	637.5741	626.2813	632.3996	703.9481	860.8998	999.4187	1122.296	1233.478
0	100	0	0	693.6708	680.3476	675.6693	692.8904	789.4951	981.8814	1147.591	1293.39	1424.767
20	0	20	20	898.8872	827.4735	750.5337	668.1417	589.869	583.1595	611.7344	647.199	683.8975
20	20	20	20	937.1451	870.247	799.9219	728.6326	675.416	704.1411	759.9061	818.293	875.1864
20	40	20	20	975.4029	913.0205	849.3099	789.1234	760.9631	825.123	908.0779	989.3869	1066.475
20	60	20	20	1013.661	955.794	898.6981	849.6142	846.5101	946.1046	1056.25	1160.481	1257.764
20	80	20	20	1051.919	998.5676	948.0862	910.1052	932.0571	1067.086	1204.421	1331.575	1449.053
20	100	20	20	1090.176	1041.341	997.4742	970.596	1017.604	1188.068	1352.593	1502.669	1640.342
40	0	40	40	1295.393	1188.467	1072.339	945.8472	817.978	789.3461	816.7371	856.4779	899.4727
40	20	40	40	1333.651	1231.241	1121.727	1006.338	903.525	910.3279	964.9088	1027.572	1090.762
40	40	40	40	1371.908	1274.014	1171.115	1066.829	989.072	1031.31	1113.081	1198.666	1282.051
40	60	40	40	1410.166	1316.788	1220.503	1127.32	1074.619	1152.291	1261.252	1369.76	1473.34
40	80	40	40	1448.424	1359.561	1269.891	1187.811	1160.166	1273.273	1409.424	1540.854	1664.628
40	100	40	40	1486.682	1402.335	1319.279	1248.302	1245.713	1394.255	1557.596	1711.948	1855.917
60	0	60	60	1591.898	1549.461	1394.144	1223.553	1046.087	995.5328	1021.74	1065.757	1115.048
60	20	60	60	1730.156	1592.234	1443.532	1284.044	1131.634	1116.515	1169.912	1236.851	1306.337
60	40	60	60	1768.414	1635.008	1492.92	1344.535	1217.181	1237.496	1318.083	1407.945	1497.626
60	60	60	60	1806.671	1677.781	1542.308	1405.025	1302.728	1358.478	1466.255	1579.039	1688.915
60	80	60	60	1844.929	1720.555	1591.696	1465.516	1388.275	1479.46	1614.427	1750.133	1880.204
60	100	60	60	1883.187	1763.328	1641.084	1526.007	1473.822	1600.441	1762.599	1921.227	2071.493
80	0	80	80	2088.403	1910.454	1715.949	1501.258	1274.196	1201.72	1226.742	1275.036	1330.623
80	20	80	80	2126.661	1953.228	1765.337	1561.749	1359.743	1322.701	1374.914	1446.13	1521.912
80	40	80	80	2164.919	1996.001	1814.725	1622.24	1445.29	1443.683	1523.086	1617.224	1713.201
80	60	80	80	2203.177	2038.774	1864.113	1682.731	1530.837	1564.665	1671.258	1788.318	1904.49
80	80	80	80	2241.435	2081.548	1913.501	1743.222	1616.384	1685.646	1819.43	1959.412	2095.779
80	100	80	80	2279.693	2124.322	1962.889	1803.713	1701.931	1806.628	1967.601	2130.506	2287.068
100	0	100	100	2484.909	2271.448	2037.753	1778.964	1502.305	1407.906	1431.745	1484.315	1546.199
100	20	100	100	2523.167	2314.221	2087.142	1839.455	1587.852	1528.888	1579.917	1655.409	1737.488
100	40	100	100	2561.425	2356.995	2136.53	1899.946	1673.399	1649.87	1728.089	1826.503	1928.777
100	60	100	100	2599.682	2399.768	2185.918	1960.437	1758.946	1770.851	1876.26	1997.597	2120.066
100	80	100	100	2637.94	2442.542	2235.306	2020.928	1844.493	1891.833	2024.432	2168.691	2311.354
100	100	100	100	2676.198	2485.315	2284.694	2081.418	1930.04	2012.815	2172.604	2339.785	2502.643

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE,R = N OR S SIDE / E OR W SIDE

WWR (%)				AVERAGE HEAT GAIN (W)								
N	S	E	W	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	502.3819	466.48	428.7288	390.436	361.7601	376.9728	406.7317	437.92	468.3221
0	0	20	0	675.0757	620.942	562.5035	499.6572	438.9911	431.5833	451.3211	476.5355	502.8609
0	0	40	0	847.7694	775.404	696.2782	608.8783	516.2221	486.1939	495.9104	515.151	537.3996
0	0	60	0	1020.463	929.8659	830.0529	718.0995	593.453	540.8045	540.4998	553.7665	571.9384
0	0	80	0	1193.157	1084.328	963.8276	827.3206	670.684	595.4151	585.0891	592.382	606.4771
0	0	100	0	1365.851	1238.79	1097.602	936.5417	747.9151	650.0256	629.6785	630.9975	641.0159
20	20	0	20	764.4513	715.7851	666.1471	619.4114	598.1851	649.5306	715.3168	779.6774	840.6476
20	20	20	20	937.1451	870.247	799.9219	728.6326	675.416	704.1411	759.9061	818.293	875.1864
20	20	40	20	1109.839	1024.709	933.6966	837.8537	752.6471	758.7517	804.4955	856.9084	909.7251
20	20	60	20	1282.533	1179.171	1067.471	947.0748	829.8781	813.3623	849.0848	895.5239	944.2639
20	20	80	20	1455.226	1333.633	1201.246	1056.296	907.1091	867.9728	893.6741	934.1394	978.8026
20	20	100	20	1627.92	1488.095	1335.021	1165.517	984.34	922.5834	938.2635	972.7549	1013.341
40	40	0	40	1026.521	965.0899	903.5655	848.3868	834.6101	922.0884	1023.902	1121.435	1212.973
40	40	20	40	1199.215	1119.552	1037.34	957.6078	911.8411	976.699	1068.491	1160.05	1247.512
40	40	40	40	1371.908	1274.014	1171.115	1066.829	989.072	1031.31	1113.081	1198.666	1282.051
40	40	60	40	1544.602	1428.476	1304.89	1176.05	1066.303	1085.92	1157.67	1237.282	1316.59
40	40	80	40	1717.296	1582.938	1438.664	1285.271	1143.534	1140.531	1202.259	1275.897	1351.128
40	40	100	40	1889.99	1737.4	1572.439	1394.492	1220.765	1195.141	1246.849	1314.513	1385.667
60	60	0	60	1288.59	1214.395	1140.984	1077.362	1071.035	1194.646	1332.487	1463.192	1585.299
60	60	20	60	1461.284	1368.857	1274.759	1186.583	1148.266	1249.257	1377.076	1501.808	1619.837
60	60	40	60	1633.978	1523.319	1408.533	1295.804	1225.497	1303.867	1421.666	1540.424	1654.376
60	60	60	60	1306.671	1677.781	1542.308	1405.025	1302.728	1358.478	1466.255	1579.039	1688.915
60	60	80	60	1979.365	1832.243	1676.083	1514.247	1379.959	1413.089	1510.844	1617.654	1723.454
60	60	100	60	2152.059	1986.705	1809.857	1623.468	1457.19	1467.699	1555.434	1656.27	1757.992
80	80	0	80	1550.66	1463.7	1378.402	1306.337	1307.46	1467.204	1641.072	1804.95	1957.624
80	80	20	80	1723.353	1618.162	1512.177	1415.559	1384.691	1521.815	1685.661	1843.565	1992.163
80	80	40	80	1896.047	1772.624	1645.952	1524.78	1461.922	1576.425	1730.251	1882.181	2026.702
80	80	60	80	2068.741	1927.086	1779.726	1634.001	1539.153	1631.036	1774.84	1920.797	2061.241
80	80	80	80	2241.435	2081.548	1913.501	1743.222	1616.384	1685.646	1819.43	1959.412	2095.779
80	80	100	80	2414.129	2236.01	2047.276	1852.443	1693.615	1740.257	1864.019	1998.028	2130.318
100	100	0	100	1812.729	1713.005	1615.821	1535.313	1543.885	1739.762	1949.657	2146.708	2329.95
100	100	20	100	1985.423	1867.467	1749.595	1644.534	1621.116	1794.373	1994.246	2185.323	2364.488
100	100	40	100	2158.117	2021.929	1883.37	1753.755	1698.347	1848.983	2038.836	2223.939	2399.027
100	100	60	100	2330.81	2176.391	2017.145	1862.976	1775.578	1903.594	2083.425	2262.554	2433.566
100	100	80	100	2503.504	2330.853	2150.92	1972.197	1852.809	1958.204	2128.015	2301.17	2468.105
100	100	100	100	2676.198	2485.315	2284.694	2081.418	1930.04	2012.815	2172.604	2339.785	2502.643

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE.R = N OR S SIDE / E OR W SIDE

AWR (%)				AVERAGE HEAT GAIN (W)								
N	S	E	W	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	502.3819	466.48	428.7288	390.436	361.7601	376.9728	406.7317	437.92	468.3221
0	0	0	20	697.8031	641.27	580.1089	514.0313	449.1551	438.7704	457.1893	481.6175	507.4064
0	0	0	40	893.2242	816.06	731.4891	637.6265	536.5501	500.568	507.6468	525.315	546.4906
0	0	0	60	1088.645	990.85	882.8692	761.2216	623.9451	562.3656	558.1043	569.0125	585.5748
0	0	0	80	1284.067	1165.64	1034.249	884.8168	711.3401	624.1631	608.5619	612.71	624.6591
0	0	0	100	1479.488	1340.43	1185.63	1008.412	798.7351	685.9608	659.0195	656.4075	663.7433
20	20	20	0	741.7239	695.4571	648.5417	605.0374	588.021	642.3436	709.4486	774.5954	836.1021
20	20	20	20	937.1451	870.247	799.9219	728.6326	675.416	706.1411	759.9061	818.293	875.1864
20	20	20	40	1132.566	1045.037	951.302	852.2278	762.8111	765.9388	810.3636	861.9904	914.2706
20	20	20	60	1327.987	1219.827	1102.682	975.8229	850.2061	827.7363	860.8212	905.6879	953.3549
20	20	20	80	1523.409	1394.617	1254.062	1099.418	937.6011	889.5339	911.2788	949.3854	992.4391
20	20	20	100	1718.83	1569.407	1405.442	1223.013	1024.996	951.3316	961.7362	993.0829	1031.523
40	40	40	0	981.0659	924.4339	868.3546	819.6386	814.2821	907.7144	1012.166	1111.271	1203.882
40	40	40	20	1176.487	1099.224	1019.735	943.2338	901.6771	969.5119	1062.623	1154.969	1242.966
40	40	40	40	1371.908	1274.014	1171.115	1066.829	989.072	1031.31	1113.081	1198.666	1282.051
40	40	40	60	1567.33	1448.804	1322.495	1190.424	1076.467	1093.107	1163.538	1242.364	1321.135
40	40	40	80	1762.751	1623.594	1473.875	1314.019	1163.862	1154.905	1213.996	1286.061	1360.219
40	40	40	100	1958.172	1798.384	1625.255	1437.615	1251.257	1216.702	1264.453	1329.759	1399.303
60	60	60	0	1220.408	1153.411	1088.168	1034.24	1040.543	1173.085	1314.883	1447.946	1571.662
60	60	60	20	1415.829	1328.201	1239.548	1157.835	1127.938	1234.883	1365.34	1491.644	1610.746
60	60	60	40	1611.25	1502.991	1390.928	1281.43	1215.333	1296.68	1415.798	1535.361	1649.831
60	60	60	60	1806.671	1677.781	1542.308	1405.025	1302.728	1358.478	1466.255	1579.039	1688.915
60	60	60	80	2002.093	1852.571	1693.688	1528.621	1390.123	1420.276	1516.713	1622.737	1727.999
60	60	60	100	2197.514	2027.361	1845.068	1652.216	1477.518	1482.073	1567.17	1666.434	1767.083
80	80	80	0	1459.75	1382.388	1307.981	1248.841	1266.804	1438.456	1617.599	1784.622	1939.442
80	80	80	20	1655.171	1557.178	1459.361	1372.436	1354.199	1500.254	1668.057	1828.32	1978.526
80	80	80	40	1350.592	1731.968	1610.741	1496.032	1441.594	1562.051	1718.514	1872.017	2017.611
80	80	80	60	2046.013	1906.758	1762.121	1619.627	1528.989	1623.849	1768.972	1915.715	2056.695
80	80	80	80	2241.435	2081.548	1913.501	1743.222	1616.384	1685.646	1819.43	1959.412	2095.779
80	80	80	100	2436.856	2256.338	2064.881	1866.817	1703.779	1747.444	1869.887	2003.11	2134.863
100	100	100	0	1699.092	1611.365	1527.793	1463.442	1493.065	1703.827	1920.316	2121.297	2307.222
100	100	100	20	1894.513	1786.155	1679.174	1587.038	1580.46	1765.624	1970.774	2164.995	2346.307
100	100	100	40	2089.934	1960.945	1830.554	1710.633	1667.855	1827.422	2021.231	2208.693	2385.391
100	100	100	60	2285.356	2135.735	1981.934	1834.228	1755.25	1889.22	2071.689	2252.39	2424.475
100	100	100	80	2480.777	2310.525	2133.314	1957.823	1842.645	1951.017	2122.146	2296.088	2463.559
100	100	100	100	2676.198	2485.315	2284.694	2081.418	1930.04	2012.815	2172.604	2339.785	2502.643

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK : SHAPE,R = N OR S SIDE / E OR W SIDE

WWR (%)				AVERAGE HEAT GAIN (W)								
N	S	E	W	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	502.3819	466.48	428.7288	390.436	361.7601	376.9728	406.7317	437.92	468.3221
20	20	0	0	569.03	540.995	514.767	495.816	510.79	587.733	664.859	735.98	801.563
40	40	0	0	635.678	615.51	600.805	601.196	659.82	798.493	922.987	1034.04	1134.8
60	60	0	0	702.327	690.025	686.843	706.577	808.85	1009.25	1181.11	1332.1	1468.05
80	80	0	0	768.975	764.54	772.882	811.957	957.88	1220.01	1439.24	1630.16	1801.29
100	100	0	0	835.623	839.055	858.92	917.337	1106.91	1430.77	1697.37	1928.22	2134.53
0	0	20	20	870.497	795.732	713.884	623.252	526.386	493.381	501.779	520.233	541.945
20	20	20	20	937.1451	870.247	799.9219	728.6326	675.416	704.1411	759.9061	818.293	875.1864
40	40	20	20	1003.79	944.762	885.96	834.013	824.446	914.902	1018.03	1116.35	1208.43
60	60	20	20	1070.44	1019.28	971.998	939.393	973.476	1125.66	1276.16	1414.41	1541.67
80	80	20	20	1137.09	1093.79	1058.04	1044.77	1122.51	1336.42	1534.29	1712.47	1874.91
100	100	20	20	1203.74	1168.31	1144.07	1150.15	1271.54	1547.18	1792.42	2010.53	2208.15
0	0	40	40	1238.61	1124.98	999.039	856.069	691.012	609.789	596.826	602.546	615.568
20	20	40	40	1305.26	1199.5	1085.08	961.449	840.042	820.549	854.953	900.606	948.809
40	40	40	40	1371.908	1274.014	1171.115	1066.829	989.072	1031.31	1113.081	1198.666	1282.051
60	60	40	40	1438.56	1348.53	1257.15	1172.21	1138.1	1242.07	1371.21	1496.73	1615.29
80	80	40	40	1505.2	1423.04	1343.19	1277.59	1287.13	1452.83	1629.34	1794.79	1948.53
100	100	40	40	1571.85	1497.56	1429.23	1382.97	1436.16	1663.59	1887.46	2092.85	2281.77
0	0	60	60	1606.73	1454.24	1284.19	1088.89	855.638	726.197	691.872	684.859	689.191
20	20	60	60	1673.38	1528.75	1370.23	1194.27	1004.67	936.958	950	982.919	1022.43
40	40	60	60	1740.02	1603.27	1456.27	1299.65	1153.7	1147.72	1208.13	1280.98	1355.67
60	60	60	60	1806.671	1677.781	1542.308	1405.025	1302.728	1358.478	1466.255	1579.039	1688.915
80	80	60	60	1873.32	1752.3	1628.35	1510.41	1451.76	1569.24	1724.38	1877.1	2022.16
100	100	60	60	1939.97	1826.81	1714.38	1615.79	1600.79	1780	1982.51	2175.16	2355.4
0	0	80	80	1974.84	1783.49	1569.35	1321.7	1020.26	842.605	786.919	767.172	762.814
20	20	80	80	2041.49	1858	1655.39	1427.08	1169.29	1053.37	1045.05	1065.23	1096.06
40	40	80	80	2108.14	1932.52	1741.42	1532.46	1318.32	1264.13	1303.17	1363.29	1429.3
60	60	80	80	2174.79	2007.03	1827.46	1637.84	1467.35	1474.89	1561.3	1661.35	1762.54
80	80	80	80	2241.435	2081.548	1913.501	1743.222	1616.384	1685.646	1819.43	1959.412	2095.779
100	100	80	80	2308.08	2156.06	1999.54	1848.6	1765.41	1896.41	2077.56	2257.47	2429.02
0	0	100	100	2342.96	2112.74	1854.5	1554.52	1184.89	959.014	881.966	849.485	836.437
20	20	100	100	2409.61	2187.26	1940.54	1659.9	1333.92	1169.77	1140.09	1147.55	1169.68
40	40	100	100	2476.25	2261.77	2026.58	1765.28	1482.95	1380.53	1398.22	1445.61	1502.92
60	60	100	100	2542.9	2336.29	2112.62	1870.66	1631.98	1591.29	1656.35	1743.66	1836.16
80	80	100	100	2609.55	2410.8	2198.66	1976.04	1781.01	1802.05	1914.48	2041.73	2169.4
100	100	100	100	2676.198	2485.315	2284.694	2081.418	1930.04	2012.815	2172.604	2339.785	2502.643

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE,R = NE OR SW SIDE / SE OR NW SIDE

WWR (%)				AVERAGE HEAT GAIN (W)								
NE	SW	SE	NW	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	485.352	452.2	417.7349	383.7044	361.76	383.7044	417.7245	452.2	485.352
20	0	0	0	515.1637	485.5305	456.2198	430.8408	428.421	477.9773	533.1847	585.522	634.4105
40	0	0	0	544.9754	518.861	494.7046	477.9773	495.0821	572.2502	648.645	718.844	783.469
60	0	0	0	574.7871	552.1915	533.1894	525.1138	561.7431	666.5231	764.1052	852.1659	932.5276
80	0	0	0	604.5988	585.522	571.6742	572.2502	628.404	760.7959	879.5654	985.4879	1081.586
100	0	0	0	634.4105	618.8525	610.159	619.3867	695.065	855.0689	995.0257	1118.81	1230.645
0	20	20	20	872.635	807.7055	738.7704	667.2903	607.8311	622.114	664.9765	711.872	758.3469
20	20	20	20	902.4467	841.036	777.2552	714.4267	674.4921	716.3368	780.4367	845.1939	907.4054
40	20	20	20	932.2584	874.3664	815.74	761.5632	741.1531	810.6598	895.8971	978.5159	1056.464
60	20	20	20	962.0701	907.697	854.2248	808.6996	807.8161	904.9326	1011.357	1111.838	1205.523
80	20	20	20	991.8818	941.0274	892.7096	855.8361	874.475	999.2054	1126.817	1245.16	1354.581
100	20	20	20	1021.694	974.358	931.1944	902.9726	941.136	1093.478	1242.278	1378.482	1503.64
0	40	40	40	1259.918	1163.211	1059.806	950.8761	853.9021	860.5235	912.2285	971.544	1031.342
20	40	40	40	1289.73	1196.542	1098.291	998.0126	920.5631	954.7964	1027.689	1104.866	1180.4
40	40	40	40	1319.542	1229.872	1136.775	1045.149	987.2241	1049.069	1143.149	1238.188	1329.459
60	40	40	40	1349.353	1263.202	1175.26	1092.286	1053.885	1143.342	1258.609	1371.51	1478.518
80	40	40	40	1379.165	1296.533	1213.745	1139.422	1120.546	1237.615	1374.07	1504.832	1627.576
100	40	40	40	1408.977	1329.863	1252.23	1186.558	1187.207	1331.888	1489.53	1638.154	1776.635
0	60	60	60	1647.201	1518.717	1380.841	1234.462	1099.973	1098.933	1159.48	1231.216	1304.337
20	60	60	60	1677.013	1552.047	1419.326	1281.598	1166.634	1193.206	1276.941	1364.538	1453.395
40	60	60	60	1706.825	1585.378	1457.811	1328.735	1233.295	1287.479	1390.401	1497.86	1602.454
60	60	60	60	1736.636	1618.708	1496.296	1375.871	1299.956	1381.752	1505.861	1631.182	1751.512
80	60	60	60	1766.448	1652.039	1534.781	1423.008	1366.617	1476.025	1621.321	1764.504	1900.571
100	60	60	60	1796.26	1685.369	1573.265	1470.144	1433.278	1570.298	1736.782	1897.826	2049.629
0	80	80	80	2034.484	1874.222	1701.877	1518.048	1346.044	1337.343	1406.733	1490.888	1577.331
20	80	80	80	2064.296	1907.552	1740.362	1565.184	1412.705	1431.616	1522.193	1624.21	1726.39
40	80	80	80	2094.107	1940.883	1778.846	1612.321	1479.366	1525.388	1637.653	1757.532	1875.449
60	80	80	80	2123.919	1974.214	1817.331	1659.457	1546.027	1620.161	1753.113	1890.854	2024.507
80	80	80	80	2153.731	2007.544	1855.816	1706.594	1612.688	1714.434	1868.574	2024.176	2173.566
100	80	80	80	2183.543	2040.874	1894.301	1753.73	1679.349	1808.707	1984.034	2157.498	2322.624
0	100	100	100	2421.767	2229.728	2022.912	1801.634	1592.115	1575.752	1653.984	1750.56	1850.326
20	100	100	100	2451.579	2263.058	2061.397	1848.77	1658.776	1670.025	1769.445	1883.882	1999.385
40	100	100	100	2481.391	2296.389	2099.882	1895.907	1725.437	1764.298	1884.905	2017.204	2148.443
60	100	100	100	2511.202	2329.719	2138.367	1943.043	1792.098	1858.571	2000.365	2150.526	2297.502
80	100	100	100	2541.014	2363.05	2176.851	1990.18	1858.759	1952.844	2115.826	2283.848	2446.561
100	100	100	100	2570.826	2396.38	2215.336	2037.316	1925.42	2047.117	2231.286	2417.17	2595.619

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE.R = NE OR SW SIDE / SE OR NW SIDE

WWR (%)				AVERAGE HEAT GAIN (W)								
NE	SW	SE	NW	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	485.352	452.2	417.7349	383.7044	361.76	383.7044	417.7245	452.2	485.352
0	20	0	0	526.0891	497.7455	470.3237	448.1155	452.851	512.5266	575.4987	634.382	689.0377
0	40	0	0	566.8263	543.291	522.9125	512.5266	543.942	641.3487	733.273	816.564	892.7234
0	60	0	0	607.5635	588.8365	575.5013	576.9376	635.033	770.1708	891.0471	998.7459	1096.409
0	80	0	0	648.3006	634.382	628.09	641.3486	726.124	898.9929	1048.822	1180.928	1300.095
0	100	0	0	689.0377	679.9275	680.6788	705.7597	817.215	1027.815	1206.596	1363.11	1503.78
20	0	20	20	861.7096	795.4905	724.6664	650.0156	583.401	587.5647	622.6625	663.012	703.7198
20	20	20	20	902.4467	841.036	777.2552	714.4267	674.4921	716.3868	780.4367	845.1939	907.4054
20	40	20	20	943.1838	886.5815	829.844	778.8378	765.583	845.209	938.211	1027.376	1111.091
20	60	20	20	983.921	932.1269	882.4328	843.2488	856.6739	974.0311	1095.985	1209.558	1314.777
20	80	20	20	1024.658	977.6725	935.0216	907.6599	947.765	1102.853	1253.76	1391.74	1518.462
20	100	20	20	1065.395	1023.218	987.6103	972.071	1038.856	1231.675	1411.534	1573.922	1722.148
40	0	40	40	1238.067	1138.781	1031.598	916.3269	805.0421	791.425	827.6005	873.824	922.0874
40	20	40	40	1278.804	1184.326	1084.187	980.7379	896.1331	920.2471	985.3748	1056.006	1125.773
40	40	40	40	1319.542	1229.872	1136.775	1045.149	987.2241	1049.069	1143.149	1238.188	1329.459
40	60	40	40	1360.279	1275.418	1189.364	1109.56	1078.315	1177.891	1300.923	1420.37	1533.144
40	80	40	40	1401.016	1320.963	1241.953	1173.971	1169.406	1306.714	1458.698	1602.552	1736.83
40	100	40	40	1441.753	1366.508	1294.542	1238.382	1260.497	1435.536	1616.472	1784.734	1940.516
60	0	60	60	1614.425	1482.072	1338.529	1182.638	1026.683	995.2853	1032.538	1084.636	1140.455
60	20	60	60	1655.162	1527.617	1391.118	1247.049	1117.774	1124.107	1190.313	1266.818	1344.141
60	40	60	60	1695.899	1573.163	1443.707	1311.46	1208.865	1252.93	1348.087	1449	1547.827
60	60	60	60	1736.636	1618.708	1496.296	1375.871	1299.956	1381.752	1505.861	1631.182	1751.512
60	80	60	60	1777.373	1664.253	1548.884	1440.283	1391.047	1510.574	1663.636	1813.364	1955.198
60	100	60	60	1818.11	1709.799	1601.473	1504.694	1482.138	1639.396	1821.41	1995.546	2158.884
80	0	80	80	1990.782	1825.362	1645.461	1448.95	1248.324	1199.146	1237.477	1295.448	1358.823
80	20	80	80	2031.52	1870.907	1698.05	1513.36	1339.415	1327.968	1395.251	1477.63	1562.509
80	40	80	80	2072.257	1916.453	1750.638	1577.772	1430.506	1456.79	1553.025	1659.812	1766.194
80	60	80	80	2112.994	1961.998	1803.227	1642.183	1521.597	1585.612	1710.799	1861.994	1969.88
80	80	80	80	2153.731	2007.544	1855.816	1706.594	1612.688	1714.434	1868.574	2024.176	2173.566
80	100	80	80	2194.468	2053.089	1908.405	1771.005	1703.779	1843.256	2026.348	2206.358	2377.251
100	0	100	100	2367.14	2168.653	1952.392	1715.261	1469.965	1403.006	1442.415	1506.26	1577.191
100	20	100	100	2407.877	2214.198	2004.981	1779.672	1561.056	1531.828	1600.189	1688.442	1780.876
100	40	100	100	2448.614	2259.744	2057.57	1844.083	1652.147	1660.65	1757.963	1870.624	1984.562
100	60	100	100	2489.351	2305.289	2110.159	1908.494	1743.238	1789.472	1915.737	2052.806	2188.248
100	80	100	100	2530.089	2350.835	2162.747	1972.905	1834.329	1918.294	2073.512	2234.988	2391.933
100	100	100	100	2570.826	2396.38	2215.336	2037.316	1925.42	2047.117	2231.286	2417.17	2595.619

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE.R = NE OR SW SIDE / SE OR NW SIDE

AWR (%)				AVERAGE HEAT GAIN (W)								
NE	SW	SE	NW	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	485.352	452.2	417.7349	383.7044	361.76	383.7044	417.7245	452.2	485.352
0	0	20	0	569.4095	616.826	560.3124	500.1126	444.073	441.9085	465.2479	493.3565	522.1635
0	0	40	0	653.4671	781.452	702.8898	616.5207	526.3861	500.1126	512.7713	534.513	558.975
0	0	60	0	1037.525	946.0779	845.4672	732.9289	608.699	558.3166	560.2948	575.6695	595.7865
0	0	80	0	1221.582	1110.704	988.0447	849.3371	691.012	616.5207	607.8182	616.826	632.598
0	0	100	0	1405.639	1275.33	1130.622	965.7452	773.325	674.7248	655.3416	657.9825	669.4095
20	20	0	20	718.3893	676.41	634.6778	598.0186	592.1791	658.1828	732.9133	804.0375	870.5939
20	20	20	20	902.4467	841.036	777.2552	714.4267	674.4921	716.3868	780.4367	845.1939	907.4054
20	20	40	20	1086.504	1005.662	919.8326	830.8349	756.8051	774.591	827.9601	886.3504	944.2169
20	20	60	20	1270.562	1170.288	1062.41	947.2431	839.1181	832.7951	875.4836	927.5069	981.0284
20	20	80	20	1454.619	1334.914	1204.988	1063.651	921.431	890.9991	923.007	968.6634	1017.84
20	20	100	20	1638.677	1499.54	1347.565	1180.059	1003.744	949.2031	970.5304	1009.82	1054.651
40	40	0	40	951.4264	900.62	851.6206	812.3326	822.5981	932.6611	1048.102	1155.875	1255.836
40	40	20	40	1135.484	1065.246	994.198	928.7409	904.9111	990.8651	1095.626	1197.031	1292.647
40	40	40	40	1319.542	1229.872	1136.775	1045.149	987.2241	1049.069	1143.149	1238.188	1329.459
40	40	60	40	1503.599	1394.498	1279.353	1161.557	1069.537	1107.273	1190.672	1279.344	1366.27
40	40	80	40	1687.656	1559.124	1421.93	1277.965	1151.85	1165.477	1238.196	1320.501	1403.082
40	40	100	40	1871.714	1723.75	1564.508	1394.374	1234.163	1223.681	1285.719	1361.657	1439.893
60	60	0	60	1184.464	1124.83	1068.564	1026.647	1053.017	1207.139	1363.291	1507.712	1641.078
60	60	20	60	1368.521	1289.456	1211.141	1143.055	1135.33	1265.344	1410.814	1548.869	1677.889
60	60	40	60	1552.579	1454.082	1353.718	1259.463	1217.643	1323.548	1458.338	1590.025	1714.701
60	60	60	60	1736.636	1618.708	1496.296	1375.871	1299.956	1381.752	1505.861	1631.182	1751.512
60	60	80	60	1920.694	1783.334	1638.873	1492.28	1382.269	1439.956	1553.385	1672.339	1788.324
60	60	100	60	2104.751	1947.96	1781.451	1608.688	1464.582	1498.16	1600.908	1713.495	1825.135
80	80	0	80	1417.501	1349.04	1285.506	1240.961	1283.436	1481.618	1678.48	1859.55	2026.32
80	80	20	80	1601.558	1513.666	1428.084	1357.369	1365.749	1539.822	1726.003	1900.706	2063.131
80	80	40	80	1785.616	1678.292	1570.661	1473.777	1448.062	1598.026	1773.527	1941.863	2099.943
80	80	60	80	1969.673	1842.918	1713.239	1590.186	1530.375	1656.23	1821.05	1983.019	2136.754
80	80	80	80	2153.731	2007.544	1855.816	1706.594	1612.688	1714.434	1868.574	2024.176	2173.566
80	80	100	80	2337.788	2172.17	1998.393	1823.002	1695.001	1772.638	1916.097	2065.333	2210.377
100	100	0	100	1650.538	1573.25	1502.449	1455.275	1513.855	1756.096	1993.669	2211.388	2411.562
100	100	20	100	1834.596	1737.876	1645.027	1571.683	1596.168	1814.3	2041.192	2252.544	2448.373
100	100	40	100	2018.653	1902.502	1787.604	1688.092	1678.481	1872.504	2088.715	2293.701	2485.185
100	100	60	100	2202.711	2067.128	1930.181	1834.5	1760.794	1930.709	2136.239	2334.857	2521.996
100	100	80	100	2386.768	2231.754	2072.759	1920.908	1843.107	1988.913	2183.762	2376.014	2558.808
100	100	100	100	2570.826	2396.38	2215.336	2037.316	1925.42	2047.117	2231.286	2417.17	2595.619

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE,R = NE OR SW SIDE / SE OR NW SIDE

WWR (%)				AVERAGE HEAT GAIN (W)								
NE	SW	SE	NW	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	485.352	452.2	417.7349	383.7044	361.76	383.7044	417.7245	452.2	485.352
0	0	0	20	647.8404	597.534	543.6041	486.4711	434.4271	435.0877	459.6788	488.5335	517.8497
0	0	0	40	810.3288	742.868	669.4734	589.2377	507.0941	486.4711	501.6331	524.867	550.3474
0	0	0	60	972.8171	888.202	795.3426	692.0044	579.761	537.8544	543.5874	561.2005	582.8451
0	0	0	80	1135.306	1033.536	921.2118	794.771	652.4281	589.2378	585.5418	597.534	615.3427
0	0	0	100	1297.794	1178.87	1047.081	897.5377	725.0951	640.6211	627.4961	633.8675	647.8404
20	20	20	0	739.9583	695.702	651.386	611.6601	601.825	665.0035	738.4824	808.8605	874.9077
20	20	20	20	902.4467	841.036	777.2552	714.4267	674.4921	716.3868	780.4367	845.1939	907.4054
20	20	20	40	1064.935	986.37	903.1244	817.1934	747.1591	767.7701	822.391	881.5274	939.9031
20	20	20	60	1227.424	1131.704	1028.994	919.9599	819.8261	819.1535	864.3453	917.8609	972.4008
20	20	20	80	1389.912	1277.038	1154.863	1022.727	892.4931	870.5369	906.2997	954.1944	1004.898
20	20	20	100	1552.4	1422.372	1280.732	1125.493	965.1601	921.9202	948.2539	990.5279	1037.396
40	40	40	0	994.5647	939.204	885.037	839.6158	841.8901	946.3026	1059.24	1165.521	1264.464
40	40	40	20	1157.053	1084.538	1010.906	942.3824	914.5571	997.6859	1101.195	1201.854	1296.961
40	40	40	40	1319.542	1229.872	1136.775	1045.149	987.2241	1049.069	1143.149	1238.188	1329.459
40	40	40	60	1482.03	1375.206	1262.645	1147.916	1059.891	1100.453	1185.103	1274.521	1361.957
40	40	40	80	1644.518	1520.54	1388.514	1250.682	1132.558	1151.836	1227.058	1310.855	1394.454
40	40	40	100	1807.007	1665.874	1514.383	1353.449	1205.225	1203.219	1269.012	1347.189	1426.952
60	60	60	0	1249.171	1182.706	1118.688	1067.571	1081.955	1227.602	1379.998	1522.181	1654.019
60	60	60	20	1411.659	1328.04	1244.557	1170.338	1154.622	1278.985	1421.953	1558.515	1686.517
60	60	60	40	1574.148	1473.374	1370.426	1273.105	1227.289	1330.368	1463.907	1594.848	1719.014
60	60	60	60	1736.636	1618.708	1496.296	1375.871	1299.956	1381.752	1505.861	1631.182	1751.512
60	60	60	80	1899.125	1764.042	1622.165	1478.638	1372.623	1433.135	1547.816	1667.515	1784.01
60	60	60	100	2061.613	1909.376	1748.034	1581.405	1445.29	1484.518	1589.77	1703.849	1816.508
80	80	80	0	1503.777	1426.208	1352.339	1295.527	1322.02	1508.901	1700.756	1878.842	2043.575
80	80	80	20	1666.266	1571.542	1478.208	1398.294	1394.687	1560.284	1742.711	1915.175	2076.073
80	80	80	40	1828.754	1716.876	1604.078	1501.06	1467.354	1611.668	1784.665	1951.509	2108.57
80	80	80	60	1991.242	1862.21	1729.947	1603.827	1540.021	1663.051	1826.619	1987.842	2141.068
80	80	80	80	2153.731	2007.544	1855.816	1706.594	1612.688	1714.434	1868.574	2024.176	2173.566
80	80	80	100	2316.219	2152.878	1981.685	1809.36	1685.355	1765.818	1910.528	2060.51	2206.063
100	100	100	0	1758.384	1669.71	1585.99	1523.483	1562.085	1790.2	2021.514	2235.503	2433.131
100	100	100	20	1920.872	1815.044	1711.859	1626.249	1634.752	1841.583	2063.469	2271.836	2465.629
100	100	100	40	2083.36	1960.378	1837.729	1729.016	1707.419	1892.967	2105.423	2308.17	2498.126
100	100	100	60	2245.849	2105.712	1963.598	1831.783	1780.086	1944.35	2147.377	2344.503	2530.624
100	100	100	80	2408.337	2251.046	2089.467	1934.549	1852.753	1995.733	2189.331	2380.837	2563.121
100	100	100	100	2570.826	2396.38	2215.336	2037.316	1925.42	2047.117	2231.286	2417.17	2595.619

AVERAGE HEAT GAIN THROUGH BUILDING ENVELOPE. (excluded roof)
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE.R = NE OR SW SIDE / SE OR NW SIDE

WWR (%)				AVERAGE HEAT GAIN (W)								
NE	SW	SE	NW	R = 1:5	R = 1:4	R = 1:3	R = 1:2	R = 1:1	R = 2:1	R = 3:1	R = 4:1	R = 5:1
0	0	0	0	485.352	452.2	417.7349	383.7044	361.76	383.7044	417.7245	452.2	485.352
20	20	0	0	555.901	531.076	508.809	495.252	519.512	606.799	690.959	767.704	838.096
40	40	0	0	626.45	609.952	599.882	606.8	677.264	829.895	964.193	1083.21	1190.84
60	60	0	0	696.999	688.828	690.956	718.347	835.016	1052.99	1237.43	1398.71	1543.58
80	80	0	0	767.547	767.704	782.029	829.894	992.768	1276.08	1510.66	1714.22	1896.33
100	100	0	0	838.096	846.58	873.103	941.442	1150.52	1499.18	1783.9	2029.72	2249.07
0	0	20	20	831.898	762.16	686.182	602.879	516.74	493.292	507.202	529.69	554.661
20	20	20	20	902.4467	841.036	777.2552	714.4267	674.4921	716.3868	780.4367	845.1939	907.4054
40	40	20	20	972.996	919.912	868.329	825.974	832.244	939.482	1053.67	1160.7	1260.15
60	60	20	20	1043.54	998.788	959.402	937.522	989.996	1162.58	1326.91	1476.2	1612.89
80	80	20	20	1114.09	1077.66	1050.48	1049.07	1147.75	1385.67	1600.14	1791.71	1965.64
100	100	20	20	1184.64	1156.54	1141.55	1160.62	1305.5	1608.77	1873.37	2107.21	2318.38
0	0	40	40	1178.44	1072.12	954.628	822.054	671.72	602.879	596.68	607.18	623.97
20	20	40	40	1248.99	1151	1045.7	933.602	829.472	825.974	869.914	922.684	976.715
40	40	40	40	1319.542	1229.872	1136.775	1045.149	987.2241	1049.069	1143.149	1238.188	1329.459
60	60	40	40	1390.09	1308.75	1227.85	1156.7	1144.98	1272.16	1416.38	1553.69	1682.2
80	80	40	40	1460.64	1387.62	1318.92	1268.24	1302.73	1495.26	1689.62	1869.2	2034.95
100	100	40	40	1531.19	1466.5	1410	1379.79	1460.48	1718.35	1962.85	2184.7	2387.69
0	0	60	60	1524.99	1382.08	1223.08	1041.23	826.7	712.467	686.158	684.67	693.28
20	20	60	60	1595.54	1460.96	1314.15	1152.78	984.452	935.562	959.392	1000.17	1046.02
40	40	60	60	1666.09	1539.83	1405.22	1264.32	1142.2	1158.66	1232.63	1315.68	1398.77
60	60	60	60	1736.636	1618.708	1496.296	1375.871	1299.956	1381.752	1505.861	1631.182	1751.512
80	80	60	60	1807.19	1697.58	1587.37	1487.42	1457.71	1604.85	1779.1	1946.69	2104.26
100	100	60	60	1877.73	1776.46	1678.44	1598.97	1615.46	1827.94	2052.33	2262.19	2457
0	0	80	80	1871.54	1692.04	1491.52	1260.4	981.68	822.054	775.636	762.16	762.589
20	20	80	80	1942.08	1770.92	1582.6	1371.95	1139.43	1045.15	1048.87	1077.66	1115.33
40	40	80	80	2012.63	1849.79	1673.67	1483.5	1297.18	1268.24	1322.1	1393.17	1468.08
60	60	80	80	2083.18	1928.67	1764.74	1595.05	1454.94	1491.34	1595.34	1708.67	1820.82
80	80	80	80	2153.731	2007.544	1855.816	1706.594	1612.688	1714.434	1868.574	2024.176	2173.566
100	100	80	80	2224.28	2086.42	1946.89	1818.14	1770.44	1937.53	2141.81	2339.68	2526.31
0	0	100	100	2218.08	2002	1759.97	1479.58	1136.66	931.642	865.113	839.65	831.898
20	20	100	100	2288.63	2080.88	1851.04	1591.13	1294.41	1154.74	1138.35	1155.15	1184.64
40	40	100	100	2359.18	2159.75	1942.12	1702.67	1452.16	1377.83	1411.58	1470.66	1537.39
60	60	100	100	2429.73	2238.63	2033.19	1814.22	1609.92	1600.93	1684.82	1786.16	1890.13
80	80	100	100	2500.28	2317.5	2124.26	1925.77	1767.67	1824.02	1958.05	2101.67	2242.87
100	100	100	100	2570.826	2396.38	2215.336	2037.316	1925.42	2047.117	2231.286	2417.17	2595.619

ภาคผนวก ค

ค่าสัดส่วนอาคารที่เหมาะสมเพื่อให้ได้รับความร้อนน้อยที่สุด

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = N OR S SIDE / E OR W SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
N	S	E	W	SHAPE	Q (W)	
0	0	0	0	1.1 : 1	361.259	180.629
20	0	0	0	1 : 1.2	422.914	211.457
40	0	0	0	1 : 1.6	476.66	238.33
60	0	0	0	1 : 1.9	524.932	262.466
80	0	0	0	1 : 2.2	569.124	284.562
100	0	0	0	1 : 2.6	610.124	305.062
0	20	20	20	1.4 : 1	604.015	302.008
20	20	20	20	1.1 : 1	674.528	337.264
40	20	20	20	1 : 1.1	738.336	369.168
60	20	20	20	1 : 1.3	797.052	398.526
80	20	20	20	1 : 1.4	851.73	425.865
100	20	20	20	1 : 1.6	903.104	451.552
0	40	40	40	1.5 : 1	843.699	421.849
20	40	40	40	1.3 : 1	918.577	459.288
40	40	40	40	1.1 : 1	987.795	493.898
60	40	40	40	1 : 1	1052.47	526.236
80	40	40	40	1 : 1.1	1113.4	556.698
100	40	40	40	1 : 1.3	1171.16	585.579
0	60	60	60	1.6 : 1	1082.35	541.176
20	60	60	60	1.4 : 1	1159.85	579.924
40	60	60	60	1.2 : 1	1232.48	616.24
60	60	60	60	1.1 : 1	1301.06	650.532
80	60	60	60	1 : 1	1366.21	683.104
100	60	60	60	1 : 1.1	1428.39	714.193
0	80	80	80	1.7 : 1	1320.53	660.267
20	80	80	80	1.5 : 1	1399.78	699.888
40	80	80	80	1.3 : 1	1474.77	737.384
60	80	80	80	1.2 : 1	1546.12	773.062
80	80	80	80	1.1 : 1	1614.33	807.166
100	80	80	80	1 : 1	1679.77	839.886
0	100	100	100	1.7 : 1	1558.46	779.231
20	100	100	100	1.6 : 1	1638.95	819.477
40	100	100	100	1.4 : 1	1715.67	857.837
60	100	100	100	1.3 : 1	1789.11	894.554
80	100	100	100	1.2 : 1	1859.64	929.822
100	100	100	100	1.1 : 1	1927.6	963.8

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = N OR S SIDE / E OR W SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
N	S	E	W	SHAPE	Q (W)	
0	0	0	0	1.1 : 1	361.259	180.629
0	20	0	0	1 : 1.3	442.335	221.168
0	40	0	0	1 : 1.8	510.698	255.349
0	60	0	0	1 : 2.2	570.934	285.467
0	80	0	0	1 : 2.7	625.394	312.697
0	100	0	0	1 : 3.1	675.478	337.739
20	0	20	20	1.5 : 1	577.496	288.748
20	20	20	20	1.1 : 1	674.528	337.264
20	40	20	20	1 : 1.1	759.258	379.629
20	60	20	20	1 : 1.4	835.439	417.72
20	80	20	20	1 : 1.6	905.232	452.616
20	100	20	20	1 : 1.9	970.015	485.008
40	0	40	40	1.7 : 1	787.466	393.733
40	20	40	40	1.4 : 1	893.265	446.632
40	40	40	40	1.1 : 1	987.795	493.898
40	60	40	40	1 : 1.1	1074.04	537.019
40	80	40	40	1 : 1.2	1153.85	576.927
40	100	40	40	1 : 1.4	1228.49	614.247
60	0	60	60	1.9 : 1	995.144	497.572
60	20	60	60	1.5 : 1	1106.55	553.277
60	40	60	60	1.3 : 1	1207.73	603.866
60	60	60	60	1.1 : 1	1301.06	650.532
60	80	60	60	1 : 1	1388.13	694.067
60	100	60	60	1 : 1.2	1470.06	735.029
80	0	80	80	2 : 1	1201.72	600.859
80	20	80	80	1.7 : 1	1317.05	658.523
80	40	80	80	1.4 : 1	1423.06	711.53
80	60	80	80	1.2 : 1	1521.7	760.852
80	80	80	80	1.1 : 1	1614.33	807.166
80	100	80	80	1 : 1	1701.93	850.963
100	0	100	100	2.1 : 1	1407.68	703.838
100	20	100	100	1.8 : 1	1525.9	762.95
100	40	100	100	1.5 : 1	1635.6	817.8
100	60	100	100	1.4 : 1	1738.39	869.196
100	80	100	100	1.2 : 1	1835.44	917.718
100	100	100	100	1.1 : 1	1927.6	963.8

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = N OR S SIDE / E OR W SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
N	S	E	W	SHAPE	Q (W)	
0	0	0	0	1.1 : 1	361.259	180.629
0	0	20	0	1.6 : 1	428.305	214.152
0	0	40	0	2 : 1	486.192	243.096
0	0	60	0	2.5 : 1	537.884	268.942
0	0	80	0	2.9 : 1	585.027	292.514
0	0	100	0	3.4 : 1	628.645	314.322
20	20	0	20	1 : 1.2	596.667	298.333
20	20	20	20	1.1 : 1	674.528	337.264
20	20	40	20	1.3 : 1	744.287	372.144
20	20	60	20	1.6 : 1	808.047	404.023
20	20	80	20	1.8 : 1	867.131	433.565
20	20	100	20	2.1 : 1	922.438	461.219
40	40	0	40	1 : 1.3	828.077	414.038
40	40	20	40	1 : 1.1	911.441	455.721
40	40	40	40	1.1 : 1	987.795	493.898
40	40	60	40	1.3 : 1	1058.66	529.329
40	40	80	40	1.4 : 1	1125.06	562.532
40	40	100	40	1.6 : 1	1187.76	593.882
60	60	0	60	1 : 1.4	1058.11	529.057
60	60	20	60	1 : 1.2	1144.84	572.42
60	60	40	60	1 : 1	1225.44	612.722
60	60	60	60	1.1 : 1	1301.06	650.532
60	60	80	60	1.2 : 1	1372.52	686.262
60	60	100	60	1.4 : 1	1440.44	720.221
80	80	0	80	1 : 1.4	1287.51	643.757
80	80	20	80	1 : 1.2	1376.51	688.257
80	80	40	80	1 : 1.1	1460.1	730.048
80	80	60	80	1 : 1	1539.15	769.574
80	80	80	80	1.1 : 1	1614.33	807.166
80	80	100	80	1.2 : 1	1686.17	843.084
100	100	0	100	1 : 1.5	1516.57	758.285
100	100	20	100	1 : 1.3	1607.21	803.603
100	100	40	100	1 : 1.2	1693	846.499
100	100	60	100	1 : 1.1	1774.65	887.324
100	100	80	100	1 : 1	1852.7	926.352
100	100	100	100	1.1 : 1	1927.6	963.8

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = N OR S SIDE / E OR W SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
N	S	E	W	SHAPE	Q (W)	
0	0	0	0	1.1 : 1	361.259	180.629
0	0	0	20	1.6 : 1	436.362	218.181
0	0	0	40	2.1 : 1	500.316	250.158
0	0	0	60	2.6 : 1	556.974	278.487
0	0	0	80	3.2 : 1	608.378	304.189
0	0	0	100	3.7 : 1	655.765	327.882
20	20	20	0	1 : 1.2	585.649	292.825
20	20	20	20	1.1 : 1	674.528	337.264
20	20	20	40	1.4 : 1	752.987	376.493
20	20	20	60	1.7 : 1	824.009	412.005
20	20	20	80	1.9 : 1	889.378	444.689
20	20	20	100	2.2 : 1	950.26	475.13
40	40	40	0	1 : 1.4	804.699	402.35
40	40	40	20	1 : 1.1	900.911	450.455
40	40	40	40	1.1 : 1	987.795	493.898
40	40	40	60	1.3 : 1	1067.63	533.816
40	40	40	80	1.5 : 1	1141.9	570.951
40	40	40	100	1.7 : 1	1211.63	605.813
60	60	60	0	1 : 1.5	1021.85	510.924
60	60	60	20	1 : 1.2	1122.66	561.331
60	60	60	40	1 : 1	1215.14	607.571
60	60	60	60	1.1 : 1	1301.06	650.532
60	60	60	80	1.2 : 1	1381.65	690.826
60	60	60	100	1.4 : 1	1457.79	728.897
80	80	80	0	1 : 1.5	1238.1	619.049
80	80	80	20	1 : 1.3	1342.08	671.04
80	80	80	40	1 : 1.1	1438.57	719.284
80	80	80	60	1 : 1	1528.98	764.489
80	80	80	80	1.1 : 1	1614.33	807.166
80	80	80	100	1.2 : 1	1695.4	847.698
100	100	100	0	1 : 1.6	1453.85	726.924
100	100	100	20	1 : 1.4	1560.15	780.075
100	100	100	40	1 : 1.2	1659.66	829.828
100	100	100	60	1 : 1.1	1753.53	876.763
100	100	100	80	1 : 1	1842.62	921.31
100	100	100	100	1.1 : 1	1927.6	963.8

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = N OR S SIDE / E OR W SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
N	S	E	W	SHAPE	Q (W)	
0	0	0	0	1.11 : 1	361.259	180.629
20	20	0	0	1 : 1.7	493.973	246.986
40	40	0	0	1 : 2.5	597.921	298.961
60	60	0	0	1 : 3.2	686.303	343.151
80	80	0	0	1 : 4	764.534	382.267
100	100	0	0	1 : 4.8	835.472	417.736
0	0	20	20	2.1 : 1	493.304	246.652
20	20	20	20	1.1 : 1	674.528	337.264
40	40	20	20	1 : 1.3	816.471	408.236
60	60	20	20	1 : 1.7	937.157	468.579
80	80	20	20	1 : 2.2	1043.98	521.992
100	100	20	20	1 : 2.6	1140.85	570.425
0	0	40	40	3 : 1	596.817	298.408
20	20	40	40	1.6 : 1	816.067	408.033
40	40	40	40	1.1 : 1	987.795	493.898
60	60	40	40	1 : 1.2	1133.81	566.903
80	80	40	40	1 : 1.5	1263.05	631.524
100	100	40	40	1 : 1.8	1380.24	690.121
0	0	60	60	4 : 1	684.859	342.429
20	20	60	60	2.1 : 1	936.453	468.226
40	40	60	60	1.5 : 1	1133.51	566.757
60	60	60	60	1.1 : 1	1301.06	650.532
80	80	60	60	1 : 1.1	1449.37	724.686
100	100	60	60	1 : 1.3	1583.85	791.927
0	0	80	80	5 : 1	762.806	381.403
20	20	80	80	2.7 : 1	1043.03	521.517
40	40	80	80	1.8 : 1	1262.52	631.262
60	60	80	80	1.4 : 1	1449.14	724.572
80	80	80	80	1.1 : 1	1614.33	807.166
100	100	80	80	1 : 1.1	1764.12	882.06
0	0	100	100	5.9 : 1	833.495	416.748
20	20	100	100	3.2 : 1	1139.69	569.846
40	40	100	100	2.2 : 1	1379.52	689.762
60	60	100	100	1.6 : 1	1583.44	791.718
80	80	100	100	1.3 : 1	1763.93	881.966
100	100	100	100	1.1 : 1	1927.6	963.8

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = NE OR SW SIDE / SE OR NW SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
NE	SW	SE	NW	SHAPE	Q (W)	
0	0	0	0	1 : 1	361.76	180.88
20	0	0	0	1 : 1.4	423.203	211.602
40	0	0	0	1 : 1.7	476.793	238.396
60	0	0	0	1 : 2.1	524.94	262.47
80	0	0	0	1 : 2.5	569.028	284.514
100	0	0	0	1 : 2.8	609.937	304.968
0	20	20	20	1.2 : 1	604.464	302.232
20	20	20	20	1 : 1	674.486	337.243
40	20	20	20	1 : 1.2	737.894	368.947
60	20	20	20	1 : 1.4	796.268	398.134
80	20	20	20	1 : 1.6	850.645	425.323
100	20	20	20	1 : 1.8	901.749	450.875
0	40	40	40	1.4 : 1	844.288	422.144
20	40	40	40	1.1 : 1	918.532	459.266
40	40	40	40	1 : 1	987.208	493.604
60	40	40	40	1 : 1.1	1051.41	525.704
80	40	40	40	1 : 1.3	1111.91	555.954
100	40	40	40	1 : 1.4	1169.28	584.641
0	60	60	60	1.4 : 1	1083.15	541.573
20	60	60	60	1.2 : 1	1159.92	579.959
40	60	60	60	1.1 : 1	1231.91	615.957
60	60	60	60	1 : 1	1299.93	649.965
80	60	60	60	1 : 1.1	1364.56	682.279
100	60	60	60	1 : 1.2	1426.26	713.131
0	80	80	80	1.5 : 1	1321.56	660.781
20	80	80	80	1.3 : 1	1400.02	700.01
40	80	80	80	1.2 : 1	1474.31	737.154
60	80	80	80	1.1 : 1	1545.03	772.514
80	80	80	80	1 : 1	1612.65	806.325
100	80	80	80	1 : 1.1	1677.55	838.774
0	100	100	100	1.5 : 1	1559.74	779.869
20	100	100	100	1.4 : 1	1639.4	819.701
40	100	100	100	1.2 : 1	1715.37	857.684
60	100	100	100	1.1 : 1	1788.11	894.056
80	100	100	100	1.1 : 1	1858.01	929.005
100	100	100	100	1 : 1	1925.37	962.685

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = NE OR SW SIDE / SE OR NW SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
NE	SW	SE	NW	SHAPE	Q (W)	
0	0	0	0	1 : 1	361.76	180.88
0	20	0	0	1 : 1.5	443.595	221.797
0	40	0	0	1 : 2	512.526	256.263
0	60	0	0	1 : 2.5	573.227	286.613
0	80	0	0	1 : 3	628.088	314.044
0	100	0	0	1 : 3.5	678.529	339.264
20	0	20	20	1.4 : 1	576.677	288.338
20	20	20	20	1 : 1	674.486	337.243
20	40	20	20	1 : 1.3	759.807	379.903
20	60	20	20	1 : 1.6	836.47	418.235
20	80	20	20	1 : 1.8	906.674	453.337
20	100	20	20	1 : 2.1	971.819	485.91
40	0	40	40	1.6 : 1	785.424	392.712
40	20	40	40	1.2 : 1	892.041	446.02
40	40	40	40	1 : 1	987.208	493.604
40	60	40	40	1 : 1.2	1073.98	536.988
40	80	40	40	1 : 1.4	1154.24	577.12
40	100	40	40	1 : 1.6	1229.27	614.637
60	0	60	60	1.7 : 1	991.905	495.953
60	20	60	60	1.4 : 1	1104.17	552.085
60	40	60	60	1.1 : 1	1206.03	603.014
60	60	60	60	1 : 1	1299.93	649.965
60	80	60	60	1 : 1.2	1387.49	693.745
60	100	60	60	1 : 1.3	1469.84	734.922
80	0	80	80	1.8 : 1	1197.29	598.646
80	20	80	80	1.5 : 1	1313.5	656.752
80	40	80	80	1.3 : 1	1420.24	710.119
80	60	80	80	1.1 : 1	1519.49	759.746
80	80	80	80	1 : 1	1612.65	806.325
80	100	80	80	1 : 1.1	1700.71	850.356
100	0	100	100	1.9 : 1	1402.07	701.033
100	20	100	100	1.6 : 1	1521.2	760.599
100	40	100	100	1.4 : 1	1631.65	815.827
100	60	100	100	1.2 : 1	1735.09	867.546
100	80	100	100	1.1 : 1	1832.7	916.351
100	100	100	100	1 : 1	1925.37	962.685

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = NE OR SW SIDE / SE OR NW SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
NE	SW	SE	NW	SHAPE	Q (W)	
0	0	0	0	1 : 1	361.76	180.88
0	0	20	0	1.5 : 1	436.377	218.189
0	0	40	0	1.9 : 1	499.981	249.99
0	0	60	0	2.4 : 1	556.359	278.18
0	0	80	0	2.8 : 1	607.528	303.764
0	0	100	0	3.3 : 1	654.71	327.355
20	20	0	20	1 : 1.3	586.035	293.017
20	20	20	20	1 : 1	674.486	337.243
20	20	40	20	1.2 : 1	752.613	376.307
20	20	60	20	1.5 : 1	823.36	411.68
20	20	80	20	1.7 : 1	888.492	444.246
20	20	100	20	2 : 1	949.164	474.582
40	40	0	40	1 : 1.5	804.804	402.402
40	40	20	40	1 : 1.2	900.636	450.318
40	40	40	40	1 : 1	987.208	493.604
40	40	60	40	1.2 : 1	1066.78	533.389
40	40	80	40	1.3 : 1	1140.81	570.406
40	40	100	40	1.5 : 1	1210.33	605.163
60	60	0	60	1 : 1.6	1021.61	510.806
60	60	20	60	1 : 1.4	1122.08	561.04
60	60	40	60	1 : 1.2	1214.27	607.133
60	60	60	60	1 : 1	1299.93	649.965
60	60	80	60	1.1 : 1	1380.28	690.143
60	60	100	60	1.2 : 1	1456.22	728.108
80	80	0	80	1 : 1.7	1237.49	618.744
80	80	20	80	1 : 1.5	1341.15	670.576
80	80	40	80	1 : 1.3	1437.36	718.681
80	80	60	80	1 : 1.1	1527.52	763.761
80	80	80	80	1 : 1	1612.65	806.325
80	80	100	80	1.1 : 1	1693.5	846.752
100	100	0	100	1 : 1.8	1452.85	726.424
100	100	20	100	1 : 1.5	1558.85	779.427
100	100	40	100	1 : 1.4	1658.1	829.048
100	100	60	100	1 : 1.2	1751.72	875.862
100	100	80	100	1 : 1.1	1840.6	920.298
100	100	100	100	1 : 1	1925.37	962.685

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = NE OR SW SIDE / SE OR NW SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
NE	SW	SE	NW	SHAPE	Q (W)	
0	0	0	0	1 : 1	361.76	180.88
0	0	0	20	1.4 : 1	428.306	214.153
0	0	0	40	1.8 : 1	485.821	242.911
0	0	0	60	2.2 : 1	537.214	268.607
0	0	0	80	2.6 : 1	584.101	292.051
0	0	0	100	3 : 1	627.495	313.748
20	20	20	0	1 : 1.3	597.078	298.539
20	20	20	20	1 : 1	674.486	337.243
20	20	20	40	1.2 : 1	743.882	371.941
20	20	20	60	1.4 : 1	807.336	403.668
20	20	20	80	1.6 : 1	866.152	433.076
20	20	20	100	1.9 : 1	821.222	460.611
40	40	40	0	1 : 1.4	828.26	414.13
40	40	40	20	1 : 1.2	911.207	455.603
40	40	40	40	1 : 1	987.208	493.604
40	40	40	60	1.1 : 1	1057.76	528.882
40	40	40	80	1.3 : 1	1123.9	561.949
40	40	40	100	1.4 : 1	1186.35	593.176
60	60	60	0	1 : 1.5	1058.02	529.01
60	60	60	20	1 : 1.3	1144.35	572.176
60	60	60	40	1 : 1.1	1224.61	612.307
60	60	60	60	1 : 1	1299.93	649.965
60	60	60	80	1.1 : 1	1371.11	685.557
60	60	60	100	1.2 : 1	1438.78	719.39
80	80	80	0	1 : 1.6	1287.12	643.561
80	80	80	20	1 : 1.4	1375.74	687.872
80	80	80	40	1 : 1.2	1458.99	729.496
80	80	80	60	1 : 1.1	1537.74	768.871
80	80	80	80	1 : 1	1612.15	806.325
80	80	80	100	1.1 : 1	1684.23	842.115
100	100	100	0	1 : 1.6	1515.86	757.93
100	100	100	20	1 : 1.5	1606.14	803.069
100	100	100	40	1 : 1.3	1691.6	845.801
100	100	100	60	1 : 1.2	1772.95	886.477
100	100	100	80	1 : 1.1	1850.73	925.366
100	100	100	100	1 : 1	1925.37	962.685

OPTIMUM SHAPE OF BUILDING ENVELOPE
FLOOR AREA (sq.m.) = 1
REMARK # SHAPE = NE OR SW SIDE / SE OR NW SIDE

WWR (%)				OPTIMUM	MIN.	SC*A^0.5
NE	SW	SE	NW	SHAPE	Q (W)	
0	0	0	0	1 : 1	361.76	180.88
20	20	0	0	1 : 1.9	494.982	247.491
40	40	0	0	1 : 2.7	599.286	299.643
60	60	0	0	1 : 3.6	687.954	343.977
80	80	0	0	1 : 4.5	766.431	383.216
100	100	0	0	1 : 5.4	837.588	418.794
0	0	20	20	1.9 : 1	492.952	246.476
20	20	20	20	1 : 1	674.486	337.243
40	40	20	20	1 : 1.5	816.616	408.308
60	60	20	20	1 : 1.9	937.439	468.72
80	80	20	20	1 : 2.4	1044.38	522.188
100	100	20	20	1 : 2.9	1141.34	570.669
0	0	40	40	2.7 : 1	595.93	297.965
20	20	40	40	1.4 : 1	815.387	407.694
40	40	40	40	1 : 1	987.208	493.604
60	60	40	40	1 : 1.3	1133.27	566.636
80	80	40	40	1 : 1.7	1262.55	631.274
100	100	40	40	1 : 2	1379.77	689.883
0	0	60	60	3.6 : 1	683.567	341.783
20	20	60	60	1.9 : 1	935.297	467.649
40	40	60	60	1.3 : 1	1132.39	566.193
60	60	60	60	1 : 1	1299.93	649.965
80	80	60	60	1 : 1.3	1448.22	724.109
100	100	60	60	1 : 1.5	1582.67	791.336
0	0	80	80	4.4 : 1	761.18	380.59
20	20	80	80	2.4 : 1	1041.49	520.746
40	40	80	80	1.6 : 1	1260.96	630.479
60	60	80	80	1.2 : 1	1447.52	723.762
80	80	80	80	1 : 1	1612.65	806.325
100	100	80	80	1 : 1.2	1762.37	881.186
0	0	100	100	5.3 : 1	831.58	415.79
20	20	100	100	2.8 : 1	1137.82	568.909
40	40	100	100	1.9 : 1	1377.58	688.791
60	60	100	100	1.5 : 1	1581.4	790.702
80	80	100	100	1.2 : 1	1761.8	880.901
100	100	100	100	1 : 1	1925.37	962.685

ภาคผนวก ง

โปรแกรมการคำนวณหาสัดส่วนและรูปทรงอาคารที่เหมาะสมและ โปรแกรมการคำนวณสัมประสิทธิ์รวมเงาประสิทธิผล ของอุปกรณ์บังแดดภายนอก

โปรแกรมการคำนวณหาสัดส่วนและรูปทรงอาคารที่เหมาะสม

```
10 REM ################################################################
20 REM          OPTIMUM SHAPE & FORM OF BUILDING ENVELOPE..
30 REM ################################################################
40 DIM C$(9),WT(9),U(9),S(8),T(9,8)
50 S(1)=130 : S(2)=186 : S(3)=168 : S(4)=190
60 S(5)=141 : S(6)=198 : S(7)=179 : S(8)=154
70 FOR M = 1 TO 8
80 READ C$(M),WT(M),U(M)
90 FOR N = 1 TO 8
100 READ T(M,N)
110 NEXT N
120 NEXT M
130 CLS
140 PRINT TAB(15)"OPTIMUM SHAPE OF BUILDING" :PRINT :PRINT
150 PRINT TAB(15)"building orientation :":PRINT : PRINT
160 PRINT TAB(22)"1. N-S-E-W  : 2. NE-SW-SE-NW" :PRINT
170 PRINT TAB(22)"select orientation (1,2)":
180 INPUT O
190 IF (O(1 OR O)2) THEN 170 :CLS
195 DIM CN$(4),WW(4),UW(4),TD(4),UF(4),SC(4),SF(4),WR(4)
200 FOR OO = 1 TO 4
210 CLS :PRINT "wall constructions :"
220 PRINT TAB(5)"construction";TAB(30)"WT(kg/m^2)";TAB(45)"U(W/m^2-C)"
230 FOR M = 1 TO 8
240 PRINT M;C$(M);TAB(32);WT(M);TAB(47);U(M)
250 NEXT M
260 PRINT
270 PRINT "set wall constructions :"
280 IF (OO=1 AND O=1) THEN PRINT "NORTH FACADE  :"
290 IF (OO=2 AND O=1) THEN PRINT "SOUTH FACADE  :"
300 IF (OO=3 AND O=1) THEN PRINT "EAST FACADE  :"
310 IF (OO=4 AND O=1) THEN PRINT "WEST FACADE  :"
320 IF (OO=1 AND O=2) THEN PRINT "NORTH-EAST FACADE  :"
330 IF (OO=2 AND O=2) THEN PRINT "SOUTH-WEST FACADE  :"
340 IF (OO=3 AND O=2) THEN PRINT "SOUTH-EAST FACADE  :"
350 IF (OO=4 AND O=2) THEN PRINT "NORTH-WEST FACADE  :"
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350 PRINT "wall construction (1-8 or other. key 9) :";
370 INPUT C
380 IF (C<1 OR C>9) THEN 360
390 IF C=9 THEN 410 ELSE 490
410 PRINT TAB(5)"input construction name :":INPUT CN$(00)
420 PRINT TAB(5)"input weight :":INPUT WW(00)
430 PRINT TAB(5)"input Uw :":INPUT UW(00)
440 PRINT TAB(5)"select TDeq (type 1-8) or new TDeq (key 9)":INPUT TT
450 IF (TT<1 OR TT>9) THEN 440
460 IF TT = 9 THEN 480
470 GOTO 490
480 PRINT TAB(5)"input TDeq :": INPUT TD(00)
490 CN$(00)= C$(C) :WW(00)= WT(C) :UW(00)=U(C)
500 IF O = 2 THEN X =00+4 ELSE X = 00
510 IF (TT>0 AND TT<9) THEN TD(00) = T(TT,X) ELSE TD(00) = T(C,X)
520 PRINT TAB(5)"input Uf :":INPUT UF(00)
530 PRINT TAB(5)"input shading coefficient :": INPUT SC(00)
540 SF(00) = S(X)
550 PRINT TAB(5)"input percent of window-wall ratio : (0-100)": INPUT WR(00)
560 NEXT 00
570 CLS
580 PRINT TAB(10)"INPUT FLOOR AREA :";
590 INPUT FA
600 PRINT TAB(10)"change height of floor: (height =3.5 m.) (Y,N)";
610 INPUT HE$
615 IF HE$ = "Y" THEN 618
616 GOTO 620
618 PRINT TAB(10)"input height :";
619 INPUT H
620 IF HE$ = "Y" THEN H = H ELSE H =3.5
630 H1 = UW(1)*TD(1)*(1-WR(1)/100)+(UF(1)*5+SC(1)*SF(1))*WR(1)/100
640 H2 = UW(2)*TD(2)*(1-WR(2)/100)+(UF(2)*5+SC(2)*SF(2))*WR(2)/100
650 H3 = UW(3)*TD(3)*(1-WR(3)/100)+(UF(3)*5+SC(3)*SF(3))*WR(3)/100
660 H4 = UW(4)*TD(4)*(1-WR(4)/100)+(UF(4)*5+SC(4)*SF(4))*WR(4)/100
670 RATIO = (H3+H4)/(H1+H2)
680 Q = 2*H*(FA*(H3+H4)*(H1+H2))^.5
690 SC = H*((H3+H4)*(H1+H2)/FA)^.5
700 CLS
710 PRINT TAB(10)"OPTIMUM SHAPE OF BUILDING":PRINT
715 LPRINT TAB(10)"OPTIMUM SHAPE OF BUILDING":LPRINT
720 PRINT TAB(10)"ORIENTATION OF BUILDING  :":PRINT
725 LPRINT TAB(10)"ORIENTATION OF BUILDING  :":LPRINT
730 IF O = 1 THEN PRINT TAB(36)"N-S-E-W" ELSE  PRINT TAB(36)"NE-SW-SE-NW"
735 IF O = 1 THEN LPRINT TAB(36)"N-S-E-W" ELSE LPRINT TAB(36)"NE-SW-SE-NW"
740 PRINT:LPRINT
750 PRINT TAB(10)"WALL CONSTRUCTION :"
755 LPRINT TAB(10)"WALL CONSTRUCTION :"
760 FOR 00 = 1 TO 4
770 IF (00=1 AND O=1) THEN PRINT TAB(10)"NORTH FACADE  :"
775 IF (00=1 AND O=1) THEN LPRINT TAB(10)"NORTH FACADE  :"
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780 IF (OO=2 AND O=1) THEN PRINT TAB(10)"SOUTH FACADE  :"
785 IF (OO=2 AND O=1) THEN LPRINT TAB(10)"SOUTH FACADE  :"
790 IF (OO=3 AND O=1) THEN PRINT TAB(10)"EAST FACADE  :"
795 IF (OO=3 AND O=1) THEN LPRINT TAB(10)"EAST FACADE  :"
800 IF (OO=4 AND O=1) THEN PRINT TAB(10)"WEST FACADE  :"
805 IF (OO=4 AND O=1) THEN LPRINT TAB(10)"WEST FACADE  :"
810 IF (OO=1 AND O=2) THEN PRINT TAB(10)"NORTH-EAST FACADE  :"
815 IF (OO=1 AND O=2) THEN LPRINT TAB(10)"NORTH-EAST FACADE  :"
820 IF (OO=2 AND O=2) THEN PRINT TAB(10)"SOUTH-WEST FACADE  :"
825 IF (OO=2 AND O=2) THEN LPRINT TAB(10)"SOUTH-WEST FACADE  :"
830 IF (OO=3 AND O=2) THEN PRINT TAB(10)"SOUTH-EAST FACADE  :"
835 IF (OO=3 AND O=2) THEN LPRINT TAB(10)"SOUTH-EAST FACADE  :"
840 IF (OO=4 AND O=2) THEN PRINT TAB(10)"NORTH-WEST FACADE  :"
845 IF (OO=4 AND O=2) THEN LPRINT TAB(10)"NORTH-WEST FACADE  :"
850 PRINT TAB(10)"CONSTRUCTION :";CN$(OO)
855 LPRINT TAB(10)"CONSTRUCTION :";CN$(OO)
860 PRINT TAB(24)"Uw =";UW(OO);"W/m^2-C";"   weight =";WW(OO);"kg/m^2"
865 LPRINT TAB(24)"Uw =";UW(OO);"W/m^2-C";"   weight =";WW(OO);"kg/m^2"
870 PRINT TAB(24) "window-wall ratio =";WR(OO);"%";"  SC =";SC(OO)
875 LPRINT TAB(24) "window-wall ratio =";WR(OO);"%";"  SC =";SC(OO)
880 NEXT OO
890 PRINT TAB(10)"FLOOR AREA =";FA;"sq.m.";"  HEIGHT =";H;"m."
895 LPRINT TAB(10)"FLOOR AREA =";FA;"sq.m.";"  HEIGHT =";H;"m."
900 PRINT:LPRINT
910 PRINT TAB(10)"OPTIMUM SHAPE OF BUILDING :"
915 LPRINT TAB(10)"OPTIMUM SHAPE OF BUILDING :"
920 IF O = 1 THEN PRINT TAB(10)"(N OR S SIDE / E OR W SIDE)" ELSE PRINT TAB(10)"
NE OR SW SIDE / SE OR NW SIDE )"
925 IF O = 1 THEN LPRINT TAB(10)"(N OR S SIDE / E OR W SIDE)" ELSE LPRINT TAB(10
)"NE OR SW SIDE / SE OR NW SIDE )"
930 PRINT TAB(10)"= ";RATIO;": 1"
935 LPRINT TAB(10)"= ";RATIO;": 1"
940 PRINT TAB(10)"AVERAGE HEAT GAIN (excluded roof) =";Q;" W"
945 LPRINT TAB(10)"AVERAGE HEAT GAIN (excluded roof) =";Q;" W"
950 PRINT TAB(10)"SENSITIVITY COEFFICIENT =";SC
955 LPRINT TAB(10)"SENSITIVITY COEFFICIENT =";SC
960 PRINT :PRINT :LPRINT :LPRINT
970 PRINT TAB(10)"find optimum form of building ! (Y,N) :";
980 INPUT FI$
990 IF NOT FI$ ="Y" THEN 1300
1000 CLS
1010 PRINT TAB(10)"input total floor area !";
1020 INPUT TA
1030 PRINT TAB(10)"input range of storey number !";
1040 INPUT SN
1050 REM ****** ROOF IS 10 cm. H.W. CONCRETE  **********
1060 REM ****** IF WANT TO CHANGE EDIT 1070   **********
1070 UR = 3.24 : TR = 7
1080 CLS
1090 PRINT TAB(10)"OPTIMUM FORM OF BUILDING " :PRINT
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1095 LPRINT TAB(10)"OPTIMUM FORM OF BUILDING " :LPRINT
1100 PRINT TAB(10)"TOTAL FLOOR AREA =";TA;" sq.m."
1105 LPRINT TAB(10)"TOTAL FLOOR AREA =";TA;" sq.m."
1110 PRINT TAB(10)"NUMBER OF STOREY =";SN
1115 LPRINT TAB(10)"NUMBER OF STOREY =";SN
1120 PRINT:PRINT:LPRINT :LPRINT
1130 PRINT TAB(10)"STOREY";TAB(19)"FL.AREA";TAB(30)"Qw (W)";TAB(43)"Qr (W)";TAB(
56)"TOTAL HEAT GAIN (W)"
1135 LPRINT TAB(10)"STOREY";TAB(19)"FL.AREA";TAB(30)"Qw (W)";TAB(43)"Qr (W)";TAB
(56)"TOTAL HEAT GAIN (W)"
1140 FOR N = 1 TO SN
1150 FA = TA/N
1160 QW = ((H1+H2)*H*RATIO .5*FA .5+(H3+H4)*H*FA .5/RATIO .5)*N
1170 QR = UR*FA*TR
1180 QT = QW+QR
1185 PRINT TAB(9);N;TAB(18);FA;TAB(29);QW;TAB(42);QR;TAB(55);QT
1190 LPRINT TAB(9);N;TAB(18);FA;TAB(29);QW;TAB(42);QR;TAB(55);QT
1200 IF N>1 THEN 1220
1210 ZQ = QT : ZN = N : ZA = FA
1220 IF QT < ZQ THEN ZQ = QT : ZN = N : ZA = FA
1230 NEXT N
1240 PRINT
1250 PRINT TAB(10)"OPTIMUM NUMBER OF STOREY = ";ZN
1255 LPRINT TAB(10)"OPTIMUM NUMBER OF STOREY = ";ZN
1260 PRINT TAB(10)"OPTIMUM FLOOR AREA = ";ZA;" sq.m."
1265 LPRINT TAB(10)"OPTIMUM FLOOR AREA = ";ZA;" sq.m."
1270 PRINT TAB(10)"TOTAL HEAT GAIN = ";ZQ;" W"
1275 LPRINT TAB(10)"TOTAL HEAT GAIN = ";ZQ;" W"
1300 END
10000 DATA 10 cm. h.w. concrete block,177,2.72,8,10,10,10,9,10,10,9
10100 DATA 10 cm. clay tile ,190,2.37,8,10,9,9,8,9,10,8
10200 DATA 10 cm. common brick,273,2.61,7,8,8,7,7,8,8,7
10300 DATA 20 cm. h.w. concrete block,278,2.28,6,8,8,7,7,7,8,6
10400 DATA 10 cm. h.w. concrete,305,3.32,7,9,9,8,8,8,9,7
10500 DATA 20 cm. clay tile,308,1.68,5,6,6,6,6,6,7,5
10600 DATA 10 cm. face brick with 10 cm. common brick,437,2.35,5,6,6,6,6,6,6,5
10700 DATA 20 cm. h.w. concrete ,534,2.78,5,6,7,6,6,6,7,6
```

โปรแกรมการคำนวณสัมประสิทธิ์ที่มีประสิทธิผลของอุปกรณ์บังแดดภายนอก

```
10 REM ######################################################
20 REM            EFFECTIVE SHADING COEFFICIENTS..
30 REM ######################################################
40 PRINT "EFFECTIVE SHADING COEFFICIENT OF SHADING DEVICE" : PRINT
50 PRINT "SHADING DEVICES  :"
60 PRINT TAB(8)"1. OVERHANGS"
70 PRINT TAB(8)"2. VERTICAL FINS"
80 PRINT TAB(8)"3. COMBINATION FINS"
90 PRINT TAB(8)"4. ALL TYPES"
100 PRINT
110 PRINT "select type of shading devices (1,2,3,4) :";
120 INPUT X
130 IF (X<1 OR X>4) THEN 110
140 PRINT "ORIENTATION  :" : PRINT
150 PRINT TAB(8)"1. NE  2. E  3. SE  4. S "
160 PRINT TAB(8)"5. SW  6. W  7. NW  8. N "
170 PRINT
180 PRINT "select orientation (1 to 8) :";
190 INPUT O
200 IF (O<1 OR O>8) THEN 180
210 ON X GOSUB 650,1050,1400,1700
220 GOTO 2000
230 FOR P = LN+1 TO 66
240 PRINT : LPRINT
250 NEXT P
260 RETURN
270 FOR BL = 1 TO 10
280 PRINT CHR$(7)
290 NEXT BL
300 RETURN
310 IF O = 1 THEN PRINT TAB(15)"NORTH-EAST..":LPRINT TAB(15)"NORTH-EAST..":GOTO
390
320 IF O = 2 THEN PRINT TAB(15)"EAST..":LPRINT TAB(15)"EAST..":GOTO 390
330 IF O = 3 THEN PRINT TAB(15)"SOUTH-EAST..":LPRINT TAB(15)"SOUTH-EAST..":GOTO
390
340 IF O = 4 THEN PRINT TAB(15)"SOUTH..":LPRINT TAB(15)"SOUTH..":GOTO 390
350 IF O = 5 THEN PRINT TAB(15)"SOUTH-WEST..":LPRINT TAB(15)"SOUTH-WEST..":GOTO
390
360 IF O = 6 THEN PRINT TAB(15)"WEST..":LPRINT TAB(15)"WEST..":GOTO 390
370 IF O = 7 THEN PRINT TAB(15)"NORTH-WEST..":LPRINT TAB(15)"NORTH-WEST..":GOTO
390
380 IF O = 8 THEN PRINT TAB(15)"NORTH..":LPRINT TAB(15)"NORTH..":GOTO 390
390 PRINT :LPRINT
400 IF O = 1 THEN OPEN "NE.DAT" FOR INPUT AS#1
410 IF O = 2 THEN OPEN "E.DAT" FOR INPUT AS#1
420 IF O = 3 THEN OPEN "SE.DAT" FOR INPUT AS#1
430 IF O = 4 THEN OPEN "S.DAT" FOR INPUT AS#1
440 IF O = 5 THEN OPEN "SW.DAT" FOR INPUT AS#1
450 IF O = 6 THEN OPEN "W.DAT" FOR INPUT AS#1
460 IF O = 7 THEN OPEN "NW.DAT" FOR INPUT AS#1
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470 IF O = 8 THEN OPEN "N.DAT" FOR INPUT AS#1
472 DIM B(144),D(144),V(144),H(144),A(5)
474 FOR N = 1 TO 144
476 INPUT #1,B(N),D(N),V(N),H(N)
477 NEXT N
478 CLOSE #1
500 RETURN
510 PRINT TAB(15);"R";TAB(20);"0";TAB(30);"10";TAB(40);"20";TAB(50);"30";TAB(60)
;"40";TAB(70);"50"
520 LPRINT TAB(15);"R";TAB(20);"0";TAB(30);"10";TAB(40);"20";TAB(50);"30";TAB(60
);"40";TAB(70);"50"
530 PRINT:LPRINT
540 RETURN
550 REM ******************************************************
560 REM        SUBROUTINE..      SC. OF OVERHANGS..
570 REM ******************************************************
600 PRINT TAB(15)"EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS"
610 PRINT TAB(15)"----------------------------------------"
620 LPRINT TAB(15)"EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS"
630 LPRINT TAB(15)"----------------------------------------"
635 PRINT:LPRINT
640 RETURN
650 CLS : GOSUB 600 : GOSUB 310 :GOSUB 510
710 LN = 7
720 FOR R = .1 TO 3 STEP .1
730 FOR J = 0 TO 50 STEP 10
740 I = 0 :Z = 0
750 FOR N = 1 TO 144
760 I = I + B(N) + D(N)
770 IF V(N) >= 90 THEN 810
780 G = 1-R*(COS(J*.0174532)*TAN(V(N)*.0174532)+SIN(J*.0174532))
790 IF G<0 THEN 810
800 GOTO 820
810 G = 0
820 Z = Z+G*B(N)+D(N)
830 NEXT N
840 LET A(J/10) = Z/I
850 NEXT J
860 LN = LN+1
870 PRINT TAB(14);R;TAB(19);A(0);TAB(29);A(1);TAB(39);A(2);TAB(49);A(3);TAB(59);
A(4);TAB(69);A(5)
880 LPRINT TAB(14);R;TAB(19);A(0);TAB(29);A(1);TAB(39);A(2);TAB(49);A(3);TAB(59)
;A(4);TAB(69);A(5)
890 NEXT R
900 GOSUB 230 :GOSUB 270
910 RETURN
960 REM ************************************************************
970 REM          SUBROUTINE..       SC. OF VERTICAL FINS..
980 REM ************************************************************
990 PRINT TAB(15)"EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS"
```

```
1000 PRINT TAB(15)"-----------------------------------------------
1010 LPRINT TAB(15)"EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS"
1020 LPRINT TAB(15)"-----------------------------------------------
1030 PRINT:LPRINT
1040 RETURN
1050 CLS : GOSUB 990 :GOSUB 310 : GOSUB 510
1060 LN = 7
1070 FOR R =.1 TO 3 STEP .1
1080 FOR J = 0 TO 50 STEP 10
1090 I = 0 : Z = 0
1100 FOR N=1 TO 144
1110 I = I+B(N)+D(N)
1120 IF H(N) >= ABS(90) THEN 1160
1130 G = 1-R*ABS(COS(J*.0174532)*TAN(H(N)*.0174532)-SIN(J*.0174532))
1140 IF G<0 THEN 1160
1150 GOTO 1170
1160 G = 0
1170 Z = Z+G*B(N)+D(N)
1180 NEXT N
1190 LET A(ABS(J)/10) = Z/I
1200 NEXT J
1210  LN = LN+1
1220 PRINT TAB(14);R;TAB(19);A(0);TAB(29);A(1);TAB(39);A(2);TAB(49);A(3);TAB(59)
;A(4);TAB(69);A(5)
1230 LPRINT TAB(14);R;TAB(19);A(0);TAB(29);A(1);TAB(39);A(2);TAB(49);A(3);TAB(59
);A(4);TAB(69);A(5)
1240 NEXT R
1250 GOSUB 230 :GOSUB 270
1260 RETURN
1262 REM ************************************************************************
1263 REM         SUBROUTINE..        SC. OF COMBINATION FINS..
1264 REM ************************************************************************
1270 PRINT TAB(15)"EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS"
1280 PRINT TAB(15)"-----------------------------------------------"
1290 LPRINT TAB(15)"EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS"
1300 LPRINT TAB(15)"-----------------------------------------------"
1310 PRINT:LPRINT
1320 RETURN
1330 PRINT TAB(15);"R1";TAB(19);"R2";TAB(29);"0";TAB(39);"10";TAB(49);"20";TAB(5
9);"30";TAB(69);"40"
1340 LPRINT TAB(15);"R1";TAB(19);"R2";TAB(29);"0";TAB(39);"10";TAB(49);"20";TAB(
59);"30";TAB(69);"40"
1350 PRINT:LPRINT
1360 RETURN
1400 CLS :GOSUB 1270 : GOSUB 310 : GOSUB 1330
1410 LN = 7
1420 FOR R1 = .2 TO 2 STEP .2
1430 FOR R2 = .2 TO 2 STEP .2
1440 FOR J = 0 TO 40 STEP 10
1450 I=0 : Z=0
```

```
1460 FOR N = 1 TO 144
1470 I = I+B(N)+D(N)
1480 IF V(N) >= 90 OR H(N) >= ABS(90) THEN 1540
1490 G1 = (1-R1*(COS(J*.0174532)*TAN(V(N)*.0174532)+SIN(J*.0174532)))
1500 G2 = 1-R2*ABS(TAN(H(N)*.0174532))
1510 IF (G1<0 OR G2<0) THEN 1540
1520 G = G1*G2
1530 GOTO 1550
1540 G = 0
1550 Z = Z+G*B(N)+D(N)
1560 NEXT N
1570 A(J/10) = Z/I
1580 NEXT J
1590 LN = LN+1
1600 IF LN = 48 THEN 1660
1610 PRINT TAB(14);R1;TAB(19);R2;TAB(28);A(0);TAB(38);A(1);TAB(48);A(2);TAB(58);
A(3);TAB(68);A(4)
1615 LPRINT TAB(14);R1;TAB(19);R2;TAB(28);A(0);TAB(38);A(1);TAB(48);A(2);TAB(58)
;A(3);TAB(68);A(4)
1620 NEXT R2
1630 NEXT R1
1640 GOSUB 230 :GOSUB 270
1650 RETURN
1660 GOSUB 230 :GOSUB 270 :CLS : GOSUB 1270 :GOSUB 310 : GOSUB 1330
1670 LN = 8
1680 GOTO 1610
1700 GOSUB 650 : GOSUB 1050 :GOSUB 1400
1710 RETURN
2000 END
```

ภาคผนวก จ

ค่า VSA และ HSA ของระนาบที่เวลาและทิศทางต่าง ๆ

VERTICAL SHADOW ANGLE & HORIZONTAL SHADOW ANGLE

BANGKOK.. azimuth angle = -135 (NORTH-EAST)

LOCAL	JAN		FEB		MAR		APR		MAY		JUN	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	6	67	7	59	11	49	15	38	17	29	16	24
8.00	42	72	35	64	34	53	34	41	33	31	31	26
9.00	69	78	60	70	54	58	51	44	48	32	46	26
10.00	88	88	78	79	71	66	66	49	61	31	59	24
11.00	-	-	-	-	85	80	79	55	73	27	70	15
12.00	-	-	-	-	-	-	90	89	84	-12	80	-22
13.00	-	-	-	-	-	-	-	-	-	-	-	-
14.00	-	-	-	-	-	-	-	-	-	-	-	-
15.00	-	-	-	-	-	-	-	-	-	-	-	-
16.00	-	-	-	-	-	-	-	-	-	-	-	-
17.00	-	-	-	-	-	-	-	-	-	-	-	-
18.00	-	-	-	-	-	-	-	-	-	-	-	-

LOCAL	JUL		AUG		SEP		OCT		NOV		DEC	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	15	26	15	34	17	46	21	58	21	67	16	70
8.00	30	28	32	37	38	49	46	63	53	72	52	75
9.00	45	29	48	39	56	54	67	70	76	80	78	83
10.00	58	28	63	41	72	61	83	81	-	-	-	-
11.00	70	22	75	43	85	76	-	-	-	-	-	-
12.00	81	-9	86	47	-	-	-	-	-	-	-	-
13.00	-	-	-	-	-	-	-	-	-	-	-	-
14.00	-	-	-	-	-	-	-	-	-	-	-	-
15.00	-	-	-	-	-	-	-	-	-	-	-	-
16.00	-	-	-	-	-	-	-	-	-	-	-	-
17.00	-	-	-	-	-	-	-	-	-	-	-	-
18.00	-	-	-	-	-	-	-	-	-	-	-	-

ERTICAL SHADOW ANGLE & HORIZONTAL SHADOW ANGLE

BANGKOK.. azimuth angle = -90 (EAST)

	JAN		FEB		MAR		APR		MAY		JUN	
LOCAL TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	3	22	4	14	7	4	12	-7	16	-16	16	-21
8.00	17	27	18	19	22	8	27	-4	30	-14	30	-19
9.00	33	33	33	25	37	13	41	-1	44	-13	44	-19
10.00	49	43	49	34	52	21	56	4	58	-14	58	-21
11.00	65	58	65	48	67	35	71	10	72	-18	72	-30
12.00	32	79	81	73	83	67	85	44	87	-57	86	-67
13.00	-	-	-	-	-	-	-	-	-	-	-	-
14.00	-	-	-	-	-	-	-	-	-	-	-	-
15.00	-	-	-	-	-	-	-	-	-	-	-	-
16.00	-	-	-	-	-	-	-	-	-	-	-	-
17.00	-	-	-	-	-	-	-	-	-	-	-	-
18.00	-	-	-	-	-	-	-	-	-	-	-	-

	JUL		AUG		SEP		OCT		NOV		DEC	
LOCAL TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	14	-19	12	-11	12	1	12	13	9	22	6	25
8.00	28	-17	27	-8	27	4	26	18	24	27	21	30
9.00	42	-16	41	-6	41	9	42	25	40	35	36	38
10.00	56	-17	55	-4	56	16	57	36	56	46	53	48
11.00	70	-23	70	-2	72	31	73	55	72	64	69	64
12.00	84	-54	85	2	87	75	89	88	89	89	87	85
13.00	-	-	-	-	-	-	-	-	-	-	-	-
14.00	-	-	-	-	-	-	-	-	-	-	-	-
15.00	-	-	-	-	-	-	-	-	-	-	-	-
16.00	-	-	-	-	-	-	-	-	-	-	-	-
17.00	-	-	-	-	-	-	-	-	-	-	-	-
18.00	-	-	-	-	-	-	-	-	-	-	-	-

VERTICAL SHADOW ANGLE & HORIZONTAL SHADOW ANGLE

BANGKOK.. azimuth angle = -45 (SOUTH-EAST)

LOCAL	JAN		FEB		MAR		APR		MAY		JUN	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	3	-23	4	-31	10	-41	19	-52	29	-61	33	-66
8.00	16	-18	19	-26	26	-37	37	-49	47	-59	51	-64
9.00	29	-12	33	-20	41	-32	51	-46	61	-58	64	-64
10.00	40	-2	44	-11	53	-24	63	-41	72	-59	75	-66
11.00	50	13	55	3	63	-10	74	-35	81	-63	84	-75
12.00	59	34	65	28	74	22	84	-1	-	-	-	-
13.00	69	58	75	60	84	72	-	-	-	-	-	-
14.00	80	79	87	85	-	-	-	-	-	-	-	-
15.00	-	-	-	-	-	-	-	-	-	-	-	-
16.00	-	-	-	-	-	-	-	-	-	-	-	-
17.00	-	-	-	-	-	-	-	-	-	-	-	-
18.00	-	-	-	-	-	-	-	-	-	-	-	-

LOCAL	JUL		AUG		SEP		OCT		NOV		DEC	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	28	-64	21	-56	17	-44	13	-32	9	-23	6	-20
8.00	47	-62	40	-53	33	-41	28	-27	23	-18	19	-15
9.00	61	-61	54	-51	47	-36	41	-20	35	-10	31	-7
10.00	72	-62	66	-49	59	-29	52	-9	45	1	41	3
11.00	82	-68	76	-47	69	-14	62	10	55	19	51	19
12.00	-	-	86	-43	80	30	73	43	65	44	60	40
13.00	-	-	-	-	-	-	83	77	75	69	70	63
14.00	-	-	-	-	-	-	-	-	87	87	81	81
15.00	-	-	-	-	-	-	-	-	-	-	-	-
16.00	-	-	-	-	-	-	-	-	-	-	-	-
17.00	-	-	-	-	-	-	-	-	-	-	-	-
18.00	-	-	-	-	-	-	-	-	-	-	-	-

VERTICAL SHADOW ANGLE & HORIZONTAL SHADOW ANGLE

BANGKOK.. azimuth angle = 0 (SOUTH)

LOCAL	JAN		FEB		MAR		APR		MAY		JUN	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	6	-68	14	-76	50	-86			-	-	-	-
8.00	32	-63	45	-71	70	-82	-	-	-	-	-	-
9.00	44	-57	55	-65	72	-77	-	-	-	-	-	-
10.00	51	-47	60	-56	73	-69	38	-86	-	-	-	-
11.00	54	-32	62	-42	74	-55	36	-80	-	-	-	-
12.00	55	-11	63	-17	74	-23	36	-46	-	-	-	-
13.00	55	13	63	15	74	27	36	68	-	-	-	-
14.00	54	34	62	40	74	57	37	33	-	-	-	-
15.00	50	48	60	55	73	70	39	38	-	-	-	-
16.00	44	57	56	65	72	77	-	-	-	-	-	-
17.00	31	64	46	71	60	82	-	-	-	-	-	-
18.00	4	68	18	75	55	86	-	-	-	-	-	-

LOCAL	JUL		AUG		SEP		OCT		NOV		DEC	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	-	-	-	-	37	-89	42	-77	22	-68	12	-65
8.00	-	-	-	-	61	-86	57	-72	41	-63	33	-60
9.00	-	-	-	-	80	-81	63	-65	60	-55	44	-52
10.00	-	-	-	-	79	-74	65	-56	55	-44	49	-42
11.00	-	-	-	-	79	-59	66	-35	57	-26	52	-26
12.00	-	-	90	-38	78	-15	67	-2	57	-1	53	-5
13.00	-	-	80	39	79	47	66	32	57	24	53	18
14.00	-	-	-	-	79	69	65	53	55	42	51	36
15.00	-	-	-	-	79	78	63	64	51	54	46	49
16.00	-	-	-	-	80	84	58	72	42	62	38	57
17.00	-	-	-	-	83	88	44	77	25	68	22	63
18.00	-	-	-	-	-	-	-	-	-	-	-	-

VERTICAL SHADOW ANGLE & HORIZONTAL SHADOW ANGLE

BANGKOK.. azimuth angle = 45 (SOUTH-WEST)

LOCAL	JAN		FEB		MAR		APR		MAY		JUN	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	-	-	-	-	-	-	-	-	-	-	-	-
8.00	-	-	-	-	-	-	-	-	-	-	-	-
9.00	-	-	-	-	-	-	-	-	-	-	-	-
10.00	-	-	-	-	-	-	-	-	-	-	-	-
11.00	79	-77	88	-87	-	-	-	-	-	-	-	-
12.00	69	-66	76	-62	83	-68	-	-	-	-	-	-
13.00	59	-32	66	-30	73	-18	80	23	86	71	90	39
14.00	49	-11	56	-5	62	12	70	38	76	60	80	70
15.00	39	3	45	10	52	25	59	43	66	58	71	65
16.00	28	12	34	20	39	32	46	47	54	58	59	64
17.00	16	19	21	26	25	37	31	50	39	60	45	65
18.00	2	23	6	30	8	41	11	53	16	63	22	67

LOCAL	JUL		AUG		SEP		OCT		NOV		DEC	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	-	-	-	-	-	-	-	-	-	-	-	-
8.00	-	-	-	-	-	-	-	-	-	-	-	-
9.00	-	-	-	-	-	-	-	-	-	-	-	-
10.00	-	-	-	-	-	-	-	-	89	-89	86	-87
11.00	-	-	-	-	-	-	85	-80	77	-71	74	-71
12.00	-	-	-	-	84	-60	74	-47	66	-46	64	-50
13.00	89	37	83	44	74	2	63	-13	56	-21	55	-27
14.00	80	66	73	47	63	24	53	8	47	-3	45	-9
15.00	70	62	63	49	52	33	42	19	36	9	35	4
16.00	59	61	51	52	39	39	29	27	24	17	24	12
17.00	44	62	35	54	24	43	15	32	11	23	11	18
18.00	23	64	15	57	5	46	-	-	-	-	-	-

VERTICAL SHADOW ANGLE & HORIZONTAL SHADOW ANGLE

BANGKOK.. azimuth angle = 90 (WEST)

LOCAL	JAN		FEB		MAR		APR		MAY		JUN	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	-	-	-	-	-	-	-	-	-	-	-	-
8.00	-	-	-	-	-	-	-	-	-	-	-	-
9.00	-	-	-	-	-	-	-	-	-	-	-	-
10.00	-	-	-	-	-	-	-	-	-	-	-	-
11.00	-	-	-	-	-	-	-	-	-	-	-	-
12.00	-	-	-	-	-	-	-	-	-	-	-	-
13.00	81	-77	83	-75	82	-63	80	-22	79	26	80	44
14.00	64	-56	66	-50	66	-33	65	-7	65	15	66	25
15.00	48	-42	50	-35	51	-20	50	-2	51	13	52	20
16.00	32	-33	35	-25	36	-13	36	2	37	13	38	19
17.00	16	-26	20	-19	21	-8	21	5	22	15	24	20
18.00	2	-22	5	-15	6	-4	7	8	8	18	10	22

LOCAL	JUL		AUG		SEP		OCT		NOV		DEC	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	-	-	-	-	-	-	-	-	-	-	-	-
8.00	-	-	-	-	-	-	-	-	-	-	-	-
9.00	-	-	-	-	-	-	-	-	-	-	-	-
10.00	-	-	-	-	-	-	-	-	-	-	-	-
11.00	-	-	-	-	-	-	-	-	-	-	-	-
12.00	-	-	-	-	-	-	-	-	-	-	-	-
13.00	81	42	81	-1	78	-43	75	-58	74	-66	76	-72
14.00	67	21	66	2	63	-21	59	-37	57	-48	59	-54
15.00	53	17	52	4	48	-12	43	-26	41	-36	43	-41
16.00	39	16	37	7	33	-6	28	-18	26	-28	27	-33
17.00	25	17	23	9	18	-2	13	-13	11	-22	12	-27
18.00	11	19	9	12	4	1	-	-	-	-	-	-

VERTICAL SHADOW ANGLE & HORIZONTAL SHADOW ANGLE

BANGKOK.. azimuth angle = 135 (NORTH-WEST)

LOCAL	JAN		FEB		MAR		APR		MAY		JUN	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	-	-	-	-	-	-	-	-	-	-	-	-
8.00	-	-	-	-	-	-	-	-	-	-	-	-
9.00	-	-	-	-	-	-	-	-	-	-	-	-
10.00	-	-	-	-	-	-	-	-	-	-	-	-
11.00	-	-	-	-	-	-	-	-	-	-	-	-
12.00	-	-	-	-	-	-	-	-	69	73	66	68
13.00	-	-	-	-	-	-	86	-67	79	-19	76	-1
14.00	-	-	-	-	84	-78	74	-52	67	-30	65	-20
15.00	87	-87	80	-80	70	-65	60	-47	55	-32	53	-25
16.00	68	-78	62	-70	53	-58	45	-43	40	-32	40	-26
17.00	40	-71	38	-64	32	-53	27	-40	25	-30	25	-25
18.00	4	-67	3	-60	3	-49	3	-37	3	-27	10	-23

LOCAL	JUL		AUG		SEP		OCT		NOV		DEC	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	-	-	-	-	-	-	-	-	-	-	-	-
8.00	-	-	-	-	-	-	-	-	-	-	-	-
9.00	-	-	-	-	-	-	-	-	-	-	-	-
10.00	-	-	-	-	-	-	-	-	-	-	-	-
11.00	-	-	-	-	-	-	-	-	-	-	-	-
12.00	89	81	-	-	-	-	-	-	-	-	-	-
13.00	79	-3	83	-46	89	-88	-	-	-	-	-	-
14.00	68	-24	72	-43	77	-66	84	-32	-	-	-	-
15.00	56	-28	59	-41	63	-57	69	-71	77	-81	85	-86
16.00	42	-29	44	-38	46	-51	48	-63	55	-73	64	-78
17.00	27	-28	27	-36	26	-47	23	-58	25	-67	31	-72
18.00	11	-26	10	-33	5	-44	-	-	-	-	-	-

VERTICAL SHADOW ANGLE & HORIZONTAL SHADOW ANGLE

BANGKOK.. azimuth angle = 180 (NORTH)

LOCAL	JAN		FEB		MAR		APR		MAY		JUN	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	-	-	-	-	-	-	81	83	74	74	67	69
8.00	-	-	-	-	-	-	83	86	76	76	69	71
9.00	-	-	-	-	-	-	89	89	77	77	71	71
10.00	-	-	-	-	-	-	-	-	82	76	76	69
11.00	-	-	-	-	-	-	-	-	84	72	79	60
12.00	-	-	-	-	-	-	-	-	85	33	81	23
13.00	-	-	-	-	-	-	-	-	35	-64	80	-46
14.00	-	-	-	-	-	-	-	-	83	-75	78	-65
15.00	-	-	-	-	-	-	-	-	79	-77	74	-70
16.00	-	-	-	-	-	-	38	-88	72	-77	67	-71
17.00	-	-	-	-	-	-	77	-85	67	-75	62	-70
18.00	-	-	-	-	-	-	69	-82	64	-72	64	-68

LOCAL	JUL		AUG		SEP		OCT		NOV		DEC	
TIME	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA	VSA	HSA
7.00	36	71	48	79	-	-	-	-	-	-	-	-
8.00	60	73	74	82	-	-	-	-	-	-	-	-
9.00	72	74	83	84	-	-	-	-	-	-	-	-
10.00	78	73	87	86	-	-	-	-	-	-	-	-
11.00	81	67	89	88	-	-	-	-	-	-	-	-
12.00	82	36	-	-	-	-	-	-	-	-	-	-
13.00	82	-48	-	-	-	-	-	-	-	-	-	-
14.00	81	-69	89	-88	-	-	-	-	-	-	-	-
15.00	77	-73	86	-86	-	-	-	-	-	-	-	-
16.00	70	-74	81	-83	-	-	-	-	-	-	-	-
17.00	56	-73	69	-81	-	-	-	-	-	-	-	-
18.00	29	-71	35	-78	68	-89	-	-	-	-	-	-

ภาคผนวก ฉ

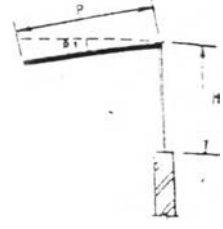
ค่าสัมประสิทธิ์ร่มเงาประสิทธิผลของอุปกรณ์บังแดดภายนอก

Tables of Effecive Shading Coefficient of External Shading Devices

1 Horizontal Projections

$R = \frac{P}{H}$

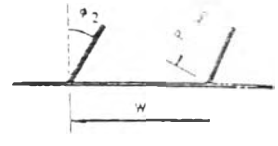
ϕ_1 = Angle of inclination



2 Vertical Projections

$R = \frac{P}{W}$

ϕ_2 = Angle of inclination



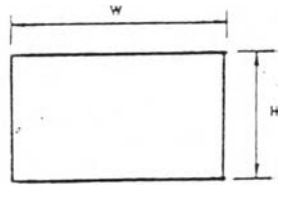
3 Egg-crate Louvres

$R_1 = \frac{P}{H}$

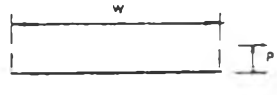
$R_2 = \frac{P}{W}$

ϕ_1 = Angle of inclination

$R_1 = \frac{P}{H}$



$R_2 = \frac{P}{W}$



ตารางที่ ง.1 แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางนอน

ที่ ϕ_1 ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS

NORTH-EAST..

R	0°	10°	20°	30°	40°	50°
.1	.979755	.977968	.97683	.976374	.976652	.977659
.2	.961303	.957787	.955417	.954275	.954466	.956056
.3	.945153	.940053	.936494	.934524	.934384	.936043
.4	.932102	.926043	.921538	.918655	.917506	.918195
.5	.921693	.914578	.909286	.90577	.903979	.904203
.6	.91278	.905754	.900438	.896645	.894333	.893537
.7	.906436	.899187	.893768	.889994	.887654	.886399
.8	.901209	.893941	.88936	.8862	.883898	.882507
.9	.896775	.890723	.886375	.883008	.881119	.880391
1	.893847	.888219	.88361	.881215	.88031	.879631
1.1	.89185	.885846	.881908	.880602	.879634	.879303
1.2	.889936	.883698	.881298	.87999	.879304	.879302
1.3	.888067	.882554	.880795	.879451	.879302	.879302
1.4	.886337	.882033	.880292	.879305	.879302	.879302
1.5	.884768	.881654	.879837	.879302	.879302	.879302
1.6	.883836	.881275	.879422	.879302	.879302	.879302
1.7	.883273	.880896	.879307	.879302	.879302	.879302
1.8	.882962	.880517	.879305	.879302	.879302	.879302
1.9	.882719	.880181	.879302	.879302	.879302	.879302
2	.882476	.879851	.879302	.879302	.879302	.879302
2.1	.882233	.87952	.879302	.879302	.879302	.879302
2.2	.88199	.879367	.879302	.879302	.879302	.879302
2.3	.881747	.87931	.879302	.879302	.879302	.879302
2.4	.881503	.879308	.879302	.879302	.879302	.879302
2.5	.88126	.879306	.879302	.879302	.879302	.879302
2.6	.881017	.879304	.879302	.879302	.879302	.879302
2.7	.880806	.879303	.879302	.879302	.879302	.879302
2.8	.880598	.879302	.879302	.879302	.879302	.879302
2.9	.880388	.879302	.879302	.879302	.879302	.879302
3	.880179	.879302	.879302	.879302	.879302	.879302

ตารางที่ ฉ.1 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางนอน ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS

EAST..

R	0°	10°	20°	30°	40°	50°
.1	.96896	.965193	.962458	.960836	.960399	.961162
.2	.940069	.932568	.927009	.923561	.922328	.92338
.3	.911859	.900632	.892302	.887096	.885248	.886779
.4	.887465	.873675	.863009	.855557	.851633	.851585
.5	.867613	.851399	.838438	.829124	.823739	.822447
.6	.849445	.830561	.816814	.806692	.80002	.796999
.7	.833724	.815439	.801279	.790874	.783507	.779348
.8	.822148	.803555	.788676	.777842	.771046	.766726
.9	.812528	.792998	.778832	.769415	.76346	.759912
1	.804025	.78448	.771837	.763687	.759057	.756805
1.1	.796187	.778239	.766799	.760048	.75689	.755936
1.2	.79011	.773337	.763055	.757779	.756088	.755814
1.3	.785338	.769518	.760489	.756639	.755862	.755814
1.4	.78113	.766411	.758651	.756168	.755814	.755814
1.5	.777705	.763891	.757564	.755934	.755814	.755814
1.6	.774844	.762046	.756757	.755852	.755814	.755814
1.7	.772357	.760534	.756401	.755814	.755814	.755814
1.8	.770235	.759287	.756145	.755814	.755814	.755814
1.9	.768319	.758522	.75599	.755814	.755814	.755814
2	.766702	.757808	.755915	.755814	.755814	.755814
2.1	.765425	.757235	.755866	.755814	.755814	.755814
2.2	.764227	.756872	.755834	.755814	.755814	.755814
2.3	.763189	.756683	.755814	.755814	.755814	.755814
2.4	.762289	.756498	.755814	.755814	.755814	.755814
2.5	.761433	.756326	.755814	.755814	.755814	.755814
2.6	.760713	.756155	.755814	.755814	.755814	.755814
2.7	.760261	.756092	.755814	.755814	.755814	.755814
2.8	.759823	.756043	.755814	.755814	.755814	.755814
2.9	.759385	.755994	.755814	.755814	.755814	.755814
3	.758947	.755944	.755814	.755814	.755814	.755814

ตารางที่ ฉ.1 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางนอน ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS

SOUTH-EAST..

R	0°	10°	20°	30°	40°	50°
.1	.960199	.955944	.95302	.951515	.951475	.952901
.2	.922723	.914288	.908285	.904897	.904231	.906565
.3	.887952	.875719	.866736	.861253	.859533	.862274
.4	.858405	.843011	.831326	.823706	.820382	.821632
.5	.832808	.815059	.801514	.792134	.787077	.786721
.6	.811879	.793254	.778461	.768145	.761749	.759445
.7	.794911	.775275	.76107	.750889	.744126	.740552
.8	.780922	.762338	.748265	.738349	.732661	.729105
.9	.770582	.751878	.739066	.731025	.72576	.723047
1	.761556	.743713	.732889	.725818	.722511	.720758
1.1	.754264	.738548	.728108	.723234	.720707	.720225
1.2	.748344	.733876	.725352	.721534	.720301	.720132
1.3	.744414	.730106	.723571	.720592	.720177	.720132
1.4	.740587	.7276	.722175	.720352	.720132	.720132
1.5	.737269	.726044	.721039	.720244	.720132	.720132
1.6	.734429	.724712	.720659	.720168	.720132	.720132
1.7	.732083	.723484	.720474	.720132	.720132	.720132
1.8	.730276	.722616	.720366	.720132	.720132	.720132
1.9	.729112	.721759	.720295	.720132	.720132	.720132
2	.728101	.721196	.720225	.720132	.720132	.720132
2.1	.72717	.720929	.720181	.720132	.720132	.720132
2.2	.726321	.720709	.720152	.720132	.720132	.720132
2.3	.725472	.720633	.720132	.720132	.720132	.720132
2.4	.72475	.720557	.720132	.720132	.720132	.720132
2.5	.724187	.720483	.720132	.720132	.720132	.720132
2.6	.723625	.720437	.720132	.720132	.720132	.720132
2.7	.723071	.72039	.720132	.720132	.720132	.720132
2.8	.722518	.720343	.720132	.720132	.720132	.720132
2.9	.721964	.720297	.720132	.720132	.720132	.720132
3	.72179	.720252	.720132	.720132	.720132	.720132

ตารางที่ ฉ.1 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางนอน ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS

SOUTH..

R	0°	10°	20°	30°	40°	50°
.1	.954404	.949881	.946861	.945437	.945652	.9475
.2	.909588	.900607	.894522	.891546	.89194	.89563
.3	.867287	.854325	.845247	.840265	.839787	.84468
.4	.830133	.813072	.801046	.794326	.793149	.797601
.5	.794384	.77458	.760789	.752565	.75016	.753771
.6	.76373	.742104	.728076	.720605	.717444	.718503
.7	.737234	.720947	.712917	.708645	.706099	.705159
.8	.722209	.71239	.706482	.703912	.702355	.701538
.9	.715239	.707322	.70393	.701979	.70078	.70023
1	.710451	.705126	.702397	.700837	.70003	.699693
1.1	.707745	.703626	.701302	.70019	.699718	.699615
1.2	.706181	.702563	.700747	.699804	.699651	.699571
1.3	.7049	.701737	.70023	.699727	.699606	.699557
1.4	.704098	.701292	.699889	.69968	.69957	.699557
1.5	.703297	.700862	.699822	.69964	.699557	.699557
1.6	.702634	.700458	.699773	.699611	.699557	.699557
1.7	.702213	.700158	.699737	.699581	.699557	.699557
1.8	.701914	.699986	.699702	.699557	.699557	.699557
1.9	.701614	.699939	.699674	.699557	.699557	.699557
2	.701314	.699893	.699653	.699557	.699557	.699557
2.1	.701014	.699864	.699632	.699557	.699557	.699557
2.2	.700768	.699841	.69961	.699557	.699557	.699557
2.3	.700564	.699818	.699589	.699557	.699557	.699557
2.4	.70036	.699796	.699568	.699557	.699557	.699557
2.5	.7002	.699773	.699557	.699557	.699557	.699557
2.6	.700175	.699751	.699557	.699557	.699557	.699557
2.7	.70015	.699737	.699557	.699557	.699557	.699557
2.8	.700126	.699724	.699557	.699557	.699557	.699557
2.9	.700101	.699711	.699557	.699557	.699557	.699557
3	.700076	.699699	.699557	.699557	.699557	.699557

ตารางที่ ฉ.1 (ต่อ) แสดงค่า SC_2 ของอบกวณบังแดดแบบทางนอน ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS

SOUTH-WEST..

R	0°	10°	20°	30°	40°	50°
.1	.95813	.952829	.948947	.946601	.94587	.946781
.2	.917763	.907234	.899372	.894424	.892608	.894223
.3	.880575	.865212	.853436	.845522	.841982	.843205
.4	.848122	.828317	.812811	.802073	.796432	.796149
.5	.819544	.796617	.778453	.765107	.756985	.754416
.6	.79545	.770075	.750022	.735267	.725234	.720189
.7	.775342	.749071	.72809	.712169	.701111	.6946
.8	.759447	.731714	.710621	.695342	.684206	.677333
.9	.745532	.717977	.697197	.682671	.673507	.66718
1	.7335	.70686	.687127	.674807	.666603	.661715
1.1	.724802	.697819	.680468	.668411	.662374	.659045
1.2	.71643	.690999	.674602	.664752	.659924	.658166
1.3	.709577	.685974	.669809	.662377	.658559	.658041
1.4	.703717	.681268	.667151	.660487	.658156	.658041
1.5	.699426	.677264	.665182	.658987	.658041	.658041
1.6	.695969	.673615	.663316	.658544	.658041	.658041
1.7	.692601	.671377	.661823	.65826	.658041	.658041
1.8	.689394	.6697	.660633	.65811	.658041	.658041
1.9	.686442	.66835	.659442	.658041	.658041	.658041
2	.683973	.667044	.659062	.658041	.658041	.658041
2.1	.681504	.665738	.658733	.658041	.658041	.658041
2.2	.679221	.664461	.658525	.658041	.658041	.658041
2.3	.677705	.663575	.658329	.658041	.658041	.658041
2.4	.676722	.662771	.658192	.658041	.658041	.658041
2.5	.675751	.661967	.658136	.658041	.658041	.658041
2.6	.674798	.661164	.65808	.658041	.658041	.658041
2.7	.674079	.66036	.658041	.658041	.658041	.658041
2.8	.673372	.659921	.658041	.658041	.658041	.658041
2.9	.672665	.659716	.658041	.658041	.658041	.658041
3	.671959	.659512	.658041	.658041	.658041	.658041

ตารางที่ ฉ.1 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางนอน ที่ ϕ_1 ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS

WEST..

R	0°	10°	20°	30°	40°	50°
.1	.964718	.959542	.955596	.953	.951831	.952126
.2	.931033	.920793	.912749	.907162	.90429	.904438
.3	.901063	.88593	.873853	.865199	.860246	.859383
.4	.872576	.852398	.836372	.824812	.818134	.816627
.5	.847465	.824832	.80602	.791552	.781867	.777261
.6	.827102	.800954	.7793	.762313	.750511	.74425
.7	.808901	.779151	.756092	.738691	.725818	.717466
.8	.791655	.762266	.738706	.719974	.706307	.697142
.9	.778576	.748224	.723549	.705086	.692895	.684389
1	.767899	.73582	.711365	.695064	.683154	.676325
1.1	.757608	.724923	.702832	.686616	.677315	.672745
1.2	.748723	.717092	.695207	.680724	.674104	.671256
1.3	.740527	.710596	.689084	.677534	.672096	.671097
1.4	.733824	.704717	.684315	.675005	.671248	.671097
1.5	.728856	.699137	.681358	.673037	.671097	.671097
1.6	.724216	.694802	.679053	.672011	.671097	.671097
1.7	.720288	.691078	.677099	.671376	.671097	.671097
1.8	.716361	.687876	.675312	.671169	.671097	.671097
1.9	.712465	.685808	.673906	.671097	.671097	.671097
2	.708935	.684153	.673079	.671097	.671097	.671097
2.1	.706035	.682589	.672348	.671097	.671097	.671097
2.2	.703473	.68108	.671819	.671097	.671097	.671097
2.3	.701119	.679868	.671467	.671097	.671097	.671097
2.4	.698922	.678657	.671284	.671097	.671097	.671097
2.5	.696884	.677452	.671196	.671097	.671097	.671097
2.6	.69513	.676335	.671137	.671097	.671097	.671097
2.7	.693974	.675524	.671097	.671097	.671097	.671097
2.8	.692986	.6749	.671097	.671097	.671097	.671097
2.9	.692119	.674383	.671097	.671097	.671097	.671097
3	.691252	.673915	.671097	.671097	.671097	.671097

ตารางที่ ฉ.1 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางนอน ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS

NORTH-WEST.

R	0°	10°	20°	30°	40°	50°
.1	.975162	.972344	.970345	.969224	.969028	.969764
.2	.951981	.94643	.94233	.939836	.939218	.940469
.3	.931879	.92377	.917609	.913584	.911832	.91264
.4	.913855	.903583	.895722	.890157	.887167	.88735
.5	.899523	.887796	.878447	.871541	.867289	.865857
.6	.887633	.87453	.864072	.856457	.8512	.84846
.7	.877277	.864252	.853887	.845591	.839597	.836007
.8	.869973	.85618	.844811	.836396	.830706	.827007
.9	.863608	.848846	.837792	.830407	.824676	.820926
1	.857499	.842752	.833067	.825316	.820148	.818275
1.1	.852563	.838887	.828599	.821403	.818775	.816765
1.2	.848159	.83522	.824856	.820124	.817448	.815926
1.3	.845335	.831725	.822409	.81902	.816175	.815893
1.4	.842728	.82879	.821508	.817916	.815917	.815893
1.5	.84012	.826053	.820661	.816815	.815893	.815893
1.6	.837513	.824407	.819813	.816069	.815893	.815893
1.7	.835385	.823765	.818966	.815949	.815893	.815893
1.8	.833368	.8232	.818119	.815893	.815893	.815893
1.9	.83135	.822635	.817271	.815893	.815893	.815893
2	.829599	.82207	.816507	.815893	.815893	.815893
2.1	.828342	.821505	.816129	.815893	.815893	.815893
2.2	.827624	.82094	.81604	.815893	.815893	.815893
2.3	.827297	.820375	.815963	.815893	.815893	.815893
2.4	.826997	.81981	.815907	.815893	.815893	.815893
2.5	.826732	.819245	.815893	.815893	.815893	.815893
2.6	.826466	.81868	.815893	.815893	.815893	.815893
2.7	.826201	.818115	.815893	.815893	.815893	.815893
2.8	.825935	.817569	.815893	.815893	.815893	.815893
2.9	.825669	.817054	.815893	.815893	.815893	.815893
3	.825404	.816611	.815893	.815893	.815893	.815893

ตารางที่ ฉ.1 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางนอน ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF OVERHANGS

NORTH..

R	ø°	10°	20°	30°	40°	50°
.1	.98488	.984418	.984393	.984804	.985704	.987077
.2	.97414	.973369	.973059	.973239	.974034	.975559
.3	.969112	.968238	.967722	.967578	.967825	.968636
.4	.966389	.965477	.964907	.964583	.964558	.964893
.5	.964769	.963872	.963209	.962801	.962657	.962786
.6	.963447	.962559	.962053	.961697	.961478	.9614
.7	.962618	.961937	.96153	.961204	.96097	.960831
.8	.962159	.961617	.961157	.960832	.960589	.960437
.9	.961907	.961311	.960866	.960538	.960318	.960169
1	.96166	.96107	.960626	.960313	.960086	.960049
1.1	.961454	.960847	.960432	.960108	.960049	.960049
1.2	.961269	.960684	.960247	.960049	.960049	.960049
1.3	.961097	.960527	.960075	.960049	.960049	.960049
1.4	.960959	.960372	.960049	.960049	.960049	.960049
1.5	.960843	.960234	.960049	.960049	.960049	.960049
1.6	.960728	.960096	.960049	.960049	.960049	.960049
1.7	.960612	.960049	.960049	.960049	.960049	.960049
1.8	.960497	.960049	.960049	.960049	.960049	.960049
1.9	.960396	.960049	.960049	.960049	.960049	.960049
2	.960296	.960049	.960049	.960049	.960049	.960049
2.1	.960196	.960049	.960049	.960049	.960049	.960049
2.2	.960096	.960049	.960049	.960049	.960049	.960049
2.3	.960049	.960049	.960049	.960049	.960049	.960049
2.4	.960049	.960049	.960049	.960049	.960049	.960049
2.5	.960049	.960049	.960049	.960049	.960049	.960049
2.6	.960049	.960049	.960049	.960049	.960049	.960049
2.7	.960049	.960049	.960049	.960049	.960049	.960049
2.8	.960049	.960049	.960049	.960049	.960049	.960049
2.9	.960049	.960049	.960049	.960049	.960049	.960049
3	.960049	.960049	.960049	.960049	.960049	.960049

ตารางที่ ฉ.2 แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง

ที่ ϕ_2 ตั้งแต่ -50° ถึง 0°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

NORTH-EAST..

R	0°	-10°	-20°	-30°	-40°	-50°
.1	.98596	.984156	.98278	.981902	.981566	.981789
.2	.972723	.969163	.966343	.964408	.963502	.963786
.3	.96145	.956218	.951969	.948911	.947198	.946977
.4	.951752	.945107	.939546	.935324	.932655	.93165
.5	.943318	.93544	.928745	.923497	.91991	.918183
.6	.935938	.926889	.919169	.913059	.908718	.906284
.7	.929277	.919368	.910884	.904192	.899257	.896228
.8	.923448	.912724	.903569	.896286	.891123	.88784
.9	.918123	.906643	.897083	.889833	.884451	.881718
1	.913251	.901178	.891612	.884345	.881278	.880381
1.1	.908669	.896468	.886495	.881849	.88065	.880082
1.2	.904503	.892083	.88348	.881153	.880373	.879938
1.3	.900818	.88792	.882163	.880901	.880265	.879793
1.4	.897395	.88517	.881645	.880711	.880157	.879649
1.5	.894019	.883513	.881464	.880642	.880049	.879505
1.6	.890669	.882607	.881283	.880574	.879941	.879433
1.7	.888061	.882102	.881125	.880506	.879833	.879398
1.8	.885974	.881852	.881093	.880437	.879725	.879363
1.9	.884429	.881722	.881061	.880369	.879617	.879328
2	.883383	.881593	.881029	.8803	.879556	.879302
2.1	.88262	.881463	.880997	.880232	.879509	.879302
2.2	.882036	.881334	.880965	.880164	.879486	.879302
2.3	.881608	.88122	.880933	.880095	.879463	.879302
2.4	.881311	.881201	.880901	.880027	.87944	.879302
2.5	.881065	.881181	.880869	.879958	.879417	.879302
2.6	.880967	.881161	.880837	.87989	.879394	.879302
2.7	.88087	.881142	.880805	.879822	.879371	.879302
2.8	.880773	.881123	.880773	.87977	.879348	.879302
2.9	.880676	.881103	.880741	.879741	.879325	.879302
3	.880579	.881083	.880709	.879712	.879302	.879302

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง

ที่ $\emptyset_2$ ตั้งแต่ -50° ถึง 0°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

EAST..

B	0°	-10°	-20°	-30°	-40°	-50°
.1	.985542	.983827	.981579	.978645	.976233	.97455
.2	.971271	.967855	.963349	.957454	.952611	.949202
.3	.957371	.952266	.945512	.936636	.929282	.924051
.4	.943758	.936974	.927985	.916145	.906265	.899188
.5	.930502	.922601	.911648	.896874	.884268	.874868
.6	.918668	.909468	.896655	.879091	.863905	.852331
.7	.907526	.897188	.882322	.862146	.844769	.83111
.8	.896851	.885186	.869881	.848151	.828778	.813392
.9	.886187	.875326	.859221	.835742	.816116	.800254
1	.877328	.866561	.84975	.826835	.806848	.790815
1.1	.869175	.858369	.843084	.819811	.799762	.783459
1.2	.86157	.851551	.837676	.814257	.793883	.777537
1.3	.854147	.846458	.83329	.809635	.788806	.772582
1.4	.847507	.84204	.829714	.805572	.784578	.768256
1.5	.841764	.838023	.826592	.802007	.780815	.76474
1.6	.836976	.83468	.823953	.79881	.777331	.761476
1.7	.832478	.831855	.82157	.796129	.774157	.758977
1.8	.828424	.829054	.81932	.793536	.771444	.75756
1.9	.824539	.826634	.817447	.791287	.769	.756899
2	.820845	.824364	.815613	.78908	.766646	.756577
2.1	.817472	.822309	.814015	.786971	.764309	.756452
2.2	.814362	.820308	.812694	.785024	.762157	.756375
2.3	.811464	.818477	.811393	.783167	.760672	.756297
2.4	.808632	.816645	.810093	.781533	.759386	.756219
2.5	.80589	.814833	.808932	.780004	.758505	.756141
2.6	.803174	.813352	.807928	.778574	.757875	.756111
2.7	.800928	.811894	.806925	.777199	.757443	.756103
2.8	.798708	.810435	.80593	.775859	.757106	.756096
2.9	.796487	.808996	.804974	.774518	.756831	.756088
3	.794606	.807626	.804019	.773178	.756685	.756081

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง ที่ $\emptyset_2$ ตั้งแต่ -50° ถึง 0°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

SOUTH-EAST..

R	0°	-10°	-20°	-30°	-40°	-50°
.1	.982791	.983297	.982449	.980917	.979233	.977593
.2	.966031	.967077	.965348	.962194	.958729	.955336
.3	.950195	.951756	.949152	.944396	.93906	.933736
.4	.934643	.936869	.933434	.927016	.919746	.912473
.5	.920022	.922781	.918571	.910582	.901333	.891857
.6	.907752	.910684	.905506	.895858	.884666	.872913
.7	.898254	.900632	.893334	.881534	.868359	.854643
.8	.889189	.891737	.882044	.867947	.853074	.837582
.9	.880653	.883017	.87264	.856228	.839444	.822226
1	.872584	.875253	.864565	.845865	.826816	.807888
1.1	.865159	.868866	.857064	.836382	.814732	.795721
1.2	.858334	.862753	.849953	.827682	.80487	.784989
1.3	.852479	.857434	.843435	.820073	.796031	.775368
1.4	.846869	.852201	.837124	.813385	.787817	.767794
1.5	.841707	.847352	.83115	.807283	.78025	.761041
1.6	.837006	.842844	.826641	.801588	.77422	.756061
1.7	.832686	.838836	.822296	.795995	.769167	.752401
1.8	.828398	.833994	.818038	.790474	.764423	.749237
1.9	.824356	.829956	.814397	.78582	.760299	.746822
2	.820599	.826612	.810803	.781879	.756747	.744841
2.1	.817013	.823858	.807311	.778324	.754106	.742974
2.2	.81351	.821104	.804036	.77517	.751968	.741396
2.3	.81017	.818448	.800774	.772162	.749978	.740039
2.4	.806982	.815964	.797512	.769174	.748294	.738878
2.5	.803845	.81351	.79425	.766196	.74661	.737798
2.6	.800802	.811499	.791364	.763622	.745169	.736845
2.7	.797757	.809504	.788952	.761289	.743892	.735941
2.8	.794903	.807617	.786661	.759018	.742837	.735161
2.9	.792221	.805751	.784744	.756933	.741954	.73448
3	.790247	.803965	.782906	.755272	.741075	.733799

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง ที่ $\emptyset_2$ ตั้งแต่ -50° ถึง 0°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

SOUTH..

R	0°	-10°	-20°	-30°	-40°	-50°
.1	.969383	.969076	.969064	.969419	.969856	.970235
.2	.939485	.938848	.938742	.939332	.940082	.940695
.3	.91088	.909913	.909645	.910299	.911136	.91166
.4	.883911	.882787	.882363	.88298	.883499	.883602
.5	.859528	.85864	.858441	.858947	.858936	.857666
.6	.839139	.837957	.837977	.838975	.838505	.835857
.7	.821592	.821736	.821903	.823171	.822684	.818993
.8	.808879	.807906	.808948	.810095	.809567	.805157
.9	.797736	.797563	.797879	.799025	.799033	.794529
1	.788933	.788534	.787702	.790352	.790052	.785482
1.1	.78083	.780548	.780785	.782553	.782359	.778189
1.2	.774763	.77382	.774595	.775544	.775994	.772694
1.3	.769327	.768514	.769043	.769458	.771223	.767219
1.4	.764097	.76376	.764098	.764779	.766635	.762326
1.5	.759769	.760078	.759251	.761308	.762139	.758523
1.6	.756075	.756606	.755324	.758119	.757865	.755035
1.7	.753084	.753483	.751867	.755196	.754219	.752042
1.8	.750095	.750538	.748888	.752476	.751084	.749299
1.9	.747107	.747592	.746727	.749756	.748333	.746734
2	.744182	.744716	.744686	.747036	.745754	.744169
2.1	.741838	.74238	.743268	.744478	.743622	.741872
2.2	.739971	.740218	.741851	.74225	.741644	.739652
2.3	.73831	.738243	.740433	.740047	.739944	.738225
2.4	.736881	.736755	.739016	.738278	.738327	.736885
2.5	.73552	.735294	.737598	.736925	.736884	.735545
2.6	.73416	.734251	.73618	.735577	.735572	.734205
2.7	.732799	.733208	.734763	.734231	.73426	.732865
2.8	.731439	.732165	.733345	.732885	.732948	.731717
2.9	.730078	.731122	.731928	.731538	.731636	.730748
3	.728717	.730078	.73051	.730253	.730425	.729877

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางดิ่ง ที่ $\emptyset_2$ ตั้งแต่ -50° ถึง 0°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

SOUTH-WEST..

R	0°	-10°	-20°	-30°	-40°	-50°
.1	.979024	.976707	.973952	.971401	.968886	.967124
.2	.958207	.953566	.948044	.942941	.937912	.934388
.3	.937764	.930728	.922331	.914527	.906953	.901652
.4	.918217	.908532	.897064	.886604	.876205	.868958
.5	.900015	.888544	.874406	.860647	.847206	.837987
.6	.884248	.871576	.855423	.839139	.822017	.809057
.7	.870882	.856476	.837795	.819228	.799222	.783439
.8	.858554	.842438	.821885	.801225	.778743	.760315
.9	.847444	.829878	.807243	.784899	.760492	.739973
1	.837701	.818198	.794077	.770168	.744063	.7227
1.1	.828809	.807919	.781978	.756616	.729982	.709706
1.2	.82051	.798652	.77084	.744801	.719008	.701137
1.3	.812532	.790161	.760385	.734626	.710257	.695182
1.4	.805236	.782346	.751606	.726595	.70417	.690498
1.5	.798087	.77465	.743395	.719451	.699232	.686742
1.6	.791039	.767484	.736766	.714275	.695363	.684238
1.7	.78521	.760941	.731245	.709944	.691729	.682353
1.8	.779662	.754887	.725724	.705762	.688701	.680502
1.9	.774245	.748933	.721136	.702864	.685827	.67884
2	.769104	.743633	.717477	.700577	.683564	.677495
2.1	.764579	.738944	.714489	.69829	.682019	.676261
2.2	.760393	.734809	.711824	.696005	.680727	.675025
2.3	.75641	.730845	.709171	.694154	.679479	.673924
2.4	.752631	.727128	.706517	.692463	.678231	.673282
2.5	.749046	.72341	.704154	.690962	.676983	.672641
2.6	.745462	.719818	.702345	.68962	.675821	.672124
2.7	.742178	.717366	.700849	.688319	.674714	.671666
2.8	.739084	.71505	.699388	.687245	.673607	.671386
2.9	.736149	.712799	.697927	.686461	.672592	.671249
3	.73356	.710797	.696466	.685677	.671772	.671119

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง

มี $\emptyset_2$ ห่างแต่ -50° ถึง 0°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

WEST..

R	0°	-10°	-20°	-30°	-40°	-50°
.1	.982933	.984547	.985552	.985331	.983353	.980116
.2	.965866	.969093	.971103	.970662	.966706	.960231
.3	.949174	.953902	.956776	.955994	.950059	.940347
.4	.933325	.939416	.942912	.941686	.933484	.920462
.5	.917961	.925321	.929644	.927708	.917174	.900587
.6	.903027	.911735	.916526	.914053	.900999	.880909
.7	.888438	.898271	.903743	.900427	.885169	.861315
.8	.875327	.885083	.891062	.88719	.869456	.841859
.9	.862804	.873007	.878552	.874147	.853809	.82268
1	.85116	.861467	.866438	.861146	.838378	.804033
1.1	.839587	.850448	.855006	.848166	.823874	.789323
1.2	.829447	.839923	.843953	.835712	.81235	.777996
1.3	.819908	.829399	.833062	.824839	.80363	.768074
1.4	.81065	.818911	.822769	.816255	.795653	.75945
1.5	.802352	.80942	.813396	.809722	.788499	.751922
1.6	.795294	.800572	.805351	.803861	.782175	.74532
1.7	.788959	.791944	.798178	.798381	.776395	.739515
1.8	.782624	.783416	.791929	.793293	.771075	.734001
1.9	.776386	.775584	.786589	.788576	.766292	.728972
2	.770725	.768927	.781376	.784562	.761915	.72461
2.1	.765641	.76276	.776672	.780582	.757774	.72065
2.2	.761183	.757726	.772664	.777062	.754142	.716936
2.3	.756993	.753551	.768837	.773914	.750783	.713914
2.4	.752804	.749936	.765137	.770893	.74753	.711428
2.5	.748718	.746366	.761648	.767957	.744502	.709171
2.6	.744946	.743462	.758203	.765205	.741641	.706914
2.7	.741395	.740574	.754887	.762731	.738989	.704656
2.8	.738221	.737687	.751898	.760412	.736585	.702399
2.9	.735377	.734942	.748978	.758093	.734342	.700448
3	.733004	.732386	.746269	.755774	.732159	.699163

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง ที่ $\emptyset_2$ ตั้งแต่ -50° ถึง 0°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

NORTH-WEST..

R	0°	-10°	-20°	-30°	-40°	-50°
.1	.978657	.982082	.986016	.98943	.990665	.99092
.2	.958017	.964764	.972462	.979156	.981605	.982053
.3	.939949	.949753	.960802	.970029	.972977	.97326
.4	.924478	.936504	.950256	.962251	.965533	.964941
.5	.911297	.925573	.941905	.955202	.958595	.957325
.6	.899781	.916236	.934515	.949759	.952056	.950132
.7	.889519	.907557	.928394	.944783	.946541	.942939
.8	.880165	.900019	.922634	.940513	.941575	.935934
.9	.872002	.892858	.917368	.93688	.936767	.92936
1	.864716	.886691	.9128	.933305	.93227	.923213
1.1	.858036	.880925	.908242	.929901	.928173	.917404
1.2	.852135	.875771	.904357	.926944	.924373	.911595
1.3	.846869	.870881	.90083	.924325	.920649	.905786
1.4	.842002	.866458	.897458	.921706	.916926	.900265
1.5	.837345	.862368	.894208	.919086	.913247	.894944
1.6	.832707	.858651	.891492	.916727	.909652	.889667
1.7	.829247	.855112	.888798	.914643	.906179	.884514
1.8	.826426	.851789	.886126	.912704	.903102	.879422
1.9	.824192	.848638	.883635	.910852	.900124	.874626
2	.822464	.845555	.881494	.909	.897209	.8701
2.1	.821091	.842473	.879352	.907307	.894295	.865739
2.2	.820276	.839403	.877293	.905686	.891381	.861938
2.3	.819842	.836642	.875416	.904123	.888467	.858803
2.4	.819532	.834409	.873654	.902796	.885553	.856046
2.5	.819273	.832175	.871892	.901583	.882639	.853605
2.6	.819013	.830377	.870194	.900377	.879724	.851658
2.7	.818754	.828801	.868561	.899172	.876921	.849916
2.8	.818587	.827341	.866994	.897967	.874431	.848554
2.9	.818505	.826022	.865458	.896762	.872025	.847512
3	.818492	.824894	.863984	.895567	.869657	.846528

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง ที่ $\emptyset_2$ ตั้งแต่ -50° ถึง 0°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

NORTH.,

R	$\emptyset^\circ$	-10°	-20°	-30°	-40°	-50°
.1	.987497	.987821	.988502	.989533	.990883	.992484
.2	.975934	.976551	.977834	.979748	.982283	.985315
.3	.96681	.967459	.968891	.971154	.974522	.978546
.4	.963292	.963473	.9645	.966338	.969403	.973752
.5	.962426	.962453	.962749	.963682	.966308	.970513
.6	.961994	.961994	.96208	.962602	.964241	.96811
.7	.961683	.961684	.96175	.962021	.962904	.966251
.8	.961373	.961373	.961449	.961598	.962279	.964714
.9	.961062	.961063	.961148	.961329	.96189	.963573
1	.960871	.960752	.960867	.961168	.961576	.962788
1.1	.960749	.960451	.960671	.961027	.961479	.962483
1.2	.960627	.960279	.960499	.960918	.961448	.96227
1.3	.960506	.960223	.960326	.960843	.961417	.962119
1.4	.960398	.960178	.960182	.960768	.961386	.961977
1.5	.960335	.960134	.960104	.960693	.961355	.961835
1.6	.96029	.960089	.960049	.960618	.961324	.961693
1.7	.960258	.960049	.960049	.960542	.961293	.961615
1.8	.960227	.960049	.960049	.960467	.961262	.961568
1.9	.960195	.960049	.960049	.960392	.961231	.96155
2	.960163	.960049	.960049	.960317	.9612	.961536
2.1	.960131	.960049	.960049	.960242	.961169	.961522
2.2	.960099	.960049	.960049	.960179	.961138	.961508
2.3	.960067	.960049	.960049	.960139	.961107	.961494
2.4	.960049	.960049	.960049	.960098	.961076	.96148
2.5	.960049	.960049	.960049	.960058	.961045	.961466
2.6	.960049	.960049	.960049	.960049	.961014	.961451
2.7	.960049	.960049	.960049	.960049	.960983	.961437
2.8	.960049	.960049	.960049	.960049	.960952	.961423
2.9	.960049	.960049	.960049	.960049	.960922	.961409
3	.960049	.960049	.960049	.960049	.960891	.961395

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง

ที่ $\varnothing_2$ ต่างแดด 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

NORTH-EAST..

R	0°	10°	20°	30°	40°	50°
.1	.98596	.988185	.990723	.992958	.993618	.993692
.2	.972723	.977026	.981888	.98621	.98738	.987433
.3	.96145	.967648	.974583	.980507	.981695	.981443
.4	.951752	.959458	.968182	.975702	.976872	.975822
.5	.943318	.952591	.962977	.971466	.972441	.970732
.6	.935938	.946554	.958331	.968067	.968288	.965797
.7	.929277	.941068	.954302	.964931	.964643	.961118
.8	.923448	.936172	.950667	.962214	.961416	.956472
.9	.918122	.931738	.947322	.959823	.958206	.9521
1	.913251	.927764	.944279	.957606	.955226	.947836
1.1	.908669	.924075	.941497	.955466	.952398	.943966
1.2	.904503	.920616	.939117	.953612	.949789	.94019
1.3	.900818	.917263	.936751	.951911	.947293	.936467
1.4	.897395	.914158	.934571	.95025	.944954	.932761
1.5	.894019	.911219	.932638	.948768	.942691	.929108
1.6	.890669	.908534	.930718	.947541	.940429	.925591
1.7	.888061	.906111	.928853	.946441	.938166	.922098
1.8	.885974	.903787	.927043	.945341	.936117	.918731
1.9	.884429	.90155	.925385	.944241	.934104	.915455
2	.883383	.899314	.923778	.943141	.932092	.912245
2.1	.88262	.897091	.922204	.942259	.930079	.909309
2.2	.882036	.894877	.920906	.941416	.928067	.906648
2.3	.881608	.892779	.919623	.940573	.926117	.904313
2.4	.881311	.890932	.918364	.939732	.92427	.902305
2.5	.881065	.889603	.917257	.938891	.922509	.900735
2.6	.880967	.888274	.916161	.938082	.920784	.899344
2.7	.88087	.887006	.915075	.937282	.919087	.898325
2.8	.880773	.886008	.914041	.936483	.917474	.897622
2.9	.880676	.885155	.913029	.935683	.915861	.897036
3	.880579	.884499	.912017	.934911	.914249	.896451

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง ที่ $\emptyset_2$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

EAST..

R	0°	10°	20°	30°	40°	50°
.1	.985542	.987063	.988216	.988754	.987904	.985864
.2	.971271	.974291	.976596	.977654	.975911	.971781
.3	.957371	.961871	.965235	.966703	.963949	.957753
.4	.943758	.949682	.954055	.955916	.952224	.943738
.5	.930502	.937649	.943064	.945318	.940544	.929916
.6	.918668	.926538	.932172	.934799	.928999	.916115
.7	.907526	.916066	.922224	.924401	.917579	.902397
.8	.896851	.906311	.912659	.914211	.906159	.888744
.9	.886187	.896809	.903353	.90484	.89477	.875188
1	.877328	.887526	.894445	.895469	.883582	.861998
1.1	.869175	.878013	.885674	.886276	.872986	.851462
1.2	.86157	.86993	.877012	.877582	.864924	.843476
1.3	.854147	.862339	.868398	.869935	.859216	.836489
1.4	.847507	.855172	.859913	.863826	.853832	.830192
1.5	.841764	.848323	.852589	.859301	.849107	.824458
1.6	.836976	.841475	.846264	.854949	.844837	.819373
1.7	.832478	.834795	.841216	.850757	.840715	.814737
1.8	.828424	.828846	.836873	.846907	.837293	.810389
1.9	.824539	.823256	.83328	.843384	.833993	.806757
2	.820845	.818359	.830016	.840039	.8311	.803548
2.1	.817472	.814178	.826754	.836799	.82834	.800471
2.2	.814362	.810803	.823587	.833825	.82577	.797657
2.3	.811464	.807982	.820516	.831355	.823414	.795141
2.4	.808632	.805248	.817586	.829126	.8211	.792979
2.5	.80589	.803089	.814786	.826898	.818954	.790817
2.6	.803174	.801395	.812359	.824893	.816854	.788853
2.7	.800928	.799795	.810176	.823039	.814893	.787038
2.8	.798708	.798205	.808041	.821335	.812987	.785251
2.9	.796487	.796621	.806031	.819744	.811165	.783567
3	.794606	.795037	.804092	.818226	.809518	.782107

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตง ที่ $\emptyset_2$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

SOUTH-EAST..

R	0°	10°	20°	30°	40°	50°
.1	.982791	.981473	.979974	.978114	.97651	.974829
.2	.966031	.963319	.960243	.956407	.95317	.94977
.3	.950195	.946084	.941318	.935352	.930083	.924752
.4	.934643	.929053	.922653	.914674	.907561	.900073
.5	.920022	.913277	.905318	.89522	.886002	.876065
.6	.907752	.900095	.890848	.878604	.867227	.854693
.7	.898254	.888732	.877449	.863263	.849771	.834911
.8	.889189	.878787	.865639	.848931	.833689	.816519
.9	.880653	.869586	.854843	.835893	.81894	.799879
1	.872584	.860737	.845008	.824109	.805524	.785013
1.1	.865159	.85227	.835952	.813385	.79347	.772718
1.2	.858334	.844388	.827449	.803864	.783339	.764065
1.3	.852479	.836897	.819441	.795465	.775259	.75755
1.4	.846869	.830211	.812075	.788109	.76958	.75278
1.5	.841707	.823819	.805076	.781592	.76462	.749246
1.6	.837006	.818172	.798857	.776694	.760523	.74584
1.7	.832686	.813075	.793004	.772714	.757545	.743091
1.8	.828398	.80816	.787739	.769152	.75559	.740461
1.9	.824356	.803354	.783081	.765669	.753679	.738592
2	.820599	.798968	.779296	.76269	.751812	.737181
2.1	.817013	.795182	.776185	.759909	.750047	.736091
2.2	.81351	.791669	.773232	.757445	.748576	.735046
2.3	.81017	.788204	.771095	.755965	.747358	.734001
2.4	.806982	.785045	.769134	.754486	.74614	.733052
2.5	.803845	.781977	.767172	.753007	.744922	.73223
2.6	.800802	.778928	.76521	.751527	.743704	.731427
2.7	.797757	.776243	.763378	.750048	.742988	.730634
2.8	.794903	.773754	.761822	.748568	.742584	.72984
2.9	.792221	.771546	.760279	.747109	.742181	.729063
3	.790247	.76986	.758735	.745783	.741778	.728348

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง ที่ $\emptyset_2$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

SOUTH..

R	∅°	10°	20°	30°	40°	50°
.1	.969383	.970053	.971147	.972254	.973441	.974262
.2	.939485	.940792	.942887	.944955	.947154	.948671
.3	.91088	.912725	.915642	.918465	.921607	.923569
.4	.883911	.886141	.889808	.893363	.896935	.899088
.5	.859528	.862087	.866169	.869927	.87402	.875714
.6	.839139	.841168	.845483	.849808	.853847	.85495
.7	.821592	.824383	.829185	.83328	.837358	.838024
.8	.808879	.810494	.81528	.819247	.823971	.824218
.9	.797736	.799375	.803638	.808249	.812383	.81223
1	.788933	.790507	.794466	.798473	.802215	.802795
1.1	.78083	.782973	.786597	.78959	.794341	.794656
1.2	.774763	.776693	.779846	.78234	.787322	.787452
1.3	.769327	.770789	.773886	.776598	.781207	.781684
1.4	.764097	.765391	.769151	.771422	.775733	.776817
1.5	.759769	.760491	.765391	.766793	.771128	.77195
1.6	.756075	.756747	.76188	.763005	.767166	.767083
1.7	.753084	.753505	.758691	.759255	.763343	.762974
1.8	.750095	.750419	.755544	.755988	.75952	.759397
1.9	.747107	.747687	.752396	.753019	.756027	.756751
2	.744182	.745253	.749752	.750402	.753092	.754135
2.1	.741838	.74314	.747438	.748394	.750157	.751754
2.2	.739971	.741475	.745125	.746606	.7475	.749757
2.3	.73831	.739861	.742958	.745091	.745301	.747873
2.4	.736881	.738327	.74113	.743599	.743355	.746223
2.5	.73552	.736794	.739626	.742118	.741598	.744573
2.6	.73416	.735261	.738121	.740637	.74025	.742924
2.7	.732799	.733728	.736639	.739156	.739122	.741274
2.8	.731439	.732395	.735237	.737674	.738036	.73966
2.9	.730078	.731191	.734119	.736193	.73695	.738076
3	.728717	.729987	.733268	.734712	.735863	.736491

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง ที่ $\varnothing_2$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

SOUTH-WEST..

R	0°	10°	20°	30°	40°	50°
.1	.979024	.98082	.980959	.9797	.977938	.975806
.2	.958207	.961802	.962078	.959552	.956016	.951752
.3	.937764	.943191	.943597	.939757	.934361	.927812
.4	.918217	.925605	.926194	.920979	.913525	.904407
.5	.900015	.908786	.909432	.902806	.893449	.881942
.6	.884248	.893589	.89336	.885339	.873961	.859977
.7	.870882	.880601	.87911	.8689	.855626	.839133
.8	.858554	.86975	.867099	.854307	.838678	.819698
.9	.847444	.860062	.856584	.840489	.821839	.800819
1	.837701	.851003	.846643	.82749	.806791	.784166
1.1	.828809	.842466	.836964	.816591	.793398	.768771
1.2	.82051	.834371	.828454	.806876	.781022	.755067
1.3	.812532	.826754	.821016	.798112	.76941	.743132
1.4	.805236	.820089	.814073	.78958	.759613	.73225
1.5	.798087	.81403	.80762	.781236	.750822	.723066
1.6	.791039	.808737	.801859	.774092	.742757	.715409
1.7	.78521	.803655	.796257	.767683	.735113	.708919
1.8	.779662	.798901	.79067	.761589	.729217	.704782
1.9	.774245	.794786	.785294	.756041	.723437	.701042
2	.769104	.790728	.780782	.750846	.718394	.697911
2.1	.764579	.786802	.776747	.745699	.714026	.695162
2.2	.760393	.782985	.773097	.740609	.710932	.692819
2.3	.75641	.77938	.769455	.736312	.707839	.690965
2.4	.752631	.77605	.76596	.7327	.704746	.689315
2.5	.749046	.772724	.762741	.729178	.701906	.687665
2.6	.745462	.76954	.759754	.725684	.699499	.68611
2.7	.742178	.766386	.757041	.722254	.697493	.684607
2.8	.739084	.763502	.754509	.719049	.695855	.683301
2.9	.736149	.76079	.752061	.716142	.694376	.682224
3	.73356	.758079	.749612	.713485	.692921	.681377

ตารางที่ จ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง ที่ $\varnothing_2$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

WEST..

R	0°	10°	20°	30°	40°	50°
.1	.982933	.980713	.977679	.973524	.97004	.967422
.2	.965866	.961426	.955357	.947049	.94008	.934844
.3	.949174	.942568	.933457	.920924	.910343	.902332
.4	.933325	.924639	.91252	.895743	.881475	.870508
.5	.917961	.907329	.892303	.871329	.853367	.83941
.6	.903027	.890334	.872595	.847739	.82618	.809041
.7	.888438	.874846	.854964	.826486	.801541	.781329
.8	.875327	.860531	.838666	.806636	.779095	.756248
.9	.862804	.84715	.823822	.789543	.760493	.736478
1	.85116	.834795	.810672	.776095	.746156	.722075
1.1	.839587	.823764	.800473	.764909	.735364	.711142
1.2	.829447	.813827	.7917	.756378	.726616	.702156
1.3	.819908	.806089	.784784	.749437	.719063	.694873
1.4	.81065	.799074	.779088	.743217	.71249	.688813
1.5	.802352	.792655	.774259	.737808	.706793	.683859
1.6	.795294	.787549	.770358	.732773	.701879	.679402
1.7	.788959	.783106	.766581	.728441	.697551	.676009
1.8	.782624	.778909	.763032	.724544	.693749	.673946
1.9	.776386	.775164	.760193	.720908	.690289	.672783
2	.770725	.771938	.75744	.717761	.687088	.672403
2.1	.765641	.769002	.754713	.714645	.683916	.672136
2.2	.761183	.766103	.752421	.711925	.681206	.671966
2.3	.756993	.763223	.750415	.709372	.678973	.671937
2.4	.752804	.760449	.748523	.707014	.677349	.671915
2.5	.748718	.757705	.746706	.704827	.675992	.671893
2.6	.744946	.755404	.744971	.702722	.674898	.67187
2.7	.741395	.753213	.743363	.700728	.674036	.671848
2.8	.738221	.751037	.742026	.698823	.673499	.671826
2.9	.735377	.748861	.740697	.696974	.6732	.671804
3	.733004	.746684	.739369	.695132	.672983	.671781

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง ที่ $\emptyset_2$ ตั้งแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

NORTH-WEST..

R	0°	10°	20°	30°	40°	50°
.1	.978657	.975791	.973653	.972307	.971794	.972131
.2	.958017	.952314	.947992	.945182	.943978	.944538
.3	.939949	.931574	.925045	.920511	.918263	.918303
.4	.924478	.913859	.90537	.899095	.895287	.894156
.5	.911297	.89885	.888564	.880738	.875598	.8733
.6	.899781	.885407	.873676	.864519	.858234	.854995
.7	.889519	.873501	.860689	.850691	.843725	.839539
.8	.880165	.863192	.849585	.839205	.831908	.827365
.9	.872002	.854123	.840176	.829814	.822458	.818732
1	.864716	.846204	.83221	.822016	.817564	.816549
1.1	.858036	.839372	.825148	.818143	.816664	.816288
1.2	.852135	.833139	.820651	.817143	.816465	.816053
1.3	.846869	.827476	.818328	.816795	.816273	.815893
1.4	.842002	.82348	.817621	.816643	.81608	.815893
1.5	.837345	.820782	.817167	.816491	.815918	.815893
1.6	.832707	.819128	.817056	.816338	.815893	.815893
1.7	.829247	.818503	.816949	.816186	.815893	.815893
1.8	.826426	.818076	.816841	.816034	.815893	.815893
1.9	.824192	.817702	.816734	.815927	.815893	.815893
2	.822464	.817588	.816626	.815893	.815893	.815893
2.1	.821091	.817529	.816519	.815893	.815893	.815893
2.2	.820276	.81747	.816411	.815893	.815893	.815893
2.3	.819842	.81741	.816304	.815893	.815893	.815893
2.4	.819532	.817351	.816196	.815893	.815893	.815893
2.5	.819273	.817292	.816089	.815893	.815893	.815893
2.6	.819013	.817232	.816003	.815893	.815893	.815893
2.7	.818754	.817173	.815945	.815893	.815893	.815893
2.8	.818587	.817114	.815893	.815893	.815893	.815893
2.9	.818505	.817054	.815893	.815893	.815893	.815893
3	.818492	.816995	.815893	.815893	.815893	.815893

ตารางที่ ฉ.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบทางตั้ง

ที่ $\emptyset_2$ ต่างแต่ 0° ถึง 50°

EFFECTIVE SHADING COEFFICIENTS OF VERTICAL FINS

NORTH..

R	0°	10°	20°	30°	40°	50°
.1	.987497	.98754	.987949	.98869	.989739	.991092
.2	.975934	.976005	.976761	.978141	.980073	.982555
.3	.96681	.966896	.967687	.969224	.971567	.974679
.4	.963292	.963439	.963951	.964979	.966744	.9693
.5	.962426	.962564	.962838	.963398	.964632	.967031
.6	.961994	.962123	.962369	.9625	.963376	.965403
.7	.961683	.961749	.96197	.96222	.962592	.964058
.8	.961373	.961458	.96177	.962083	.962273	.963289
.9	.961062	.961227	.961686	.961968	.962098	.962704
1	.960871	.961243	.961641	.961854	.961997	.962335
1.1	.960749	.961159	.961596	.961831	.961897	.961985
1.2	.960627	.961074	.961552	.961807	.961797	.961793
1.3	.960506	.96099	.961507	.961784	.961697	.961604
1.4	.960398	.960905	.961463	.96176	.961597	.961465
1.5	.960335	.960821	.961418	.961737	.96152	.961355
1.6	.96029	.960736	.961373	.961714	.961483	.961246
1.7	.960258	.960652	.961329	.96169	.961445	.961136
1.8	.960227	.960568	.961284	.961667	.961407	.961027
1.9	.960195	.960507	.961239	.961644	.961369	.960917
2	.960163	.960466	.961195	.96162	.961331	.960808
2.1	.960131	.960425	.96115	.961597	.961294	.960725
2.2	.960099	.960397	.961106	.961574	.961256	.960652
2.3	.960067	.960378	.961061	.96155	.961218	.96058
2.4	.960049	.96036	.961016	.961527	.96119	.960507
2.5	.960049	.960342	.960972	.961504	.961142	.960435
2.6	.960049	.960323	.960927	.96148	.961105	.960362
2.7	.960049	.960305	.960883	.961457	.961067	.960289
2.8	.960049	.960286	.960838	.961434	.961029	.960217
2.9	.960049	.960268	.960793	.96141	.960991	.960156
3	.960049	.96025	.960767	.961387	.960953	.960132

ตารางที่ ค.3 แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

NORTH-EAST..

R1	R2	0°	10°	20°	30°	40°
.2	.2	.944563	.94181	.939897	.938892	.938877
.2	.4	.93002	.927886	.926396	.925599	.925552
.2	.6	.918827	.917164	.916003	.915383	.915332
.2	.8	.909788	.9085	.907608	.907139	.907108
.2	1	.902334	.901356	.900684	.900341	.900336
.2	1.2	.895907	.895195	.894715	.894482	.894503
.2	1.4	.890705	.890209	.889884	.889739	.889781
.2	1.6	.88583	.885537	.885356	.885293	.885349
.2	1.8	.882522	.882368	.882284	.882272	.882332
.4	.2	.922037	.917182	.913545	.911204	.910244
.4	.4	.912813	.909049	.906203	.904363	.903583
.4	.6	.905369	.902456	.900248	.898814	.898196
.4	.8	.899242	.897029	.895347	.894247	.893762
.4	1	.89417	.892527	.891276	.890454	.890087
.4	1.2	.889767	.888612	.887732	.887153	.886893
.4	1.4	.886204	.885439	.884857	.884476	.884308
.4	1.6	.882915	.882514	.882209	.88201	.881922
.4	1.8	.880726	.880562	.88044	.880363	.880332
.6	.2	.906619	.901013	.896755	.893681	.891773
.6	.4	.900867	.896538	.893237	.890819	.889294
.6	.6	.896106	.892814	.890283	.888394	.887191
.6	.8	.892128	.889649	.887731	.886289	.885365
.6	1	.888828	.887003	.885595	.88453	.883841
.6	1.2	.885969	.884704	.883733	.882993	.882508
.6	1.4	.883652	.882833	.882207	.881727	.88141
.6	1.6	.881553	.881143	.880831	.880587	.880421
.6	1.8	.880132	.879986	.879873	.879783	.879721
.8	.2	.89752	.891476	.887699	.885095	.883178
.8	.4	.893917	.889062	.886061	.883999	.882464
.8	.6	.890847	.887005	.884649	.883045	.881846
.8	.8	.888188	.885225	.883421	.882212	.881303
.8	1	.885985	.883769	.882405	.881505	.880825
.8	1.2	.884047	.882509	.88153	.880895	.880412
.8	1.4	.882434	.881441	.88079	.880372	.880053
.8	1.6	.880986	.88049	.880135	.87991	.879736
.8	1.8	.879937	.879757	.879632	.879546	.879478
1	.2	.891422	.886799	.882963	.880911	.880155
1	.4	.889039	.885393	.882324	.880613	.880004
1	.6	.886991	.88417	.881772	.880367	.879876
1	.8	.885211	.8831	.881279	.88015	.87976

ตารางที่ ฉ.3 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ ϕ_1 ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

NORTH-EAST..

R1	R2	0°	10°	20°	30°	40°
1	1	.883749	.882182	.880816	.879948	.879651
1	1.2	.88249	.88139	.880428	.879789	.879565
1	1.4	.881427	.880706	.880077	.879643	.879486
1	1.6	.880488	.880106	.879768	.879516	.879418
1	1.8	.87977	.879625	.879497	.879396	.879354
1.2	.2	.888246	.883036	.880985	.879893	.879304
1.2	.4	.886571	.882384	.880678	.879798	.879303
1.2	.6	.885116	.881831	.880423	.879715	.879303
1.2	.8	.883842	.881337	.880196	.879633	.879302
1.2	1	.882746	.880869	.879983	.879554	.879302
1.2	1.2	.8818	.88048	.879815	.879491	.879302
1.2	1.4	.880985	.880121	.879661	.879434	.879302
1.2	1.6	.880265	.879806	.879528	.879386	.879302
1.2	1.8	.87969	.879516	.879402	.879341	.879302
1.4	.2	.885269	.881601	.880149	.879304	.879302
1.4	.4	.884216	.881179	.88001	.879304	.879302
1.4	.6	.883305	.880829	.879889	.879303	.879302
1.4	.8	.882489	.880518	.879771	.879302	.879302
1.4	1	.881744	.880228	.87966	.879302	.879302
1.4	1.2	.881111	.88	.879571	.879302	.879302
1.4	1.4	.880543	.879791	.87949	.879302	.879302
1.4	1.6	.880042	.879609	.879421	.879302	.879302
1.4	1.8	.879609	.879437	.879357	.879302	.879302
1.6	.2	.883132	.880973	.879405	.879302	.879302
1.6	.4	.882442	.880678	.879388	.879302	.879302
1.6	.6	.881867	.880429	.879374	.879302	.879302
1.6	.8	.881358	.880201	.879359	.879302	.879302
1.6	1	.880881	.879987	.879346	.879302	.879302
1.6	1.2	.880498	.879818	.879333	.879302	.879302
1.6	1.4	.880144	.879663	.879323	.879302	.879302
1.6	1.6	.879829	.87953	.879317	.879302	.879302
1.6	1.8	.879529	.879404	.879311	.879302	.879302
1.8	.2	.882383	.880344	.879304	.879302	.879302
1.8	.4	.881816	.880177	.879303	.879302	.879302
1.8	.6	.881347	.880029	.879303	.879302	.879302
1.8	.8	.880931	.879883	.879302	.879302	.879302
1.8	1	.880542	.879746	.879302	.879302	.879302
1.8	1.2	.880237	.879635	.879302	.879302	.879302
1.8	1.4	.879957	.879535	.879302	.879302	.879302
1.8	1.6	.879714	.87945	.879302	.879302	.879302
1.8	1.8	.879483	.87937	.879302	.879302	.879302

ตารางที่ 4.3 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ O_1 มีมุม 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

EAST..

R1	R2	0°	10°	20°	30°	40°
.2	.2	.921171	.914437	.909428	.906255	.905015
.2	.4	.902192	.896307	.891847	.88895	.887702
.2	.6	.884033	.878908	.874984	.872378	.87117
.2	.8	.867454	.863006	.859581	.857283	.856183
.2	1	.852312	.848474	.845509	.843508	.84253
.2	1.2	.839828	.836488	.833906	.832161	.831307
.2	1.4	.828733	.825836	.823594	.822075	.821325
.2	1.6	.820349	.817785	.815801	.814457	.813793
.2	1.8	.813509	.811216	.809443	.808243	.807652
.4	.2	.875529	.863116	.853464	.846664	.842999
.4	.4	.863593	.852557	.843918	.837772	.834366
.4	.6	.851657	.841997	.834373	.828879	.825733
.4	.8	.839946	.831574	.824918	.820077	.817236
.4	1	.828943	.821708	.815973	.811753	.809233
.4	1.2	.819526	.813261	.808233	.804557	.80236
.4	1.4	.811198	.805764	.801386	.798192	.796281
.4	1.6	.80476	.799938	.796059	.79324	.791568
.4	1.8	.799491	.795168	.791699	.789187	.787711
.6	.2	.841494	.824348	.811848	.802614	.796487
.6	.4	.833543	.818136	.806881	.798536	.792955
.6	.6	.825591	.811923	.801915	.794458	.789422
.6	.8	.817639	.80571	.796949	.79038	.785889
.6	1	.809936	.799623	.792033	.786313	.782362
.6	1.2	.802883	.793887	.787307	.782356	.77892
.6	1.4	.796617	.788778	.783081	.778805	.775831
.6	1.6	.791655	.784693	.779679	.775932	.773329
.6	1.8	.787619	.781375	.776911	.773588	.771287
.8	.2	.816916	.799861	.786135	.77616	.76992
.8	.4	.811684	.796166	.783593	.774477	.768794
.8	.6	.806452	.792472	.781051	.772794	.767668
.8	.8	.80122	.788778	.77851	.771112	.766542
.8	1	.795989	.785084	.775968	.769429	.765416
.8	1.2	.790833	.781389	.773426	.767747	.764289
.8	1.4	.786177	.77801	.771081	.76617	.763207
.8	1.6	.782366	.775167	.769049	.764736	.762187
.8	1.8	.779243	.772815	.767362	.76353	.761314
1	.2	.800296	.782321	.770713	.763131	.758827
1	.4	.796566	.780163	.769589	.762575	.758598
1	.6	.792837	.778004	.768465	.762019	.758369
1	.8	.789107	.775845	.76734	.761464	.75814

ตารางที่ ง.3 (ต่อ) แสดงค่า SC_2 ของชุดกันสาดแบบผสม

ที่ $\varnothing_1$ เท่ากับ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

EAST..

R1	R2	0°	10°	20°	30°	40°
1	1	.785378	.773686	.766216	.760908	.757911
1	1.2	.781648	.771527	.765092	.760352	.757682
1	1.4	.778218	.76949	.763968	.759796	.757453
1	1.6	.775273	.767601	.762861	.75924	.757224
1	1.8	.772831	.766001	.761881	.758733	.757013
1.2	.2	.787533	.772121	.762532	.757655	.756072
1.2	.4	.784955	.770905	.762009	.757532	.756055
1.2	.6	.782377	.769688	.761486	.757409	.756038
1.2	.8	.779799	.768472	.760963	.757285	.756021
1.2	1	.777222	.767256	.760441	.757162	.756005
1.2	1.2	.774644	.766039	.759918	.757038	.755988
1.2	1.4	.772206	.764823	.759395	.756915	.755971
1.2	1.6	.769943	.763615	.758872	.756791	.755955
1.2	1.8	.768022	.762526	.758399	.756668	.755938
1.4	.2	.779347	.765655	.758467	.756147	.755814
1.4	.4	.777564	.764899	.758282	.756125	.755814
1.4	.6	.77578	.764144	.758096	.756103	.755814
1.4	.8	.773997	.763388	.757911	.756082	.755814
1.4	1	.772213	.762632	.757726	.75606	.755814
1.4	1.2	.77043	.761877	.757541	.756038	.755814
1.4	1.4	.768647	.761121	.757356	.756017	.755814
1.4	1.6	.766897	.760365	.757171	.755995	.755814
1.4	1.8	.765357	.759675	.756991	.755973	.755814
1.6	.2	.773526	.76161	.756705	.755849	.755814
1.6	.4	.772208	.761173	.756653	.755845	.755814
1.6	.6	.770891	.760736	.756602	.755842	.755814
1.6	.8	.769573	.7603	.756551	.755838	.755814
1.6	1	.768255	.759863	.756499	.755835	.755814
1.6	1.2	.766938	.759427	.756447	.755832	.755814
1.6	1.4	.76562	.75899	.756396	.755828	.755814
1.6	1.6	.764302	.758554	.756344	.755825	.755814
1.6	1.8	.763096	.758151	.756293	.755822	.755814
1.8	.2	.769209	.759067	.756122	.755814	.755814
1.8	.4	.768184	.758846	.756099	.755814	.755814
1.8	.6	.767158	.758626	.756076	.755814	.755814
1.8	.8	.766132	.758405	.756053	.755814	.755814
1.8	1	.765107	.758185	.756029	.755814	.755814
1.8	1.2	.764081	.757964	.756006	.755814	.755814
1.8	1.4	.763055	.757744	.755984	.755814	.755814
1.8	1.6	.762029	.757523	.75596	.755814	.755814
1.8	1.8	.761093	.757304	.755937	.755814	.755814

ตารางที่ ง.2 (ต่อ) ผลลัพธ์ SC_1 ของอุปกรณ์บังแดดแบบผสม

ที่ C_1 มุมแดด 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

SOUTH-EAST..

R1	R2	0°	10°	20°	30°	40°
.2	.2	.903129	.895586	.890119	.886892	.886005
.2	.4	.883557	.876907	.871974	.868911	.86781
.2	.6	.865677	.859818	.855388	.852522	.851307
.2	.8	.852269	.846974	.842938	.840282	.83909
.2	1	.840229	.835438	.831757	.829294	.828126
.2	1.2	.829659	.825307	.821939	.81966	.818537
.2	1.4	.820971	.816973	.813867	.811749	.810682
.2	1.6	.8134	.809708	.806833	.804861	.803852
.2	1.8	.806768	.803344	.800669	.798826	.79787
.4	.2	.847517	.83348	.822775	.815727	.81255
.4	.4	.83663	.827949	.819223	.812747	.810718
.4	.6	.826254	.819863	.814869	.810139	.807953
.4	.8	.817526	.812204	.809187	.807719	.806956
.4	1	.809612	.806254	.804939	.803894	.803264
.4	1.2	.802403	.799883	.797193	.795306	.794053
.4	1.4	.796201	.793359	.790188	.787874	.786551
.4	1.6	.790719	.787469	.783753	.781746	.780568
.4	1.8	.785902	.782168	.777852	.775114	.773067
.6	.2	.830543	.818132	.809394	.803814	.800863
.6	.4	.818982	.81301	.805327	.801482	.798977
.6	.6	.81283	.808121	.802442	.798298	.795218
.6	.8	.807513	.803879	.799057	.795508	.792799
.6	1	.802674	.799993	.795932	.792927	.79056
.6	1.2	.798191	.796384	.793024	.790519	.78847
.6	1.4	.794054	.793067	.790361	.788319	.786562
.6	1.6	.790307	.790064	.787951	.786327	.784835
.6	1.8	.786962	.787388	.785807	.784555	.783298
.8	.2	.818725	.809424	.802226	.796966	.793697
.8	.4	.809529	.806509	.800187	.795582	.792733
.8	.6	.805506	.803707	.798225	.79425	.791803
.8	.8	.801939	.801128	.796407	.793015	.790938
.8	1	.798636	.798731	.794705	.791845	.790108
.8	1.2	.79554	.796486	.793114	.79075	.78833
.8	1.4	.792721	.794447	.79167	.789759	.788619
.8	1.6	.790162	.792568	.790342	.78885	.786969
.8	1.8	.787883	.790869	.789113	.786983	.78535
1	.2	.808592	.801906	.796881	.791344	.788318
1	.4	.799629	.798098	.794873	.789871	.787125
1	.6	.795778	.795357	.79289	.7884	.786931
1	.8	.792136	.792741	.790971	.787946	.785742

ตารางที่ ฉ.3 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

SOUTH-EAST..

R1	R2	0°	10°	20°	30°	40°
1	1	.747668	.7352	.728087	.723512	.721561
1	1.2	.74536	.733757	.727256	.723109	.721397
1	1.4	.743265	.732448	.726487	.722729	.721237
1	1.6	.741334	.731248	.725783	.722373	.721077
1	1.8	.739562	.730103	.725119	.722046	.720934
1.2	.2	.746181	.732783	.724924	.721417	.720287
1.2	.4	.744017	.731691	.724496	.7213	.720273
1.2	.6	.741933	.73062	.724069	.721183	.720259
1.2	.8	.739998	.729615	.72365	.721067	.720245
1.2	1	.738152	.728649	.723251	.720954	.720231
1.2	1.2	.736423	.727742	.722884	.720852	.720217
1.2	1.4	.734852	.726896	.722534	.720754	.720204
1.2	1.6	.733414	.726116	.722196	.720655	.72019
1.2	1.8	.732042	.725389	.721889	.720571	.720178
1.4	.2	.738982	.726981	.722005	.720334	.720132
1.4	.4	.737377	.726362	.721835	.720316	.720132
1.4	.6	.735815	.725744	.721665	.720297	.720132
1.4	.8	.734357	.725139	.721496	.720279	.720132
1.4	1	.732953	.724563	.721334	.720261	.720132
1.4	1.2	.731633	.724031	.721187	.720243	.720132
1.4	1.4	.730416	.723526	.721044	.720225	.720132
1.4	1.6	.729299	.723049	.720903	.720208	.720132
1.4	1.8	.728245	.722611	.72078	.720192	.720132
1.6	.2	.733265	.724339	.720614	.720165	.720132
1.6	.4	.732101	.723966	.720569	.720163	.720132
1.6	.6	.730952	.723593	.720524	.72016	.720132
1.6	.8	.729862	.723227	.72048	.720157	.720132
1.6	1	.728818	.722877	.720435	.720155	.720132
1.6	1.2	.727842	.72256	.720391	.720152	.720132
1.6	1.4	.726924	.722252	.720347	.720149	.720132
1.6	1.6	.726075	.721944	.720304	.720147	.720132
1.6	1.8	.725285	.721669	.72027	.720144	.720132
1.8	.2	.729434	.722409	.720348	.720132	.720132
1.8	.4	.728591	.722202	.720329	.720132	.720132
1.8	.6	.72775	.721995	.720311	.720132	.720132
1.8	.8	.726928	.72179	.720292	.720132	.720132
1.8	1	.726144	.72159	.720274	.720132	.720132
1.8	1.2	.725419	.72141	.720255	.720132	.720132
1.8	1.4	.724733	.721236	.720237	.720132	.720132
1.8	1.6	.724086	.721062	.720219	.720132	.720132
1.8	1.8	.723493	.720913	.720201	.720132	.720132

ตารางที่ ง.3 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

SOUTH..

R1	R2	0°	10°	20°	30°	40°
.2	.2	.86785	.860642	.855774	.853406	.853703
.2	.4	.828173	.822634	.818931	.817183	.817486
.2	.6	.79593	.791746	.78899	.787751	.788081
.2	.8	.774491	.77122	.769088	.768162	.768477
.2	1	.760569	.757896	.756166	.755431	.755715
.2	1.2	.750825	.748577	.747124	.746511	.746757
.2	1.4	.743528	.741599	.740354	.73983	.740043
.2	1.6	.738145	.736455	.73536	.734895	.735074
.2	1.8	.734196	.732683	.731698	.731272	.731419
.4	.2	.803056	.789221	.779569	.7743	.773608
.4	.4	.776797	.766099	.758754	.75489	.754661
.4	.6	.755687	.747592	.742134	.739386	.739465
.4	.8	.742366	.736039	.731823	.729754	.729928
.4	1	.734051	.72889	.725475	.723818	.724002
.4	1.2	.728461	.72412	.721257	.71987	.720033
.4	1.4	.72426	.720527	.718077	.716894	.717047
.4	1.6	.721244	.717957	.715807	.714769	.714908
.4	1.8	.719053	.71609	.714157	.713225	.713354
.6	.2	.747961	.730492	.719419	.713769	.711561
.6	.4	.732724	.71929	.711089	.707201	.70591
.6	.6	.721134	.711011	.705165	.702666	.702031
.6	.8	.714829	.706939	.702606	.700892	.700543
.6	1	.711411	.704995	.701595	.700286	.700048
.6	1.2	.709317	.70389	.70109	.700028	.699845
.6	1.4	.707726	.703088	.700753	.699887	.699738
.6	1.6	.706681	.702611	.700583	.699835	.699703
.6	1.8	.705945	.702281	.700447	.699783	.699668
.8	.2	.714211	.707509	.703665	.70209	.701145
.8	.4	.706548	.702832	.700968	.700358	.700002
.8	.6	.701575	.700104	.699639	.699591	.699561
.8	.8	.700039	.699593	.699557	.699557	.699557
.8	1	.699677	.699557	.699557	.699557	.699557
.8	1.2	.699575	.699557	.699557	.699557	.699557
.8	1.4	.699557	.699557	.699557	.699557	.699557
.8	1.6	.699557	.699557	.699557	.699557	.699557
.8	1.8	.699557	.699557	.699557	.699557	.699557
1	.2	.706116	.702773	.701135	.700246	.699806
1	.4	.701959	.700541	.699957	.699708	.699608
1	.6	.699775	.69959	.699557	.699557	.699557
1	.8	.699557	.699557	.699557	.699557	.699557

ตารางที่ ง.3 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $\varnothing_1$ องศา 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

SOUTH..

R1	R2	0°	10°	20°	30°	40°
1	1	.699557	.699557	.699557	.699557	.699557
1	1.2	.699557	.699557	.699557	.699557	.699557
1	1.4	.699557	.699557	.699557	.699557	.699557
1	1.6	.699557	.699557	.699557	.699557	.699557
1	1.8	.699557	.699557	.699557	.699557	.699557
1.2	.2	.703375	.701211	.700194	.699677	.699605
1.2	.4	.700715	.699956	.699694	.699565	.699559
1.2	.6	.699593	.699557	.699557	.699557	.699557
1.2	.8	.699557	.699557	.699557	.699557	.699557
1.2	1	.699557	.699557	.699557	.699557	.699557
1.2	1.2	.699557	.699557	.699557	.699557	.699557
1.2	1.4	.699557	.699557	.699557	.699557	.699557
1.2	1.6	.699557	.699557	.699557	.699557	.699557
1.2	1.8	.699557	.699557	.699557	.699557	.699557
1.4	.2	.702089	.700489	.699717	.699362	.699563
1.4	.4	.70021	.699759	.699568	.699559	.699557
1.4	.6	.699557	.699557	.699557	.699557	.699557
1.4	.8	.699557	.699557	.699557	.699557	.699557
1.4	1	.699557	.699557	.699557	.699557	.699557
1.4	1.2	.699557	.699557	.699557	.699557	.699557
1.4	1.4	.699557	.699557	.699557	.699557	.699557
1.4	1.6	.699557	.699557	.699557	.699557	.699557
1.4	1.8	.699557	.699557	.699557	.699557	.699557
1.6	.2	.701225	.700003	.699668	.699584	.699557
1.6	.4	.699931	.699651	.699563	.699557	.699557
1.6	.6	.699557	.699557	.699557	.699557	.699557
1.6	.8	.699557	.699557	.699557	.699557	.699557
1.6	1	.699557	.699557	.699557	.699557	.699557
1.6	1.2	.699557	.699557	.699557	.699557	.699557
1.6	1.4	.699557	.699557	.699557	.699557	.699557
1.6	1.6	.699557	.699557	.699557	.699557	.699557
1.6	1.8	.699557	.699557	.699557	.699557	.699557
1.8	.2	.700824	.699765	.69963	.699557	.699557
1.8	.4	.699833	.699571	.699559	.699557	.699557
1.8	.6	.699557	.699557	.699557	.699557	.699557
1.8	.8	.699557	.699557	.699557	.699557	.699557
1.8	1	.699557	.699557	.699557	.699557	.699557
1.8	1.2	.699557	.699557	.699557	.699557	.699557
1.8	1.4	.699557	.699557	.699557	.699557	.699557
1.8	1.6	.699557	.699557	.699557	.699557	.699557
1.8	1.8	.699557	.699557	.699557	.699557	.699557

ตารางที่ ฉ.3 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

SOUTH-WEST..

R1	R2	0°	10°	20°	30°	40°
.2	.2	.890459	.881112	.874033	.869436	.867474
.2	.4	.86331	.85513	.848833	.84461	.842592
.2	.6	.838694	.831547	.825975	.822148	.820185
.2	.8	.819177	.812825	.807842	.804376	.802537
.2	1	.80303	.797329	.792837	.789688	.787982
.2	1.2	.789364	.784204	.780133	.777272	.775711
.2	1.4	.777204	.772526	.768829	.766225	.764795
.2	1.6	.765904	.761674	.758325	.75596	.754652
.2	1.8	.756747	.752876	.749811	.747646	.746447
.4	.2	.830257	.812454	.798462	.788707	.783485
.4	.4	.812392	.79659	.784114	.77534	.770538
.4	.6	.795838	.7819	.770831	.762966	.758545
.4	.8	.782095	.769668	.759752	.752648	.748572
.4	1	.770317	.759139	.750192	.74375	.740007
.4	1.2	.759955	.74982	.741705	.735854	.732447
.4	1.4	.750724	.741529	.734157	.728833	.725717
.4	1.6	.742157	.733845	.727168	.722329	.719476
.4	1.8	.735054	.727449	.721338	.716907	.71429
.6	.2	.783096	.759965	.741714	.728277	.719146
.6	.4	.770743	.749855	.733407	.721286	.713059
.6	.6	.759267	.740473	.725701	.7148	.70741
.6	.8	.749518	.732446	.719056	.709183	.702518
.6	1	.741036	.725451	.713252	.704265	.698232
.6	1.2	.733384	.719142	.708014	.699821	.694358
.6	1.4	.726627	.713603	.703436	.695945	.690981
.6	1.6	.720432	.70854	.69926	.692411	.687902
.6	1.8	.715086	.704175	.695657	.689355	.685238
.8	.2	.750196	.724846	.70565	.691747	.681627
.8	.4	.740944	.717978	.70068	.688153	.679048
.8	.6	.73235	.711568	.696014	.684786	.676636
.8	.8	.724882	.705931	.691836	.681725	.674418
.8	1	.718312	.700951	.688132	.679005	.672438
.8	1.2	.712359	.696395	.684735	.676522	.670638
.8	1.4	.707184	.692451	.681804	.674381	.669087
.8	1.6	.702469	.688866	.679141	.672435	.667675
.8	1.8	.698377	.685732	.676784	.670678	.666383
1	.2	.726385	.702123	.684123	.673034	.665135
1	.4	.71927	.697386	.681119	.671261	.66424
1	.6	.712595	.692951	.678318	.669609	.6634
1	.8	.706649	.6889	.67575	.668108	.662643

ตารางที่ ง.3 (ต่อ) ผลลัพธ์ SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

SOUTH-WEST.

R1	R2	0°	10°	20°	30°	40°
1	1	.701382	.685294	.673424	.666724	.661959
1	1.2	.696547	.682008	.671315	.665473	.661353
1	1.4	.692373	.679174	.669513	.664412	.660839
1	1.6	.688582	.676597	.667864	.663418	.660326
1	1.8	.685241	.674255	.666368	.662529	.659877
1.2	.2	.710756	.687578	.672796	.663988	.659709
1.2	.4	.705081	.684157	.670989	.663225	.659493
1.2	.6	.699769	.680971	.669304	.662493	.659278
1.2	.8	.69491	.678054	.667777	.661823	.659067
1.2	1	.690585	.675402	.666382	.661225	.658876
1.2	1.2	.686644	.672998	.66513	.660704	.658719
1.2	1.4	.683246	.67095	.664072	.660275	.658598
1.2	1.6	.680155	.669068	.663058	.659847	.658477
1.2	1.8	.677342	.667367	.66216	.659478	.658371
1.4	.2	.699031	.678772	.666116	.660207	.658145
1.4	.4	.694344	.676276	.66508	.659927	.658134
1.4	.6	.689977	.67395	.664089	.659647	.658124
1.4	.8	.685963	.671839	.663184	.659372	.658113
1.4	1	.682342	.669902	.662375	.659123	.658102
1.4	1.2	.679057	.668158	.661667	.658919	.658092
1.4	1.4	.676248	.666681	.661083	.658762	.658083
1.4	1.6	.673678	.665284	.660498	.658605	.658073
1.4	1.8	.671344	.664041	.659993	.658467	.658064
1.6	.2	.692013	.671857	.662722	.658485	.658041
1.6	.4	.688057	.670099	.662127	.658427	.658041
1.6	.6	.684377	.668448	.661539	.658369	.658041
1.6	.8	.681013	.666956	.660976	.658311	.658041
1.6	1	.677927	.665613	.660473	.658255	.658041
1.6	1.2	.67513	.664423	.660047	.658212	.658041
1.6	1.4	.672751	.663419	.659709	.65817	.658041
1.6	1.6	.670547	.662414	.659371	.658129	.658041
1.6	1.8	.668565	.661538	.659076	.658095	.658041
1.8	.2	.686038	.668375	.660329	.658104	.658041
1.8	.4	.682682	.667049	.660025	.658098	.658041
1.8	.6	.679556	.665778	.659721	.658092	.658041
1.8	.8	.676718	.664616	.659423	.658087	.658041
1.8	1	.67411	.663577	.659148	.658081	.658041
1.8	1.2	.67176	.662671	.658927	.658075	.658041
1.8	1.4	.66977	.661926	.658759	.658069	.658041
1.8	1.6	.667891	.66118	.658591	.658063	.658041
1.8	1.8	.666219	.660538	.658445	.658058	.658041

ตารางที่ ๖.3 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $Ø_i$ ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

WEST..

R1	R2	0°	10°	20°	30°	40°
.2	.2	.907628	.898367	.891015	.885807	.882984
.2	.4	.884333	.876039	.869379	.864566	.86182
.2	.6	.861479	.85411	.848143	.843768	.841182
.2	.8	.839938	.833428	.828121	.824187	.8218
.2	1	.820613	.814859	.810153	.806645	.804488
.2	1.2	.802907	.79784	.793688	.790583	.788657
.2	1.4	.787407	.782938	.779273	.776527	.774815
.2	1.6	.774653	.770677	.76741	.764967	.763439
.2	1.8	.764096	.76052	.757591	.755402	.754029
.4	.2	.856079	.83772	.823076	.81243	.806166
.4	.4	.839582	.823042	.809779	.800048	.794198
.4	.6	.823085	.808365	.796482	.787665	.78223
.4	.8	.807051	.79404	.783475	.775558	.770572
.4	1	.791931	.780426	.77106	.764012	.759535
.4	1.2	.777853	.767719	.759457	.753223	.749244
.4	1.4	.765411	.756472	.749178	.743669	.740142
.4	1.6	.755019	.747059	.740564	.735664	.732532
.4	1.8	.746338	.739185	.733352	.728962	.72617
.6	.2	.815417	.791364	.771369	.755666	.744729
.6	.4	.803731	.781773	.763439	.749018	.738947
.6	.6	.792045	.772182	.755508	.74237	.733166
.6	.8	.780361	.762591	.747577	.735722	.727384
.6	1	.76873	.753001	.739647	.729074	.721603
.6	1.2	.757638	.743773	.731985	.722631	.715997
.6	1.4	.747615	.735361	.724942	.716673	.710806
.6	1.6	.739022	.728089	.718805	.711452	.706252
.6	1.8	.731824	.721997	.713662	.707075	.702436
.8	.2	.782973	.755918	.734129	.716727	.703966
.8	.4	.774292	.749569	.729553	.713479	.701624
.8	.6	.76561	.74322	.724976	.710232	.699283
.8	.8	.756928	.736872	.720399	.706985	.696942
.8	1	.748246	.730523	.715823	.703738	.694601
.8	1.2	.73976	.724237	.711259	.700491	.692259
.8	1.4	.731853	.718167	.706745	.697243	.689918
.8	1.6	.724825	.712682	.702587	.694182	.687702
.8	1.8	.718929	.70805	.699051	.691551	.685775
1	.2	.761287	.731519	.708718	.693564	.682429
1	.4	.754674	.727217	.70607	.692064	.681704
1	.6	.748061	.722916	.703423	.690564	.680979
1	.8	.741449	.718615	.700776	.689064	.680254

ตารางที่ 3.2 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $\emptyset_1$ ต่างแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

WEST..

R1	R2	0°	10°	20°	30°	40°
1	1	.734836	.714313	.698129	.687564	.679529
1	1.2	.728257	.710012	.695482	.686065	.678804
1	1.4	.721799	.705711	.692835	.684565	.678079
1	1.6	.715887	.70165	.690302	.683094	.677354
1	1.8	.71087	.698148	.688038	.68169	.676629
1.2	.2	.743563	.714099	.693745	.680121	.673944
1.2	.4	.738404	.711106	.692282	.679518	.673783
1.2	.6	.733245	.708113	.69082	.678915	.673623
1.2	.8	.728086	.70512	.689358	.678312	.673462
1.2	1	.722926	.702127	.687896	.67771	.673301
1.2	1.2	.717767	.699134	.686434	.677107	.673141
1.2	1.4	.712608	.696141	.684972	.676504	.67298
1.2	1.6	.707735	.693262	.683517	.675901	.672821
1.2	1.8	.70353	.690646	.682079	.675298	.672659
1.4	.2	.729678	.702642	.683493	.674797	.671239
1.4	.4	.725533	.700568	.682671	.674589	.67123
1.4	.6	.721387	.698494	.681849	.674381	.671221
1.4	.8	.717242	.69642	.681027	.674173	.671212
1.4	1	.713096	.694346	.680205	.673965	.671202
1.4	1.2	.708951	.692271	.679383	.673757	.671193
1.4	1.4	.704805	.690197	.678561	.673549	.671184
1.4	1.6	.700848	.68815	.677739	.673341	.671176
1.4	1.8	.697331	.686164	.676917	.673133	.671166
1.6	.2	.720834	.693373	.678587	.671973	.671097
1.6	.4	.717452	.691944	.678121	.671934	.671097
1.6	.6	.714069	.690515	.677654	.671896	.671097
1.6	.8	.710687	.689086	.677188	.671858	.671097
1.6	1	.707305	.687656	.676722	.671819	.671097
1.6	1.2	.703923	.686227	.676255	.671781	.671097
1.6	1.4	.70054	.684798	.675789	.671743	.671097
1.6	1.6	.697249	.683369	.675323	.671704	.671097
1.6	1.8	.694168	.68194	.674856	.671666	.671097
1.8	.2	.713558	.686827	.675103	.671163	.671097
1.8	.4	.710756	.685778	.674894	.671157	.671097
1.8	.6	.707953	.684729	.674686	.671152	.671097
1.8	.8	.70515	.68368	.674477	.671146	.671097
1.8	1	.702347	.682632	.674268	.67114	.671097
1.8	1.2	.699544	.681583	.674059	.671134	.671097
1.8	1.4	.696741	.680534	.67385	.671128	.671097
1.8	1.6	.693979	.679485	.673641	.671123	.671097
1.8	1.8	.691312	.678437	.673432	.671117	.671097

ตารางที่ ฉ.3 (ต่อ) แสดงค่า SC_2 ของอบกรณีบังแดดแบบผสม

ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

NORTH-WEST..

R1	R2	0°	10°	20°	30°	40°
.2	.2	.922978	.918645	.915399	.913367	.912795
.2	.4	.897703	.894401	.891916	.890351	.889927
.2	.6	.878653	.876119	.874213	.87302	.872741
.2	.8	.863434	.86151	.860069	.859179	.859022
.2	1	.851301	.84986	.848791	.848151	.848106
.2	1.2	.841342	.840294	.839533	.839103	.839154
.2	1.4	.833416	.832684	.832166	.831898	.832019
.2	1.6	.826243	.825798	.825499	.825375	.825547
.2	1.8	.821407	.821156	.821006	.820978	.821184
.4	.2	.894128	.885998	.879759	.875298	.872849
.4	.4	.875934	.86969	.864913	.861467	.8596
.4	.6	.861862	.857062	.853407	.850785	.849347
.4	.8	.85052	.84688	.844125	.842152	.841081
.4	1	.841452	.838748	.836712	.835258	.834476
.4	1.2	.833933	.831995	.830549	.829528	.828996
.4	1.4	.82805	.826727	.825744	.825059	.824715
.4	1.6	.822837	.822072	.821503	.821115	.820927
.4	1.8	.819286	.81889	.8186	.818415	.818342
.6	.2	.873663	.863145	.854757	.848627	.844386
.6	.4	.860418	.852309	.845862	.84115	.837881
.6	.6	.850082	.843853	.838921	.835327	.832816
.6	.8	.84168	.836941	.833211	.830508	.828619
.6	1	.834986	.831454	.828686	.826686	.825291
.6	1.2	.829309	.826814	.824865	.823458	.822479
.6	1.4	.824907	.82324	.821936	.820982	.820323
.6	1.6	.821089	.820169	.819435	.818874	.818488
.6	1.8	.818355	.817916	.817561	.81729	.817108
.8	.2	.859568	.848489	.83932	.832543	.827974
.8	.4	.849628	.841129	.834046	.828818	.825319
.8	.6	.841882	.835373	.829898	.825833	.823156
.8	.8	.835465	.830626	.826507	.823398	.821382
.8	1	.830373	.826852	.823823	.821473	.819969
.8	1.2	.82606	.823633	.82153	.819855	.818792
.8	1.4	.82274	.82113	.819731	.818604	.817881
.8	1.6	.819922	.819017	.818224	.817578	.817142
.8	1.8	.817784	.817372	.81701	.816707	.816501
1	.2	.849588	.837729	.829971	.823675	.81938
1	.4	.841998	.83286	.826937	.822034	.818611
1	.6	.83605	.828932	.824434	.820641	.817943
1	.8	.831183	.825727	.822387	.819523	.817424

ตารางที่ ก.3 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

NORTH-WEST..

R1	R2	0°	10°	20°	30°	40°
1	1	.827324	.823193	.820716	.818592	.817016
1	1.2	.824011	.821075	.819342	.817852	.816719
1	1.4	.821409	.819445	.818265	.81725	.81647
1	1.6	.819225	.818118	.817395	.816772	.816289
1	1.8	.817483	.816968	.816637	.816348	.816118
1.2	.2	.842134	.831772	.823266	.81936	.817154
1.2	.4	.836292	.828378	.821676	.818596	.81686
1.2	.6	.831574	.825563	.820323	.817939	.816618
1.2	.8	.827722	.823267	.81926	.817418	.816425
1.2	1	.824679	.82137	.818398	.817006	.816271
1.2	1.2	.822129	.81982	.81774	.816709	.816165
1.2	1.4	.820167	.818597	.817181	.816462	.816079
1.2	1.6	.818571	.817612	.816745	.816283	.81602
1.2	1.8	.817189	.816751	.816353	.816114	.815964
1.4	.2	.837871	.826526	.820496	.817533	.815908
1.4	.4	.833119	.824261	.819483	.817151	.815898
1.4	.6	.829207	.822337	.818611	.816835	.815896
1.4	.8	.826005	.820807	.817921	.816585	.815894
1.4	1	.823402	.819547	.817374	.816384	.815893
1.4	1.2	.821258	.818564	.816979	.816246	.815893
1.4	1.4	.819581	.817749	.81665	.816135	.815893
1.4	1.6	.818225	.817106	.816412	.816058	.815893
1.4	1.8	.817044	.816533	.816188	.815985	.815893
1.6	.2	.833737	.822871	.819092	.816016	.815893
1.6	.4	.829986	.821334	.818371	.815963	.815893
1.6	.6	.82684	.820001	.817761	.815939	.815893
1.6	.8	.824288	.818961	.817278	.815919	.815893
1.6	1	.822131	.818142	.816893	.815899	.815893
1.6	1.2	.820387	.817546	.816621	.815894	.815893
1.6	1.4	.818994	.817048	.816397	.815893	.815893
1.6	1.6	.817879	.816686	.816238	.815893	.815893
1.6	1.8	.816899	.816343	.816087	.815893	.815893
1.8	.2	.830306	.821881	.817689	.815893	.815893
1.8	.4	.827245	.820562	.817259	.815893	.815893
1.8	.6	.824643	.819427	.816911	.815893	.815893
1.8	.8	.82257	.818528	.816635	.815893	.815893
1.8	1	.820858	.817817	.816413	.815893	.815893
1.8	1.2	.819516	.817304	.816263	.815893	.815893
1.8	1.4	.818408	.816876	.816144	.815893	.815893
1.8	1.6	.817533	.816567	.816063	.815893	.815893
1.8	1.8	.816754	.816275	.815987	.815893	.815893

ตารางที่ ฉ.3 (ต่อ) แสดงค่า SC_2 ของอุปกรณ์บังแดดแบบผสม

ที่ $\emptyset_1$ ต่างแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

NORTH..

R1	R2	0°	10°	20°	30°	40°
.2	.2	.964959	.96469	.964582	.964645	.964924
.2	.4	.96007	.960066	.9600067	.960078	.96011 4
.2	.6	.960049	.960049	.960049	.960049	.96005
.2	.8	.960049	.960049	.960049	.960049	.96005
.2	1	.960049	.960049	.960049	.960049	.960049
.2	1.2	.960049	.960049	.960049	.960049	.960049
.2	1.4	.960049	.960049	.960049	.960049	.960049
.2	1.6	.960049	.960049	.960049	.960049	.960049
.2	1.8	.960049	.960049	.960049	.960049	.960049
.4	.2	.9624	.962075	.96187	.961748	.961727
.4	.4	.960057	.960056	.960055	.960055	.960055
.4	.6	.960049	.960049	.960049	.960049	.960049
.4	.8	.960049	.960049	.960049	.960049	.960049
.4	1	.960049	.960049	.960049	.960049	.960049
.4	1.2	.960049	.960049	.960049	.960049	.960049
.4	1.4	.960049	.960049	.960049	.960049	.960049
.4	1.6	.960049	.960049	.960049	.960049	.960049
.4	1.8	.960049	.960049	.960049	.960049	.960049
.6	.2	.961386	.961061	.960858	.960714	.960625
.6	.4	.960056	.960055	.960054	.960054	.960053
.6	.6	.960049	.960049	.960049	.960049	.960049
.6	.8	.960049	.960049	.960049	.960049	.960049
.6	1	.960049	.960049	.960049	.960049	.960049
.6	1.2	.960049	.960049	.960049	.960049	.960049
.6	1.4	.960049	.960049	.960049	.960049	.960049
.6	1.6	.960049	.960049	.960049	.960049	.960049
.6	1.8	.960049	.960049	.960049	.960049	.960049
.8	.2	.960902	.960694	.960514	.960381	.960281
.8	.4	.960055	.960054	.960053	.960052	.960051
.8	.6	.960049	.960049	.960049	.960049	.960049
.8	.8	.960049	.960049	.960049	.960049	.960049
.8	1	.960049	.960049	.960049	.960049	.960049
.8	1.2	.960049	.960049	.960049	.960049	.960049
.8	1.4	.960049	.960049	.960049	.960049	.960049
.8	1.6	.960049	.960049	.960049	.960049	.960049
.8	1.8	.960049	.960049	.960049	.960049	.960049
1	.2	.96072	.960484	.960297	.960163	.960065
1	.4	.960054	.960053	.960052	.96005	.96005
1	.6	.960049	.960049	.960049	.960049	.960049
1	.8	.960049	.960049	.960049	.960049	.960049

ตารางที่ ฉ.3 (ต่อ) แสดงค่า SC_2 ของครีบกากบาทแบบผสม

ที่ $\emptyset_1$ ตั้งแต่ 0° ถึง 40°

EFFECTIVE SHADING COEFFICIENTS OF COMBINATION FINS

NORTH..

R1	R2	0°	10°	20°	30°	40°
1	1	.960049	.960049	.960049	.960049	.960049
1	1.2	.960049	.960049	.960049	.960049	.960049
1	1.4	.960049	.960049	.960049	.960049	.960049
1	1.6	.960049	.960049	.960049	.960049	.960049
1	1.8	.960049	.960049	.960049	.960049	.960049
1.2	.2	.96057	.960322	.960134	.960049	.960049
1.2	.4	.960053	.960052	.96005	.960049	.960049
1.2	.6	.960049	.960049	.960049	.960049	.960049
1.2	.8	.960049	.960049	.960049	.960049	.960049
1.2	1	.960049	.960049	.960049	.960049	.960049
1.2	1.2	.960049	.960049	.960049	.960049	.960049
1.2	1.4	.960049	.960049	.960049	.960049	.960049
1.2	1.6	.960049	.960049	.960049	.960049	.960049
1.2	1.8	.960049	.960049	.960049	.960049	.960049
1.4	.2	.96044	.960188	.960049	.960049	.960049
1.4	.4	.960053	.960051	.960049	.960049	.960049
1.4	.6	.960049	.960049	.960049	.960049	.960049
1.4	.8	.960049	.960049	.960049	.960049	.960049
1.4	1	.960049	.960049	.960049	.960049	.960049
1.4	1.2	.960049	.960049	.960049	.960049	.960049
1.4	1.4	.960049	.960049	.960049	.960049	.960049
1.4	1.6	.960049	.960049	.960049	.960049	.960049
1.4	1.8	.960049	.960049	.960049	.960049	.960049
1.6	.2	.960341	.960069	.960049	.960049	.960049
1.6	.4	.960052	.96005	.960049	.960049	.960049
1.6	.6	.960049	.960049	.960049	.960049	.960049
1.6	.8	.960049	.960049	.960049	.960049	.960049
1.6	1	.960049	.960049	.960049	.960049	.960049
1.6	1.2	.960049	.960049	.960049	.960049	.960049
1.6	1.4	.960049	.960049	.960049	.960049	.960049
1.6	1.6	.960049	.960049	.960049	.960049	.960049
1.6	1.8	.960049	.960049	.960049	.960049	.960049
1.8	.2	.960242	.960049	.960049	.960049	.960049
1.8	.4	.960051	.960049	.960049	.960049	.960049
1.8	.6	.960049	.960049	.960049	.960049	.960049
1.8	.8	.960049	.960049	.960049	.960049	.960049
1.8	1	.960049	.960049	.960049	.960049	.960049
1.8	1.2	.960049	.960049	.960049	.960049	.960049
1.8	1.4	.960049	.960049	.960049	.960049	.960049
1.8	1.6	.960049	.960049	.960049	.960049	.960049
1.8	1.8	.960049	.960049	.960049	.960049	.960049

ประวัติผู้เขียน

นายมิศรชัย อภิพัฒนะมนตรี เกิดวันที่ 19 พฤศจิกายน พ.ศ. 2502 ที่โรงพยาบาลเซ็นต์โยเซฟ สำเร็จการศึกษา วิศวกรรมศาสตรบัณฑิต สาขาเครื่องกล มหาวิทยาลัยเกษตรศาสตร์ ในปีการศึกษา 2524