



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 1-1007-M
Luminaire: BJB 47.360.1020
Report No: NATA0100
Test No: GC2019102415
LampCAT: SAMSUNG LC009D
Lamp flux(lm): 1482.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 34.6000
Current(A): 0.2970
Power (W): 10.2700
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 1077.44
Efficiency(%): 72.70%
Lumens(lm)/Power(W): 104.91
Central intensity(cd): 3314.953
Maximum intensity(cd): 3314.953
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=34.7
[C90/270]Total=34.7
Field angle(10%Imax): [C0/180]Total=49.8
[C90/270]Total=49.8
Maximum s/h(1/2): C0_180=0.58 C90_270=0.58
Maximum s/h(1/4): C0_180=0.54 C90_270=0.54
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 72.70%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.530%

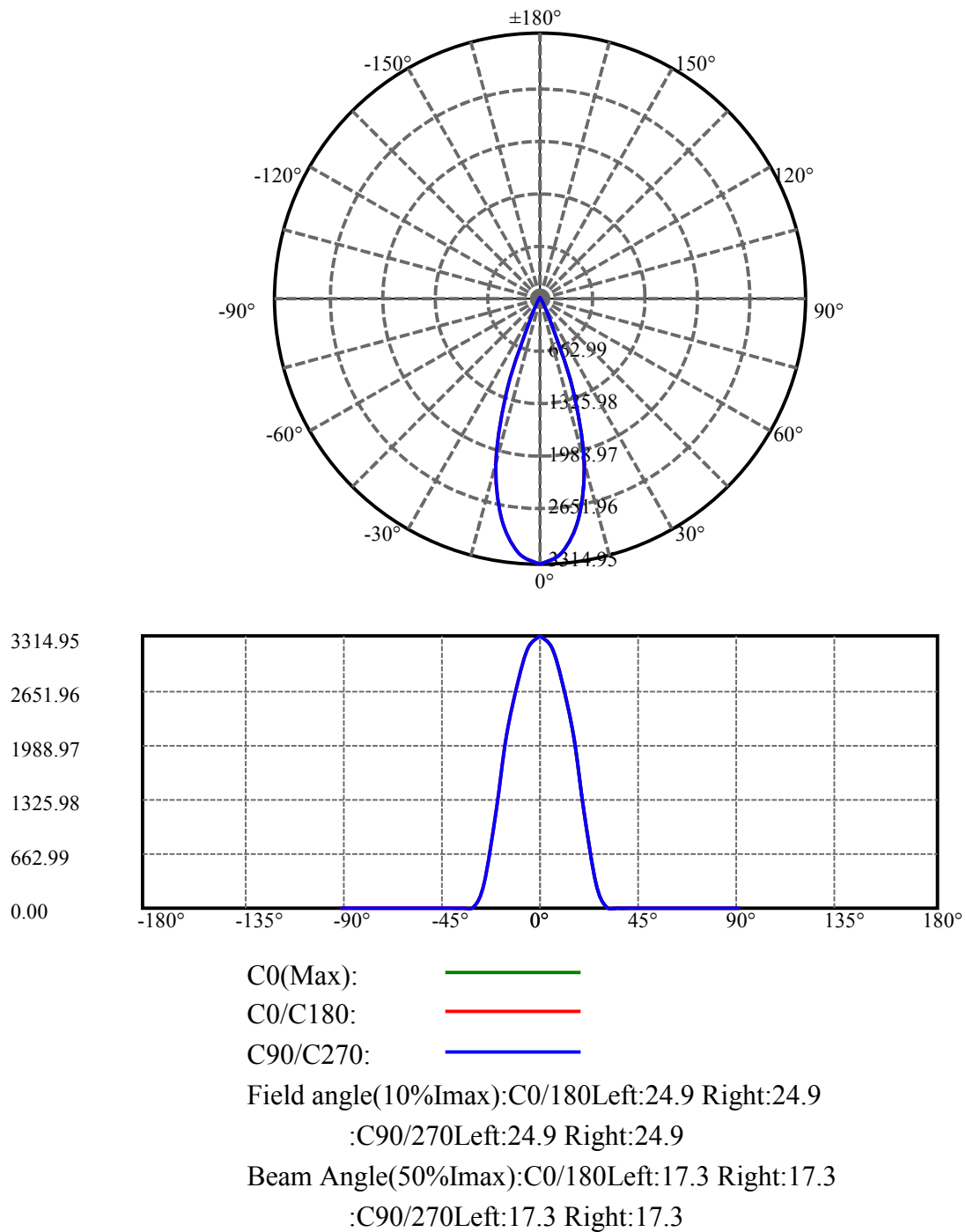
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3314.953	0.000	0	.000%	.000%
5.0	3176.859	77.608	77.608	5.237%	7.203%
10.0	2763.914	212.520	290.128	14.340%	26.928%
15.0	2083.641	287.554	577.682	19.403%	53.616%
20.0	1168.671	268.036	845.718	18.086%	78.493%
25.0	314.332	155.540	1001.257	10.495%	92.930%
30.0	24.891	42.929	1044.186	2.897%	96.914%
35.0	9.211	5.022	1049.208	.339%	97.380%
40.0	7.038	2.711	1051.919	.183%	97.632%
45.0	6.082	2.429	1054.348	.164%	97.857%
50.0	5.667	2.374	1056.723	.160%	98.077%
55.0	5.400	2.406	1059.129	.162%	98.301%
60.0	5.266	2.466	1061.594	.166%	98.530%
65.0	5.168	2.537	1064.131	.171%	98.765%
70.0	5.091	2.598	1066.729	.175%	99.006%
75.0	5.055	2.652	1069.381	.179%	99.252%
80.0	4.978	2.685	1072.065	.181%	99.501%
85.0	4.915	2.688	1074.753	.181%	99.751%
90.0	4.887	2.684	1077.437	.181%	100.000%

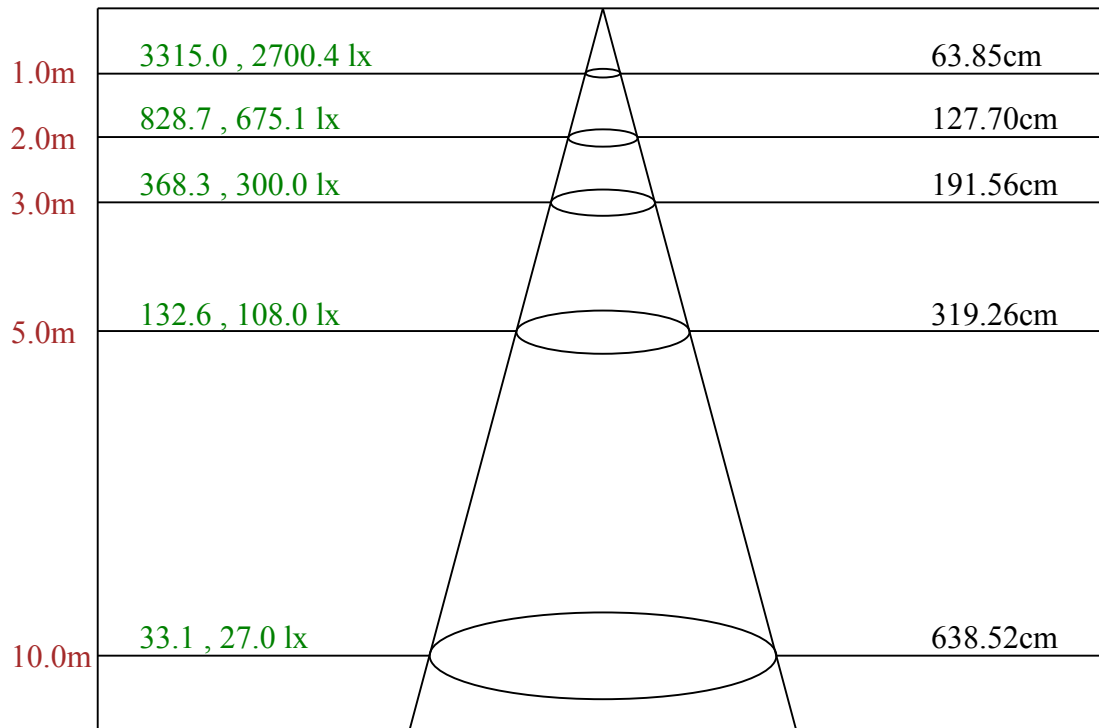
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1044.19	70.46%	96.91%
0-40	1051.92	70.98%	97.63%
0-60	1061.59	71.63%	98.53%
0-90	1074.75	72.52%	99.75%
0-120	1074.75	72.52%	99.75%
0-180	1077.44	72.70%	100.00%
60-90	15.62	1.05%	1.45%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-20.52	861.95	58.16%	80.00%

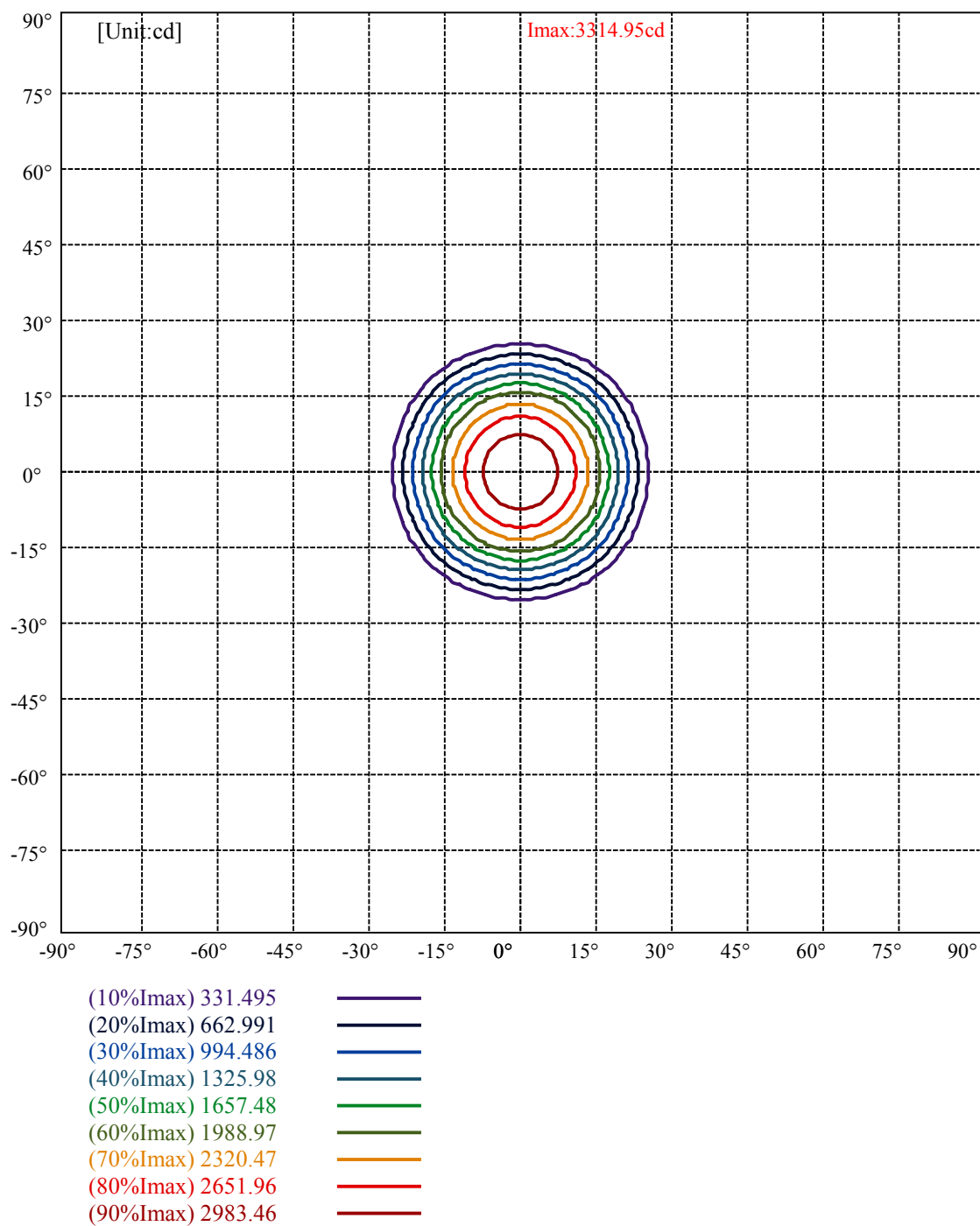
ZONAL LUMEN SUMMARY

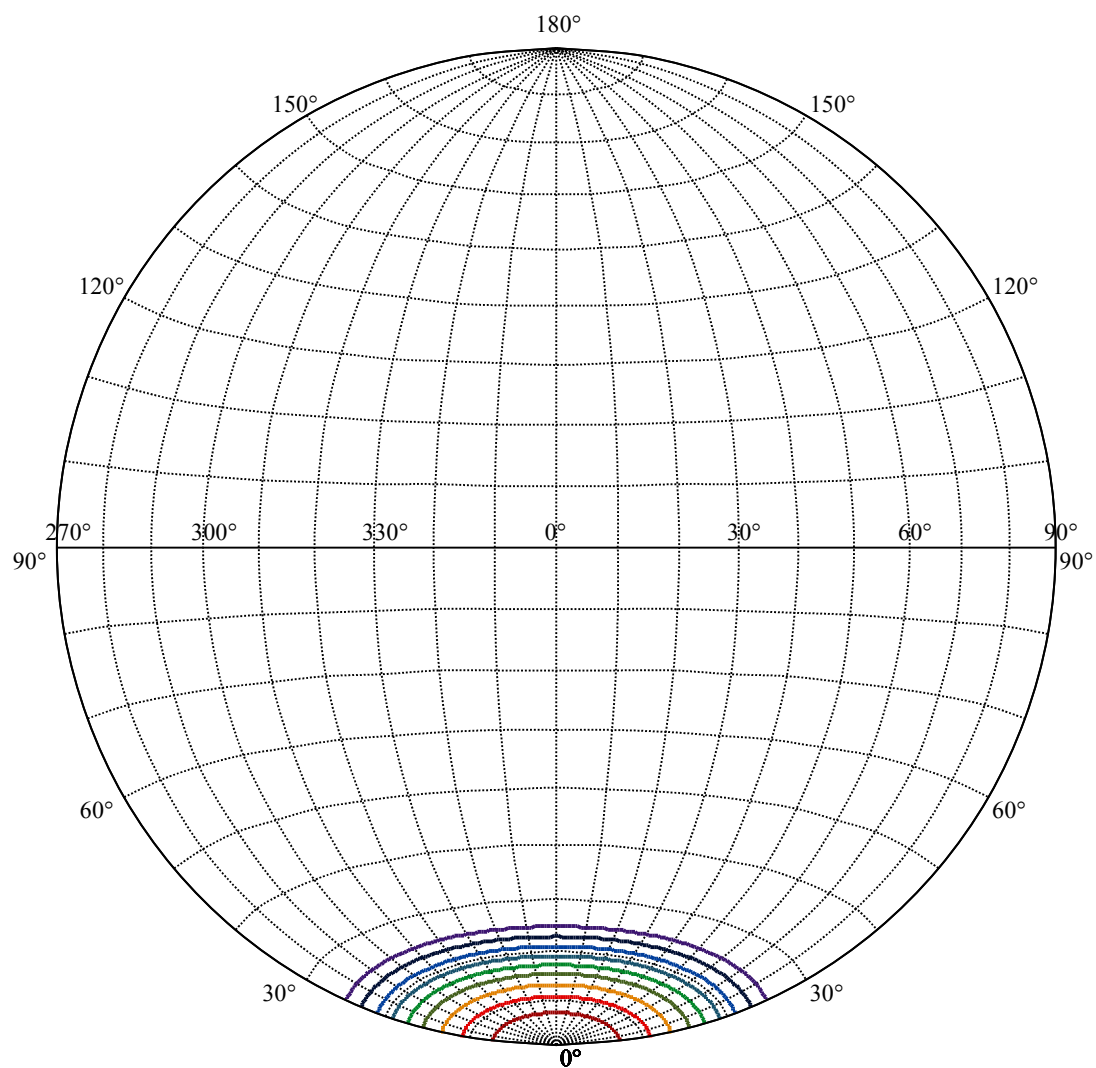
0-10	290.13
10-20	555.59
20-30	198.47
30-40	7.73
40-50	4.80
50-60	4.87
60-70	5.13
70-80	5.34
80-90	2.69
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00





Max , Ave Beam angle of C0 plane 35.41





House

[Unit:cd]

Road

Imax:3314.95

(10%Imax) 331.495

(20%Imax) 662.991

(30%Imax) 994.486

(40%Imax) 1325.98

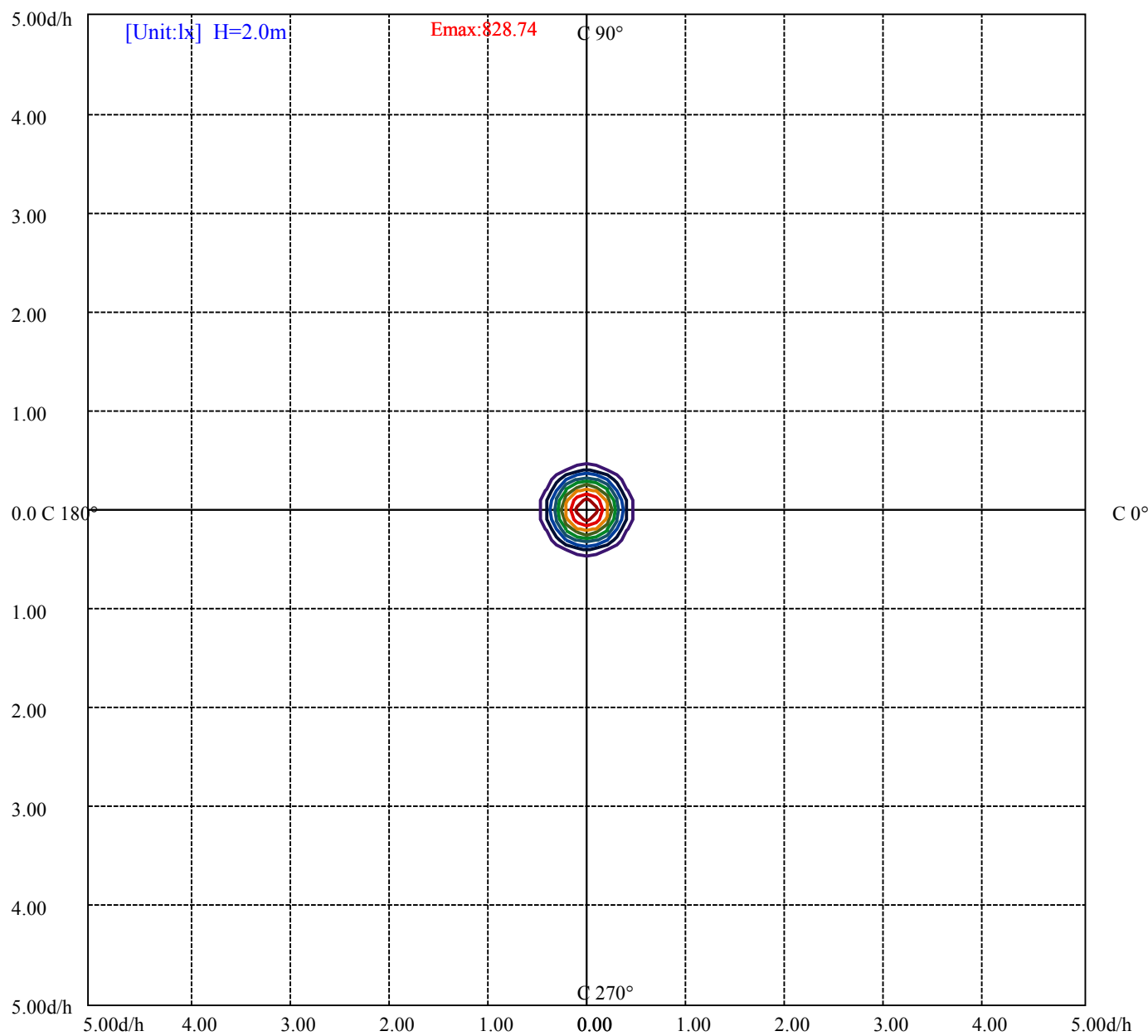
(50%Imax) 1657.48

(60%Imax) 1988.97

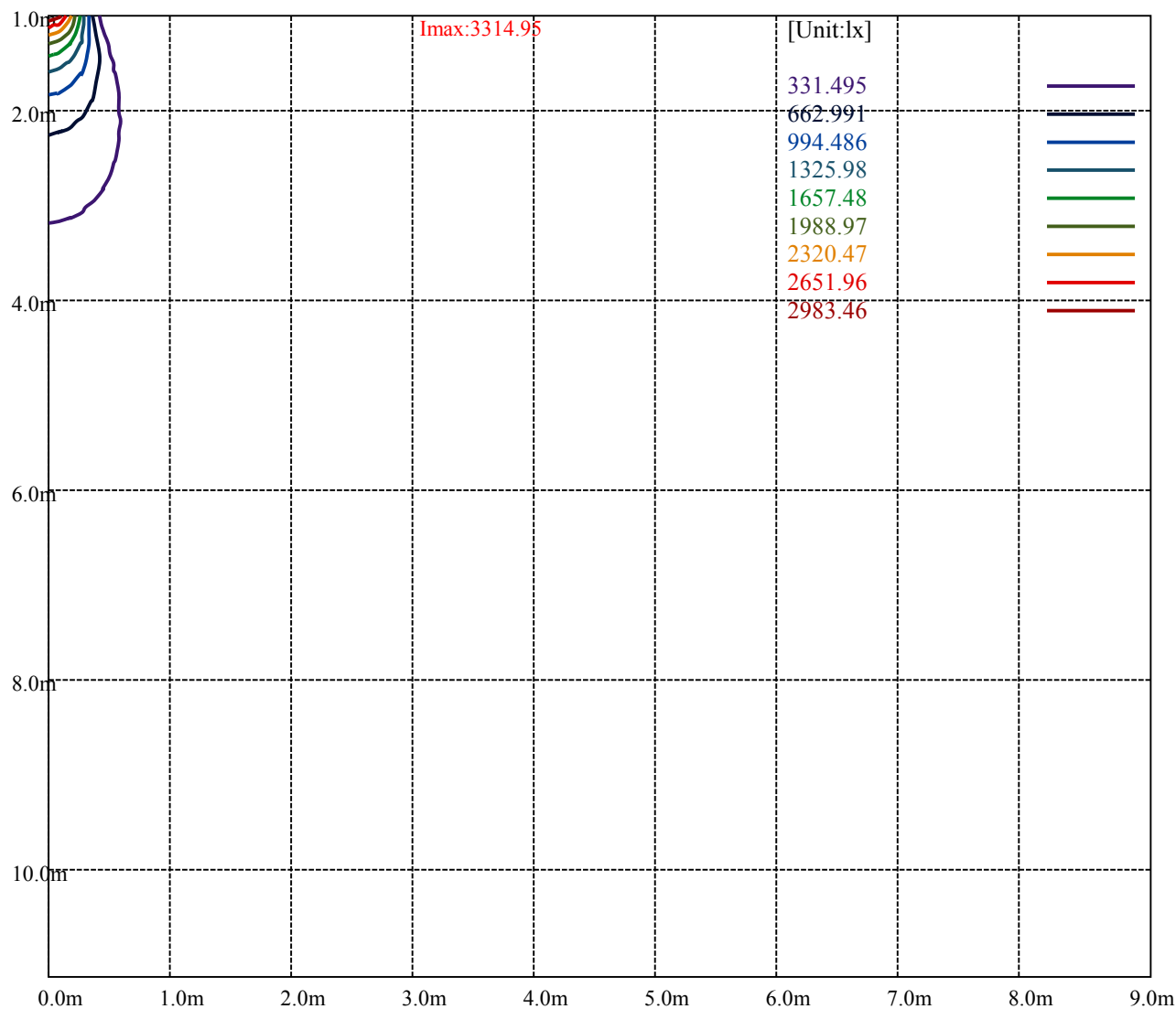
(70%Imax) 2320.47

(80%Imax) 2651.96

(90%Imax) 2983.46



(10%E _{max}) 82.87375	—
(20%E _{max}) 165.7475	—
(30%E _{max}) 248.6212	—
(40%E _{max}) 331.495	—
(50%E _{max}) 414.3675	—
(60%E _{max}) 497.2425	—
(70%E _{max}) 580.115	—
(80%E _{max}) 662.99	—
(90%E _{max}) 745.8625	—



Luminance Table

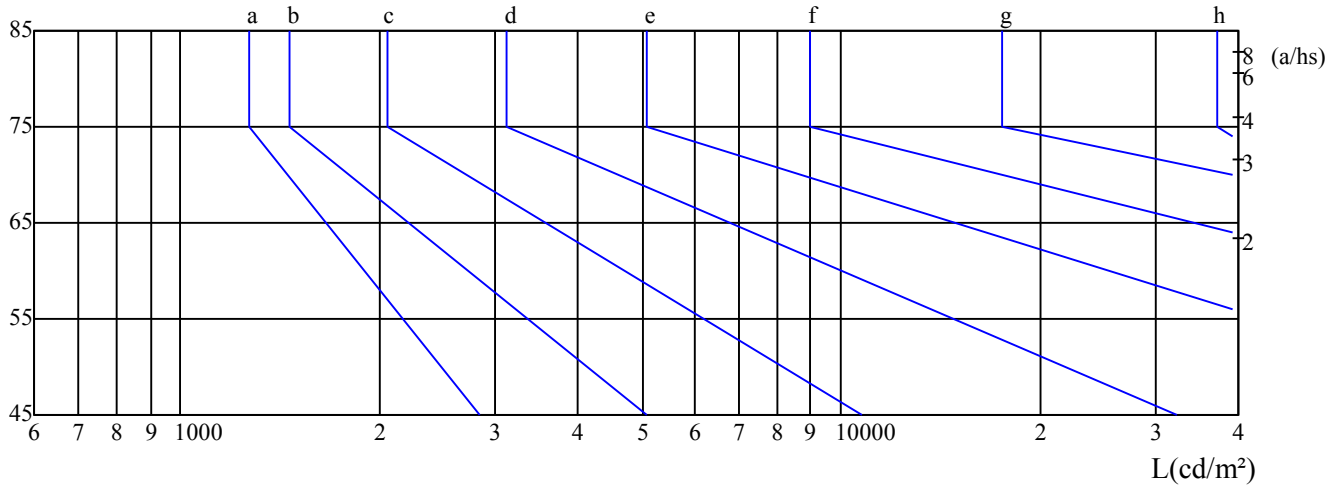
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

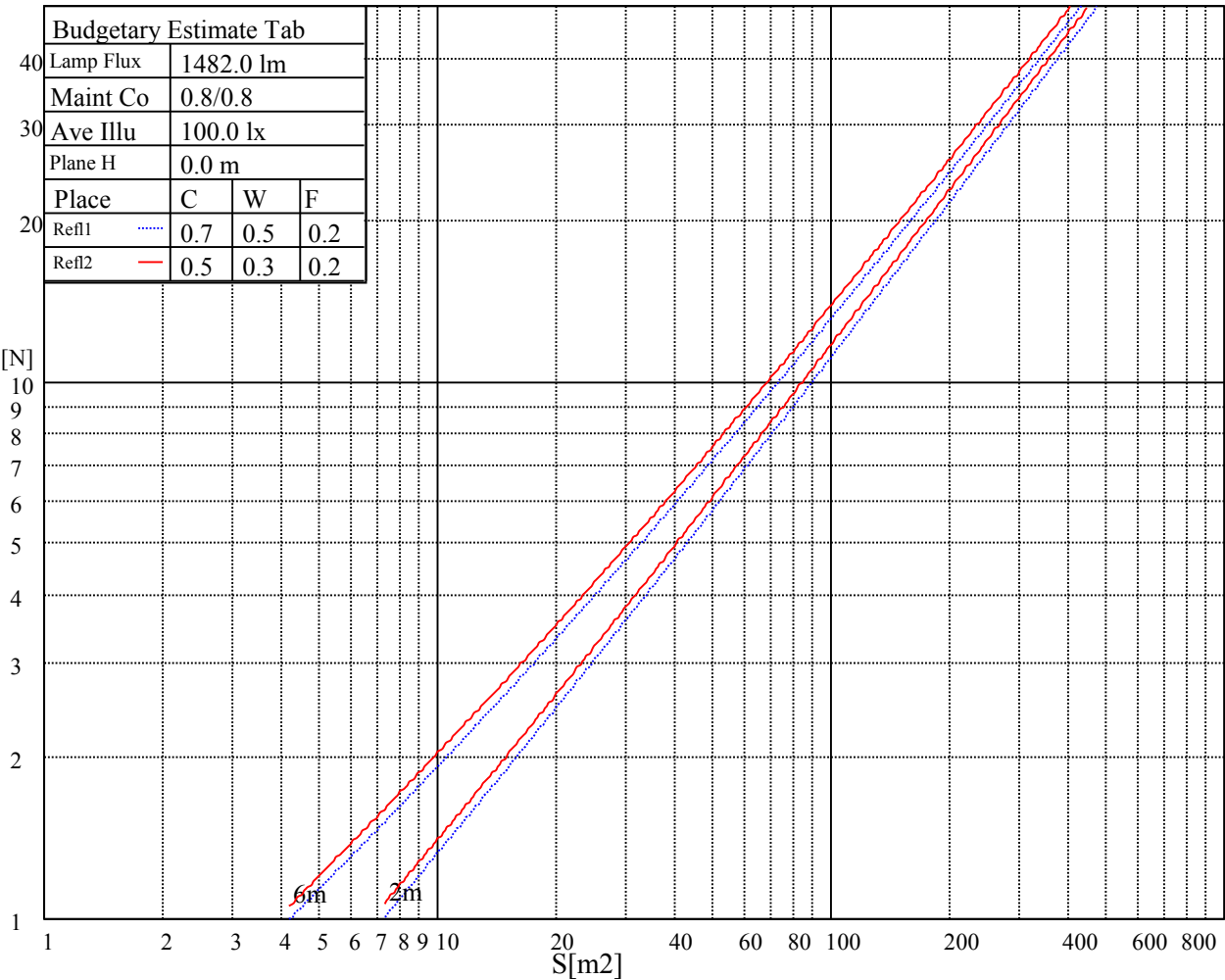
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

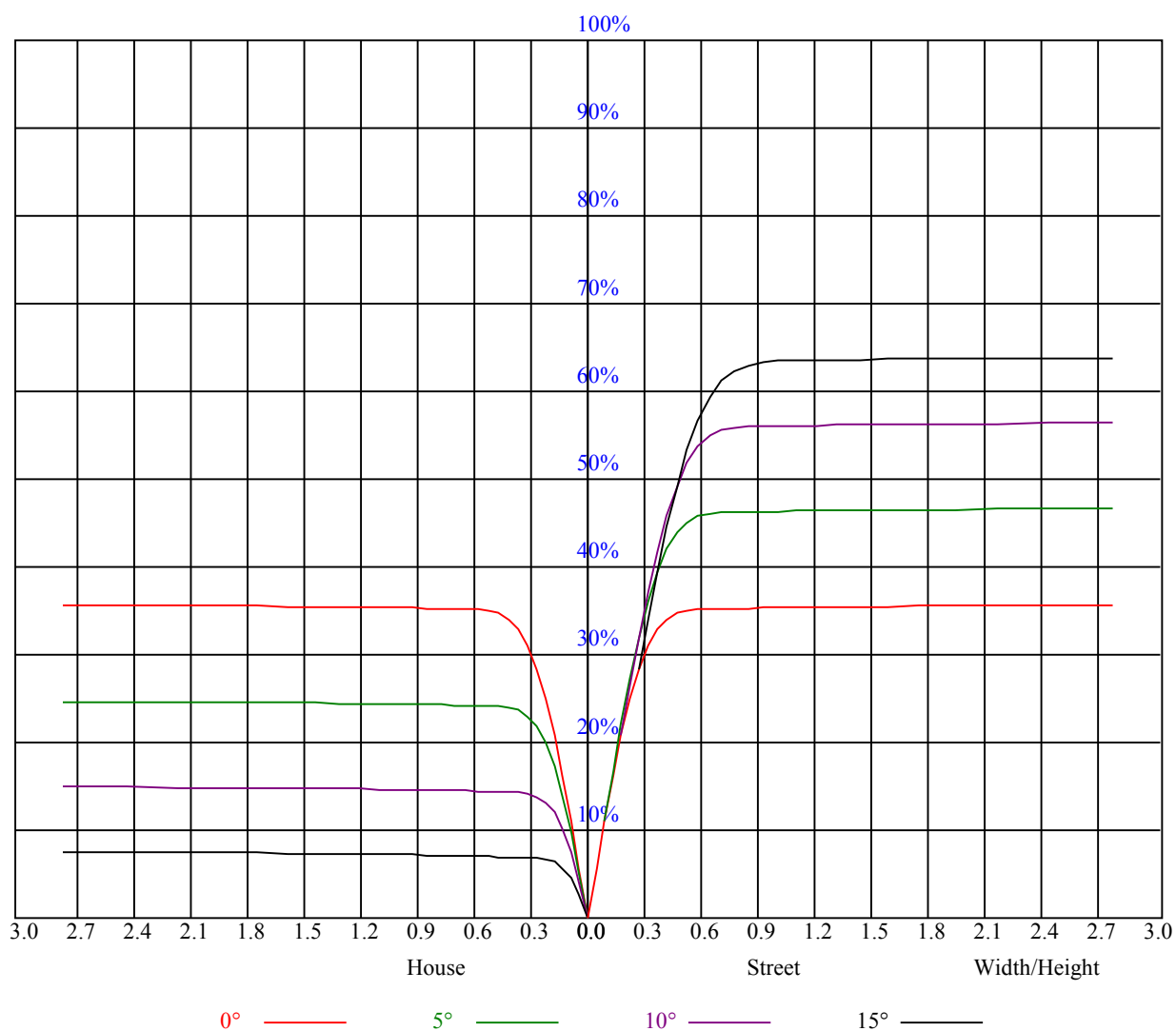
C0 ———

C45 ———

C90 ———



RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	0.87	0.87	0.87	0.85	0.85	0.85	0.81	0.81	0.81	0.77	0.77	0.77	0.74	0.74	0.74	0.73
1	0.82	0.80	0.79	0.80	0.79	0.77	0.77	0.76	0.75	0.74	0.74	0.73	0.72	0.71	0.71	0.70
2	0.78	0.75	0.73	0.76	0.74	0.72	0.74	0.72	0.71	0.72	0.71	0.69	0.70	0.69	0.68	0.67
3	0.74	0.71	0.69	0.73	0.71	0.68	0.71	0.69	0.67	0.70	0.68	0.66	0.68	0.67	0.65	0.64
4	0.71	0.68	0.66	0.70	0.67	0.65	0.69	0.66	0.64	0.67	0.65	0.64	0.66	0.64	0.63	0.62
5	0.68	0.65	0.63	0.68	0.65	0.62	0.66	0.64	0.62	0.65	0.63	0.61	0.64	0.62	0.61	0.60
6	0.66	0.62	0.60	0.65	0.62	0.60	0.64	0.62	0.60	0.63	0.61	0.59	0.62	0.60	0.59	0.58
7	0.63	0.60	0.58	0.63	0.60	0.58	0.62	0.59	0.57	0.61	0.59	0.57	0.61	0.59	0.57	0.56
8	0.61	0.58	0.56	0.61	0.58	0.56	0.60	0.58	0.56	0.60	0.57	0.55	0.59	0.57	0.55	0.54
9	0.59	0.56	0.54	0.59	0.56	0.54	0.58	0.56	0.54	0.58	0.55	0.54	0.57	0.55	0.53	0.53
10	0.57	0.54	0.52	0.57	0.54	0.52	0.57	0.54	0.52	0.56	0.54	0.52	0.56	0.54	0.52	0.51



Nata 1-1007-M

Intensity data(cd)										Appendix Page: 14 Total:14	
C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	3313.69	3217.50	2823.75	2192.06	1254.94	387.00	25.59	9.51	7.20		
45.0	3317.06	3206.81	2788.88	2120.06	1221.75	322.31	21.54	9.39	7.09		
90.0	3311.44	3135.38	2651.06	1876.50	1004.68	189.84	15.98	8.55	6.86		
135.0	3317.63	3174.19	2799.00	2094.75	1199.25	307.69	23.79	9.11	7.03		
180.0	3313.69	3133.13	2662.88	2001.94	1090.46	246.15	19.97	8.66	6.81		
225.0	3317.06	3160.13	2750.63	2026.69	1078.99	293.91	21.71	9.17	6.92		
270.0	3311.44	3220.88	2874.94	2308.50	1406.25	460.69	48.77	10.18	7.37		
315.0	3317.63	3166.88	2760.19	2048.63	1093.05	307.07	21.77	9.11	7.03		
360.0	3313.69	3217.50	2823.75	2192.06	1254.94	387.00	25.59	9.51	7.20		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	6.13	5.68	5.40	5.23	5.18	5.06	5.01	4.95	4.95		
45.0	6.13	5.68	5.46	5.29	5.23	5.18	5.12	5.01	4.89		
90.0	6.02	5.68	5.40	5.29	5.23	5.18	5.18	4.95	4.89		
135.0	6.13	5.68	5.46	5.29	5.18	5.06	5.01	5.01	4.95		
180.0	6.02	5.63	5.34	5.23	5.12	5.01	5.01	4.95	4.89		
225.0	5.96	5.63	5.34	5.23	5.12	5.06	5.01	4.95	4.89		
270.0	6.19	5.74	5.46	5.34	5.18	5.12	5.12	5.06	4.89		
315.0	6.08	5.63	5.34	5.23	5.12	5.06	5.01	4.95	4.95		
360.0	6.13	5.68	5.40	5.23	5.18	5.06	5.01	4.95	4.95		
C/ γ (°)	90.0										
0.0	4.95										
45.0	4.84										
90.0	4.89										
135.0	4.89										
180.0	4.89										
225.0	4.84										
270.0	4.89										
315.0	4.89										
360.0	4.95										