



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: 3-1698-N

Luminaire: 92.70.065.00+92.70.089.00

Report No: NATA0100

Voltage(V): 34.1000

Test No: GC20180712006

Current(A): 0.3000

LampCAT: BRIDGELUX V9 HD

Power (W): 10.2300

Lamp flux(lm): 1191.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 79

Width(mm): 79

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 946.09

Efficiency(%): 79.44%

Lumens(lm)/Power(W): 93.47

Central intensity(cd): 10695.260

Maximum intensity(cd): 10695.260

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=12.8

[C90/270]Total=12.8

Field angle(10%Imax): [C0/180]Total=23.7

[C90/270]Total=23.7

Maximum s/h(1/2): C0_180=0.22 C90_270=0.22

Maximum s/h(1/4): C0_180=0.22 C90_270=0.22

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 80.28%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.119%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10695.256	10.235	10.235	.859%	1.082%
2.0	10060.525	77.003	87.237	6.465%	9.221%
4.0	8215.516	125.685	212.923	10.553%	22.506%
6.0	5779.683	132.496	345.419	11.125%	36.510%
8.0	3536.066	107.930	453.349	9.062%	47.918%
10.0	1839.593	70.058	523.407	5.882%	55.323%
12.0	1000.678	45.629	569.035	3.831%	60.146%
14.0	703.290	37.314	606.35	3.133%	64.090%
16.0	566.806	34.264	640.614	2.877%	67.712%
18.0	479.232	32.478	673.092	2.727%	71.145%
20.0	409.172	30.692	703.784	2.577%	74.389%
22.0	345.830	28.412	732.196	2.386%	77.392%
24.0	291.180	25.974	758.17	2.181%	80.137%
26.0	240.872	23.158	781.327	1.944%	82.585%
28.0	199.710	20.562	801.89	1.726%	84.759%
30.0	166.539	18.262	820.152	1.533%	86.689%
32.0	136.712	15.888	836.04	1.334%	88.368%
34.0	114.042	13.986	850.026	1.174%	89.847%
36.0	95.440	12.303	862.33	1.033%	91.147%
38.0	80.685	10.894	873.224	.915%	92.298%
40.0	69.206	9.756	882.98	.819%	93.330%
42.0	59.248	8.695	891.674	.730%	94.249%
44.0	50.143	7.639	899.314	.641%	95.056%
46.0	42.173	6.653	905.967	.559%	95.759%
48.0	34.052	5.550	911.517	.466%	96.346%
50.0	26.744	4.493	916.01	.377%	96.821%
52.0	21.314	3.683	919.693	.309%	97.210%
54.0	16.716	2.966	922.659	.249%	97.524%
56.0	13.062	2.375	925.034	.199%	97.775%
58.0	10.461	1.946	926.98	.163%	97.980%
60.0	8.671	1.647	928.627	.138%	98.154%
62.0	7.790	1.509	930.135	.127%	98.314%
64.0	7.364	1.452	931.587	.122%	98.467%
66.0	7.006	1.404	932.991	.118%	98.616%
68.0	6.682	1.359	934.349	.114%	98.759%
70.0	6.387	1.316	935.666	.111%	98.898%
72.0	6.111	1.275	936.94	.107%	99.033%
74.0	5.877	1.239	938.179	.104%	99.164%

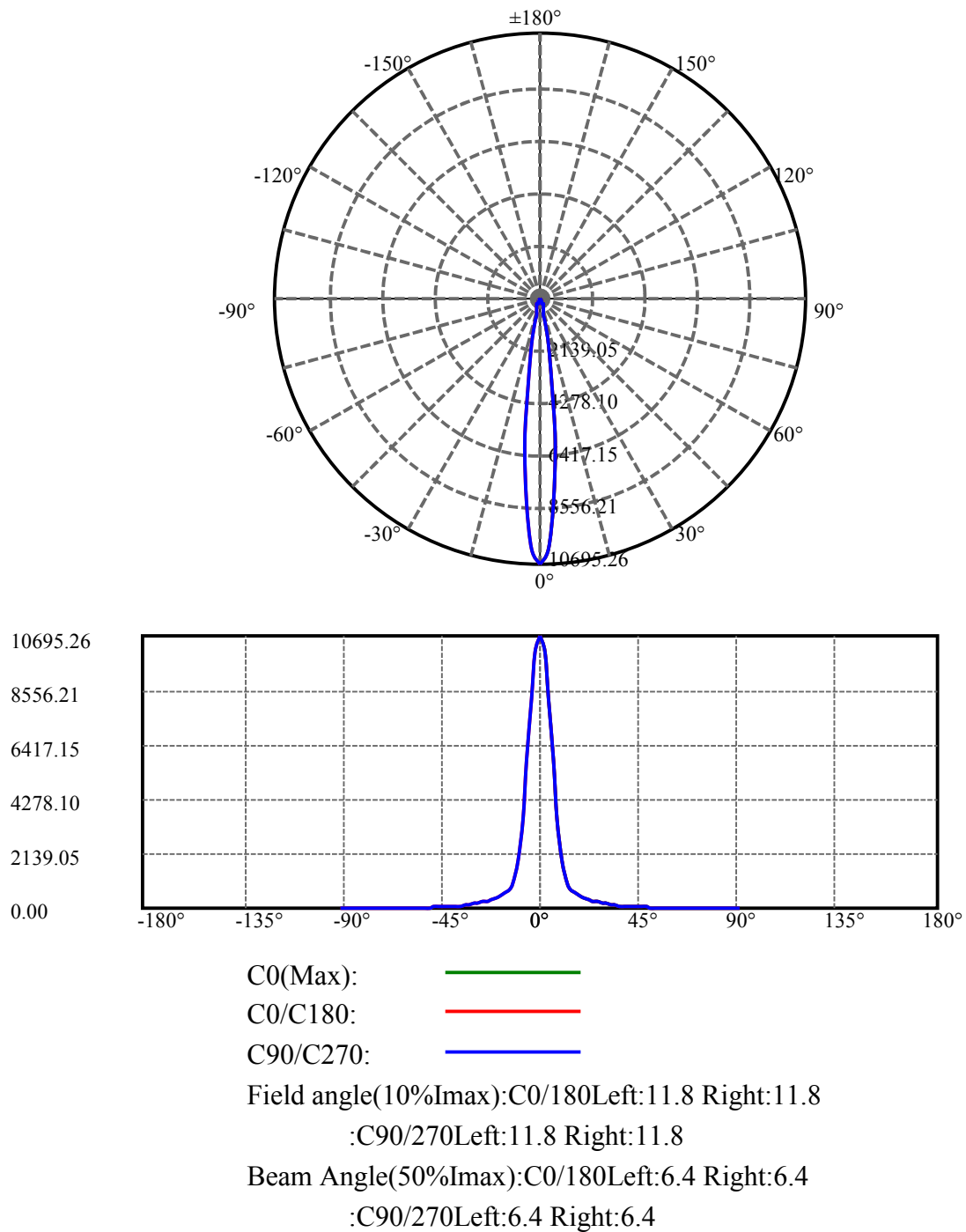
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	5.643	1.201	939.38	.101%	99.291%
78.0	5.471	1.174	940.554	.099%	99.415%
80.0	5.251	1.134	941.688	.095%	99.535%
82.0	5.017	1.090	942.778	.091%	99.650%
84.0	4.687	1.022	943.8	.086%	99.758%
86.0	4.370	0.956	944.756	.080%	99.859%
88.0	4.088	0.896	945.652	.075%	99.954%
90.0	3.971	0.435	946.087	.037%	100.000%

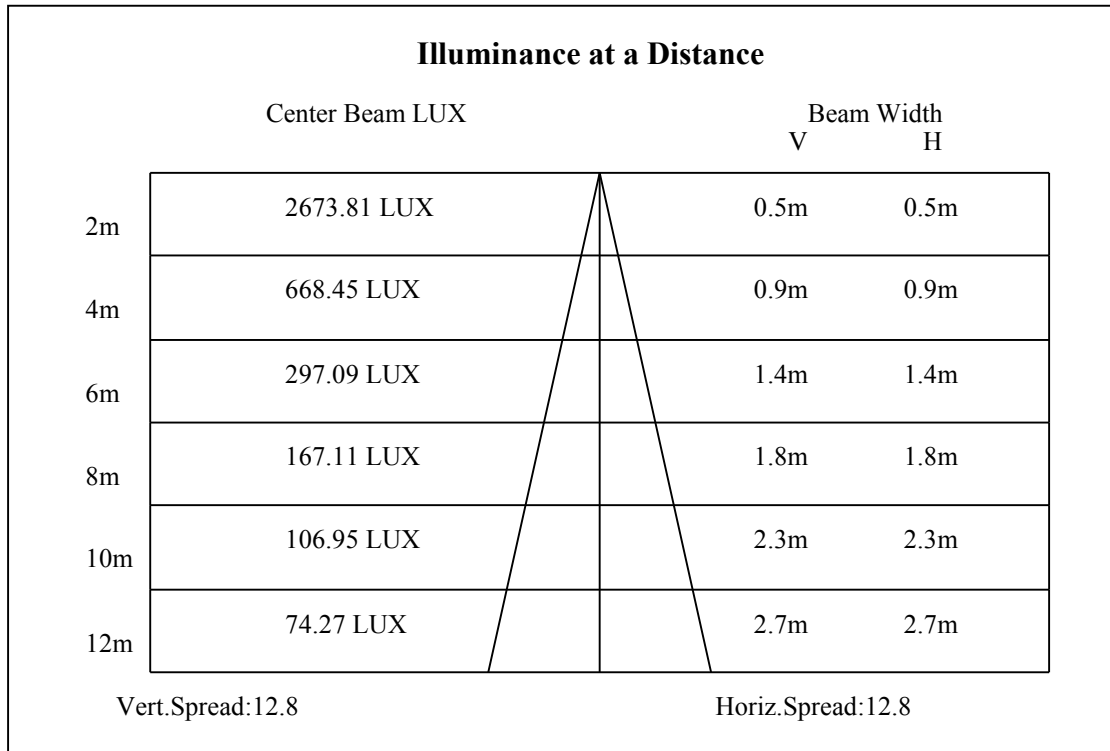
ZONAL LUMEN SUMMARY

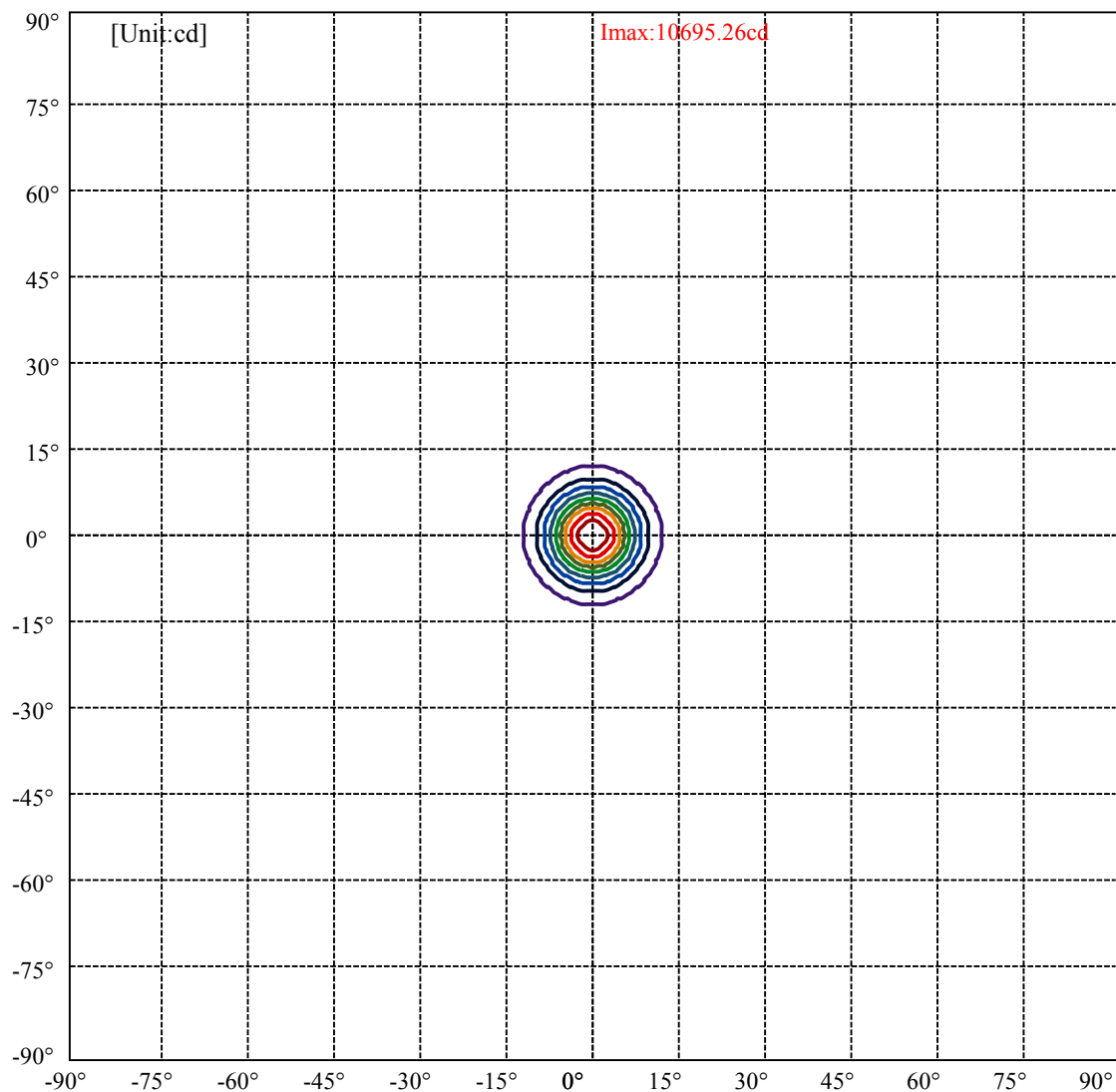
Zone	Lumens	%Lamp	%Fixt
0-30	820.15	68.86%	86.69%
0-40	882.98	74.14%	93.33%
0-60	928.63	77.97%	98.15%
0-90	945.65	79.40%	99.95%
0-120	945.65	79.40%	99.95%
0-180	946.09	79.44%	100.00%
60-90	18.67	1.57%	1.97%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-23.90	756.87	63.55%	80.00%

ZONAL LUMEN SUMMARY

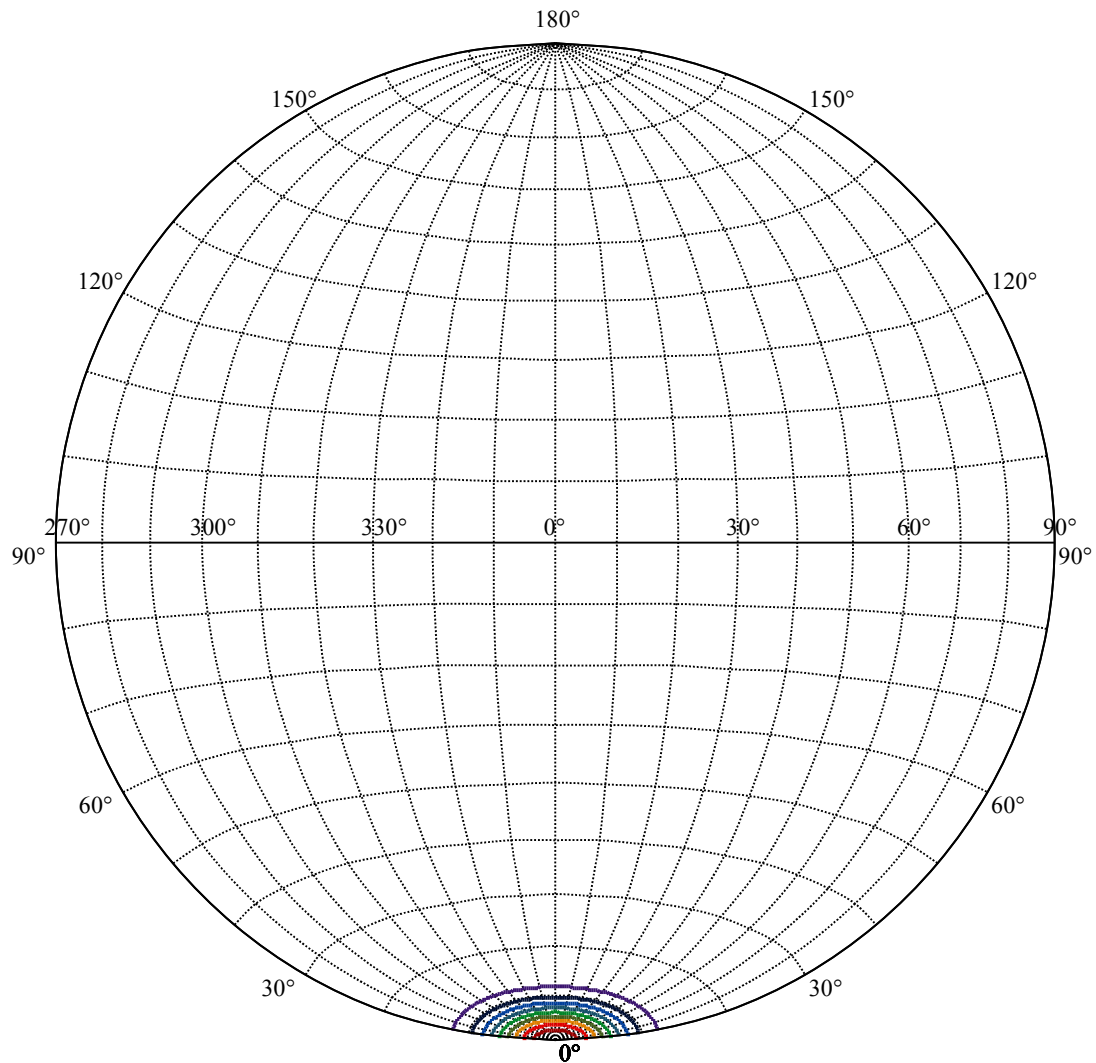
0-10	523.41
10-20	180.38
20-30	116.37
30-40	62.83
40-50	33.03
50-60	12.62
60-70	7.04
70-80	6.02
80-90	3.96
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00







(10%Imax)	1069.53	—
(20%Imax)	2139.05	—
(30%Imax)	3208.58	—
(40%Imax)	4278.1	—
(50%Imax)	5347.63	—
(60%Imax)	6417.15	—
(70%Imax)	7486.68	—
(80%Imax)	8556.21	—
(90%Imax)	9625.73	—



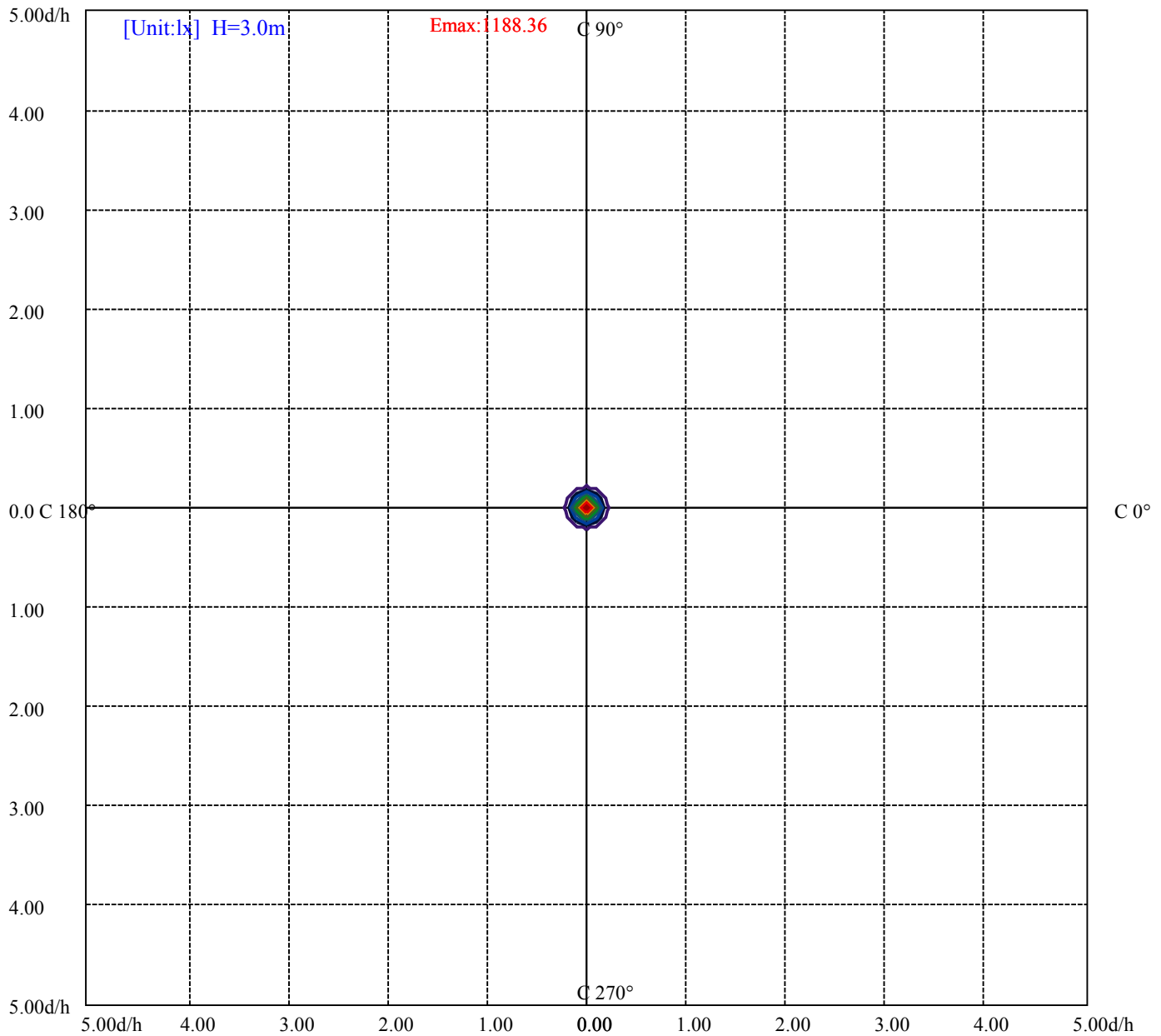
House

[Unit:cd]

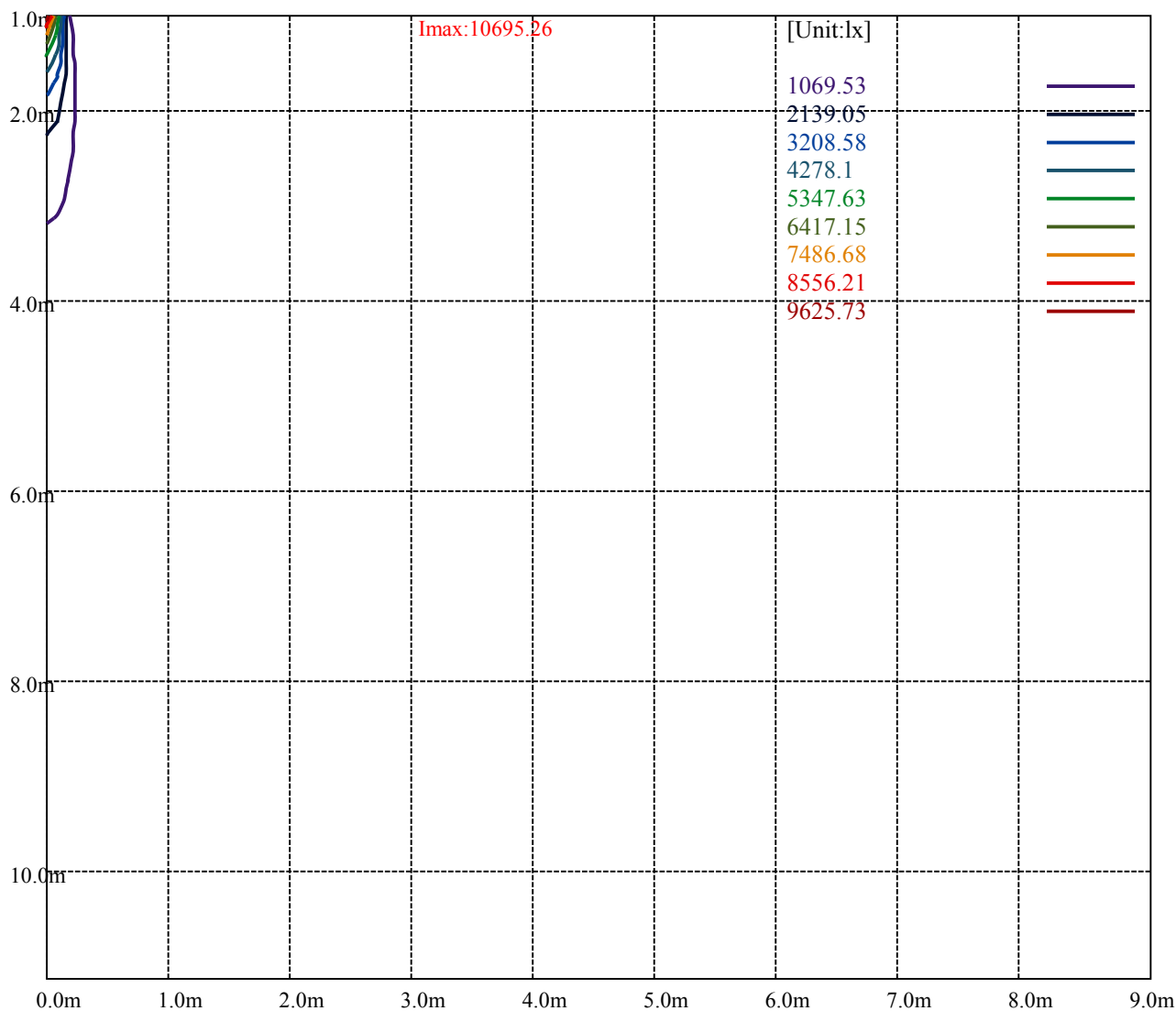
Road

Imax:10695.26

(10%Imax)	1069.53	—
(20%Imax)	2139.05	—
(30%Imax)	3208.58	—
(40%Imax)	4278.1	—
(50%Imax)	5347.63	—
(60%Imax)	6417.15	—
(70%Imax)	7486.68	—
(80%Imax)	8556.21	—
(90%Imax)	9625.73	—



(10%Emax)	118.8356	—
(20%Emax)	237.6711	—
(30%Emax)	356.5067	—
(40%Emax)	475.3422	—
(50%Emax)	594.1778	—
(60%Emax)	713.0144	—
(70%Emax)	831.85	—
(80%Emax)	950.6855	—
(90%Emax)	1069.521	—



Luminance Table

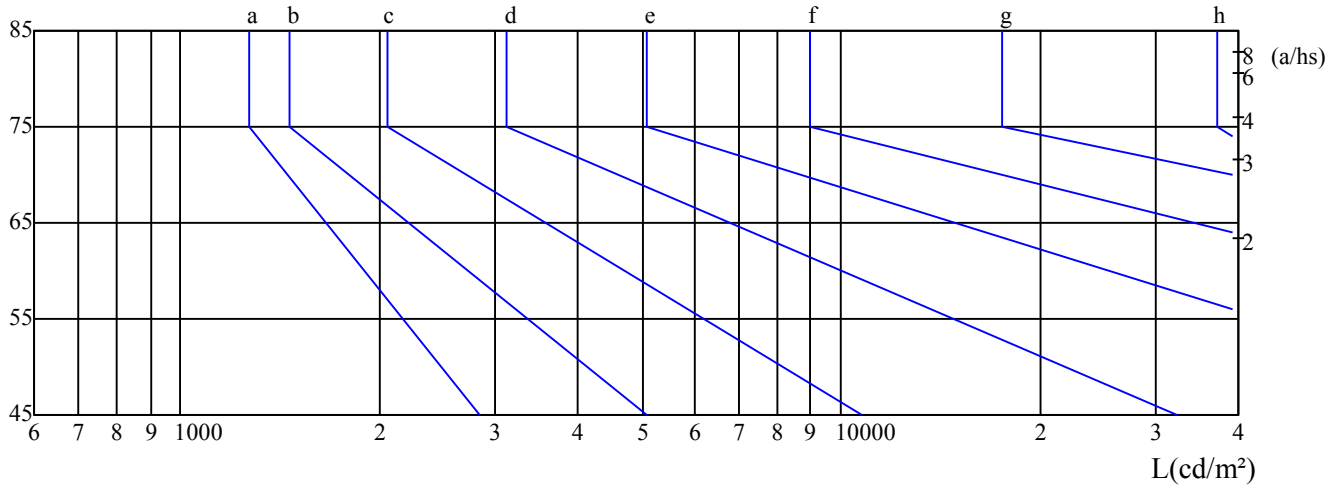
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

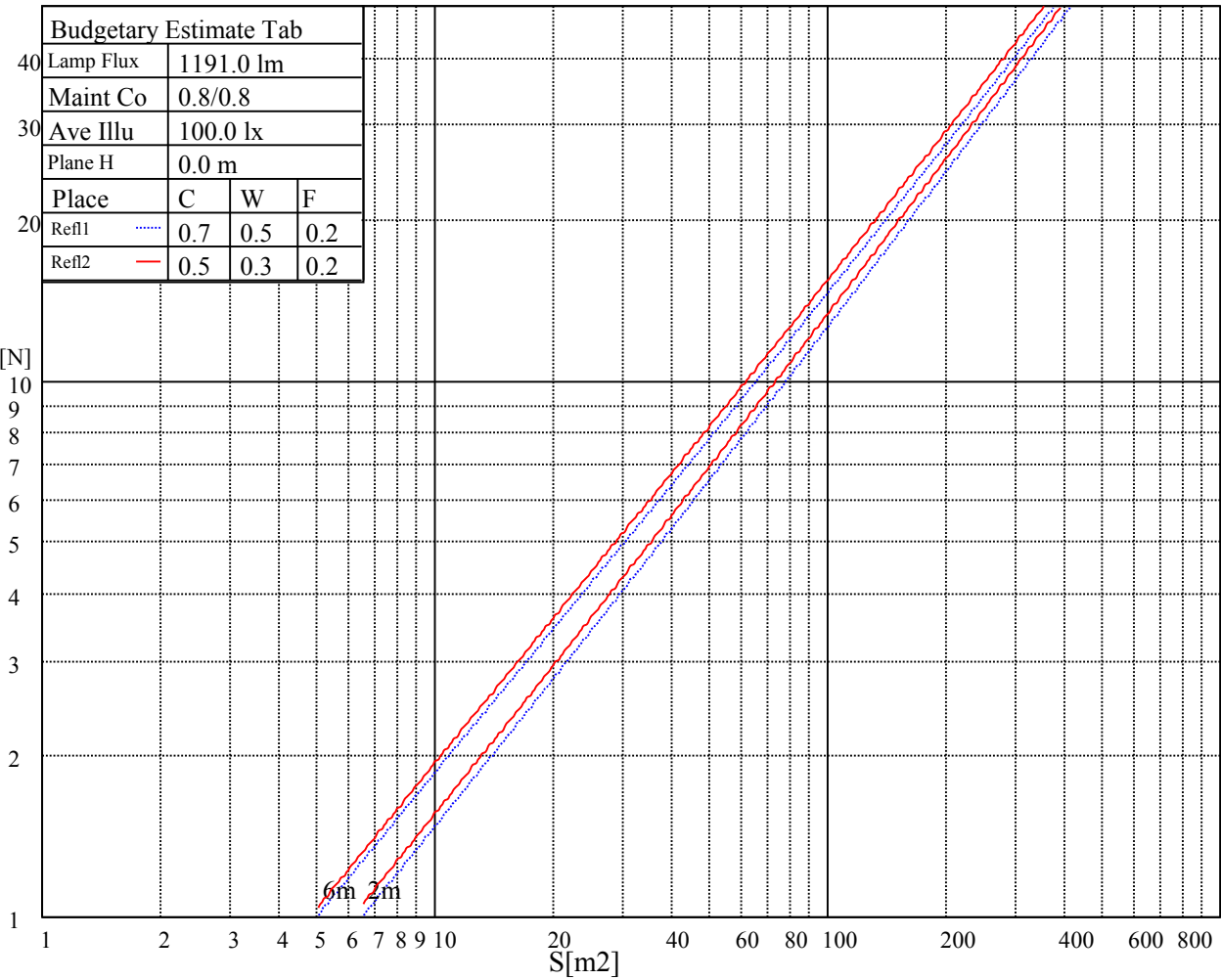
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

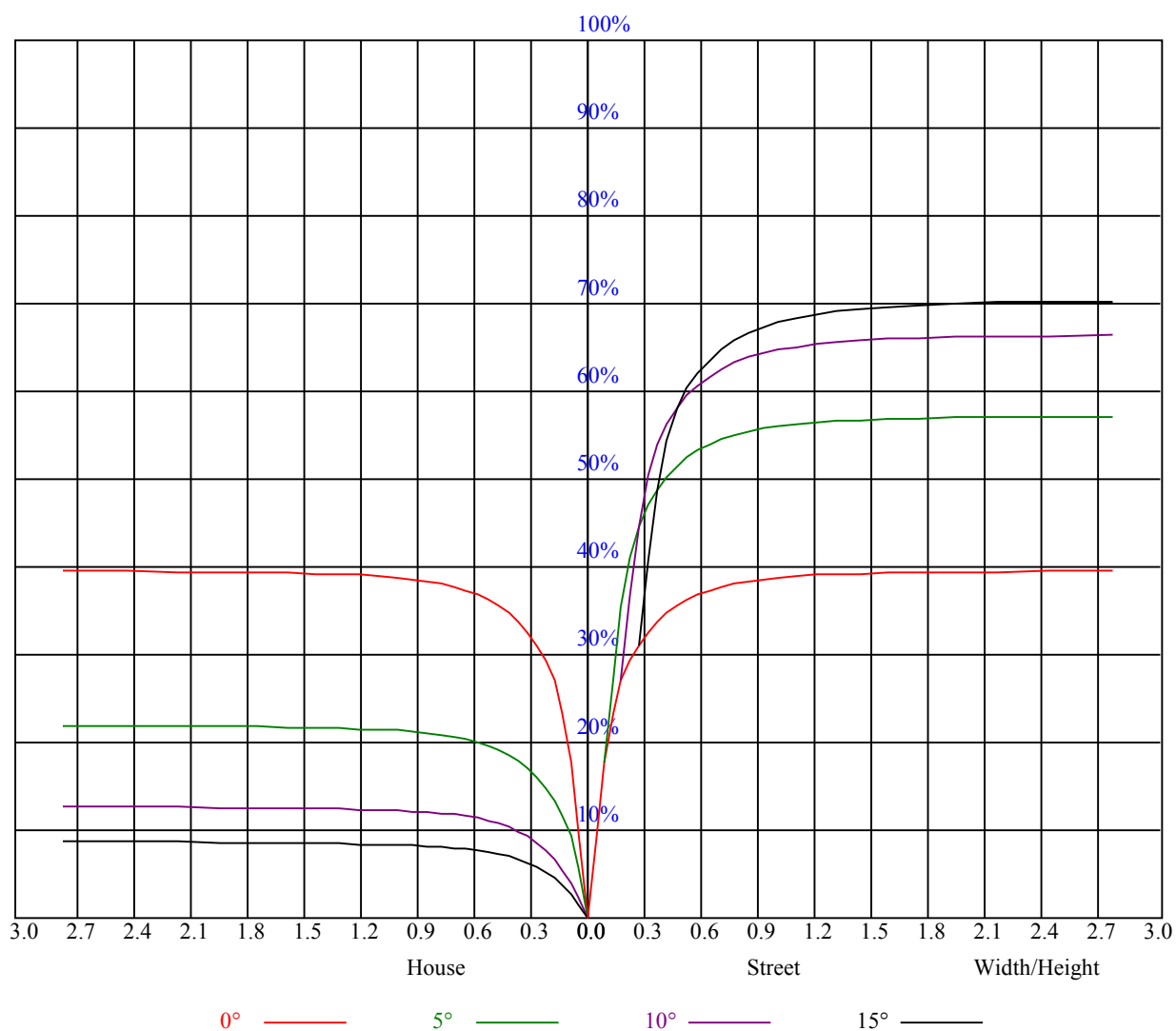
C0 ———

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	0.96	0.96	0.96	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.82	0.82	0.82	0.80
1	0.89	0.87	0.86	0.88	0.86	0.84	0.84	0.83	0.82	0.81	0.80	0.79	0.79	0.78	0.77	0.76
2	0.85	0.82	0.80	0.84	0.81	0.79	0.81	0.79	0.77	0.79	0.77	0.76	0.77	0.75	0.74	0.73
3	0.81	0.78	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.76	0.74	0.73	0.75	0.73	0.72	0.71
4	0.78	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.74	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.72	0.69	0.75	0.72	0.69	0.73	0.71	0.69	0.72	0.70	0.68	0.71	0.69	0.67	0.67
6	0.73	0.70	0.67	0.73	0.69	0.67	0.71	0.69	0.67	0.70	0.68	0.66	0.70	0.67	0.66	0.65
7	0.71	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.68	0.66	0.64	0.63
8	0.69	0.66	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.67	0.65	0.63	0.67	0.64	0.63	0.62
9	0.68	0.64	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.66	0.63	0.62	0.65	0.63	0.61	0.61
10	0.66	0.63	0.61	0.66	0.63	0.61	0.65	0.62	0.61	0.65	0.62	0.60	0.64	0.62	0.60	0.60



Intensity data(cd)

C/γ(°)	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0
0.0	10814.18	9883.72	7893.99	5199.53	3139.32	1536.07	856.68	621.59	516.98
45.0	10691.40	9251.13	6787.35	4148.50	2287.59	1086.26	718.49	581.95	488.35
90.0	10551.01	9115.14	6557.22	4257.51	2182.44	1057.80	725.97	582.06	501.56
135.0	10724.44	10151.30	8312.97	5742.93	3721.81	1841.64	1009.73	735.00	581.40
180.0	10814.18	10405.66	8708.27	6234.59	3715.76	1989.19	1070.57	744.58	614.21
225.0	10691.40	10843.91	9604.04	7427.66	4747.51	2631.15	1264.65	854.31	658.03
270.0	10551.01	10751.41	9715.80	7378.11	5038.21	2829.90	1398.98	846.77	632.60
315.0	10724.44	10081.93	8144.49	5848.64	3455.89	1744.74	960.35	660.07	541.31
360.0	10814.18	9883.72	7893.99	5199.53	3139.32	1536.07	856.68	621.59	516.98
C/γ(°)	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0	34.0
0.0	440.45	374.38	319.88	279.14	218.90	180.58	149.97	123.71	102.24
45.0	415.68	354.01	297.30	243.46	202.33	168.58	144.08	117.66	97.95
90.0	426.03	361.78	300.39	251.72	208.00	175.96	144.19	119.31	101.41
135.0	494.41	426.14	358.42	295.65	248.36	206.35	172.77	142.93	118.26
180.0	519.35	444.64	377.47	317.40	261.08	220.83	181.30	148.05	125.09
225.0	553.54	471.61	394.09	338.71	279.52	231.79	194.40	160.54	133.07
270.0	531.84	454.22	388.70	326.48	280.24	221.55	186.15	152.45	126.02
315.0	452.56	386.61	330.39	276.88	228.54	192.04	159.44	129.05	108.30
360.0	440.45	374.38	319.88	279.14	218.90	180.58	149.97	123.71	102.24
C/γ(°)	36.0	38.0	40.0	42.0	44.0	46.0	48.0	50.0	52.0
0.0	86.05	73.28	63.42	54.01	46.74	39.09	31.93	25.71	20.59
45.0	84.02	70.31	60.78	51.37	42.72	34.85	28.30	22.30	17.67
90.0	84.95	72.84	62.43	53.24	44.43	36.94	29.01	22.57	18.11
135.0	99.05	84.07	72.40	60.89	52.41	43.22	34.52	26.98	20.98
180.0	104.11	87.70	76.09	64.86	54.40	46.52	37.00	28.30	22.85
225.0	111.21	93.38	78.24	68.05	56.93	48.67	39.20	30.67	24.28
270.0	104.44	87.98	74.99	65.24	55.61	47.18	39.48	31.22	24.83
315.0	89.69	75.92	65.30	56.32	47.90	40.91	32.98	26.21	21.20
360.0	86.05	73.28	63.42	54.01	46.74	39.09	31.93	25.71	20.59
C/γ(°)	54.0	56.0	58.0	60.0	62.0	64.0	66.0	68.0	70.0
0.0	16.08	12.72	10.24	8.31	7.65	7.21	6.88	6.55	6.28
45.0	13.93	10.96	9.14	8.09	7.65	7.27	6.94	6.61	6.33
90.0	14.04	11.12	9.14	8.04	7.54	7.21	6.83	6.55	6.22
135.0	16.24	12.55	10.13	8.31	7.76	7.32	6.99	6.72	6.39
180.0	17.73	13.82	11.01	8.86	7.82	7.43	7.05	6.72	6.44
225.0	19.32	15.20	11.78	9.63	8.15	7.71	7.27	6.94	6.61
270.0	19.99	15.47	12.11	9.74	8.15	7.54	7.21	6.83	6.55
315.0	16.41	12.66	10.13	8.37	7.60	7.21	6.88	6.55	6.28
360.0	16.08	12.72	10.24	8.31	7.65	7.21	6.88	6.55	6.28
C/γ(°)	72.0	74.0	76.0	78.0	80.0	82.0	84.0	86.0	88.0
0.0	6.00	5.78	5.62	5.45	5.34	5.07	4.73	4.40	4.02
45.0	6.06	5.84	5.62	5.45	5.23	4.96	4.57	4.24	3.96
90.0	5.95	5.73	5.51	5.40	5.12	4.90	4.51	4.18	3.96
135.0	6.11	5.89	5.62	5.45	5.29	5.01	4.68	4.35	4.07
180.0	6.11	5.89	5.62	5.40	5.18	4.96	4.68	4.35	4.07
225.0	6.33	6.06	5.78	5.56	5.29	5.07	4.73	4.51	4.24
270.0	6.28	6.06	5.78	5.62	5.34	5.12	4.84	4.51	4.24
315.0	6.06	5.78	5.62	5.45	5.23	5.07	4.73	4.40	4.13
360.0	6.00	5.78	5.62	5.45	5.34	5.07	4.73	4.40	4.02

Intensity data(cd)

Appendix Page: 16 Total:16

C/ $\gamma(^{\circ})$	90.0
0.0	3.96
45.0	3.91
90.0	3.96
135.0	4.02
180.0	3.96
225.0	4.02
270.0	3.96
315.0	3.96
360.0	3.96