



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: 2-1120-A3
Luminaire: 99.02.73.172+92.76.365.00
Report No: NATA0100
Test No: GC2018072502
LampCAT: BRIDGELUX V9 HD
Lamp flux(lm): 1153.0
Number of Lamps: 1
Length(mm): 71
Phm Type: C

Voltage(V): 34.0000
Current(A): 0.2900
Power (W): 9.8600
PF: 1.0000
Ballast type: DC
Width(mm): 71
Height(mm): 0

Photometric Results

Lumens(lm): 1054.36
Efficiency(%): 91.44%
Lumens(lm)/Power(W): 108.26
Central intensity(cd): 13875.590
Maximum intensity(cd): 13875.590
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=10.3
 [C90/270]Total=10.3
Field angle(10%Imax): [C0/180]Total=19.3
 [C90/270]Total=19.3
Maximum s/h(1/2): C0_180=0.18 C90_270=0.18
Maximum s/h(1/4): C0_180=0.18 C90_270=0.18
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.58%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.498%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	13875.589	13.278	13.278	1.152%	1.259%
2.0	12397.118	94.887	108.165	8.230%	10.259%
4.0	9012.113	137.872	246.037	11.958%	23.335%
6.0	5345.701	122.547	368.585	10.629%	34.958%
8.0	2676.360	81.689	450.274	7.085%	42.706%
10.0	1127.349	42.933	493.207	3.724%	46.778%
12.0	784.313	35.763	528.97	3.102%	50.170%
14.0	639.053	33.906	562.876	2.941%	53.386%
16.0	593.198	35.859	598.736	3.110%	56.787%
18.0	566.207	38.373	637.108	3.328%	60.426%
20.0	538.094	40.362	677.47	3.501%	64.254%
22.0	503.422	41.359	718.83	3.587%	68.177%
24.0	464.704	41.453	760.283	3.595%	72.108%
26.0	423.921	40.756	801.039	3.535%	75.974%
28.0	390.508	40.207	841.246	3.487%	79.787%
30.0	368.169	40.372	881.618	3.501%	83.616%
32.0	351.914	40.899	922.517	3.547%	87.495%
34.0	336.305	41.244	963.761	3.577%	91.407%
36.0	281.689	36.312	1000.073	3.149%	94.851%
38.0	161.288	21.778	1021.851	1.889%	96.917%
40.0	49.571	6.988	1028.839	.606%	97.579%
42.0	14.886	2.184	1031.023	.189%	97.787%
44.0	11.087	1.689	1032.712	.146%	97.947%
46.0	7.956	1.255	1033.968	.109%	98.066%
48.0	6.607	1.077	1035.044	.093%	98.168%
50.0	5.919	0.994	1036.039	.086%	98.262%
52.0	5.616	0.971	1037.009	.084%	98.354%
54.0	5.389	0.956	1037.965	.083%	98.445%
56.0	5.175	0.941	1038.906	.082%	98.534%
58.0	5.031	0.936	1039.842	.081%	98.623%
60.0	4.872	0.925	1040.767	.080%	98.711%
62.0	4.776	0.925	1041.692	.080%	98.799%
64.0	4.700	0.927	1042.619	.080%	98.886%
66.0	4.618	0.925	1043.544	.080%	98.974%
68.0	4.563	0.928	1044.472	.080%	99.062%
70.0	4.542	0.936	1045.408	.081%	99.151%
72.0	4.480	0.934	1046.342	.081%	99.240%
74.0	4.439	0.936	1047.278	.081%	99.328%

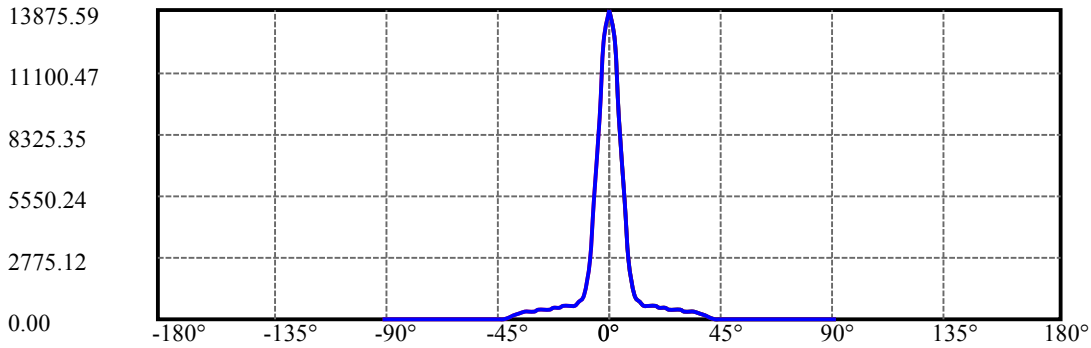
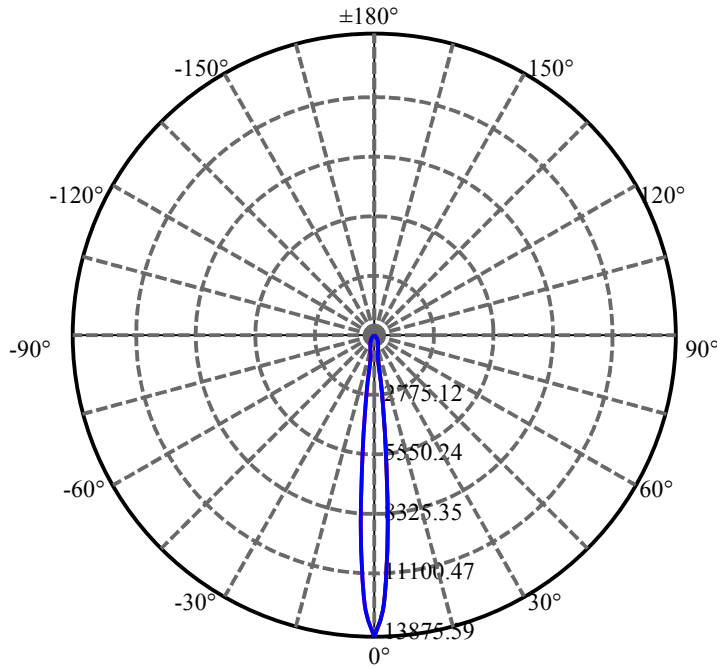
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.405	0.937	1048.215	.081%	99.417%
78.0	4.398	0.943	1049.159	.082%	99.507%
80.0	4.370	0.944	1050.103	.082%	99.596%
82.0	4.349	0.945	1051.047	.082%	99.686%
84.0	4.343	0.947	1051.994	.082%	99.776%
86.0	4.349	0.952	1052.946	.083%	99.866%
88.0	4.301	0.943	1053.889	.082%	99.955%
90.0	4.294	0.471	1054.36	.041%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	881.62	76.46%	83.62%
0-40	1028.84	89.23%	97.58%
0-60	1040.77	90.27%	98.71%
0-90	1053.89	91.40%	99.96%
0-120	1053.89	91.40%	99.96%
0-180	1054.36	91.44%	100.00%
60-90	14.05	1.22%	1.33%
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%
0-28.11	843.49	73.16%	80.00%

ZONAL LUMEN SUMMARY

0-10	493.21
10-20	184.26
20-30	204.15
30-40	147.22
40-50	7.20
50-60	4.73
60-70	4.64
70-80	4.69
80-90	3.79
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



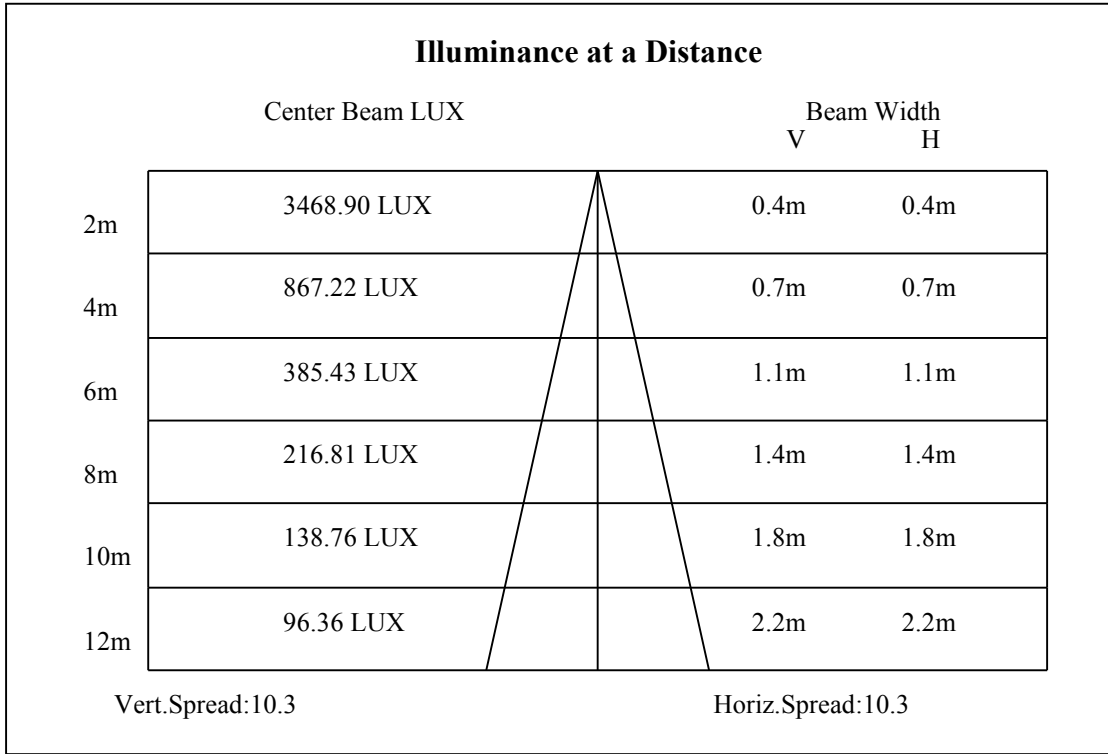
C0(Max): —————

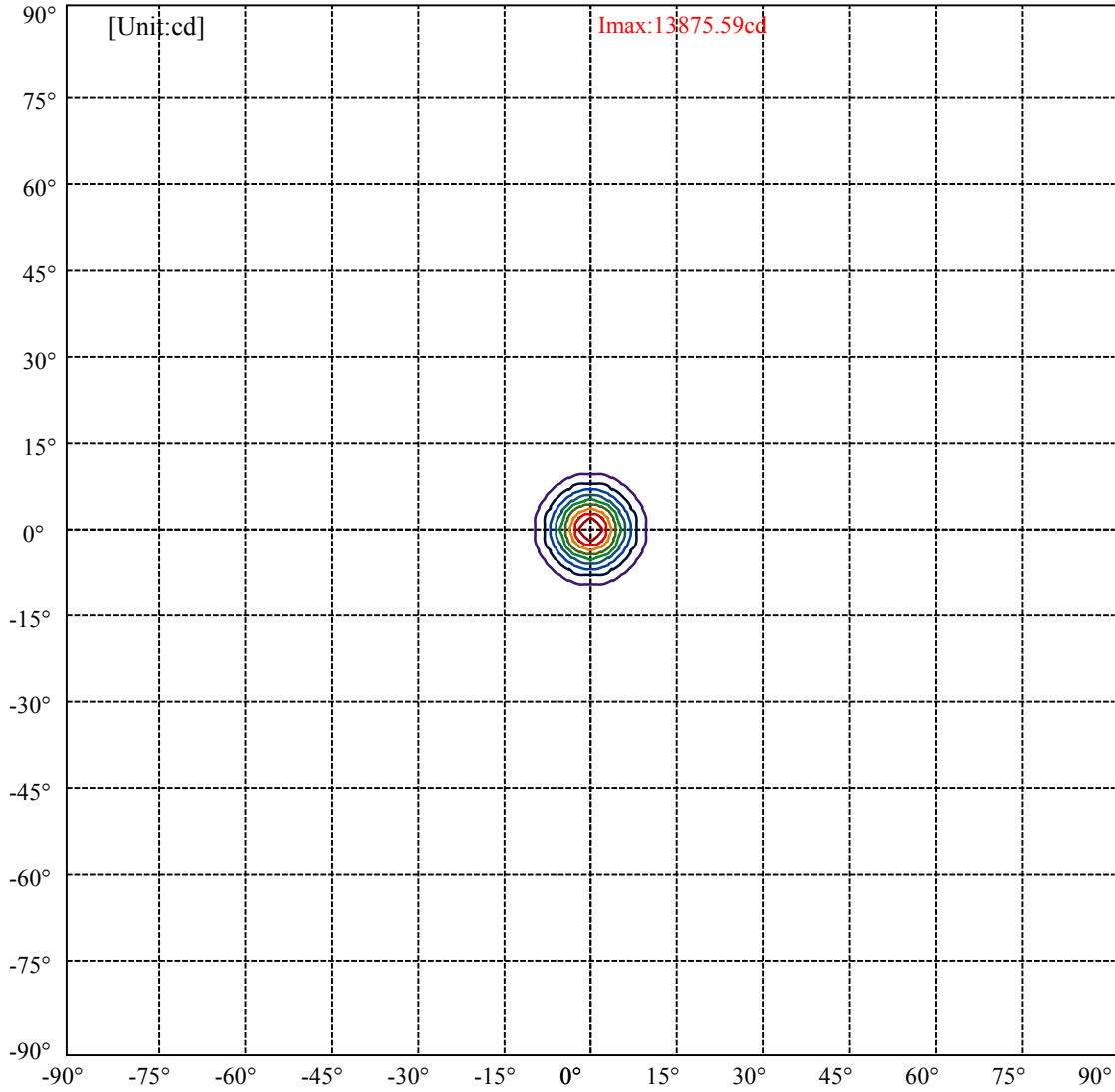
C0/C180: —————

C90/C270: —————

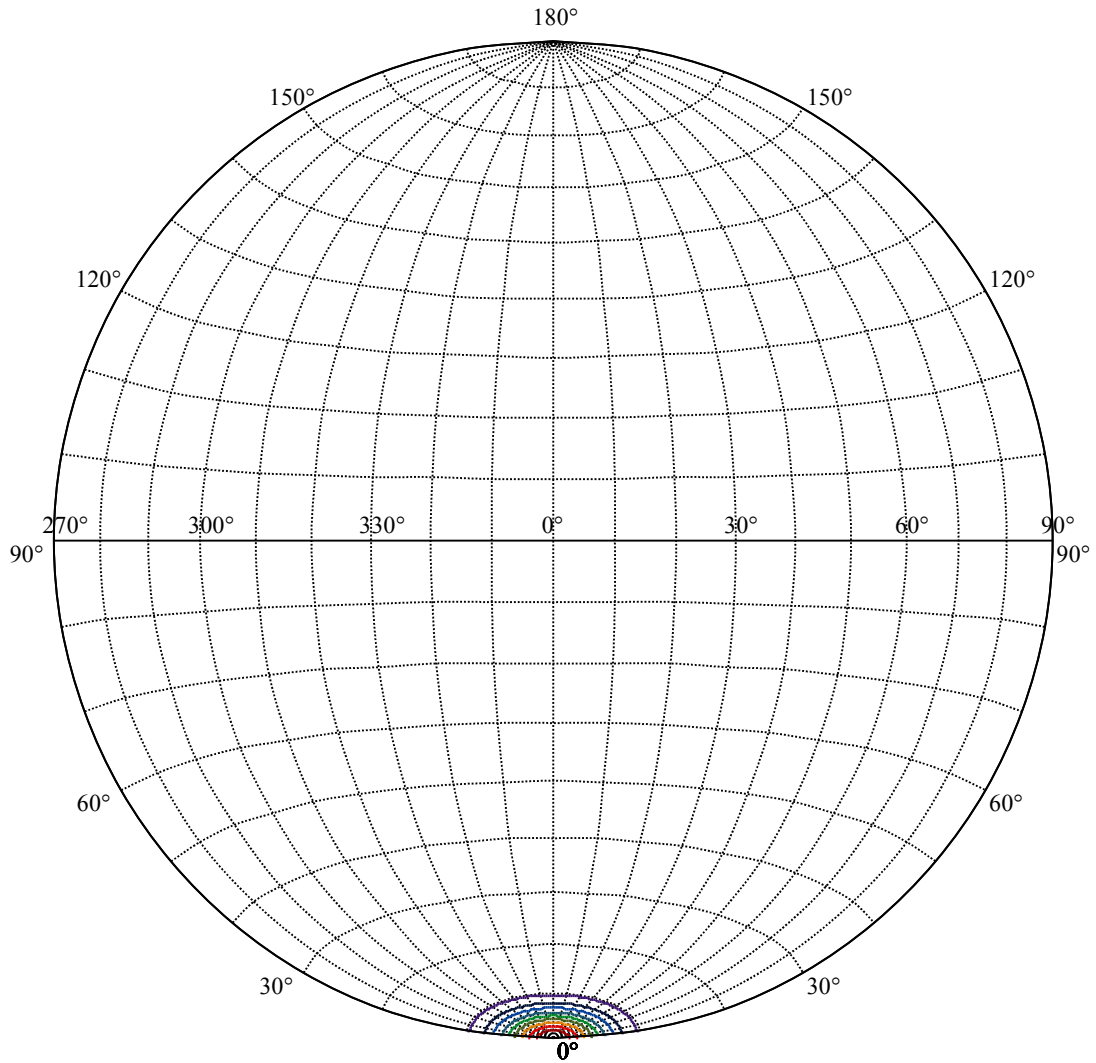
Field angle(10%Imax):C0/180Left:9.7 Right:9.7
:C90/270Left:9.7 Right:9.7

Beam Angle(50%Imax):C0/180Left:5.1 Right:5.1
:C90/270Left:5.1 Right:5.1





(10%Imax) 1387.56	—
(20%Imax) 2775.12	—
(30%Imax) 4162.68	—
(40%Imax) 5550.24	—
(50%Imax) 6937.79	—
(60%Imax) 8325.35	—
(70%Imax) 9712.91	—
(80%Imax) 11100.5	—
(90%Imax) 12488	—



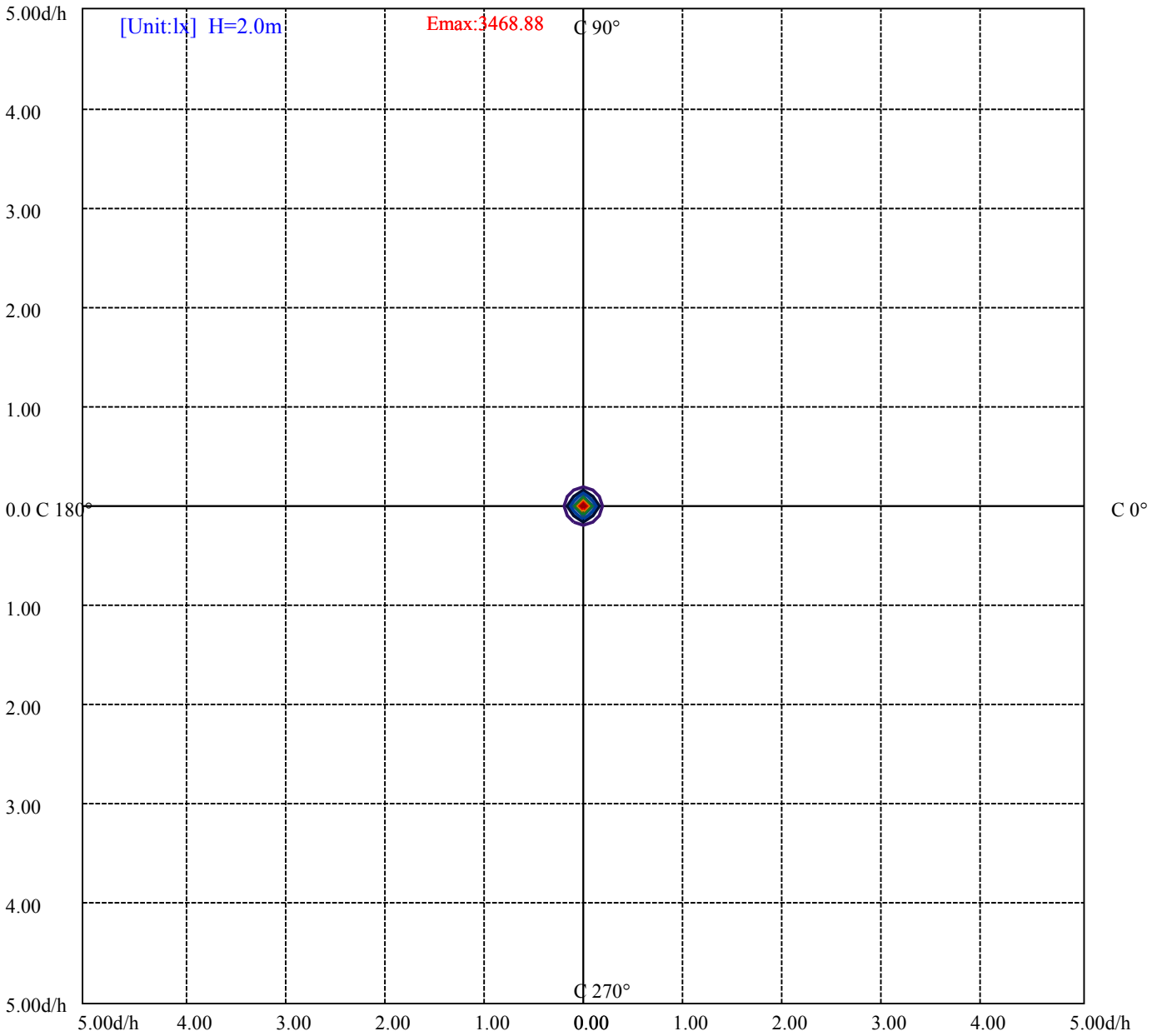
House

[Unit:cd]

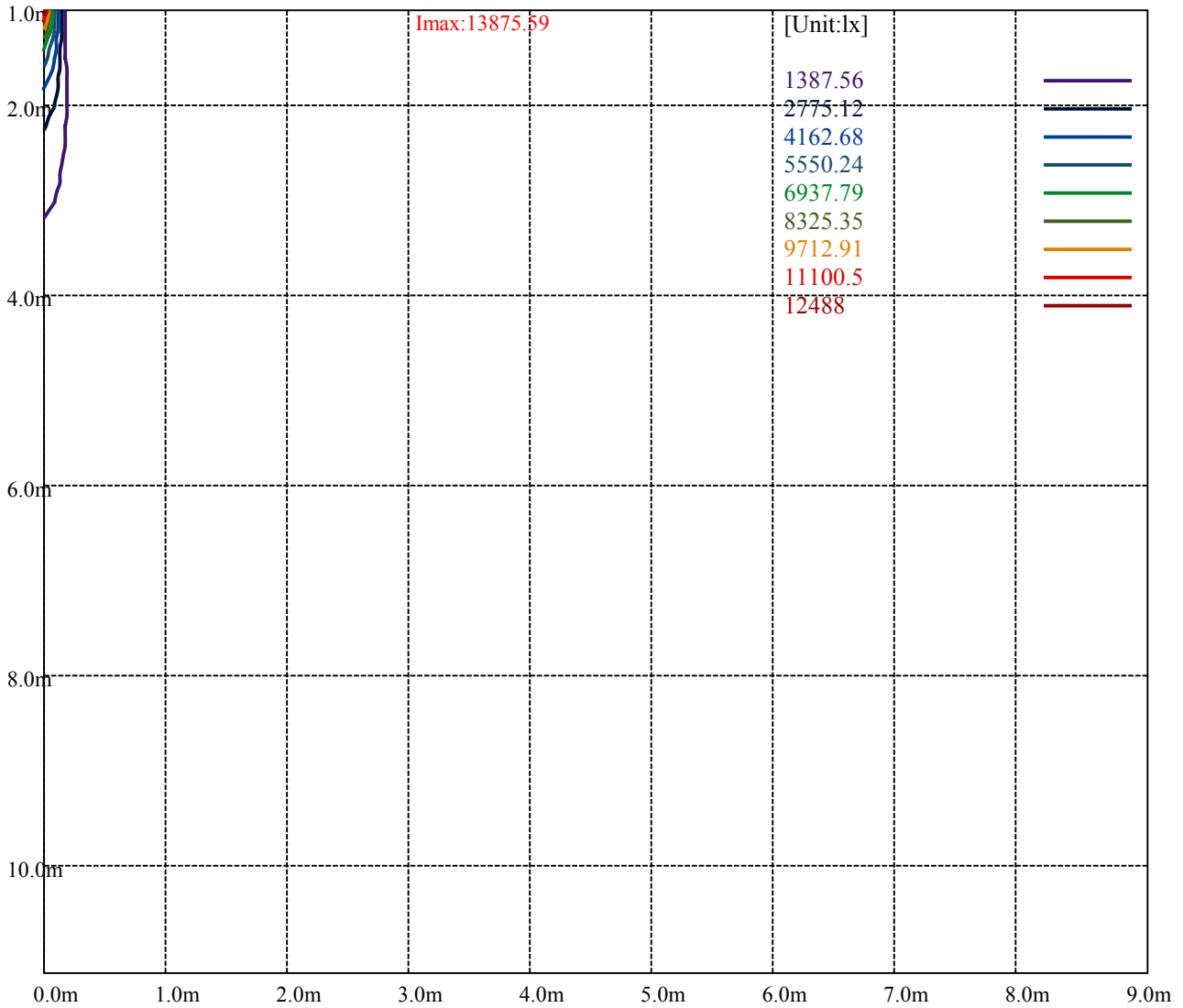
Road

Imax:13875.59

(10%Imax)	1387.56	—
(20%Imax)	2775.12	—
(30%Imax)	4162.68	—
(40%Imax)	5550.24	—
(50%Imax)	6937.79	—
(60%Imax)	8325.35	—
(70%Imax)	9712.91	—
(80%Imax)	11100.5	—
(90%Imax)	12488	—



- (10%Emax) 346.8875
- (20%Emax) 693.775
- (30%Emax) 1040.66
- (40%Emax) 1387.547
- (50%Emax) 1734.435
- (60%Emax) 2081.323
- (70%Emax) 2428.208
- (80%Emax) 2775.1
- (90%Emax) 3121.975



Luminance Table

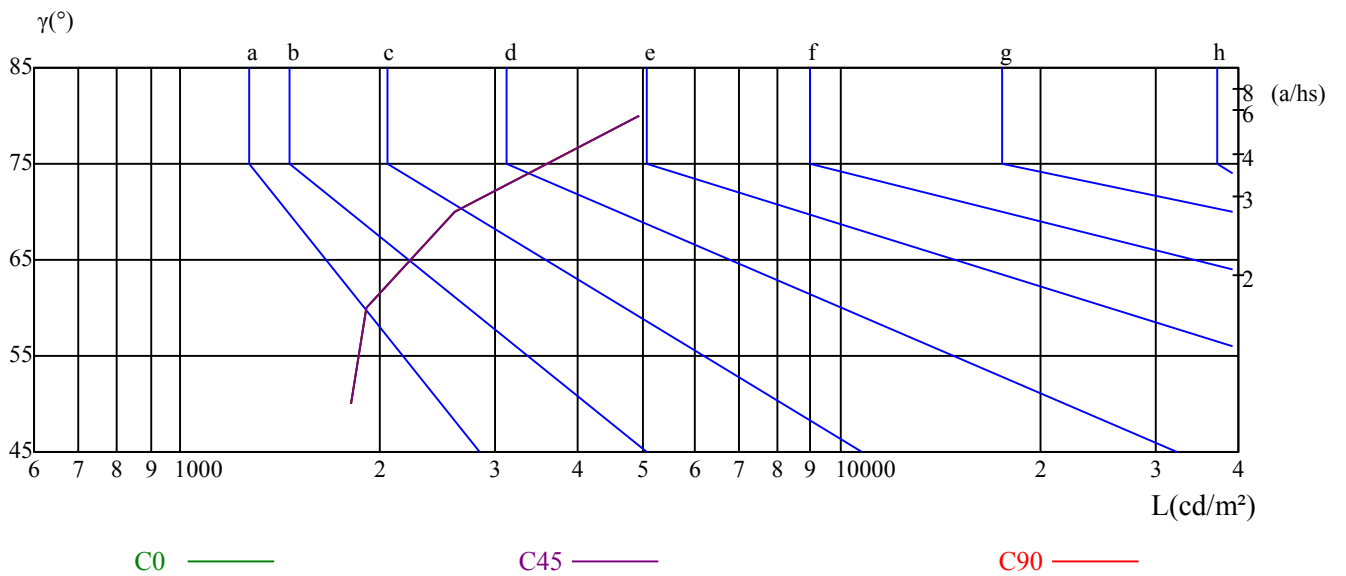
γ	45	50	55	60	65	70	75	80	85
C0	0	1806	0	1912	0	2605	0	4937	0
C45	0	1806	0	1912	0	2605	0	4937	0
C90	0	1806	0	1912	0	2605	0	4937	0

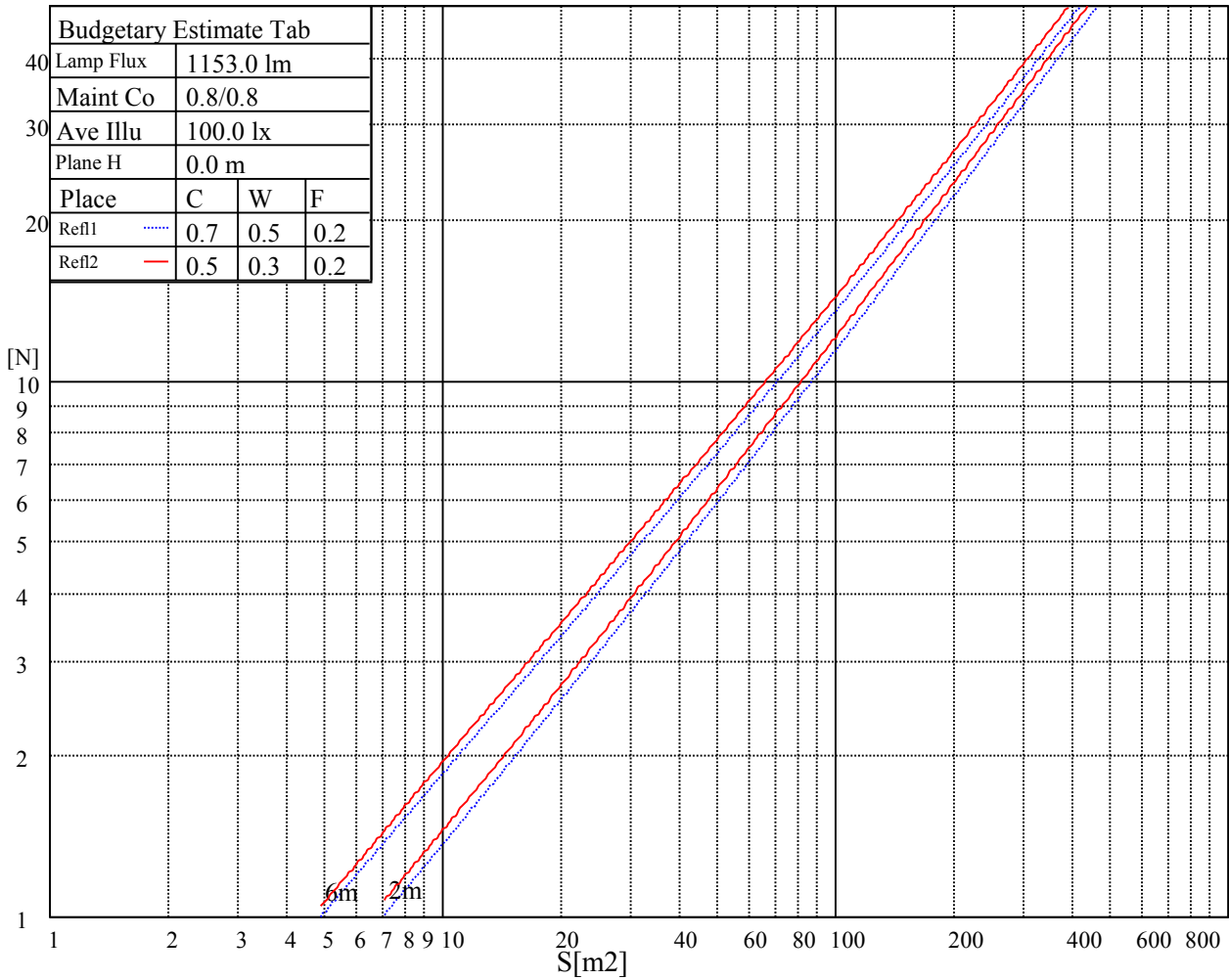
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
73724	73762	73660	45294	45148	45294	25402	24844	25247

Glare Table

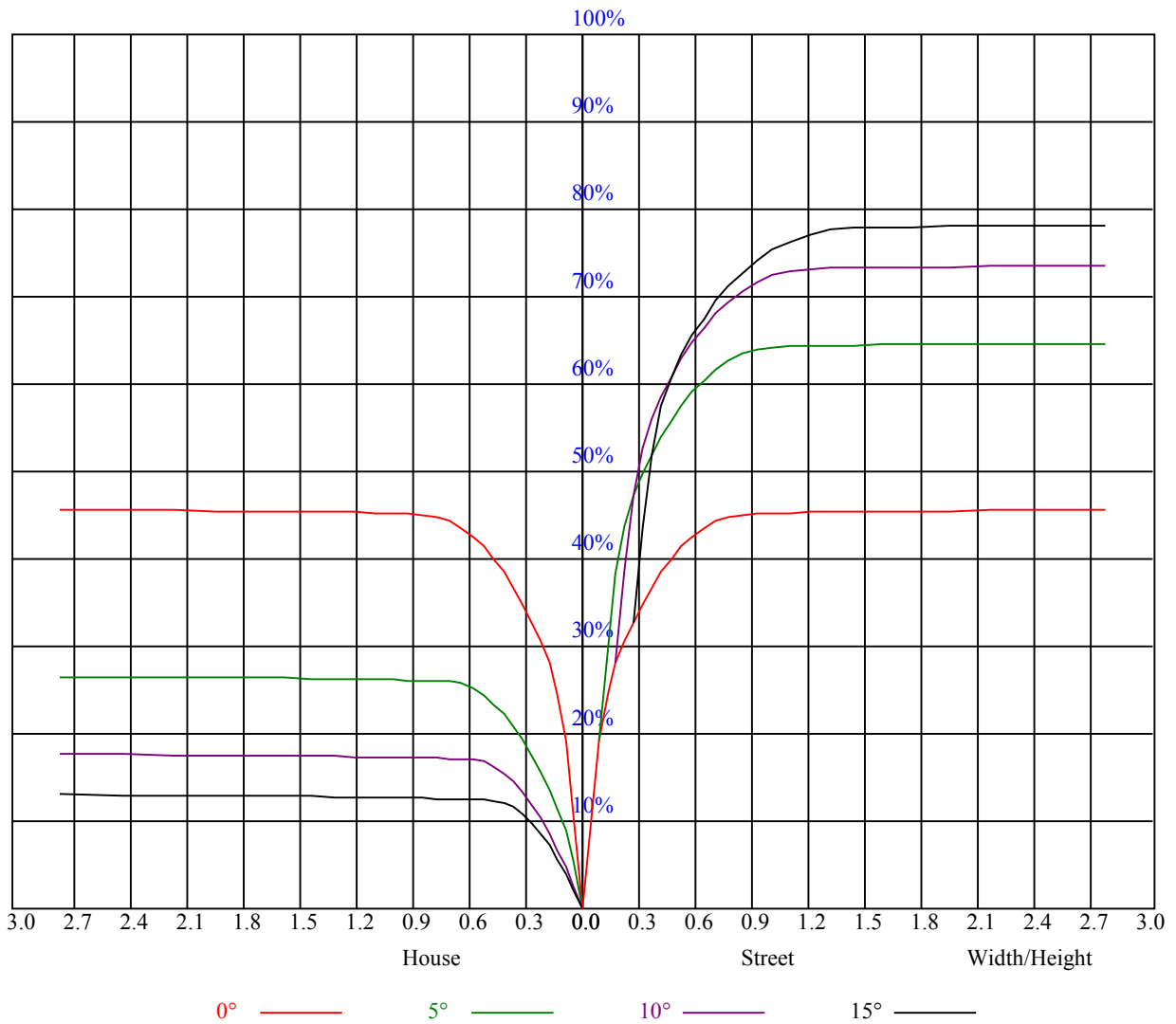
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.93
1	1.02	1.00	0.98	1.00	0.98	0.97	0.97	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86
2	0.97	0.94	0.91	0.96	0.93	0.90	0.93	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.83
3	0.93	0.89	0.86	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.82	0.85	0.83	0.81	0.80
4	0.89	0.84	0.81	0.88	0.84	0.81	0.86	0.82	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.77
5	0.85	0.81	0.78	0.84	0.80	0.77	0.83	0.79	0.77	0.81	0.78	0.76	0.80	0.77	0.75	0.74
6	0.82	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.72
7	0.79	0.75	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.76	0.73	0.71	0.70
8	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.74	0.71	0.69	0.68
9	0.74	0.70	0.67	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.72	0.69	0.67	0.66
10	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.64



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	13720.05	13455.78	10427.68	6480.14	3154.73	1373.66	836.86	649.11	593.51
45.0	13995.34	11991.28	8297.00	4354.96	2835.40	987.16	715.18	629.29	599.56
90.0	13709.04	10835.10	6753.77	3524.16	1522.31	853.37	674.22	614.87	589.10
135.0	14077.92	11539.82	7784.97	4388.00	2256.76	998.72	724.54	618.83	583.60
180.0	13720.05	10800.41	7475.01	4119.87	1789.33	945.59	699.33	599.18	565.81
225.0	13995.34	13026.34	9623.31	5801.84	2805.12	1068.31	834.71	652.14	594.33
270.0	13709.04	13923.76	11363.64	7465.65	3931.03	1713.91	965.69	697.56	616.63
315.0	14077.92	13604.44	10371.52	6630.99	3116.19	1078.06	823.97	651.43	603.03
360.0	13720.05	13455.78	10427.68	6480.14	3154.73	1373.66	836.86	649.11	593.51
C/γ(°)	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0	34.0
0.0	568.73	545.06	517.53	482.29	441.55	403.56	377.14	358.42	344.65
45.0	570.93	540.65	503.22	458.62	414.57	383.74	364.47	349.61	336.95
90.0	561.36	527.83	484.77	441.99	399.43	372.57	357.92	344.82	315.42
135.0	561.58	532.40	495.51	453.66	414.57	380.44	360.62	346.86	329.79
180.0	540.65	517.14	482.90	448.21	408.08	378.95	358.09	343.77	328.85
225.0	563.39	536.85	503.55	464.68	425.97	391.78	367.45	351.04	340.30
270.0	588.00	557.72	525.24	487.80	447.61	407.42	381.54	361.17	347.96
315.0	575.01	547.10	514.67	480.37	439.57	405.60	378.13	359.63	346.52
360.0	568.73	545.06	517.53	482.29	441.55	403.56	377.14	358.42	344.65
C/γ(°)	36.0	38.0	40.0	42.0	44.0	46.0	48.0	50.0	52.0
0.0	311.07	187.85	66.62	15.53	12.50	8.70	6.88	6.00	5.73
45.0	278.03	124.98	25.27	14.04	10.52	7.43	6.66	5.89	5.62
90.0	208.11	88.48	15.97	13.05	9.14	7.32	6.11	5.78	5.51
135.0	281.34	113.42	23.34	13.21	9.80	7.10	6.33	5.84	5.62
180.0	237.84	118.10	23.12	13.10	9.80	7.10	6.33	5.89	5.62
225.0	298.63	186.48	70.80	14.59	11.67	8.20	6.66	5.95	5.56
270.0	331.99	278.03	104.77	19.99	12.94	9.47	7.05	6.06	5.67
315.0	306.50	192.97	66.67	15.58	12.33	8.31	6.83	5.95	5.62
360.0	311.07	187.85	66.62	15.53	12.50	8.70	6.88	6.00	5.73
C/γ(°)	54.0	56.0	58.0	60.0	62.0	64.0	66.0	68.0	70.0
0.0	5.51	5.23	5.12	4.90	4.84	4.73	4.62	4.57	4.57
45.0	5.40	5.18	5.07	4.90	4.79	4.73	4.62	4.57	4.57
90.0	5.29	5.07	4.96	4.84	4.73	4.62	4.57	4.51	4.51
135.0	5.34	5.18	5.01	4.84	4.79	4.68	4.62	4.57	4.57
180.0	5.34	5.18	5.01	4.84	4.73	4.68	4.62	4.57	4.51
225.0	5.34	5.18	5.01	4.84	4.73	4.68	4.62	4.57	4.51
270.0	5.45	5.23	5.07	4.90	4.79	4.73	4.62	4.57	4.57
315.0	5.45	5.18	5.01	4.90	4.79	4.73	4.62	4.57	4.51
360.0	5.51	5.23	5.12	4.90	4.84	4.73	4.62	4.57	4.57
C/γ(°)	72.0	74.0	76.0	78.0	80.0	82.0	84.0	86.0	88.0
0.0	4.46	4.46	4.40	4.35	4.35	4.29	4.29	4.35	4.29
45.0	4.51	4.46	4.40	4.40	4.40	4.35	4.35	4.35	4.29
90.0	4.46	4.40	4.35	4.40	4.35	4.35	4.35	4.29	4.29
135.0	4.51	4.46	4.46	4.40	4.40	4.35	4.35	4.40	4.29
180.0	4.46	4.46	4.40	4.40	4.35	4.35	4.35	4.35	4.29
225.0	4.46	4.40	4.40	4.40	4.35	4.35	4.35	4.29	4.29
270.0	4.51	4.46	4.40	4.40	4.40	4.40	4.35	4.40	4.35
315.0	4.46	4.40	4.40	4.40	4.35	4.35	4.35	4.35	4.29
360.0	4.46	4.46	4.40	4.35	4.35	4.29	4.29	4.35	4.29

Intensity data(cd)

C/ γ (°)	90.0
0.0	4.29
45.0	4.29
90.0	4.29
135.0	4.29
180.0	4.29
225.0	4.29
270.0	4.29
315.0	4.29
360.0	4.29