



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: 1-1009-M	
Luminaire: BJB 47.360.1020	
Report No: NATA0100	Voltage(V): 35.3200
Test No: GC2019101915	Current(A): 0.2970
LampCAT: TRIDONIC SLE G7 9MM	Power (W): 10.4900
Lamp flux(lm): 1539.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1147.91
Efficiency(%): 74.59%
Lumens(lm)/Power(W): 109.43
Central intensity(cd): 6150.656
Maximum intensity(cd): 6150.656
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=24.6
 [C90/270]Total=24.6
Field angle(10%Imax): [C0/180]Total=41.0
 [C90/270]Total=41.0
Maximum s/h(1/2): C0_180=0.42 C90_270=0.42
Maximum s/h(1/4): C0_180=0.41 C90_270=0.41
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 74.59%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.484%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6150.656	0.000	0	.000%	.000%
1.0	6128.648	5.875	5.875	.382%	.512%
2.0	6051.445	17.482	23.357	1.136%	2.035%
3.0	5931.070	28.658	52.016	1.862%	4.531%
4.0	5766.398	39.155	91.171	2.544%	7.942%
5.0	5541.328	48.645	139.816	3.161%	12.180%
6.0	5281.031	56.874	196.69	3.696%	17.135%
7.0	4986.281	63.729	260.42	4.141%	22.686%
8.0	4657.570	69.019	329.439	4.485%	28.699%
9.0	4309.102	72.670	402.109	4.722%	35.030%
10.0	3935.250	74.608	476.717	4.848%	41.529%
11.0	3551.484	74.808	551.525	4.861%	48.046%
12.0	3198.094	73.783	625.308	4.794%	54.474%
13.0	2803.641	71.225	696.533	4.628%	60.679%
14.0	2426.836	66.950	763.483	4.350%	66.511%
15.0	2097.984	62.119	825.601	4.036%	71.922%
16.0	1744.910	56.309	881.911	3.659%	76.828%
17.0	1444.366	49.666	931.576	3.227%	81.154%
18.0	1183.908	43.335	974.911	2.816%	84.929%
19.0	925.228	36.695	1011.605	2.384%	88.126%
20.0	717.940	30.075	1041.68	1.954%	90.746%
21.0	512.009	23.618	1065.297	1.535%	92.804%
22.0	377.768	17.880	1083.178	1.162%	94.361%
23.0	236.749	12.894	1096.072	.838%	95.484%
24.0	128.306	7.981	1104.053	.519%	96.180%
25.0	67.788	4.459	1108.512	.290%	96.568%
26.0	35.374	2.435	1110.947	.158%	96.780%
27.0	21.122	1.382	1112.33	.090%	96.901%
28.0	15.912	0.938	1113.267	.061%	96.982%
29.0	13.451	0.768	1114.035	.050%	97.049%
30.0	11.960	0.686	1114.721	.045%	97.109%
31.0	10.941	0.637	1115.359	.041%	97.165%
32.0	10.055	0.601	1115.96	.039%	97.217%
33.0	9.408	0.573	1116.534	.037%	97.267%
34.0	8.888	0.554	1117.087	.036%	97.315%
35.0	8.395	0.537	1117.624	.035%	97.362%
36.0	8.030	0.523	1118.147	.034%	97.408%
37.0	7.727	0.514	1118.661	.033%	97.452%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	7.446	0.506	1119.167	.033%	97.496%
39.0	7.221	0.501	1119.668	.033%	97.540%
40.0	7.031	0.497	1120.165	.032%	97.583%
41.0	6.891	0.496	1120.661	.032%	97.627%
42.0	6.757	0.496	1121.157	.032%	97.670%
43.0	6.652	0.497	1121.653	.032%	97.713%
44.0	6.532	0.498	1122.151	.032%	97.756%
45.0	6.448	0.499	1122.65	.032%	97.800%
46.0	6.363	0.501	1123.151	.033%	97.843%
47.0	6.307	0.504	1123.655	.033%	97.887%
48.0	6.244	0.507	1124.162	.033%	97.932%
49.0	6.173	0.510	1124.672	.033%	97.976%
50.0	6.124	0.513	1125.185	.033%	98.021%
51.0	6.089	0.517	1125.701	.034%	98.066%
52.0	6.040	0.520	1126.222	.034%	98.111%
53.0	5.991	0.523	1126.745	.034%	98.157%
54.0	5.955	0.527	1127.272	.034%	98.202%
55.0	5.934	0.531	1127.803	.034%	98.249%
56.0	5.892	0.534	1128.337	.035%	98.295%
57.0	5.871	0.538	1128.875	.035%	98.342%
58.0	5.836	0.541	1129.416	.035%	98.389%
59.0	5.815	0.545	1129.961	.035%	98.437%
60.0	5.801	0.549	1130.51	.036%	98.484%
61.0	5.759	0.552	1131.061	.036%	98.533%
62.0	5.752	0.555	1131.616	.036%	98.581%
63.0	5.752	0.559	1132.175	.036%	98.630%
64.0	5.723	0.563	1132.738	.037%	98.679%
65.0	5.709	0.566	1133.304	.037%	98.728%
66.0	5.695	0.569	1133.873	.037%	98.778%
67.0	5.681	0.572	1134.445	.037%	98.827%
68.0	5.653	0.574	1135.019	.037%	98.877%
69.0	5.632	0.576	1135.595	.037%	98.928%
70.0	5.618	0.578	1136.173	.038%	98.978%
71.0	5.625	0.581	1136.754	.038%	99.028%
72.0	5.611	0.584	1137.338	.038%	99.079%
73.0	5.604	0.586	1137.925	.038%	99.130%
74.0	5.597	0.589	1138.514	.038%	99.182%
75.0	5.583	0.591	1139.104	.038%	99.233%

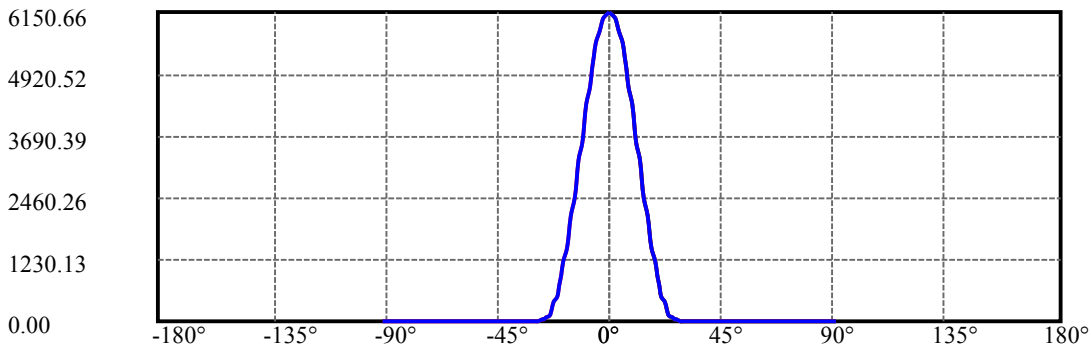
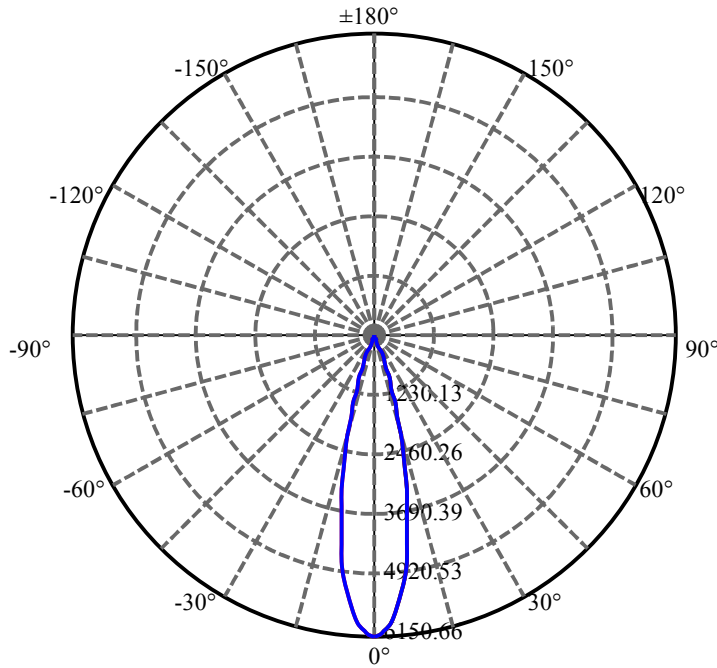
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	5.569	0.592	1139.696	.038%	99.285%
77.0	5.562	0.593	1140.29	.039%	99.336%
78.0	5.548	0.595	1140.884	.039%	99.388%
79.0	5.520	0.595	1141.479	.039%	99.440%
80.0	5.463	0.592	1142.071	.038%	99.492%
81.0	5.442	0.590	1142.661	.038%	99.543%
82.0	5.400	0.588	1143.249	.038%	99.594%
83.0	5.372	0.586	1143.834	.038%	99.645%
84.0	5.351	0.584	1144.419	.038%	99.696%
85.0	5.351	0.584	1145.003	.038%	99.747%
86.0	5.323	0.583	1145.586	.038%	99.798%
87.0	5.309	0.582	1146.168	.038%	99.849%
88.0	5.280	0.580	1146.748	.038%	99.899%
89.0	5.288	0.579	1147.327	.038%	99.950%
90.0	5.273	0.579	1147.906	.038%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1114.72	72.43%	97.11%
0-40	1120.17	72.79%	97.58%
0-60	1130.51	73.46%	98.48%
0-90	1147.33	74.55%	99.95%
0-120	1147.33	74.55%	99.95%
0-180	1147.91	74.59%	100.00%
60-90	17.37	1.13%	1.51%
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%
0-16.73	918.33	59.67%	80.00%

ZONAL LUMEN SUMMARY

0-10	476.72
10-20	564.96
20-30	73.04
30-40	5.44
40-50	5.02
50-60	5.32
60-70	5.66
70-80	5.90
80-90	5.26
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: —————

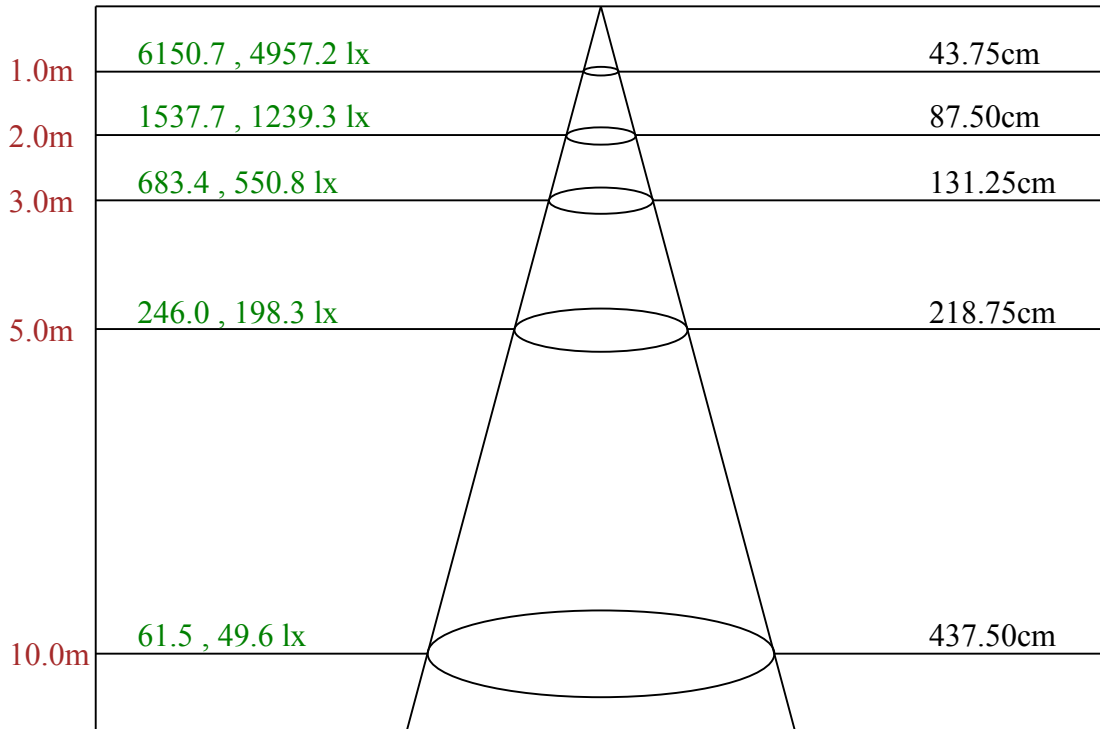
C90/C270: —————

Field angle(10%Imax):C0/180Left:20.5 Right:20.5

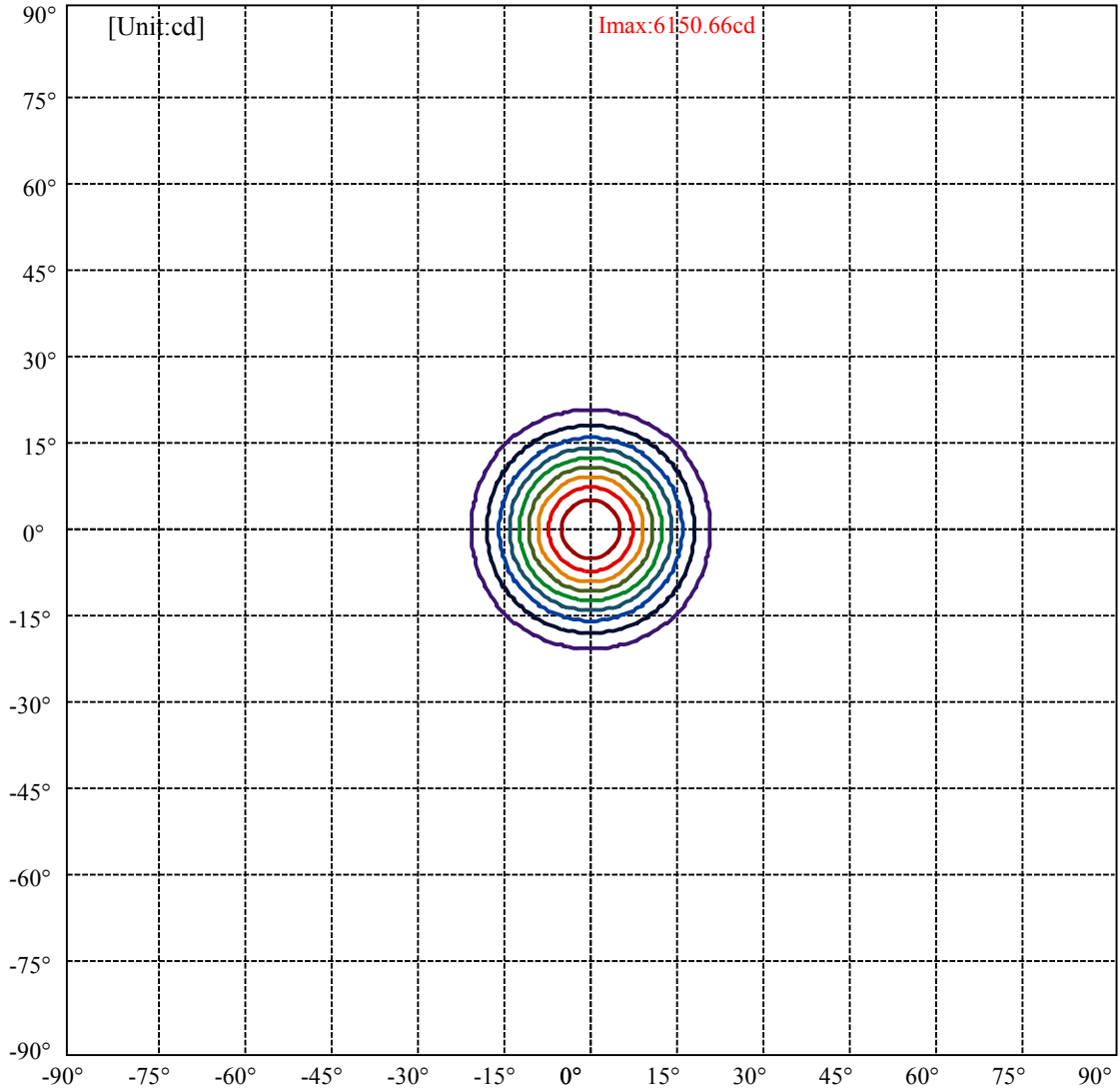
:C90/270Left:20.5 Right:20.5

Beam Angle(50%Imax):C0/180Left:12.3 Right:12.3

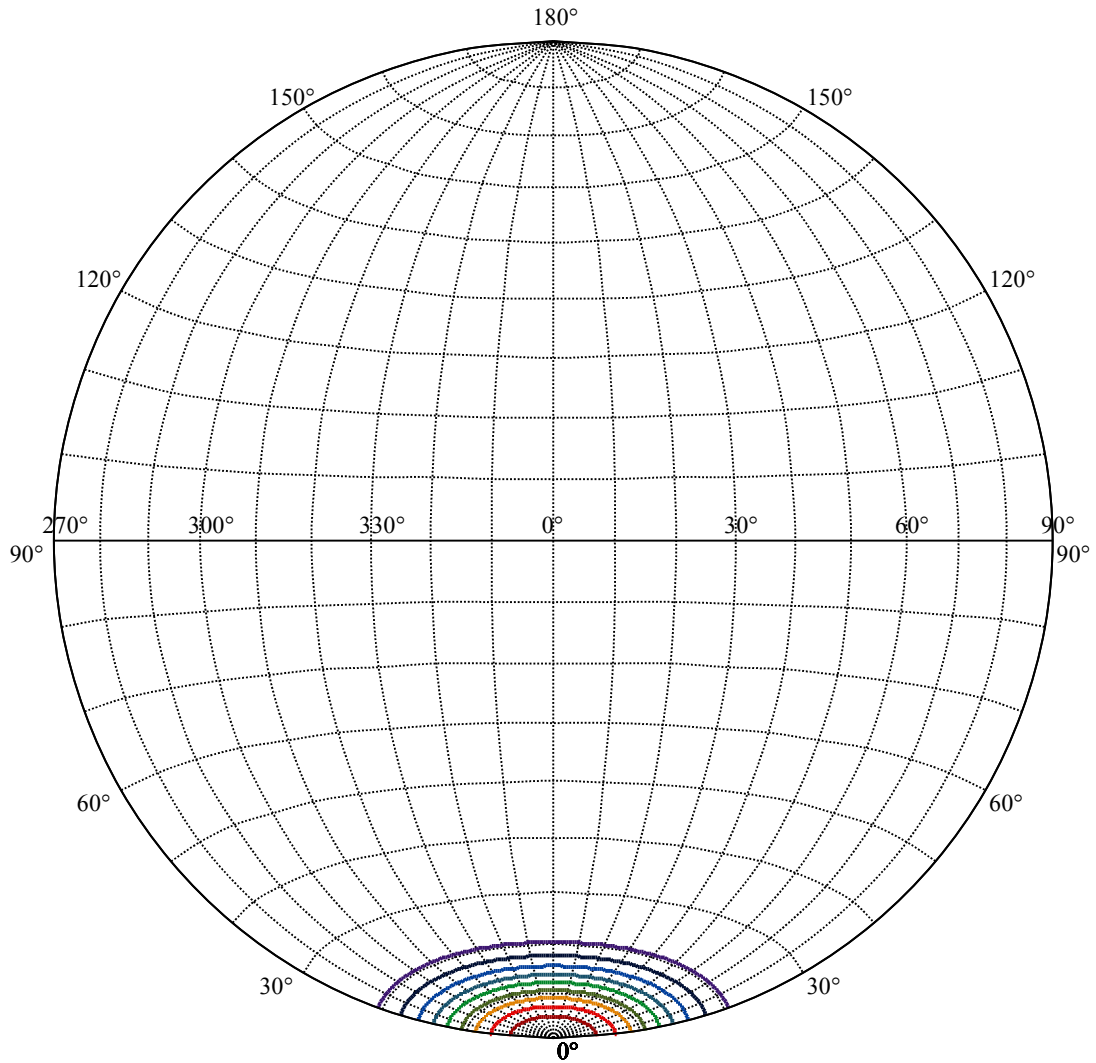
:C90/270Left:12.3 Right:12.3



Max , Ave Beam angle of C0 plane 24.68



(10%Imax) 615.066	—
(20%Imax) 1230.13	—
(30%Imax) 1845.2	—
(40%Imax) 2460.26	—
(50%Imax) 3075.33	—
(60%Imax) 3690.39	—
(70%Imax) 4305.46	—
(80%Imax) 4920.52	—
(90%Imax) 5535.59	—



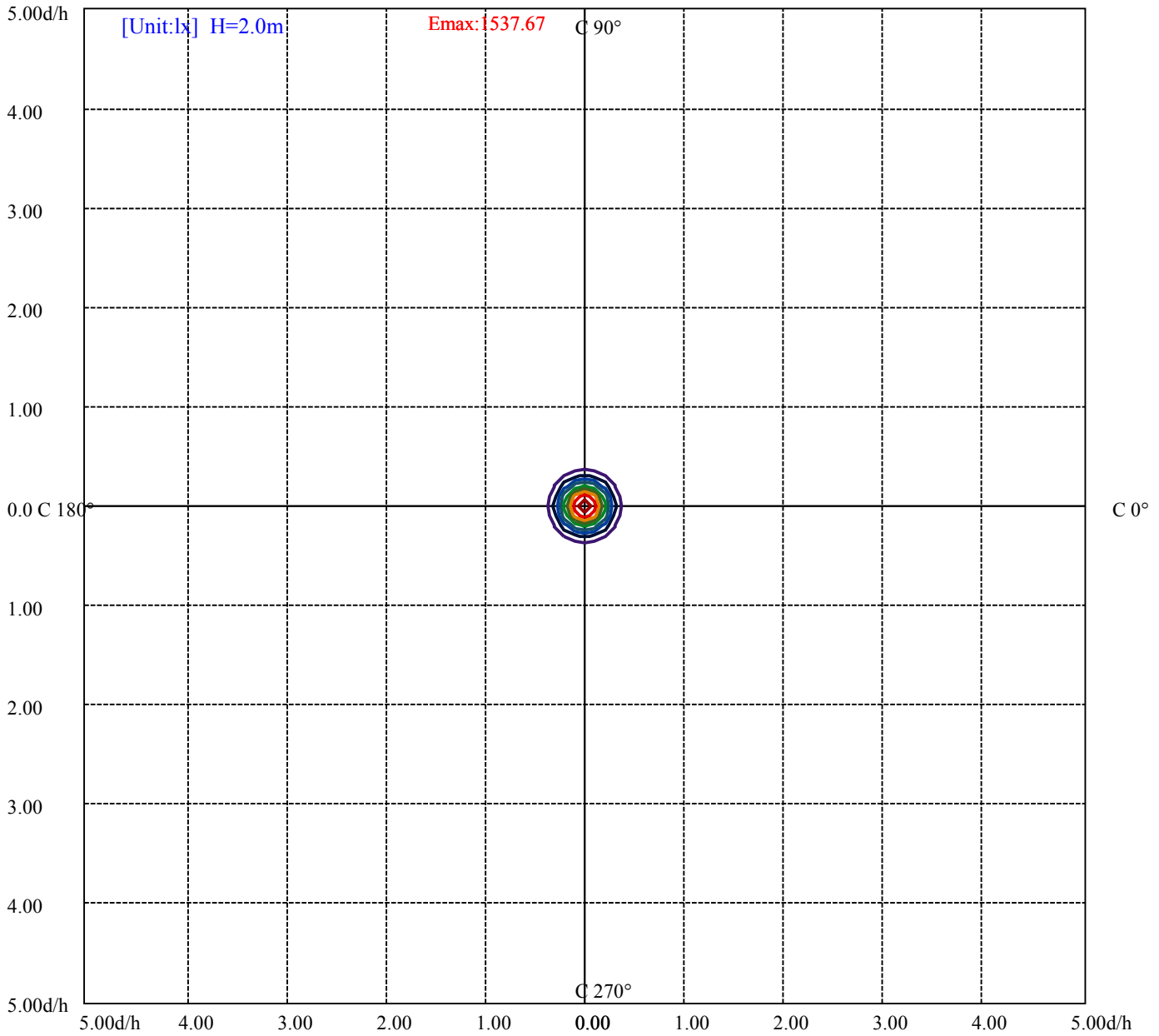
House

[Unit:cd]

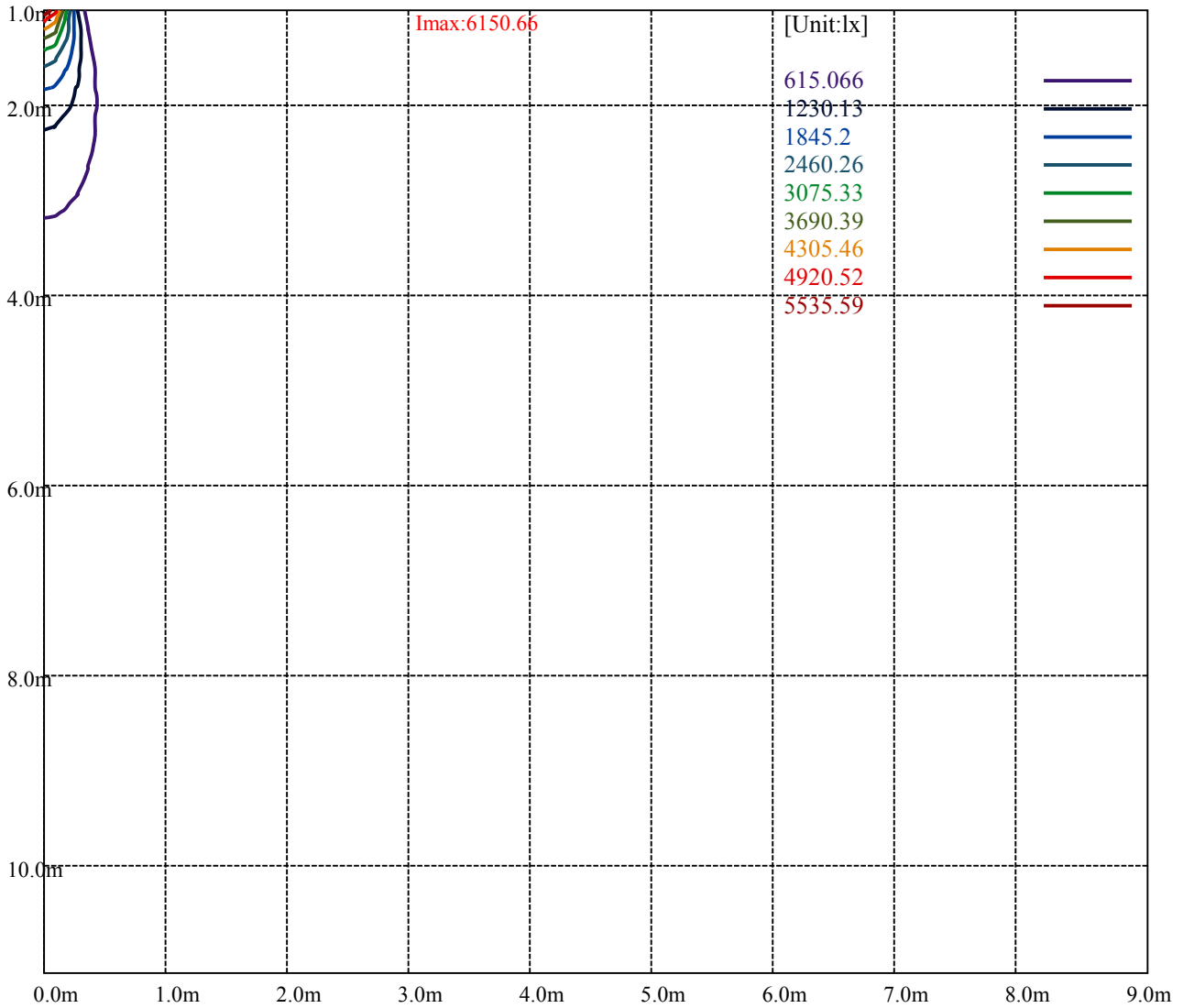
Road

Imax:6150.66

(10%Imax) 615.066	—
(20%Imax) 1230.13	—
(30%Imax) 1845.2	—
(40%Imax) 2460.26	—
(50%Imax) 3075.33	—
(60%Imax) 3690.39	—
(70%Imax) 4305.46	—
(80%Imax) 4920.52	—
(90%Imax) 5535.59	—



(10%Emax) 153.7663	—
(20%Emax) 307.5325	—
(30%Emax) 461.3	—
(40%Emax) 615.065	—
(50%Emax) 768.8325	—
(60%Emax) 922.5975	—
(70%Emax) 1076.365	—
(80%Emax) 1230.13	—
(90%Emax) 1383.897	—



Luminance Table

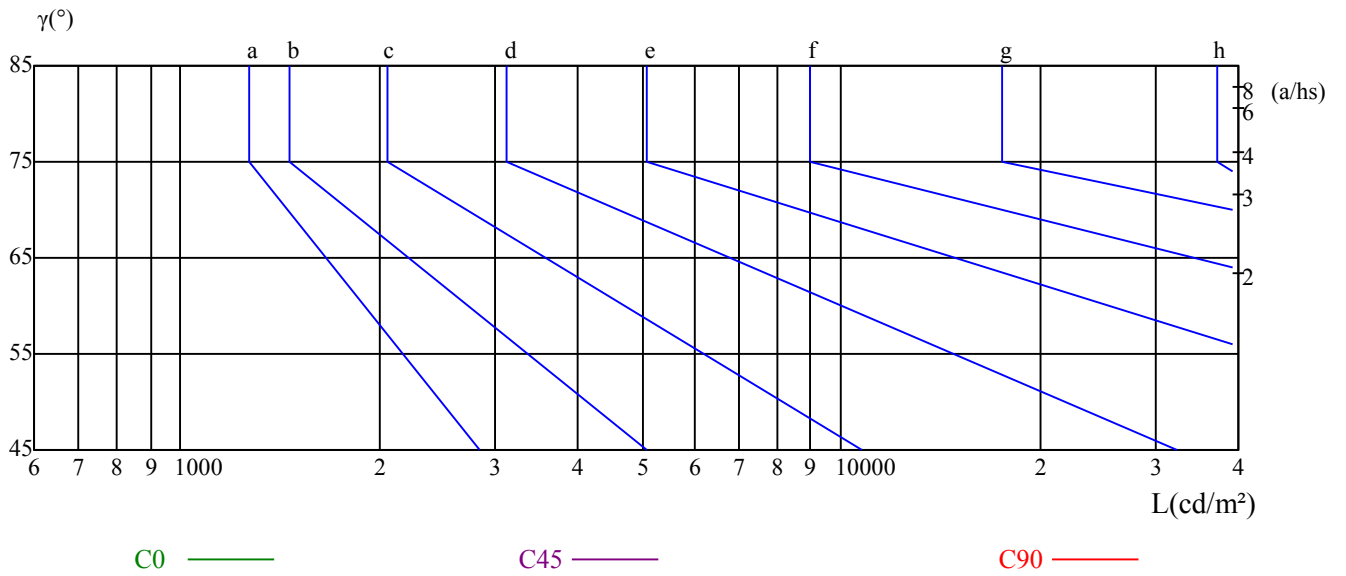
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

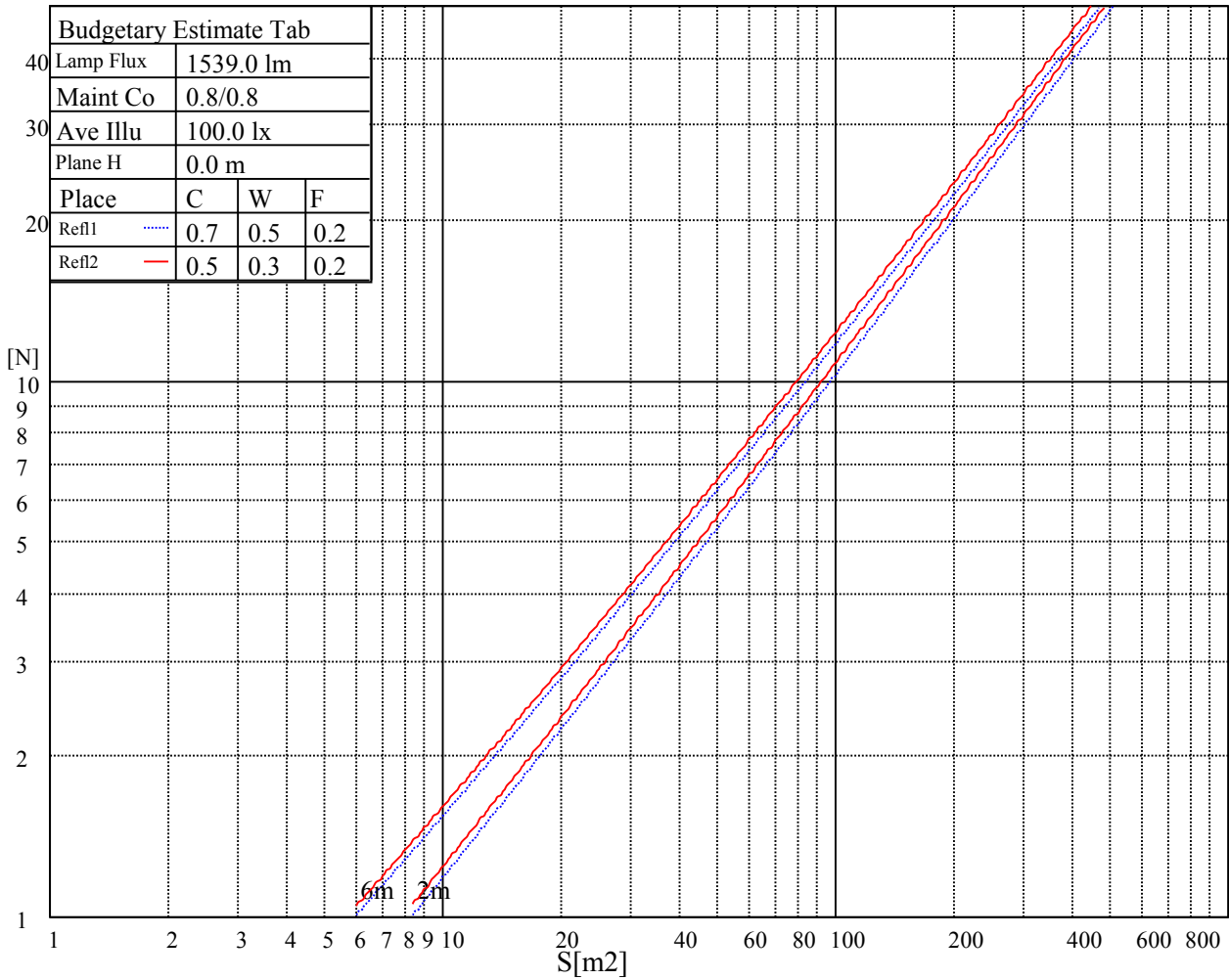
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

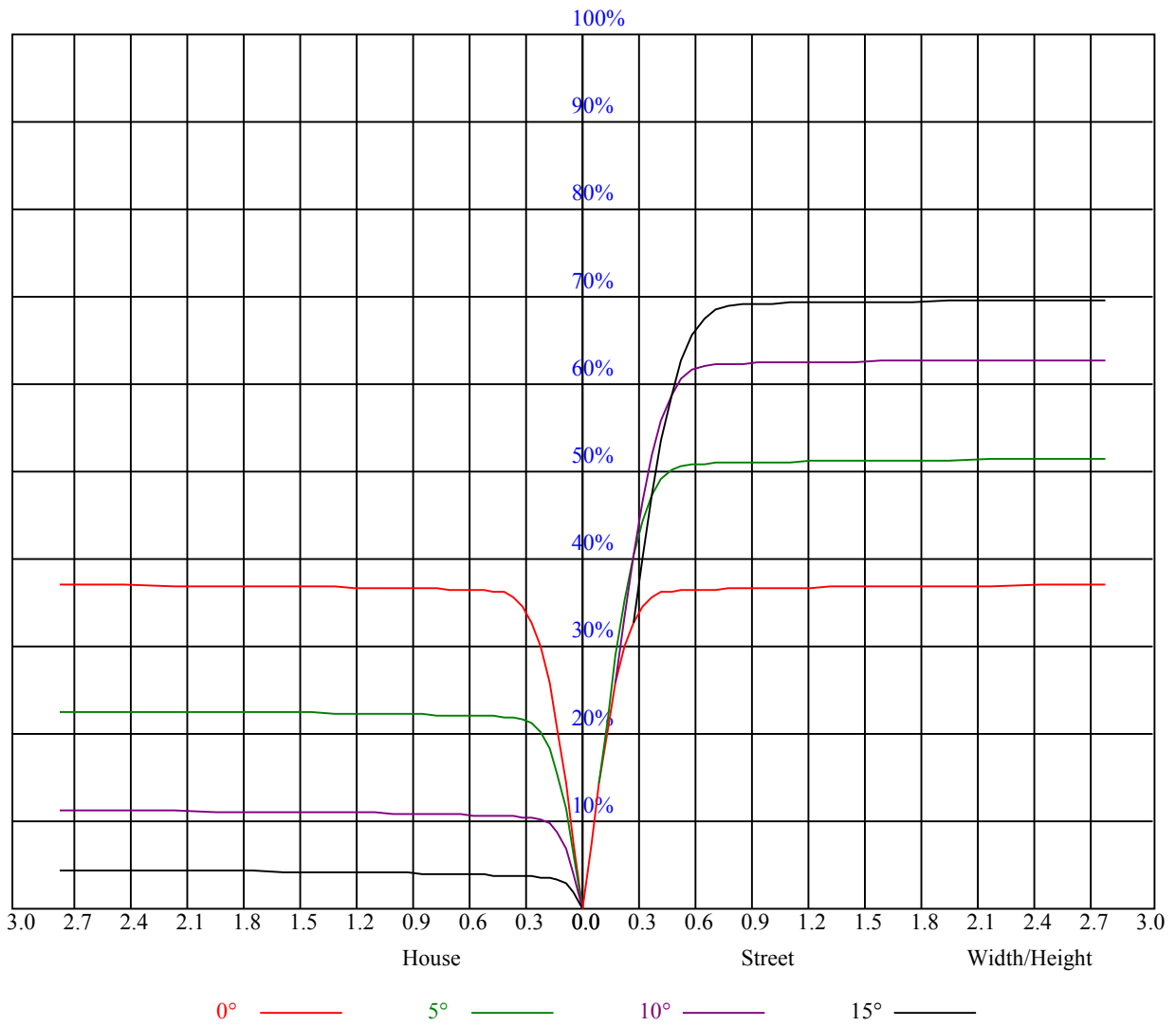
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	0.89	0.89	0.89	0.87	0.87	0.87	0.83	0.83	0.83	0.79	0.79	0.79	0.76	0.76	0.76	0.75
1	0.84	0.83	0.81	0.83	0.81	0.80	0.80	0.79	0.78	0.77	0.76	0.75	0.74	0.74	0.73	0.72
2	0.81	0.78	0.77	0.79	0.77	0.76	0.77	0.75	0.74	0.75	0.74	0.73	0.73	0.72	0.71	0.70
3	0.77	0.75	0.73	0.76	0.74	0.72	0.75	0.73	0.71	0.73	0.71	0.70	0.71	0.70	0.69	0.68
4	0.75	0.72	0.70	0.74	0.71	0.69	0.73	0.70	0.69	0.71	0.69	0.68	0.70	0.68	0.67	0.66
5	0.72	0.70	0.67	0.72	0.69	0.67	0.71	0.68	0.67	0.70	0.68	0.66	0.69	0.67	0.66	0.65
6	0.70	0.67	0.65	0.70	0.67	0.65	0.69	0.67	0.65	0.68	0.66	0.64	0.67	0.65	0.64	0.63
7	0.68	0.66	0.64	0.68	0.65	0.63	0.67	0.65	0.63	0.67	0.64	0.63	0.66	0.64	0.63	0.62
8	0.67	0.64	0.62	0.66	0.64	0.62	0.66	0.63	0.62	0.65	0.63	0.61	0.65	0.63	0.61	0.61
9	0.65	0.62	0.61	0.65	0.62	0.60	0.64	0.62	0.60	0.64	0.62	0.60	0.63	0.61	0.60	0.59
10	0.64	0.61	0.59	0.63	0.61	0.59	0.63	0.61	0.59	0.62	0.60	0.59	0.62	0.60	0.59	0.58



Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	6172.31	6084.56	5942.81	5764.50	5510.81	5212.69	4922.44	4570.31	4237.31
45.0	6146.44	6090.19	5964.19	5810.63	5613.19	5346.56	5038.88	4731.75	4360.50
90.0	6151.50	6132.38	6053.06	5938.88	5778.56	5518.13	5261.63	4969.13	4575.38
135.0	6132.38	6185.25	6195.38	6154.88	6058.13	5904.56	5724.56	5472.00	5207.06
180.0	6172.31	6206.06	6197.63	6130.13	6032.25	5891.06	5681.25	5417.44	5145.19
225.0	6146.44	6159.94	6125.63	6043.50	5923.69	5736.94	5501.25	5249.25	4930.31
270.0	6151.50	6131.25	6049.69	5934.94	5774.63	5545.69	5267.25	4988.25	4648.50
315.0	6132.38	6039.56	5883.19	5671.13	5439.94	5175.00	4851.00	4492.13	4156.31
360.0	6172.31	6084.56	5942.81	5764.50	5510.81	5212.69	4922.44	4570.31	4237.31
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3855.38	3464.44	3111.75	2755.13	2327.06	2008.69	1707.75	1356.75	1116.56
45.0	3979.13	3627.00	3229.31	2874.38	2480.63	2113.88	1808.44	1516.50	1206.56
90.0	4281.75	3888.56	3450.94	3144.94	2750.06	2323.69	2046.94	1747.13	1270.13
135.0	4878.56	4510.13	4164.75	3812.06	3362.63	3001.50	2646.00	2213.44	1906.88
180.0	4800.94	4430.25	4087.69	3693.94	3339.00	2938.50	2543.06	2210.63	1893.94
225.0	4622.06	4245.75	3850.31	3495.94	3096.56	2699.44	2354.63	2031.19	1656.56
270.0	4285.69	3945.38	3553.31	3199.50	2801.81	2410.31	2086.31	1777.50	1425.94
315.0	3769.31	3370.50	2963.81	2608.88	2271.38	1918.69	1590.75	1106.16	1078.37
360.0	3855.38	3464.44	3111.75	2755.13	2327.06	2008.69	1707.75	1356.75	1116.56
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	892.69	665.44	464.06	311.63	295.88	81.79	36.68	22.39	16.65
45.0	975.38	758.81	525.38	366.19	289.13	125.66	48.60	24.98	17.72
90.0	1116.28	920.31	713.64	482.51	326.19	208.80	99.34	47.36	25.59
135.0	1599.75	1294.31	1027.13	808.31	593.44	408.38	295.31	154.41	71.21
180.0	1523.81	1100.48	1011.49	715.39	551.08	385.03	237.71	129.99	65.14
225.0	1381.50	1105.43	877.44	647.55	468.34	299.76	172.63	92.98	42.08
270.0	1176.19	951.19	690.75	506.25	346.50	311.06	104.96	50.01	28.29
315.0	805.67	605.87	433.63	258.24	151.59	73.52	31.22	20.19	16.31
360.0	892.69	665.44	464.06	311.63	295.88	81.79	36.68	22.39	16.65
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	13.84	12.43	11.25	10.41	9.62	8.94	8.49	8.04	7.65
45.0	14.46	12.77	11.70	10.69	9.90	9.34	8.83	8.38	8.04
90.0	17.16	14.01	12.54	11.36	10.52	9.73	9.11	8.66	8.27
135.0	31.50	20.64	15.47	13.16	11.81	10.74	9.96	9.34	8.72
180.0	30.77	19.69	15.58	13.16	11.87	10.80	9.96	9.34	8.83
225.0	27.84	19.35	15.92	14.06	12.71	11.42	10.63	9.96	9.23
270.0	19.58	15.92	13.84	12.54	11.42	10.46	9.84	9.28	8.66
315.0	13.84	12.49	11.31	10.29	9.68	9.00	8.44	8.10	7.76
360.0	13.84	12.43	11.25	10.41	9.62	8.94	8.49	8.04	7.65
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	7.43	7.20	6.92	6.75	6.64	6.47	6.41	6.30	6.19
45.0	7.71	7.48	7.26	7.09	6.92	6.81	6.69	6.64	6.53
90.0	7.93	7.65	7.43	7.20	7.03	6.92	6.81	6.69	6.58
135.0	8.33	7.99	7.59	7.37	7.14	6.98	6.81	6.69	6.58
180.0	8.33	7.93	7.65	7.37	7.09	6.98	6.75	6.64	6.53
225.0	8.78	8.38	8.04	7.71	7.48	7.31	7.09	6.98	6.81
270.0	8.33	7.99	7.71	7.48	7.26	7.09	6.98	6.86	6.75
315.0	7.43	7.20	6.98	6.81	6.69	6.58	6.53	6.41	6.30
360.0	7.43	7.20	6.92	6.75	6.64	6.47	6.41	6.30	6.19

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	6.13	6.08	6.02	5.96	5.91	5.85	5.85	5.79	5.74
45.0	6.41	6.36	6.30	6.30	6.19	6.13	6.13	6.08	6.02
90.0	6.53	6.41	6.36	6.30	6.24	6.19	6.13	6.08	6.08
135.0	6.47	6.36	6.30	6.24	6.19	6.13	6.08	6.02	5.96
180.0	6.41	6.30	6.24	6.13	6.08	6.02	5.96	5.91	5.85
225.0	6.75	6.64	6.58	6.47	6.41	6.36	6.30	6.24	6.19
270.0	6.64	6.58	6.53	6.47	6.36	6.36	6.30	6.30	6.19
315.0	6.24	6.19	6.13	6.08	6.02	5.96	5.96	5.91	5.91
360.0	6.13	6.08	6.02	5.96	5.91	5.85	5.85	5.79	5.74
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.74	5.68	5.68	5.63	5.63	5.57	5.57	5.57	5.51
45.0	6.02	5.96	5.91	5.91	5.91	5.85	5.79	5.79	5.79
90.0	6.02	6.02	5.96	5.96	5.91	5.91	5.91	5.85	5.85
135.0	5.91	5.91	5.85	5.79	5.79	5.79	5.74	5.68	5.68
180.0	5.79	5.79	5.74	5.74	5.68	5.63	5.63	5.57	5.57
225.0	6.13	6.13	6.08	6.02	5.96	5.96	5.96	5.91	5.91
270.0	6.19	6.13	6.13	6.13	6.08	6.08	6.08	6.02	6.02
315.0	5.85	5.85	5.79	5.79	5.74	5.74	5.74	5.68	5.68
360.0	5.74	5.68	5.68	5.63	5.63	5.57	5.57	5.57	5.51
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.51	5.46	5.51	5.46	5.46	5.40	5.40	5.40	5.40
45.0	5.79	5.79	5.74	5.74	5.74	5.68	5.63	5.68	5.63
90.0	5.85	5.79	5.79	5.79	5.79	5.74	5.74	5.74	5.74
135.0	5.68	5.63	5.63	5.63	5.57	5.57	5.57	5.51	5.51
180.0	5.57	5.51	5.46	5.46	5.46	5.40	5.40	5.40	5.40
225.0	5.91	5.91	5.85	5.85	5.79	5.85	5.79	5.74	5.79
270.0	6.02	6.02	6.02	6.02	6.02	5.96	5.96	5.91	5.96
315.0	5.68	5.68	5.68	5.63	5.63	5.57	5.57	5.57	5.57
360.0	5.51	5.46	5.51	5.46	5.46	5.40	5.40	5.40	5.40
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	5.40	5.40	5.34	5.34	5.34	5.29	5.29	5.29	5.29
45.0	5.63	5.63	5.63	5.63	5.57	5.57	5.57	5.57	5.51
90.0	5.74	5.74	5.74	5.74	5.68	5.68	5.68	5.63	5.51
135.0	5.51	5.51	5.51	5.46	5.46	5.46	5.46	5.46	5.40
180.0	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.29	5.23
225.0	5.74	5.74	5.74	5.74	5.74	5.74	5.68	5.68	5.63
270.0	5.96	5.96	5.91	5.91	5.91	5.91	5.85	5.74	5.63
315.0	5.57	5.51	5.57	5.51	5.51	5.51	5.51	5.51	5.51
360.0	5.40	5.40	5.34	5.34	5.34	5.29	5.29	5.29	5.29
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	5.29	5.29	5.29	5.23	5.29	5.18	5.18	5.18	5.18
45.0	5.51	5.40	5.40	5.40	5.40	5.34	5.34	5.34	5.34
90.0	5.46	5.40	5.40	5.40	5.40	5.40	5.34	5.34	5.34
135.0	5.40	5.40	5.40	5.40	5.34	5.34	5.34	5.29	5.29
180.0	5.29	5.23	5.23	5.23	5.18	5.18	5.18	5.18	5.18
225.0	5.57	5.57	5.46	5.40	5.40	5.40	5.40	5.29	5.34
270.0	5.51	5.46	5.46	5.40	5.40	5.46	5.40	5.40	5.34
315.0	5.51	5.46	5.34	5.34	5.40	5.29	5.29	5.23	5.29
360.0	5.29	5.29	5.29	5.23	5.29	5.18	5.18	5.18	5.18

Intensity data(cd)

C/ γ ($^{\circ}$)	90.0
0.0	5.18
45.0	5.34
90.0	5.29
135.0	5.29
180.0	5.18
225.0	5.29
270.0	5.34
315.0	5.29
360.0	5.18