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Nata

LumCAT: 3-2383-M	
Luminaire: 92.70.131.00	
Report No: NATA0100	Voltage(V): 34.0500
Test No: GC2019092321	Current(A): 0.5000
LampCAT: TRIDONIC SLE G7 15MM	Power (W): 17.0000
Lamp flux(lm): 2209.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 74	Width(mm): 74
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2136.91
Efficiency(%): 96.74%
Lumens(lm)/Power(W): 125.70
Central intensity(cd): 10257.470
Maximum intensity(cd): 10257.470
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=22.8
 [C90/270]Total=22.8
Field angle(10%Imax): [C0/180]Total=39.3
 [C90/270]Total=39.3
Maximum s/h(1/2): C0_180=0.39 C90_270=0.39
Maximum s/h(1/4): C0_180=0.36 C90_270=0.36
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 96.74%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.427%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10257.469	0.000	0	.000%	.000%
1.0	10221.047	9.799	9.799	.444%	.459%
2.0	10137.164	29.220	39.019	1.323%	1.826%
3.0	10020.867	48.211	87.23	2.182%	4.082%
4.0	9875.672	66.600	153.83	3.015%	7.199%
5.0	9600.469	83.785	237.615	3.793%	11.120%
6.0	9150.891	98.543	336.159	4.461%	15.731%
7.0	8535.656	109.780	445.939	4.970%	20.868%
8.0	7892.508	117.573	563.512	5.322%	26.370%
9.0	7076.250	121.314	684.826	5.492%	32.048%
10.0	6235.242	120.464	805.29	5.453%	37.685%
11.0	5456.320	116.823	922.113	5.288%	43.152%
12.0	4607.227	110.009	1032.122	4.980%	48.300%
13.0	3756.938	99.262	1131.383	4.494%	52.945%
14.0	3021.398	86.762	1218.145	3.928%	57.005%
15.0	2337.820	73.574	1291.719	3.331%	60.448%
16.0	1799.719	60.627	1352.346	2.745%	63.285%
17.0	1443.642	50.508	1402.853	2.286%	65.649%
18.0	1223.817	43.981	1446.834	1.991%	67.707%
19.0	1085.941	40.185	1487.019	1.819%	69.587%
20.0	989.979	37.995	1525.014	1.720%	71.365%
21.0	912.825	36.538	1561.552	1.654%	73.075%
22.0	859.718	35.620	1597.172	1.612%	74.742%
23.0	817.692	35.197	1632.369	1.593%	76.389%
24.0	783.548	35.009	1667.377	1.585%	78.028%
25.0	759.881	35.094	1702.472	1.589%	79.670%
26.0	740.447	35.415	1737.887	1.603%	81.327%
27.0	724.205	35.833	1773.72	1.622%	83.004%
28.0	709.432	36.297	1810.017	1.643%	84.703%
29.0	693.499	36.705	1846.721	1.662%	86.420%
30.0	664.088	36.655	1883.376	1.659%	88.136%
31.0	612.415	35.523	1918.899	1.608%	89.798%
32.0	542.911	33.099	1951.998	1.498%	91.347%
33.0	469.160	29.816	1981.814	1.350%	92.742%
34.0	393.659	26.111	2007.925	1.182%	93.964%
35.0	308.679	21.812	2029.737	.987%	94.985%
36.0	238.648	17.427	2047.164	.789%	95.800%
37.0	167.386	13.243	2060.407	.599%	96.420%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	96.708	8.815	2069.222	.399%	96.833%
39.0	48.284	4.949	2074.171	.224%	97.064%
40.0	28.786	2.688	2076.859	.122%	97.190%
41.0	23.597	1.865	2078.724	.084%	97.277%
42.0	21.537	1.640	2080.364	.074%	97.354%
43.0	20.123	1.543	2081.907	.070%	97.426%
44.0	19.160	1.483	2083.39	.067%	97.496%
45.0	18.260	1.438	2084.828	.065%	97.563%
46.0	17.388	1.394	2086.222	.063%	97.628%
47.0	16.566	1.350	2087.572	.061%	97.691%
48.0	15.989	1.316	2088.888	.060%	97.753%
49.0	15.448	1.291	2090.179	.058%	97.813%
50.0	14.941	1.267	2091.446	.057%	97.873%
51.0	14.477	1.245	2092.691	.056%	97.931%
52.0	14.098	1.226	2093.917	.056%	97.988%
53.0	13.634	1.206	2095.124	.055%	98.045%
54.0	13.338	1.189	2096.312	.054%	98.100%
55.0	13.057	1.178	2097.491	.053%	98.155%
56.0	12.811	1.169	2098.66	.053%	98.210%
57.0	12.607	1.162	2099.822	.053%	98.264%
58.0	12.452	1.159	2100.981	.052%	98.319%
59.0	12.333	1.159	2102.139	.052%	98.373%
60.0	12.291	1.163	2103.303	.053%	98.427%
61.0	12.171	1.167	2104.47	.053%	98.482%
62.0	12.129	1.171	2105.641	.053%	98.537%
63.0	12.073	1.177	2106.818	.053%	98.592%
64.0	12.023	1.182	2108	.054%	98.647%
65.0	11.918	1.185	2109.185	.054%	98.703%
66.0	11.763	1.182	2110.367	.053%	98.758%
67.0	11.573	1.173	2111.54	.053%	98.813%
68.0	11.341	1.161	2112.701	.053%	98.867%
69.0	11.173	1.149	2113.849	.052%	98.921%
70.0	10.997	1.139	2114.988	.052%	98.974%
71.0	10.842	1.129	2116.117	.051%	99.027%
72.0	10.730	1.122	2117.238	.051%	99.080%
73.0	10.596	1.115	2118.354	.050%	99.132%
74.0	10.498	1.109	2119.463	.050%	99.184%
75.0	10.413	1.105	2120.567	.050%	99.235%

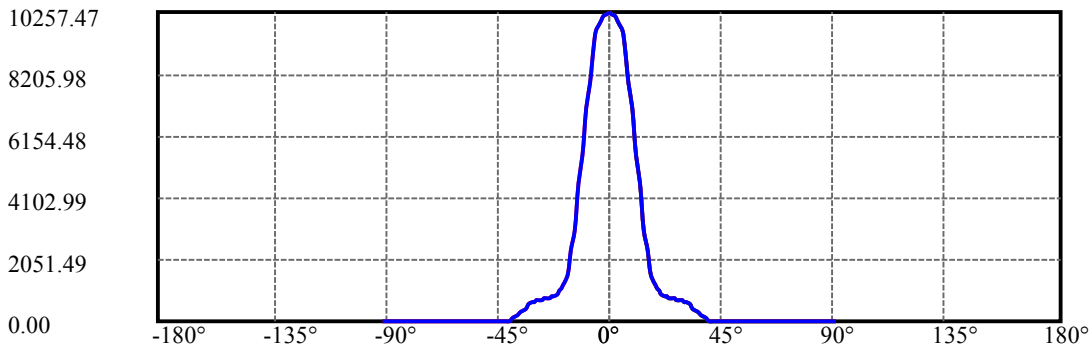
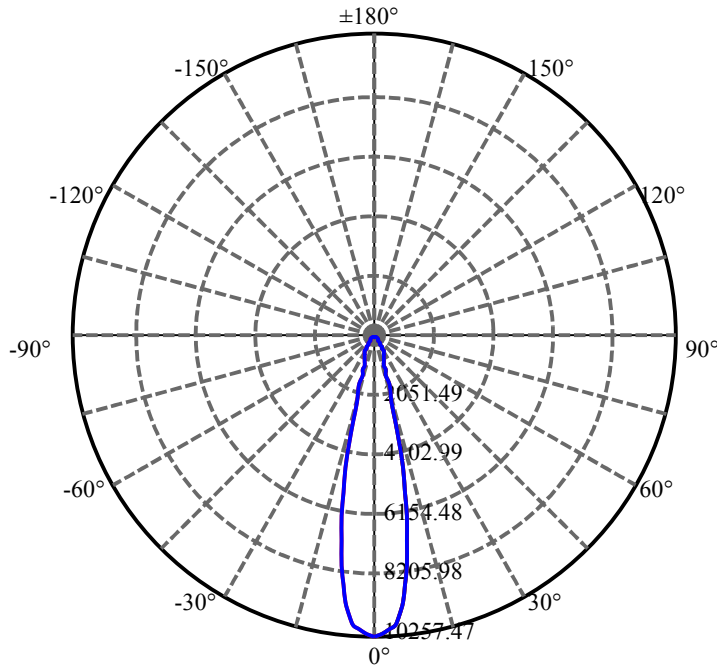
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	10.343	1.102	2121.669	.050%	99.287%
77.0	10.294	1.100	2122.77	.050%	99.338%
78.0	10.245	1.099	2123.869	.050%	99.390%
79.0	10.188	1.098	2124.967	.050%	99.441%
80.0	10.160	1.097	2126.064	.050%	99.493%
81.0	10.118	1.097	2127.16	.050%	99.544%
82.0	10.090	1.096	2128.256	.050%	99.595%
83.0	10.048	1.095	2129.351	.050%	99.646%
84.0	10.013	1.093	2130.444	.049%	99.697%
85.0	9.956	1.090	2131.534	.049%	99.748%
86.0	9.949	1.088	2132.622	.049%	99.799%
87.0	9.809	1.081	2133.703	.049%	99.850%
88.0	9.759	1.072	2134.775	.049%	99.900%
89.0	9.752	1.069	2135.844	.048%	99.950%
90.0	9.654	1.064	2136.908	.048%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1883.38	85.26%	88.14%
0-40	2076.86	94.02%	97.19%
0-60	2103.30	95.22%	98.43%
0-90	2135.84	96.69%	99.95%
0-120	2135.84	96.69%	99.95%
0-180	2136.91	96.74%	100.00%
60-90	33.71	1.53%	1.58%
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%
0-25.20	1709.53	77.39%	80.00%

ZONAL LUMEN SUMMARY

0-10	805.29
10-20	719.72
20-30	358.36
30-40	193.48
40-50	14.59
50-60	11.86
60-70	11.69
70-80	11.08
80-90	9.78
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: —————

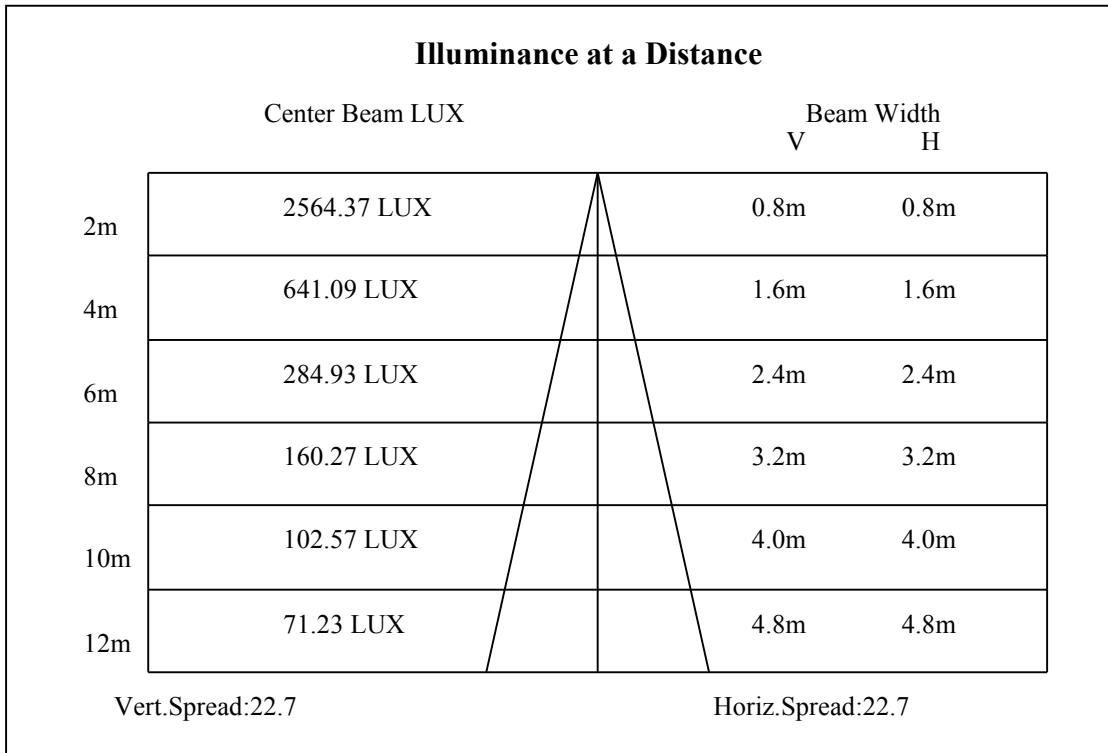
C90/C270: —————

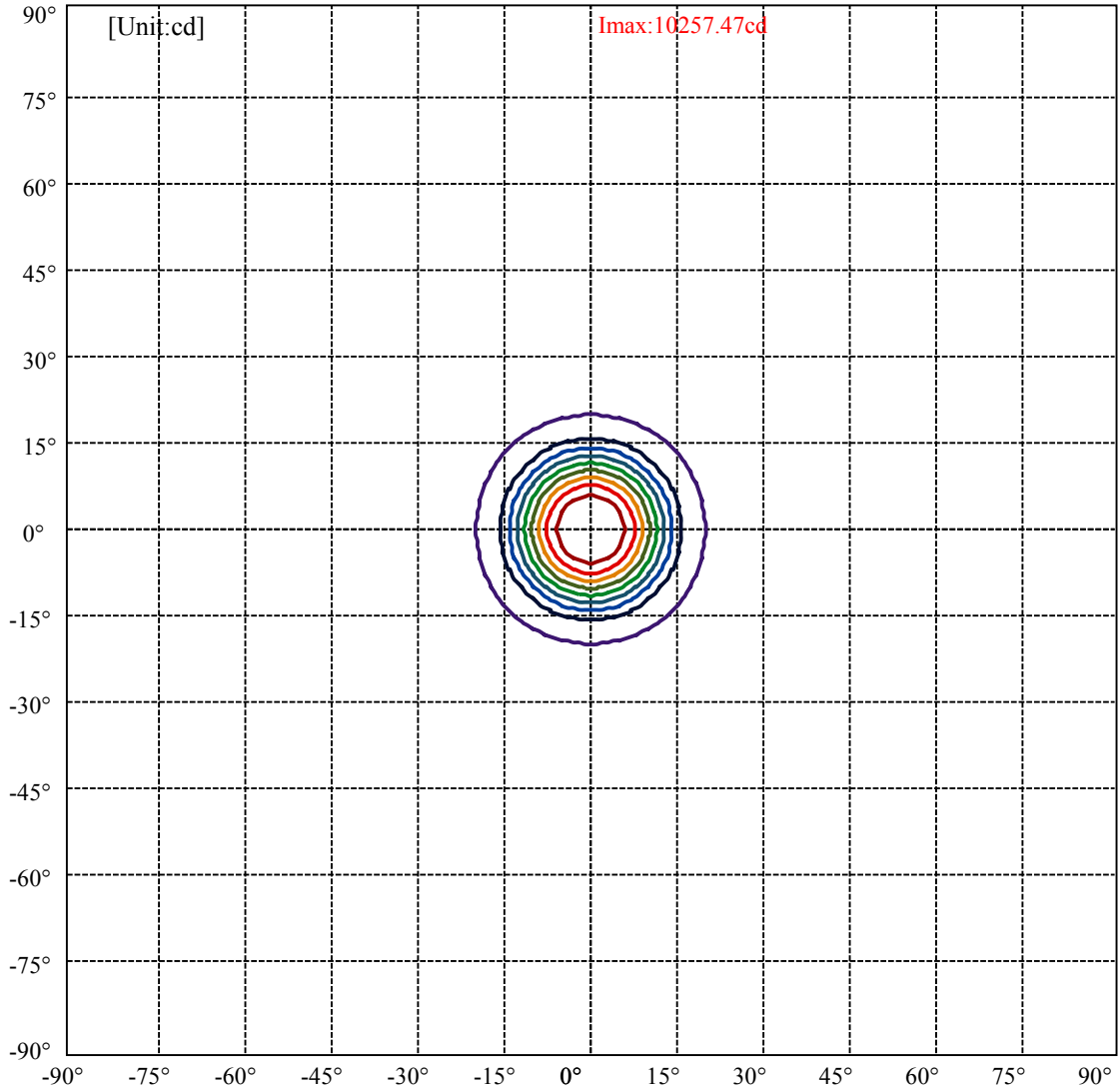
Field angle(10%Imax):C0/180Left:19.6 Right:19.6

:C90/270Left:19.6 Right:19.6

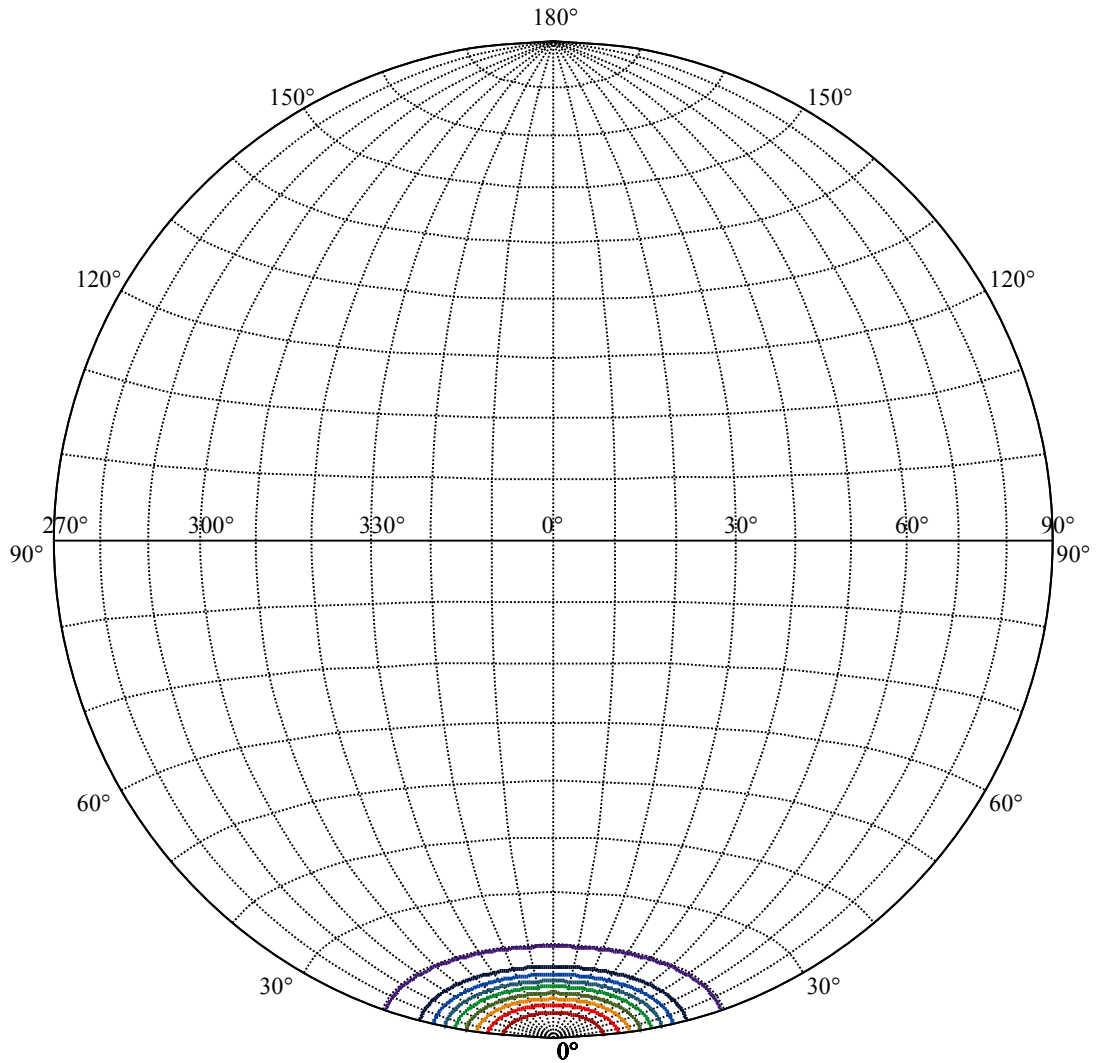
Beam Angle(50%Imax):C0/180Left:11.4 Right:11.4

:C90/270Left:11.4 Right:11.4





(10%Imax) 1025.75	—
(20%Imax) 2051.49	—
(30%Imax) 3077.24	—
(40%Imax) 4102.99	—
(50%Imax) 5128.73	—
(60%Imax) 6154.48	—
(70%Imax) 7180.23	—
(80%Imax) 8205.98	—
(90%Imax) 9231.72	—



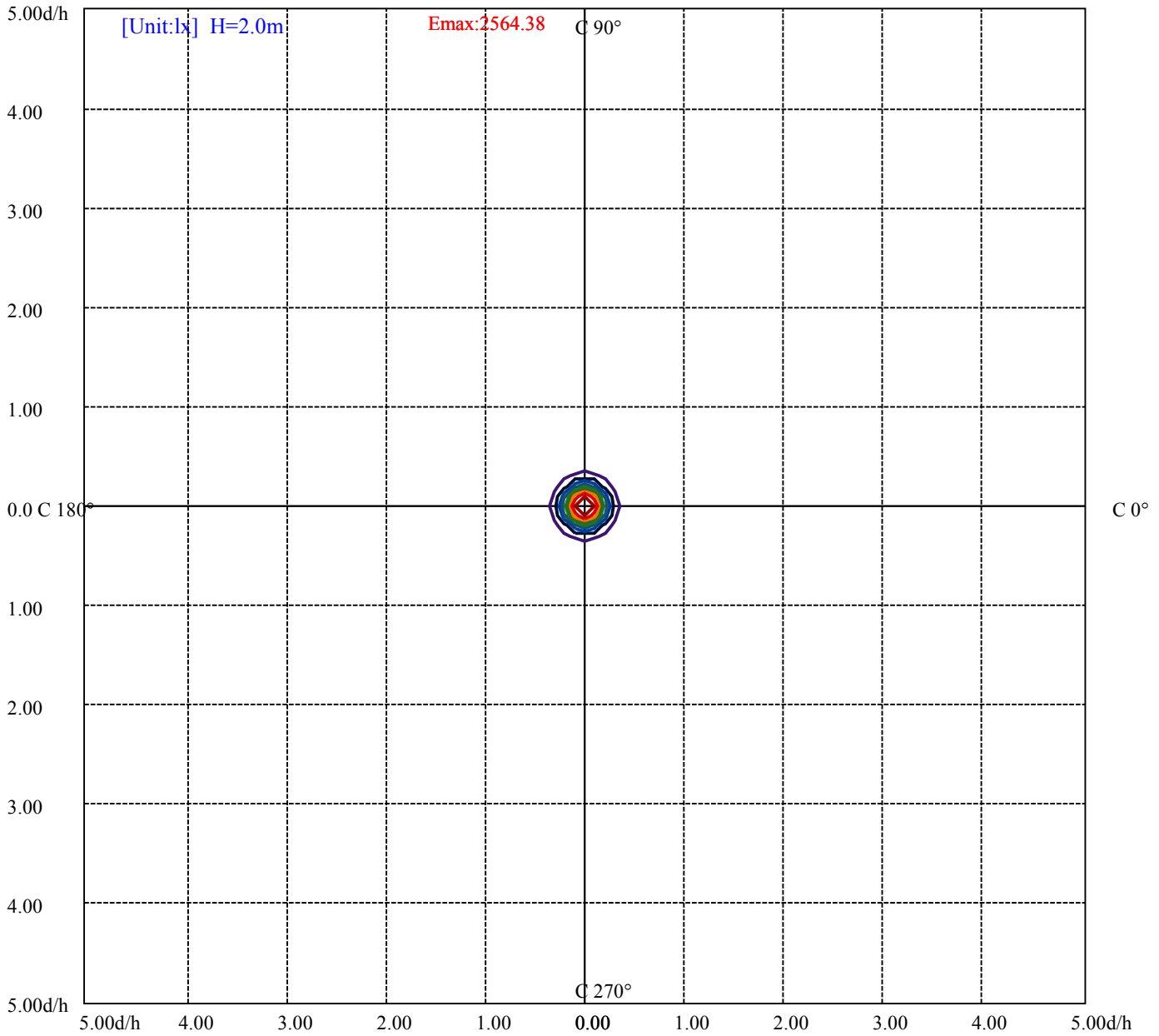
House

[Unit:cd]

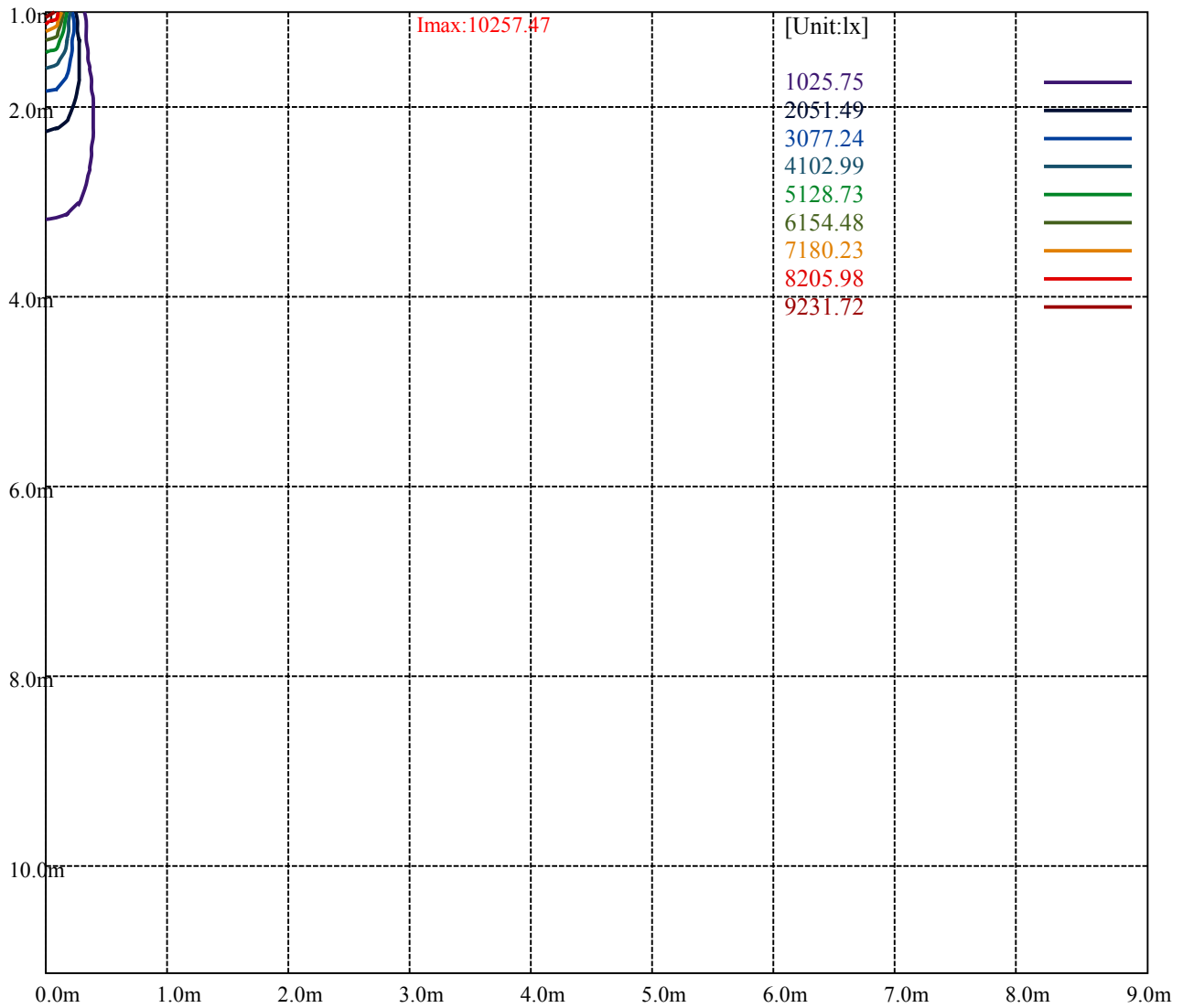
Road

Imax:10257.47

(10%Imax) 1025.75	—
(20%Imax) 2051.49	—
(30%Imax) 3077.24	—
(40%Imax) 4102.99	—
(50%Imax) 5128.73	—
(60%Imax) 6154.48	—
(70%Imax) 7180.23	—
(80%Imax) 8205.98	—
(90%Imax) 9231.72	—



(10%Emax) 256.4375	—
(20%Emax) 512.8725	—
(30%Emax) 769.31	—
(40%Emax) 1025.748	—
(50%Emax) 1282.182	—
(60%Emax) 1538.62	—
(70%Emax) 1795.055	—
(80%Emax) 2051.492	—
(90%Emax) 2307.93	—



Luminance Table

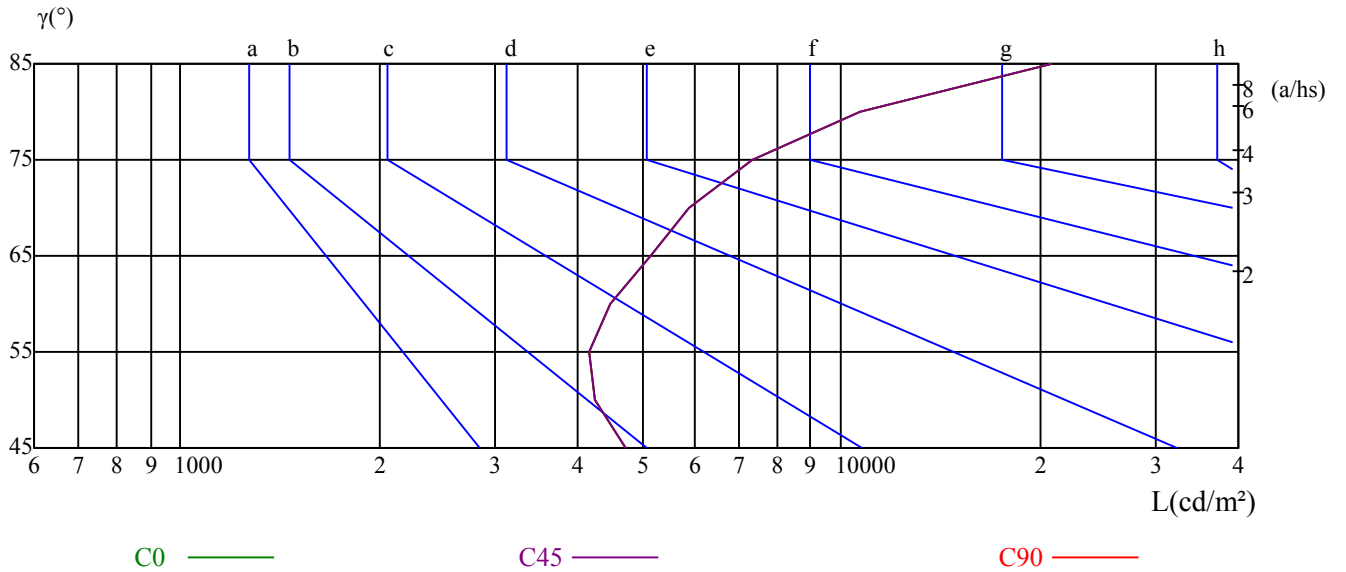
γ	45	50	55	60	65	70	75	80	85
C0	4716	4245	4157	4489	5150	5872	7347	10685	20861
C45	4716	4245	4157	4489	5150	5872	7347	10685	20861
C90	4716	4245	4157	4489	5150	5872	7347	10685	20861

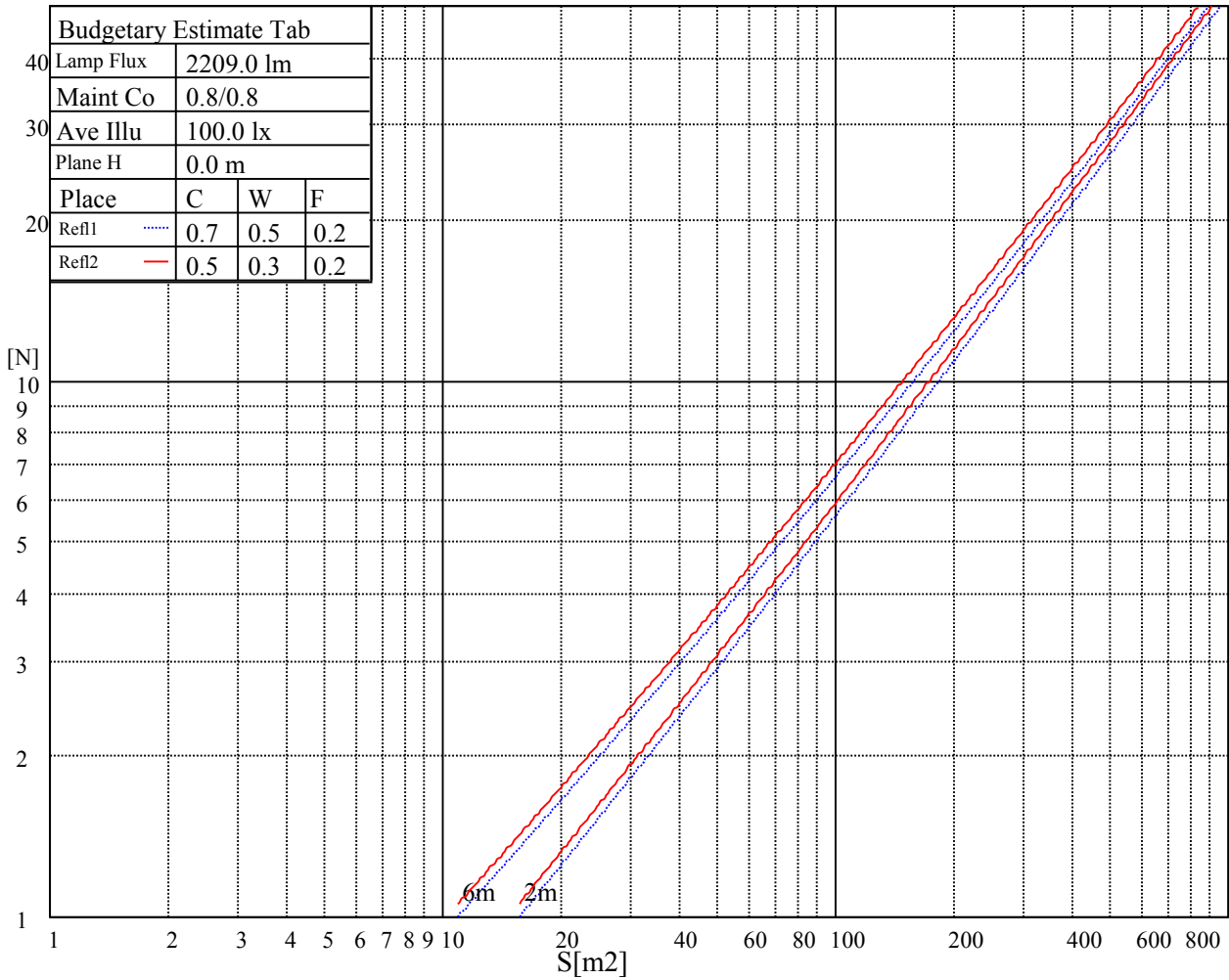
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5150	5150	5150	7347	7347	7347	20861	20861	20861

Glare Table

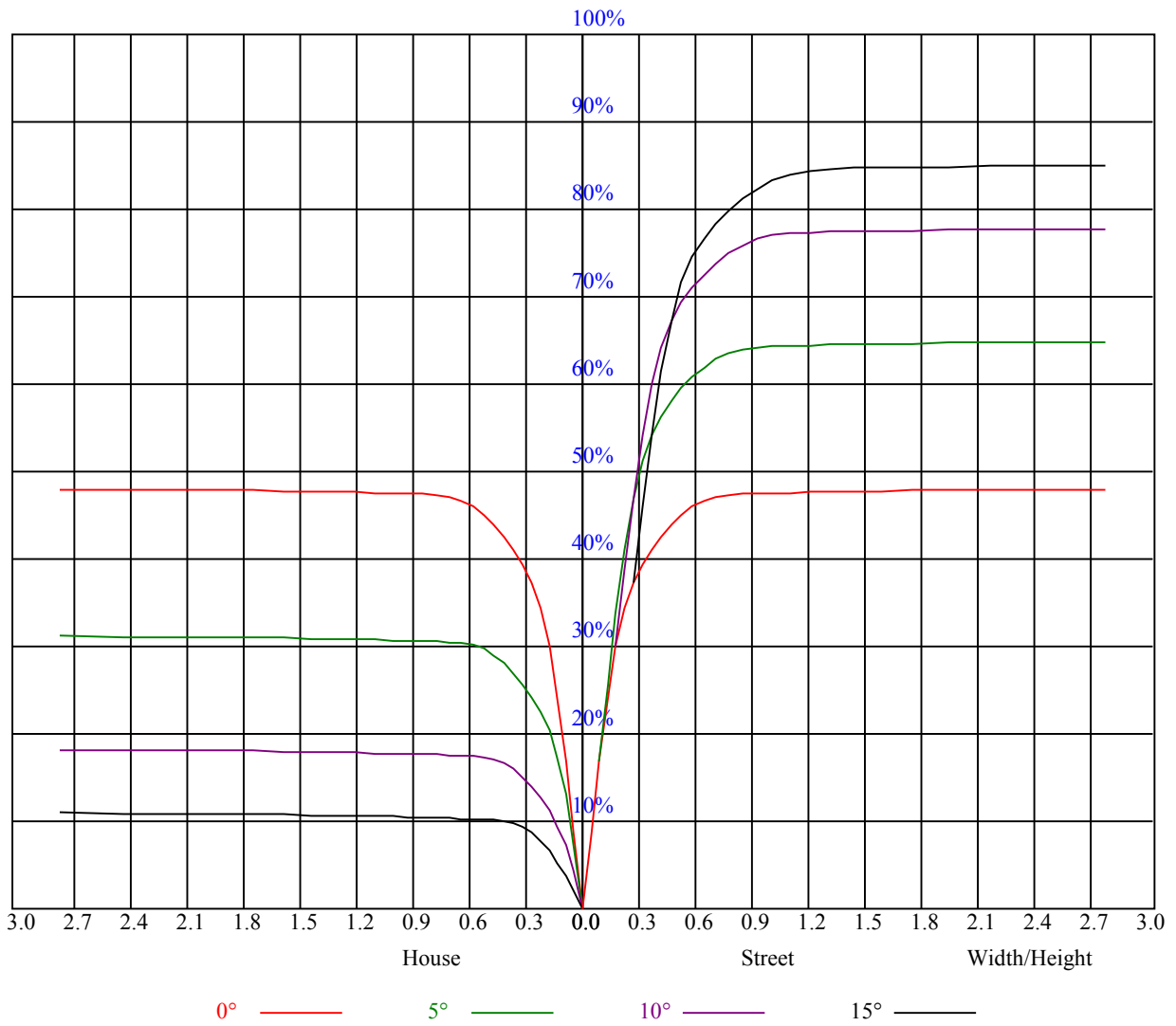
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.15	1.15	1.15	1.12	1.12	1.12	1.07	1.07	1.07	1.03	1.03	1.03	0.99	0.99	0.99	0.97
1	1.09	1.07	1.05	1.06	1.05	1.03	1.03	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93
2	1.03	1.00	0.97	1.01	0.99	0.96	0.98	0.96	0.94	0.96	0.94	0.92	0.93	0.92	0.90	0.89
3	0.98	0.95	0.92	0.97	0.94	0.91	0.95	0.92	0.89	0.92	0.90	0.88	0.90	0.88	0.87	0.85
4	0.94	0.90	0.87	0.93	0.89	0.86	0.91	0.88	0.85	0.89	0.87	0.84	0.88	0.85	0.84	0.82
5	0.90	0.86	0.83	0.90	0.86	0.83	0.88	0.85	0.82	0.87	0.84	0.81	0.85	0.83	0.81	0.80
6	0.87	0.83	0.80	0.86	0.82	0.79	0.85	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.78	0.77
7	0.84	0.80	0.77	0.84	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.80	0.78	0.76	0.75
8	0.81	0.77	0.74	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.72
9	0.79	0.75	0.72	0.78	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.70
10	0.77	0.73	0.70	0.76	0.72	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.68



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	10258.88	10229.63	10108.69	9983.81	9879.75	9533.81	9094.50	8517.94	7938.56
45.0	10259.44	10221.75	10116.56	9965.81	9817.31	9510.19	9013.50	8441.44	7779.94
90.0	10244.25	10161.00	10049.06	9884.25	9619.31	9220.50	8618.06	7802.44	7179.75
135.0	10267.31	10231.88	10153.69	10050.19	9909.56	9650.81	9124.88	8515.13	7854.19
180.0	10258.88	10219.50	10151.44	10087.31	9957.94	9677.81	9250.31	8642.81	7856.44
225.0	10259.44	10221.75	10156.50	10041.19	9900.56	9659.25	9297.00	8647.31	8021.25
270.0	10244.25	10270.69	10230.19	10129.50	10018.13	9866.25	9529.88	9104.06	8579.81
315.0	10267.31	10212.19	10131.19	10024.88	9902.81	9685.13	9279.00	8614.13	7930.13
360.0	10258.88	10229.63	10108.69	9983.81	9879.75	9533.81	9094.50	8517.94	7938.56
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6920.44	6138.56	5437.13	4466.25	3631.50	3029.06	2216.81	1667.81	1400.63
45.0	6859.13	6060.38	5222.81	4305.38	3458.81	2788.88	2137.50	1659.38	1375.31
90.0	6407.44	5324.06	4621.50	3845.81	2900.81	2382.75	1897.31	1508.63	1120.39
135.0	6986.81	6252.75	5522.06	4672.13	3840.19	3112.31	2376.00	1820.25	1490.06
180.0	7142.63	6418.69	5527.69	4795.88	4059.56	3159.56	2472.19	1923.19	1522.69
225.0	7326.56	6413.06	5642.44	4839.75	3956.06	3143.81	2491.31	1900.13	1559.81
270.0	7801.31	7080.75	6288.75	5348.81	4406.06	3630.38	2836.13	2225.81	1712.81
315.0	7165.69	6193.69	5388.19	4583.81	3802.50	2924.44	2275.31	1692.56	1367.44
360.0	6920.44	6138.56	5437.13	4466.25	3631.50	3029.06	2216.81	1667.81	1400.63
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1178.44	1072.13	991.13	909.56	860.06	822.94	788.06	767.25	749.81
45.0	1179.56	1065.38	976.50	913.50	866.25	829.69	797.63	776.81	758.25
90.0	1105.09	998.66	910.35	844.99	801.23	761.01	734.23	715.56	697.56
135.0	1257.75	1117.13	1007.44	929.81	878.06	834.75	793.13	770.06	749.81
180.0	1272.38	1107.79	1006.82	924.19	867.15	818.78	787.11	759.21	736.26
225.0	1308.94	1107.90	1034.10	948.54	883.91	839.36	804.43	772.37	752.18
270.0	1374.19	1189.13	1053.56	960.19	896.63	847.13	800.44	773.44	751.50
315.0	1114.20	1029.43	939.94	871.82	824.46	787.89	763.37	744.36	728.21
360.0	1178.44	1072.13	991.13	909.56	860.06	822.94	788.06	767.25	749.81
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	732.38	718.88	703.69	658.69	595.13	530.44	452.25	378.00	292.50
45.0	740.81	725.63	710.44	660.94	594.56	528.19	448.31	365.06	286.88
90.0	683.44	663.58	635.01	589.44	530.10	450.73	380.48	309.04	221.68
135.0	731.25	717.75	705.94	682.88	625.50	561.94	480.94	401.63	317.81
180.0	720.62	704.98	689.34	675.39	634.50	557.04	487.35	413.49	326.03
225.0	734.96	720.45	702.39	689.23	649.13	574.65	503.94	426.49	336.83
270.0	731.81	716.06	704.81	691.31	660.94	612.00	542.81	473.06	389.25
315.0	718.37	708.13	696.38	664.82	609.47	528.30	457.20	382.50	298.46
360.0	732.38	718.88	703.69	658.69	595.13	530.44	452.25	378.00	292.50
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	204.92	138.83	73.69	32.68	25.03	22.73	19.74	18.06	17.21
45.0	240.41	135.56	73.69	37.35	27.06	24.53	21.71	19.97	19.13
90.0	158.34	105.08	61.93	34.37	29.76	26.38	24.30	22.84	21.66
135.0	290.25	165.32	98.61	45.17	22.28	20.03	18.62	17.61	16.93
180.0	243.62	176.68	110.36	56.08	26.38	19.46	18.28	17.21	16.26
225.0	252.45	184.22	114.69	58.44	29.19	22.22	20.53	19.35	18.34
270.0	302.63	284.06	157.05	84.94	45.84	30.43	27.79	25.99	24.47
315.0	216.56	149.34	83.64	37.24	24.75	23.01	21.32	19.97	19.29
360.0	204.92	138.83	73.69	32.68	25.03	22.73	19.74	18.06	17.21

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	16.03	15.19	14.40	13.73	13.39	13.11	12.94	12.71	12.49
45.0	18.45	17.89	17.21	16.82	16.14	15.92	15.36	14.85	14.18
90.0	20.70	19.69	18.84	18.06	17.49	16.88	16.37	15.98	15.41
135.0	16.20	15.41	14.74	14.51	14.01	13.56	13.05	12.71	12.43
180.0	15.41	14.74	13.84	13.39	12.99	12.66	12.49	12.38	12.21
225.0	17.33	16.43	15.19	14.51	13.84	13.33	13.05	12.83	12.66
270.0	23.40	21.88	21.04	20.25	19.46	18.73	18.00	17.10	16.43
315.0	18.56	17.89	17.27	16.65	16.26	15.36	14.57	14.23	13.28
360.0	16.03	15.19	14.40	13.73	13.39	13.11	12.94	12.71	12.49
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	12.38	12.21	12.09	12.04	11.98	11.93	11.93	11.87	11.87
45.0	14.06	13.61	13.39	13.05	12.99	12.94	12.94	12.77	12.71
90.0	14.85	14.46	14.12	13.95	13.84	13.73	13.67	13.44	13.33
135.0	12.32	12.15	12.04	11.87	11.81	11.76	11.76	11.70	11.76
180.0	12.21	12.15	11.98	11.87	11.76	11.64	11.59	11.59	11.59
225.0	12.54	12.43	12.32	12.15	11.98	11.87	11.87	11.87	11.87
270.0	15.24	14.91	14.18	13.84	13.39	13.11	12.94	12.66	12.49
315.0	13.11	12.54	12.38	12.09	11.87	11.70	11.64	11.48	11.42
360.0	12.38	12.21	12.09	12.04	11.98	11.93	11.93	11.87	11.87
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	11.87	11.87	11.81	11.59	11.36	11.19	11.03	10.86	10.69
45.0	12.60	12.49	12.32	12.04	11.81	11.53	11.31	11.03	10.86
90.0	13.11	12.94	12.60	12.38	12.09	11.64	11.42	11.25	11.03
135.0	11.81	11.81	11.87	11.76	11.59	11.36	11.19	11.03	10.80
180.0	11.53	11.53	11.53	11.53	11.42	11.25	11.14	11.03	10.86
225.0	11.76	11.76	11.64	11.53	11.36	11.14	10.97	10.80	10.69
270.0	12.38	12.38	12.21	12.09	11.93	11.70	11.53	11.31	11.19
315.0	11.53	11.42	11.36	11.19	11.03	10.91	10.80	10.69	10.63
360.0	11.87	11.87	11.81	11.59	11.36	11.19	11.03	10.86	10.69
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.58	10.46	10.41	10.29	10.18	10.18	10.13	10.07	10.07
45.0	10.69	10.46	10.41	10.24	10.18	10.13	10.07	10.01	10.01
90.0	10.91	10.74	10.63	10.52	10.46	10.41	10.35	10.29	10.24
135.0	10.74	10.63	10.52	10.46	10.35	10.35	10.29	10.24	10.18
180.0	10.74	10.63	10.52	10.46	10.35	10.29	10.24	10.18	10.13
225.0	10.58	10.46	10.35	10.29	10.29	10.18	10.18	10.13	10.13
270.0	11.08	10.97	10.86	10.80	10.74	10.69	10.63	10.58	10.58
315.0	10.52	10.41	10.29	10.24	10.18	10.13	10.07	10.01	9.96
360.0	10.58	10.46	10.41	10.29	10.18	10.18	10.13	10.07	10.07
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	10.01	10.01	10.01	9.96	9.90	9.84	9.84	9.84	9.84
45.0	9.96	9.90	9.90	9.90	9.84	9.79	9.79	9.73	9.68
90.0	10.24	10.18	10.13	10.07	10.07	10.58	9.73	9.68	9.68
135.0	10.13	10.13	10.07	10.01	10.01	9.90	9.84	9.79	9.73
180.0	10.07	10.07	10.01	9.96	9.96	9.90	9.84	9.79	9.79
225.0	10.07	10.01	9.96	9.96	9.90	9.79	9.79	9.73	9.73
270.0	10.52	10.46	10.41	10.35	10.13	9.96	9.84	9.79	9.84
315.0	9.96	9.96	9.90	9.90	9.84	9.84	9.79	9.73	9.73
360.0	10.01	10.01	10.01	9.96	9.90	9.84	9.84	9.84	9.84

Intensity data(cd)

C/γ(°)	90.0
0.0	9.68
45.0	9.68
90.0	9.68
135.0	9.68
180.0	9.62
225.0	9.62
270.0	9.62
315.0	9.68
360.0	9.68