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Nata

LumCAT: 1-0926-M	
Luminaire: 92.70.124.00	
Report No: 210713-B010	Voltage(V): 39.0500
Test No: 210713-C010	Current(A): 0.2310
LampCAT: Fortimo LED SLM 1201 G7N	Power (W): 9.0200
Lamp flux(lm): 1070.7	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 570	Width(mm): 45
Phm Type: C	Height(mm): 20

Photometric Results

Lumens(lm): 853.59
Efficiency(%): 79.72%
Lumens(lm)/Power(W): 94.63
Central intensity(cd): 6513.047
Maximum intensity(cd): 6513.047
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=17.2
 [C90/270]Total=17.2
Field angle(10%Imax): [C0/180]Total=38.3
 [C90/270]Total=38.3
Maximum s/h(1/2): C0_180=0.29 C90_270=0.29
Maximum s/h(1/4): C0_180=0.33 C90_270=0.33
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 79.72%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.602%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6513.047	0.000	0	.000%	.000%
1.0	6423.398	6.190	6.19	.578%	.725%
2.0	6168.234	18.073	24.263	1.688%	2.842%
3.0	5787.000	28.593	52.856	2.670%	6.192%
4.0	5363.648	37.325	90.18	3.486%	10.565%
5.0	4896.633	44.139	134.32	4.122%	15.736%
6.0	4438.195	49.057	183.377	4.582%	21.483%
7.0	3946.289	52.042	235.419	4.860%	27.580%
8.0	3512.039	53.378	288.797	4.985%	33.833%
9.0	3078.352	53.412	342.208	4.988%	40.090%
10.0	2698.172	52.275	394.484	4.882%	46.214%
11.0	2374.172	50.683	445.167	4.734%	52.152%
12.0	2094.750	48.852	494.019	4.562%	57.875%
13.0	1813.359	46.379	540.398	4.332%	63.309%
14.0	1552.570	43.084	583.482	4.024%	68.356%
15.0	1335.523	39.649	623.131	3.703%	73.001%
16.0	1135.392	36.206	659.336	3.381%	77.242%
17.0	968.133	32.758	692.094	3.059%	81.080%
18.0	807.975	29.284	721.378	2.735%	84.511%
19.0	669.769	25.710	747.088	2.401%	87.523%
20.0	530.360	21.966	769.054	2.051%	90.096%
21.0	412.221	18.099	787.153	1.690%	92.216%
22.0	306.844	14.450	801.603	1.350%	93.909%
23.0	208.568	10.815	812.418	1.010%	95.176%
24.0	128.011	7.359	819.776	.687%	96.038%
25.0	67.859	4.454	824.23	.416%	96.560%
26.0	35.269	2.434	826.664	.227%	96.845%
27.0	19.005	1.328	827.992	.124%	97.001%
28.0	12.895	0.808	828.8	.075%	97.095%
29.0	10.737	0.618	829.418	.058%	97.168%
30.0	9.633	0.550	829.968	.051%	97.232%
31.0	8.719	0.511	830.479	.048%	97.292%
32.0	8.023	0.480	830.958	.045%	97.348%
33.0	7.453	0.456	831.414	.043%	97.402%
34.0	6.989	0.437	831.851	.041%	97.453%
35.0	6.574	0.421	832.273	.039%	97.502%
36.0	6.237	0.408	832.681	.038%	97.550%
37.0	5.941	0.397	833.078	.037%	97.596%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	5.688	0.388	833.466	.036%	97.642%
39.0	5.484	0.381	833.847	.036%	97.687%
40.0	5.309	0.376	834.224	.035%	97.731%
41.0	5.161	0.373	834.597	.035%	97.774%
42.0	5.041	0.371	834.967	.035%	97.818%
43.0	4.915	0.369	835.336	.034%	97.861%
44.0	4.816	0.367	835.703	.034%	97.904%
45.0	4.739	0.367	836.071	.034%	97.947%
46.0	4.648	0.367	836.438	.034%	97.990%
47.0	4.584	0.367	836.805	.034%	98.033%
48.0	4.521	0.368	837.173	.034%	98.076%
49.0	4.451	0.368	837.541	.034%	98.119%
50.0	4.395	0.369	837.91	.034%	98.163%
51.0	4.345	0.370	838.28	.035%	98.206%
52.0	4.303	0.371	838.651	.035%	98.249%
53.0	4.268	0.373	839.024	.035%	98.293%
54.0	4.212	0.374	839.398	.035%	98.337%
55.0	4.177	0.374	839.772	.035%	98.381%
56.0	4.148	0.376	840.148	.035%	98.425%
57.0	4.113	0.378	840.526	.035%	98.469%
58.0	4.071	0.378	840.904	.035%	98.513%
59.0	4.036	0.379	841.283	.035%	98.558%
60.0	4.022	0.381	841.664	.036%	98.602%
61.0	4.001	0.383	842.047	.036%	98.647%
62.0	3.952	0.383	842.43	.036%	98.692%
63.0	3.938	0.384	842.814	.036%	98.737%
64.0	3.902	0.385	843.199	.036%	98.782%
65.0	3.902	0.386	843.585	.036%	98.827%
66.0	3.902	0.389	843.974	.036%	98.873%
67.0	3.867	0.391	844.365	.036%	98.919%
68.0	3.853	0.391	844.756	.037%	98.965%
69.0	3.839	0.392	845.148	.037%	99.011%
70.0	3.825	0.394	845.542	.037%	99.057%
71.0	3.804	0.394	845.936	.037%	99.103%
72.0	3.804	0.396	846.332	.037%	99.149%
73.0	3.797	0.397	846.729	.037%	99.196%
74.0	3.783	0.398	847.128	.037%	99.242%
75.0	3.783	0.400	847.528	.037%	99.289%

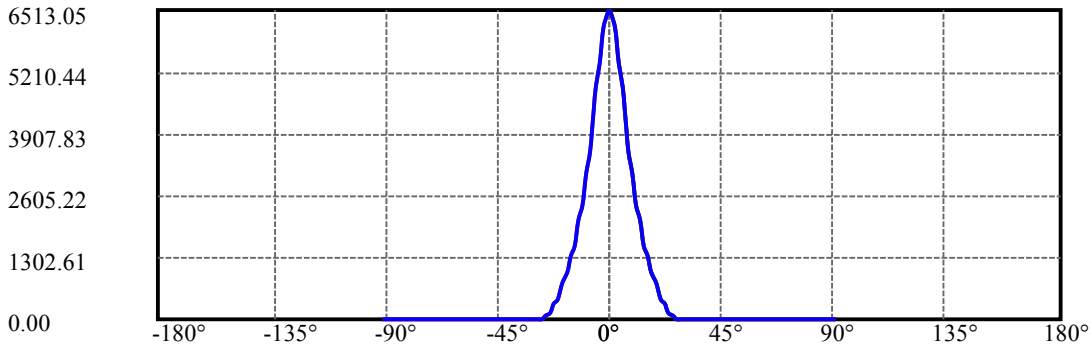
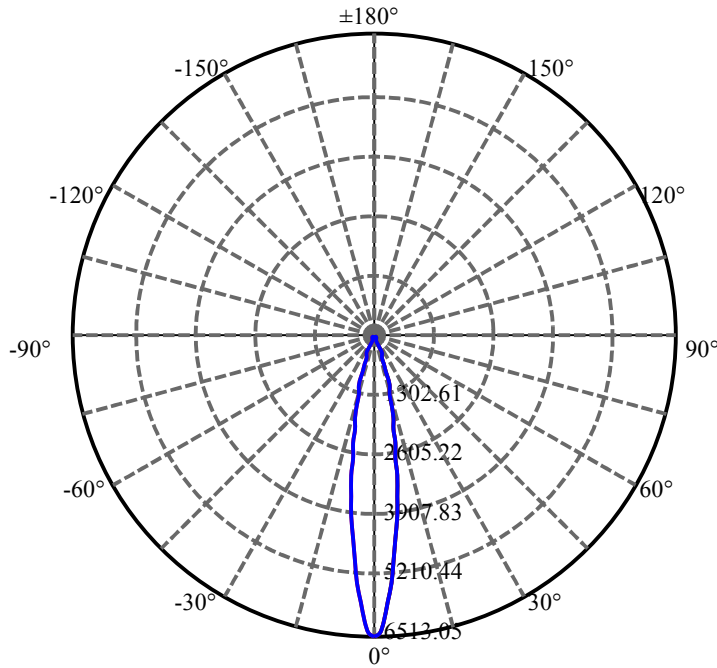
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.769	0.401	847.928	.037%	99.336%
77.0	3.755	0.401	848.33	.037%	99.383%
78.0	3.748	0.402	848.731	.038%	99.430%
79.0	3.741	0.402	849.134	.038%	99.477%
80.0	3.741	0.403	849.537	.038%	99.525%
81.0	3.755	0.405	849.942	.038%	99.572%
82.0	3.727	0.406	850.348	.038%	99.620%
83.0	3.741	0.406	850.754	.038%	99.667%
84.0	3.713	0.406	851.16	.038%	99.715%
85.0	3.734	0.406	851.566	.038%	99.762%
86.0	3.705	0.407	851.973	.038%	99.810%
87.0	3.698	0.405	852.378	.038%	99.858%
88.0	3.698	0.405	852.783	.038%	99.905%
89.0	3.698	0.405	853.189	.038%	99.952%
90.0	3.698	0.406	853.594	.038%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	829.97	77.51%	97.23%
0-40	834.22	77.91%	97.73%
0-60	841.66	78.61%	98.60%
0-90	853.19	79.68%	99.95%
0-120	853.19	79.68%	99.95%
0-180	853.59	79.72%	100.00%
60-90	11.91	1.11%	1.39%
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%
0-16.72	682.88	63.78%	80.00%

ZONAL LUMEN SUMMARY

0-10	394.48
10-20	374.57
20-30	60.91
30-40	4.26
40-50	3.69
50-60	3.75
60-70	3.88
70-80	3.99
80-90	3.65
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



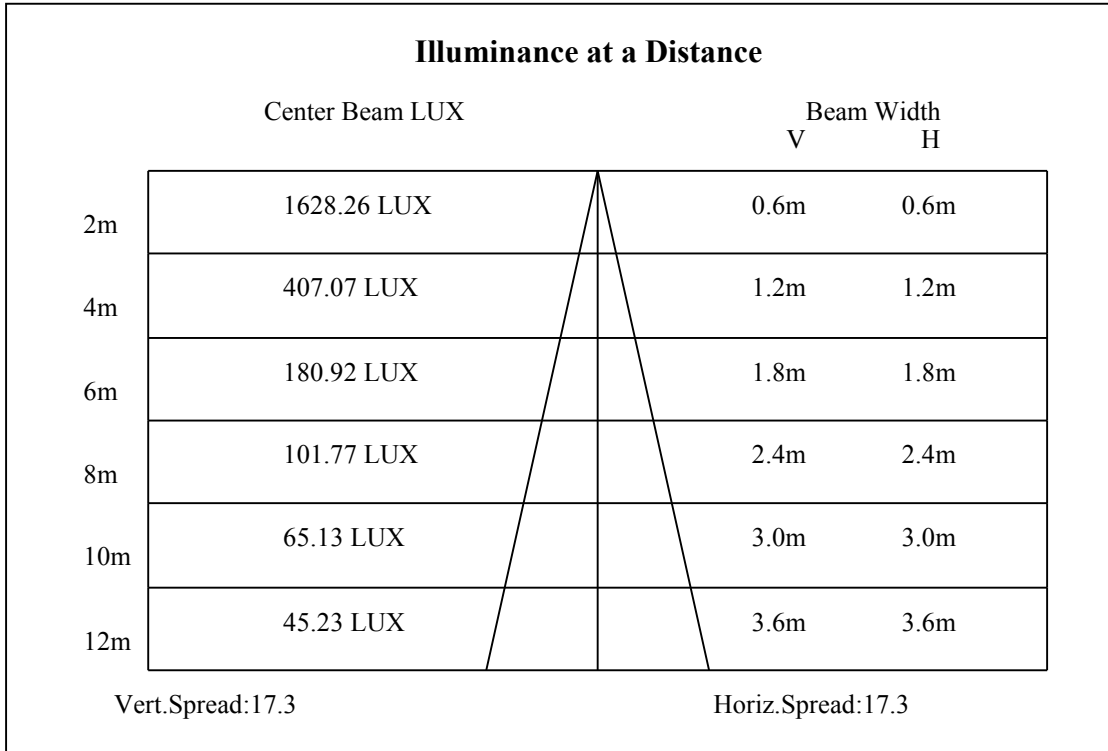
C0(Max): —————

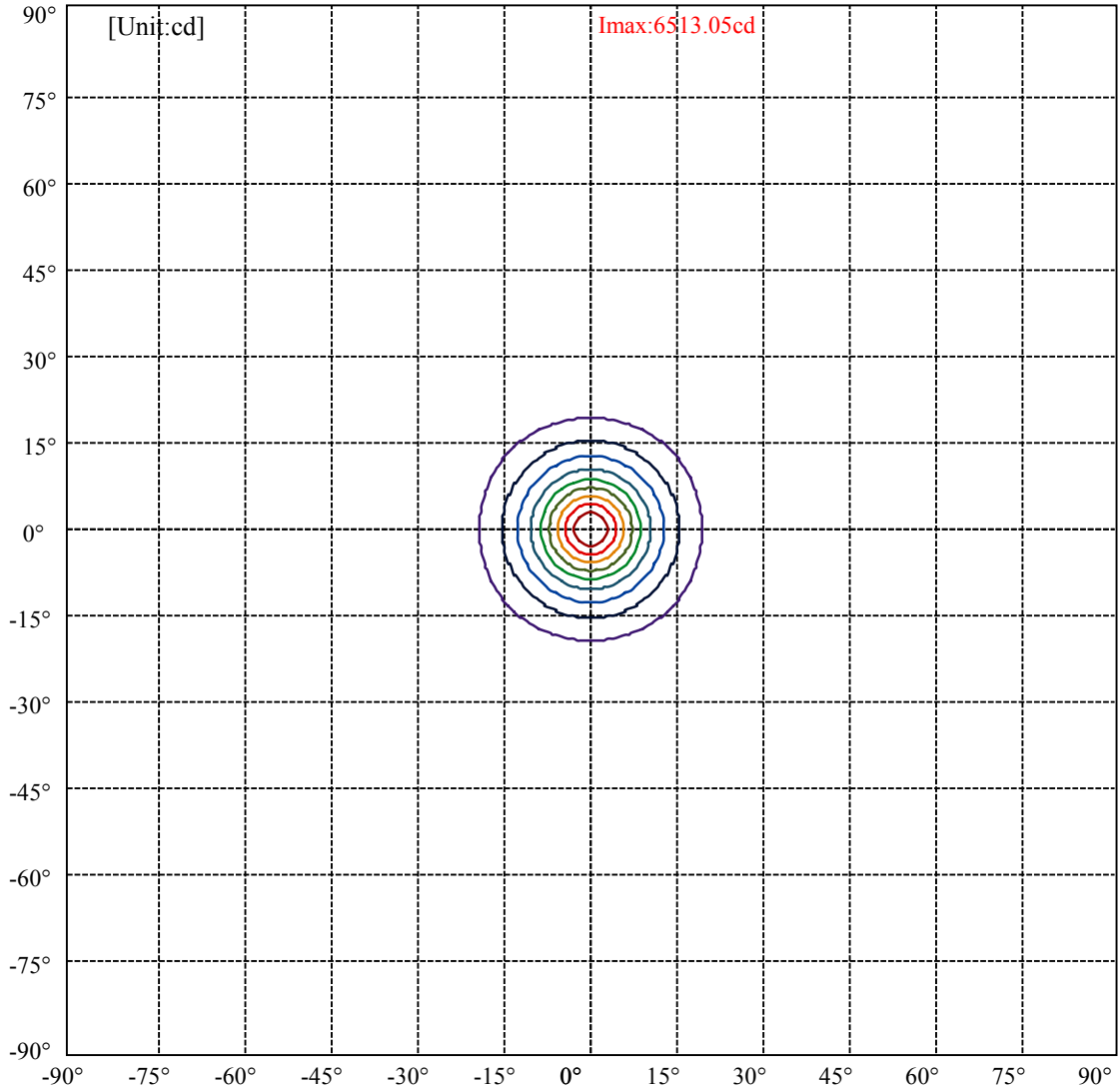
C0/C180: —————

C90/C270: —————

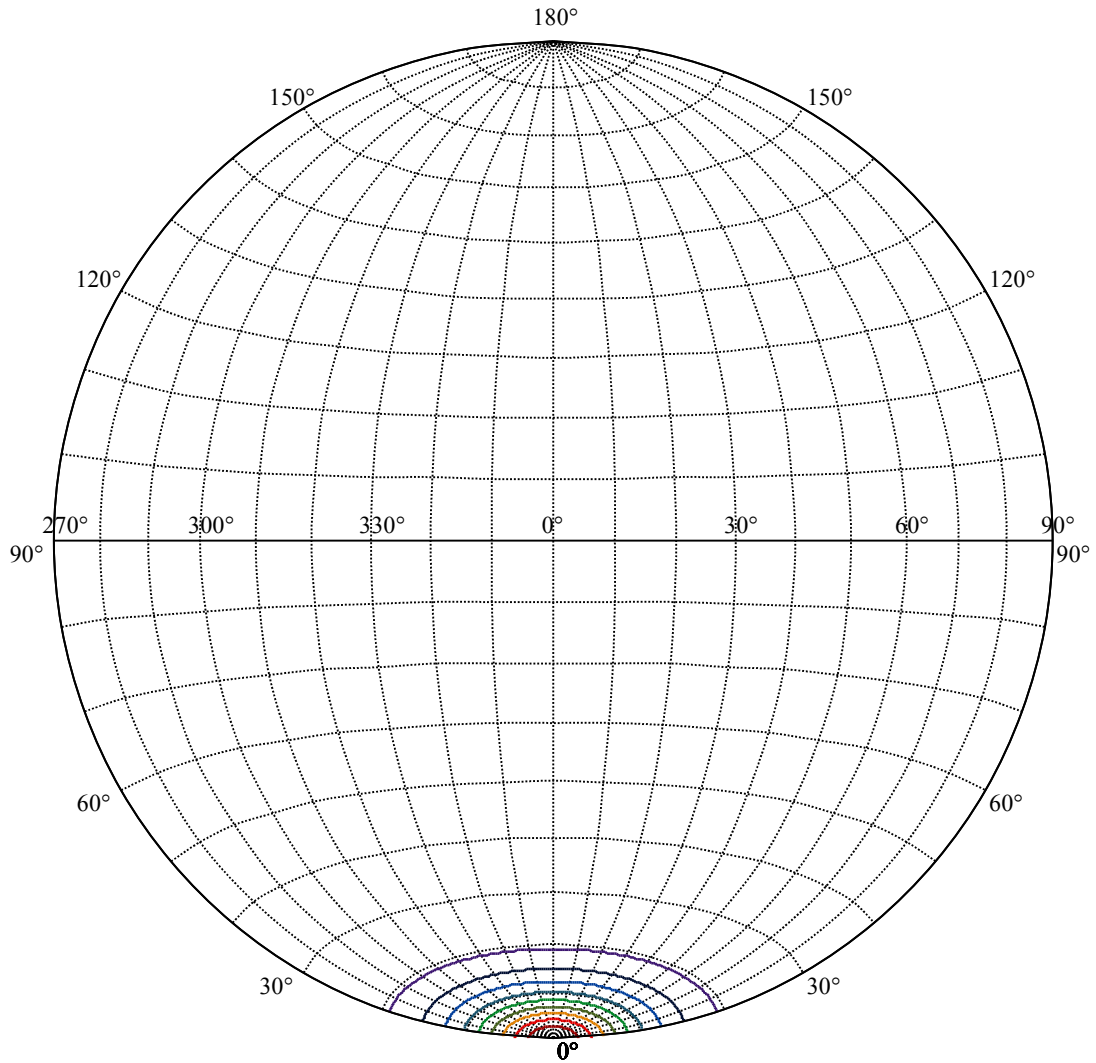
Field angle(10%Imax):C0/180Left:19.1 Right:19.1
:C90/270Left:19.1 Right:19.1

Beam Angle(50%Imax):C0/180Left:8.6 Right:8.6
:C90/270Left:8.6 Right:8.6





(10%I _{max}) 651.305	—
(20%I _{max}) 1302.61	—
(30%I _{max}) 1953.91	—
(40%I _{max}) 2605.22	—
(50%I _{max}) 3256.52	—
(60%I _{max}) 3907.83	—
(70%I _{max}) 4559.13	—
(80%I _{max}) 5210.44	—
(90%I _{max}) 5861.74	—



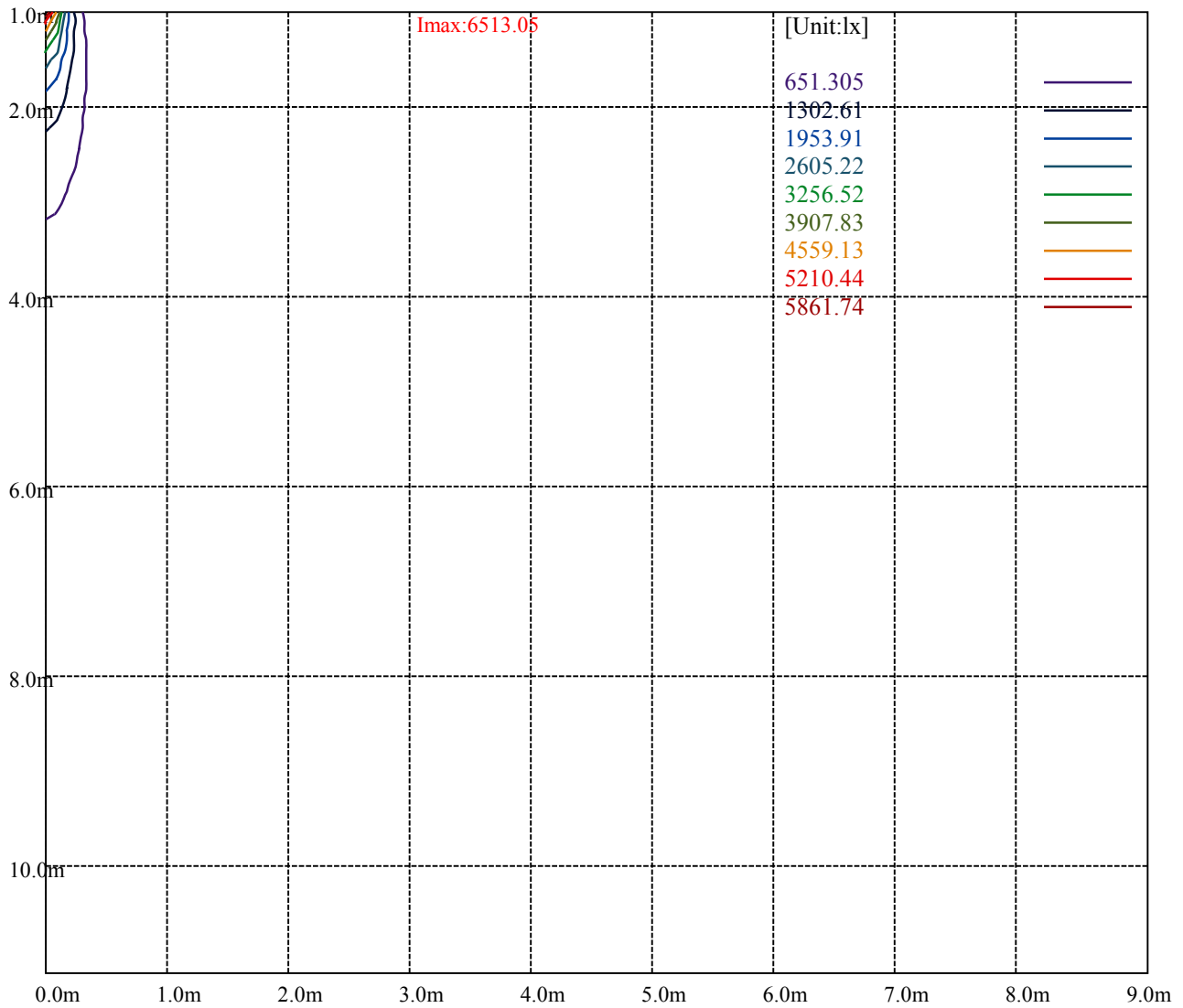
House

[Unit:cd]

Road

Imax:6513.05

(10%Imax) 651.305	—
(20%Imax) 1302.61	—
(30%Imax) 1953.91	—
(40%Imax) 2605.22	—
(50%Imax) 3256.52	—
(60%Imax) 3907.83	—
(70%Imax) 4559.13	—
(80%Imax) 5210.44	—
(90%Imax) 5861.74	—



Luminance Table

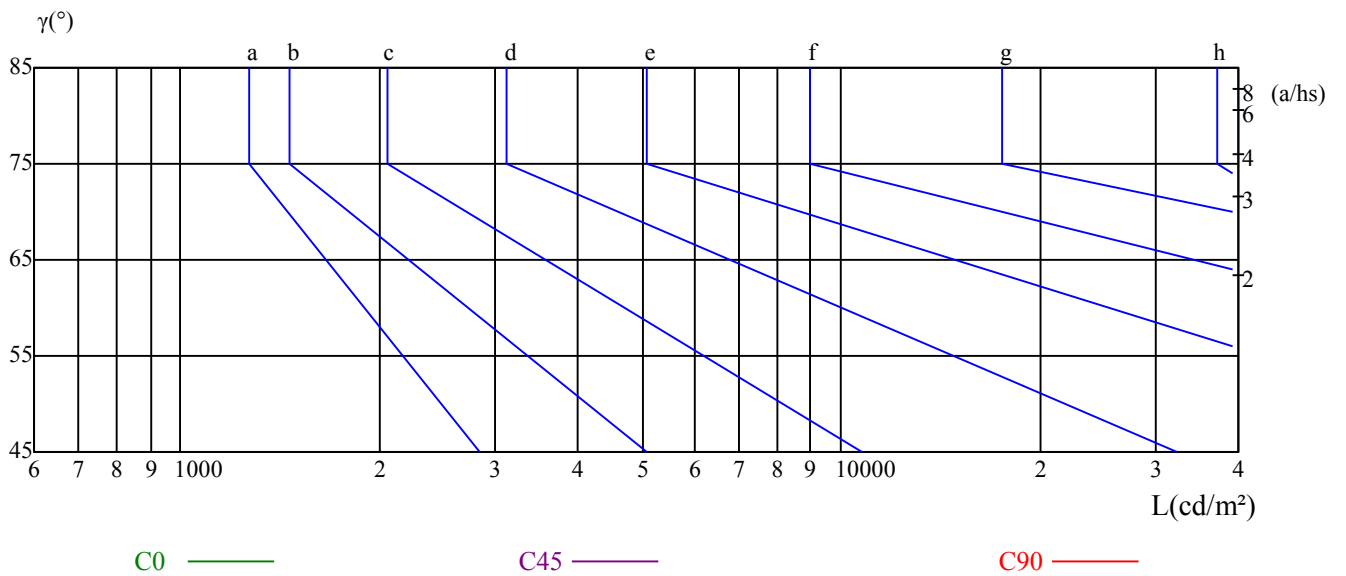
γ	45	50	55	60	65	70	75	80	85
C0	181	174	174	177	184	196	214	239	275
C45	195	190	191	198	208	226	252	287	343
C90	252	256	270	296	335	398	504	700	1192

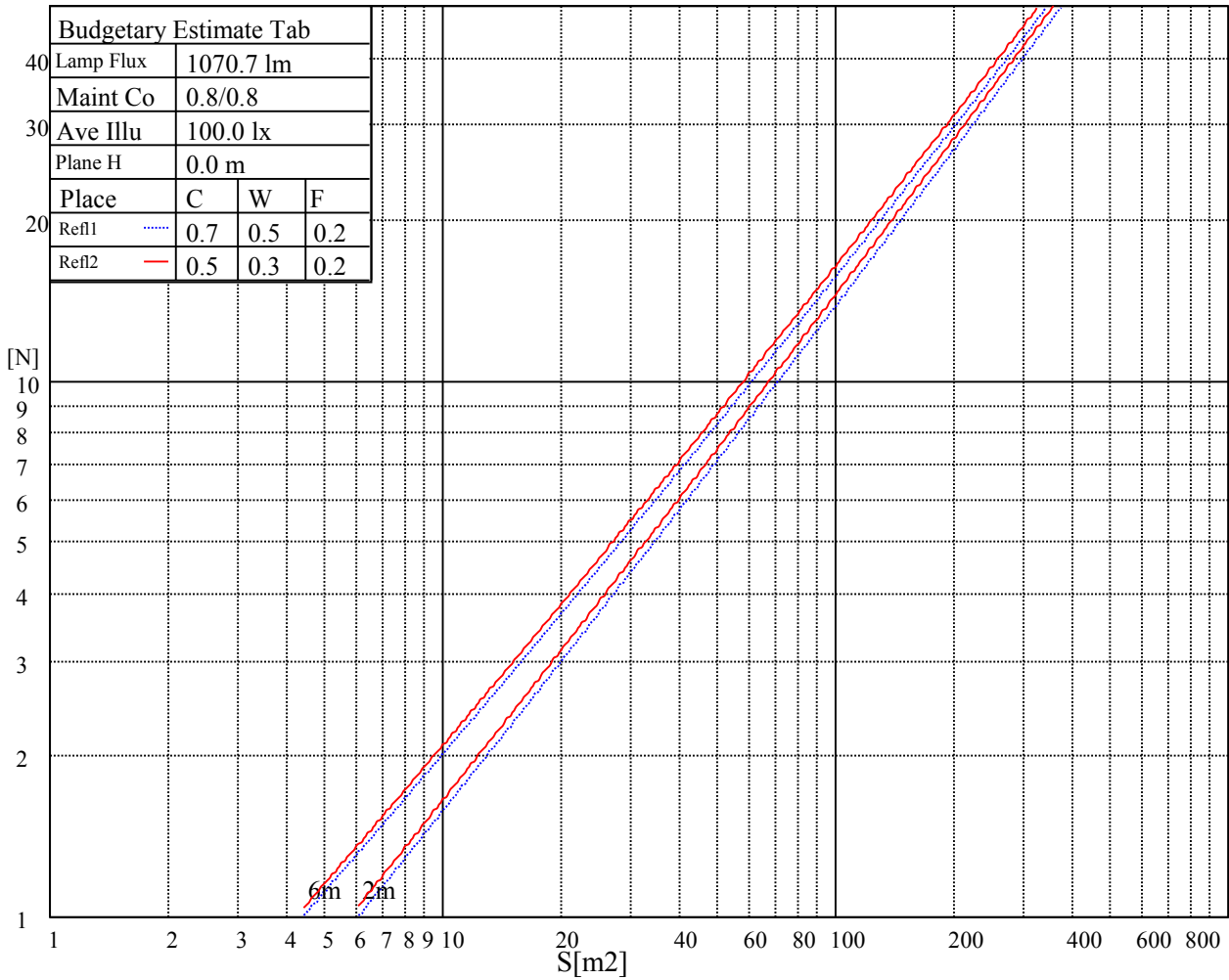
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
360	360	360	570	570	570	1670	1670	1670

Glare Table

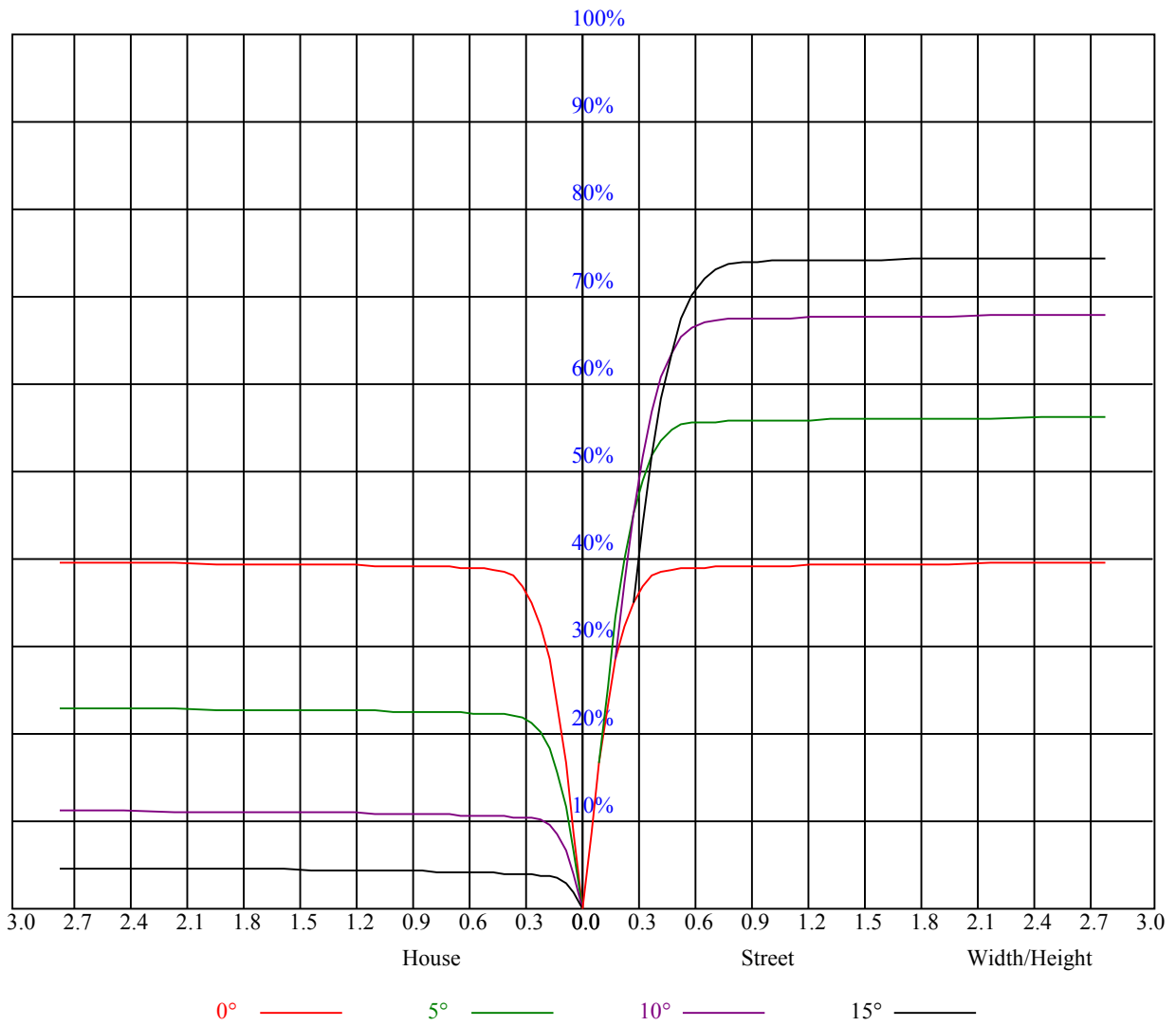
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.95	0.95	0.95	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.81	0.81	0.81	0.80
1	0.90	0.89	0.87	0.88	0.87	0.86	0.85	0.84	0.83	0.82	0.82	0.81	0.80	0.79	0.79	0.77
2	0.86	0.84	0.82	0.85	0.83	0.81	0.83	0.81	0.79	0.80	0.79	0.78	0.78	0.77	0.76	0.75
3	0.83	0.80	0.78	0.82	0.80	0.78	0.80	0.78	0.76	0.78	0.77	0.75	0.77	0.75	0.74	0.73
4	0.80	0.77	0.75	0.80	0.77	0.75	0.78	0.76	0.74	0.77	0.75	0.73	0.75	0.74	0.72	0.71
5	0.78	0.75	0.73	0.77	0.75	0.72	0.76	0.74	0.72	0.75	0.73	0.71	0.74	0.72	0.71	0.70
6	0.76	0.73	0.71	0.75	0.72	0.70	0.74	0.72	0.70	0.73	0.71	0.70	0.72	0.71	0.69	0.68
7	0.74	0.71	0.69	0.73	0.71	0.69	0.73	0.70	0.68	0.72	0.70	0.68	0.71	0.69	0.68	0.67
8	0.72	0.69	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.70	0.68	0.67	0.70	0.68	0.66	0.66
9	0.71	0.68	0.66	0.70	0.68	0.66	0.70	0.67	0.65	0.69	0.67	0.65	0.69	0.67	0.65	0.64
10	0.69	0.66	0.64	0.69	0.66	0.64	0.68	0.66	0.64	0.68	0.66	0.64	0.67	0.65	0.64	0.63



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	6537.94	6598.69	6465.94	6090.19	5716.13	5261.63	4761.00	4305.38	3859.88
45.0	6547.50	6325.31	5852.81	5392.13	5007.94	4417.88	3953.25	3576.94	3064.50
90.0	6380.44	6032.25	5567.63	5058.00	4640.63	4188.38	3683.81	3202.88	2833.88
135.0	6586.31	6323.06	5877.00	5521.50	4988.81	4529.25	4134.38	3575.81	3169.69
180.0	6537.94	6268.50	5933.25	5425.88	4954.50	4532.63	4074.19	3519.56	3114.00
225.0	6547.50	6621.75	6552.56	6231.94	5813.44	5360.63	4884.19	4407.75	3968.44
270.0	6380.44	6602.06	6616.13	6480.56	6064.88	5615.44	5162.06	4685.06	4245.19
315.0	6586.31	6615.56	6480.56	6095.81	5722.88	5267.25	4852.69	4296.94	3840.75
360.0	6537.94	6598.69	6465.94	6090.19	5716.13	5261.63	4761.00	4305.38	3859.88
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3328.88	2943.56	2597.63	2298.94	1965.94	1717.88	1472.06	1276.88	1067.63
45.0	2665.69	2398.50	2049.19	1801.13	1577.25	1328.63	1143.56	975.38	798.19
90.0	2450.25	2173.50	1923.75	1664.44	1455.75	1118.81	1033.59	882.90	751.67
135.0	2827.13	2444.06	2167.31	1916.44	1629.00	1419.19	1229.06	1015.88	864.00
180.0	2770.88	2403.56	2133.00	1889.44	1636.88	1408.50	1110.15	1028.19	855.00
225.0	3479.06	3035.81	2661.75	2369.25	2089.69	1811.25	1560.38	1361.25	1101.88
270.0	3741.75	3269.81	2897.44	2562.75	2196.56	1930.50	1692.00	1424.81	1234.69
315.0	3363.19	2916.56	2563.31	2255.63	1955.81	1685.81	1443.38	1117.86	1072.01
360.0	3328.88	2943.56	2597.63	2298.94	1965.94	1717.88	1472.06	1276.88	1067.63
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	887.06	756.56	606.94	498.38	361.69	284.63	163.58	94.73	42.24
45.0	655.88	545.63	388.69	293.06	232.82	114.30	49.84	25.93	14.06
90.0	585.62	461.93	350.55	245.42	141.13	86.01	39.32	17.89	12.38
135.0	720.00	583.31	434.25	330.75	285.75	136.01	67.95	31.11	17.04
180.0	715.44	571.33	445.95	329.23	216.28	135.68	75.54	31.56	16.99
225.0	957.77	816.08	680.23	528.69	400.61	303.64	187.09	115.59	55.18
270.0	1051.31	880.31	730.69	591.75	462.94	349.88	284.06	138.26	83.76
315.0	890.72	743.01	605.59	480.49	353.53	258.41	156.71	87.81	40.50
360.0	887.06	756.56	606.94	498.38	361.69	284.63	163.58	94.73	42.24
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	21.99	13.84	11.87	10.74	9.56	8.83	8.16	7.54	7.09
45.0	11.19	9.96	9.00	8.33	7.65	7.14	6.69	6.47	6.08
90.0	10.35	9.17	8.38	7.76	7.20	6.69	6.36	6.08	5.79
135.0	11.76	10.01	9.11	8.38	7.59	7.09	6.69	6.30	6.02
180.0	12.09	10.18	9.28	8.49	7.76	7.26	6.81	6.41	6.13
225.0	26.66	15.92	12.38	10.86	9.90	8.94	8.16	7.59	7.09
270.0	36.00	20.08	13.84	11.81	10.46	9.45	8.66	8.04	7.37
315.0	21.99	14.01	12.04	10.69	9.62	8.78	8.10	7.48	7.03
360.0	21.99	13.84	11.87	10.74	9.56	8.83	8.16	7.54	7.09
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	6.69	6.30	5.96	5.79	5.57	5.34	5.23	5.12	4.95
45.0	5.85	5.63	5.46	5.23	5.18	5.01	4.95	4.84	4.73
90.0	5.63	5.40	5.23	5.06	4.95	4.89	4.78	4.67	4.61
135.0	5.79	5.51	5.34	5.23	5.06	4.95	4.89	4.78	4.73
180.0	5.85	5.63	5.46	5.29	5.12	5.01	4.89	4.78	4.73
225.0	6.58	6.24	5.96	5.68	5.46	5.29	5.12	4.95	4.84
270.0	6.92	6.58	6.13	5.91	5.68	5.46	5.29	5.18	5.01
315.0	6.58	6.24	5.96	5.68	5.46	5.34	5.18	5.01	4.95
360.0	6.69	6.30	5.96	5.79	5.57	5.34	5.23	5.12	4.95

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	4.89	4.78	4.73	4.61	4.56	4.50	4.44	4.39	4.33
45.0	4.67	4.61	4.50	4.44	4.39	4.39	4.33	4.28	4.22
90.0	4.56	4.44	4.44	4.39	4.33	4.28	4.22	4.22	4.16
135.0	4.61	4.56	4.50	4.44	4.39	4.33	4.28	4.28	4.22
180.0	4.67	4.56	4.50	4.44	4.39	4.33	4.28	4.22	4.22
225.0	4.78	4.67	4.61	4.56	4.50	4.39	4.33	4.28	4.28
270.0	4.89	4.84	4.73	4.67	4.56	4.50	4.44	4.44	4.39
315.0	4.84	4.73	4.67	4.61	4.50	4.44	4.44	4.33	4.33
360.0	4.89	4.78	4.73	4.61	4.56	4.50	4.44	4.39	4.33
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.28	4.22	4.22	4.16	4.16	4.11	4.05	4.05	3.99
45.0	4.16	4.11	4.11	4.11	4.05	3.99	3.99	3.94	3.94
90.0	4.11	4.11	4.05	4.05	3.99	3.99	3.99	3.94	3.88
135.0	4.16	4.16	4.11	4.11	4.05	4.05	3.99	3.99	3.94
180.0	4.16	4.16	4.11	4.05	3.99	3.99	3.99	3.99	3.94
225.0	4.22	4.16	4.16	4.11	4.05	3.99	3.99	3.99	3.94
270.0	4.33	4.28	4.22	4.16	4.16	4.11	4.11	4.05	3.99
315.0	4.28	4.22	4.22	4.16	4.11	4.05	4.05	4.05	3.99
360.0	4.28	4.22	4.22	4.16	4.16	4.11	4.05	4.05	3.99
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.99	3.94	3.94	3.94	3.88	3.88	3.88	3.83	3.83
45.0	3.88	3.88	3.88	3.88	3.88	3.83	3.83	3.77	3.77
90.0	3.88	3.88	3.88	3.88	3.83	3.83	3.83	3.83	3.83
135.0	3.94	3.88	3.88	3.88	3.83	3.88	3.83	3.83	3.83
180.0	3.94	3.88	3.88	3.88	3.88	3.83	3.83	3.83	3.77
225.0	3.94	3.88	3.88	3.88	3.83	3.83	3.83	3.83	3.77
270.0	3.99	3.94	3.94	3.94	3.94	3.88	3.88	3.88	3.83
315.0	3.94	3.94	3.94	3.94	3.88	3.88	3.83	3.83	3.83
360.0	3.99	3.94	3.94	3.94	3.88	3.88	3.88	3.83	3.83
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.83	3.83	3.77	3.83	3.83	3.77	3.77	3.77	3.77
45.0	3.77	3.77	3.77	3.77	3.77	3.71	3.71	3.71	3.71
90.0	3.77	3.77	3.77	3.77	3.77	3.77	3.71	3.71	3.71
135.0	3.83	3.83	3.77	3.77	3.77	3.77	3.77	3.71	3.77
180.0	3.83	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.71
225.0	3.77	3.77	3.77	3.77	3.71	3.71	3.71	3.71	3.71
270.0	3.83	3.83	3.83	3.83	3.77	3.77	3.77	3.77	3.77
315.0	3.83	3.83	3.83	3.77	3.77	3.77	3.77	3.77	3.77
360.0	3.83	3.83	3.77	3.83	3.83	3.77	3.77	3.77	3.77
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.77	3.77	3.77	3.71	3.71	3.71	3.71	3.71	3.71
45.0	3.71	3.71	3.71	3.71	3.71	3.66	3.66	3.66	3.66
90.0	3.77	3.71	3.71	3.71	3.71	3.71	3.71	3.71	3.71
135.0	3.77	3.71	3.71	3.71	3.77	3.71	3.71	3.71	3.71
180.0	3.77	3.71	3.77	3.71	3.77	3.71	3.71	3.71	3.71
225.0	3.71	3.71	3.71	3.66	3.66	3.71	3.66	3.66	3.66
270.0	3.77	3.77	3.77	3.77	3.77	3.71	3.71	3.71	3.71
315.0	3.77	3.71	3.77	3.71	3.77	3.71	3.71	3.71	3.71
360.0	3.77	3.77	3.77	3.71	3.71	3.71	3.71	3.71	3.71

Intensity data(cd)

C/γ(°)	90.0
0.0	3.71
45.0	3.66
90.0	3.71
135.0	3.71
180.0	3.71
225.0	3.66
270.0	3.71
315.0	3.71
360.0	3.71