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Nata

LumCAT: 2-1122-A4
Luminaire: TE 2213407-1+92.76.365.00
Report No: NT2017051508
Test No: GC2017051508
LampCAT: CXA2530
Lamp flux(lm): 1717.0
Number of Lamps: 1
Length(mm): 70
Phm Type: C

Voltage(V): 35.1000
Current(A): 0.5100
Power (W): 17.9010
PF: 0.0000
Ballast type: DC
Width(mm): 70
Height(mm): 0

Photometric Results

Lumens(lm): 1585.39
Efficiency(%): 92.33%
Lumens(lm)/Power(W): 88.56
Central intensity(cd): 3139.866
Maximum intensity(cd): 3139.866
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=38.7
 [C90/270]Total=38.7
Field angle(10%Imax): [C0/180]Total=72.8
 [C90/270]Total=72.8
Maximum s/h(1/2): C0_180=0.63 C90_270=0.63
Maximum s/h(1/4): C0_180=0.62 C90_270=0.62
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.33%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.500%

Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/5/13
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3139.866	0.000	0	.000%	.000%
1.0	3134.911	3.002	3.002	.175%	.189%
2.0	3113.164	8.968	11.97	.522%	.755%
3.0	3085.223	14.825	26.795	.863%	1.690%
4.0	3052.052	20.543	47.338	1.196%	2.986%
5.0	3002.088	26.045	73.383	1.517%	4.629%
6.0	2957.079	31.317	104.7	1.824%	6.604%
7.0	2898.444	36.345	141.045	2.117%	8.897%
8.0	2825.082	40.962	182.007	2.386%	11.480%
9.0	2752.132	45.200	227.207	2.633%	14.331%
10.0	2668.171	49.052	276.259	2.857%	17.425%
11.0	2567.142	52.312	328.571	3.047%	20.725%
12.0	2476.162	55.131	383.701	3.211%	24.202%
13.0	2369.765	57.509	441.21	3.349%	27.830%
14.0	2244.237	59.059	500.269	3.440%	31.555%
15.0	2131.233	60.068	560.337	3.498%	35.344%
16.0	2006.668	60.632	620.969	3.531%	39.168%
17.0	1871.505	60.394	681.363	3.517%	42.978%
18.0	1741.984	59.579	740.941	3.470%	46.736%
19.0	1618.521	58.466	799.407	3.405%	50.423%
20.0	1469.455	56.519	855.926	3.292%	53.988%
21.0	1318.147	53.528	909.453	3.118%	57.365%
22.0	1223.477	51.075	960.528	2.975%	60.586%
23.0	1100.454	48.762	1009.291	2.840%	63.662%
24.0	1000.444	45.933	1055.224	2.675%	66.559%
25.0	912.890	43.505	1098.729	2.534%	69.303%
26.0	838.137	41.333	1140.062	2.407%	71.911%
27.0	775.648	39.482	1179.544	2.299%	74.401%
28.0	728.905	38.092	1217.636	2.219%	76.804%
29.0	683.167	36.944	1254.58	2.152%	79.134%
30.0	645.715	35.880	1290.459	2.090%	81.397%
31.0	602.565	34.738	1325.197	2.023%	83.588%
32.0	548.252	32.970	1358.167	1.920%	85.668%
33.0	498.825	30.847	1389.014	1.797%	87.613%
34.0	446.053	28.595	1417.609	1.665%	89.417%
35.0	389.854	25.960	1443.569	1.512%	91.055%
36.0	334.302	23.057	1466.626	1.343%	92.509%
37.0	285.440	20.213	1486.839	1.177%	93.784%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	236.178	17.411	1504.25	1.014%	94.882%
39.0	183.930	14.339	1518.589	.835%	95.786%
40.0	135.824	11.152	1529.741	.649%	96.490%
41.0	95.151	8.225	1537.966	.479%	97.009%
42.0	59.365	5.614	1543.58	.327%	97.363%
43.0	34.809	3.488	1547.068	.203%	97.583%
44.0	21.775	2.136	1549.204	.124%	97.718%
45.0	16.682	1.478	1550.682	.086%	97.811%
46.0	14.287	1.211	1551.893	.071%	97.887%
47.0	11.562	1.028	1552.921	.060%	97.952%
48.0	9.539	0.853	1553.774	.050%	98.006%
49.0	8.066	0.723	1554.497	.042%	98.051%
50.0	7.667	0.656	1555.153	.038%	98.093%
51.0	7.543	0.643	1555.796	.037%	98.133%
52.0	7.446	0.643	1556.439	.037%	98.174%
53.0	7.336	0.643	1557.082	.037%	98.215%
54.0	7.254	0.643	1557.726	.037%	98.255%
55.0	7.185	0.645	1558.37	.038%	98.296%
56.0	7.116	0.646	1559.016	.038%	98.336%
57.0	7.033	0.647	1559.663	.038%	98.377%
58.0	6.978	0.648	1560.311	.038%	98.418%
59.0	6.910	0.649	1560.96	.038%	98.459%
60.0	6.868	0.651	1561.611	.038%	98.500%
61.0	6.827	0.654	1562.265	.038%	98.541%
62.0	6.799	0.657	1562.922	.038%	98.583%
63.0	6.744	0.659	1563.58	.038%	98.624%
64.0	6.772	0.663	1564.243	.039%	98.666%
65.0	6.882	0.676	1564.919	.039%	98.709%
66.0	7.102	0.698	1565.617	.041%	98.753%
67.0	7.336	0.726	1566.343	.042%	98.799%
68.0	7.488	0.751	1567.094	.044%	98.846%
69.0	7.694	0.775	1567.868	.045%	98.895%
70.0	7.887	0.800	1568.669	.047%	98.945%
71.0	8.107	0.827	1569.495	.048%	98.997%
72.0	8.369	0.857	1570.352	.050%	99.051%
73.0	8.548	0.885	1571.236	.052%	99.107%
74.0	8.685	0.906	1572.142	.053%	99.164%
75.0	8.809	0.924	1573.067	.054%	99.223%

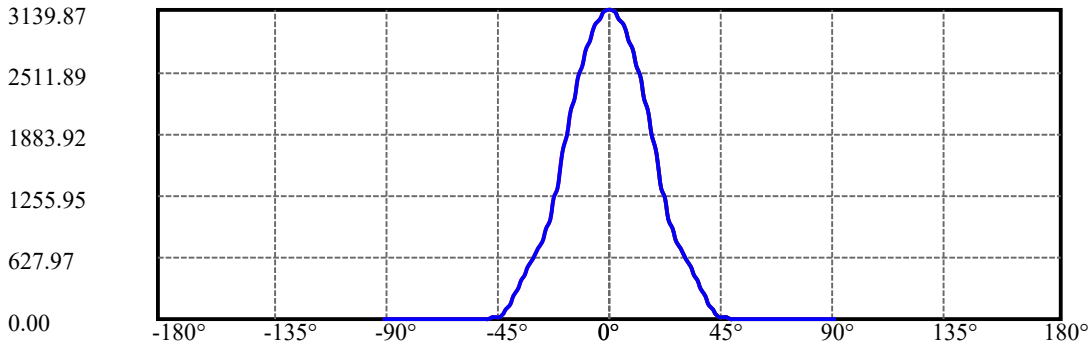
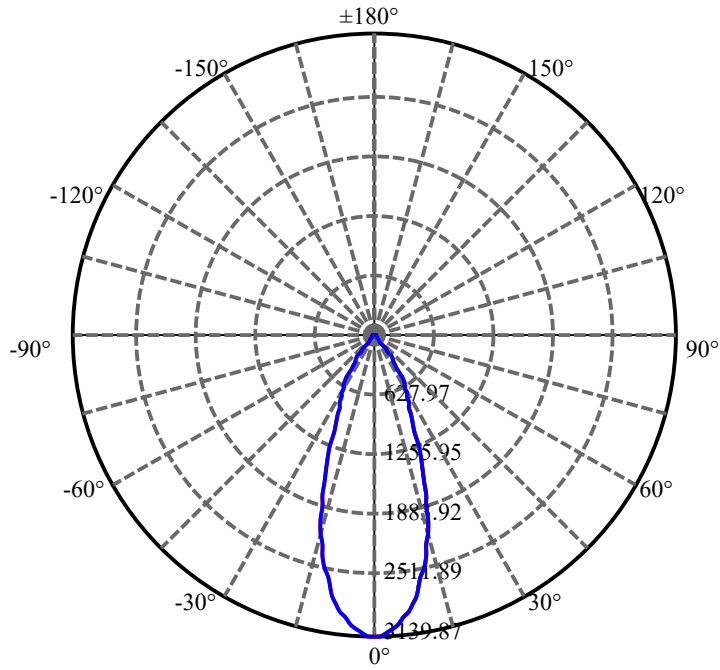
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.837	0.937	1574.003	.055%	99.282%
77.0	8.864	0.944	1574.947	.055%	99.341%
78.0	8.768	0.944	1575.891	.055%	99.401%
79.0	8.685	0.938	1576.829	.055%	99.460%
80.0	8.561	0.930	1577.759	.054%	99.519%
81.0	8.314	0.913	1578.671	.053%	99.576%
82.0	7.956	0.882	1579.553	.051%	99.632%
83.0	7.460	0.838	1580.391	.049%	99.685%
84.0	7.075	0.792	1581.183	.046%	99.735%
85.0	6.786	0.756	1581.94	.044%	99.782%
86.0	6.414	0.722	1582.661	.042%	99.828%
87.0	6.331	0.698	1583.359	.041%	99.872%
88.0	6.194	0.686	1584.045	.040%	99.915%
89.0	6.111	0.674	1584.719	.039%	99.958%
90.0	6.111	0.670	1585.389	.039%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1290.46	75.16%	81.40%
0-40	1529.74	89.09%	96.49%
0-60	1561.61	90.95%	98.50%
0-90	1584.72	92.30%	99.96%
0-120	1584.72	92.30%	99.96%
0-180	1585.39	92.33%	100.00%
60-90	23.76	1.38%	1.50%
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%
0-29.38	1268.31	73.87%	80.00%

ZONAL LUMEN SUMMARY

0-10	276.26
10-20	579.67
20-30	434.53
30-40	239.28
40-50	25.41
50-60	6.46
60-70	7.06
70-80	9.09
80-90	6.96
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



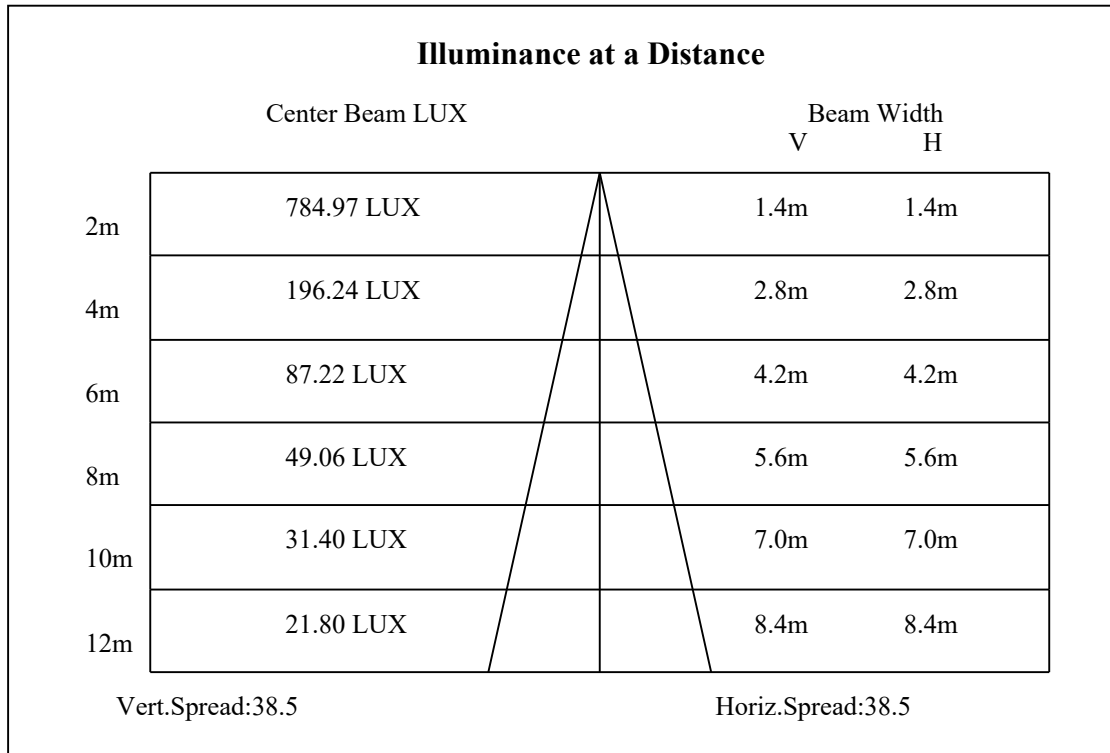
C0(Max): —————

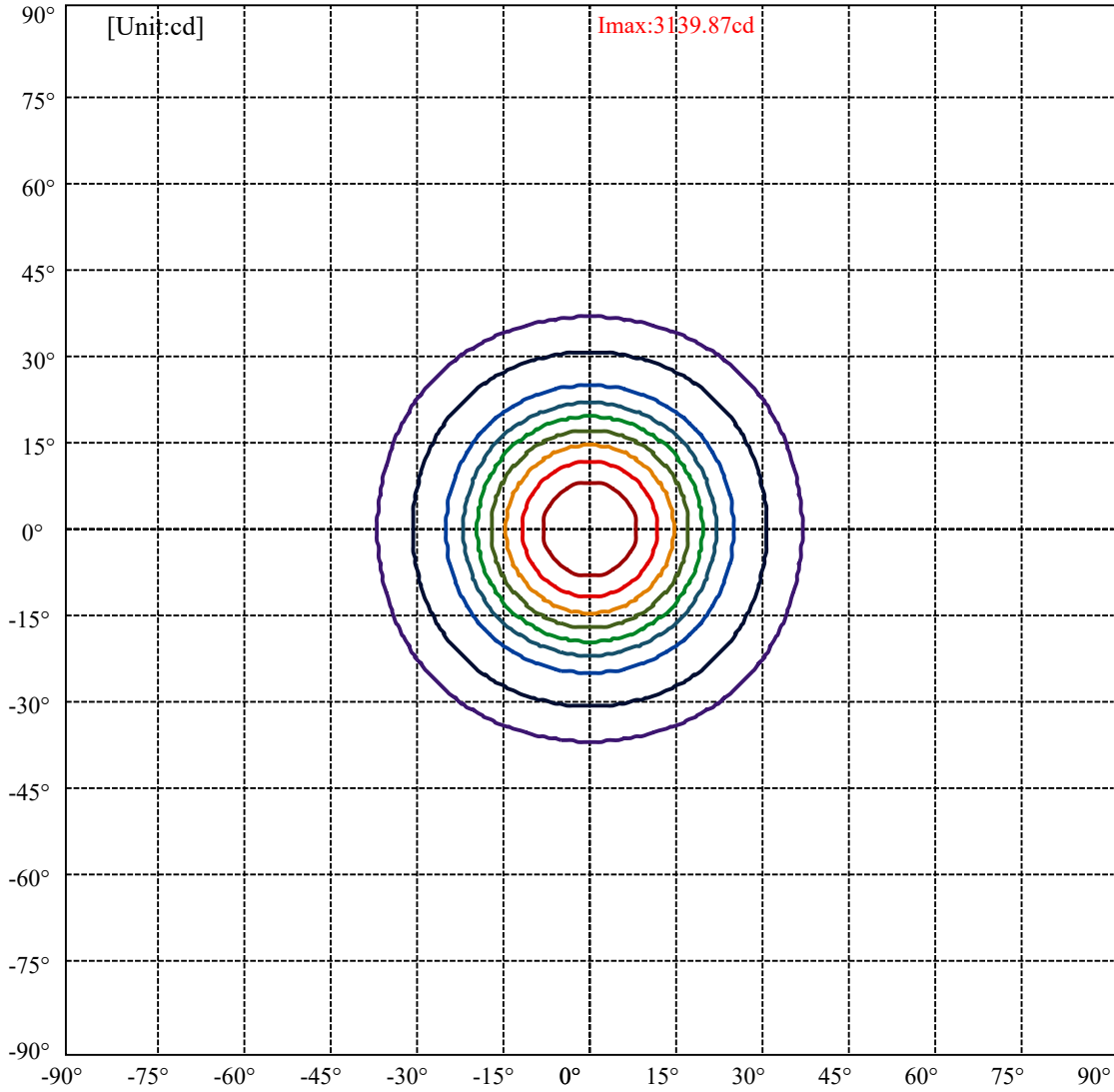
C0/C180: —————

C90/C270: —————

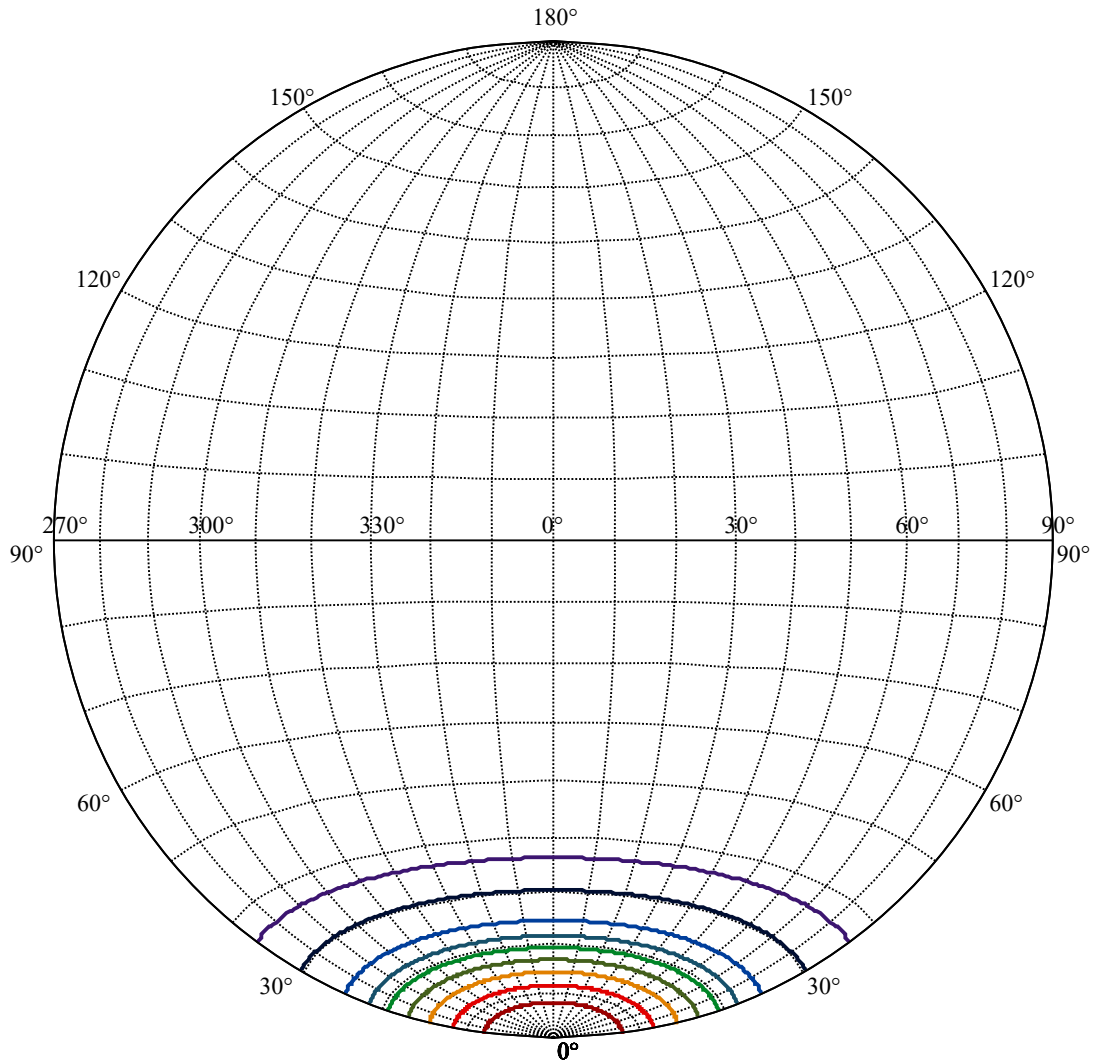
Field angle(10%Imax):C0/180Left:36.4 Right:36.4
:C90/270Left:36.4 Right:36.4

Beam Angle(50%Imax):C0/180Left:19.3 Right:19.3
:C90/270Left:19.3 Right:19.3





(10%Imax) 313.987	—
(20%Imax) 627.973	—
(30%Imax) 941.96	—
(40%Imax) 1255.95	—
(50%Imax) 1569.93	—
(60%Imax) 1883.92	—
(70%Imax) 2197.91	—
(80%Imax) 2511.89	—
(90%Imax) 2825.88	—



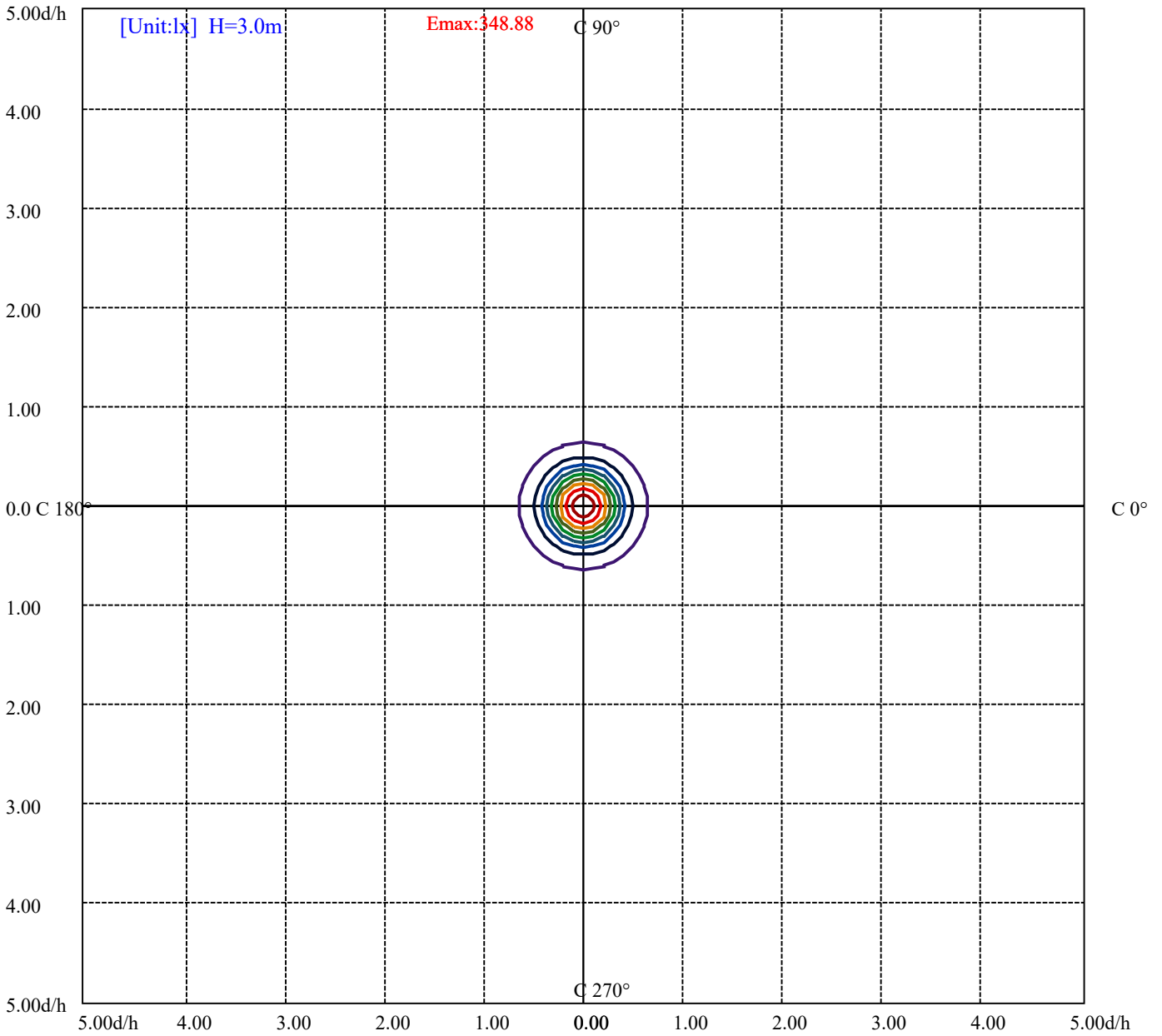
House

[Unit:cd]

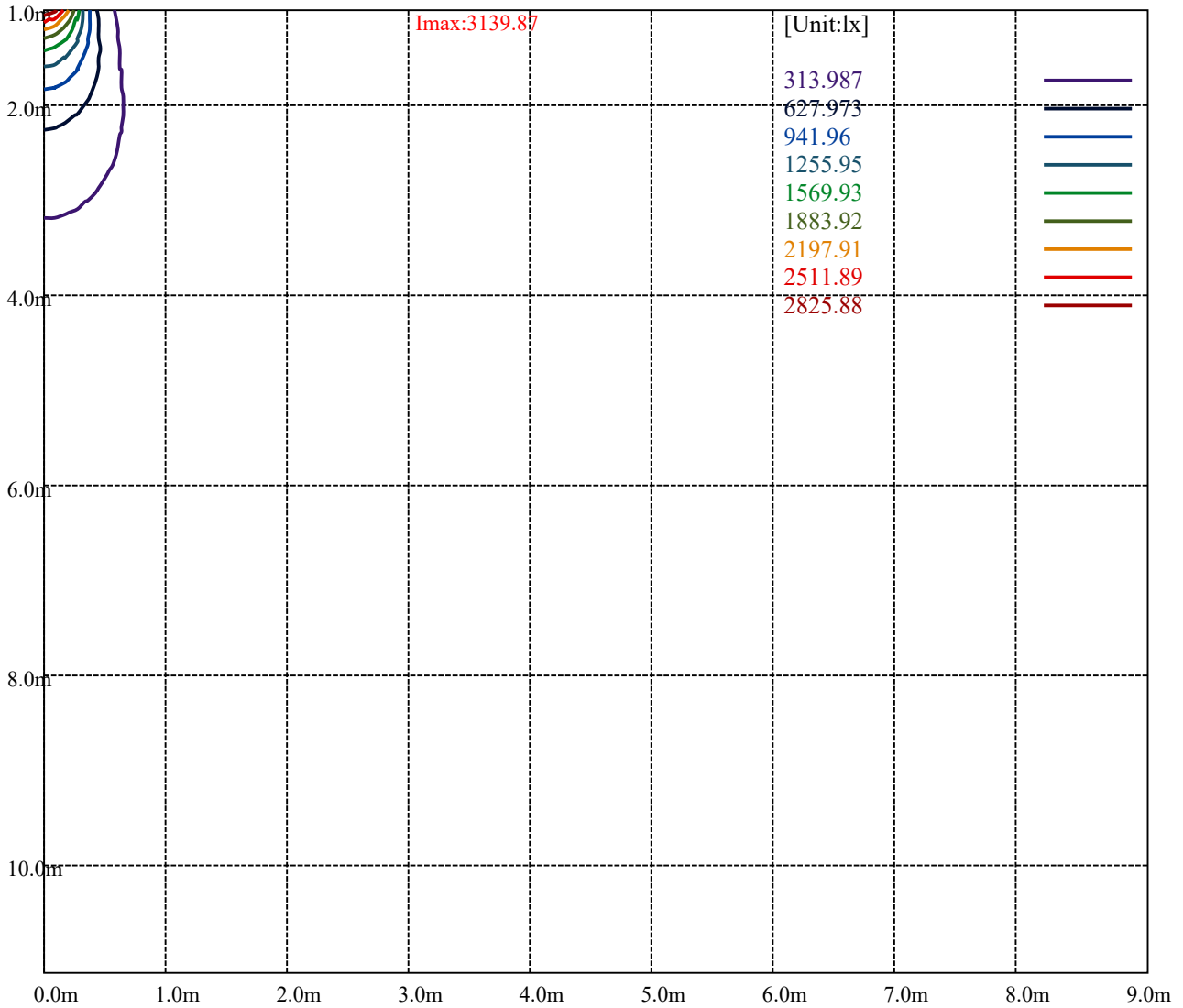
Road

Imax:3139.87

(10%Imax) 313.987	—
(20%Imax) 627.973	—
(30%Imax) 941.96	—
(40%Imax) 1255.95	—
(50%Imax) 1569.93	—
(60%Imax) 1883.92	—
(70%Imax) 2197.91	—
(80%Imax) 2511.89	—
(90%Imax) 2825.88	—



- (10%Emax) 34.88744
- (20%Emax) 69.77478
- (30%Emax) 104.6622
- (40%Emax) 139.55
- (50%Emax) 174.4367
- (60%Emax) 209.3244
- (70%Emax) 244.2122
- (80%Emax) 279.0989
- (90%Emax) 313.9867



Luminance Table

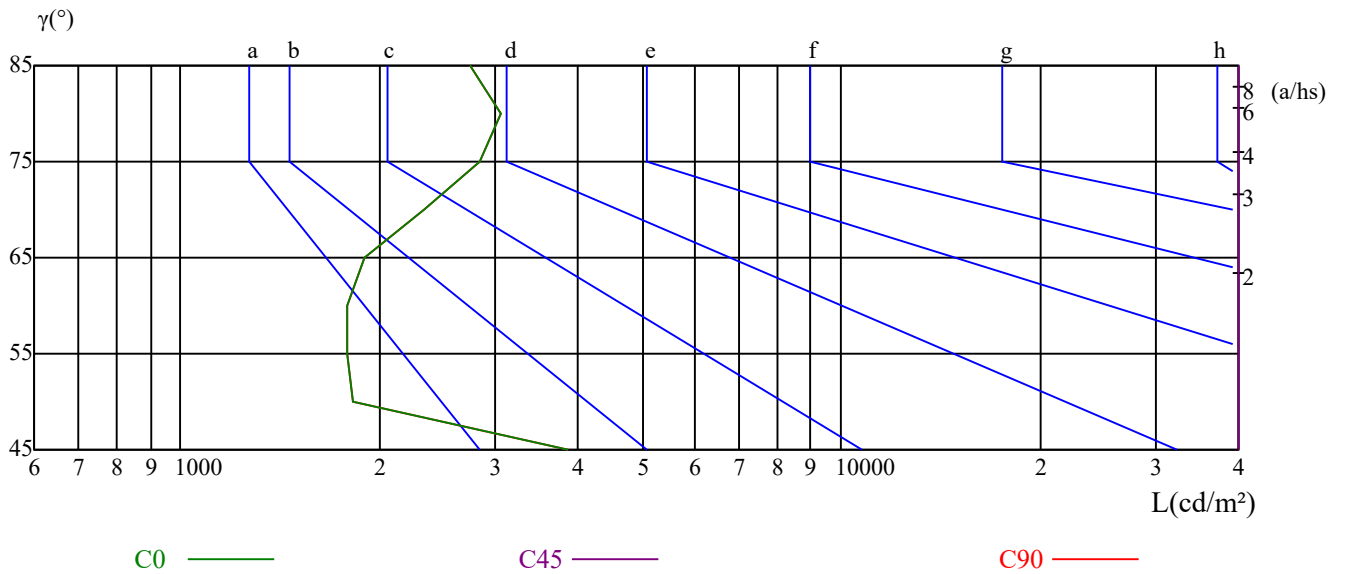
γ	45	50	55	60	65	70	75	80	85
C0	3861	1829	1782	1789	1902	2340	2845	3059	2736
C45	68124	54512	52190	51858	52664	54512	56976	60880	66835
C90	3861	1829	1782	1789	1902	2340	2845	3059	2736

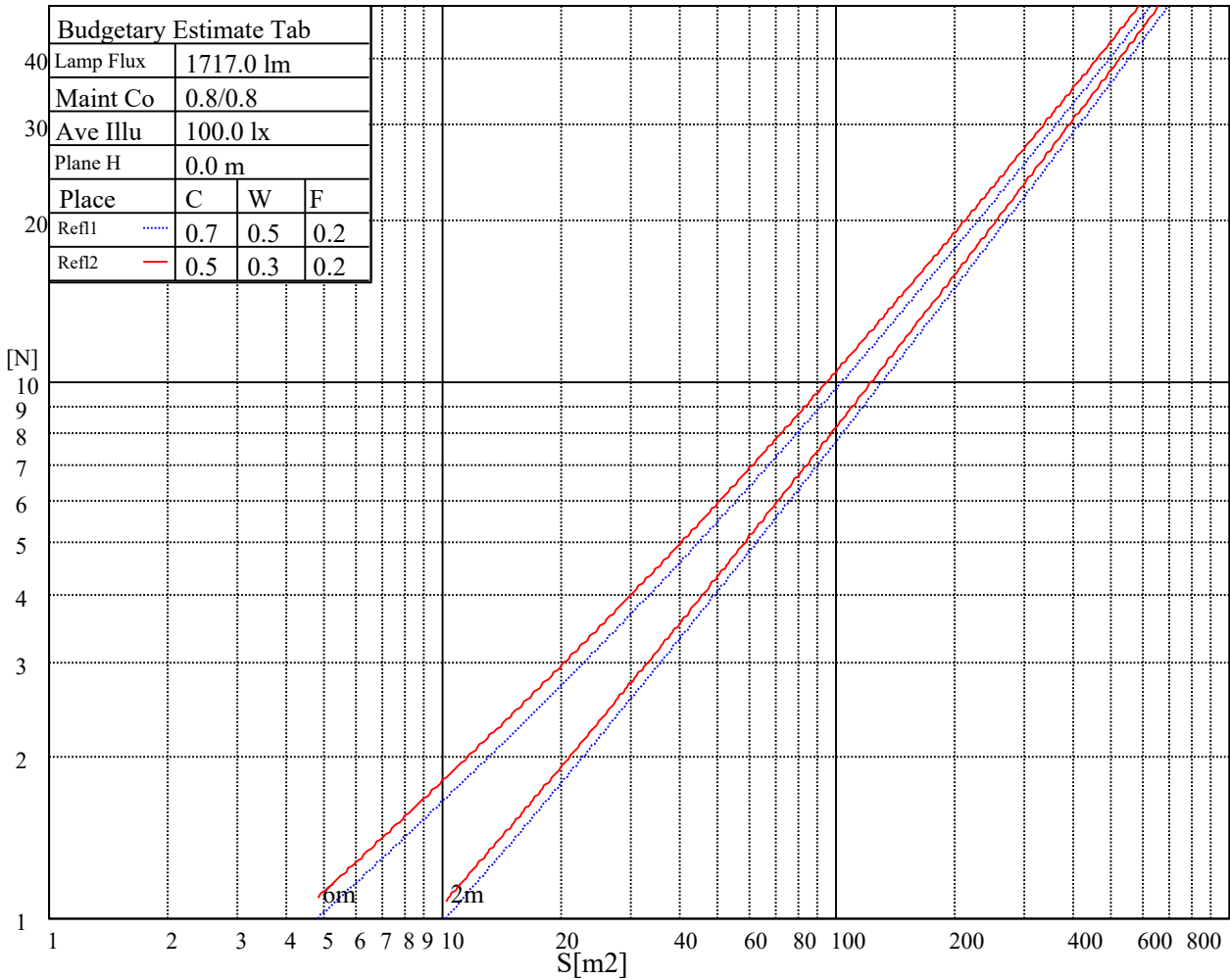
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4103	4103	138862	8575	8575	219267	19616	19616	649885

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	1.07	1.07	1.07	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.03	1.00	0.99	1.01	0.99	0.97	0.97	0.95	0.94	0.94	0.92	0.91	0.90	0.89	0.89	0.87
2	0.96	0.93	0.90	0.95	0.92	0.89	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.83	0.82
3	0.91	0.87	0.83	0.90	0.86	0.83	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.77
4	0.86	0.81	0.78	0.85	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.77	0.75	0.73
5	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.69
6	0.77	0.72	0.69	0.76	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
7	0.73	0.68	0.65	0.73	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.63
8	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.60
9	0.67	0.62	0.59	0.66	0.62	0.59	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.57
10	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.62	0.58	0.55	0.54

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	3146.47	3138.21	3110.69	3079.30	3044.07	2990.66	2943.87	2891.01	2821.64
90.0	3133.26	3145.92	3138.77	3122.25	3095.82	3051.78	3011.03	2963.69	2903.67
180.0	3146.47	3141.52	3122.25	3091.97	3060.03	3016.54	2971.39	2909.18	2835.40
270.0	3133.26	3113.99	3080.96	3047.37	3008.28	2949.37	2902.02	2829.90	2739.61
360.0	3146.47	3138.21	3110.69	3079.30	3044.07	2990.66	2943.87	2891.01	2821.64
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2742.91	2664.73	2568.38	2476.44	2366.32	2249.05	2135.64	2001.85	1866.41
90.0	2835.96	2768.79	2681.25	2597.01	2493.50	2383.39	2278.78	2156.56	2026.08
180.0	2761.08	2670.24	2572.79	2478.64	2379.54	2246.30	2132.88	2013.96	1877.97
270.0	2668.58	2568.93	2446.16	2352.56	2239.69	2098.20	1977.63	1854.30	1715.56
360.0	2742.91	2664.73	2568.38	2476.44	2366.32	2249.05	2135.64	2001.85	1866.41
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1745.29	1622.51	1462.85	1338.42	1221.70	1088.47	993.22	911.18	833.00
90.0	1906.05	1782.73	1624.16	1505.79	1373.66	1231.61	1111.59	1007.53	913.94
180.0	1739.78	1616.46	1474.96	1335.12	1217.85	1094.41	998.56	906.23	831.08
270.0	1576.82	1452.39	1315.85	1093.25	1080.70	987.33	898.41	826.62	774.53
360.0	1745.29	1622.51	1462.85	1338.42	1221.70	1088.47	993.22	911.18	833.00
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	769.14	722.34	680.50	645.81	600.67	548.91	499.36	448.71	384.84
90.0	833.00	777.40	726.74	686.00	644.16	599.01	551.11	491.65	437.15
180.0	776.63	729.39	676.26	644.71	603.69	538.12	494.41	444.58	389.74
270.0	723.83	686.50	649.17	606.34	561.74	506.96	450.42	399.27	347.68
360.0	769.14	722.34	680.50	645.81	600.67	548.91	499.36	448.71	384.84
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	334.74	284.64	246.27	173.59	130.92	93.93	54.40	31.22	21.14
90.0	383.74	335.84	278.59	250.01	182.35	133.95	91.83	58.14	32.54
180.0	334.80	286.84	233.49	181.36	137.26	92.44	58.64	30.23	17.45
270.0	283.93	234.43	186.37	130.76	92.77	60.29	32.59	19.66	15.97
360.0	334.74	284.64	246.27	173.59	130.92	93.93	54.40	31.22	21.14
C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	17.18	14.92	12.44	9.08	7.71	7.54	7.43	7.32	7.27
90.0	22.19	19.43	16.46	13.54	9.36	8.26	8.09	7.98	7.76
180.0	14.04	11.84	9.36	7.82	7.65	7.43	7.32	7.21	7.16
270.0	13.32	10.96	7.98	7.71	7.54	7.43	7.32	7.27	7.16
360.0	17.18	14.92	12.44	9.08	7.71	7.54	7.43	7.32	7.27
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	7.16	7.16	7.05	6.94	6.88	6.83	6.83	6.77	6.72
90.0	7.65	7.54	7.49	7.43	7.38	7.27	7.16	7.10	7.05
180.0	7.10	7.05	6.99	6.88	6.83	6.77	6.72	6.72	6.72
270.0	7.10	6.99	6.94	6.88	6.83	6.77	6.77	6.72	6.72
360.0	7.16	7.16	7.05	6.94	6.88	6.83	6.83	6.77	6.72
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	6.66	6.66	6.77	6.94	7.10	7.21	7.38	7.43	7.43
90.0	6.99	7.05	7.27	7.82	8.48	9.14	9.69	10.35	11.12
180.0	6.66	6.66	6.77	6.88	6.99	7.10	7.27	7.38	7.49
270.0	6.66	6.72	6.72	6.77	6.77	6.50	6.44	6.39	6.39
360.0	6.66	6.66	6.77	6.94	7.10	7.21	7.38	7.43	7.43

Intensity data(cd)

C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	7.43	7.43	7.38	7.38	7.27	7.21	7.16	7.05	6.94
90.0	11.84	12.33	12.77	13.05	13.10	13.05	12.77	12.55	12.22
180.0	7.60	7.76	7.87	8.04	8.15	8.31	8.26	8.26	8.20
270.0	6.61	6.66	6.72	6.77	6.83	6.88	6.88	6.88	6.88
360.0	7.43	7.43	7.38	7.38	7.27	7.21	7.16	7.05	6.94
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.77	6.72	6.61	6.50	6.44	6.33	6.17	6.06	6.06
90.0	11.56	10.57	9.52	8.70	7.93	6.83	6.72	6.50	6.17
180.0	8.15	7.87	7.21	6.77	6.50	6.39	6.33	6.11	6.11
270.0	6.77	6.66	6.50	6.33	6.28	6.11	6.11	6.11	6.11
360.0	6.77	6.72	6.61	6.50	6.44	6.33	6.17	6.06	6.06
C/ γ (°)	90.0								
0.0	6.11								
90.0	6.11								
180.0	6.11								
270.0	6.11								
360.0	6.11								