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Nata

LumCAT: 2-2211-L	
Luminaire: 92.70.131.00	
Report No: 200416-B005	Voltage(V): 35.2900
Test No: 200416-C005	Current(A): 0.4510
LampCAT: TRIDONIC SLE G7 13MM	Power (W): 15.9200
Lamp flux(lm): 2391.0	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): 2295.37
Efficiency(%): 96.00%
Lumens(lm)/Power(W): 144.18
Central intensity(cd): 15547.500
Maximum intensity(cd): 15547.500
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=16.9
[C90/270]Total=16.9
Field angle(10%Imax): [C0/180]Total=33.8
[C90/270]Total=33.8
Maximum s/h(1/2): C0_180=0.29 C90_270=0.29
Maximum s/h(1/4): C0_180=0.28 C90_270=0.28
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 96.00%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.298%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	15547.500	0.000	0	.000%	.000%
1.0	15462.422	14.838	14.838	.621%	.646%
2.0	15158.672	43.950	58.788	1.838%	2.561%
3.0	14572.266	71.107	129.895	2.974%	5.659%
4.0	13809.375	95.002	224.897	3.973%	9.798%
5.0	12649.078	113.823	338.72	4.760%	14.757%
6.0	11236.781	125.527	464.246	5.250%	20.225%
7.0	9969.750	131.629	595.875	5.505%	25.960%
8.0	8494.242	132.143	728.018	5.527%	31.717%
9.0	6968.672	125.319	853.337	5.241%	37.176%
10.0	5541.961	113.217	966.553	4.735%	42.109%
11.0	4444.945	99.790	1066.343	4.174%	46.456%
12.0	3573.070	87.648	1153.992	3.666%	50.275%
13.0	2894.977	76.759	1230.751	3.210%	53.619%
14.0	2442.094	68.314	1299.065	2.857%	56.595%
15.0	2048.203	61.645	1360.71	2.578%	59.281%
16.0	1774.758	56.017	1416.727	2.343%	61.721%
17.0	1536.117	51.559	1468.286	2.156%	63.967%
18.0	1367.367	47.872	1516.158	2.002%	66.053%
19.0	1221.687	45.044	1561.203	1.884%	68.015%
20.0	1114.305	42.755	1603.958	1.788%	69.878%
21.0	1031.941	41.212	1645.17	1.724%	71.673%
22.0	968.892	40.208	1685.378	1.682%	73.425%
23.0	916.706	39.565	1724.943	1.655%	75.149%
24.0	870.926	39.084	1764.027	1.635%	76.851%
25.0	838.097	38.859	1802.886	1.625%	78.544%
26.0	810.928	38.925	1841.811	1.628%	80.240%
27.0	788.562	39.132	1880.943	1.637%	81.945%
28.0	766.948	39.382	1920.325	1.647%	83.661%
29.0	745.573	39.572	1959.897	1.655%	85.385%
30.0	713.644	39.399	1999.296	1.648%	87.101%
31.0	659.496	38.212	2037.508	1.598%	88.766%
32.0	590.498	35.811	2073.319	1.498%	90.326%
33.0	521.002	32.745	2106.064	1.370%	91.753%
34.0	441.134	29.117	2135.181	1.218%	93.021%
35.0	352.125	24.636	2159.817	1.030%	94.094%
36.0	279.246	20.103	2179.92	.841%	94.970%
37.0	214.973	16.119	2196.039	.674%	95.672%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	129.417	11.495	2207.534	.481%	96.173%
39.0	72.330	6.886	2214.42	.288%	96.473%
40.0	44.332	4.069	2218.489	.170%	96.650%
41.0	34.172	2.795	2221.285	.117%	96.772%
42.0	31.676	2.392	2223.677	.100%	96.876%
43.0	29.116	2.252	2225.929	.094%	96.975%
44.0	26.902	2.114	2228.043	.088%	97.067%
45.0	25.179	2.002	2230.045	.084%	97.154%
46.0	23.716	1.912	2231.957	.080%	97.237%
47.0	22.880	1.853	2233.81	.078%	97.318%
48.0	22.254	1.825	2235.635	.076%	97.397%
49.0	21.635	1.802	2237.437	.075%	97.476%
50.0	21.016	1.778	2239.215	.074%	97.553%
51.0	20.468	1.755	2240.97	.073%	97.630%
52.0	19.941	1.734	2242.704	.073%	97.705%
53.0	19.596	1.720	2244.424	.072%	97.780%
54.0	19.252	1.712	2246.136	.072%	97.855%
55.0	18.921	1.704	2247.84	.071%	97.929%
56.0	18.548	1.693	2249.534	.071%	98.003%
57.0	18.464	1.692	2251.226	.071%	98.077%
58.0	18.323	1.701	2252.927	.071%	98.151%
59.0	17.986	1.697	2254.624	.071%	98.225%
60.0	17.655	1.684	2256.308	.070%	98.298%
61.0	17.388	1.672	2257.981	.070%	98.371%
62.0	17.100	1.662	2259.643	.070%	98.443%
63.0	16.545	1.636	2261.279	.068%	98.515%
64.0	15.848	1.590	2262.868	.066%	98.584%
65.0	15.166	1.535	2264.403	.064%	98.651%
66.0	14.632	1.487	2265.89	.062%	98.715%
67.0	14.217	1.451	2267.341	.061%	98.779%
68.0	13.739	1.416	2268.757	.059%	98.840%
69.0	13.402	1.385	2270.141	.058%	98.901%
70.0	12.973	1.355	2271.496	.057%	98.960%
71.0	12.551	1.319	2272.815	.055%	99.017%
72.0	12.108	1.282	2274.097	.054%	99.073%
73.0	11.841	1.252	2275.35	.052%	99.128%
74.0	11.637	1.234	2276.584	.052%	99.181%
75.0	11.468	1.221	2277.805	.051%	99.235%

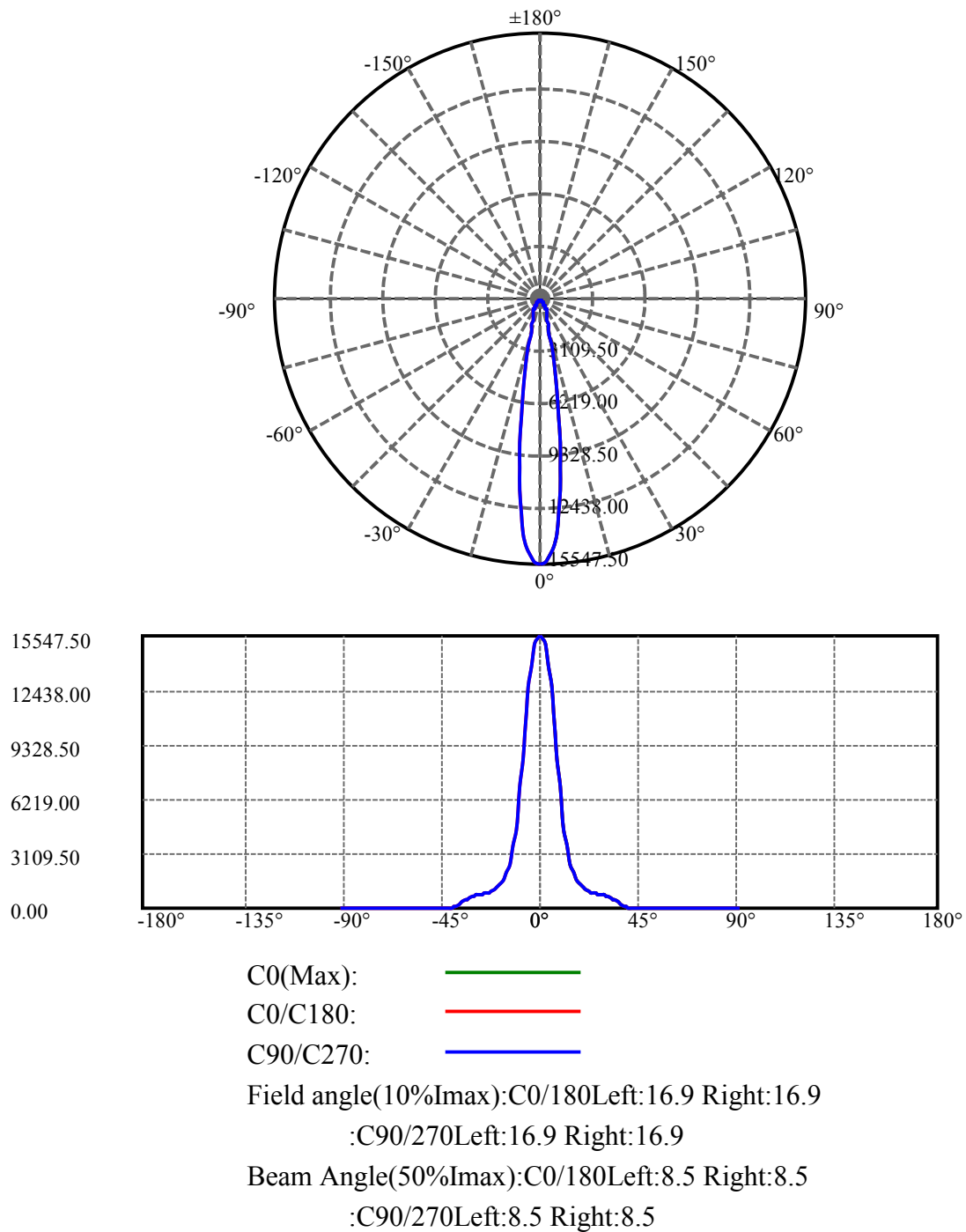
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	11.377	1.213	2279.017	.051%	99.287%
77.0	11.292	1.209	2280.226	.051%	99.340%
78.0	11.208	1.204	2281.43	.050%	99.393%
79.0	11.109	1.199	2282.629	.050%	99.445%
80.0	10.997	1.192	2283.821	.050%	99.497%
81.0	10.905	1.184	2285.006	.050%	99.548%
82.0	10.842	1.179	2286.185	.049%	99.600%
83.0	10.737	1.173	2287.358	.049%	99.651%
84.0	10.673	1.166	2288.524	.049%	99.702%
85.0	10.589	1.160	2289.685	.049%	99.752%
86.0	10.554	1.156	2290.841	.048%	99.802%
87.0	10.540	1.154	2291.995	.048%	99.853%
88.0	10.364	1.145	2293.14	.048%	99.903%
89.0	10.174	1.126	2294.266	.047%	99.952%
90.0	10.048	1.109	2295.375	.046%	100.000%

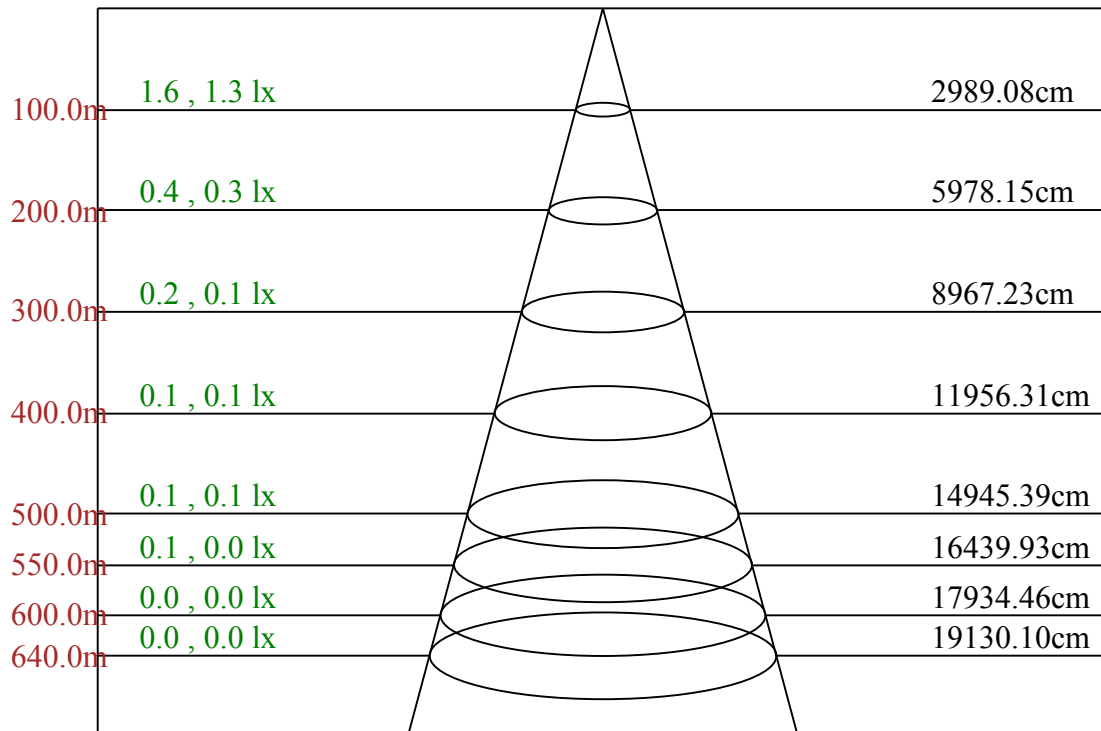
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1999.30	83.62%	87.10%
0-40	2218.49	92.78%	96.65%
0-60	2256.31	94.37%	98.30%
0-90	2294.27	95.95%	99.95%
0-120	2294.27	95.95%	99.95%
0-180	2295.37	96.00%	100.00%
60-90	39.64	1.66%	1.73%
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%
0-25.86	1836.30	76.80%	80.00%

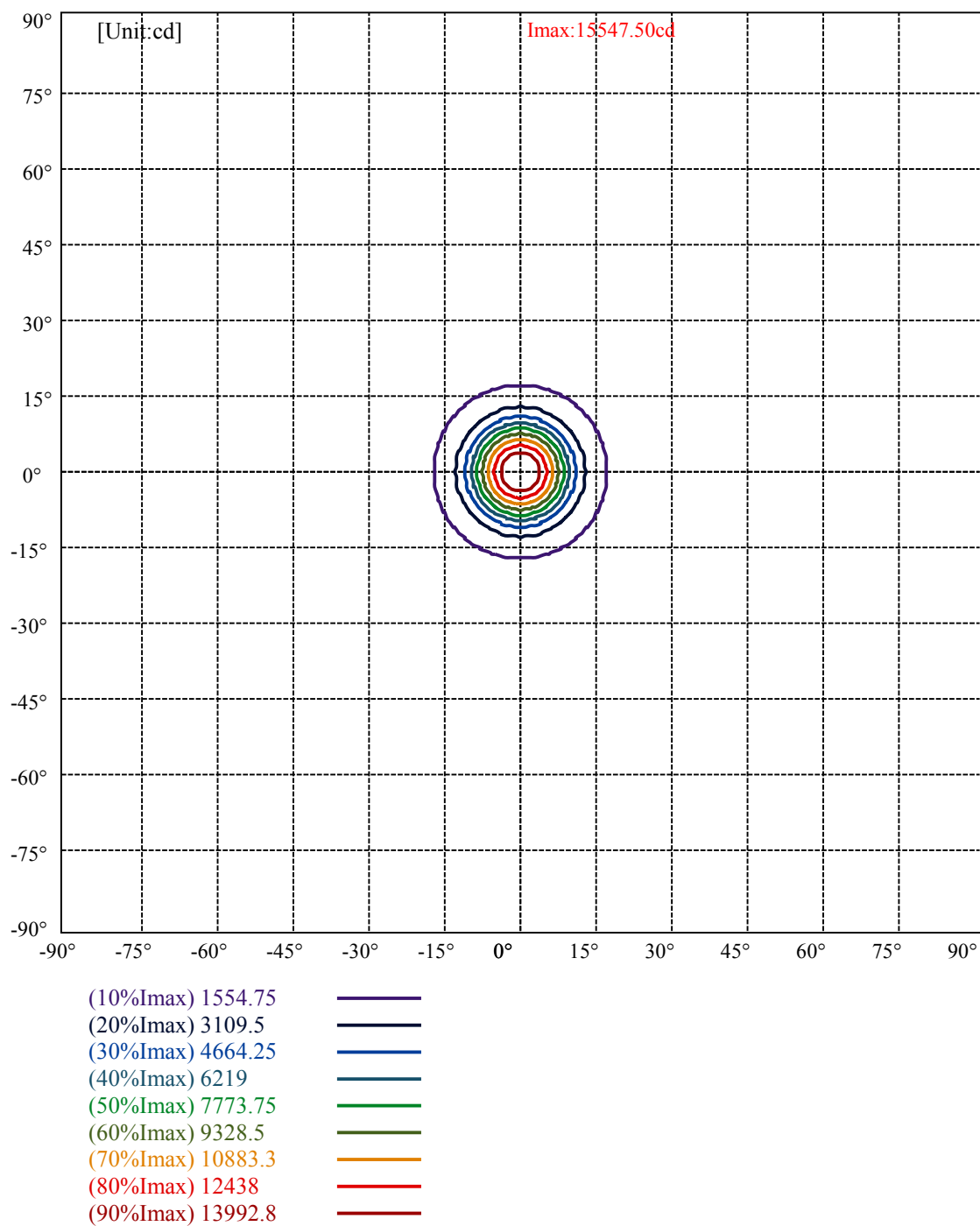
ZONAL LUMEN SUMMARY

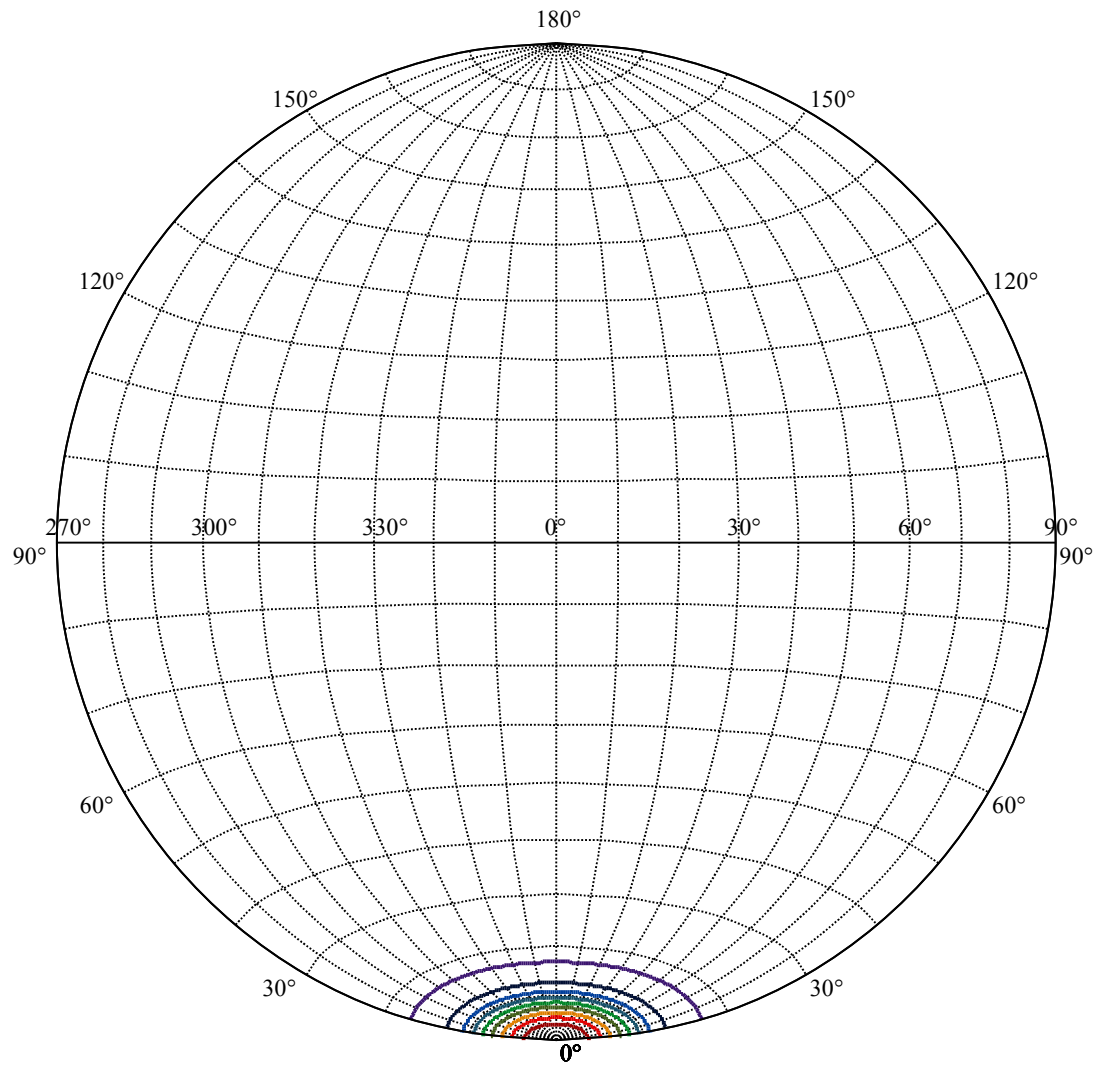
0-10	966.55
10-20	637.40
20-30	395.34
30-40	219.19
40-50	20.73
50-60	17.09
60-70	15.19
70-80	12.33
80-90	10.44
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00





Max , Ave Beam angle of C0 plane 17.00



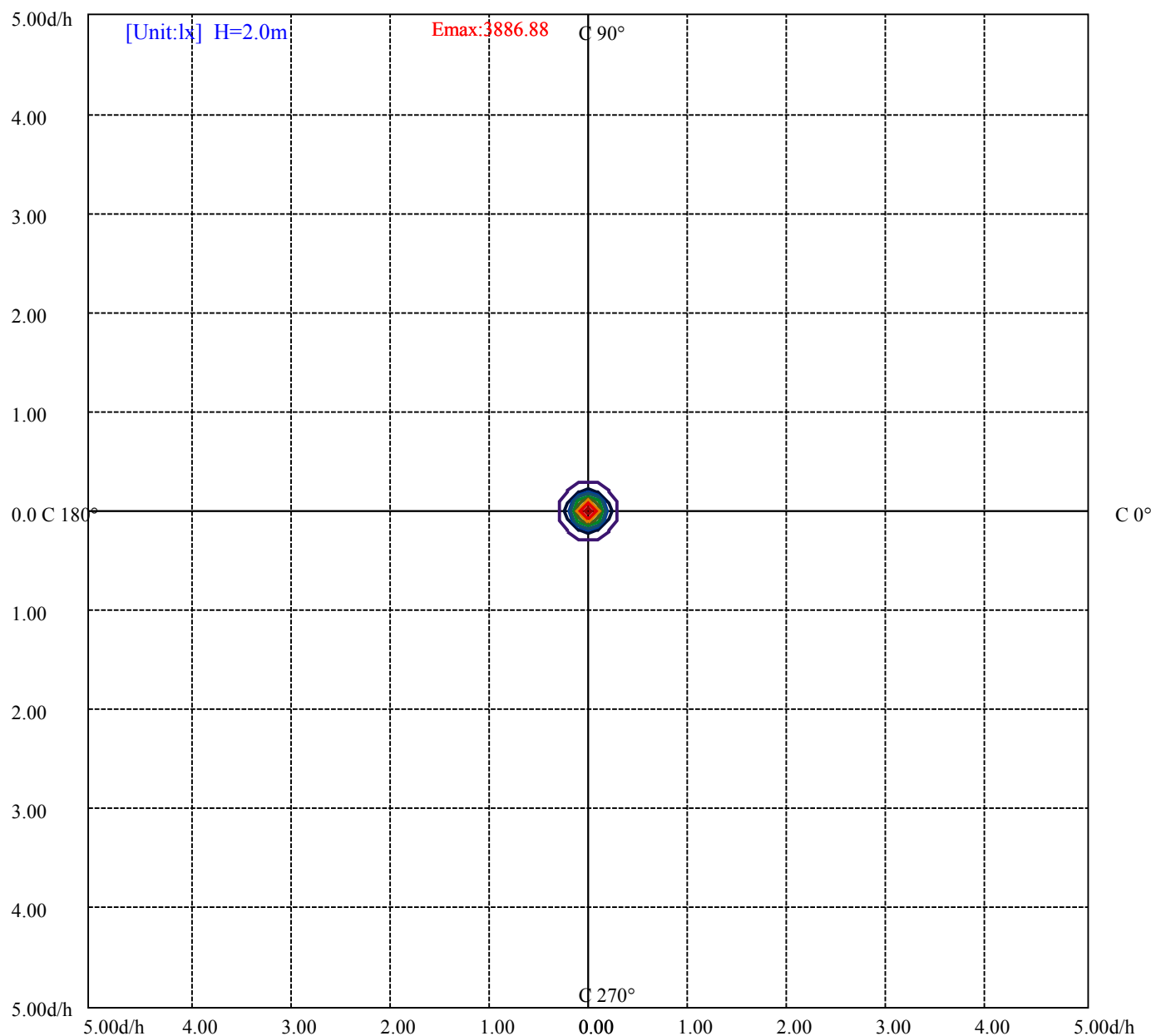


House

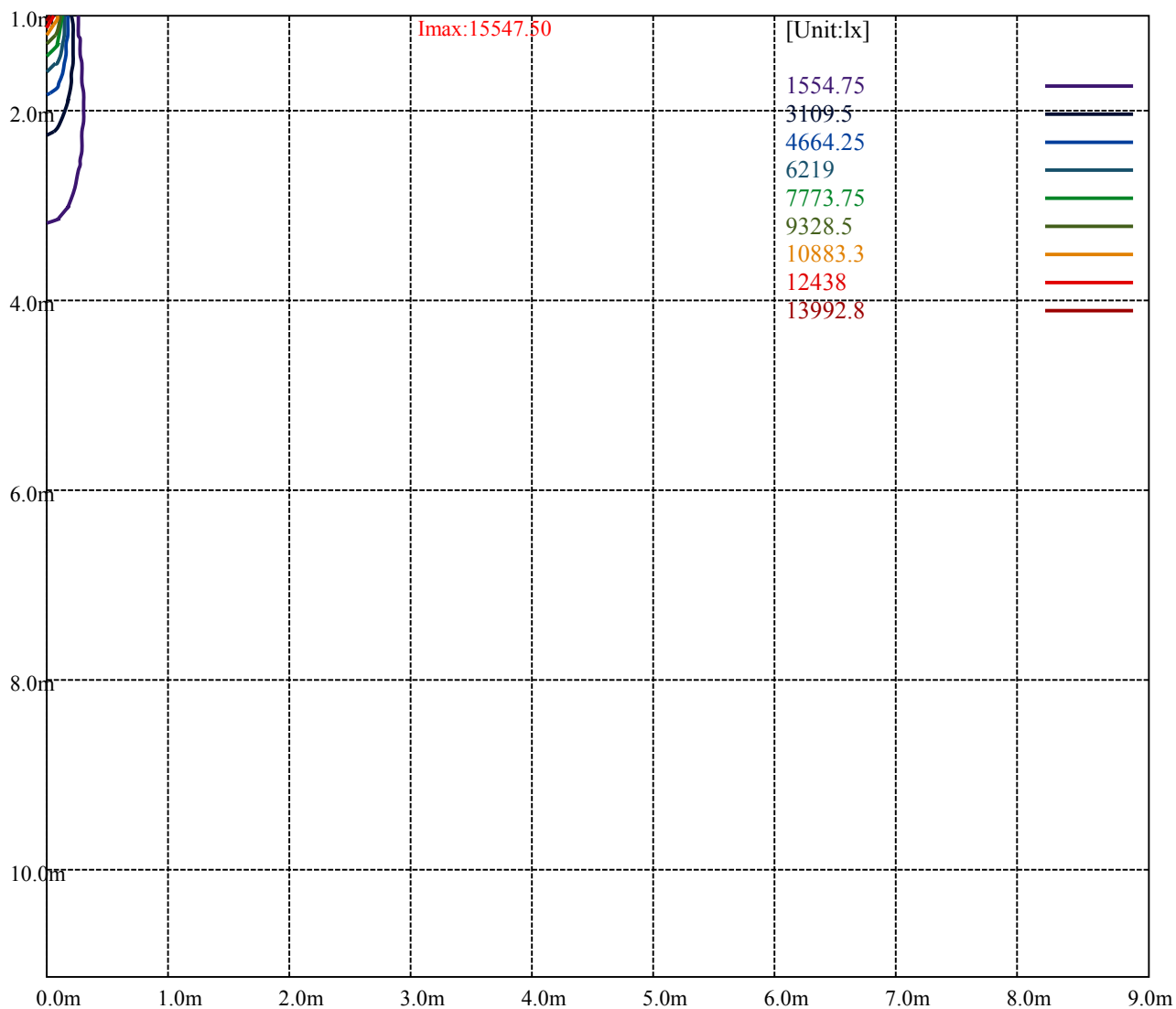
[Unit:cd]

Road

Imax:15547.50	
(10%Imax)	1554.75
(20%Imax)	3109.5
(30%Imax)	4664.25
(40%Imax)	6219
(50%Imax)	7773.75
(60%Imax)	9328.5
(70%Imax)	10883.3
(80%Imax)	12438
(90%Imax)	13992.8



(10%Emax)	388.6875	
(20%Emax)	777.375	
(30%Emax)	1166.063	
(40%Emax)	1554.75	
(50%Emax)	1943.435	
(60%Emax)	2332.123	
(70%Emax)	2720.8	
(80%Emax)	3109.5	
(90%Emax)	3498.175	



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

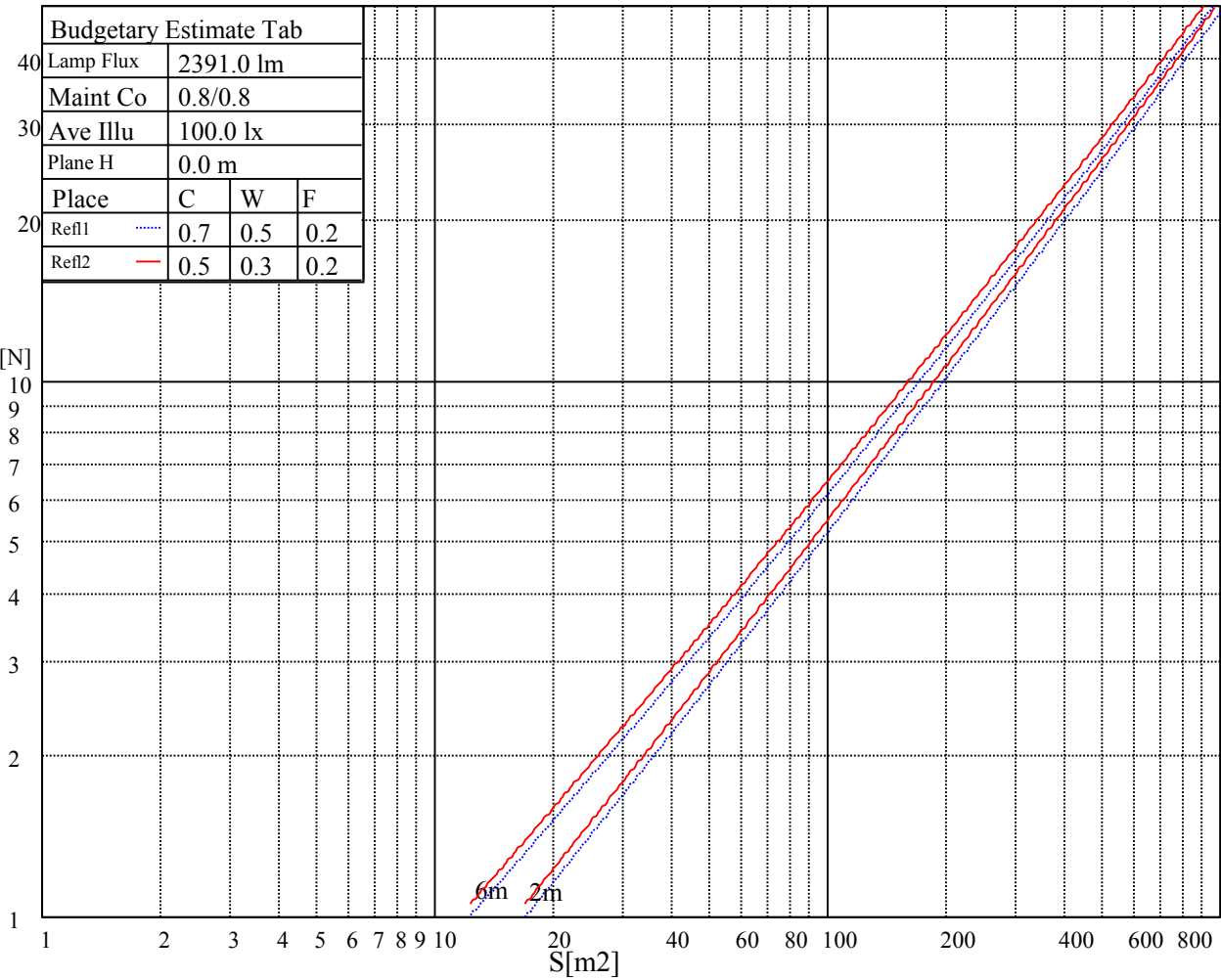
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

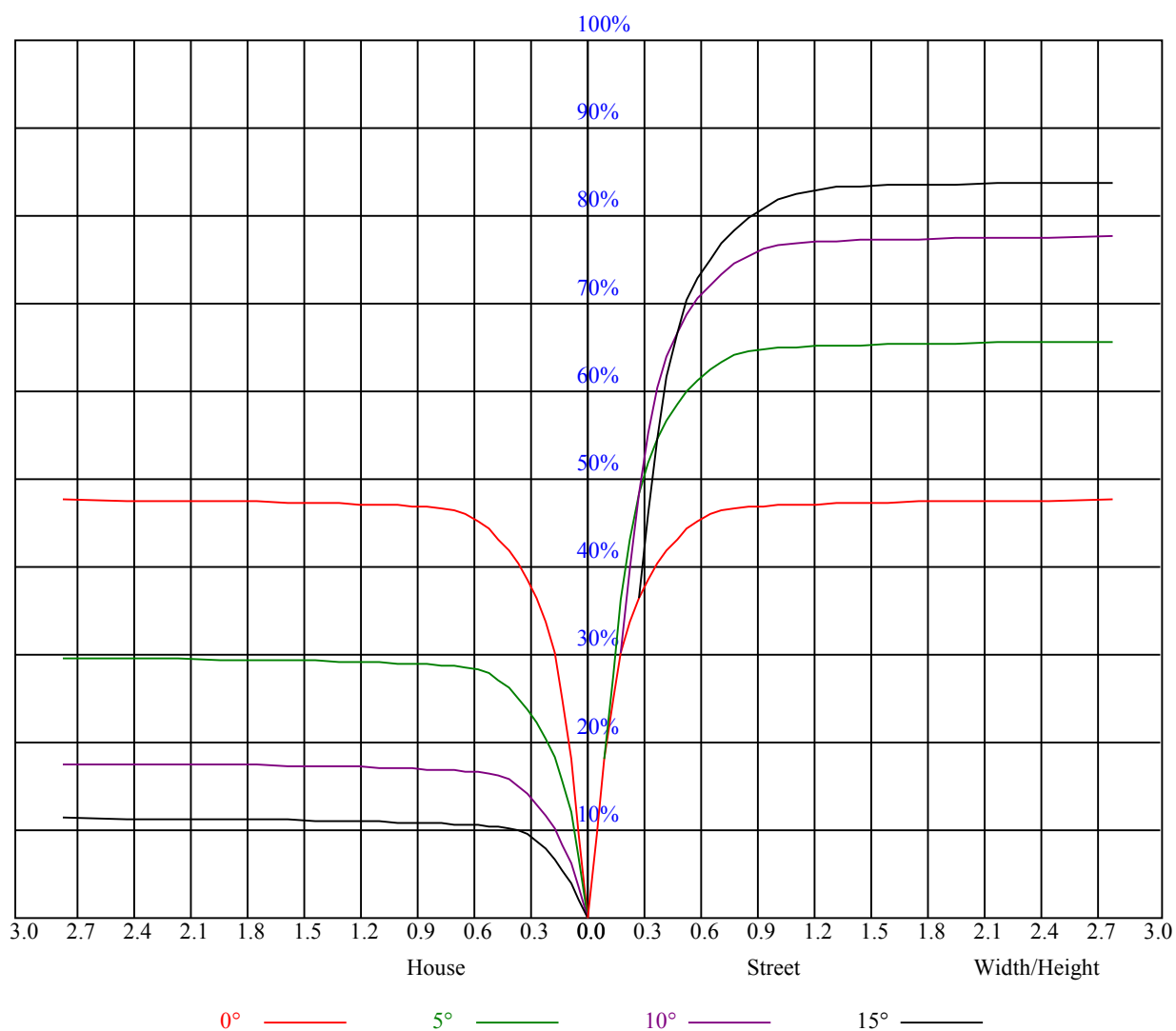
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	1.14	1.14	1.14	1.12	1.12	1.12	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.96
1	1.08	1.06	1.04	1.06	1.04	1.02	1.02	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.94	0.92
2	1.02	0.99	0.97	1.01	0.98	0.96	0.98	0.95	0.93	0.95	0.93	0.92	0.92	0.91	0.90	0.88
3	0.98	0.94	0.91	0.96	0.93	0.90	0.94	0.91	0.89	0.92	0.89	0.88	0.90	0.88	0.86	0.85
4	0.94	0.90	0.86	0.93	0.89	0.86	0.91	0.87	0.85	0.89	0.86	0.84	0.87	0.85	0.83	0.82
5	0.90	0.86	0.83	0.89	0.85	0.82	0.88	0.84	0.82	0.86	0.83	0.81	0.85	0.82	0.80	0.79
6	0.87	0.83	0.79	0.86	0.82	0.79	0.85	0.81	0.79	0.84	0.81	0.78	0.82	0.80	0.78	0.77
7	0.84	0.80	0.77	0.83	0.79	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.80	0.78	0.75	0.74
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	0.72	0.76	0.73	0.71	0.70
10	0.77	0.73	0.70	0.76	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.70	0.74	0.72	0.69	0.69



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	15536.25	15530.63	15300.00	14861.25	14225.63	13252.50	12048.75	10991.25	9315.00
45.0	15586.88	15401.25	14962.50	14388.75	13359.38	12380.63	11278.13	9669.38	8274.38
90.0	15496.88	15153.75	14557.50	13545.00	12588.75	11195.44	10056.94	8440.88	6971.06
135.0	15570.00	15350.63	14866.88	14141.25	13185.00	12121.88	10738.13	9101.25	7650.00
180.0	15536.25	15406.88	14962.50	14163.75	13235.63	11089.69	10392.75	8943.75	7480.13
225.0	15586.88	15626.25	15480.00	14934.38	14304.38	13218.75	11090.81	10182.94	8728.31
270.0	15496.88	15637.50	15682.50	15502.50	15103.13	14360.63	13095.00	11587.50	10136.25
315.0	15570.00	15592.50	15457.50	15041.25	14473.13	13573.13	11193.75	10841.06	9398.81
360.0	15536.25	15530.63	15300.00	14861.25	14225.63	13252.50	12048.75	10991.25	9315.00

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7734.38	6519.38	5011.88	4072.50	3369.38	2880.00	2336.63	2025.56	1733.06
45.0	6873.75	5253.75	4241.25	3504.38	2880.00	2401.88	2091.38	1807.31	1594.69
90.0	5490.00	4305.38	3549.94	2907.56	2445.75	2104.88	1801.13	1593.00	1407.94
135.0	6125.63	4815.00	3903.75	3223.13	2868.75	2231.44	1941.75	1728.56	1473.75
180.0	5982.19	4663.69	3738.94	2992.50	2491.88	2161.69	1846.69	1617.75	1412.44
225.0	7293.94	5655.94	4491.56	3513.38	2715.19	2310.19	1994.06	1706.06	1480.50
270.0	8493.75	6913.13	5625.00	4466.25	3313.13	2885.63	2237.06	1872.56	1595.81
315.0	7755.75	6209.44	4997.25	3904.88	3075.75	2561.06	2136.94	1847.25	1590.75
360.0	7734.38	6519.38	5011.88	4072.50	3369.38	2880.00	2336.63	2025.56	1733.06

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1553.63	1400.63	1252.69	1155.94	1076.06	1002.38	945.00	902.25	862.88
45.0	1432.69	1293.19	1186.31	1108.13	1030.50	975.38	921.94	877.50	847.13
90.0	1257.75	1118.48	1054.35	960.92	905.74	858.54	813.04	777.04	751.67
135.0	1337.06	1243.13	1117.69	1047.94	995.63	936.00	892.13	862.88	831.38
180.0	1242.56	1115.61	1042.54	960.47	913.78	877.11	839.08	814.67	794.59
225.0	1318.50	1110.60	1063.01	980.83	922.39	882.00	852.64	823.50	804.54
270.0	1394.44	1216.13	1082.25	983.81	903.94	850.50	811.69	783.00	758.25
315.0	1402.31	1275.75	1115.61	1057.50	1003.11	951.75	891.90	863.94	837.00
360.0	1553.63	1400.63	1252.69	1155.94	1076.06	1002.38	945.00	902.25	862.88

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	834.75	808.88	785.81	769.50	737.44	680.06	613.13	539.44	442.69
45.0	820.13	792.56	773.44	751.50	692.44	630.00	562.50	478.13	390.94
90.0	731.08	705.83	680.85	639.79	577.41	507.21	442.63	362.19	282.15
135.0	808.88	790.88	767.81	726.19	666.56	579.38	509.06	423.00	321.19
180.0	773.89	757.18	731.76	677.93	613.63	533.64	449.21	372.77	287.72
225.0	787.61	770.74	752.74	710.94	647.44	567.96	493.82	405.11	326.19
270.0	741.38	721.69	701.44	681.19	632.81	583.88	524.25	457.31	365.63
315.0	810.79	787.84	770.74	752.12	708.24	641.87	573.41	491.12	400.50
360.0	834.75	808.88	785.81	769.50	737.44	680.06	613.13	539.44	442.69

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	362.25	292.50	192.71	115.14	63.39	30.66	26.55	24.64	22.28
45.0	313.31	286.31	157.78	89.27	46.52	37.41	36.51	34.71	32.63
90.0	215.44	147.77	93.71	52.09	39.38	37.18	34.76	31.39	28.41
135.0	290.25	173.08	102.15	50.18	35.16	33.64	31.84	30.04	28.52
180.0	206.55	137.76	79.93	35.10	27.11	25.48	23.57	21.60	20.31
225.0	242.44	163.35	102.54	52.03	33.08	31.78	30.26	27.34	25.54
270.0	294.75	285.19	143.89	96.86	61.20	42.86	37.80	34.03	30.83
315.0	308.98	233.83	162.62	87.98	48.83	34.37	32.12	29.19	26.72
360.0	362.25	292.50	192.71	115.14	63.39	30.66	26.55	24.64	22.28

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	20.03	19.18	18.23	17.72	17.44	17.10	16.88	16.54	16.31
45.0	30.32	25.09	24.41	23.79	23.96	24.02	23.23	22.73	22.28
90.0	25.43	24.30	23.34	22.67	21.60	20.03	19.63	19.24	19.13
135.0	27.79	26.94	25.71	25.20	24.36	23.74	22.95	22.22	21.77
180.0	19.18	18.62	18.11	17.66	17.33	16.93	16.65	16.43	16.26
225.0	24.86	24.47	24.02	23.29	22.67	22.22	21.88	21.43	21.09
270.0	28.63	26.83	25.71	25.26	24.24	23.18	22.05	21.09	20.59
315.0	25.20	24.30	23.51	22.44	21.49	20.93	20.48	19.86	19.35
360.0	20.03	19.18	18.23	17.72	17.44	17.10	16.88	16.54	16.31
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	16.20	15.98	15.75	15.64	15.41	15.24	14.96	14.79	14.68
45.0	21.88	21.38	21.43	21.83	21.83	20.70	20.03	19.63	18.96
90.0	19.07	18.84	18.90	19.18	18.79	18.17	17.66	17.38	16.99
135.0	20.98	20.48	19.91	19.86	19.91	19.52	19.35	19.24	18.68
180.0	16.14	16.03	15.86	15.75	15.64	15.41	15.19	14.91	14.68
225.0	20.81	20.36	19.58	19.35	19.01	18.90	18.73	18.39	18.23
270.0	20.08	19.74	18.68	17.89	17.94	18.23	18.34	18.06	18.00
315.0	18.84	18.56	18.28	18.23	18.06	17.72	16.99	16.71	16.59
360.0	16.20	15.98	15.75	15.64	15.41	15.24	14.96	14.79	14.68
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	14.40	14.23	14.01	13.61	13.44	13.22	12.94	12.66	12.43
45.0	18.17	17.21	15.75	14.29	13.95	13.56	13.67	13.22	12.66
90.0	16.14	15.53	15.13	14.57	14.06	13.56	13.16	12.99	12.66
135.0	17.72	16.76	16.09	15.53	14.96	14.40	13.95	13.28	12.71
180.0	14.40	14.18	14.01	13.73	13.50	13.28	12.88	12.54	12.26
225.0	17.61	16.37	15.41	14.96	14.40	13.89	13.33	12.71	12.21
270.0	17.33	16.43	15.86	15.64	15.08	14.01	13.61	13.28	12.88
315.0	16.59	16.09	15.08	14.74	14.34	14.01	13.67	13.11	12.60
360.0	14.40	14.23	14.01	13.61	13.44	13.22	12.94	12.66	12.43
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	12.04	11.87	11.64	11.36	11.31	11.19	11.08	11.03	10.91
45.0	12.04	11.64	11.31	11.08	11.03	10.91	10.86	10.74	10.69
90.0	12.21	12.09	11.98	11.87	11.76	11.70	11.59	11.42	11.25
135.0	12.26	11.87	11.64	11.48	11.42	11.31	11.25	11.14	11.03
180.0	11.93	11.76	11.64	11.48	11.36	11.31	11.19	11.14	11.03
225.0	11.76	11.42	11.25	11.19	11.08	10.97	10.91	10.80	10.74
270.0	12.49	12.32	12.09	11.93	11.87	11.81	11.70	11.64	11.48
315.0	12.15	11.76	11.53	11.36	11.19	11.14	11.08	10.97	10.86
360.0	12.04	11.87	11.64	11.36	11.31	11.19	11.08	11.03	10.91
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	10.86	10.80	10.74	10.63	10.58	10.58	10.58	10.69	10.35
45.0	10.58	10.52	10.46	10.46	10.35	10.35	10.29	10.07	10.01
90.0	11.08	10.91	10.74	10.63	10.52	10.46	10.46	10.07	9.96
135.0	11.03	11.03	10.80	10.80	10.69	10.63	10.69	10.24	10.13
180.0	10.97	10.91	10.80	10.80	10.74	10.69	10.74	10.46	10.24
225.0	10.63	10.63	10.58	10.52	10.52	10.46	10.41	10.41	10.18
270.0	11.31	11.19	11.08	10.91	10.74	10.69	10.63	10.52	10.29
315.0	10.80	10.74	10.69	10.63	10.58	10.58	10.52	10.46	10.24
360.0	10.86	10.80	10.74	10.63	10.58	10.58	10.58	10.69	10.35

Intensity data(cd)

Appendix Page: 18 Total:18

C/ $\gamma(^{\circ})$	90.0
0.0	10.24
45.0	9.84
90.0	9.84
135.0	10.01
180.0	10.01
225.0	10.07
270.0	10.18
315.0	10.18
360.0	10.24