ASD LIGHTING CORP
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Tel:1 786 208 8995 Fax:1 781 461 1402
Address:120 Shawmut road,Canton,MA,02021 USA

LumCAT:ASD-CSFL-A2040-B
Luminaire:

Report No: HH201511006	Voltage(V): 120.0000
Test No:	Current(A): 0.3150
LampCAT: LED	Power (W): 21.0400
Lamp flux(lm): -1.0	PF: 0.5550
Number of Lamps: 0	Ballast type:
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1585.19
Efficiency(%): 0.00%
Lumens(lm)/Power(W): 75.34
Central intensity(cd): 630.037
Maximum intensity(cd): 635.227
Angle of maximum intensity: C=15.0 γ=10.0
Beam Angle(50%Imax): [C0/180]Left=62.2 Right=45.8
[C90/270]Left=54.2 Right=52.7
Field angle(10%Imax): [C0/180]Left=80.5 Right=61.9
[C90/270]Left=68.6 Right=67.0
Maximum s/h: C0_180=1.26 C90_270=1.24
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 0.00%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 88.285%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	630.418	.000	.000	.000%	.000%
1.0	630.115	.603	.603	.000%	.000%
2.0	629.752	1.808	2.411	.000%	.000%
3.0	629.155	3.011	5.422	.000%	.000%
4.0	628.134	4.209	9.631	.000%	.000%
5.0	626.837	5.399	15.030	.000%	.000%
6.0	625.591	6.582	21.612	.000%	.000%
7.0	624.458	7.759	29.371	.000%	.000%
8.0	623.290	8.930	38.300	.000%	.000%
9.0	621.950	10.092	48.392	.000%	.000%
10.0	620.488	11.244	59.636	.000%	.000%
11.0	618.663	12.382	72.018	.000%	.000%
12.0	616.310	13.500	85.518	.000%	.000%
13.0	613.499	14.595	100.113	.000%	.000%
14.0	610.541	15.668	115.780	.000%	.000%
15.0	607.384	16.720	132.500	.000%	.000%
16.0	604.322	17.755	150.255	.000%	.000%
17.0	601.217	18.773	169.029	.000%	.000%
18.0	598.025	19.773	188.802	.000%	.000%
19.0	594.729	20.751	209.553	.000%	.000%
20.0	590.880	21.700	231.253	.000%	.000%
21.0	586.824	22.614	253.867	.000%	.000%
22.0	582.516	23.498	277.366	.000%	.000%
23.0	577.629	24.343	301.709	.000%	.000%
24.0	572.284	25.141	326.850	.000%	.000%
25.0	566.212	25.887	352.737	.000%	.000%
26.0	560.045	26.585	379.322	.000%	.000%
27.0	553.497	27.243	406.565	.000%	.000%
28.0	546.949	27.861	434.426	.000%	.000%
29.0	540.133	28.441	462.867	.000%	.000%
30.0	533.222	28.980	491.848	.000%	.000%
31.0	526.121	29.480	521.328	.000%	.000%
32.0	518.691	29.933	551.260	.000%	.000%
33.0	511.633	30.354	581.614	.000%	.000%
34.0	503.814	30.730	612.344	.000%	.000%
35.0	496.634	31.070	643.415	.000%	.000%
36.0	488.997	31.383	674.797	.000%	.000%
37.0	481.644	31.657	706.454	.000%	.000%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	473.886	31.894	738.348	.000%	.000%
39.0	466.499	32.098	770.446	.000%	.000%
40.0	458.818	32.272	802.718	.000%	.000%
41.0	451.103	32.402	835.120	.000%	.000%
42.0	443.379	32.498	867.618	.000%	.000%
43.0	435.040	32.539	900.157	.000%	.000%
44.0	426.633	32.522	932.679	.000%	.000%
45.0	417.689	32.448	965.127	.000%	.000%
46.0	408.927	32.327	997.455	.000%	.000%
47.0	399.223	32.142	1029.597	.000%	.000%
48.0	390.019	31.905	1061.502	.000%	.000%
49.0	380.115	31.626	1093.128	.000%	.000%
50.0	369.312	31.246	1124.374	.000%	.000%
51.0	358.500	30.793	1155.167	.000%	.000%
52.0	346.780	30.264	1185.431	.000%	.000%
53.0	335.025	29.658	1215.089	.000%	.000%
54.0	322.907	28.999	1244.088	.000%	.000%
55.0	310.132	28.258	1272.346	.000%	.000%
56.0	295.825	27.381	1299.728	.000%	.000%
57.0	282.557	26.445	1326.173	.000%	.000%
58.0	269.288	25.519	1351.692	.000%	.000%
59.0	254.290	24.478	1376.169	.000%	.000%
60.0	239.283	23.318	1399.488	.000%	.000%
61.0	226.256	22.216	1421.704	.000%	.000%
62.0	211.336	21.086	1442.790	.000%	.000%
63.0	195.230	19.773	1462.563	.000%	.000%
64.0	179.946	18.410	1480.973	.000%	.000%
65.0	163.235	16.984	1497.957	.000%	.000%
66.0	144.587	15.358	1513.315	.000%	.000%
67.0	125.696	13.591	1526.906	.000%	.000%
68.0	111.710	12.026	1538.932	.000%	.000%
69.0	91.833	10.384	1549.316	.000%	.000%
70.0	75.667	8.602	1557.918	.000%	.000%
71.0	61.775	7.104	1565.022	.000%	.000%
72.0	45.514	5.579	1570.601	.000%	.000%
73.0	32.384	4.074	1574.674	.000%	.000%
74.0	22.757	2.899	1577.573	.000%	.000%
75.0	14.410	1.964	1579.537	.000%	.000%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.529	1.218	1580.755	.000%	.000%
77.0	5.579	.752	1581.507	.000%	.000%
78.0	4.282	.528	1582.035	.000%	.000%
79.0	3.616	.424	1582.459	.000%	.000%
80.0	3.313	.374	1582.832	.000%	.000%
81.0	3.045	.344	1583.176	.000%	.000%
82.0	2.828	.318	1583.495	.000%	.000%
83.0	2.612	.296	1583.790	.000%	.000%
84.0	2.335	.270	1584.060	.000%	.000%
85.0	2.214	.248	1584.308	.000%	.000%
86.0	1.998	.230	1584.538	.000%	.000%
87.0	1.851	.211	1584.749	.000%	.000%
88.0	1.635	.191	1584.940	.000%	.000%
89.0	1.488	.171	1585.111	.000%	.000%
90.0	.000	.082	1585.193	.000%	.000%

Zonal flux distribution table

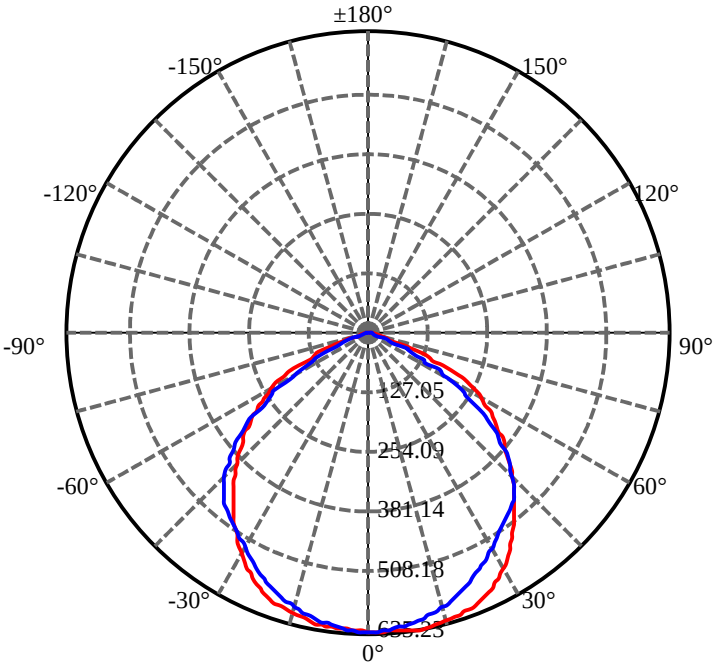
ZONAL LUMEN SUMMARY

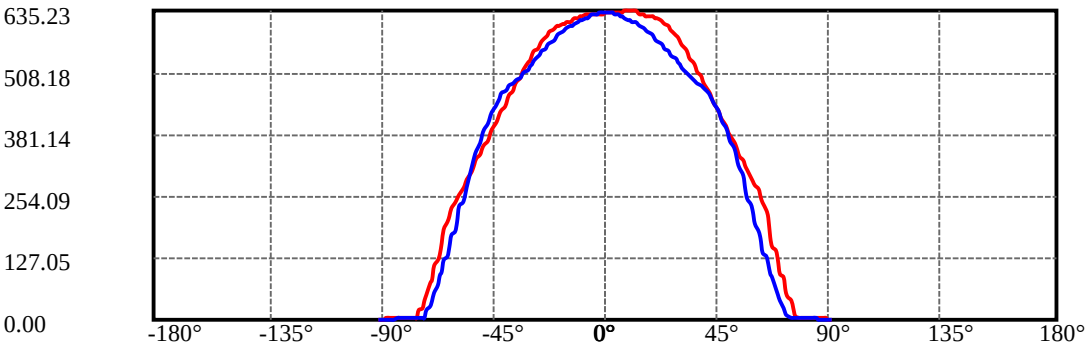
Zone	Lumens	%Lamp	%Fixt
0-30	491.85	N.A.	31.03%
0-40	802.72	N.A.	50.64%
0-60	1399.49	N.A.	88.29%
0-90	1585.11	N.A.	99.99%
0-120	1585.11	N.A.	99.99%
0-180	1585.19	N.A.	100.00%
60-90	208.94	N.A.	13.18%
90-120	0.00	N.A.	0.00%
90-130	0.00	N.A.	0.00%
90-150	0.00	N.A.	0.00%
90-180	0.00	N.A.	0.00%
0-54.85	1268.15	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	59.64
10-20	171.62
20-30	260.59
30-40	310.87
40-50	321.66
50-60	275.11
60-70	158.43
70-80	24.91
80-90	2.28
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

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:80.5 Right:61.9

:C90/270Left:68.6 Right:67.0

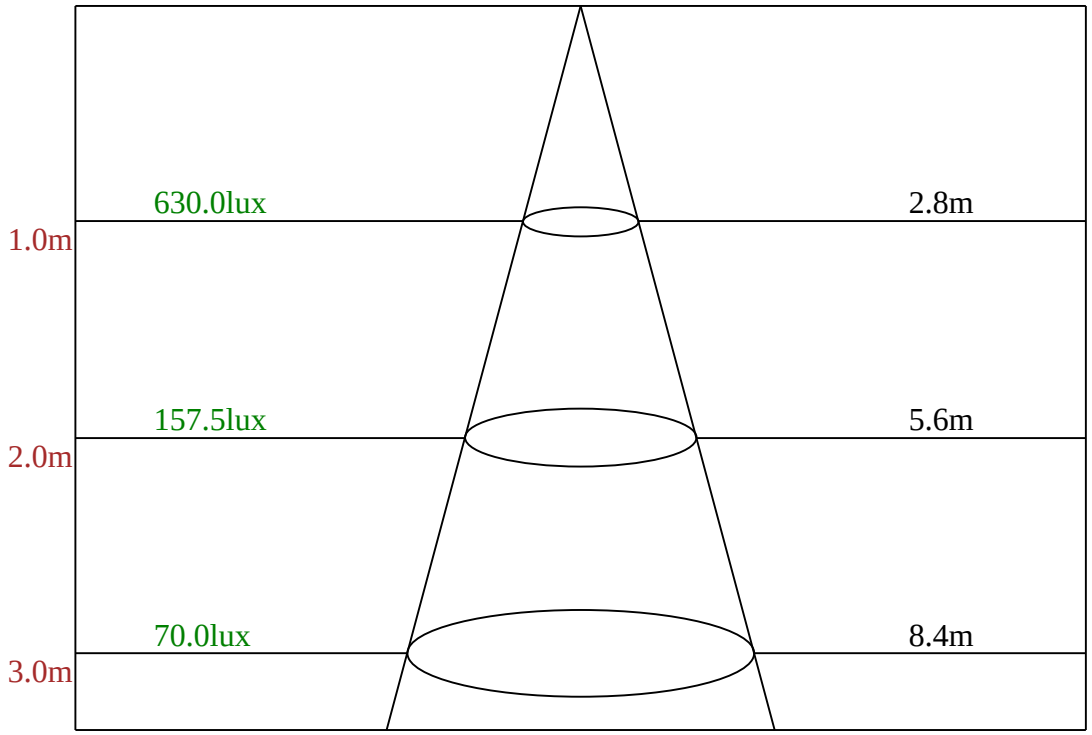
Beam Angle(50%Imax):C0/180Left:62.2 Right:45.8

:C90/270Left:54.2 Right:52.7

Equipment: GMS-1800 Date: 2015/11/3 Operator: CYF

Temperature(°C): 26.0 Humidity(%): 45.0% Distance(m): 14.41

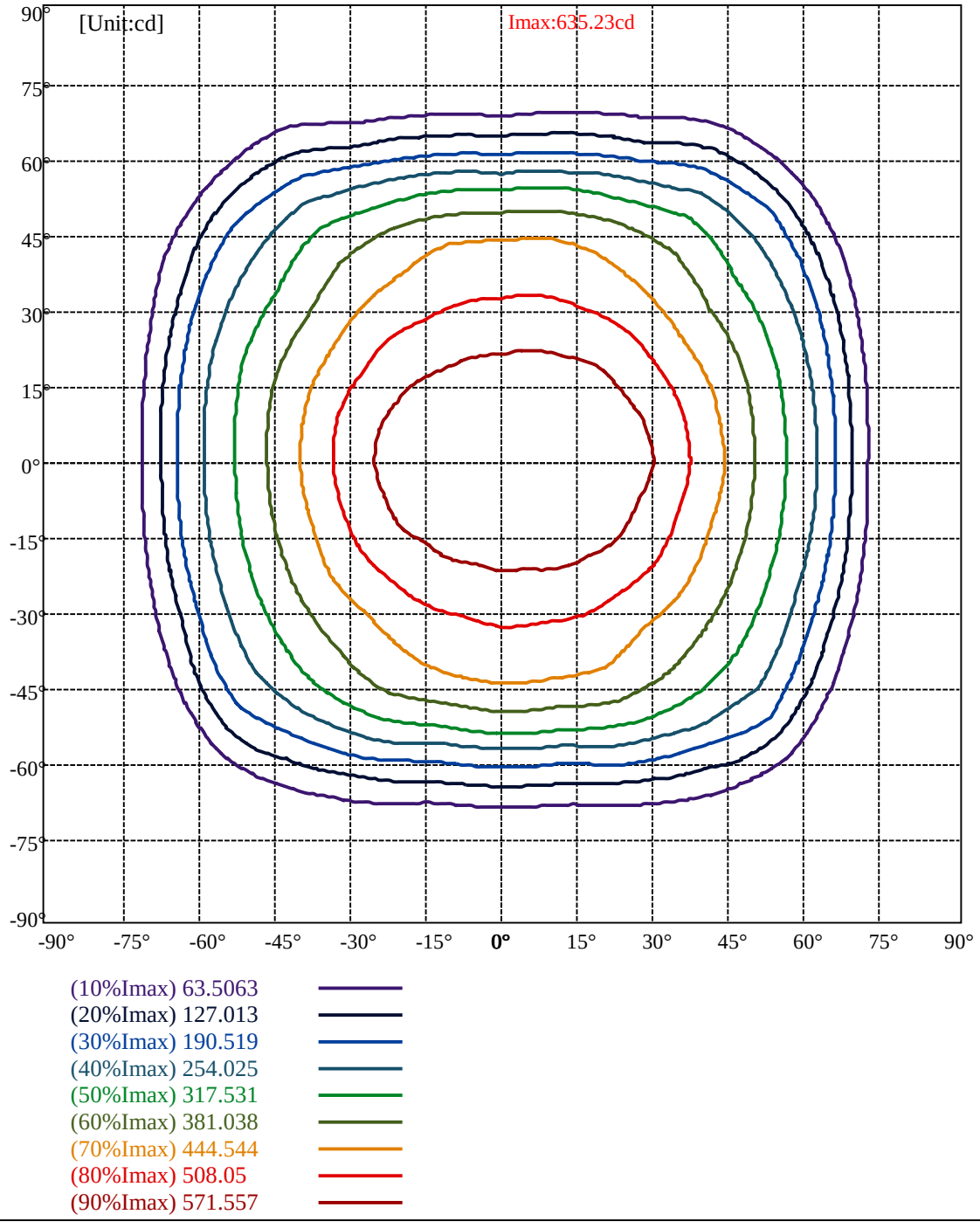
Lux distance Curve



Beam angle of C15plane108.98

Equipment: GMS-1800 Date: 2015/11/3 Operator: CYF
Temperature(°C): 26.0 Humidity(%): 45.0% Distance(m): 14.41

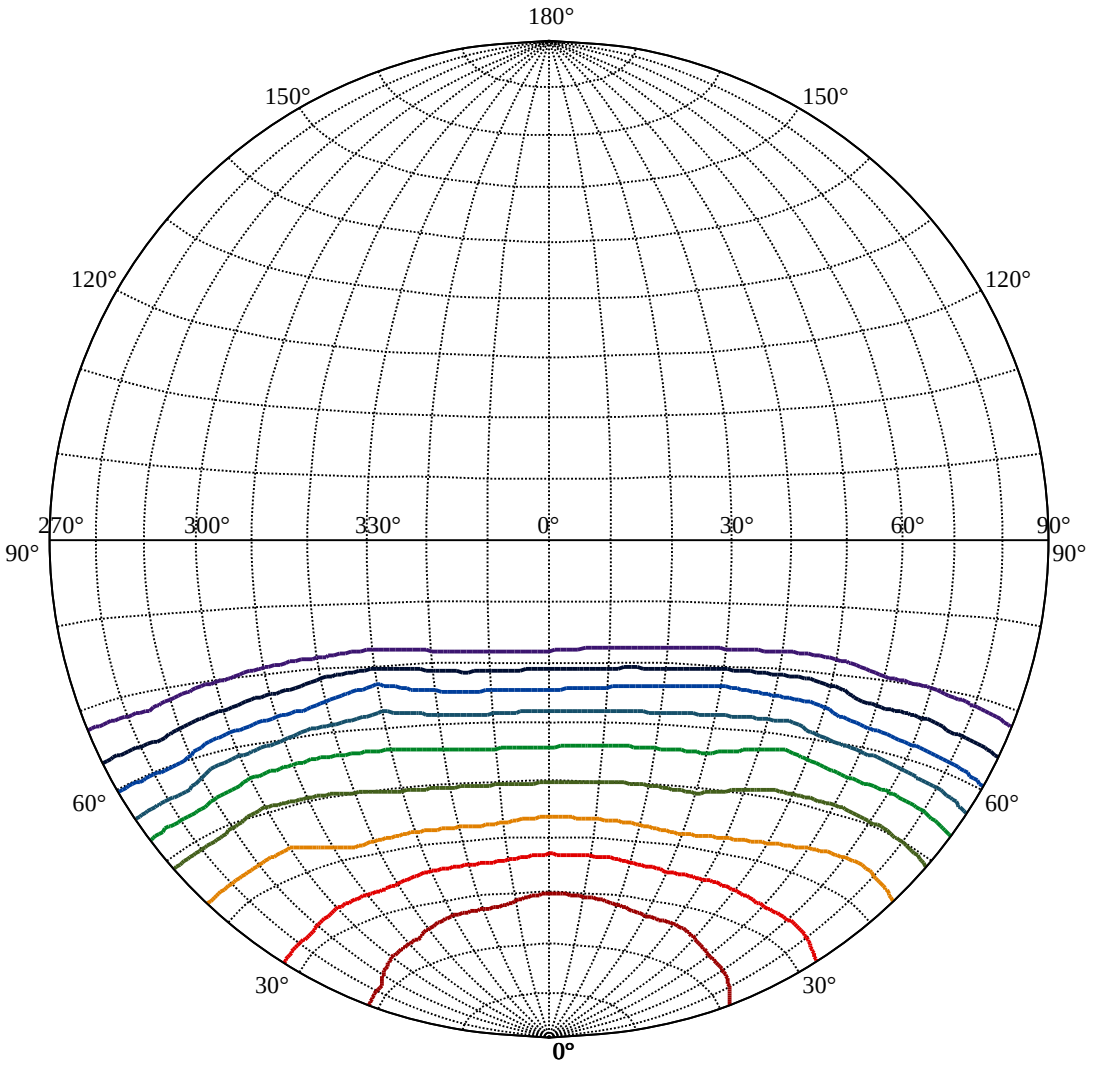
ISO-Intensity(V-H)



Equipment: GMS-1800 Date: 2015/11/3 Operator: CYF

Temperature(°C): 26.0 Humidity(%): 45.0% Distance(m): 14.41

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:635.23

(10%Imax) 63.5227
(20%Imax) 127.045
(30%Imax) 190.568
(40%Imax) 254.091
(50%Imax) 317.613
(60%Imax) 381.136
(70%Imax) 444.659
(80%Imax) 508.181
(90%Imax) 571.704

Equipment: GMS-1800 Date: 2015/11/3 Operator: CYF
Temperature(°C): 26.0 Humidity(%): 45.0% Distance(m): 14.41

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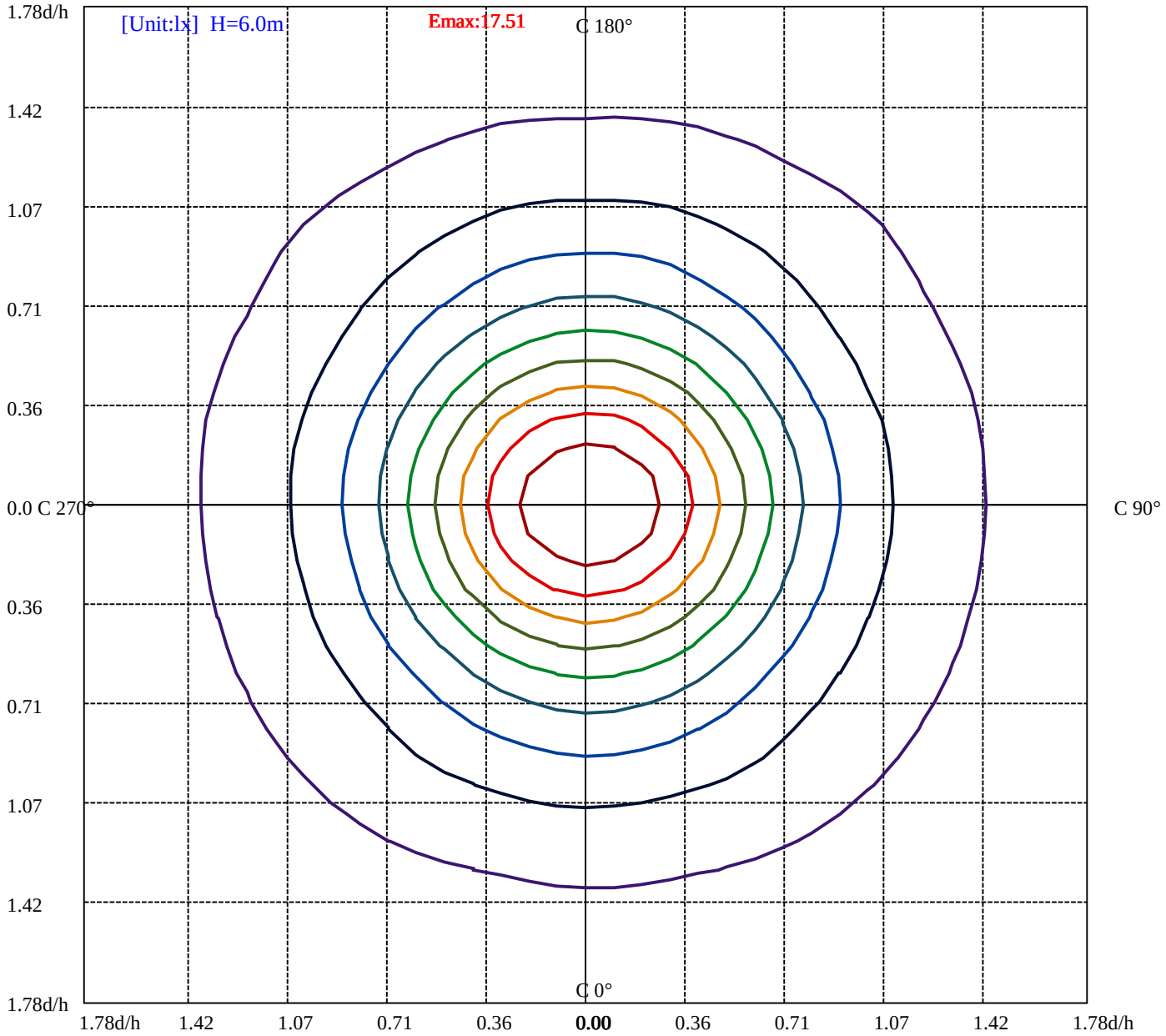
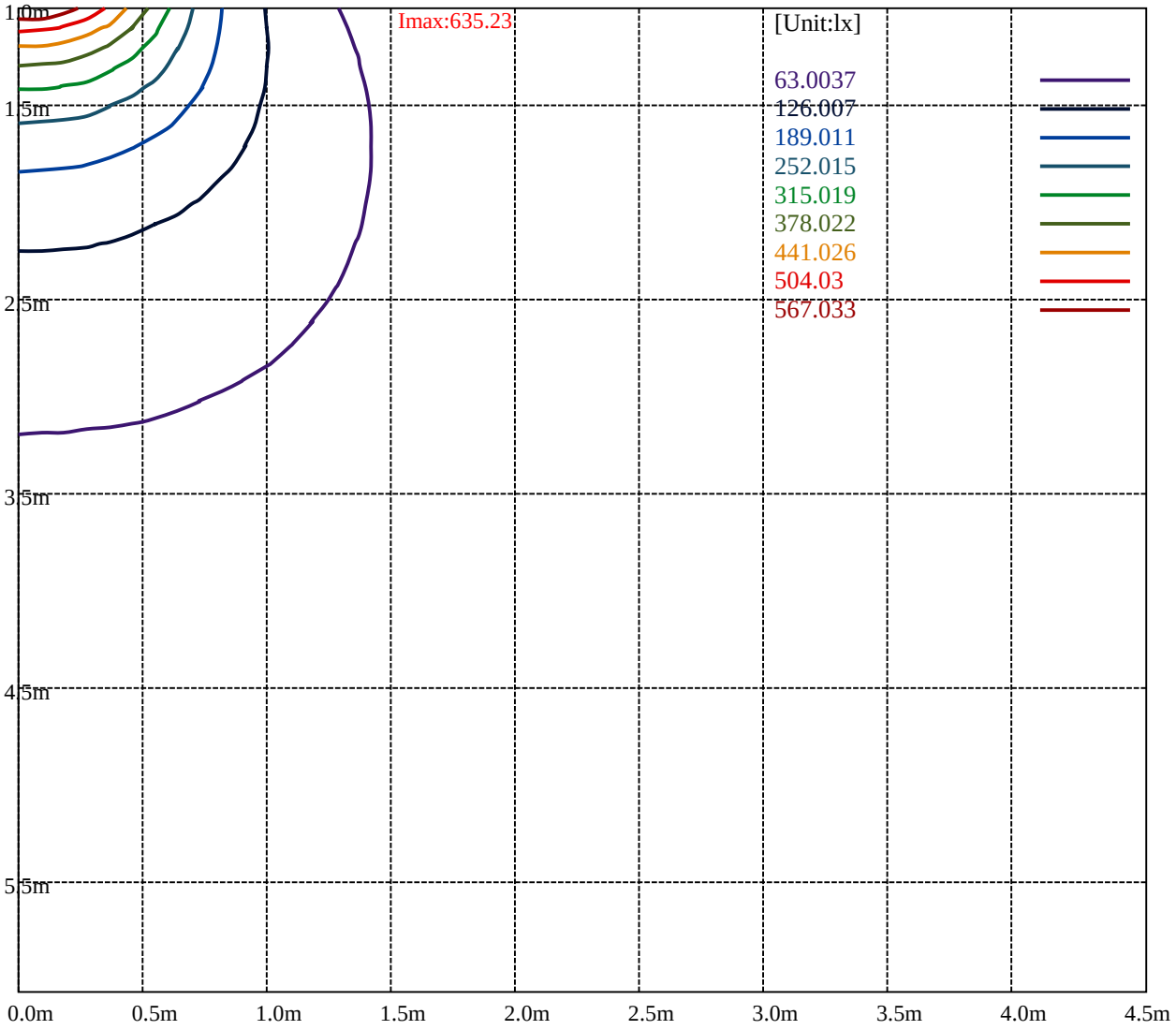
ISO illuminance diagram



(10%Emax) 1.751256
(20%Emax) 3.5025
(30%Emax) 5.253778
(40%Emax) 7.005028
(50%Emax) 8.756278
(60%Emax) 10.50753
(70%Emax) 12.25881
(80%Emax) 14.01006
(90%Emax) 15.7613

Equipment: GMS-1800 Date: 2015/11/3 Operator: CYF
Temperature(°C): 26.0 Humidity(%): 45.0% Distance(m): 14.41

Space ISO Lux diagram



Equipment: GMS-1800 Date: 2015/11/3 Operator: CYF
Temperature(°C): 26.0 Humidity(%): 45.0% Distance(m): 14.41

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	630.04	630.04	630.24	630.87	630.45	630.04	631.08	632.74	633.36
15.0	631.08	631.28	631.28	632.11	631.70	631.28	631.91	633.36	634.19
30.0	631.08	630.87	631.49	631.49	630.66	630.45	630.45	631.28	631.49
45.0	630.45	630.66	630.45	630.87	630.87	629.83	628.38	626.92	626.51
60.0	630.45	630.24	630.24	630.24	629.83	628.38	626.51	623.81	621.53
75.0	630.66	630.87	630.04	630.04	629.21	627.96	625.68	623.81	621.73
90.0	630.24	630.45	630.24	629.41	628.17	626.30	624.02	621.73	619.66
105.0	630.45	630.24	630.04	629.21	627.96	626.92	624.02	621.53	618.62
120.0	630.24	629.41	628.58	627.75	626.09	623.81	621.32	618.83	616.54
135.0	630.04	630.24	628.79	627.96	626.92	624.85	623.60	622.56	620.07
150.0	630.04	628.58	628.17	626.51	625.26	624.85	624.22	623.39	622.56
165.0	630.24	629.62	628.58	627.13	626.30	626.30	625.68	625.05	625.47
180.0	630.04	629.00	627.75	626.51	626.30	625.89	625.47	625.47	625.47
195.0	631.08	630.04	628.58	627.96	626.92	626.30	626.09	625.89	624.64
210.0	631.08	630.24	629.62	628.58	626.72	625.26	624.85	624.02	622.15
225.0	630.45	629.83	629.00	627.13	625.47	623.39	621.73	619.03	617.37
240.0	630.45	630.45	629.83	628.79	627.13	623.81	621.53	618.62	616.54
255.0	630.66	630.04	629.62	627.75	626.09	622.98	620.07	617.37	615.92
270.0	630.24	630.24	630.24	629.00	627.34	625.68	623.39	620.90	618.62
285.0	630.45	630.45	629.83	628.79	626.92	625.26	622.36	620.70	618.41
300.0	630.24	630.24	630.04	629.83	629.00	627.55	625.68	623.19	621.11
315.0	630.04	629.62	630.24	630.45	629.41	627.55	625.68	624.85	623.81
330.0	630.04	630.24	630.24	630.66	630.45	629.41	628.58	629.21	630.04
345.0	630.24	629.83	630.87	630.66	630.04	630.04	631.91	632.74	633.15
360.0	630.04	630.04	630.24	630.87	630.45	630.04	631.08	632.74	633.36

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	634.19	635.02	634.40	633.57	631.49	628.58	626.92	625.26	624.43
15.0	634.40	635.23	634.40	633.77	632.32	630.24	627.13	624.85	623.19
30.0	630.87	630.87	629.83	628.38	626.51	623.39	620.28	616.13	613.43
45.0	626.09	625.26	623.60	622.56	621.11	619.24	616.13	613.43	610.32
60.0	619.03	618.20	616.34	614.88	611.98	609.69	607.20	604.71	602.01
75.0	619.66	617.79	615.30	612.18	609.28	606.37	603.26	600.77	596.41
90.0	617.37	615.09	612.60	609.69	605.96	603.47	599.94	596.20	592.26
105.0	616.13	613.64	610.94	608.24	604.92	602.01	597.65	594.54	591.01
120.0	614.05	612.39	609.90	607.20	603.47	601.39	598.07	595.58	591.84
135.0	618.20	615.92	614.47	611.98	609.49	606.58	603.47	600.56	595.78
150.0	621.32	619.45	617.79	614.88	611.15	606.99	603.26	599.52	595.99
165.0	624.85	623.81	622.36	619.45	615.30	611.56	608.86	606.79	604.71
180.0	624.64	622.98	621.11	617.58	614.05	611.77	610.11	608.66	606.99
195.0	623.81	622.36	620.70	617.17	612.60	610.11	607.20	604.71	602.43
210.0	620.90	619.24	617.17	614.68	611.56	607.82	602.84	599.31	595.16
225.0	615.30	613.43	611.98	608.86	606.99	603.05	598.90	594.33	589.76
240.0	614.05	611.98	609.69	606.99	603.67	601.18	598.48	594.75	591.63
255.0	613.01	609.69	607.41	604.30	600.97	596.62	593.71	589.97	586.24
270.0	616.75	614.26	611.15	608.24	605.13	602.01	599.11	594.33	590.59
285.0	616.75	613.85	611.15	608.24	604.50	600.97	597.86	594.12	589.97
300.0	618.62	616.54	614.47	612.60	611.15	608.24	605.33	602.43	600.14
315.0	623.39	622.15	620.70	618.83	617.17	614.47	610.94	607.20	603.88
330.0	629.41	628.79	627.96	626.72	624.43	621.53	618.20	614.88	611.98
345.0	633.98	633.77	632.53	630.45	628.79	625.68	622.36	620.70	619.03
360.0	634.19	635.02	634.40	633.57	631.49	628.58	626.92	625.26	624.43

Intensity data(cd)

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	623.60	622.36	621.11	618.83	616.54	612.81	608.45	603.67	597.45
15.0	621.53	619.45	618.00	615.71	613.43	609.28	604.09	600.14	593.29
30.0	610.32	607.62	605.13	602.64	599.31	595.16	591.43	586.24	580.63
45.0	606.37	603.47	597.86	594.54	590.39	587.48	582.71	577.93	573.36
60.0	598.90	596.41	591.43	587.07	581.88	577.31	571.29	565.68	559.04
75.0	593.71	588.93	585.82	580.84	575.65	570.67	565.68	561.12	554.27
90.0	588.31	583.54	577.72	573.36	567.76	562.99	555.72	551.15	545.96
105.0	587.69	583.33	577.93	573.78	568.59	563.19	557.38	552.19	546.38
120.0	587.90	584.78	579.59	574.61	568.38	563.61	557.17	551.36	542.64
135.0	591.01	586.24	582.71	577.93	573.57	570.25	565.68	559.46	553.44
150.0	592.88	589.97	587.27	583.33	580.22	574.82	568.18	561.32	555.51
165.0	602.84	600.35	597.65	593.29	588.31	582.71	578.14	570.25	562.57
180.0	604.92	602.84	598.69	594.12	590.39	584.78	578.35	571.29	563.61
195.0	600.35	597.65	593.09	587.27	582.91	576.69	570.67	560.70	554.68
210.0	592.88	589.76	586.86	583.12	578.97	573.99	567.76	560.91	553.85
225.0	585.61	582.29	575.86	572.53	568.18	563.82	558.42	551.98	547.00
240.0	587.27	582.91	578.55	573.99	567.97	562.36	556.76	550.32	543.06
255.0	582.08	577.10	573.16	567.97	562.36	556.13	551.36	545.13	539.74
270.0	586.24	582.91	577.10	572.33	567.76	562.36	556.55	550.53	544.93
285.0	585.82	582.08	577.31	572.53	568.18	562.99	558.00	549.91	545.13
300.0	596.62	593.09	589.56	585.41	580.01	574.20	569.21	562.99	556.34
315.0	599.94	595.58	592.46	588.52	584.99	578.97	575.23	570.25	565.27
330.0	608.66	605.75	603.26	600.14	597.86	594.33	589.97	584.37	579.18
345.0	617.17	615.09	613.01	609.90	606.79	602.22	596.62	590.18	583.74
360.0	623.60	622.36	621.11	618.83	616.54	612.81	608.45	603.67	597.45

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	590.80	584.57	578.55	571.08	564.65	555.72	547.42	536.83	529.77
15.0	585.41	578.14	572.12	565.27	556.97	549.28	542.02	533.51	525.83
30.0	571.91	565.48	557.59	550.74	543.26	535.17	528.73	520.01	511.71
45.0	568.38	561.53	554.68	547.83	540.77	534.55	523.75	516.28	508.39
60.0	551.57	544.93	539.32	532.47	525.62	520.64	514.62	507.35	499.67
75.0	548.45	542.64	537.87	531.22	524.37	517.94	512.96	506.31	499.67
90.0	541.19	535.38	528.53	523.54	516.69	510.47	503.82	499.88	494.69
105.0	539.94	534.34	528.73	522.30	517.52	510.05	503.82	496.56	491.78
120.0	537.24	529.77	524.17	517.52	510.47	505.07	497.39	490.95	483.69
135.0	548.04	541.81	535.58	527.49	519.39	510.88	504.03	494.27	485.76
150.0	547.21	540.36	529.98	523.75	516.07	509.22	501.12	491.78	484.93
165.0	556.34	549.08	543.68	533.92	526.03	517.52	510.67	501.54	490.95
180.0	557.17	550.53	542.64	533.92	527.28	517.94	508.18	498.42	490.74
195.0	548.04	542.02	534.13	525.62	519.60	510.26	501.33	490.74	483.06
210.0	547.00	538.70	531.85	523.75	515.86	507.97	501.54	492.40	484.10
225.0	539.11	533.51	523.75	517.52	508.80	501.12	492.40	483.06	475.38
240.0	536.41	530.39	523.54	517.94	509.01	503.20	496.56	490.74	482.65
255.0	533.09	525.62	519.18	513.58	507.14	500.71	495.73	490.12	484.93
270.0	538.70	533.51	525.41	520.01	514.20	509.01	503.41	498.42	493.65
285.0	539.32	533.92	527.49	520.84	515.65	508.80	502.99	496.97	493.44
300.0	549.91	544.09	537.04	531.85	522.92	517.32	510.67	505.48	498.42
315.0	559.66	552.19	545.55	538.90	531.02	522.51	516.07	507.14	498.01
330.0	572.33	565.06	557.80	550.32	543.89	534.13	527.49	518.98	512.54
345.0	576.69	569.21	564.02	555.93	549.70	539.11	532.47	523.75	515.45
360.0	590.80	584.57	578.55	571.08	564.65	555.72	547.42	536.83	529.77

Intensity data(cd)

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	519.18	508.60	500.09	489.29	481.19	469.57	461.68	451.51	443.21
15.0	513.16	506.31	494.90	486.80	474.76	465.00	456.70	447.77	437.60
30.0	502.16	494.69	485.14	476.63	466.25	455.25	445.07	436.15	427.43
45.0	501.54	492.61	484.93	477.46	468.95	458.98	450.47	442.79	434.28
60.0	493.86	486.80	481.19	475.38	468.53	463.34	458.15	451.92	445.07
75.0	494.69	490.12	485.14	480.57	477.04	473.10	469.36	461.89	452.13
90.0	490.12	485.55	482.03	476.84	472.27	466.66	458.77	450.47	441.55
105.0	485.76	480.78	476.84	472.68	469.15	464.17	457.94	450.89	444.45
120.0	478.08	471.44	465.83	459.61	452.55	446.11	440.30	434.28	427.01
135.0	478.70	470.82	461.89	453.79	446.11	437.81	430.75	421.62	412.90
150.0	476.63	467.91	455.66	447.98	437.39	428.47	419.13	409.37	400.65
165.0	483.48	473.51	461.89	451.51	442.38	433.03	423.07	414.14	405.84
180.0	480.16	470.40	459.81	449.02	439.05	430.54	420.37	409.37	401.48
195.0	473.31	464.17	450.89	442.38	432.41	424.52	415.60	405.01	397.95
210.0	476.00	467.49	456.70	447.15	438.85	429.09	421.41	410.82	400.23
225.0	466.66	457.94	451.51	443.00	435.73	427.64	418.71	411.03	404.39
240.0	475.59	469.36	462.93	455.45	449.02	443.62	438.22	433.24	425.15
255.0	478.08	474.34	469.57	465.63	460.85	455.04	447.36	438.85	428.67
270.0	490.12	484.93	479.95	475.17	469.78	465.00	454.62	446.32	436.36
285.0	488.25	483.89	479.53	473.72	468.74	463.34	456.08	446.11	438.43
300.0	491.99	486.38	480.57	475.80	468.74	463.34	457.32	452.55	445.49
315.0	488.67	482.23	473.93	466.25	458.15	449.23	441.75	434.90	427.64
330.0	503.41	493.86	486.80	477.46	467.29	457.53	449.23	439.88	429.50
345.0	506.31	495.31	485.55	476.42	466.46	456.08	449.02	440.09	431.79
360.0	519.18	508.60	500.09	489.29	481.19	469.57	461.68	451.51	443.21

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	431.79	419.75	408.95	400.03	387.99	377.40	367.85	357.68	346.26
15.0	428.88	420.37	410.41	402.93	392.14	380.93	370.34	361.42	350.21
30.0	417.88	411.03	400.44	391.72	381.76	374.70	364.74	355.39	343.77
45.0	428.05	418.09	411.86	405.22	400.44	392.97	385.08	376.57	369.72
60.0	440.30	433.86	425.35	415.39	407.71	396.08	383.83	365.36	352.70
75.0	444.24	433.86	421.62	410.82	399.40	384.67	369.30	354.36	343.35
90.0	431.58	418.92	408.12	395.46	383.42	365.77	355.39	341.69	324.88
105.0	434.07	424.31	414.56	402.73	388.82	374.49	362.87	348.75	338.79
120.0	419.75	413.52	404.39	394.42	387.16	376.57	365.57	347.30	336.09
135.0	405.01	399.40	391.31	385.08	378.44	370.13	361.21	353.11	345.22
150.0	392.14	382.80	373.04	363.70	357.06	346.68	336.71	329.03	319.69
165.0	396.91	389.85	378.23	370.76	359.75	351.66	340.86	330.69	321.56
180.0	390.48	380.10	368.27	359.96	350.41	340.86	330.90	319.48	308.69
195.0	388.40	379.06	368.06	360.79	351.45	342.52	332.14	321.14	310.56
210.0	391.10	383.63	373.46	363.70	355.60	345.64	336.71	327.79	319.27
225.0	396.50	388.61	383.00	375.53	368.89	359.34	352.07	341.90	332.56
240.0	419.13	410.41	403.76	393.18	382.38	372.00	360.17	346.05	331.52
255.0	416.22	406.46	395.04	381.14	366.19	354.98	341.28	329.03	307.03
270.0	426.81	414.56	400.86	390.48	377.40	361.83	348.54	334.64	318.44
285.0	426.60	415.18	402.31	391.72	378.44	365.77	352.07	336.09	319.90
300.0	438.02	430.34	423.28	412.48	401.48	390.69	378.02	362.45	348.96
315.0	419.96	414.14	407.71	401.69	394.84	386.33	377.81	369.10	358.30
330.0	420.58	412.90	403.14	396.08	386.12	376.78	366.40	358.51	348.34
345.0	420.16	413.11	404.18	395.46	385.50	374.70	364.11	355.19	344.81
360.0	431.79	419.75	408.95	400.03	387.99	377.40	367.85	357.68	346.26

Intensity data(cd)

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	335.88	326.54	315.75	307.03	292.91	285.44	276.10	268.21	254.09
15.0	340.03	330.48	319.69	308.06	296.85	286.27	273.81	265.92	254.09
30.0	333.60	324.88	316.58	308.27	297.89	290.00	280.87	268.83	255.54
45.0	359.34	348.54	338.37	326.54	315.75	293.95	281.70	267.79	257.62
60.0	337.96	323.22	310.56	291.25	278.79	264.06	242.47	214.03	205.72
75.0	329.65	315.12	301.21	282.12	252.85	239.77	227.93	204.27	182.89
90.0	311.39	295.61	268.00	248.28	237.28	219.63	197.00	180.81	167.53
105.0	318.44	304.33	292.29	274.85	246.41	232.09	222.54	197.42	174.58
120.0	321.77	308.69	295.19	275.68	264.47	245.99	220.67	202.40	194.10
135.0	334.43	326.12	312.01	302.67	287.10	275.68	259.90	246.83	233.12
150.0	310.14	301.42	291.04	280.87	271.53	261.56	250.98	243.09	231.67
165.0	310.76	302.04	287.31	277.34	265.72	257.41	244.96	233.54	223.78
180.0	298.31	287.72	276.30	267.17	256.58	247.66	238.73	228.56	213.40
195.0	300.38	289.59	277.55	267.38	258.45	247.03	236.03	227.10	213.40
210.0	309.52	301.63	289.17	280.66	270.49	261.98	250.56	241.43	231.88
225.0	321.14	306.61	294.16	283.15	268.62	253.26	243.09	228.56	209.87
240.0	318.03	305.16	292.91	274.23	257.62	228.97	210.70	199.08	183.30
255.0	295.82	273.60	247.66	232.09	221.29	201.78	175.41	168.56	142.41
270.0	303.29	274.02	252.22	239.97	231.67	201.78	182.47	172.30	151.13
285.0	306.61	288.14	255.96	238.94	230.84	207.80	181.02	173.13	155.49
300.0	335.67	321.14	308.89	290.63	275.06	247.86	226.48	212.37	199.29
315.0	345.85	334.22	322.60	309.31	293.95	282.32	267.79	253.05	231.05
330.0	338.58	330.28	321.56	313.67	301.63	292.70	282.53	274.43	262.19
345.0	333.18	324.05	312.84	301.21	289.17	277.96	269.04	258.45	243.92
360.0	335.88	326.54	315.75	307.03	292.91	285.44	276.10	268.21	254.09

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	239.14	223.99	210.08	171.05	150.92	141.78	123.72	95.70	85.94
15.0	240.18	228.56	212.57	197.21	159.64	141.58	133.07	107.95	83.87
30.0	247.03	235.41	223.37	204.27	189.32	169.39	135.97	119.36	108.78
45.0	239.77	223.78	210.08	183.09	163.58	150.09	128.50	115.42	104.63
60.0	190.15	165.24	151.75	132.03	110.23	103.80	81.58	73.49	53.35
75.0	171.68	159.43	129.12	121.86	96.74	88.02	68.09	57.71	40.90
90.0	138.46	129.33	113.14	93.42	85.94	62.69	51.48	38.82	23.25
105.0	165.03	142.61	124.35	118.53	88.43	82.83	60.41	55.01	36.12
120.0	170.64	152.16	143.24	117.29	102.76	90.09	72.66	57.71	46.09
135.0	216.31	201.16	177.28	160.05	148.63	134.31	112.93	102.13	80.13
150.0	220.05	207.18	194.10	180.19	166.90	148.63	114.38	100.06	88.85
165.0	212.37	197.83	184.34	171.88	137.63	120.40	110.85	84.70	71.62
180.0	201.16	183.72	159.43	134.73	123.31	111.68	81.58	73.90	52.11
195.0	200.95	183.09	172.09	139.50	123.52	112.93	86.57	73.90	63.11
210.0	220.25	211.53	194.30	179.77	163.17	149.88	117.50	98.61	83.04
225.0	187.66	167.94	153.20	142.41	118.12	106.49	86.98	74.32	58.75
240.0	158.81	145.11	127.25	107.53	101.10	77.02	72.45	49.82	42.76
255.0	127.67	119.57	96.53	86.98	64.15	55.84	36.74	26.57	15.36
270.0	132.03	120.40	97.36	89.89	70.58	56.88	39.23	26.16	19.72
285.0	133.27	120.82	98.81	89.06	70.37	58.96	38.40	33.01	19.10
300.0	172.51	156.73	141.99	117.29	109.19	87.40	77.85	58.75	48.37
315.0	217.76	189.53	172.92	161.30	135.35	119.57	110.23	85.73	72.45
330.0	250.15	237.48	226.27	209.25	191.61	176.45	142.41	118.33	104.83
345.0	232.50	216.10	204.06	161.51	145.52	134.31	120.40	88.85	79.51
360.0	239.14	223.99	210.08	171.05	150.92	141.78	123.72	95.70	85.94

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	60.82	48.58	41.31	22.00	7.27	5.60	4.57	3.94	3.74
15.0	80.13	53.35	45.67	28.65	20.97	5.60	11.00	4.57	4.15
30.0	78.05	59.79	47.54	29.27	22.42	13.08	5.40	6.02	3.94
45.0	80.13	60.20	45.46	35.71	21.80	15.15	7.89	4.36	3.94
60.0	46.71	31.76	16.61	6.23	4.98	4.57	3.94	3.74	3.53
75.0	31.97	19.31	6.44	5.40	4.77	4.36	3.94	3.74	3.32
90.0	12.66	6.44	5.19	4.98	4.36	3.74	3.53	3.32	3.11
105.0	22.83	13.08	6.23	5.19	4.77	4.36	3.74	3.53	3.32
120.0	32.18	22.63	12.46	5.40	4.77	4.36	3.94	3.53	3.32
135.0	73.28	47.12	35.50	26.78	14.95	8.51	4.36	3.74	3.53
150.0	57.71	49.20	30.52	24.08	12.04	4.36	3.94	3.53	3.53
165.0	63.94	40.27	31.97	17.85	6.23	4.36	3.74	3.53	3.53
180.0	41.10	22.63	17.85	4.77	4.36	3.74	3.74	3.53	3.32
195.0	41.31	31.35	18.27	7.27	4.15	3.74	3.53	3.32	3.11
210.0	59.37	48.78	28.65	23.87	11.42	4.77	3.53	3.53	3.11
225.0	41.52	28.65	20.55	13.70	4.77	3.74	3.74	3.32	3.11
240.0	28.86	15.98	5.60	4.36	4.15	3.53	3.53	3.11	2.91
255.0	5.40	4.77	4.36	3.94	3.53	3.53	3.32	2.70	2.49
270.0	5.81	5.19	4.57	4.15	3.74	3.32	3.11	2.91	2.49
285.0	5.40	4.77	4.57	4.15	3.74	3.53	3.11	2.70	2.49
300.0	31.97	20.97	9.13	4.77	4.15	3.74	3.74	3.32	3.32
315.0	54.60	38.20	29.69	14.95	8.93	3.94	3.53	3.53	3.11
330.0	75.15	59.16	50.03	29.06	17.02	11.63	4.15	3.74	3.53
345.0	61.45	45.05	28.02	19.31	5.40	6.64	3.74	3.53	3.53
360.0	60.82	48.58	41.31	22.00	7.27	5.60	4.57	3.94	3.74

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.53	3.53	3.11	2.70	2.70	2.70	2.28	2.08	1.87
15.0	3.74	3.53	3.32	2.91	2.91	2.49	2.28	2.08	1.87
30.0	3.74	3.32	3.11	2.70	2.70	2.28	2.08	2.08	1.87
45.0	3.74	3.32	3.11	2.91	2.70	2.28	2.28	1.87	1.87
60.0	3.11	2.91	2.70	2.28	2.28	2.08	1.87	1.66	1.45
75.0	3.11	2.70	2.70	2.28	2.08	1.87	1.66	1.66	1.45
90.0	2.70	2.49	2.28	2.08	1.87	1.87	1.66	1.25	1.04
105.0	3.11	2.70	2.70	2.28	2.08	1.87	1.66	1.66	1.25
120.0	2.91	2.70	2.49	2.08	2.08	1.87	1.87	1.66	1.66
135.0	3.32	3.11	2.70	2.70	2.28	2.28	1.87	1.87	1.45
150.0	3.32	2.91	2.70	2.49	2.28	2.08	1.87	1.66	1.66
165.0	3.11	3.11	2.91	2.49	2.49	2.28	1.87	1.87	1.87
180.0	3.11	2.91	2.70	2.49	2.49	2.08	2.08	1.87	1.66
195.0	3.11	2.70	2.49	2.28	2.28	1.87	1.87	1.66	1.45
210.0	2.91	2.70	2.49	2.28	2.08	2.08	1.87	1.45	1.45
225.0	2.70	2.49	2.28	1.87	1.87	1.66	1.45	1.45	1.45
240.0	2.70	2.49	2.08	1.87	1.66	1.66	1.45	1.25	1.25
255.0	2.28	2.08	2.08	1.66	1.66	1.45	1.45	1.04	1.25
270.0	2.49	2.08	2.08	1.66	1.87	1.66	1.45	1.04	1.04
285.0	2.28	2.28	2.08	1.87	1.66	1.66	1.45	1.25	0.83
300.0	2.70	2.70	2.28	2.28	2.08	1.66	1.87	1.45	1.25
315.0	2.91	2.91	2.49	2.28	2.08	1.87	1.87	1.66	1.45
330.0	3.11	3.11	2.91	2.70	2.28	2.08	2.08	1.87	1.66
345.0	3.32	3.11	2.91	2.91	2.70	2.28	2.28	1.87	1.66
360.0	3.53	3.53	3.11	2.70	2.70	2.70	2.28	2.08	1.87

Intensity data(cd)

C/γ(°)	90.0
0.0	0.00
15.0	0.00
30.0	0.00
45.0	0.00
60.0	0.00
75.0	0.00
90.0	0.00
105.0	0.00
120.0	0.00
135.0	0.00
150.0	0.00
165.0	0.00
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	0.00
360.0	0.00