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## NATA

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Client:

LumCAT: 1-1381-L Luminaire:

92.70.410.00 Report No: 2023829-

B014 Ballast type: AC

Test No: 2023829-C014

LampCAT: LUXEON CoB 1203 LES9

Voltage(V): 35.890

Lamp flux(lm): 1615.6 Number of

Current(A): 0.378

Lamps: 1 Length(mm): 0

Power (W): 13.566

Phm Type: C

PF: 0.000

Width(mm): 0

Height(mm): 0

## Photometric Results

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Lumens(lm): 1500.73, Efficiency(%): 92.89% , Luminous Efficacy(lm/W): 110.62

Central intensity(cd): 7401.413, Maximum intensity(cd): 7401.413

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=17.6

[C90/270]Total=17.6

Field angle(10%Imax): [C0/180]Total=49.4

[C90/270]Total=49.4

Maximum s/h(1/2): C0\_180=0.30 C90\_270=0.30

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(%): 92.89%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 97.894%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7401.413	0.000	0	0.00%	0.00%
1.0	7324.679	7.046	7.046	0.44%	0.47%
2.0	7091.779	20.692	27.738	1.28%	1.85%
3.0	6732.603	33.063	60.801	2.05%	4.05%
4.0	6284.170	43.571	104.373	2.70%	6.95%
5.0	5742.881	51.740	156.112	3.20%	10.40%
6.0	5190.313	57.457	213.569	3.56%	14.23%
7.0	4615.812	60.866	274.436	3.77%	18.29%
8.0	4084.002	62.263	336.699	3.85%	22.44%
9.0	3611.075	62.364	399.063	3.86%	26.59%
10.0	3174.404	61.406	460.469	3.80%	30.68%
11.0	2818.342	59.880	520.349	3.71%	34.67%
12.0	2511.753	58.266	578.615	3.61%	38.56%
13.0	2269.581	56.742	635.357	3.51%	42.34%
14.0	2051.141	55.305	690.662	3.42%	46.02%
15.0	1857.957	53.666	744.328	3.32%	49.60%
16.0	1682.902	51.883	796.211	3.21%	53.05%
17.0	1531.233	50.053	846.264	3.10%	56.39%
18.0	1362.038	47.704	893.968	2.95%	59.57%
19.0	1235.610	45.194	939.161	2.80%	62.58%
20.0	1143.861	43.551	982.712	2.70%	65.48%
21.0	1064.664	42.408	1025.12	2.62%	68.31%
22.0	973.269	40.953	1066.074	2.53%	71.04%
23.0	876.932	38.822	1104.896	2.40%	73.62%
24.0	793.300	36.517	1141.413	2.26%	76.06%
25.0	722.240	34.460	1175.873	2.13%	78.35%
26.0	654.688	32.503	1208.376	2.01%	80.52%
27.0	593.273	30.532	1238.907	1.89%	82.55%
28.0	528.004	28.388	1267.296	1.76%	84.45%
29.0	466.610	26.022	1293.318	1.61%	86.18%
30.0	404.441	23.518	1316.836	1.46%	87.75%
31.0	340.058	20.718	1337.554	1.28%	89.13%
32.0	282.158	17.826	1355.38	1.10%	90.31%
33.0	240.892	15.409	1370.789	0.95%	91.34%
34.0	183.386	12.840	1383.629	0.79%	92.20%
35.0	147.753	10.284	1393.913	0.64%	92.88%
36.0	102.245	7.960	1401.873	0.49%	93.41%
37.0	84.795	6.100	1407.973	0.38%	93.82%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	73.987	5.300	1413.273	0.33%	94.17%
39.0	65.580	4.764	1418.037	0.29%	94.49%
40.0	58.945	4.343	1422.38	0.27%	94.78%
41.0	52.890	3.982	1426.362	0.25%	95.04%
42.0	47.611	3.651	1430.014	0.23%	95.29%
43.0	42.899	3.353	1433.366	0.21%	95.51%
44.0	38.934	3.089	1436.455	0.19%	95.72%
45.0	35.641	2.866	1439.321	0.18%	95.91%
46.0	32.797	2.676	1441.997	0.17%	96.09%
47.0	30.188	2.505	1444.503	0.16%	96.25%
48.0	28.050	2.354	1446.857	0.15%	96.41%
49.0	26.037	2.221	1449.078	0.14%	96.56%
50.0	24.522	2.108	1451.186	0.13%	96.70%
51.0	23.186	2.018	1453.204	0.12%	96.83%
52.0	21.975	1.938	1455.142	0.12%	96.96%
53.0	20.986	1.869	1457.011	0.12%	97.09%
54.0	20.218	1.816	1458.827	0.11%	97.21%
55.0	19.574	1.776	1460.604	0.11%	97.33%
56.0	19.028	1.744	1462.348	0.11%	97.44%
57.0	18.599	1.720	1464.068	0.11%	97.56%
58.0	18.211	1.702	1465.77	0.11%	97.67%
59.0	17.845	1.686	1467.456	0.10%	97.78%
60.0	17.478	1.669	1469.125	0.10%	97.89%
61.0	16.973	1.644	1470.769	0.10%	98.00%
62.0	16.309	1.604	1472.373	0.10%	98.11%
63.0	15.596	1.552	1473.924	0.10%	98.21%
64.0	14.759	1.489	1475.414	0.09%	98.31%
65.0	13.970	1.422	1476.836	0.09%	98.41%
66.0	13.167	1.354	1478.189	0.08%	98.50%
67.0	12.496	1.290	1479.48	0.08%	98.58%
68.0	11.887	1.235	1480.715	0.08%	98.67%
69.0	11.368	1.186	1481.901	0.07%	98.75%
70.0	10.932	1.145	1483.047	0.07%	98.82%
71.0	10.531	1.109	1484.156	0.07%	98.90%
72.0	10.206	1.078	1485.234	0.07%	98.97%
73.0	9.894	1.051	1486.285	0.07%	99.04%
74.0	9.583	1.024	1487.309	0.06%	99.11%
75.0	9.327	0.999	1488.309	0.06%	99.17%

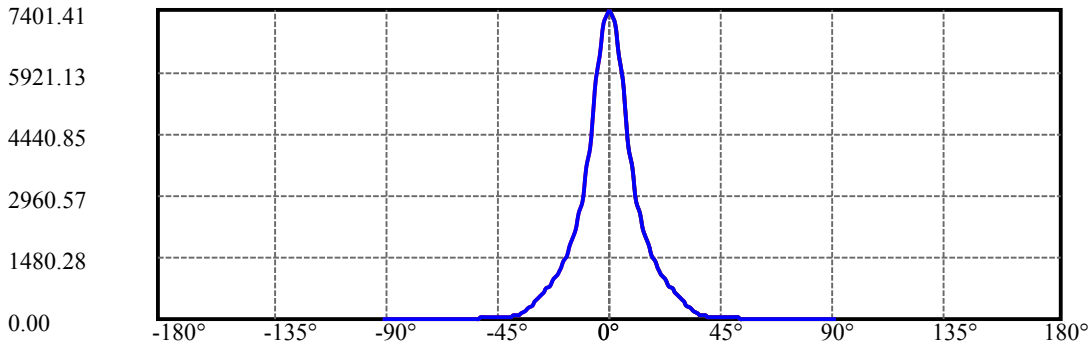
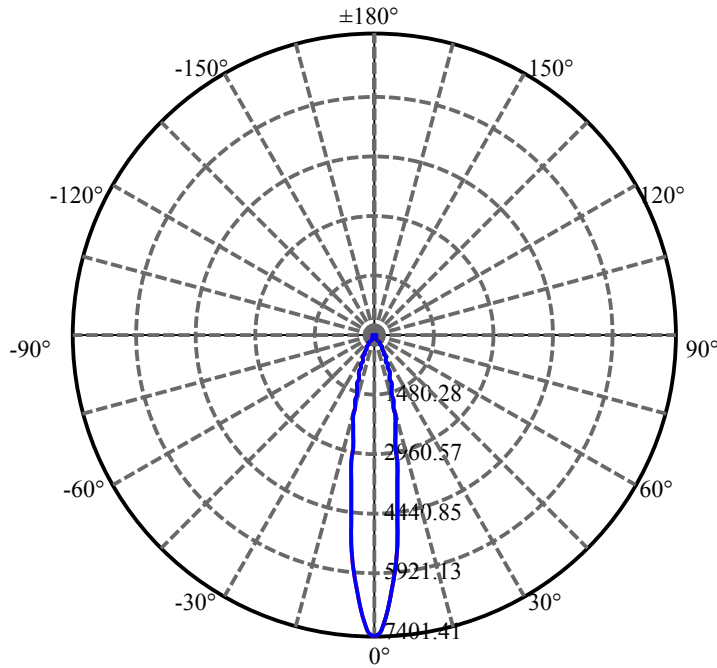
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.043	0.975	1489.284	0.06%	99.24%
77.0	8.780	0.950	1490.234	0.06%	99.30%
78.0	8.518	0.926	1491.16	0.06%	99.36%
79.0	8.296	0.903	1492.063	0.06%	99.42%
80.0	8.061	0.882	1492.945	0.05%	99.48%
81.0	7.846	0.860	1493.806	0.05%	99.54%
82.0	7.660	0.841	1494.646	0.05%	99.59%
83.0	7.452	0.821	1495.468	0.05%	99.65%
84.0	7.265	0.802	1496.27	0.05%	99.70%
85.0	7.065	0.782	1497.052	0.05%	99.75%
86.0	6.905	0.764	1497.815	0.05%	99.81%
87.0	6.788	0.749	1498.565	0.05%	99.86%
88.0	6.629	0.735	1499.3	0.05%	99.90%
89.0	6.504	0.720	1500.019	0.04%	99.95%
90.0	6.428	0.709	1500.728	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1316.84	81.51%	87.75%
0-40	1422.38	88.04%	94.78%
0-60	1469.12	90.93%	97.89%
0-90	1500.02	92.85%	99.95%
0-120	1500.02	92.85%	99.95%
0-180	1500.73	92.89%	100.00%
60-90	30.89	1.91%	2.06%
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%
0-25.76	1200.58	74.31%	80.00%

ZONAL LUMEN SUMMARY

0-10	460.47
10-20	522.24
20-30	334.12
30-40	105.54
40-50	28.81
50-60	17.94
60-70	13.92
70-80	9.90
80-90	7.07
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: —————

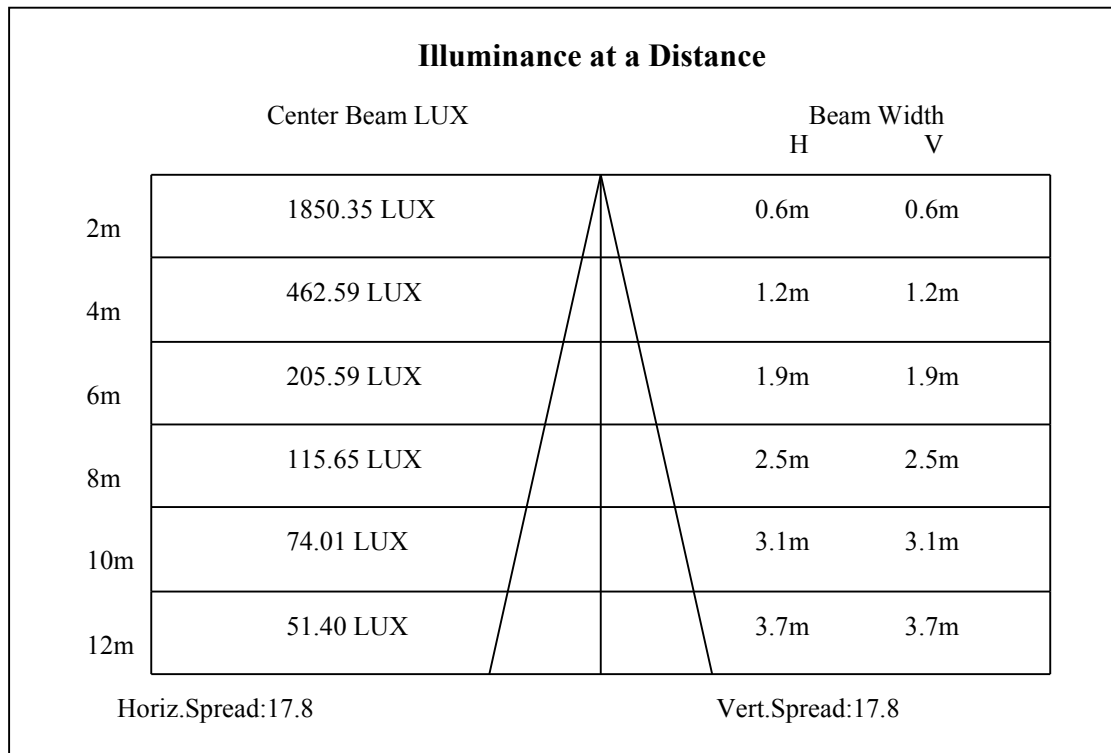
C90/C270: —————

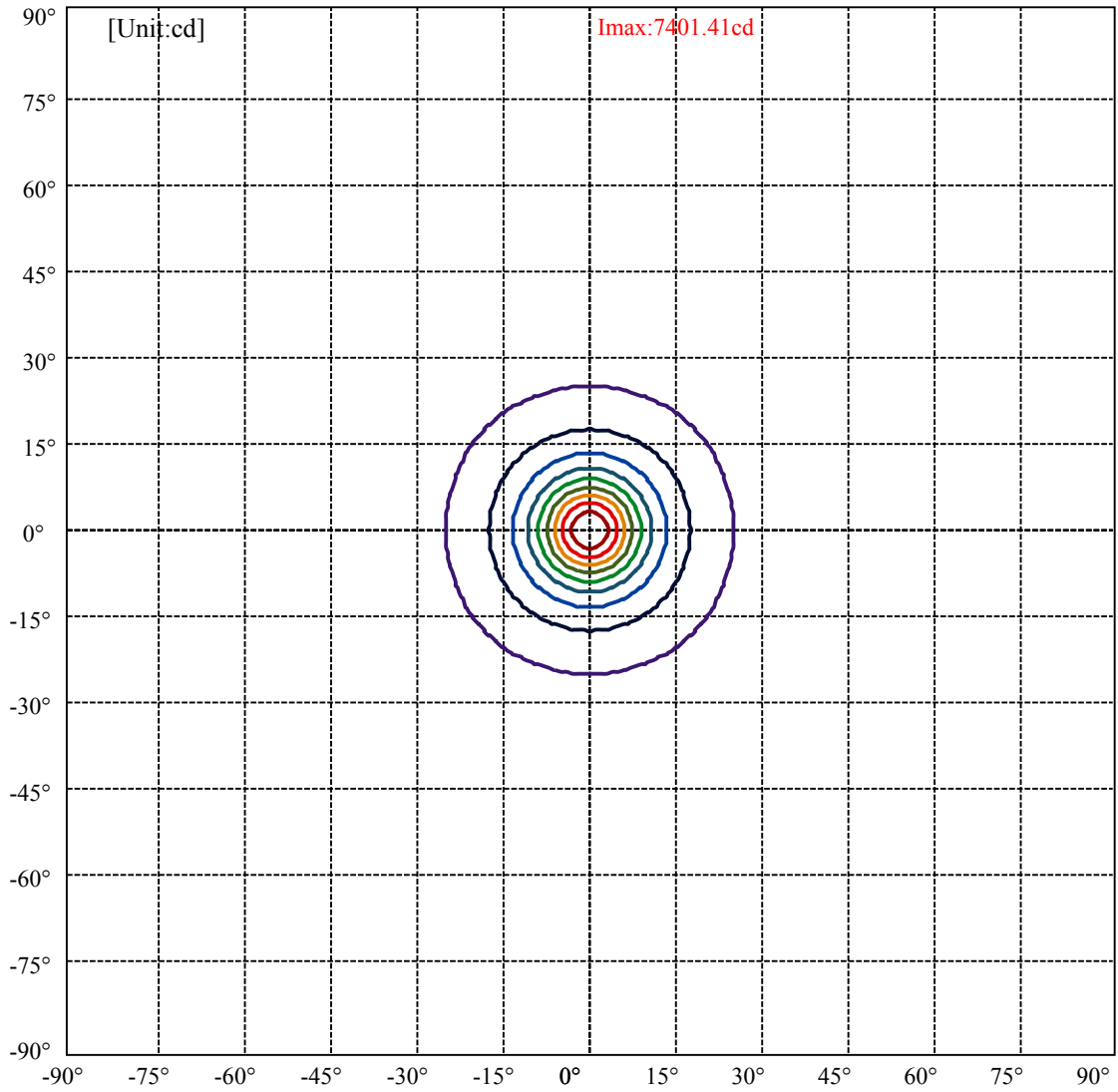
Field angle(10%Imax):C0/180Left:24.7 Right:24.7

:C90/270Left:24.7 Right:24.7

Beam Angle(50%Imax):C0/180Left:8.8 Right:8.8

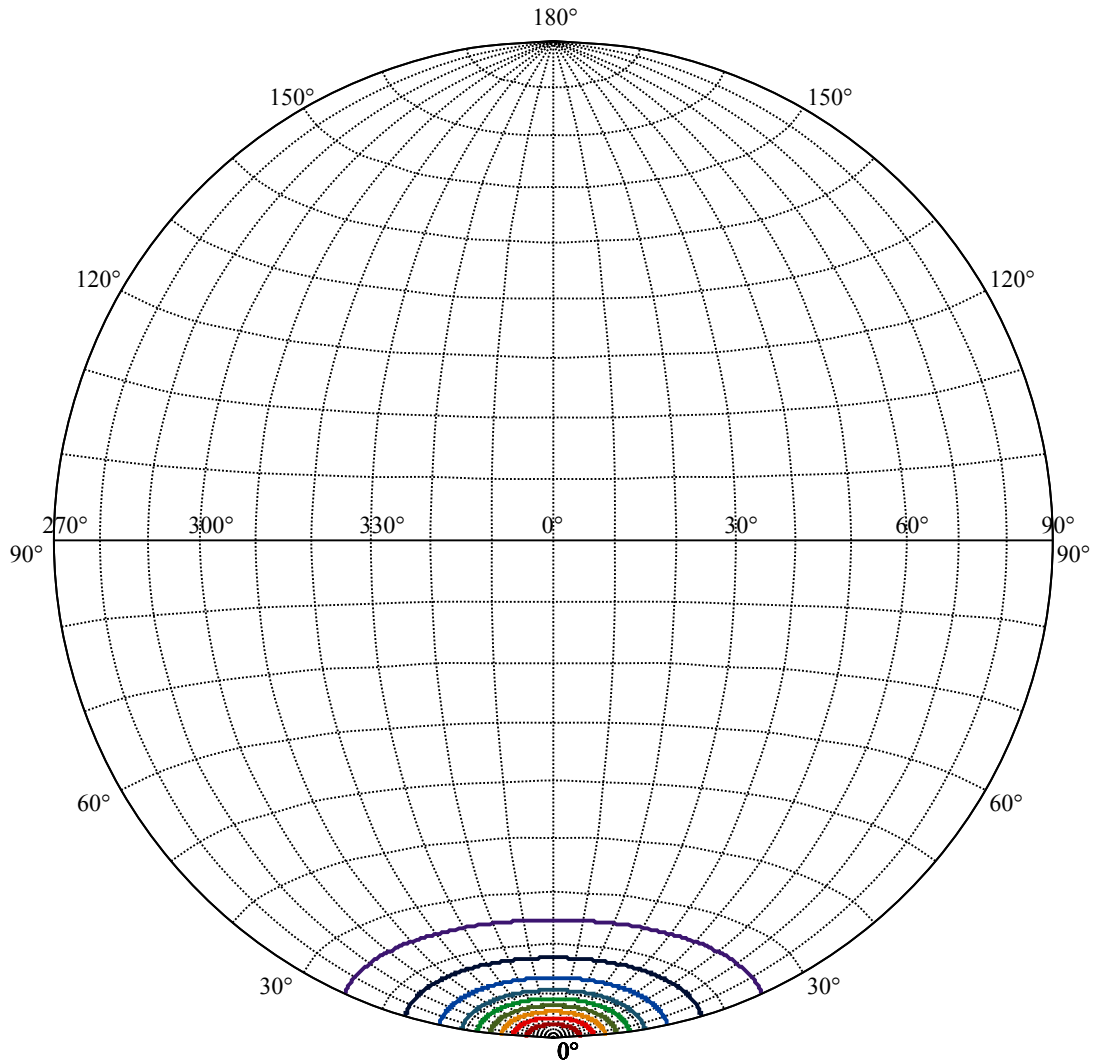
:C90/270Left:8.8 Right:8.8





(10%Imax) 740.141	—
(20%Imax) 1480.28	—
(30%Imax) 2220.42	—
(40%Imax) 2960.57	—
(50%Imax) 3700.71	—
(60%Imax) 4440.85	—
(70%Imax) 5180.99	—
(80%Imax) 5921.13	—
(90%Imax) 6661.27	—





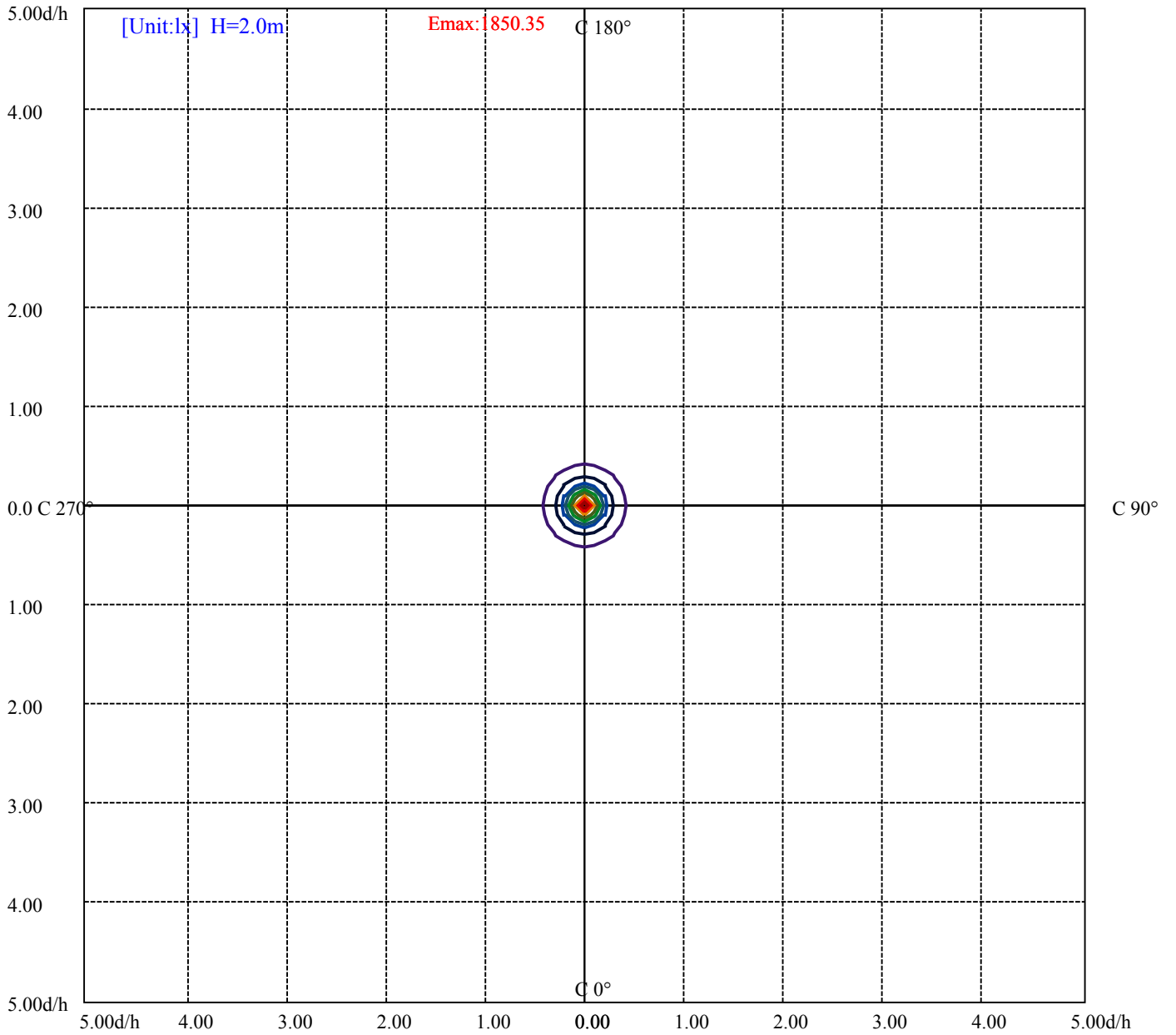
House

[Unit:cd]

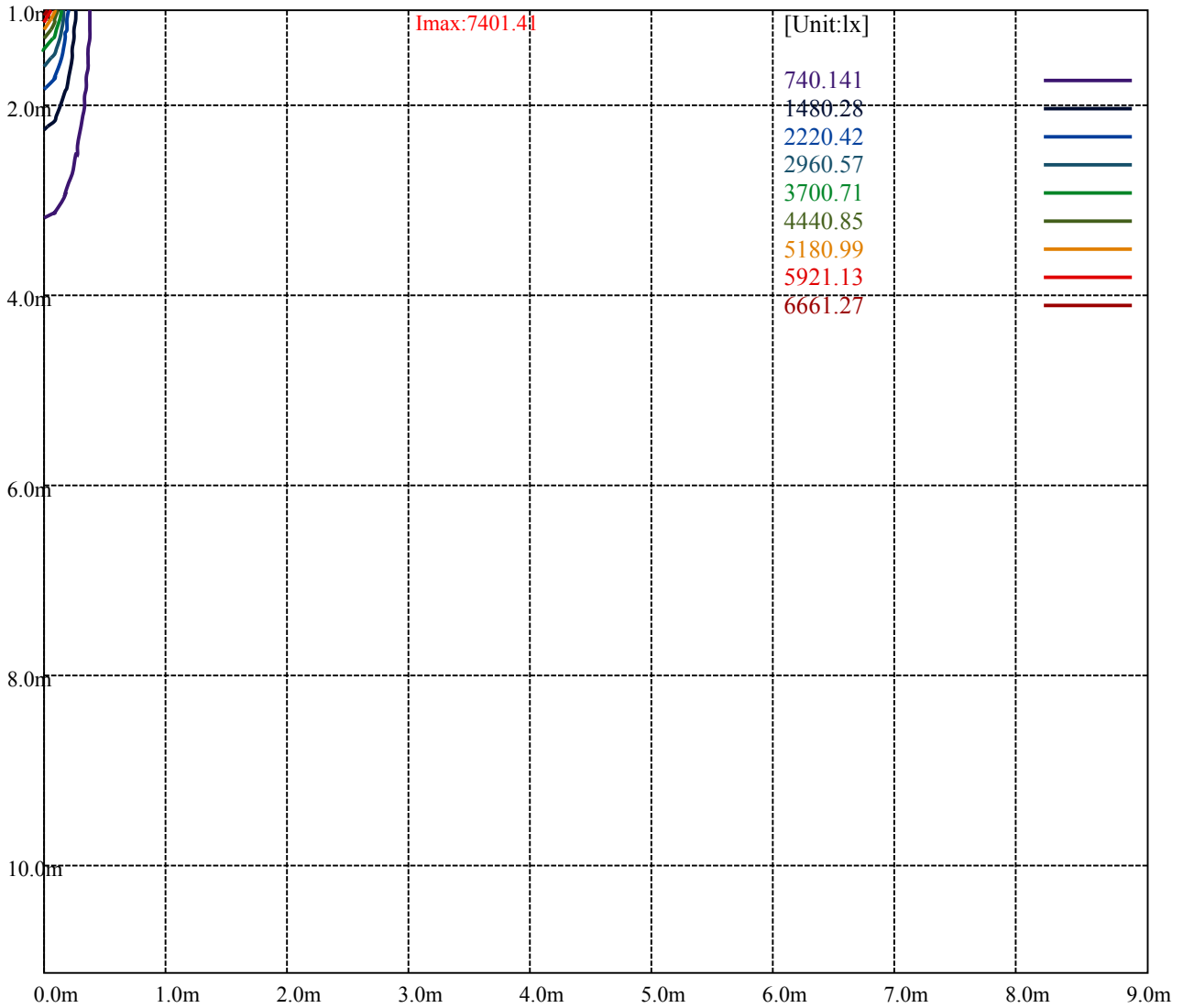
Road

**Imax:7401.41**

(10%Imax) 740.141	—
(20%Imax) 1480.28	—
(30%Imax) 2220.42	—
(40%Imax) 2960.57	—
(50%Imax) 3700.71	—
(60%Imax) 4440.85	—
(70%Imax) 5180.99	—
(80%Imax) 5921.13	—
(90%Imax) 6661.27	—



(10%Emax) 185.035	—
(20%Emax) 370.07	—
(30%Emax) 555.105	—
(40%Emax) 740.14	—
(50%Emax) 925.175	—
(60%Emax) 1110.21	—
(70%Emax) 1295.245	—
(80%Emax) 1480.28	—
(90%Emax) 1665.315	—



Luminance Table

$\gamma$	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

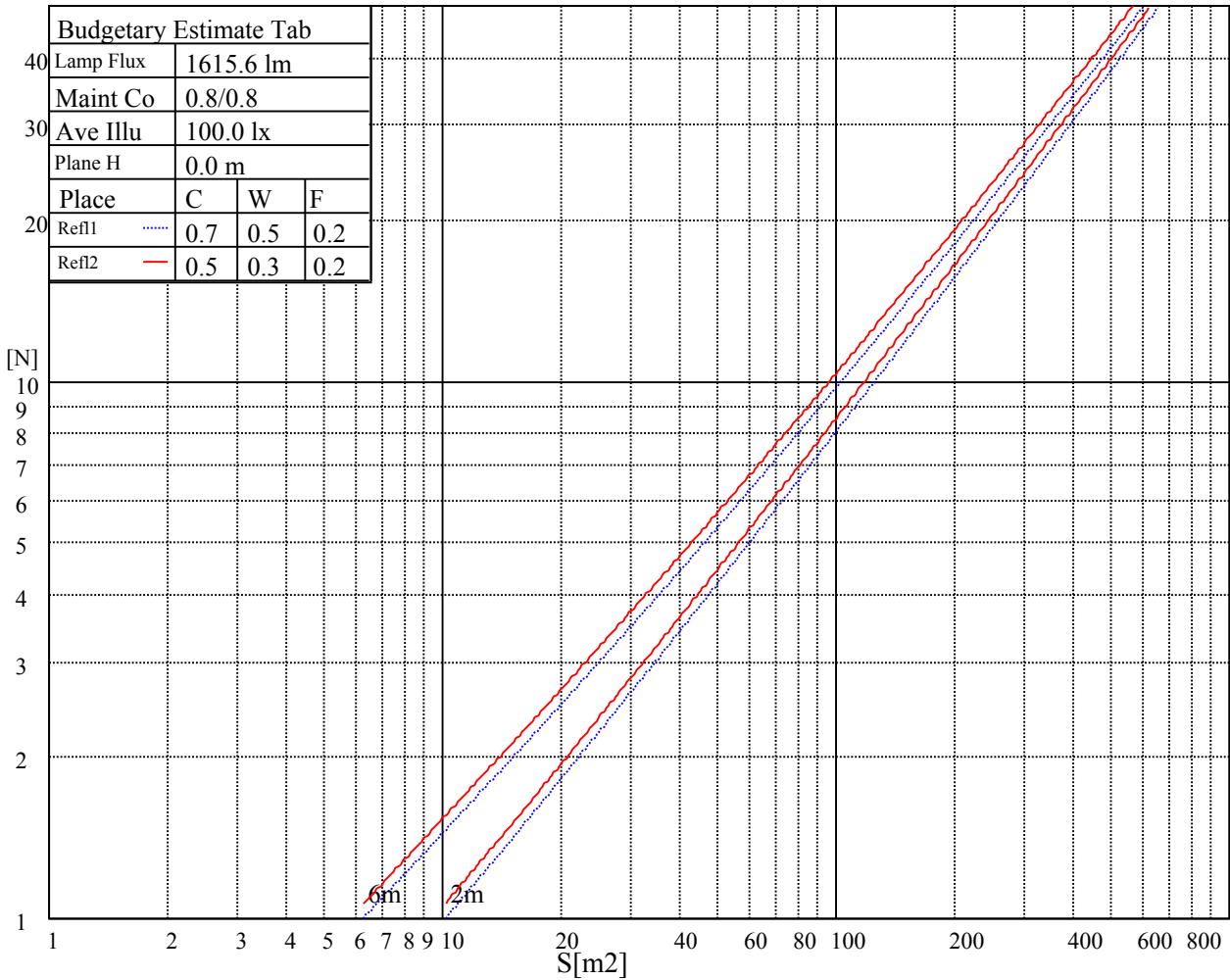
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

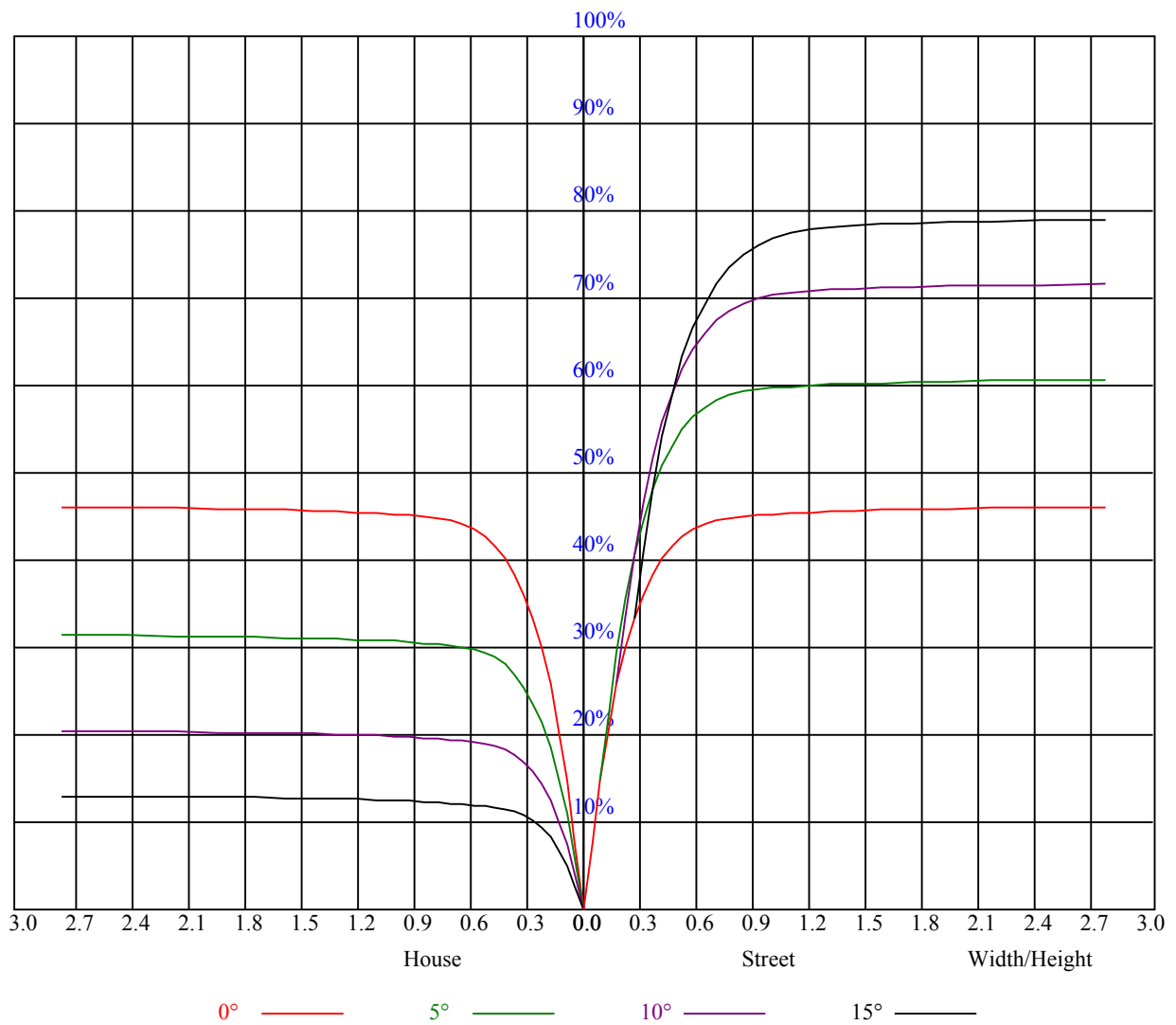


Illumination assessment according UGR										
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30
Rf of Wall	50	30	50	30	30	50	30	50	30	30
Rf of Floor	20	20	20	20	20	20	20	20	20	20
Room dimensions	Viewed crosswise					Viewed endwise				
X	Y									
2H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
4H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
8H	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
12H	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
Variation with the observer position at spacings:										
S = 1.0H	非数字/非数字					非数字/非数字				
S = 1.5H	非数字/非数字					非数字/非数字				
S = 2.0H	非数字/非数字					非数字/非数字				
Standard tables:	BK0					BK0				
Uncorrected UGR	负无穷大					负无穷大				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



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 RHOF=20 CU															
0	1.11	1.11	1.11	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.02	1.00	1.02	1.00	0.98	0.98	0.97	0.95	0.95	0.94	0.92	0.92	0.91	0.90	0.88
2	0.98	0.95	0.92	0.96	0.94	0.91	0.94	0.91	0.89	0.91	0.89	0.87	0.88	0.87	0.85	0.84
3	0.93	0.89	0.86	0.92	0.88	0.85	0.89	0.87	0.84	0.87	0.85	0.83	0.85	0.83	0.82	0.80
4	0.89	0.85	0.81	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.77
5	0.85	0.80	0.77	0.84	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.74
6	0.81	0.77	0.74	0.81	0.77	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.71
7	0.78	0.74	0.71	0.78	0.73	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.68
8	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
9	0.73	0.68	0.66	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.64
10	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.62





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	7339.83	7016.01	6622.45	6164.68	5486.59	4931.95	4391.70	3883.55	3322.27
45.0	7464.93	7331.53	7058.64	6573.74	6098.80	5550.25	4993.95	4339.67	3858.64
90.0	7308.28	7050.89	6582.04	6130.36	5590.10	4918.67	4398.34	3922.85	3382.60
135.0	7488.18	7391.31	7100.15	6757.51	6338.49	5688.63	5153.36	4496.32	4005.33
180.0	7339.83	7468.25	7428.40	7228.02	6915.27	6404.36	5938.83	5412.97	4865.53
225.0	7473.79	7419.54	7252.37	6853.83	6432.03	5948.24	5296.18	4740.98	4219.00
270.0	7308.28	7468.81	7478.22	7277.28	6972.28	6555.47	6092.72	5448.95	4886.01
315.0	7488.18	7451.09	7211.97	6875.42	6439.78	5945.47	5257.43	4681.20	4132.64
360.0	7339.83	7016.01	6622.45	6164.68	5486.59	4931.95	4391.70	3883.55	3322.27

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2960.26	2661.90	2406.72	2128.29	1943.96	1780.12	1598.56	1468.48	1319.57
45.0	3423.56	3053.25	2691.24	2431.63	2213.54	1969.43	1797.28	1643.39	1473.46
90.0	3028.34	2720.02	2404.51	2176.45	1983.82	1810.01	1622.36	1487.30	1369.95
135.0	3568.04	3177.24	2770.95	2498.61	2262.25	2050.24	1865.91	1661.66	1521.06
180.0	4215.12	3737.97	3321.71	2954.72	2592.15	2344.72	2131.06	1897.47	1738.60
225.0	3728.01	3209.90	2869.48	2592.71	2348.04	2087.88	1900.23	1738.05	1562.02
270.0	4333.02	3712.51	3289.06	2844.01	2561.71	2322.03	2113.35	1883.07	1720.33
315.0	3632.25	3122.44	2793.09	2467.61	2251.18	2044.71	1834.92	1683.80	1544.86
360.0	2960.26	2661.90	2406.72	2128.29	1943.96	1780.12	1598.56	1468.48	1319.57

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1093.90	1093.90	1024.32	913.45	829.36	753.69	693.91	623.67	560.73
45.0	1356.66	1252.04	1127.50	1033.40	942.62	855.16	758.29	695.19	639.83
90.0	1090.08	1090.08	1040.04	954.63	865.79	770.08	705.87	633.13	568.48
135.0	1365.52	1259.79	1159.60	1043.36	954.24	868.44	766.59	704.60	650.90
180.0	1593.02	1429.17	1309.61	1209.42	1098.71	1002.40	909.96	831.36	738.36
225.0	1433.60	1217.17	1094.34	1094.34	1004.06	895.01	810.32	734.60	677.31
270.0	1577.52	1452.42	1305.18	1204.44	1115.32	1001.84	910.51	834.68	736.70
315.0	1386.00	1090.30	1090.30	1064.28	976.05	868.83	790.95	720.70	665.18
360.0	1093.90	1093.90	1024.32	913.45	829.36	753.69	693.91	623.67	560.73

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	497.91	439.01	365.89	308.43	252.69	187.93	143.26	109.77	85.08
45.0	580.60	503.11	443.33	385.21	311.03	282.25	282.25	146.52	112.42
90.0	507.81	433.14	377.29	322.55	253.57	203.76	158.48	119.51	91.89
135.0	592.23	517.50	458.83	402.37	344.24	288.89	288.89	171.26	131.30
180.0	680.79	628.21	565.66	488.16	426.17	368.05	296.09	283.36	215.49
225.0	611.88	556.69	497.57	438.07	361.79	301.95	244.44	183.72	141.71
270.0	681.35	612.16	547.95	488.16	426.17	350.89	293.87	280.03	280.03
315.0	593.61	534.22	476.37	402.59	344.80	273.56	219.86	172.92	124.10
360.0	497.91	439.01	365.89	308.43	252.69	187.93	143.26	109.77	85.08

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	75.11	67.75	59.17	52.97	47.71	43.18	38.36	35.15	32.33
45.0	91.83	80.10	72.68	65.65	59.23	52.25	47.44	43.40	39.02
90.0	81.70	74.28	67.37	59.17	53.75	48.93	43.84	40.13	36.20
135.0	96.09	82.70	73.34	66.54	60.28	53.53	48.88	44.67	41.13
180.0	134.34	104.62	86.79	75.83	68.97	62.38	56.29	49.87	45.39
225.0	109.99	85.74	75.72	66.59	59.95	53.91	48.55	43.07	39.25
270.0	131.96	101.13	83.31	73.68	64.32	57.68	51.48	45.17	41.02
315.0	96.92	82.03	73.51	64.21	57.35	51.26	46.05	41.74	37.14
360.0	75.11	67.75	59.17	52.97	47.71	43.18	38.36	35.15	32.33

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	29.89	27.18	25.24	23.36	22.20	21.20	20.09	19.43	18.82
45.0	36.04	33.21	30.39	28.23	26.51	24.74	23.41	22.31	21.26
90.0	33.38	31.05	28.84	26.74	25.24	23.91	22.69	21.59	20.87
135.0	37.42	34.60	32.22	30.17	27.68	26.24	24.85	23.25	22.20
180.0	41.68	38.47	34.93	32.33	29.45	27.40	25.79	24.19	23.03
225.0	36.09	33.21	29.95	27.79	25.96	24.41	22.81	21.59	20.37
270.0	36.53	33.60	31.11	28.78	26.40	24.69	23.36	22.31	21.03
315.0	34.10	31.05	28.84	27.01	24.85	23.58	22.47	21.15	20.31
360.0	29.89	27.18	25.24	23.36	22.20	21.20	20.09	19.43	18.82
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	18.21	17.88	17.77	17.60	17.33	17.10	16.77	16.16	15.22
45.0	20.54	19.87	19.37	18.99	18.60	18.10	17.77	17.10	16.33
90.0	20.20	19.37	19.04	18.65	17.99	17.55	16.99	16.11	15.28
135.0	21.15	20.31	19.65	19.15	18.65	18.10	17.66	17.16	16.22
180.0	22.03	21.20	20.37	19.65	19.21	18.82	18.49	18.05	17.49
225.0	19.76	19.15	18.49	18.16	17.82	17.55	17.16	16.77	16.38
270.0	20.09	19.65	19.15	18.49	18.16	17.99	17.71	17.49	16.94
315.0	19.76	19.15	18.38	18.10	17.93	17.55	17.27	16.94	16.61
360.0	18.21	17.88	17.77	17.60	17.33	17.10	16.77	16.16	15.22
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	14.50	13.67	12.73	12.18	11.46	10.96	10.57	10.30	9.91
45.0	15.61	14.67	13.95	12.95	12.40	11.79	11.29	10.79	10.46
90.0	14.56	13.84	12.90	12.34	11.79	11.18	10.79	10.46	10.02
135.0	15.33	14.61	13.89	12.95	12.40	11.90	11.29	10.90	10.46
180.0	16.88	16.05	15.28	14.34	13.56	12.73	12.23	11.73	11.24
225.0	15.72	14.67	14.06	13.28	12.51	11.96	11.35	10.90	10.57
270.0	16.55	15.72	14.95	14.06	13.28	12.57	12.07	11.46	11.02
315.0	15.61	14.83	14.00	13.23	12.57	12.01	11.35	10.90	10.57
360.0	14.50	13.67	12.73	12.18	11.46	10.96	10.57	10.30	9.91
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	9.63	9.35	9.13	8.80	8.58	8.36	8.08	7.86	7.69
45.0	10.13	9.85	9.52	9.30	9.02	8.80	8.47	8.25	7.97
90.0	9.74	9.52	9.13	8.91	8.69	8.41	8.19	7.97	7.80
135.0	10.13	9.85	9.52	9.30	9.02	8.80	8.52	8.30	8.08
180.0	10.79	10.46	10.13	9.85	9.52	9.24	9.02	8.80	8.47
225.0	10.24	9.91	9.63	9.35	9.08	8.75	8.52	8.36	8.08
270.0	10.68	10.30	9.96	9.74	9.41	9.13	8.80	8.58	8.36
315.0	10.30	9.91	9.63	9.35	9.02	8.75	8.52	8.25	8.03
360.0	9.63	9.35	9.13	8.80	8.58	8.36	8.08	7.86	7.69
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.53	7.42	7.20	7.09	6.92	6.75	6.75	6.37	6.42
45.0	7.80	7.64	7.42	7.25	7.09	6.86	6.75	6.70	6.37
90.0	7.58	7.36	7.20	7.03	6.81	6.70	6.64	6.31	6.31
135.0	7.80	7.64	7.36	7.20	6.97	6.81	6.70	6.64	6.31
180.0	8.25	7.97	7.75	7.53	7.31	7.14	6.92	6.81	6.70
225.0	7.86	7.69	7.47	7.25	7.09	6.92	6.81	6.70	6.70
270.0	8.14	7.92	7.75	7.47	7.25	7.09	6.92	6.81	6.70
315.0	7.80	7.64	7.47	7.31	7.09	6.97	6.81	6.70	6.53
360.0	7.53	7.42	7.20	7.09	6.92	6.75	6.75	6.37	6.42

Intensity data(cd)

<b>C/γ(°)</b>	<b>90.0</b>
<b>0.0</b>	<b>6.59</b>
<b>45.0</b>	<b>6.42</b>
<b>90.0</b>	<b>6.53</b>
<b>135.0</b>	<b>6.31</b>
<b>180.0</b>	<b>6.48</b>
<b>225.0</b>	<b>6.31</b>
<b>270.0</b>	<b>6.48</b>
<b>315.0</b>	<b>6.31</b>
<b>360.0</b>	<b>6.59</b>