NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,JiangMen City,Guangdong,Chinaa

NT

LumCAT: 69-0026
Luminaire:
Report No: 20250521-B012
Test No: 20250521-C010
LampCAT: LUMILEDS LUXEON 2835
Lamp flux(lm): 1309.7
Number of Lamps: 1
Length(mm): 275
Phm Type: C

Voltage(V): 48.0900
Current(A): 0.3000
Power (W): 14.4200
PF: 0.0000
Ballast type: AC
Width(mm): 17
Height(mm): 9

Photometric Results

Lumens(lm): 1167.93
Efficiency(%): 89.17%
Lumens(lm)/Power(W): 80.99
Central intensity(cd): 3443.227
Maximum intensity(cd): 3443.760
Angle of maximum intensity: C=180.0 γ=1.0
Beam Angle(50%Imax): [C0/180]Total=31.6
[C90/270]Total=31.7
Field angle(10%Imax): [C0/180]Total=56.2
[C90/270]Total=54.8
Maximum s/h(1/2): C0_180=0.54 C90_270=0.46
Maximum s/h(1/4): C0_180=0.56 C90_270=0.50
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.17%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.275%

Equipment: GMS 1800
Temperature(°C): 25.0
Date: 2025/5/21
Humidity(%): 60.0%
Operator: NT
Distance(m): 7.30

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3401.128	0.000	0	.000%	.000%
1.0	3394.033	3.251	3.251	.248%	.278%
2.0	3367.089	9.704	12.956	.741%	1.109%
3.0	3323.491	16.002	28.957	1.222%	2.479%
4.0	3261.108	22.041	50.998	1.683%	4.367%
5.0	3176.610	27.695	78.693	2.115%	6.738%
6.0	3081.421	32.888	111.58	2.511%	9.554%
7.0	2966.115	37.537	149.117	2.866%	12.768%
8.0	2842.748	41.573	190.69	3.174%	16.327%
9.0	2700.631	44.926	235.616	3.430%	20.174%
10.0	2554.849	47.560	283.176	3.631%	24.246%
11.0	2407.402	49.583	332.76	3.786%	28.491%
12.0	2256.958	50.988	383.748	3.893%	32.857%
13.0	2094.523	51.641	435.389	3.943%	37.279%
14.0	1952.306	51.799	487.188	3.955%	41.714%
15.0	1807.623	51.618	538.806	3.941%	46.133%
16.0	1670.901	50.970	589.776	3.892%	50.498%
17.0	1530.116	49.848	639.624	3.806%	54.766%
18.0	1392.861	48.194	687.818	3.680%	58.892%
19.0	1249.454	45.971	733.789	3.510%	62.828%
20.0	1120.342	43.374	777.163	3.312%	66.542%
21.0	1046.502	41.608	818.77	3.177%	70.104%
22.0	944.639	40.013	858.783	3.055%	73.530%
23.0	840.107	37.449	896.232	2.859%	76.737%
24.0	744.568	34.647	930.879	2.645%	79.703%
25.0	648.686	31.680	962.558	2.419%	82.416%
26.0	563.322	28.610	991.168	2.184%	84.865%
27.0	473.555	25.367	1016.535	1.937%	87.037%
28.0	393.657	21.956	1038.491	1.676%	88.917%
29.0	324.992	18.802	1057.293	1.436%	90.527%
30.0	275.116	16.203	1073.496	1.237%	91.914%
31.0	219.808	13.773	1087.269	1.052%	93.094%
32.0	159.550	10.868	1098.137	.830%	94.024%
33.0	119.340	8.216	1106.353	.627%	94.728%
34.0	91.186	6.371	1112.724	.486%	95.273%
35.0	66.356	4.893	1117.617	.374%	95.692%
36.0	52.248	3.776	1121.394	.288%	96.015%
37.0	41.593	3.061	1124.454	.234%	96.278%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	34.099	2.526	1126.981	.193%	96.494%
39.0	29.643	2.176	1129.156	.166%	96.680%
40.0	25.932	1.938	1131.094	.148%	96.846%
41.0	23.647	1.766	1132.86	.135%	96.997%
42.0	21.906	1.655	1134.515	.126%	97.139%
43.0	20.647	1.576	1136.091	.120%	97.274%
44.0	19.664	1.521	1137.613	.116%	97.404%
45.0	18.905	1.482	1139.095	.113%	97.531%
46.0	18.278	1.454	1140.549	.111%	97.656%
47.0	17.776	1.434	1141.983	.109%	97.778%
48.0	17.283	1.417	1143.4	.108%	97.900%
49.0	16.926	1.405	1144.805	.107%	98.020%
50.0	16.633	1.399	1146.204	.107%	98.140%
51.0	16.340	1.395	1147.599	.107%	98.259%
52.0	16.067	1.391	1148.99	.106%	98.378%
53.0	15.794	1.386	1150.376	.106%	98.497%
54.0	15.477	1.378	1151.754	.105%	98.615%
55.0	15.108	1.365	1153.119	.104%	98.732%
56.0	14.671	1.346	1154.465	.103%	98.847%
57.0	14.112	1.316	1155.781	.100%	98.960%
58.0	13.532	1.278	1157.059	.098%	99.069%
59.0	12.813	1.232	1158.291	.094%	99.175%
60.0	12.077	1.176	1159.467	.090%	99.275%
61.0	11.238	1.113	1160.58	.085%	99.371%
62.0	10.275	1.037	1161.616	.079%	99.459%
63.0	9.329	0.953	1162.57	.073%	99.541%
64.0	8.290	0.865	1163.434	.066%	99.615%
65.0	7.048	0.759	1164.193	.058%	99.680%
66.0	5.875	0.645	1164.838	.049%	99.735%
67.0	4.613	0.527	1165.365	.040%	99.780%
68.0	3.567	0.414	1165.78	.032%	99.816%
69.0	2.531	0.311	1166.091	.024%	99.843%
70.0	1.772	0.221	1166.312	.017%	99.861%
71.0	1.342	0.161	1166.473	.012%	99.875%
72.0	1.132	0.129	1166.602	.010%	99.886%
73.0	1.049	0.114	1166.716	.009%	99.896%
74.0	0.993	0.107	1166.823	.008%	99.905%
75.0	0.936	0.102	1166.925	.008%	99.914%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	0.886	0.097	1167.022	.007%	99.922%
77.0	0.833	0.092	1167.113	.007%	99.930%
78.0	0.799	0.087	1167.201	.007%	99.938%
79.0	0.756	0.084	1167.284	.006%	99.945%
80.0	0.706	0.079	1167.363	.006%	99.951%
81.0	0.673	0.075	1167.437	.006%	99.958%
82.0	0.639	0.071	1167.509	.005%	99.964%
83.0	0.603	0.068	1167.576	.005%	99.970%
84.0	0.576	0.064	1167.64	.005%	99.975%
85.0	0.526	0.060	1167.701	.005%	99.980%
86.0	0.470	0.054	1167.755	.004%	99.985%
87.0	0.436	0.050	1167.805	.004%	99.989%
88.0	0.403	0.046	1167.851	.004%	99.993%
89.0	0.370	0.042	1167.893	.003%	99.997%
90.0	0.310	0.037	1167.93	.003%	100.000%

Zonal flux distribution table

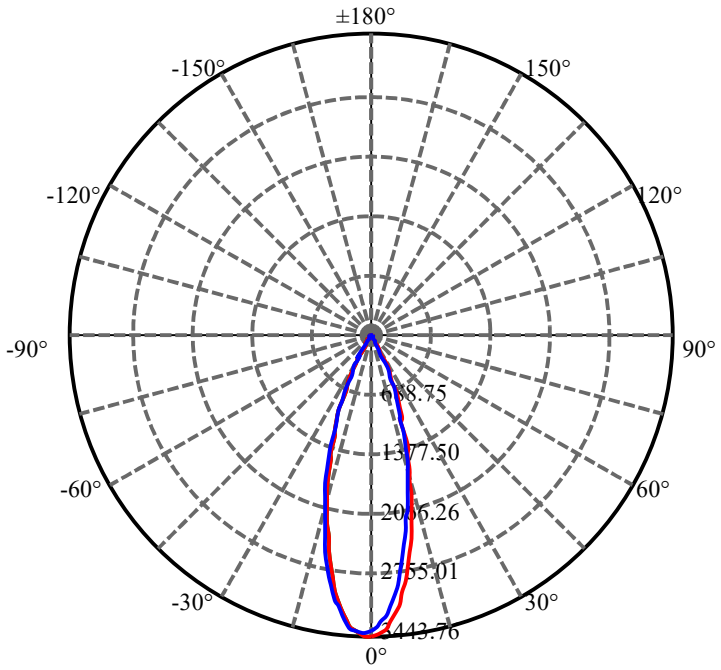
ZONAL LUMEN SUMMARY

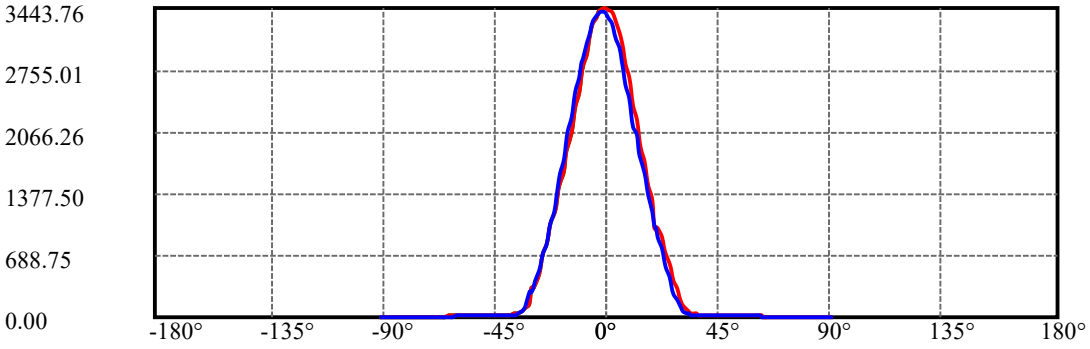
Zone	Lumens	%Lamp	%Fixt
0-30	1073.50	81.96%	91.91%
0-40	1131.09	86.36%	96.85%
0-60	1159.47	88.53%	99.28%
0-90	1167.89	89.17%	100.00%
0-120	1167.89	89.17%	100.00%
0-180	1167.93	89.17%	100.00%
60-90	9.60	0.73%	0.82%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-24.11	934.34	71.34%	80.00%

ZONAL LUMEN SUMMARY

0-10	283.18
10-20	493.99
20-30	296.33
30-40	57.60
40-50	15.11
50-60	13.26
60-70	6.84
70-80	1.05
80-90	0.53
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]





C180(Max):

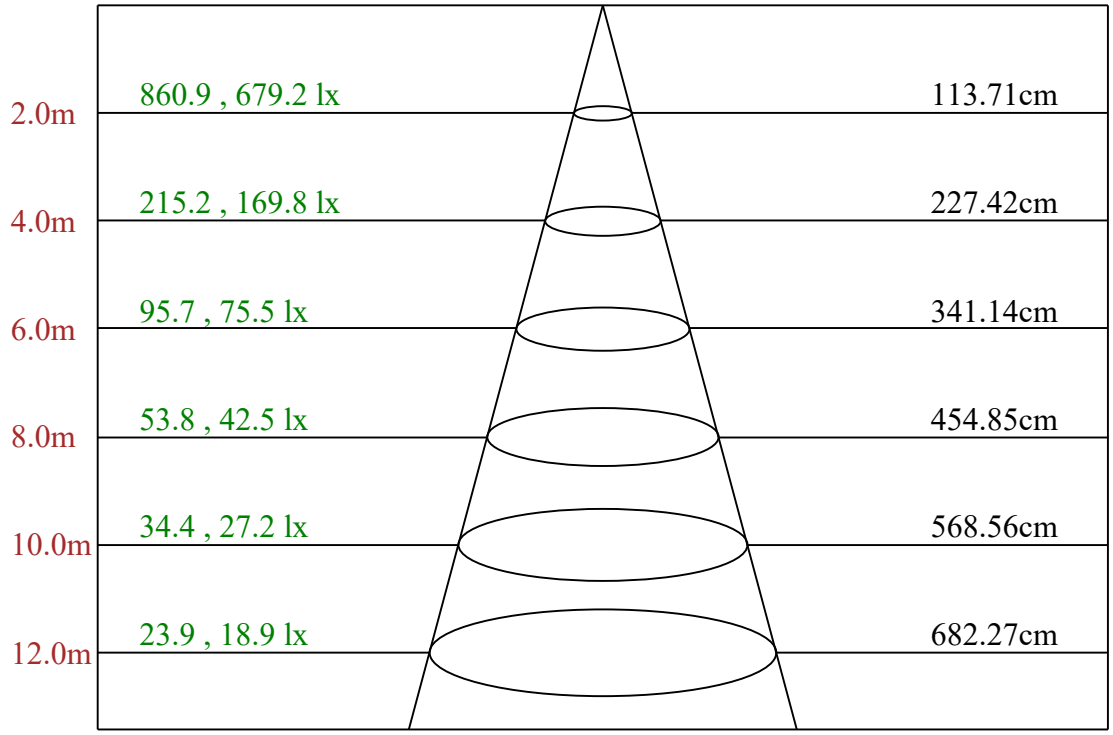
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:27.4 Right:28.8
:C90/270Left:26.7 Right:28.1

Beam Angle(50%Imax):C0/180Left:15.5 Right:16.1
:C90/270Left:15.4 Right:16.3

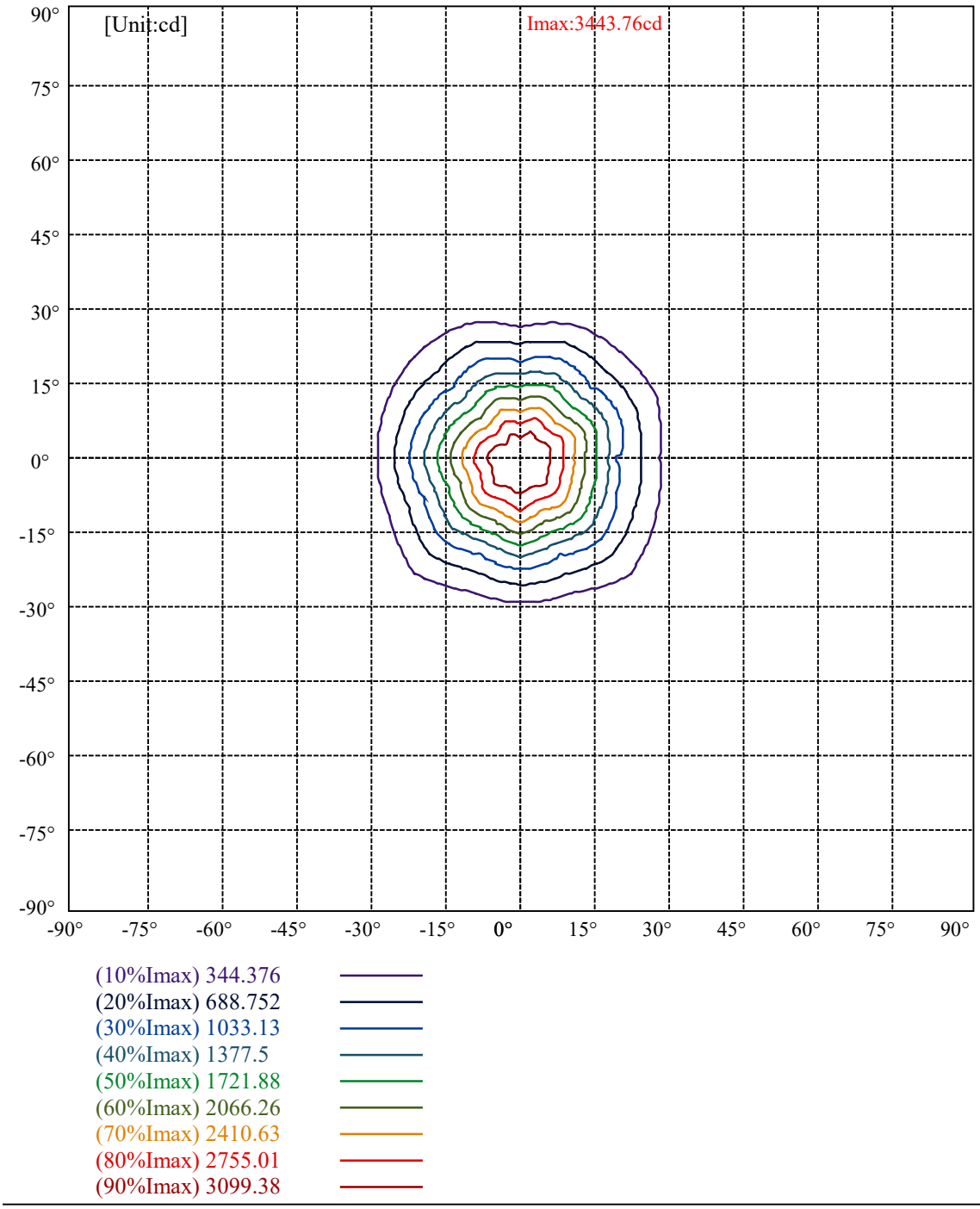
Lux distance Curve



Max , Ave

Beam angle of C180 plane 31.73

ISO-Intensity(V-H)

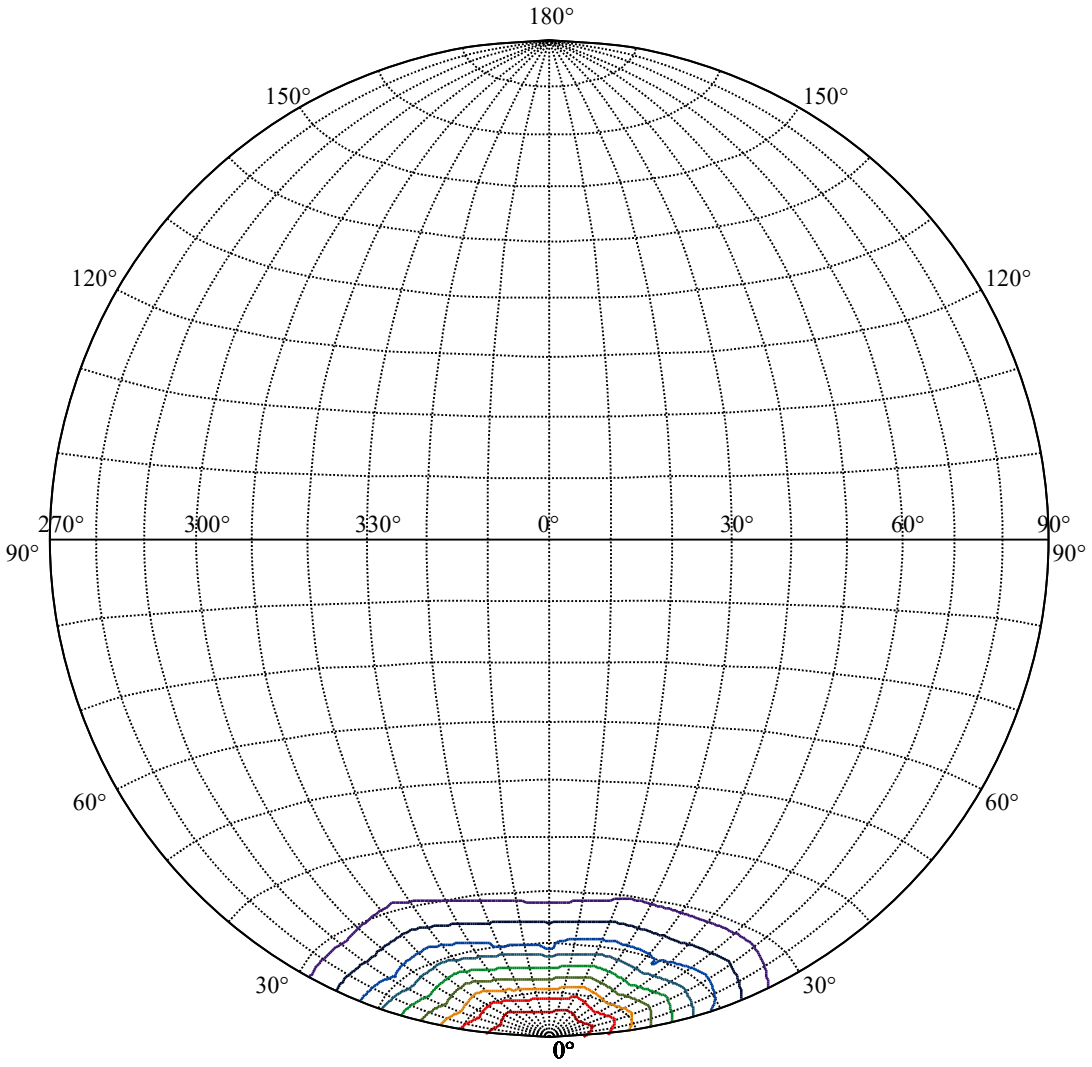


Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2025/5/21
Humidity(%): 60.0%

Operator: NT
Distance(m): 7.30

ISO candela diagram on circular web



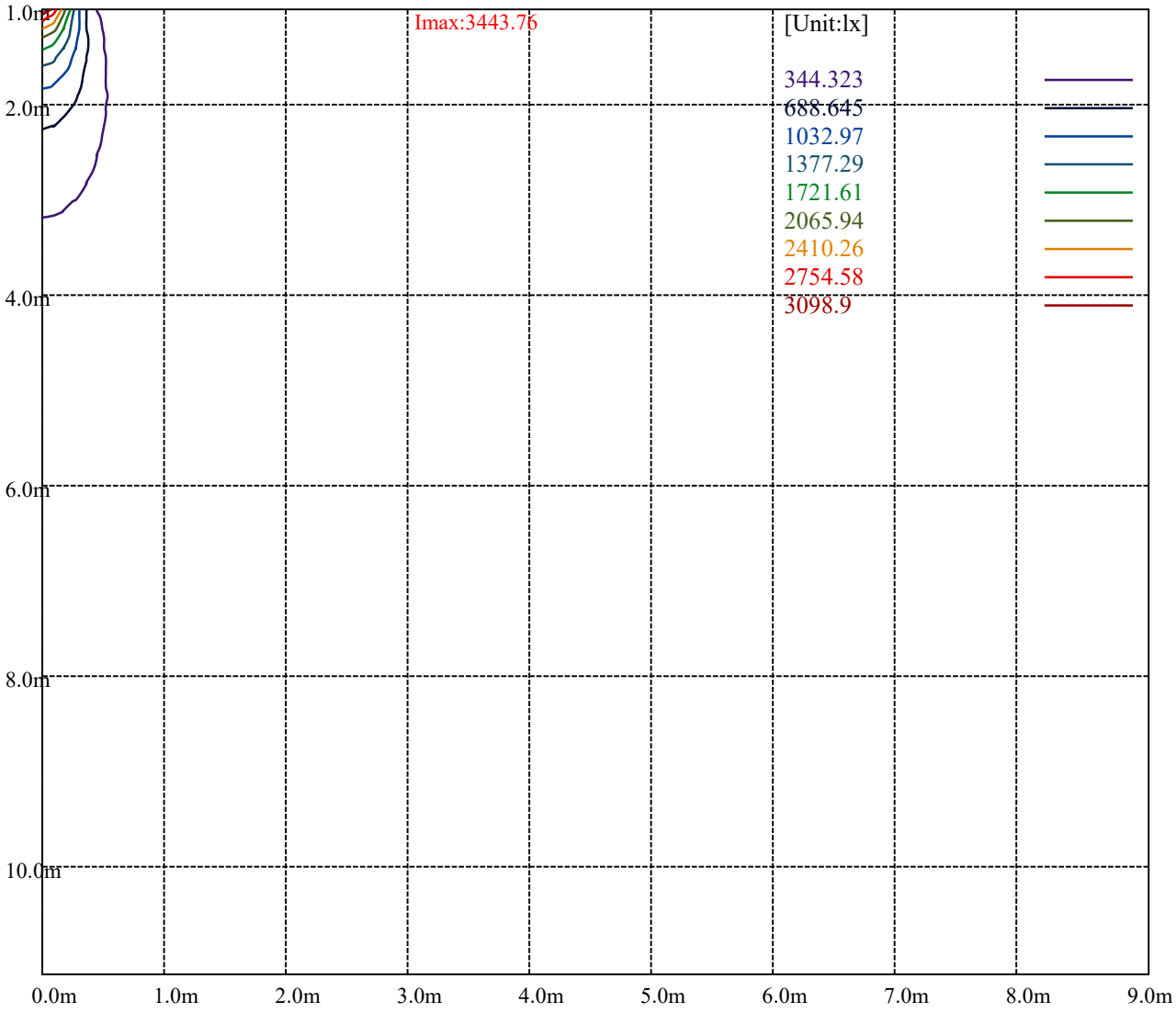
House [Unit:cd] Road

Imax:3443.76

(10%Imax) 344.376
(20%Imax) 688.752
(30%Imax) 1033.13
(40%Imax) 1377.5
(50%Imax) 1721.88
(60%Imax) 2066.26
(70%Imax) 2410.63
(80%Imax) 2755.01
(90%Imax) 3099.38

Equipment: GMS 1800	Date: 2025/5/21	Operator: NT
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.30

Space ISO Lux diagram



Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2025/5/21
Humidity(%): 60.0%

Operator: NT
Distance(m): 7.30

Luminance Limitting Curve(no luminous side)

Luminance Table

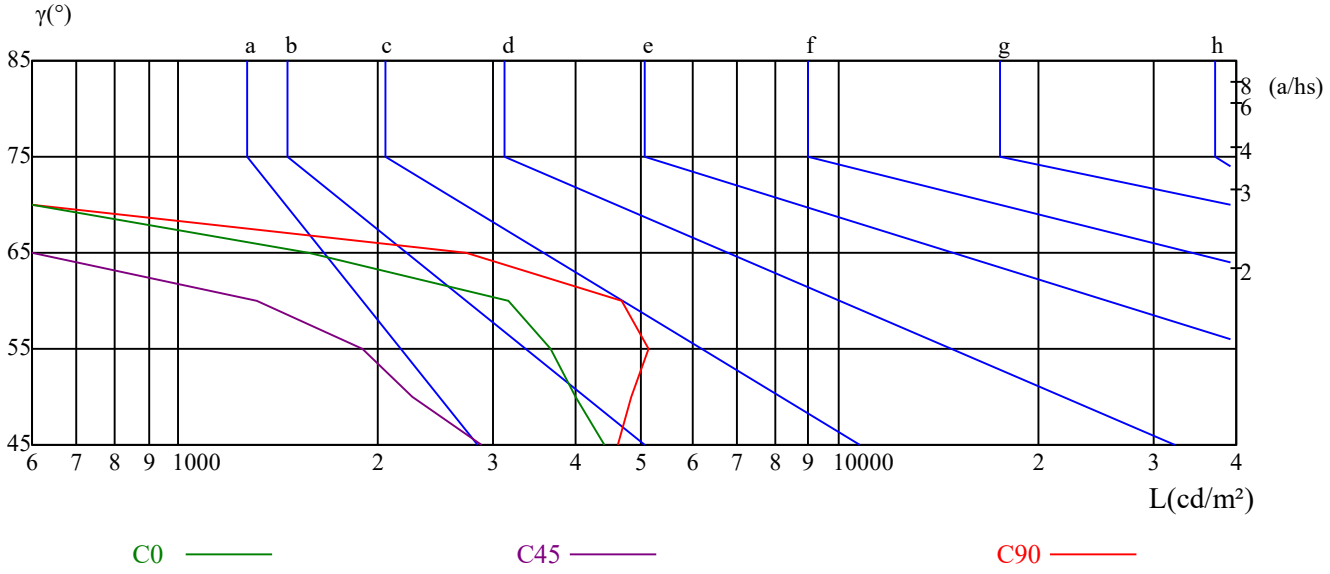
γ	45	50	55	60	65	70	75	80	85
C0	4416	4001	3667	3163	1579	407	340	279	204
C45	2884	2262	1902	1310	582	335	248	202	165
C90	4636	4847	5145	4703	2722	489	471	498	666

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3682	3358	1241	991	595	694	1504	1177	1275

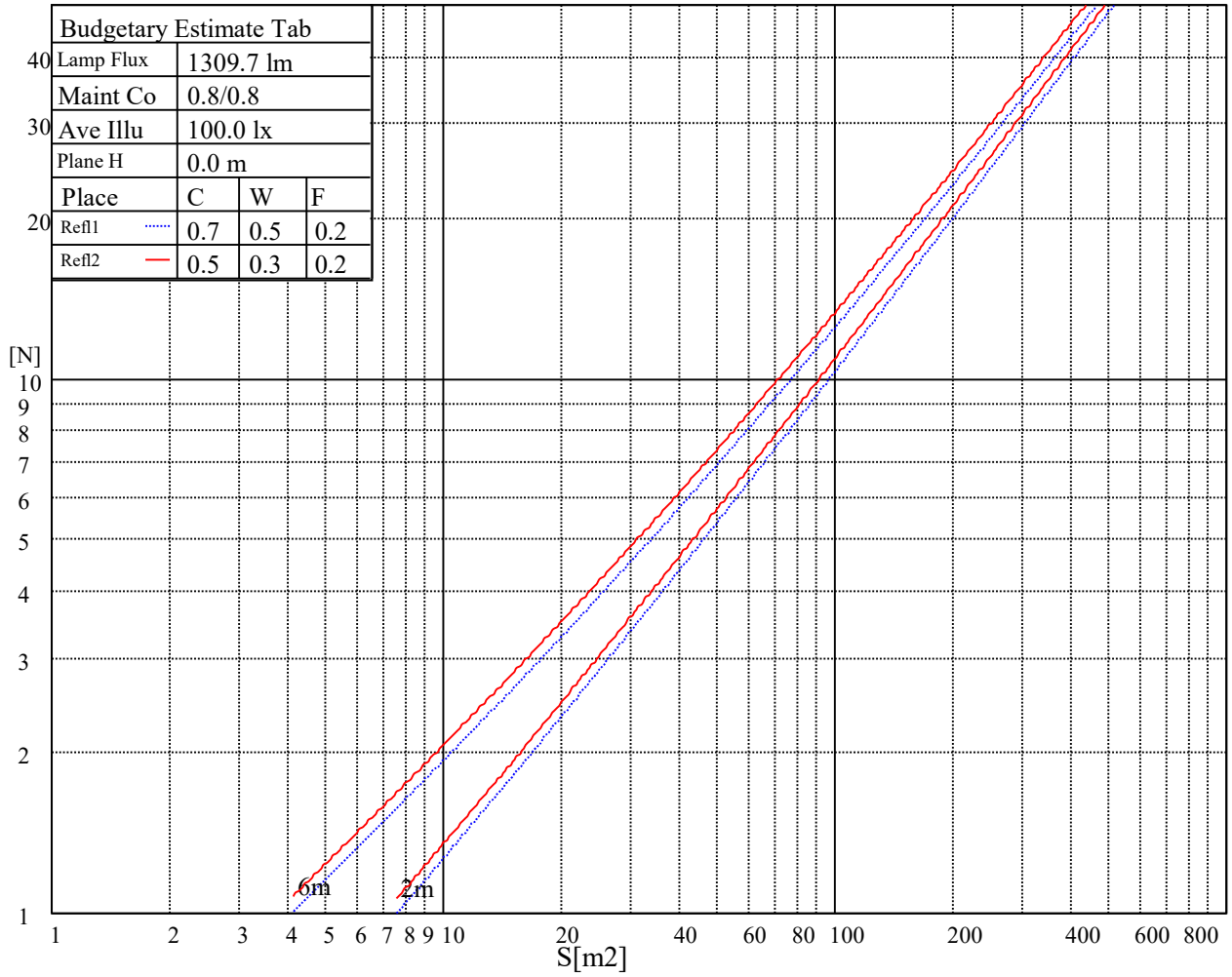
Glare Table

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 Limitting Curve



Budgetary Estimate Table



Equipment: GMS 1800
Temperature(°C): 25.0

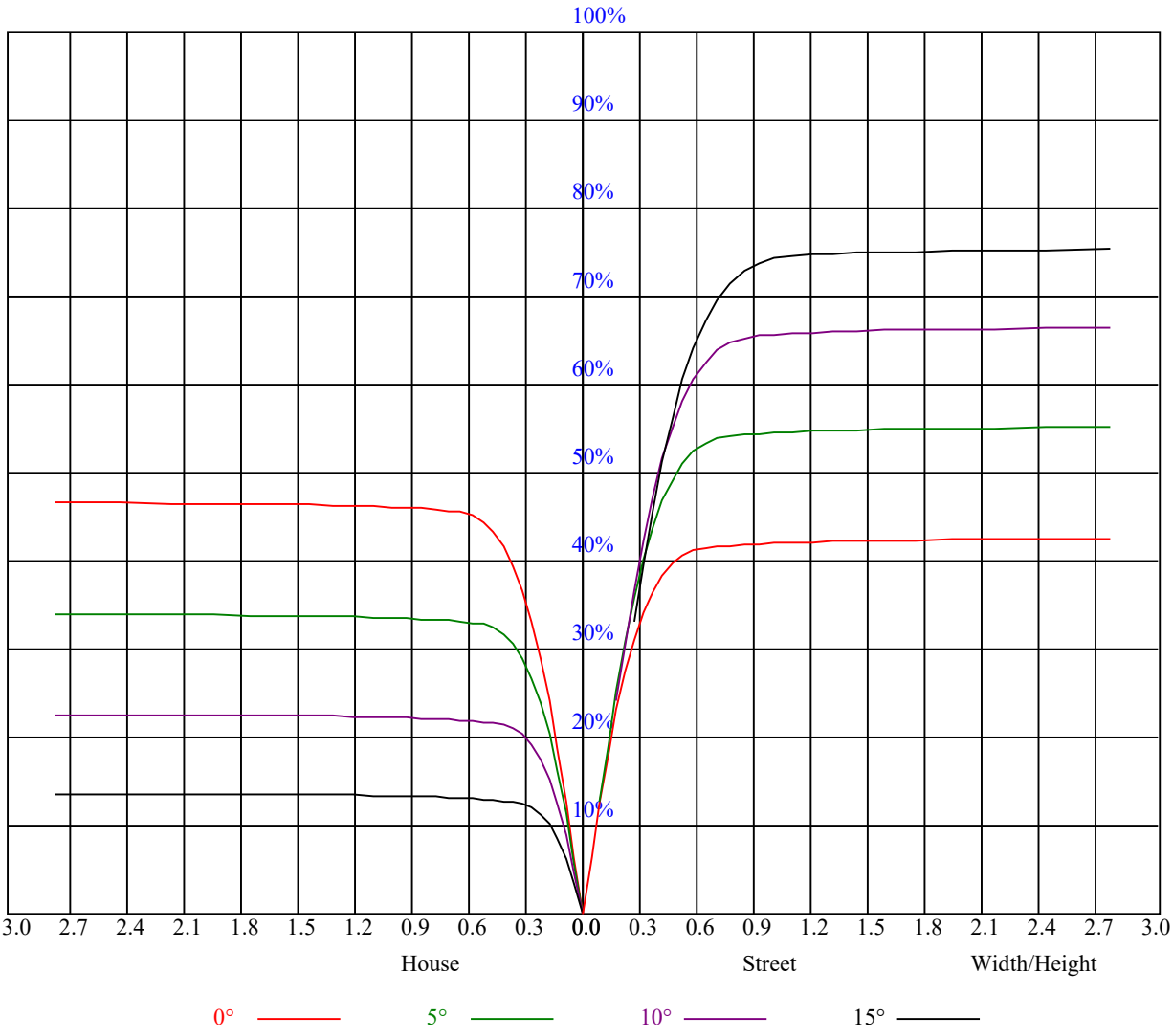
Date: 2025/5/21
Humidity(%): 60.0%

Operator: NT
Distance(m): 7.30

Utilization factor table for indoor luminaire

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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	1.00	0.98	0.96	0.98	0.96	0.95	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.87	0.85
2	0.95	0.92	0.89	0.93	0.90	0.88	0.90	0.88	0.86	0.88	0.86	0.84	0.85	0.84	0.83	0.81
3	0.90	0.86	0.83	0.89	0.85	0.83	0.86	0.84	0.81	0.84	0.82	0.80	0.82	0.80	0.79	0.78
4	0.86	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.80	0.77	0.75	0.74
5	0.82	0.78	0.74	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.77	0.74	0.72	0.71
6	0.78	0.74	0.71	0.78	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.68
7	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.66
8	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.63
9	0.70	0.65	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61
10	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.65	0.62	0.60	0.59

Coefficient Utilization Curve



Equipment: GMS 1800	Date: 2025/5/21	Operator: NT
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.30

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	3443.23	3423.51	3392.07	3351.57	3285.49	3172.51	3085.12	2963.08	2826.66
22.5	3430.97	3428.31	3405.39	3362.23	3304.67	3232.73	3137.88	3020.10	2894.34
45.0	3399.00	3380.34	3335.05	3268.97	3187.43	3082.99	2966.81	2838.92	2698.23
67.5	3413.38	3400.06	3369.69	3317.46	3247.12	3162.92	3058.47	2943.90	2816.00
90.0	3378.21	3337.71	3275.36	3197.03	3097.91	2987.06	2865.03	2727.54	2582.06
112.5	3396.86	3378.21	3344.11	3291.35	3216.21	3119.22	3012.11	2890.61	2756.85
135.0	3363.82	3324.39	3266.30	3186.90	3088.85	2974.81	2840.52	2698.77	2546.36
157.5	3383.54	3369.15	3337.71	3284.42	3213.01	3161.32	3060.07	2939.64	2808.54
180.0	3443.23	3443.76	3425.11	3390.47	3340.91	3268.97	3179.44	3070.20	2939.10
202.5	3430.97	3421.91	3387.81	3339.84	3272.70	3187.43	3084.59	2963.62	2826.13
225.0	3399.00	3417.11	3412.32	3401.66	3362.23	3308.40	3231.13	3137.88	3023.30
247.5	3413.38	3414.45	3384.07	3357.43	3300.41	3180.51	3122.95	3017.44	2898.60
270.0	3378.21	3399.00	3406.46	3389.94	3354.23	3294.55	3213.55	3119.22	3056.34
292.5	3396.86	3398.46	3377.15	3331.32	3295.08	3181.04	3122.42	3012.11	2889.54
315.0	3363.82	3385.14	3390.47	3377.15	3341.98	3312.67	3211.95	3118.69	3054.21
337.5	3383.54	3383.01	3364.36	3328.12	3269.50	3198.63	3110.70	2996.12	2867.69
360.0	3443.23	3423.51	3392.07	3351.57	3285.49	3172.51	3085.12	2963.08	2826.66

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2677.45	2520.78	2359.31	2198.37	2039.04	1887.16	1735.82	1586.60	1444.32
22.5	2811.21	2665.73	2510.12	2347.05	2186.65	2029.98	1881.30	1732.08	1588.20
45.0	2547.95	2388.62	2230.88	2076.34	1917.53	1773.65	1635.63	1499.74	1377.17
67.5	2675.32	2520.24	2366.77	2214.36	2063.02	1915.94	1772.59	1687.32	1505.60
90.0	2429.12	2274.04	2124.83	2036.37	1834.93	1750.20	1613.78	1482.15	1350.00
112.5	2608.71	2452.03	2297.49	2143.48	1990.01	1843.46	1708.10	1625.50	1440.06
135.0	2391.28	2230.88	2077.40	1985.21	1776.85	1690.52	1551.96	1379.31	1308.96
157.5	2671.59	2523.97	2367.83	2210.63	2061.42	1911.14	1768.85	1636.70	1507.20
180.0	2806.94	2665.19	2510.12	2354.51	2200.50	2055.02	1908.47	1823.74	1628.17
202.5	2681.71	2530.37	2403.54	2213.83	2058.75	1937.25	1762.99	1652.15	1517.86
225.0	2893.81	2749.92	2604.98	2448.30	2285.77	2119.50	1955.37	1801.89	1653.75
247.5	2760.58	2615.10	2462.16	2301.75	2148.81	1992.14	1838.66	1688.92	1543.44
270.0	2895.94	2817.07	2675.85	2525.04	2367.83	2218.09	2068.88	1915.40	1764.06
292.5	2756.85	2610.84	2457.36	2294.83	2137.09	1991.61	1845.59	1698.51	1555.69
315.0	2878.89	2737.13	2648.67	2498.93	2338.53	2177.06	2020.92	1865.31	1720.36
337.5	2722.75	2575.67	2421.12	2262.32	2105.65	1944.18	1853.05	1659.08	1577.01
360.0	2677.45	2520.78	2359.31	2198.37	2039.04	1887.16	1735.82	1586.60	1444.32

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1313.76	1015.81	1015.81	993.75	889.84	792.48	695.38	596.85	503.91
22.5	1454.44	1324.42	1198.65	1082.48	971.10	867.19	770.20	681.21	594.88
45.0	1251.41	1023.97	1023.97	960.55	860.37	766.31	680.30	595.89	519.36
67.5	1376.11	1299.37	1175.20	1059.03	948.72	846.41	746.22	646.57	552.24
90.0	1177.87	1025.03	979.47	874.28	764.29	655.15	546.60	441.67	347.82
112.5	1320.69	1250.88	1137.37	1030.26	927.41	834.68	740.89	650.83	561.30
135.0	1166.15	1029.19	990.77	896.34	809.69	730.93	652.91	576.38	533.11
157.5	1378.24	1259.40	1146.96	1036.12	933.27	836.81	756.88	642.84	571.43
180.0	1497.61	1415.54	1235.95	1165.08	1047.84	930.07	813.90	699.86	585.82
202.5	1384.63	1256.21	1026.21	1026.21	913.55	809.79	706.73	607.13	548.19
225.0	1516.26	1434.19	1258.87	1142.16	1076.62	927.94	869.32	773.40	687.07
247.5	1403.82	1200.25	1033.77	1033.77	915.04	805.74	706.15	614.91	524.00
270.0	1611.65	1465.63	1322.82	1183.73	1056.90	935.93	820.29	714.78	607.67
292.5	1415.01	1286.05	1029.08	1029.08	961.19	860.10	760.24	664.58	574.57
315.0	1577.01	1443.25	1318.55	1199.18	1091.01	991.89	890.64	800.04	712.11
337.5	1441.12	1262.07	1032.01	1032.01	947.39	850.30	756.45	672.04	589.65
360.0	1313.76	1015.81	1015.81	993.75	889.84	792.48	695.38	596.85	503.91

Intensity data(cd)

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	413.74	325.28	244.97	179.43	130.61	92.99	66.03	48.12	37.89
22.5	518.14	441.93	369.99	329.49	275.67	275.67	142.71	105.57	77.11
45.0	443.37	379.37	320.81	265.81	216.62	175.75	141.27	110.52	84.62
67.5	461.65	376.92	299.12	299.12	159.07	112.81	78.60	63.26	39.22
90.0	262.24	189.66	152.73	104.77	70.02	46.36	33.52	27.50	24.57
112.5	473.38	387.58	308.18	278.87	278.87	120.17	84.25	67.63	41.03
135.0	441.51	378.73	342.60	263.84	234.85	188.65	147.72	113.56	84.41
157.5	485.63	380.65	315.64	300.18	270.34	132.05	97.09	71.30	53.08
180.0	474.97	369.99	312.97	312.97	146.28	107.22	83.24	60.75	43.64
202.5	419.45	368.66	287.50	195.36	164.29	121.13	89.42	67.89	52.33
225.0	604.47	530.40	460.59	393.97	333.22	279.40	279.40	173.03	134.72
247.5	438.68	362.05	293.68	225.15	167.97	120.70	84.62	58.89	42.37
270.0	506.95	408.89	314.57	282.60	282.60	125.12	82.92	55.47	38.10
292.5	486.06	399.25	320.11	248.97	188.81	136.80	97.57	68.96	48.33
315.0	635.38	561.84	492.56	426.48	366.80	323.63	273.54	273.54	182.52
337.5	511.26	437.30	363.86	294.85	230.91	194.35	127.52	92.99	77.75
360.0	413.74	325.28	244.97	179.43	130.61	92.99	66.03	48.12	37.89

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	33.15	30.48	28.67	27.18	26.11	25.21	24.41	23.71	22.81
22.5	56.65	43.64	35.06	30.38	27.98	26.65	25.79	25.26	24.94
45.0	72.58	56.38	38.85	32.83	25.69	21.42	18.39	16.31	14.60
67.5	33.36	27.66	24.67	22.97	21.96	21.26	20.73	20.30	19.93
90.0	22.81	21.58	20.52	19.66	18.86	18.17	17.53	16.89	16.25
112.5	34.80	27.92	24.57	22.97	21.85	21.10	20.57	20.14	19.82
135.0	61.92	44.66	32.83	25.58	20.84	17.64	15.45	13.86	12.68
157.5	40.98	33.20	30.11	26.33	24.99	24.41	23.45	23.02	22.49
180.0	36.18	32.72	29.84	28.24	27.28	26.22	25.26	24.41	23.66
202.5	41.14	34.48	30.48	28.19	26.75	25.63	24.78	24.03	23.45
225.0	103.17	77.38	57.29	47.53	32.03	27.71	22.28	18.92	16.47
247.5	31.87	26.27	23.55	21.96	21.32	20.14	19.77	19.18	18.65
270.0	29.04	25.10	23.07	21.58	20.52	19.66	18.81	18.12	17.37
292.5	35.38	28.51	24.78	22.86	22.12	20.84	20.52	19.98	19.56
315.0	146.33	113.45	87.56	66.88	49.88	36.93	28.30	22.38	18.70
337.5	56.59	42.05	33.73	29.15	26.75	25.37	24.46	23.82	23.23
360.0	33.15	30.48	28.67	27.18	26.11	25.21	24.41	23.71	22.81

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	22.33	21.69	21.16	20.68	20.14	19.61	19.18	18.76	18.33
22.5	24.57	24.14	23.93	23.55	23.13	22.81	22.59	22.38	22.22
45.0	13.32	12.31	11.51	10.98	10.55	10.02	9.49	9.06	8.85
67.5	19.66	19.45	19.29	19.18	19.08	19.08	19.13	19.18	19.08
90.0	15.83	15.45	15.19	15.13	15.19	15.13	15.24	15.13	14.92
112.5	19.45	19.24	18.97	18.70	18.49	18.28	18.23	18.01	17.80
135.0	11.78	11.14	10.82	10.13	9.59	9.33	8.63	8.37	8.05
157.5	21.90	21.32	20.78	20.30	19.82	19.50	19.18	18.97	18.70
180.0	22.97	22.28	21.64	20.89	20.25	19.77	19.24	18.81	18.44
202.5	22.81	22.17	21.64	21.26	21.00	20.73	20.30	20.14	19.93
225.0	14.65	13.32	12.26	11.46	10.87	10.39	9.86	9.27	8.79
247.5	18.28	17.85	17.53	17.27	17.00	16.89	16.79	16.52	16.25
270.0	16.68	16.25	15.45	14.87	14.65	14.39	14.12	14.02	13.80
292.5	19.29	18.97	18.65	18.28	18.01	17.85	17.69	17.27	16.95
315.0	16.20	14.49	13.64	12.31	11.88	11.30	10.82	10.28	9.75
337.5	22.75	22.38	21.96	21.53	21.16	21.05	20.94	20.89	20.84
360.0	22.33	21.69	21.16	20.68	20.14	19.61	19.18	18.76	18.33

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	17.75	17.27	16.84	16.31	15.77	15.03	14.18	12.95	11.51
22.5	22.01	21.74	21.16	20.52	19.88	19.08	18.23	17.32	16.09
45.0	8.42	7.99	7.57	7.03	6.61	5.76	5.17	4.37	3.46
67.5	19.08	19.02	18.70	18.44	17.91	17.11	16.15	15.19	14.07
90.0	14.71	14.44	14.02	13.32	12.74	12.15	11.62	10.71	9.59
112.5	17.75	17.59	17.21	17.05	16.57	15.77	14.87	13.91	12.90
135.0	7.51	7.09	6.71	6.18	5.60	4.96	4.26	3.62	2.98
157.5	18.28	17.69	17.11	16.36	15.51	14.65	13.86	13.00	11.99
180.0	18.01	17.37	17.00	15.88	15.51	14.87	14.18	13.32	12.31
202.5	19.45	18.92	18.28	17.48	16.57	15.61	14.55	13.64	12.63
225.0	8.42	7.94	7.46	7.03	6.61	6.18	5.86	4.85	4.21
247.5	16.04	15.72	15.24	14.60	13.86	13.06	12.15	11.46	10.39
270.0	13.59	13.32	12.95	12.52	11.94	11.30	10.76	10.34	9.86
292.5	16.57	16.15	15.61	15.08	14.34	13.48	12.58	11.78	10.71
315.0	9.33	8.95	8.58	8.05	7.62	7.03	6.50	5.81	5.17
337.5	20.73	20.52	20.30	19.93	19.50	18.97	18.33	17.53	16.52
360.0	17.75	17.27	16.84	16.31	15.77	15.03	14.18	12.95	11.51

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	9.91	8.90	6.66	5.12	4.26	2.93	1.92	1.60	1.44
22.5	14.81	13.32	11.67	10.50	7.73	6.61	4.74	2.82	2.08
45.0	2.98	2.45	2.13	1.81	1.55	1.33	1.23	1.12	0.96
67.5	12.95	11.83	10.39	8.85	7.25	5.65	4.16	2.88	1.97
90.0	8.42	7.19	5.76	4.37	2.98	2.13	1.12	0.85	0.80
112.5	11.78	10.55	9.01	7.41	5.70	4.16	2.82	1.87	1.17
135.0	2.45	2.08	1.81	1.55	1.33	1.23	1.12	0.96	0.85
157.5	10.92	9.65	8.47	6.82	5.17	3.62	2.34	1.44	1.07
180.0	10.98	9.49	7.89	6.29	4.74	3.41	2.40	1.65	1.44
202.5	11.35	9.81	8.10	6.34	4.74	3.84	2.18	1.60	1.39
225.0	3.84	3.25	2.72	2.29	1.97	1.76	1.60	1.39	1.23
247.5	9.59	8.69	7.25	6.29	4.96	3.73	2.66	1.76	1.23
270.0	9.33	8.47	7.51	6.45	5.33	4.16	2.93	1.87	1.28
292.5	10.02	9.22	8.05	7.09	5.76	4.42	3.20	2.18	1.49
315.0	4.53	3.78	3.14	2.61	2.24	1.97	1.71	1.55	1.39
337.5	15.40	13.96	12.20	10.23	8.10	6.13	4.37	2.82	1.71
360.0	9.91	8.90	6.66	5.12	4.26	2.93	1.92	1.60	1.44

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	1.39	1.33	1.28	1.23	1.07	0.96	1.01	0.96	0.91
22.5	1.39	1.12	1.01	1.01	0.96	0.91	0.85	0.80	0.80
45.0	0.91	0.85	0.80	0.75	0.69	0.64	0.64	0.59	0.53
67.5	1.33	1.07	1.01	1.01	0.96	0.85	0.80	0.75	0.69
90.0	0.69	0.69	0.69	0.64	0.59	0.53	0.53	0.53	0.48
112.5	0.96	0.91	0.85	0.80	0.75	0.64	0.69	0.64	0.53
135.0	0.85	0.75	0.75	0.69	0.64	0.64	0.53	0.53	0.48
157.5	1.01	0.96	0.85	0.80	0.80	0.75	0.69	0.69	0.64
180.0	1.39	1.33	1.28	1.17	1.17	1.07	1.01	0.96	0.91
202.5	1.33	1.33	1.23	1.17	1.07	1.07	0.96	0.85	0.75
225.0	1.17	1.12	1.07	0.91	0.91	0.85	0.85	0.75	0.75
247.5	1.07	1.01	0.91	0.85	0.85	0.85	0.80	0.75	0.75
270.0	0.91	0.85	0.80	0.80	0.80	0.75	0.69	0.69	0.69
292.5	1.23	1.17	1.12	1.01	0.96	0.96	0.96	0.91	0.85
315.0	1.23	1.12	1.12	1.01	0.96	0.91	0.85	0.80	0.75
337.5	1.28	1.17	1.12	1.12	1.01	0.96	0.91	0.91	0.80
360.0	1.39	1.33	1.28	1.23	1.07	0.96	1.01	0.96	0.91

Intensity data(cd)

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	0.91	0.85	0.75	0.75	0.59	0.59	0.59	0.53	0.43
22.5	0.75	0.69	0.64	0.64	0.53	0.48	0.48	0.37	0.43
45.0	0.53	0.48	0.48	0.48	0.37	0.37	0.32	0.32	0.32
67.5	0.64	0.59	0.59	0.48	0.43	0.32	0.32	0.32	0.27
90.0	0.43	0.48	0.37	0.37	0.37	0.32	0.27	0.27	0.27
112.5	0.48	0.53	0.48	0.43	0.43	0.32	0.32	0.32	0.32
135.0	0.48	0.43	0.43	0.37	0.37	0.32	0.32	0.27	0.27
157.5	0.59	0.53	0.53	0.43	0.43	0.43	0.37	0.32	0.32
180.0	0.85	0.80	0.75	0.69	0.64	0.59	0.48	0.48	0.48
202.5	0.75	0.64	0.59	0.59	0.59	0.48	0.48	0.43	0.37
225.0	0.69	0.69	0.64	0.64	0.64	0.59	0.53	0.53	0.43
247.5	0.75	0.69	0.64	0.64	0.59	0.48	0.48	0.43	0.37
270.0	0.69	0.64	0.69	0.64	0.59	0.53	0.48	0.48	0.37
292.5	0.80	0.80	0.75	0.75	0.64	0.59	0.48	0.43	0.37
315.0	0.75	0.69	0.64	0.69	0.69	0.64	0.64	0.53	0.48
337.5	0.69	0.69	0.69	0.64	0.53	0.48	0.43	0.43	0.43
360.0	0.91	0.85	0.75	0.75	0.59	0.59	0.59	0.53	0.43

C/γ(°)	90.0
0.0	0.37
22.5	0.27
45.0	0.27
67.5	0.27
90.0	0.27
112.5	0.32
135.0	0.21
157.5	0.21
180.0	0.27
202.5	0.32
225.0	0.32
247.5	0.37
270.0	0.37
292.5	0.32
315.0	0.43
337.5	0.37
360.0	0.37