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NT

Client: NT

LumCAT: 1-1768-LM2

Luminaire: 92.70.492.00

Report No: 20260120-B004

Ballast type: AC

Test No: 20260120-C004

Voltage(V): 35.380

LampCAT: CITIZEN CLU028 LES9.8

Current(A): 0.361

Lamp flux(lm): 1567.1

Power (W): 12.772

Number of Lamps: 1

PF: 0.000

Length(mm): 50

Width(mm): 50

Phm Type: C

Height(mm): 22

Photometric Results

Lumens(lm): 1510.80, Efficiency(%): 96.41% , Luminous Efficacy(lm/W): 118.29

Central intensity(cd): 2637.787, Maximum intensity(cd): 2637.787

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=37.2

[C90/270]Total=37.2

Field angle(10%Imax): [C0/180]Total=85.4

[C90/270]Total=85.4

Maximum s/h(1/2): C0_180=0.60 C90_270=0.60

Maximum s/h(1/4): C0_180=0.65 C90_270=0.65

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 96.41%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.932%

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2026/1/20
Humidity(%): 60.0%

Operator: Y P C
Distance(m): 7.50

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2637.788	0.000	0	0.00%	0.00%
1.0	2634.975	2.523	2.523	0.16%	0.17%
2.0	2621.123	7.544	10.067	0.48%	0.67%
3.0	2603.475	12.496	22.562	0.80%	1.49%
4.0	2580.061	17.351	39.913	1.11%	2.64%
5.0	2540.405	22.028	61.941	1.41%	4.10%
6.0	2495.264	26.464	88.405	1.69%	5.85%
7.0	2438.030	30.621	119.026	1.95%	7.88%
8.0	2369.194	34.404	153.43	2.20%	10.16%
9.0	2288.053	37.744	191.175	2.41%	12.65%
10.0	2182.163	40.454	231.629	2.58%	15.33%
11.0	2090.405	42.692	274.32	2.72%	18.16%
12.0	1982.545	44.523	318.844	2.84%	21.10%
13.0	1866.319	45.676	364.52	2.91%	24.13%
14.0	1759.725	46.413	410.933	2.96%	27.20%
15.0	1647.506	46.776	457.709	2.98%	30.30%
16.0	1551.108	46.869	504.578	2.99%	33.40%
17.0	1459.491	46.883	551.461	2.99%	36.50%
18.0	1374.834	46.732	598.193	2.98%	39.59%
19.0	1283.280	46.246	644.438	2.95%	42.66%
20.0	1182.734	45.135	689.573	2.88%	45.64%
21.0	1141.277	44.626	734.199	2.85%	48.60%
22.0	1073.517	44.507	778.706	2.84%	51.54%
23.0	1005.743	43.628	822.335	2.78%	54.43%
24.0	941.555	42.575	864.91	2.72%	57.25%
25.0	868.683	41.161	906.07	2.63%	59.97%
26.0	808.671	39.594	945.665	2.53%	62.59%
27.0	742.908	37.960	983.624	2.42%	65.11%
28.0	687.874	36.224	1019.849	2.31%	67.50%
29.0	638.142	34.692	1054.541	2.21%	69.80%
30.0	592.172	33.218	1087.759	2.12%	72.00%
31.0	558.352	32.017	1119.777	2.04%	74.12%
32.0	530.880	31.205	1150.982	1.99%	76.18%
33.0	506.285	30.555	1181.537	1.95%	78.21%
34.0	486.443	30.043	1211.58	1.92%	80.19%
35.0	472.978	29.796	1241.376	1.90%	82.17%
36.0	459.682	29.696	1271.072	1.89%	84.13%
37.0	443.138	29.445	1300.517	1.88%	86.08%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	422.220	28.884	1329.402	1.84%	87.99%
39.0	391.556	27.776	1357.178	1.77%	89.83%
40.0	357.398	26.121	1383.299	1.67%	91.56%
41.0	318.586	24.071	1407.37	1.54%	93.15%
42.0	280.751	21.775	1429.145	1.39%	94.60%
43.0	254.742	19.836	1448.981	1.27%	95.91%
44.0	203.414	17.292	1466.274	1.10%	97.05%
45.0	145.287	13.401	1479.675	0.86%	97.94%
46.0	104.048	9.751	1489.425	0.62%	98.59%
47.0	65.820	6.756	1496.182	0.43%	99.03%
48.0	39.705	4.266	1500.447	0.27%	99.31%
49.0	22.929	2.572	1503.02	0.16%	99.49%
50.0	14.548	1.563	1504.582	0.10%	99.59%
51.0	10.835	1.074	1505.656	0.07%	99.66%
52.0	9.366	0.867	1506.523	0.06%	99.72%
53.0	8.072	0.759	1507.281	0.05%	99.77%
54.0	7.095	0.668	1507.95	0.04%	99.81%
55.0	6.026	0.586	1508.535	0.04%	99.85%
56.0	4.683	0.484	1509.019	0.03%	99.88%
57.0	2.510	0.329	1509.348	0.02%	99.90%
58.0	1.399	0.181	1509.529	0.01%	99.92%
59.0	1.280	0.125	1509.654	0.01%	99.92%
60.0	1.174	0.116	1509.77	0.01%	99.93%
61.0	1.083	0.108	1509.878	0.01%	99.94%
62.0	0.984	0.100	1509.978	0.01%	99.95%
63.0	0.900	0.092	1510.069	0.01%	99.95%
64.0	0.809	0.084	1510.153	0.01%	99.96%
65.0	0.724	0.076	1510.229	0.00%	99.96%
66.0	0.661	0.069	1510.298	0.00%	99.97%
67.0	0.591	0.063	1510.361	0.00%	99.97%
68.0	0.563	0.058	1510.419	0.00%	99.97%
69.0	0.513	0.055	1510.474	0.00%	99.98%
70.0	0.436	0.049	1510.523	0.00%	99.98%
71.0	0.408	0.044	1510.567	0.00%	99.98%
72.0	0.359	0.040	1510.606	0.00%	99.99%
73.0	0.295	0.034	1510.641	0.00%	99.99%
74.0	0.260	0.029	1510.67	0.00%	99.99%
75.0	0.225	0.026	1510.695	0.00%	99.99%

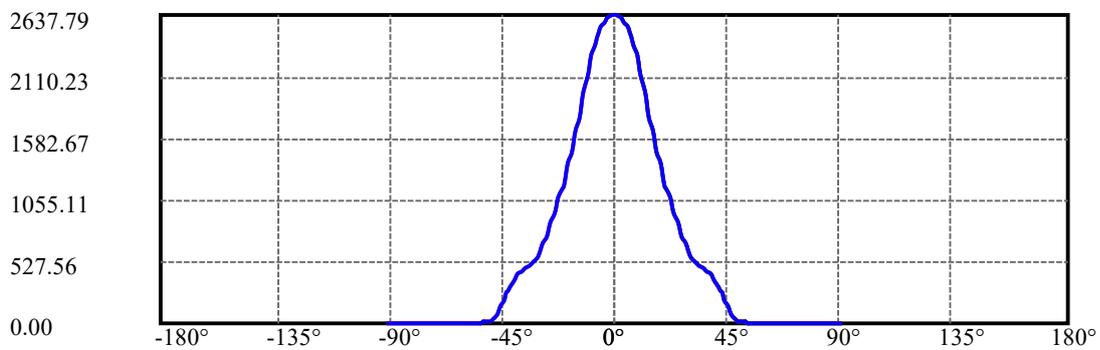
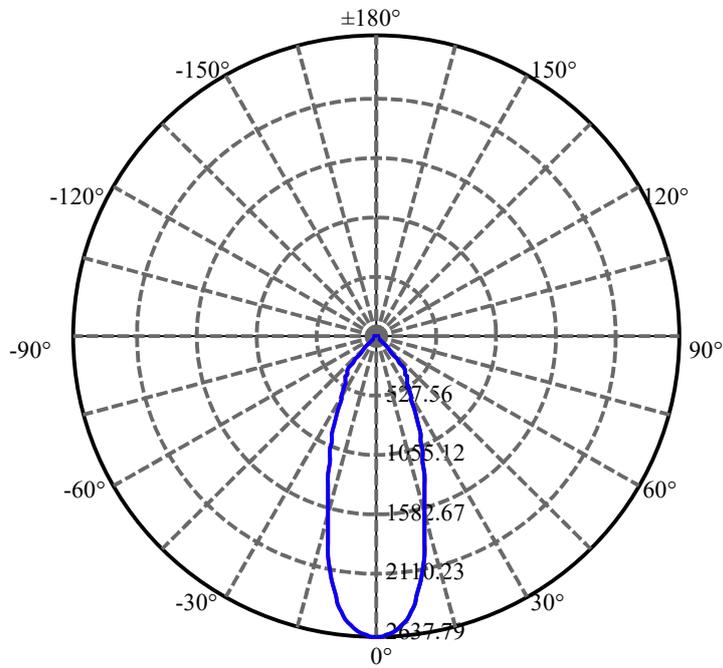
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	0.183	0.022	1510.717	0.00%	99.99%
77.0	0.155	0.018	1510.735	0.00%	100.00%
78.0	0.113	0.014	1510.749	0.00%	100.00%
79.0	0.105	0.012	1510.761	0.00%	100.00%
80.0	0.077	0.010	1510.771	0.00%	100.00%
81.0	0.056	0.007	1510.778	0.00%	100.00%
82.0	0.021	0.004	1510.782	0.00%	100.00%
83.0	0.021	0.002	1510.785	0.00%	100.00%
84.0	0.014	0.002	1510.787	0.00%	100.00%
85.0	0.000	0.001	1510.787	0.00%	100.00%
86.0	0.014	0.001	1510.788	0.00%	100.00%
87.0	0.014	0.002	1510.79	0.00%	100.00%
88.0	0.028	0.002	1510.792	0.00%	100.00%
89.0	0.028	0.003	1510.795	0.00%	100.00%
90.0	0.042	0.004	1510.799	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1087.76	69.41%	72.00%
0-40	1383.30	88.27%	91.56%
0-60	1509.77	96.34%	99.93%
0-90	1510.80	96.41%	100.00%
0-120	1510.80	96.41%	100.00%
0-180	1510.80	96.41%	100.00%
60-90	1.02	0.07%	0.07%
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%
0-33.90	1208.64	77.13%	80.00%

ZONAL LUMEN SUMMARY

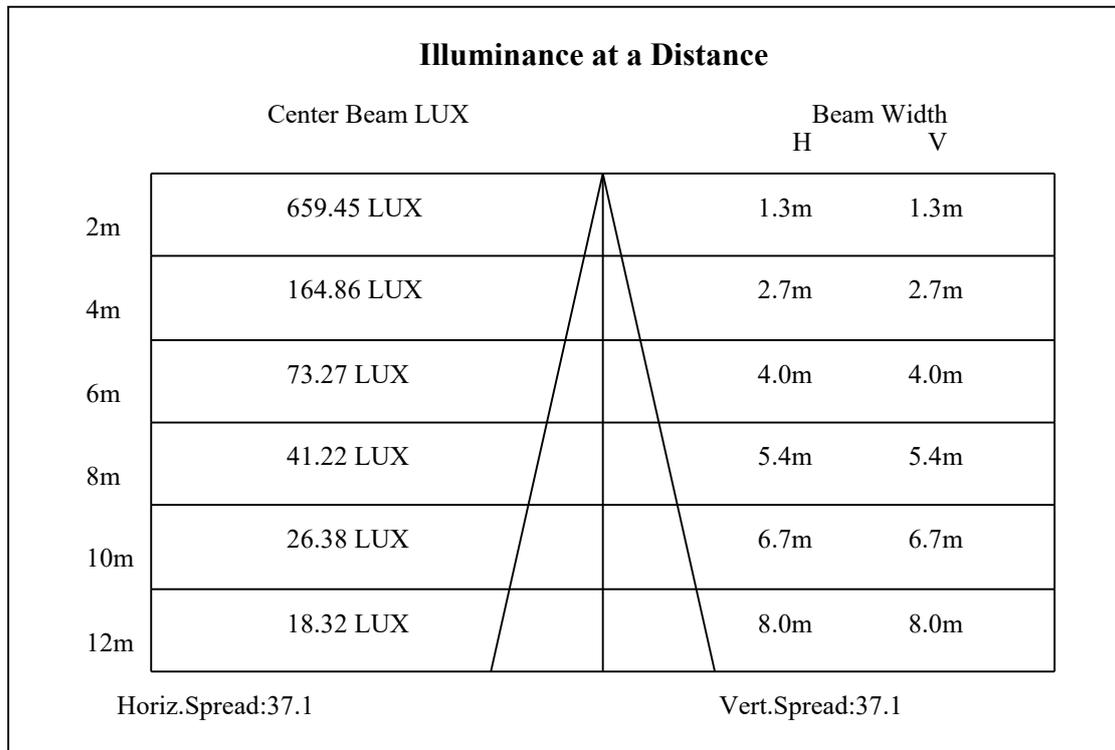
0-10	231.63
10-20	457.94
20-30	398.19
30-40	295.54
40-50	121.28
50-60	5.19
60-70	0.75
70-80	0.25
80-90	0.02
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

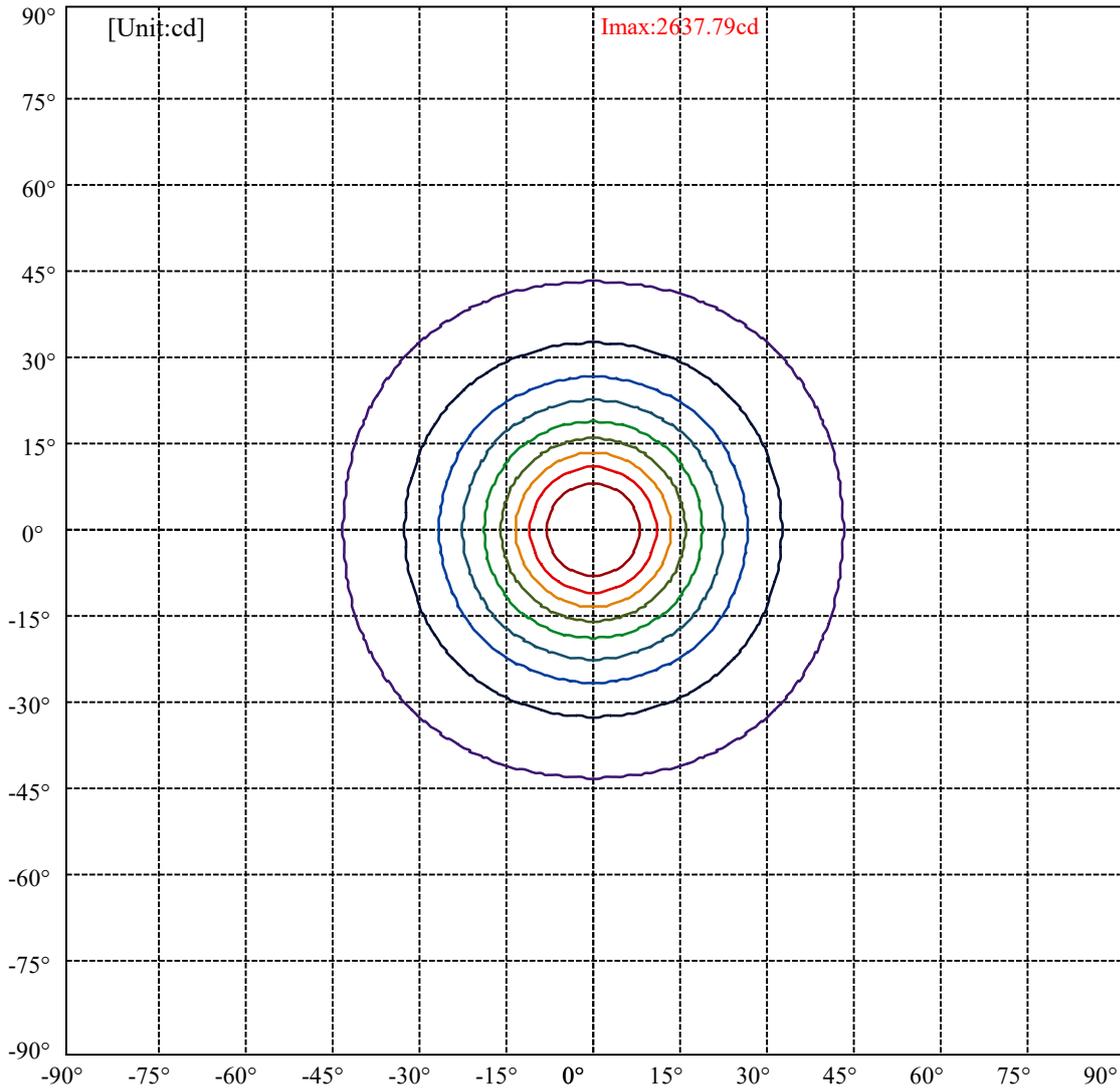


C0(Max): —————
C0/C180: —————
C90/C270: —————

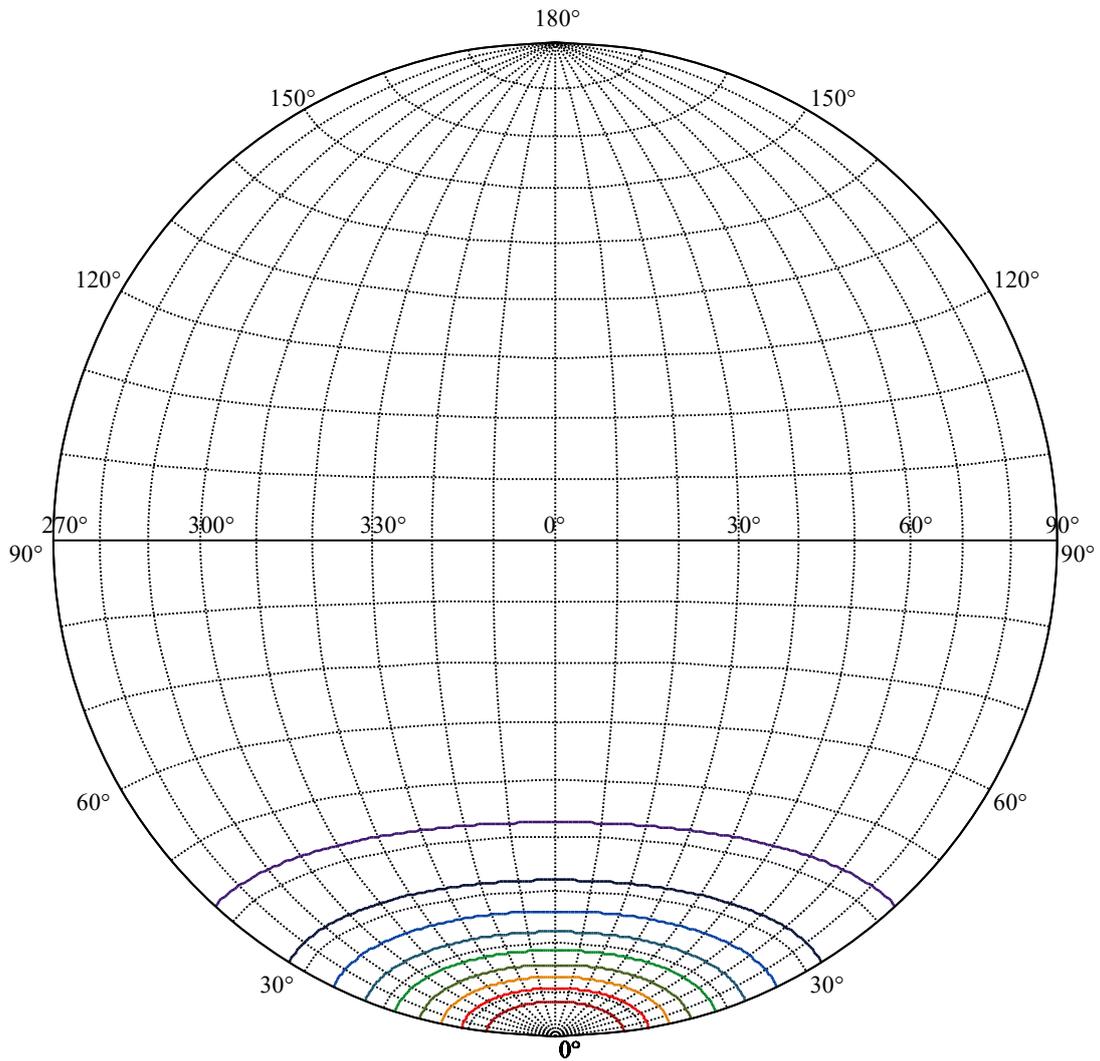
Field angle(10%Imax):C0/180Left:42.7 Right:42.7
:C90/270Left:42.7 Right:42.7

Beam Angle(50%Imax):C0/180Left:18.6 Right:18.6
:C90/270Left:18.6 Right:18.6





(10%Imax) 263.779	—
(20%Imax) 527.557	—
(30%Imax) 791.336	—
(40%Imax) 1055.11	—
(50%Imax) 1318.89	—
(60%Imax) 1582.67	—
(70%Imax) 1846.45	—
(80%Imax) 2110.23	—
(90%Imax) 2374.01	—



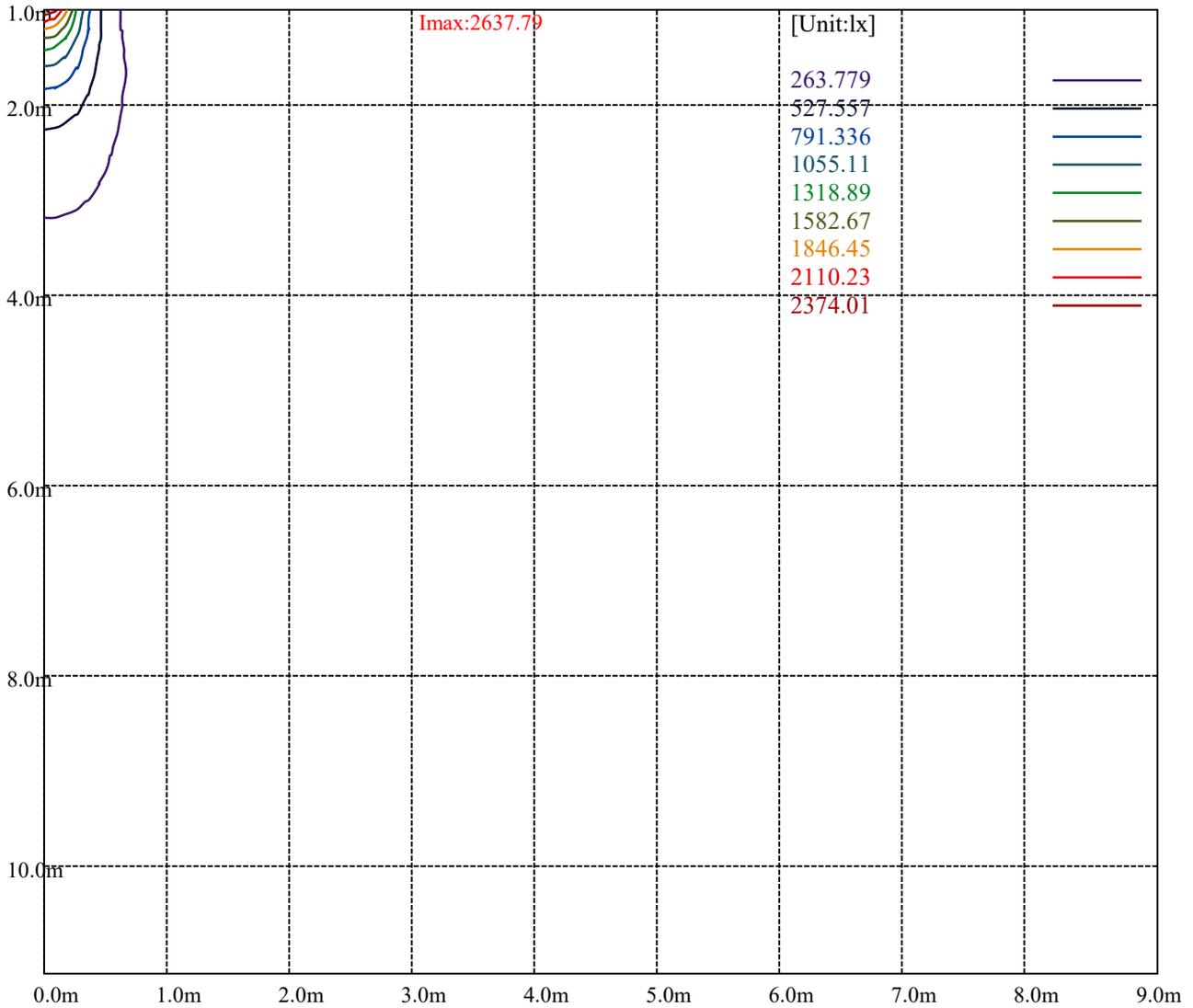
House

[Unit:cd]

Road

Imax:2637.79

(10%Imax) 263.779	—
(20%Imax) 527.557	—
(30%Imax) 791.336	—
(40%Imax) 1055.11	—
(50%Imax) 1318.89	—
(60%Imax) 1582.67	—
(70%Imax) 1846.45	—
(80%Imax) 2110.23	—
(90%Imax) 2374.01	—



Luminance Table

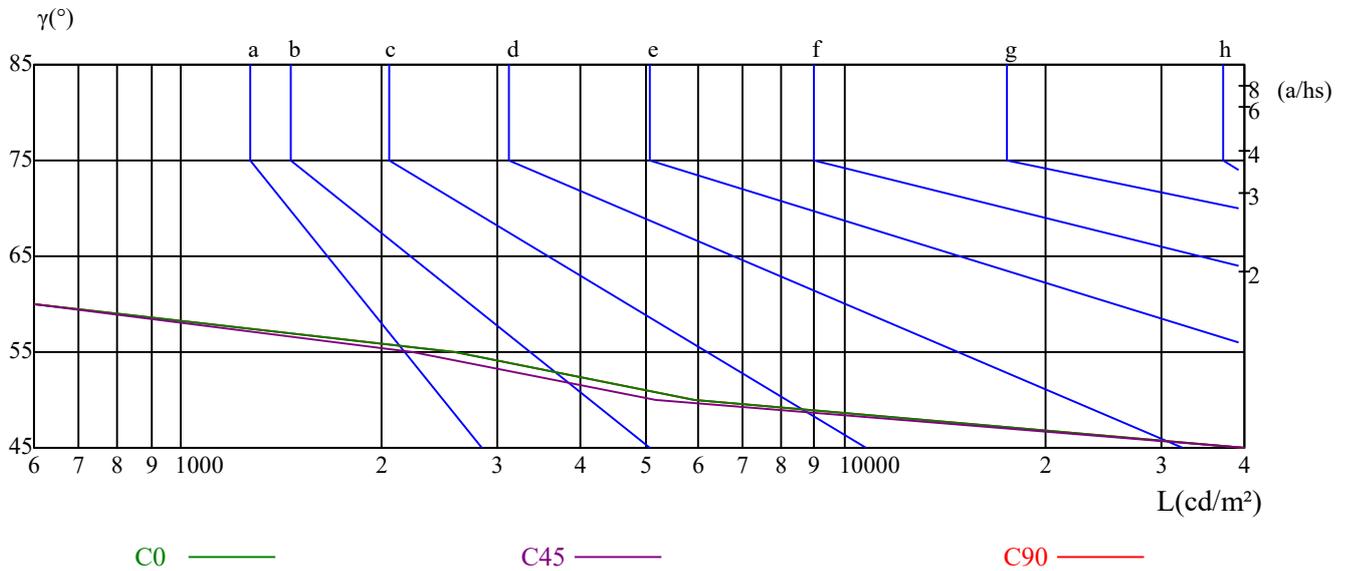
γ	45	50	55	60	65	70	75	80	85
C0	57074	5939	2581	533	353	231	132	51	0
C45	50662	5198	2225	452	294	188	105	39	0
C90	57074	5939	2581	533	353	231	132	51	0

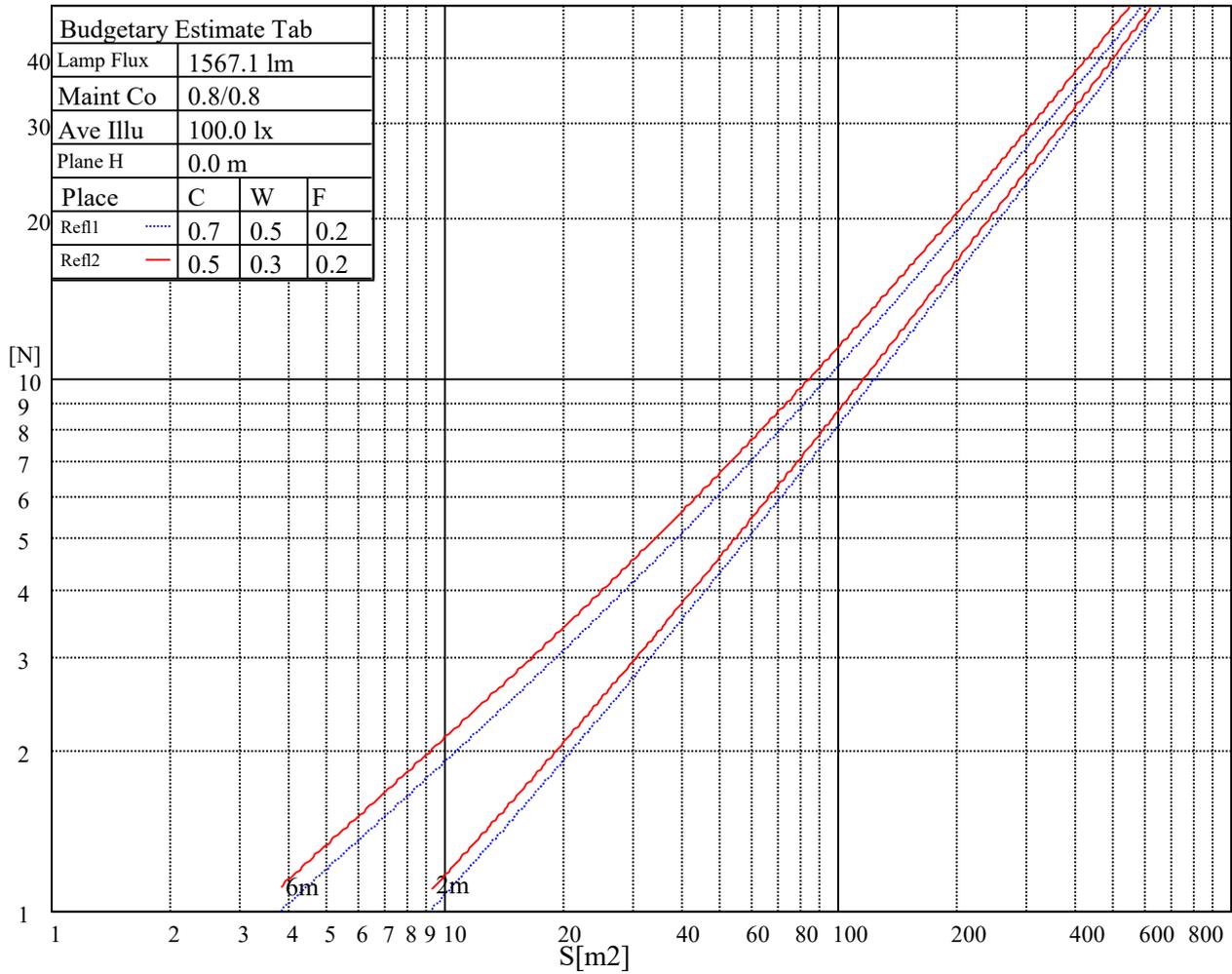
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
685	685	685	348	348	348	0	0	0

Glare Table

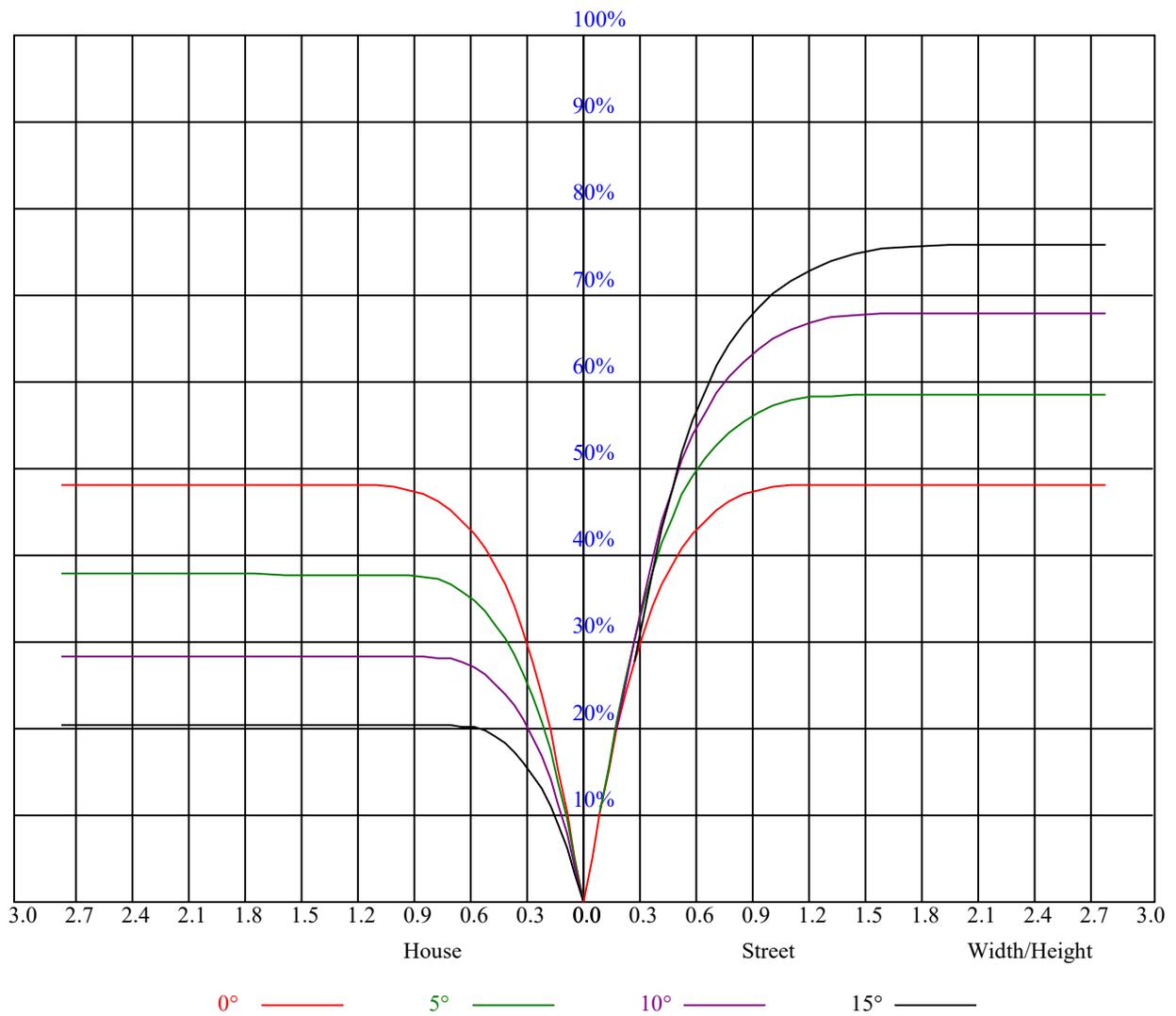
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

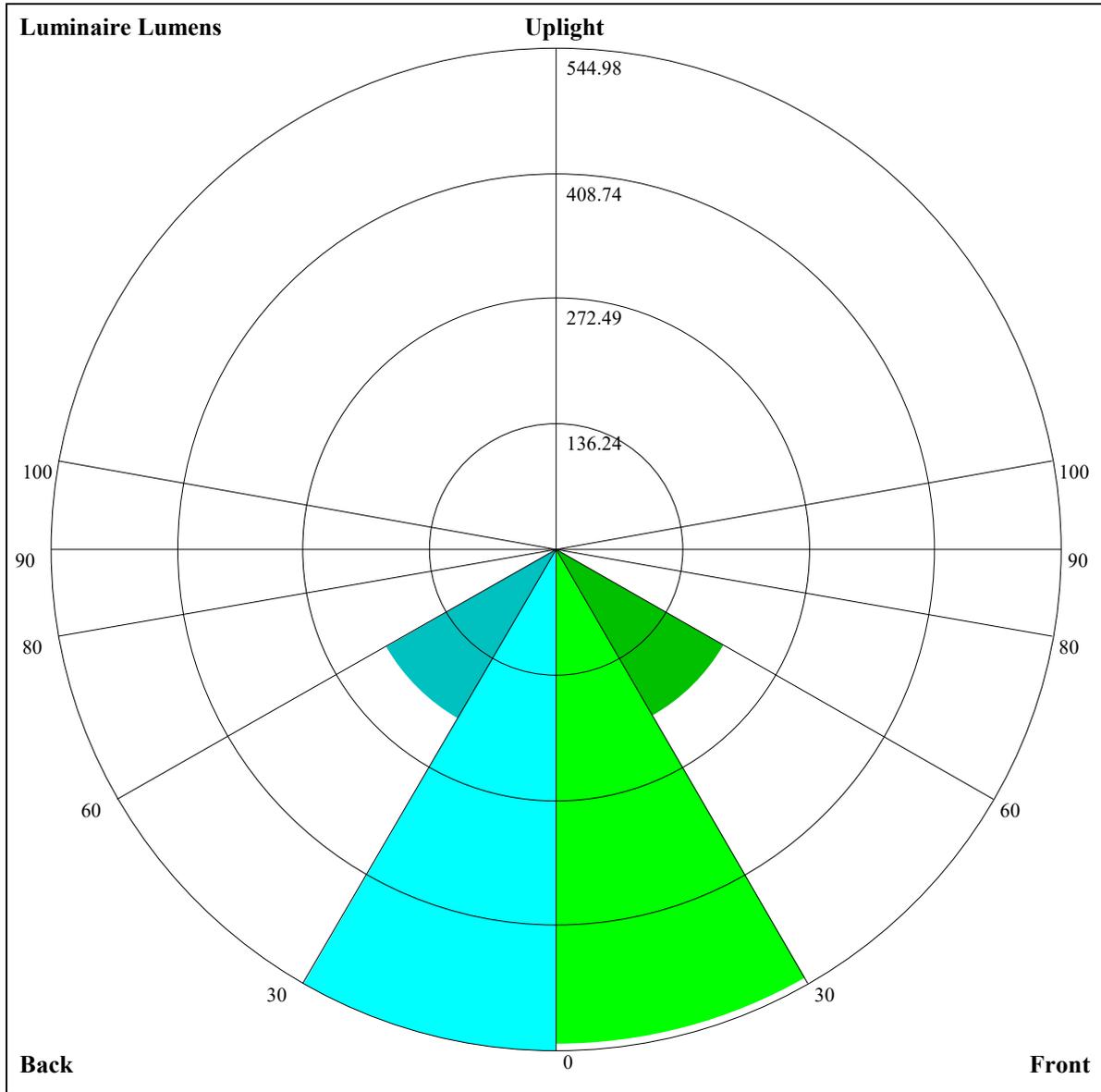
Luminance Limiting Curve





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	1.15	1.15	1.15	1.12	1.12	1.12	1.07	1.07	1.07	1.03	1.03	1.03	0.98	0.98	0.98	0.96
1	1.07	1.05	1.03	1.05	1.03	1.01	1.01	1.00	0.98	0.98	0.96	0.95	0.94	0.93	0.92	0.91
2	1.00	0.96	0.93	0.98	0.95	0.92	0.95	0.93	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.85
3	0.94	0.89	0.85	0.92	0.88	0.85	0.90	0.86	0.83	0.88	0.85	0.82	0.85	0.83	0.81	0.79
4	0.88	0.83	0.79	0.87	0.82	0.78	0.85	0.81	0.78	0.83	0.79	0.77	0.81	0.78	0.76	0.74
5	0.83	0.77	0.73	0.82	0.77	0.73	0.80	0.76	0.72	0.78	0.75	0.72	0.77	0.74	0.71	0.70
6	0.78	0.72	0.68	0.77	0.72	0.68	0.76	0.71	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.66
7	0.74	0.68	0.64	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.66	0.63	0.70	0.66	0.63	0.62
8	0.70	0.64	0.60	0.69	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.58
9	0.66	0.61	0.57	0.66	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.55
10	0.63	0.58	0.54	0.62	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.52





Luminaire Lumens:

FL=538.88,FM=209.23,FH=0.49,FVH=0.01

BL=544.98,BM=213.67,BH=0.51,BVH=0.01

UL=0,UH=0

BUG Rating:B2-U0-G0

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	2640.32	2624.01	2604.32	2589.13	2559.32	2487.32	2451.88	2382.69	2300.57
45.0	2636.38	2639.19	2636.94	2624.57	2608.26	2583.51	2550.32	2524.44	2460.32
90.0	2645.38	2645.38	2628.51	2616.69	2589.69	2551.44	2501.94	2427.13	2382.13
135.0	2629.07	2639.19	2639.19	2630.19	2613.32	2598.69	2555.94	2507.01	2444.57
180.0	2640.32	2644.26	2642.01	2636.38	2617.26	2593.07	2555.94	2504.76	2468.19
225.0	2636.38	2626.82	2606.57	2581.26	2546.94	2500.26	2425.44	2381.01	2296.07
270.0	2645.38	2641.44	2624.57	2603.19	2575.07	2536.82	2509.82	2441.76	2370.88
315.0	2629.07	2619.51	2586.88	2546.38	2530.63	2472.13	2410.82	2335.44	2230.82
360.0	2640.32	2624.01	2604.32	2589.13	2559.32	2487.32	2451.88	2382.69	2300.57
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2206.07	2078.38	2012.57	1900.63	1790.94	1685.76	1566.51	1474.26	1389.88
45.0	2390.57	2307.88	2213.38	2150.38	2018.19	1860.69	1793.76	1666.63	1567.07
90.0	2297.19	2200.44	2093.57	1959.13	1891.63	1735.82	1610.38	1551.32	1457.94
135.0	2369.76	2263.44	2161.63	2051.38	1982.76	1848.88	1740.88	1637.94	1538.94
180.0	2379.88	2251.63	2189.76	2056.44	1945.07	1835.38	1727.94	1665.51	1543.44
225.0	2198.76	2092.44	1959.69	1891.07	1736.94	1674.51	1572.69	1456.82	1367.38
270.0	2289.32	2195.38	2133.51	2002.44	1846.63	1781.38	1650.32	1546.82	1451.76
315.0	2172.88	2067.69	1959.13	1848.88	1718.38	1655.38	1517.57	1409.57	1359.51
360.0	2206.07	2078.38	2012.57	1900.63	1790.94	1685.76	1566.51	1474.26	1389.88
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1294.82	1249.82	1083.83	1083.83	1041.19	972.90	905.91	840.54	764.10
45.0	1472.01	1383.13	1332.51	1232.94	1154.19	1077.13	1002.32	916.82	875.19
90.0	1369.07	1283.57	1083.26	1083.26	1053.39	964.01	919.74	848.36	779.46
135.0	1482.69	1374.13	1288.63	1207.07	1130.57	1084.44	997.26	898.26	857.19
180.0	1449.51	1357.82	1269.51	1218.32	1120.44	1042.26	968.57	882.51	814.44
225.0	1283.57	1092.26	1092.26	1063.24	978.53	937.13	869.91	806.74	745.76
270.0	1363.44	1313.94	1224.51	1154.19	1086.69	1007.94	983.19	907.82	845.94
315.0	1283.57	1211.57	1087.37	1087.37	1023.13	960.13	885.54	848.42	787.28
360.0	1294.82	1249.82	1083.83	1083.83	1041.19	972.90	905.91	840.54	764.10
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	727.26	669.26	618.08	575.44	537.69	522.00	492.30	473.12	467.49
45.0	780.13	740.76	668.19	615.32	573.13	539.38	523.07	497.76	480.88
90.0	714.83	645.58	615.77	559.46	540.68	516.04	493.03	478.01	465.69
135.0	776.76	714.32	658.63	610.26	584.94	545.57	519.69	498.88	478.63
180.0	751.44	694.07	663.13	607.44	569.76	539.94	516.88	493.26	484.26
225.0	678.77	648.39	603.28	565.59	535.78	508.22	489.71	474.24	458.33
270.0	785.76	717.69	664.26	615.32	573.13	552.88	519.13	497.76	479.19
315.0	728.33	672.92	613.80	588.54	551.70	523.01	496.46	478.52	469.35
360.0	727.26	669.26	618.08	575.44	537.69	522.00	492.30	473.12	467.49
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	452.36	434.14	405.84	362.87	338.85	296.72	253.74	208.18	155.25
45.0	467.38	456.13	440.38	417.32	385.82	364.44	314.94	297.51	297.51
90.0	452.81	444.21	422.66	391.67	354.49	303.53	276.75	230.85	156.77
135.0	472.44	456.69	443.76	423.51	387.51	350.38	308.76	308.76	281.76
180.0	463.44	456.69	437.57	411.69	377.94	338.57	313.82	287.38	239.74
225.0	449.66	427.16	396.00	358.37	309.21	283.28	239.23	194.63	151.65
270.0	464.57	447.13	426.32	396.51	375.13	326.19	308.76	308.76	188.38
315.0	454.78	422.94	405.23	370.52	330.24	285.58	230.01	201.88	156.26
360.0	452.36	434.14	405.84	362.87	338.85	296.72	253.74	208.18	155.25

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	129.83	89.89	37.86	24.02	11.87	9.00	7.48	5.96	5.51
45.0	191.59	140.46	100.01	63.73	45.73	19.80	10.07	8.44	7.03
90.0	130.56	90.45	56.36	31.22	15.69	12.38	11.08	9.79	8.83
135.0	170.61	126.11	101.59	58.84	33.36	20.14	15.19	14.12	11.64
180.0	180.34	128.87	89.16	54.90	29.76	20.81	13.39	11.31	9.34
225.0	102.83	80.55	38.48	19.46	15.36	13.67	11.87	10.46	9.06
270.0	143.16	101.14	65.03	46.69	21.38	12.26	10.24	8.83	8.04
315.0	113.40	74.93	38.08	18.79	10.29	8.33	7.37	6.02	5.12
360.0	129.83	89.89	37.86	24.02	11.87	9.00	7.48	5.96	5.51
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.84	4.22	3.26	1.41	1.29	1.18	1.13	1.01	0.90
45.0	6.47	5.51	4.56	4.05	1.69	1.35	1.18	1.13	1.07
90.0	7.71	7.03	5.34	1.58	1.35	1.24	1.13	1.01	0.90
135.0	10.13	8.66	7.26	3.88	1.35	1.29	1.24	1.13	1.07
180.0	7.82	5.96	4.67	2.31	1.46	1.29	1.18	1.13	1.01
225.0	8.38	7.14	3.71	1.35	1.29	1.24	1.07	1.07	0.90
270.0	7.03	6.08	5.51	4.05	1.46	1.41	1.29	1.18	1.07
315.0	4.39	3.60	3.15	1.46	1.29	1.24	1.18	1.01	0.96
360.0	4.84	4.22	3.26	1.41	1.29	1.18	1.13	1.01	0.90
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	0.84	0.73	0.62	0.56	0.51	0.51	0.45	0.34	0.39
45.0	1.01	0.84	0.79	0.68	0.62	0.62	0.56	0.45	0.45
90.0	0.84	0.73	0.68	0.62	0.51	0.51	0.45	0.39	0.39
135.0	0.96	0.84	0.84	0.73	0.68	0.62	0.56	0.51	0.39
180.0	0.96	0.90	0.79	0.73	0.62	0.62	0.56	0.51	0.45
225.0	0.79	0.73	0.68	0.62	0.56	0.51	0.51	0.39	0.39
270.0	0.96	0.90	0.79	0.73	0.68	0.62	0.56	0.51	0.45
315.0	0.84	0.79	0.62	0.62	0.56	0.51	0.45	0.39	0.34
360.0	0.84	0.73	0.62	0.56	0.51	0.51	0.45	0.34	0.39
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	0.28	0.23	0.23	0.17	0.11	0.11	0.06	0.06	0.00
45.0	0.39	0.34	0.28	0.28	0.23	0.23	0.11	0.11	0.17
90.0	0.34	0.28	0.23	0.23	0.17	0.11	0.11	0.11	0.11
135.0	0.39	0.34	0.28	0.23	0.23	0.17	0.17	0.11	0.06
180.0	0.39	0.34	0.28	0.23	0.23	0.17	0.11	0.11	0.06
225.0	0.34	0.28	0.23	0.23	0.23	0.17	0.11	0.11	0.06
270.0	0.39	0.34	0.28	0.28	0.17	0.17	0.17	0.11	0.11
315.0	0.34	0.23	0.28	0.17	0.11	0.11	0.06	0.11	0.06
360.0	0.28	0.23	0.23	0.17	0.11	0.11	0.06	0.06	0.00
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.11	0.06	0.06	0.00	0.00	0.06	0.06	0.06	0.06
90.0	0.06	0.00	0.06	0.06	0.00	0.00	0.00	0.06	0.00
135.0	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.06	0.06	0.06	0.00	0.00	0.06	0.06	0.11	0.11
270.0	0.11	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.06
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Intensity data(cd)

C/γ(°)	90.0
0.0	0.00
45.0	0.11
90.0	0.06
135.0	0.00
180.0	0.00
225.0	0.11
270.0	0.06
315.0	0.00
360.0	0.00