



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

NT

Client: NT

LumCAT: 62-0104-1

Luminaire: 92.70.427.000

Report No: 20261212-B002

Ballast type: AC

Test No: 20251212-C002

Voltage(V): 35.050

LampCAT: CITIZEN CLU028

Current(A): 0.361

Lamp flux(lm): 1630.4

Power (W): 12.653

Number of Lamps: 1

PF: 0.000

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 25

Photometric Results

Lumens(lm): 1482.94, Efficiency(%): 90.95% , Luminous Efficacy(lm/W): 117.20

Central intensity(cd): 3779.665, Maximum intensity(cd): 3779.665

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=36.4

[C90/270]Total=36.4

Field angle(10%Imax): [C0/180]Total=55.8

[C90/270]Total=55.8

Maximum s/h(1/2): C0_180=0.61 C90_270=0.61

Maximum s/h(1/4): C0_180=0.57 C90_270=0.57

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 90.96%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.576%

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2025/12/12
Humidity(%): 60.0%

Operator: 杨泽全
Distance(m): 7.45

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3779.665	0.000	0	0.00%	0.00%
1.0	3771.548	3.613	3.613	0.22%	0.24%
2.0	3753.856	10.801	14.414	0.66%	0.97%
3.0	3732.349	17.905	32.319	1.10%	2.18%
4.0	3699.880	24.878	57.197	1.53%	3.86%
5.0	3658.531	31.655	88.852	1.94%	5.99%
6.0	3608.023	38.188	127.04	2.34%	8.57%
7.0	3525.533	44.278	171.318	2.72%	11.55%
8.0	3461.497	50.005	221.323	3.07%	14.92%
9.0	3369.848	55.364	276.687	3.40%	18.66%
10.0	3253.640	59.940	336.627	3.68%	22.70%
11.0	3147.838	63.964	400.591	3.92%	27.01%
12.0	2990.350	67.099	467.69	4.12%	31.54%
13.0	2839.661	69.188	536.878	4.24%	36.20%
14.0	2682.380	70.682	607.559	4.34%	40.97%
15.0	2480.698	70.881	678.44	4.35%	45.75%
16.0	2308.155	70.170	748.611	4.30%	50.48%
17.0	2125.968	69.051	817.662	4.24%	55.14%
18.0	1926.644	66.819	884.481	4.10%	59.64%
19.0	1753.268	64.023	948.504	3.93%	63.96%
20.0	1483.249	59.237	1007.741	3.63%	67.96%
21.0	1342.758	54.265	1062.006	3.33%	71.61%
22.0	1147.736	50.048	1112.053	3.07%	74.99%
23.0	960.769	44.242	1156.295	2.71%	77.97%
24.0	861.211	39.835	1196.13	2.44%	80.66%
25.0	704.854	35.609	1231.739	2.18%	83.06%
26.0	578.572	30.295	1262.035	1.86%	85.10%
27.0	465.035	25.532	1287.567	1.57%	86.83%
28.0	364.776	21.009	1308.576	1.29%	88.24%
29.0	305.021	17.524	1326.1	1.07%	89.42%
30.0	226.540	14.352	1340.452	0.88%	90.39%
31.0	190.616	11.609	1352.061	0.71%	91.17%
32.0	154.526	9.888	1361.949	0.61%	91.84%
33.0	104.019	7.617	1369.565	0.47%	92.35%
34.0	82.380	5.641	1375.206	0.35%	92.74%
35.0	68.428	4.684	1379.89	0.29%	93.05%
36.0	56.404	3.975	1383.865	0.24%	93.32%
37.0	49.036	3.439	1387.303	0.21%	93.55%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	44.569	3.124	1390.428	0.19%	93.76%
39.0	41.113	2.925	1393.352	0.18%	93.96%
40.0	38.935	2.792	1396.144	0.17%	94.15%
41.0	36.701	2.693	1398.838	0.17%	94.33%
42.0	35.140	2.610	1401.448	0.16%	94.50%
43.0	34.030	2.562	1404.01	0.16%	94.68%
44.0	32.830	2.523	1406.533	0.15%	94.85%
45.0	32.101	2.495	1409.029	0.15%	95.02%
46.0	31.317	2.480	1411.509	0.15%	95.18%
47.0	30.762	2.469	1413.978	0.15%	95.35%
48.0	30.471	2.475	1416.453	0.15%	95.52%
49.0	30.145	2.489	1418.943	0.15%	95.68%
50.0	29.999	2.508	1421.45	0.15%	95.85%
51.0	29.909	2.535	1423.985	0.16%	96.02%
52.0	29.791	2.562	1426.547	0.16%	96.20%
53.0	29.763	2.591	1429.137	0.16%	96.37%
54.0	29.555	2.615	1431.752	0.16%	96.55%
55.0	29.180	2.622	1434.374	0.16%	96.73%
56.0	28.674	2.614	1436.988	0.16%	96.90%
57.0	27.904	2.587	1439.575	0.16%	97.08%
58.0	26.953	2.537	1442.111	0.16%	97.25%
59.0	25.996	2.475	1444.587	0.15%	97.41%
60.0	24.872	2.403	1446.99	0.15%	97.58%
61.0	23.929	2.329	1449.319	0.14%	97.73%
62.0	22.805	2.252	1451.571	0.14%	97.88%
63.0	21.639	2.162	1453.732	0.13%	98.03%
64.0	20.820	2.083	1455.816	0.13%	98.17%
65.0	19.794	2.010	1457.826	0.12%	98.31%
66.0	18.912	1.931	1459.757	0.12%	98.44%
67.0	17.816	1.847	1461.604	0.11%	98.56%
68.0	16.824	1.755	1463.359	0.11%	98.68%
69.0	16.061	1.678	1465.036	0.10%	98.79%
70.0	15.069	1.599	1466.635	0.10%	98.90%
71.0	14.125	1.509	1468.144	0.09%	99.00%
72.0	13.237	1.423	1469.567	0.09%	99.10%
73.0	12.328	1.337	1470.904	0.08%	99.19%
74.0	11.565	1.256	1472.16	0.08%	99.27%
75.0	10.518	1.167	1473.326	0.07%	99.35%

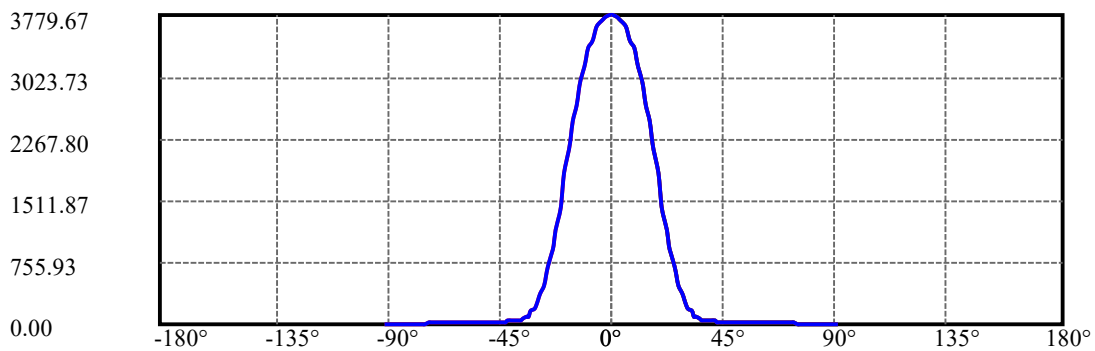
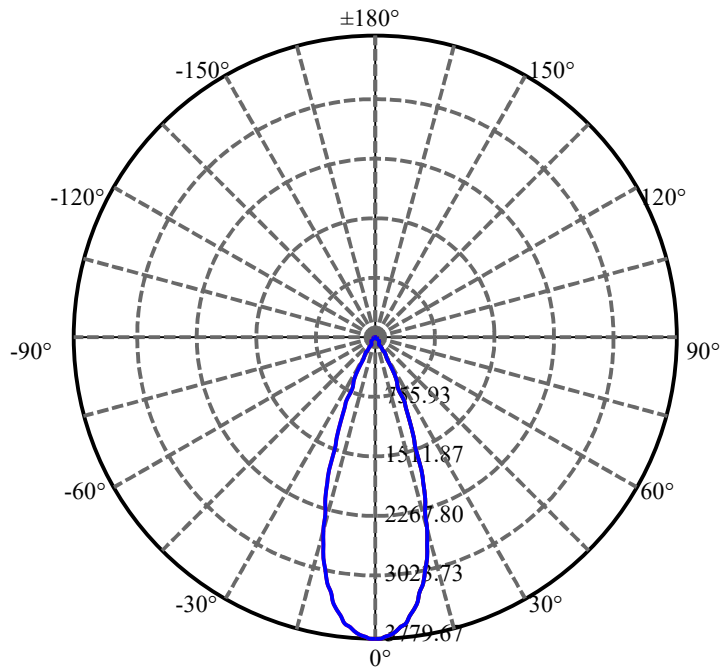
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.574	1.067	1474.393	0.07%	99.42%
77.0	8.908	0.985	1475.378	0.06%	99.49%
78.0	8.214	0.917	1476.295	0.06%	99.55%
79.0	7.548	0.847	1477.142	0.05%	99.61%
80.0	6.917	0.780	1477.922	0.05%	99.66%
81.0	6.341	0.717	1478.639	0.04%	99.71%
82.0	5.883	0.663	1479.302	0.04%	99.75%
83.0	5.405	0.614	1479.915	0.04%	99.80%
84.0	4.891	0.561	1480.476	0.03%	99.83%
85.0	4.503	0.513	1480.989	0.03%	99.87%
86.0	4.052	0.468	1481.457	0.03%	99.90%
87.0	3.649	0.421	1481.878	0.03%	99.93%
88.0	3.330	0.382	1482.26	0.02%	99.95%
89.0	3.073	0.351	1482.611	0.02%	99.98%
90.0	2.907	0.328	1482.939	0.02%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1340.45	82.22%	90.39%
0-40	1396.14	85.63%	94.15%
0-60	1446.99	88.75%	97.58%
0-90	1482.61	90.93%	99.98%
0-120	1482.61	90.93%	99.98%
0-180	1482.94	90.95%	100.00%
60-90	35.62	2.18%	2.40%
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%
0-23.75	1186.35	72.76%	80.00%

ZONAL LUMEN SUMMARY

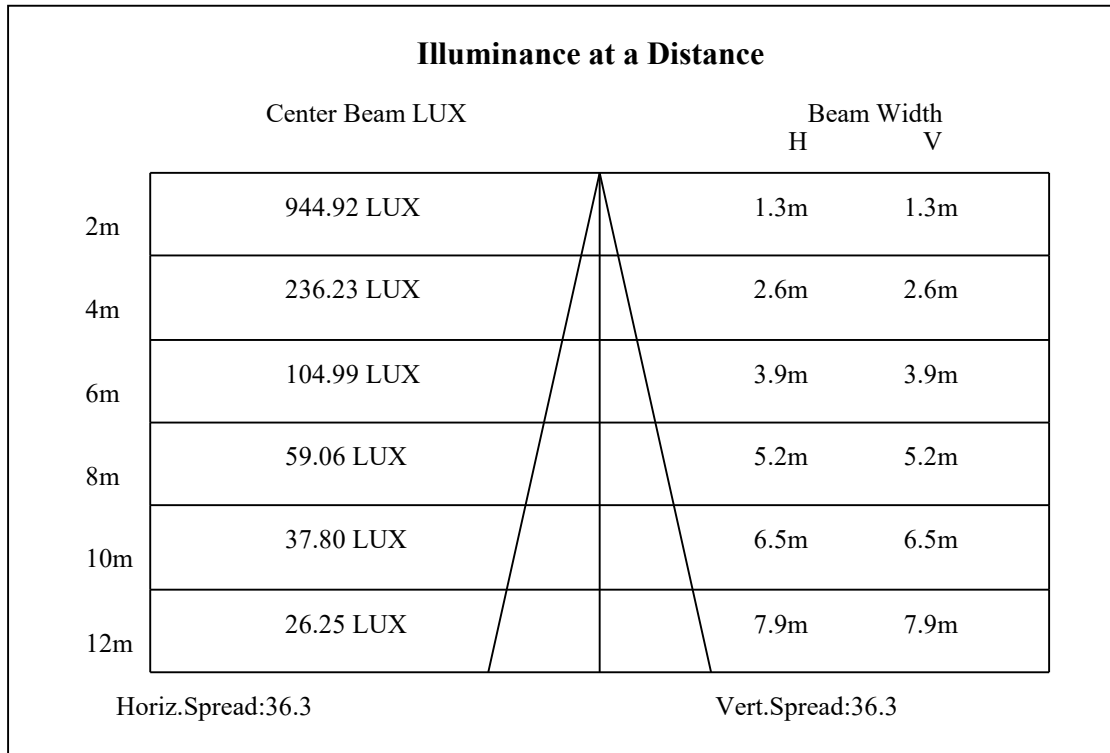
0-10	336.63
10-20	671.11
20-30	332.71
30-40	55.69
40-50	25.31
50-60	25.54
60-70	19.64
70-80	11.29
80-90	4.69
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

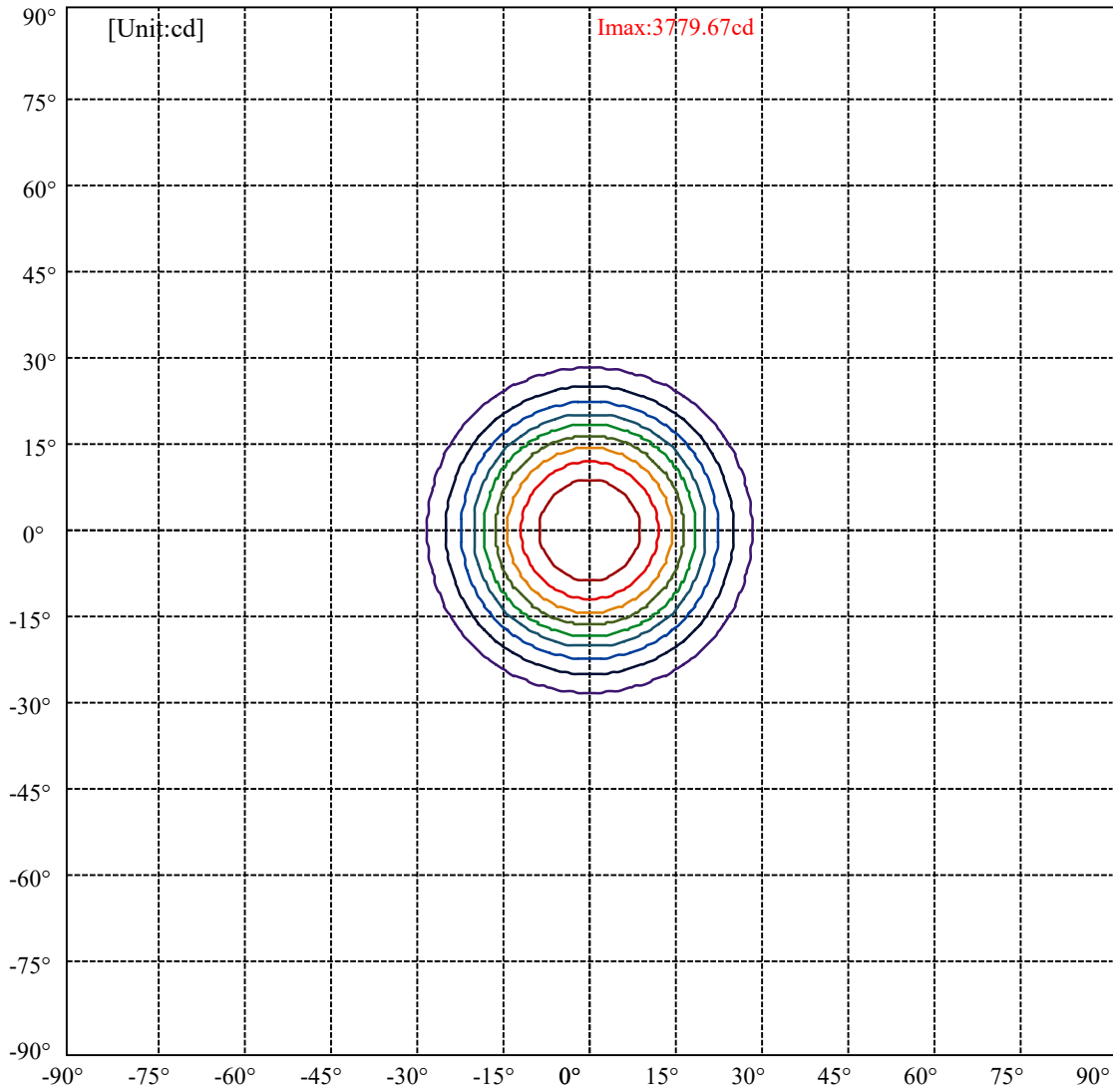


C0(Max): —————
C0/C180: —————
C90/C270: —————

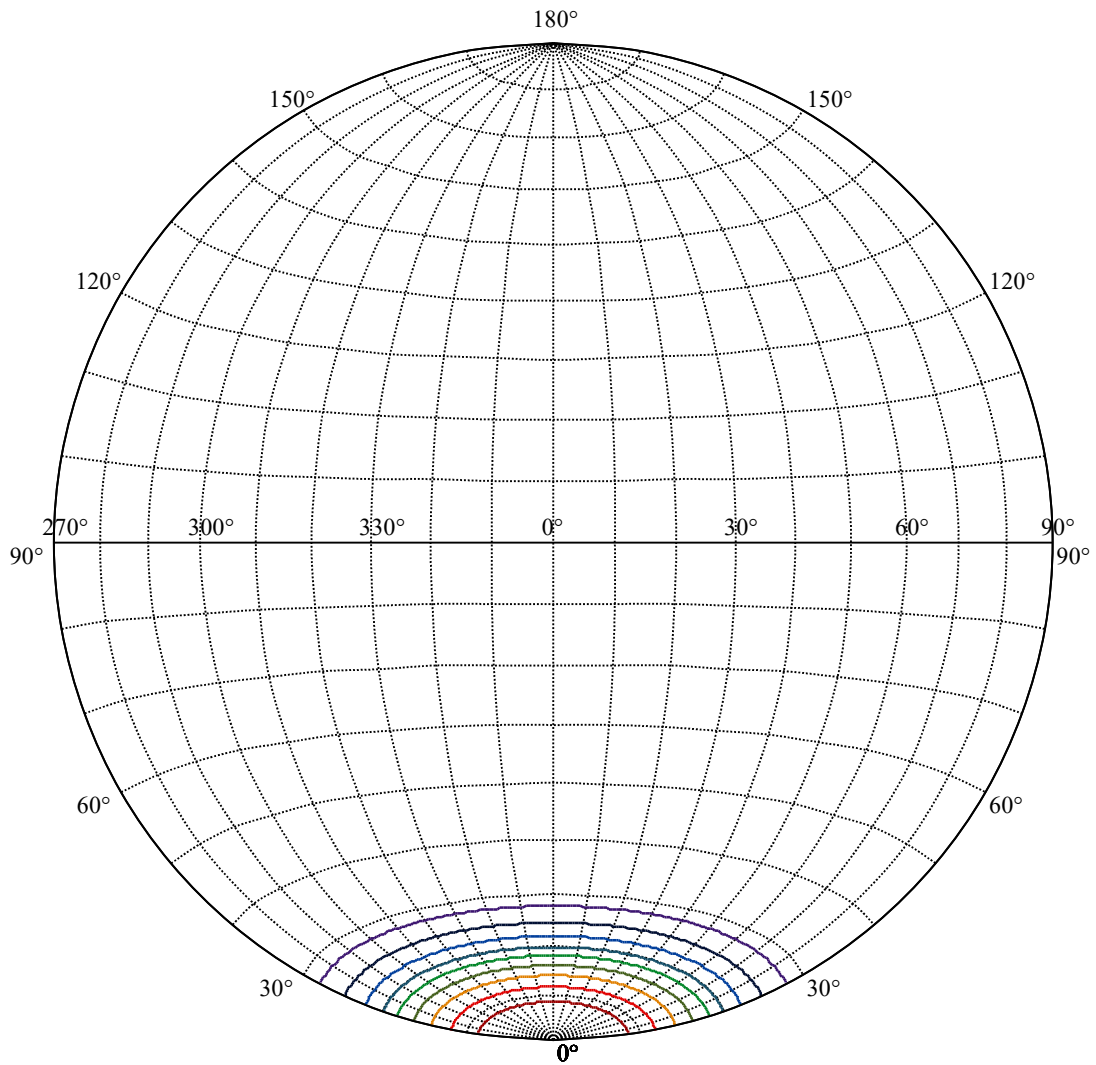
Field angle(10%Imax):C0/180Left:27.9 Right:27.9
:C90/270Left:27.9 Right:27.9

Beam Angle(50%Imax):C0/180Left:18.2 Right:18.2
:C90/270Left:18.2 Right:18.2





(10%Imax) 377.966	—
(20%Imax) 755.933	—
(30%Imax) 1133.9	—
(40%Imax) 1511.87	—
(50%Imax) 1889.83	—
(60%Imax) 2267.8	—
(70%Imax) 2645.77	—
(80%Imax) 3023.73	—
(90%Imax) 3401.7	—



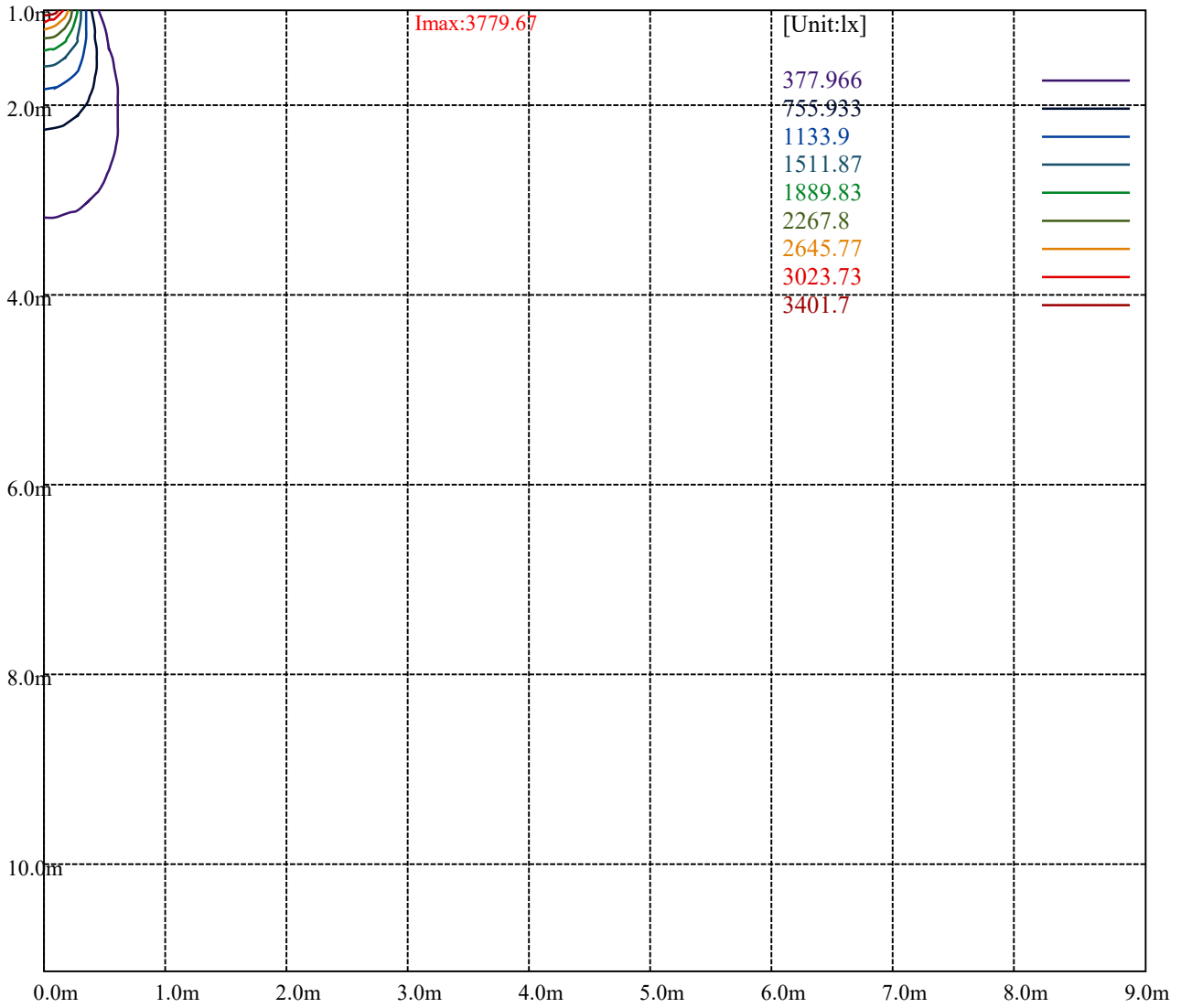
House

[Unit:cd]

Road

Imax:3779.67

(10%Imax) 377.966	—
(20%Imax) 755.933	—
(30%Imax) 1133.9	—
(40%Imax) 1511.87	—
(50%Imax) 1889.83	—
(60%Imax) 2267.8	—
(70%Imax) 2645.77	—
(80%Imax) 3023.73	—
(90%Imax) 3401.7	—



Luminance Table

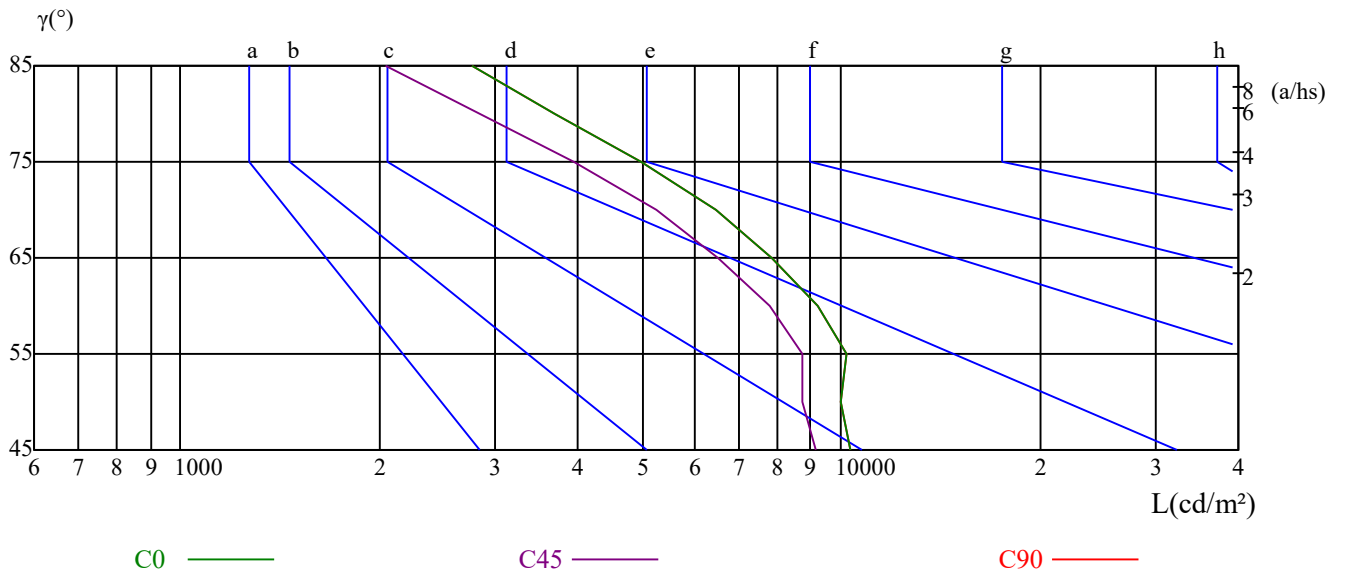
γ	45	50	55	60	65	70	75	80	85
C0	10318	10007	10198	9201	7840	6477	4982	3680	2757
C45	9135	8736	8768	7781	6509	5265	3952	2835	2046
C90	10318	10007	10198	9201	7840	6477	4982	3680	2757

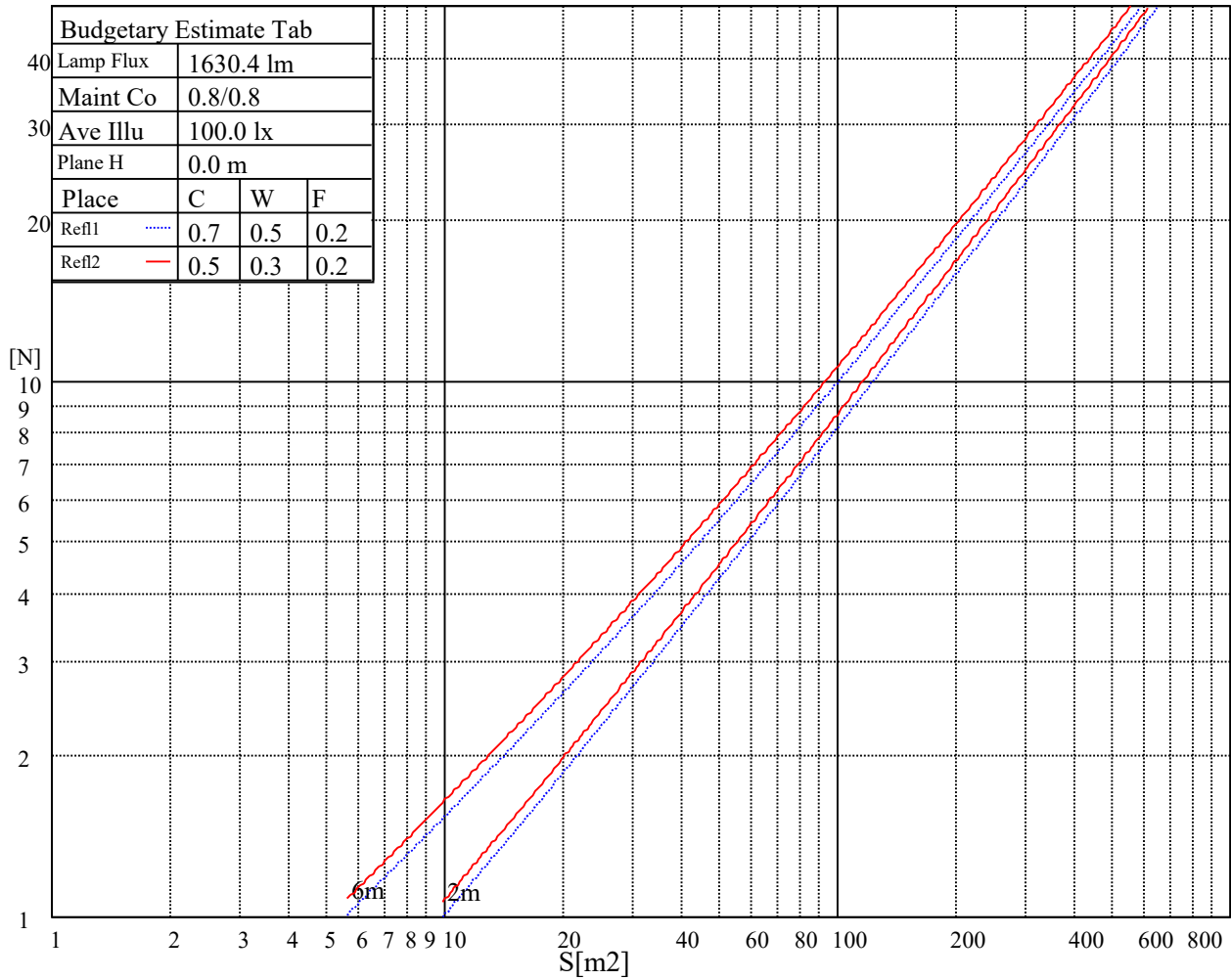
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
15483	15483	15483	13434	13434	13434	17078	17078	17078

Glare Table

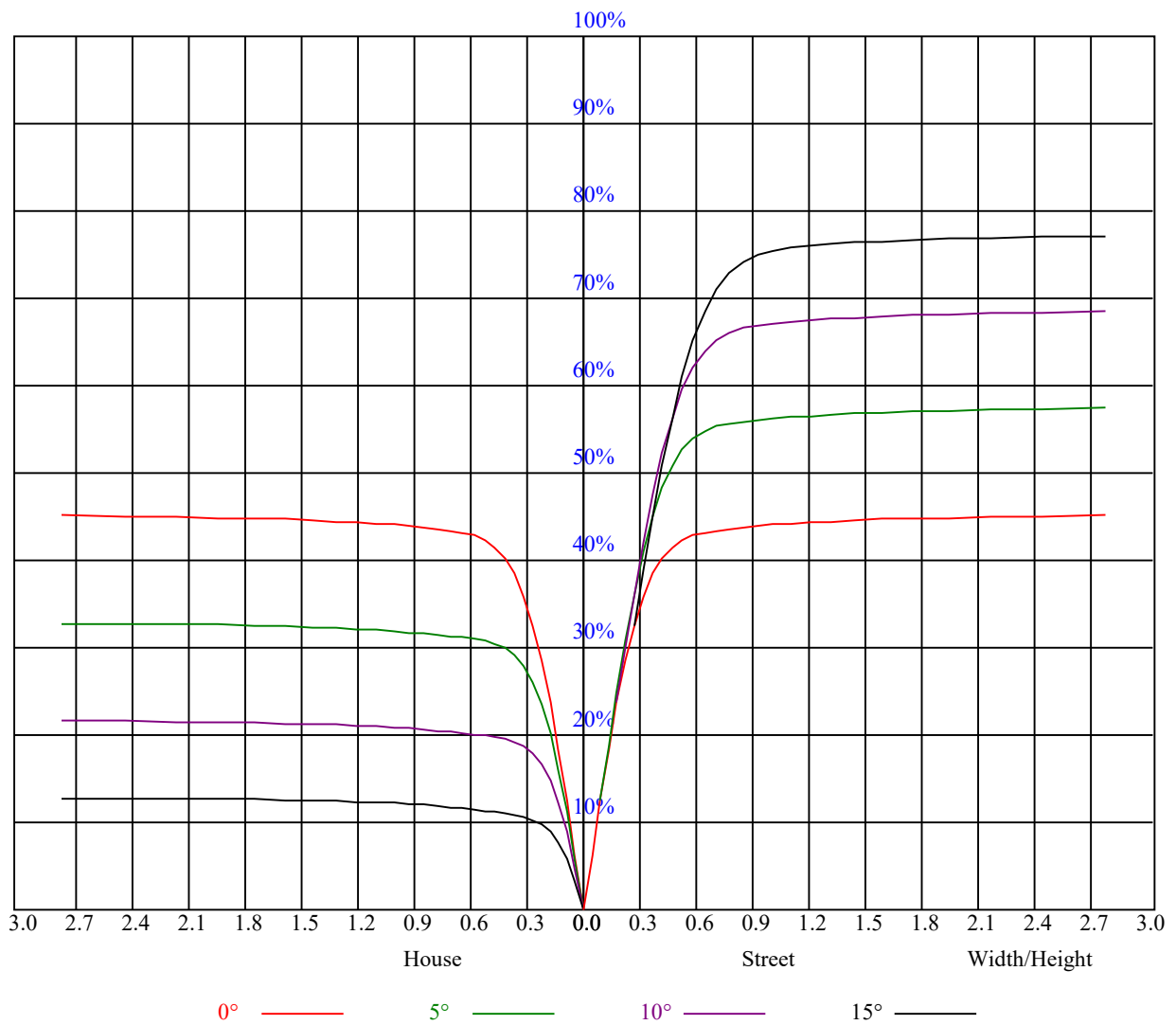
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

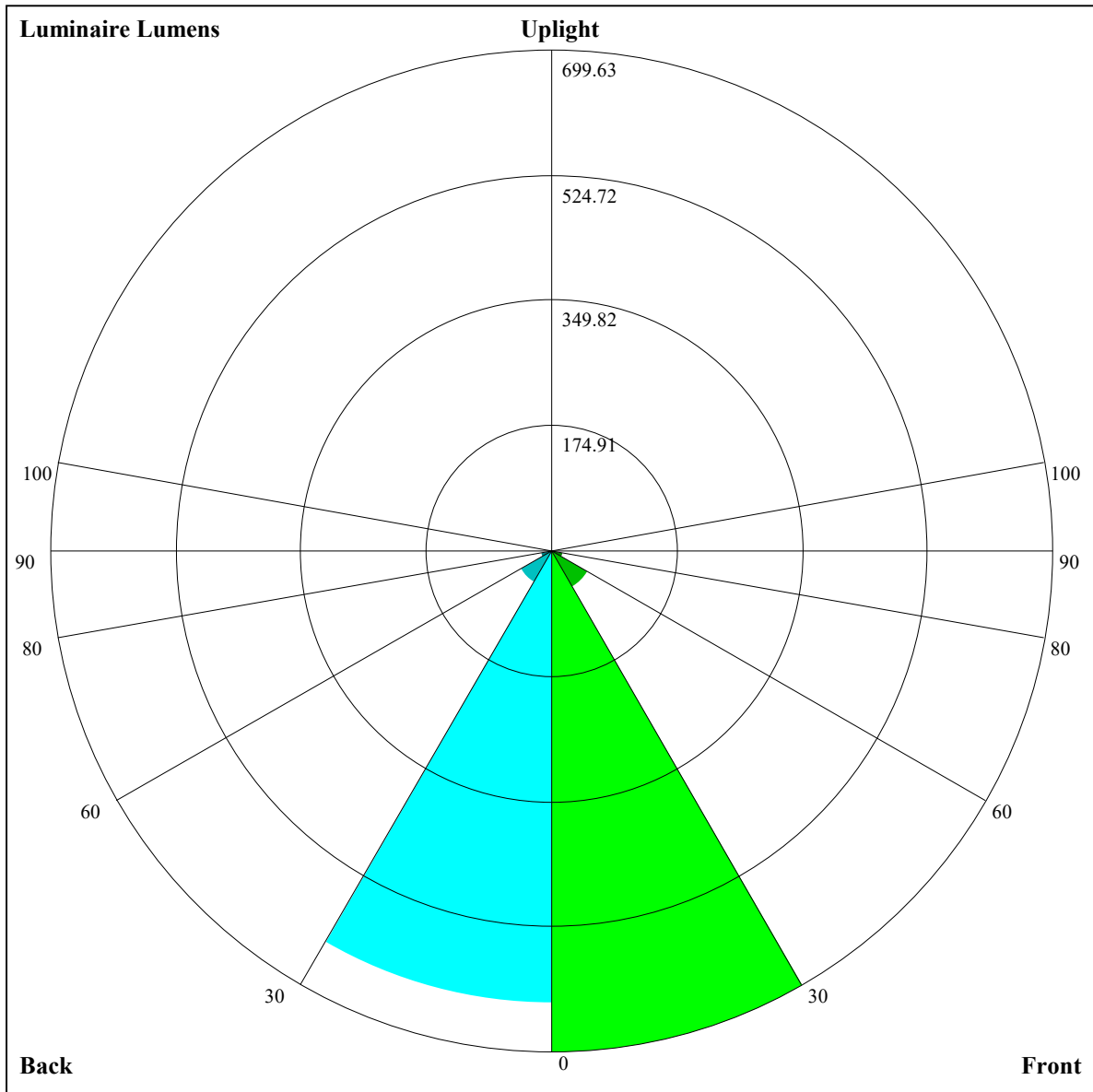
Luminance Limiting Curve





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	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.02	0.99	0.98	1.00	0.98	0.96	0.96	0.94	0.93	0.93	0.91	0.90	0.89	0.89	0.88	0.86
2	0.96	0.93	0.90	0.94	0.91	0.89	0.91	0.89	0.87	0.89	0.87	0.85	0.86	0.85	0.83	0.82
3	0.91	0.87	0.84	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.83	0.81	0.79	0.78
4	0.86	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.82	0.79	0.77	0.80	0.78	0.76	0.75
5	0.82	0.78	0.75	0.82	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.77	0.75	0.73	0.71
6	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.70	0.68
7	0.76	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
8	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.70	0.67	0.64	0.63
9	0.70	0.66	0.63	0.70	0.65	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.61
10	0.68	0.63	0.60	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.59





Luminaire Lumens:

FL=699.63,FM=58.41,FH=15.99,FVH=2.65

BL=632.07,BM=49.69,BH=15.01,BVH=2.42

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	3797.98	3790.21	3782.99	3762.46	3741.37	3703.63	3649.79	3574.31	3522.13
45.0	3778.00	3776.89	3771.89	3752.47	3725.83	3685.87	3658.11	3591.51	3521.02
90.0	3768.56	3751.91	3725.83	3694.75	3655.89	3601.50	3528.24	3434.44	3377.27
135.0	3774.11	3759.13	3746.92	3711.95	3680.32	3650.90	3588.18	3478.29	3428.33
180.0	3797.98	3790.21	3760.24	3732.49	3680.32	3634.25	3587.63	3493.83	3398.36
225.0	3778.00	3745.81	3711.40	3684.20	3636.47	3573.75	3497.16	3393.37	3337.86
270.0	3768.56	3771.89	3765.23	3763.01	3736.93	3713.06	3689.75	3635.36	3577.64
315.0	3774.11	3786.33	3766.34	3757.46	3741.92	3705.29	3665.33	3603.17	3529.35
360.0	3797.98	3790.21	3782.99	3762.46	3741.37	3703.63	3649.79	3574.31	3522.13
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3437.21	3334.53	3219.09	3065.90	2978.76	2812.26	2643.53	2427.07	2239.47
45.0	3433.33	3336.75	3274.04	3126.40	2985.98	2836.68	2636.87	2569.16	2276.66
90.0	3266.82	3050.36	2956.01	2792.28	2610.23	2421.52	2183.41	2062.97	1860.94
135.0	3320.10	3265.71	3039.82	2878.86	2783.95	2560.83	2367.68	2170.09	1971.95
180.0	3289.02	3139.17	3082.00	2900.51	2661.29	2553.06	2325.50	2135.13	1940.87
225.0	3220.20	3087.55	2955.45	2766.19	2598.57	2417.63	2194.51	2080.18	1884.81
270.0	3509.92	3423.34	3363.95	3227.41	3103.09	2952.68	2757.86	2571.38	2459.82
315.0	3482.17	3391.70	3292.35	3165.25	2995.41	2904.39	2736.22	2449.27	2373.23
360.0	3437.21	3334.53	3219.09	3065.90	2978.76	2812.26	2643.53	2427.07	2239.47
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2052.98	1860.39	1638.38	1525.15	1103.56	1034.90	1000.93	841.58	696.83
45.0	2089.61	1974.17	1746.61	1556.79	1365.86	1182.15	1076.69	879.66	727.03
90.0	1657.25	1451.89	1069.64	1069.64	891.93	701.72	614.36	486.26	379.75
135.0	1852.06	1605.63	1409.15	1213.23	998.43	930.17	737.57	541.65	470.05
180.0	1744.94	1632.27	1400.83	1214.34	1035.62	870.78	692.06	559.96	445.63
225.0	1691.11	1496.85	1027.68	1027.68	959.86	769.15	682.35	554.19	442.41
270.0	2181.19	2059.09	1818.76	1616.73	1417.48	1224.33	1112.77	904.08	746.45
315.0	2144.01	1945.86	1754.93	1518.49	1409.15	972.96	972.96	871.44	720.42
360.0	2052.98	1860.39	1638.38	1525.15	1103.56	1034.90	1000.93	841.58	696.83
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	565.46	432.20	374.70	292.55	225.90	172.61	124.71	96.07	76.09
45.0	591.05	450.07	352.94	301.32	301.32	217.74	127.05	97.52	77.09
90.0	293.66	212.35	161.57	124.33	93.47	82.75	69.05	59.61	52.84
135.0	345.73	310.76	310.76	145.64	110.28	85.25	67.55	59.67	48.45
180.0	386.24	301.32	301.32	175.78	128.71	101.13	80.98	67.27	61.27
225.0	348.17	258.92	222.34	154.85	115.28	91.58	84.09	67.55	58.00
270.0	608.25	489.48	369.04	318.53	318.53	288.00	143.09	110.62	85.92
315.0	581.72	463.11	347.50	299.32	231.45	197.14	135.65	100.74	87.75
360.0	565.46	432.20	374.70	292.55	225.90	172.61	124.71	96.07	76.09
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	59.78	54.11	46.96	42.18	39.24	36.63	35.63	34.13	32.80
45.0	60.33	51.17	45.23	41.40	39.63	37.02	35.41	34.08	32.91
90.0	47.29	45.12	42.13	40.07	38.30	36.63	35.36	34.30	33.02
135.0	42.74	38.80	36.24	35.13	33.41	32.19	31.36	30.58	29.97
180.0	52.34	47.57	44.07	41.18	39.80	37.46	35.63	34.91	33.86
225.0	51.45	46.07	43.90	41.02	38.80	36.96	35.13	34.25	32.75
270.0	66.16	55.11	47.68	42.57	40.41	37.30	35.63	34.08	32.91
315.0	71.15	54.34	50.34	45.35	41.90	39.41	36.96	35.91	34.41
360.0	59.78	54.11	46.96	42.18	39.24	36.63	35.63	34.13	32.80

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	31.91	30.97	30.36	29.97	29.86	29.92	30.14	30.53	31.08
45.0	32.25	30.91	30.36	30.14	29.80	29.53	29.42	29.36	29.19
90.0	32.52	31.75	31.19	30.69	30.19	29.92	29.58	28.97	28.64
135.0	29.53	29.31	29.25	29.19	29.14	29.31	29.36	29.25	29.25
180.0	32.97	32.25	31.64	31.47	30.97	30.75	30.47	30.08	29.92
225.0	31.80	31.36	30.91	30.53	30.19	30.03	29.80	29.58	29.19
270.0	32.41	31.53	30.69	30.42	29.92	29.69	29.47	29.25	29.19
315.0	33.41	32.47	31.69	31.36	31.08	30.86	31.03	31.30	31.64
360.0	31.91	30.97	30.36	29.97	29.86	29.92	30.14	30.53	31.08
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	31.69	31.69	31.47	30.58	29.36	27.92	26.25	24.98	23.81
45.0	29.08	28.81	28.36	27.86	27.42	26.42	25.20	24.53	23.37
90.0	27.75	27.31	26.59	25.70	24.31	23.81	22.70	21.70	20.70
135.0	28.92	28.36	27.58	26.64	25.75	24.70	24.09	22.87	21.81
180.0	29.25	28.64	27.81	26.75	25.86	24.92	23.87	23.31	21.98
225.0	28.69	27.86	27.36	26.47	25.03	24.42	23.42	22.37	21.37
270.0	29.14	28.92	28.69	28.42	28.25	27.81	27.03	26.59	25.64
315.0	31.91	31.86	31.53	30.80	29.64	27.97	26.42	25.09	23.76
360.0	31.69	31.69	31.47	30.58	29.36	27.92	26.25	24.98	23.81
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	22.31	21.81	20.65	19.59	18.54	17.37	16.82	15.98	14.54
45.0	22.31	21.37	20.26	19.65	18.37	17.37	16.54	15.65	15.10
90.0	19.43	18.82	17.76	16.87	15.98	14.87	13.93	12.99	11.88
135.0	20.70	19.65	19.04	17.93	16.71	16.15	15.32	14.04	13.04
180.0	20.98	19.93	18.87	18.26	17.15	16.26	15.37	14.21	13.27
225.0	20.09	19.48	18.43	17.48	16.65	15.65	15.10	14.15	13.21
270.0	24.81	23.70	22.59	21.87	20.48	19.43	18.43	17.43	16.82
315.0	22.48	21.81	20.76	19.65	18.65	17.48	16.98	16.10	15.15
360.0	22.31	21.81	20.65	19.59	18.54	17.37	16.82	15.98	14.54
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	13.99	12.99	12.49	11.16	10.16	9.66	8.77	7.88	7.27
45.0	13.99	13.04	12.21	11.04	10.27	9.38	8.49	7.99	7.22
90.0	11.38	10.55	9.66	8.82	7.88	7.44	6.94	6.33	5.88
135.0	12.21	11.60	10.55	9.71	8.77	7.94	7.55	6.77	6.11
180.0	12.43	11.60	11.10	10.10	9.27	8.44	7.94	7.55	6.88
225.0	12.16	11.27	10.43	9.60	8.55	8.10	7.49	6.88	6.38
270.0	15.60	14.54	13.54	12.43	11.49	10.55	9.66	9.05	8.10
315.0	14.15	13.04	12.54	11.27	10.21	9.77	8.88	7.94	7.49
360.0	13.99	12.99	12.49	11.16	10.16	9.66	8.77	7.88	7.27
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.66	6.22	5.77	5.16	4.83	4.27	3.83	3.44	3.05
45.0	6.66	6.16	5.55	5.05	4.55	4.05	3.61	3.27	2.94
90.0	5.44	5.05	4.61	4.22	3.94	3.55	3.27	3.05	3.00
135.0	5.61	5.05	4.55	4.05	3.83	3.44	3.05	2.78	2.55
180.0	6.11	5.77	5.11	4.72	4.27	3.89	3.50	3.22	3.05
225.0	5.88	5.44	5.05	4.50	4.22	3.72	3.33	3.00	2.83
270.0	7.49	6.94	6.44	5.77	5.22	4.72	4.27	3.89	3.55
315.0	6.88	6.44	6.16	5.66	5.16	4.77	4.33	4.00	3.61
360.0	6.66	6.22	5.77	5.16	4.83	4.27	3.83	3.44	3.05

Intensity data(cd)

C/γ(°)	90.0
0.0	2.83
45.0	2.66
90.0	2.89
135.0	2.50
180.0	2.94
225.0	2.78
270.0	3.11
315.0	3.55
360.0	2.83