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NT

Client: NT

LumCAT: 61-0242-1

Luminaire: 92.70.458.00

Report No: 20250519-B010

Ballast type: AC

Test No: 20250519-C010

LampCAT: CITIZEN CLU7A2

Lamp flux(lm): 637.6

Number of Lamps: 1

Length(mm): 28

Phm Type: C

Voltage(V): 36.330

Current(A): 0.176

Power (W): 6.394

PF: 0.000

Width(mm): 28

Height(mm): 14

Photometric Results

Lumens(lm): 579.33, Efficiency(%): 90.87% , Luminous Efficacy(lm/W): 90.61

Central intensity(cd): 4057.793, Maximum intensity(cd): 4057.793

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=18.6

[C90/270]Total=18.6

Field angle(10%Imax): [C0/180]Total=34.8

[C90/270]Total=34.8

Maximum s/h(1/2): C0_180=0.32 C90_270=0.32

Maximum s/h(1/4): C0_180=0.32 C90_270=0.32

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 90.87%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.738%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4057.794	0.000	0	0.00%	0.00%
1.0	4034.146	3.872	3.872	0.61%	0.67%
2.0	3962.138	11.477	15.349	1.80%	2.65%
3.0	3833.643	18.645	33.994	2.92%	5.87%
4.0	3648.327	25.045	59.038	3.93%	10.19%
5.0	3422.644	30.419	89.457	4.77%	15.44%
6.0	3138.075	34.478	123.936	5.41%	21.39%
7.0	2829.726	37.042	160.978	5.81%	27.79%
8.0	2487.670	38.056	199.033	5.97%	34.36%
9.0	2158.538	37.655	236.688	5.91%	40.86%
10.0	1769.588	35.548	272.236	5.58%	46.99%
11.0	1446.744	32.138	304.374	5.04%	52.54%
12.0	1210.256	29.045	333.419	4.56%	57.55%
13.0	1033.080	26.623	360.042	4.18%	62.15%
14.0	839.511	23.969	384.011	3.76%	66.29%
15.0	676.996	20.819	404.83	3.27%	69.88%
16.0	545.956	17.920	422.75	2.81%	72.97%
17.0	440.695	15.365	438.114	2.41%	75.62%
18.0	356.870	13.150	451.265	2.06%	77.89%
19.0	289.618	11.248	462.512	1.76%	79.84%
20.0	242.096	9.732	472.244	1.53%	81.52%
21.0	213.453	8.747	480.991	1.37%	83.03%
22.0	175.737	7.821	488.812	1.23%	84.38%
23.0	129.841	6.412	495.224	1.01%	85.48%
24.0	108.006	5.200	500.424	0.82%	86.38%
25.0	89.687	4.495	504.919	0.71%	87.16%
26.0	75.672	3.903	508.823	0.61%	87.83%
27.0	64.254	3.423	512.246	0.54%	88.42%
28.0	55.288	3.027	515.273	0.47%	88.94%
29.0	48.241	2.709	517.981	0.42%	89.41%
30.0	42.412	2.448	520.429	0.38%	89.83%
31.0	37.663	2.228	522.657	0.35%	90.22%
32.0	33.992	2.053	524.71	0.32%	90.57%
33.0	30.655	1.905	526.615	0.30%	90.90%
34.0	27.804	1.769	528.384	0.28%	91.21%
35.0	25.806	1.665	530.049	0.26%	91.49%
36.0	23.787	1.579	531.628	0.25%	91.77%
37.0	22.175	1.499	533.127	0.24%	92.02%

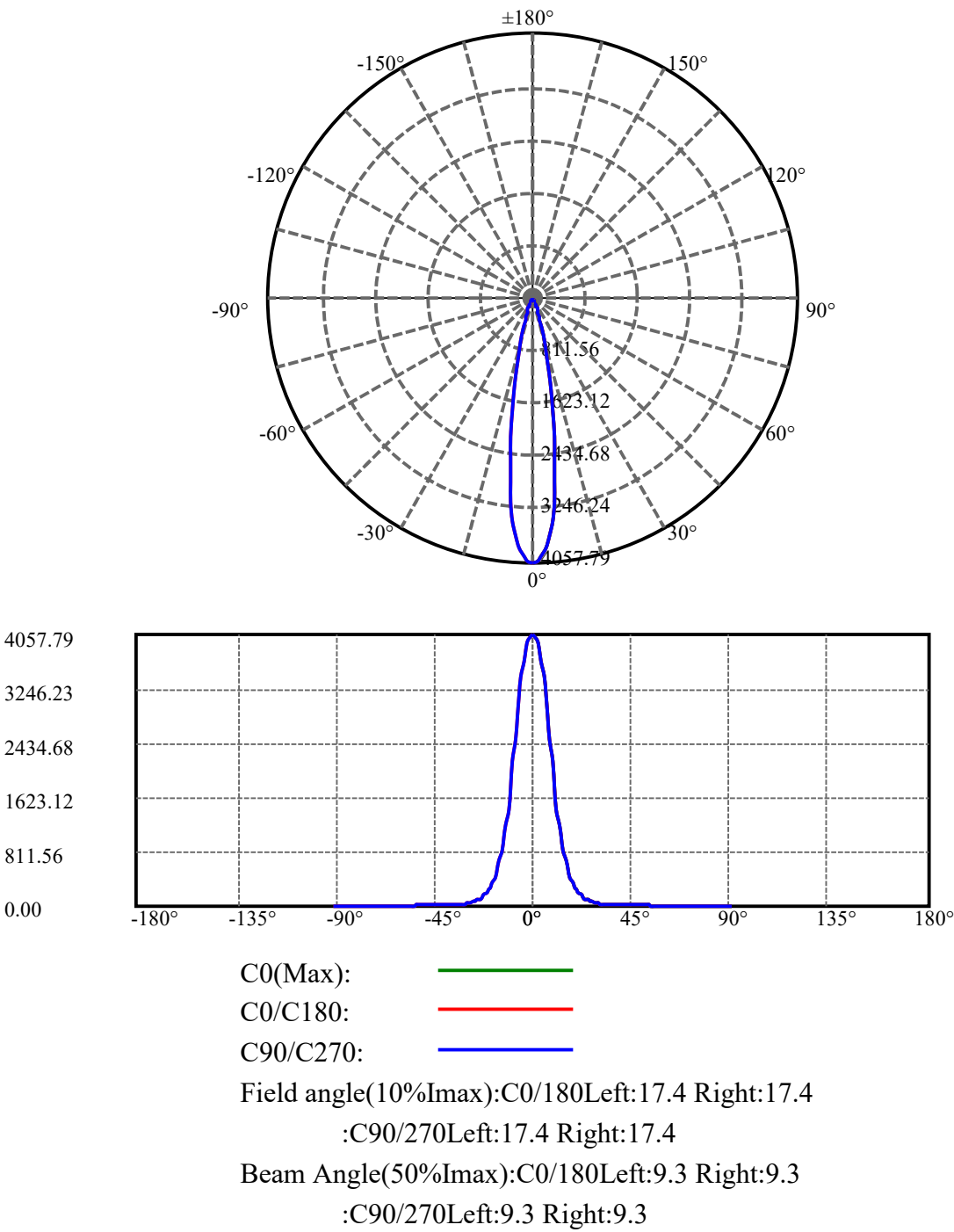
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	20.883	1.437	534.564	0.23%	92.27%
39.0	19.664	1.384	535.948	0.22%	92.51%
40.0	18.678	1.337	537.285	0.21%	92.74%
41.0	17.852	1.301	538.586	0.20%	92.97%
42.0	17.079	1.269	539.855	0.20%	93.19%
43.0	16.507	1.244	541.099	0.20%	93.40%
44.0	15.980	1.226	542.325	0.19%	93.61%
45.0	15.534	1.211	543.537	0.19%	93.82%
46.0	15.094	1.198	544.734	0.19%	94.03%
47.0	14.788	1.188	545.923	0.19%	94.23%
48.0	14.488	1.183	547.106	0.19%	94.44%
49.0	14.135	1.175	548.282	0.18%	94.64%
50.0	13.855	1.167	549.449	0.18%	94.84%
51.0	13.556	1.160	550.609	0.18%	95.04%
52.0	13.236	1.150	551.758	0.18%	95.24%
53.0	12.896	1.137	552.895	0.18%	95.44%
54.0	12.590	1.123	554.018	0.18%	95.63%
55.0	12.243	1.109	555.127	0.17%	95.82%
56.0	11.957	1.094	556.22	0.17%	96.01%
57.0	11.644	1.079	557.299	0.17%	96.20%
58.0	11.304	1.061	558.361	0.17%	96.38%
59.0	11.044	1.045	559.405	0.16%	96.56%
60.0	10.705	1.027	560.433	0.16%	96.74%
61.0	10.378	1.006	561.439	0.16%	96.91%
62.0	10.072	0.985	562.424	0.15%	97.08%
63.0	9.659	0.960	563.384	0.15%	97.25%
64.0	9.299	0.930	564.314	0.15%	97.41%
65.0	8.913	0.901	565.216	0.14%	97.56%
66.0	8.526	0.870	566.086	0.14%	97.71%
67.0	8.127	0.837	566.923	0.13%	97.86%
68.0	7.760	0.805	567.728	0.13%	98.00%
69.0	7.341	0.770	568.498	0.12%	98.13%
70.0	6.941	0.733	569.232	0.12%	98.26%
71.0	6.568	0.698	569.93	0.11%	98.38%
72.0	6.162	0.662	570.592	0.10%	98.49%
73.0	5.835	0.627	571.219	0.10%	98.60%
74.0	5.549	0.598	571.818	0.09%	98.70%
75.0	5.336	0.575	572.393	0.09%	98.80%

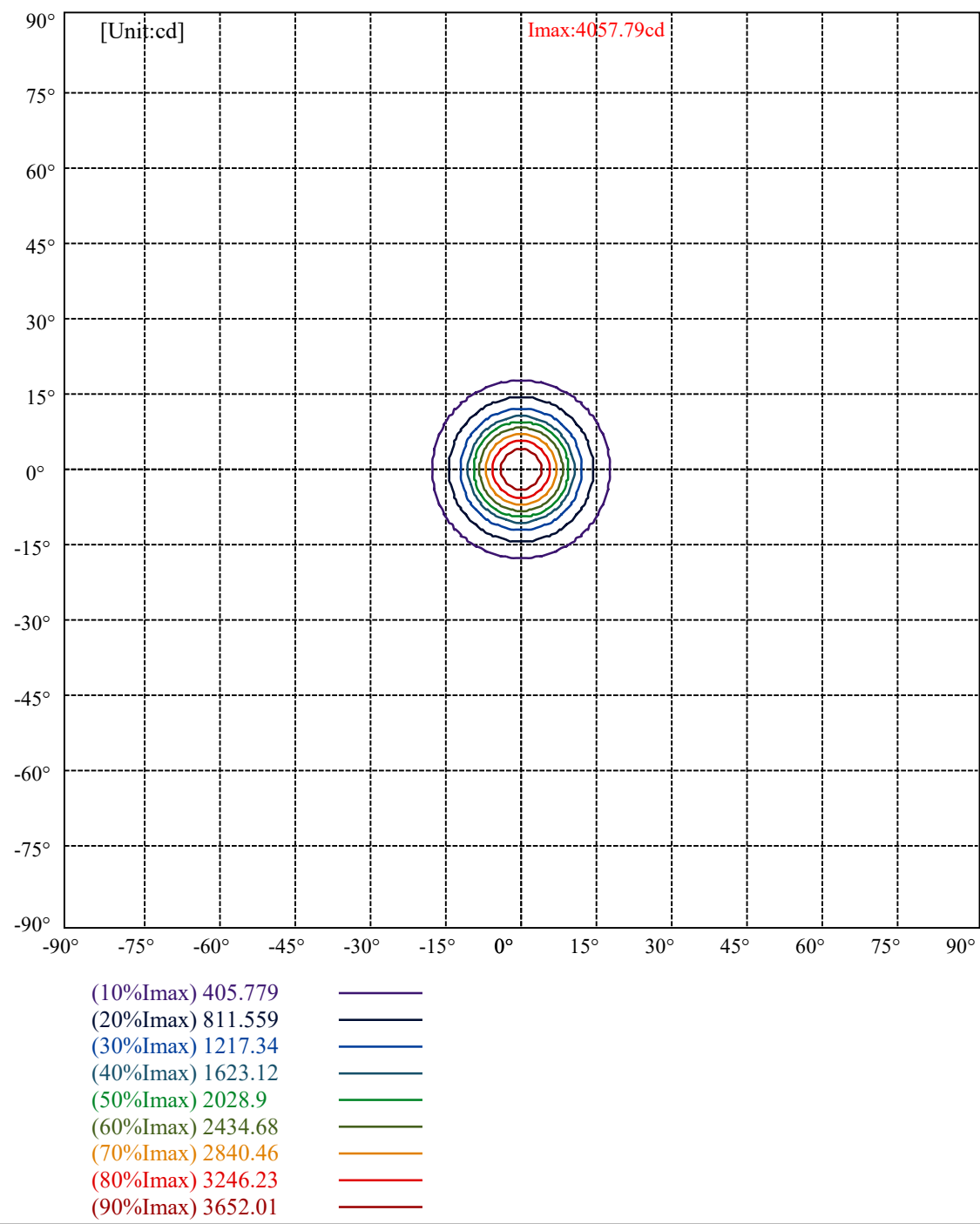
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	5.103	0.554	572.947	0.09%	98.90%
77.0	4.936	0.535	573.482	0.08%	98.99%
78.0	4.749	0.518	574.001	0.08%	99.08%
79.0	4.603	0.503	574.503	0.08%	99.17%
80.0	4.869	0.511	575.014	0.08%	99.26%
81.0	4.616	0.513	575.527	0.08%	99.34%
82.0	4.343	0.486	576.013	0.08%	99.43%
83.0	3.937	0.450	576.463	0.07%	99.51%
84.0	3.777	0.420	576.883	0.07%	99.58%
85.0	3.797	0.413	577.296	0.06%	99.65%
86.0	3.963	0.424	577.72	0.07%	99.72%
87.0	3.923	0.432	578.152	0.07%	99.80%
88.0	3.764	0.421	578.573	0.07%	99.87%
89.0	3.377	0.391	578.965	0.06%	99.94%
90.0	3.271	0.364	579.329	0.06%	100.00%

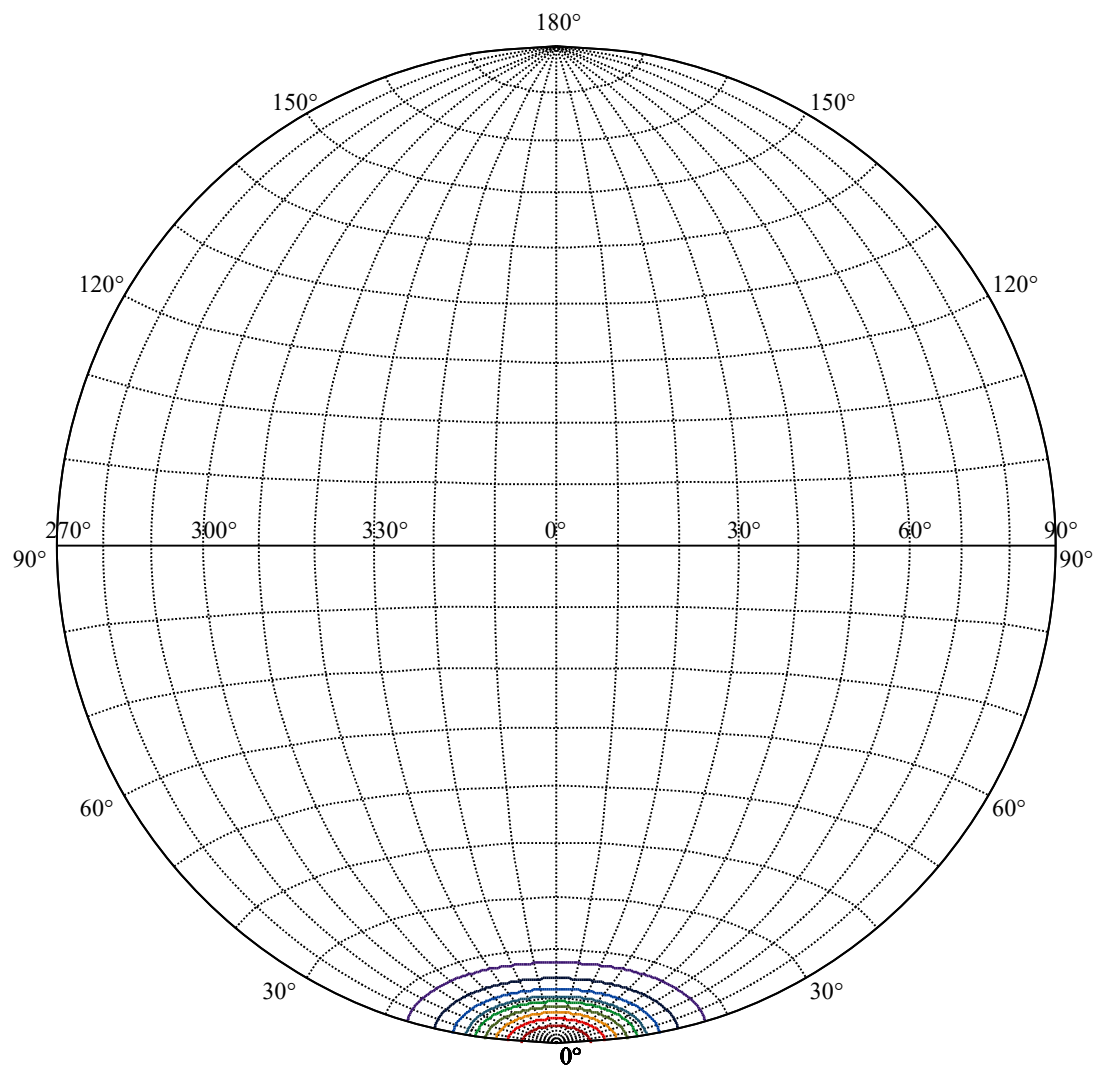
ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	520.43	81.63%	89.83%
0-40	537.29	84.27%	92.74%
0-60	560.43	87.90%	96.74%
0-90	578.96	90.81%	99.94%
0-120	578.96	90.81%	99.94%
0-180	579.33	90.87%	100.00%
60-90	18.53	2.91%	3.20%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-19.10	463.46	72.69%	80.00%

ZONAL LUMEN SUMMARY

0-10	272.24
10-20	200.01
20-30	48.18
30-40	16.86
40-50	12.16
50-60	10.98
60-70	8.80
70-80	5.78
80-90	3.95
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





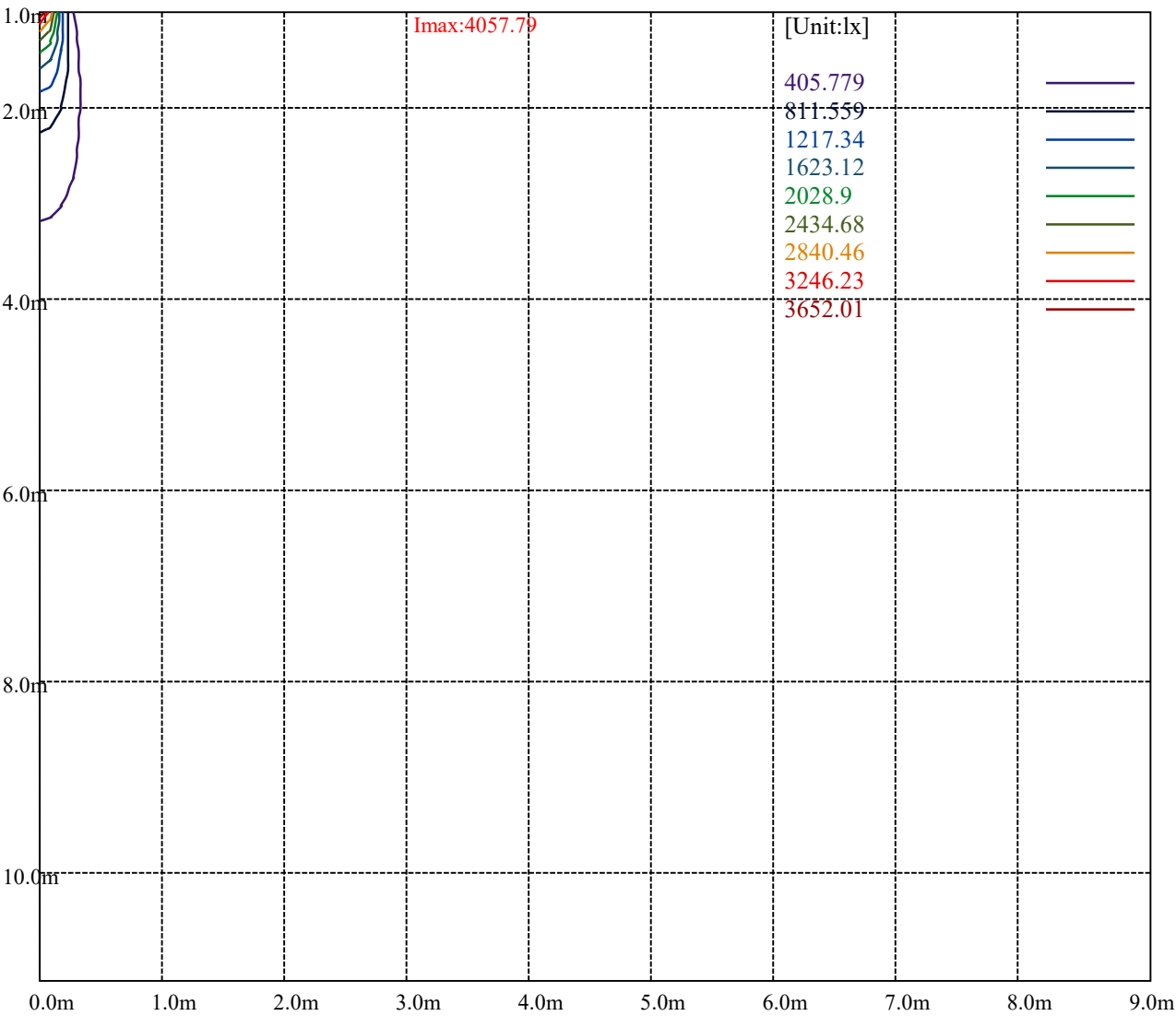


House

[Unit:cd]

Road

Imax:4057.79	
(10%Imax) 405.779	_____
(20%Imax) 811.559	_____
(30%Imax) 1217.34	_____
(40%Imax) 1623.12	_____
(50%Imax) 2028.9	_____
(60%Imax) 2434.68	_____
(70%Imax) 2840.46	_____
(80%Imax) 3246.23	_____
(90%Imax) 3652.01	_____



Luminance Table

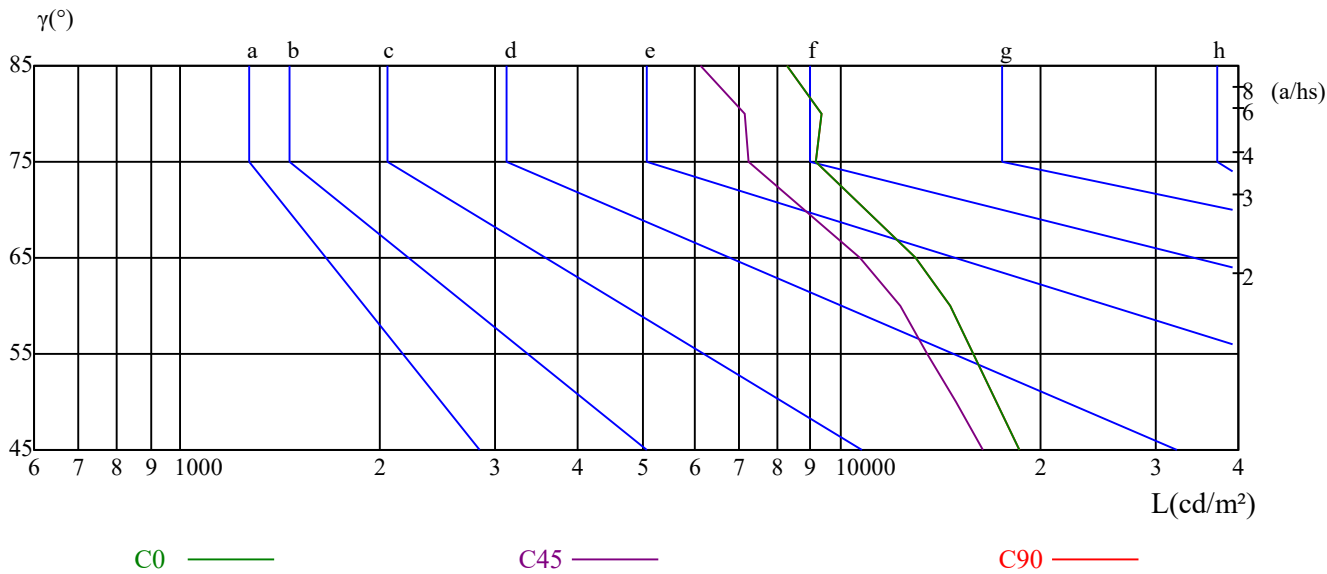
γ	45	50	55	60	65	70	75	80	85
C0	18681	17228	15884	14634	12981	10905	9175	9325	8275
C45	16414	14920	13547	12275	10690	8796	7226	7139	6118
C90	18681	17228	15884	14634	12981	10905	9175	9325	8275

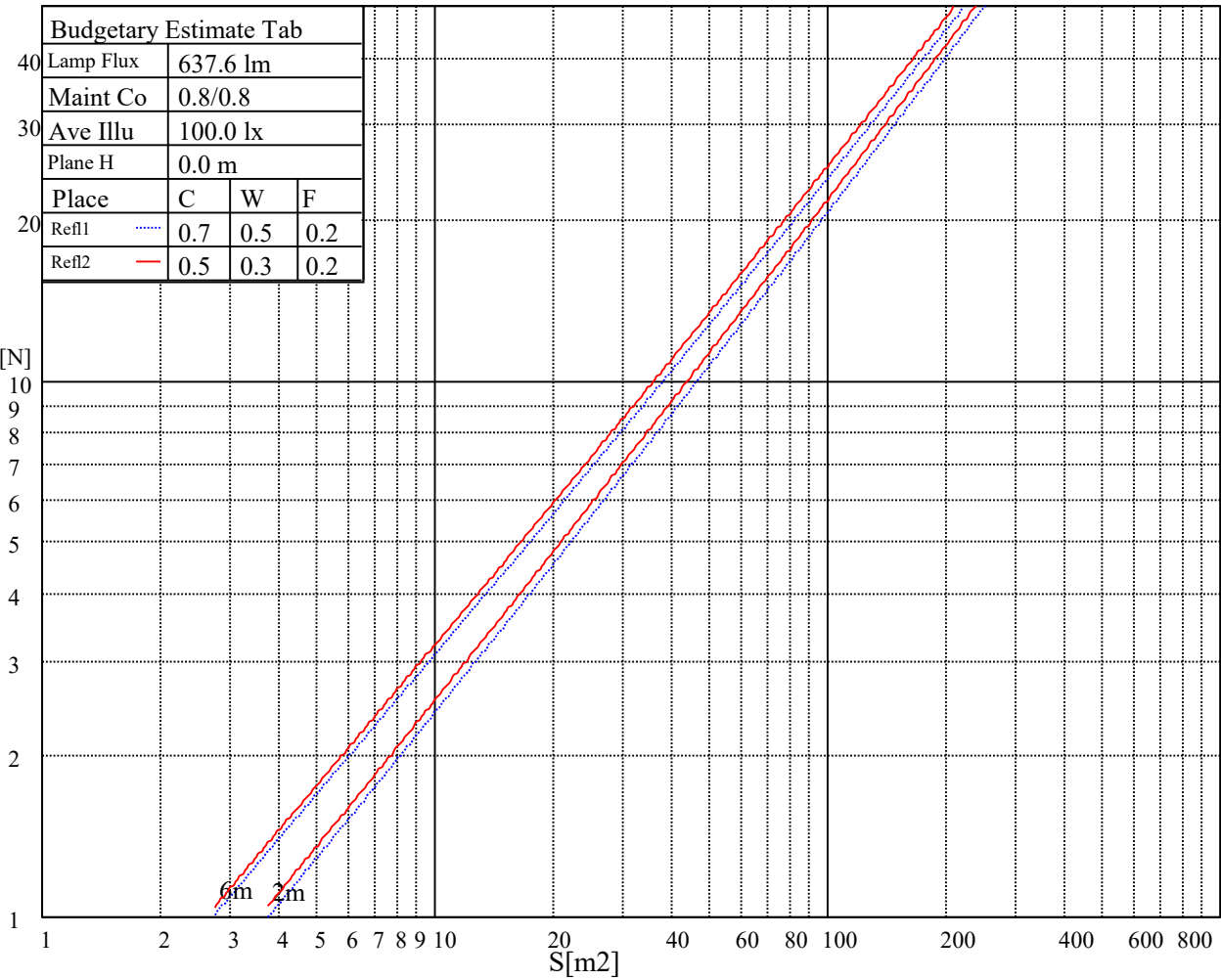
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
26900	26900	26900	26295	26295	26295	55567	55567	55567

Glare Table

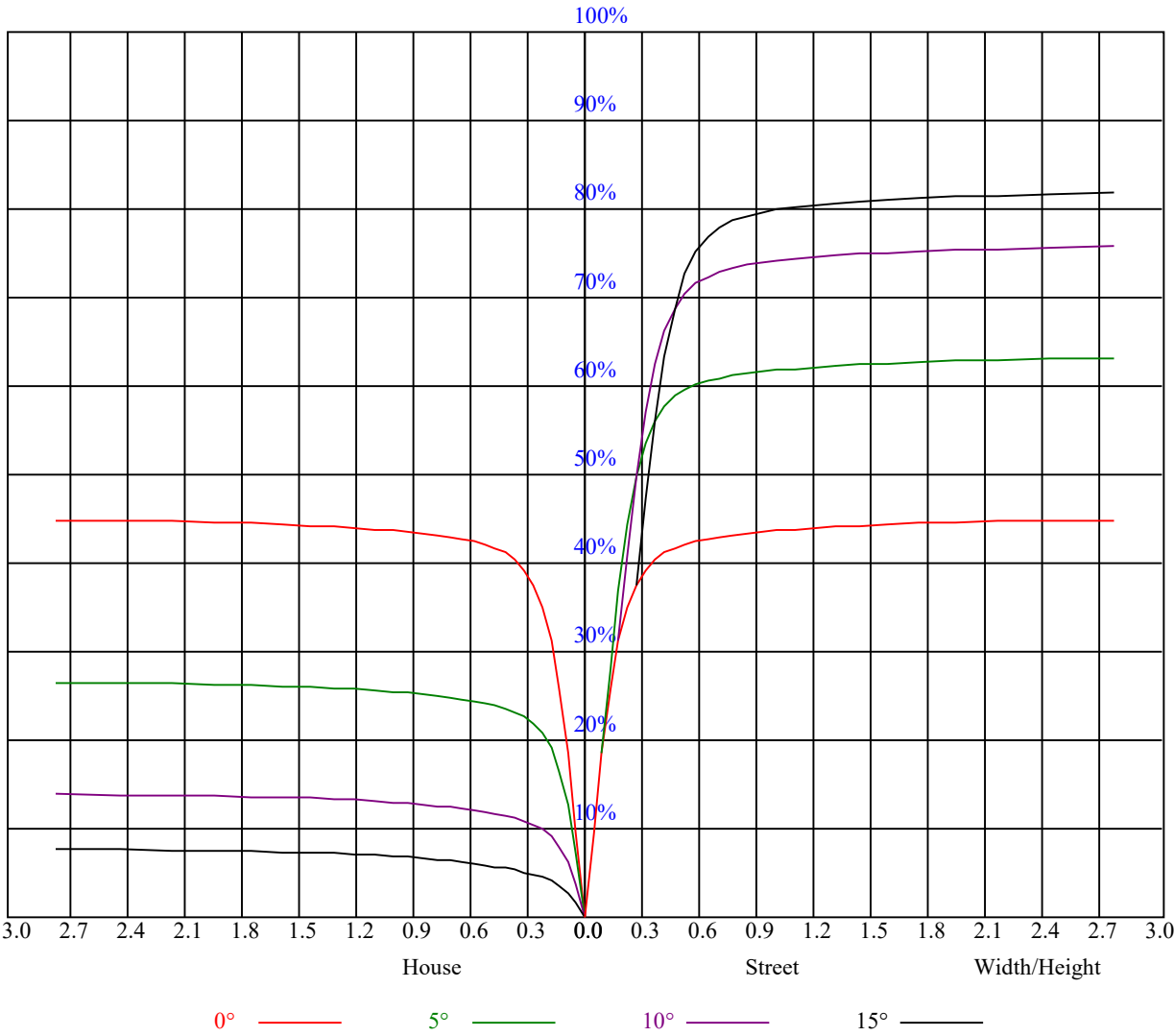
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

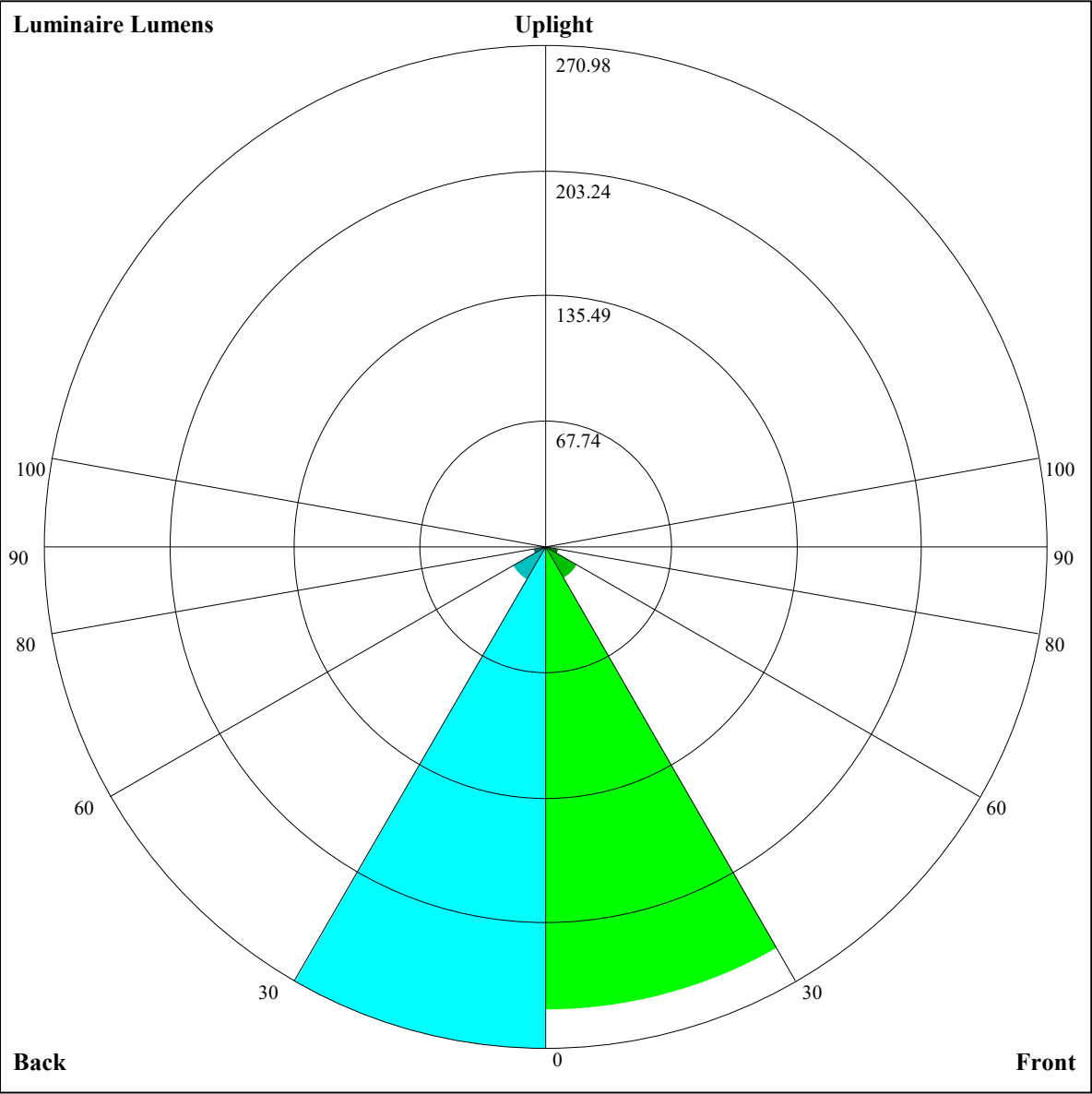
Luminance Limiting Curve





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	COEFFCIENTS 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	1.00	0.98	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
2	0.97	0.94	0.92	0.95	0.93	0.91	0.93	0.90	0.89	0.90	0.88	0.87	0.88	0.86	0.85	0.84
3	0.93	0.89	0.87	0.92	0.88	0.86	0.89	0.87	0.85	0.87	0.85	0.83	0.85	0.84	0.82	0.81
4	0.89	0.86	0.83	0.88	0.85	0.82	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.80	0.79
5	0.86	0.82	0.80	0.86	0.82	0.79	0.84	0.81	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
6	0.84	0.80	0.77	0.83	0.79	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.74
7	0.81	0.78	0.75	0.81	0.77	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.78	0.76	0.74	0.73
8	0.79	0.76	0.73	0.79	0.75	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.76	0.74	0.72	0.71
9	0.77	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.71	0.76	0.73	0.71	0.75	0.72	0.71	0.70
10	0.76	0.72	0.70	0.75	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.74	0.71	0.69	0.68





Luminaire Lumens:

FL=250.11,FM=19.73,FH=7.12,FVH=2.1

BL=270.98,BM=20.26,BH=7.5,BVH=2.31

UL=0,UH=0

BUG Rating:B1-U0-G0

Intensity data(cd)

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C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	4033.68	3958.54	3825.32	3640.40	3385.14	3078.72	2743.53	2393.95	2046.50
45.0	4055.53	4072.58	4048.07	3955.88	3818.92	3666.51	3419.78	3119.76	2775.50
90.0	4085.37	4062.46	3987.32	3869.55	3689.43	3448.56	3163.45	2840.52	2497.33
135.0	4056.59	4076.31	4043.81	3962.27	3831.18	3644.66	3403.26	3116.56	2798.95
180.0	4033.68	4055.53	4050.20	3970.80	3844.50	3746.98	3427.24	3259.38	2950.29
225.0	4055.53	3997.44	3887.67	3721.93	3494.92	3215.15	2878.35	2515.45	2139.22
270.0	4085.37	4060.86	3986.78	3860.49	3679.83	3432.57	3256.18	2930.58	2575.13
315.0	4056.59	3989.45	3867.95	3687.83	3442.69	3148.00	2812.81	2461.62	2118.44
360.0	4033.68	3958.54	3825.32	3640.40	3385.14	3078.72	2743.53	2393.95	2046.50
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1717.70	1266.86	986.93	908.59	799.78	647.15	522.88	424.77	345.91
45.0	2404.07	2044.90	1704.37	1401.15	1138.43	921.01	746.22	605.00	492.56
90.0	2151.48	1813.62	1504.00	1005.96	1005.96	849.18	683.34	550.70	444.55
135.0	2598.58	2128.56	1931.39	1619.11	1335.07	1086.21	879.44	709.45	571.43
180.0	2613.50	2258.06	1909.01	1583.41	1294.04	1045.71	839.48	671.61	537.32
225.0	1779.51	1294.57	1035.16	945.84	826.53	659.20	527.73	422.80	338.82
270.0	2212.76	1859.98	1534.91	1249.81	1010.01	813.37	654.56	527.20	424.88
315.0	1790.70	1490.15	968.17	968.17	854.82	694.26	562.32	456.11	370.10
360.0	1717.70	1266.86	986.93	908.59	799.78	647.15	522.88	424.77	345.91
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	282.92	231.33	189.29	155.34	128.22	106.47	88.89	75.14	64.32
45.0	401.43	327.89	268.74	268.74	222.54	158.00	129.55	106.74	88.78
90.0	360.13	292.62	237.67	193.82	158.38	129.87	106.74	88.04	73.33
135.0	461.12	372.66	302.85	278.87	268.21	163.87	134.29	110.79	95.60
180.0	431.28	346.54	279.40	279.40	218.33	151.18	122.73	100.61	83.35
225.0	272.53	219.82	177.19	143.56	116.97	96.88	80.89	68.32	58.57
270.0	343.88	279.40	279.40	221.85	156.51	118.84	106.05	87.98	73.59
315.0	301.67	246.68	202.24	166.05	136.74	113.61	94.91	79.88	67.84
360.0	282.92	231.33	189.29	155.34	128.22	106.47	88.89	75.14	64.32
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	55.69	48.81	43.01	38.42	34.53	32.51	28.46	26.06	24.89
45.0	74.66	63.47	54.52	47.53	41.51	36.77	32.93	29.74	27.18
90.0	61.82	52.81	45.56	39.75	35.33	31.60	29.63	25.90	24.62
135.0	80.09	65.60	57.93	50.31	44.02	38.95	34.96	31.55	28.83
180.0	70.24	59.95	52.17	45.88	40.93	36.82	33.31	30.32	27.76
225.0	50.84	44.60	39.49	35.38	32.03	29.74	26.70	24.67	23.34
270.0	62.51	53.77	46.68	40.98	36.40	32.67	29.47	26.91	24.73
315.0	58.19	53.29	46.58	41.03	36.56	32.88	29.79	27.28	25.10
360.0	55.69	48.81	43.01	38.42	34.53	32.51	28.46	26.06	24.89
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	22.33	21.48	20.09	18.97	17.96	17.16	16.47	15.77	15.35
45.0	25.10	23.34	22.12	20.41	19.29	18.54	17.53	17.00	16.41
90.0	22.70	20.68	19.98	18.92	18.01	17.32	16.79	16.20	15.77
135.0	26.54	24.62	22.97	21.64	20.46	19.45	18.60	17.80	17.16
180.0	25.63	23.77	22.22	20.84	19.61	18.97	17.85	17.37	16.73
225.0	21.90	20.57	19.40	18.49	17.69	17.00	16.41	15.93	15.61
270.0	22.86	21.26	19.98	18.97	18.33	17.27	16.68	16.36	15.72
315.0	23.23	21.69	20.30	19.08	18.07	17.11	16.31	15.61	15.08
360.0	22.33	21.48	20.09	18.97	17.96	17.16	16.47	15.77	15.35

Intensity data(cd)

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C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	14.92	14.49	14.18	13.91	13.64	13.32	13.06	12.79	12.52
45.0	15.88	15.45	15.13	14.81	14.44	14.18	13.96	13.64	13.27
90.0	15.40	15.08	14.81	14.55	14.28	13.96	13.64	13.27	12.90
135.0	16.79	15.93	15.67	15.19	14.60	14.44	14.02	13.70	13.38
180.0	15.99	15.72	15.35	15.13	14.81	14.55	14.28	13.91	13.48
225.0	15.19	14.87	14.65	14.34	14.02	13.75	13.48	13.11	12.79
270.0	15.51	15.08	14.76	14.55	14.18	13.86	13.54	13.27	12.90
315.0	14.60	14.12	13.75	13.43	13.11	12.79	12.47	12.20	11.94
360.0	14.92	14.49	14.18	13.91	13.64	13.32	13.06	12.79	12.52
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	12.26	11.94	11.67	11.40	11.14	10.76	10.39	10.07	9.65
45.0	13.00	12.68	12.36	11.99	11.67	11.46	11.08	10.71	10.55
90.0	12.68	12.20	11.88	11.67	11.24	11.08	10.76	10.50	10.28
135.0	13.06	12.68	12.42	12.10	11.83	11.51	11.19	10.92	10.60
180.0	13.06	12.68	12.31	11.99	11.67	11.35	11.03	10.71	10.39
225.0	12.42	12.15	11.94	11.56	11.08	10.92	10.55	10.28	9.91
270.0	12.58	12.26	11.94	11.62	11.24	10.98	10.60	10.23	9.97
315.0	11.67	11.35	11.14	10.82	10.55	10.28	10.02	9.59	9.22
360.0	12.26	11.94	11.67	11.40	11.14	10.76	10.39	10.07	9.65
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	9.22	8.79	8.42	8.05	7.57	7.14	6.77	6.39	5.97
45.0	9.97	9.70	9.38	9.01	8.58	8.10	7.73	7.41	6.98
90.0	9.91	9.49	9.11	8.74	8.37	7.89	7.46	7.09	6.71
135.0	10.23	9.81	9.43	9.22	8.69	8.53	8.10	7.62	7.25
180.0	10.02	9.70	9.43	8.90	8.74	8.31	7.89	7.51	7.19
225.0	9.43	9.06	8.69	8.31	7.83	7.46	7.09	6.66	6.18
270.0	9.65	9.33	8.79	8.37	7.99	7.62	7.25	6.77	6.39
315.0	8.85	8.53	8.05	7.62	7.25	7.03	6.45	6.08	5.86
360.0	9.22	8.79	8.42	8.05	7.57	7.14	6.77	6.39	5.97
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	5.54	5.28	5.12	4.90	4.64	4.42	4.26	4.10	3.94
45.0	6.55	6.18	5.86	5.60	5.33	5.17	4.96	4.80	4.64
90.0	6.29	5.92	5.65	5.49	5.22	5.06	4.90	4.69	4.53
135.0	6.93	6.55	6.13	5.86	5.65	5.49	5.28	5.38	8.21
180.0	6.77	6.34	5.97	5.70	5.49	5.28	5.01	4.85	4.64
225.0	5.86	5.60	5.33	5.22	4.96	4.80	4.64	4.37	4.32
270.0	5.97	5.65	5.33	5.12	4.96	4.80	4.64	4.37	4.26
315.0	5.38	5.17	5.01	4.80	4.58	4.48	4.32	4.26	4.42
360.0	5.54	5.28	5.12	4.90	4.64	4.42	4.26	4.10	3.94
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.73	3.68	3.62	3.46	3.30	3.20	3.09	2.93	2.77
45.0	4.37	4.26	4.00	3.94	3.84	3.68	3.52	3.46	3.68
90.0	4.32	4.21	4.10	3.94	3.78	3.89	3.94	3.94	3.78
135.0	7.94	6.98	4.64	4.26	4.16	4.26	4.37	4.16	3.89
180.0	4.37	4.16	3.94	3.84	3.62	3.46	3.36	3.20	3.09
225.0	4.16	3.94	3.84	3.78	3.68	3.41	3.46	3.62	3.62
270.0	4.10	4.00	3.89	3.62	4.58	6.55	6.66	5.97	3.62
315.0	3.94	3.52	3.46	3.36	3.41	3.25	2.98	2.82	2.56
360.0	3.73	3.68	3.62	3.46	3.30	3.20	3.09	2.93	2.77

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	2.66
45.0	3.73
90.0	3.62
135.0	3.46
180.0	2.98
225.0	3.68
270.0	3.52
315.0	2.50
360.0	2.66