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NT

Client: NT

LumCAT: 1-1766-LM2

Luminaire: 92.70.492.00

Report No: 20260120-B002

Ballast type: AC

Test No: 20260120-C002

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): 1518.14, Efficiency(%): 96.88% , Luminous Efficacy(lm/W): 118.86

Central intensity(cd): 6399.928, Maximum intensity(cd): 6399.928

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=19.0

[C90/270]Total=19.0

Field angle(10%Imax): [C0/180]Total=47.2

[C90/270]Total=47.2

Maximum s/h(1/2): C0_180=0.33 C90_270=0.33

Maximum s/h(1/4): C0_180=0.34 C90_270=0.34

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 96.88%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.972%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6399.928	0.000	0	0.00%	0.00%
1.0	6355.139	6.103	6.103	0.39%	0.40%
2.0	6222.600	18.053	24.156	1.15%	1.59%
3.0	6002.170	29.238	53.393	1.87%	3.52%
4.0	5733.858	39.284	92.678	2.51%	6.10%
5.0	5347.983	47.673	140.351	3.04%	9.24%
6.0	4898.616	53.849	194.2	3.44%	12.79%
7.0	4452.623	58.043	252.243	3.70%	16.62%
8.0	3936.108	60.037	312.279	3.83%	20.57%
9.0	3452.850	59.883	372.163	3.82%	24.51%
10.0	2954.123	57.981	430.144	3.70%	28.33%
11.0	2515.936	54.657	484.801	3.49%	31.93%
12.0	2133.084	50.820	535.621	3.24%	35.28%
13.0	1833.131	47.069	582.69	3.00%	38.38%
14.0	1547.318	43.269	625.96	2.76%	41.23%
15.0	1319.020	39.350	665.31	2.51%	43.82%
16.0	1191.080	36.780	702.09	2.35%	46.25%
17.0	1100.433	35.685	737.775	2.28%	48.60%
18.0	993.066	34.517	772.292	2.20%	50.87%
19.0	891.105	32.781	805.073	2.09%	53.03%
20.0	823.500	31.382	836.455	2.00%	55.10%
21.0	760.641	30.419	866.874	1.94%	57.10%
22.0	713.728	29.628	896.502	1.89%	59.05%
23.0	666.218	28.955	925.457	1.85%	60.96%
24.0	623.384	28.195	953.652	1.80%	62.82%
25.0	594.752	27.698	981.35	1.77%	64.64%
26.0	572.034	27.542	1008.892	1.76%	66.46%
27.0	551.271	27.482	1036.374	1.75%	68.27%
28.0	534.030	27.478	1063.851	1.75%	70.08%
29.0	519.265	27.557	1091.409	1.76%	71.89%
30.0	506.946	27.707	1119.116	1.77%	73.72%
31.0	496.505	27.925	1147.041	1.78%	75.56%
32.0	486.211	28.154	1175.194	1.80%	77.41%
33.0	476.086	28.350	1203.544	1.81%	79.28%
34.0	466.636	28.530	1232.073	1.82%	81.16%
35.0	457.643	28.705	1260.778	1.83%	83.05%
36.0	448.896	28.864	1289.642	1.84%	84.95%
37.0	433.695	28.785	1318.428	1.84%	86.84%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	411.483	28.211	1346.639	1.80%	88.70%
39.0	383.850	27.147	1373.785	1.73%	90.49%
40.0	346.908	25.486	1399.272	1.63%	92.17%
41.0	308.166	23.327	1422.599	1.49%	93.71%
42.0	271.160	21.048	1443.646	1.34%	95.09%
43.0	247.507	19.213	1462.859	1.23%	96.36%
44.0	185.477	16.342	1479.201	1.04%	97.43%
45.0	134.578	12.300	1491.502	0.78%	98.25%
46.0	95.365	8.993	1500.494	0.57%	98.84%
47.0	58.029	6.101	1506.595	0.39%	99.24%
48.0	32.569	3.662	1510.257	0.23%	99.48%
49.0	18.527	2.098	1512.356	0.13%	99.62%
50.0	11.363	1.246	1513.602	0.08%	99.70%
51.0	8.979	0.861	1514.462	0.05%	99.76%
52.0	7.397	0.703	1515.165	0.04%	99.80%
53.0	6.356	0.598	1515.763	0.04%	99.84%
54.0	5.604	0.527	1516.291	0.03%	99.88%
55.0	4.802	0.465	1516.755	0.03%	99.91%
56.0	3.565	0.378	1517.133	0.02%	99.93%
57.0	2.018	0.255	1517.388	0.02%	99.95%
58.0	1.104	0.144	1517.533	0.01%	99.96%
59.0	0.949	0.096	1517.629	0.01%	99.97%
60.0	0.816	0.083	1517.712	0.01%	99.97%
61.0	0.689	0.072	1517.784	0.00%	99.98%
62.0	0.570	0.061	1517.845	0.00%	99.98%
63.0	0.457	0.050	1517.895	0.00%	99.98%
64.0	0.394	0.042	1517.936	0.00%	99.99%
65.0	0.316	0.035	1517.971	0.00%	99.99%
66.0	0.260	0.029	1518	0.00%	99.99%
67.0	0.218	0.024	1518.024	0.00%	99.99%
68.0	0.176	0.020	1518.044	0.00%	99.99%
69.0	0.155	0.017	1518.061	0.00%	99.99%
70.0	0.127	0.014	1518.076	0.00%	100.00%
71.0	0.098	0.012	1518.087	0.00%	100.00%
72.0	0.084	0.010	1518.097	0.00%	100.00%
73.0	0.070	0.008	1518.105	0.00%	100.00%
74.0	0.056	0.007	1518.111	0.00%	100.00%
75.0	0.042	0.005	1518.117	0.00%	100.00%

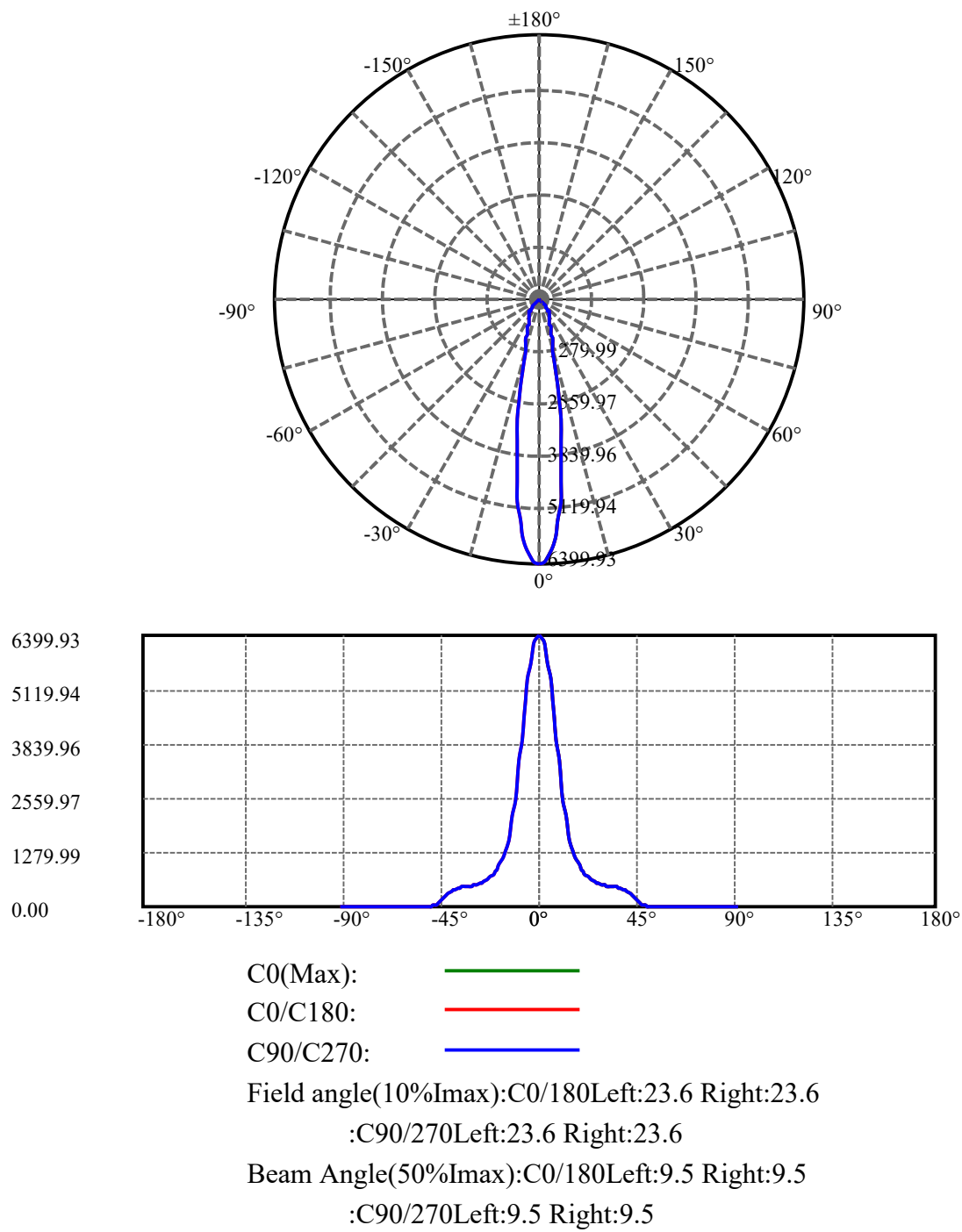
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	0.035	0.004	1518.121	0.00%	100.00%
77.0	0.028	0.003	1518.124	0.00%	100.00%
78.0	0.028	0.003	1518.127	0.00%	100.00%
79.0	0.014	0.002	1518.129	0.00%	100.00%
80.0	0.007	0.001	1518.131	0.00%	100.00%
81.0	0.000	0.000	1518.131	0.00%	100.00%
82.0	0.000	0.000	1518.131	0.00%	100.00%
83.0	0.000	0.000	1518.131	0.00%	100.00%
84.0	0.000	0.000	1518.131	0.00%	100.00%
85.0	0.000	0.000	1518.131	0.00%	100.00%
86.0	0.007	0.000	1518.131	0.00%	100.00%
87.0	0.014	0.001	1518.132	0.00%	100.00%
88.0	0.028	0.002	1518.135	0.00%	100.00%
89.0	0.035	0.003	1518.138	0.00%	100.00%
90.0	0.042	0.004	1518.142	0.00%	100.00%

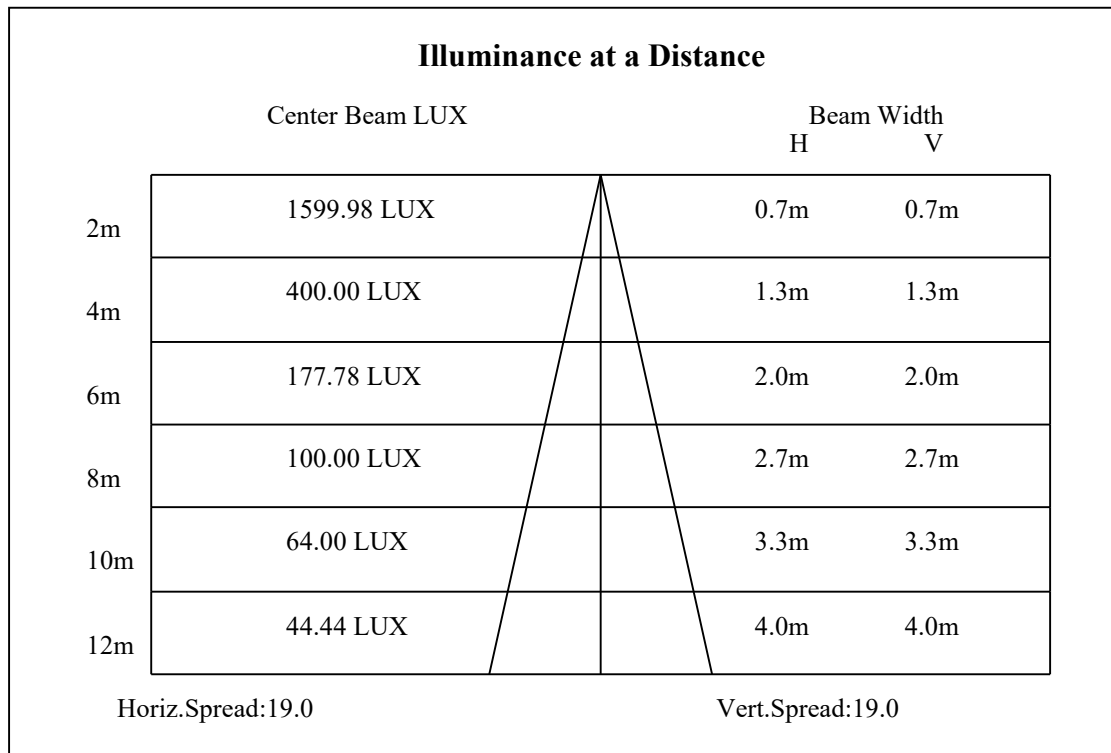
ZONAL LUMEN SUMMARY

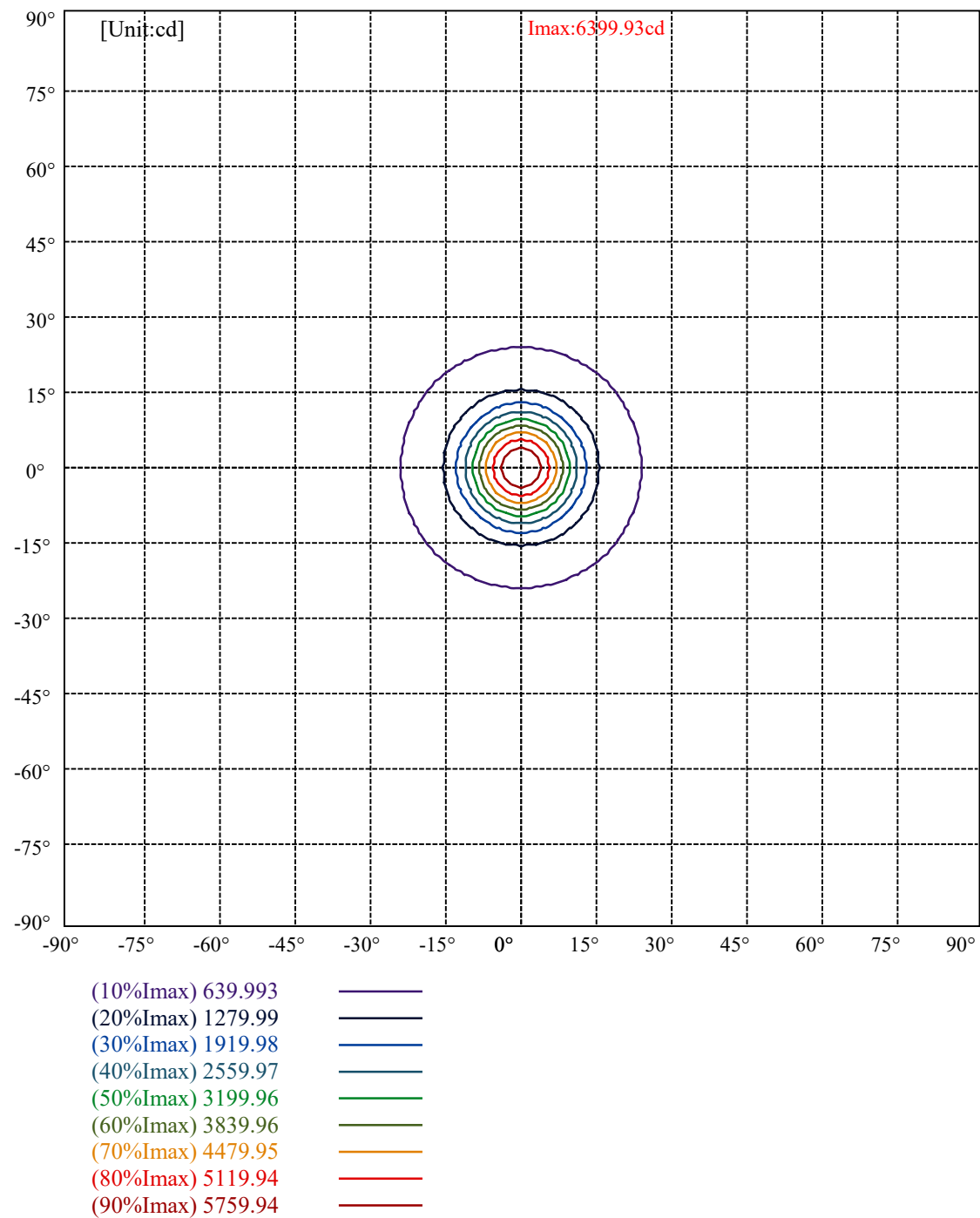
Zone	Lumens	%Lamp	%Fixt
0-30	1119.12	71.41%	73.72%
0-40	1399.27	89.29%	92.17%
0-60	1517.71	96.85%	99.97%
0-90	1518.14	96.88%	100.00%
0-120	1518.14	96.88%	100.00%
0-180	1518.14	96.88%	100.00%
60-90	0.43	0.03%	0.03%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-33.38	1214.51	77.50%	80.00%

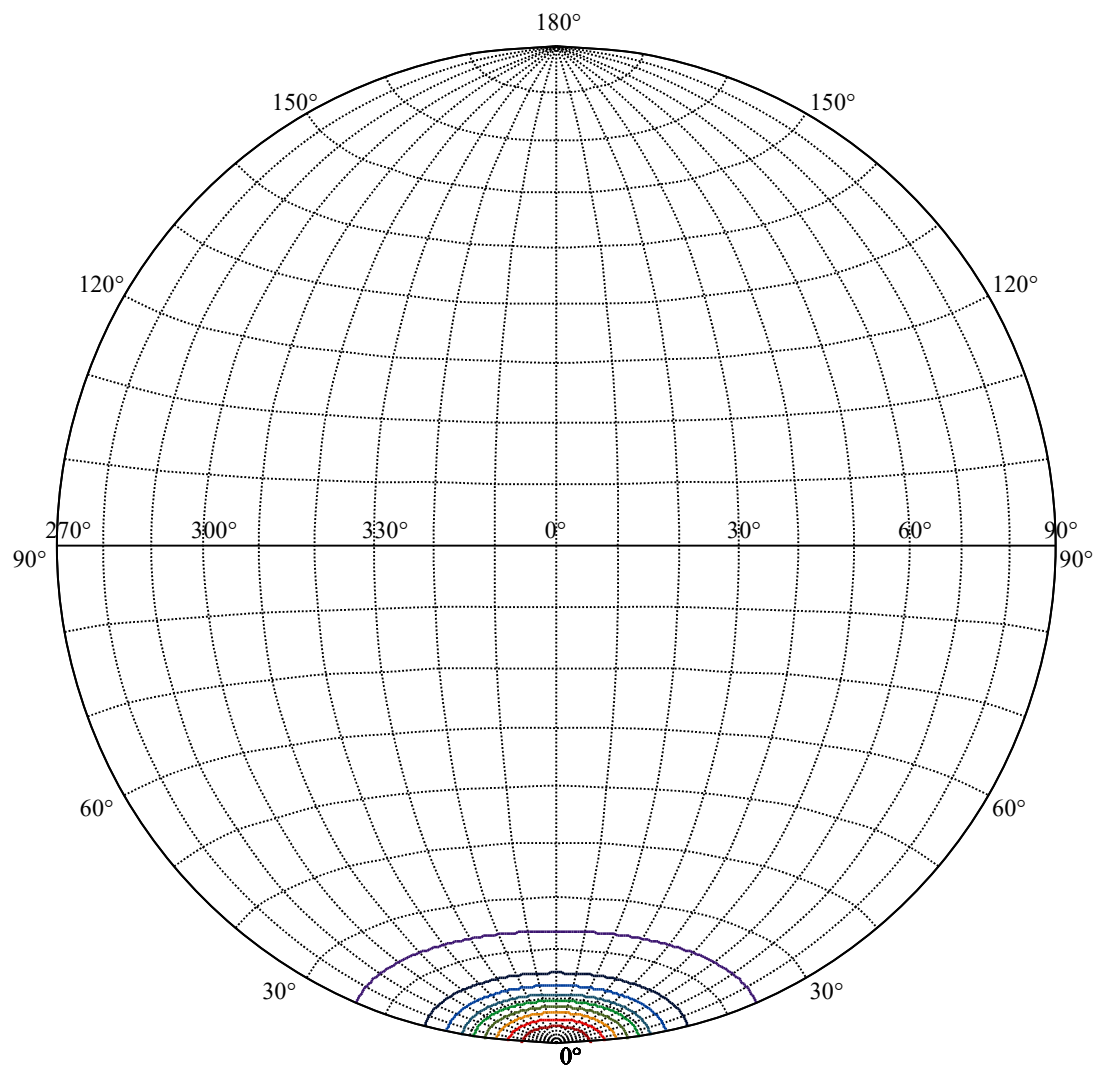
ZONAL LUMEN SUMMARY

0-10	430.14
10-20	406.31
20-30	282.66
30-40	280.16
40-50	114.33
50-60	4.11
60-70	0.36
70-80	0.05
80-90	0.01
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







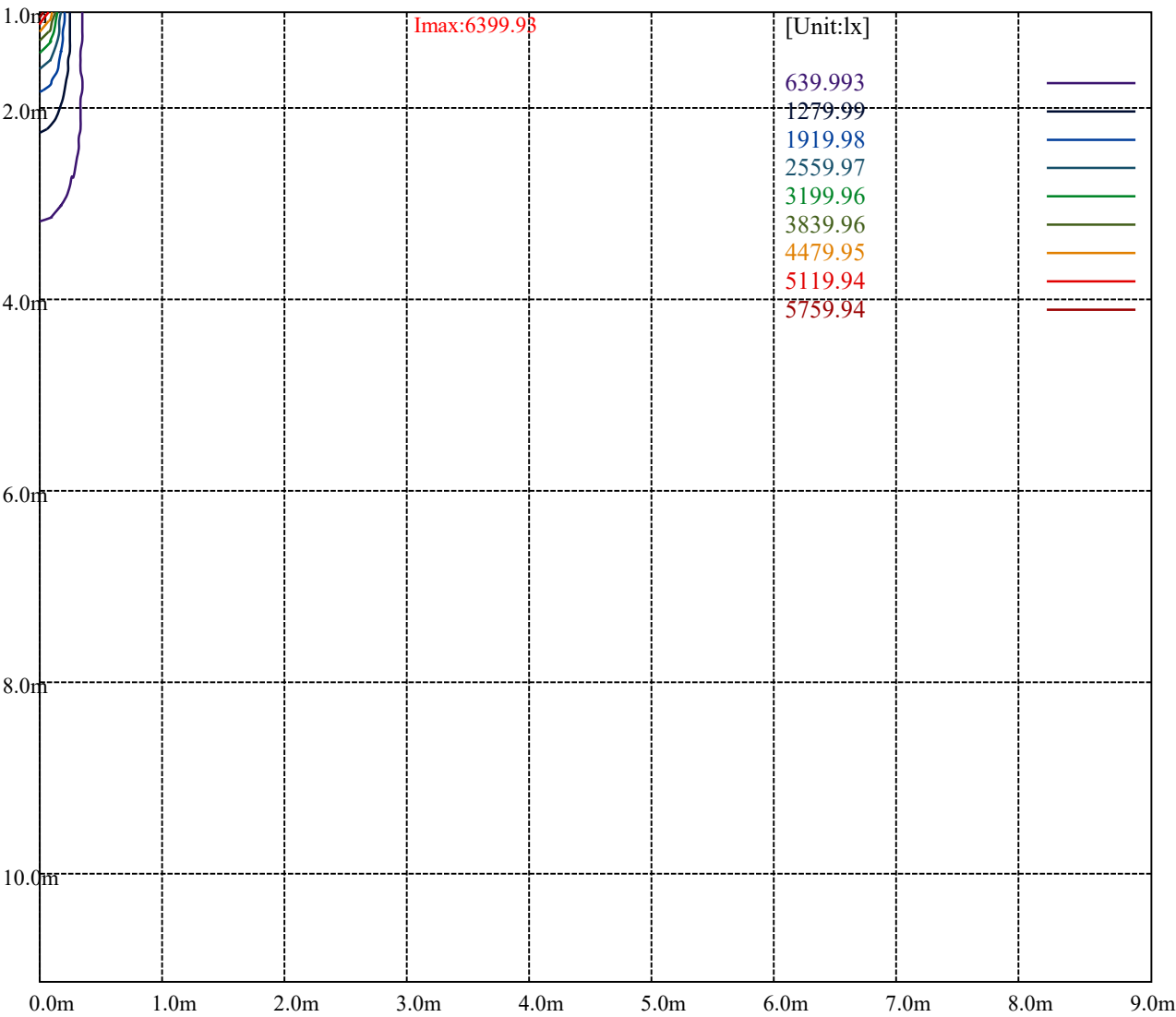


House

[Unit:cd]

Road

Imax:6399.93	
(10%Imax) 639.993	—
(20%Imax) 1279.99	—
(30%Imax) 1919.98	—
(40%Imax) 2559.97	—
(50%Imax) 3199.96	—
(60%Imax) 3839.96	—
(70%Imax) 4479.95	—
(80%Imax) 5119.94	—
(90%Imax) 5759.94	—



Luminance Table

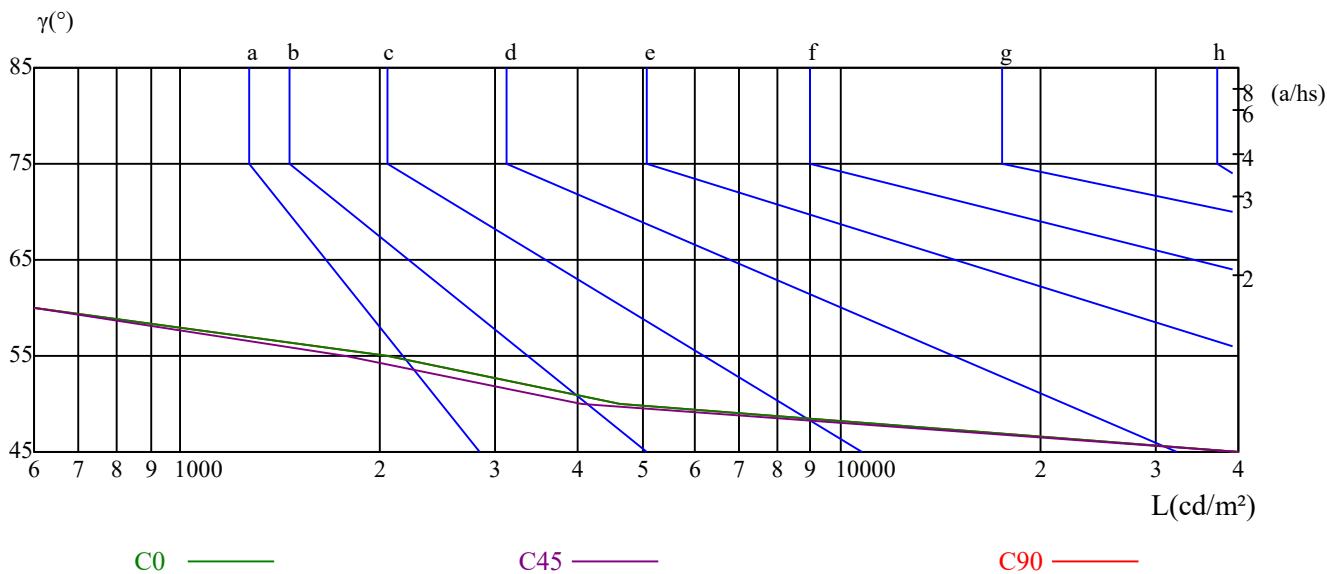
γ	45	50	55	60	65	70	75	80	85
C0	52867	4638	2057	370	154	67	25	5	0
C45	46928	4060	1773	314	128	55	20	4	0
C90	52867	4638	2057	370	154	67	25	5	0

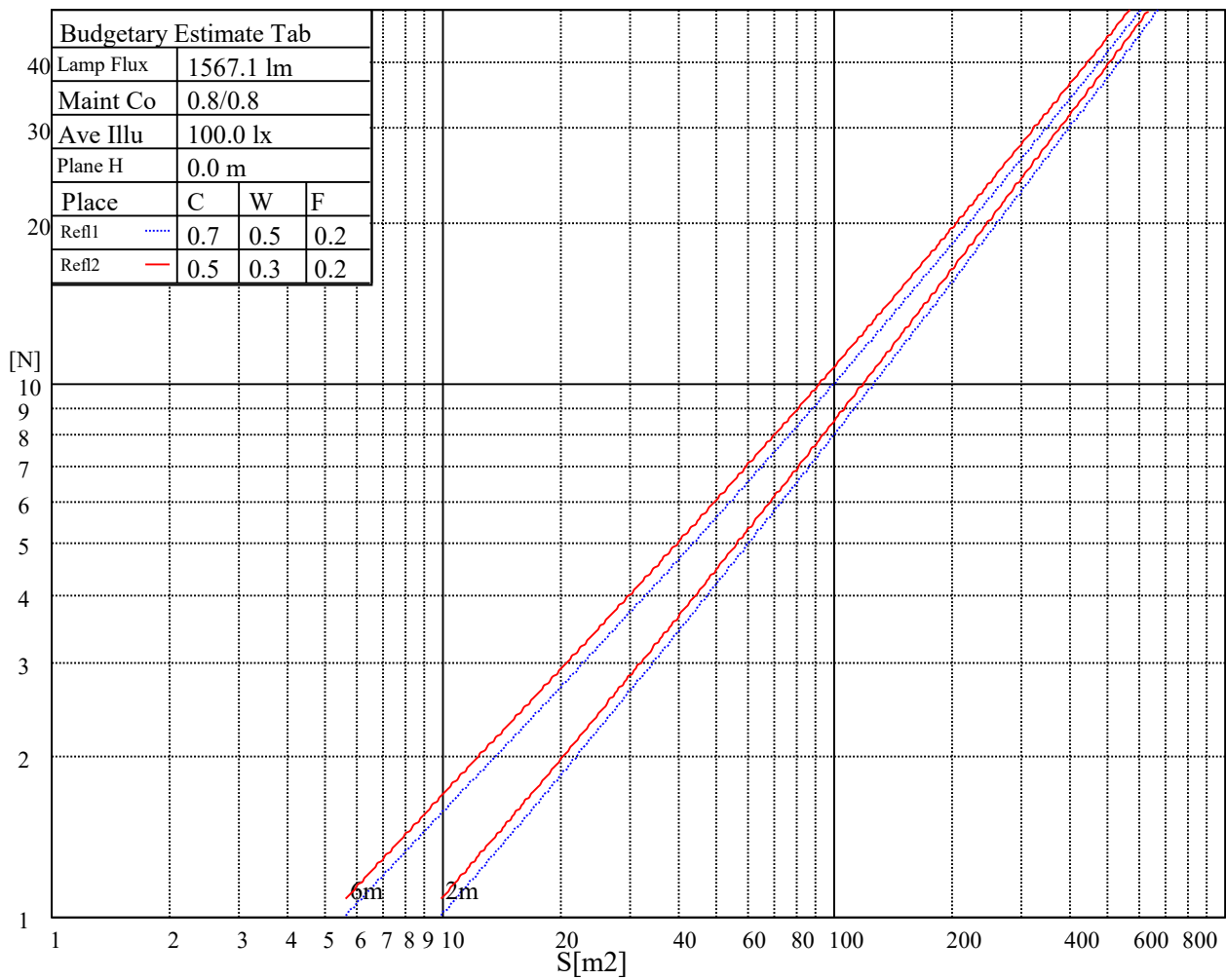
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
299	299	299	65	65	65	0	0	0

Glare Table

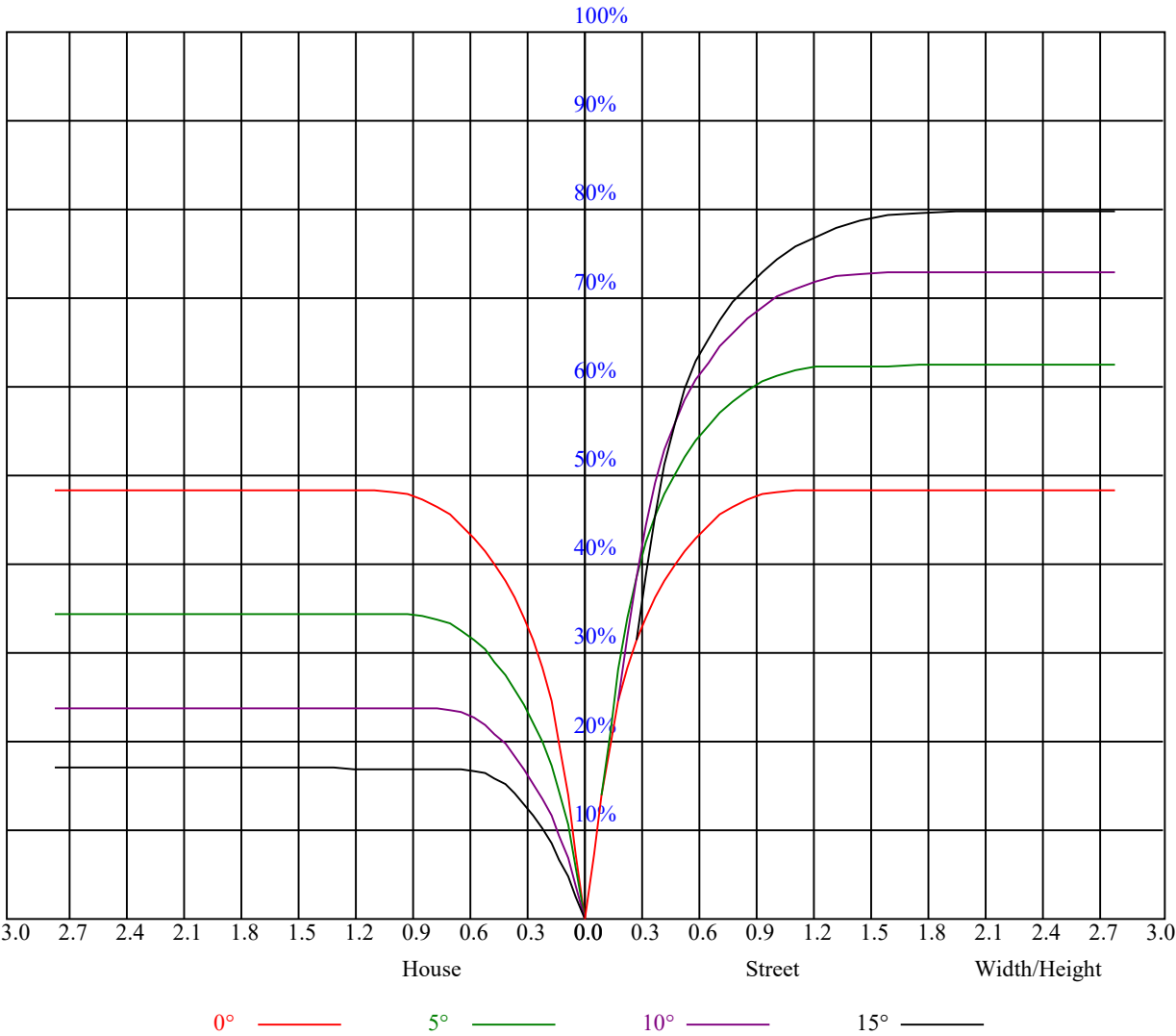
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

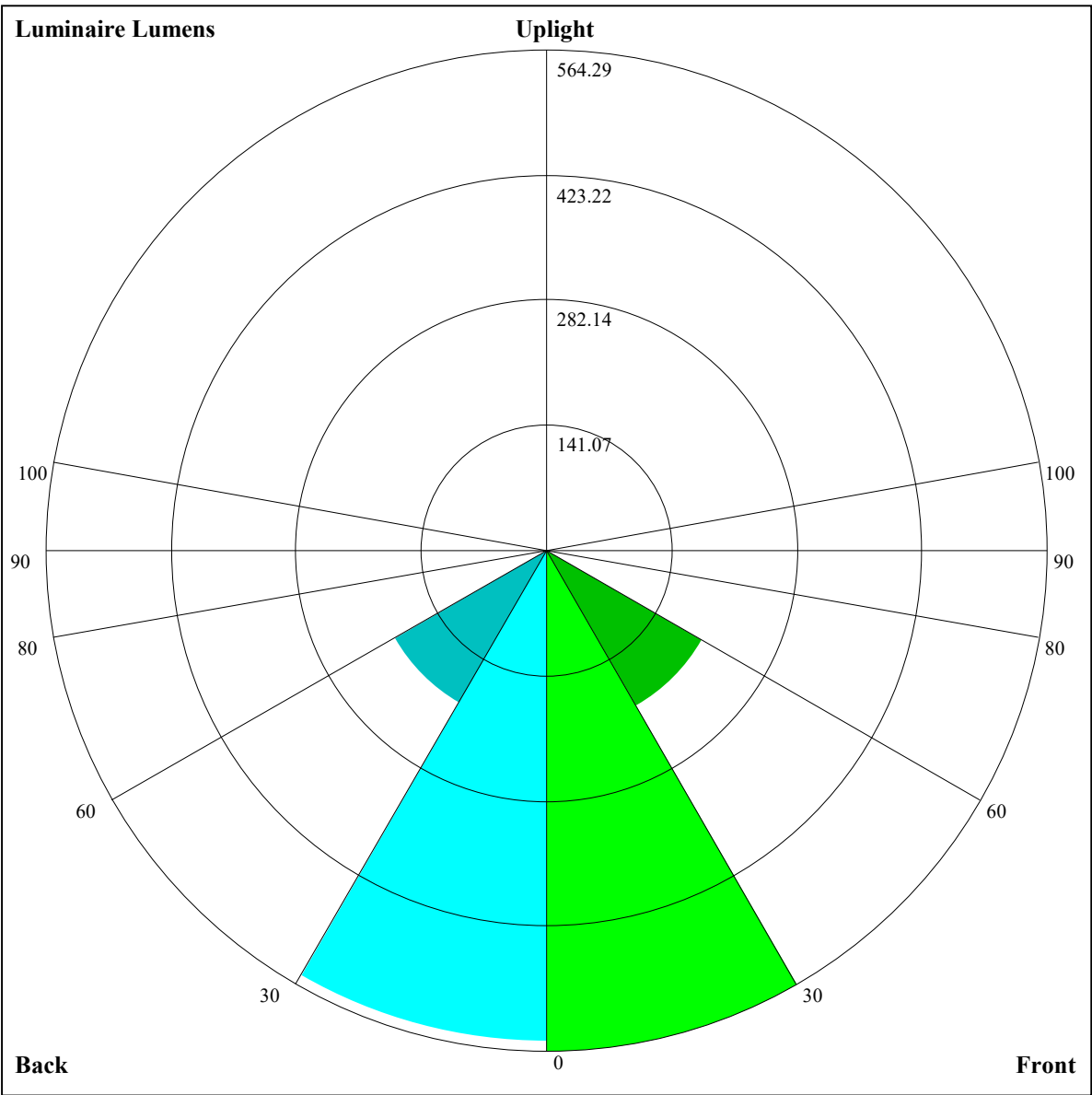
Luminance Limiting Curve





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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.15	1.15	1.15	1.13	1.13	1.13	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.97
1	1.08	1.06	1.04	1.06	1.04	1.02	1.02	1.01	0.99	0.99	0.97	0.96	0.95	0.94	0.94	0.92
2	1.02	0.98	0.95	1.00	0.97	0.94	0.97	0.94	0.92	0.94	0.92	0.90	0.92	0.90	0.88	0.87
3	0.96	0.92	0.88	0.95	0.91	0.88	0.92	0.89	0.86	0.90	0.87	0.85	0.88	0.86	0.84	0.82
4	0.91	0.86	0.82	0.90	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.78
5	0.86	0.81	0.77	0.85	0.81	0.77	0.84	0.80	0.76	0.82	0.79	0.76	0.81	0.78	0.75	0.74
6	0.82	0.77	0.73	0.81	0.76	0.73	0.80	0.76	0.72	0.78	0.75	0.72	0.77	0.74	0.72	0.70
7	0.78	0.73	0.69	0.77	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.67
8	0.75	0.70	0.66	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.64
9	0.72	0.67	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.69	0.65	0.63	0.61
10	0.69	0.64	0.61	0.68	0.64	0.61	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.59





Luminaire Lumens:

FL=564.29,FM=201.47,FH=0.21,FVH=0.01

BL=552.86,BM=197.93,BH=0.21,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	6420.32	6378.13	6167.76	5855.01	5725.07	5256.51	4793.57	4291.26	3666.88
45.0	6378.69	6427.63	6392.76	6270.69	6156.51	5837.57	5483.76	5054.01	4564.63
90.0	6405.13	6374.76	6202.63	5959.07	5622.13	5109.69	4818.88	4310.94	3788.94
135.0	6395.57	6386.57	6341.01	6157.07	5898.88	5553.51	5124.32	4835.76	4209.69
180.0	6420.32	6411.32	6311.76	6121.63	5845.44	5635.07	5121.51	4625.38	4099.44
225.0	6378.69	6209.94	5965.82	5630.57	5120.94	4831.82	4319.94	3790.07	3278.76
270.0	6405.13	6415.82	6276.88	6164.38	5842.07	5473.63	5026.44	4525.26	4211.38
315.0	6395.57	6236.94	6122.19	5858.94	5659.82	5086.07	4500.51	4188.32	3669.13
360.0	6420.32	6378.13	6167.76	5855.01	5725.07	5256.51	4793.57	4291.26	3666.88
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3362.01	2876.01	2441.19	2071.63	1715.57	1571.01	1371.32	1091.36	1091.36
45.0	4255.82	3641.57	3144.32	2679.69	2269.63	1864.07	1600.26	1391.01	1285.26
90.0	3277.63	2707.82	2454.69	2081.19	1623.32	1490.01	1111.78	1064.03	1064.03
135.0	3680.94	3178.07	2625.13	2224.07	2017.07	1627.82	1497.88	1282.44	1140.13
180.0	3575.19	2975.57	2526.13	2143.07	1946.19	1626.69	1419.13	1250.94	1114.26
225.0	2710.63	2456.94	2085.69	1627.26	1538.94	1121.63	1072.58	1072.58	946.58
270.0	3589.26	3090.32	2629.63	2227.44	1835.94	1583.94	1382.57	1279.63	1111.44
315.0	3171.32	2706.69	2220.69	2010.32	1718.38	1493.38	1096.65	1096.65	1050.41
360.0	3362.01	2876.01	2441.19	2071.63	1715.57	1571.01	1371.32	1091.36	1091.36
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	982.97	845.33	816.30	741.83	710.83	649.41	608.51	591.02	566.49
45.0	1113.69	999.51	905.01	826.82	785.19	716.01	652.44	629.94	592.82
90.0	939.88	888.02	787.61	720.68	692.21	650.42	615.21	586.41	560.08
135.0	1021.44	924.13	875.19	790.26	732.32	683.38	642.88	602.94	576.51
180.0	1043.94	924.13	843.13	776.19	719.94	691.26	628.82	597.32	581.57
225.0	893.25	790.48	723.21	694.18	652.44	618.02	589.44	561.15	549.11
270.0	1000.07	907.26	829.63	788.01	720.51	674.38	636.69	604.07	587.76
315.0	949.28	849.99	807.92	747.17	696.38	646.88	613.07	585.17	561.94
360.0	982.97	845.33	816.30	741.83	710.83	649.41	608.51	591.02	566.49
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	546.53	530.21	514.07	506.42	495.34	485.66	474.02	464.91	459.45
45.0	581.57	546.69	529.82	521.94	507.32	496.07	485.38	476.38	470.76
90.0	548.94	532.91	518.63	504.28	494.04	488.42	475.09	463.61	457.93
135.0	555.13	544.44	524.76	510.69	499.44	488.76	483.13	471.32	458.38
180.0	555.13	536.57	521.94	508.44	501.13	487.63	478.07	468.51	457.82
225.0	532.01	517.67	504.90	491.51	484.82	475.20	460.97	455.57	446.96
270.0	551.76	534.32	524.76	509.01	497.19	487.07	476.94	471.32	459.51
315.0	539.10	529.43	515.25	503.27	492.75	480.88	475.09	461.48	450.34
360.0	546.53	530.21	514.07	506.42	495.34	485.66	474.02	464.91	459.45
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	446.68	426.26	410.18	377.83	339.13	297.45	245.81	218.19	173.76
45.0	460.63	452.19	442.07	418.44	389.76	353.19	312.69	304.26	304.26
90.0	448.76	434.31	410.57	371.64	348.81	306.45	261.79	215.72	160.37
135.0	452.76	442.63	433.63	392.57	357.69	334.63	291.32	291.32	199.29
180.0	454.44	441.51	411.13	393.13	350.38	309.32	292.44	284.01	178.48
225.0	430.82	404.33	363.94	340.82	299.76	257.57	212.74	160.59	135.23
270.0	450.51	440.38	418.44	407.76	368.94	312.69	304.26	304.26	176.29
315.0	446.57	427.95	401.91	368.61	320.79	294.02	248.23	201.71	156.15
360.0	446.68	426.26	410.18	377.83	339.13	297.45	245.81	218.19	173.76

Intensity data(cd)

Appendix Page: 18 Total:19

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	131.06	91.01	50.01	24.92	12.38	9.00	7.99	6.47	5.63
45.0	198.45	155.19	105.36	68.12	38.31	18.45	11.93	8.27	6.75
90.0	116.55	77.91	40.56	26.89	13.73	8.72	7.37	5.91	5.46
135.0	145.07	102.99	65.76	36.34	23.85	11.59	9.00	7.37	6.19
180.0	135.79	95.40	73.18	37.24	18.73	11.03	9.56	8.61	7.14
225.0	95.34	59.46	27.79	14.57	10.58	9.17	7.54	6.92	6.19
270.0	149.40	98.89	63.28	35.33	18.39	13.22	10.29	8.78	7.65
315.0	104.96	82.07	38.31	17.16	12.26	9.73	8.16	6.86	5.85
360.0	131.06	91.01	50.01	24.92	12.38	9.00	7.99	6.47	5.63
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.95	3.99	3.32	1.24	1.07	0.96	0.79	0.62	0.56
45.0	5.79	5.01	4.22	3.43	1.35	1.07	1.01	0.84	0.68
90.0	4.67	4.11	3.38	1.18	1.01	0.90	0.73	0.68	0.51
135.0	5.68	4.78	3.66	3.04	1.18	1.07	0.90	0.73	0.68
180.0	6.36	5.57	4.61	1.69	1.13	0.96	0.90	0.79	0.68
225.0	5.34	4.22	1.13	1.01	0.90	0.73	0.56	0.51	0.39
270.0	6.75	6.30	5.23	3.38	1.18	1.01	0.84	0.73	0.62
315.0	5.29	4.44	2.98	1.18	1.01	0.90	0.79	0.62	0.45
360.0	4.95	3.99	3.32	1.24	1.07	0.96	0.79	0.62	0.56
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	0.39	0.39	0.28	0.23	0.17	0.17	0.17	0.11	0.06
45.0	0.62	0.51	0.39	0.34	0.28	0.23	0.23	0.17	0.17
90.0	0.39	0.39	0.28	0.23	0.17	0.17	0.17	0.11	0.11
135.0	0.51	0.45	0.39	0.28	0.28	0.17	0.11	0.11	0.06
180.0	0.51	0.39	0.39	0.28	0.23	0.23	0.23	0.17	0.17
225.0	0.34	0.28	0.23	0.23	0.23	0.17	0.11	0.11	0.11
270.0	0.51	0.39	0.28	0.28	0.23	0.17	0.11	0.11	0.06
315.0	0.39	0.34	0.28	0.23	0.17	0.11	0.11	0.11	0.06
360.0	0.39	0.39	0.28	0.23	0.17	0.17	0.17	0.11	0.06
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	0.11	0.06	0.00	0.00	0.06	0.00	0.00	0.00	0.00
45.0	0.17	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.06
90.0	0.06	0.06	0.06	0.00	0.06	0.06	0.00	0.00	0.00
135.0	0.06	0.06	0.00	0.06	0.00	0.00	0.06	0.00	0.00
180.0	0.11	0.11	0.06	0.06	0.06	0.00	0.06	0.00	0.00
225.0	0.11	0.06	0.11	0.06	0.00	0.06	0.00	0.06	0.00
270.0	0.06	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.11	0.06	0.00	0.00	0.06	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.06	0.11
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.11
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	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/ $\gamma(^{\circ})$	90.0
0.0	0.00
45.0	0.17
90.0	0.00
135.0	0.00
180.0	0.00
225.0	0.11
270.0	0.06
315.0	0.00
360.0	0.00