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NT

Client: NT

LumCAT: 1-1767-LM2

Luminaire: 92.70.492.00

Report No: 20260120-B003

Ballast type: AC

Test No: 20260120-C003

Voltage(V): 35.410

LampCAT: CITIZEN CLU028 LES9.8

Current(A): 0.361

Lamp flux(lm): 1567.1

Power (W): 12.783

Number of Lamps: 1

PF: 0.000

Length(mm): 50

Width(mm): 50

Phm Type: C

Height(mm): 22

Photometric Results

Lumens(lm): 1512.08, Efficiency(%): 96.49% , Luminous Efficacy(lm/W): 118.29

Central intensity(cd): 4996.771, Maximum intensity(cd): 4996.771

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=23.8

[C90/270]Total=23.8

Field angle(10%Imax): [C0/180]Total=60.0

[C90/270]Total=60.0

Maximum s/h(1/2): C0_180=0.40 C90_270=0.40

Maximum s/h(1/4): C0_180=0.39 C90_270=0.39

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 96.49%

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	4996.772	0.000	0	0.00%	0.00%
1.0	4981.655	4.774	4.774	0.30%	0.32%
2.0	4935.670	14.234	19.009	0.91%	1.26%
3.0	4855.936	23.418	42.427	1.49%	2.81%
4.0	4744.069	32.134	74.561	2.05%	4.93%
5.0	4578.764	40.106	114.668	2.56%	7.58%
6.0	4370.709	47.032	161.7	3.00%	10.69%
7.0	4139.803	52.825	214.524	3.37%	14.19%
8.0	3841.045	57.117	271.642	3.64%	17.96%
9.0	3525.272	59.700	331.342	3.81%	21.91%
10.0	3145.444	60.368	391.709	3.85%	25.91%
11.0	2781.788	59.225	450.934	3.78%	29.82%
12.0	2456.803	57.265	508.2	3.65%	33.61%
13.0	2103.694	54.122	562.321	3.45%	37.19%
14.0	1792.491	49.871	612.192	3.18%	40.49%
15.0	1462.451	44.685	656.877	2.85%	43.44%
16.0	1265.808	39.977	696.854	2.55%	46.09%
17.0	1151.740	37.648	734.502	2.40%	48.58%
18.0	1014.764	35.721	770.223	2.28%	50.94%
19.0	896.618	33.254	803.477	2.12%	53.14%
20.0	810.120	31.238	834.715	1.99%	55.20%
21.0	741.227	29.789	864.504	1.90%	57.17%
22.0	683.515	28.631	893.135	1.83%	59.07%
23.0	638.220	27.734	920.868	1.77%	60.90%
24.0	598.535	27.040	947.908	1.73%	62.69%
25.0	572.105	26.618	974.526	1.70%	64.45%
26.0	553.113	26.561	1001.087	1.69%	66.21%
27.0	534.333	26.605	1027.691	1.70%	67.97%
28.0	521.824	26.740	1054.431	1.71%	69.73%
29.0	509.555	26.984	1081.415	1.72%	71.52%
30.0	499.662	27.249	1108.663	1.74%	73.32%
31.0	490.380	27.551	1136.215	1.76%	75.14%
32.0	481.296	27.837	1164.052	1.78%	76.98%
33.0	472.444	28.098	1192.15	1.79%	78.84%
34.0	463.795	28.333	1220.483	1.81%	80.72%
35.0	455.773	28.558	1249.041	1.82%	82.60%
36.0	447.989	28.776	1277.817	1.84%	84.51%
37.0	433.287	28.742	1306.56	1.83%	86.41%

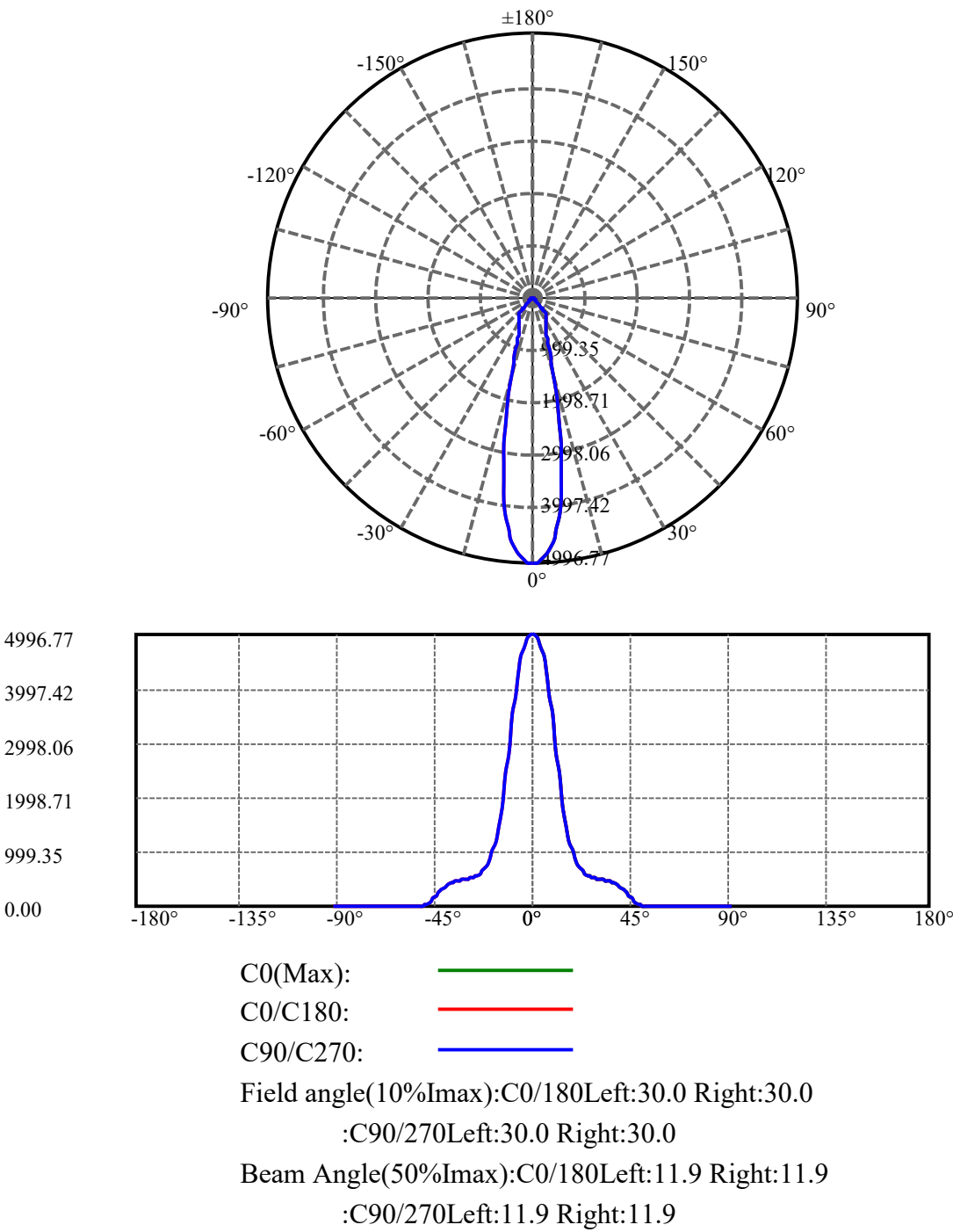
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	412.622	28.235	1334.795	1.80%	88.28%
39.0	386.044	27.261	1362.056	1.74%	90.08%
40.0	352.582	25.761	1387.816	1.64%	91.78%
41.0	314.663	23.760	1411.577	1.52%	93.35%
42.0	274.057	21.389	1432.966	1.36%	94.77%
43.0	249.166	19.382	1452.347	1.24%	96.05%
44.0	198.830	16.909	1469.256	1.08%	97.17%
45.0	141.799	13.091	1482.347	0.84%	98.03%
46.0	103.971	9.612	1491.958	0.61%	98.67%
47.0	66.059	6.763	1498.721	0.43%	99.12%
48.0	38.004	4.207	1502.928	0.27%	99.39%
49.0	21.691	2.451	1505.379	0.16%	99.56%
50.0	13.416	1.464	1506.843	0.09%	99.65%
51.0	10.491	1.011	1507.854	0.06%	99.72%
52.0	8.824	0.829	1508.683	0.05%	99.78%
53.0	7.538	0.712	1509.395	0.05%	99.82%
54.0	6.616	0.624	1510.019	0.04%	99.86%
55.0	5.611	0.546	1510.564	0.03%	99.90%
56.0	4.254	0.446	1511.01	0.03%	99.93%
57.0	2.552	0.311	1511.321	0.02%	99.95%
58.0	0.977	0.163	1511.485	0.01%	99.96%
59.0	0.858	0.086	1511.57	0.01%	99.97%
60.0	0.773	0.077	1511.648	0.00%	99.97%
61.0	0.668	0.069	1511.716	0.00%	99.98%
62.0	0.591	0.061	1511.777	0.00%	99.98%
63.0	0.478	0.052	1511.829	0.00%	99.98%
64.0	0.401	0.043	1511.872	0.00%	99.99%
65.0	0.330	0.036	1511.908	0.00%	99.99%
66.0	0.260	0.029	1511.938	0.00%	99.99%
67.0	0.232	0.025	1511.962	0.00%	99.99%
68.0	0.183	0.021	1511.983	0.00%	99.99%
69.0	0.169	0.018	1512.001	0.00%	100.00%
70.0	0.134	0.016	1512.017	0.00%	100.00%
71.0	0.098	0.012	1512.029	0.00%	100.00%
72.0	0.070	0.009	1512.038	0.00%	100.00%
73.0	0.084	0.008	1512.046	0.00%	100.00%
74.0	0.042	0.007	1512.052	0.00%	100.00%
75.0	0.035	0.004	1512.057	0.00%	100.00%

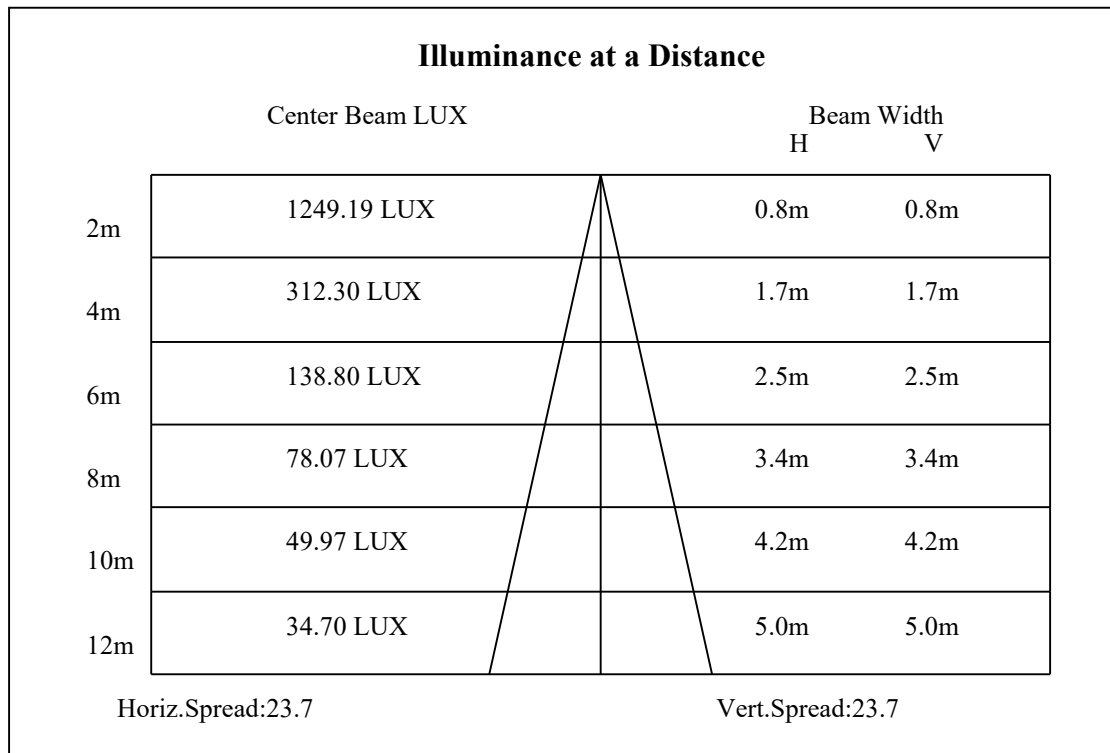
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	0.028	0.003	1512.06	0.00%	100.00%
77.0	0.007	0.002	1512.062	0.00%	100.00%
78.0	0.007	0.001	1512.063	0.00%	100.00%
79.0	0.007	0.001	1512.063	0.00%	100.00%
80.0	0.007	0.001	1512.064	0.00%	100.00%
81.0	0.007	0.001	1512.065	0.00%	100.00%
82.0	0.000	0.000	1512.065	0.00%	100.00%
83.0	0.000	0.000	1512.065	0.00%	100.00%
84.0	0.000	0.000	1512.065	0.00%	100.00%
85.0	0.007	0.000	1512.066	0.00%	100.00%
86.0	0.000	0.000	1512.066	0.00%	100.00%
87.0	0.014	0.001	1512.067	0.00%	100.00%
88.0	0.028	0.002	1512.069	0.00%	100.00%
89.0	0.035	0.003	1512.073	0.00%	100.00%
90.0	0.035	0.004	1512.076	0.00%	100.00%

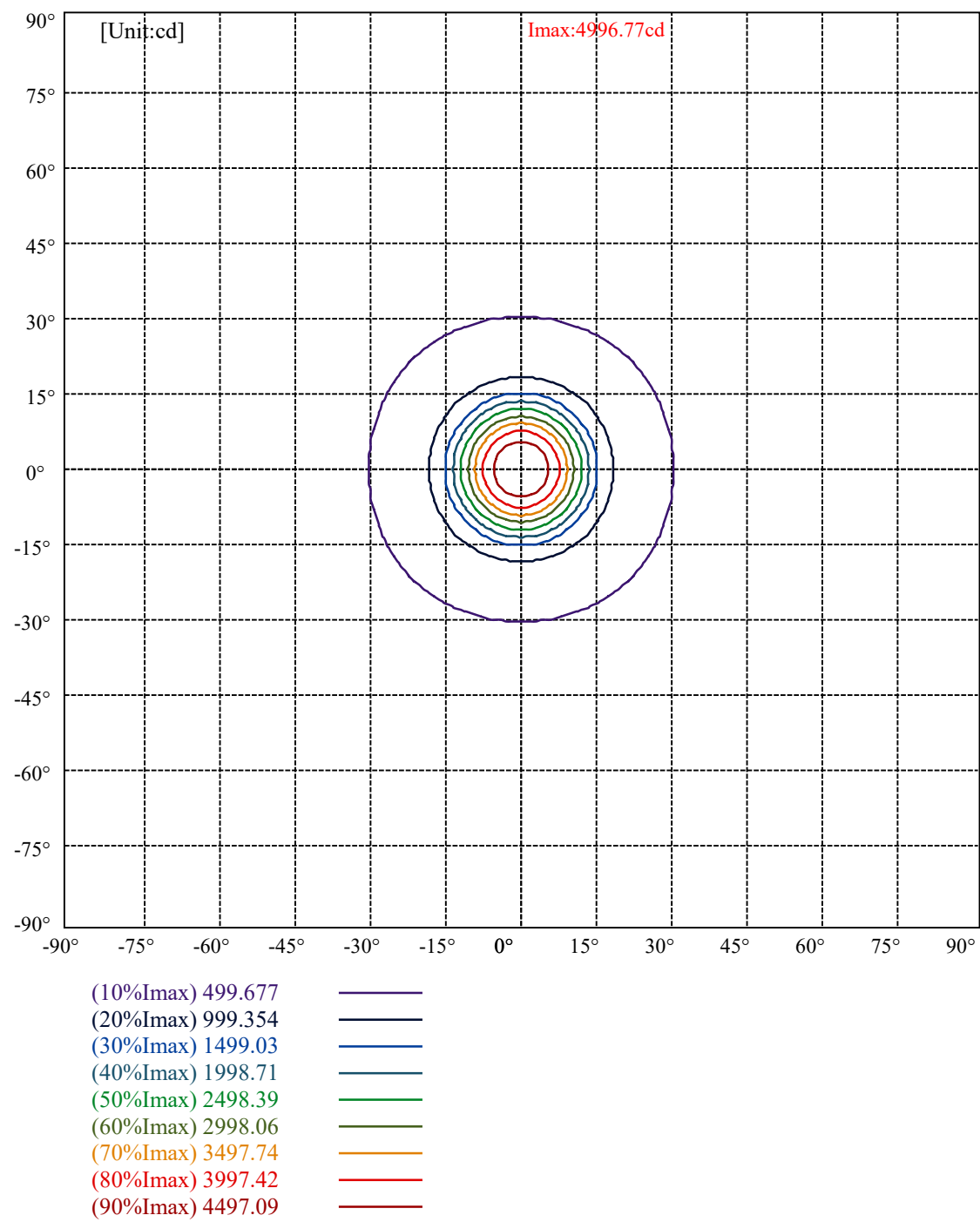
ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	1108.66	70.75%	73.32%
0-40	1387.82	88.56%	91.78%
0-60	1511.65	96.46%	99.97%
0-90	1512.07	96.49%	100.00%
0-120	1512.07	96.49%	100.00%
0-180	1512.08	96.49%	100.00%
60-90	0.42	0.03%	0.03%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-33.62	1209.66	77.19%	80.00%

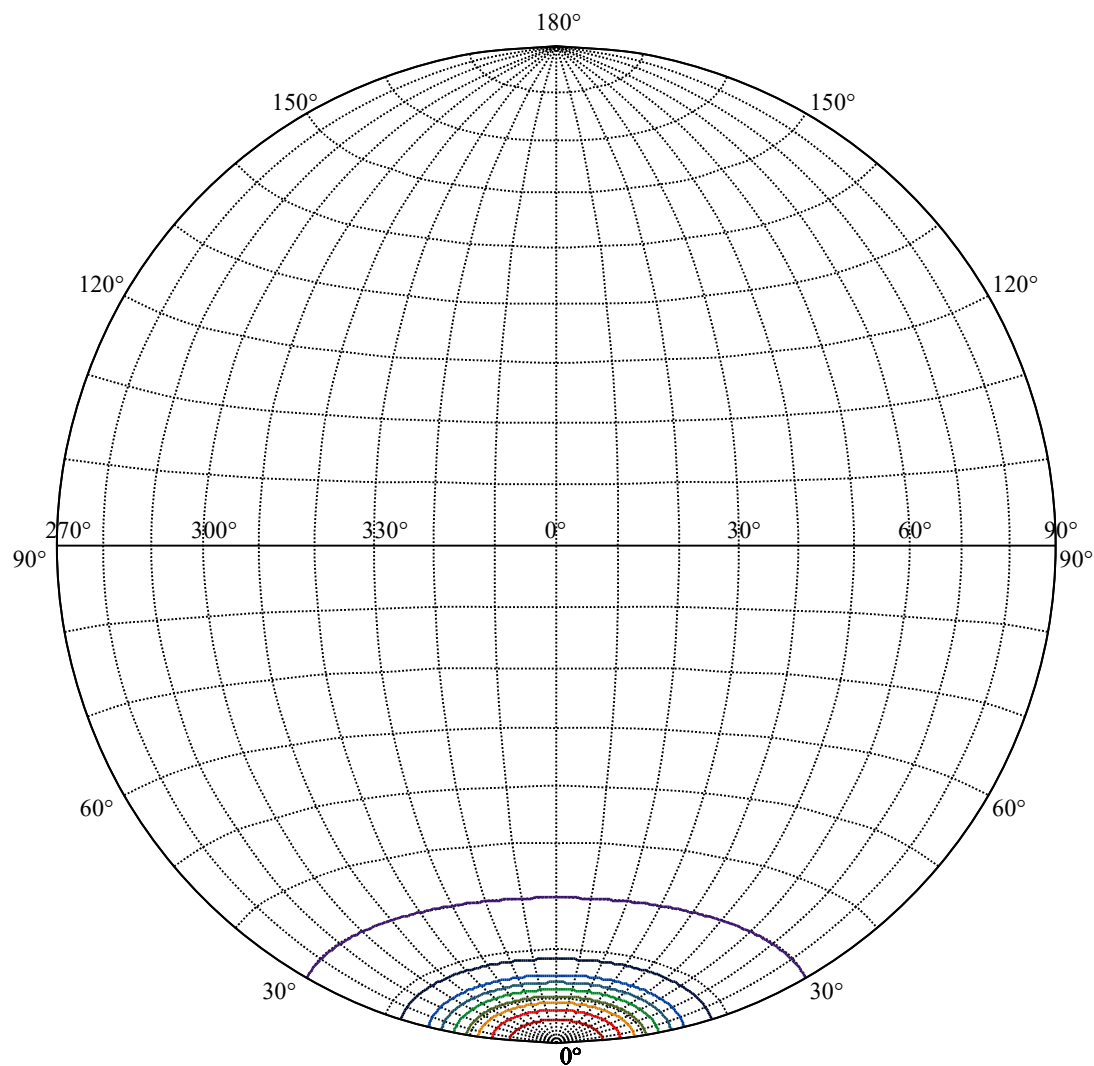
ZONAL LUMEN SUMMARY

0-10	391.71
10-20	443.01
20-30	273.95
30-40	279.15
40-50	119.03
50-60	4.80
60-70	0.37
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







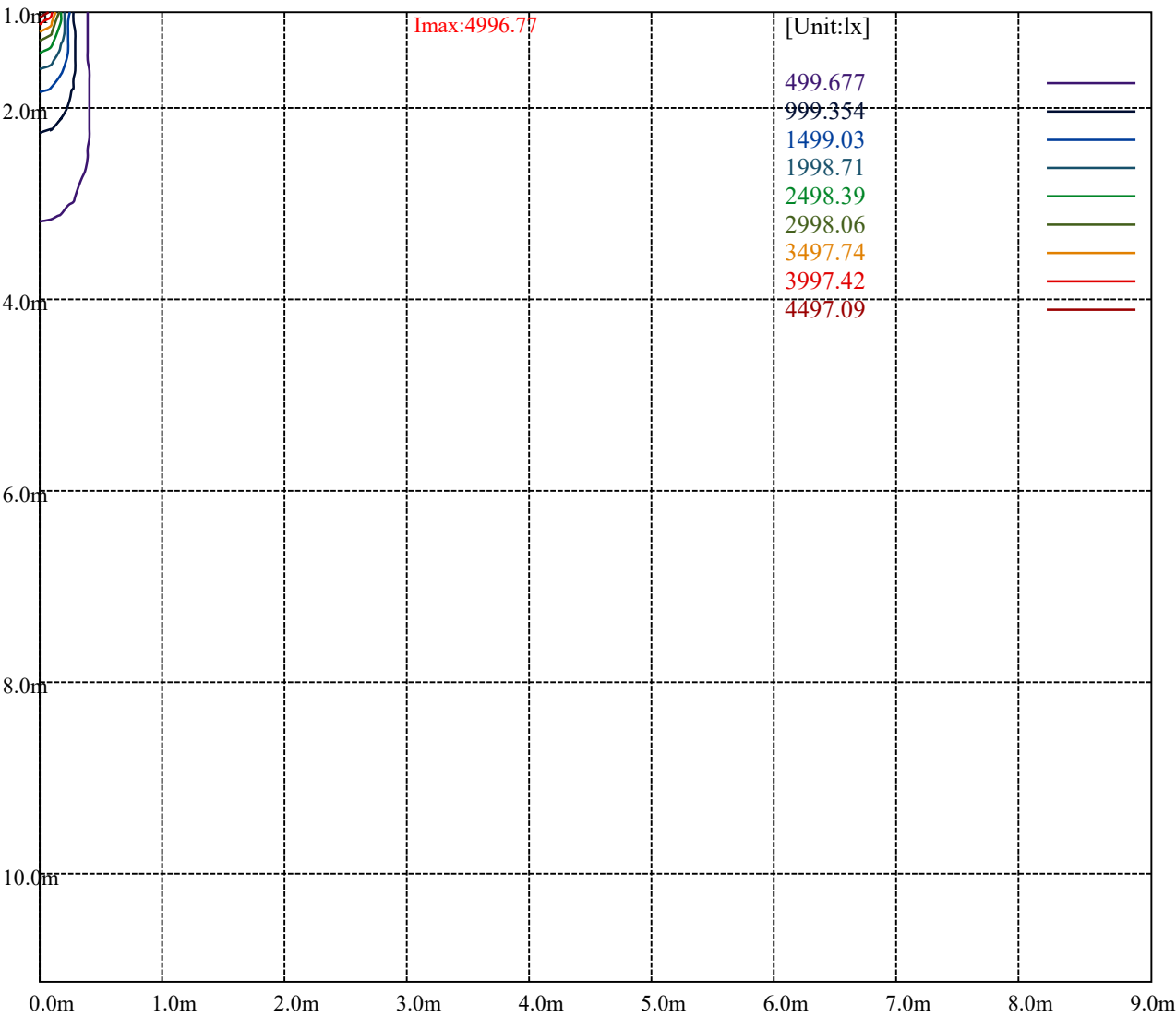


House

[Unit:cd]

Road

Imax:4996.77	
(10%Imax) 499.677	—
(20%Imax) 999.354	—
(30%Imax) 1499.03	—
(40%Imax) 1998.71	—
(50%Imax) 2498.39	—
(60%Imax) 2998.06	—
(70%Imax) 3497.74	—
(80%Imax) 3997.42	—
(90%Imax) 4497.09	—



Luminance Table

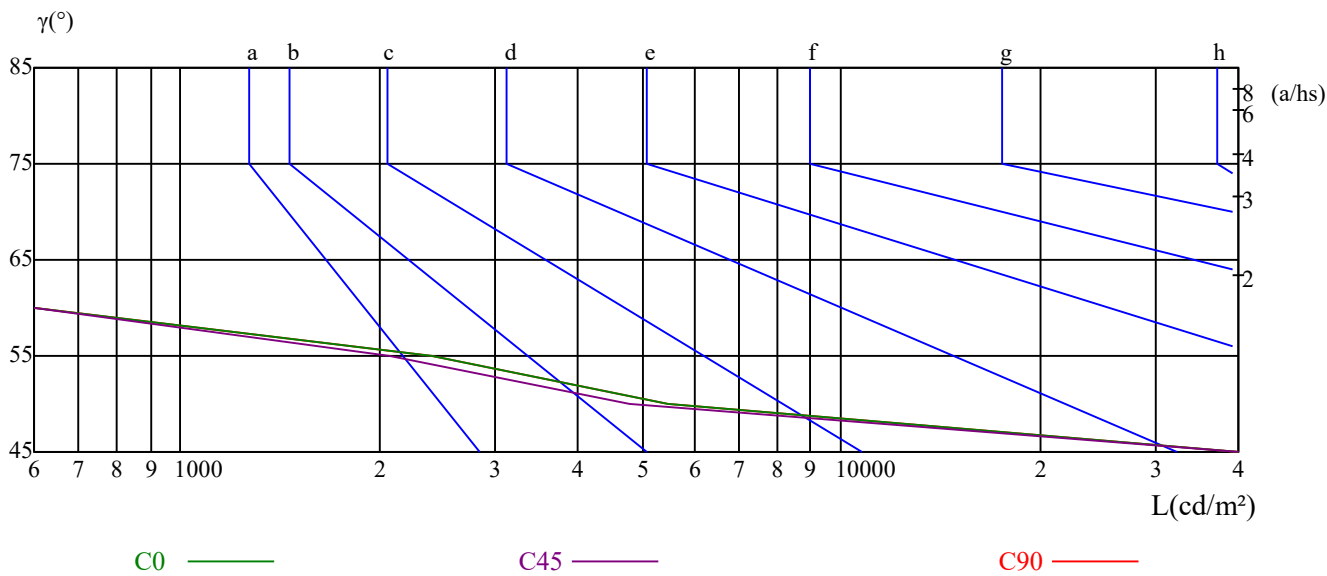
γ	45	50	55	60	65	70	75	80	85
C0	55704	5477	2403	351	161	71	21	5	5
C45	49446	4794	2072	298	134	58	16	4	4
C90	55704	5477	2403	351	161	71	21	5	5

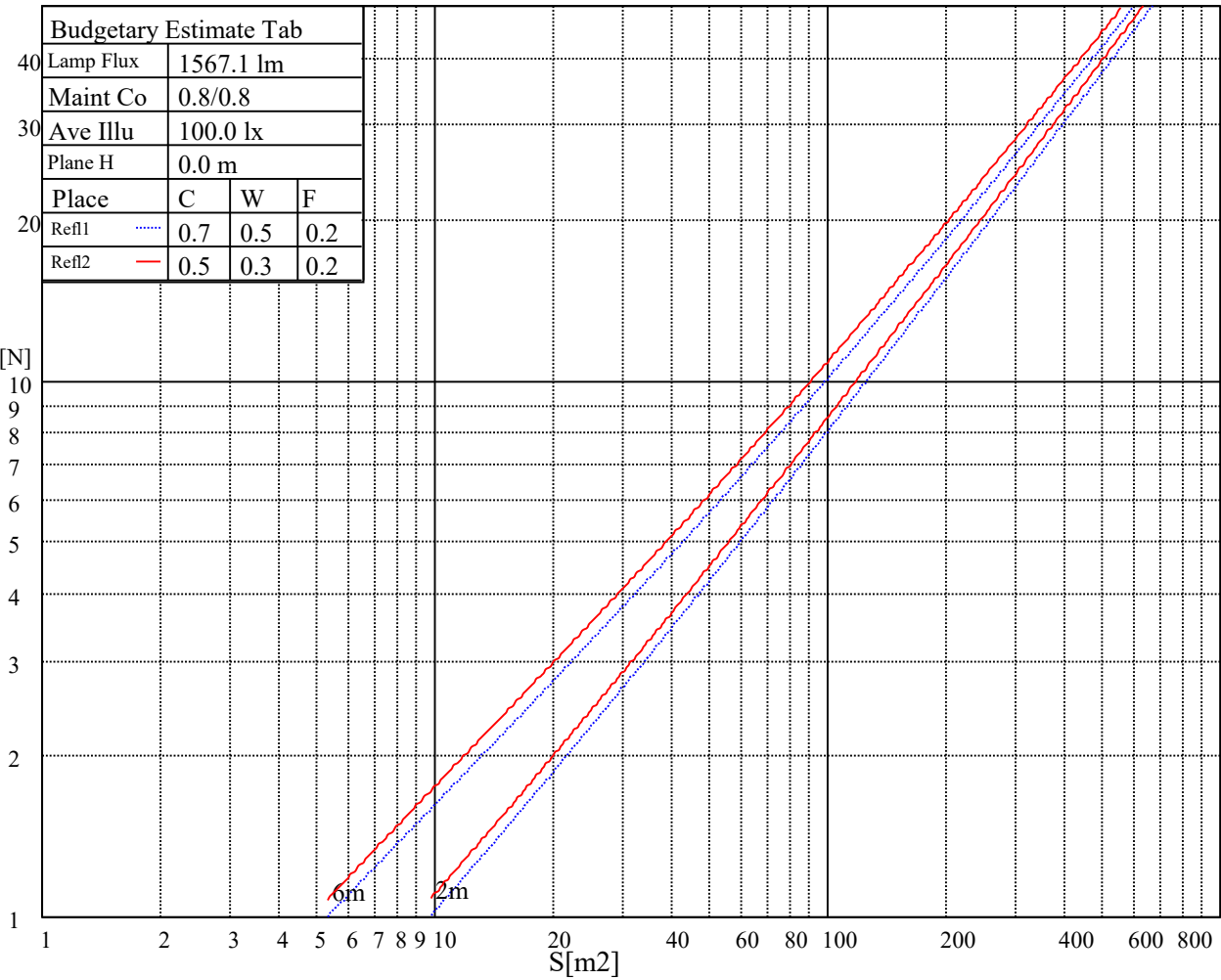
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
313	313	313	54	54	54	32	32	32

Glare Table

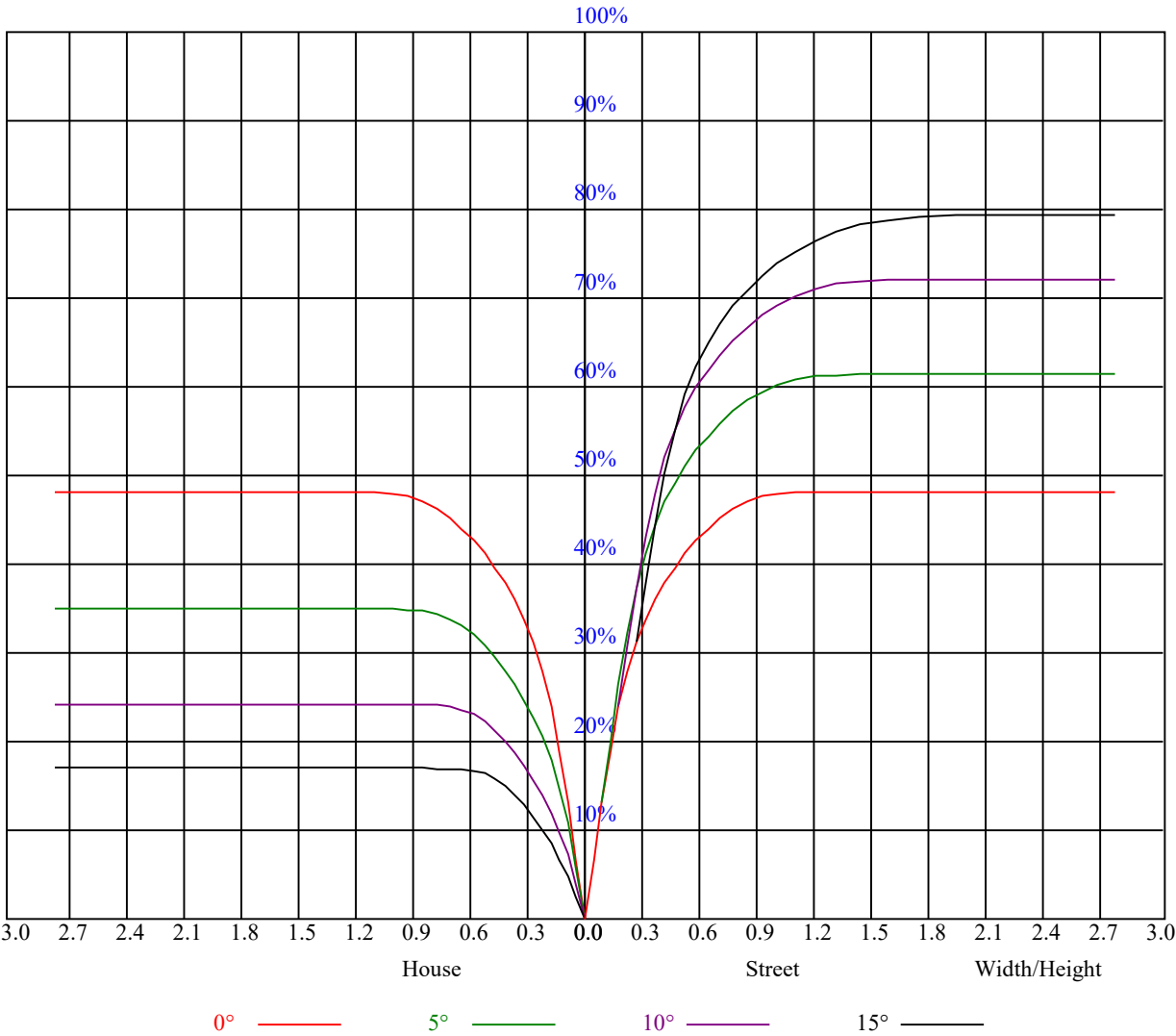
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

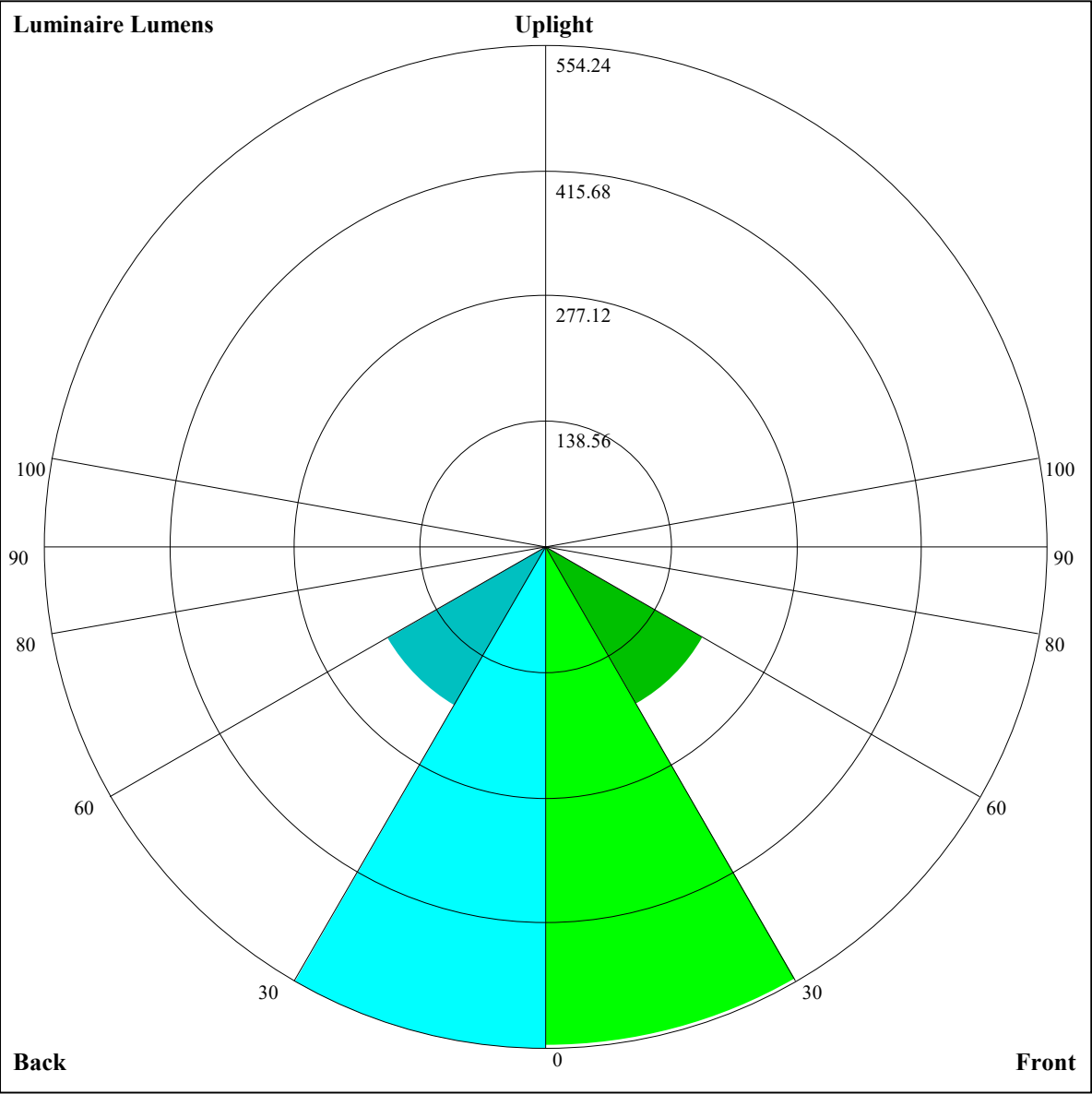
Luminance Limiting Curve





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	1.12	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	1.08	1.06	1.04	1.06	1.04	1.02	1.02	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.91
2	1.01	0.98	0.95	1.00	0.96	0.94	0.96	0.94	0.92	0.94	0.92	0.90	0.91	0.89	0.88	0.86
3	0.95	0.91	0.88	0.94	0.90	0.87	0.92	0.88	0.86	0.89	0.87	0.84	0.87	0.85	0.83	0.82
4	0.90	0.85	0.82	0.89	0.85	0.81	0.87	0.83	0.80	0.85	0.82	0.79	0.83	0.81	0.78	0.77
5	0.85	0.80	0.77	0.84	0.80	0.76	0.83	0.79	0.76	0.81	0.78	0.75	0.80	0.77	0.74	0.73
6	0.81	0.76	0.72	0.80	0.76	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.71	0.69
7	0.77	0.72	0.69	0.77	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
8	0.74	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
9	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.60
10	0.68	0.63	0.60	0.67	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.58





Luminaire Lumens:

FL=552.18,FM=201.54,FH=0.21,FVH=0.01

BL=554.24,BM=201.75,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	5001.69	4980.88	4921.82	4831.26	4704.13	4492.07	4262.57	3985.26	3597.69
45.0	4989.88	4998.88	4974.13	4915.63	4868.94	4736.76	4578.69	4374.51	4119.69
90.0	5005.07	4974.13	4895.38	4794.69	4650.13	4412.76	4268.19	3991.44	3673.07
135.0	4990.44	4991.01	4976.38	4910.01	4816.07	4679.38	4497.69	4363.82	4040.38
180.0	5001.69	5009.01	4984.82	4931.38	4842.51	4767.69	4561.82	4334.57	4059.51
225.0	4989.88	4940.38	4870.63	4755.32	4551.13	4419.51	4161.32	3852.51	3512.19
270.0	5005.07	4998.32	4961.19	4927.44	4821.13	4680.51	4488.69	4244.57	4075.26
315.0	4990.44	4960.63	4901.01	4781.76	4698.51	4441.44	4146.69	3971.76	3650.57
360.0	5001.69	4980.88	4921.82	4831.26	4704.13	4492.07	4262.57	3985.26	3597.69
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3385.63	3015.51	2645.38	2286.51	1886.01	1709.38	1279.63	1095.86	1095.86
45.0	3940.82	3545.38	3045.32	2823.13	2384.38	2040.69	1738.07	1481.57	1349.94
90.0	3326.57	2888.38	2671.26	2316.32	1983.32	1688.57	1306.63	1088.55	1088.55
135.0	3725.94	3384.51	2949.13	2583.51	2226.32	1899.51	1723.44	1423.07	1224.51
180.0	3740.01	3317.01	2943.51	2571.13	2352.32	1948.44	1652.57	1406.19	1209.88
225.0	3080.19	2859.69	2495.76	2141.94	1819.63	1496.19	1116.00	1116.00	977.46
270.0	3696.69	3203.94	2986.26	2626.82	2208.32	1886.57	1600.26	1450.07	1202.57
315.0	3306.32	2949.13	2517.69	2305.07	1969.26	1670.57	1283.01	1065.15	1065.15
360.0	3385.63	3015.51	2645.38	2286.51	1886.01	1709.38	1279.63	1095.86	1095.86
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	967.56	864.84	783.45	708.36	657.84	618.92	582.13	568.46	548.38
45.0	1136.76	998.38	890.38	804.32	762.13	691.26	629.38	608.01	573.13
90.0	941.29	881.27	767.25	695.48	666.68	625.84	592.76	567.17	544.33
135.0	1065.32	942.13	880.82	780.13	692.38	662.01	620.38	582.13	558.51
180.0	1112.57	957.32	856.07	774.51	708.69	675.51	609.13	578.19	564.13
225.0	910.29	785.48	705.09	683.21	628.48	594.00	567.39	543.71	533.81
270.0	1045.07	921.32	822.88	773.94	694.63	628.26	606.88	572.01	563.57
315.0	939.26	822.21	775.01	709.88	657.28	609.98	580.22	557.16	539.04
360.0	967.56	864.84	783.45	708.36	657.84	618.92	582.13	568.46	548.38
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	532.46	519.41	505.86	499.67	490.05	481.11	472.22	461.59	456.30
45.0	552.32	536.01	520.82	514.07	500.57	491.57	483.13	473.01	468.51
90.0	534.94	521.49	510.13	500.40	489.77	484.82	473.12	462.99	457.99
135.0	539.38	530.38	514.07	503.38	493.26	484.26	479.76	469.07	457.82
180.0	540.51	525.32	512.94	501.69	495.51	483.69	475.26	466.26	455.57
225.0	519.47	507.38	497.14	485.83	480.43	471.43	456.81	451.80	443.59
270.0	533.76	520.26	512.38	499.44	489.88	480.32	471.32	466.26	455.57
315.0	521.83	514.35	503.10	492.81	483.58	473.18	467.94	459.39	450.84
360.0	532.46	519.41	505.86	499.67	490.05	481.11	472.22	461.59	456.30
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	443.98	423.00	406.69	374.01	335.03	293.34	241.76	214.14	170.16
45.0	457.82	449.94	440.94	419.01	389.76	353.19	313.82	287.38	287.38
90.0	449.78	436.78	414.51	376.65	354.32	312.69	268.48	222.53	167.18
135.0	453.32	442.63	427.44	403.82	371.76	349.82	300.32	300.32	282.88
180.0	452.19	442.07	420.69	404.38	365.57	326.76	302.01	302.01	196.59
225.0	438.19	410.12	372.83	350.49	310.78	268.26	224.10	171.39	146.03
270.0	446.57	438.13	419.01	393.69	374.01	320.01	294.13	294.13	184.39
315.0	442.07	423.62	398.87	366.30	319.44	293.23	247.84	201.43	156.04
360.0	443.98	423.00	406.69	374.01	335.03	293.34	241.76	214.14	170.16

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	127.69	88.59	48.38	32.74	13.16	10.41	9.56	8.21	7.48
45.0	182.76	157.78	108.39	71.49	42.53	23.29	17.04	13.33	11.70
90.0	140.46	99.00	63.51	32.01	18.17	12.60	10.63	8.49	7.54
135.0	163.58	119.81	80.78	48.54	33.86	18.17	14.01	12.04	9.90
180.0	153.28	111.54	88.59	48.71	24.81	13.11	10.35	9.62	8.10
225.0	104.85	67.95	32.96	15.81	9.28	7.93	6.19	5.57	4.67
270.0	157.16	105.64	68.57	38.70	19.18	12.94	8.83	7.31	5.96
315.0	104.63	81.45	37.29	16.03	12.54	8.89	7.31	6.02	4.95
360.0	127.69	88.59	48.38	32.74	13.16	10.41	9.56	8.21	7.48
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	6.75	5.46	4.39	1.13	0.96	0.84	0.73	0.68	0.56
45.0	10.41	9.17	7.65	5.68	1.18	0.96	0.84	0.73	0.62
90.0	5.91	4.33	2.70	0.96	0.84	0.68	0.68	0.62	0.56
135.0	9.39	7.82	6.02	4.84	1.01	0.84	0.79	0.68	0.68
180.0	6.98	6.47	5.29	3.66	1.07	0.96	0.90	0.79	0.68
225.0	3.88	3.15	1.35	1.01	0.84	0.79	0.67	0.62	0.45
270.0	5.06	4.61	3.77	2.08	1.01	0.90	0.79	0.62	0.62
315.0	4.56	3.88	2.87	1.07	0.90	0.90	0.79	0.62	0.56
360.0	6.75	5.46	4.39	1.13	0.96	0.84	0.73	0.68	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	0.34	0.28	0.28	0.23	0.17	0.17	0.11	0.06
45.0	0.62	0.51	0.39	0.28	0.28	0.23	0.17	0.17	0.17
90.0	0.39	0.28	0.28	0.23	0.17	0.11	0.11	0.11	0.06
135.0	0.51	0.45	0.34	0.23	0.23	0.23	0.17	0.17	0.06
180.0	0.62	0.45	0.39	0.28	0.28	0.23	0.17	0.17	0.11
225.0	0.34	0.34	0.28	0.23	0.23	0.11	0.17	0.11	0.11
270.0	0.51	0.45	0.34	0.28	0.23	0.17	0.17	0.11	0.11
315.0	0.45	0.39	0.34	0.28	0.23	0.23	0.23	0.11	0.11
360.0	0.39	0.34	0.28	0.28	0.23	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	0.06	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00
45.0	0.11	0.11	0.06	0.06	0.06	0.06	0.06	0.06	0.06
90.0	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.06	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00
180.0	0.06	0.11	0.00	0.06	0.06	0.00	0.00	0.00	0.00
225.0	0.06	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00
270.0	0.06	0.11	0.06	0.00	0.06	0.00	0.00	0.00	0.00
315.0	0.11	0.11	0.06	0.00	0.06	0.00	0.00	0.00	0.00
360.0	0.06	0.06	0.06	0.06	0.00	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	0.06	0.00	0.00	0.00	0.06	0.00	0.06	0.11	0.11
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.06
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	0.06
270.0	0.00	0.00	0.00	0.00	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	0.06
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