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Nata

LumCAT: 2-2664-M	
Luminaire: 92.70.131.00	
Report No: 200917-B027	Voltage(V): 230.5000
Test No: 200917-C027	Current(A): 0.0870
LampCAT: TRIDONIC SLE G7 15MM	Power (W): 19.2700
Lamp flux(lm): 2008.5	PF: 0.9520
Number of Lamps: 1	Ballast type: AC
Length(feet)(ft.):0.000	Width(feet)(ft.):0.000
Phm Type: C	Height(feet)(ft.):0.000

Photometric Results

Lumens(lm): 1937.82
Efficiency(%): 96.48%
Lumens(lm)/Power(W): 100.56
Central intensity(cd): 4230.013
Maximum intensity(cd): 4230.013
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=69.0
[C90/270]Total=69.0
Maximum s/h(1/2): C0_180=0.62 C90_270=0.62
Maximum s/h(1/4): C0_180=0.59 C90_270=0.59
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 96.53%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.739%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4230.013	1.012	1.012	.050%	.052%
1.0	4226.475	8.089	9.101	.403%	.470%
2.0	4215.396	16.133	25.234	.803%	1.302%
3.0	4194.804	24.075	49.308	1.199%	2.545%
4.0	4164.874	31.859	81.168	1.586%	4.189%
5.0	4126.707	39.441	120.609	1.964%	6.224%
6.0	4081.580	46.786	167.395	2.329%	8.638%
7.0	4010.583	53.599	220.994	2.669%	11.404%
8.0	3939.760	60.128	281.122	2.994%	14.507%
9.0	3842.835	65.923	347.045	3.282%	17.909%
10.0	3718.822	70.815	417.86	3.526%	21.563%
11.0	3584.078	74.994	492.854	3.734%	25.433%
12.0	3421.841	78.017	570.871	3.884%	29.459%
13.0	3240.113	79.928	650.8	3.979%	33.584%
14.0	3059.372	81.163	731.963	4.041%	37.772%
15.0	2842.495	80.677	812.639	4.017%	41.936%
16.0	2638.262	79.746	892.385	3.970%	46.051%
17.0	2453.635	78.668	971.053	3.917%	50.111%
18.0	2243.312	76.019	1047.072	3.785%	54.033%
19.0	2034.961	72.652	1119.725	3.617%	57.783%
20.0	1830.090	68.640	1188.364	3.417%	61.325%
21.0	1636.878	64.328	1252.692	3.203%	64.644%
22.0	1462.227	60.068	1312.76	2.991%	67.744%
23.0	1310.082	56.134	1368.894	2.795%	70.641%
24.0	1168.691	52.127	1421.021	2.595%	73.331%
25.0	1064.539	49.336	1470.357	2.456%	75.877%
26.0	990.236	47.603	1517.96	2.370%	78.333%
27.0	919.343	45.769	1563.729	2.279%	80.695%
28.0	859.187	44.233	1607.963	2.202%	82.978%
29.0	820.214	43.606	1651.569	2.171%	85.228%
30.0	754.014	41.343	1692.912	2.058%	87.362%
31.0	689.751	38.957	1731.869	1.940%	89.372%
32.0	620.813	36.076	1767.945	1.796%	91.234%
33.0	528.464	31.563	1799.508	1.571%	92.862%
34.0	459.904	28.202	1827.71	1.404%	94.318%
35.0	385.583	24.253	1851.963	1.207%	95.569%
36.0	308.623	19.893	1871.856	.990%	96.596%
37.0	243.652	16.080	1887.935	.801%	97.426%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	194.610	13.139	1901.074	.654%	98.104%
39.0	129.999	8.971	1910.046	.447%	98.567%
40.0	70.527	4.971	1915.017	.248%	98.823%
41.0	38.567	2.775	1917.792	.138%	98.966%
42.0	27.123	1.990	1919.782	.099%	99.069%
43.0	22.587	1.689	1921.471	.084%	99.156%
44.0	19.147	1.459	1922.93	.073%	99.232%
45.0	15.957	1.237	1924.167	.062%	99.295%
46.0	13.817	1.090	1925.257	.054%	99.352%
47.0	12.152	0.975	1926.232	.049%	99.402%
48.0	10.731	0.874	1927.106	.044%	99.447%
49.0	9.692	0.802	1927.908	.040%	99.488%
50.0	8.793	0.739	1928.647	.037%	99.527%
51.0	7.947	0.677	1929.324	.034%	99.562%
52.0	7.222	0.624	1929.948	.031%	99.594%
53.0	6.705	0.587	1930.536	.029%	99.624%
54.0	6.067	0.538	1931.074	.027%	99.652%
55.0	5.626	0.505	1931.579	.025%	99.678%
56.0	5.249	0.477	1932.056	.024%	99.703%
57.0	4.867	0.448	1932.504	.022%	99.726%
58.0	4.530	0.421	1932.925	.021%	99.747%
59.0	4.263	0.401	1933.326	.020%	99.768%
60.0	3.996	0.380	1933.706	.019%	99.788%
61.0	3.706	0.355	1934.061	.018%	99.806%
62.0	3.399	0.329	1934.39	.016%	99.823%
63.0	3.121	0.305	1934.695	.015%	99.839%
64.0	2.877	0.284	1934.979	.014%	99.853%
65.0	2.686	0.267	1935.246	.013%	99.867%
66.0	2.448	0.245	1935.491	.012%	99.880%
67.0	2.210	0.223	1935.714	.011%	99.891%
68.0	2.036	0.207	1935.921	.010%	99.902%
69.0	1.874	0.192	1936.113	.010%	99.912%
70.0	1.746	0.180	1936.293	.009%	99.921%
71.0	1.589	0.165	1936.457	.008%	99.930%
72.0	1.415	0.148	1936.605	.007%	99.937%
73.0	1.253	0.131	1936.736	.007%	99.944%
74.0	1.073	0.113	1936.85	.006%	99.950%
75.0	0.893	0.095	1936.944	.005%	99.955%

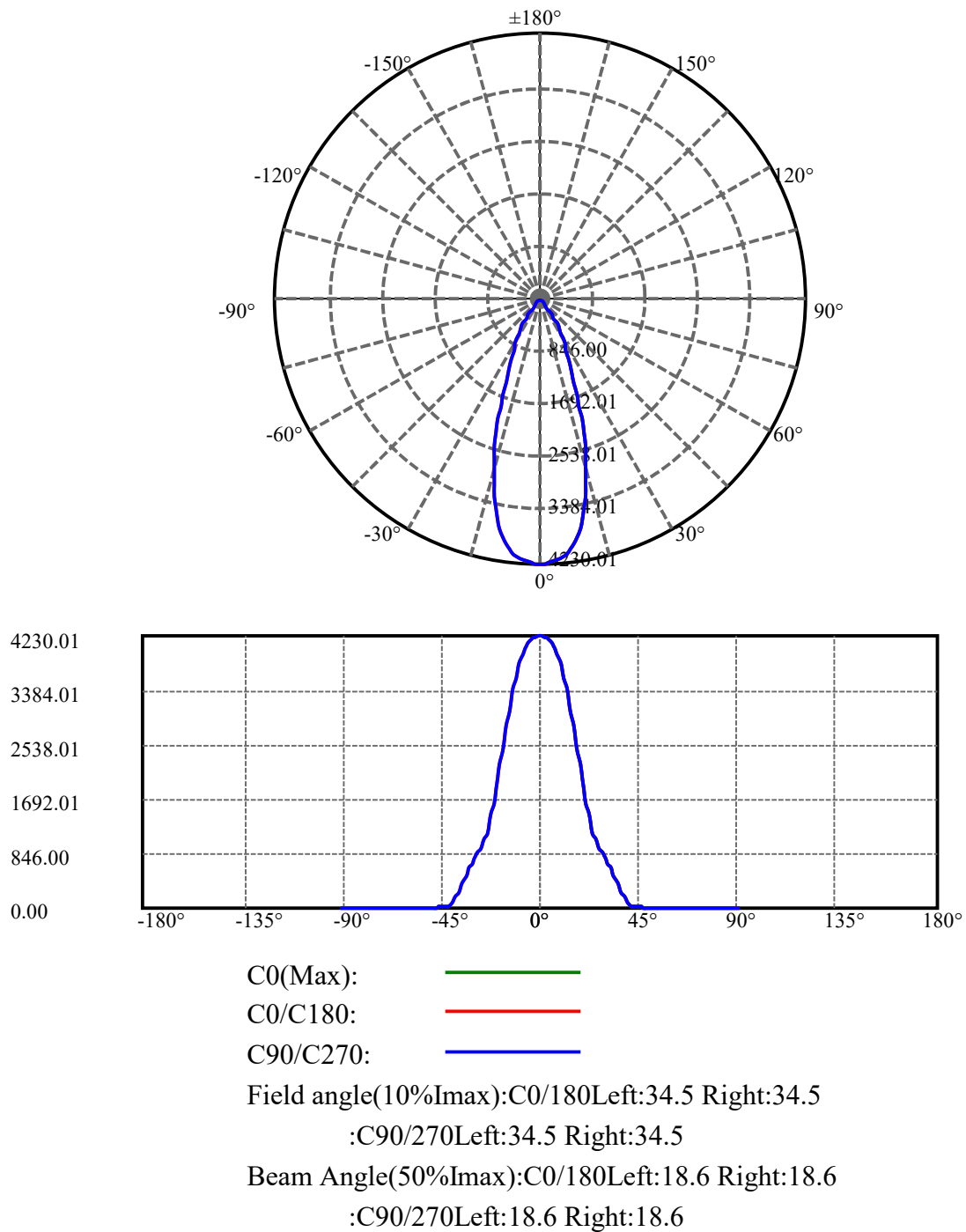
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	0.783	0.083	1937.027	.004%	99.959%
77.0	0.748	0.080	1937.107	.004%	99.963%
78.0	0.679	0.073	1937.18	.004%	99.967%
79.0	0.661	0.071	1937.251	.004%	99.971%
80.0	0.626	0.068	1937.319	.003%	99.974%
81.0	0.586	0.063	1937.383	.003%	99.977%
82.0	0.568	0.062	1937.444	.003%	99.981%
83.0	0.528	0.057	1937.502	.003%	99.984%
84.0	0.510	0.056	1937.557	.003%	99.986%
85.0	0.470	0.051	1937.609	.003%	99.989%
86.0	0.458	0.050	1937.659	.002%	99.992%
87.0	0.429	0.047	1937.706	.002%	99.994%
88.0	0.423	0.046	1937.752	.002%	99.996%
89.0	0.418	0.046	1937.798	.002%	99.999%
90.0	0.423	0.023	1937.821	.001%	100.000%

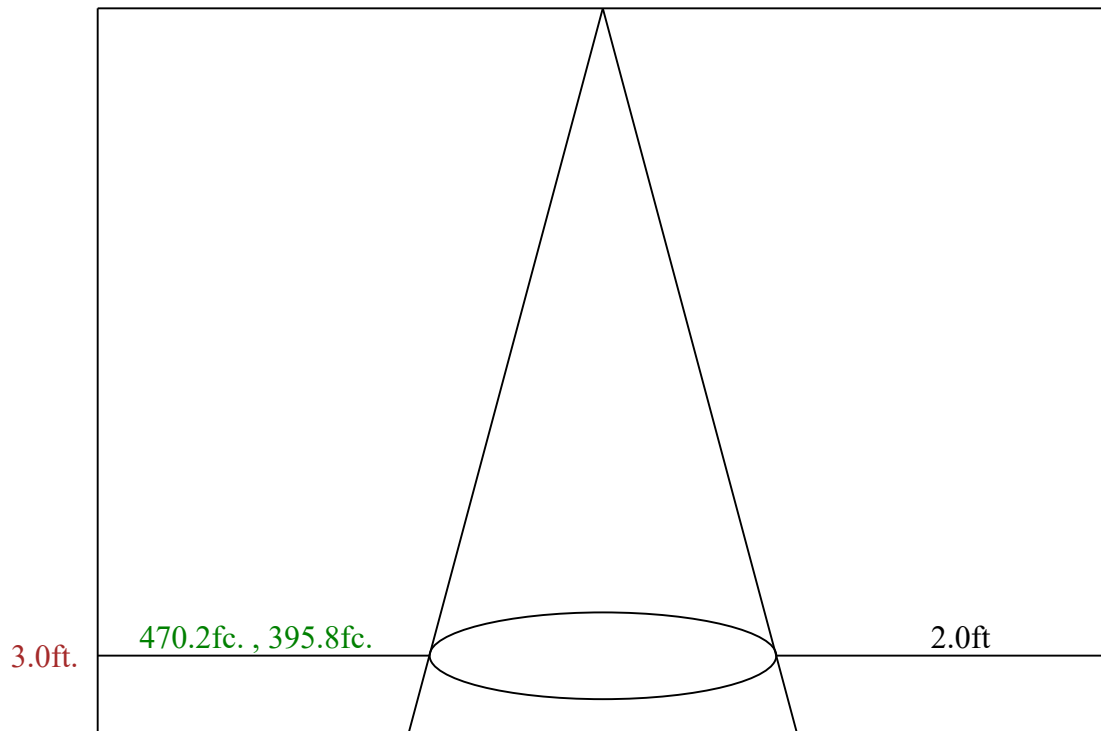
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1692.91	84.29%	87.36%
0-40	1915.02	95.34%	98.82%
0-60	1933.71	96.27%	99.79%
0-90	1937.80	96.48%	100.00%
0-120	1937.80	96.48%	100.00%
0-180	1937.82	96.48%	100.00%
60-90	4.47	0.22%	0.23%
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%
0-26.71	1550.26	77.18%	80.00%

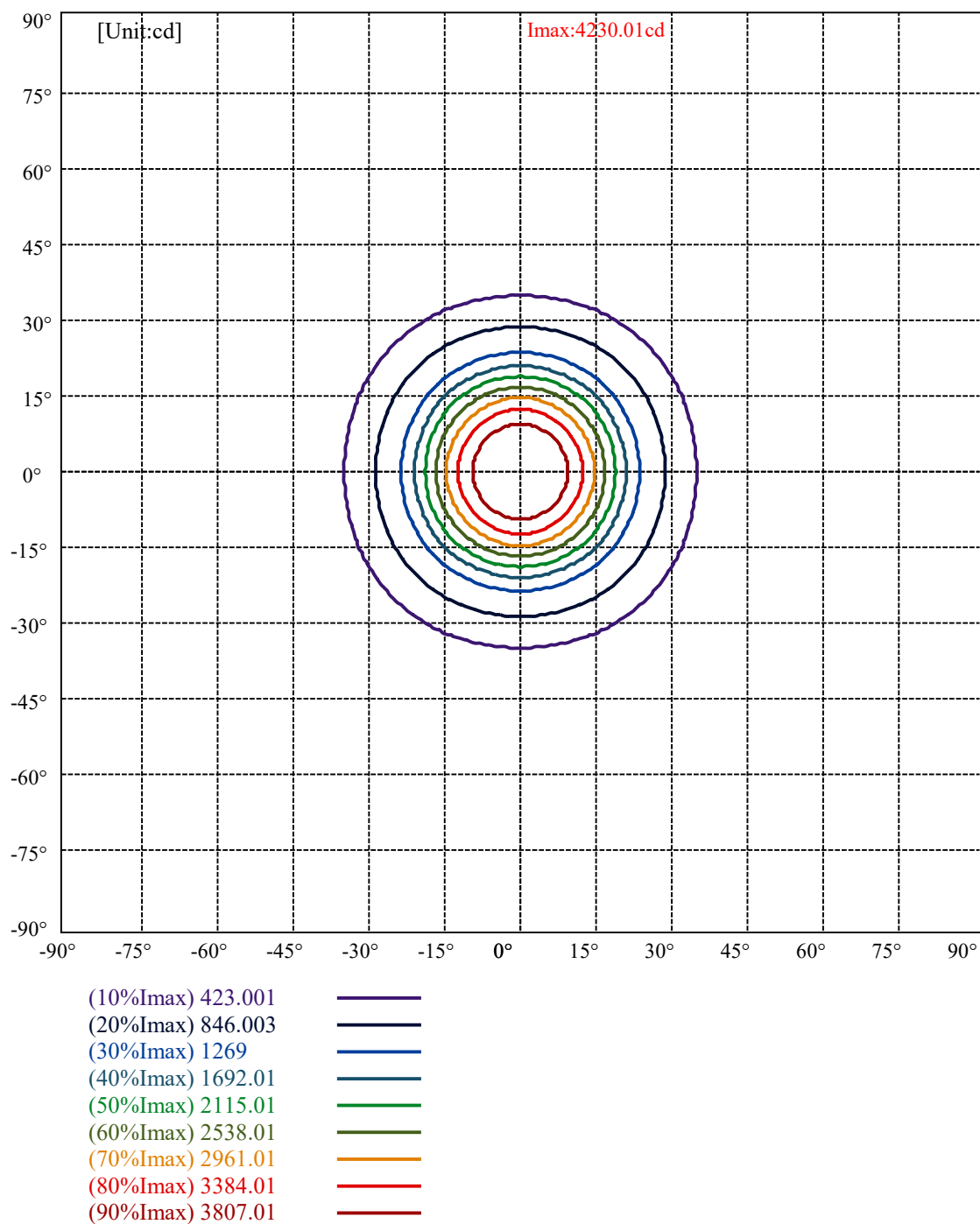
ZONAL LUMEN SUMMARY

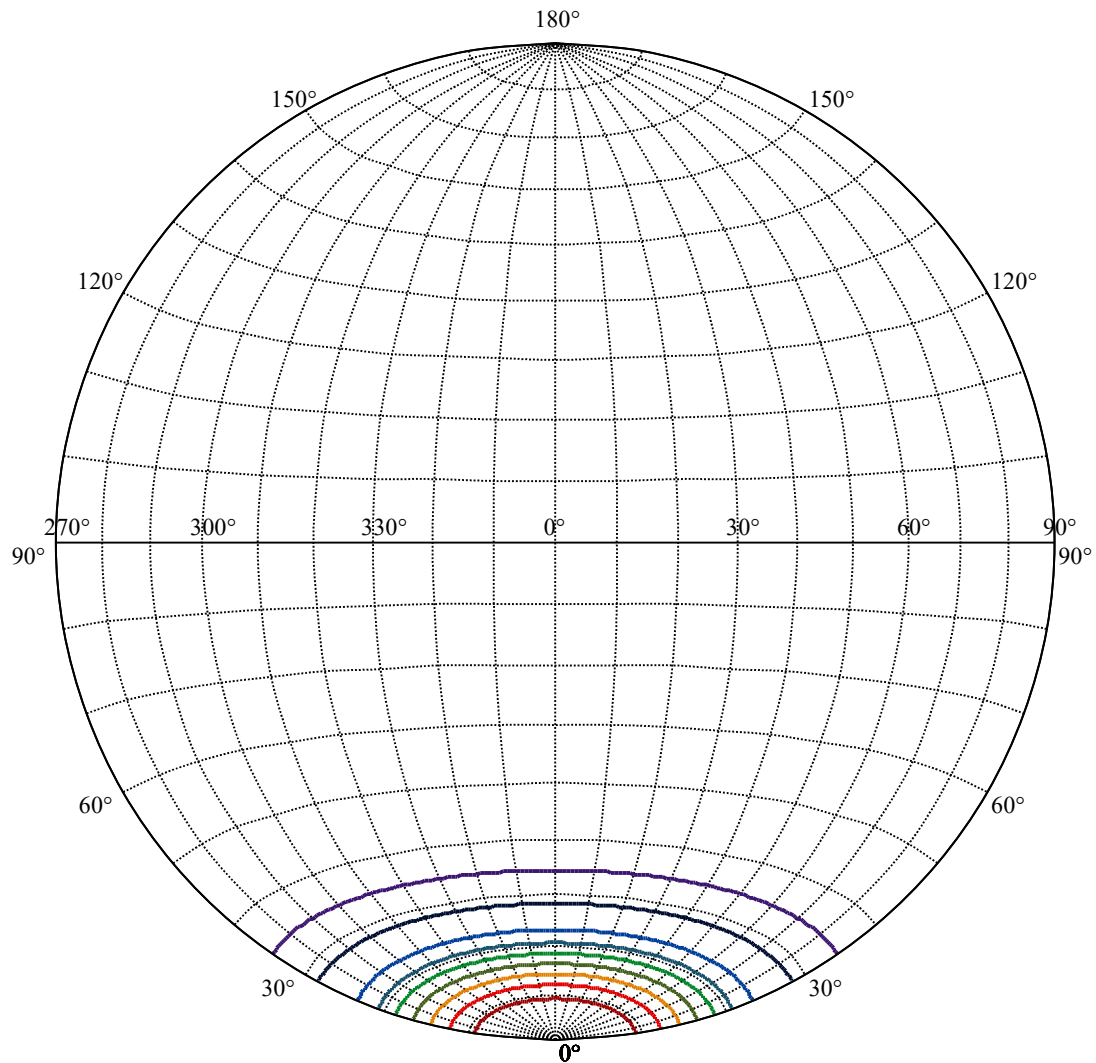
0-10	417.86
10-20	770.50
20-30	504.55
30-40	222.11
40-50	13.63
50-60	5.06
60-70	2.59
70-80	1.03
80-90	0.48
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00





Max , Ave Beam angle of C0 plane 37.25





House

[Unit:cd]

Road

Imax:4230.01

(10%Imax) 423.001

(20%Imax) 846.003

(30%Imax) 1269

(40%Imax) 1692.01

(50%Imax) 2115.01

(60%Imax) 2538.01

(70%Imax) 2961.01

(80%Imax) 3384.01

(90%Imax) 3807.01

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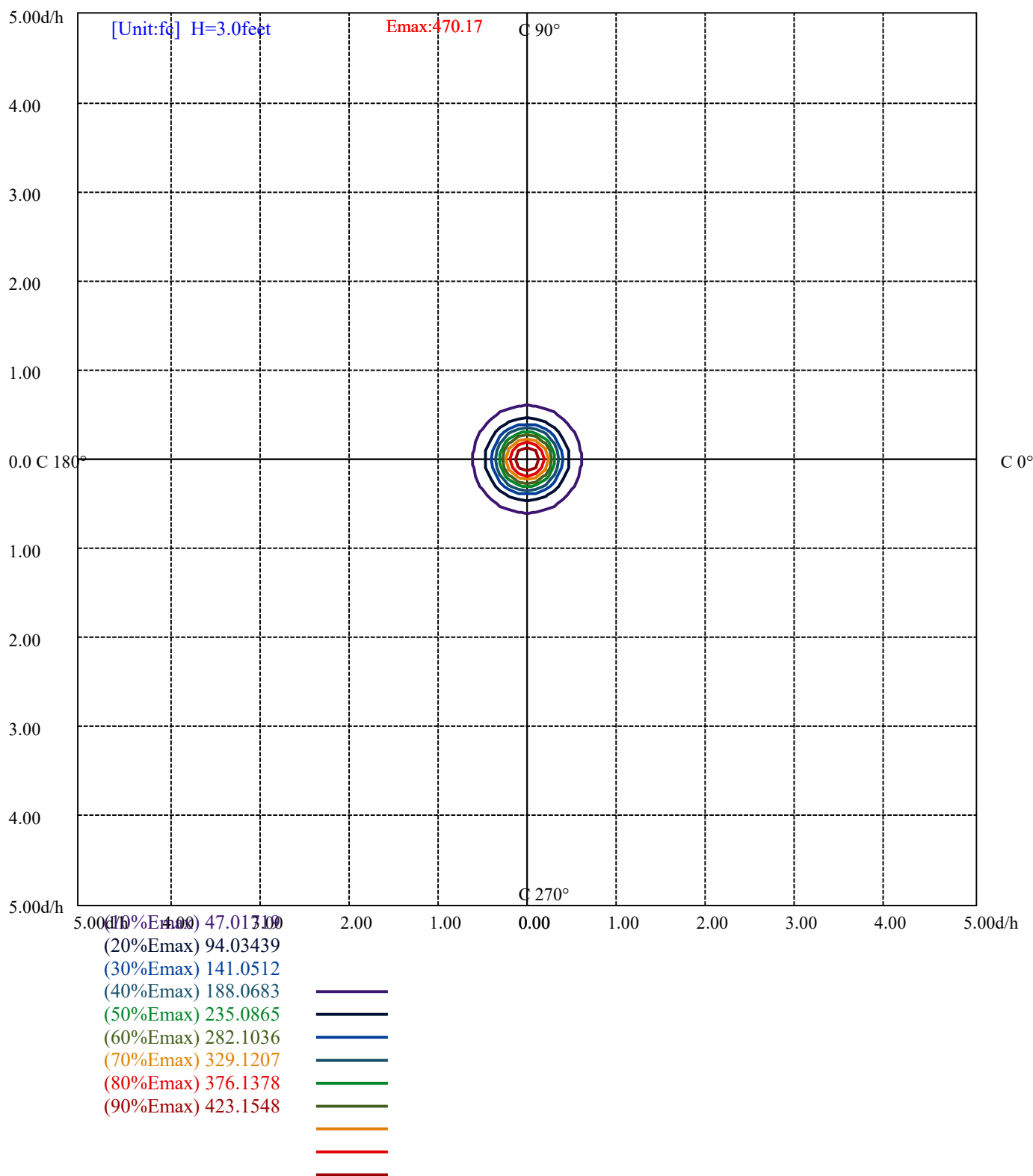
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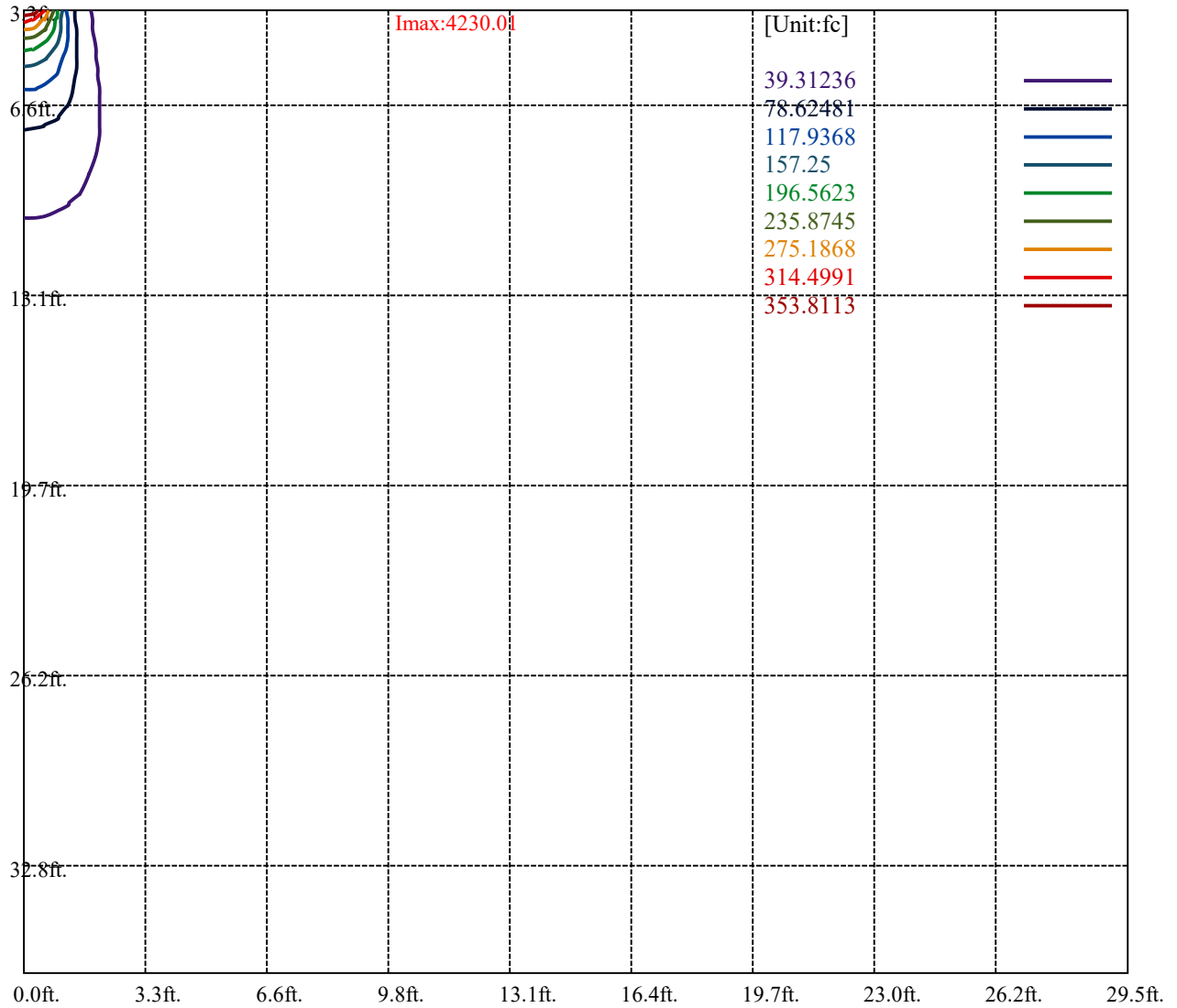
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Luminance Table

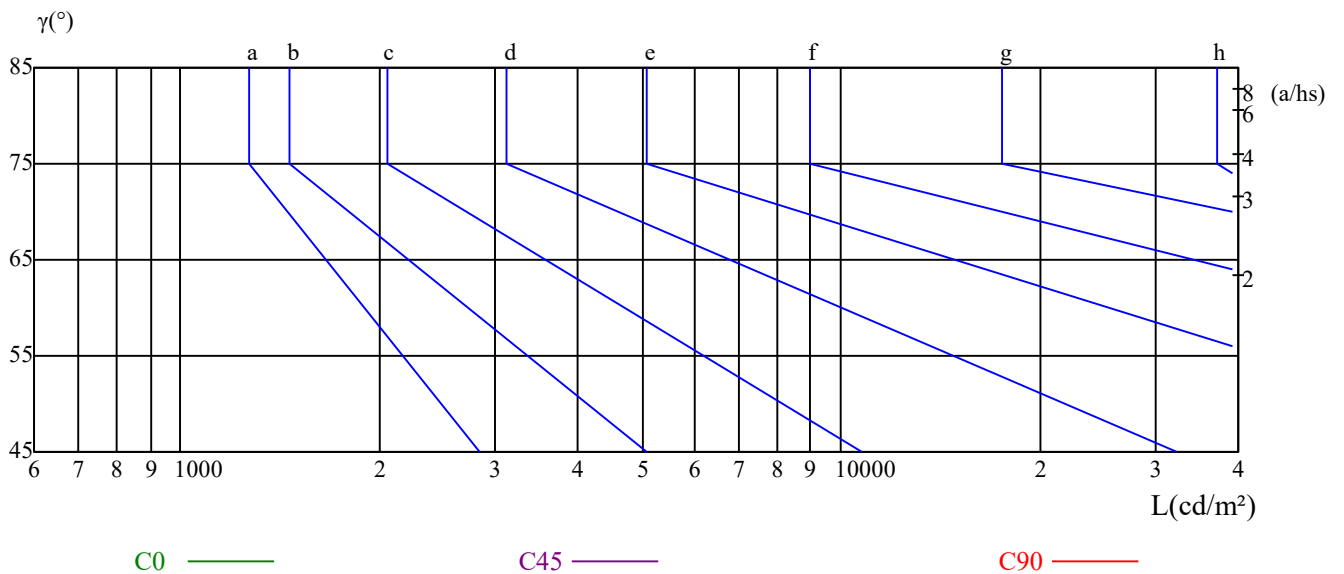
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

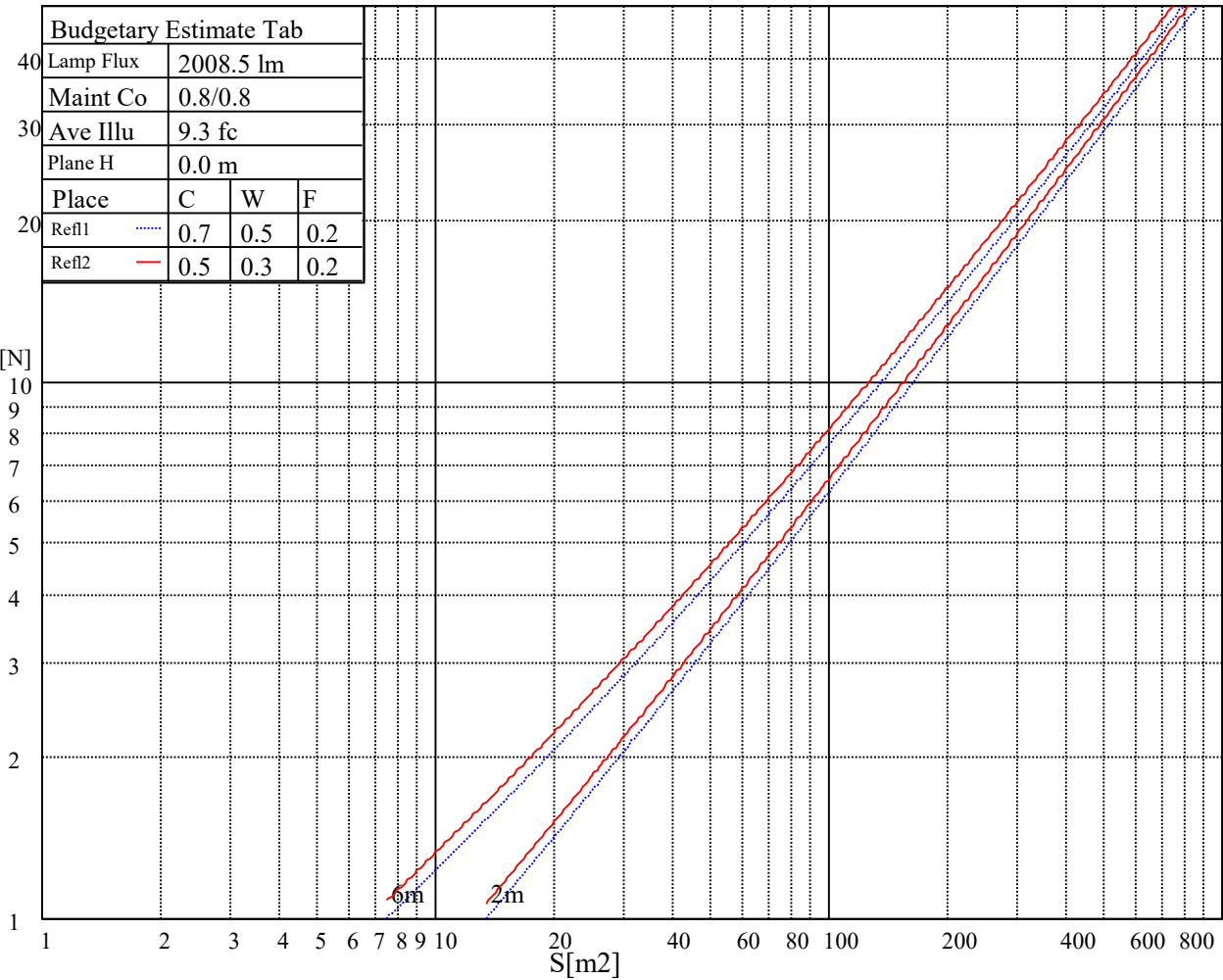
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

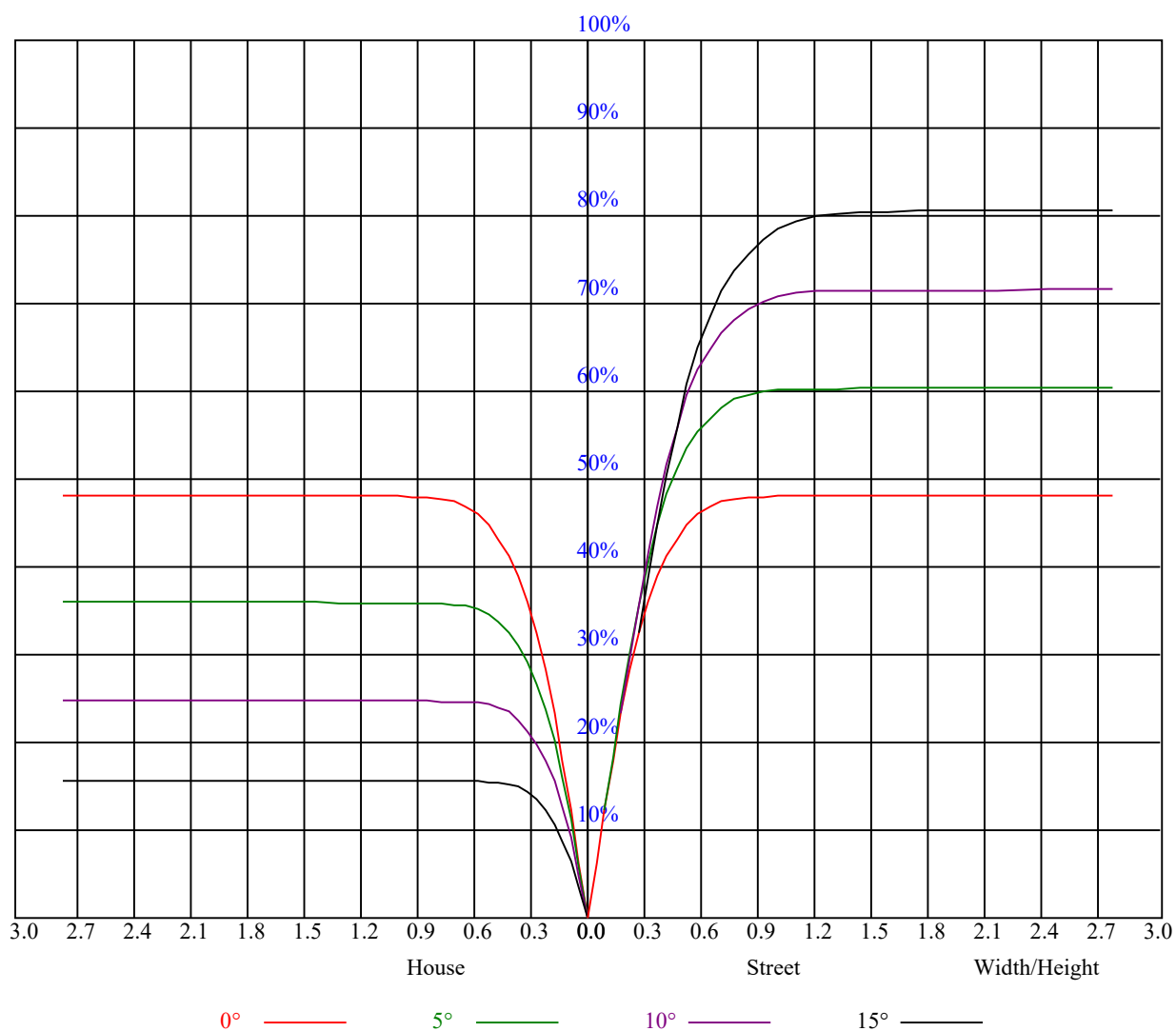
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	0.97
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	0.99	0.96	1.00	0.97	0.95	0.97	0.95	0.93	0.95	0.93	0.91	0.92	0.90	0.89	0.87
3	0.97	0.93	0.89	0.95	0.92	0.89	0.93	0.90	0.87	0.91	0.88	0.86	0.89	0.86	0.85	0.83
4	0.92	0.87	0.84	0.91	0.87	0.83	0.89	0.85	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.79
5	0.87	0.83	0.79	0.87	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.78	0.82	0.79	0.77	0.76
6	0.83	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.72
7	0.80	0.75	0.72	0.79	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.69
8	0.76	0.72	0.68	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
9	0.73	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.68	0.65	0.71	0.67	0.65	0.64
10	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.61



Intensity data(cd)

Appendix Page: 16 Total:18

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	4235.93	4228.97	4215.51	4194.63	4164.93	4127.81	4080.01	4019.69	3942.66
45.0	4229.90	4232.22	4227.11	4213.66	4189.06	4156.12	4130.13	4052.17	4009.94
90.0	4228.50	4222.01	4205.30	4180.25	4144.51	4098.11	4038.25	3960.76	3866.09
135.0	4225.72	4225.72	4221.08	4200.66	4176.07	4155.65	4114.35	4061.92	3993.70
180.0	4235.93	4235.00	4227.58	4210.87	4183.96	4146.37	4117.14	4033.15	3989.06
225.0	4229.90	4219.22	4200.20	4168.64	4126.42	4069.81	3998.81	3912.96	3808.09
270.0	4228.50	4228.50	4219.69	4203.45	4176.53	4139.87	4099.97	4027.58	3966.33
315.0	4225.72	4220.15	4206.70	4186.28	4157.51	4119.92	4073.98	4016.44	3942.20
360.0	4235.93	4228.97	4215.51	4194.63	4164.93	4127.81	4080.01	4019.69	3942.66
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3846.14	3725.96	3577.93	3403.92	3208.56	3083.73	2777.47	2643.37	2419.70
45.0	3927.81	3826.19	3704.61	3562.62	3401.13	3222.94	3030.83	2828.98	2625.27
90.0	3751.01	3614.59	3454.03	3276.31	3080.49	2878.63	2671.67	2463.79	2338.96
135.0	3909.25	3802.52	3669.34	3509.72	3325.03	3120.86	2899.98	2670.74	2442.90
180.0	3898.58	3740.34	3658.67	3505.08	3330.14	3138.49	2938.49	2732.46	2523.65
225.0	3684.66	3540.81	3379.79	3204.85	3019.23	2865.17	2670.28	2440.12	2287.92
270.0	3876.77	3769.58	3641.50	3493.94	3328.74	3147.31	2955.66	2757.52	2559.38
315.0	3848.46	3730.60	3586.75	3418.30	3227.58	3017.84	2795.57	2569.12	2431.30
360.0	3846.14	3725.96	3577.93	3403.92	3208.56	3083.73	2777.47	2643.37	2419.70
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2198.82	1980.73	1770.98	1575.63	1399.29	1248.02	1125.51	914.56	914.56
45.0	2422.02	2222.02	2023.42	1830.38	1651.73	1491.64	1353.82	1240.13	1144.07
90.0	2132.93	1931.54	1737.11	1557.53	1396.97	1264.26	1153.82	1061.48	919.48
135.0	2218.78	1996.97	1775.16	1563.10	1373.31	1210.43	1080.50	976.56	908.35
180.0	2313.90	2104.16	1895.34	1693.95	1509.73	1343.61	1205.33	1093.03	998.83
225.0	2100.91	1913.44	1734.32	1572.38	1430.38	1310.20	1208.11	1119.48	1043.84
270.0	2357.99	2159.38	1965.41	1775.62	1600.68	1441.52	1306.95	1195.58	1136.19
315.0	2201.14	1971.45	1738.97	1526.44	1335.72	1170.99	915.49	915.49	856.56
360.0	2198.82	1980.73	1770.98	1575.63	1399.29	1248.02	1125.51	914.56	914.56
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	860.46	804.59	755.49	690.39	646.07	570.71	461.53	415.12	340.09
45.0	1094.42	992.80	954.75	899.06	841.06	764.03	680.04	596.51	512.99
90.0	919.48	861.48	819.20	734.70	655.17	590.34	492.53	426.17	345.80
135.0	840.13	775.17	741.29	694.89	636.42	569.60	497.68	426.68	353.83
180.0	935.26	854.52	799.76	752.89	666.12	606.26	530.62	456.84	380.74
225.0	891.97	891.97	877.35	761.01	708.72	622.69	502.73	451.92	367.42
270.0	1016.00	943.61	905.10	847.56	775.63	695.35	614.15	531.55	451.27
315.0	797.02	749.37	708.76	651.60	588.81	547.51	448.44	374.43	332.53
360.0	860.46	804.59	755.49	690.39	646.07	570.71	461.53	415.12	340.09
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	266.87	200.00	139.81	87.98	45.66	22.92	17.87	14.29	11.42
45.0	427.14	345.94	271.69	243.85	169.88	81.44	53.83	45.24	41.07
90.0	269.79	200.51	139.91	87.15	47.29	31.65	26.77	22.55	18.79
135.0	280.97	266.59	239.21	92.53	49.05	29.09	14.71	12.90	9.88
180.0	306.96	235.50	235.50	106.45	58.42	28.31	19.30	15.92	13.87
225.0	286.87	214.34	149.42	93.92	56.66	42.83	36.06	29.70	24.64
270.0	369.60	292.57	248.03	248.03	94.85	52.11	33.18	27.38	23.16
315.0	260.79	193.78	133.32	80.09	42.41	20.19	15.27	12.71	10.35
360.0	266.87	200.00	139.81	87.98	45.66	22.92	17.87	14.29	11.42

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	9.74	8.35	7.66	7.01	6.50	6.03	5.75	5.38	5.20
45.0	34.76	29.65	25.71	22.41	19.86	17.54	15.59	13.92	12.44
90.0	16.19	14.11	12.48	11.14	9.98	9.14	8.21	7.42	7.05
135.0	7.47	6.31	5.57	5.06	4.50	4.13	3.76	3.53	3.25
180.0	10.30	9.23	8.54	7.33	7.01	6.40	5.99	5.57	5.20
225.0	20.97	18.05	15.59	13.69	12.06	10.90	9.42	8.40	7.75
270.0	19.30	16.84	14.48	12.53	11.46	10.39	9.37	8.49	7.80
315.0	8.91	7.98	7.19	6.68	6.17	5.80	5.48	5.06	4.97
360.0	9.74	8.35	7.66	7.01	6.50	6.03	5.75	5.38	5.20
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.78	4.64	4.41	4.18	3.99	3.85	3.62	3.43	3.20
45.0	11.14	10.02	9.10	8.31	7.61	7.05	6.59	6.13	5.52
90.0	6.17	5.71	5.43	4.87	4.59	4.36	4.04	3.99	3.76
135.0	3.02	2.88	2.78	2.64	2.51	2.46	2.41	2.27	2.18
180.0	4.83	4.50	4.32	4.08	3.71	3.39	3.25	2.92	2.60
225.0	6.91	6.36	5.75	5.34	4.97	4.64	4.22	3.67	3.25
270.0	7.15	6.64	6.08	5.66	5.29	4.92	4.59	4.22	3.94
315.0	4.55	4.27	4.13	3.85	3.57	3.43	3.25	3.02	2.74
360.0	4.78	4.64	4.41	4.18	3.99	3.85	3.62	3.43	3.20
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	2.92	2.78	2.55	2.41	2.18	1.90	1.76	1.62	1.44
45.0	5.01	4.55	4.27	3.90	3.34	3.02	2.74	2.55	2.27
90.0	3.48	3.20	2.92	2.69	2.32	2.04	1.95	1.72	1.53
135.0	2.09	2.00	1.95	1.81	1.67	1.58	1.53	1.44	1.35
180.0	2.46	2.37	2.18	1.95	1.76	1.72	1.67	1.62	1.48
225.0	2.88	2.51	2.27	2.09	1.90	1.86	1.76	1.67	1.48
270.0	3.57	3.25	3.16	2.83	2.69	2.46	2.04	1.90	1.76
315.0	2.55	2.37	2.18	1.90	1.81	1.72	1.53	1.44	1.39
360.0	2.92	2.78	2.55	2.41	2.18	1.90	1.76	1.62	1.44
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	1.25	1.21	1.07	0.79	0.79	0.70	0.70	0.70	0.60
45.0	2.00	1.76	1.48	1.25	1.02	0.93	0.84	0.74	0.70
90.0	1.30	1.11	0.97	0.79	0.70	0.70	0.65	0.65	0.60
135.0	1.21	1.16	1.02	0.88	0.79	0.79	0.74	0.65	0.60
180.0	1.39	1.21	1.02	0.84	0.74	0.70	0.60	0.60	0.60
225.0	1.25	1.11	0.93	0.84	0.70	0.70	0.60	0.65	0.60
270.0	1.62	1.39	1.16	0.93	0.79	0.74	0.65	0.65	0.65
315.0	1.30	1.07	0.93	0.84	0.74	0.74	0.65	0.65	0.65
360.0	1.25	1.21	1.07	0.79	0.79	0.70	0.70	0.70	0.60
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	0.56	0.60	0.51	0.56	0.51	0.51	0.42	0.42	0.42
45.0	0.70	0.65	0.56	0.51	0.51	0.46	0.51	0.46	0.46
90.0	0.56	0.56	0.51	0.51	0.42	0.46	0.42	0.42	0.37
135.0	0.60	0.60	0.56	0.56	0.56	0.51	0.51	0.51	0.51
180.0	0.56	0.51	0.56	0.46	0.42	0.42	0.37	0.42	0.37
225.0	0.56	0.56	0.46	0.51	0.46	0.37	0.37	0.32	0.46
270.0	0.60	0.51	0.51	0.46	0.42	0.42	0.42	0.42	0.37
315.0	0.56	0.56	0.56	0.51	0.46	0.51	0.42	0.42	0.37
360.0	0.56	0.60	0.51	0.56	0.51	0.51	0.42	0.42	0.42

Intensity data(cd)

Appendix Page: 18 Total:18

C/ γ (°)	90.0
0.0	0.42
45.0	0.46
90.0	0.42
135.0	0.56
180.0	0.32
225.0	0.42
270.0	0.37
315.0	0.42
360.0	0.42