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Nata

LumCAT: 2-2322-M
Luminaire: 92.70.131.00
Report No: 210807-B002
Test No: 210807-C003
LampCAT: LUMINUS CXM-14-AC40 LES14
Lamp flux(lm): 2266.4
Number of Lamps: 1
Length(mm): 570
Phm Type: C

Voltage(V): 34.0400
Current(A): 0.5010
Power (W): 17.0540
PF: 0.0000
Ballast type: DC
Width(mm): 45
Height(mm): 20

Photometric Results

Lumens(lm): 2174.22
Efficiency(%): 95.93%
Lumens(lm)/Power(W): 127.49
Central intensity(cd): 2200.102
Maximum intensity(cd): 2927.295
Angle of maximum intensity: C=180.0 γ =18.0
Beam Angle(50%Imax): [C0/180]Total=68.0
 [C90/270]Total=41.4
Field angle(10%Imax): [C0/180]Total=80.0
 [C90/270]Total=64.9
Maximum s/h(1/2): C0_180=1.22 C90_270=0.58
Maximum s/h(1/4): C0_180=1.00 C90_270=0.64
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 95.93%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.243%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2205.330	0.000	0	.000%	.000%
1.0	2205.816	2.111	2.111	.093%	.097%
2.0	2207.795	6.335	8.445	.280%	.388%
3.0	2214.293	10.576	19.022	.467%	.875%
4.0	2224.339	14.858	33.879	.656%	1.558%
5.0	2237.261	19.194	53.073	.847%	2.441%
6.0	2251.751	23.591	76.664	1.041%	3.526%
7.0	2261.834	28.016	104.679	1.236%	4.815%
8.0	2271.432	32.444	137.123	1.431%	6.307%
9.0	2277.482	36.866	173.99	1.627%	8.002%
10.0	2281.328	41.256	215.245	1.820%	9.900%
11.0	2279.723	45.574	260.819	2.011%	11.996%
12.0	2271.469	49.751	310.571	2.195%	14.284%
13.0	2257.091	53.743	364.313	2.371%	16.756%
14.0	2233.900	57.484	421.797	2.536%	19.400%
15.0	2205.181	60.942	482.739	2.689%	22.203%
16.0	2172.690	64.148	546.887	2.830%	25.153%
17.0	2132.021	67.036	613.923	2.958%	28.236%
18.0	2083.961	69.512	683.435	3.067%	31.434%
19.0	2031.617	71.603	755.038	3.159%	34.727%
20.0	1975.345	73.339	828.377	3.236%	38.100%
21.0	1920.253	74.803	903.18	3.301%	41.540%
22.0	1865.896	76.084	979.264	3.357%	45.040%
23.0	1804.978	77.025	1056.289	3.399%	48.582%
24.0	1735.586	77.409	1133.699	3.415%	52.143%
25.0	1664.824	77.318	1211.016	3.411%	55.699%
26.0	1593.561	76.915	1287.931	3.394%	59.236%
27.0	1515.968	76.075	1364.006	3.357%	62.735%
28.0	1428.834	74.556	1438.563	3.290%	66.164%
29.0	1338.133	72.392	1510.954	3.194%	69.494%
30.0	1249.261	69.859	1580.813	3.082%	72.707%
31.0	1151.606	66.813	1647.626	2.948%	75.780%
32.0	1049.272	63.053	1710.679	2.782%	78.680%
33.0	954.571	59.034	1769.713	2.605%	81.395%
34.0	849.981	54.611	1824.324	2.410%	83.907%
35.0	753.484	49.798	1874.121	2.197%	86.197%
36.0	653.835	44.809	1918.931	1.977%	88.258%
37.0	570.483	39.930	1958.861	1.762%	90.095%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	485.126	35.235	1994.096	1.555%	91.715%
39.0	392.498	29.956	2024.052	1.322%	93.093%
40.0	309.401	24.480	2048.531	1.080%	94.219%
41.0	232.260	19.288	2067.82	.851%	95.106%
42.0	175.920	14.830	2082.649	.654%	95.788%
43.0	114.811	10.770	2093.419	.475%	96.284%
44.0	78.900	7.311	2100.73	.323%	96.620%
45.0	58.767	5.291	2106.021	.233%	96.863%
46.0	45.416	4.074	2110.095	.180%	97.051%
47.0	36.248	3.248	2113.343	.143%	97.200%
48.0	30.003	2.678	2116.021	.118%	97.323%
49.0	25.813	2.292	2118.314	.101%	97.429%
50.0	22.773	2.026	2120.339	.089%	97.522%
51.0	20.988	1.851	2122.191	.082%	97.607%
52.0	19.595	1.741	2123.932	.077%	97.687%
53.0	18.508	1.658	2125.59	.073%	97.763%
54.0	17.657	1.594	2127.184	.070%	97.837%
55.0	17.007	1.547	2128.731	.068%	97.908%
56.0	16.466	1.513	2130.244	.067%	97.977%
57.0	15.935	1.481	2131.725	.065%	98.045%
58.0	15.502	1.454	2133.179	.064%	98.112%
59.0	15.129	1.432	2134.611	.063%	98.178%
60.0	14.763	1.412	2136.023	.062%	98.243%
61.0	14.464	1.395	2137.418	.062%	98.307%
62.0	14.203	1.381	2138.799	.061%	98.371%
63.0	14.027	1.373	2140.172	.061%	98.434%
64.0	13.934	1.372	2141.544	.061%	98.497%
65.0	13.840	1.375	2142.919	.061%	98.560%
66.0	13.773	1.378	2144.296	.061%	98.624%
67.0	13.676	1.380	2145.677	.061%	98.687%
68.0	13.609	1.382	2147.059	.061%	98.751%
69.0	13.512	1.384	2148.442	.061%	98.814%
70.0	13.396	1.382	2149.824	.061%	98.878%
71.0	13.246	1.377	2151.201	.061%	98.941%
72.0	13.131	1.372	2152.573	.061%	99.004%
73.0	13.019	1.367	2153.94	.060%	99.067%
74.0	12.933	1.364	2155.305	.060%	99.130%
75.0	12.798	1.360	2156.664	.060%	99.192%

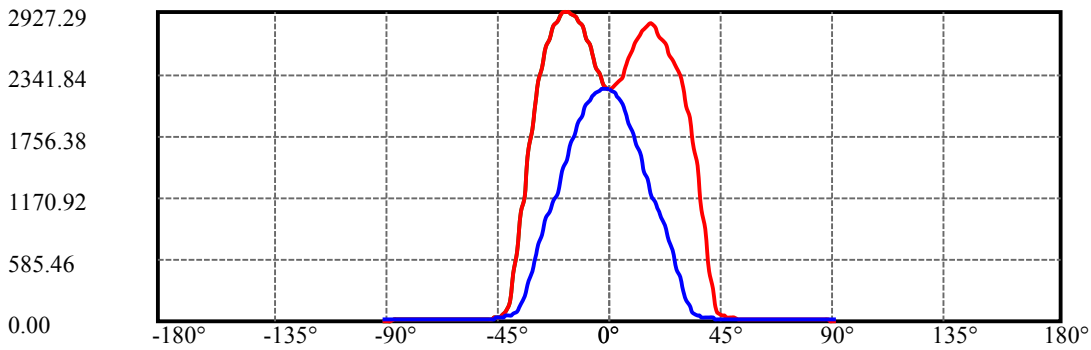
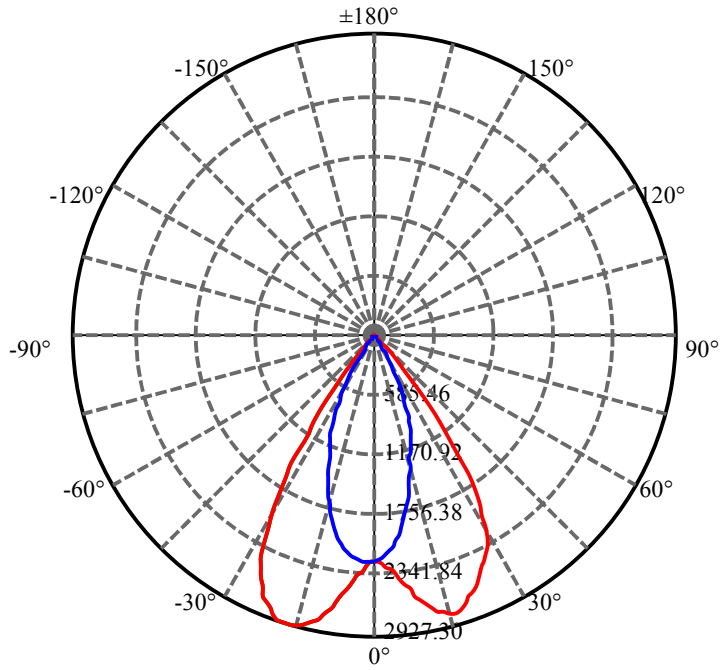
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	12.612	1.349	2158.013	.060%	99.255%
77.0	12.354	1.331	2159.344	.059%	99.316%
78.0	12.029	1.305	2160.649	.058%	99.376%
79.0	11.693	1.275	2161.924	.056%	99.434%
80.0	11.469	1.249	2163.172	.055%	99.492%
81.0	11.196	1.226	2164.398	.054%	99.548%
82.0	10.886	1.197	2165.596	.053%	99.603%
83.0	10.599	1.168	2166.764	.052%	99.657%
84.0	10.363	1.142	2167.906	.050%	99.710%
85.0	10.053	1.114	2169.02	.049%	99.761%
86.0	9.796	1.085	2170.105	.048%	99.811%
87.0	9.490	1.055	2171.16	.047%	99.859%
88.0	9.336	1.031	2172.192	.046%	99.907%
89.0	9.250	1.019	2173.21	.045%	99.953%
90.0	9.191	1.011	2174.221	.045%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1580.81	69.75%	72.71%
0-40	2048.53	90.39%	94.22%
0-60	2136.02	94.25%	98.24%
0-90	2173.21	95.89%	99.95%
0-120	2173.21	95.89%	99.95%
0-180	2174.22	95.93%	100.00%
60-90	38.60	1.70%	1.78%
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%
0-32.49	1739.38	76.75%	80.00%

ZONAL LUMEN SUMMARY

0-10	215.25
10-20	613.13
20-30	752.44
30-40	467.72
40-50	71.81
50-60	15.68
60-70	13.80
70-80	13.35
80-90	10.04
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



C180(Max): ———

C0/C180: ———

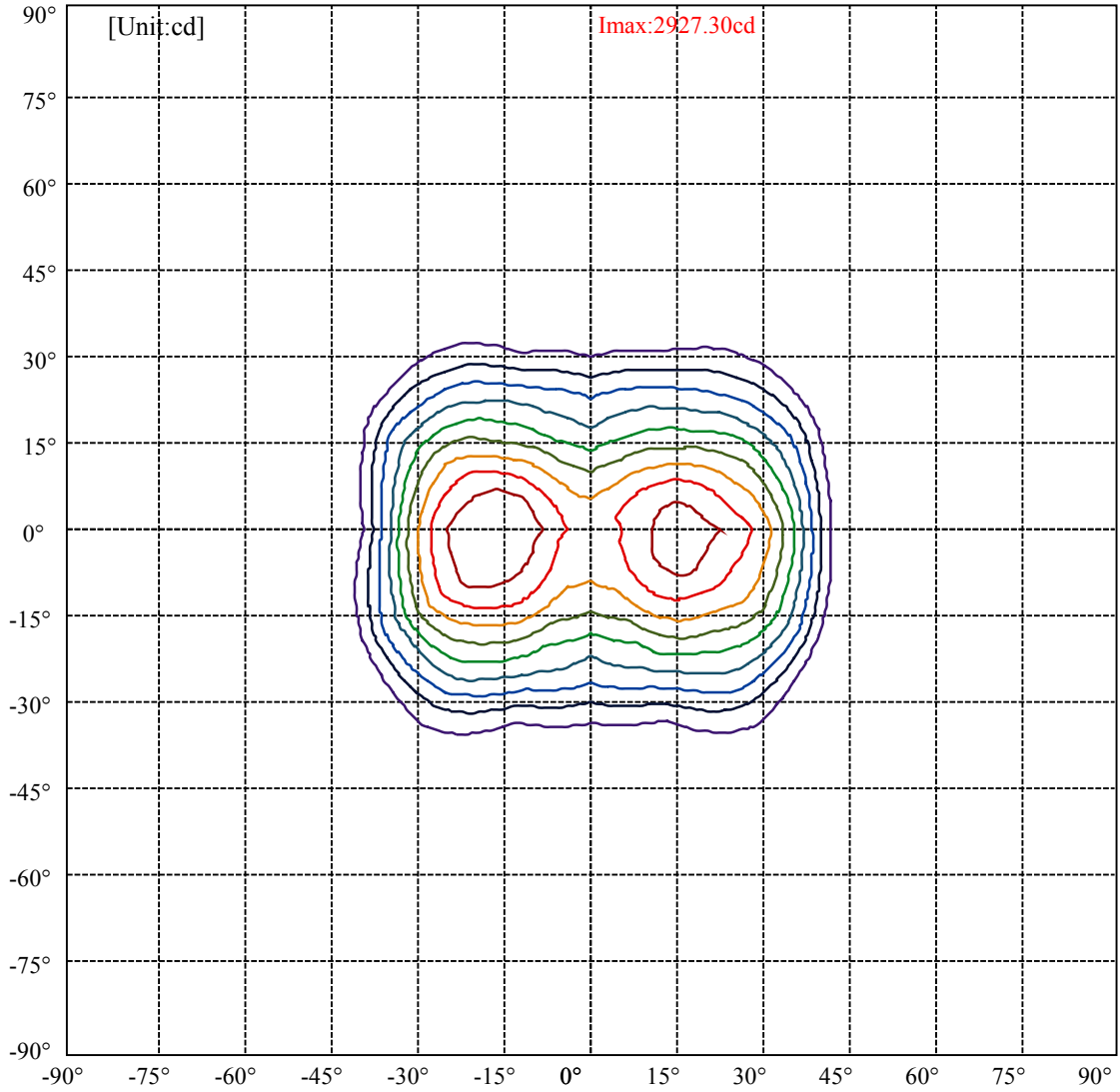
C90/C270: ———

Field angle(10%Imax):C0/180Left:20.9 Right:59.1

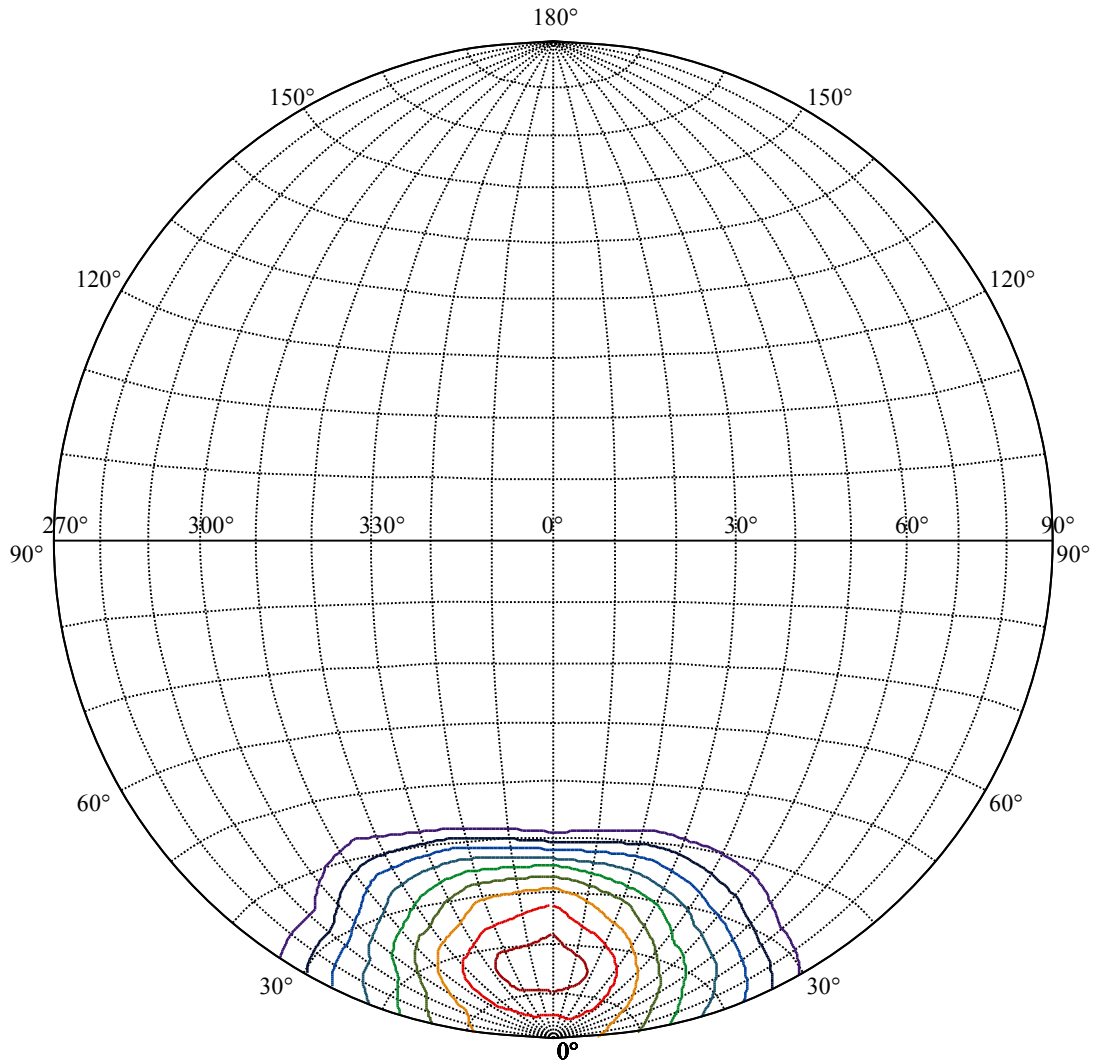
:C90/270Left:33.2 Right:31.7

Beam Angle(50%Imax):C0/180Left:15.0 Right:53.0

:C90/270Left:21.9 Right:19.5



(10%I _{max}) 292.729	—
(20%I _{max}) 585.459	—
(30%I _{max}) 878.188	—
(40%I _{max}) 1170.92	—
(50%I _{max}) 1463.65	—
(60%I _{max}) 1756.38	—
(70%I _{max}) 2049.11	—
(80%I _{max}) 2341.84	—
(90%I _{max}) 2634.57	—



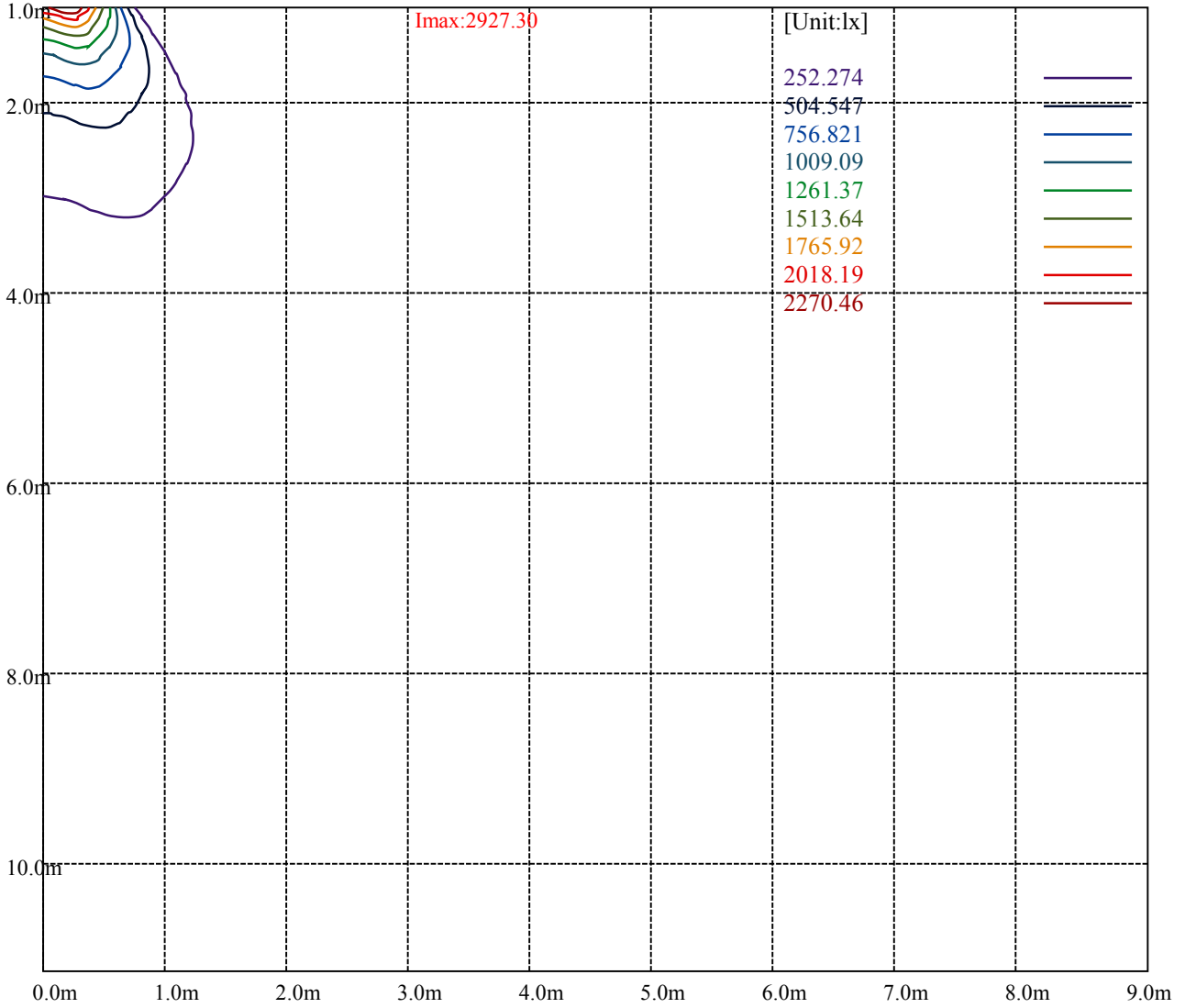
House

[Unit:cd]

Road

I_{max}:2927.30

(10%I _{max}) 292.729	—
(20%I _{max}) 585.459	—
(30%I _{max}) 878.188	—
(40%I _{max}) 1170.92	—
(50%I _{max}) 1463.65	—
(60%I _{max}) 1756.38	—
(70%I _{max}) 2049.11	—
(80%I _{max}) 2341.84	—
(90%I _{max}) 2634.57	—



Luminance Table

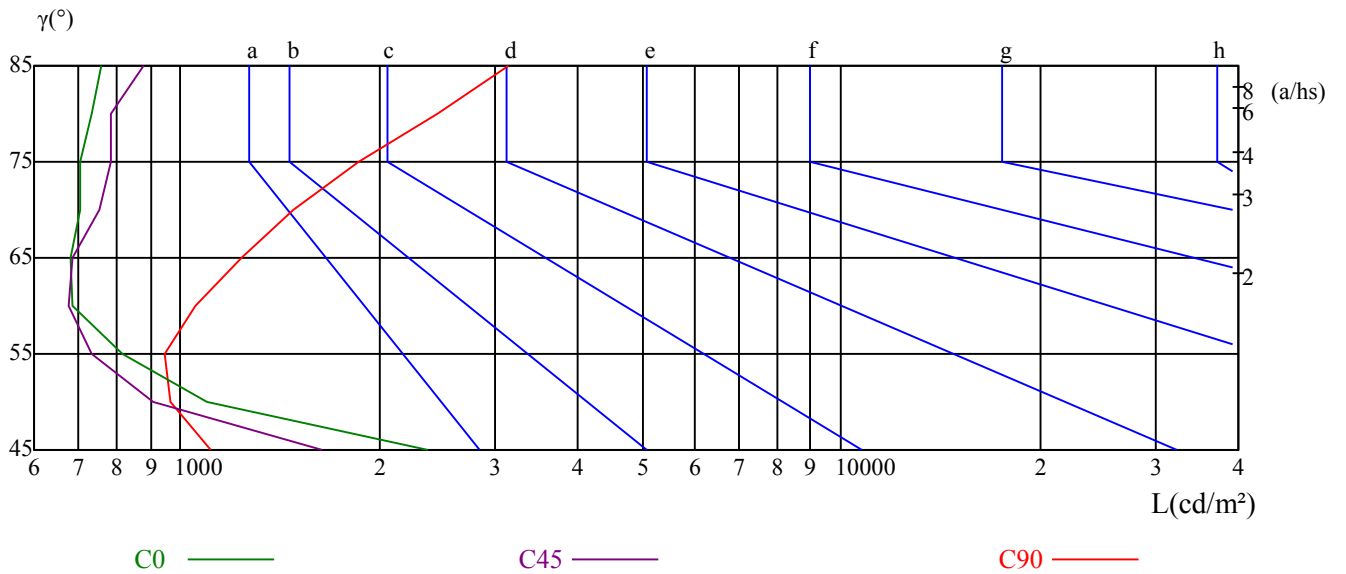
γ	45	50	55	60	65	70	75	80	85
C0	2367	1097	817	684	680	705	704	735	756
C45	1641	911	733	675	686	751	783	785	877
C90	1108	964	944	1050	1241	1479	1862	2450	3148

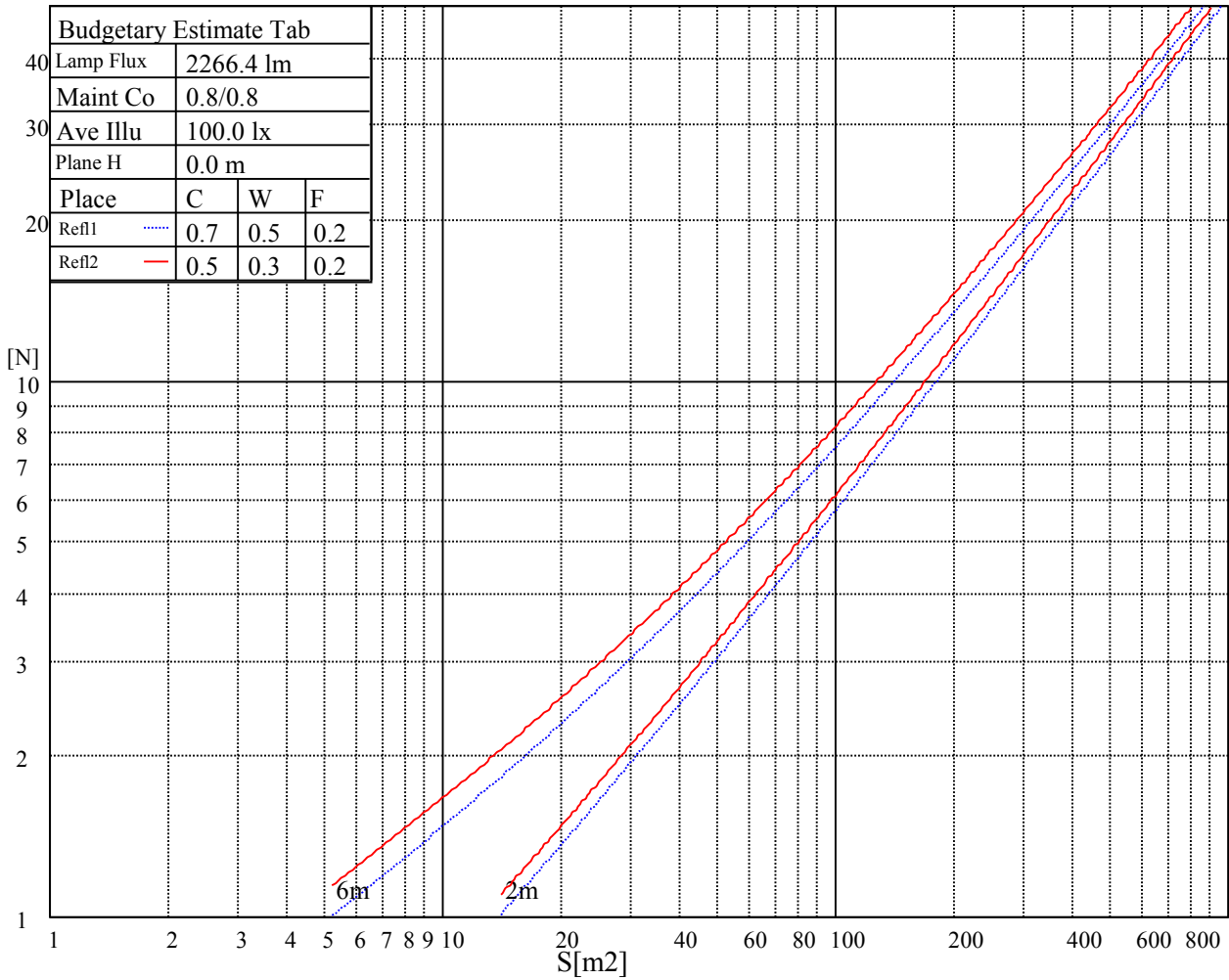
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1293	1389	1180	1814	2183	1811	4437	4691	4383

Glare Table

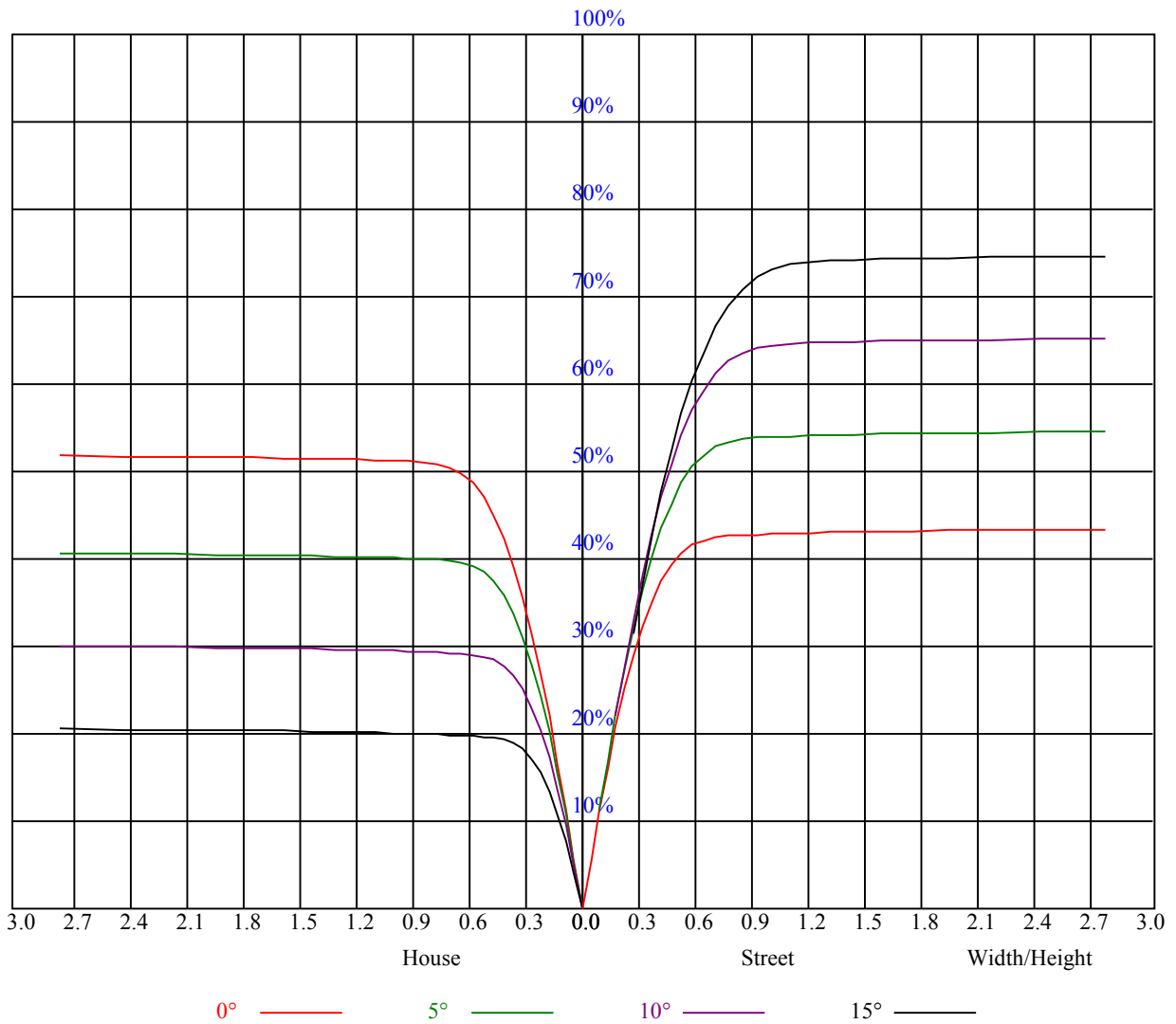
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.14	1.14	1.14	1.12	1.12	1.12	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.96
1	1.06	1.03	1.01	1.04	1.02	1.00	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.89
2	0.99	0.95	0.91	0.97	0.93	0.90	0.94	0.91	0.88	0.91	0.88	0.86	0.88	0.86	0.85	0.83
3	0.92	0.87	0.83	0.91	0.86	0.83	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.77
4	0.86	0.81	0.77	0.85	0.80	0.76	0.83	0.79	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.72
5	0.81	0.75	0.71	0.80	0.74	0.70	0.78	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.69	0.67
6	0.76	0.70	0.66	0.75	0.69	0.66	0.73	0.69	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.63
7	0.71	0.65	0.61	0.70	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.59
8	0.67	0.61	0.57	0.66	0.61	0.57	0.65	0.61	0.57	0.64	0.60	0.57	0.64	0.60	0.57	0.55
9	0.63	0.58	0.54	0.63	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.53	0.60	0.56	0.53	0.52
10	0.60	0.54	0.51	0.59	0.54	0.51	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.49



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	2200.10	2207.27	2227.59	2251.49	2278.98	2316.62	2382.95	2434.33	2488.71
22.5	2214.44	2227.59	2249.10	2273.60	2310.64	2360.24	2404.46	2443.89	2489.90
45.0	2213.84	2219.82	2226.39	2231.77	2239.54	2253.28	2258.66	2257.46	2259.85
67.5	2208.47	2201.89	2195.92	2180.98	2167.24	2143.34	2105.69	2068.65	2028.61
90.0	2197.11	2182.77	2164.25	2134.97	2100.91	2055.50	2008.89	1944.96	1874.45
112.5	2203.69	2188.75	2173.81	2153.49	2130.19	2104.50	2059.68	2016.06	1974.24
135.0	2199.50	2192.93	2186.96	2196.52	2200.70	2219.22	2229.38	2228.19	2227.59
157.5	2204.88	2206.08	2215.64	2240.73	2285.55	2325.58	2373.98	2424.77	2466.60
180.0	2200.10	2209.06	2235.36	2290.33	2342.91	2405.05	2474.37	2539.50	2619.57
202.5	2214.44	2199.50	2196.52	2203.69	2231.17	2284.95	2339.33	2395.49	2459.43
225.0	2213.84	2209.66	2197.71	2191.14	2196.52	2209.06	2234.16	2267.03	2291.52
247.5	2208.47	2197.71	2186.96	2180.38	2175.01	2163.65	2154.09	2135.57	2117.64
270.0	2197.11	2206.08	2198.91	2194.72	2186.36	2170.23	2152.90	2131.39	2097.33
292.5	2203.69	2210.26	2212.05	2212.65	2212.65	2203.09	2193.53	2178.59	2158.87
315.0	2199.50	2213.25	2221.61	2230.58	2244.32	2258.06	2275.99	2295.71	2315.42
337.5	2206.08	2220.42	2235.95	2261.65	2286.74	2323.79	2379.96	2427.76	2473.17
360.0	2200.10	2207.27	2227.59	2251.49	2278.98	2316.62	2382.95	2434.33	2488.71
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2559.81	2614.79	2663.19	2703.22	2749.23	2771.94	2797.63	2815.56	2811.97
22.5	2529.94	2553.84	2574.75	2593.87	2595.07	2595.07	2584.91	2557.42	2517.39
45.0	2248.50	2232.97	2212.05	2176.20	2133.78	2090.16	2029.81	1979.61	1912.09
67.5	1971.85	1920.46	1872.06	1811.71	1741.20	1676.67	1606.76	1542.82	1470.52
90.0	1808.12	1746.58	1667.70	1593.01	1521.31	1416.14	1338.46	1248.24	1189.08
112.5	1921.65	1868.47	1833.82	1774.06	1708.93	1646.79	1556.56	1487.25	1425.70
135.0	2224.60	2215.04	2201.89	2183.37	2159.47	2133.18	2102.11	2058.49	2001.12
157.5	2521.57	2567.58	2605.23	2648.25	2670.36	2678.12	2673.34	2667.37	2650.04
180.0	2678.12	2746.84	2804.20	2839.46	2865.75	2893.24	2913.55	2919.53	2926.70
202.5	2513.21	2583.12	2641.68	2690.08	2736.68	2778.51	2797.63	2802.41	2814.36
225.0	2320.80	2344.11	2360.84	2378.76	2390.71	2393.70	2389.52	2377.57	2357.85
247.5	2101.51	2069.24	2044.15	2016.06	1974.83	1924.04	1875.64	1823.66	1757.93
270.0	2050.72	2013.67	1949.14	1898.95	1840.39	1760.32	1692.80	1621.69	1527.28
292.5	2130.79	2090.75	2056.10	2013.67	1972.44	1917.47	1858.91	1808.12	1738.81
315.0	2337.53	2357.85	2369.80	2369.80	2369.20	2362.63	2349.48	2330.96	2298.69
337.5	2520.97	2575.95	2618.97	2653.03	2684.10	2704.42	2715.77	2722.34	2712.78
360.0	2559.81	2614.79	2663.19	2703.22	2749.23	2771.94	2797.63	2815.56	2811.97
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2785.68	2734.29	2693.06	2669.16	2638.09	2592.08	2529.34	2478.55	2439.11
22.5	2460.62	2397.88	2324.99	2280.17	2225.20	2137.96	2071.63	1991.56	1910.30
45.0	1832.02	1774.06	1707.74	1618.71	1562.54	1487.25	1383.28	1333.09	1270.94
67.5	1397.62	1334.88	1274.53	1227.32	1181.91	1122.76	1037.91	960.83	876.58
90.0	1126.40	1081.23	1039.52	974.87	911.83	842.99	755.69	663.97	581.81
112.5	1343.25	1285.28	1245.25	1201.63	1163.99	1109.61	1040.30	956.64	876.58
135.0	1932.41	1857.72	1797.96	1720.29	1652.17	1589.43	1532.66	1500.99	1450.20
157.5	2621.96	2587.30	2548.46	2510.22	2433.74	2362.03	2295.11	2227.59	2155.88
180.0	2927.29	2908.77	2875.31	2832.29	2796.44	2745.05	2675.73	2599.85	2503.65
202.5	2814.36	2797.63	2776.72	2756.40	2726.52	2679.32	2629.13	2565.79	2486.32
225.0	2330.36	2289.13	2231.17	2172.62	2109.87	2041.76	1958.70	1868.47	1805.14
247.5	1698.18	1627.07	1567.32	1495.62	1425.70	1380.29	1322.33	1250.03	1189.02
270.0	1452.59	1373.72	1279.31	1208.20	1152.04	1095.27	1045.08	984.13	907.05
292.5	1673.68	1599.59	1531.47	1458.57	1383.28	1336.07	1284.69	1186.51	1150.30
315.0	2261.65	2221.02	2147.52	2091.95	2032.79	1947.35	1864.89	1791.39	1669.50
337.5	2685.30	2636.30	2565.19	2506.04	2458.23	2410.43	2342.91	2277.78	2224.60
360.0	2785.68	2734.29	2693.06	2669.16	2638.09	2592.08	2529.34	2478.55	2439.11

Intensity data(cd)

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	2391.91	2324.39	2256.87	2155.29	2038.77	1927.03	1765.70	1628.27	1472.91
22.5	1855.33	1796.17	1714.31	1624.68	1514.74	1394.63	1294.25	1193.27	1098.26
45.0	1188.25	1133.45	1064.86	985.80	893.49	817.36	751.93	670.07	582.77
67.5	779.78	679.39	587.37	490.57	394.97	316.69	263.63	184.10	122.73
90.0	489.79	410.62	333.06	261.30	202.38	144.42	96.80	69.37	56.65
112.5	779.78	686.56	584.98	484.00	399.15	308.32	227.78	173.76	125.36
135.0	1381.49	1296.64	1191.41	1138.41	1074.36	995.12	901.19	805.05	700.24
157.5	2068.65	1952.13	1860.71	1754.94	1622.29	1509.36	1389.85	1269.75	1161.00
180.0	2403.86	2270.01	2129.59	1984.39	1826.05	1628.27	1462.15	1181.31	1041.49
202.5	2405.05	2317.22	2198.91	2101.51	1988.58	1837.40	1713.12	1579.87	1412.56
225.0	1742.99	1651.57	1586.44	1520.11	1444.23	1371.33	1284.09	1169.36	1060.02
247.5	1112.36	1016.52	907.83	809.41	711.90	590.90	498.94	408.53	309.82
270.0	821.00	734.36	638.16	555.10	463.68	374.05	307.73	236.68	172.21
292.5	1069.64	958.14	864.27	766.33	660.33	554.75	462.19	363.54	279.11
315.0	1588.23	1512.35	1436.46	1367.74	1302.02	1232.70	1175.94	1115.59	1037.31
337.5	2177.40	2121.83	2054.90	1988.58	1888.79	1786.01	1677.86	1551.19	1423.31
360.0	2391.91	2324.39	2256.87	2155.29	2038.77	1927.03	1765.70	1628.27	1472.91
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	1238.68	1058.22	877.77	646.53	467.27	308.32	156.19	95.13	74.21
22.5	1000.86	910.04	791.13	678.79	531.80	376.44	312.51	160.44	104.93
45.0	503.12	417.85	349.14	280.06	219.35	168.32	124.11	79.35	54.38
67.5	78.10	55.93	48.52	41.77	36.63	31.55	28.26	26.53	25.16
90.0	48.82	43.44	38.42	32.68	29.82	27.55	25.39	23.54	22.17
112.5	77.56	56.47	49.54	42.66	36.45	30.83	27.49	25.16	23.42
135.0	587.43	494.52	414.51	327.21	262.61	204.71	145.56	96.14	58.02
157.5	1068.98	958.44	854.47	709.27	518.66	350.15	307.13	92.14	61.78
180.0	853.09	652.62	445.88	270.98	157.03	84.85	64.17	51.81	40.27
202.5	1181.08	1166.38	1045.97	879.74	729.10	549.79	398.01	259.93	160.62
225.0	972.78	864.62	758.86	643.54	537.18	451.73	363.30	309.52	216.72
247.5	244.33	184.10	125.66	81.98	63.88	55.93	49.18	42.42	34.18
270.0	122.73	86.22	68.84	61.13	54.55	46.13	39.56	35.79	32.09
292.5	217.38	154.28	107.67	70.27	57.24	50.97	44.99	35.73	31.61
315.0	948.28	843.71	725.40	608.28	516.27	428.43	350.75	301.75	207.88
337.5	1318.15	1180.90	1060.26	905.08	732.57	550.44	378.12	201.61	114.96
360.0	1238.68	1058.22	877.77	646.53	467.27	308.32	156.19	95.13	74.21
C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	62.02	51.75	43.92	34.06	30.35	27.67	24.98	22.89	21.51
22.5	66.74	56.53	47.80	39.20	32.03	27.90	25.34	23.48	21.93
45.0	39.86	32.15	28.44	25.28	22.83	21.09	19.90	18.70	17.69
67.5	23.78	22.47	21.33	19.24	17.81	16.73	16.01	15.54	15.06
90.0	20.79	19.78	18.82	17.93	17.21	16.55	15.89	15.48	15.00
112.5	21.75	20.50	19.36	18.28	17.39	16.55	15.72	15.24	14.82
135.0	37.70	30.00	26.29	22.47	20.50	19.24	18.28	17.45	16.67
157.5	51.87	40.51	32.33	26.65	22.71	20.97	19.84	18.52	17.45
180.0	32.92	28.14	25.99	25.28	24.38	21.51	20.20	19.18	18.28
202.5	100.15	67.82	53.00	42.78	35.19	28.74	25.39	23.48	21.99
225.0	165.46	116.16	77.08	53.06	39.02	31.07	27.49	24.68	22.41
247.5	30.95	27.90	25.34	23.48	21.81	20.02	18.88	17.87	16.97
270.0	29.10	26.83	24.62	23.00	21.33	19.96	18.88	18.05	17.21
292.5	28.80	25.93	23.96	22.29	20.67	19.36	18.34	17.33	16.67
315.0	151.95	96.92	57.30	41.17	34.78	29.04	25.63	23.42	21.63
337.5	76.42	63.28	54.38	45.89	35.02	27.96	25.04	22.23	20.85
360.0	62.02	51.75	43.92	34.06	30.35	27.67	24.98	22.89	21.51

Intensity data(cd)

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	20.50	19.66	18.94	18.05	17.21	16.43	15.54	15.12	14.70
22.5	20.61	19.66	18.76	18.11	17.57	16.97	16.07	15.60	15.12
45.0	16.79	16.01	15.42	14.82	14.34	13.98	13.74	13.56	13.32
67.5	14.64	14.28	13.92	13.74	13.68	13.74	13.86	13.98	14.04
90.0	14.58	14.58	14.64	14.40	14.40	14.34	14.28	14.28	14.16
112.5	14.34	14.04	13.74	13.56	13.56	13.56	13.50	13.62	13.74
135.0	15.77	15.18	14.58	13.98	13.56	13.27	12.91	12.67	12.67
157.5	16.91	16.43	16.13	15.77	15.36	14.88	14.28	13.62	13.32
180.0	17.87	17.33	16.85	16.13	15.30	14.58	14.40	14.04	13.80
202.5	20.50	19.36	18.46	17.63	17.03	16.73	16.31	15.72	15.12
225.0	21.03	19.84	18.58	17.57	16.73	15.83	15.06	14.52	13.92
247.5	16.19	15.66	15.24	15.06	15.00	15.00	15.00	15.06	15.06
270.0	16.85	16.73	16.73	16.49	16.25	16.13	16.07	15.66	15.18
292.5	15.95	15.48	15.30	15.12	15.12	15.06	15.00	15.12	15.18
315.0	20.44	19.42	18.28	17.33	16.43	15.60	14.88	14.34	13.80
337.5	19.54	18.46	17.87	17.21	16.49	15.95	15.30	14.52	14.10
360.0	20.50	19.66	18.94	18.05	17.21	16.43	15.54	15.12	14.70
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	14.46	14.40	14.40	14.34	14.34	14.28	14.04	13.74	13.27
22.5	14.70	14.58	14.34	14.10	14.04	13.80	13.32	12.85	12.73
45.0	13.21	12.97	12.85	12.79	12.67	12.61	12.67	12.73	12.61
67.5	14.10	14.10	14.16	14.16	14.22	14.22	14.22	14.22	14.10
90.0	14.04	14.34	14.46	14.40	14.22	14.34	14.64	14.22	14.34
112.5	13.74	13.74	13.68	13.80	13.80	13.92	13.92	14.04	13.86
135.0	12.55	12.43	12.37	12.43	12.43	12.43	12.43	12.37	12.19
157.5	13.09	13.03	12.85	12.91	12.61	12.55	12.25	12.07	11.59
180.0	13.80	13.80	13.62	13.50	13.38	12.91	12.55	12.19	12.01
202.5	14.58	14.16	13.80	13.50	13.27	13.09	12.85	12.67	12.55
225.0	13.50	13.15	12.97	12.79	12.67	12.55	12.55	12.55	12.61
247.5	15.06	15.12	15.12	15.12	15.06	15.06	15.06	15.06	15.00
270.0	15.24	15.42	15.66	15.66	15.54	15.54	15.42	15.60	15.24
292.5	15.18	15.18	15.24	15.24	15.24	15.30	15.30	15.24	15.24
315.0	13.50	13.21	12.97	12.85	12.79	12.79	12.79	12.73	12.67
337.5	13.68	13.32	12.97	12.79	12.55	12.37	12.19	12.07	11.95
360.0	14.46	14.40	14.40	14.34	14.34	14.28	14.04	13.74	13.27
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	13.03	12.85	12.67	12.43	12.31	12.31	12.07	11.77	11.53
22.5	12.49	12.37	12.25	12.01	11.83	11.65	11.41	11.17	10.93
45.0	12.19	12.01	11.89	11.77	11.05	10.64	10.52	10.34	10.22
67.5	14.16	14.16	14.04	13.86	13.68	13.44	13.09	12.67	12.07
90.0	14.22	14.04	13.98	13.98	13.68	13.44	13.09	12.85	13.09
112.5	14.04	13.92	13.80	13.86	13.56	12.91	11.95	11.23	10.64
135.0	12.01	11.89	11.83	11.59	11.53	11.17	10.93	10.70	10.34
157.5	11.47	11.29	11.23	11.05	10.93	10.76	10.64	10.52	10.40
180.0	12.01	11.89	11.77	11.65	11.71	11.35	11.05	10.76	10.70
202.5	12.31	12.13	12.01	11.89	11.71	11.59	11.41	11.23	11.05
225.0	12.55	12.49	12.43	12.31	12.13	11.95	11.77	11.53	11.29
247.5	14.94	14.82	14.70	14.70	14.46	14.34	14.16	13.74	13.44
270.0	15.18	15.24	15.12	15.00	15.06	14.64	14.04	13.50	13.32
292.5	15.18	15.06	15.00	14.82	14.64	14.28	14.10	13.74	13.44
315.0	12.49	12.49	12.67	12.43	12.25	12.07	11.29	10.58	10.46
337.5	11.83	11.65	11.53	11.41	11.23	11.11	10.93	10.76	10.58
360.0	13.03	12.85	12.67	12.43	12.31	12.31	12.07	11.77	11.53

Intensity data(cd)

C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	11.41	11.23	10.88	10.58	10.28	9.68	9.38	9.08	8.90
22.5	10.64	10.40	10.16	9.86	9.50	9.32	9.14	8.96	8.90
45.0	10.10	9.98	9.86	9.74	9.56	9.50	9.32	9.26	9.26
67.5	11.53	10.88	10.82	10.88	9.98	9.86	9.68	9.56	9.56
90.0	12.37	10.93	10.82	10.82	9.86	9.74	9.68	9.56	9.56
112.5	10.46	10.64	10.46	10.52	10.04	9.74	9.62	9.50	9.44
135.0	10.04	9.92	9.74	9.62	9.50	9.32	9.20	9.08	9.02
157.5	10.22	10.10	9.92	9.74	9.56	9.20	9.02	8.78	8.72
180.0	10.52	10.34	10.10	9.80	9.56	9.26	9.02	8.72	8.66
202.5	10.88	10.76	10.52	10.34	10.16	9.92	9.56	9.38	9.20
225.0	10.93	10.76	10.52	10.46	10.34	10.28	9.74	9.62	9.50
247.5	12.97	12.43	11.59	11.11	11.05	10.93	9.98	9.92	9.74
270.0	13.38	13.15	12.61	11.59	11.11	10.99	9.98	9.80	9.80
292.5	12.97	12.31	11.53	10.99	10.88	9.98	9.86	9.74	9.62
315.0	10.34	10.22	10.04	9.92	9.80	9.62	9.50	9.38	9.32
337.5	10.40	10.16	10.04	9.86	9.68	9.38	9.14	9.02	8.78
360.0	11.41	11.23	10.88	10.58	10.28	9.68	9.38	9.08	8.90
C/ γ (°)	90.0								
0.0	8.66								
22.5	8.90								
45.0	9.20								
67.5	9.56								
90.0	9.50								
112.5	9.44								
135.0	9.08								
157.5	8.72								
180.0	8.66								
202.5	9.02								
225.0	9.44								
247.5	9.74								
270.0	9.68								
292.5	9.56								
315.0	9.14								
337.5	8.72								
360.0	8.66								