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NT

Client:

LumCAT: 2-2687-L

Luminaire: 92.70.411.00

Report No: 2024424-B010

Ballast type: AC

Test No: 2024424-C010

Voltage(V): 36.580

LampCAT: NICHIA NFCWJ130B-V3

Current(A): 0.576

Lamp flux(lm): 2924.0

Power (W): 21.070

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2416.59, Efficiency(%): 82.65% , Luminous Efficacy(lm/W): 114.69

Central intensity(cd): 9463.732, Maximum intensity(cd): 9463.732

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=22.0

[C90/270]Total=22.0

Field angle(10%Imax): [C0/180]Total=54.8

[C90/270]Total=54.8

Maximum s/h(1/2): C0_180=0.37 C90_270=0.37

Maximum s/h(1/4): C0_180=0.42 C90_270=0.42

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 82.65%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.657%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/4/24
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9463.732	0.000	0	0.00%	0.00%
1.0	9400.893	9.026	9.026	0.31%	0.37%
2.0	9202.575	26.701	35.728	0.91%	1.48%
3.0	8888.968	43.269	78.997	1.48%	3.27%
4.0	8466.874	58.096	137.092	1.99%	5.67%
5.0	7979.528	70.752	207.844	2.42%	8.60%
6.0	7428.539	80.973	288.817	2.77%	11.95%
7.0	6857.725	88.675	377.492	3.03%	15.62%
8.0	6307.028	94.218	471.71	3.22%	19.52%
9.0	5787.056	98.016	569.726	3.35%	23.58%
10.0	5253.331	99.911	669.637	3.42%	27.71%
11.0	4752.451	99.978	769.615	3.42%	31.85%
12.0	4303.803	98.998	868.613	3.39%	35.94%
13.0	3902.705	97.391	966.004	3.33%	39.97%
14.0	3506.580	94.838	1060.842	3.24%	43.90%
15.0	3172.856	91.698	1152.54	3.14%	47.69%
16.0	2873.148	88.591	1241.131	3.03%	51.36%
17.0	2612.649	85.429	1326.56	2.92%	54.89%
18.0	2370.000	82.153	1408.713	2.81%	58.29%
19.0	2173.218	79.043	1487.756	2.70%	61.56%
20.0	1971.682	75.863	1563.619	2.59%	64.70%
21.0	1809.208	72.601	1636.22	2.48%	67.71%
22.0	1655.294	69.621	1705.84	2.38%	70.59%
23.0	1489.602	65.988	1771.829	2.26%	73.32%
24.0	1303.750	61.073	1832.901	2.09%	75.85%
25.0	1246.544	57.988	1890.889	1.98%	78.25%
26.0	1136.134	56.243	1947.133	1.92%	80.57%
27.0	1001.496	52.298	1999.43	1.79%	82.74%
28.0	877.464	47.571	2047.002	1.63%	84.71%
29.0	745.935	42.473	2089.474	1.45%	86.46%
30.0	630.280	37.158	2126.632	1.27%	88.00%
31.0	518.568	31.971	2158.603	1.09%	89.32%
32.0	415.854	26.770	2185.373	0.92%	90.43%
33.0	326.139	21.859	2207.232	0.75%	91.34%
34.0	259.613	17.727	2224.959	0.61%	92.07%
35.0	224.287	15.028	2239.987	0.51%	92.69%
36.0	176.065	12.747	2252.734	0.44%	93.22%
37.0	135.699	10.168	2262.902	0.35%	93.64%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	121.112	8.572	2271.474	0.29%	94.00%
39.0	107.769	7.812	2279.287	0.27%	94.32%
40.0	97.294	7.152	2286.438	0.24%	94.61%
41.0	87.001	6.563	2293.001	0.22%	94.89%
42.0	78.259	6.004	2299.005	0.21%	95.13%
43.0	70.659	5.516	2304.522	0.19%	95.36%
44.0	63.804	5.075	2309.597	0.17%	95.57%
45.0	57.689	4.669	2314.266	0.16%	95.77%
46.0	52.795	4.321	2318.586	0.15%	95.94%
47.0	48.515	4.029	2322.616	0.14%	96.11%
48.0	44.404	3.756	2326.372	0.13%	96.27%
49.0	41.171	3.514	2329.886	0.12%	96.41%
50.0	38.208	3.310	2333.196	0.11%	96.55%
51.0	35.713	3.127	2336.323	0.11%	96.68%
52.0	33.636	2.976	2339.299	0.10%	96.80%
53.0	31.858	2.849	2342.148	0.10%	96.92%
54.0	30.322	2.741	2344.889	0.09%	97.03%
55.0	29.086	2.652	2347.541	0.09%	97.14%
56.0	28.025	2.581	2350.121	0.09%	97.25%
57.0	27.103	2.521	2352.642	0.09%	97.35%
58.0	26.394	2.474	2355.116	0.08%	97.46%
59.0	25.808	2.440	2357.556	0.08%	97.56%
60.0	25.413	2.420	2359.976	0.08%	97.66%
61.0	25.092	2.410	2362.386	0.08%	97.76%
62.0	24.689	2.399	2364.785	0.08%	97.86%
63.0	24.126	2.374	2367.159	0.08%	97.95%
64.0	23.277	2.326	2369.485	0.08%	98.05%
65.0	22.297	2.255	2371.741	0.08%	98.14%
66.0	21.302	2.175	2373.916	0.07%	98.23%
67.0	20.600	2.107	2376.023	0.07%	98.32%
68.0	20.081	2.061	2378.084	0.07%	98.41%
69.0	19.942	2.042	2380.125	0.07%	98.49%
70.0	20.044	2.054	2382.179	0.07%	98.58%
71.0	20.534	2.097	2384.276	0.07%	98.66%
72.0	21.053	2.162	2386.439	0.07%	98.75%
73.0	21.441	2.222	2388.661	0.08%	98.84%
74.0	21.770	2.272	2390.933	0.08%	98.94%
75.0	21.792	2.302	2393.234	0.08%	99.03%

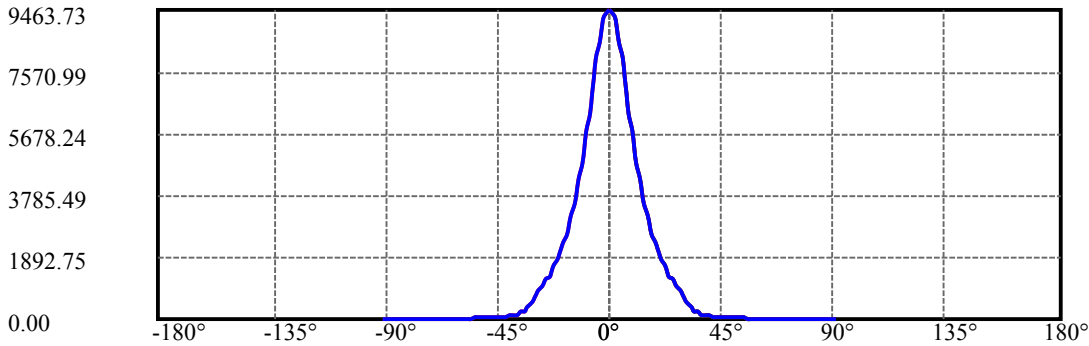
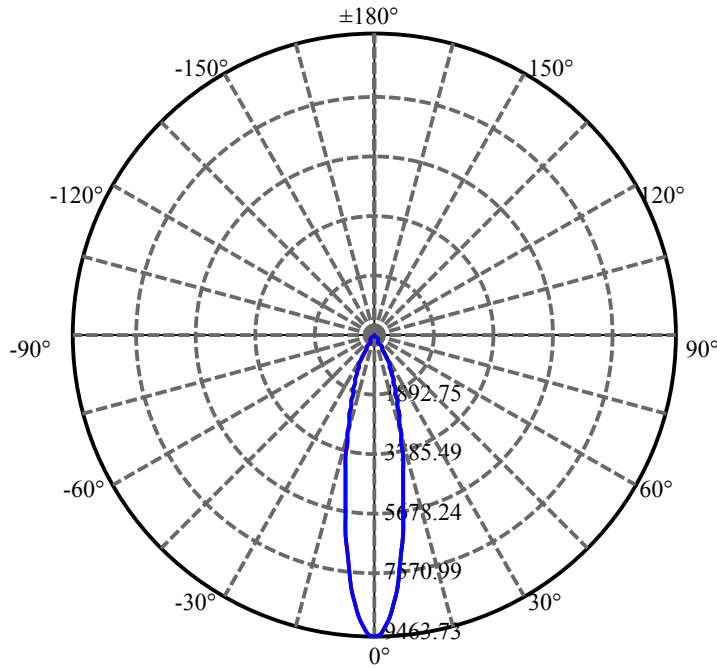
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	21.295	2.287	2395.522	0.08%	99.13%
77.0	20.271	2.216	2397.738	0.08%	99.22%
78.0	18.961	2.100	2399.838	0.07%	99.31%
79.0	17.345	1.951	2401.788	0.07%	99.39%
80.0	15.655	1.779	2403.568	0.06%	99.46%
81.0	13.987	1.603	2405.171	0.05%	99.53%
82.0	12.948	1.461	2406.631	0.05%	99.59%
83.0	12.480	1.382	2408.013	0.05%	99.65%
84.0	12.290	1.349	2409.363	0.05%	99.70%
85.0	11.982	1.325	2410.688	0.05%	99.76%
86.0	11.178	1.266	2411.954	0.04%	99.81%
87.0	10.717	1.198	2413.152	0.04%	99.86%
88.0	10.519	1.163	2414.315	0.04%	99.91%
89.0	10.351	1.144	2415.459	0.04%	99.95%
90.0	10.256	1.130	2416.589	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2126.63	72.73%	88.00%
0-40	2286.44	78.20%	94.61%
0-60	2359.98	80.71%	97.66%
0-90	2415.46	82.61%	99.95%
0-120	2415.46	82.61%	99.95%
0-180	2416.59	82.65%	100.00%
60-90	55.48	1.90%	2.30%
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%
0-25.75	1933.27	66.12%	80.00%

ZONAL LUMEN SUMMARY

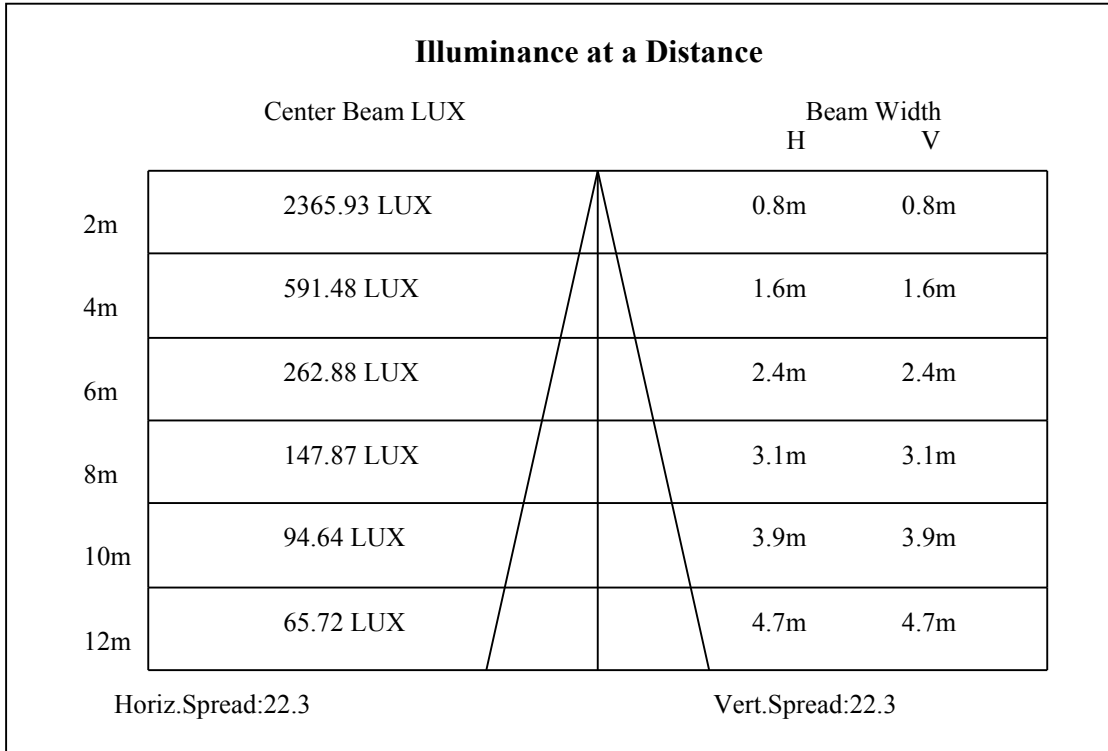
0-10	669.64
10-20	893.98
20-30	563.01
30-40	159.81
40-50	46.76
50-60	26.78
60-70	22.20
70-80	21.39
80-90	11.89
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

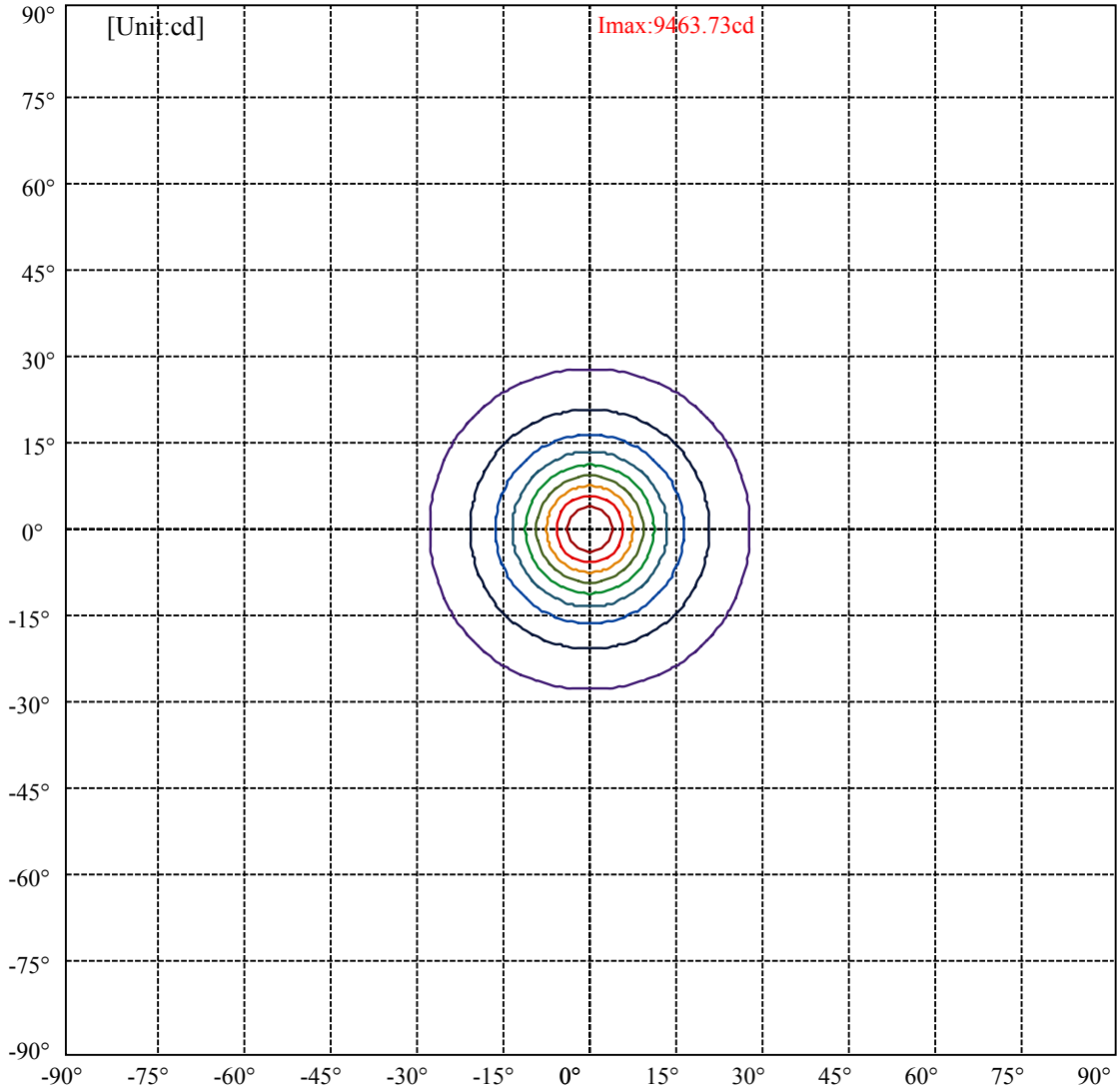


C0(Max): —————
C0/C180: —————
C90/C270: —————

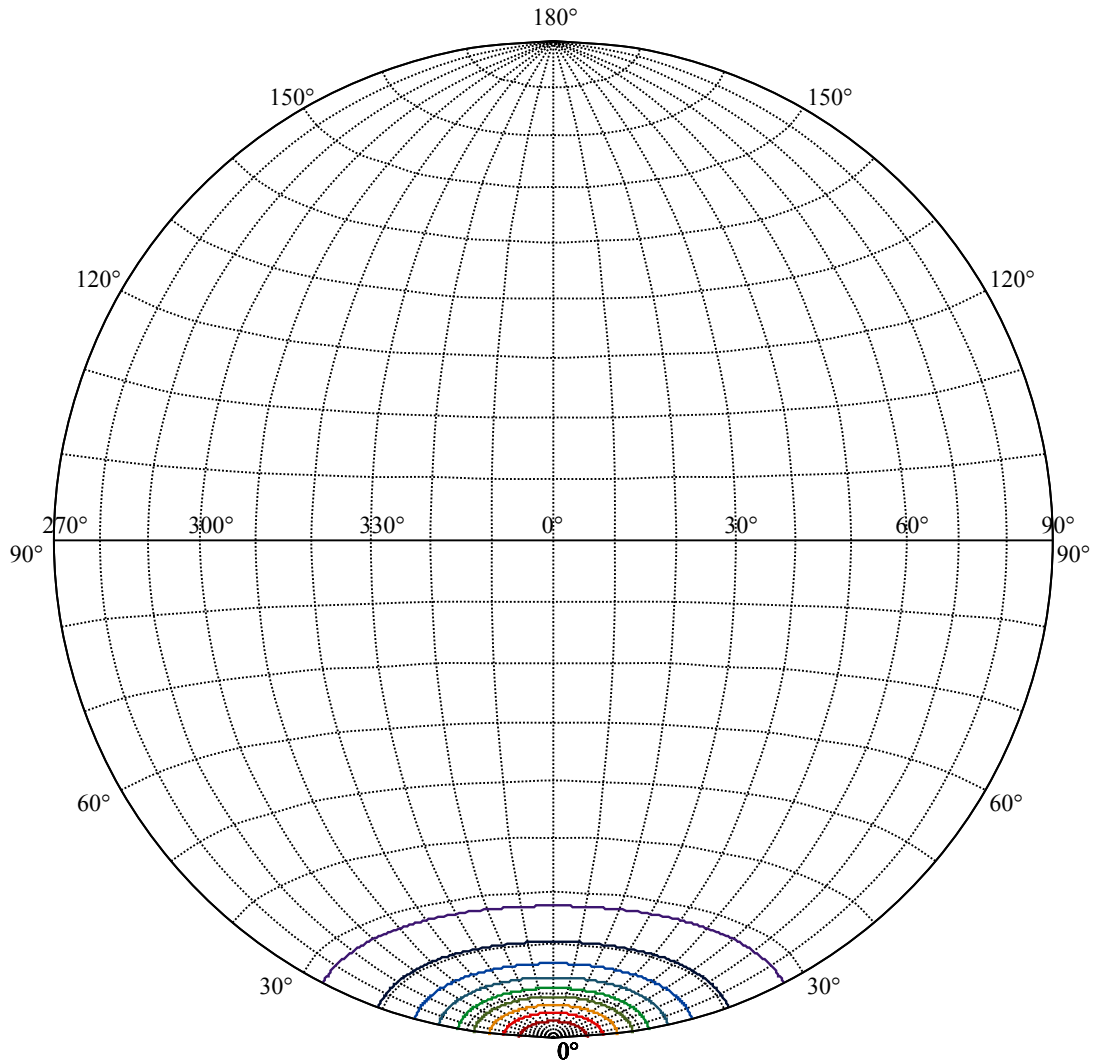
Field angle(10%Imax):C0/180Left:27.4 Right:27.4
:C90/270Left:27.4 Right:27.4

Beam Angle(50%Imax):C0/180Left:11.0 Right:11.0
:C90/270Left:11.0 Right:11.0





(10%Imax) 946.373	—
(20%Imax) 1892.75	—
(30%Imax) 2839.12	—
(40%Imax) 3785.49	—
(50%Imax) 4731.87	—
(60%Imax) 5678.24	—
(70%Imax) 6624.61	—
(80%Imax) 7570.99	—
(90%Imax) 8517.36	—



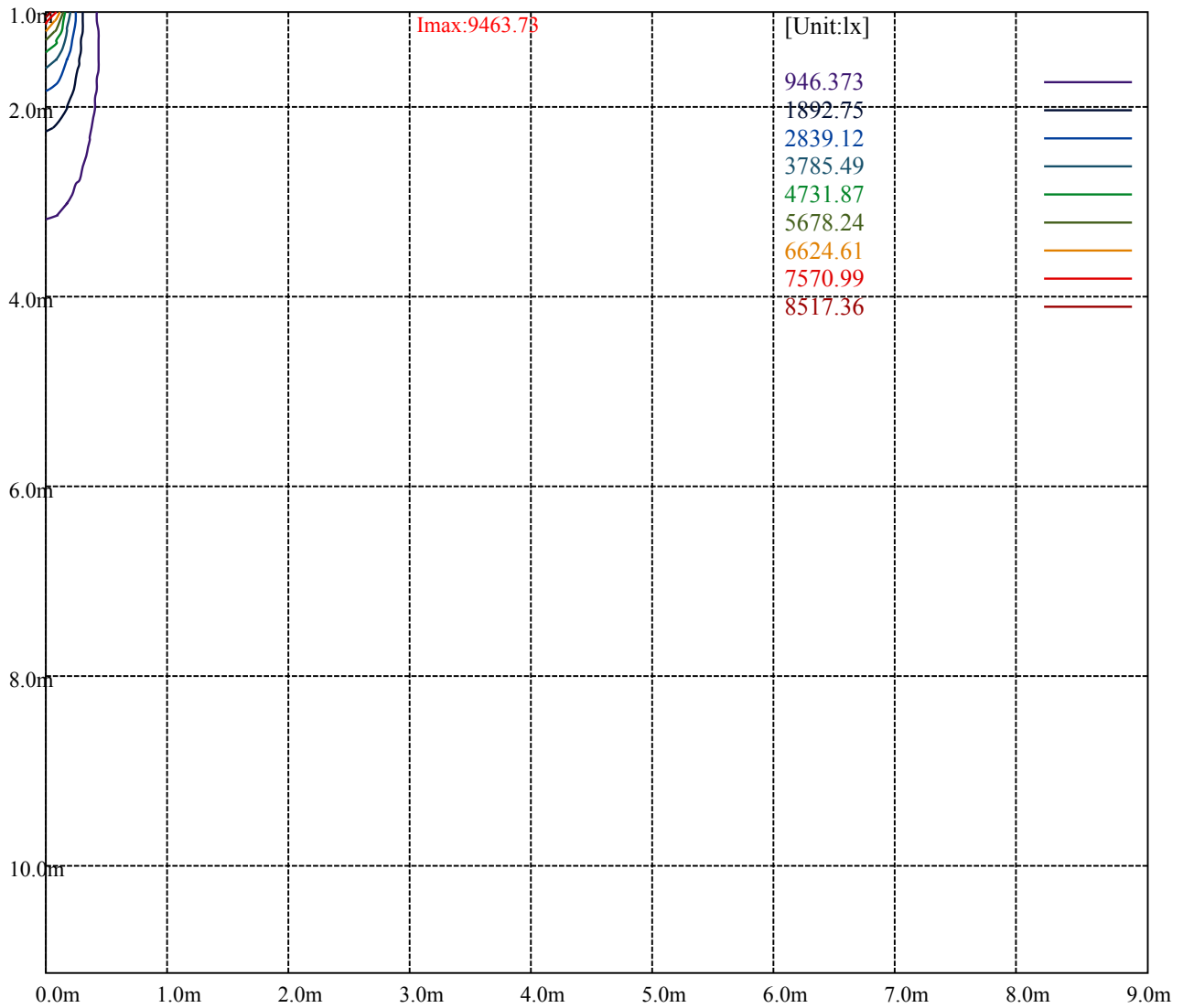
House

[Unit:cd]

Road

Imax:9463.73

(10%Imax)	946.373	—
(20%Imax)	1892.75	—
(30%Imax)	2839.12	—
(40%Imax)	3785.49	—
(50%Imax)	4731.87	—
(60%Imax)	5678.24	—
(70%Imax)	6624.61	—
(80%Imax)	7570.99	—
(90%Imax)	8517.36	—



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

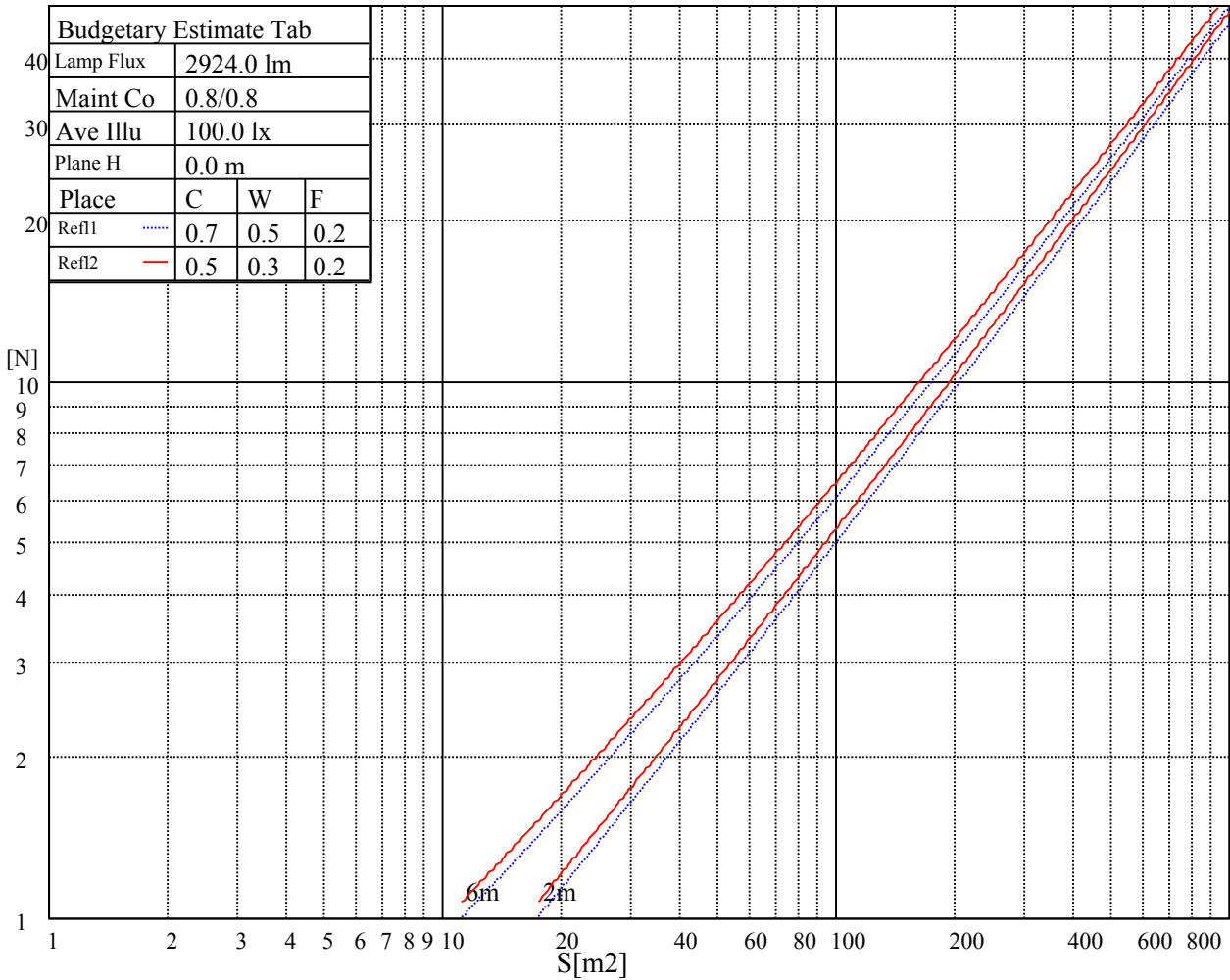
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

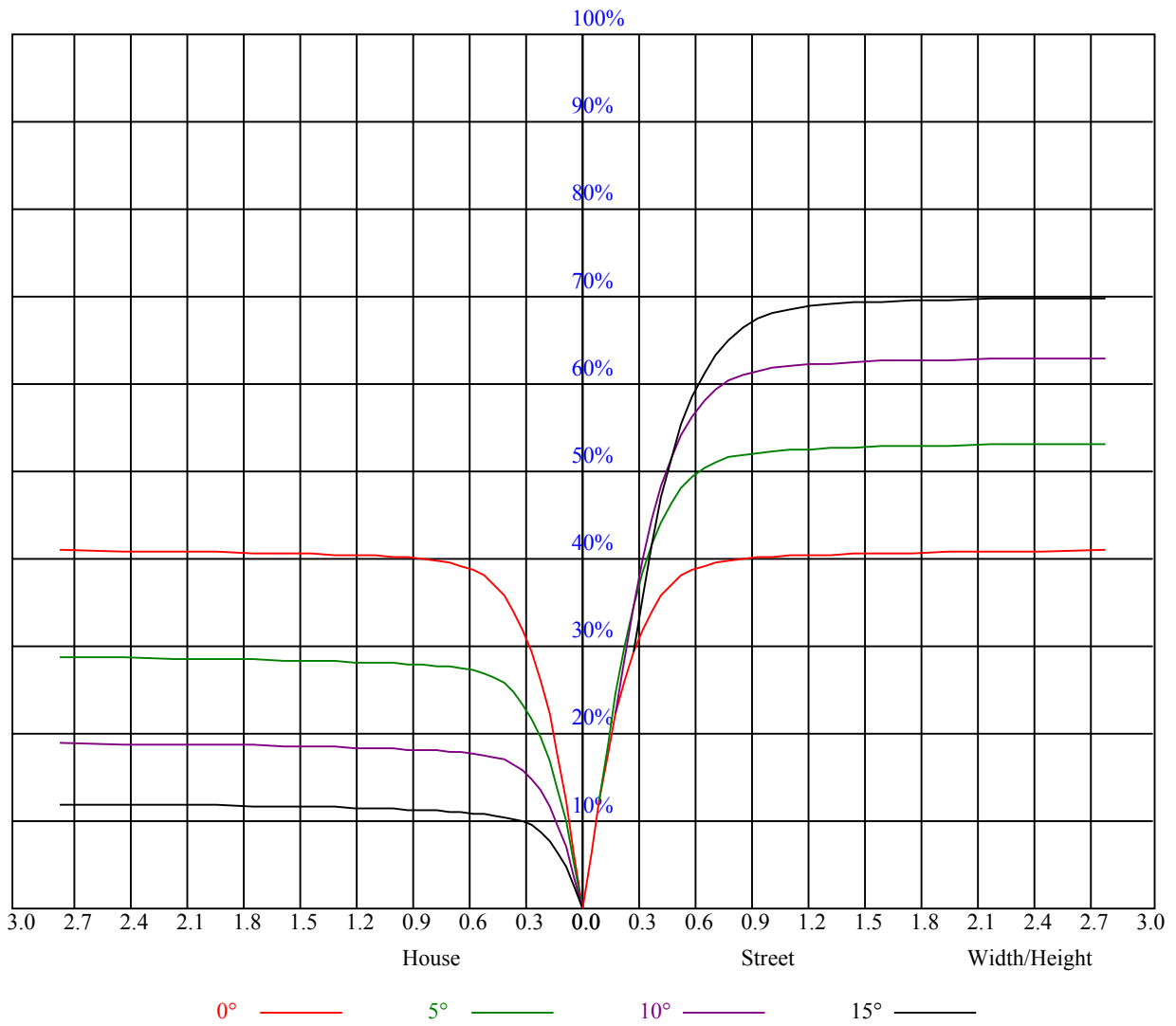
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

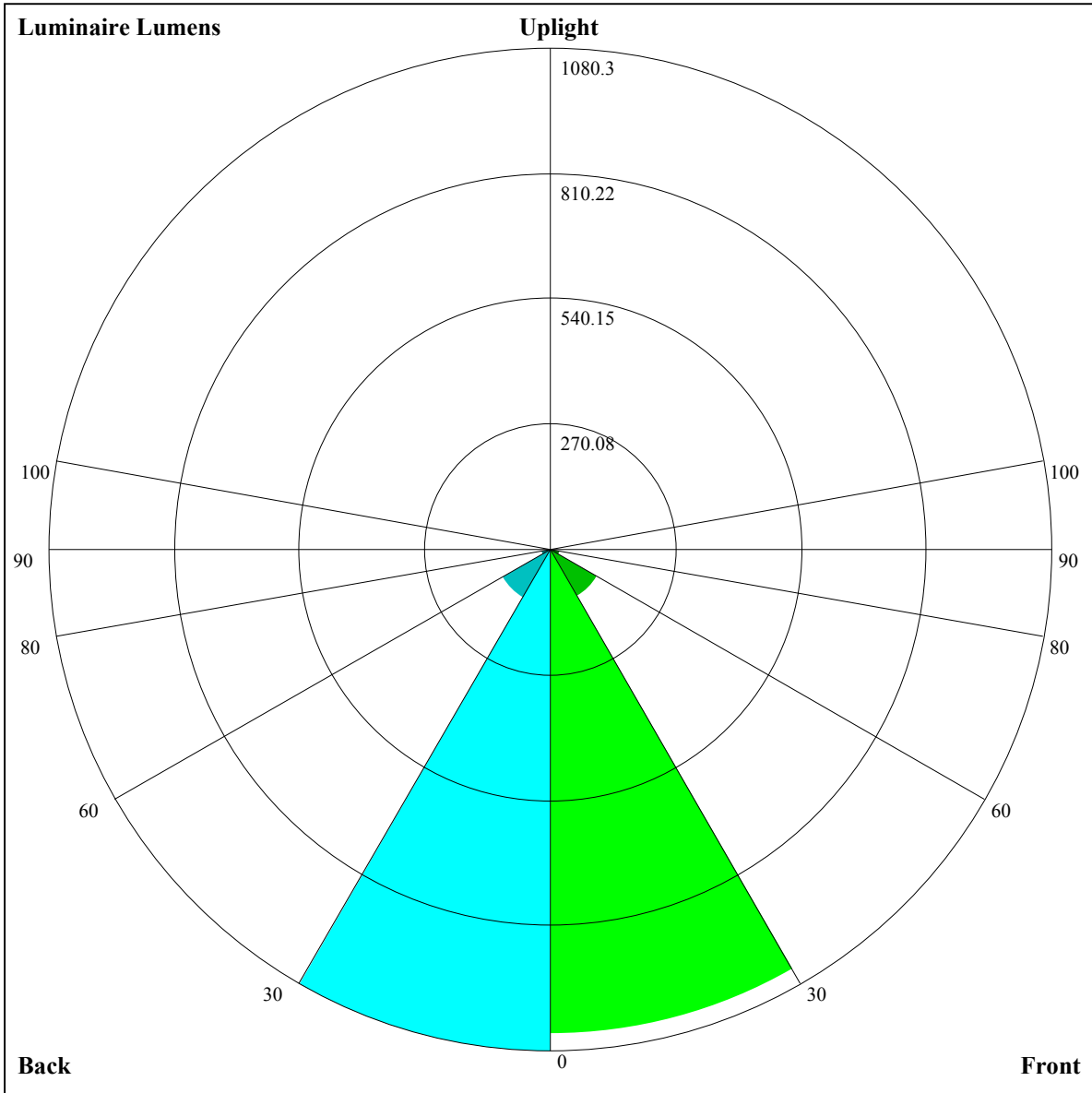
Luminance Limiting Curve





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 RHOF=20 CU															
0	0.98	0.98	0.98	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.83
1	0.92	0.90	0.89	0.90	0.89	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81	0.80	0.80	0.78
2	0.87	0.84	0.82	0.86	0.83	0.81	0.83	0.81	0.79	0.81	0.79	0.77	0.78	0.77	0.76	0.74
3	0.83	0.79	0.76	0.81	0.78	0.76	0.79	0.77	0.74	0.77	0.75	0.73	0.76	0.74	0.72	0.71
4	0.79	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.71	0.74	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.70	0.68	0.66	0.65
6	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.65	0.64	0.63
7	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.60
8	0.66	0.62	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.64	0.61	0.59	0.58
9	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.56
10	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.58	0.55	0.60	0.57	0.55	0.60	0.57	0.55	0.54





Luminaire Lumens:

FL=1045.42,FM=114.98,FH=22.33,FVH=6.61

BL=1080.3,BM=121.52,BH=21.49,BVH=6.58

UL=0,UH=0

BUG Rating:B3-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	9450.27	9248.37	8972.73	8592.92	8023.49	7522.54	7001.69	6495.47	5860.50
45.0	9447.35	9490.65	9399.94	9209.74	8811.79	8391.01	7902.35	7273.82	6755.31
90.0	9516.99	9467.83	9258.32	8973.31	8589.99	8006.52	7499.13	6853.63	6336.29
135.0	9440.32	9510.55	9466.66	9247.20	8958.68	8570.68	7984.28	7473.97	6828.46
180.0	9450.27	9491.24	9365.41	9200.97	8812.38	8295.04	7818.66	7288.45	6755.31
225.0	9447.35	9286.99	9004.92	8523.28	8063.87	7557.07	6898.69	6362.04	5854.06
270.0	9516.99	9452.03	9274.70	8894.31	8477.63	8004.77	7499.72	6825.54	6298.25
315.0	9440.32	9259.49	8877.92	8470.02	7997.16	7488.60	6823.78	6288.89	5768.04
360.0	9450.27	9248.37	8972.73	8592.92	8023.49	7522.54	7001.69	6495.47	5860.50
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5360.13	4896.05	4460.64	3965.54	3607.97	3285.51	2928.52	2673.95	2452.15
45.0	6246.75	5744.63	5141.26	4692.98	4276.30	3884.20	3445.86	3128.09	2848.93
90.0	5822.46	5200.95	4738.04	4310.24	3905.26	3459.91	3145.64	2862.39	2614.26
135.0	6314.64	5811.34	5318.00	4740.97	4314.92	3914.04	3546.52	3140.38	2858.88
180.0	6251.43	5614.12	5128.97	4674.25	4248.21	3767.15	3425.38	3110.53	2775.20
225.0	5358.38	4890.20	4348.28	3963.79	3610.90	3212.36	2932.62	2678.63	2407.09
270.0	5793.20	5176.37	4713.46	4287.42	3809.29	3460.49	3154.42	2819.67	2585.00
315.0	5149.45	4692.98	4170.96	3795.24	3448.79	3068.98	2803.87	2571.54	2359.69
360.0	5360.13	4896.05	4460.64	3965.54	3607.97	3285.51	2928.52	2673.95	2452.15
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2207.53	2037.81	1876.88	1687.85	1543.88	1423.91	1139.67	1139.67	1047.61
45.0	2548.13	2340.96	2110.97	1949.44	1792.02	1643.37	1481.26	1370.66	1259.46
90.0	2345.06	2158.37	1950.03	1790.26	1639.86	1499.40	1160.91	1160.91	1131.77
135.0	2608.41	2392.46	2151.35	1982.80	1825.96	1638.69	1499.40	1353.68	1238.98
180.0	2535.25	2318.13	2078.19	1911.40	1720.03	1570.80	1448.49	1348.42	1208.55
225.0	2208.70	1989.24	1830.64	1679.65	1539.79	1313.89	1160.33	1160.33	1035.38
270.0	2374.90	2181.19	1959.39	1806.06	1652.73	1514.04	1375.92	1274.68	1156.46
315.0	2132.03	1967.58	1816.01	1666.19	1528.08	1312.72	1164.01	1164.01	1010.86
360.0	2207.53	2037.81	1876.88	1687.85	1543.88	1423.91	1139.67	1139.67	1047.61
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	921.14	803.51	666.34	562.87	468.94	358.27	280.03	202.08	163.22
45.0	1136.57	979.14	858.00	740.95	632.10	505.11	410.30	302.62	302.62
90.0	980.19	860.40	744.35	631.98	501.42	406.56	319.42	243.40	174.92
135.0	1118.42	992.01	841.03	726.91	619.23	495.16	402.69	319.59	299.69
180.0	1083.31	968.61	849.81	697.65	588.79	487.55	372.85	309.06	309.06
225.0	879.18	758.98	645.91	540.63	422.18	336.80	262.41	194.24	163.80
270.0	1003.72	886.09	733.35	618.06	512.13	416.15	311.40	311.40	226.83
315.0	889.42	770.98	628.71	523.19	403.75	321.23	250.01	194.53	154.15
360.0	921.14	803.51	666.34	562.87	468.94	358.27	280.03	202.08	163.22
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	142.62	127.70	111.84	100.89	91.30	82.63	73.21	66.60	60.69
45.0	216.94	144.55	128.87	115.76	104.35	91.70	82.75	75.14	68.30
90.0	146.42	129.86	113.12	101.83	91.88	80.64	73.04	66.42	59.22
135.0	299.69	148.47	132.14	115.29	103.99	93.93	82.75	75.08	68.41
180.0	165.38	144.55	129.98	114.12	102.94	92.70	83.51	73.68	66.89
225.0	142.79	128.69	116.34	102.47	92.35	83.45	75.67	68.76	61.21
270.0	157.13	137.53	124.07	112.25	101.48	89.31	80.88	73.45	65.25
315.0	137.53	124.24	112.54	99.55	90.07	81.64	74.27	66.13	60.45
360.0	142.62	127.70	111.84	100.89	91.30	82.63	73.21	66.60	60.69

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	54.19	49.69	45.76	41.55	38.57	35.52	33.65	31.89	30.49
45.0	60.86	55.65	51.03	46.00	42.43	39.27	35.99	33.83	32.07
90.0	54.37	49.92	46.17	42.14	39.27	36.75	34.70	32.42	30.96
135.0	60.98	55.89	51.44	47.46	43.89	39.97	37.40	35.17	33.01
180.0	60.92	55.65	49.98	46.17	42.90	40.03	36.93	34.82	32.54
225.0	56.12	51.62	47.75	43.48	40.56	37.45	35.29	33.42	31.43
270.0	59.75	53.78	49.57	46.00	42.02	39.39	36.99	34.47	32.83
315.0	54.31	50.15	46.41	42.43	39.74	37.28	34.76	33.07	31.54
360.0	54.19	49.69	45.76	41.55	38.57	35.52	33.65	31.89	30.49
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	28.97	27.97	27.10	26.39	25.69	25.34	25.11	24.76	24.23
45.0	30.14	28.85	27.74	26.69	25.98	25.40	24.87	24.70	24.35
90.0	29.38	28.32	27.45	26.51	25.93	25.40	25.16	24.87	24.58
135.0	31.60	30.26	28.91	27.97	27.27	26.34	25.87	25.57	25.34
180.0	31.02	29.38	28.27	27.33	26.57	25.87	25.28	24.99	24.76
225.0	30.02	28.85	27.86	26.80	26.10	25.69	25.34	24.87	24.40
270.0	31.25	29.96	28.85	27.97	26.92	26.34	25.87	25.69	25.11
315.0	30.20	29.09	28.03	27.15	26.69	26.10	25.81	25.28	24.76
360.0	28.97	27.97	27.10	26.39	25.69	25.34	25.11	24.76	24.23
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	23.64	22.59	21.48	21.36	21.59	22.30	23.17	24.29	25.69
45.0	23.99	23.47	22.47	21.42	20.54	19.25	18.49	17.62	17.03
90.0	24.23	23.53	22.36	21.30	20.37	19.14	18.55	18.26	18.84
135.0	24.87	24.46	23.76	22.41	21.48	20.48	19.66	18.84	18.49
180.0	24.29	23.58	22.65	21.30	20.37	19.55	19.61	20.25	21.13
225.0	23.41	22.18	21.24	20.13	19.08	18.32	17.56	17.03	16.62
270.0	24.52	23.70	22.47	21.48	20.83	20.78	21.13	21.71	22.94
315.0	24.05	22.71	21.95	21.01	20.54	20.83	21.36	22.36	23.53
360.0	23.64	22.59	21.48	21.36	21.59	22.30	23.17	24.29	25.69
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	26.16	26.10	25.87	25.11	24.35	23.47	21.83	18.84	15.51
45.0	16.56	16.27	15.86	15.51	15.22	14.81	14.51	14.16	13.81
90.0	19.72	20.72	21.54	21.95	21.19	20.01	19.25	18.26	16.27
135.0	19.14	19.96	20.78	21.71	22.24	21.83	21.01	19.90	18.73
180.0	21.83	21.83	21.65	21.07	20.19	19.43	18.79	17.97	16.44
225.0	16.21	15.74	15.45	15.04	14.69	14.22	13.87	13.58	13.17
270.0	23.94	24.93	26.22	26.69	26.28	24.23	21.89	18.43	16.15
315.0	24.87	25.98	26.80	27.27	26.22	24.17	20.54	17.62	15.16
360.0	26.16	26.10	25.87	25.11	24.35	23.47	21.83	18.84	15.51
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.93	12.47	12.17	11.88	11.65	11.00	10.59	10.53	10.18
45.0	13.40	13.11	12.82	12.64	12.47	11.94	10.94	10.59	10.42
90.0	13.93	12.64	12.41	12.23	11.47	11.00	10.71	10.53	10.30
135.0	16.56	13.81	12.29	12.00	11.70	11.24	10.94	10.71	10.53
180.0	14.46	12.64	12.11	11.82	11.35	10.94	10.65	10.53	10.53
225.0	12.87	12.58	12.29	12.06	11.18	10.71	10.48	10.48	10.30
270.0	14.16	13.28	13.05	12.87	12.99	11.35	10.77	10.53	10.18
315.0	13.58	13.05	12.70	12.82	13.05	11.24	10.65	10.24	10.36
360.0	12.93	12.47	12.17	11.88	11.65	11.00	10.59	10.53	10.18

Intensity data(cd)

C/γ(°)	90.0
0.0	10.36
45.0	10.12
90.0	10.18
135.0	10.30
180.0	10.18
225.0	10.30
270.0	10.30
315.0	10.30
360.0	10.36