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NT

Client:

LumCAT: 3-2834-L

Luminaire: 92.70.411.00

Report No: 2024425-B004

Ballast type: AC

Test No: 2024425-C004

Voltage(V): 36.320

LampCAT: NICHIA NFCWJ130B-V3

Current(A): 0.576

Lamp flux(lm): 2924.0

Power (W): 20.920

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2463.01, Efficiency(%): 84.23% , Luminous Efficacy(lm/W): 117.73

Central intensity(cd): 5730.728, Maximum intensity(cd): 5730.728

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=35.0

[C90/270]Total=35.0

Field angle(10%Imax): [C0/180]Total=64.8

[C90/270]Total=64.8

Maximum s/h(1/2): C0_180=0.58 C90_270=0.58

Maximum s/h(1/4): C0_180=0.58 C90_270=0.58

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 84.23%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.932%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/4/25
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	5730.728	0.000	0	0.00%	0.00%
1.0	5719.828	5.479	5.479	0.19%	0.22%
2.0	5687.275	16.373	21.851	0.56%	0.89%
3.0	5640.018	27.091	48.943	0.93%	1.99%
4.0	5584.714	37.573	86.515	1.28%	3.51%
5.0	5509.147	47.725	134.241	1.63%	5.45%
6.0	5416.462	57.417	191.658	1.96%	7.78%
7.0	5302.636	66.533	258.191	2.28%	10.48%
8.0	5157.939	74.864	333.055	2.56%	13.52%
9.0	4994.003	82.276	415.331	2.81%	16.86%
10.0	4771.617	88.375	503.706	3.02%	20.45%
11.0	4538.917	93.031	596.738	3.18%	24.23%
12.0	4300.950	96.632	693.37	3.30%	28.15%
13.0	4037.379	98.955	792.325	3.38%	32.17%
14.0	3773.736	99.982	892.307	3.42%	36.23%
15.0	3508.336	99.972	992.278	3.42%	40.29%
16.0	3249.667	99.024	1091.302	3.39%	44.31%
17.0	2979.439	97.004	1188.306	3.32%	48.25%
18.0	2748.495	94.441	1282.747	3.23%	52.08%
19.0	2498.750	91.291	1374.038	3.12%	55.79%
20.0	2279.144	87.449	1461.487	2.99%	59.34%
21.0	2077.315	83.653	1545.14	2.86%	62.73%
22.0	1889.457	79.714	1624.854	2.73%	65.97%
23.0	1715.865	75.649	1700.503	2.59%	69.04%
24.0	1553.026	71.470	1771.973	2.44%	71.94%
25.0	1342.879	65.847	1837.82	2.25%	74.62%
26.0	1259.148	61.421	1899.241	2.10%	77.11%
27.0	1170.282	59.437	1958.677	2.03%	79.52%
28.0	1065.278	56.600	2015.277	1.94%	81.82%
29.0	964.400	53.102	2068.379	1.82%	83.98%
30.0	860.932	49.284	2117.663	1.69%	85.98%
31.0	746.125	44.722	2162.385	1.53%	87.79%
32.0	622.753	39.217	2201.601	1.34%	89.39%
33.0	506.615	33.272	2234.873	1.14%	90.74%
34.0	394.281	27.264	2262.137	0.93%	91.84%
35.0	288.604	21.208	2283.345	0.73%	92.71%
36.0	233.541	16.625	2299.97	0.57%	93.38%
37.0	175.619	13.345	2313.314	0.46%	93.92%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	103.468	9.316	2322.63	0.32%	94.30%
39.0	90.951	6.636	2329.266	0.23%	94.57%
40.0	82.619	6.054	2335.319	0.21%	94.82%
41.0	75.582	5.633	2340.953	0.19%	95.04%
42.0	70.307	5.300	2346.253	0.18%	95.26%
43.0	65.150	5.018	2351.271	0.17%	95.46%
44.0	61.032	4.762	2356.033	0.16%	95.66%
45.0	57.096	4.540	2360.573	0.16%	95.84%
46.0	53.694	4.333	2364.906	0.15%	96.02%
47.0	50.702	4.152	2369.058	0.14%	96.19%
48.0	48.025	3.991	2373.049	0.14%	96.35%
49.0	45.684	3.848	2376.897	0.13%	96.50%
50.0	43.482	3.718	2380.615	0.13%	96.65%
51.0	41.617	3.600	2384.216	0.12%	96.80%
52.0	39.773	3.493	2387.708	0.12%	96.94%
53.0	38.127	3.389	2391.097	0.12%	97.08%
54.0	36.569	3.292	2394.389	0.11%	97.21%
55.0	35.055	3.197	2397.586	0.11%	97.34%
56.0	33.599	3.102	2400.689	0.11%	97.47%
57.0	31.953	2.997	2403.686	0.10%	97.59%
58.0	30.622	2.894	2406.579	0.10%	97.71%
59.0	29.173	2.795	2409.375	0.10%	97.82%
60.0	27.835	2.693	2412.068	0.09%	97.93%
61.0	26.555	2.596	2414.664	0.09%	98.04%
62.0	25.260	2.497	2417.16	0.09%	98.14%
63.0	24.148	2.403	2419.563	0.08%	98.24%
64.0	23.065	2.317	2421.88	0.08%	98.33%
65.0	22.136	2.237	2424.117	0.08%	98.42%
66.0	21.149	2.160	2426.277	0.07%	98.51%
67.0	20.293	2.084	2428.361	0.07%	98.59%
68.0	19.517	2.017	2430.377	0.07%	98.68%
69.0	18.727	1.951	2432.328	0.07%	98.75%
70.0	18.062	1.889	2434.218	0.06%	98.83%
71.0	17.388	1.832	2436.05	0.06%	98.91%
72.0	16.752	1.775	2437.825	0.06%	98.98%
73.0	16.181	1.722	2439.547	0.06%	99.05%
74.0	15.691	1.676	2441.223	0.06%	99.12%
75.0	15.289	1.637	2442.86	0.06%	99.18%

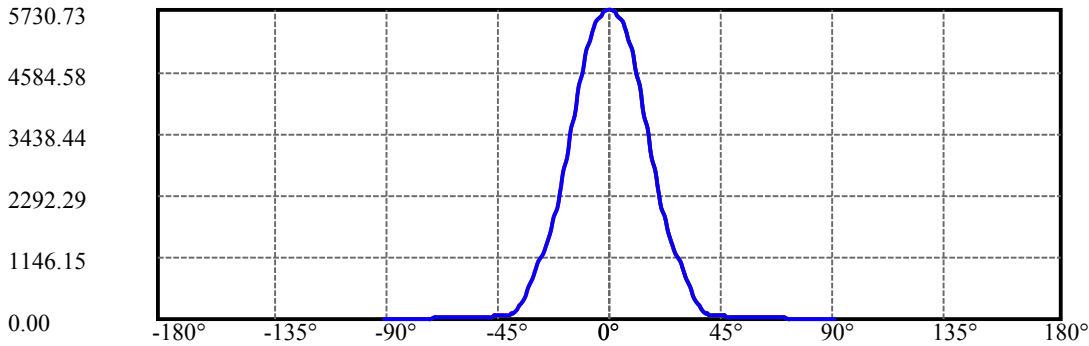
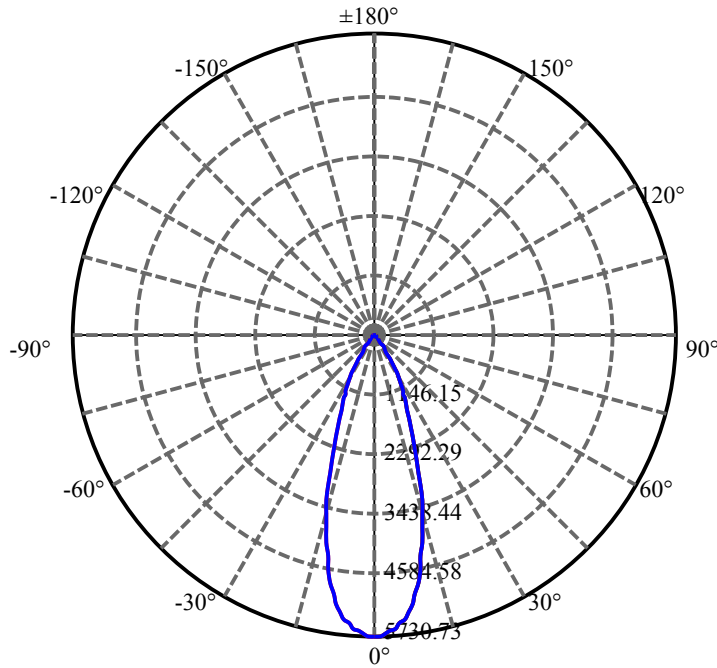
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	14.923	1.604	2444.464	0.05%	99.25%
77.0	14.484	1.568	2446.031	0.05%	99.31%
78.0	13.950	1.522	2447.554	0.05%	99.37%
79.0	13.570	1.479	2449.032	0.05%	99.43%
80.0	13.197	1.443	2450.475	0.05%	99.49%
81.0	12.736	1.402	2451.878	0.05%	99.55%
82.0	12.297	1.357	2453.235	0.05%	99.60%
83.0	11.953	1.318	2454.553	0.05%	99.66%
84.0	11.719	1.290	2455.843	0.04%	99.71%
85.0	11.470	1.266	2457.109	0.04%	99.76%
86.0	11.097	1.234	2458.342	0.04%	99.81%
87.0	10.841	1.201	2459.543	0.04%	99.86%
88.0	10.607	1.175	2460.718	0.04%	99.91%
89.0	10.380	1.150	2461.868	0.04%	99.95%
90.0	10.395	1.139	2463.007	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2117.66	72.42%	85.98%
0-40	2335.32	79.87%	94.82%
0-60	2412.07	82.49%	97.93%
0-90	2461.87	84.20%	99.95%
0-120	2461.87	84.20%	99.95%
0-180	2463.01	84.23%	100.00%
60-90	49.80	1.70%	2.02%
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%
0-27.21	1970.41	67.39%	80.00%

ZONAL LUMEN SUMMARY

0-10	503.71
10-20	957.78
20-30	656.18
30-40	217.66
40-50	45.30
50-60	31.45
60-70	22.15
70-80	16.26
80-90	11.39
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



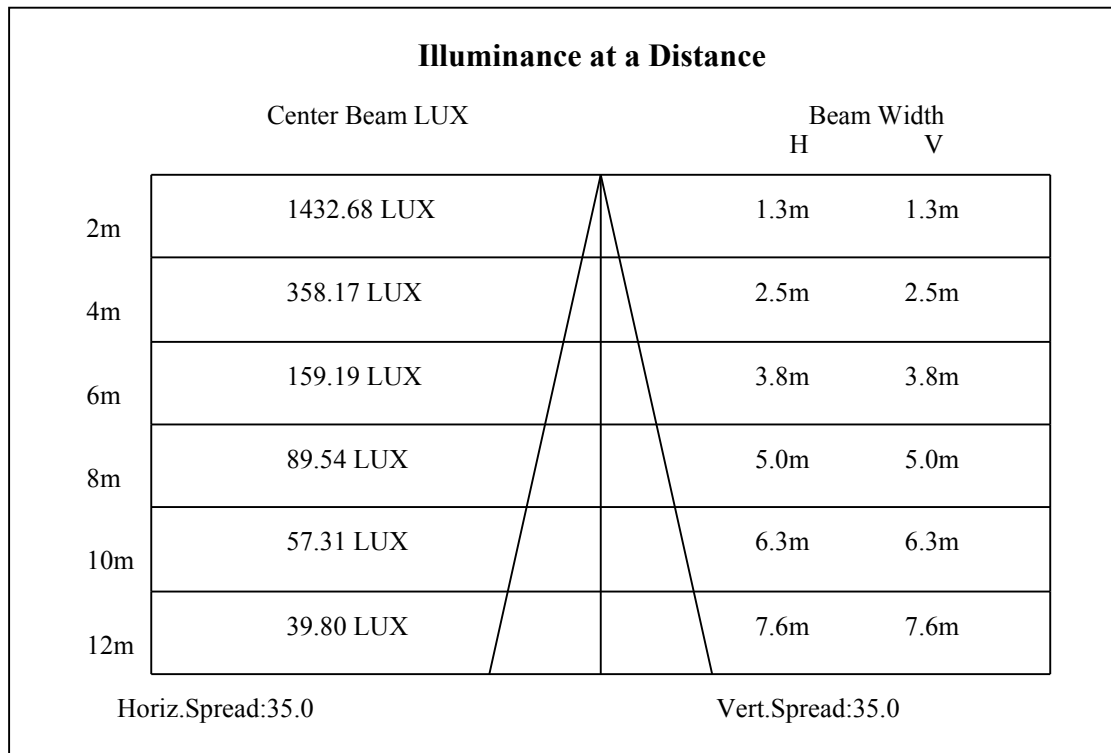
C0(Max): —————

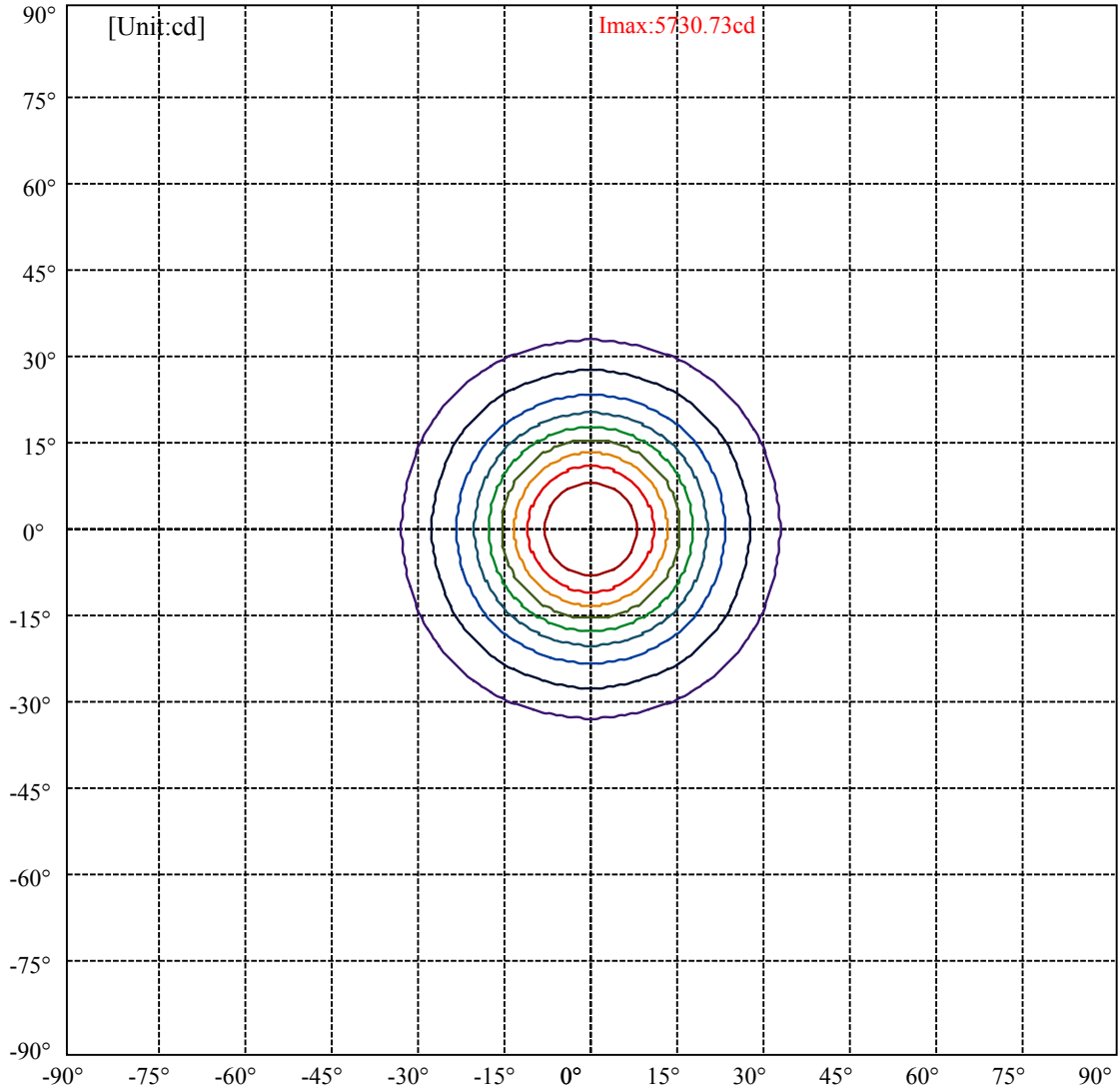
C0/C180: —————

C90/C270: —————

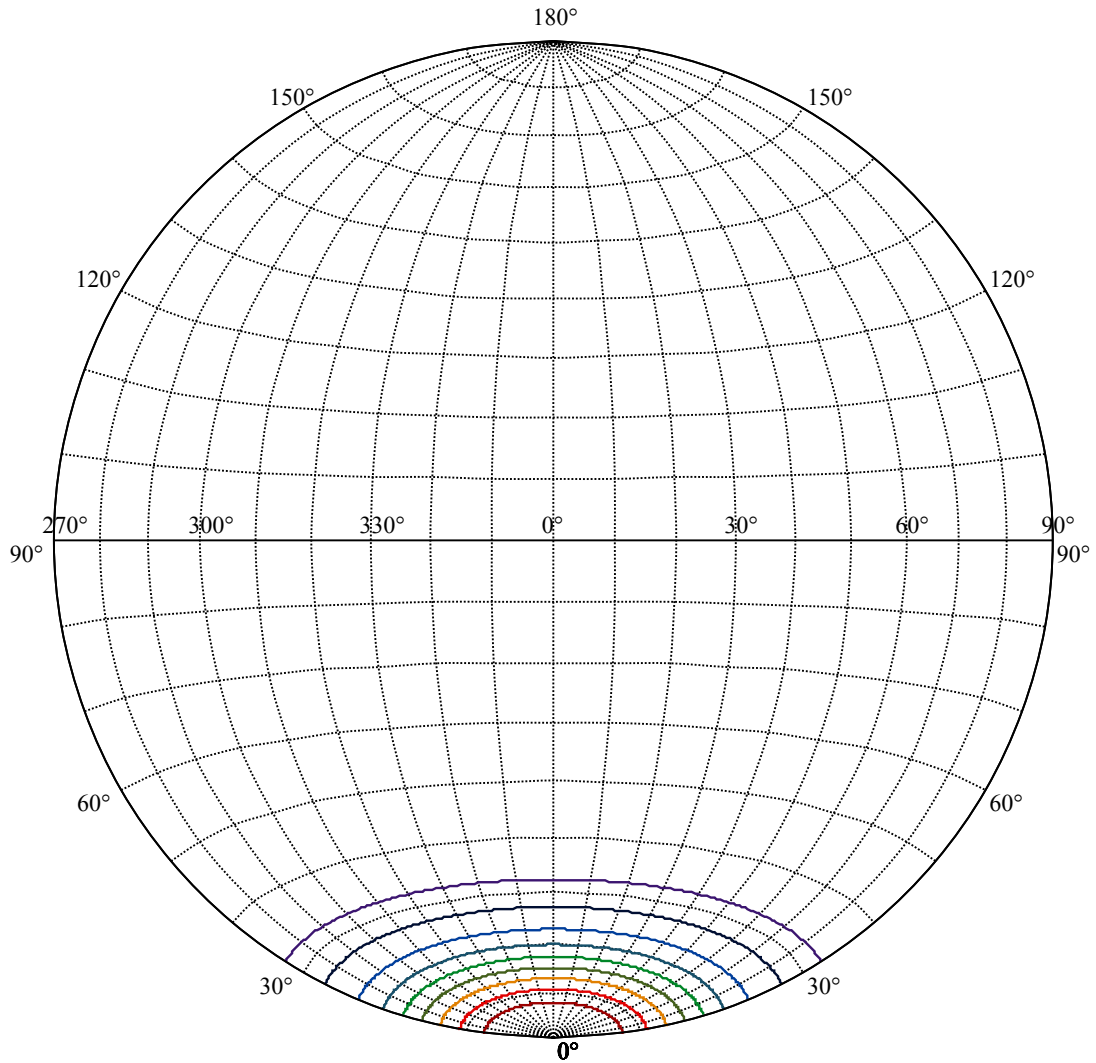
Field angle(10%Imax):C0/180Left:32.4 Right:32.4
:C90/270Left:32.4 Right:32.4

Beam Angle(50%Imax):C0/180Left:17.5 Right:17.5
:C90/270Left:17.5 Right:17.5





(10%I _{max}) 573.073	—
(20%I _{max}) 1146.15	—
(30%I _{max}) 1719.22	—
(40%I _{max}) 2292.29	—
(50%I _{max}) 2865.36	—
(60%I _{max}) 3438.44	—
(70%I _{max}) 4011.51	—
(80%I _{max}) 4584.58	—
(90%I _{max}) 5157.66	—



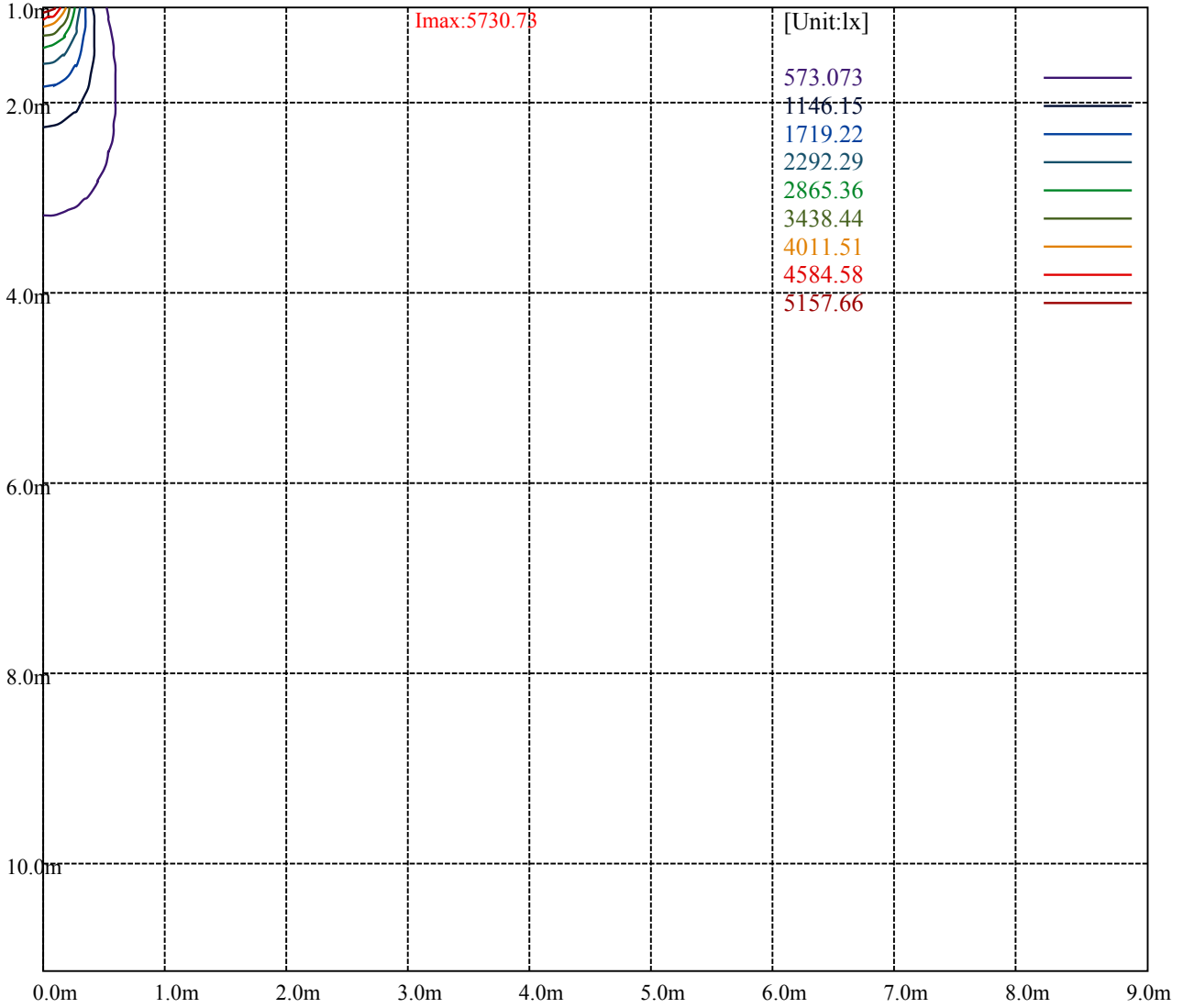
House

[Unit:cd]

Road

Imax:5730.73

(10%Imax)	573.073	—
(20%Imax)	1146.15	—
(30%Imax)	1719.22	—
(40%Imax)	2292.29	—
(50%Imax)	2865.36	—
(60%Imax)	3438.44	—
(70%Imax)	4011.51	—
(80%Imax)	4584.58	—
(90%Imax)	5157.66	—



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

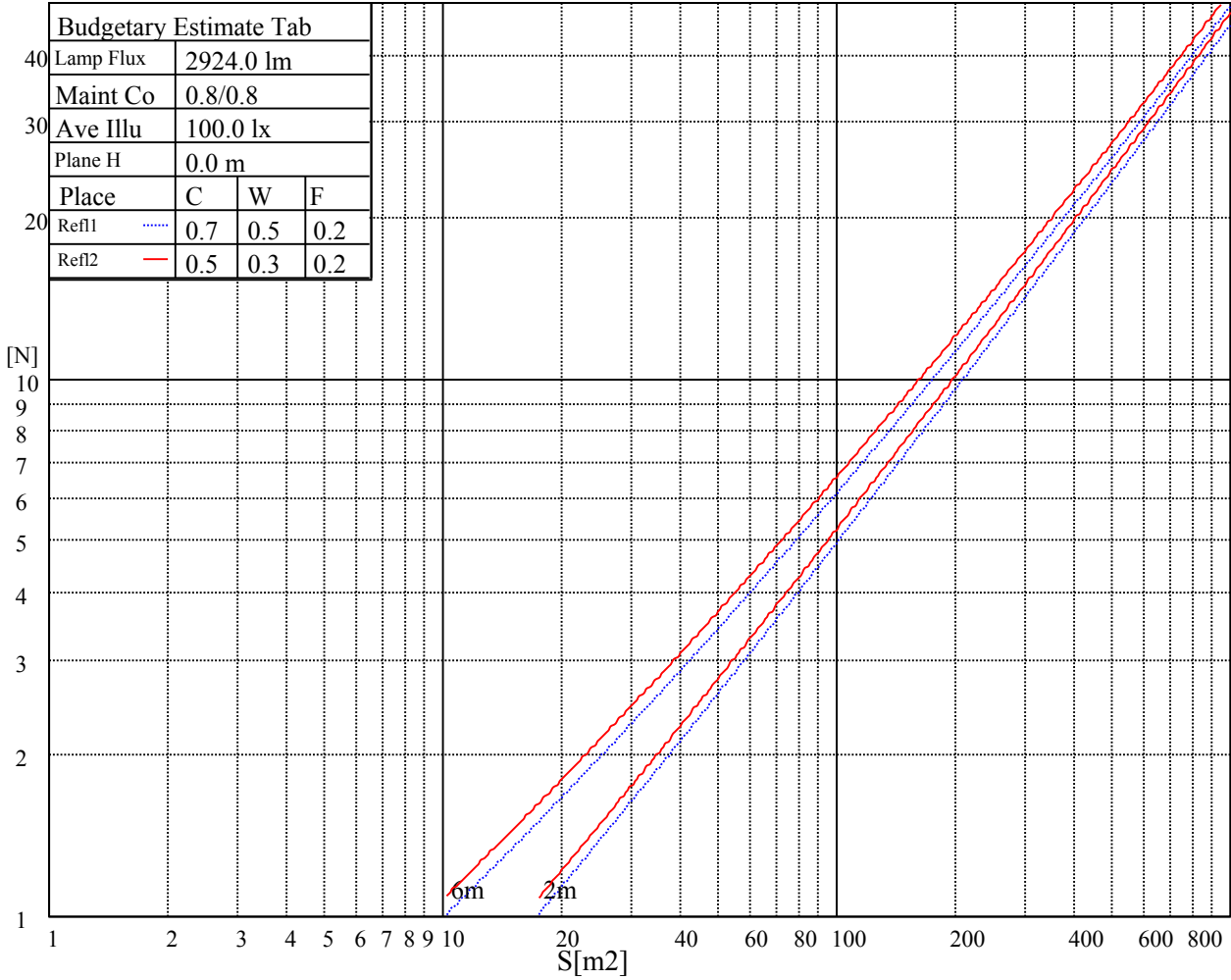
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

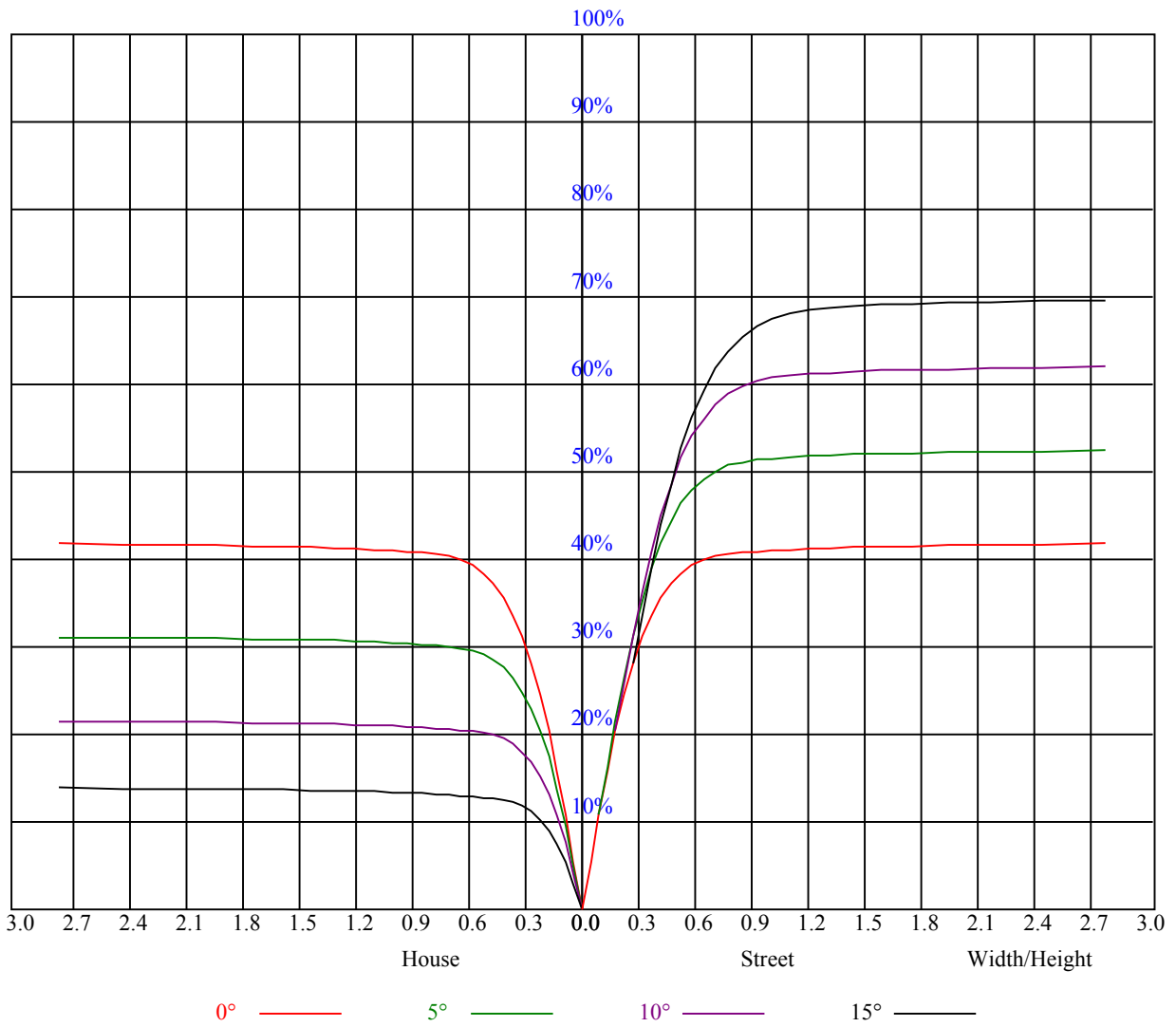
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

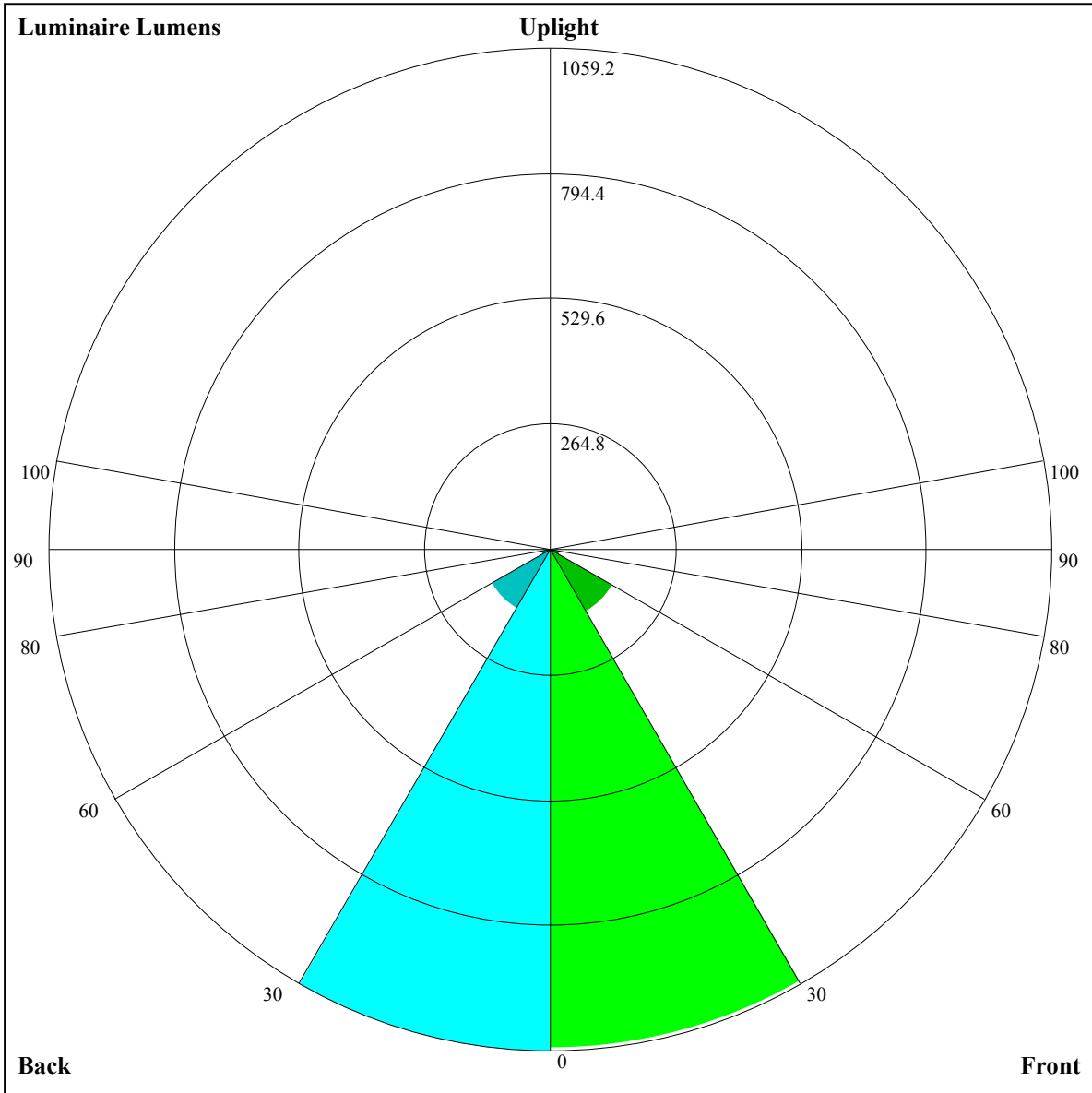
Luminance Limiting Curve





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	1.00	1.00	1.00	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.84
1	0.94	0.92	0.90	0.92	0.90	0.89	0.89	0.87	0.86	0.85	0.84	0.83	0.83	0.82	0.81	0.79
2	0.88	0.85	0.82	0.87	0.84	0.82	0.84	0.82	0.80	0.82	0.80	0.78	0.79	0.78	0.76	0.75
3	0.83	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.78	0.76	0.74	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	0.70	0.75	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.71	0.68	0.66	0.70	0.68	0.66	0.64
6	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.65	0.63	0.67	0.65	0.63	0.62
7	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.59
8	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.62	0.60	0.57	0.56
9	0.63	0.58	0.56	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.60	0.57	0.55	0.54
10	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.52





Luminaire Lumens:

FL=1054.15,FM=150.19,FH=19.49,FVH=6.32

BL=1059.2,BM=145.41,BH=19.01,BVH=6.25

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	5732.34	5710.68	5674.40	5622.90	5563.21	5461.96	5364.82	5217.92	5068.69
45.0	5734.09	5730.00	5710.10	5658.60	5591.30	5502.93	5419.83	5314.49	5169.94
90.0	5725.31	5683.76	5629.92	5556.77	5477.18	5380.62	5253.04	5138.33	4987.93
135.0	5731.17	5728.83	5701.91	5642.21	5590.13	5506.44	5421.58	5327.36	5166.42
180.0	5732.34	5734.68	5708.34	5670.30	5628.17	5564.38	5498.25	5381.79	5255.96
225.0	5734.09	5715.95	5676.16	5641.63	5595.39	5526.92	5421.58	5296.93	5139.50
270.0	5725.31	5733.51	5723.56	5696.64	5655.67	5614.71	5553.26	5457.87	5330.87
315.0	5731.17	5721.22	5673.81	5631.09	5576.67	5515.22	5399.34	5286.40	5144.19
360.0	5732.34	5710.68	5674.40	5622.90	5563.21	5461.96	5364.82	5217.92	5068.69
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4896.05	4656.11	4435.48	4208.41	3905.26	3652.45	3408.41	3171.39	2874.10
45.0	5025.39	4859.77	4616.90	4402.12	4177.39	3950.91	3713.31	3409.58	3167.88
90.0	4807.68	4557.79	4343.60	4114.19	3880.10	3583.39	3343.45	3103.51	2817.92
135.0	5017.19	4833.43	4577.10	4359.40	4132.33	3884.20	3640.74	3335.84	3090.63
180.0	5096.20	4866.79	4650.84	4422.60	4114.19	3867.23	3612.07	3362.76	3057.86
225.0	4946.38	4667.23	4434.89	4128.82	3879.52	3619.68	3298.39	3053.18	2810.31
270.0	5184.57	5003.15	4748.57	4505.71	4256.40	3938.04	3666.49	3412.51	3107.02
315.0	4978.57	4728.68	4503.95	4266.35	3953.84	3694.00	3383.83	3148.57	2909.80
360.0	4896.05	4656.11	4435.48	4208.41	3905.26	3652.45	3408.41	3171.39	2874.10
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2644.69	2431.67	2230.94	1994.51	1821.86	1669.71	1492.97	1166.12	1166.12
45.0	2933.79	2654.64	2444.54	2244.40	2012.06	1845.27	1663.85	1528.67	1405.18
90.0	2600.21	2394.21	2150.18	1972.85	1810.16	1631.08	1502.92	1301.60	1163.13
135.0	2861.22	2585.00	2381.34	2185.87	1961.15	1803.14	1621.72	1491.21	1363.63
180.0	2822.60	2583.83	2369.05	2132.62	1949.44	1776.22	1600.65	1457.27	1305.70
225.0	2577.97	2312.28	2110.97	1931.30	1767.44	1582.51	1440.88	1159.56	1159.56
270.0	2869.42	2631.82	2361.44	2166.56	1979.29	1796.70	1619.96	1472.48	1343.74
315.0	2678.05	2396.55	2184.70	1990.41	1814.26	1622.30	1481.26	1166.12	1166.12
360.0	2644.69	2431.67	2230.94	1994.51	1821.86	1669.71	1492.97	1166.12	1166.12
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1118.25	1029.53	943.68	815.63	704.67	596.93	489.48	361.32	265.22
45.0	1287.55	1159.39	1068.09	990.84	902.48	769.63	663.12	553.68	417.91
90.0	1137.09	1048.84	967.55	874.27	748.27	640.53	529.04	386.66	283.54
135.0	1244.83	1114.91	1028.30	945.20	838.69	702.91	593.48	486.38	353.53
180.0	1195.67	1096.18	987.92	875.56	761.44	646.73	507.45	399.77	302.03
225.0	1062.65	971.53	832.31	717.08	602.49	466.37	364.13	271.13	172.47
270.0	1223.18	1092.67	994.94	886.09	738.03	620.40	475.26	366.41	296.77
315.0	1093.02	1009.16	892.41	782.80	672.95	538.52	430.96	328.90	217.35
360.0	1118.25	1029.53	943.68	815.63	704.67	596.93	489.48	361.32	265.22
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	183.70	127.17	99.43	90.36	83.86	76.31	71.34	65.84	61.80
45.0	314.91	314.91	127.87	97.79	88.66	79.77	74.21	69.35	65.14
90.0	195.93	120.32	96.33	86.85	78.13	72.45	67.59	63.26	58.70
135.0	304.38	304.38	107.45	92.41	83.63	75.73	70.17	65.55	61.45
180.0	302.03	196.87	97.03	87.20	78.24	72.51	67.24	61.80	58.05
225.0	120.79	100.01	90.18	82.81	74.79	69.29	64.61	59.34	55.83
270.0	296.77	126.29	106.04	95.74	87.90	79.47	73.68	68.53	64.02
315.0	149.82	115.00	103.41	94.46	85.74	79.12	73.62	67.53	63.26
360.0	183.70	127.17	99.43	90.36	83.86	76.31	71.34	65.84	61.80

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	58.35	55.07	51.44	48.92	46.70	44.54	42.25	40.61	39.15
45.0	60.28	57.00	53.96	51.15	47.99	45.76	43.66	41.55	39.91
90.0	55.42	52.38	49.69	46.82	44.65	42.25	40.61	39.09	37.28
135.0	56.83	53.72	50.80	48.16	45.41	43.37	41.49	39.50	37.98
180.0	54.66	50.97	48.40	46.17	44.24	41.84	40.26	38.68	37.22
225.0	52.79	49.28	46.99	44.42	42.49	40.85	39.21	37.28	35.82
270.0	59.11	55.83	52.03	49.39	47.17	44.48	42.60	40.91	38.74
315.0	59.34	55.30	52.32	49.16	46.82	44.77	42.84	40.56	38.92
360.0	58.35	55.07	51.44	48.92	46.70	44.54	42.25	40.61	39.15
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	37.57	35.76	34.29	32.42	31.02	29.55	28.03	26.63	25.46
45.0	38.04	36.52	35.23	33.47	32.07	30.67	29.20	27.92	26.28
90.0	35.87	34.59	32.83	31.49	30.08	28.73	27.27	25.98	24.93
135.0	36.69	34.88	33.53	31.84	30.61	29.26	27.97	26.80	25.40
180.0	35.46	34.06	32.48	31.13	29.90	28.32	27.15	25.98	24.87
225.0	34.35	33.07	31.78	30.26	28.85	27.39	26.28	25.05	23.82
270.0	37.28	35.70	34.35	32.54	31.25	30.02	28.62	27.15	25.87
315.0	37.28	35.87	34.29	32.48	31.19	29.44	28.15	26.92	25.46
360.0	37.57	35.76	34.29	32.42	31.02	29.55	28.03	26.63	25.46
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	24.17	23.17	22.36	21.36	20.42	19.66	18.90	18.26	17.50
45.0	25.16	24.11	23.12	21.95	21.07	20.07	19.37	18.61	17.85
90.0	23.88	22.65	21.83	20.89	19.96	19.25	18.32	17.73	17.09
135.0	24.35	23.29	22.41	21.36	20.48	19.66	18.96	18.26	17.50
180.0	23.64	22.65	21.77	20.95	19.96	19.25	18.49	17.79	17.26
225.0	22.71	21.83	20.78	19.96	19.31	18.55	17.73	17.21	16.56
270.0	24.81	23.47	22.53	21.42	20.54	19.84	19.14	18.26	17.67
315.0	24.46	23.35	22.30	21.30	20.60	19.84	18.90	18.38	17.67
360.0	24.17	23.17	22.36	21.36	20.42	19.66	18.90	18.26	17.50
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	16.85	16.27	15.63	15.16	14.57	14.22	13.87	13.46	13.05
45.0	17.21	16.56	15.86	15.33	14.81	14.40	13.93	13.58	13.23
90.0	16.44	15.80	15.27	14.81	14.40	13.87	13.52	13.28	13.05
135.0	16.80	16.21	15.63	15.10	14.63	14.22	13.75	13.46	13.23
180.0	16.62	15.98	15.45	14.86	14.46	14.05	13.69	13.28	12.93
225.0	16.04	15.39	14.92	14.46	13.99	13.64	13.34	12.93	12.64
270.0	17.03	16.50	16.09	15.98	15.80	15.51	15.16	14.75	14.16
315.0	17.03	16.74	16.68	16.62	16.74	15.98	14.34	13.81	13.28
360.0	16.85	16.27	15.63	15.16	14.57	14.22	13.87	13.46	13.05
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.76	12.35	12.06	11.82	11.59	11.18	10.94	10.71	10.42
45.0	12.82	12.52	12.06	11.82	11.59	11.29	11.00	10.77	10.53
90.0	12.58	12.11	11.82	11.53	11.24	10.94	10.71	10.53	10.30
135.0	13.17	12.47	11.94	11.65	11.35	11.06	10.89	10.59	10.36
180.0	12.58	12.23	11.88	11.65	11.41	11.12	10.89	10.59	10.36
225.0	12.29	12.00	11.76	11.53	11.18	10.94	10.65	10.48	10.36
270.0	13.17	12.41	12.00	11.76	11.47	11.18	10.89	10.65	10.48
315.0	12.52	12.29	12.11	12.00	11.94	11.06	10.77	10.53	10.24
360.0	12.76	12.35	12.06	11.82	11.59	11.18	10.94	10.71	10.42

Intensity data(cd)

C/γ(°)	90.0
0.0	10.48
45.0	10.36
90.0	10.36
135.0	10.30
180.0	10.48
225.0	10.42
270.0	10.36
315.0	10.42
360.0	10.48