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NT

Client:

LumCAT: 3-2807-L

Luminaire: 92.70.411.00

Report No: 2024424-B020

Ballast type: AC

Test No: 2024424-C020

Voltage(V): 36.310

LampCAT: NICHIA NFCWJ130B-V3

Current(A): 0.576

Lamp flux(lm): 2924.0

Power (W): 20.914

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2441.20, Efficiency(%): 83.49% , Luminous Efficacy(lm/W): 116.73

Central intensity(cd): 5564.232, Maximum intensity(cd): 5564.232

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=35.6

[C90/270]Total=35.6

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=0.60 C90_270=0.60

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 83.49%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.644%

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	5564.232	0.000	0	0.00%	0.00%
1.0	5551.942	5.319	5.319	0.18%	0.22%
2.0	5524.802	15.898	21.217	0.54%	0.87%
3.0	5480.983	26.322	47.539	0.90%	1.95%
4.0	5423.851	36.502	84.041	1.25%	3.44%
5.0	5351.356	46.354	130.396	1.59%	5.34%
6.0	5251.209	55.719	186.115	1.91%	7.62%
7.0	5117.485	64.358	250.473	2.20%	10.26%
8.0	4962.181	72.138	322.612	2.47%	13.22%
9.0	4789.979	79.036	401.648	2.70%	16.45%
10.0	4587.784	84.865	486.513	2.90%	19.93%
11.0	4368.251	89.489	576.002	3.06%	23.60%
12.0	4147.182	93.086	669.088	3.18%	27.41%
13.0	3911.629	95.638	764.726	3.27%	31.33%
14.0	3669.273	97.035	861.761	3.32%	35.30%
15.0	3435.476	97.537	959.298	3.34%	39.30%
16.0	3207.311	97.335	1056.633	3.33%	43.28%
17.0	2967.076	96.152	1152.785	3.29%	47.22%
18.0	2740.667	94.108	1246.893	3.22%	51.08%
19.0	2516.014	91.455	1338.349	3.13%	54.82%
20.0	2302.480	88.192	1426.541	3.02%	58.44%
21.0	2101.455	84.564	1511.105	2.89%	61.90%
22.0	1926.034	80.934	1592.039	2.77%	65.22%
23.0	1754.929	77.237	1669.276	2.64%	68.38%
24.0	1594.870	73.239	1742.514	2.50%	71.38%
25.0	1418.498	68.517	1811.032	2.34%	74.19%
26.0	1265.834	63.364	1874.396	2.17%	76.78%
27.0	1187.802	60.029	1934.425	2.05%	79.24%
28.0	1081.540	57.455	1991.88	1.96%	81.59%
29.0	973.361	53.762	2045.642	1.84%	83.80%
30.0	840.069	48.962	2094.604	1.67%	85.80%
31.0	717.222	43.337	2137.941	1.48%	87.58%
32.0	595.759	37.615	2175.556	1.29%	89.12%
33.0	483.710	31.802	2207.358	1.09%	90.42%
34.0	373.220	25.933	2233.291	0.89%	91.48%
35.0	280.667	20.307	2253.598	0.69%	92.32%
36.0	230.652	16.280	2269.879	0.56%	92.98%
37.0	154.821	12.572	2282.451	0.43%	93.50%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	104.660	8.661	2291.112	0.30%	93.85%
39.0	92.444	6.728	2297.84	0.23%	94.13%
40.0	83.665	6.142	2303.982	0.21%	94.38%
41.0	76.460	5.702	2309.684	0.20%	94.61%
42.0	70.944	5.355	2315.039	0.18%	94.83%
43.0	66.021	5.074	2320.113	0.17%	95.04%
44.0	61.719	4.821	2324.934	0.16%	95.24%
45.0	58.186	4.608	2329.542	0.16%	95.43%
46.0	54.982	4.426	2333.968	0.15%	95.61%
47.0	52.107	4.259	2338.227	0.15%	95.78%
48.0	49.737	4.117	2342.344	0.14%	95.95%
49.0	47.535	3.995	2346.339	0.14%	96.11%
50.0	45.538	3.881	2350.219	0.13%	96.27%
51.0	43.782	3.779	2353.998	0.13%	96.43%
52.0	42.151	3.687	2357.686	0.13%	96.58%
53.0	40.651	3.602	2361.287	0.12%	96.73%
54.0	39.071	3.514	2364.801	0.12%	96.87%
55.0	37.593	3.422	2368.223	0.12%	97.01%
56.0	35.874	3.320	2371.543	0.11%	97.15%
57.0	34.294	3.208	2374.751	0.11%	97.28%
58.0	32.685	3.097	2377.849	0.11%	97.40%
59.0	31.090	2.982	2380.83	0.10%	97.53%
60.0	29.539	2.864	2383.695	0.10%	97.64%
61.0	28.069	2.749	2386.444	0.09%	97.76%
62.0	26.577	2.633	2389.077	0.09%	97.86%
63.0	25.282	2.522	2391.599	0.09%	97.97%
64.0	24.111	2.424	2394.023	0.08%	98.07%
65.0	22.941	2.329	2396.351	0.08%	98.16%
66.0	22.034	2.244	2398.595	0.08%	98.25%
67.0	21.353	2.182	2400.777	0.07%	98.34%
68.0	20.724	2.132	2402.908	0.07%	98.43%
69.0	20.315	2.094	2405.002	0.07%	98.52%
70.0	20.154	2.078	2407.08	0.07%	98.60%
71.0	20.124	2.082	2409.162	0.07%	98.69%
72.0	20.278	2.101	2411.263	0.07%	98.77%
73.0	20.461	2.130	2413.393	0.07%	98.86%
74.0	20.556	2.156	2415.55	0.07%	98.95%
75.0	20.498	2.169	2417.719	0.07%	99.04%

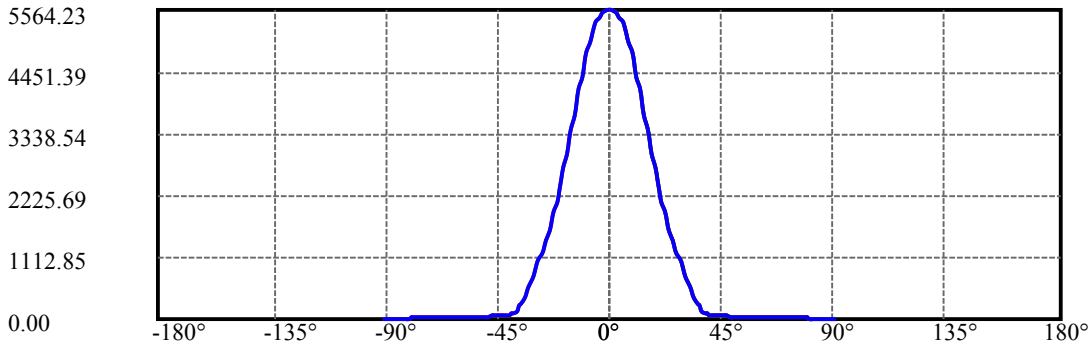
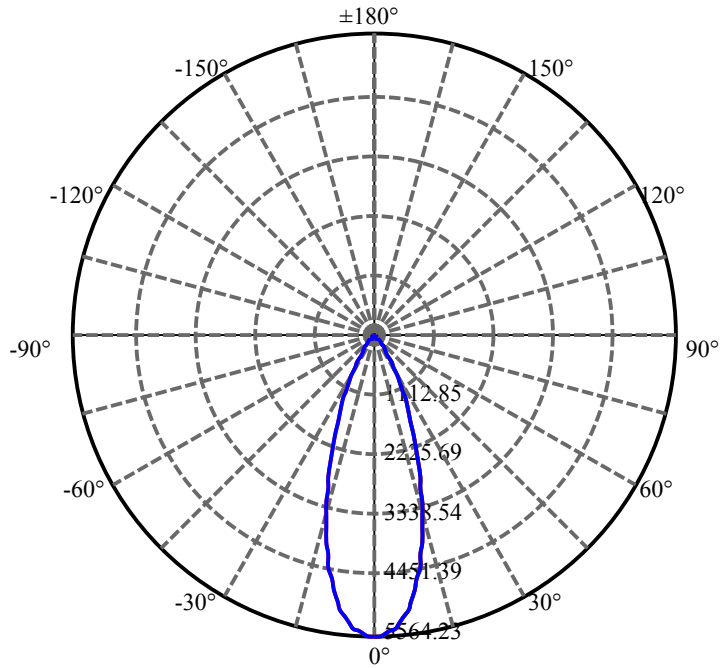
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	20.241	2.163	2419.882	0.07%	99.13%
77.0	19.832	2.137	2422.018	0.07%	99.21%
78.0	19.239	2.092	2424.11	0.07%	99.30%
79.0	18.098	2.006	2426.116	0.07%	99.38%
80.0	17.198	1.903	2428.019	0.07%	99.46%
81.0	15.465	1.766	2429.785	0.06%	99.53%
82.0	13.190	1.554	2431.339	0.05%	99.60%
83.0	12.275	1.384	2432.723	0.05%	99.65%
84.0	11.895	1.317	2434.04	0.05%	99.71%
85.0	11.529	1.278	2435.318	0.04%	99.76%
86.0	11.039	1.234	2436.552	0.04%	99.81%
87.0	10.724	1.191	2437.743	0.04%	99.86%
88.0	10.571	1.166	2438.909	0.04%	99.91%
89.0	10.432	1.151	2440.061	0.04%	99.95%
90.0	10.366	1.140	2441.201	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2094.60	71.63%	85.80%
0-40	2303.98	78.80%	94.38%
0-60	2383.69	81.52%	97.64%
0-90	2440.06	83.45%	99.95%
0-120	2440.06	83.45%	99.95%
0-180	2441.20	83.49%	100.00%
60-90	56.37	1.93%	2.31%
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%
0-27.32	1952.96	66.79%	80.00%

ZONAL LUMEN SUMMARY

0-10	486.51
10-20	940.03
20-30	668.06
30-40	209.38
40-50	46.24
50-60	33.48
60-70	23.39
70-80	20.94
80-90	12.04
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



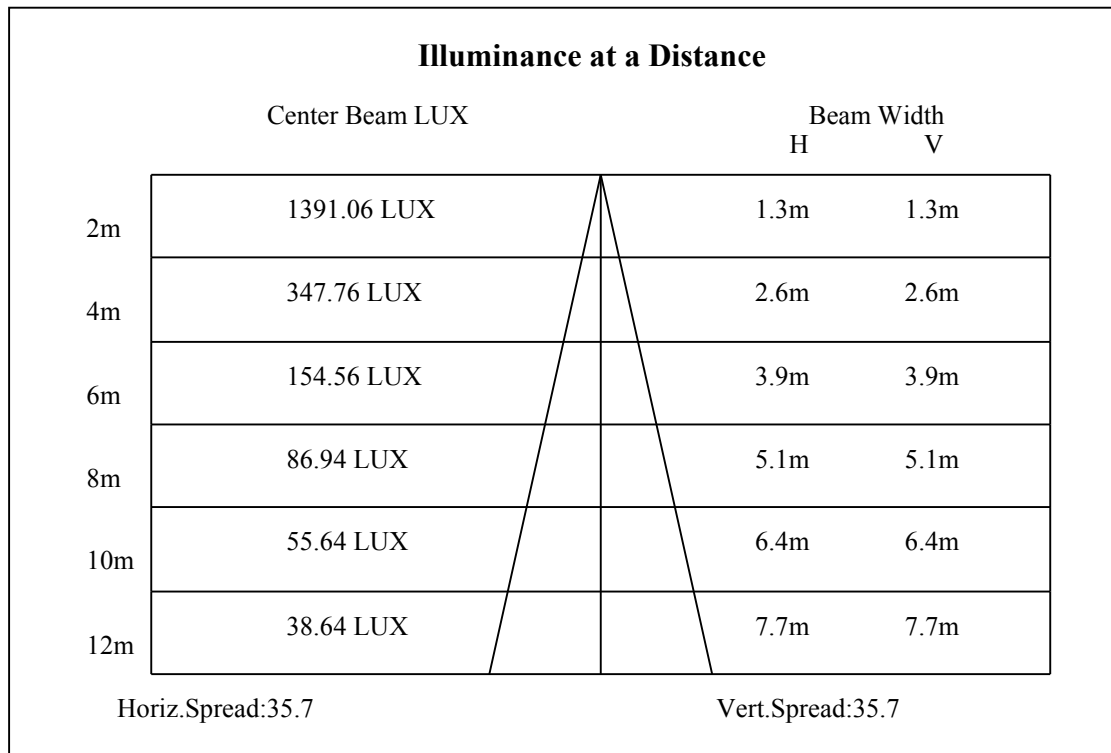
C0(Max): —————

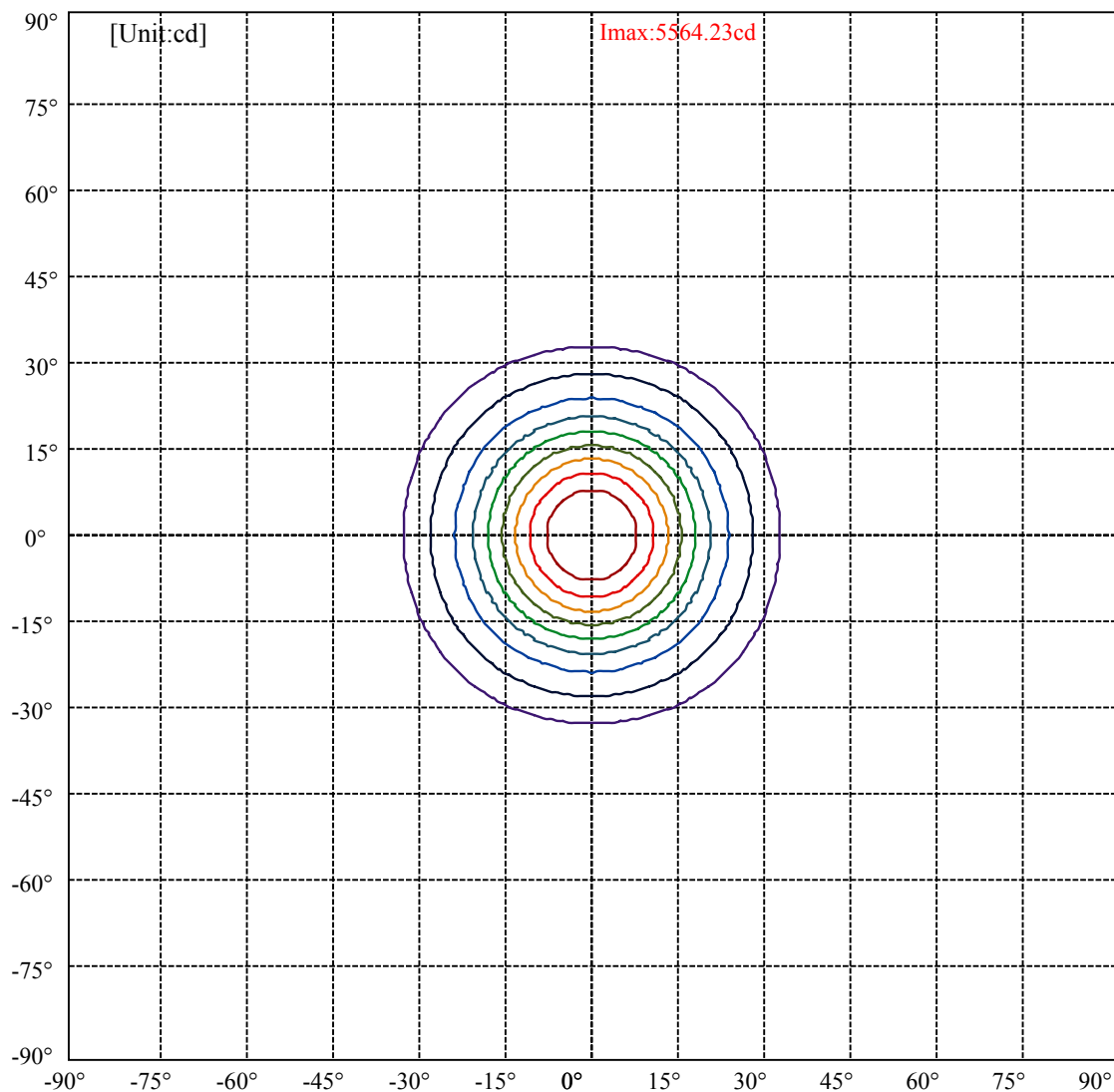
C0/C180: —————

C90/C270: —————

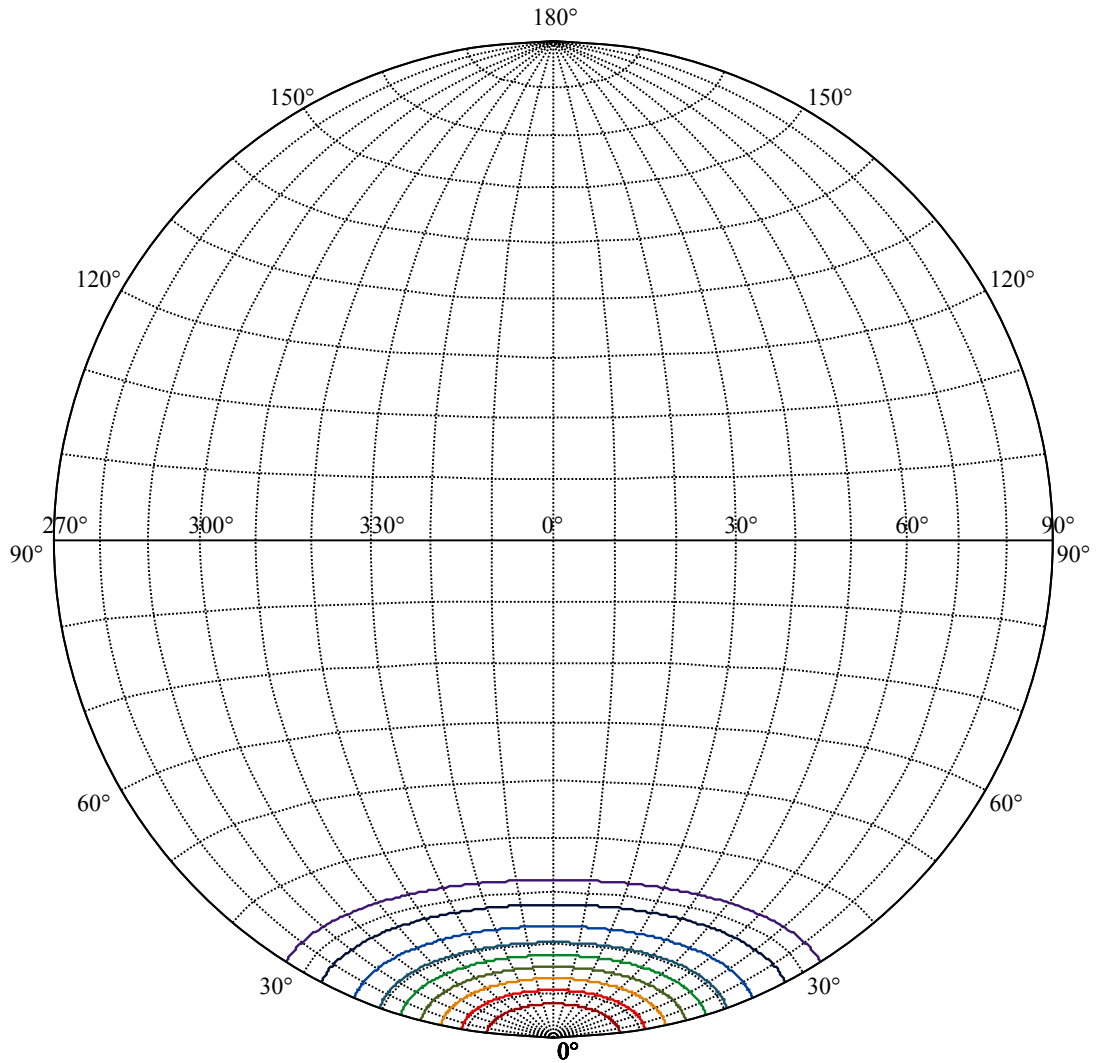
Field angle(10%Imax):C0/180Left:32.4 Right:32.4
:C90/270Left:32.4 Right:32.4

Beam Angle(50%Imax):C0/180Left:17.8 Right:17.8
:C90/270Left:17.8 Right:17.8





(10%Imax) 556.423	—
(20%Imax) 1112.85	—
(30%Imax) 1669.27	—
(40%Imax) 2225.69	—
(50%Imax) 2782.12	—
(60%Imax) 3338.54	—
(70%Imax) 3894.96	—
(80%Imax) 4451.39	—
(90%Imax) 5007.81	—



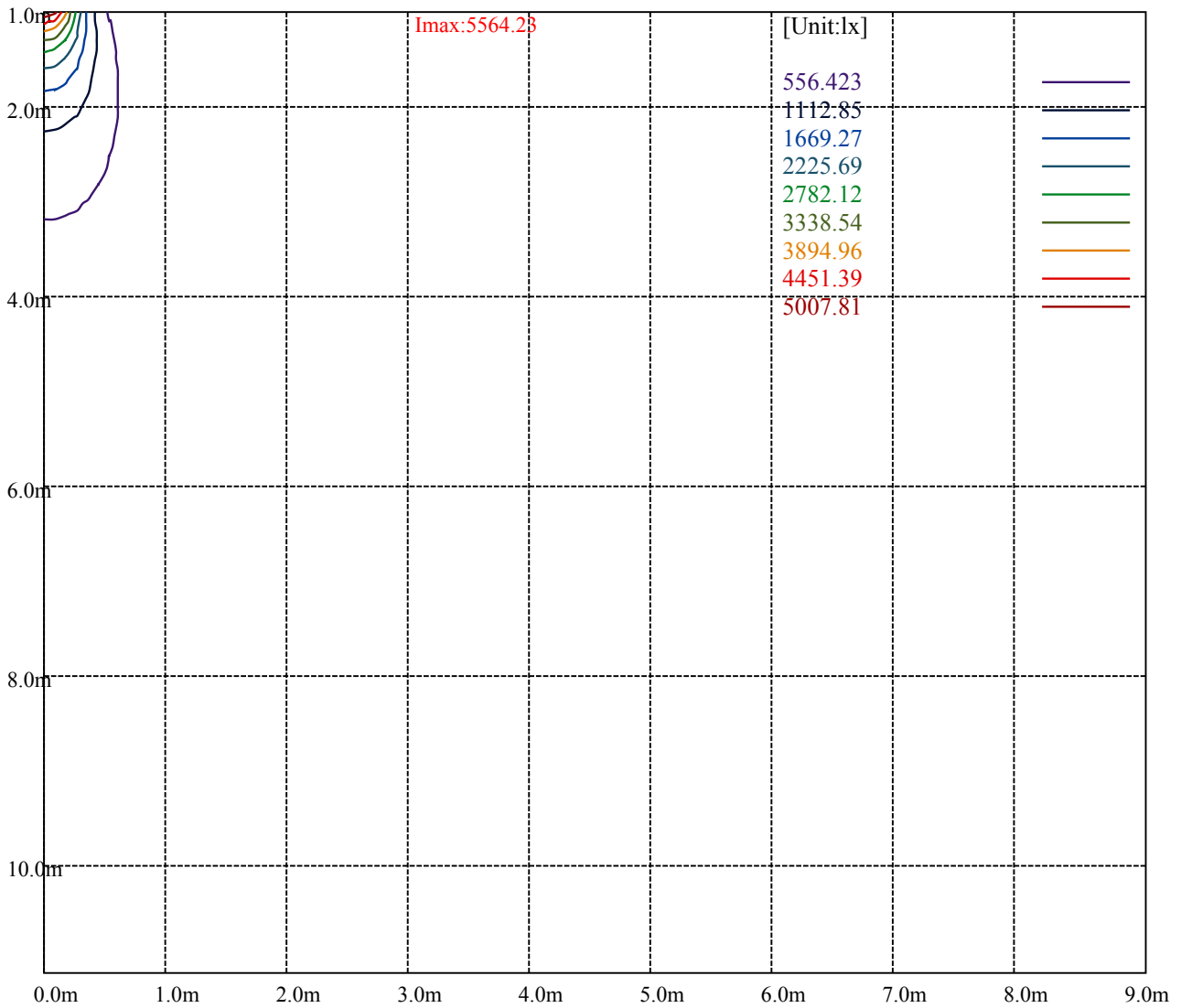
House

[Unit:cd]

Road

Imax:5564.23

(10%Imax) 556.423	—
(20%Imax) 1112.85	—
(30%Imax) 1669.27	—
(40%Imax) 2225.69	—
(50%Imax) 2782.12	—
(60%Imax) 3338.54	—
(70%Imax) 3894.96	—
(80%Imax) 4451.39	—
(90%Imax) 5007.81	—



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

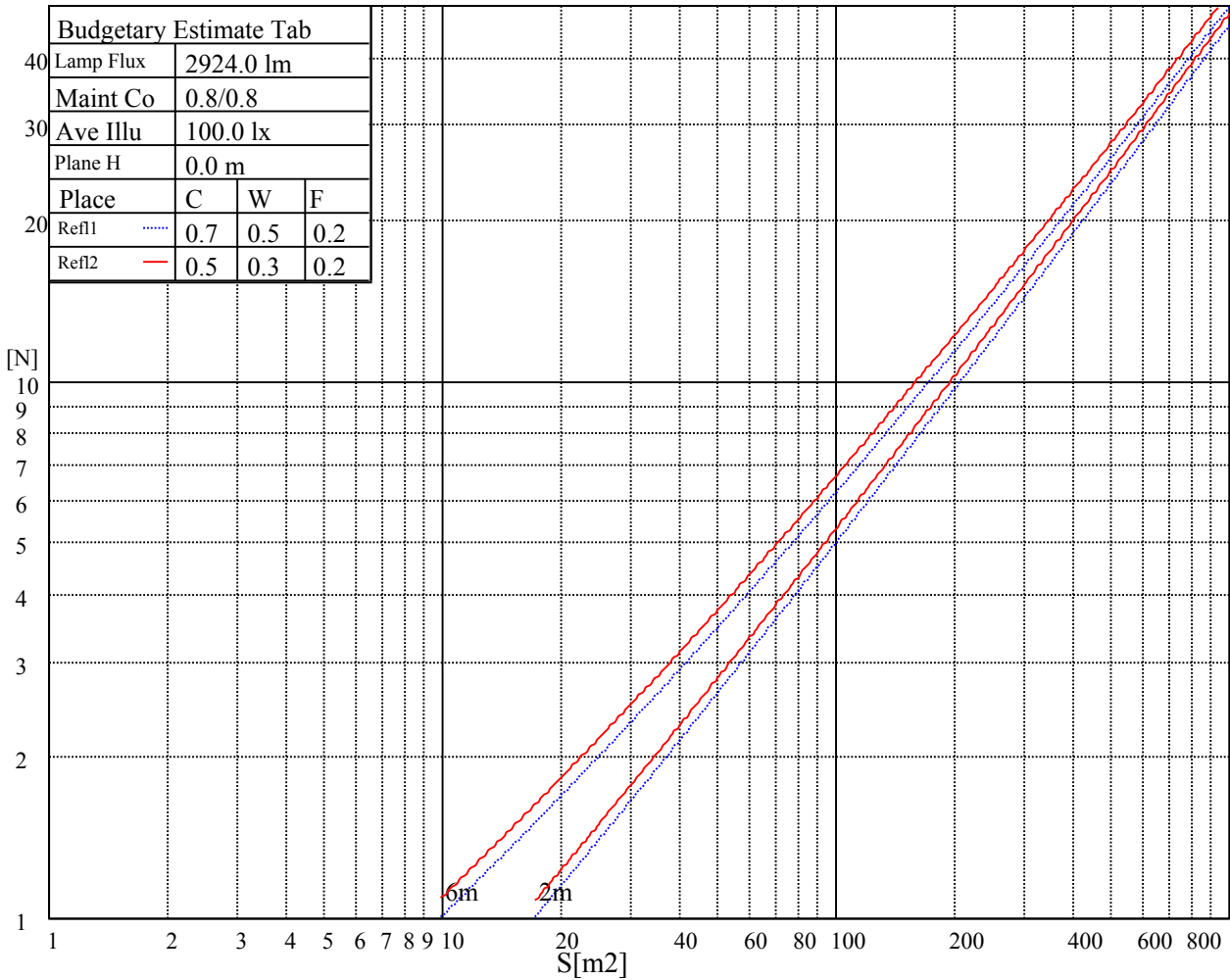
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

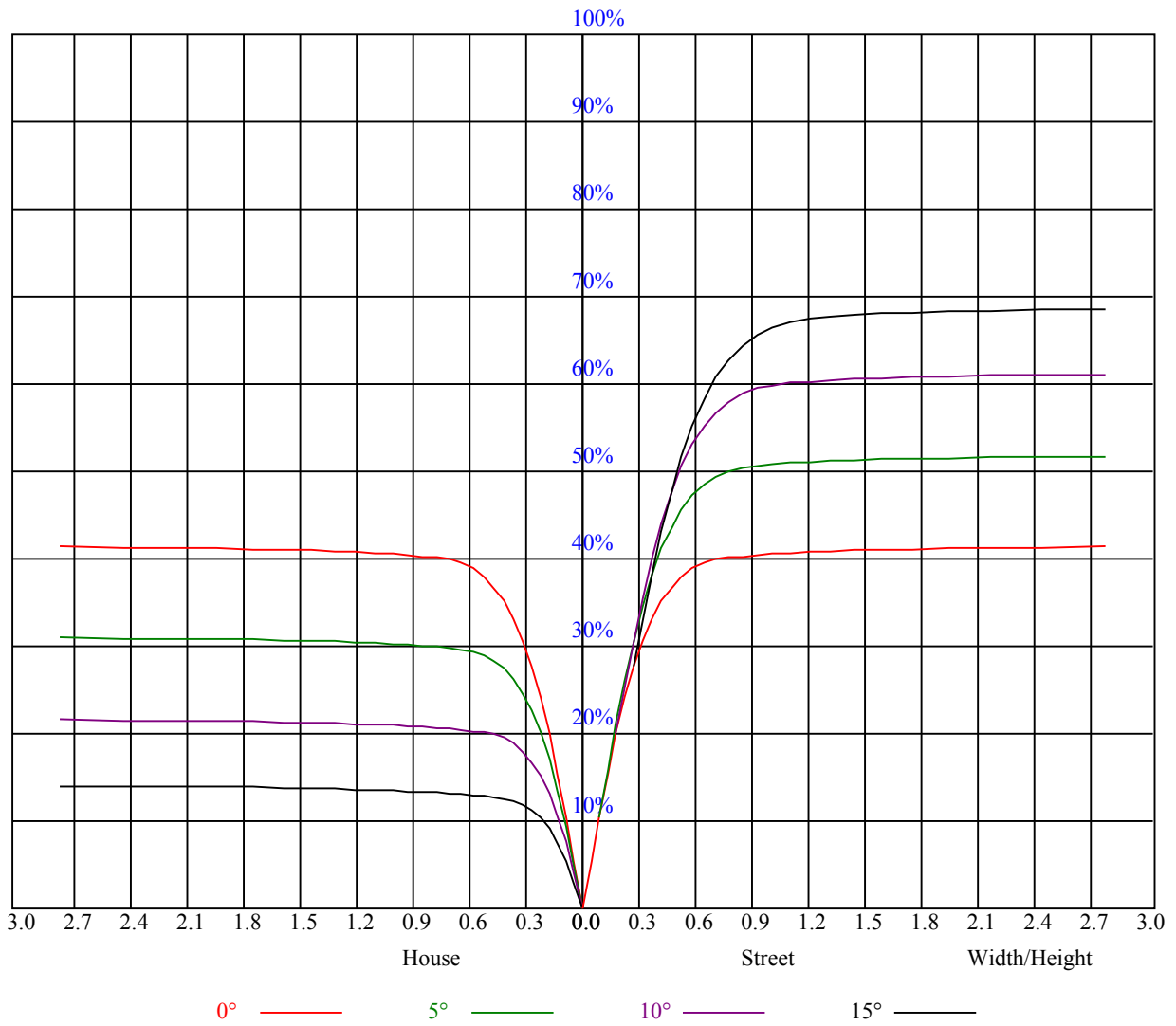
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

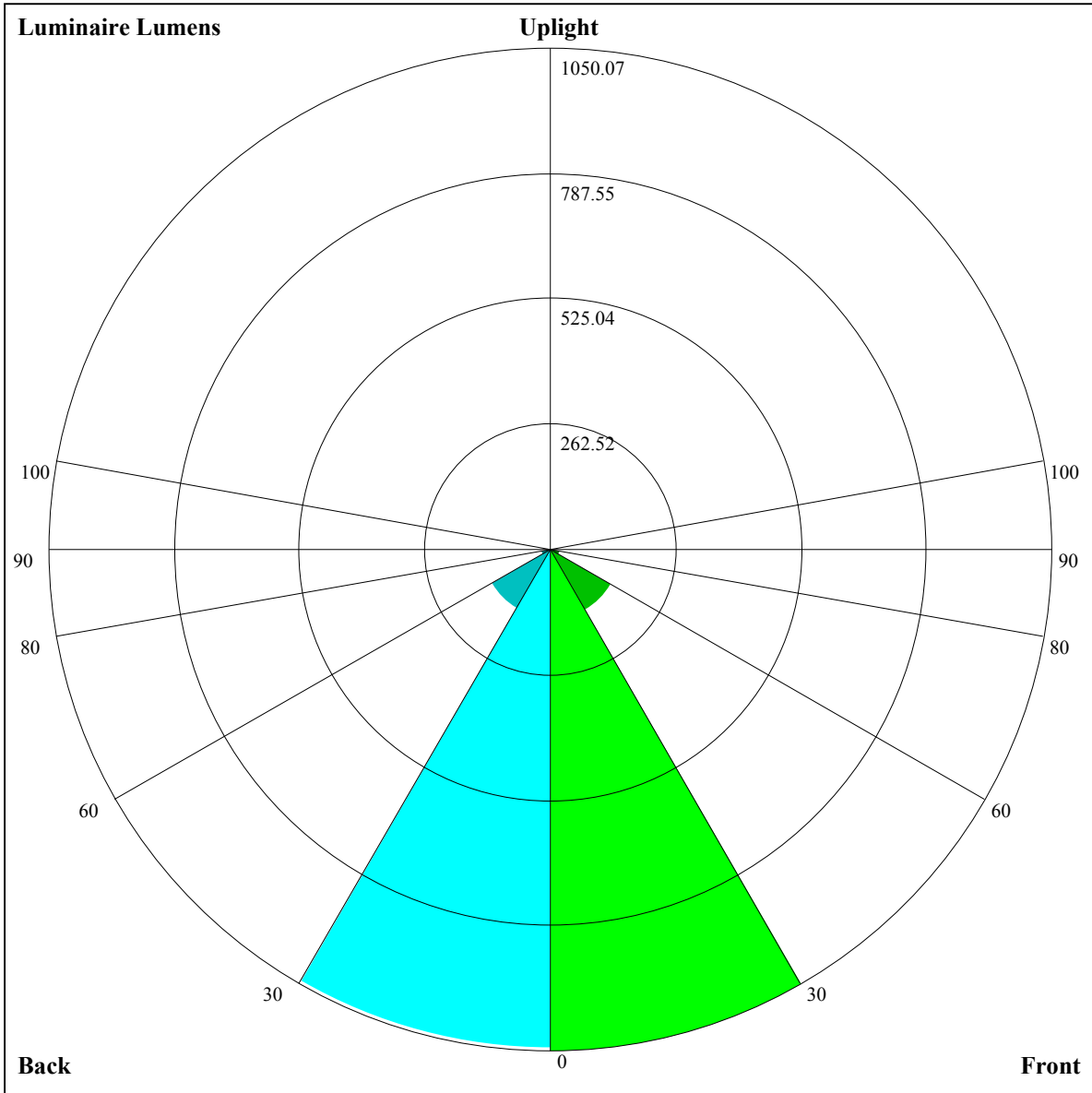
Luminance Limiting Curve





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	0.99	0.99	0.99	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.83
1	0.93	0.91	0.89	0.91	0.89	0.88	0.88	0.86	0.85	0.85	0.83	0.82	0.82	0.81	0.80	0.79
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	0.82	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.77	0.75	0.73	0.75	0.73	0.72	0.70
4	0.78	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.72	0.70	0.68	0.67
5	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.69	0.67	0.65	0.64
6	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61
7	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.58
8	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.62	0.59	0.56	0.55
9	0.62	0.58	0.55	0.61	0.57	0.55	0.61	0.57	0.54	0.60	0.57	0.54	0.59	0.56	0.54	0.53
10	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.51





Luminaire Lumens:

FL=1050.07,FM=146.79,FH=22.01,FVH=6.62

BL=1042.8,BM=143.48,BH=22.21,BVH=6.66

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	5573.16	5549.75	5528.68	5483.03	5429.78	5343.16	5238.99	5114.34	4936.43
45.0	5555.01	5563.79	5542.14	5514.05	5481.28	5413.97	5348.43	5224.36	5100.29
90.0	5557.94	5533.36	5497.66	5449.09	5371.25	5296.93	5161.16	5027.14	4873.23
135.0	5570.82	5560.28	5529.85	5492.40	5427.44	5363.06	5274.69	5161.16	4989.69
180.0	5573.16	5558.53	5533.95	5496.49	5434.46	5367.74	5285.81	5129.56	4997.88
225.0	5555.01	5531.61	5494.15	5432.70	5368.91	5286.40	5165.25	4988.52	4824.65
270.0	5557.94	5561.45	5546.24	5504.68	5459.62	5396.42	5321.51	5209.15	5047.62
315.0	5570.82	5556.77	5525.75	5475.42	5418.07	5343.16	5213.83	5085.66	4927.65
360.0	5573.16	5549.75	5528.68	5483.03	5429.78	5343.16	5238.99	5114.34	4936.43
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4757.35	4574.76	4314.92	4105.41	3833.87	3605.63	3376.81	3146.23	2865.32
45.0	4939.94	4768.47	4526.77	4333.06	4122.97	3847.33	3620.26	3393.19	3162.03
90.0	4702.34	4457.13	4253.47	4039.28	3814.56	3540.67	3322.97	3102.92	2887.56
135.0	4832.85	4656.11	4461.23	4208.41	4004.75	3789.39	3522.53	3308.92	3088.29
180.0	4791.30	4605.19	4402.71	4195.54	3928.67	3704.53	3495.02	3274.98	3009.29
225.0	4642.06	4388.66	4185.00	3911.12	3695.17	3480.98	3204.75	2989.97	2779.29
270.0	4896.64	4731.60	4486.39	4279.22	4060.93	3778.27	3555.30	3331.16	3056.10
315.0	4757.35	4520.34	4315.51	4105.41	3832.11	3607.39	3386.17	3111.11	2888.73
360.0	4757.35	4574.76	4314.92	4105.41	3833.87	3605.63	3376.81	3146.23	2865.32
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2651.71	2450.40	2260.78	2036.06	1868.68	1714.18	1568.46	1397.58	1158.22
45.0	2942.57	2676.88	2472.63	2236.79	2058.29	1894.43	1704.23	1560.85	1422.16
90.0	2629.47	2431.67	2197.58	2024.35	1821.86	1675.56	1533.35	1396.99	1144.99
135.0	2821.43	2620.11	2379.00	2190.56	2013.23	1850.54	1662.10	1515.21	1377.68
180.0	2797.43	2585.58	2381.92	2143.74	1970.51	1777.97	1635.18	1498.82	1324.42
225.0	2569.20	2322.82	2138.47	1968.17	1807.82	1621.13	1477.75	1167.00	1167.00
270.0	2837.81	2618.36	2359.10	2167.73	1991.58	1826.55	1645.71	1512.28	1371.24
315.0	2675.71	2422.30	2230.35	2044.25	1876.29	1679.07	1532.18	1299.26	1160.97
360.0	2651.71	2450.40	2260.78	2036.06	1868.68	1714.18	1568.46	1397.58	1158.22
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1158.22	1055.69	943.50	795.09	677.51	569.66	464.96	344.05	254.05
45.0	1268.24	1168.75	1073.36	963.34	846.88	705.84	594.06	490.48	366.99
90.0	1144.99	1047.85	941.63	824.06	681.49	569.19	460.16	333.70	246.03
135.0	1248.93	1121.93	1014.84	900.72	784.85	644.98	537.30	411.47	319.01
180.0	1203.28	1109.65	1001.96	845.12	729.83	614.54	509.79	386.89	298.52
225.0	1096.24	988.85	870.87	724.51	612.20	481.00	383.50	294.72	213.20
270.0	1246.00	1123.11	1021.28	870.29	754.41	639.71	503.35	399.18	304.96
315.0	1136.51	1036.49	919.45	797.43	650.59	541.16	416.56	325.27	242.58
360.0	1158.22	1055.69	943.50	795.09	677.51	569.66	464.96	344.05	254.05
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	180.31	128.28	102.18	91.94	84.62	76.96	71.81	67.42	62.38
45.0	297.94	297.94	123.01	102.24	92.17	82.81	76.78	71.69	66.13
90.0	172.99	114.06	96.39	87.32	78.71	73.15	68.35	63.20	59.58
135.0	297.94	200.38	110.20	97.38	88.31	79.94	74.38	69.58	65.37
180.0	298.52	141.80	108.79	96.45	85.38	78.65	71.46	66.54	62.38
225.0	135.71	105.22	94.28	85.33	76.84	71.22	66.36	61.21	57.76
270.0	304.96	136.30	104.17	92.11	83.45	75.26	69.58	65.08	60.34
315.0	156.84	114.59	98.26	86.79	79.82	73.68	68.82	63.44	59.81
360.0	180.31	128.28	102.18	91.94	84.62	76.96	71.81	67.42	62.38

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	58.93	55.89	52.55	50.21	48.05	46.12	43.95	42.37	40.85
45.0	62.38	58.93	56.01	52.61	50.27	48.11	46.17	44.07	42.55
90.0	56.42	53.49	50.50	48.46	46.58	44.42	42.90	41.43	39.62
135.0	60.69	57.59	54.84	52.26	49.57	47.52	45.18	43.66	42.25
180.0	58.82	54.78	52.14	49.74	47.64	45.41	43.77	42.43	40.97
225.0	54.66	51.38	49.04	47.11	44.89	43.19	41.79	39.97	38.62
270.0	57.06	53.96	50.91	48.75	46.47	44.83	43.31	41.96	40.50
315.0	56.53	53.84	50.86	48.75	46.82	44.71	43.19	41.32	39.85
360.0	58.93	55.89	52.55	50.21	48.05	46.12	43.95	42.37	40.85
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	39.50	37.51	35.87	33.94	32.19	30.72	29.03	27.51	26.28
45.0	40.50	38.98	37.45	35.52	34.18	32.42	30.78	29.20	27.51
90.0	38.27	36.87	34.88	33.47	31.89	30.43	28.79	27.33	26.04
135.0	40.44	39.03	37.51	35.99	34.18	32.60	31.08	29.73	27.86
180.0	39.21	37.92	36.11	34.59	33.07	31.13	29.85	28.50	26.98
225.0	37.34	35.87	33.94	32.60	31.02	29.61	28.03	26.51	25.05
270.0	38.80	37.51	36.17	34.65	32.89	31.31	29.90	28.27	26.74
315.0	38.51	37.04	35.05	33.59	32.07	30.49	28.85	27.51	26.16
360.0	39.50	37.51	35.87	33.94	32.19	30.72	29.03	27.51	26.28
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	24.87	23.64	22.65	21.95	21.71	21.89	22.53	23.29	24.29
45.0	26.34	25.22	23.70	22.65	21.83	20.78	19.84	19.08	18.20
90.0	24.93	23.58	22.53	21.71	20.66	19.72	19.08	18.84	19.08
135.0	26.57	25.52	24.05	23.00	22.24	21.24	20.60	20.19	20.19
180.0	25.52	24.52	23.41	22.59	22.47	22.71	23.17	24.11	24.76
225.0	23.94	22.71	21.59	20.89	20.01	19.20	18.38	17.73	17.09
270.0	25.28	24.11	22.94	21.83	21.07	20.19	19.37	18.61	18.08
315.0	24.81	23.58	22.65	21.65	20.83	20.07	19.55	19.37	19.31
360.0	24.87	23.64	22.65	21.95	21.71	21.89	22.53	23.29	24.29
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	24.93	24.93	24.46	23.76	22.71	21.89	21.01	20.13	18.55
45.0	17.50	16.80	16.09	15.57	15.16	14.69	14.22	13.87	13.58
90.0	19.78	20.54	21.07	21.48	21.59	21.54	21.13	19.78	18.20
135.0	20.48	21.19	22.18	23.00	23.58	23.76	22.94	19.72	20.37
180.0	25.52	25.69	25.40	24.40	23.41	22.41	21.48	20.48	19.20
225.0	16.50	15.86	15.33	14.86	14.40	13.99	13.69	13.28	12.99
270.0	17.91	18.32	19.02	19.61	19.55	19.37	19.14	18.73	17.73
315.0	19.61	20.37	20.89	21.30	21.54	21.01	20.31	18.79	16.97
360.0	24.93	24.93	24.46	23.76	22.71	21.89	21.01	20.13	18.55
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	16.09	13.05	12.35	11.82	11.53	11.12	10.77	10.53	10.24
45.0	13.17	12.87	12.47	12.23	12.06	11.35	10.89	10.65	10.59
90.0	15.57	13.23	12.06	11.82	11.35	10.89	10.65	10.48	10.24
135.0	18.02	13.93	12.64	12.06	11.59	11.06	10.77	10.53	10.89
180.0	17.62	14.16	12.52	12.06	11.65	11.00	10.71	10.53	10.53
225.0	12.58	12.29	11.94	11.65	11.06	10.77	10.53	10.65	10.24
270.0	15.63	13.05	12.11	11.82	11.59	11.12	10.83	10.53	10.53
315.0	15.04	12.93	12.11	11.70	11.41	11.00	10.65	10.65	10.18
360.0	16.09	13.05	12.35	11.82	11.53	11.12	10.77	10.53	10.24

Intensity data(cd)

C/γ(°)	90.0
0.0	10.36
45.0	10.24
90.0	10.42
135.0	10.30
180.0	10.48
225.0	10.48
270.0	10.24
315.0	10.42
360.0	10.36