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## NATA

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Client:

LumCAT: 2-2645-L

Luminaire: 92.70.411.00

Report No: 20231019-B005

Ballast type: AC

Test No: 20231019-C005

Voltage(V): 34.160

LampCAT: NICHIA NFCWJ120B-V3

Current(A): 0.577

Lamp flux(lm): 2611.4

Power (W): 19.710

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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## Photometric Results

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Lumens(lm): 2457.98, Efficiency(%): 94.13% , Luminous Efficacy(lm/W): 124.71

Central intensity(cd): 5293.465, Maximum intensity(cd): 5293.465

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=39.6

[C90/270]Total=39.6

Field angle(10%Imax): [C0/180]Total=63.4

[C90/270]Total=63.4

Maximum s/h(1/2): C0\_180=0.65 C90\_270=0.65

Maximum s/h(1/4): C0\_180=0.63 C90\_270=0.63

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 94.13%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 98.204%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5293.465	0.000	0	0.00%	0.00%
1.0	5284.954	5.062	5.062	0.19%	0.21%
2.0	5258.800	15.133	20.195	0.58%	0.82%
3.0	5212.994	25.045	45.24	0.96%	1.84%
4.0	5150.168	34.689	79.929	1.33%	3.25%
5.0	5078.139	44.002	123.931	1.68%	5.04%
6.0	4984.592	52.882	176.813	2.03%	7.19%
7.0	4887.308	61.275	238.088	2.35%	9.69%
8.0	4778.330	69.175	307.263	2.65%	12.50%
9.0	4661.119	76.502	383.764	2.93%	15.61%
10.0	4536.158	83.232	466.996	3.19%	19.00%
11.0	4397.082	89.261	556.258	3.42%	22.63%
12.0	4242.231	94.440	650.698	3.62%	26.47%
13.0	4078.661	98.748	749.446	3.78%	30.49%
14.0	3905.196	102.193	851.638	3.91%	34.65%
15.0	3719.485	104.675	956.313	4.01%	38.91%
16.0	3498.970	105.771	1062.084	4.05%	43.21%
17.0	3299.351	105.868	1167.952	4.05%	47.52%
18.0	3054.550	104.762	1272.714	4.01%	51.78%
19.0	2839.294	102.541	1375.255	3.93%	55.95%
20.0	2591.517	99.399	1474.654	3.81%	59.99%
21.0	2366.297	95.200	1569.854	3.65%	63.87%
22.0	2138.517	90.526	1660.38	3.47%	67.55%
23.0	1913.366	85.019	1745.4	3.26%	71.01%
24.0	1704.822	79.107	1824.506	3.03%	74.23%
25.0	1461.550	71.996	1896.503	2.76%	77.16%
26.0	1279.153	64.695	1961.197	2.48%	79.79%
27.0	1136.236	59.093	2020.29	2.26%	82.19%
28.0	1010.549	54.352	2074.642	2.08%	84.40%
29.0	861.302	48.973	2123.615	1.88%	86.40%
30.0	733.975	43.072	2166.687	1.65%	88.15%
31.0	607.879	37.342	2204.029	1.43%	89.67%
32.0	501.649	31.787	2235.816	1.22%	90.96%
33.0	407.797	26.793	2262.608	1.03%	92.05%
34.0	333.187	22.424	2285.033	0.86%	92.96%
35.0	274.000	18.857	2303.89	0.72%	93.73%
36.0	226.625	15.940	2319.83	0.61%	94.38%
37.0	183.393	13.372	2333.202	0.51%	94.92%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	137.312	10.705	2343.907	0.41%	95.36%
39.0	104.148	8.242	2352.149	0.32%	95.69%
40.0	84.283	6.572	2358.72	0.25%	95.96%
41.0	69.752	5.485	2364.206	0.21%	96.18%
42.0	58.917	4.675	2368.88	0.18%	96.37%
43.0	50.911	4.068	2372.949	0.16%	96.54%
44.0	45.189	3.627	2376.576	0.14%	96.69%
45.0	40.623	3.298	2379.874	0.13%	96.82%
46.0	37.205	3.044	2382.917	0.12%	96.95%
47.0	34.402	2.848	2385.765	0.11%	97.06%
48.0	32.098	2.688	2388.454	0.10%	97.17%
49.0	29.946	2.548	2391.002	0.10%	97.27%
50.0	28.210	2.425	2393.426	0.09%	97.37%
51.0	26.646	2.321	2395.747	0.09%	97.47%
52.0	25.345	2.231	2397.978	0.09%	97.56%
53.0	24.231	2.157	2400.135	0.08%	97.65%
54.0	23.249	2.093	2402.227	0.08%	97.73%
55.0	22.411	2.038	2404.266	0.08%	97.81%
56.0	21.616	1.989	2406.255	0.08%	97.90%
57.0	20.937	1.946	2408.201	0.07%	97.97%
58.0	20.315	1.908	2410.108	0.07%	98.05%
59.0	19.789	1.875	2411.983	0.07%	98.13%
60.0	19.298	1.847	2413.83	0.07%	98.20%
61.0	18.827	1.819	2415.649	0.07%	98.28%
62.0	18.384	1.793	2417.442	0.07%	98.35%
63.0	17.969	1.768	2419.21	0.07%	98.42%
64.0	17.602	1.745	2420.956	0.07%	98.49%
65.0	17.187	1.722	2422.677	0.07%	98.56%
66.0	16.834	1.697	2424.375	0.07%	98.63%
67.0	16.495	1.676	2426.051	0.06%	98.70%
68.0	16.122	1.652	2427.703	0.06%	98.77%
69.0	15.783	1.628	2429.331	0.06%	98.83%
70.0	15.430	1.603	2430.934	0.06%	98.90%
71.0	15.132	1.580	2432.513	0.06%	98.96%
72.0	14.807	1.557	2434.07	0.06%	99.03%
73.0	14.516	1.533	2435.603	0.06%	99.09%
74.0	14.226	1.511	2437.115	0.06%	99.15%
75.0	13.963	1.489	2438.604	0.06%	99.21%

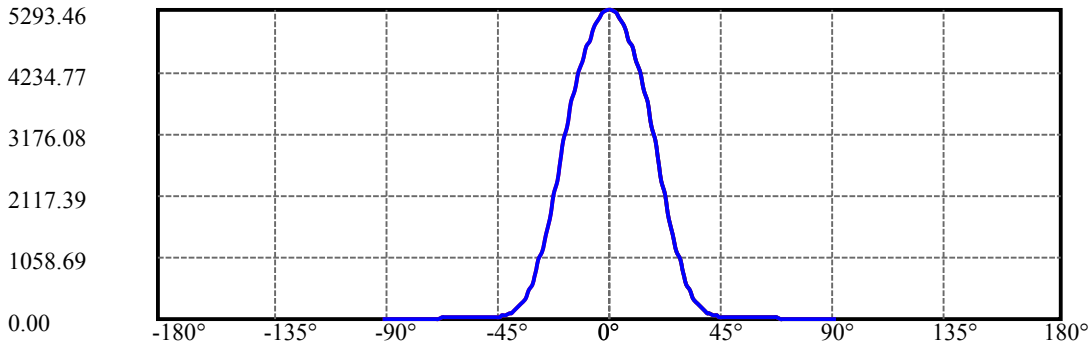
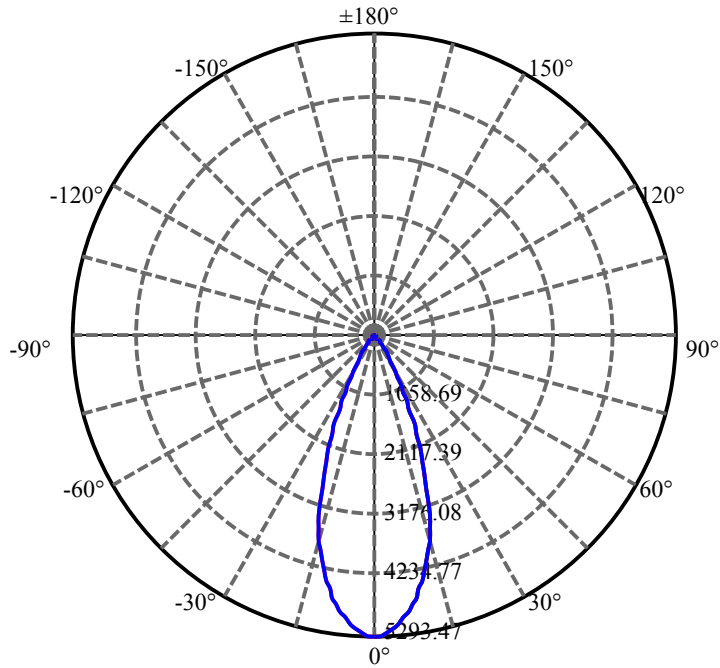
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	13.707	1.469	2440.073	0.06%	99.27%
77.0	13.396	1.445	2441.518	0.06%	99.33%
78.0	13.105	1.419	2442.936	0.05%	99.39%
79.0	12.814	1.393	2444.329	0.05%	99.44%
80.0	12.531	1.366	2445.695	0.05%	99.50%
81.0	12.247	1.340	2447.035	0.05%	99.55%
82.0	11.943	1.312	2448.347	0.05%	99.61%
83.0	11.673	1.284	2449.631	0.05%	99.66%
84.0	11.424	1.258	2450.889	0.05%	99.71%
85.0	11.168	1.233	2452.122	0.05%	99.76%
86.0	10.946	1.209	2453.331	0.05%	99.81%
87.0	10.759	1.188	2454.519	0.05%	99.86%
88.0	10.579	1.169	2455.688	0.04%	99.91%
89.0	10.448	1.153	2456.84	0.04%	99.95%
90.0	10.386	1.142	2457.982	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2166.69	82.97%	88.15%
0-40	2358.72	90.32%	95.96%
0-60	2413.83	92.44%	98.20%
0-90	2456.84	94.08%	99.95%
0-120	2456.84	94.08%	99.95%
0-180	2457.98	94.13%	100.00%
60-90	43.01	1.65%	1.75%
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%
0-26.09	1966.39	75.30%	80.00%

ZONAL LUMEN SUMMARY

0-10	467.00
10-20	1007.66
20-30	692.03
30-40	192.03
40-50	34.71
50-60	20.40
60-70	17.10
70-80	14.76
80-90	11.14
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: —————

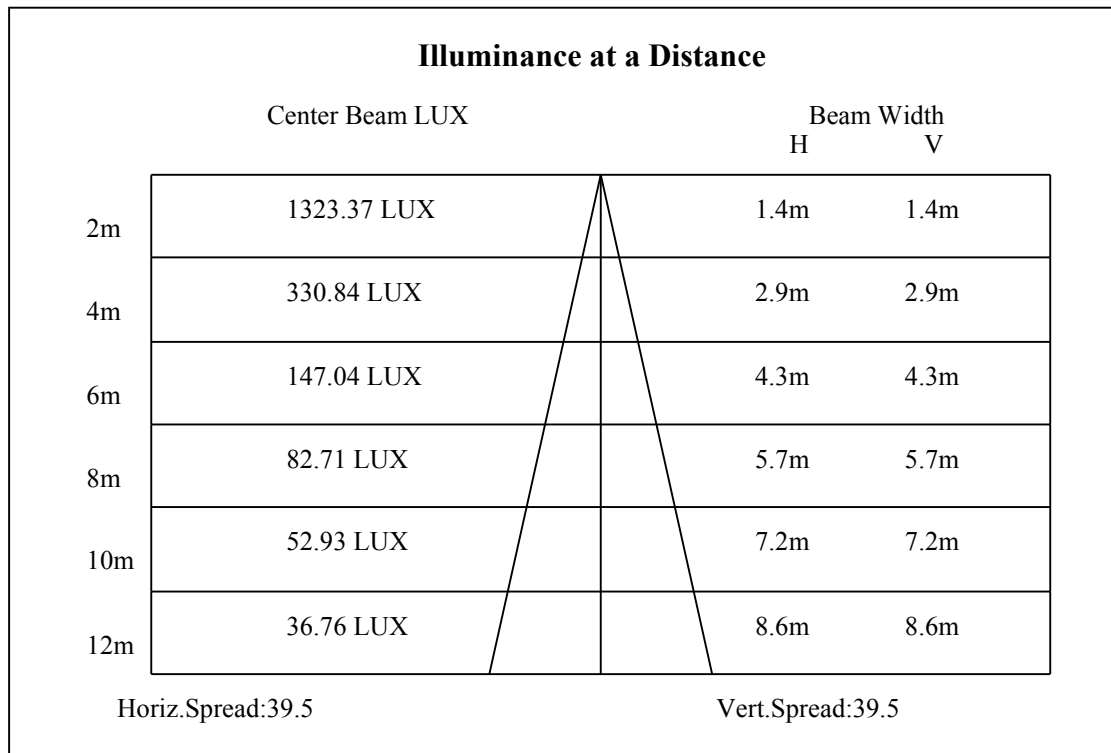
C90/C270: —————

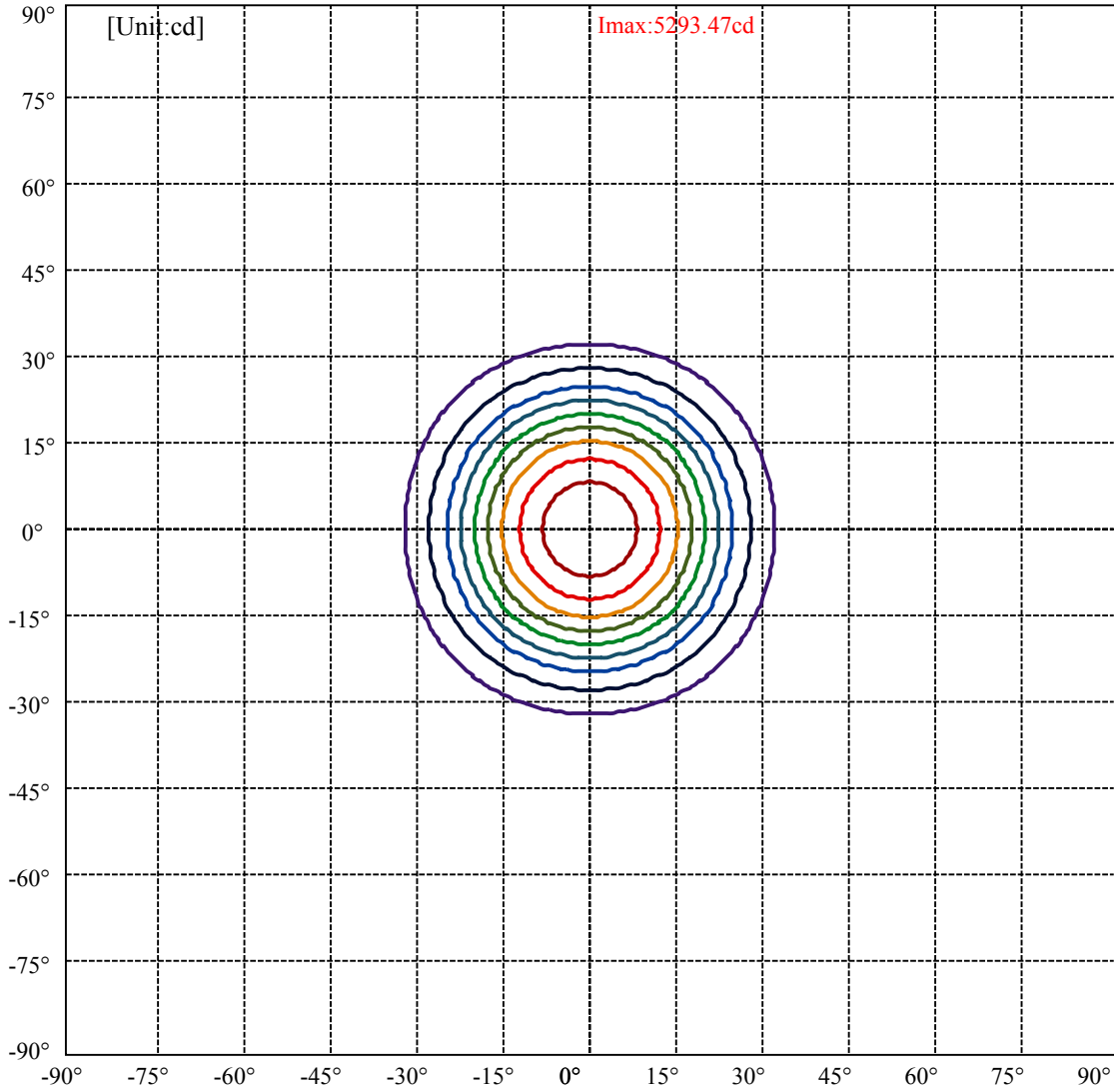
Field angle(10%Imax):C0/180Left:31.7 Right:31.7

:C90/270Left:31.7 Right:31.7

Beam Angle(50%Imax):C0/180Left:19.8 Right:19.8

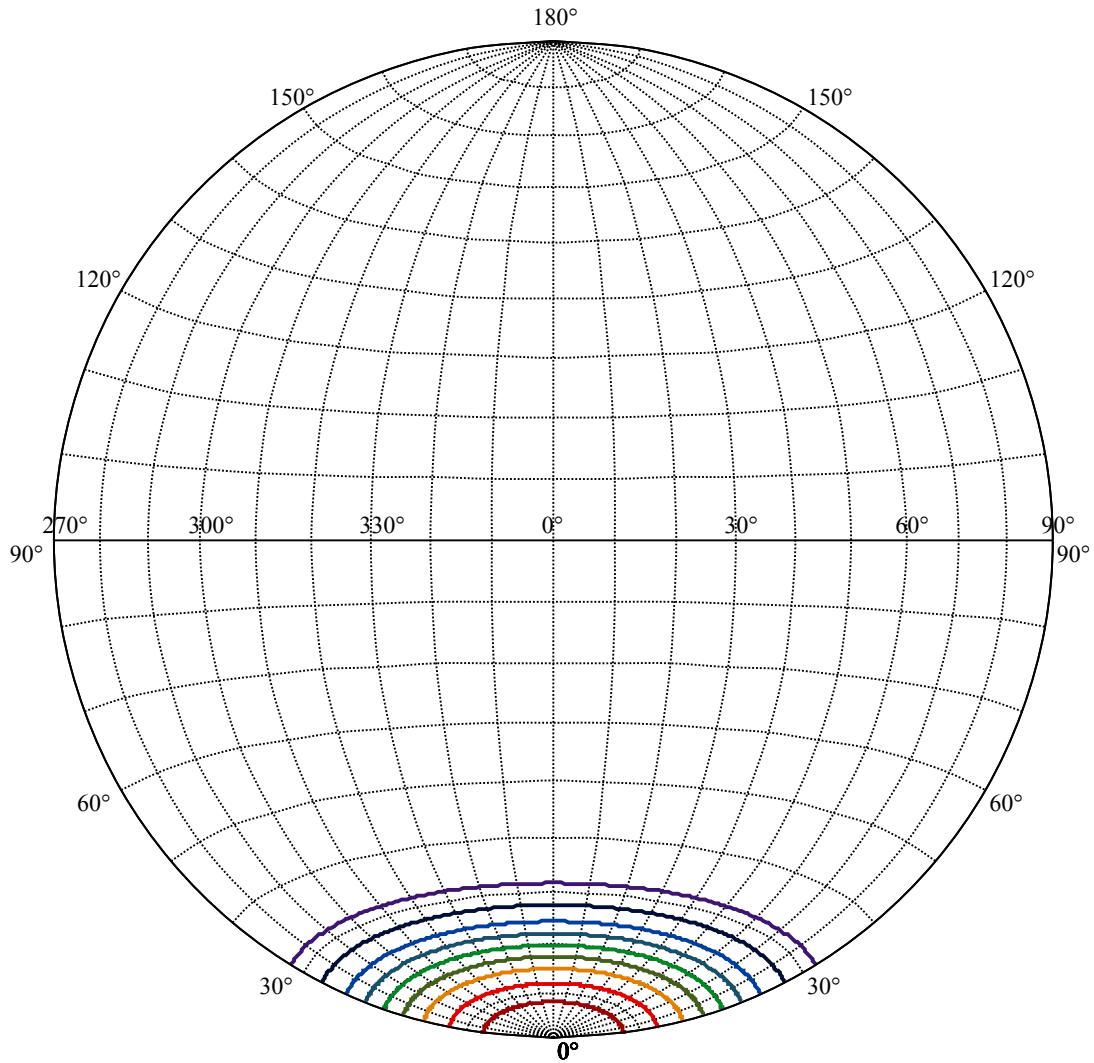
:C90/270Left:19.8 Right:19.8





(10%Imax) 529.346	—
(20%Imax) 1058.69	—
(30%Imax) 1588.04	—
(40%Imax) 2117.39	—
(50%Imax) 2646.73	—
(60%Imax) 3176.08	—
(70%Imax) 3705.43	—
(80%Imax) 4234.77	—
(90%Imax) 4764.12	—





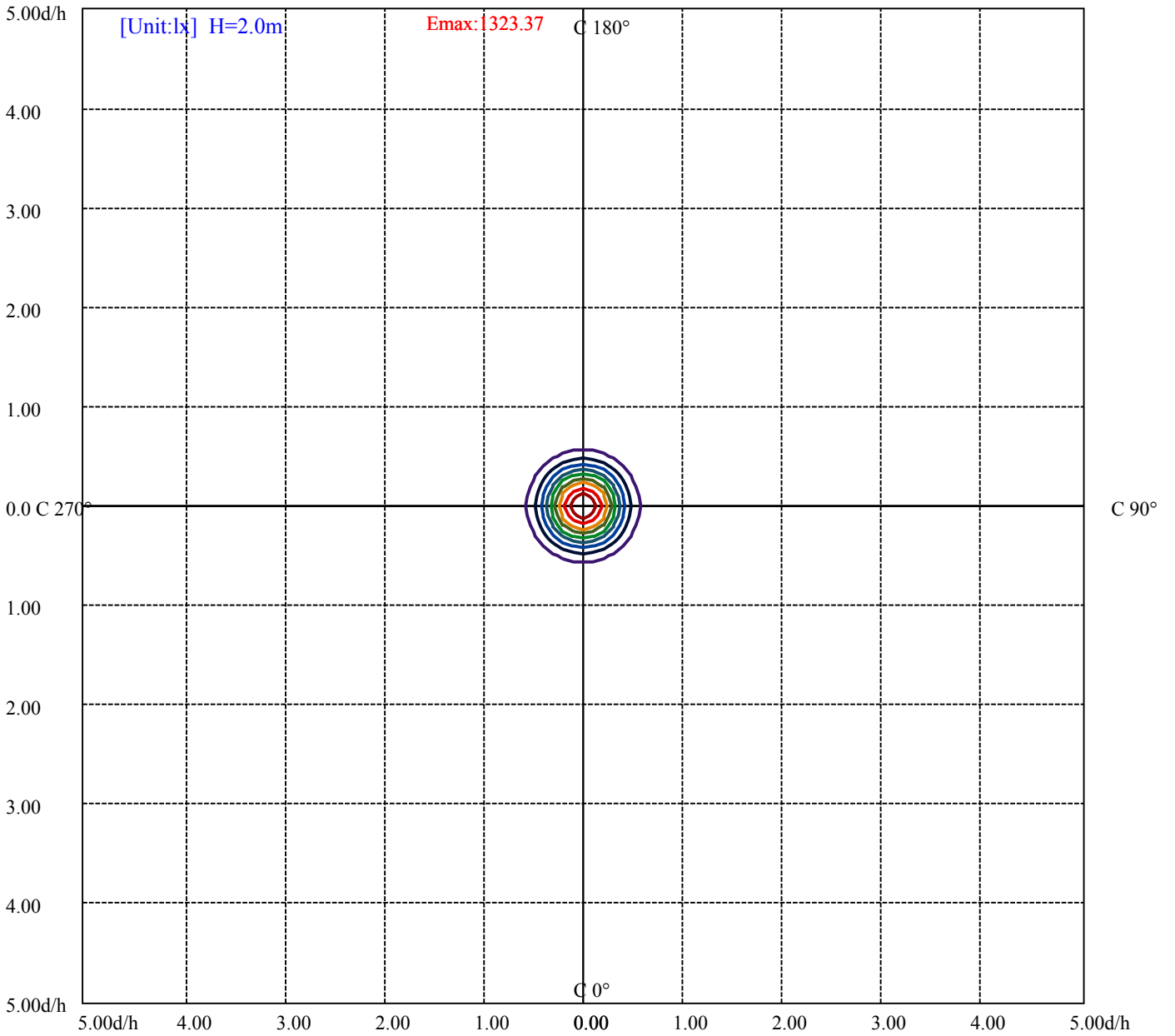
House

[Unit:cd]

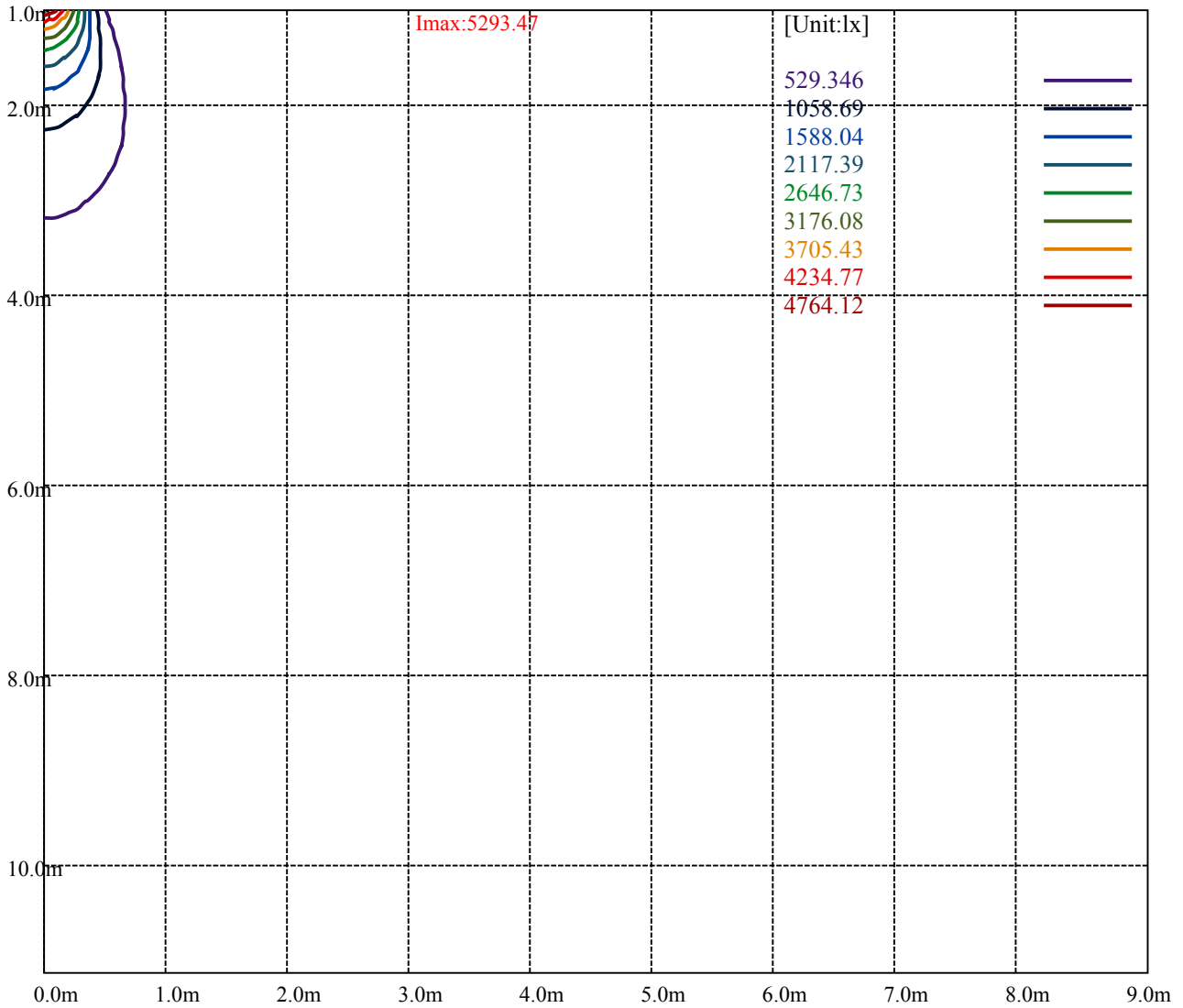
Road

Imax:5293.47

(10%Imax)	529.346	—
(20%Imax)	1058.69	—
(30%Imax)	1588.04	—
(40%Imax)	2117.39	—
(50%Imax)	2646.73	—
(60%Imax)	3176.08	—
(70%Imax)	3705.43	—
(80%Imax)	4234.77	—
(90%Imax)	4764.12	—



- (10%Emax) 132.3365
- (20%Emax) 264.6725
- (30%Emax) 397.01
- (40%Emax) 529.3475
- (50%Emax) 661.6825
- (60%Emax) 794.02
- (70%Emax) 926.355
- (80%Emax) 1058.693
- (90%Emax) 1191.03



Luminance Table

$\gamma$	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

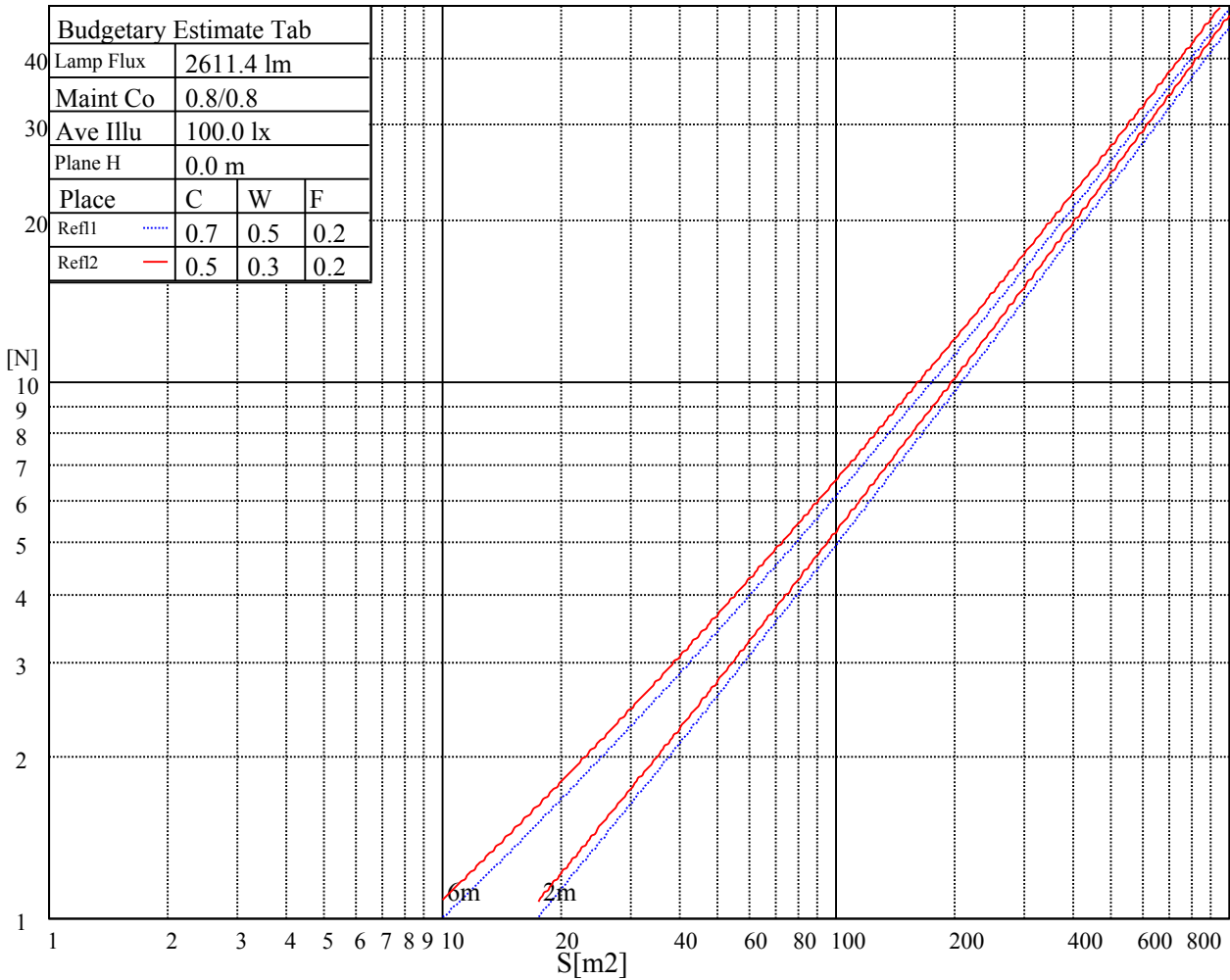
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

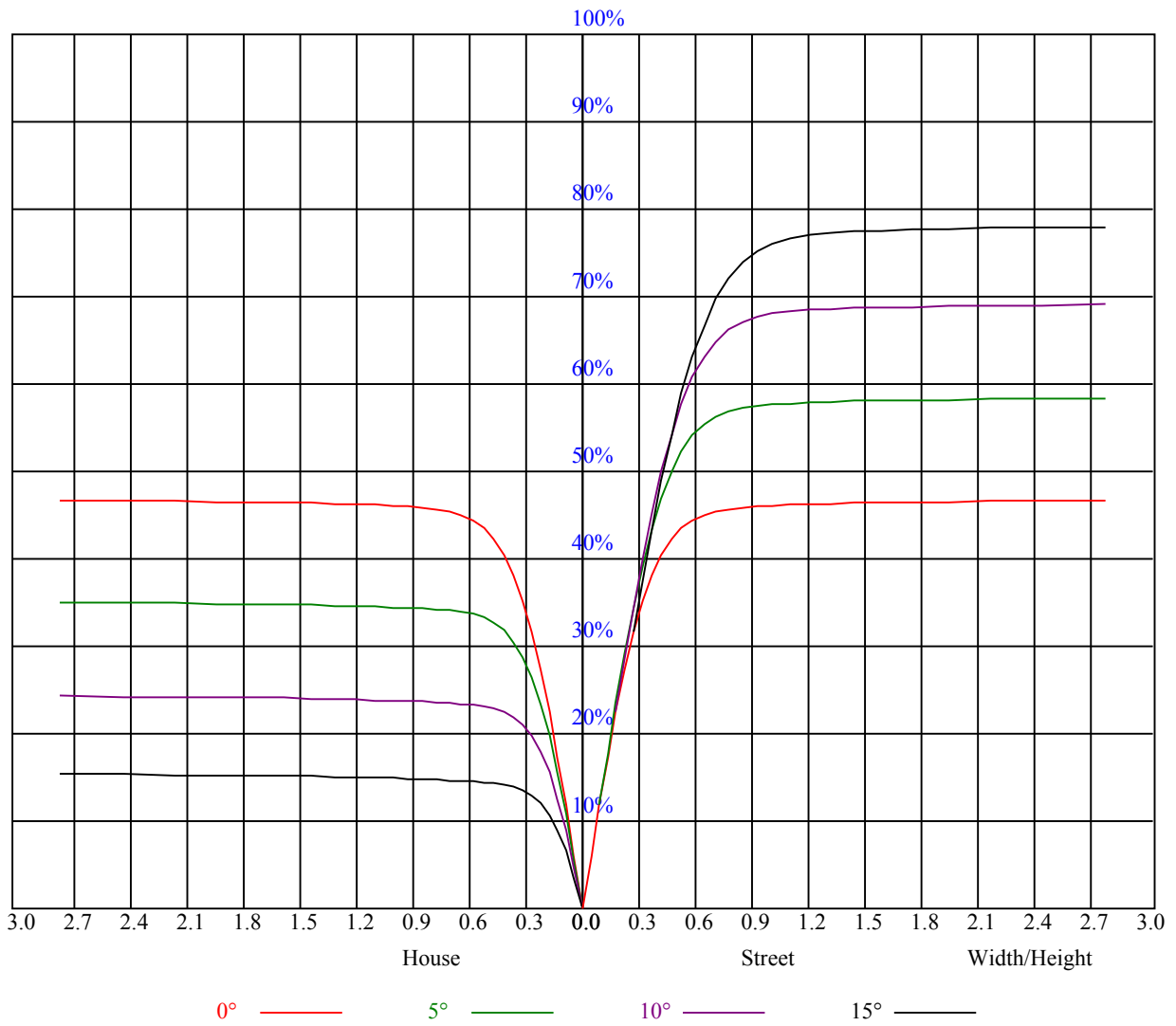


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
4H	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
8H	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
12H	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
Variation with the observer position at spacings:											
S = 1.0H		非数字/非数字					非数字/非数字				
S = 1.5H		非数字/非数字					非数字/非数字				
S = 2.0H		非数字/非数字					非数字/非数字				
Standard tables:		BK0					BK0				
Uncorrected UGR		负无穷大					负无穷大				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



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	1.12	1.12	1.12	1.09	1.09	1.09	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.05	1.03	1.01	1.03	1.01	0.99	0.99	0.98	0.96	0.96	0.94	0.93	0.92	0.91	0.91	0.89
2	0.99	0.95	0.92	0.97	0.94	0.91	0.94	0.92	0.89	0.91	0.89	0.88	0.89	0.87	0.86	0.84
3	0.93	0.89	0.86	0.92	0.88	0.85	0.90	0.86	0.84	0.87	0.85	0.83	0.85	0.83	0.81	0.80
4	0.88	0.84	0.81	0.87	0.83	0.80	0.85	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.76
5	0.84	0.79	0.76	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.72
6	0.80	0.75	0.72	0.80	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.69
7	0.77	0.72	0.68	0.76	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
8	0.73	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
9	0.70	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.61
10	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58





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	5272.98	5240.33	5182.76	5108.58	5011.71	4925.92	4817.98	4715.57	4577.19
45.0	5315.61	5265.23	5237.56	5159.51	5086.44	4996.22	4904.88	4782.00	4678.49
90.0	5263.02	5230.92	5151.76	5077.03	4987.36	4889.94	4777.02	4672.40	4568.33
135.0	5322.25	5288.48	5270.77	5214.31	5127.40	5049.36	4956.91	4859.49	4738.27
180.0	5272.98	5316.16	5322.25	5299.00	5285.16	5234.79	5167.81	5092.53	4993.45
225.0	5315.61	5330.00	5307.30	5294.57	5239.22	5177.78	5102.49	4990.68	4881.08
270.0	5263.02	5310.62	5329.44	5302.32	5277.41	5230.92	5145.12	5073.71	4989.02
315.0	5322.25	5297.89	5268.56	5248.63	5186.63	5120.21	5004.52	4912.08	4800.82
360.0	5272.98	5240.33	5182.76	5108.58	5011.71	4925.92	4817.98	4715.57	4577.19
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4448.77	4307.06	4159.27	3961.66	3800.02	3626.21	3436.35	3184.49	2982.45
45.0	4566.12	4447.66	4291.56	4148.75	4001.51	3808.88	3638.95	3399.82	3206.08
90.0	4419.98	4287.69	4118.86	3965.53	3812.20	3601.31	3413.66	3206.08	3001.83
135.0	4628.11	4515.75	4388.99	4217.94	4059.63	3899.66	3686.55	3495.58	3289.66
180.0	4903.22	4768.71	4654.68	4534.01	4359.10	4205.77	4052.99	3840.43	3653.89
225.0	4780.34	4672.95	4525.71	4382.34	4227.35	4062.95	3835.45	3642.27	3441.33
270.0	4857.83	4747.68	4631.99	4472.02	4320.90	4160.38	3998.19	3773.45	3571.97
315.0	4684.58	4541.76	4405.59	4255.58	4048.56	3876.41	3693.75	3449.64	3247.60
360.0	4448.77	4307.06	4159.27	3961.66	3800.02	3626.21	3436.35	3184.49	2982.45
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2715.65	2497.00	2276.69	2018.19	1815.60	1629.61	1448.05	1083.27	1083.27
45.0	3005.15	2793.70	2526.34	2314.33	2112.29	1912.47	1667.80	1481.26	1300.81
90.0	2740.00	2525.23	2312.12	2107.87	1863.20	1666.70	1481.26	1067.83	1067.83
135.0	3040.02	2828.57	2550.69	2329.83	2119.49	1916.34	1669.46	1482.37	1311.33
180.0	3403.69	3191.69	2967.51	2735.57	2439.43	2218.57	2003.25	1806.19	1577.02
225.0	3176.19	2954.22	2668.60	2433.90	2206.39	1938.48	1741.42	1560.97	1273.13
270.0	3373.25	3160.69	2883.92	2667.49	2443.86	2173.74	1965.05	1723.16	1549.35
315.0	2982.45	2763.25	2546.27	2323.19	2107.87	1851.02	1662.27	1487.35	1070.48
360.0	2715.65	2497.00	2276.69	2018.19	1815.60	1629.61	1448.05	1083.27	1083.27
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	938.30	804.01	652.18	547.23	452.90	371.09	285.79	230.99	176.08
45.0	1089.91	940.46	805.95	657.60	552.98	438.40	360.35	295.59	281.20
90.0	957.67	823.16	673.82	568.43	452.74	372.97	306.60	249.31	191.14
135.0	1151.91	974.78	843.59	723.47	587.30	492.65	409.06	322.71	292.82
180.0	1407.09	1249.88	1067.77	924.41	791.56	639.33	535.27	443.94	347.62
225.0	1089.03	1054.38	919.76	787.52	638.73	533.28	442.05	363.40	280.64
270.0	1385.50	1234.94	1057.25	919.98	787.13	665.90	531.39	438.40	359.80
315.0	1070.48	1002.79	870.10	743.18	599.70	499.57	391.85	321.16	262.71
360.0	938.30	804.01	652.18	547.23	452.90	371.09	285.79	230.99	176.08
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	142.26	115.52	89.95	74.78	63.16	53.08	47.33	42.84	39.25
45.0	217.04	145.47	117.40	95.37	74.78	63.21	54.74	48.60	42.79
90.0	154.27	124.38	100.58	78.33	65.48	56.24	48.27	43.45	39.69
135.0	292.82	158.53	126.43	101.13	82.09	65.37	56.18	49.54	44.62
180.0	284.52	284.52	218.26	137.22	110.65	89.67	73.40	59.12	51.37
225.0	226.34	181.45	137.50	110.87	86.24	71.90	61.00	52.97	45.89
270.0	293.37	293.37	175.75	132.63	106.83	87.40	69.63	59.28	51.76
315.0	202.37	163.90	132.63	102.85	85.02	71.13	60.78	51.48	46.16
360.0	142.26	115.52	89.95	74.78	63.16	53.08	47.33	42.84	39.25

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	35.54	33.05	30.89	29.17	27.29	25.96	24.80	23.64	22.81
45.0	39.19	35.65	33.16	31.05	28.84	27.34	26.07	24.96	23.80
90.0	35.92	33.43	30.78	29.01	27.46	26.13	24.74	23.80	22.97
135.0	39.85	36.81	34.15	31.94	29.50	27.90	26.24	24.96	24.02
180.0	45.78	40.63	37.47	34.82	31.99	30.11	28.06	26.63	25.35
225.0	41.74	38.36	35.65	32.71	30.72	29.06	27.23	25.91	24.80
270.0	45.00	41.02	37.81	35.15	32.82	30.39	28.78	27.29	25.63
315.0	41.96	38.69	35.32	32.94	30.94	28.78	27.23	25.57	24.47
360.0	35.54	33.05	30.89	29.17	27.29	25.96	24.80	23.64	22.81
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	21.86	21.26	20.70	20.09	19.54	19.15	18.71	18.27	17.82
45.0	23.03	22.25	21.53	20.81	20.26	19.76	19.37	18.82	18.38
90.0	22.20	21.37	20.81	20.20	19.65	19.10	18.71	18.16	17.77
135.0	22.97	22.14	21.42	20.87	20.15	19.65	19.21	18.82	18.32
180.0	24.30	23.36	22.31	21.59	20.92	20.37	19.71	19.26	18.82
225.0	23.58	22.69	21.98	21.15	20.54	19.98	19.43	18.99	18.60
270.0	24.52	23.58	22.47	21.70	20.98	20.37	19.87	19.37	18.88
315.0	23.53	22.64	21.70	21.09	20.48	19.93	19.37	18.93	18.49
360.0	21.86	21.26	20.70	20.09	19.54	19.15	18.71	18.27	17.82
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	17.49	17.16	16.66	16.33	16.05	15.61	15.28	15.00	14.67
45.0	17.88	17.55	17.21	16.77	16.44	16.16	15.78	15.39	15.06
90.0	17.44	17.05	16.66	16.33	16.05	15.61	15.28	15.00	14.72
135.0	17.93	17.60	17.16	16.83	16.50	16.11	15.78	15.33	15.11
180.0	18.32	17.93	17.49	17.16	16.83	16.38	16.11	15.78	15.50
225.0	18.16	17.77	17.33	17.05	16.61	16.27	15.94	15.55	15.28
270.0	18.49	18.05	17.66	17.33	16.94	16.55	16.27	15.89	15.55
315.0	18.05	17.71	17.33	16.88	16.55	16.27	15.83	15.50	15.17
360.0	17.49	17.16	16.66	16.33	16.05	15.61	15.28	15.00	14.67
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	14.39	14.17	13.89	13.62	13.34	13.12	12.79	12.45	12.23
45.0	14.78	14.50	14.12	13.95	13.73	13.28	13.06	12.84	12.51
90.0	14.39	14.12	13.89	13.62	13.34	12.95	12.73	12.45	12.07
135.0	14.78	14.50	14.17	13.95	13.73	13.45	13.06	12.79	12.57
180.0	15.11	14.78	14.56	14.28	13.95	13.73	13.45	13.12	12.84
225.0	14.95	14.61	14.28	14.06	13.84	13.45	13.17	12.90	12.68
270.0	15.17	14.89	14.61	14.23	14.00	13.78	13.45	13.06	12.84
315.0	14.89	14.56	14.28	14.00	13.73	13.40	13.12	12.90	12.51
360.0	14.39	14.17	13.89	13.62	13.34	13.12	12.79	12.45	12.23
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.01	11.68	11.46	11.24	11.02	10.74	10.57	10.41	10.41
45.0	12.23	11.90	11.62	11.35	11.13	10.90	10.68	10.52	10.35
90.0	11.85	11.62	11.40	11.18	10.90	10.74	10.52	10.35	10.35
135.0	12.23	11.90	11.62	11.40	11.13	10.90	10.79	10.57	10.41
180.0	12.57	12.23	11.96	11.68	11.40	11.13	10.96	10.79	10.63
225.0	12.29	12.01	11.68	11.46	11.24	11.02	10.79	10.63	10.41
270.0	12.57	12.23	11.96	11.68	11.35	11.13	10.96	10.74	10.57
315.0	12.23	11.96	11.68	11.40	11.18	11.02	10.79	10.63	10.46
360.0	12.01	11.68	11.46	11.24	11.02	10.74	10.57	10.41	10.41

Intensity data(cd)

C/ $\gamma$ (°)	90.0
0.0	10.41
45.0	10.35
90.0	10.35
135.0	10.41
180.0	10.46
225.0	10.35
270.0	10.41
315.0	10.35
360.0	10.41