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Nata

LumCAT: 2-2182-M	
Luminaire: BJB 47.360.1010	
Report No: NATA0100	Voltage(V): 34.8900
Test No: GC202002102	Current(A): 0.5970
LampCAT: TRIDONIC SLE G7 15MM	Power (W): 20.8300
Lamp flux(lm): 2643.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2040.80
Efficiency(%): 77.22%
Lumens(lm)/Power(W): 97.97
Central intensity(cd): 5687.297
Maximum intensity(cd): 5687.297
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=36.2
 [C90/270]Total=36.2
Field angle(10%Imax): [C0/180]Total=54.6
 [C90/270]Total=54.6
Maximum s/h(1/2): C0_180=0.60 C90_270=0.60
Maximum s/h(1/4): C0_180=0.57 C90_270=0.57
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 77.22%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.196%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5687.297	0.000	0	.000%	.000%
1.0	5675.906	5.437	5.437	.206%	.266%
2.0	5640.961	16.243	21.68	.615%	1.062%
3.0	5579.859	26.837	48.517	1.015%	2.377%
4.0	5505.680	37.107	85.623	1.404%	4.196%
5.0	5416.523	46.987	132.61	1.778%	6.498%
6.0	5286.867	56.249	188.859	2.128%	9.254%
7.0	5150.602	64.785	253.645	2.451%	12.429%
8.0	5008.289	72.705	326.35	2.751%	15.991%
9.0	4833.563	79.763	406.113	3.018%	19.900%
10.0	4640.695	85.739	491.851	3.244%	24.101%
11.0	4466.953	91.004	582.855	3.443%	28.560%
12.0	4270.148	95.509	678.364	3.614%	33.240%
13.0	4054.711	98.795	777.16	3.738%	38.081%
14.0	3854.320	101.235	878.394	3.830%	43.042%
15.0	3634.031	102.803	981.198	3.890%	48.079%
16.0	3406.008	103.156	1084.354	3.903%	53.134%
17.0	3141.070	101.956	1186.31	3.858%	58.130%
18.0	2872.898	99.157	1285.467	3.752%	62.988%
19.0	2609.227	95.378	1380.845	3.609%	67.662%
20.0	2347.313	90.718	1471.563	3.432%	72.107%
21.0	2058.750	84.605	1556.169	3.201%	76.253%
22.0	1802.813	77.600	1633.768	2.936%	80.055%
23.0	1530.745	69.947	1703.715	2.647%	83.483%
24.0	1251.464	60.829	1764.544	2.302%	86.463%
25.0	1041.638	52.140	1816.685	1.973%	89.018%
26.0	828.232	44.138	1860.823	1.670%	91.181%
27.0	628.341	35.635	1896.458	1.348%	92.927%
28.0	423.598	26.633	1923.091	1.008%	94.232%
29.0	291.902	18.720	1941.811	.708%	95.150%
30.0	174.994	12.606	1954.417	.477%	95.767%
31.0	101.904	7.706	1962.122	.292%	96.145%
32.0	68.203	4.873	1966.996	.184%	96.384%
33.0	48.544	3.439	1970.435	.130%	96.552%
34.0	34.594	2.516	1972.951	.095%	96.675%
35.0	25.573	1.869	1974.82	.071%	96.767%
36.0	20.700	1.473	1976.293	.056%	96.839%
37.0	17.803	1.256	1977.549	.048%	96.901%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	16.242	1.136	1978.685	.043%	96.956%
39.0	15.258	1.075	1979.76	.041%	97.009%
40.0	14.660	1.043	1980.804	.039%	97.060%
41.0	14.288	1.031	1981.835	.039%	97.111%
42.0	13.999	1.028	1982.862	.039%	97.161%
43.0	13.774	1.029	1983.891	.039%	97.211%
44.0	13.648	1.035	1984.926	.039%	97.262%
45.0	13.556	1.045	1985.972	.040%	97.313%
46.0	13.472	1.057	1987.029	.040%	97.365%
47.0	13.430	1.070	1988.099	.040%	97.418%
48.0	13.416	1.085	1989.184	.041%	97.471%
49.0	13.423	1.102	1990.286	.042%	97.525%
50.0	13.458	1.121	1991.407	.042%	97.580%
51.0	13.493	1.140	1992.547	.043%	97.636%
52.0	13.570	1.161	1993.708	.044%	97.693%
53.0	13.669	1.185	1994.893	.045%	97.751%
54.0	13.788	1.210	1996.103	.046%	97.810%
55.0	13.964	1.239	1997.342	.047%	97.871%
56.0	14.098	1.268	1998.61	.048%	97.933%
57.0	14.295	1.298	1999.908	.049%	97.996%
58.0	14.449	1.329	2001.238	.050%	98.061%
59.0	14.618	1.359	2002.596	.051%	98.128%
60.0	14.752	1.388	2003.984	.052%	98.196%
61.0	14.864	1.413	2005.397	.053%	98.265%
62.0	14.927	1.436	2006.833	.054%	98.336%
63.0	15.026	1.457	2008.29	.055%	98.407%
64.0	14.998	1.473	2009.763	.056%	98.479%
65.0	14.850	1.477	2011.24	.056%	98.552%
66.0	14.604	1.470	2012.71	.056%	98.624%
67.0	14.358	1.456	2014.166	.055%	98.695%
68.0	14.288	1.451	2015.617	.055%	98.766%
69.0	14.266	1.457	2017.074	.055%	98.837%
70.0	14.048	1.454	2018.528	.055%	98.909%
71.0	13.577	1.428	2019.956	.054%	98.979%
72.0	13.212	1.393	2021.349	.053%	99.047%
73.0	12.916	1.366	2022.715	.052%	99.114%
74.0	12.424	1.332	2024.047	.050%	99.179%
75.0	11.813	1.281	2025.328	.048%	99.242%

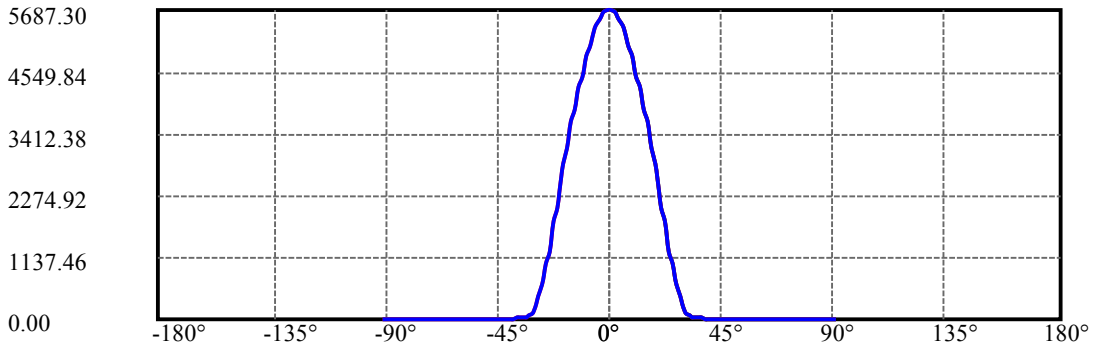
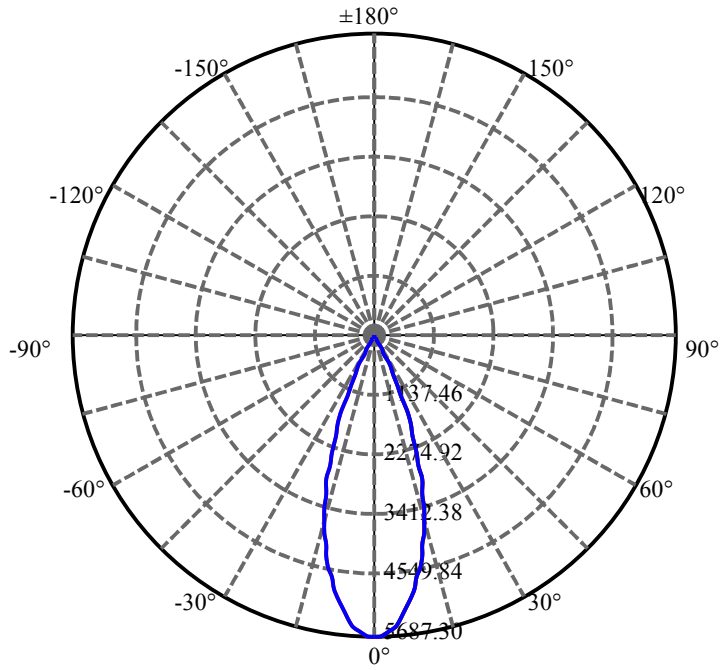
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	11.166	1.220	2026.547	.046%	99.302%
77.0	10.702	1.166	2027.713	.044%	99.359%
78.0	10.392	1.129	2028.842	.043%	99.414%
79.0	10.090	1.100	2029.943	.042%	99.468%
80.0	9.851	1.075	2031.018	.041%	99.521%
81.0	9.619	1.053	2032.071	.040%	99.572%
82.0	9.387	1.031	2033.102	.039%	99.623%
83.0	9.232	1.012	2034.114	.038%	99.672%
84.0	9.098	0.999	2035.112	.038%	99.721%
85.0	8.986	0.987	2036.099	.037%	99.770%
86.0	8.859	0.975	2037.075	.037%	99.818%
87.0	8.712	0.962	2038.036	.036%	99.865%
88.0	8.423	0.939	2038.975	.036%	99.911%
89.0	8.290	0.916	2039.891	.035%	99.956%
90.0	8.269	0.908	2040.799	.034%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1954.42	73.95%	95.77%
0-40	1980.80	74.95%	97.06%
0-60	2003.98	75.82%	98.20%
0-90	2039.89	77.18%	99.96%
0-120	2039.89	77.18%	99.96%
0-180	2040.80	77.22%	100.00%
60-90	37.29	1.41%	1.83%
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%
0-21.99	1632.64	61.77%	80.00%

ZONAL LUMEN SUMMARY

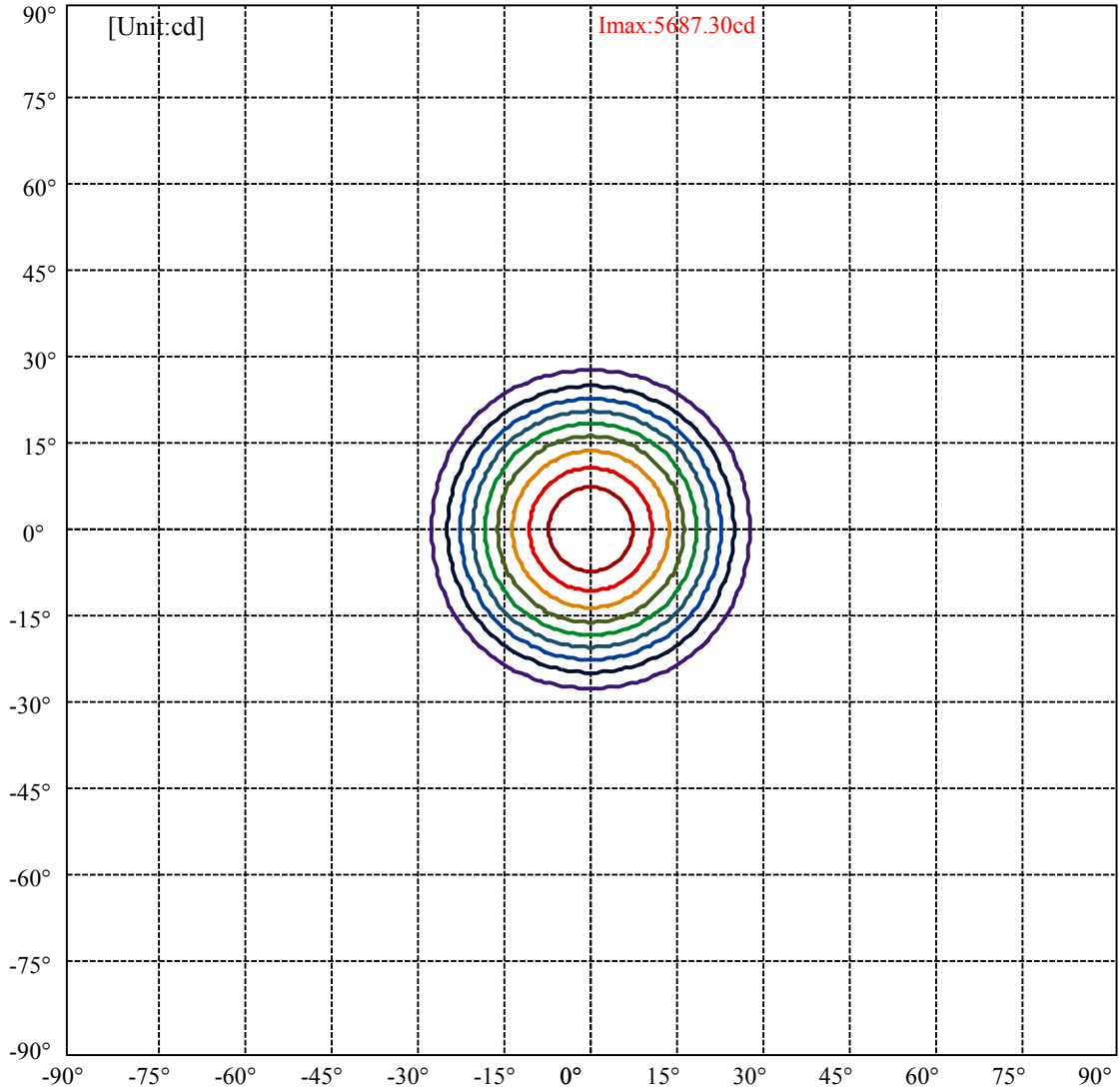
0-10	491.85
10-20	979.71
20-30	482.85
30-40	26.39
40-50	10.60
50-60	12.58
60-70	14.54
70-80	12.49
80-90	8.87
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



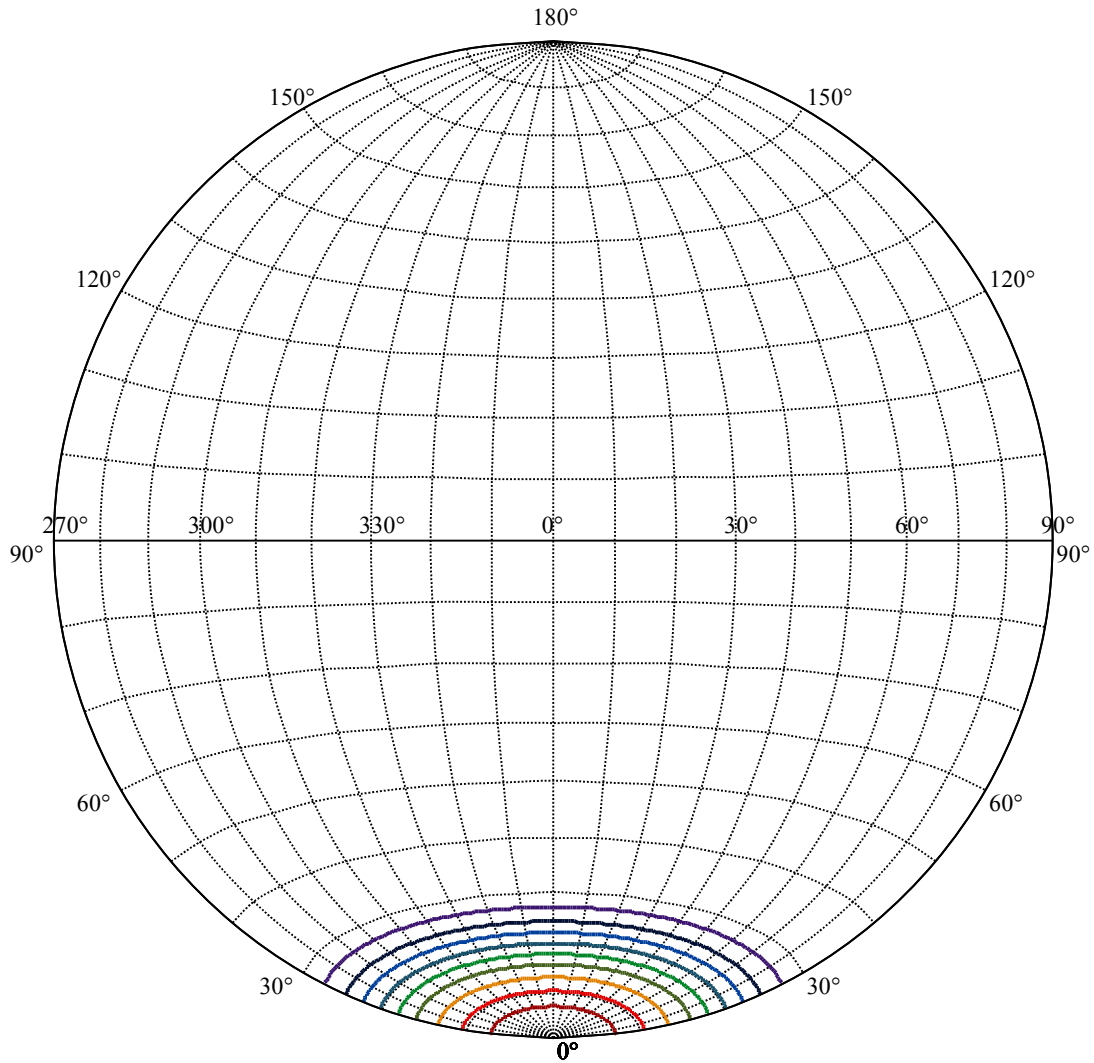
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:27.3 Right:27.3
:C90/270Left:27.3 Right:27.3

Beam Angle(50%Imax):C0/180Left:18.1 Right:18.1
:C90/270Left:18.1 Right:18.1



(10%Imax) 568.73	—
(20%Imax) 1137.46	—
(30%Imax) 1706.19	—
(40%Imax) 2274.92	—
(50%Imax) 2843.65	—
(60%Imax) 3412.38	—
(70%Imax) 3981.11	—
(80%Imax) 4549.84	—
(90%Imax) 5118.57	—



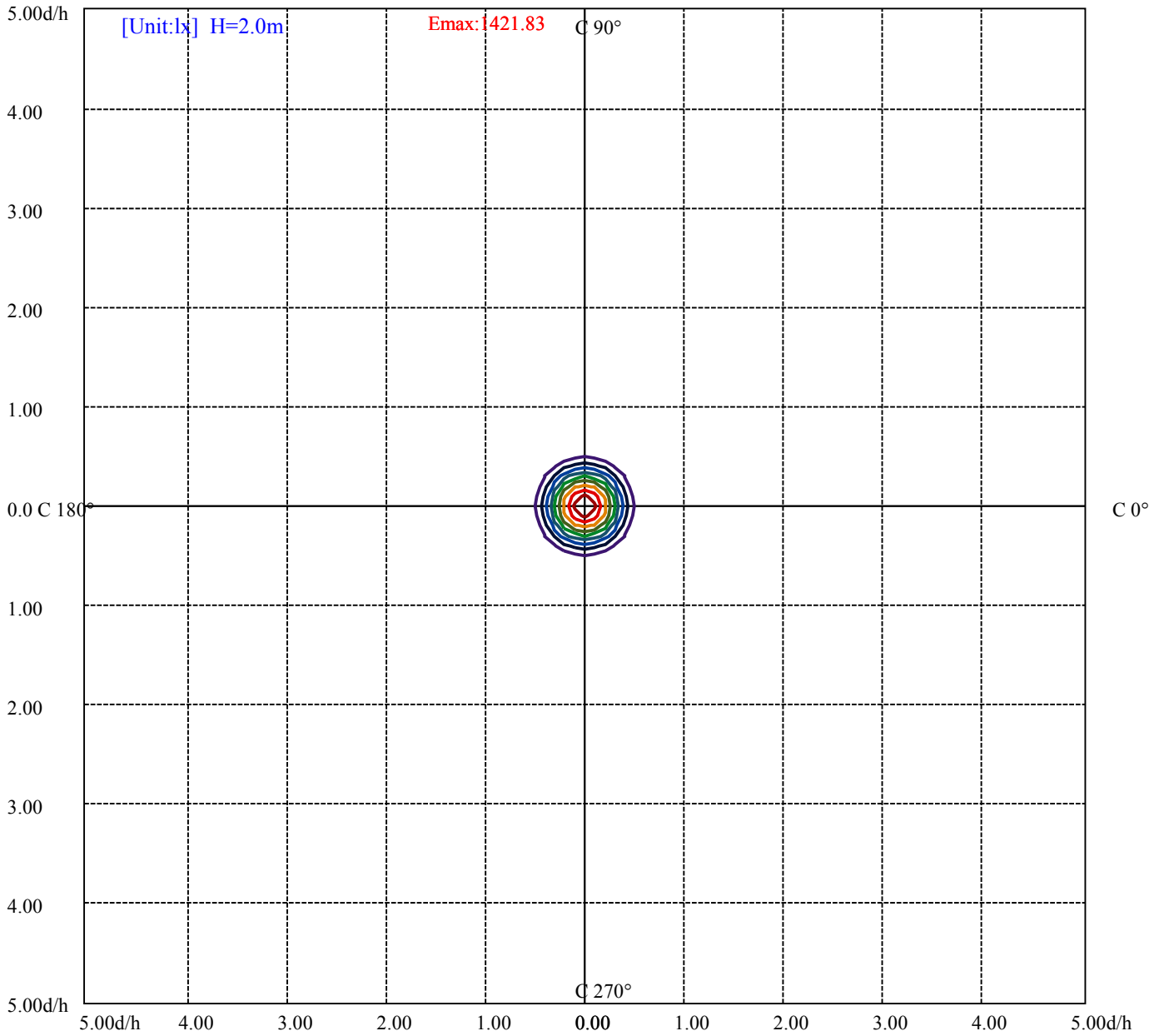
House

[Unit:cd]

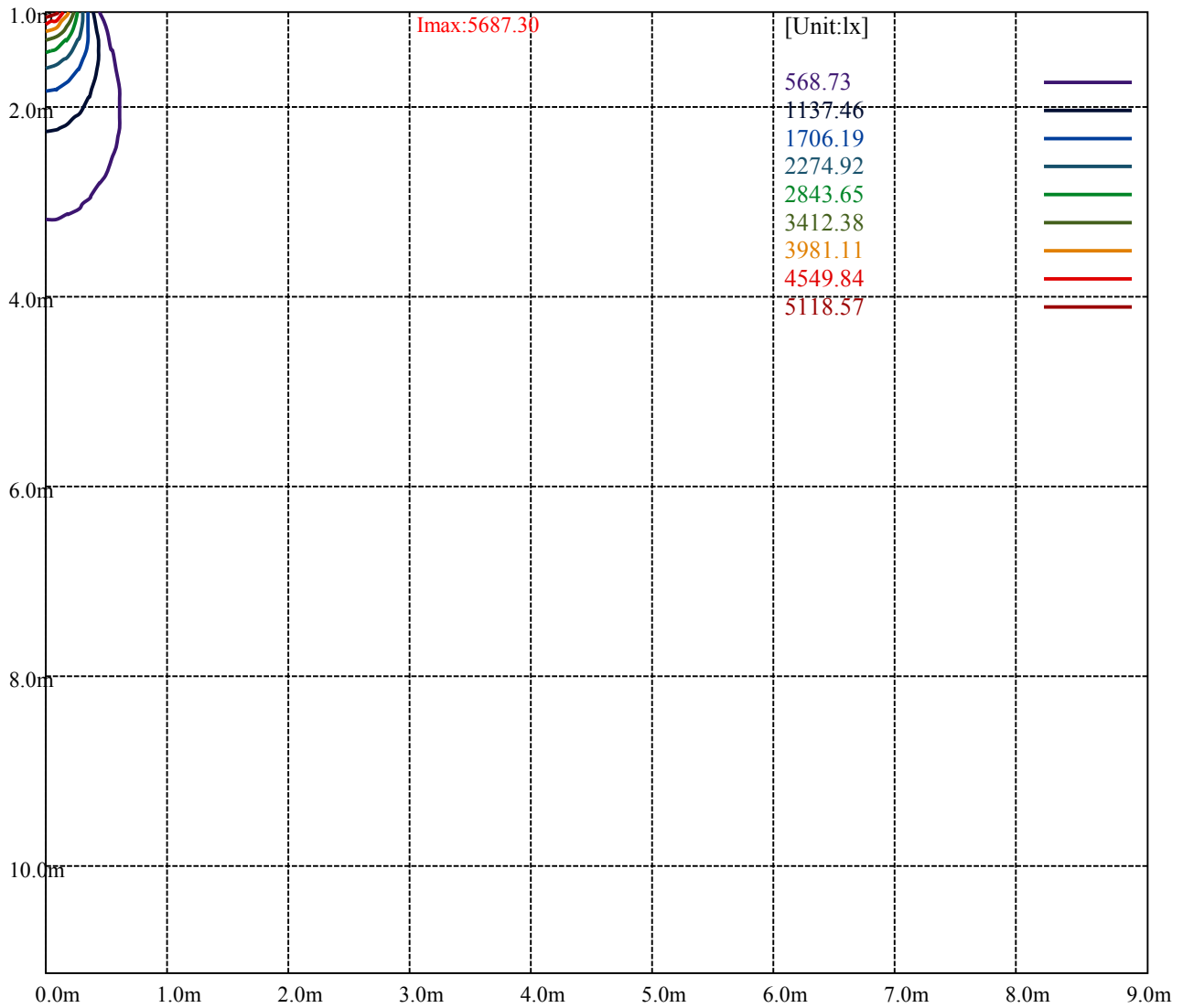
Road

Imax:5687.30

(10%Imax) 568.73	—
(20%Imax) 1137.46	—
(30%Imax) 1706.19	—
(40%Imax) 2274.92	—
(50%Imax) 2843.65	—
(60%Imax) 3412.38	—
(70%Imax) 3981.11	—
(80%Imax) 4549.84	—
(90%Imax) 5118.57	—



- (10%Emax) 142.1823
- (20%Emax) 284.365
- (30%Emax) 426.5475
- (40%Emax) 568.73
- (50%Emax) 710.9125
- (60%Emax) 853.095
- (70%Emax) 995.2775
- (80%Emax) 1137.46
- (90%Emax) 1279.642



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

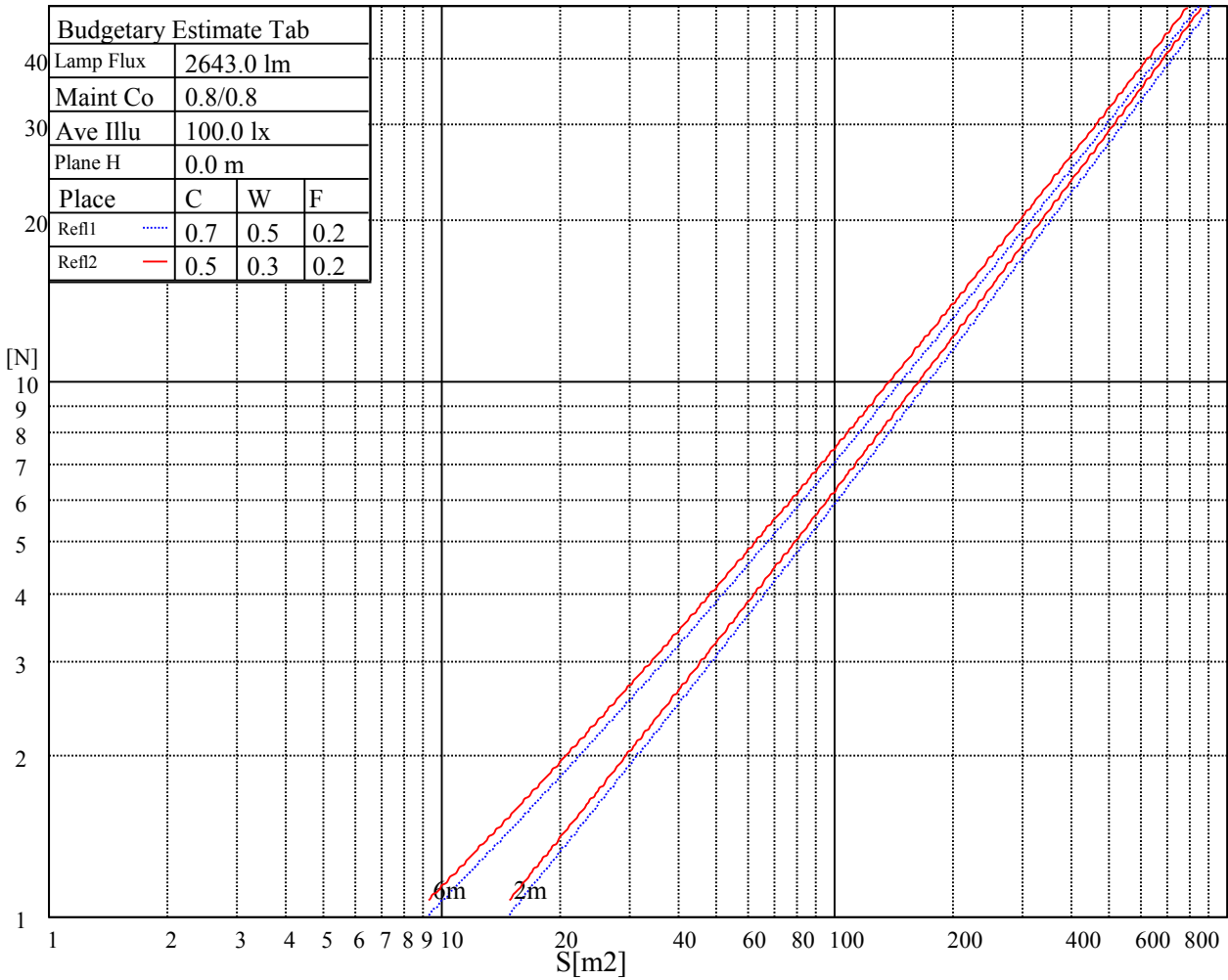
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

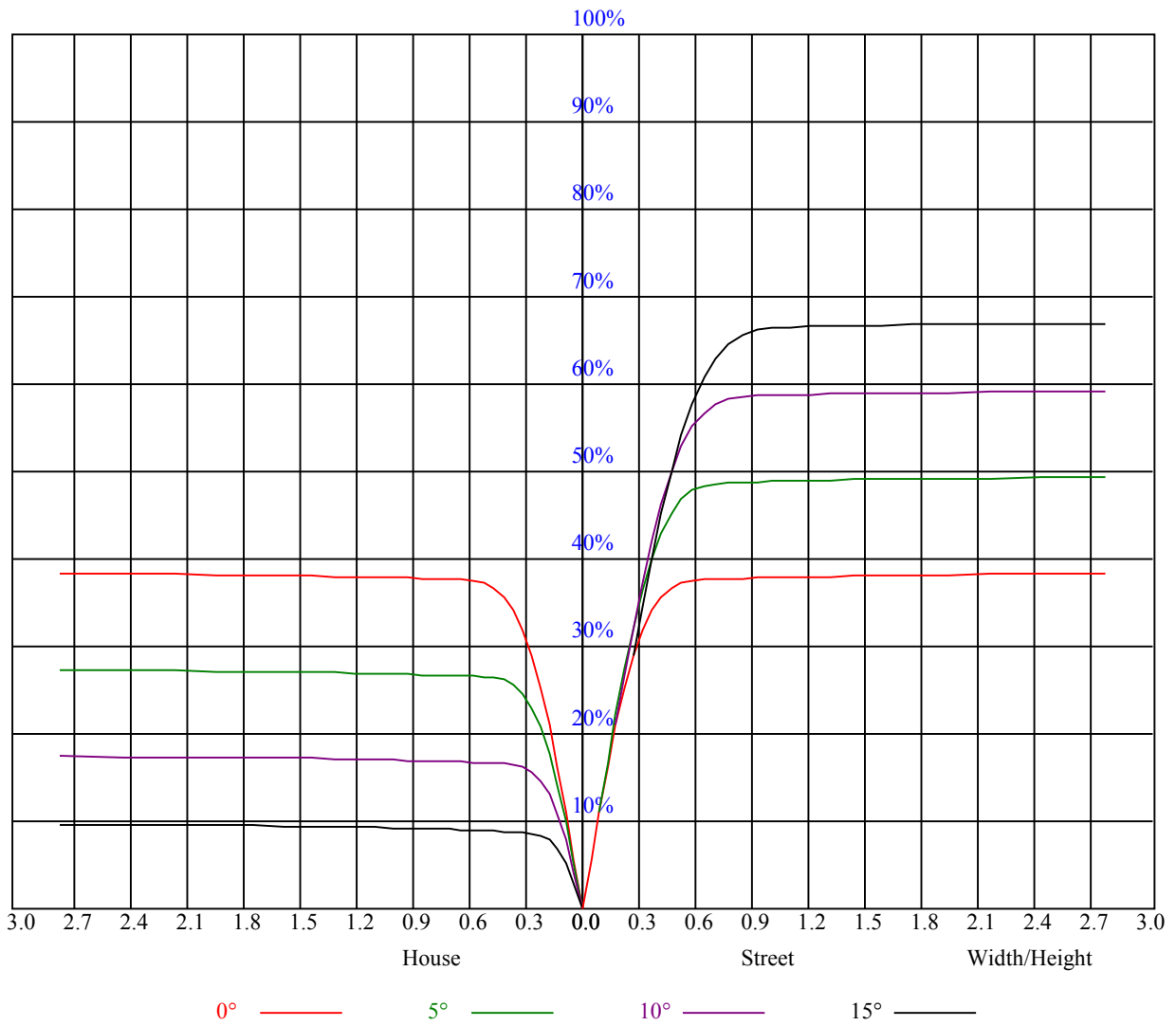
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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 RHOFC=20 CU															
0	0.92	0.92	0.92	0.90	0.90	0.90	0.86	0.86	0.86	0.82	0.82	0.82	0.79	0.79	0.79	0.77
1	0.86	0.85	0.83	0.85	0.83	0.82	0.82	0.81	0.79	0.79	0.78	0.77	0.76	0.76	0.75	0.74
2	0.82	0.79	0.77	0.81	0.78	0.76	0.78	0.76	0.75	0.76	0.74	0.73	0.74	0.73	0.72	0.70
3	0.78	0.75	0.72	0.77	0.74	0.72	0.75	0.73	0.71	0.73	0.71	0.70	0.72	0.70	0.69	0.67
4	0.74	0.71	0.68	0.74	0.71	0.68	0.72	0.69	0.67	0.71	0.68	0.67	0.69	0.67	0.66	0.65
5	0.71	0.68	0.65	0.71	0.67	0.65	0.69	0.67	0.64	0.68	0.66	0.64	0.67	0.65	0.63	0.62
6	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.65	0.63	0.61	0.60
7	0.66	0.62	0.60	0.65	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.58
8	0.64	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.61	0.59	0.57	0.56
9	0.61	0.58	0.55	0.61	0.58	0.55	0.60	0.57	0.55	0.60	0.57	0.55	0.59	0.57	0.55	0.54
10	0.59	0.56	0.54	0.59	0.56	0.53	0.58	0.55	0.53	0.58	0.55	0.53	0.57	0.55	0.53	0.52



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	5676.75	5699.81	5695.31	5663.81	5614.31	5550.19	5443.31	5336.44	5213.81
45.0	5685.19	5709.94	5699.81	5668.88	5614.88	5552.44	5457.94	5335.31	5211.56
90.0	5695.88	5687.44	5657.06	5591.25	5534.44	5450.06	5301.00	5187.94	5046.75
135.0	5691.38	5675.63	5640.75	5571.56	5498.44	5410.13	5270.63	5138.44	4993.31
180.0	5676.75	5631.19	5572.69	5484.38	5376.38	5261.63	5113.69	4944.38	4780.69
225.0	5685.19	5643.00	5583.94	5490.56	5396.06	5281.88	5118.19	4971.38	4812.19
270.0	5695.88	5677.88	5631.75	5573.81	5491.13	5394.94	5281.88	5121.00	4977.56
315.0	5691.38	5682.38	5646.38	5594.63	5519.81	5430.94	5308.31	5169.94	5030.44
360.0	5676.75	5699.81	5695.31	5663.81	5614.31	5550.19	5443.31	5336.44	5213.81
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5044.50	4890.38	4726.69	4531.50	4326.75	4138.31	3920.63	3719.25	3473.44
45.0	5055.75	4878.56	4709.81	4532.06	4302.00	4111.88	3915.56	3689.44	3443.63
90.0	4868.44	4677.19	4500.00	4294.69	4081.50	3888.00	3657.94	3436.31	3164.63
135.0	4814.44	4619.81	4438.69	4230.56	4038.75	3818.25	3584.81	3362.63	3096.00
180.0	4607.44	4357.13	4194.56	4006.69	3790.69	3562.88	3341.81	3074.06	2792.81
225.0	4599.56	4421.25	4237.88	4003.88	3810.94	3612.38	3341.25	3133.13	2852.44
270.0	4822.31	4611.94	4435.31	4252.50	4017.38	3825.56	3627.56	3387.38	3123.56
315.0	4856.06	4669.31	4492.69	4309.31	4069.69	3877.31	3682.69	3445.88	3182.06
360.0	5044.50	4890.38	4726.69	4531.50	4326.75	4138.31	3920.63	3719.25	3473.44
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	3207.38	2961.00	2681.44	2397.38	2149.88	1913.06	1607.63	1364.06	1131.75
45.0	3195.56	2897.44	2628.56	2347.31	2072.81	1841.63	1562.63	1295.44	1069.88
90.0	2874.94	2617.88	2364.75	2054.81	1810.13	1567.13	1103.18	1048.50	834.41
135.0	2807.44	2549.81	2303.44	1976.06	1734.75	1494.00	1186.88	959.63	750.94
180.0	2536.31	2251.13	2001.38	1723.50	1449.00	1122.30	959.29	753.58	548.55
225.0	2543.63	2328.75	2084.06	1747.13	1529.44	1115.66	1033.88	791.44	603.23
270.0	2878.31	2604.94	2329.88	2083.50	1810.13	1565.44	1293.75	1035.56	819.56
315.0	2939.63	2662.88	2385.00	2140.31	1866.38	1626.75	1264.50	1084.89	867.54
360.0	3207.38	2961.00	2681.44	2397.38	2149.88	1913.06	1607.63	1364.06	1131.75
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	875.81	647.44	470.25	300.38	167.06	106.76	73.01	52.37	35.78
45.0	857.25	608.06	435.38	284.63	143.49	94.44	68.79	48.09	34.20
90.0	638.61	420.41	273.77	160.71	96.24	67.16	49.39	36.00	27.39
135.0	544.50	361.69	290.25	128.98	79.48	53.78	38.53	27.96	21.71
180.0	391.11	242.72	134.27	88.48	62.61	40.28	28.80	21.71	16.76
225.0	436.89	258.98	155.36	100.01	69.19	47.03	33.36	24.30	19.58
270.0	618.19	407.25	284.63	157.28	92.59	66.77	47.59	33.24	24.98
315.0	664.37	442.24	291.32	179.49	104.57	69.41	48.88	33.08	24.19
360.0	875.81	647.44	470.25	300.38	167.06	106.76	73.01	52.37	35.78
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	24.98	19.18	15.86	13.78	12.88	12.26	11.76	11.48	11.19
45.0	26.27	20.81	18.00	16.26	15.30	14.79	14.40	14.12	13.95
90.0	22.73	19.58	18.00	16.93	16.26	15.86	15.58	15.36	15.19
135.0	18.56	16.65	15.58	14.91	14.40	14.06	13.84	13.50	13.33
180.0	14.57	13.39	12.54	12.04	11.70	11.42	11.19	11.03	10.91
225.0	17.44	16.26	15.53	15.08	14.68	14.46	14.29	14.12	14.01
270.0	21.09	18.96	17.94	17.33	16.88	16.65	16.43	16.31	16.48
315.0	19.97	17.61	16.48	15.75	15.19	14.79	14.51	14.29	14.12
360.0	24.98	19.18	15.86	13.78	12.88	12.26	11.76	11.48	11.19

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	11.03	10.80	10.69	10.58	10.46	10.41	10.41	10.35	10.35
45.0	13.78	13.61	13.50	13.44	13.33	13.28	13.22	13.16	13.05
90.0	15.13	15.19	15.24	15.36	15.53	15.75	15.92	16.14	16.48
135.0	13.22	13.05	12.94	12.88	12.83	12.77	12.66	12.60	12.60
180.0	10.80	10.69	10.69	10.63	10.58	10.52	10.52	10.52	10.46
225.0	13.95	13.84	13.78	13.73	13.67	13.67	13.61	13.61	13.61
270.0	16.59	16.76	16.88	17.04	17.38	17.72	18.11	18.73	19.35
315.0	13.95	13.84	13.73	13.67	13.61	13.56	13.50	13.44	13.44
360.0	11.03	10.80	10.69	10.58	10.46	10.41	10.41	10.35	10.35
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	10.35	10.29	10.29	10.29	10.29	10.35	10.35	10.29	10.29
45.0	12.99	12.94	12.88	12.88	12.83	12.83	12.83	12.77	12.71
90.0	16.99	17.66	18.34	19.13	19.86	20.48	21.04	21.66	22.11
135.0	12.49	12.54	12.43	12.38	12.32	12.32	12.26	12.26	12.26
180.0	10.52	10.52	10.46	10.46	10.46	10.46	10.46	10.46	10.41
225.0	13.61	13.61	13.61	13.56	13.61	13.61	13.56	13.50	13.44
270.0	19.97	20.76	21.43	22.28	22.89	23.57	24.19	24.69	24.98
315.0	13.39	13.39	13.33	13.39	13.33	13.33	13.33	13.28	13.22
360.0	10.35	10.29	10.29	10.29	10.29	10.35	10.35	10.29	10.29
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	10.35	10.35	10.35	10.41	10.46	10.69	11.03	11.70	11.98
45.0	12.71	12.66	12.60	12.49	12.43	12.38	12.32	12.21	12.04
90.0	22.50	22.39	21.66	20.25	18.45	17.27	16.59	14.91	13.11
135.0	12.26	12.26	12.21	12.38	12.88	13.95	14.57	15.08	15.58
180.0	10.46	10.46	10.52	10.63	10.74	11.36	11.81	12.21	12.32
225.0	13.39	13.33	13.33	13.28	13.28	13.16	13.05	12.88	12.60
270.0	25.26	25.31	24.86	23.79	22.33	20.36	19.29	18.11	15.41
315.0	13.28	13.22	13.28	13.61	14.29	15.13	15.47	15.30	15.58
360.0	10.35	10.35	10.35	10.41	10.46	10.69	11.03	11.70	11.98
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	12.21	12.43	12.54	12.21	11.48	10.63	10.18	9.84	9.56
45.0	11.87	11.70	11.36	11.14	10.97	10.80	10.63	10.35	10.07
90.0	11.93	11.36	11.19	10.91	10.63	10.35	10.18	9.96	9.79
135.0	15.75	16.14	14.96	13.39	11.81	11.03	10.69	10.35	10.07
180.0	12.54	12.54	12.04	11.36	10.41	9.84	9.56	9.28	9.17
225.0	12.32	11.93	11.59	11.31	10.97	10.69	10.35	10.07	9.84
270.0	13.05	11.98	11.76	11.42	11.08	10.74	10.46	10.24	10.01
315.0	16.03	15.24	13.95	12.77	11.98	11.53	11.08	10.63	10.29
360.0	12.21	12.43	12.54	12.21	11.48	10.63	10.18	9.84	9.56
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	9.28	9.11	9.00	8.94	8.89	8.83	8.83	8.55	8.49
45.0	9.90	9.73	9.45	9.23	9.06	8.94	8.89	8.78	8.38
90.0	9.56	9.34	9.23	9.06	9.00	8.89	8.83	8.33	8.16
135.0	9.73	9.39	9.23	9.11	9.06	9.17	8.66	8.38	8.21
180.0	9.11	9.00	8.94	8.83	8.94	8.61	8.55	8.33	8.33
225.0	9.56	9.34	9.23	9.11	9.06	8.89	8.44	8.33	8.38
270.0	9.79	9.51	9.34	9.17	8.66	8.27	8.72	8.27	8.16
315.0	10.01	9.68	9.45	9.34	9.23	9.28	8.78	8.44	8.21
360.0	9.28	9.11	9.00	8.94	8.89	8.83	8.83	8.55	8.49

Intensity data(cd)

C/γ(°)	90.0
0.0	8.33
45.0	8.33
90.0	8.21
135.0	8.16
180.0	8.33
225.0	8.38
270.0	8.21
315.0	8.21
360.0	8.33