
Nata

LumCAT: 3-1944-M
Luminaire: BJB 47.319.2021
Report No: GC2017050401
Test No: NT-0010
LampCAT: BRIDGELUX V13B
Lamp flux(lm): 2274.0
Number of Lamps: 1
Length(mm): 86
Phm Type: C

Voltage(V): 35.3000
Current(A): 0.5000
Power (W): 17.6500
PF: 0.0000
Ballast type: DC
Width(mm): 86
Height(mm): 0

Photometric Results

Lumens(lm): 2087.51
Efficiency(%): 91.80%
Lumens(lm)/Power(W): 118.27
Central intensity(cd): 4589.226
Maximum intensity(cd): 4590.878
Angle of maximum intensity: C=0.0 γ =2.0
Beam Angle(50%Imax): [C0/180]Total=37.8
 [C90/270]Total=37.8
Field angle(10%Imax): [C0/180]Total=68.1
 [C90/270]Total=68.1
Maximum s/h(1/2): C0_180=0.64 C90_270=0.64
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(%): 91.80%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.760%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4589.226	0.000	0	.000%	.000%
1.0	4590.327	4.392	4.392	.193%	.210%
2.0	4590.878	13.178	17.57	.579%	.842%
3.0	4585.097	21.946	39.516	.965%	1.893%
4.0	4573.260	30.656	70.172	1.348%	3.362%
5.0	4549.999	39.248	109.42	1.726%	5.242%
6.0	4518.754	47.659	157.078	2.096%	7.525%
7.0	4469.754	55.792	212.87	2.453%	10.197%
8.0	4414.147	63.580	276.45	2.796%	13.243%
9.0	4338.582	70.936	347.386	3.119%	16.641%
10.0	4243.885	77.668	425.055	3.415%	20.362%
11.0	4136.525	83.738	508.792	3.682%	24.373%
12.0	4004.803	88.996	597.788	3.914%	28.636%
13.0	3847.341	93.185	690.974	4.098%	33.100%
14.0	3658.498	96.074	787.048	4.225%	37.703%
15.0	3447.907	97.560	884.608	4.290%	42.376%
16.0	3190.243	97.267	981.875	4.277%	47.036%
17.0	2907.941	94.965	1076.84	4.176%	51.585%
18.0	2577.603	90.445	1167.285	3.977%	55.918%
19.0	2264.745	84.247	1251.532	3.705%	59.953%
20.0	1945.280	77.055	1328.587	3.389%	63.645%
21.0	1656.785	69.167	1397.754	3.042%	66.958%
22.0	1417.757	61.784	1459.538	2.717%	69.918%
23.0	1230.180	55.561	1515.099	2.443%	72.579%
24.0	1089.181	50.710	1565.809	2.230%	75.008%
25.0	979.426	47.036	1612.844	2.068%	77.262%
26.0	901.686	44.404	1657.248	1.953%	79.389%
27.0	837.807	42.557	1699.805	1.871%	81.427%
28.0	797.052	41.391	1741.196	1.820%	83.410%
29.0	763.109	40.818	1782.014	1.795%	85.366%
30.0	732.580	40.383	1822.398	1.776%	87.300%
31.0	693.931	39.698	1862.096	1.746%	89.202%
32.0	629.102	37.903	1899.999	1.667%	91.017%
33.0	553.207	34.831	1934.83	1.532%	92.686%
34.0	462.722	30.745	1965.575	1.352%	94.159%
35.0	357.701	25.479	1991.054	1.120%	95.379%
36.0	254.705	19.499	2010.554	.857%	96.313%
37.0	189.890	14.500	2025.054	.638%	97.008%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	116.692	10.233	2035.287	.450%	97.498%
39.0	50.390	5.703	2040.99	.251%	97.772%
40.0	25.505	2.647	2043.637	.116%	97.898%
41.0	18.045	1.551	2045.188	.068%	97.973%
42.0	15.774	1.229	2046.416	.054%	98.031%
43.0	13.778	1.095	2047.511	.048%	98.084%
44.0	12.401	0.988	2048.499	.043%	98.131%
45.0	11.287	0.910	2049.41	.040%	98.175%
46.0	10.571	0.855	2050.264	.038%	98.216%
47.0	10.048	0.820	2051.084	.036%	98.255%
48.0	9.828	0.803	2051.888	.035%	98.294%
49.0	9.717	0.803	2052.69	.035%	98.332%
50.0	9.566	0.804	2053.494	.035%	98.371%
51.0	9.428	0.804	2054.298	.035%	98.409%
52.0	9.318	0.804	2055.103	.035%	98.448%
53.0	9.194	0.805	2055.908	.035%	98.486%
54.0	9.126	0.807	2056.715	.036%	98.525%
55.0	9.043	0.811	2057.526	.036%	98.564%
56.0	8.960	0.814	2058.34	.036%	98.603%
57.0	8.864	0.815	2059.155	.036%	98.642%
58.0	8.809	0.817	2059.972	.036%	98.681%
59.0	8.781	0.822	2060.794	.036%	98.720%
60.0	8.726	0.827	2061.622	.036%	98.760%
61.0	8.644	0.829	2062.451	.036%	98.800%
62.0	8.603	0.831	2063.282	.037%	98.839%
63.0	8.561	0.835	2064.116	.037%	98.879%
64.0	8.506	0.837	2064.954	.037%	98.919%
65.0	8.479	0.841	2065.794	.037%	98.960%
66.0	8.465	0.845	2066.64	.037%	99.000%
67.0	8.410	0.849	2067.488	.037%	99.041%
68.0	8.369	0.850	2068.338	.037%	99.082%
69.0	8.355	0.853	2069.191	.038%	99.122%
70.0	8.300	0.855	2070.047	.038%	99.163%
71.0	8.300	0.858	2070.905	.038%	99.205%
72.0	8.272	0.862	2071.766	.038%	99.246%
73.0	8.258	0.864	2072.631	.038%	99.287%
74.0	8.245	0.868	2073.498	.038%	99.329%
75.0	8.190	0.868	2074.367	.038%	99.370%

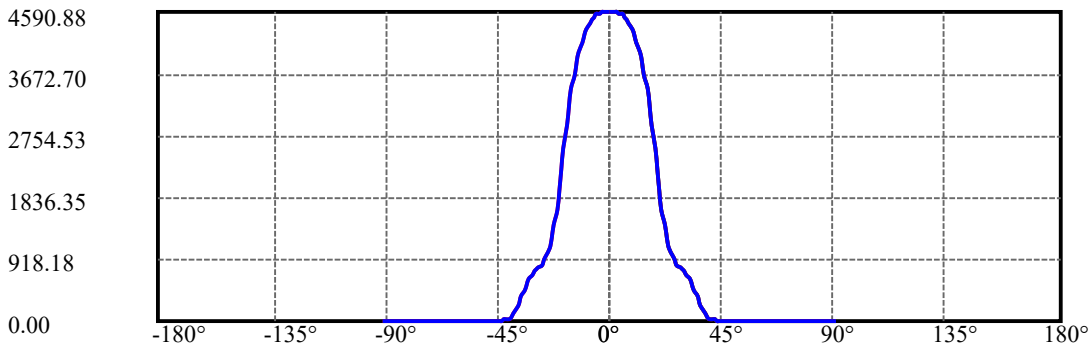
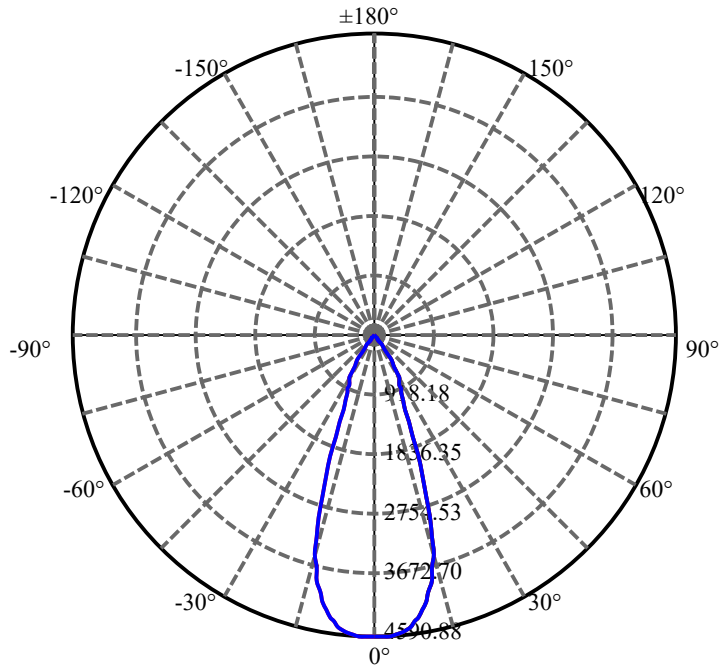
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.162	0.868	2075.235	.038%	99.412%
77.0	8.135	0.869	2076.104	.038%	99.454%
78.0	8.135	0.871	2076.975	.038%	99.495%
79.0	8.135	0.874	2077.849	.038%	99.537%
80.0	8.107	0.876	2078.724	.039%	99.579%
81.0	8.093	0.876	2079.6	.039%	99.621%
82.0	8.093	0.878	2080.478	.039%	99.663%
83.0	8.066	0.878	2081.357	.039%	99.705%
84.0	8.066	0.879	2082.235	.039%	99.747%
85.0	8.052	0.880	2083.115	.039%	99.789%
86.0	8.024	0.879	2083.994	.039%	99.832%
87.0	8.024	0.878	2084.872	.039%	99.874%
88.0	8.038	0.880	2085.752	.039%	99.916%
89.0	8.011	0.880	2086.632	.039%	99.958%
90.0	8.011	0.878	2087.51	.039%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1822.40	80.14%	87.30%
0-40	2043.64	89.87%	97.90%
0-60	2061.62	90.66%	98.76%
0-90	2086.63	91.76%	99.96%
0-120	2086.63	91.76%	99.96%
0-180	2087.51	91.80%	100.00%
60-90	25.84	1.14%	1.24%
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%
0-26.30	1670.01	73.44%	80.00%

ZONAL LUMEN SUMMARY

0-10	425.05
10-20	903.53
20-30	493.81
30-40	221.24
40-50	9.86
50-60	8.13
60-70	8.43
70-80	8.68
80-90	7.91
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: —————

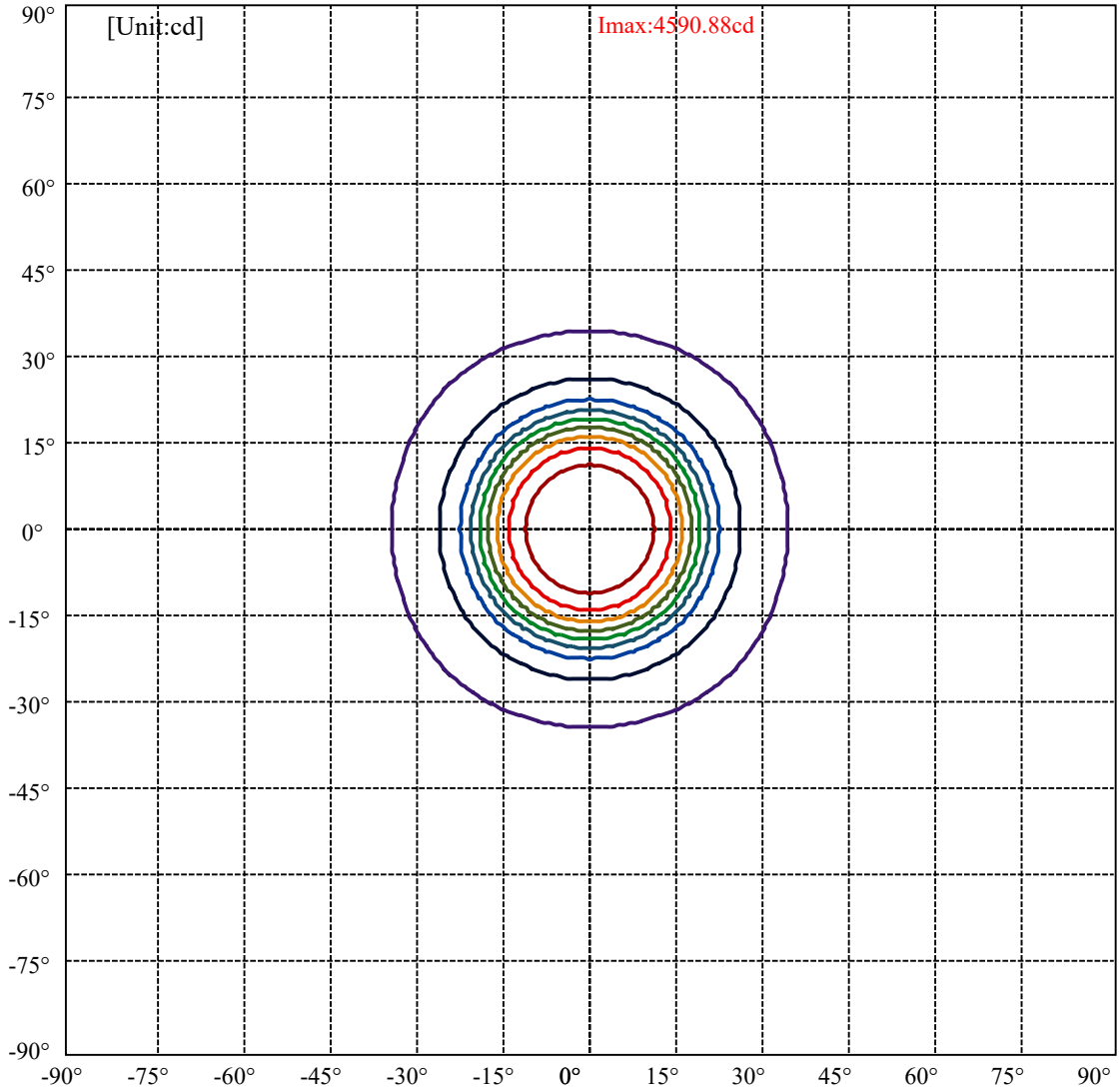
C90/C270: —————

Field angle(10%Imax):C0/180Left:36.0 Right:32.0

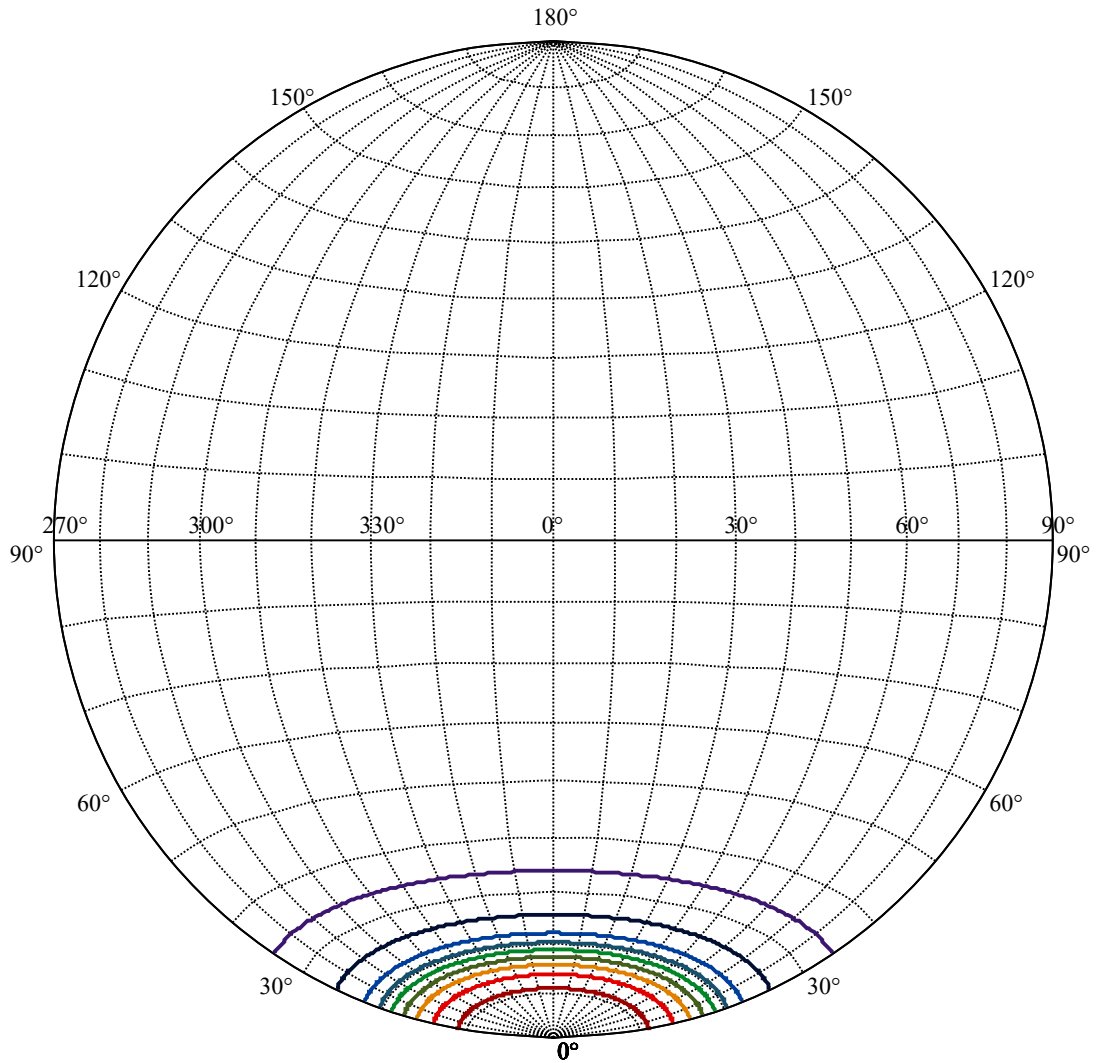
:C90/270Left:36.0 Right:32.0

Beam Angle(50%Imax):C0/180Left:20.9 Right:16.9

:C90/270Left:20.9 Right:16.9



(10%Imax)	459.088	—
(20%Imax)	918.176	—
(30%Imax)	1377.26	—
(40%Imax)	1836.35	—
(50%Imax)	2295.44	—
(60%Imax)	2754.53	—
(70%Imax)	3213.61	—
(80%Imax)	3672.7	—
(90%Imax)	4131.79	—



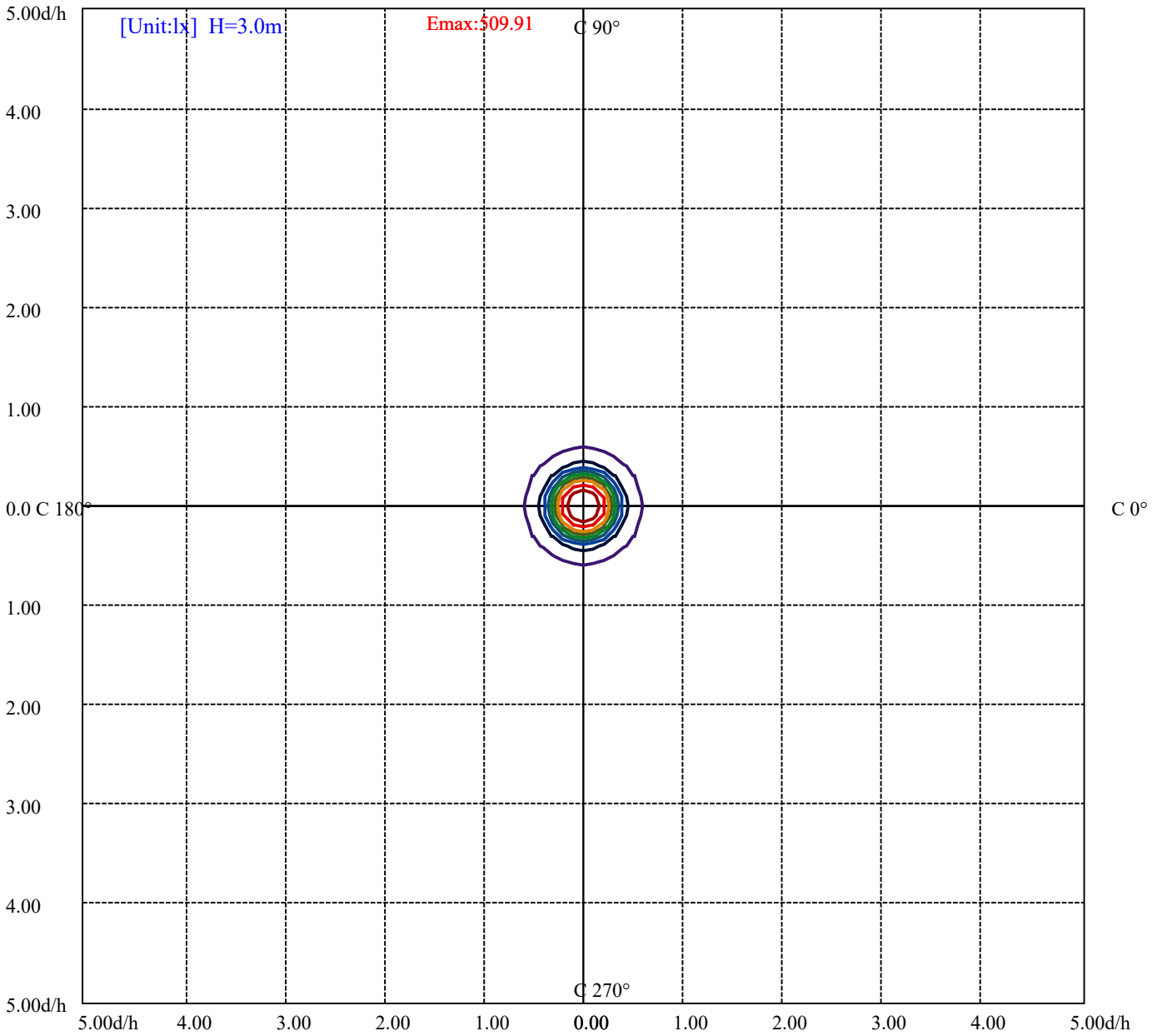
House

[Unit:cd]

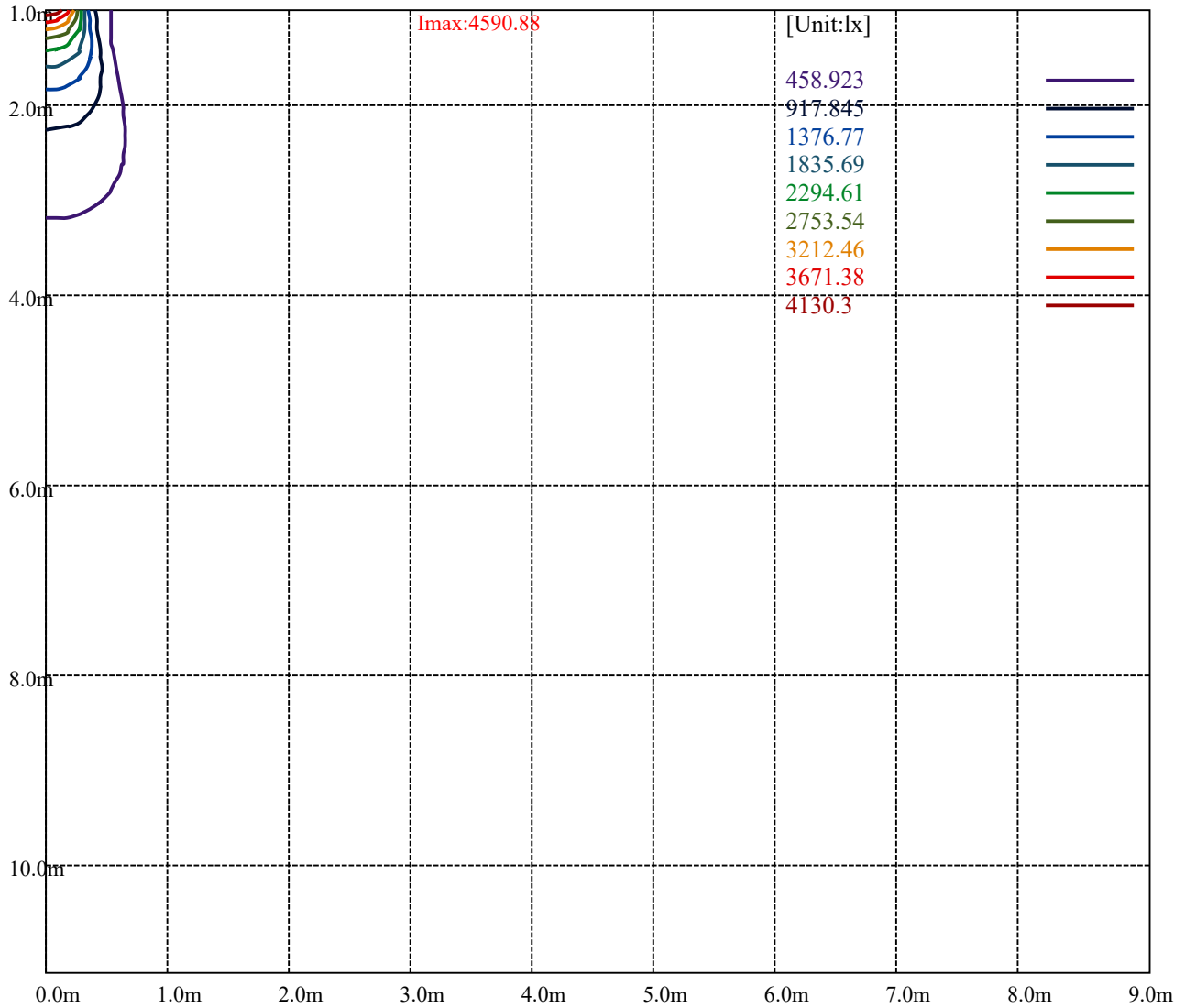
Road

Imax:4590.88

(10%Imax)	459.088	—
(20%Imax)	918.176	—
(30%Imax)	1377.26	—
(40%Imax)	1836.35	—
(50%Imax)	2295.44	—
(60%Imax)	2754.53	—
(70%Imax)	3213.61	—
(80%Imax)	3672.7	—
(90%Imax)	4131.79	—



(10%Emax) 50.99144	—
(20%Emax) 101.9828	—
(30%Emax) 152.9744	—
(40%Emax) 203.9655	—
(50%Emax) 254.9567	—
(60%Emax) 305.9489	—
(70%Emax) 356.94	—
(80%Emax) 407.9311	—
(90%Emax) 458.9222	—



Luminance Table

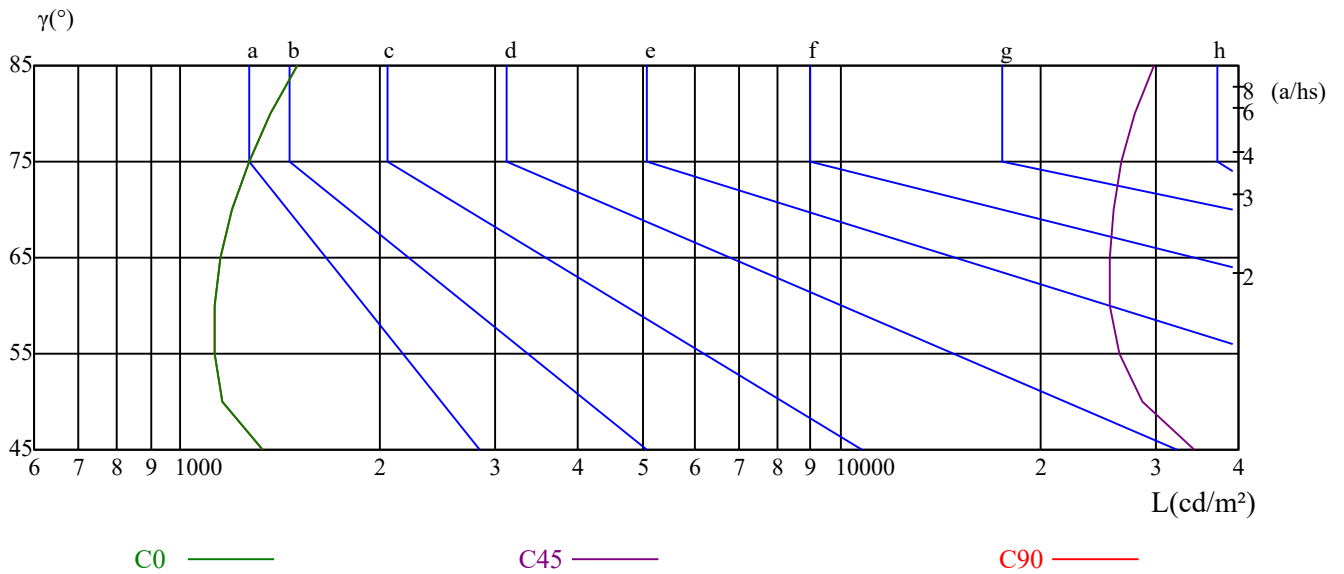
γ	45	50	55	60	65	70	75	80	85
C0	1332	1154	1124	1128	1151	1195	1266	1364	1499
C45	34397	28535	26494	25526	25456	25857	26593	27868	29697
C90	1332	1154	1124	1128	1151	1195	1266	1364	1499

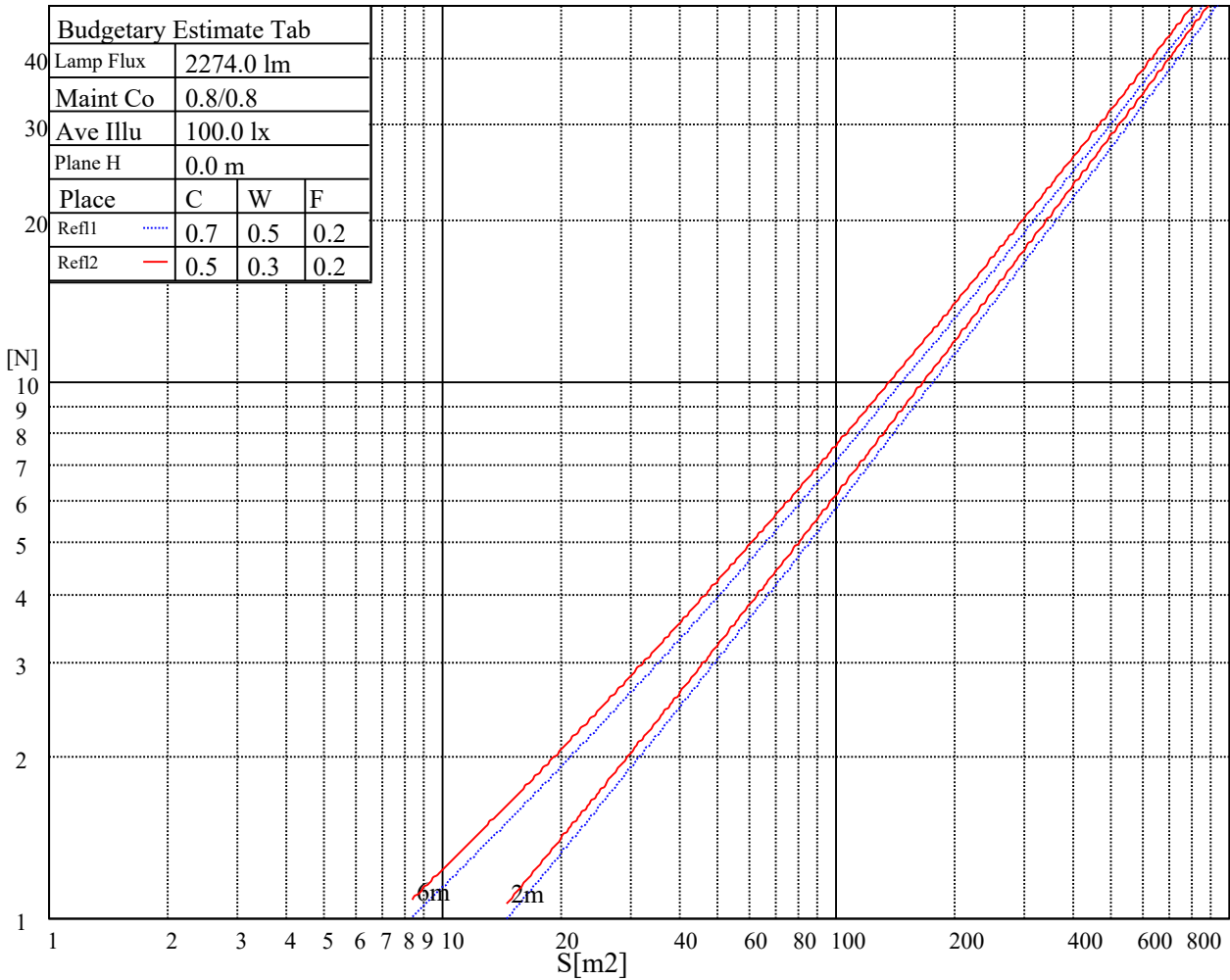
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2777	2777	76319	4380	4380	119062	12787	12787	345960

Glare Table

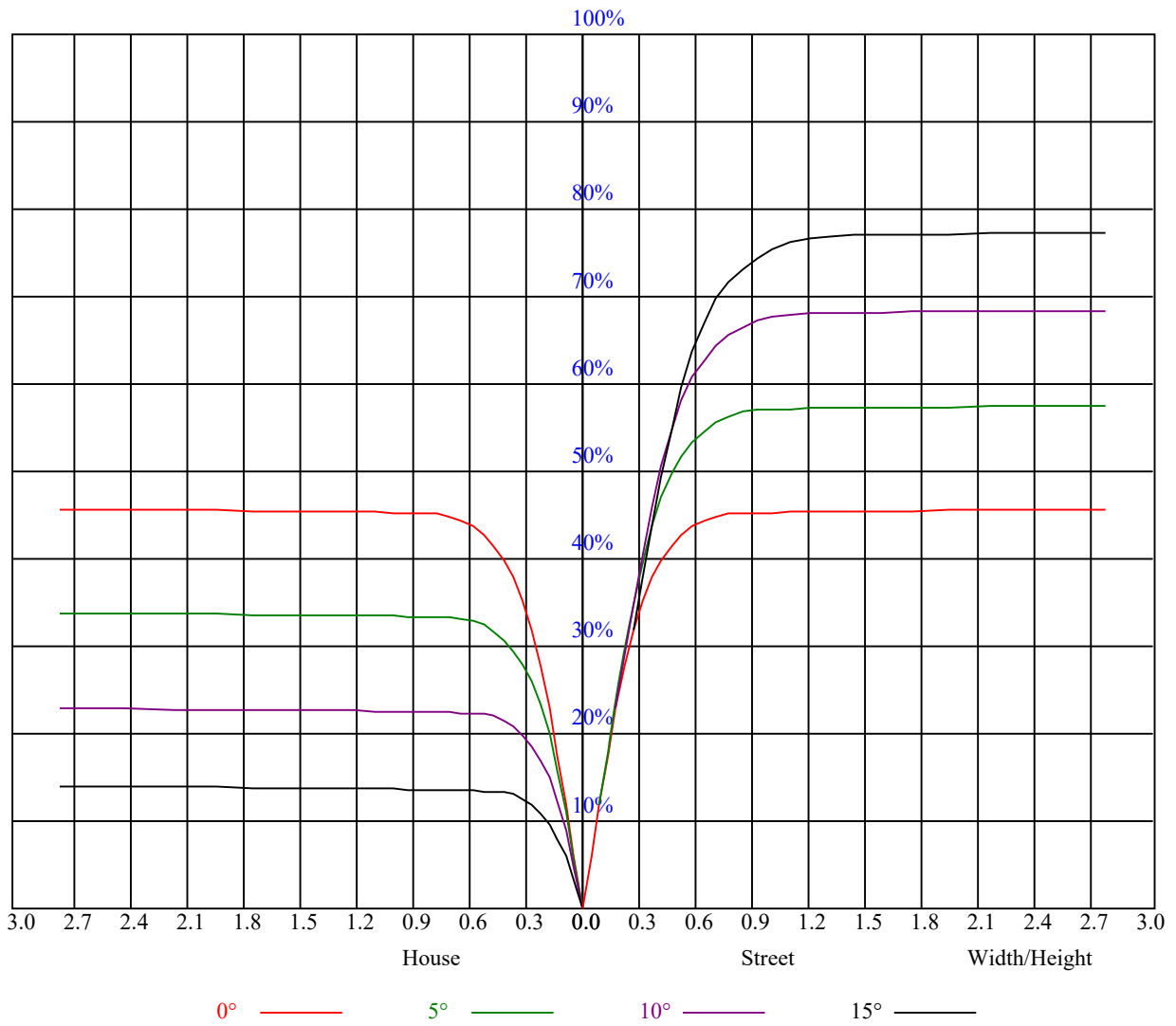
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.03	1.00	0.99	1.01	0.99	0.97	0.97	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.89	0.87
2	0.97	0.93	0.91	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.83
3	0.92	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.86	0.83	0.81	0.84	0.82	0.80	0.79
4	0.87	0.83	0.79	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.80	0.77	0.81	0.78	0.76	0.75
5	0.83	0.78	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.72
6	0.79	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
7	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.66
8	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.63
9	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.60
10	0.67	0.63	0.60	0.67	0.62	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	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	4593.91	4581.79	4569.68	4558.67	4539.40	4515.73	4487.65	4454.06	4418.28
90.0	4584.55	4596.66	4615.93	4631.34	4650.06	4656.67	4644.56	4615.38	4584.00
180.0	4593.91	4606.02	4613.18	4607.67	4588.40	4558.67	4519.03	4459.02	4391.30
270.0	4584.55	4576.84	4564.73	4542.70	4515.18	4468.93	4423.78	4350.56	4263.02
360.0	4593.91	4581.79	4569.68	4558.67	4539.40	4515.73	4487.65	4454.06	4418.28
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4351.66	4277.33	4192.54	4065.92	3922.77	3776.32	3579.22	3335.32	3074.35
90.0	4529.49	4468.93	4387.44	4271.83	4134.19	3993.24	3815.96	3606.19	3382.67
180.0	4307.06	4188.14	4081.33	3955.25	3787.88	3580.87	3358.44	3066.09	2764.93
270.0	4166.12	4041.14	3884.78	3726.22	3544.53	3283.56	3038.01	2753.37	2409.82
360.0	4351.66	4277.33	4192.54	4065.92	3922.77	3776.32	3579.22	3335.32	3074.35
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2747.31	2432.39	2077.83	1756.85	1520.66	1301.53	1131.96	1017.99	931.00
90.0	3088.11	2789.71	2423.58	2081.13	1798.14	1517.90	1291.07	1137.47	1019.64
180.0	2398.26	2035.44	1746.39	1477.16	1264.65	1084.12	1005.11	905.79	849.69
270.0	2076.73	1801.45	1533.32	1311.99	1087.58	1017.17	928.58	856.46	806.41
360.0	2747.31	2432.39	2077.83	1756.85	1520.66	1301.53	1131.96	1017.99	931.00
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	853.37	809.33	775.19	744.91	721.24	683.25	606.72	514.78	419.53
90.0	916.69	857.23	813.18	776.85	747.12	727.30	686.55	608.92	517.53
180.0	808.28	775.80	743.43	723.11	684.96	593.07	507.62	412.70	304.02
270.0	772.88	745.85	720.63	685.45	622.41	512.80	411.93	314.48	189.72
360.0	853.37	809.33	775.19	744.91	721.24	683.25	606.72	514.78	419.53
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	307.77	285.19	116.39	60.07	21.42	18.77	16.52	13.98	12.50
90.0	404.66	303.91	278.03	100.31	44.71	22.68	19.10	16.46	14.37
180.0	199.19	120.35	49.66	21.20	18.66	16.19	14.31	12.83	11.78
270.0	107.19	50.10	22.68	19.99	17.23	14.53	13.16	11.84	10.96
360.0	307.77	285.19	116.39	60.07	21.42	18.77	16.52	13.98	12.50
C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	11.51	10.41	10.02	9.86	9.69	9.58	9.41	9.30	9.14
90.0	12.50	11.23	10.46	10.08	9.97	9.80	9.63	9.47	9.36
180.0	10.85	10.57	9.80	9.63	9.58	9.36	9.25	9.19	9.08
270.0	10.30	10.08	9.91	9.74	9.63	9.52	9.41	9.30	9.19
360.0	11.51	10.41	10.02	9.86	9.69	9.58	9.41	9.30	9.14
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	9.08	9.03	8.97	8.86	8.81	8.75	8.64	8.64	8.64
90.0	9.25	9.19	9.08	8.97	8.92	8.86	8.86	8.75	8.70
180.0	9.03	8.92	8.81	8.75	8.70	8.70	8.64	8.53	8.48
270.0	9.14	9.03	8.97	8.86	8.81	8.81	8.75	8.64	8.59
360.0	9.08	9.03	8.97	8.86	8.81	8.75	8.64	8.64	8.64
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	8.59	8.48	8.42	8.42	8.42	8.37	8.37	8.26	8.26
90.0	8.59	8.59	8.59	8.59	8.48	8.48	8.42	8.37	8.37
180.0	8.48	8.42	8.42	8.37	8.37	8.31	8.26	8.26	8.26
270.0	8.59	8.53	8.48	8.48	8.37	8.31	8.37	8.31	8.31
360.0	8.59	8.48	8.42	8.42	8.42	8.37	8.37	8.26	8.26

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Intensity data(cd)										Appendix Page: 17 Total:17
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0	
0.0	8.26	8.26	8.26	8.15	8.15	8.09	8.15	8.15	8.09	
90.0	8.37	8.31	8.31	8.26	8.20	8.20	8.20	8.15	8.15	
180.0	8.20	8.20	8.15	8.15	8.09	8.09	8.09	8.09	8.04	
270.0	8.26	8.26	8.26	8.20	8.20	8.15	8.09	8.15	8.15	
360.0	8.26	8.26	8.26	8.15	8.15	8.09	8.15	8.15	8.09	
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0	
0.0	8.04	8.09	8.04	8.04	8.04	8.04	7.98	7.98	7.98	
90.0	8.15	8.15	8.09	8.09	8.04	8.04	8.04	8.09	8.04	
180.0	8.04	8.04	7.98	8.04	8.04	7.98	8.04	8.04	7.98	
270.0	8.15	8.09	8.15	8.09	8.09	8.04	8.04	8.04	8.04	
360.0	8.04	8.09	8.04	8.04	8.04	8.04	7.98	7.98	7.98	
C/γ(°)	90.0									
0.0	7.98									
90.0	7.98									
180.0	7.98									
270.0	8.09									
360.0	7.98									