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## Nata

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LumCAT: 3-2500-L	
Luminaire: 92.70.131.00	
Report No: 200522-B005	Voltage(V): 34.0400
Test No: 200522-C005	Current(A): 0.5000
LampCAT: TRIDONIC SLE G7 15MM	Power (W): 17.0200
Lamp flux(lm): 2114.5	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 2050.51  
Efficiency(%): 96.97%  
Lumens(lm)/Power(W): 120.48  
Central intensity(cd): 14738.910  
Maximum intensity(cd): 14738.910  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=16.0  
                                  [C90/270]Total=16.0  
Field angle(10%Imax): [C0/180]Total=34.3  
                                  [C90/270]Total=34.3  
Maximum s/h(1/2): C0\_180=0.28 C90\_270=0.28  
Maximum s/h(1/4): C0\_180=0.27 C90\_270=0.27  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 96.97%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.531%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	14738.906	0.000	0	.000%	.000%
1.0	14606.016	14.041	14.041	.664%	.685%
2.0	14189.063	41.329	55.37	1.955%	2.700%
3.0	13455.703	66.117	121.488	3.127%	5.925%
4.0	12268.195	86.106	207.594	4.072%	10.124%
5.0	11383.031	101.746	309.34	4.812%	15.086%
6.0	10164.375	113.237	422.577	5.355%	20.608%
7.0	8689.500	117.026	539.603	5.534%	26.316%
8.0	7373.180	114.958	654.561	5.437%	31.922%
9.0	5974.031	108.172	762.733	5.116%	37.197%
10.0	4728.727	96.856	859.589	4.580%	41.921%
11.0	3867.047	85.889	945.478	4.062%	46.109%
12.0	3189.023	77.133	1022.611	3.648%	49.871%
13.0	2700.984	69.900	1092.511	3.306%	53.280%
14.0	2269.125	63.617	1156.127	3.009%	56.382%
15.0	1953.211	57.966	1214.094	2.741%	59.209%
16.0	1688.344	53.359	1267.453	2.523%	61.812%
17.0	1495.969	49.588	1317.041	2.345%	64.230%
18.0	1323.914	46.494	1363.535	2.199%	66.497%
19.0	1174.402	43.466	1407	2.056%	68.617%
20.0	1080.014	41.262	1448.262	1.951%	70.629%
21.0	991.884	39.785	1488.047	1.881%	72.570%
22.0	922.613	38.473	1526.52	1.819%	74.446%
23.0	868.029	37.572	1564.092	1.777%	76.278%
24.0	819.654	36.899	1600.991	1.745%	78.078%
25.0	778.971	36.349	1637.34	1.719%	79.850%
26.0	748.948	36.067	1673.407	1.706%	81.609%
27.0	723.551	36.025	1709.432	1.704%	83.366%
28.0	700.931	36.065	1745.497	1.706%	85.125%
29.0	677.545	36.065	1781.561	1.706%	86.884%
30.0	641.116	35.604	1817.165	1.684%	88.620%
31.0	580.388	33.993	1851.158	1.608%	90.278%
32.0	509.991	31.238	1882.396	1.477%	91.801%
33.0	440.789	28.010	1910.406	1.325%	93.167%
34.0	355.338	24.093	1934.499	1.139%	94.342%
35.0	284.217	19.862	1954.362	.939%	95.311%
36.0	221.984	16.118	1970.479	.762%	96.097%
37.0	136.814	11.702	1982.181	.553%	96.668%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	78.708	7.194	1989.375	.340%	97.019%
39.0	40.317	4.063	1993.438	.192%	97.217%
40.0	25.502	2.296	1995.733	.109%	97.329%
41.0	21.994	1.691	1997.424	.080%	97.411%
42.0	19.174	1.496	1998.92	.071%	97.484%
43.0	17.487	1.358	2000.278	.064%	97.550%
44.0	16.917	1.298	2001.577	.061%	97.614%
45.0	16.432	1.282	2002.858	.061%	97.676%
46.0	15.792	1.260	2004.118	.060%	97.738%
47.0	15.159	1.231	2005.349	.058%	97.798%
48.0	14.667	1.206	2006.555	.057%	97.856%
49.0	14.133	1.183	2007.738	.056%	97.914%
50.0	13.873	1.168	2008.906	.055%	97.971%
51.0	13.676	1.166	2010.071	.055%	98.028%
52.0	13.373	1.161	2011.232	.055%	98.084%
53.0	13.078	1.151	2012.382	.054%	98.141%
54.0	12.853	1.143	2013.525	.054%	98.196%
55.0	12.635	1.138	2014.663	.054%	98.252%
56.0	12.417	1.132	2015.795	.054%	98.307%
57.0	12.347	1.132	2016.927	.054%	98.362%
58.0	12.382	1.144	2018.071	.054%	98.418%
59.0	12.382	1.158	2019.229	.055%	98.474%
60.0	12.298	1.166	2020.395	.055%	98.531%
61.0	12.108	1.165	2021.559	.055%	98.588%
62.0	11.841	1.154	2022.713	.055%	98.644%
63.0	11.580	1.139	2023.852	.054%	98.700%
64.0	11.243	1.120	2024.972	.053%	98.755%
65.0	11.011	1.101	2026.074	.052%	98.808%
66.0	10.828	1.090	2027.163	.052%	98.861%
67.0	10.610	1.078	2028.241	.051%	98.914%
68.0	10.441	1.066	2029.308	.050%	98.966%
69.0	10.287	1.057	2030.365	.050%	99.018%
70.0	9.984	1.041	2031.406	.049%	99.068%
71.0	9.654	1.015	2032.421	.048%	99.118%
72.0	9.394	0.990	2033.412	.047%	99.166%
73.0	9.141	0.969	2034.381	.046%	99.213%
74.0	8.951	0.951	2035.332	.045%	99.260%
75.0	8.880	0.942	2036.274	.045%	99.306%

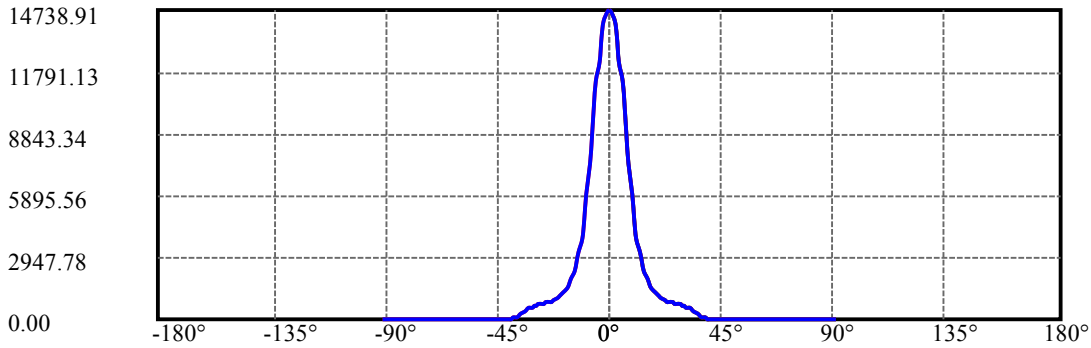
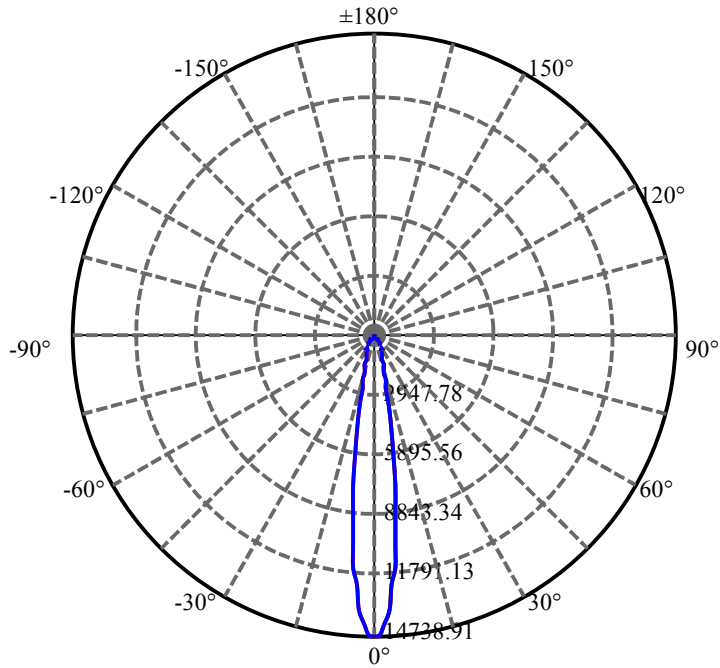
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.838	0.941	2037.215	.044%	99.352%
77.0	8.796	0.940	2038.155	.044%	99.397%
78.0	8.768	0.940	2039.095	.044%	99.443%
79.0	8.719	0.940	2040.035	.044%	99.489%
80.0	8.740	0.941	2040.976	.045%	99.535%
81.0	8.923	0.955	2041.931	.045%	99.582%
82.0	9.049	0.975	2042.906	.046%	99.629%
83.0	8.817	0.971	2043.877	.046%	99.677%
84.0	8.585	0.948	2044.825	.045%	99.723%
85.0	8.620	0.939	2045.764	.044%	99.769%
86.0	8.705	0.947	2046.711	.045%	99.815%
87.0	8.824	0.959	2047.67	.045%	99.862%
88.0	8.895	0.971	2048.641	.046%	99.909%
89.0	8.529	0.955	2049.596	.045%	99.955%
90.0	8.135	0.914	2050.51	.043%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1817.17	85.94%	88.62%
0-40	1995.73	94.38%	97.33%
0-60	2020.39	95.55%	98.53%
0-90	2049.60	96.93%	99.96%
0-120	2049.60	96.93%	99.96%
0-180	2050.51	96.97%	100.00%
60-90	30.37	1.44%	1.48%
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%
0-25.09	1640.41	77.58%	80.00%

ZONAL LUMEN SUMMARY

0-10	859.59
10-20	588.67
20-30	368.90
30-40	178.57
40-50	13.17
50-60	11.49
60-70	11.01
70-80	9.57
80-90	8.62
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



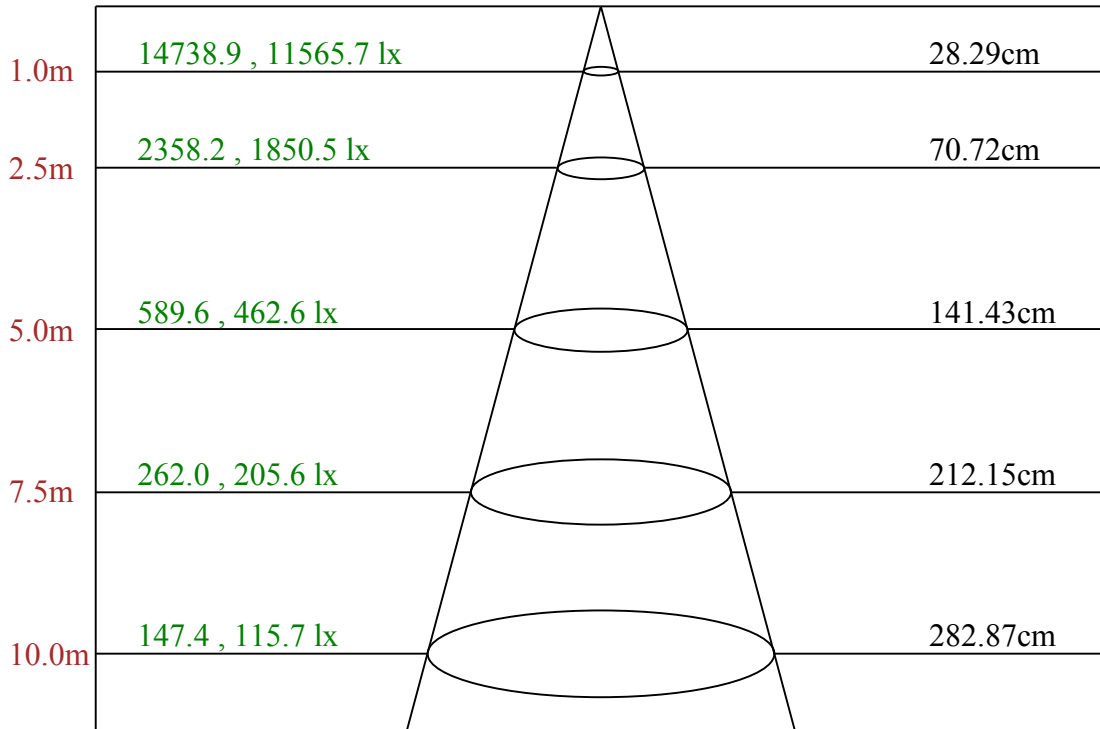
C0(Max): —————

C0/C180: —————

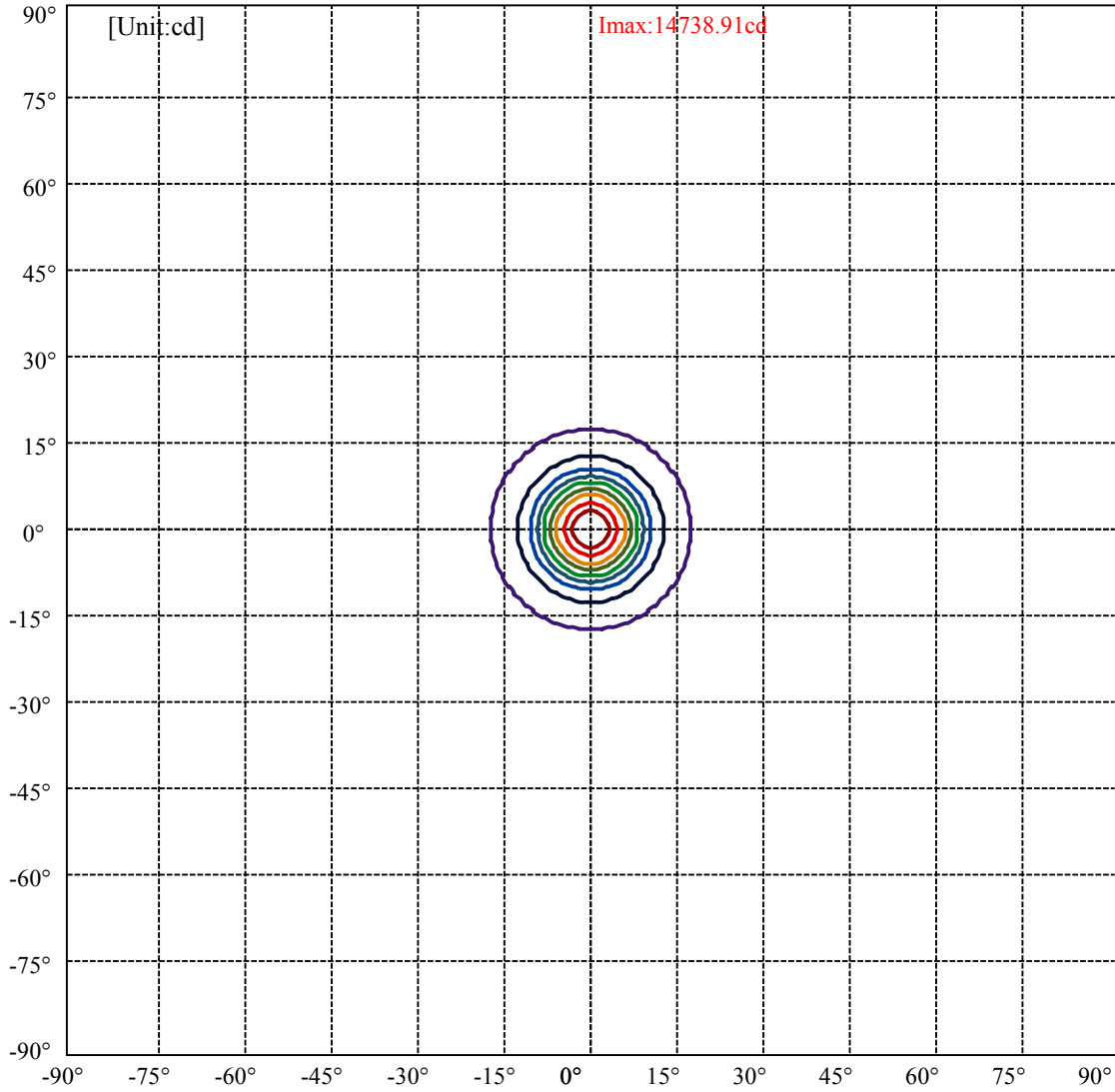
C90/C270: —————

Field angle(10%Imax):C0/180Left:17.1 Right:17.1  
:C90/270Left:17.1 Right:17.1

Beam Angle(50%Imax):C0/180Left:8.0 Right:8.0  
:C90/270Left:8.0 Right:8.0

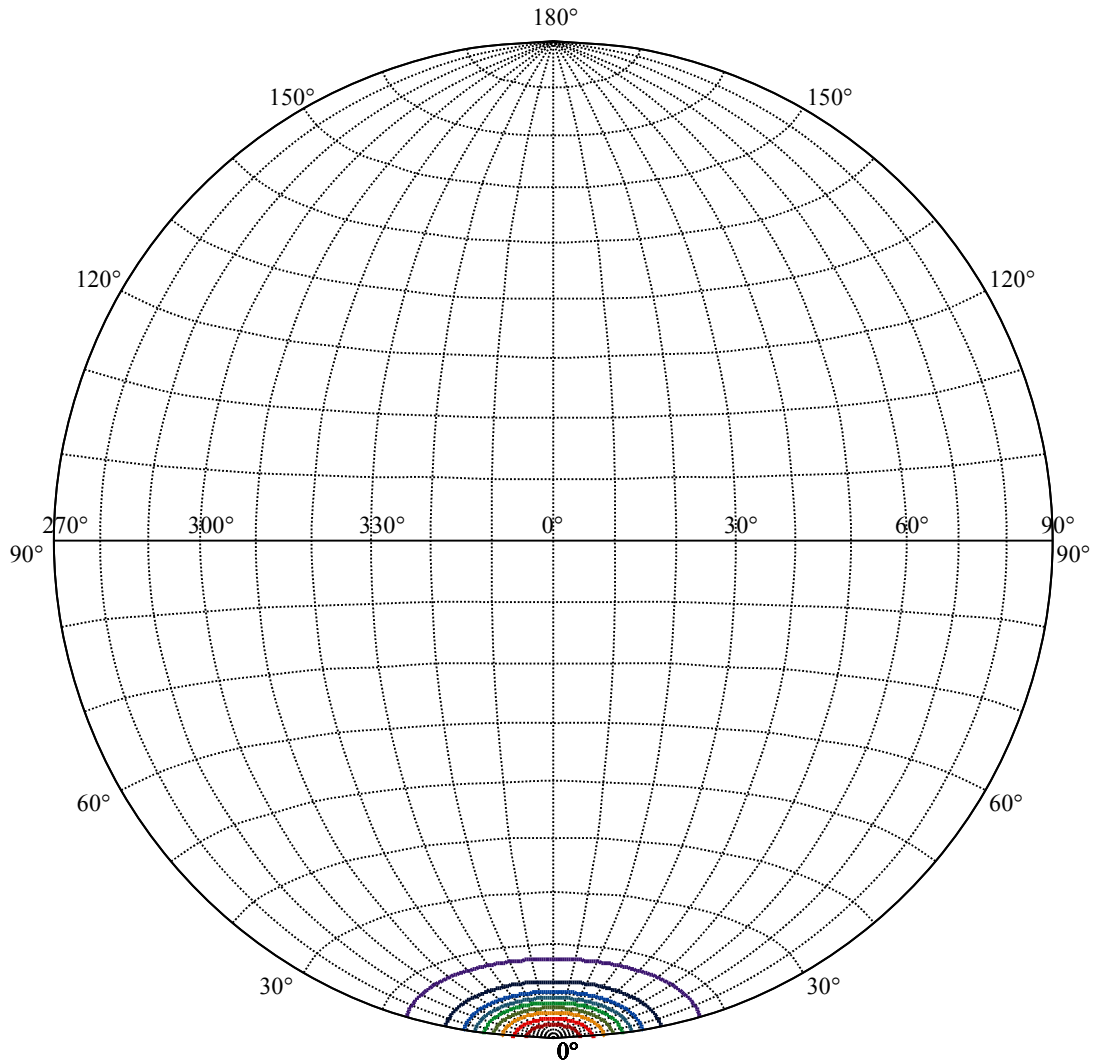


Max , Ave      Beam angle of C0 plane 16.10



(10%Imax) 1473.89	—
(20%Imax) 2947.78	—
(30%Imax) 4421.67	—
(40%Imax) 5895.56	—
(50%Imax) 7369.45	—
(60%Imax) 8843.34	—
(70%Imax) 10317.2	—
(80%Imax) 11791.1	—
(90%Imax) 13265	—





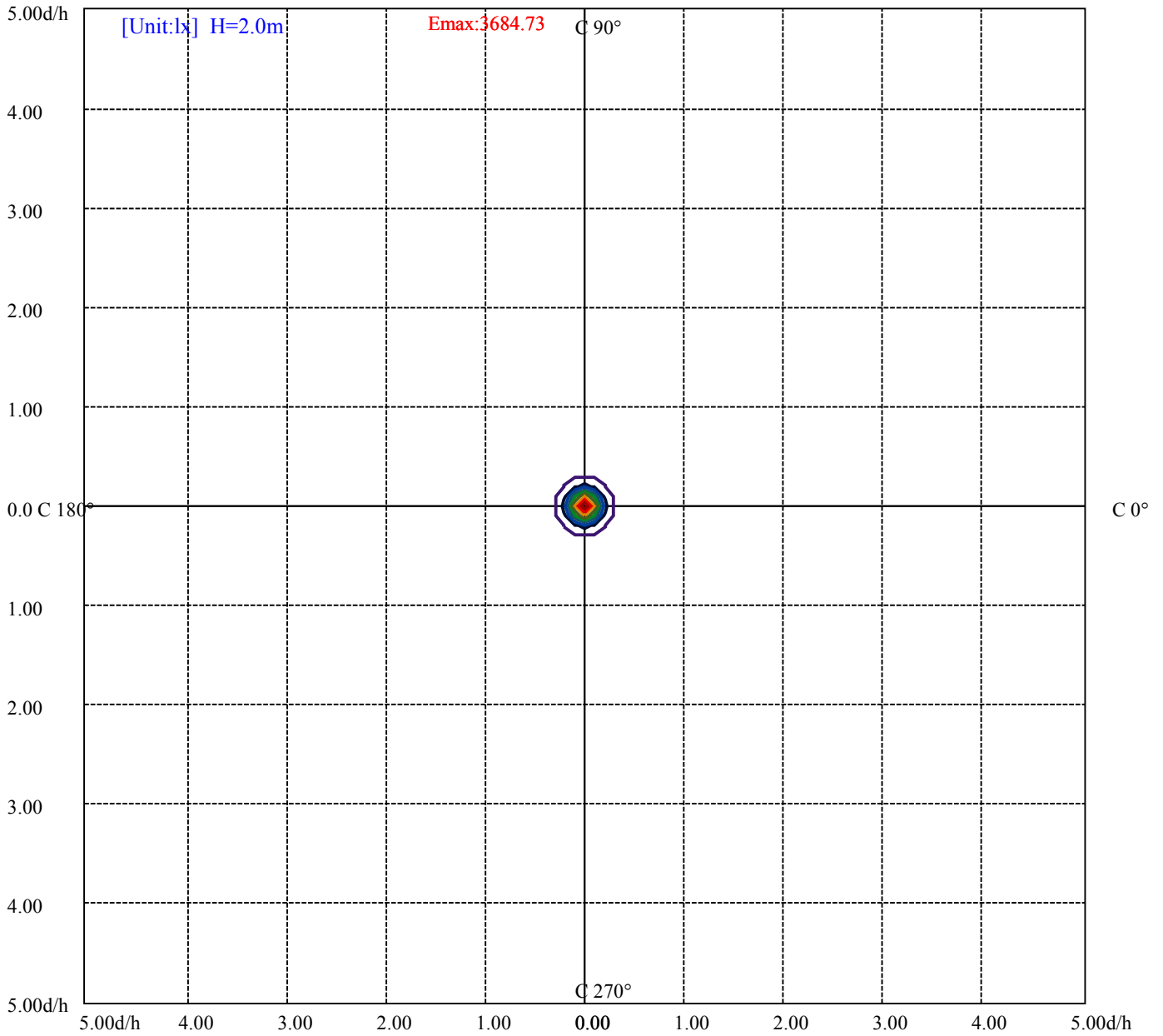
House

[Unit:cd]

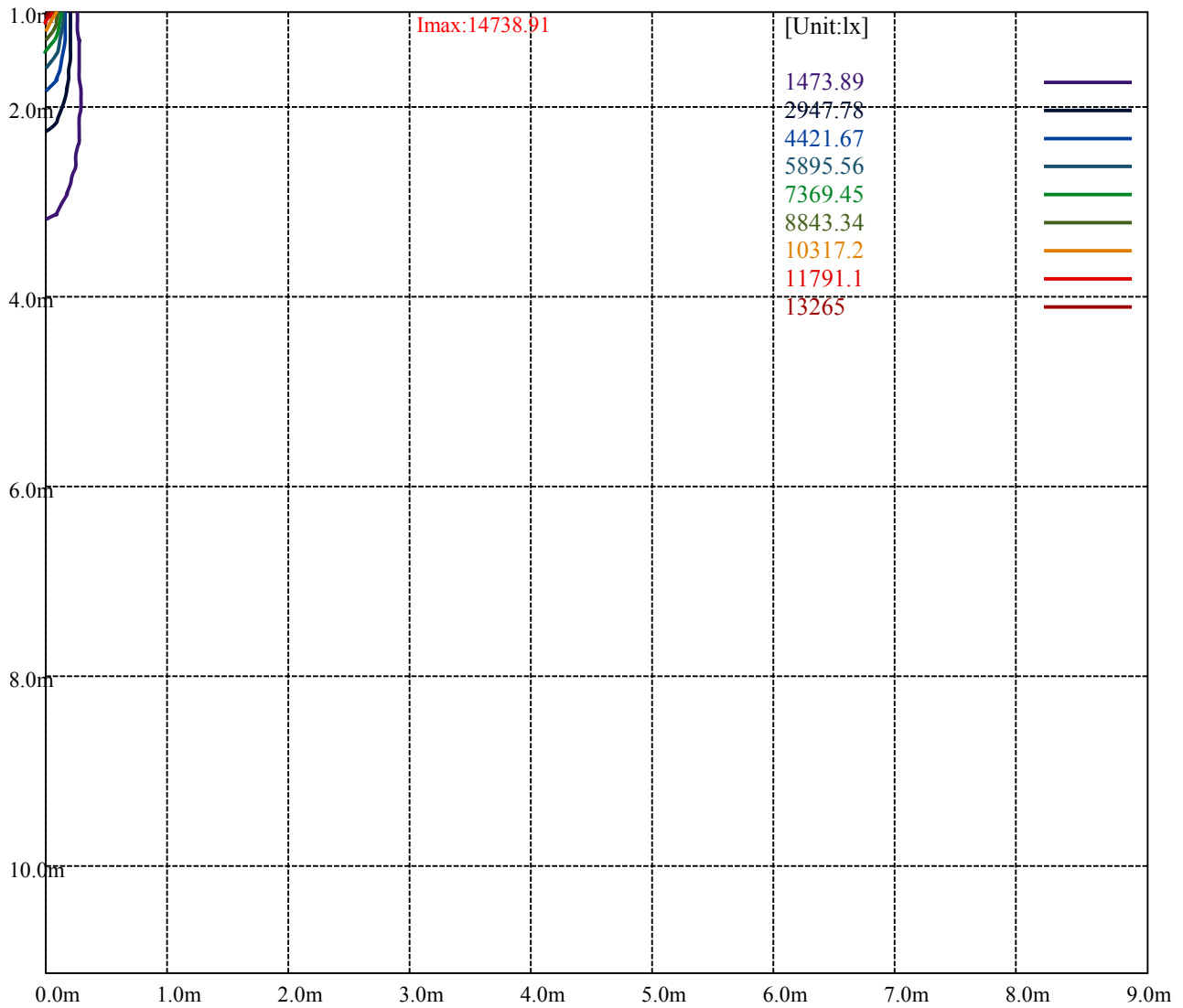
Road

Imax:14738.91

(10%Imax)	1473.89	—
(20%Imax)	2947.78	—
(30%Imax)	4421.67	—
(40%Imax)	5895.56	—
(50%Imax)	7369.45	—
(60%Imax)	8843.34	—
(70%Imax)	10317.2	—
(80%Imax)	11791.1	—
(90%Imax)	13265	—



- (10%Emax) 368.4725
- (20%Emax) 736.945
- (30%Emax) 1105.417
- (40%Emax) 1473.887
- (50%Emax) 1842.36
- (60%Emax) 2210.833
- (70%Emax) 2579.3
- (80%Emax) 2947.775
- (90%Emax) 3316.25



Luminance Table

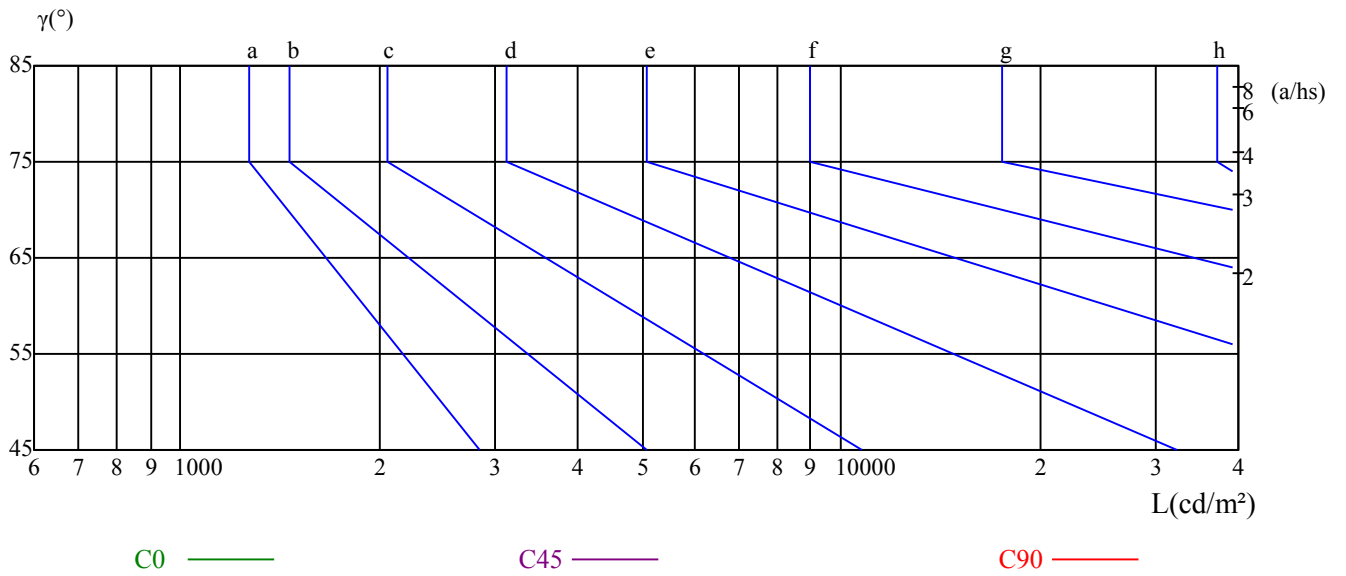
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

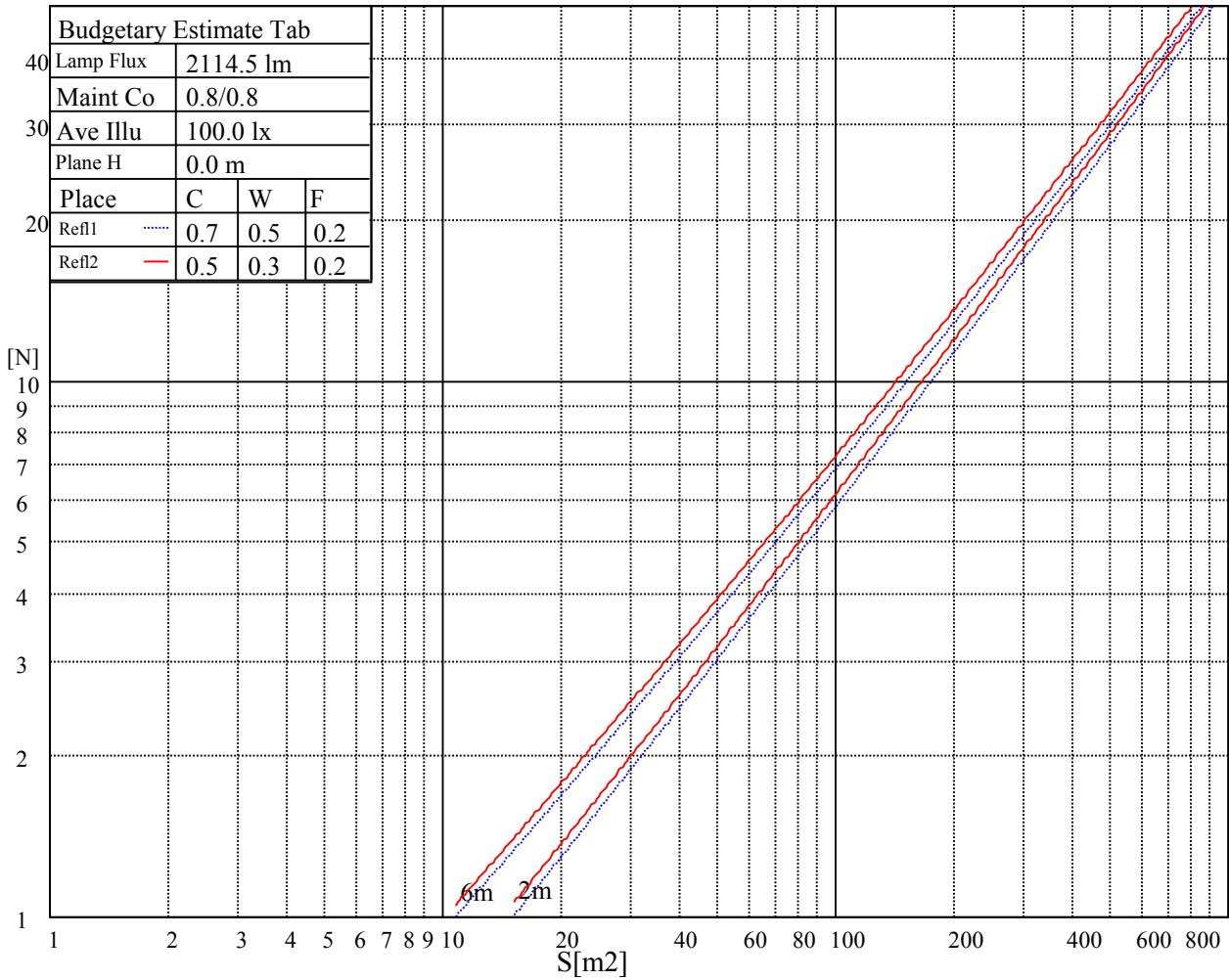
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

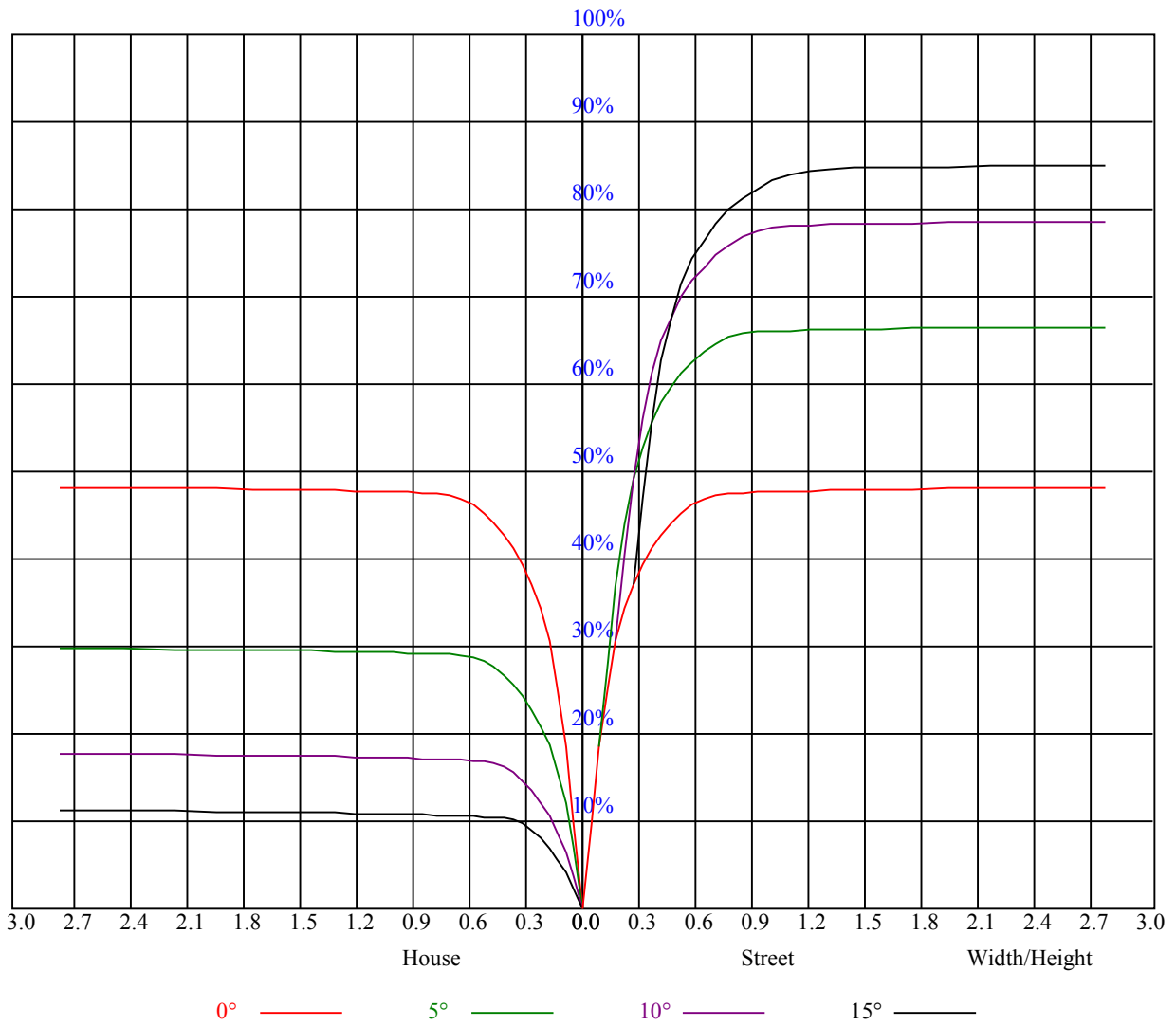
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	1.15	1.15	1.15	1.13	1.13	1.13	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.97
1	1.09	1.07	1.05	1.07	1.05	1.04	1.03	1.02	1.00	0.99	0.98	0.97	0.96	0.95	0.95	0.93
2	1.04	1.00	0.98	1.02	0.99	0.97	0.99	0.97	0.95	0.96	0.94	0.93	0.94	0.92	0.91	0.89
3	0.99	0.95	0.92	0.98	0.94	0.92	0.95	0.92	0.90	0.93	0.91	0.89	0.91	0.89	0.87	0.86
4	0.95	0.91	0.88	0.94	0.90	0.87	0.92	0.89	0.86	0.90	0.87	0.85	0.88	0.86	0.84	0.83
5	0.91	0.87	0.84	0.90	0.87	0.84	0.89	0.86	0.83	0.87	0.85	0.82	0.86	0.84	0.82	0.80
6	0.88	0.84	0.81	0.87	0.83	0.81	0.86	0.83	0.80	0.85	0.82	0.80	0.84	0.81	0.79	0.78
7	0.85	0.81	0.78	0.85	0.81	0.78	0.83	0.80	0.77	0.82	0.79	0.77	0.82	0.79	0.77	0.76
8	0.82	0.78	0.76	0.82	0.78	0.75	0.81	0.78	0.75	0.80	0.77	0.75	0.79	0.77	0.75	0.74
9	0.80	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.73	0.78	0.75	0.73	0.78	0.75	0.73	0.72
10	0.78	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.71	0.76	0.73	0.71	0.70



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	14681.25	14625.00	14220.00	13623.75	12706.88	11604.38	10496.25	9151.88	7891.88
45.0	14692.50	14709.38	14411.25	13882.50	13005.00	11930.63	10805.63	9354.38	8043.75
90.0	14878.13	14917.50	14748.75	14175.00	13398.75	12003.75	11095.88	9403.88	7997.06
135.0	14703.75	14883.75	14743.13	14371.88	13629.38	12510.00	11317.50	9826.88	8471.25
180.0	14681.25	14478.75	13995.00	13066.88	11130.19	10974.94	9548.44	8019.56	6683.06
225.0	14692.50	14411.25	13871.25	12886.88	11114.44	10818.00	9573.19	7981.88	6681.38
270.0	14878.13	14546.25	13893.75	13089.38	11992.50	10760.63	9534.38	8105.63	6834.38
315.0	14703.75	14276.25	13629.38	12549.38	11168.44	10461.94	8943.75	7671.94	6382.69
360.0	14681.25	14625.00	14220.00	13623.75	12706.88	11604.38	10496.25	9151.88	7891.88
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6435.00	5135.63	4218.75	3521.25	2863.13	2636.44	2150.44	1853.44	1613.25
45.0	6558.75	5180.63	4156.88	3313.13	2902.50	2329.31	2005.88	1698.19	1503.00
90.0	6637.50	5097.38	4051.69	3269.25	2634.19	2191.50	1902.94	1636.31	1444.50
135.0	6958.13	5540.63	4438.13	3566.25	2885.63	2410.31	2084.63	1760.63	1560.38
180.0	5328.56	4221.56	3510.56	2926.13	2517.19	2142.56	1853.44	1640.81	1462.50
225.0	5466.38	4245.75	3549.38	3020.63	2540.81	2166.75	1906.31	1668.94	1488.94
270.0	5478.75	4359.38	3616.88	3071.25	2840.63	2207.25	1932.75	1658.81	1473.75
315.0	4929.19	4048.88	3394.13	2824.31	2423.81	2068.88	1789.31	1589.63	1421.44
360.0	6435.00	5135.63	4218.75	3521.25	2863.13	2636.44	2150.44	1853.44	1613.25
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1444.50	1319.63	1162.69	1072.13	1007.44	933.19	878.06	835.88	795.94
45.0	1335.94	1197.56	1085.63	999.56	930.94	878.06	829.69	792.00	763.31
90.0	1256.63	1119.09	1028.93	939.21	866.25	815.85	769.28	726.24	697.73
135.0	1381.50	1223.44	1098.00	1004.06	919.69	864.00	812.25	774.00	747.00
180.0	1276.31	1111.73	1052.21	956.93	893.70	846.90	801.56	766.97	740.98
225.0	1324.69	1120.56	1085.63	996.47	924.36	875.03	831.09	788.46	761.34
270.0	1320.75	1182.94	1068.75	984.38	918.56	859.50	806.06	761.06	723.94
315.0	1251.00	1120.28	1058.29	982.35	919.97	871.71	829.24	787.16	761.34
360.0	1444.50	1319.63	1162.69	1072.13	1007.44	933.19	878.06	835.88	795.94
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	762.75	742.50	714.94	693.00	649.69	570.94	502.88	430.31	331.88
45.0	736.88	714.94	694.69	671.06	613.13	551.25	482.63	378.56	307.69
90.0	675.28	650.42	632.81	606.09	549.56	483.98	421.99	346.11	278.38
135.0	721.13	702.00	685.13	663.75	605.25	532.13	470.25	381.38	302.06
180.0	716.18	696.15	668.42	608.85	548.66	474.69	394.76	322.20	247.56
225.0	739.91	716.01	691.03	640.35	565.54	498.26	427.44	331.48	264.99
270.0	698.06	671.63	645.75	605.81	541.69	478.69	411.19	322.31	286.88
315.0	738.23	713.81	687.60	640.01	569.59	489.99	415.18	330.36	254.31
360.0	762.75	742.50	714.94	693.00	649.69	570.94	502.88	430.31	331.88
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	285.75	185.85	110.70	61.48	31.50	24.41	20.48	17.61	16.31
45.0	288.56	159.30	94.28	52.54	27.17	23.91	20.36	17.83	16.82
90.0	201.94	133.43	83.53	41.91	27.90	25.14	21.99	19.46	19.13
135.0	286.31	163.29	89.94	44.38	23.68	19.97	17.55	15.53	14.74
180.0	164.08	104.74	56.08	26.94	24.02	20.70	18.23	17.61	17.44
225.0	184.39	107.04	62.83	29.98	20.36	17.66	15.24	14.23	13.61
270.0	186.75	129.83	69.36	37.01	26.94	23.96	21.43	20.36	20.25
315.0	178.09	111.04	62.94	28.29	22.44	20.19	18.11	17.27	17.04
360.0	285.75	185.85	110.70	61.48	31.50	24.41	20.48	17.61	16.31



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	15.58	15.24	14.74	14.12	13.56	13.22	12.99	12.83	12.66
45.0	16.48	15.98	15.24	14.68	13.78	13.44	13.39	13.11	12.66
90.0	18.39	17.55	17.10	16.99	16.20	15.92	15.58	14.74	14.12
135.0	14.29	13.95	13.44	13.05	12.66	12.38	12.21	12.21	11.98
180.0	17.16	16.37	15.36	14.63	14.23	14.12	14.12	13.89	13.50
225.0	13.05	12.43	11.98	11.53	11.31	11.08	11.08	11.08	11.08
270.0	19.91	19.07	18.56	18.23	17.66	17.27	16.71	15.98	15.64
315.0	16.59	15.75	14.85	14.12	13.67	13.56	13.33	13.16	12.99
360.0	15.58	15.24	14.74	14.12	13.56	13.22	12.99	12.83	12.66
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	12.49	12.21	11.93	11.87	11.87	11.70	11.64	11.53	11.36
45.0	12.26	11.87	11.59	11.36	11.42	11.48	11.42	11.31	11.08
90.0	13.95	13.95	13.67	13.33	13.50	13.95	13.84	13.56	13.44
135.0	11.70	11.53	11.48	11.53	11.53	11.59	11.48	11.42	11.19
180.0	13.05	12.71	12.43	12.32	12.26	12.15	12.04	11.76	11.48
225.0	11.03	10.97	10.91	10.91	10.91	10.97	10.97	11.08	11.03
270.0	15.86	15.58	15.30	15.58	15.75	15.47	15.24	14.68	13.84
315.0	12.49	12.26	12.04	11.87	11.81	11.76	11.76	11.53	11.31
360.0	12.49	12.21	11.93	11.87	11.87	11.70	11.64	11.53	11.36
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	11.08	10.80	10.69	10.63	10.58	10.46	10.41	10.24	9.90
45.0	11.08	10.80	10.46	10.41	10.29	10.01	9.96	9.73	9.28
90.0	13.16	11.81	11.48	11.31	10.86	10.69	10.58	9.96	9.73
135.0	11.08	10.80	10.74	10.69	10.58	10.41	10.18	9.96	9.45
180.0	11.31	11.19	11.03	10.86	10.80	10.58	10.41	10.13	9.73
225.0	10.91	10.80	10.69	10.63	10.29	10.24	10.07	9.73	9.51
270.0	13.11	13.11	12.49	11.81	11.31	11.03	10.80	10.46	10.18
315.0	10.91	10.63	10.52	10.29	10.18	10.13	9.90	9.68	9.45
360.0	11.08	10.80	10.69	10.63	10.58	10.46	10.41	10.24	9.90
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	9.62	9.39	9.17	9.06	8.94	8.89	8.83	8.78	8.72
45.0	9.11	8.89	8.66	8.55	8.55	8.49	8.49	8.44	8.38
90.0	9.45	9.23	9.11	9.11	9.06	9.06	9.00	8.94	8.83
135.0	9.23	8.94	8.66	8.55	8.55	8.49	8.44	8.38	8.33
180.0	9.39	9.06	8.89	8.83	8.78	8.72	8.66	8.55	8.55
225.0	9.28	9.00	8.83	8.78	8.72	8.66	8.66	8.61	8.55
270.0	9.90	9.68	9.51	9.45	9.45	9.39	9.45	9.45	9.96
315.0	9.17	8.94	8.78	8.72	8.66	8.66	8.61	8.61	8.61
360.0	9.62	9.39	9.17	9.06	8.94	8.89	8.83	8.78	8.72
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	8.66	8.61	8.55	8.49	8.55	8.61	8.72	8.83	8.61
45.0	8.33	8.33	8.27	8.21	8.21	8.21	8.21	8.21	8.04
90.0	8.78	8.66	8.55	8.49	8.44	8.72	8.89	8.21	7.99
135.0	8.33	8.27	8.27	8.21	8.16	8.16	8.21	8.21	8.04
180.0	8.49	8.44	8.44	8.49	8.61	8.72	8.72	8.55	7.93
225.0	9.00	9.73	9.17	8.66	8.78	8.89	8.94	9.00	8.72
270.0	10.74	10.91	10.46	9.23	9.28	9.28	9.51	10.69	10.07
315.0	9.06	9.45	8.83	8.89	8.94	9.06	9.39	9.45	8.83
360.0	8.66	8.61	8.55	8.49	8.55	8.61	8.72	8.83	8.61

Intensity data(cd)

<b>C/<math>\gamma</math>(<math>^{\circ}</math>)</b>	<b>90.0</b>
<b>0.0</b>	<b>7.93</b>
<b>45.0</b>	<b>7.99</b>
<b>90.0</b>	<b>7.93</b>
<b>135.0</b>	<b>7.93</b>
<b>180.0</b>	<b>7.93</b>
<b>225.0</b>	<b>8.21</b>
<b>270.0</b>	<b>8.78</b>
<b>315.0</b>	<b>8.38</b>
<b>360.0</b>	<b>7.93</b>