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## Nata

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LumCAT: 2-1746-N	
Luminaire: 92.70.124.00	
Report No: 200407-B038	Voltage(V): 220.4000
Test No: 200407-C038	Current(A): 0.0420
LampCAT: TRIDONIC SLE G7 9MM	Power (W): 8.2900
Lamp flux(lm): 1028.0	PF: 0.8960
Number of Lamps: 1	Ballast type: AC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 846.72  
Efficiency(%): 82.37%  
Lumens(lm)/Power(W): 102.14  
Central intensity(cd): 3250.136  
Maximum intensity(cd): 3250.136  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=23.2  
                                  [C90/270]Total=23.2  
Field angle(10%Imax): [C0/180]Total=57.8  
                                  [C90/270]Total=57.8  
Maximum s/h(1/2): C0\_180=0.39 C90\_270=0.39  
Maximum s/h(1/4): C0\_180=0.41 C90\_270=0.41  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 82.37%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.562%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3250.137	0.000	0	.000%	.000%
1.0	3236.854	3.104	3.104	.302%	.367%
2.0	3197.643	9.235	12.339	.898%	1.457%
3.0	3123.571	15.118	27.458	1.471%	3.243%
4.0	3019.802	20.564	48.021	2.000%	5.671%
5.0	2888.539	25.417	73.439	2.473%	8.673%
6.0	2728.215	29.518	102.956	2.871%	12.159%
7.0	2547.184	32.744	135.701	3.185%	16.027%
8.0	2353.798	35.075	170.776	3.412%	20.169%
9.0	2155.656	36.547	207.323	3.555%	24.485%
10.0	1943.186	37.093	244.416	3.608%	28.866%
11.0	1749.510	36.898	281.313	3.589%	33.224%
12.0	1537.969	35.937	317.25	3.496%	37.468%
13.0	1322.443	33.946	351.196	3.302%	41.477%
14.0	1176.313	31.984	383.18	3.111%	45.255%
15.0	1010.624	30.023	413.203	2.921%	48.801%
16.0	917.284	28.249	441.452	2.748%	52.137%
17.0	826.739	27.159	468.612	2.642%	55.344%
18.0	739.263	25.820	494.432	2.512%	58.394%
19.0	665.784	24.445	518.877	2.378%	61.281%
20.0	603.708	23.235	542.112	2.260%	64.025%
21.0	548.470	22.124	564.236	2.152%	66.638%
22.0	501.870	21.107	585.343	2.053%	69.131%
23.0	463.598	20.258	605.601	1.971%	71.523%
24.0	431.824	19.577	625.178	1.904%	73.835%
25.0	405.449	19.038	644.216	1.852%	76.084%
26.0	383.906	18.633	662.849	1.813%	78.284%
27.0	362.561	18.262	681.111	1.777%	80.441%
28.0	344.330	17.897	699.008	1.741%	82.555%
29.0	323.333	17.468	716.476	1.699%	84.618%
30.0	297.225	16.755	733.231	1.630%	86.597%
31.0	268.855	15.753	748.984	1.532%	88.457%
32.0	233.478	14.391	763.376	1.400%	90.157%
33.0	188.711	12.438	775.813	1.210%	91.626%
34.0	149.732	10.242	786.056	.996%	92.836%
35.0	117.499	8.299	794.355	.807%	93.816%
36.0	72.401	6.046	800.401	.588%	94.530%
37.0	52.250	4.065	804.467	.395%	95.010%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	40.545	3.097	807.564	.301%	95.376%
39.0	33.062	2.512	810.077	.244%	95.673%
40.0	28.318	2.141	812.217	.208%	95.925%
41.0	24.745	1.890	814.107	.184%	96.149%
42.0	21.955	1.697	815.803	.165%	96.349%
43.0	20.011	1.555	817.358	.151%	96.533%
44.0	18.103	1.439	818.797	.140%	96.702%
45.0	16.711	1.338	820.134	.130%	96.860%
46.0	15.458	1.258	821.393	.122%	97.009%
47.0	14.449	1.189	822.582	.116%	97.149%
48.0	13.509	1.130	823.712	.110%	97.283%
49.0	12.686	1.076	824.788	.105%	97.410%
50.0	12.036	1.031	825.819	.100%	97.532%
51.0	11.398	0.991	826.81	.096%	97.649%
52.0	10.928	0.958	827.768	.093%	97.762%
53.0	10.487	0.932	828.7	.091%	97.872%
54.0	10.128	0.909	829.608	.088%	97.979%
55.0	9.762	0.888	830.496	.086%	98.084%
56.0	9.368	0.864	831.361	.084%	98.186%
57.0	8.933	0.837	832.197	.081%	98.285%
58.0	8.480	0.805	833.003	.078%	98.380%
59.0	8.173	0.779	833.781	.076%	98.472%
60.0	7.848	0.757	834.538	.074%	98.562%
61.0	7.535	0.734	835.272	.071%	98.648%
62.0	7.256	0.713	835.985	.069%	98.732%
63.0	6.937	0.690	836.675	.067%	98.814%
64.0	6.636	0.666	837.341	.065%	98.893%
65.0	6.334	0.642	837.983	.062%	98.968%
66.0	6.044	0.618	838.601	.060%	99.041%
67.0	5.760	0.594	839.194	.058%	99.111%
68.0	5.447	0.568	839.762	.055%	99.178%
69.0	5.174	0.542	840.304	.053%	99.242%
70.0	4.878	0.516	840.82	.050%	99.303%
71.0	4.658	0.493	841.313	.048%	99.362%
72.0	4.379	0.470	841.783	.046%	99.417%
73.0	4.136	0.445	842.228	.043%	99.470%
74.0	3.898	0.422	842.65	.041%	99.520%
75.0	3.689	0.401	843.051	.039%	99.567%

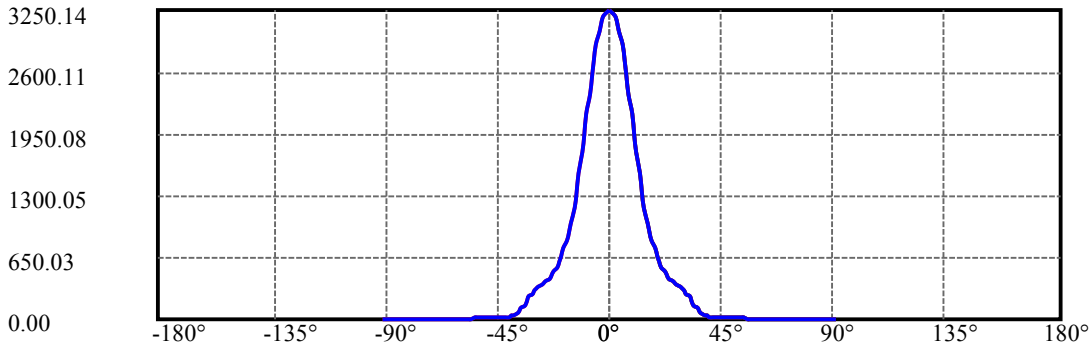
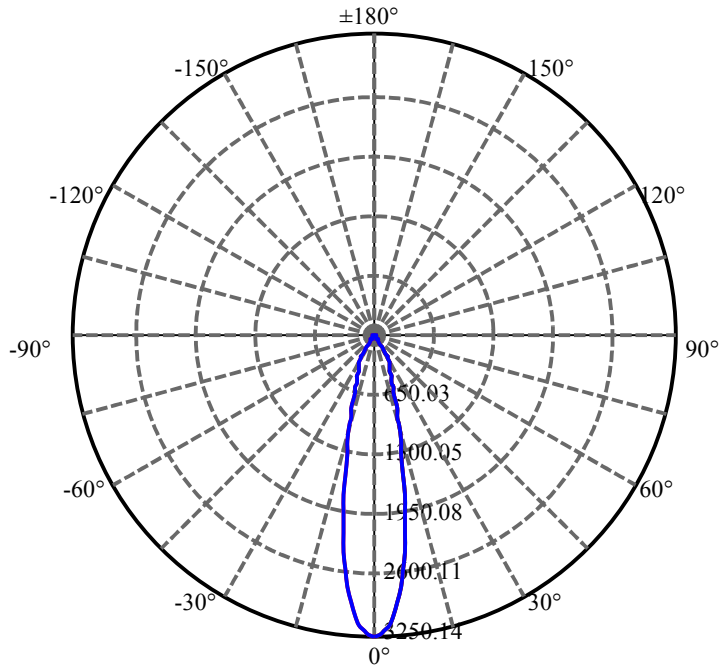
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.457	0.379	843.43	.037%	99.612%
77.0	3.225	0.356	843.787	.035%	99.654%
78.0	3.034	0.335	844.122	.033%	99.693%
79.0	2.842	0.316	844.437	.031%	99.731%
80.0	2.662	0.297	844.734	.029%	99.766%
81.0	2.436	0.276	845.01	.027%	99.798%
82.0	2.239	0.254	845.263	.025%	99.828%
83.0	2.071	0.234	845.498	.023%	99.856%
84.0	1.903	0.216	845.714	.021%	99.881%
85.0	1.734	0.198	845.913	.019%	99.905%
86.0	1.607	0.183	846.095	.018%	99.926%
87.0	1.520	0.171	846.266	.017%	99.947%
88.0	1.415	0.161	846.427	.016%	99.966%
89.0	1.328	0.150	846.578	.015%	99.983%
90.0	1.230	0.140	846.718	.014%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	733.23	71.33%	86.60%
0-40	812.22	79.01%	95.93%
0-60	834.54	81.18%	98.56%
0-90	846.58	82.35%	99.98%
0-120	846.58	82.35%	99.98%
0-180	846.72	82.37%	100.00%
60-90	12.80	1.24%	1.51%
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%
0-26.80	677.37	65.89%	80.00%

ZONAL LUMEN SUMMARY

0-10	244.42
10-20	297.70
20-30	191.12
30-40	78.99
40-50	13.60
50-60	8.72
60-70	6.28
70-80	3.91
80-90	1.84
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

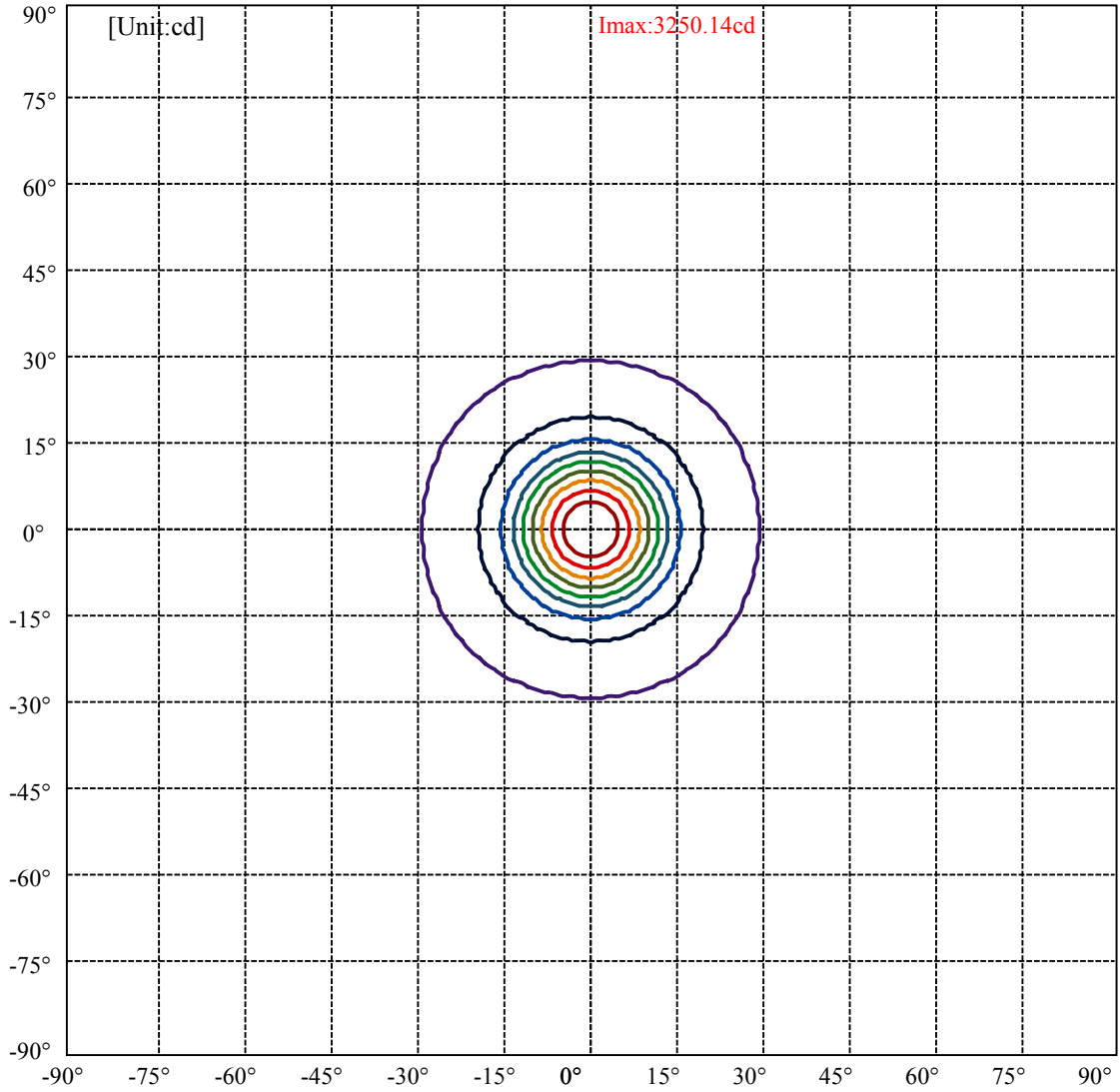


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

Field angle(10%Imax):C0/180Left:28.9 Right:28.9  
:C90/270Left:28.9 Right:28.9

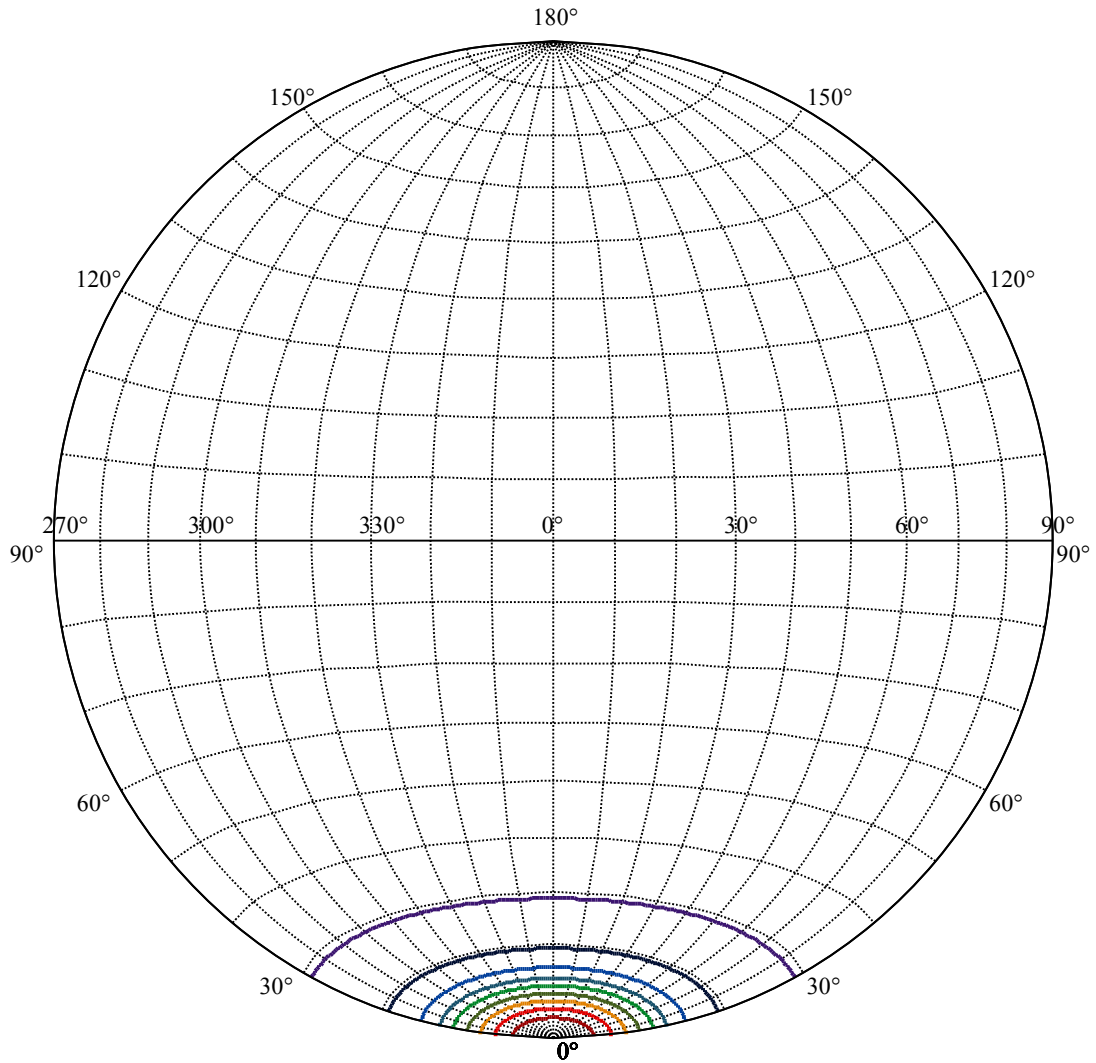
Beam Angle(50%Imax):C0/180Left:11.6 Right:11.6  
:C90/270Left:11.6 Right:11.6





(10%Imax) 325.014	—
(20%Imax) 650.027	—
(30%Imax) 975.041	—
(40%Imax) 1300.05	—
(50%Imax) 1625.07	—
(60%Imax) 1950.08	—
(70%Imax) 2275.1	—
(80%Imax) 2600.11	—
(90%Imax) 2925.12	—





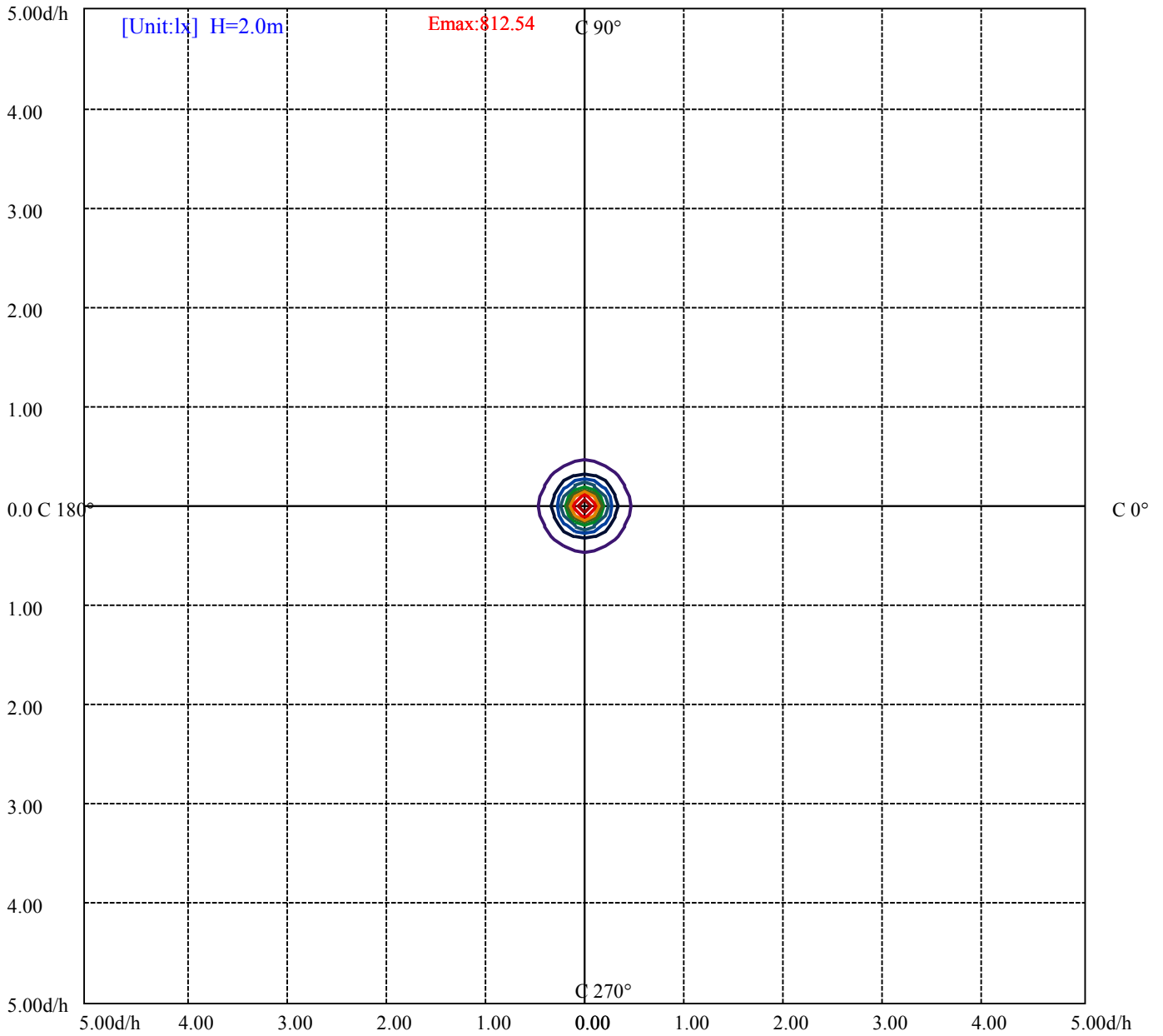
House

[Unit:cd]

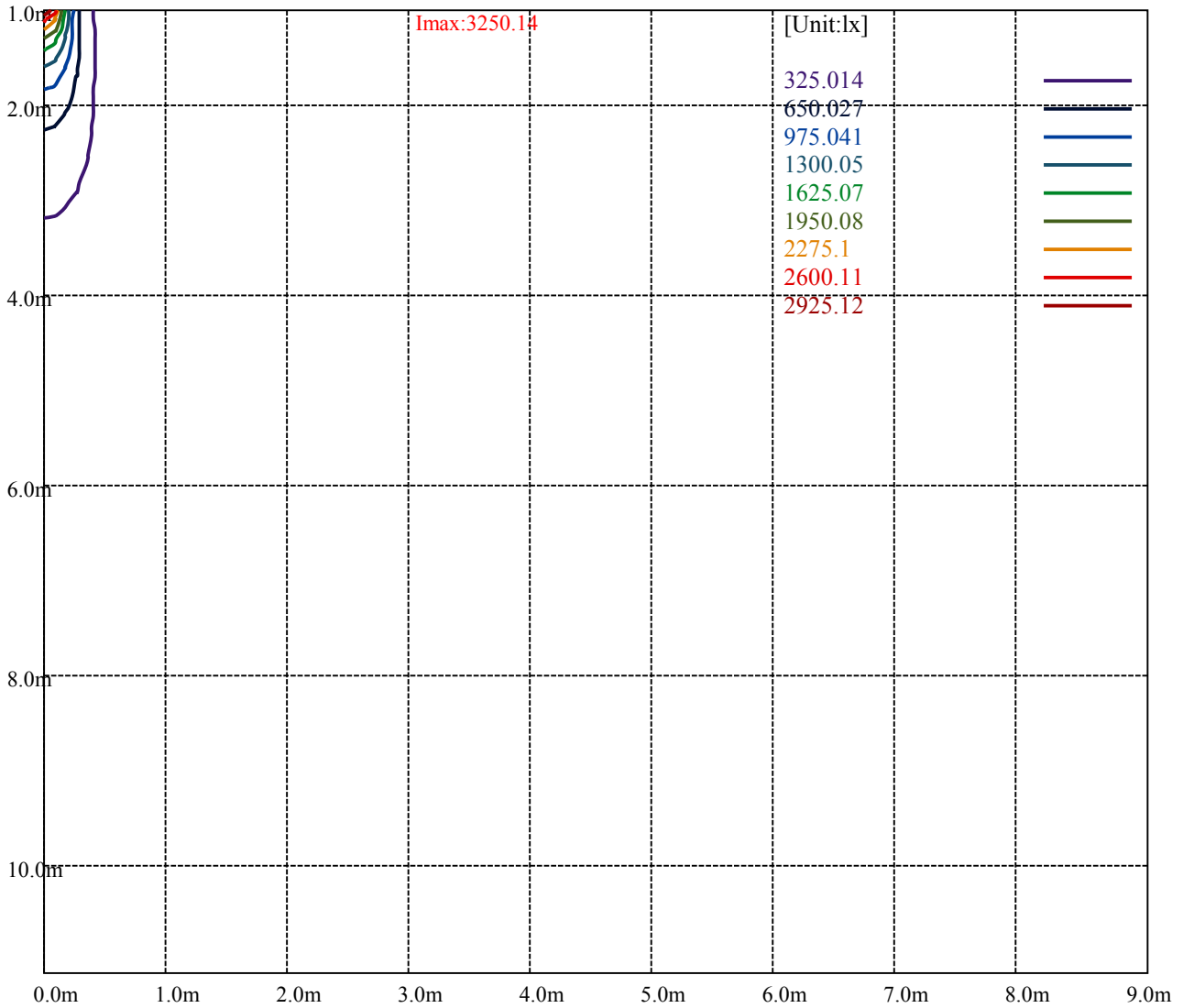
Road

**Imax:3250.14**

(10%Imax)	325.014	—
(20%Imax)	650.027	—
(30%Imax)	975.041	—
(40%Imax)	1300.05	—
(50%Imax)	1625.07	—
(60%Imax)	1950.08	—
(70%Imax)	2275.1	—
(80%Imax)	2600.11	—
(90%Imax)	2925.12	—



- (10%Emax) 81.25325
- (20%Emax) 162.5067
- (30%Emax) 243.76
- (40%Emax) 325.0125
- (50%Emax) 406.2675
- (60%Emax) 487.52
- (70%Emax) 568.7725
- (80%Emax) 650.0275
- (90%Emax) 731.28



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

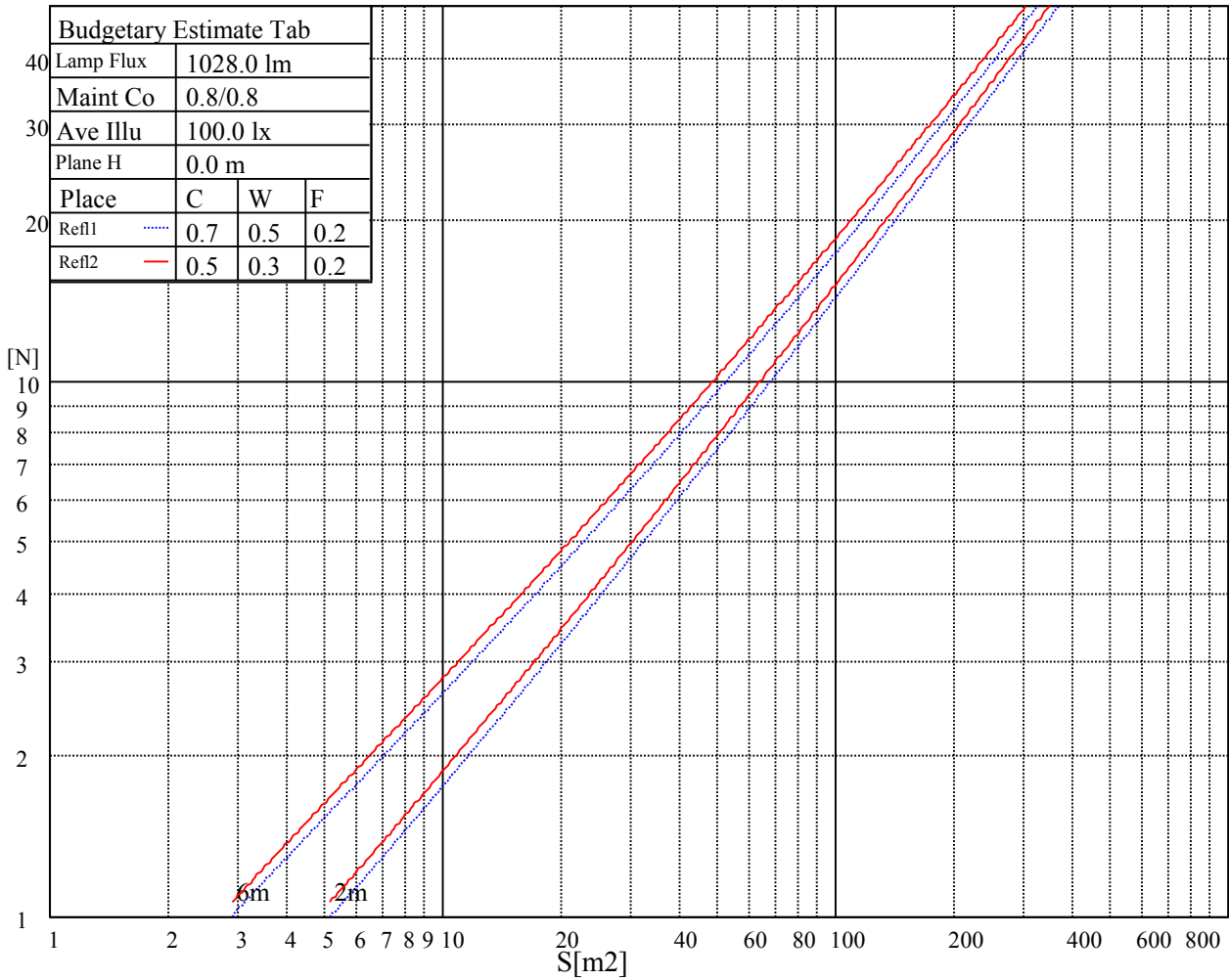
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

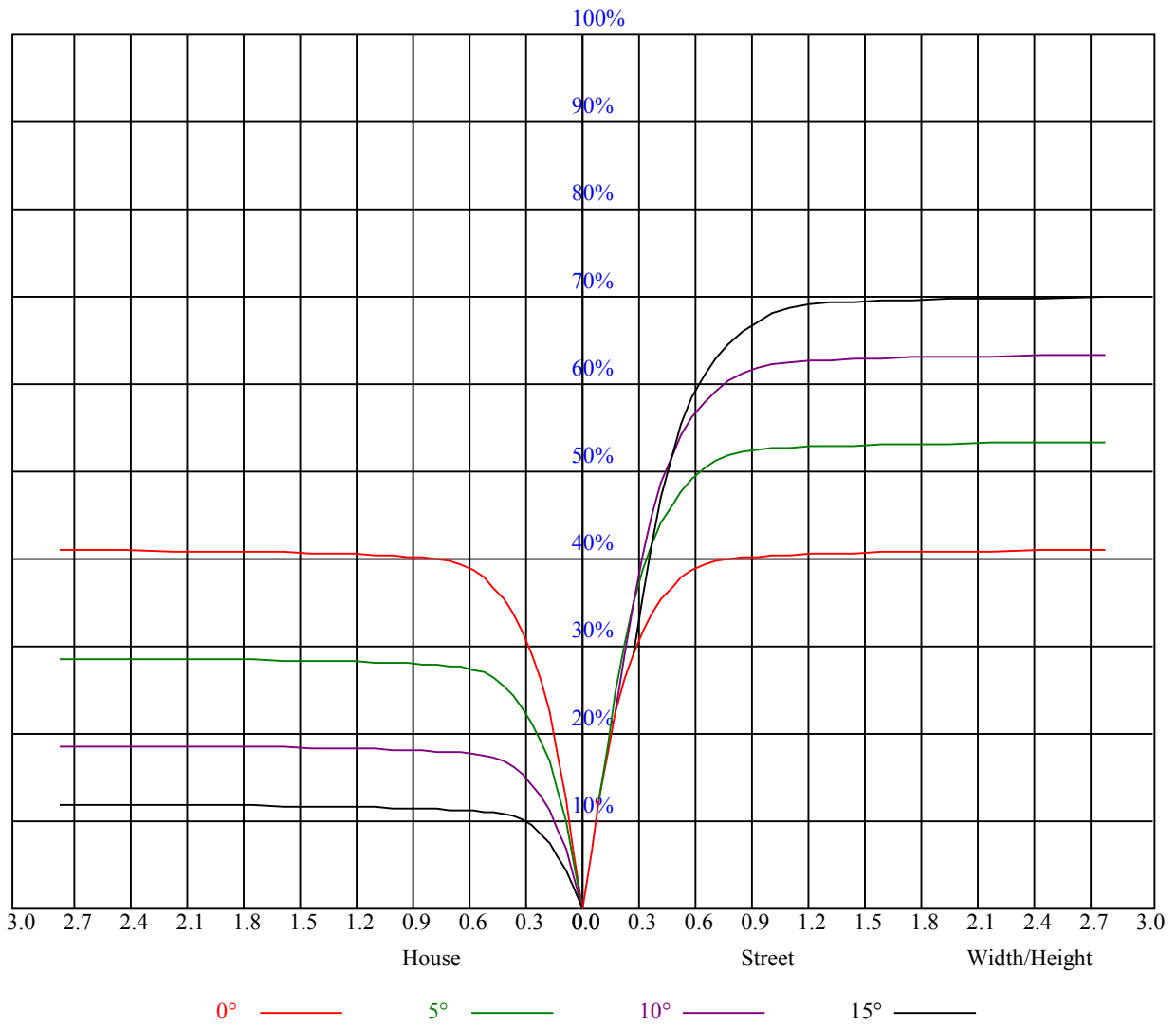
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.98	0.98	0.98	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.82
1	0.92	0.90	0.89	0.90	0.89	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81	0.81	0.80	0.78
2	0.87	0.84	0.82	0.86	0.83	0.81	0.83	0.81	0.79	0.81	0.79	0.78	0.78	0.77	0.76	0.75
3	0.83	0.79	0.76	0.81	0.78	0.76	0.79	0.77	0.75	0.77	0.75	0.73	0.76	0.74	0.72	0.71
4	0.79	0.75	0.72	0.78	0.74	0.72	0.76	0.73	0.71	0.74	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.70	0.68	0.66	0.65
6	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.66	0.64	0.63
7	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.60
8	0.66	0.62	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.64	0.61	0.59	0.58
9	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.56
10	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.58	0.55	0.60	0.57	0.55	0.60	0.57	0.55	0.54



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	3233.90	3192.13	3115.10	3011.62	2864.52	2693.30	2503.51	2302.58	2092.84
45.0	3265.91	3233.90	3200.02	3114.64	2997.70	2845.50	2664.53	2472.42	2270.56
90.0	3240.86	3176.36	3078.91	2943.41	2789.82	2606.52	2406.99	2202.35	2000.03
135.0	3259.88	3256.63	3220.44	3144.34	3035.75	2902.58	2768.47	2550.37	2355.48
180.0	3233.90	3253.85	3251.99	3207.91	3129.95	3053.85	2900.26	2776.36	2595.39
225.0	3265.91	3271.48	3253.85	3197.24	3105.36	2994.92	2845.96	2670.09	2479.38
270.0	3240.86	3266.84	3266.84	3252.92	3223.22	3145.27	3038.54	2897.47	2734.60
315.0	3259.88	3243.64	3193.99	3116.49	3012.09	2866.38	2697.47	2505.83	2302.12
360.0	3233.90	3192.13	3115.10	3011.62	2864.52	2693.30	2503.51	2302.58	2092.84
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1887.27	1676.14	1467.32	1274.28	1047.83	915.91	873.64	814.29	728.39
45.0	2065.92	1850.15	1637.62	1432.98	1247.83	1090.99	957.81	845.05	751.32
90.0	1785.65	1579.62	1380.55	1200.50	893.45	893.45	853.96	768.67	696.65
135.0	2190.75	1941.56	1776.83	1580.08	1392.15	1218.13	1075.21	952.24	849.23
180.0	2399.56	2196.32	1986.57	1783.33	1572.19	1365.23	1180.55	1025.56	898.42
225.0	2275.67	2064.53	1850.61	1639.48	1435.30	1243.66	910.71	868.72	868.72
270.0	2549.45	2355.02	2144.34	1932.28	1718.83	1511.87	1316.51	1147.14	1005.14
315.0	2090.98	1882.17	1752.24	1460.82	1271.96	1171.27	916.61	816.61	816.61
360.0	1887.27	1676.14	1467.32	1274.28	1047.83	915.91	873.64	814.29	728.39
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	655.17	593.59	541.94	496.93	460.09	426.96	400.65	379.53	359.25
45.0	671.97	607.00	552.25	503.52	462.22	432.99	403.76	369.42	349.46
90.0	635.45	583.15	538.19	494.15	455.87	424.08	397.03	370.67	347.79
135.0	761.99	686.35	618.14	558.74	510.95	471.97	440.88	416.28	397.72
180.0	796.79	712.34	642.73	580.09	528.12	482.64	448.30	420.00	406.08
225.0	776.42	699.76	635.73	578.23	527.75	486.40	452.43	423.01	398.37
270.0	886.81	787.98	706.31	634.84	574.52	525.33	483.57	461.76	432.06
315.0	729.51	656.10	594.38	541.25	495.45	458.42	427.98	402.92	380.51
360.0	655.17	593.59	541.94	496.93	460.09	426.96	400.65	379.53	359.25
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	341.85	323.62	299.07	260.74	216.75	178.93	123.66	85.10	60.93
45.0	327.19	303.06	280.79	250.16	243.20	230.67	146.59	107.10	75.45
90.0	326.54	300.51	263.11	221.30	177.03	135.03	111.32	67.89	55.41
135.0	381.02	361.99	342.04	328.58	294.71	249.70	231.14	187.47	111.37
180.0	389.37	375.91	364.31	349.00	332.29	298.88	255.26	237.17	191.46
225.0	377.17	358.98	343.34	326.59	296.56	255.03	209.28	162.09	134.34
270.0	396.79	384.27	366.17	348.54	330.44	306.31	266.87	231.14	231.14
315.0	360.55	346.31	327.84	292.90	259.86	213.27	165.57	119.91	79.91
360.0	341.85	323.62	299.07	260.74	216.75	178.93	123.66	85.10	60.93
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	43.48	36.43	30.25	25.85	23.11	20.79	18.84	17.22	15.92
45.0	54.43	43.11	38.70	30.53	27.98	24.73	22.13	19.91	18.10
90.0	43.71	36.29	30.44	26.54	23.43	21.02	19.03	17.35	15.96
135.0	74.43	51.09	40.19	33.36	28.12	24.73	22.13	20.09	18.38
180.0	114.38	78.00	53.13	42.04	35.08	30.39	25.89	23.62	21.21
225.0	78.98	53.55	45.89	38.10	31.32	26.96	23.94	21.53	19.54
270.0	118.37	80.60	52.85	40.65	33.78	28.07	24.32	22.69	19.54
315.0	51.41	38.93	32.90	27.42	23.71	21.25	19.35	17.68	16.19
360.0	43.48	36.43	30.25	25.85	23.11	20.79	18.84	17.22	15.92



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	14.76	13.78	12.95	12.30	11.60	11.00	10.58	10.30	9.98
45.0	16.66	15.41	14.29	13.41	12.62	11.93	11.28	10.77	10.35
90.0	14.85	13.92	13.04	12.25	11.60	11.04	10.58	10.16	9.79
135.0	17.17	15.64	14.80	13.92	12.99	12.44	11.74	11.28	10.90
180.0	18.98	17.68	16.29	15.08	14.06	13.22	12.48	11.88	11.28
225.0	17.87	16.52	15.41	14.52	13.64	12.90	12.20	11.65	11.18
270.0	18.42	16.80	15.45	14.29	13.32	12.53	11.83	11.18	10.63
315.0	14.99	13.92	13.36	12.30	11.65	11.23	10.49	10.21	9.79
360.0	14.76	13.78	12.95	12.30	11.60	11.00	10.58	10.30	9.98
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	9.65	9.14	8.72	8.31	7.98	7.80	7.47	7.19	6.96
45.0	10.02	9.65	9.14	8.72	8.35	8.12	7.70	7.38	7.10
90.0	9.42	8.96	8.49	8.21	7.93	7.61	7.33	6.96	6.64
135.0	10.53	10.07	9.61	9.14	8.68	8.31	8.03	7.75	7.42
180.0	10.86	10.49	10.12	9.61	9.05	8.68	8.31	7.93	7.80
225.0	10.90	10.67	10.39	9.74	9.00	8.77	8.35	8.07	7.70
270.0	10.12	9.88	9.65	9.33	8.77	8.26	8.07	7.75	7.47
315.0	9.51	9.23	8.82	8.40	8.07	7.84	7.52	7.24	6.96
360.0	9.65	9.14	8.72	8.31	7.98	7.80	7.47	7.19	6.96
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	6.59	6.31	5.99	5.75	5.34	5.06	4.83	4.55	4.27
45.0	6.82	6.50	6.17	5.80	5.57	5.24	4.97	4.64	4.41
90.0	6.40	6.08	5.75	5.48	5.24	4.97	4.64	4.36	4.18
135.0	7.10	6.77	6.54	6.26	5.89	5.61	5.38	5.01	4.87
180.0	7.29	7.01	6.77	6.36	6.17	5.85	5.61	5.29	5.06
225.0	7.33	6.96	6.64	6.36	6.03	5.66	5.38	5.15	4.83
270.0	7.19	7.01	6.68	6.50	6.22	5.89	5.57	5.29	5.06
315.0	6.77	6.45	6.13	5.85	5.61	5.29	5.01	4.73	4.59
360.0	6.59	6.31	5.99	5.75	5.34	5.06	4.83	4.55	4.27
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.04	3.85	3.57	3.39	3.16	3.02	2.78	2.55	2.41
45.0	4.22	3.94	3.67	3.48	3.25	3.02	2.83	2.64	2.46
90.0	3.90	3.62	3.43	3.25	3.06	2.78	2.74	2.46	2.32
135.0	4.59	4.32	4.08	3.90	3.57	3.34	3.16	3.02	2.78
180.0	4.73	4.50	4.27	3.99	3.76	3.53	3.29	3.16	2.92
225.0	4.55	4.32	4.08	3.90	3.62	3.34	3.16	2.97	2.78
270.0	4.78	4.45	4.22	3.99	3.81	3.53	3.29	3.16	2.97
315.0	4.22	4.08	3.85	3.62	3.43	3.25	3.02	2.78	2.64
360.0	4.04	3.85	3.57	3.39	3.16	3.02	2.78	2.55	2.41
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	2.23	2.00	1.86	1.72	1.62	1.48	1.44	1.44	1.35
45.0	2.23	2.04	1.90	1.76	1.58	1.48	1.39	1.30	1.25
90.0	2.18	1.95	1.86	1.62	1.53	1.44	1.39	1.25	1.21
135.0	2.51	2.37	2.09	2.00	1.81	1.67	1.58	1.48	1.39
180.0	2.69	2.46	2.27	2.09	1.90	1.76	1.67	1.53	1.39
225.0	2.51	2.37	2.23	2.00	1.86	1.67	1.58	1.44	1.35
270.0	2.74	2.51	2.32	2.13	1.90	1.76	1.67	1.48	1.39
315.0	2.41	2.23	2.04	1.90	1.67	1.58	1.44	1.39	1.30
360.0	2.23	2.00	1.86	1.72	1.62	1.48	1.44	1.44	1.35

Intensity data(cd)

<b>C/γ(°)</b>	<b>90.0</b>
<b>0.0</b>	<b>1.25</b>
<b>45.0</b>	<b>1.21</b>
<b>90.0</b>	<b>1.16</b>
<b>135.0</b>	<b>1.21</b>
<b>180.0</b>	<b>1.30</b>
<b>225.0</b>	<b>1.25</b>
<b>270.0</b>	<b>1.30</b>
<b>315.0</b>	<b>1.16</b>
<b>360.0</b>	<b>1.25</b>