



NATA LIGHTING CO.,LTD.  
www.nata.cn  
Email:info@nata.com  
Tel:+86-750-3770000 Fax:+86-750-3771111  
Address:380JinOU Road,GaoXin Zone,Jiang Men City,Guangdong,China

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## Nata

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LumCAT: 1-0943-N	
Luminaire: 92.70.259.00	
Report No: 200923-B034	Voltage(V): 230.7000
Test No: 200923-C034	Current(A): 0.0940
LampCAT: SEOUL SAWx06	Power (W): 11.8000
Lamp flux(lm): 1012.7	PF: 0.5420
Number of Lamps: 1	Ballast type: AC
Length(feet)(ft.):0.000	Width(feet)(ft.):0.000
Phm Type: C	Height(feet)(ft.):0.000

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## Photometric Results

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Lumens(lm): 757.25  
Efficiency(%): 74.78%  
Lumens(lm)/Power(W): 64.17  
Central intensity(cd): 1500.684  
Maximum intensity(cd): 1500.684  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=43.9  
                                  [C90/270]Total=43.9  
Field angle(10%Imax): [C0/180]Total=64.6  
                                  [C90/270]Total=64.6  
Maximum s/h(1/2): C0\_180=0.71 C90\_270=0.71  
Maximum s/h(1/4): C0\_180=0.68 C90\_270=0.68  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 75.59%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.218%

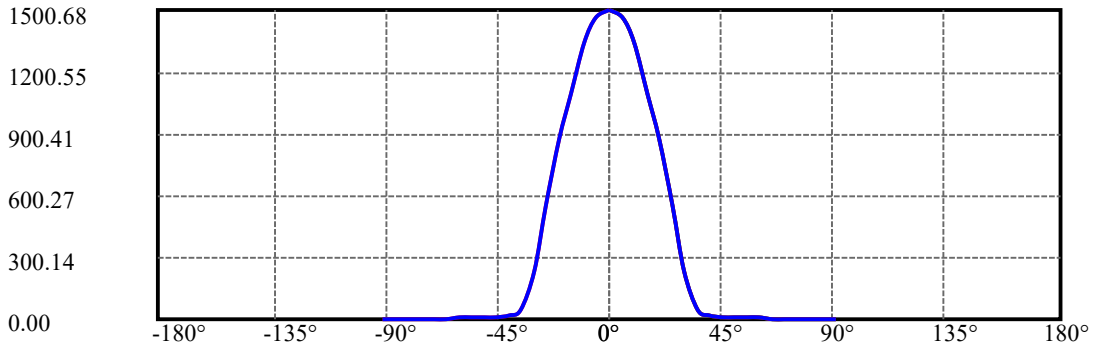
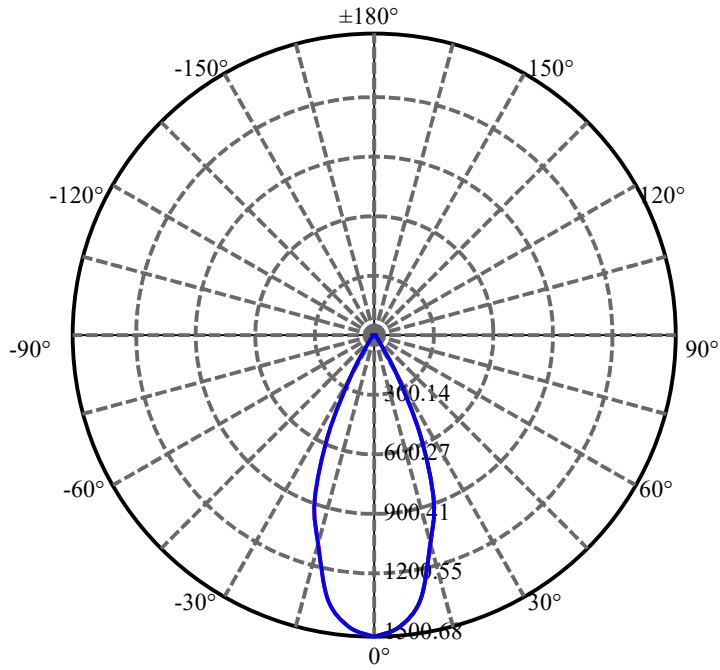
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1500.684	8.974	8.974	.886%	1.185%
5.0	1461.763	69.833	78.808	6.896%	10.407%
10.0	1343.377	127.867	206.674	12.627%	27.293%
15.0	1087.613	154.298	360.972	15.237%	47.669%
20.0	879.048	164.799	525.771	16.274%	69.432%
25.0	552.188	127.916	653.687	12.632%	86.324%
30.0	233.577	64.016	717.703	6.322%	94.778%
35.0	50.632	15.919	733.622	1.572%	96.880%
40.0	16.282	5.737	739.358	.566%	97.638%
45.0	10.458	4.053	743.412	.400%	98.173%
50.0	8.138	3.417	746.829	.337%	98.624%
55.0	6.276	2.818	749.647	.278%	98.996%
60.0	4.664	2.214	751.861	.219%	99.289%
65.0	3.358	1.668	753.529	.165%	99.509%
70.0	2.390	1.231	754.76	.122%	99.672%
75.0	1.792	0.949	755.709	.094%	99.797%
80.0	1.322	0.714	756.423	.070%	99.891%
85.0	1.177	0.643	757.066	.063%	99.976%
90.0	0.661	0.181	757.247	.018%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	717.70	70.87%	94.78%
0-40	739.36	73.01%	97.64%
0-60	751.86	74.25%	99.29%
0-90	757.07	74.76%	99.98%
0-120	757.07	74.76%	99.98%
0-180	757.25	74.78%	100.00%
60-90	7.42	0.73%	0.98%
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%
0-23.13	605.80	59.82%	80.00%

ZONAL LUMEN SUMMARY

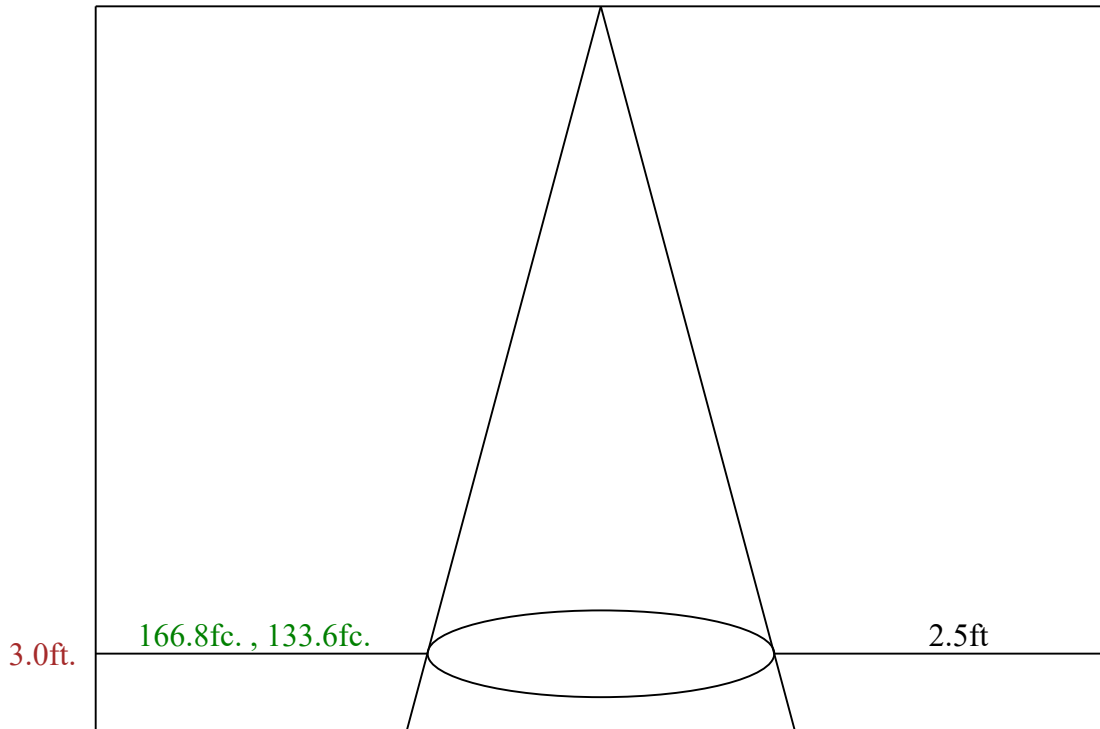
0-10	206.67
10-20	319.10
20-30	191.93
30-40	21.66
40-50	7.47
50-60	5.03
60-70	2.90
70-80	1.66
80-90	0.64
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



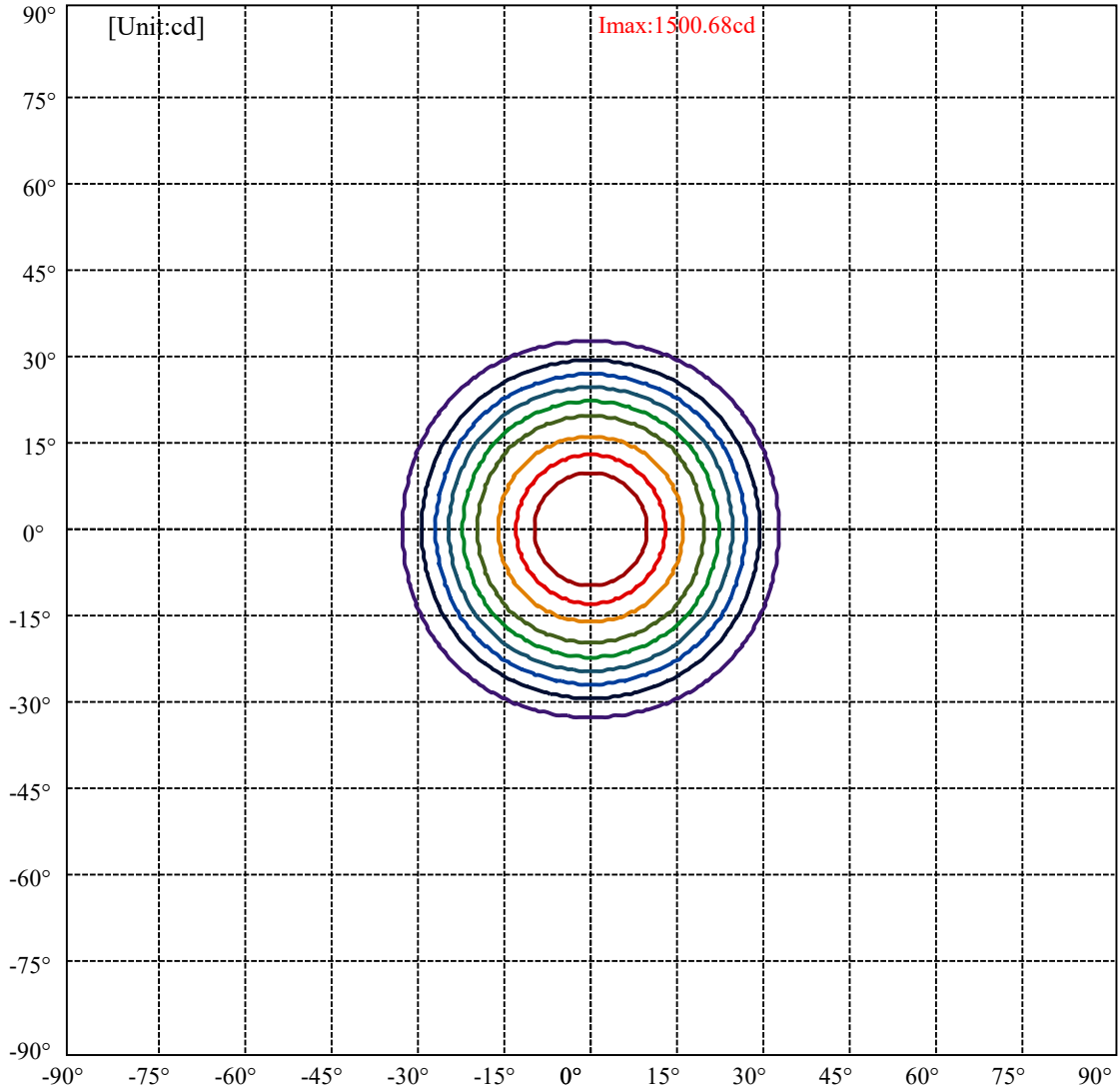
C0(Max): —————  
C0/C180: —————  
C90/C270: —————

Field angle(10%Imax):C0/180Left:32.3 Right:32.3  
:C90/270Left:32.3 Right:32.3

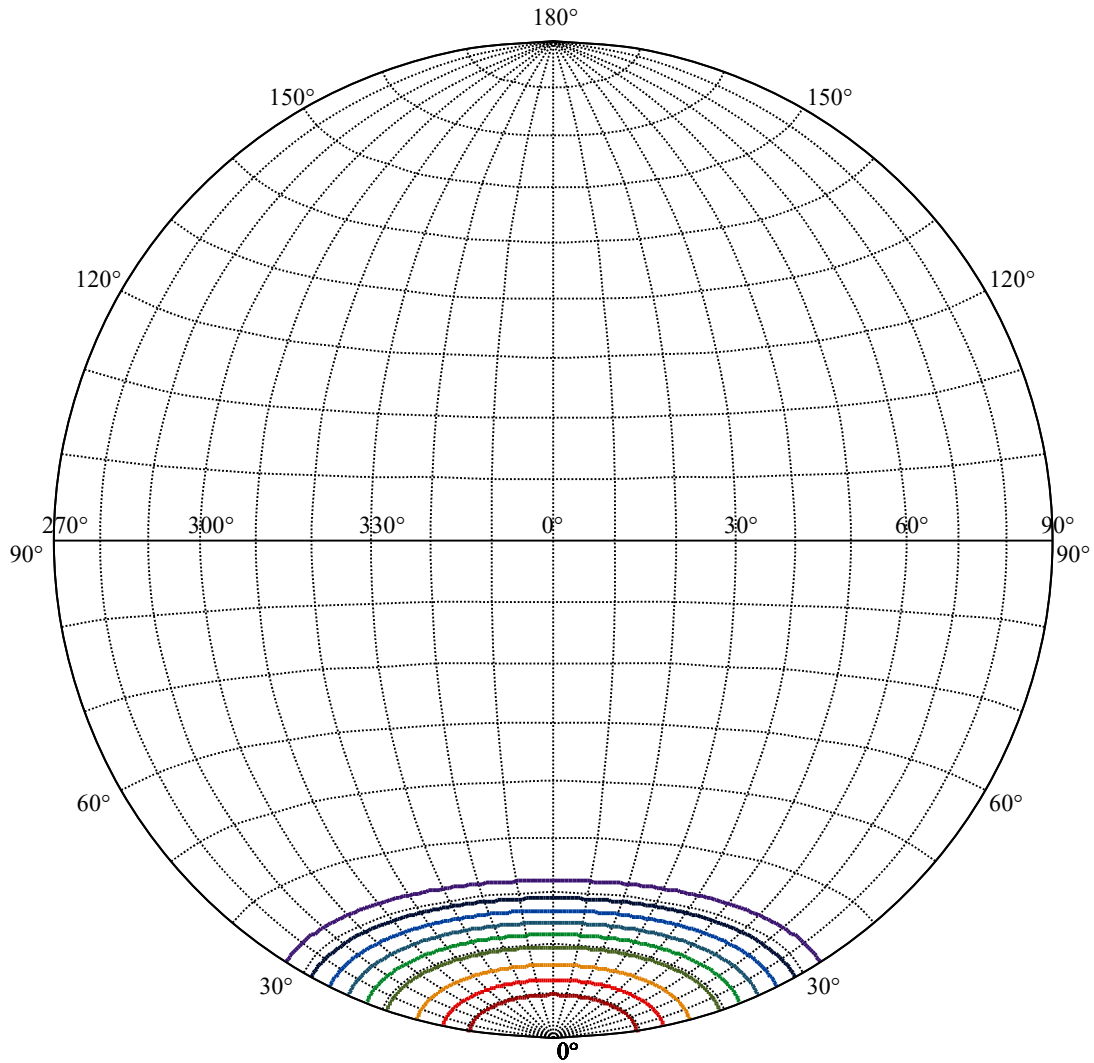
Beam Angle(50%Imax):C0/180Left:22.0 Right:22.0  
:C90/270Left:22.0 Right:22.0



Max , Ave      Beam angle of C0 plane 44.53



(10%Imax) 150.068	—
(20%Imax) 300.137	—
(30%Imax) 450.205	—
(40%Imax) 600.274	—
(50%Imax) 750.342	—
(60%Imax) 900.41	—
(70%Imax) 1050.48	—
(80%Imax) 1200.55	—
(90%Imax) 1350.62	—












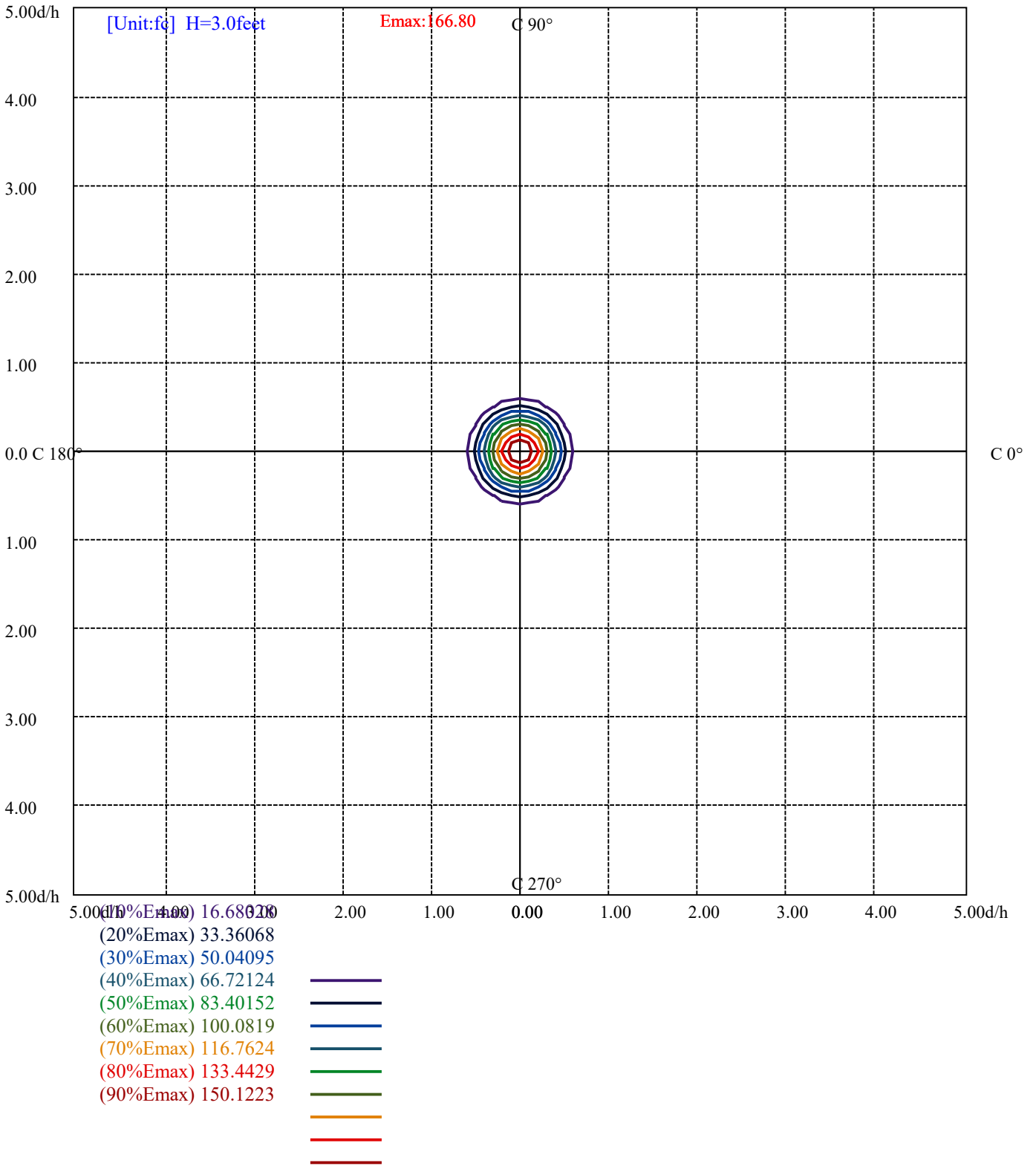
House

[Unit:cd]

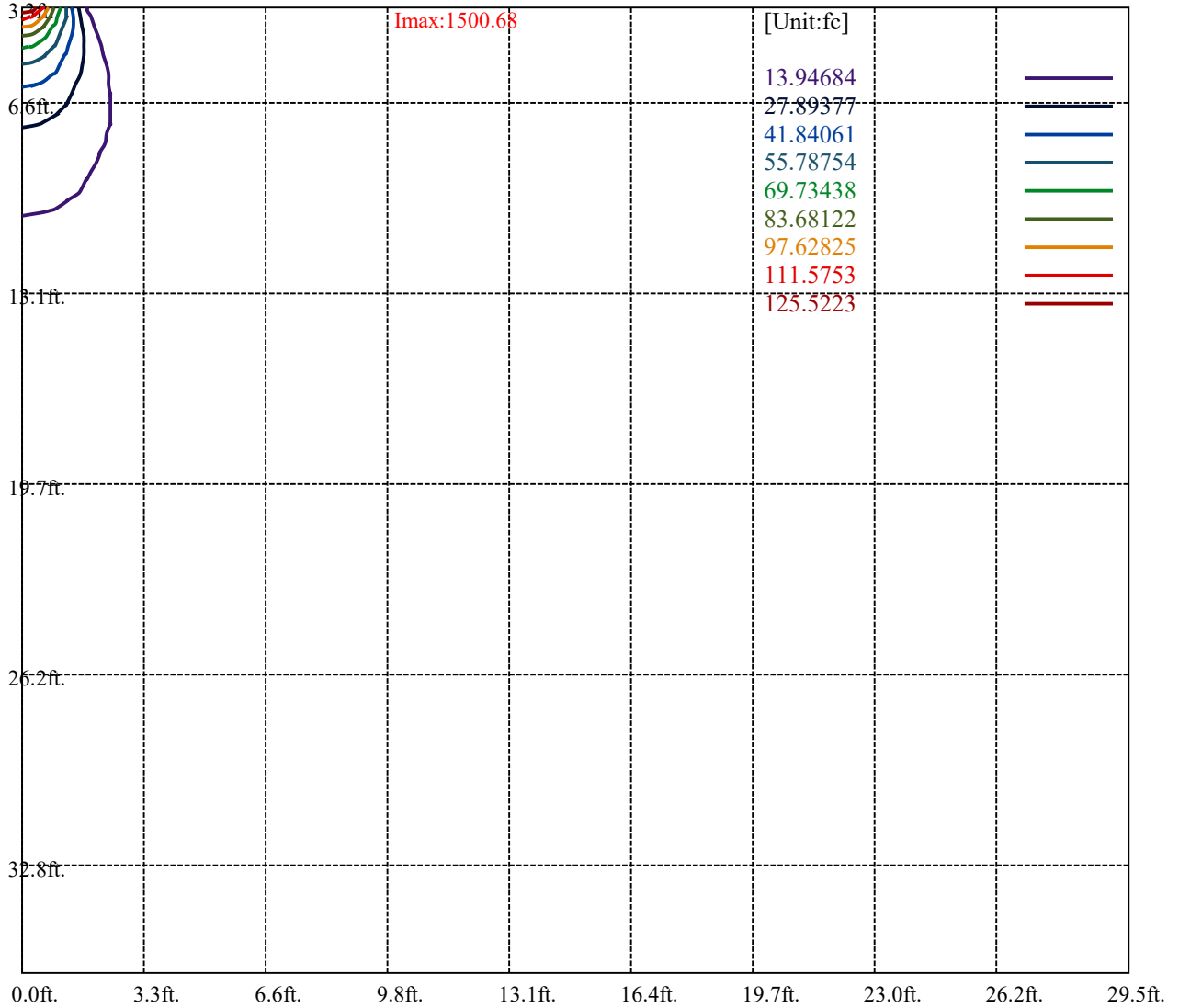
Road

Imax:1500.68

(10%Imax)	150.068	
(20%Imax)	300.137	
(30%Imax)	450.205	
(40%Imax)	600.274	
(50%Imax)	750.342	
(60%Imax)	900.41	
(70%Imax)	1050.48	
(80%Imax)	1200.55	
(90%Imax)	1350.62	







Luminance Table

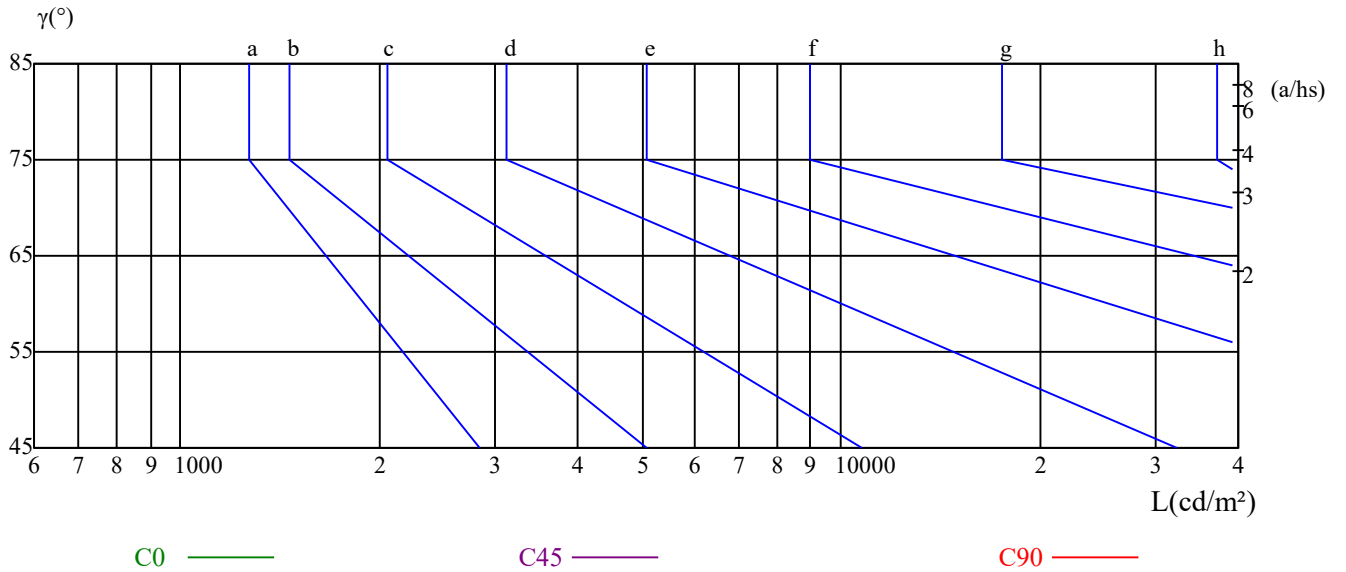
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

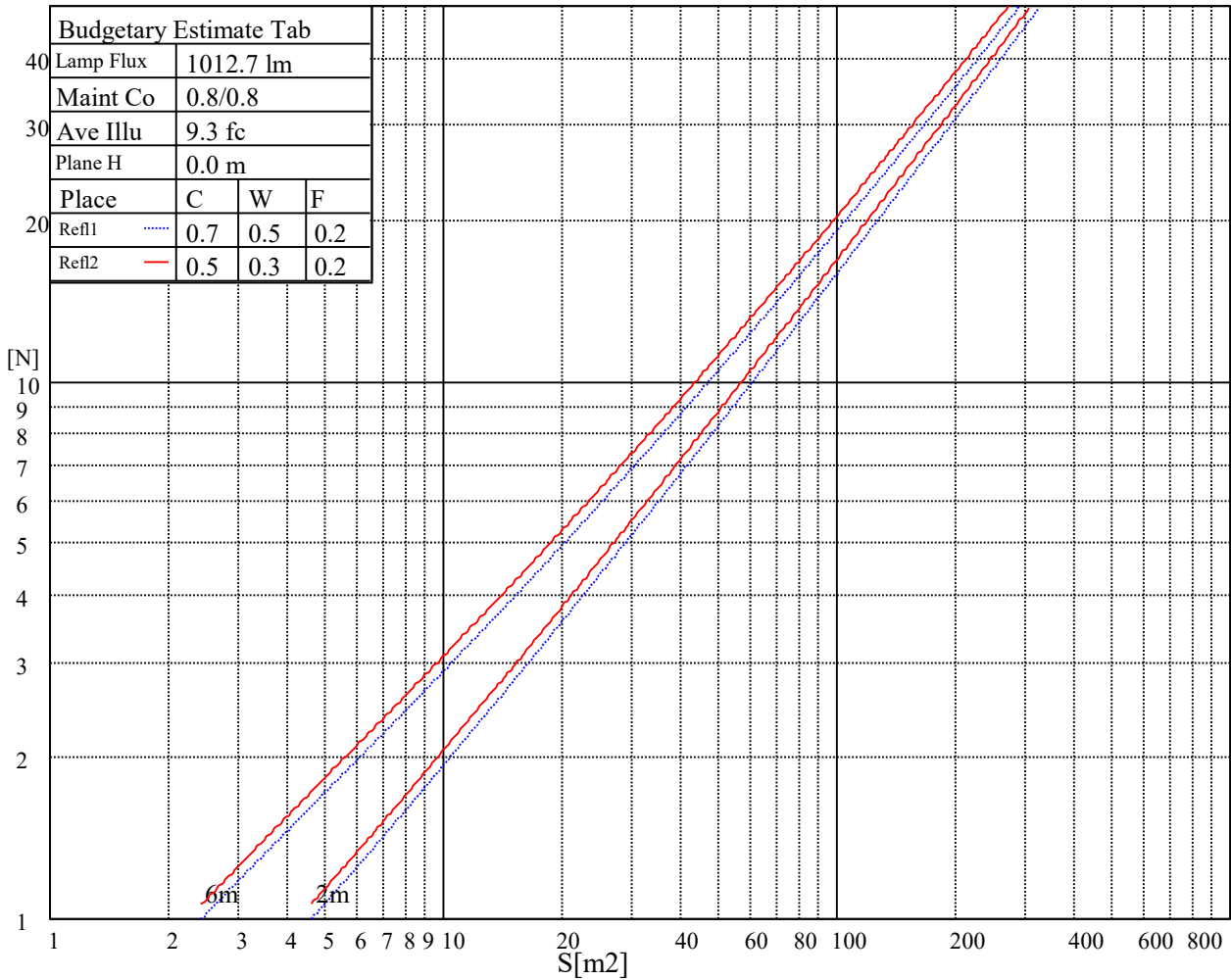
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

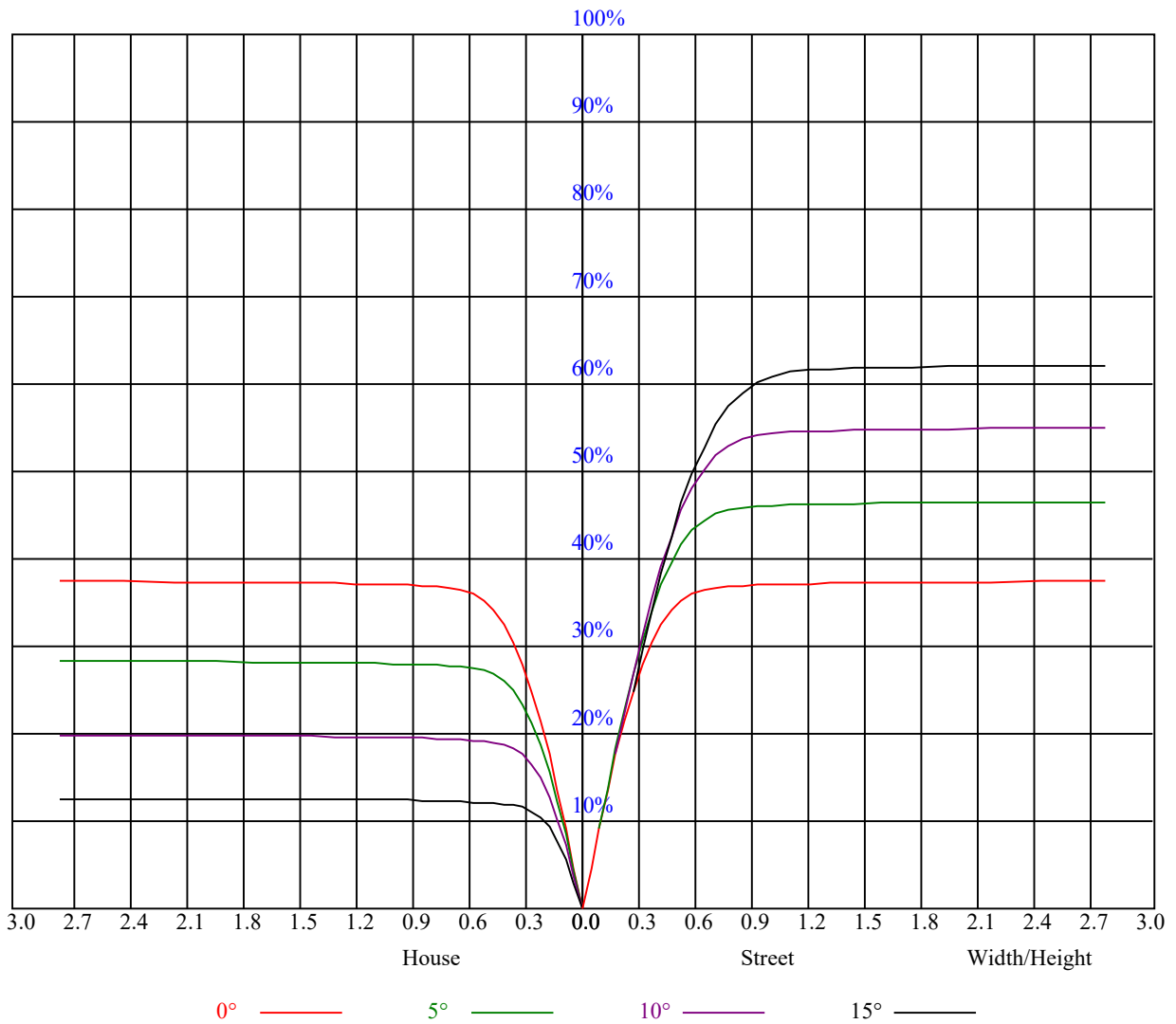
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.90	0.90	0.90	0.88	0.88	0.88	0.84	0.84	0.84	0.80	0.80	0.80	0.77	0.77	0.77	0.76
1	0.84	0.82	0.80	0.82	0.80	0.79	0.79	0.78	0.77	0.76	0.75	0.74	0.74	0.73	0.72	0.71
2	0.79	0.77	0.74	0.78	0.76	0.73	0.76	0.74	0.72	0.73	0.72	0.70	0.71	0.70	0.69	0.68
3	0.75	0.72	0.70	0.74	0.72	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.69	0.67	0.66	0.65
4	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.68	0.66	0.64	0.67	0.65	0.63	0.62
5	0.69	0.65	0.63	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
6	0.66	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.63	0.60	0.59	0.58
7	0.64	0.60	0.57	0.63	0.60	0.57	0.62	0.59	0.57	0.61	0.59	0.57	0.61	0.58	0.56	0.56
8	0.61	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.59	0.57	0.55	0.59	0.56	0.55	0.54
9	0.59	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.58	0.55	0.53	0.57	0.54	0.53	0.52
10	0.57	0.54	0.51	0.57	0.54	0.51	0.56	0.53	0.51	0.56	0.53	0.51	0.55	0.53	0.51	0.50



Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1501.38	1445.70	1302.77	922.41	789.88	463.15	168.03	25.99	13.78
45.0	1501.84	1492.56	1419.25	1231.31	1013.68	703.24	381.67	138.75	21.48
90.0	1504.16	1450.80	1341.29	1147.32	891.97	549.14	213.22	34.06	16.66
135.0	1495.35	1477.71	1391.87	1221.10	978.41	638.74	313.92	61.39	19.54
180.0	1501.38	1477.25	1379.80	1216.00	928.76	635.96	305.10	57.54	16.80
225.0	1501.84	1429.92	1271.22	885.65	748.90	440.60	95.68	24.04	11.93
270.0	1504.16	1476.79	1368.67	1161.71	898.60	539.90	275.87	36.57	16.38
315.0	1495.35	1443.38	1272.15	915.40	782.17	446.77	115.13	26.73	13.69
360.0	1501.38	1445.70	1302.77	922.41	789.88	463.15	168.03	25.99	13.78
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	9.70	7.42	5.71	4.18	2.88	2.09	1.62	1.16	0.65
45.0	12.16	9.00	7.05	5.48	3.81	2.78	2.04	1.53	1.21
90.0	10.58	8.49	6.31	4.78	3.43	2.37	1.67	1.21	0.70
135.0	11.28	8.96	7.01	5.20	3.76	2.55	1.86	1.30	0.74
180.0	10.67	8.45	6.50	4.87	3.67	2.46	1.86	1.35	0.79
225.0	9.33	7.38	5.52	4.13	3.06	2.32	1.81	1.62	4.04
270.0	10.44	8.12	6.45	4.55	3.39	2.46	1.90	1.25	0.74
315.0	9.51	7.29	5.66	4.13	2.88	2.09	1.58	1.16	0.56
360.0	9.70	7.42	5.71	4.18	2.88	2.09	1.62	1.16	0.65
C/ $\gamma$ (°)	90.0								
0.0	0.37								
45.0	2.69								
90.0	0.37								
135.0	0.32								
180.0	0.19								
225.0	0.93								
270.0	0.19								
315.0	0.23								
360.0	0.37								