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NT

Client:

LumCAT: 62-0014透镜

Luminaire: 92.70.429.00 Hodel

Report No: 2024506-B016

Ballast type: AC

Test No: 2024506-C016

Voltage(V): 36.550

LampCAT: CREE CXA1820

Current(A): 0.520

Lamp flux(lm): 2604.5

Power (W): 19.006

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

### Photometric Results

Lumens(lm): 2236.49, Efficiency(%): 85.87% , Luminous Efficacy(lm/W): 117.67

Central intensity(cd): 6607.396, Maximum intensity(cd): 6611.638

Angle of maximum intensity: C=0.0  $\gamma$ =2.0

Beam Angle(50%Imax): [C0/180]Total=31.0

[C90/270]Total=31.0

Field angle(10%Imax): [C0/180]Total=48.6

[C90/270]Total=48.6

Maximum s/h(1/2): C0\_180=0.52 C90\_270=0.52

Maximum s/h(1/4): C0\_180=0.49 C90\_270=0.49

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 85.87%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 94.422%

Equipment: GMS1980  
Temperature(°C): 25.0

Date: 2024/5/6  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.65

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6607.395	0.000	0	0.00%	0.00%
1.0	6610.394	6.324	6.324	0.24%	0.28%
2.0	6611.638	18.978	25.302	0.73%	1.13%
3.0	6586.620	31.566	56.868	1.21%	2.54%
4.0	6515.807	43.858	100.726	1.68%	4.50%
5.0	6397.446	55.552	156.278	2.13%	6.99%
6.0	6238.703	66.406	222.684	2.55%	9.96%
7.0	6016.830	76.070	298.754	2.92%	13.36%
8.0	5772.498	84.374	383.128	3.24%	17.13%
9.0	5473.448	91.142	474.271	3.50%	21.21%
10.0	5186.249	96.466	570.737	3.70%	25.52%
11.0	4861.888	100.402	671.138	3.85%	30.01%
12.0	4502.926	102.371	773.509	3.93%	34.59%
13.0	4145.280	102.632	876.142	3.94%	39.17%
14.0	3821.431	101.973	978.115	3.92%	43.73%
15.0	3486.683	100.329	1078.444	3.85%	48.22%
16.0	3147.325	97.207	1175.651	3.73%	52.57%
17.0	2792.899	92.505	1268.156	3.55%	56.70%
18.0	2449.152	86.430	1354.586	3.32%	60.57%
19.0	2065.537	78.546	1433.132	3.02%	64.08%
20.0	1597.598	67.046	1500.178	2.57%	67.08%
21.0	1385.718	57.286	1557.464	2.20%	69.64%
22.0	1151.160	50.980	1608.443	1.96%	71.92%
23.0	913.522	43.323	1651.766	1.66%	73.86%
24.0	712.263	35.545	1687.311	1.36%	75.44%
25.0	565.539	29.054	1716.366	1.12%	76.74%
26.0	455.583	24.104	1740.47	0.93%	77.82%
27.0	375.568	20.334	1760.804	0.78%	78.73%
28.0	320.001	17.610	1778.414	0.68%	79.52%
29.0	282.517	15.764	1794.178	0.61%	80.22%
30.0	254.807	14.508	1808.685	0.56%	80.87%
31.0	230.023	13.492	1822.177	0.52%	81.47%
32.0	196.672	12.224	1834.402	0.47%	82.02%
33.0	186.182	11.279	1845.681	0.43%	82.53%
34.0	179.547	11.068	1856.749	0.42%	83.02%
35.0	173.892	10.977	1867.725	0.42%	83.51%
36.0	167.374	10.866	1878.591	0.42%	84.00%
37.0	160.417	10.691	1889.282	0.41%	84.48%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	153.665	10.484	1899.766	0.40%	84.94%
39.0	148.508	10.314	1910.08	0.40%	85.41%
40.0	144.624	10.223	1920.303	0.39%	85.86%
41.0	142.356	10.219	1930.522	0.39%	86.32%
42.0	141.207	10.302	1940.825	0.40%	86.78%
43.0	140.103	10.421	1951.245	0.40%	87.25%
44.0	138.398	10.511	1961.757	0.40%	87.72%
45.0	136.584	10.568	1972.325	0.41%	88.19%
46.0	135.070	10.624	1982.948	0.41%	88.66%
47.0	133.483	10.681	1993.629	0.41%	89.14%
48.0	132.115	10.737	2004.366	0.41%	89.62%
49.0	129.408	10.740	2015.106	0.41%	90.10%
50.0	126.533	10.671	2025.777	0.41%	90.58%
51.0	122.744	10.547	2036.323	0.40%	91.05%
52.0	117.967	10.329	2046.652	0.40%	91.51%
53.0	112.407	10.021	2056.674	0.38%	91.96%
54.0	106.189	9.635	2066.309	0.37%	92.39%
55.0	98.435	9.134	2075.443	0.35%	92.80%
56.0	90.132	8.521	2083.963	0.33%	93.18%
57.0	82.275	7.883	2091.846	0.30%	93.53%
58.0	74.645	7.257	2099.103	0.28%	93.86%
59.0	66.825	6.614	2105.717	0.25%	94.15%
60.0	60.805	6.030	2111.746	0.23%	94.42%
61.0	55.889	5.569	2117.315	0.21%	94.67%
62.0	51.968	5.197	2122.512	0.20%	94.90%
63.0	48.640	4.893	2127.405	0.19%	95.12%
64.0	47.389	4.712	2132.118	0.18%	95.33%
65.0	46.013	4.622	2136.74	0.18%	95.54%
66.0	45.304	4.556	2141.296	0.17%	95.74%
67.0	42.846	4.432	2145.728	0.17%	95.94%
68.0	40.512	4.223	2149.951	0.16%	96.13%
69.0	39.868	4.101	2154.052	0.16%	96.31%
70.0	39.583	4.080	2158.132	0.16%	96.50%
71.0	38.808	4.052	2162.184	0.16%	96.68%
72.0	38.274	4.008	2166.192	0.15%	96.86%
73.0	38.800	4.030	2170.222	0.15%	97.04%
74.0	39.393	4.111	2174.333	0.16%	97.22%
75.0	39.554	4.171	2178.504	0.16%	97.41%

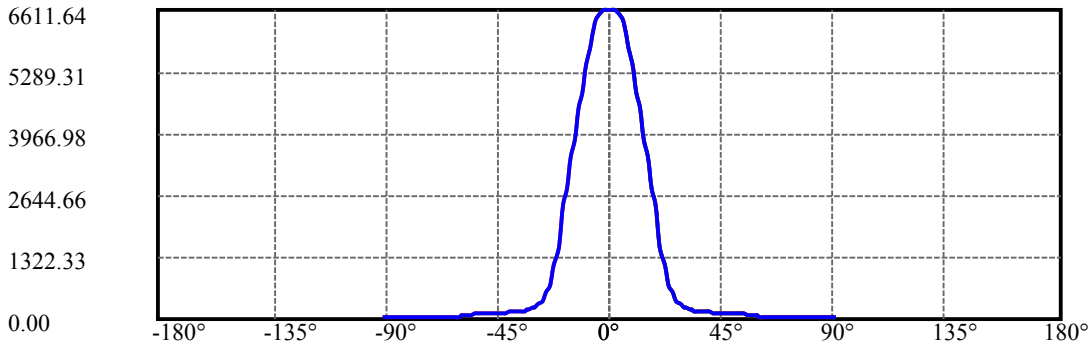
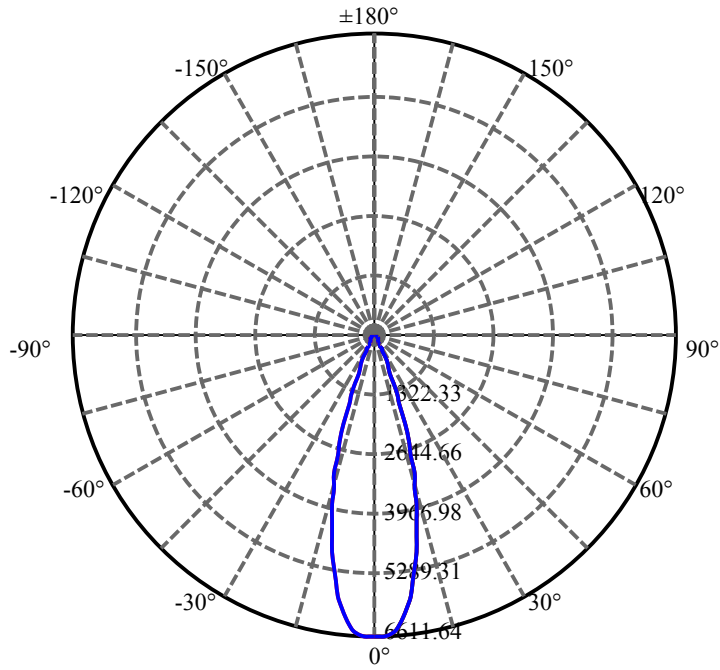
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	38.603	4.149	2182.653	0.16%	97.59%
77.0	36.547	4.007	2186.66	0.15%	97.77%
78.0	34.931	3.826	2190.486	0.15%	97.94%
79.0	34.828	3.748	2194.234	0.14%	98.11%
80.0	36.160	3.827	2198.061	0.15%	98.28%
81.0	39.415	4.087	2202.148	0.16%	98.46%
82.0	41.185	4.371	2206.519	0.17%	98.66%
83.0	40.834	4.459	2210.978	0.17%	98.86%
84.0	37.769	4.282	2215.26	0.16%	99.05%
85.0	37.396	4.102	2219.362	0.16%	99.23%
86.0	34.579	3.934	2223.297	0.15%	99.41%
87.0	31.536	3.618	2226.915	0.14%	99.57%
88.0	29.927	3.367	2230.282	0.13%	99.72%
89.0	28.318	3.192	2233.474	0.12%	99.87%
90.0	26.686	3.016	2236.49	0.12%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1808.69	69.44%	80.87%
0-40	1920.30	73.73%	85.86%
0-60	2111.75	81.08%	94.42%
0-90	2233.47	85.75%	99.87%
0-120	2233.47	85.75%	99.87%
0-180	2236.49	85.87%	100.00%
60-90	121.73	4.67%	5.44%
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%
0-28.68	1789.19	68.70%	80.00%

ZONAL LUMEN SUMMARY

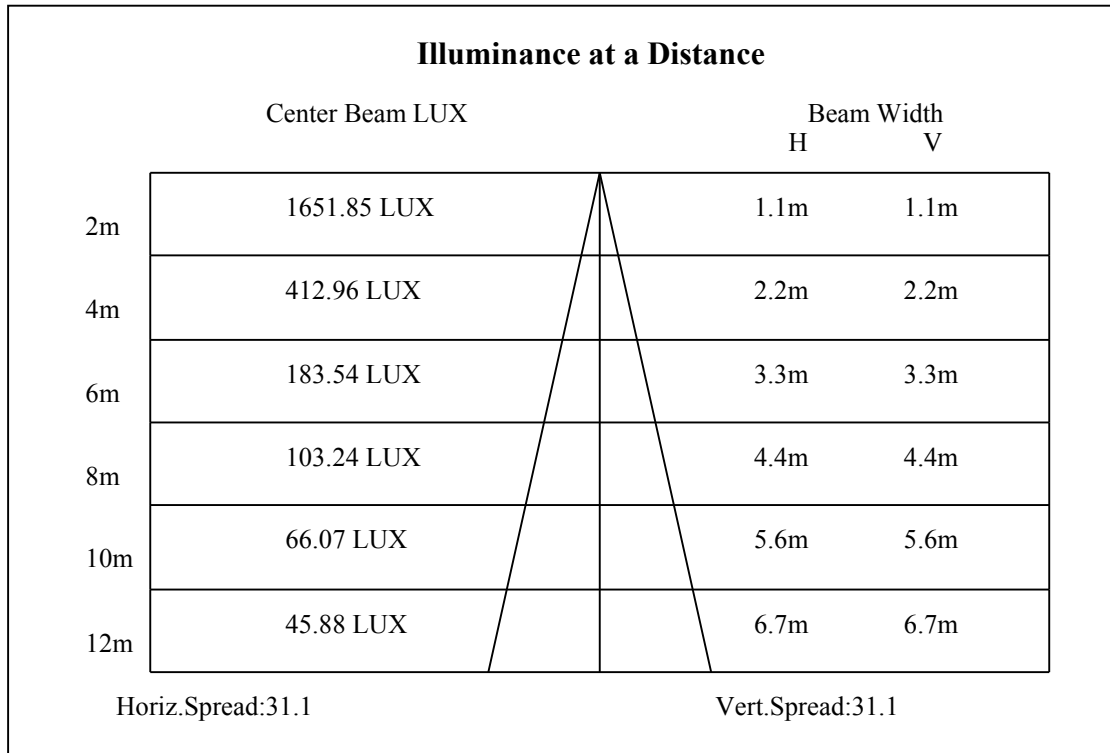
0-10	570.74
10-20	929.44
20-30	308.51
30-40	111.62
40-50	105.47
50-60	85.97
60-70	46.39
70-80	39.93
80-90	35.41
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

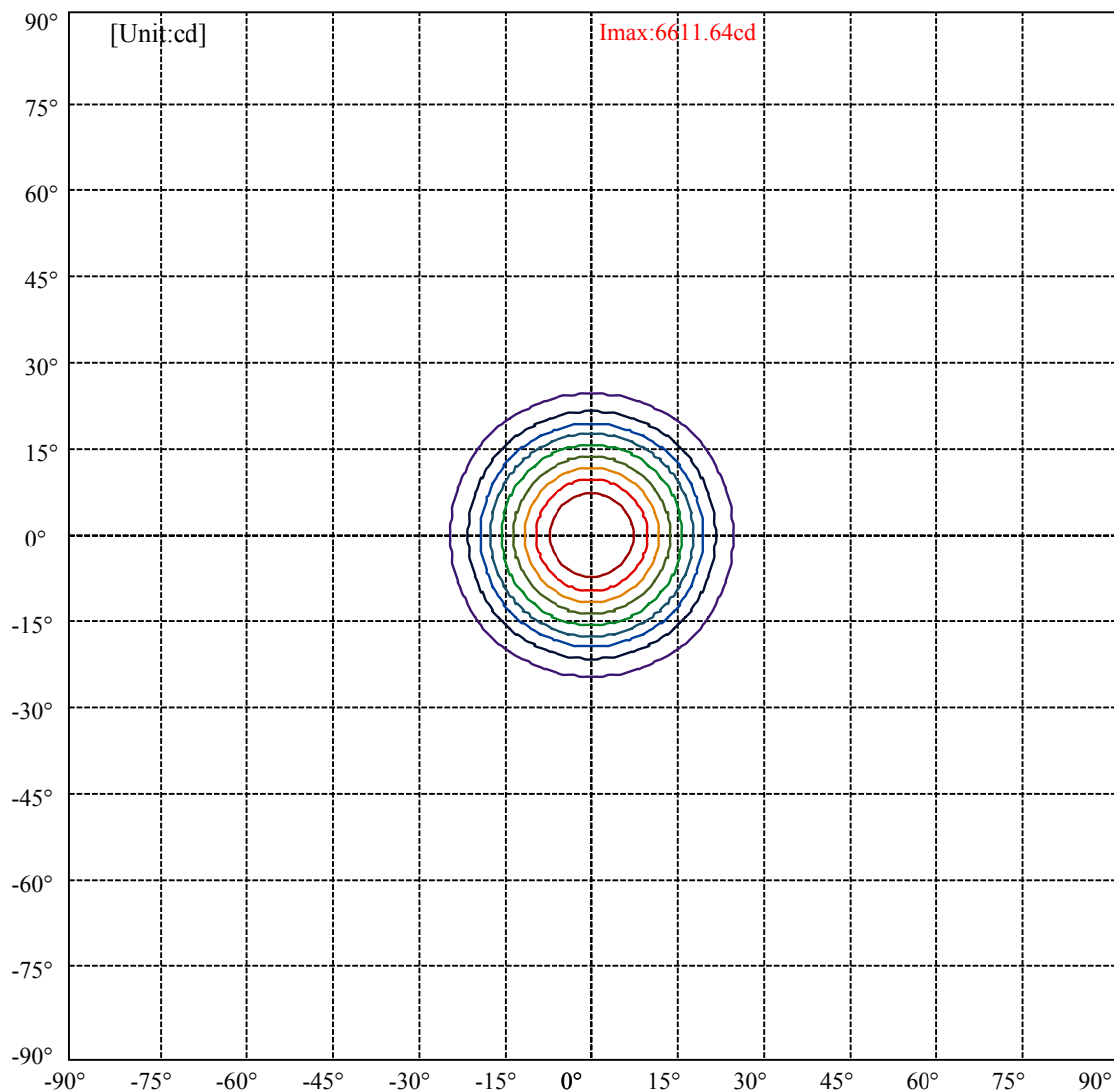


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

Field angle(10%Imax):C0/180Left:26.3 Right:22.3  
:C90/270Left:26.3 Right:22.3

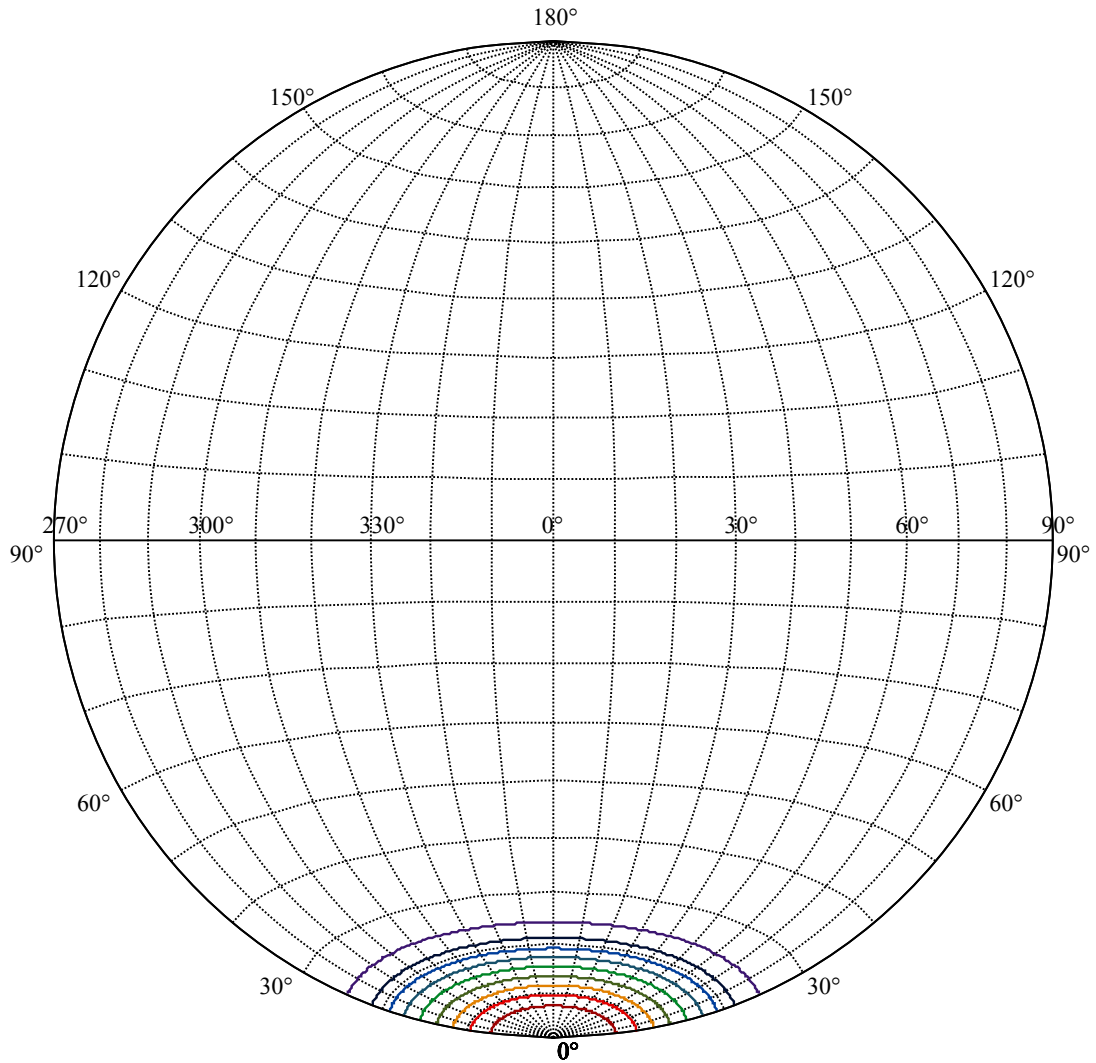
Beam Angle(50%Imax):C0/180Left:17.5 Right:13.5  
:C90/270Left:17.5 Right:13.5





(10%Imax) 661.164	—
(20%Imax) 1322.33	—
(30%Imax) 1983.49	—
(40%Imax) 2644.66	—
(50%Imax) 3305.82	—
(60%Imax) 3966.98	—
(70%Imax) 4628.15	—
(80%Imax) 5289.31	—
(90%Imax) 5950.47	—





House

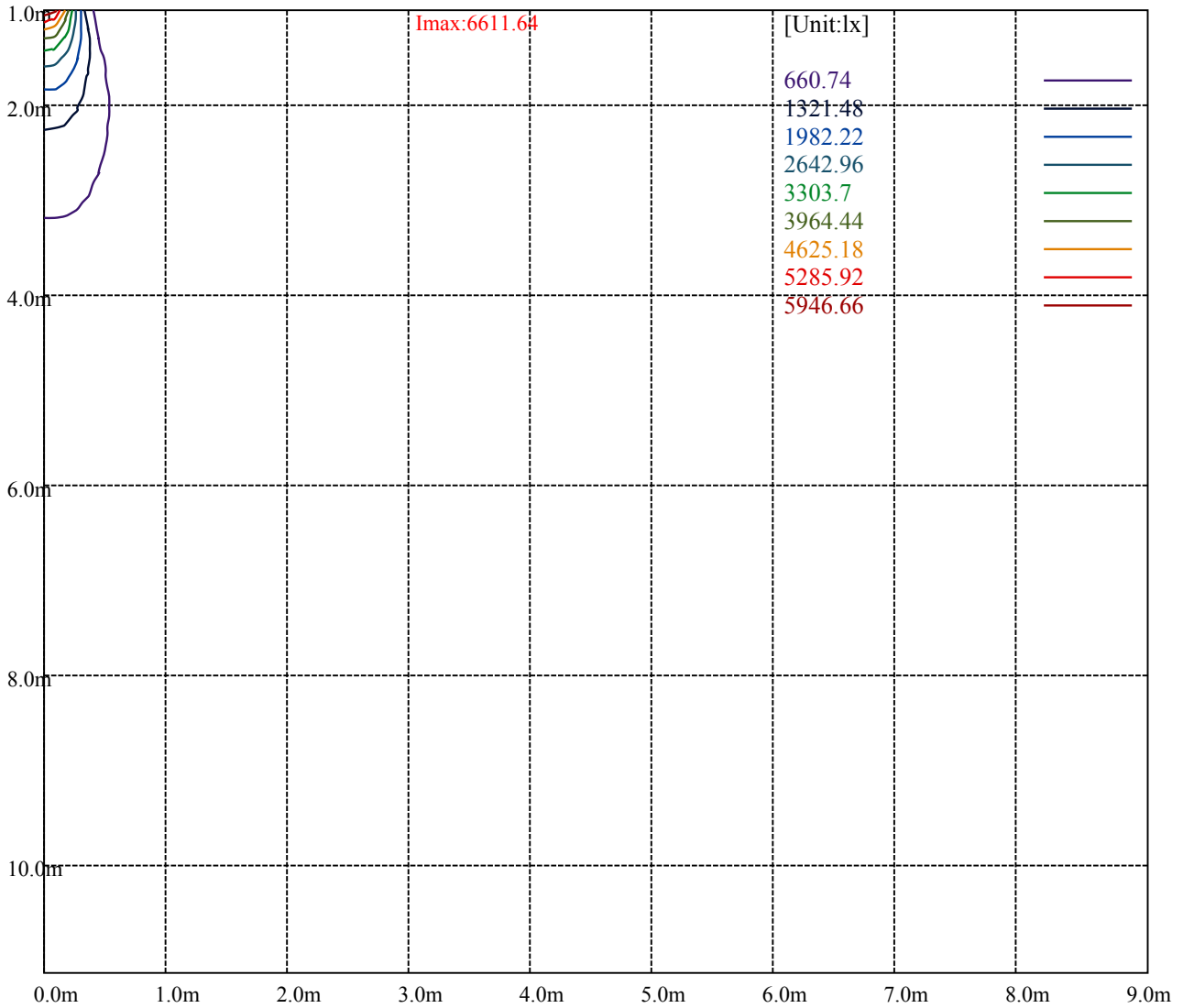
[Unit:cd]

Road

**Imax:6611.64**

(10%Imax) 661.164	—
(20%Imax) 1322.33	—
(30%Imax) 1983.49	—
(40%Imax) 2644.66	—
(50%Imax) 3305.82	—
(60%Imax) 3966.98	—
(70%Imax) 4628.15	—
(80%Imax) 5289.31	—
(90%Imax) 5950.47	—





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

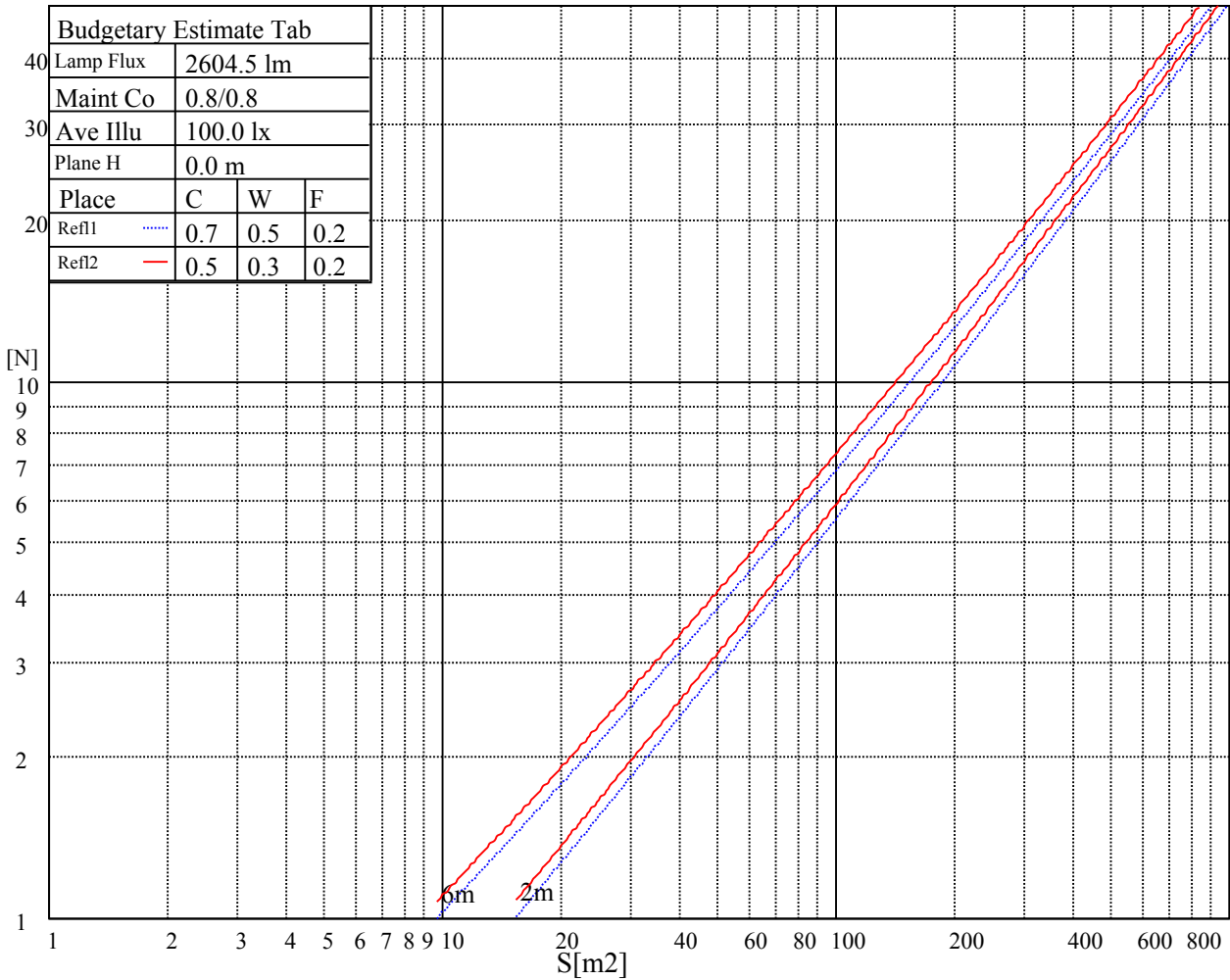
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

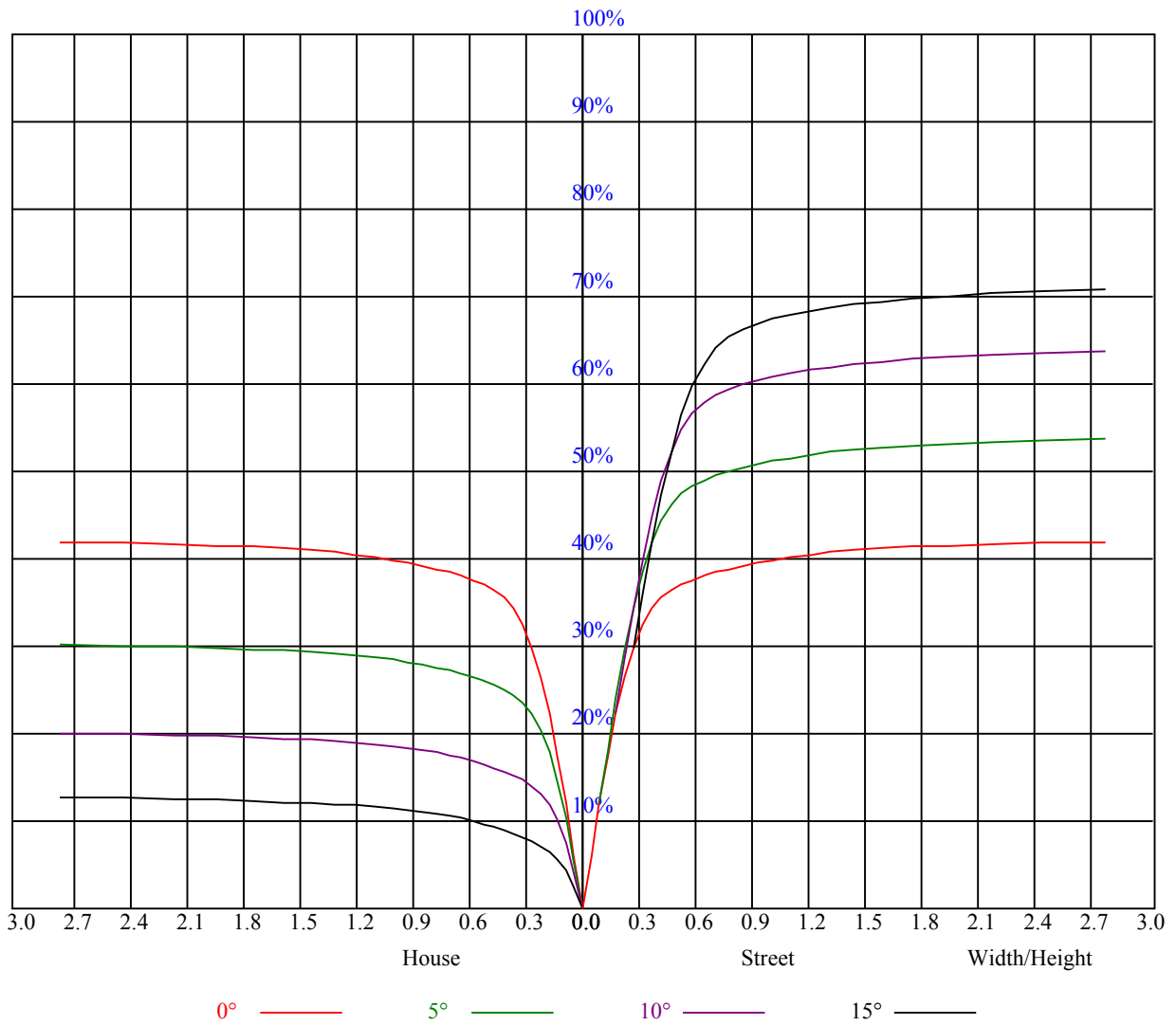
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

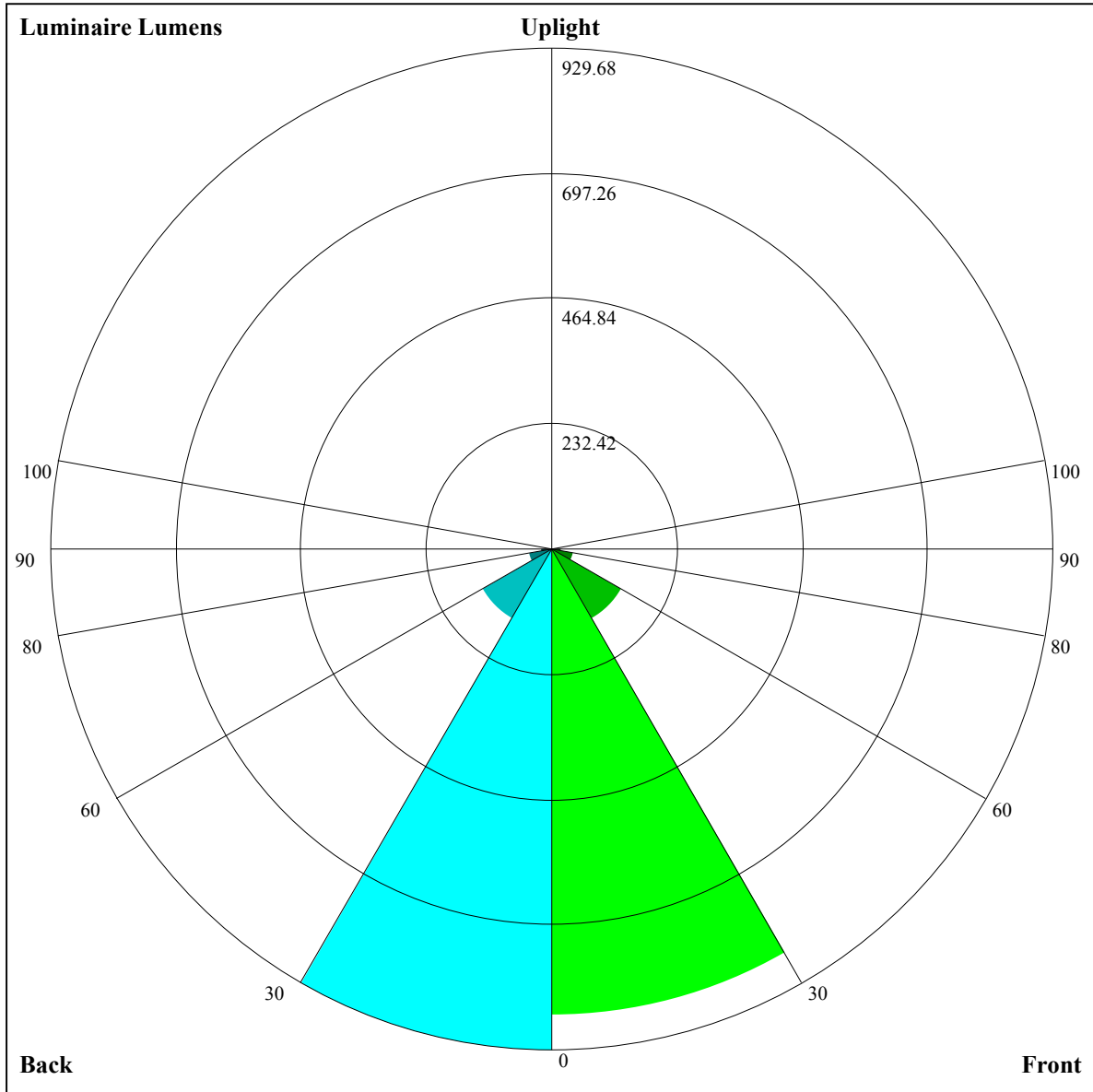
Luminance Limiting Curve





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 RHOF=20 CU															
0	1.02	1.02	1.02	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.88	0.88	0.88	0.86
1	0.95	0.92	0.90	0.93	0.91	0.89	0.89	0.88	0.86	0.86	0.85	0.84	0.83	0.82	0.81	0.80
2	0.89	0.85	0.82	0.87	0.84	0.81	0.84	0.82	0.80	0.82	0.80	0.78	0.79	0.78	0.76	0.75
3	0.83	0.79	0.76	0.82	0.79	0.76	0.80	0.77	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.71
4	0.79	0.75	0.71	0.78	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.69	0.73	0.71	0.69	0.67
5	0.75	0.71	0.67	0.75	0.70	0.67	0.73	0.69	0.67	0.72	0.68	0.66	0.70	0.68	0.65	0.64
6	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.62
7	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.66	0.63	0.60	0.59
8	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.63	0.60	0.58	0.57
9	0.64	0.60	0.57	0.64	0.59	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.61	0.58	0.56	0.55
10	0.62	0.57	0.55	0.61	0.57	0.55	0.61	0.57	0.54	0.60	0.57	0.54	0.60	0.56	0.54	0.53





Luminaire Lumens:

FL=864.51,FM=150.09,FH=42.03,FVH=18.17

BL=929.68,BM=150.54,BH=44.16,BVH=19.83

UL=0,UH=0

BUG Rating:B2-U0-G1



NT 62-0014透镜

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	6559.26	6505.42	6469.72	6415.88	6263.72	6105.71	5917.85	5612.37	5308.05
45.0	6654.07	6566.87	6500.15	6508.93	6488.45	6427.00	6278.35	6111.56	5911.42
90.0	6604.91	6604.32	6620.71	6587.35	6519.47	6375.50	6220.42	6015.00	5762.77
135.0	6611.35	6663.43	6709.66	6712.59	6680.40	6622.46	6525.90	6326.93	6121.51
180.0	6559.26	6633.58	6721.37	6761.75	6758.24	6708.49	6631.83	6484.35	6249.68
225.0	6654.07	6700.30	6700.30	6661.09	6582.08	6458.02	6209.88	5999.20	5800.81
270.0	6604.91	6631.24	6644.70	6603.15	6522.39	6374.91	6221.59	6005.05	5738.77
315.0	6611.35	6577.99	6526.49	6442.22	6311.71	6107.47	5903.81	5580.18	5286.98
360.0	6559.26	6505.42	6469.72	6415.88	6263.72	6105.71	5917.85	5612.37	5308.05
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4930.58	4646.16	4350.04	4041.62	3648.35	3370.37	3112.87	2824.94	2451.57
45.0	5585.45	5301.61	4958.67	4683.61	4368.76	4051.57	3686.39	3404.31	3107.02
90.0	5433.29	5159.99	4852.16	4518.58	4104.24	3794.07	3483.32	3083.61	2744.76
135.0	5925.46	5655.09	5378.28	4966.28	4646.75	4323.70	3995.39	3557.64	3202.99
180.0	6067.67	5801.98	5500.00	5144.77	4711.12	4381.64	4060.35	3705.70	3215.28
225.0	5455.53	5100.29	4742.72	4317.85	3999.49	3663.57	3217.63	2855.96	2501.90
270.0	5396.42	5116.10	4793.64	4354.13	4003.58	3660.06	3279.07	2979.44	2642.93
315.0	4993.20	4708.78	4378.60	3996.56	3679.95	3326.48	3058.44	2767.00	2476.73
360.0	4930.58	4646.16	4350.04	4041.62	3648.35	3370.37	3112.87	2824.94	2451.57
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2156.03	1861.66	1123.34	1123.34	1009.16	760.62	599.27	475.20	365.82
45.0	2794.51	2401.82	2081.70	1765.68	1394.65	1122.52	838.69	659.61	516.81
90.0	2337.45	2003.87	1448.49	1122.29	1060.72	839.68	665.34	541.39	426.51
135.0	2850.69	2500.72	2073.51	1744.61	1437.96	1161.73	879.65	707.01	579.43
180.0	2871.76	2511.26	2132.03	1700.72	1392.89	1131.88	914.18	702.33	574.75
225.0	2147.25	1492.38	1166.24	1166.24	939.81	710.23	573.34	472.34	384.73
270.0	2253.17	1938.32	1622.30	1329.69	1016.01	815.86	652.58	503.94	415.57
315.0	2182.36	1814.26	1133.17	1133.17	958.07	765.65	575.04	462.50	381.04
360.0	2156.03	1861.66	1123.34	1123.34	1009.16	760.62	599.27	475.20	365.82
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	309.99	272.07	242.75	215.25	202.25	192.77	186.10	183.12	182.41
45.0	409.13	327.20	302.62	302.62	223.44	200.50	187.27	178.14	174.05
90.0	359.45	307.65	266.69	227.42	203.25	186.28	172.93	167.37	160.82
135.0	464.14	395.67	327.78	304.96	304.96	209.80	192.36	181.30	174.16
180.0	465.90	399.18	337.73	297.94	297.94	208.57	193.42	183.99	176.91
225.0	330.42	275.64	239.65	213.61	195.41	187.68	182.59	177.85	169.48
270.0	351.19	304.96	295.01	251.88	208.52	192.66	184.87	178.79	170.12
315.0	314.32	277.63	247.90	224.78	204.42	195.11	189.91	185.81	183.18
360.0	309.99	272.07	242.75	215.25	202.25	192.77	186.10	183.12	182.41
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	178.73	169.54	161.35	154.32	149.35	147.24	145.55	143.79	141.68
45.0	172.52	170.48	164.97	156.84	147.30	142.91	140.16	138.41	137.53
90.0	153.04	146.25	139.75	137.00	135.07	133.26	132.55	131.97	130.74
135.0	162.34	152.04	145.31	141.68	140.28	139.63	139.11	138.52	137.59
180.0	168.78	160.94	153.56	150.05	148.82	147.36	146.95	146.54	144.20
225.0	161.58	154.50	150.17	146.07	144.02	142.79	141.33	140.40	139.28
270.0	165.68	161.46	154.91	148.71	143.61	139.75	139.87	138.64	135.60
315.0	176.33	168.14	159.30	153.39	148.53	145.90	144.14	142.56	140.57
360.0	178.73	169.54	161.35	154.32	149.35	147.24	145.55	143.79	141.68

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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	138.82	136.47	134.37	132.73	130.97	128.81	126.12	121.96	117.92
45.0	135.66	134.31	132.44	129.98	127.29	125.00	122.84	119.39	113.71
90.0	130.80	128.28	125.94	123.95	120.73	118.80	115.70	111.31	105.16
135.0	137.12	136.18	135.36	134.31	131.85	129.86	126.58	122.72	115.52
180.0	142.56	142.33	141.92	141.57	140.22	137.59	134.43	130.56	124.95
225.0	137.64	136.71	135.01	131.91	128.34	125.00	120.38	113.83	107.04
270.0	131.68	129.86	128.28	131.15	127.52	121.90	114.18	109.20	105.52
315.0	138.41	136.42	134.54	131.32	128.34	125.30	121.73	114.76	109.44
360.0	138.82	136.47	134.37	132.73	130.97	128.81	126.12	121.96	117.92
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	111.49	102.94	92.58	86.26	80.12	72.80	68.53	65.02	61.74
45.0	107.86	100.83	96.50	91.59	82.34	70.64	62.85	56.42	50.27
90.0	100.48	93.81	86.32	78.24	71.16	63.20	58.23	54.02	49.57
135.0	110.61	103.94	95.98	86.09	78.89	69.47	61.04	55.65	50.74
180.0	117.28	110.02	100.66	92.17	82.87	77.13	69.29	65.25	62.03
225.0	101.01	92.11	81.05	72.39	64.61	57.47	52.90	47.99	46.70
270.0	99.49	91.41	84.97	77.66	70.34	63.44	58.11	52.44	47.75
315.0	101.30	92.41	82.98	73.80	66.83	60.45	55.48	50.33	46.94
360.0	111.49	102.94	92.58	86.26	80.12	72.80	68.53	65.02	61.74
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	58.17	57.12	57.12	58.29	50.39	47.52	46.35	44.48	42.55
45.0	46.06	42.14	39.85	38.51	39.39	38.68	38.98	36.93	36.34
90.0	44.65	42.55	41.79	42.08	40.20	38.74	38.22	39.15	38.68
135.0	45.59	44.07	41.90	43.25	43.72	38.22	37.57	39.50	39.80
180.0	59.63	59.75	60.63	62.79	60.98	56.83	56.01	56.24	53.31
225.0	46.00	47.64	45.30	41.38	39.15	37.81	37.63	36.75	35.87
270.0	44.24	40.50	36.93	33.12	30.67	29.55	28.85	29.09	29.73
315.0	44.77	45.35	44.59	43.01	38.27	36.75	35.35	34.53	34.18
360.0	58.17	57.12	57.12	58.29	50.39	47.52	46.35	44.48	42.55
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	40.03	38.33	38.10	36.40	35.35	33.47	32.13	33.24	34.59
45.0	35.64	35.29	33.77	33.71	34.65	34.47	33.71	33.07	31.89
90.0	40.09	41.20	44.18	47.81	46.88	42.25	37.40	36.11	35.99
135.0	38.39	38.33	38.04	37.75	37.10	36.87	36.69	35.29	36.34
180.0	50.91	49.28	47.58	43.31	39.50	37.34	35.46	36.64	42.08
225.0	34.94	34.76	33.88	33.36	31.89	32.19	35.70	39.09	42.25
270.0	32.60	39.62	46.17	51.85	52.38	44.95	37.40	33.77	32.07
315.0	33.59	33.59	33.42	32.25	31.08	30.84	30.96	31.43	34.06
360.0	40.03	38.33	38.10	36.40	35.35	33.47	32.13	33.24	34.59
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	37.22	39.27	41.67	37.16	38.45	31.78	29.38	28.44	27.51
45.0	33.30	35.76	35.05	33.65	36.81	34.70	30.49	28.21	27.27
90.0	37.81	38.16	40.50	37.86	37.04	34.18	32.77	31.13	28.50
135.0	42.14	47.05	47.81	42.08	40.09	37.22	33.83	32.66	30.20
180.0	50.45	56.01	55.48	45.94	42.49	40.67	35.17	31.49	30.08
225.0	44.18	42.55	36.52	38.10	35.87	32.77	29.73	28.50	26.92
270.0	31.84	31.78	32.07	33.18	34.65	35.05	32.66	32.07	30.90
315.0	38.39	38.92	37.57	34.18	33.77	30.26	28.27	26.92	25.16
360.0	37.22	39.27	41.67	37.16	38.45	31.78	29.38	28.44	27.51

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Intensity data(cd)

Appendix Page: 19 Total:19

<b>C/γ(°)</b>	<b>90.0</b>
<b>0.0</b>	<b>25.75</b>
<b>45.0</b>	<b>25.75</b>
<b>90.0</b>	<b>27.86</b>
<b>135.0</b>	<b>27.80</b>
<b>180.0</b>	<b>28.50</b>
<b>225.0</b>	<b>25.63</b>
<b>270.0</b>	<b>28.09</b>
<b>315.0</b>	<b>24.11</b>
<b>360.0</b>	<b>25.75</b>