Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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Client:
LumCAT:
Luminaire:
Report No:
Ballast type:

Test No:	Voltage(V): 120.14
LampCAT:	Current(A): 0.3220
Lamp flux(lm): -1.0	Power (W): 38.67
Number of Lamps: 1	PF: 0.9966
Length(mm): 573	Width(mm): 573
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 5197.33, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 134.40
Central intensity(cd): 1796.420, Maximum intensity(cd): 1832.285
Angle of maximum intensity: C=270.0 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=113.9
[C90/270]Total=107.4
Field angle(10%Imax): [C0/180]Total=171.3
[C90/270]Total=158.6
Maximum s/h(1/2): C0_180=1.25 C90_270=1.24
Maximum s/h(1/4): C0_180=1.37 C90_270=1.35
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 0.00%
Up flux rate of LUM(%): 0.27%
Down flux rate of LUM(%): 99.73%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 76.084%

Zonal flux distribution table

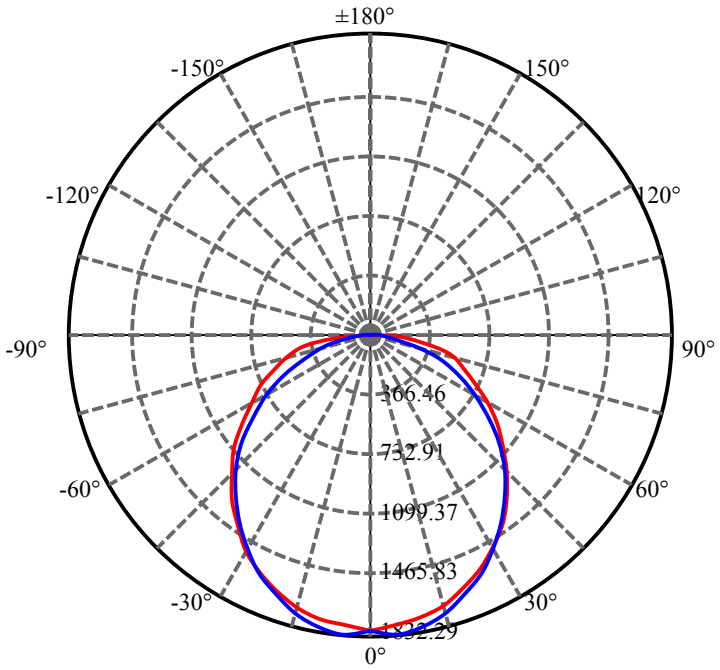
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1796.420	0.000	0	0.00%	0.00%
5.0	1788.105	42.852	42.852	0.00%	0.82%
10.0	1761.021	126.963	169.815	0.00%	3.27%
15.0	1716.352	206.275	376.091	0.00%	7.24%
20.0	1654.931	277.841	653.932	0.00%	12.58%
25.0	1578.943	339.174	993.106	0.00%	19.11%
30.0	1489.407	388.302	1381.408	0.00%	26.58%
35.0	1388.385	423.775	1805.183	0.00%	34.73%
40.0	1277.558	444.792	2249.975	0.00%	43.29%
45.0	1159.045	451.157	2701.132	0.00%	51.97%
50.0	1034.259	443.189	3144.321	0.00%	60.50%
55.0	905.108	421.683	3566.004	0.00%	68.61%
60.0	774.950	388.341	3954.345	0.00%	76.08%
65.0	647.082	345.699	4300.043	0.00%	82.74%
70.0	523.104	296.299	4596.342	0.00%	88.44%
75.0	405.873	242.820	4839.162	0.00%	93.11%
80.0	288.643	185.833	5024.995	0.00%	96.68%
85.0	144.685	117.746	5142.741	0.00%	98.95%
90.0	4.261	40.783	5183.523	0.00%	99.73%
95.0	1.363	1.540	5185.063	0.00%	99.76%
100.0	1.429	0.759	5185.822	0.00%	99.78%
105.0	1.522	0.790	5186.611	0.00%	99.79%
110.0	1.680	0.837	5187.448	0.00%	99.81%
115.0	1.813	0.884	5188.333	0.00%	99.83%
120.0	2.011	0.930	5189.262	0.00%	99.84%
125.0	2.157	0.963	5190.226	0.00%	99.86%
130.0	2.342	0.978	5191.204	0.00%	99.88%
135.0	2.474	0.973	5192.177	0.00%	99.90%
140.0	2.659	0.951	5193.127	0.00%	99.92%
145.0	2.699	0.894	5194.021	0.00%	99.94%
150.0	2.884	0.822	5194.844	0.00%	99.95%
155.0	2.977	0.742	5195.585	0.00%	99.97%
160.0	2.937	0.620	5196.206	0.00%	99.98%
165.0	3.004	0.490	5196.695	0.00%	99.99%
170.0	2.951	0.353	5197.049	0.00%	99.99%
175.0	2.911	0.210	5197.258	0.00%	100.00%
180.0	3.138	0.072	5197.331	0.00%	100.00%

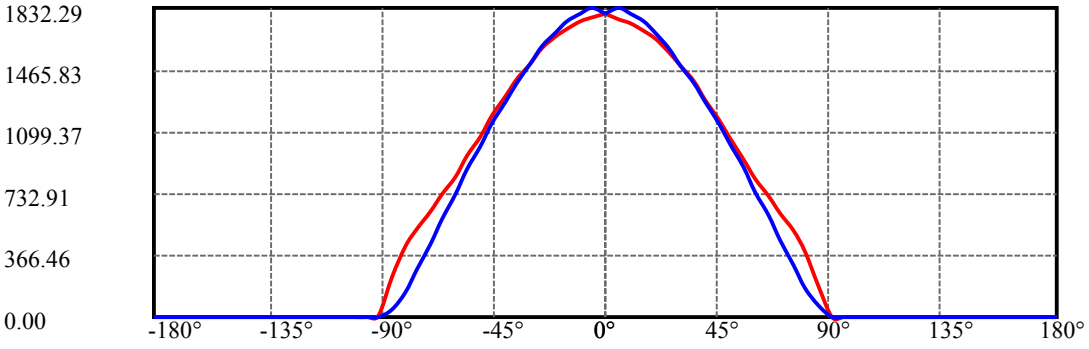
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1381.41	N.A.	26.58%
0-40	2249.98	N.A.	43.29%
0-60	3954.34	N.A.	76.08%
0-90	5183.52	N.A.	99.73%
0-120	5189.26	N.A.	99.84%
0-180	5197.33	N.A.	100.00%
60-90	1229.18	N.A.	23.65%
90-120	5.74	N.A.	0.11%
90-130	7.68	N.A.	0.15%
90-150	11.32	N.A.	0.22%
90-180	13.74	N.A.	0.26%
0-62.94	4157.86	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	169.82
10-20	484.12
20-30	727.48
30-40	868.57
40-50	894.35
50-60	810.02
60-70	642.00
70-80	428.65
80-90	158.53
90-100	2.30
100-110	1.63
110-120	1.81
120-130	1.94
130-140	1.92
140-150	1.72
150-160	1.36
160-170	0.84
170-180	0.21



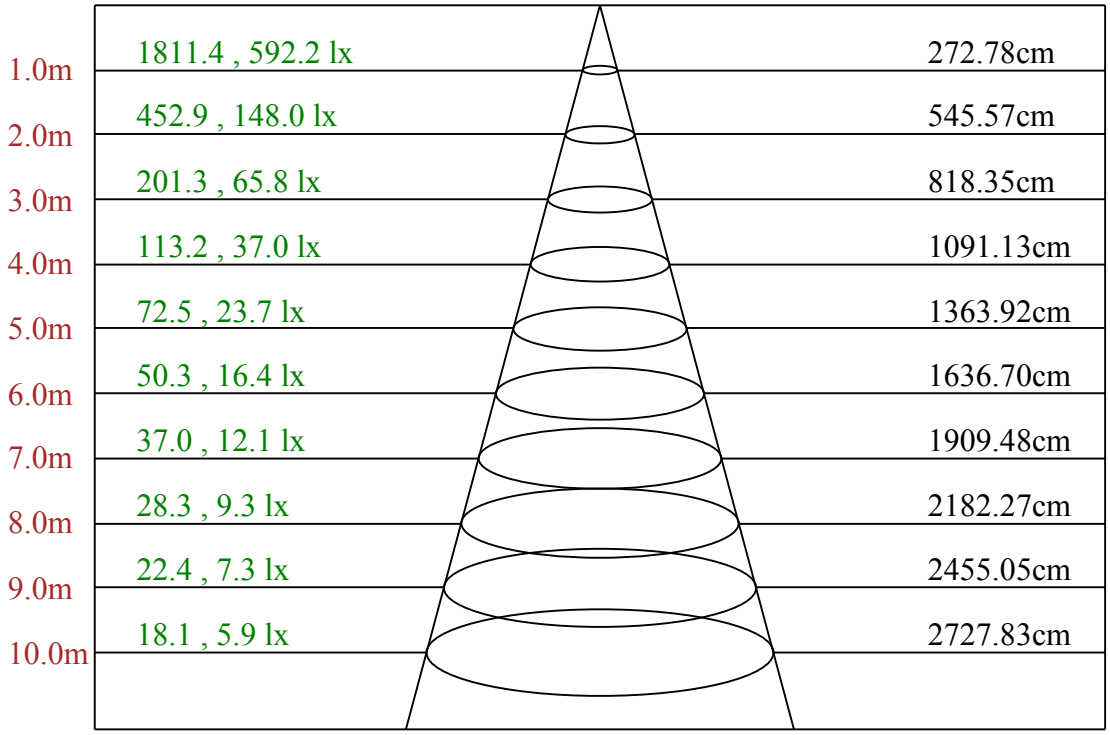


C0/C180:

C90/C270:

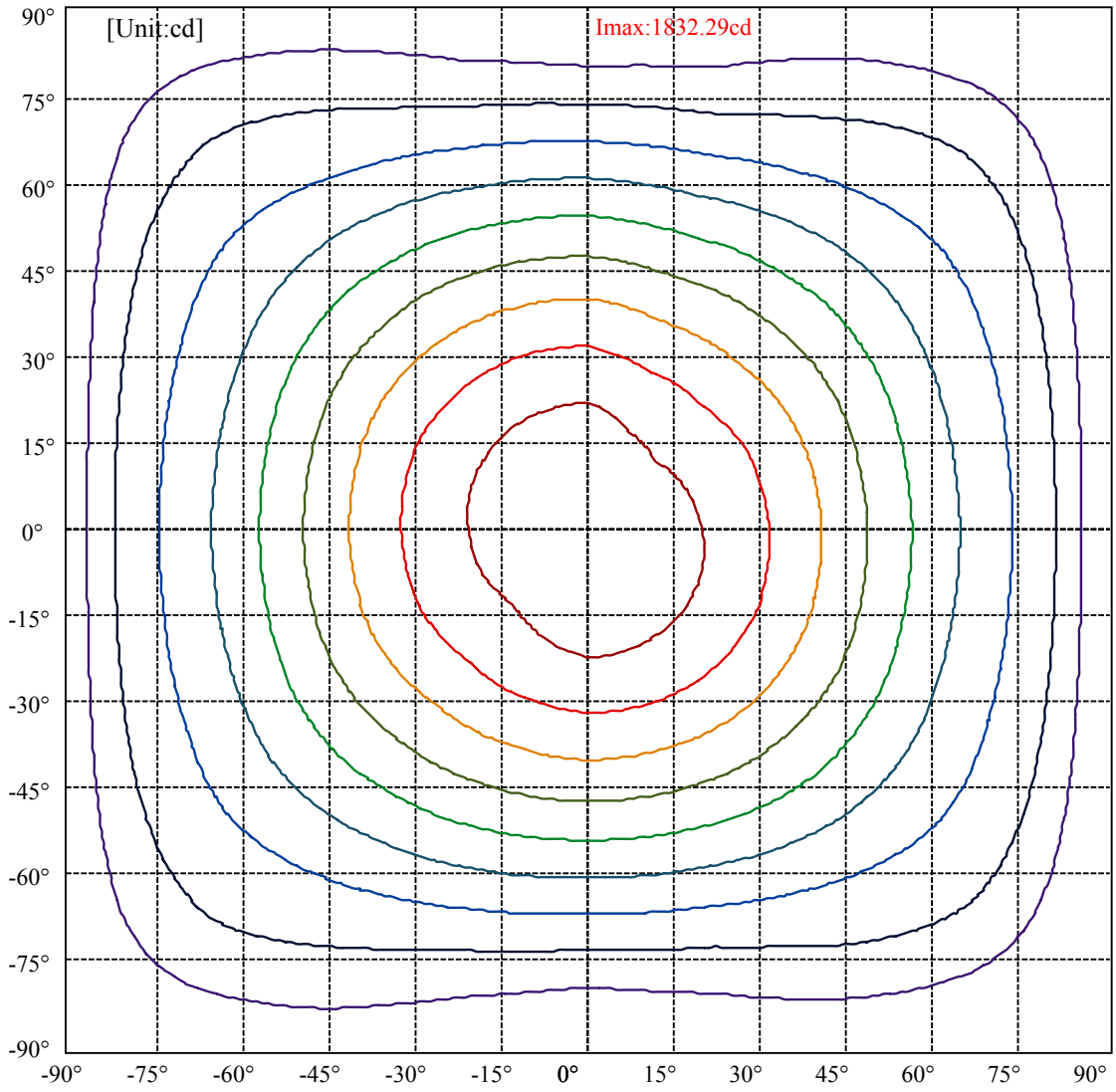
Field angle(10%Imax):C0/180Left:86.2 Right:85.1
:C90/270Left:78.9 Right:79.7

Beam Angle(50%Imax):C0/180Left:57.3 Right:56.6
:C90/270Left:53.5 Right:53.9



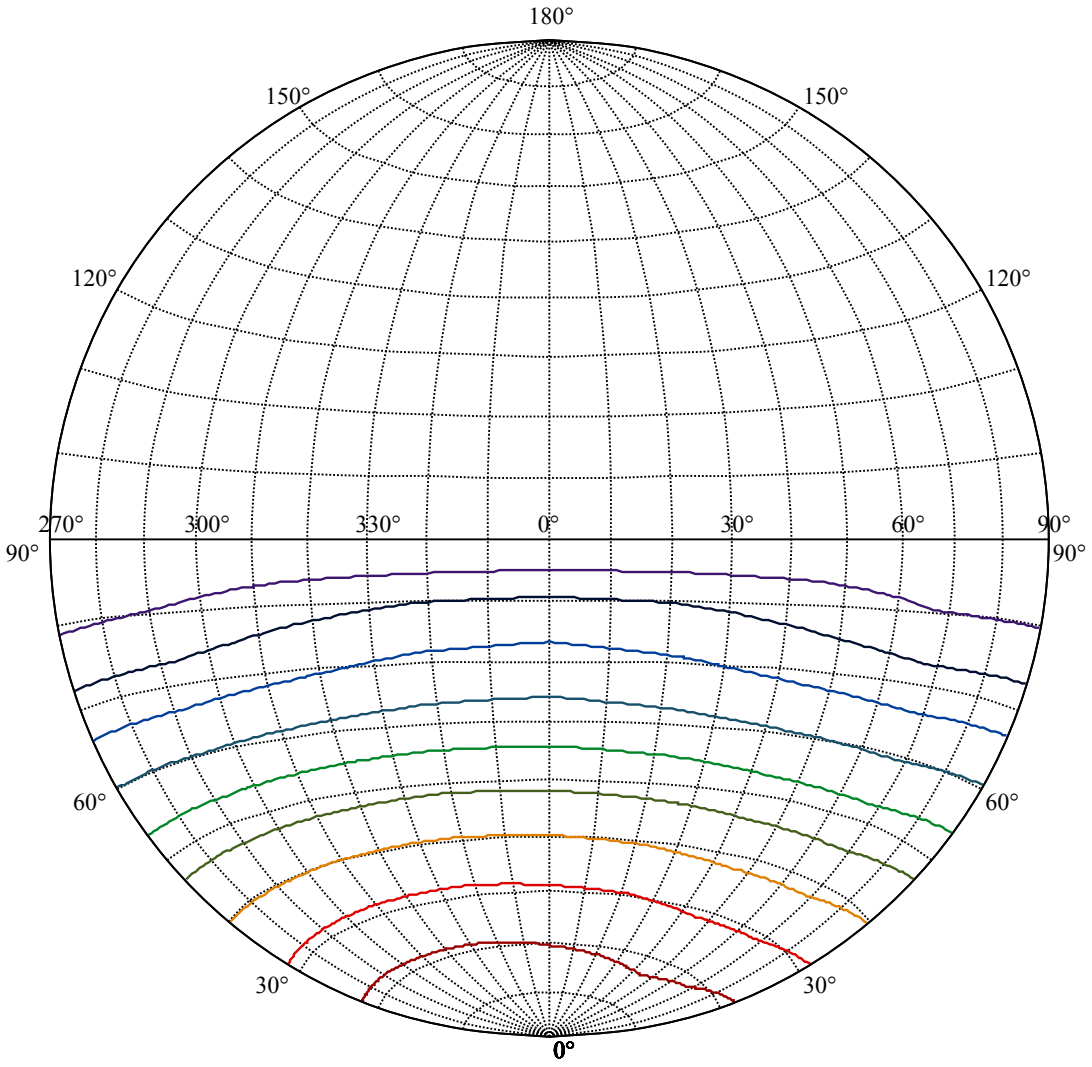
Max , Ave

Beam angle of C270 plane 107.50



(10%Imax) 183.229
(20%Imax) 366.457
(30%Imax) 549.685
(40%Imax) 732.914
(50%Imax) 916.143
(60%Imax) 1099.37
(70%Imax) 1282.6
(80%Imax) 1465.83
(90%Imax) 1649.06

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:1832.29

(10%Imax) 183.229
(20%Imax) 366.457
(30%Imax) 549.685
(40%Imax) 732.914
(50%Imax) 916.143
(60%Imax) 1099.37
(70%Imax) 1282.6
(80%Imax) 1465.83
(90%Imax) 1649.06

Equipment: GMS-3000 Date: Operator: Tester
Temperature(°C): 25 Humidity(%): 58%

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1796.42	1768.99	1740.62	1701.24	1644.51	1572.95	1487.85	1394.91	1289.06
22.5	1796.42	1755.86	1728.55	1686.00	1628.42	1555.80	1473.24	1375.01	1267.68
45.0	1796.42	1743.58	1713.73	1666.10	1607.88	1531.67	1440.85	1342.19	1236.55
67.5	1796.42	1775.76	1744.43	1693.62	1625.24	1542.68	1446.56	1343.46	1228.51
90.0	1796.42	1829.96	1799.05	1747.60	1679.86	1594.54	1496.53	1392.16	1274.24
112.5	1796.42	1822.12	1793.12	1745.28	1676.26	1593.91	1501.18	1395.12	1279.11
135.0	1796.42	1805.82	1777.88	1733.21	1671.39	1595.81	1504.36	1401.68	1291.39
157.5	1796.42	1792.91	1768.14	1729.19	1669.06	1597.51	1513.89	1416.29	1307.26
180.0	1796.42	1771.53	1749.72	1710.98	1655.94	1589.04	1506.26	1410.79	1306.20
202.5	1796.42	1760.10	1737.87	1698.70	1645.78	1577.40	1494.83	1402.53	1297.95
225.0	1796.42	1747.60	1724.11	1684.31	1626.30	1553.69	1469.64	1371.83	1263.44
247.5	1796.42	1782.75	1756.71	1713.52	1650.22	1572.10	1482.55	1377.55	1263.86
270.0	1796.42	1832.29	1802.86	1752.47	1682.82	1601.11	1500.97	1390.46	1275.72
292.5	1796.42	1823.39	1794.60	1745.70	1679.22	1596.87	1502.66	1394.27	1276.14
315.0	1796.42	1805.82	1778.94	1731.30	1671.60	1595.18	1503.94	1399.78	1287.79
337.5	1796.42	1791.22	1766.02	1722.41	1664.41	1592.85	1505.21	1406.13	1296.04
360.0	1796.42	1768.99	1740.62	1701.24	1644.51	1572.95	1487.85	1394.91	1289.06

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1175.16	1055.55	934.67	822.25	713.44	612.67	513.59	390.38	182.06
22.5	1152.51	1035.44	912.44	790.71	676.60	571.39	473.37	355.66	168.94
45.0	1121.60	998.81	872.21	747.10	618.81	498.35	387.63	285.80	143.53
67.5	1110.59	983.99	851.04	714.92	580.70	442.67	309.51	189.05	90.82
90.0	1149.76	1020.41	886.82	745.40	600.81	454.31	312.47	175.29	64.36
112.5	1155.47	1028.87	892.11	752.81	615.00	473.79	336.82	213.40	110.72
135.0	1171.77	1044.12	913.07	787.75	650.77	525.23	412.19	309.30	174.87
157.5	1190.19	1067.19	944.83	819.29	700.31	595.31	494.33	382.12	218.69
180.0	1194.43	1074.60	951.81	832.84	728.89	624.31	527.56	418.32	235.84
202.5	1183.84	1062.32	941.44	817.81	698.62	589.80	491.57	381.28	213.18
225.0	1151.87	1029.09	901.43	771.44	646.12	521.64	408.59	302.95	175.93
247.5	1141.50	1016.81	883.22	744.98	606.74	465.75	333.64	210.43	105.64
270.0	1149.12	1014.69	874.54	733.34	584.72	433.99	286.65	152.64	47.42
292.5	1149.76	1020.62	881.74	739.69	595.10	456.01	315.65	198.37	86.16
315.0	1165.42	1036.92	908.20	773.77	641.25	516.77	406.05	293.00	134.64
337.5	1181.72	1058.72	932.13	805.11	695.44	587.69	484.38	360.32	162.16
360.0	1175.16	1055.55	934.67	822.25	713.44	612.67	513.59	390.38	182.06

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	1.69	1.69	1.91	2.12	1.91	2.33	2.12	2.33	2.54
22.5	1.48	1.69	1.69	1.91	1.91	1.91	2.12	2.33	2.12
45.0	1.48	1.48	1.48	1.69	1.91	1.91	2.12	2.33	2.75
67.5	1.48	1.48	1.48	1.69	1.69	1.91	2.12	2.12	2.33
90.0	2.96	1.06	1.27	1.27	1.69	1.48	2.12	2.12	2.33
112.5	2.33	1.06	1.27	1.27	1.69	1.48	1.91	1.91	2.33
135.0	4.66	1.06	1.06	1.27	1.27	1.48	1.91	1.91	2.33
157.5	14.18	1.27	1.48	1.27	1.48	1.69	1.48	2.12	2.12
180.0	10.37	1.48	1.27	1.27	1.48	1.48	1.69	1.91	1.91
202.5	11.86	1.27	1.48	1.27	1.48	1.69	1.91	1.91	2.12
225.0	6.35	1.06	1.27	1.27	1.69	1.69	1.91	1.69	2.12
247.5	2.96	0.85	0.85	0.85	1.06	1.48	1.48	1.69	1.91
270.0	1.69	1.91	1.69	1.91	2.12	2.33	2.54	2.75	3.18
292.5	1.27	1.48	1.48	1.91	1.91	2.12	2.12	2.54	2.75
315.0	1.69	1.48	1.48	1.69	1.69	1.91	2.33	2.54	2.33
337.5	1.69	1.48	1.69	1.69	1.91	2.12	2.33	2.33	2.33
360.0	1.69	1.69	1.91	2.12	1.91	2.33	2.12	2.33	2.54

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	2.54	2.54	2.54	2.96	3.18	2.96	3.18	2.75	2.75
22.5	2.54	2.54	2.54	2.96	2.96	2.96	2.96	2.96	2.96
45.0	2.54	2.96	2.75	2.96	2.96	2.96	3.18	2.96	3.18
67.5	2.75	2.96	2.75	2.96	3.18	2.75	2.96	2.75	2.75
90.0	2.54	2.54	2.75	2.96	2.96	3.18	3.18	3.18	2.75
112.5	2.33	2.54	2.54	2.96	2.75	2.75	2.96	2.96	2.96
135.0	2.12	2.54	2.54	2.75	3.18	2.96	2.96	2.75	2.75
157.5	2.33	2.33	2.33	2.75	2.54	2.96	2.75	2.96	2.75
180.0	2.33	2.54	2.54	2.75	2.75	2.75	2.75	2.96	2.96
202.5	2.33	2.33	2.54	2.75	2.75	2.75	2.75	2.75	2.75
225.0	2.33	2.54	2.54	2.75	2.75	2.96	2.75	2.75	2.75
247.5	2.12	2.33	2.54	2.75	2.75	2.75	2.75	2.96	2.75
270.0	2.96	3.18	3.39	3.39	3.60	3.60	3.81	3.60	3.81
292.5	2.75	2.75	3.39	2.75	3.18	2.96	2.96	3.18	2.96
315.0	2.54	2.96	2.75	2.96	3.18	2.96	2.96	2.75	2.96
337.5	2.54	2.96	2.75	2.75	2.96	2.75	3.18	2.96	2.75
360.0	2.54	2.54	2.54	2.96	3.18	2.96	3.18	2.75	2.75

C/γ(°)	180.0
0.0	3.14
22.5	3.14
45.0	3.14
67.5	3.14
90.0	3.14
112.5	3.14
135.0	3.14
157.5	3.14
180.0	3.14
202.5	3.14
225.0	3.14
247.5	3.14
270.0	3.14
292.5	3.14
315.0	3.14
337.5	3.14
360.0	3.14