



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.  
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Client:

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.04

LampCAT:

Current(A): 0.1670

Lamp flux(lm): -1.0

Power (W): 19.84

Number of Lamps: 1

PF: 0.9912

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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### Photometric Results

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Lumens(lm): 1316.78, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 66.37

Central intensity(cd): 476.124, Maximum intensity(cd): 484.089

Angle of maximum intensity: C=90.0  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=107.7

[C90/270]Total=112.3

Field angle(10%Imax): [C0/180]Total=155.9

[C90/270]Total=160.7

Maximum s/h(1/2): C0\_180=1.15 C90\_270=1.29

Maximum s/h(1/4): C0\_180=1.28 C90\_270=1.41

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.42%

Down flux rate of LUM(%): 99.58%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 79.934%

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Equipment: GMS-3000  
Temperature(°C): 25

Date:  
Humidity(%): 58%

Operator: Tester

## Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	476.124	0.000	0	0.00%	0.00%
5.0	474.553	11.365	11.365	0.00%	0.86%
10.0	468.235	33.726	45.092	0.00%	3.42%
15.0	456.946	54.881	99.973	0.00%	7.59%
20.0	441.426	74.038	174.011	0.00%	13.21%
25.0	421.930	90.550	264.561	0.00%	20.09%
30.0	398.627	103.842	368.403	0.00%	27.98%
35.0	371.877	113.462	481.865	0.00%	36.59%
40.0	342.528	119.193	601.059	0.00%	45.65%
45.0	309.991	120.819	721.878	0.00%	54.82%
50.0	274.975	118.201	840.079	0.00%	63.80%
55.0	237.858	111.507	951.586	0.00%	72.27%
60.0	198.928	100.962	1052.548	0.00%	79.93%
65.0	158.048	86.782	1139.329	0.00%	86.52%
70.0	116.881	69.614	1208.943	0.00%	91.81%
75.0	77.059	50.693	1259.636	0.00%	95.66%
80.0	40.895	31.561	1291.197	0.00%	98.06%
85.0	15.098	15.214	1306.412	0.00%	99.21%
90.0	2.720	4.879	1311.29	0.00%	99.58%
95.0	0.695	0.935	1312.225	0.00%	99.65%
100.0	0.499	0.324	1312.55	0.00%	99.68%
105.0	0.529	0.275	1312.825	0.00%	99.70%
110.0	0.559	0.284	1313.109	0.00%	99.72%
115.0	0.589	0.291	1313.4	0.00%	99.74%
120.0	0.710	0.316	1313.716	0.00%	99.77%
125.0	0.786	0.346	1314.062	0.00%	99.79%
130.0	0.816	0.348	1314.41	0.00%	99.82%
135.0	0.922	0.351	1314.761	0.00%	99.85%
140.0	0.952	0.347	1315.108	0.00%	99.87%
145.0	1.103	0.343	1315.451	0.00%	99.90%
150.0	1.133	0.329	1315.78	0.00%	99.92%
155.0	1.194	0.295	1316.075	0.00%	99.95%
160.0	1.179	0.249	1316.324	0.00%	99.97%
165.0	1.209	0.197	1316.521	0.00%	99.98%
170.0	1.164	0.141	1316.661	0.00%	99.99%
175.0	1.239	0.086	1316.747	0.00%	100.00%
180.0	1.266	0.030	1316.777	0.00%	100.00%

Equipment: GMS-3000  
Temperature( $^{\circ}\text{C}$ ): 25

Date:  
Humidity(%): 58%

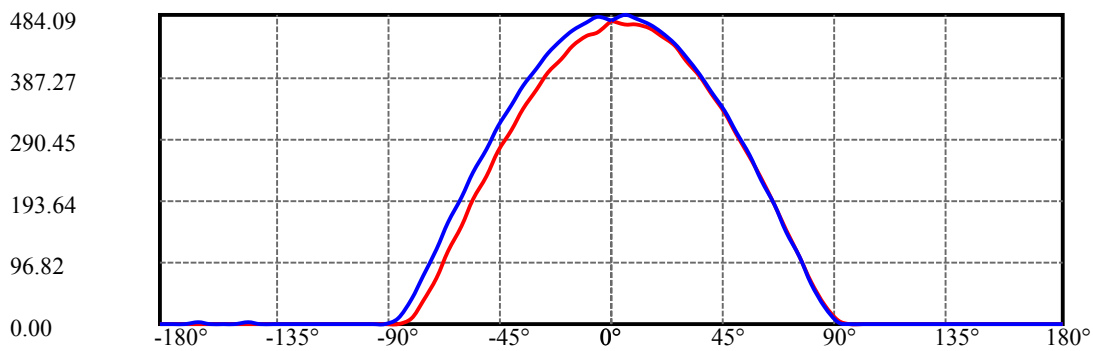
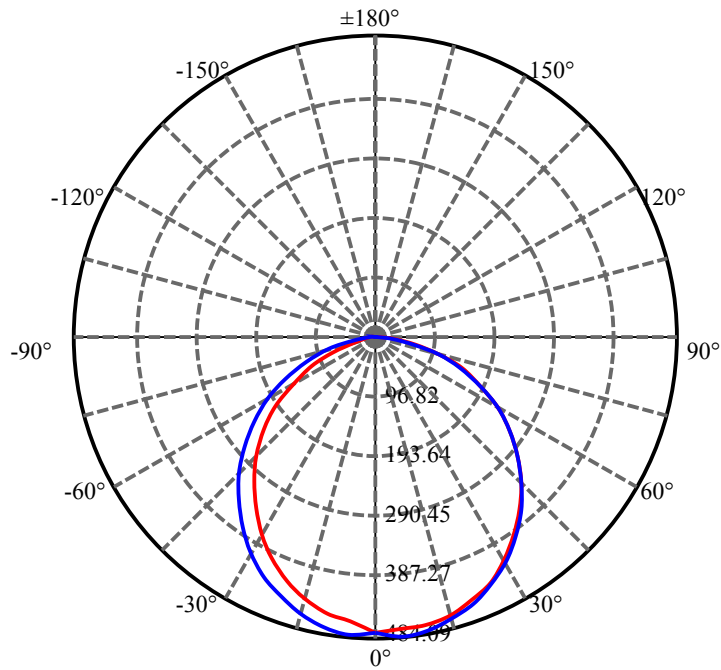
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	368.40	N.A.	27.98%
0-40	601.06	N.A.	45.65%
0-60	1052.55	N.A.	79.93%
0-90	1311.29	N.A.	99.58%
0-120	1313.72	N.A.	99.77%
0-180	1316.78	N.A.	100.00%
60-90	258.74	N.A.	19.65%
90-120	2.43	N.A.	0.18%
90-130	3.12	N.A.	0.24%
90-150	4.49	N.A.	0.34%
90-180	5.46	N.A.	0.41%
0-60.05	1053.42	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	45.09
10-20	128.92
20-30	194.39
30-40	232.66
40-50	239.02
50-60	212.47
60-70	156.40
70-80	82.25
80-90	20.09
90-100	1.26
100-110	0.56
110-120	0.61
120-130	0.69
130-140	0.70
140-150	0.67
150-160	0.54
160-170	0.34
170-180	0.09

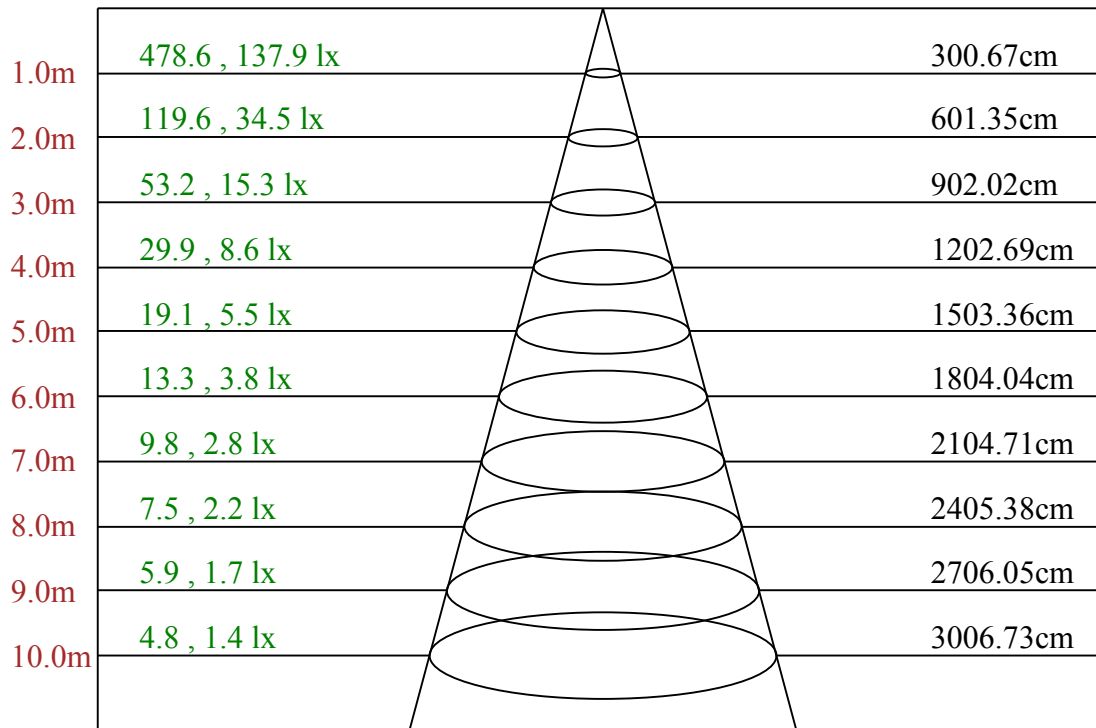


C0/C180: —

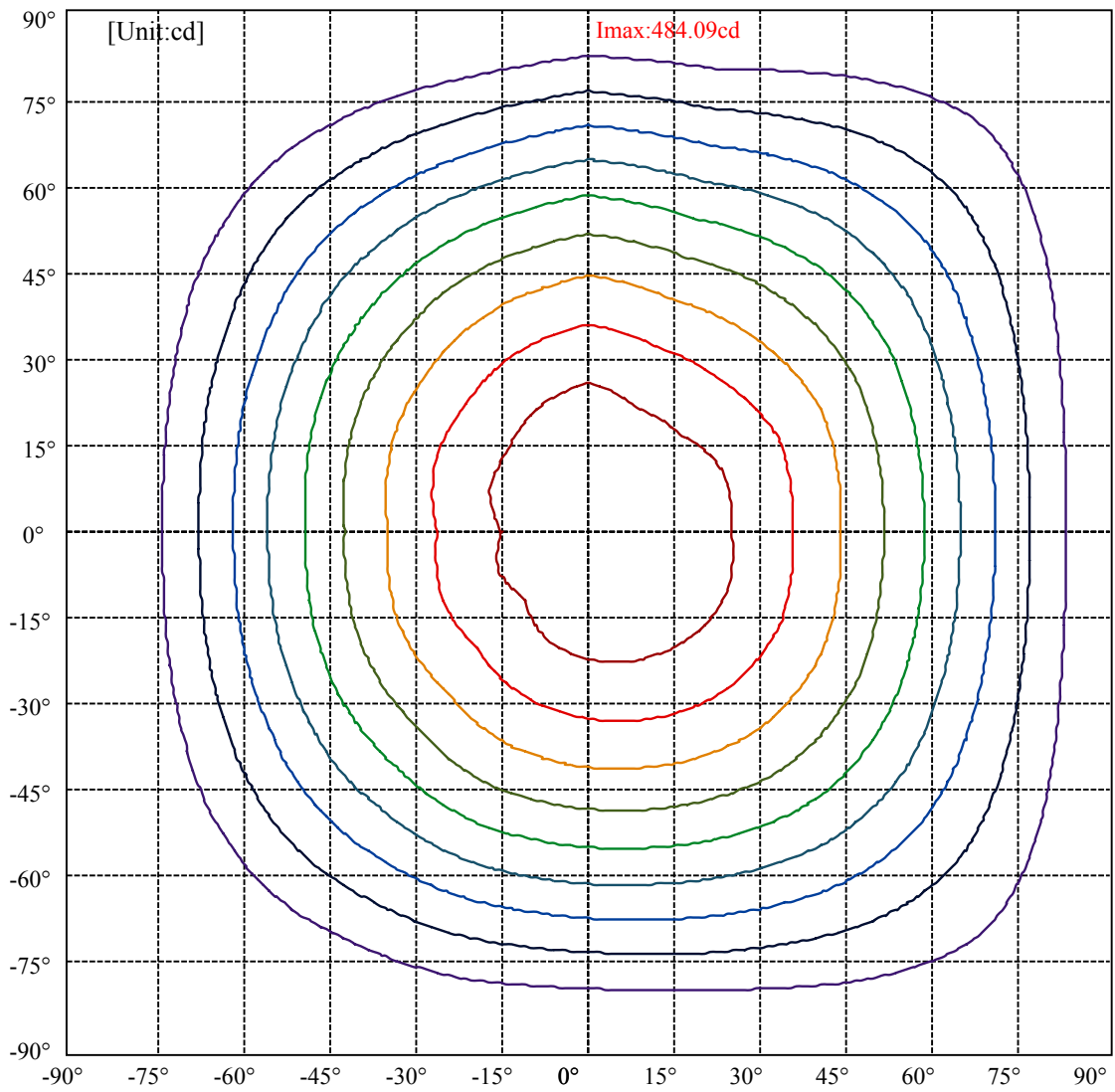
C90/C270: —

Field angle(10%Imax):C0/180Left:73.4 Right:82.5  
:C90/270Left:78.7 Right:82.0

Beam Angle(50%Imax):C0/180Left:49.2 Right:58.5  
:C90/270Left:54.4 Right:57.9



Max , Ave      Beam angle of C90 plane 112.74

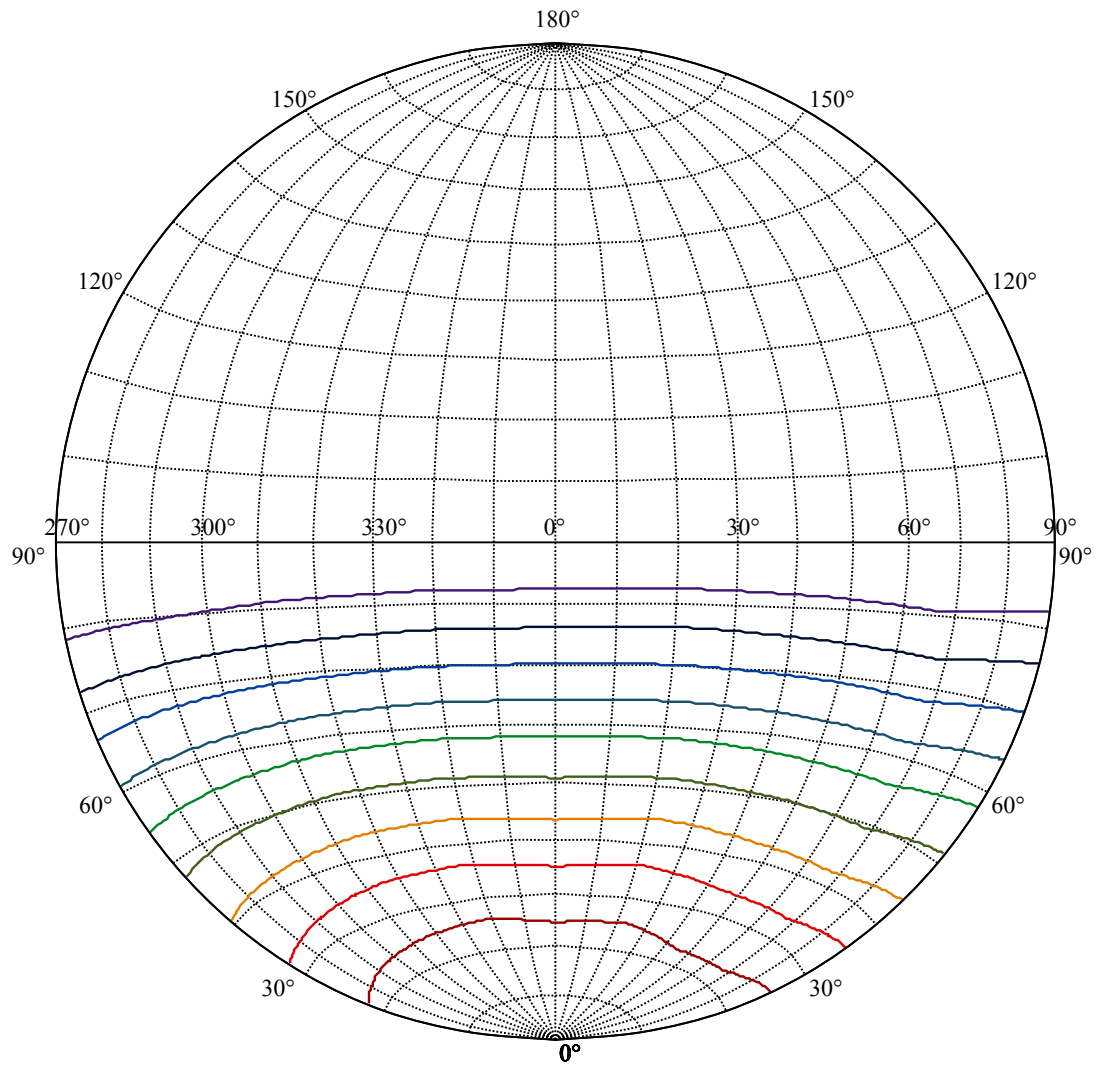


(10%Imax) 48.4089	—
(20%Imax) 96.8178	—
(30%Imax) 145.227	—
(40%Imax) 193.636	—
(50%Imax) 242.044	—
(60%Imax) 290.453	—
(70%Imax) 338.862	—
(80%Imax) 387.271	—
(90%Imax) 435.68	—

Equipment: GMS-3000  
Temperature(°C): 25

Date:  
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

**Imax:484.09**

(10%Imax) 48.4089	
(20%Imax) 96.8178	
(30%Imax) 145.227	
(40%Imax) 193.636	
(50%Imax) 242.044	
(60%Imax) 290.453	
(70%Imax) 338.862	
(80%Imax) 387.271	
(90%Imax) 435.68	

## Intensity data(cd)

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C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	476.12	469.58	469.58	461.84	449.75	434.76	412.76	388.34	361.01
22.5	476.12	476.59	473.93	466.20	454.11	437.42	416.38	393.41	366.33
45.0	476.12	469.82	465.95	457.49	444.68	428.72	407.68	383.26	356.18
67.5	476.12	474.66	469.82	459.67	446.13	427.99	406.95	380.36	351.34
90.0	476.12	484.09	479.01	469.58	456.28	438.39	416.63	391.00	363.91
112.5	476.12	482.64	475.38	464.26	447.82	427.75	403.09	377.21	347.23
135.0	476.12	474.42	465.47	451.93	434.04	412.27	387.85	360.04	330.30
157.5	476.12	475.14	464.26	449.03	429.68	407.68	380.36	349.89	317.97
180.0	476.12	457.73	450.72	435.49	415.90	392.69	365.85	335.62	303.70
202.5	476.12	468.37	457.49	442.98	423.40	399.70	374.31	344.33	311.20
225.0	476.12	463.05	453.14	438.87	421.22	399.22	374.55	345.78	313.86
247.5	476.12	472.00	463.54	451.20	434.76	413.72	388.82	361.74	332.00
270.0	476.12	480.95	472.48	459.91	443.95	423.64	399.22	372.13	342.63
292.5	476.12	482.88	476.59	465.71	450.24	430.89	408.65	382.05	352.79
315.0	476.12	479.25	475.63	466.68	453.38	435.97	415.66	390.51	362.70
337.5	476.12	481.67	478.77	470.31	457.49	440.08	419.29	394.38	367.30
360.0	476.12	469.58	469.58	461.84	449.75	434.76	412.76	388.34	361.01
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	329.82	296.45	262.60	227.05	186.19	146.29	105.43	64.80	29.74
22.5	335.62	301.04	266.71	228.26	188.12	147.26	107.36	66.74	30.47
45.0	326.43	293.79	257.76	221.01	181.59	140.00	98.66	60.69	26.60
67.5	320.87	286.29	249.78	211.34	171.44	129.85	89.23	51.26	20.31
90.0	333.20	299.59	263.57	226.81	186.43	145.32	103.98	62.63	26.60
112.5	314.34	278.80	241.80	201.42	159.35	116.55	77.62	39.41	10.88
135.0	295.48	259.70	220.04	178.45	137.10	95.03	55.13	21.52	2.90
157.5	282.18	245.43	203.84	163.22	120.66	79.31	41.11	11.85	1.45
180.0	269.13	232.13	194.89	154.03	112.92	72.78	36.27	7.98	0.97
202.5	275.41	239.14	199.00	158.14	116.55	76.89	38.93	9.91	1.69
225.0	281.22	245.19	207.71	169.75	128.64	88.02	49.33	18.14	2.42
247.5	299.11	263.57	226.81	188.12	146.29	105.91	68.67	33.85	7.98
270.0	309.99	274.93	237.45	199.00	158.38	116.79	75.44	38.93	10.16
292.5	320.39	285.57	247.85	208.43	169.75	128.16	86.32	46.43	17.41
315.0	331.27	296.93	260.42	220.77	179.18	137.59	95.51	56.58	23.21
337.5	335.38	301.04	265.50	227.05	186.19	144.36	103.98	63.59	28.77
360.0	329.82	296.45	262.60	227.05	186.19	146.29	105.43	64.80	29.74
C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	6.29	0.97	1.21	1.21	0.73	0.73	0.97	0.73	0.97
22.5	5.56	1.21	0.97	0.97	0.97	0.73	0.97	0.97	0.97
45.0	4.59	1.21	0.97	0.73	1.21	0.73	0.97	0.73	1.21
67.5	2.90	1.21	0.73	0.97	0.97	0.97	0.97	0.97	1.21
90.0	4.35	0.48	0.24	0.00	0.24	0.24	0.48	0.48	0.73
112.5	1.69	0.24	0.00	0.24	0.24	0.24	0.48	0.73	0.48
135.0	1.21	0.48	0.00	0.24	0.24	0.48	0.48	0.73	0.48
157.5	1.21	0.48	0.00	0.24	0.24	0.48	0.48	0.73	0.48
180.0	0.24	0.24	0.00	0.00	0.24	0.48	0.48	0.73	0.73
202.5	0.97	0.24	0.24	0.48	0.24	0.24	0.48	0.73	0.48
225.0	1.21	0.48	0.00	0.00	0.24	0.24	0.48	0.48	0.73
247.5	1.45	0.24	0.24	0.24	0.00	0.24	0.24	0.73	0.73
270.0	0.97	0.73	0.73	0.73	0.73	0.73	0.97	0.97	1.21
292.5	2.18	0.73	0.48	0.73	0.73	0.97	0.97	0.97	0.97
315.0	3.39	1.45	0.73	0.48	0.73	0.97	0.97	0.97	0.97
337.5	5.32	0.73	1.45	1.21	1.21	0.97	0.97	0.97	0.73
360.0	6.29	0.97	1.21	1.21	0.73	0.73	0.97	0.73	0.97

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

Operator: Tester



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	1.21	0.97	0.97	0.97	1.45	1.21	1.45	1.45	1.21
22.5	1.21	0.97	1.21	1.21	1.45	1.21	0.97	0.97	1.21
45.0	0.97	0.97	1.45	1.45	1.21	1.45	0.97	1.45	1.45
67.5	1.21	1.45	1.21	1.45	1.45	1.21	1.45	1.21	1.45
90.0	0.73	0.97	0.97	0.97	1.21	1.21	1.21	1.21	1.21
112.5	0.73	0.73	0.48	0.97	0.73	0.97	0.97	1.21	0.97
135.0	0.48	0.73	0.97	0.97	0.97	0.97	0.97	0.73	0.97
157.5	0.73	0.97	0.73	0.97	1.21	1.21	1.21	1.21	0.97
180.0	0.48	0.73	1.21	1.21	1.21	0.97	0.97	0.97	0.97
202.5	0.48	0.73	0.73	0.97	1.21	0.97	1.21	0.97	1.21
225.0	0.73	0.73	1.21	1.21	1.21	1.21	1.21	1.21	1.21
247.5	0.73	0.73	0.97	0.73	1.21	1.21	0.97	0.97	1.45
270.0	1.45	1.45	1.69	1.21	1.21	1.21	1.69	1.45	1.45
292.5	1.21	1.21	1.21	1.45	1.21	1.21	1.45	1.21	1.21
315.0	1.21	0.97	1.21	1.21	1.21	1.21	1.21	1.21	1.69
337.5	1.21	0.97	1.45	1.21	0.97	1.45	1.45	1.21	1.21
360.0	1.21	0.97	0.97	0.97	1.45	1.21	1.45	1.45	1.21
C/γ(°)	180.0								
0.0	1.27								
22.5	1.27								
45.0	1.27								
67.5	1.27								
90.0	1.27								
112.5	1.27								
135.0	1.27								
157.5	1.27								
180.0	1.27								
202.5	1.27								
225.0	1.27								
247.5	1.27								
270.0	1.27								
292.5	1.27								
315.0	1.27								
337.5	1.27								
360.0	1.27								