



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.03

LampCAT:

Current(A): 0.1680

Lamp flux(lm): -1.0

Power (W): 19.93

Number of Lamps: 1

PF: 0.9913

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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### Photometric Results

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Lumens(lm): 1252.42, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 62.84

Central intensity(cd): 445.579, Maximum intensity(cd): 451.559

Angle of maximum intensity: C=112.5  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=109.9

[C90/270]Total=112.7

Field angle(10%Imax): [C0/180]Total=157.7

[C90/270]Total=160.7

Maximum s/h(1/2): C0\_180=1.23 C90\_270=1.29

Maximum s/h(1/4): C0\_180=1.35 C90\_270=1.40

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.53%

Down flux rate of LUM(%): 99.47%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 79.292%

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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	445.579	0.000	0	0.00%	0.00%
5.0	443.877	10.633	10.633	0.00%	0.85%
10.0	437.929	31.545	42.178	0.00%	3.37%
15.0	427.564	51.340	93.519	0.00%	7.47%
20.0	413.503	69.316	162.834	0.00%	13.00%
25.0	395.874	84.889	247.723	0.00%	19.78%
30.0	374.814	97.531	345.254	0.00%	27.57%
35.0	350.692	106.836	452.09	0.00%	36.10%
40.0	323.508	112.485	564.575	0.00%	45.08%
45.0	293.627	114.268	678.843	0.00%	54.20%
50.0	260.824	112.035	790.878	0.00%	63.15%
55.0	226.362	105.930	896.808	0.00%	71.61%
60.0	190.103	96.265	993.073	0.00%	79.29%
65.0	153.148	83.445	1076.518	0.00%	85.96%
70.0	115.054	67.910	1144.428	0.00%	91.38%
75.0	77.226	50.259	1194.687	0.00%	95.39%
80.0	41.865	31.866	1226.552	0.00%	97.93%
85.0	13.415	15.021	1241.574	0.00%	99.13%
90.0	2.075	4.241	1245.815	0.00%	99.47%
95.0	1.050	0.856	1246.671	0.00%	99.54%
100.0	0.898	0.529	1247.2	0.00%	99.58%
105.0	0.759	0.443	1247.644	0.00%	99.62%
110.0	0.671	0.374	1248.017	0.00%	99.65%
115.0	0.772	0.365	1248.383	0.00%	99.68%
120.0	0.860	0.397	1248.779	0.00%	99.71%
125.0	0.860	0.398	1249.177	0.00%	99.74%
130.0	1.012	0.407	1249.584	0.00%	99.77%
135.0	1.063	0.419	1250.004	0.00%	99.81%
140.0	1.177	0.415	1250.418	0.00%	99.84%
145.0	1.329	0.418	1250.836	0.00%	99.87%
150.0	1.329	0.391	1251.228	0.00%	99.90%
155.0	1.379	0.343	1251.57	0.00%	99.93%
160.0	1.354	0.287	1251.857	0.00%	99.96%
165.0	1.468	0.233	1252.09	0.00%	99.97%
170.0	1.544	0.179	1252.268	0.00%	99.99%
175.0	1.556	0.111	1252.379	0.00%	100.00%
180.0	1.703	0.039	1252.418	0.00%	100.00%

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

Date:  
Humidity(%): 58%

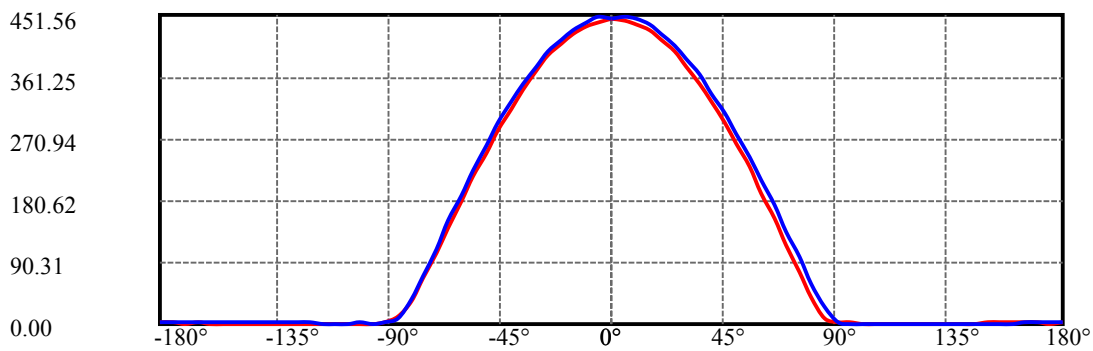
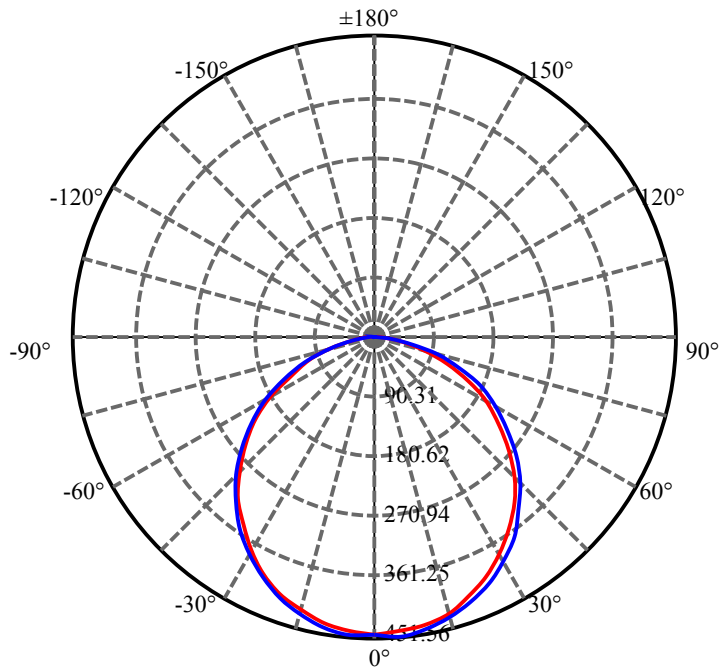
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	345.25	N.A.	27.57%
0-40	564.58	N.A.	45.08%
0-60	993.07	N.A.	79.29%
0-90	1245.81	N.A.	99.47%
0-120	1248.78	N.A.	99.71%
0-180	1252.42	N.A.	100.00%
60-90	252.74	N.A.	20.18%
90-120	2.96	N.A.	0.24%
90-130	3.77	N.A.	0.30%
90-150	5.41	N.A.	0.43%
90-180	6.56	N.A.	0.52%
0-60.53	1001.93	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	42.18
10-20	120.66
20-30	182.42
30-40	219.32
40-50	226.30
50-60	202.19
60-70	151.36
70-80	82.12
80-90	19.26
90-100	1.39
100-110	0.82
110-120	0.76
120-130	0.80
130-140	0.83
140-150	0.81
150-160	0.63
160-170	0.41
170-180	0.11



C0/C180: —

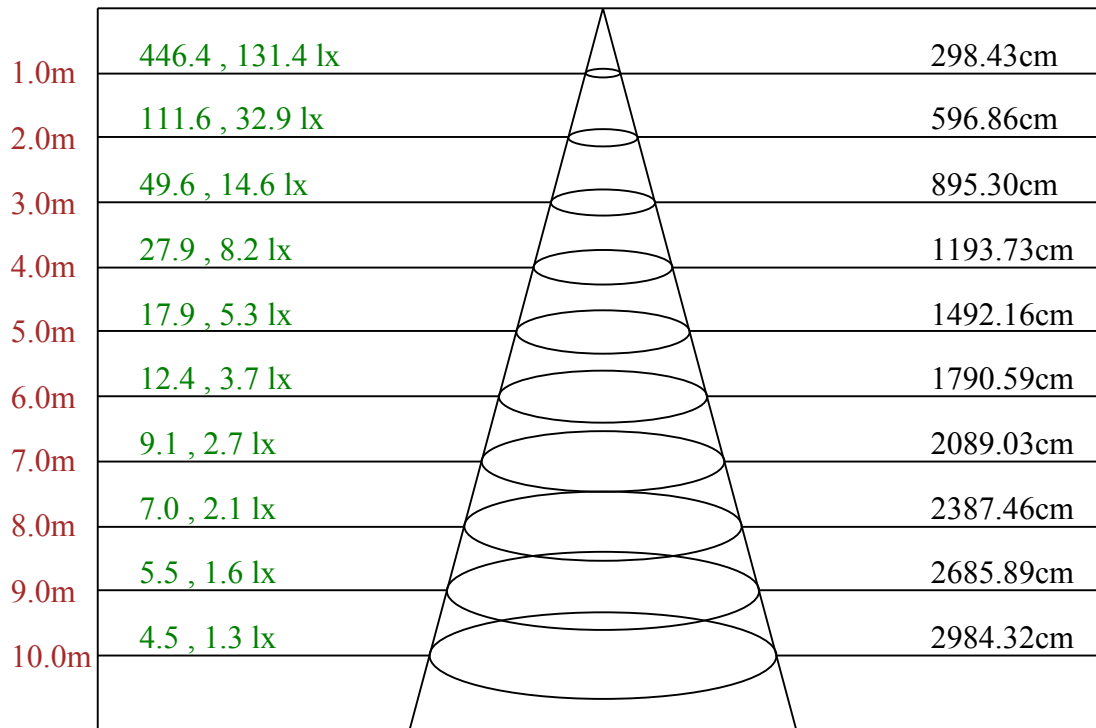
C90/C270: —

Field angle(10%Imax):C0/180Left:78.5 Right:79.2

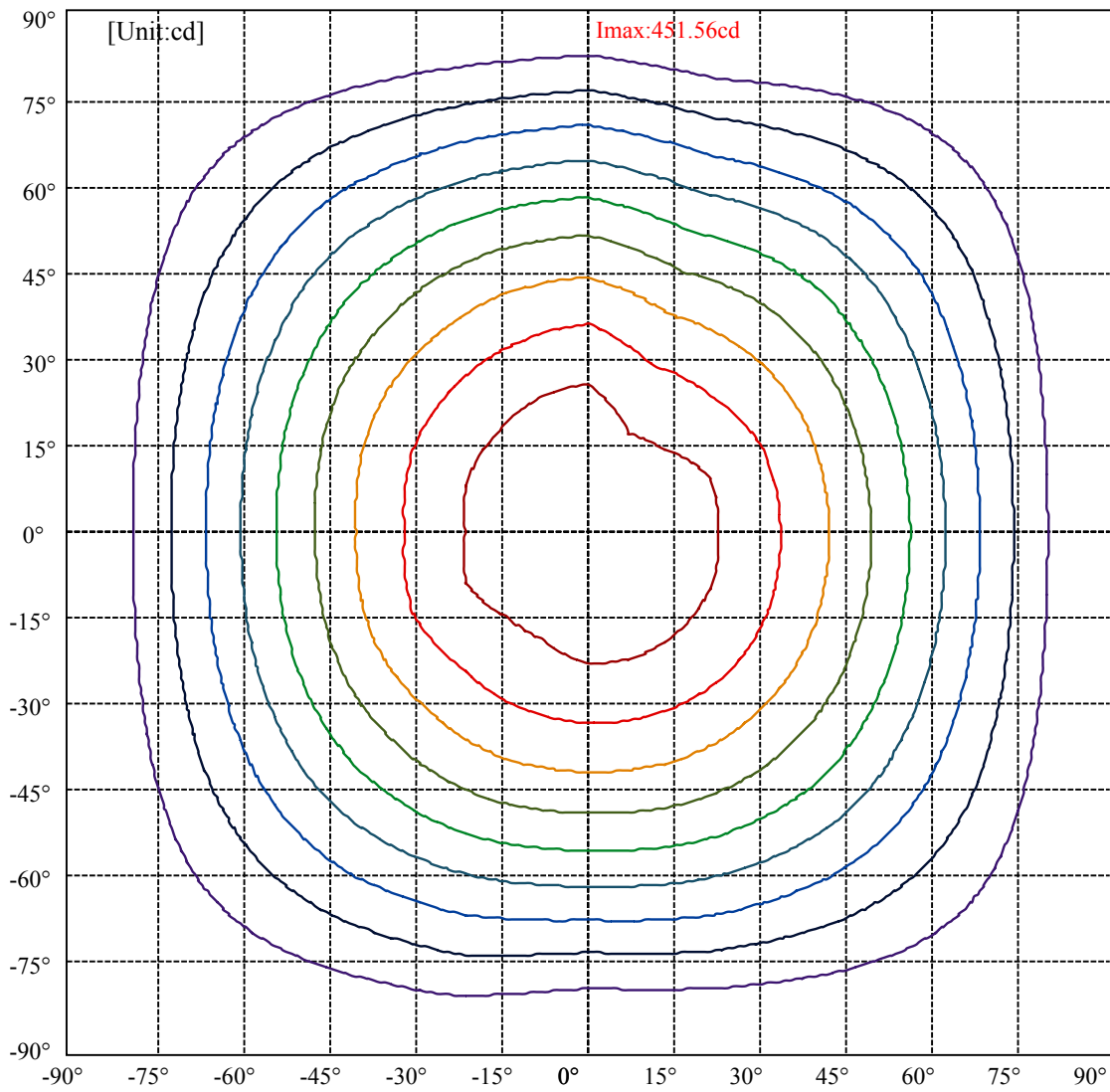
:C90/270Left:78.6 Right:82.1

Beam Angle(50%Imax):C0/180Left:54.1 Right:55.8

:C90/270Left:55.0 Right:57.7



Max , Ave      Beam angle of C112.5 plane 112.34

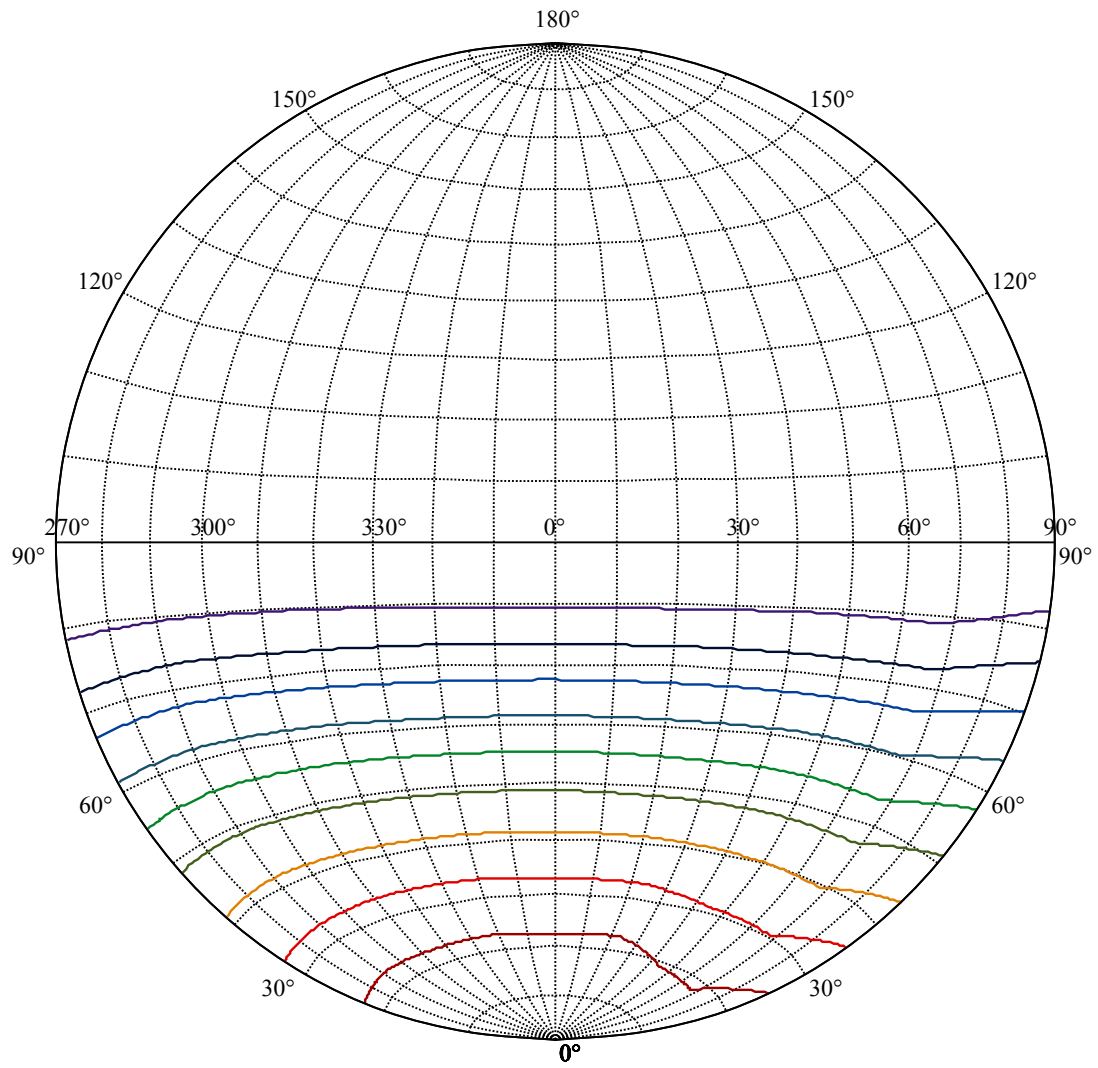


(10%I <sub>max</sub> ) 45.1057	—
(20%I <sub>max</sub> ) 90.2114	—
(30%I <sub>max</sub> ) 135.317	—
(40%I <sub>max</sub> ) 180.423	—
(50%I <sub>max</sub> ) 225.529	—
(60%I <sub>max</sub> ) 270.634	—
(70%I <sub>max</sub> ) 315.74	—
(80%I <sub>max</sub> ) 360.846	—
(90%I <sub>max</sub> ) 405.951	—

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

Date:  
Humidity(%): 58%











Operator: Tester



House

[Unit:cd]

Road

<b>Imax:451.56</b>	
(10%Imax) 45.1518	
(20%Imax) 90.3037	
(30%Imax) 135.456	
(40%Imax) 180.607	
(50%Imax) 225.759	
(60%Imax) 270.911	
(70%Imax) 316.063	
(80%Imax) 361.215	
(90%Imax) 406.367	

## Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	445.58	442.45	437.18	428.07	414.10	397.29	376.23	351.53	324.60
22.5	445.58	447.91	441.84	431.51	416.53	398.71	375.83	351.53	323.58
45.0	445.58	434.55	428.07	417.95	403.57	385.95	365.91	342.62	318.32
67.5	445.58	432.53	426.05	415.31	400.94	383.93	363.48	339.78	313.26
90.0	445.58	449.74	445.28	436.17	423.82	407.21	387.57	364.89	337.76
112.5	445.58	451.56	445.69	435.36	421.39	403.77	381.29	358.41	331.48
135.0	445.58	446.29	440.63	430.10	415.52	397.90	377.45	353.15	325.81
157.5	445.58	446.50	440.42	429.29	415.11	397.29	375.83	350.72	322.77
180.0	445.58	441.44	435.77	424.22	410.25	391.82	369.35	343.02	315.48
202.5	445.58	447.71	441.44	430.91	416.12	397.70	376.23	350.11	320.55
225.0	445.58	435.36	429.49	419.16	406.40	387.77	368.13	344.24	317.51
247.5	445.58	433.74	428.27	419.57	406.61	390.41	371.17	349.10	322.77
270.0	445.58	447.91	440.83	429.49	415.31	397.29	375.62	350.92	324.19
292.5	445.58	450.34	443.46	432.53	416.93	399.11	376.84	352.54	325.61
315.0	445.58	446.50	440.63	430.30	416.33	398.51	378.46	354.16	326.01
337.5	445.58	447.51	441.84	431.11	417.14	399.32	377.65	354.36	326.01
360.0	445.58	442.45	437.18	428.07	414.10	397.29	376.23	351.53	324.60
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	295.64	262.84	229.02	191.96	154.71	115.83	76.75	38.68	8.30
22.5	292.60	259.80	225.98	189.33	152.48	114.21	77.56	39.89	9.11
45.0	288.96	258.18	224.16	189.13	149.85	112.18	74.52	40.50	10.53
67.5	283.90	251.09	216.47	182.24	147.21	109.95	72.09	37.46	11.34
90.0	309.21	277.62	242.99	209.38	173.13	135.87	98.41	59.13	24.70
112.5	304.14	271.75	237.52	200.67	164.42	126.15	87.68	50.02	19.03
135.0	295.24	263.44	228.01	191.96	154.10	116.03	76.75	41.31	15.19
157.5	292.81	257.37	221.12	183.46	146.00	106.92	69.66	37.06	12.56
180.0	283.90	249.88	216.47	179.00	141.14	103.27	67.23	34.63	11.14
202.5	288.15	252.91	218.49	181.43	143.97	106.92	70.06	37.26	12.35
225.0	288.76	255.75	221.73	185.69	150.66	112.99	75.94	41.51	15.79
247.5	293.41	260.00	225.38	189.33	155.11	118.46	84.24	49.81	20.05
270.0	293.62	260.81	224.77	188.93	150.45	110.36	69.66	35.84	9.11
292.5	297.06	264.46	230.03	193.58	157.34	118.05	78.16	41.31	12.56
315.0	295.03	264.05	230.64	193.79	155.31	117.45	77.76	42.93	12.15
337.5	295.64	263.24	229.02	191.76	154.50	116.23	79.18	42.52	10.73
360.0	295.64	262.84	229.02	191.96	154.71	115.83	76.75	38.68	8.30
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	1.62	1.62	1.22	1.01	0.81	1.01	0.81	0.61	0.81
22.5	2.23	1.42	1.22	0.81	0.61	0.61	1.01	0.81	1.01
45.0	2.23	0.81	0.81	0.61	0.81	0.81	0.81	0.81	1.01
67.5	1.82	0.61	0.41	0.61	0.61	0.81	0.81	0.81	1.22
90.0	3.85	0.81	0.81	0.61	0.61	1.01	1.01	0.81	1.22
112.5	2.23	1.22	0.61	0.61	0.41	0.61	0.61	0.81	1.01
135.0	2.03	1.01	0.61	0.61	0.41	0.61	0.41	0.61	0.81
157.5	1.62	0.61	0.61	0.61	0.61	0.41	0.81	0.61	0.41
180.0	1.62	0.61	1.01	0.61	0.61	0.41	0.61	0.61	0.81
202.5	1.82	0.81	0.61	0.81	0.41	0.41	0.81	0.61	0.61
225.0	1.62	0.61	0.81	0.61	0.61	0.81	0.81	1.01	0.81
247.5	2.43	1.22	0.61	0.41	0.41	0.41	0.20	0.41	0.81
270.0	1.42	1.01	1.42	1.22	1.22	1.22	1.62	1.82	2.03
292.5	2.03	1.22	1.22	1.01	1.22	1.42	1.42	1.62	1.42
315.0	2.43	1.62	1.01	0.81	0.61	1.01	1.22	1.01	1.22
337.5	2.23	1.62	1.42	1.22	0.81	0.81	0.81	0.81	1.01
360.0	1.62	1.62	1.22	1.01	0.81	1.01	0.81	0.61	0.81

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	1.01	1.01	1.22	1.42	1.62	1.62	1.62	1.42	1.01
22.5	1.01	1.01	1.42	1.42	1.62	1.01	1.01	0.81	1.62
45.0	1.01	1.01	1.22	1.42	1.01	1.01	1.42	1.42	1.62
67.5	1.01	1.42	1.62	1.01	1.01	1.62	1.22	1.62	1.62
90.0	1.22	1.22	1.01	1.01	1.22	1.01	1.62	1.82	1.82
112.5	1.01	1.01	1.22	1.22	1.01	1.01	1.42	1.62	1.62
135.0	0.81	0.81	1.22	1.22	1.01	0.81	1.01	1.22	1.62
157.5	0.81	1.01	1.01	0.81	1.01	1.22	1.01	1.01	0.81
180.0	0.61	1.01	1.01	1.01	1.22	1.22	1.42	1.22	1.42
202.5	0.81	1.01	0.81	1.01	1.22	1.22	1.42	1.62	1.42
225.0	0.81	1.01	1.01	1.22	1.22	1.01	1.22	1.42	1.42
247.5	0.81	1.01	1.01	1.22	1.22	1.22	1.42	1.62	1.42
270.0	1.82	2.03	2.23	2.03	2.43	2.43	2.23	2.43	2.63
292.5	1.62	1.62	2.03	2.03	1.82	1.82	1.62	1.82	1.42
315.0	1.22	1.22	1.82	1.62	1.82	1.62	2.03	1.82	1.62
337.5	1.42	1.42	1.42	1.62	1.62	1.82	1.82	1.82	1.82
360.0	1.01	1.01	1.22	1.42	1.62	1.62	1.62	1.42	1.01

C/γ(°)	180.0
0.0	1.70
22.5	1.70
45.0	1.70
67.5	1.70
90.0	1.70
112.5	1.70
135.0	1.70
157.5	1.70
180.0	1.70
202.5	1.70
225.0	1.70
247.5	1.70
270.0	1.70
292.5	1.70
315.0	1.70
337.5	1.70
360.0	1.70