



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.09

LampCAT:

Current(A): 0.1330

Lamp flux(lm): -1.0

Power (W): 15.85

Number of Lamps: 1

PF: 0.9924

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1041.07, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 65.68

Central intensity(cd): 371.613, Maximum intensity(cd): 379.290

Angle of maximum intensity: C=112.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=109.1

[C90/270]Total=113.7

Field angle(10%Imax): [C0/180]Total=157.3

[C90/270]Total=161.0

Maximum s/h(1/2): C0_180=1.27 C90_270=1.29

Maximum s/h(1/4): C0_180=1.39 C90_270=1.41

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.44%

Down flux rate of LUM(%): 99.56%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.371%

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	371.613	0.000	0	0.00%	0.00%
5.0	370.066	8.867	8.867	0.00%	0.85%
10.0	364.783	26.288	35.154	0.00%	3.38%
15.0	356.074	42.761	77.915	0.00%	7.48%
20.0	344.391	57.728	135.643	0.00%	13.03%
25.0	329.356	70.664	206.307	0.00%	19.82%
30.0	311.549	81.107	287.414	0.00%	27.61%
35.0	291.244	88.766	376.18	0.00%	36.13%
40.0	268.768	93.434	469.614	0.00%	45.11%
45.0	243.933	94.931	564.544	0.00%	54.23%
50.0	217.203	93.179	657.724	0.00%	63.18%
55.0	188.792	88.277	746.001	0.00%	71.66%
60.0	158.623	80.304	826.305	0.00%	79.37%
65.0	127.300	69.509	895.813	0.00%	86.05%
70.0	95.086	56.310	952.123	0.00%	91.46%
75.0	63.575	41.471	993.594	0.00%	95.44%
80.0	34.749	26.309	1019.903	0.00%	97.97%
85.0	12.261	12.774	1032.677	0.00%	99.19%
90.0	1.569	3.787	1036.463	0.00%	99.56%
95.0	0.515	0.570	1037.034	0.00%	99.61%
100.0	0.515	0.280	1037.313	0.00%	99.64%
105.0	0.502	0.272	1037.585	0.00%	99.67%
110.0	0.565	0.279	1037.864	0.00%	99.69%
115.0	0.577	0.289	1038.153	0.00%	99.72%
120.0	0.615	0.290	1038.443	0.00%	99.75%
125.0	0.653	0.293	1038.736	0.00%	99.78%
130.0	0.766	0.308	1039.044	0.00%	99.81%
135.0	0.791	0.314	1039.359	0.00%	99.84%
140.0	0.853	0.304	1039.663	0.00%	99.87%
145.0	0.916	0.295	1039.958	0.00%	99.89%
150.0	0.954	0.275	1040.234	0.00%	99.92%
155.0	0.954	0.241	1040.475	0.00%	99.94%
160.0	1.017	0.207	1040.682	0.00%	99.96%
165.0	1.017	0.168	1040.849	0.00%	99.98%
170.0	1.017	0.121	1040.97	0.00%	99.99%
175.0	1.029	0.073	1041.043	0.00%	100.00%
180.0	1.016	0.024	1041.068	0.00%	100.00%

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

Date:
Humidity(%): 58%

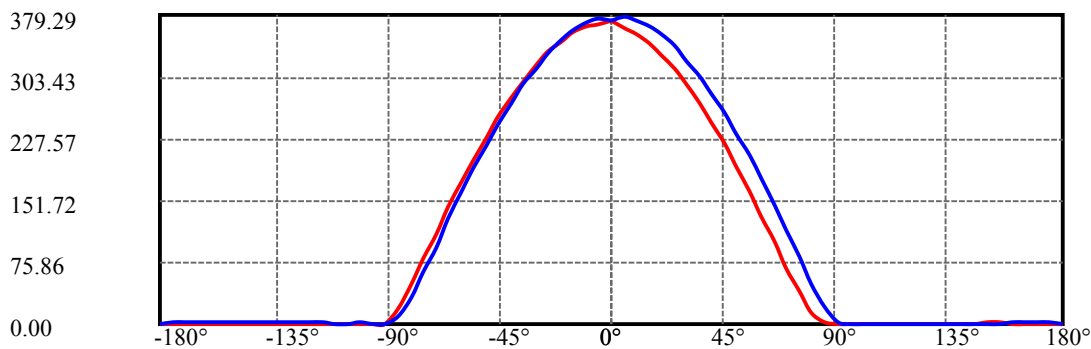
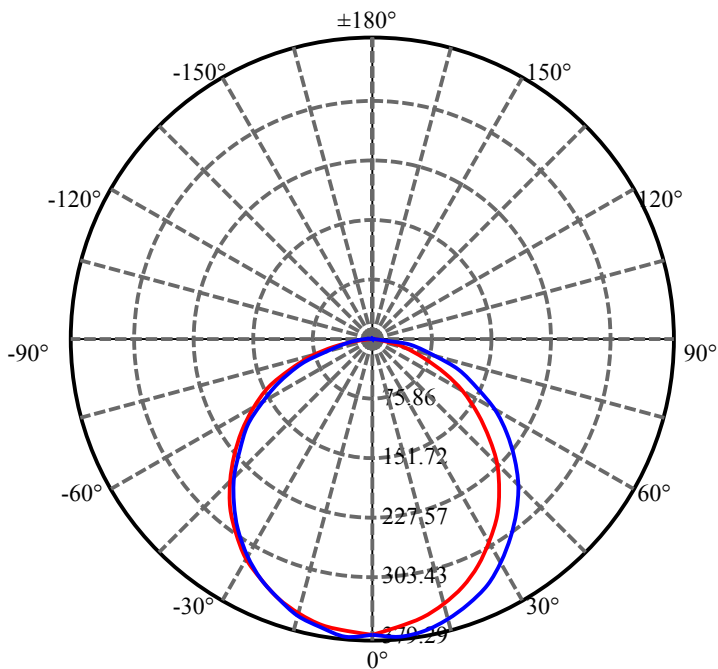
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	287.41	N.A.	27.61%
0-40	469.61	N.A.	45.11%
0-60	826.30	N.A.	79.37%
0-90	1036.46	N.A.	99.56%
0-120	1038.44	N.A.	99.75%
0-180	1041.07	N.A.	100.00%
60-90	210.16	N.A.	20.19%
90-120	1.98	N.A.	0.19%
90-130	2.58	N.A.	0.25%
90-150	3.77	N.A.	0.36%
90-180	4.58	N.A.	0.44%
0-60.47	832.85	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	35.15
10-20	100.49
20-30	151.77
30-40	182.20
40-50	188.11
50-60	168.58
60-70	125.82
70-80	67.78
80-90	16.56
90-100	0.85
100-110	0.55
110-120	0.58
120-130	0.60
130-140	0.62
140-150	0.57
150-160	0.45
160-170	0.29
170-180	0.07

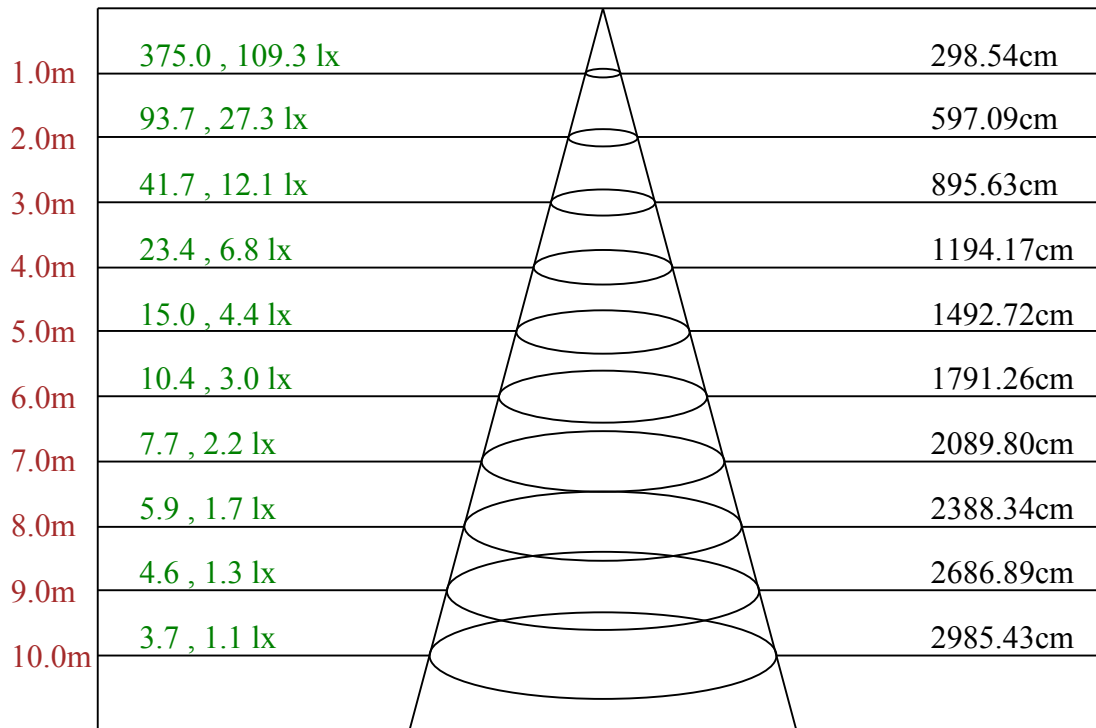


C0/C180: —

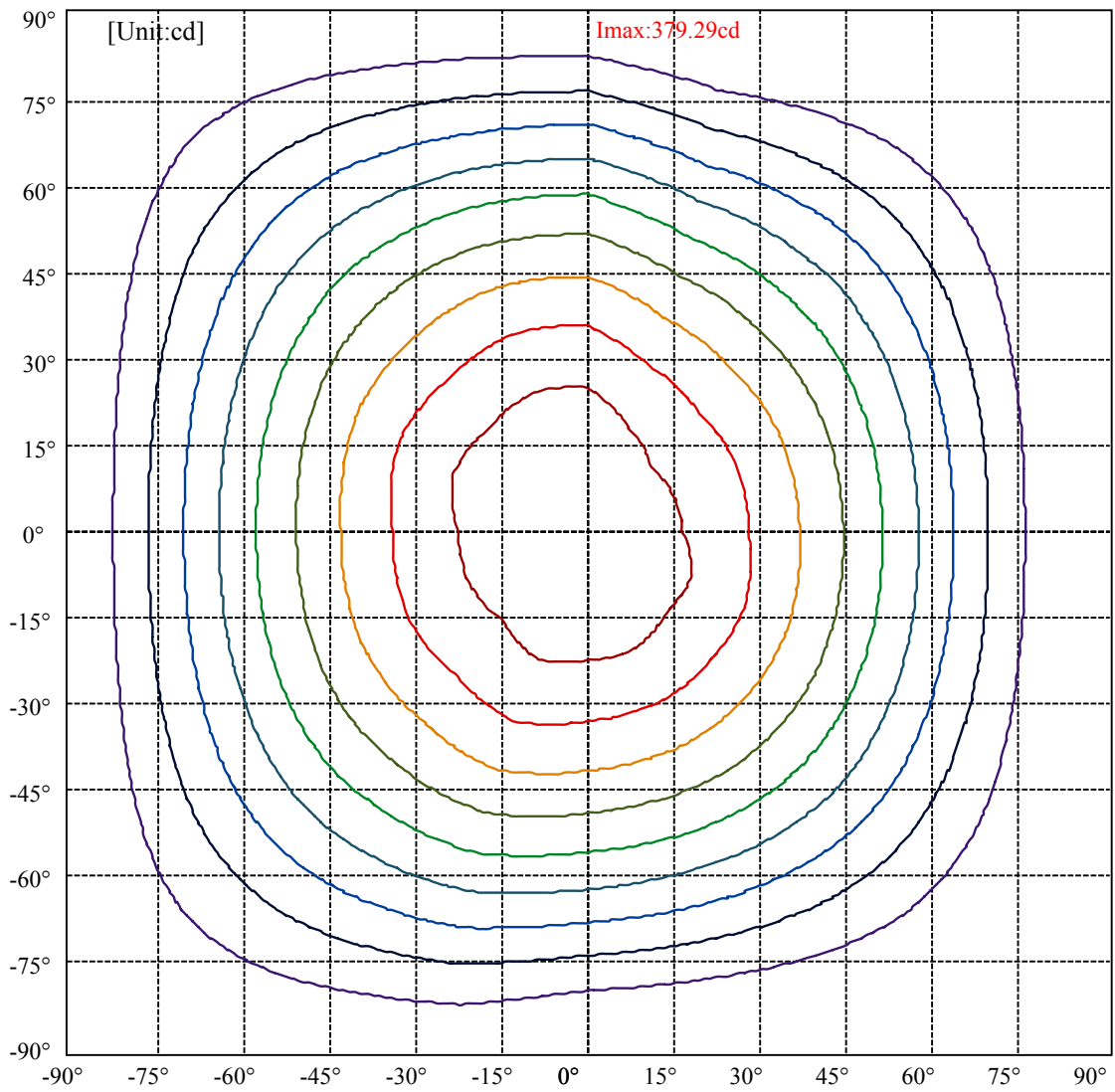
C90/C270: —

Field angle(10%Imax):C0/180Left:81.9 Right:75.4
:C90/270Left:79.1 Right:81.9

Beam Angle(50%Imax):C0/180Left:57.8 Right:51.3
:C90/270Left:55.4 Right:58.3



Max , Ave Beam angle of C112.5 plane 112.36

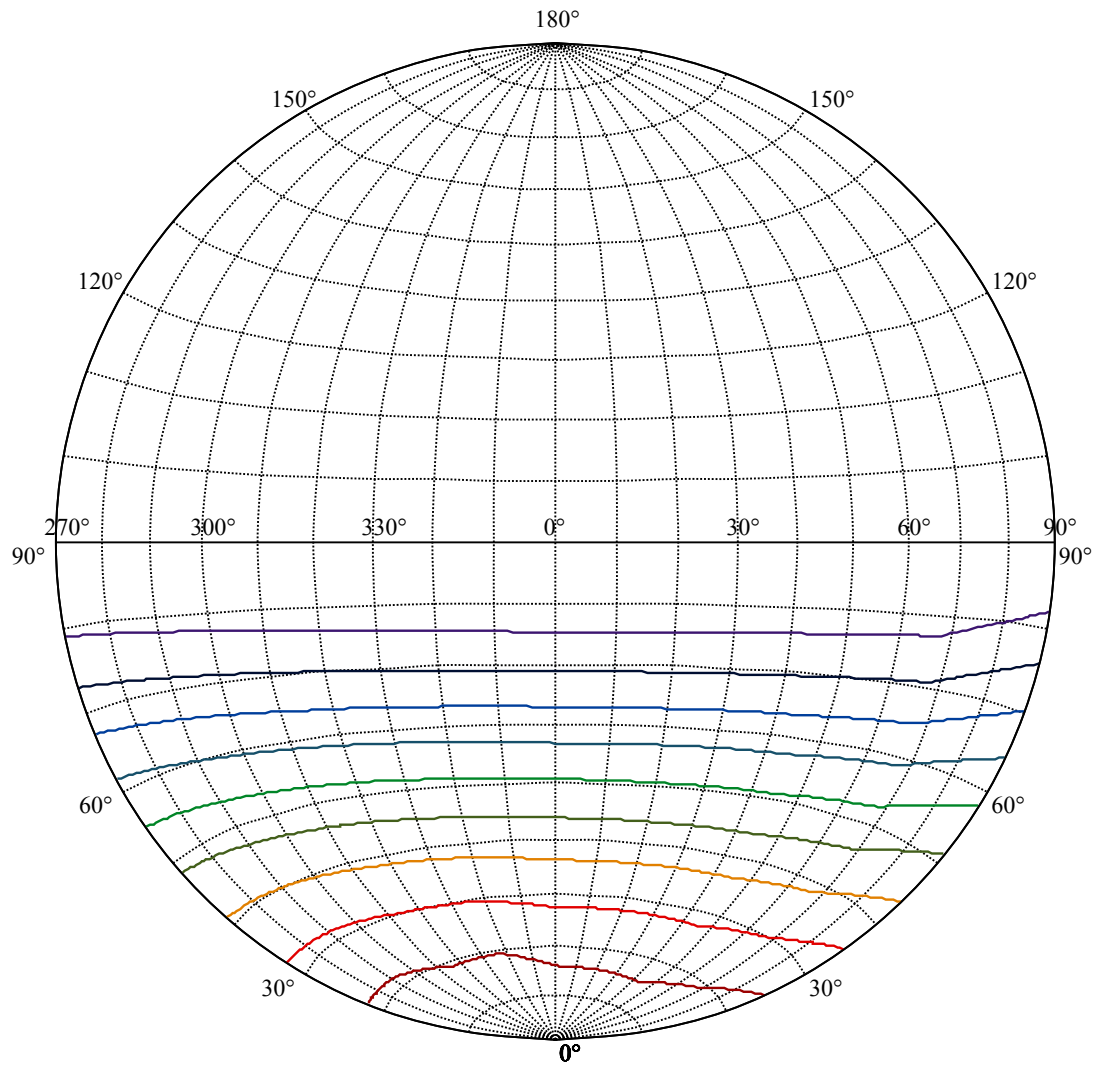


(10%I _{max}) 37.8898	—
(20%I _{max}) 75.7796	—
(30%I _{max}) 113.669	—
(40%I _{max}) 151.559	—
(50%I _{max}) 189.449	—
(60%I _{max}) 227.339	—
(70%I _{max}) 265.228	—
(80%I _{max}) 303.118	—
(90%I _{max}) 341.008	—

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

Imax:379.29

(10%Imax) 37.9228	
(20%Imax) 75.8455	
(30%Imax) 113.768	
(40%Imax) 151.691	
(50%Imax) 189.614	
(60%Imax) 227.537	
(70%Imax) 265.459	
(80%Imax) 303.382	
(90%Imax) 341.305	

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	371.61	363.23	355.40	344.35	330.50	313.63	293.75	271.87	247.97
22.5	371.61	362.02	354.79	343.55	330.10	313.63	294.56	272.27	247.97
45.0	371.61	359.61	352.79	342.55	329.29	313.03	294.16	272.47	249.78
67.5	371.61	368.65	361.42	351.78	338.13	322.27	303.59	281.91	258.42
90.0	371.61	376.48	372.26	364.83	354.79	340.54	323.87	304.80	283.72
112.5	371.61	379.29	375.27	367.85	357.61	343.35	326.88	308.01	286.33
135.0	371.61	373.47	370.05	363.23	352.99	339.13	322.87	303.19	282.11
157.5	371.61	376.68	372.66	365.84	355.20	341.94	325.48	306.20	283.72
180.0	371.61	367.64	364.63	357.40	347.16	333.91	317.05	297.97	277.69
202.5	371.61	366.24	363.43	357.20	347.37	333.71	317.45	299.58	277.89
225.0	371.61	363.43	360.42	353.39	343.55	330.70	314.44	295.96	275.28
247.5	371.61	371.46	367.64	360.42	350.98	337.13	320.86	302.59	281.31
270.0	371.61	375.07	369.05	359.81	347.77	332.11	313.83	293.35	271.07
292.5	371.61	376.28	369.65	359.61	346.56	329.90	310.62	288.94	265.04
315.0	371.61	369.25	362.42	351.98	338.73	322.67	303.79	282.11	258.82
337.5	371.61	372.26	364.63	353.39	339.53	322.07	301.59	278.70	253.20
360.0	371.61	363.23	355.40	344.35	330.50	313.63	293.75	271.87	247.97
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	221.87	193.56	163.04	131.92	100.60	68.87	38.95	14.86	1.81
22.5	221.27	193.16	164.25	132.92	101.80	68.87	40.96	16.06	2.01
45.0	223.48	195.57	166.25	136.34	105.01	73.49	43.57	18.47	2.61
67.5	232.92	205.01	175.89	144.77	113.25	80.92	49.60	22.89	5.42
90.0	260.02	234.12	206.41	178.90	147.18	114.85	81.52	48.59	20.08
112.5	262.23	236.33	208.62	178.10	146.58	113.25	81.12	49.19	21.48
135.0	259.42	234.92	207.21	176.49	144.17	113.45	79.11	48.19	21.08
157.5	260.02	233.32	205.01	174.08	143.97	111.44	78.91	48.79	19.68
180.0	253.80	228.50	201.39	173.48	142.96	111.64	81.12	48.79	18.87
202.5	254.60	228.90	202.40	173.08	142.36	111.04	78.71	47.59	18.47
225.0	252.99	227.49	200.59	171.88	142.96	111.24	79.11	48.19	20.88
247.5	257.41	231.31	204.20	174.69	144.37	112.24	79.51	49.60	22.09
270.0	245.97	219.06	190.35	162.04	129.51	95.17	62.65	32.13	9.04
292.5	238.34	211.63	182.32	150.59	118.87	85.74	53.81	25.30	6.63
315.0	232.51	204.81	174.49	142.56	109.43	77.71	46.78	20.28	3.82
337.5	226.09	197.58	168.26	136.14	103.81	71.48	41.76	17.07	2.21
360.0	221.87	193.56	163.04	131.92	100.60	68.87	38.95	14.86	1.81
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.80	0.60	0.40	0.60	0.60	0.60	0.80	1.00	0.80
22.5	0.60	0.60	0.80	0.60	0.80	0.80	0.80	0.80	0.80
45.0	1.00	0.80	0.60	0.40	0.80	0.80	0.80	0.80	1.00
67.5	1.21	0.60	0.80	0.60	0.60	0.60	0.60	0.60	0.80
90.0	2.81	0.40	0.80	0.60	0.60	0.80	0.60	0.80	0.80
112.5	3.41	0.20	0.40	0.20	0.40	0.60	0.20	0.40	0.60
135.0	2.01	0.40	0.20	0.20	0.40	0.20	0.40	0.40	0.60
157.5	1.41	0.60	0.40	0.20	0.20	0.20	0.20	0.40	0.40
180.0	1.00	0.20	0.40	0.00	0.20	0.20	0.20	0.40	0.60
202.5	1.41	0.00	0.00	0.40	0.60	0.20	0.40	0.20	0.20
225.0	2.21	0.40	0.20	0.60	0.20	0.40	0.40	0.40	0.60
247.5	3.01	0.20	0.20	0.40	0.20	0.40	0.40	0.40	0.40
270.0	0.80	1.00	1.21	1.00	1.00	1.21	1.41	1.41	1.41
292.5	1.41	0.80	0.60	0.60	0.80	0.80	1.00	0.80	1.21
315.0	1.21	0.80	0.80	0.80	0.80	0.60	0.80	0.80	1.00
337.5	0.80	0.60	0.40	0.80	0.80	0.80	0.80	0.80	1.00
360.0	0.80	0.60	0.40	0.60	0.60	0.60	0.80	1.00	0.80

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

Operator: Tester

Intensity data(cd)

Appendix Page: 9 Total:9

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.00	0.80	1.00	1.21	1.21	0.80	1.00	0.80	1.00
22.5	1.00	1.00	1.00	1.00	1.21	1.00	1.00	1.00	1.00
45.0	0.80	1.00	1.21	1.00	1.00	0.80	1.00	0.80	1.00
67.5	1.00	0.80	1.00	1.21	0.80	1.21	1.00	1.21	0.80
90.0	0.60	1.00	1.00	1.00	1.00	1.21	1.21	1.21	1.21
112.5	0.60	0.80	0.80	0.80	0.80	1.00	1.00	1.00	0.80
135.0	0.40	0.60	0.80	0.60	1.00	1.00	0.80	0.80	1.00
157.5	0.60	0.60	0.60	0.60	0.60	1.00	0.80	0.80	1.21
180.0	0.60	0.60	0.80	0.80	0.80	0.80	1.00	1.00	1.00
202.5	0.40	0.60	0.60	0.80	0.80	0.80	1.00	1.00	1.00
225.0	0.60	0.60	0.60	0.80	0.80	1.00	0.80	0.80	0.80
247.5	0.60	0.60	0.60	0.80	0.80	0.80	0.80	1.21	1.00
270.0	1.81	1.41	1.61	1.21	1.41	1.61	1.61	1.61	1.41
292.5	1.00	1.21	1.21	1.21	1.21	1.21	1.21	1.00	1.00
315.0	0.80	1.00	1.00	1.00	0.80	1.00	1.00	1.00	1.21
337.5	0.80	1.00	0.80	1.21	1.00	1.00	1.00	1.00	1.00
360.0	1.00	0.80	1.00	1.21	1.21	0.80	1.00	0.80	1.00
C/γ(°)	180.0								
0.0	1.02								
22.5	1.02								
45.0	1.02								
67.5	1.02								
90.0	1.02								
112.5	1.02								
135.0	1.02								
157.5	1.02								
180.0	1.02								
202.5	1.02								
225.0	1.02								
247.5	1.02								
270.0	1.02								
292.5	1.02								
315.0	1.02								
337.5	1.02								
360.0	1.02								

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

Operator: Tester