



Shenzhen Belling Efficiency Testing Lab Co.,Ltd  
www.bellingeel.com

Tel:+86 755-21038430

Address:1Floor, No.1 Building,Meibaohe Industrial Park,Dalang Street,Longhua District,Shenzhen,Guangdong Prov.518101 China

---

Report No	:	Voltage	:	120.02 V
Test No	:	Current	:	0.207 A
LumCAT	:	Power	:	24.585 W
Luminaire	:	PF	:	0.9898
LampCAT	:	Ballast type	:	
Lamp flux	:	Width	:	0 mm
Number of Lamps	:	Length	:	0 mm
Phm Type	:	Height	:	0 mm

### Photometric Results

---

Lumens(lm)	:	1646.06	Central intensity(cd)	:	531.618
Efficiency(%)	:	100.00%	Maximum intensity(cd)	:	539.943
Luminous Efficacy(lm/W)	:	66.95	Angle of maximum intensity	:	C=90.0 $\gamma$ =0.0
Beam Angle(50%Imax)	:	[C0/180]Total=113.9 [C90/270]Total=114.1			
Field angle(10%Imax)	:	[C0/180]Total=173.0 [C90/270]Total=173.2			
Maximum s/h(1/2)	:	C0_180=1.28 C90_270=1.29			
Maximum s/h(1/4)	:	C0_180=1.39 C90_270=1.40			
Up flux rate of lamp(%)	:	2.18%			
Down flux rate of lamp(%)	:	97.82%			
Up flux rate of LUM(%)	:	2.18%			
Down flux rate of LUM(%)	:	97.82%			
CIE Type	:	Direct lighting			
Output flux ratio in $\pi$ solid angle	:	73.832%			

---

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

Date:  
Humidity(%): 59%

Operator: Zac

## Zonal flux distribution table

Appendix Page: 2 Total:7

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	533.902	0.000	0	0.00%	0.00%
5.0	531.618	12.738	12.738	0.77%	0.77%
10.0	525.018	37.799	50.537	2.30%	3.07%
15.0	513.774	61.620	112.158	3.74%	6.81%
20.0	498.341	83.412	195.57	5.07%	11.88%
25.0	478.466	102.449	298.019	6.22%	18.10%
30.0	455.089	118.142	416.161	7.18%	25.28%
35.0	427.294	129.937	546.098	7.89%	33.18%
40.0	395.845	137.335	683.433	8.34%	41.52%
45.0	361.223	140.177	823.61	8.52%	50.04%
50.0	323.732	138.405	962.015	8.41%	58.44%
55.0	283.425	132.016	1094.031	8.02%	66.46%
60.0	241.340	121.298	1215.329	7.37%	73.83%
65.0	199.179	107.091	1322.42	6.51%	80.34%
70.0	158.668	90.609	1413.029	5.50%	85.84%
75.0	121.584	73.253	1486.282	4.45%	90.29%
80.0	88.409	56.188	1542.471	3.41%	93.71%
85.0	60.640	40.500	1582.971	2.46%	96.17%
90.0	38.582	27.168	1610.138	1.65%	97.82%
95.0	21.779	16.527	1626.665	1.00%	98.82%
100.0	10.433	8.753	1635.418	0.53%	99.35%
105.0	3.807	3.810	1639.228	0.23%	99.58%
110.0	1.345	1.347	1640.575	0.08%	99.67%
115.0	1.447	0.707	1641.282	0.04%	99.71%
120.0	1.625	0.747	1642.028	0.05%	99.75%
125.0	1.548	0.733	1642.762	0.04%	99.80%
130.0	1.421	0.646	1643.407	0.04%	99.84%
135.0	1.294	0.549	1643.956	0.03%	99.87%
140.0	1.142	0.451	1644.407	0.03%	99.90%
145.0	1.066	0.368	1644.775	0.02%	99.92%
150.0	1.193	0.333	1645.108	0.02%	99.94%
155.0	1.142	0.295	1645.404	0.02%	99.96%
160.0	1.091	0.234	1645.638	0.01%	99.97%
165.0	1.117	0.182	1645.82	0.01%	99.99%
170.0	1.117	0.132	1645.952	0.01%	99.99%
175.0	1.167	0.082	1646.034	0.00%	100.00%
180.0	1.269	0.029	1646.063	0.00%	100.00%

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

Date:  
Humidity(%): 59%

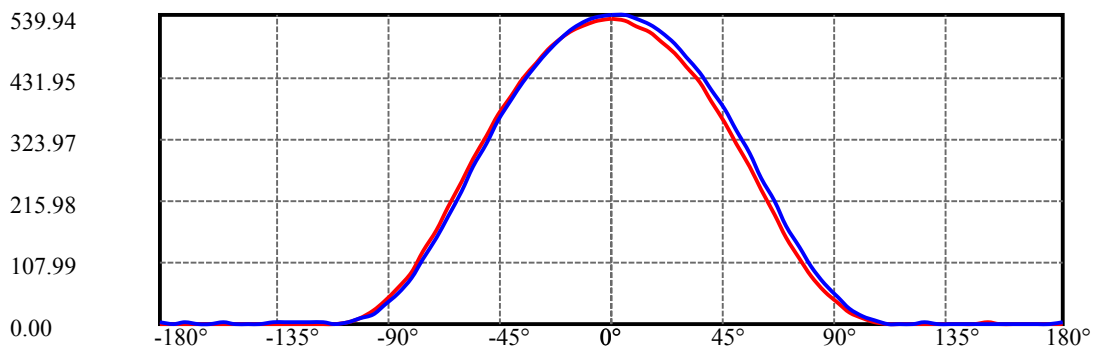
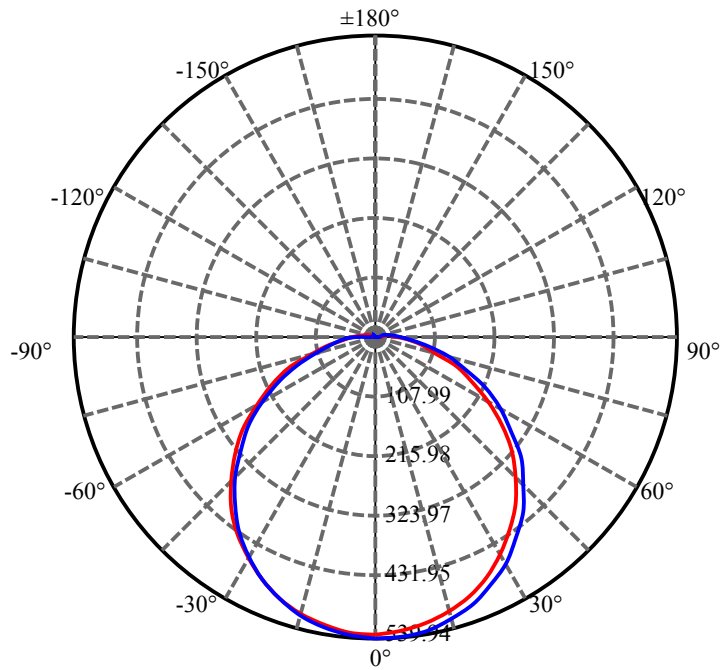
Operator: Zac

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	416.16	25.28%	25.28%
0-40	683.43	41.52%	41.52%
0-60	1215.33	73.83%	73.83%
0-90	1610.14	97.82%	97.82%
0-120	1642.03	99.76%	99.75%
0-180	1646.06	100.00%	100.00%
60-90	394.81	23.99%	23.99%
90-120	31.89	1.94%	1.94%
90-130	33.27	2.02%	2.02%
90-150	34.97	2.12%	2.12%
90-180	35.90	2.18%	2.18%
0-64.74	1316.85	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	50.54
10-20	145.03
20-30	220.59
30-40	267.27
40-50	278.58
50-60	253.31
60-70	197.70
70-80	129.44
80-90	67.67
90-100	25.28
100-110	5.16
110-120	1.45
120-130	1.38
130-140	1.00
140-150	0.70
150-160	0.53
160-170	0.31
170-180	0.08

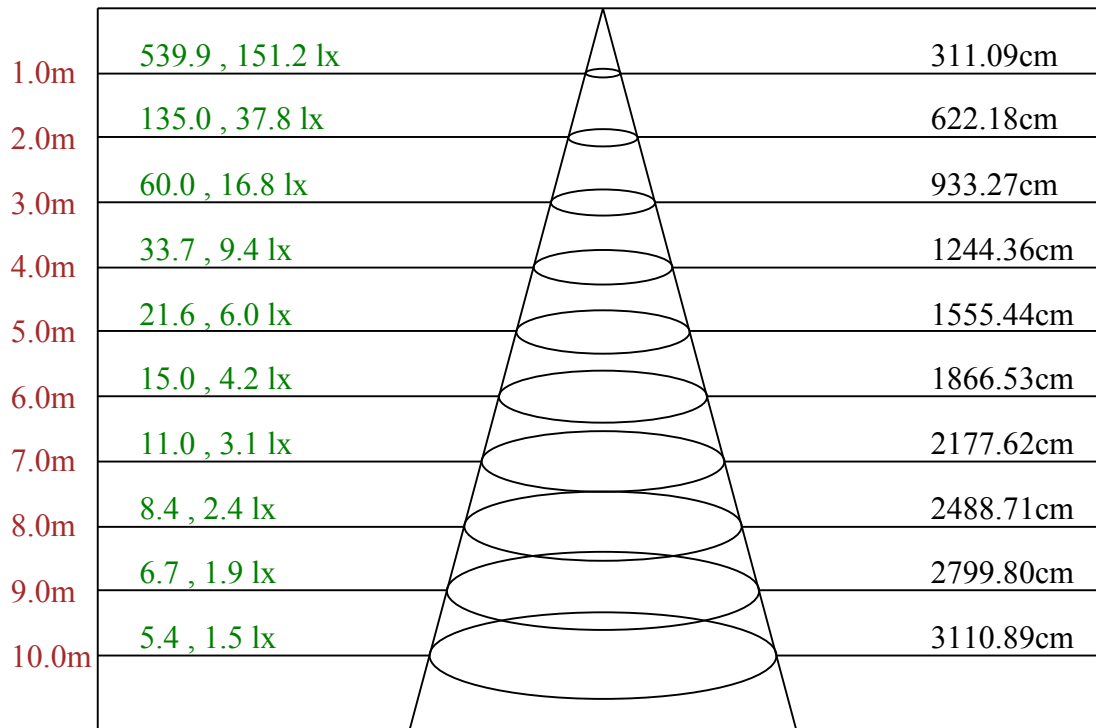


C0/C180: —

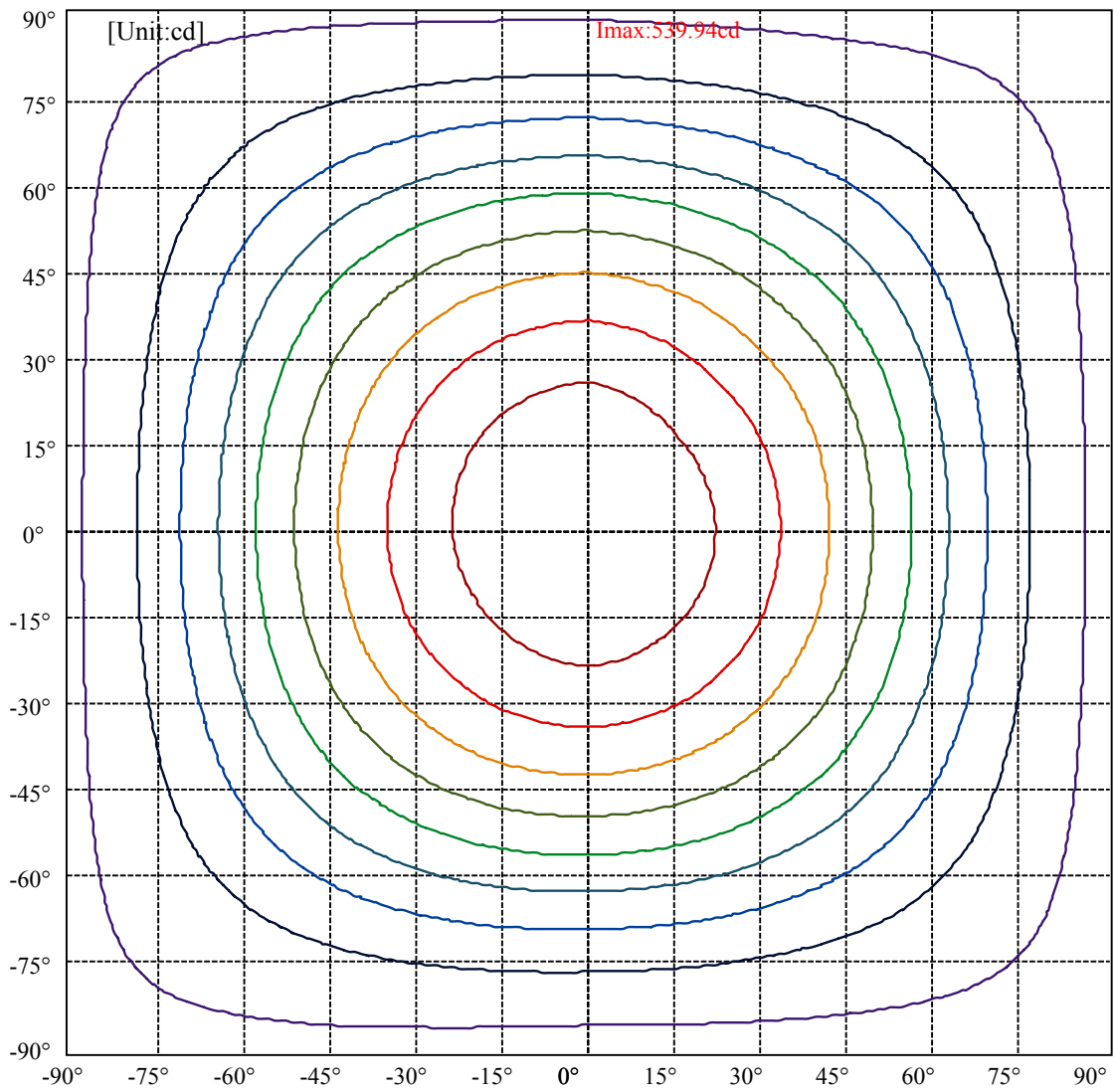
C90/C270: —

Field angle(10%Imax):C0/180Left:87.3 Right:85.8  
:C90/270Left:85.0 Right:88.2

Beam Angle(50%Imax):C0/180Left:57.7 Right:56.2  
:C90/270Left:55.7 Right:58.4



Max , Ave      Beam angle of C90 plane 114.53



(10%Imax) 53.9943	—
(20%Imax) 107.989	—
(30%Imax) 161.983	—
(40%Imax) 215.977	—
(50%Imax) 269.971	—
(60%Imax) 323.966	—
(70%Imax) 377.96	—
(80%Imax) 431.954	—
(90%Imax) 485.949	—

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

Date:  
Humidity(%): 59%

Operator: Zac

## Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	531.62	528.78	521.47	509.69	493.65	473.34	449.38	421.36	389.27
45.0	529.79	527.56	520.86	510.09	494.46	474.56	450.60	423.79	392.32
90.0	539.94	538.73	533.85	523.29	508.88	489.58	467.65	440.65	409.58
135.0	534.26	533.04	527.56	517.20	503.19	484.51	461.76	434.76	405.11
180.0	531.62	529.99	523.90	513.34	498.72	479.63	457.09	429.88	398.82
225.0	529.79	527.56	521.26	510.09	494.66	474.96	452.22	424.20	393.13
270.0	539.94	536.29	528.37	515.98	499.13	477.81	453.64	424.20	391.50
315.0	534.26	531.01	522.89	510.50	494.05	473.34	448.36	419.53	387.04
360.0	531.62	528.78	521.47	509.69	493.65	473.34	449.38	421.36	389.27
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	352.72	316.78	275.96	233.52	191.08	152.09	115.34	83.05	56.45
45.0	357.80	319.42	278.81	238.19	196.36	156.56	119.60	87.72	59.29
90.0	375.67	339.11	298.71	256.47	214.43	172.20	134.22	99.10	69.65
135.0	371.20	334.24	295.25	253.63	210.58	169.15	132.80	96.86	67.42
180.0	364.70	328.56	288.76	246.52	205.09	164.08	126.31	92.19	63.76
225.0	360.03	322.26	281.85	240.02	198.60	157.58	119.60	87.32	60.31
270.0	355.36	316.17	275.96	232.91	189.25	149.86	113.31	81.02	54.02
315.0	352.31	313.33	272.10	229.46	188.04	147.83	111.48	80.01	54.22
360.0	352.72	316.78	275.96	233.52	191.08	152.09	115.34	83.05	56.45
C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	36.15	20.31	9.34	3.45	1.22	1.42	1.42	1.63	1.42
45.0	36.75	19.90	9.14	3.05	1.42	1.63	1.63	1.22	1.22
90.0	45.28	27.01	14.01	5.48	0.81	1.02	1.63	2.03	1.63
135.0	44.07	25.59	12.39	4.47	1.22	0.81	1.22	0.81	0.61
180.0	40.21	22.34	10.15	4.26	1.63	1.42	1.22	1.22	1.22
225.0	38.58	22.54	11.37	3.86	1.22	1.22	1.42	1.02	1.22
270.0	33.71	18.07	8.53	3.25	1.42	2.03	2.64	2.64	2.64
315.0	33.91	18.48	8.53	2.64	1.83	2.03	1.83	1.83	1.42
360.0	36.15	20.31	9.34	3.45	1.22	1.42	1.42	1.63	1.42
C/ $\gamma$ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.42	1.02	1.22	1.83	1.22	0.81	1.22	1.02	1.22
45.0	1.22	1.22	1.02	1.02	1.02	0.81	1.02	1.22	1.22
90.0	1.42	1.22	1.22	1.02	1.22	1.22	1.22	1.02	1.22
135.0	0.61	0.81	0.81	1.02	0.81	0.81	1.02	0.81	1.02
180.0	1.22	1.02	0.61	0.81	0.81	1.02	0.81	1.02	0.81
225.0	0.81	0.81	1.02	1.22	1.02	1.02	0.81	1.02	1.02
270.0	2.44	1.63	1.42	1.63	1.83	1.63	1.63	1.83	1.63
315.0	1.22	1.42	1.22	1.02	1.22	1.42	1.22	1.02	1.22
360.0	1.42	1.02	1.22	1.83	1.22	0.81	1.22	1.02	1.22
C/ $\gamma$ (°)	180.0								
0.0	1.02								
45.0	1.02								
90.0	1.83								
135.0	1.22								
180.0	1.02								
225.0	1.02								
270.0	1.83								
315.0	1.22								
360.0	1.02								