



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

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Report No	:	Voltage	:	120.08 V
Test No	:	Current	:	0.4081 A
LumCAT	:	Power	:	48.356 W
Luminaire	:	PF	:	0.9869
LampCAT	:	Ballast type	:	
Lamp flux	:	Width	:	0 mm
Number of Lamps	:	Length	:	0 mm
Phm Type	:	Height	:	0 mm

### Photometric Results

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Lumens(lm)	:	2336.70	Central intensity(cd)	:	575.479
Efficiency(%)	:	100.00%	Maximum intensity(cd)	:	632.946
Luminous Efficacy(lm/W)	:	48.32	Angle of maximum intensity	:	C=90.0 $\gamma$ =0.0
Beam Angle(50%Imax)	:	[C0/180]Total=132.6 [C90/270]Total=113.4			
Field angle(10%Imax)	:	[C0/180]Total=286.8 [C90/270]Total=162.3			
Maximum s/h(1/2)	:	C0_180=1.37 C90_270=1.28			
Maximum s/h(1/4)	:	C0_180=1.50 C90_270=1.39			
Up flux rate of lamp(%)	:	11.31%			
Down flux rate of lamp(%)	:	88.69%			
Up flux rate of LUM(%)	:	11.31%			
Down flux rate of LUM(%)	:	88.69%			
CIE Type	:	Semidirect lighting			
Output flux ratio in $\pi$ solid angle	:	64.319%			

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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	615.940	0.000	0	0.00%	0.00%
5.0	616.523	14.734	14.734	0.63%	0.63%
10.0	612.792	43.976	58.71	1.88%	2.51%
15.0	603.908	72.174	130.884	3.09%	5.60%
20.0	590.354	98.424	229.308	4.21%	9.81%
25.0	572.179	121.928	351.236	5.22%	15.03%
30.0	549.157	141.906	493.142	6.07%	21.10%
35.0	521.693	157.690	650.832	6.75%	27.85%
40.0	490.142	168.817	819.649	7.22%	35.08%
45.0	454.429	174.895	994.544	7.48%	42.56%
50.0	414.349	175.549	1170.094	7.51%	50.07%
55.0	372.645	171.119	1341.212	7.32%	57.40%
60.0	327.032	161.728	1502.941	6.92%	64.32%
65.0	278.678	147.249	1650.19	6.30%	70.62%
70.0	228.927	128.529	1778.719	5.50%	76.12%
75.0	179.050	106.639	1885.358	4.56%	80.68%
80.0	131.889	83.199	1968.556	3.56%	84.25%
85.0	93.003	61.108	2029.665	2.62%	86.86%
90.0	63.559	42.868	2072.532	1.83%	88.69%
95.0	63.127	34.688	2107.22	1.48%	90.18%
100.0	55.893	32.341	2139.561	1.38%	91.56%
105.0	31.983	23.513	2163.074	1.01%	92.57%
110.0	29.292	16.016	2179.09	0.69%	93.26%
115.0	40.536	17.681	2196.771	0.76%	94.01%
120.0	49.725	21.943	2218.713	0.94%	94.95%
125.0	50.309	23.123	2241.836	0.99%	95.94%
130.0	47.466	21.259	2263.095	0.91%	96.85%
135.0	44.445	18.572	2281.667	0.79%	97.64%
140.0	40.562	15.740	2297.407	0.67%	98.32%
145.0	35.739	12.730	2310.137	0.54%	98.86%
150.0	29.368	9.587	2319.725	0.41%	99.27%
155.0	21.931	6.492	2326.217	0.28%	99.55%
160.0	17.565	4.142	2330.359	0.18%	99.73%
165.0	16.042	2.770	2333.129	0.12%	99.85%
170.0	17.032	1.962	2335.091	0.08%	99.93%
175.0	16.042	1.183	2336.274	0.05%	99.98%
180.0	19.596	0.426	2336.7	0.02%	100.00%

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

Date:  
Humidity(%): 59%

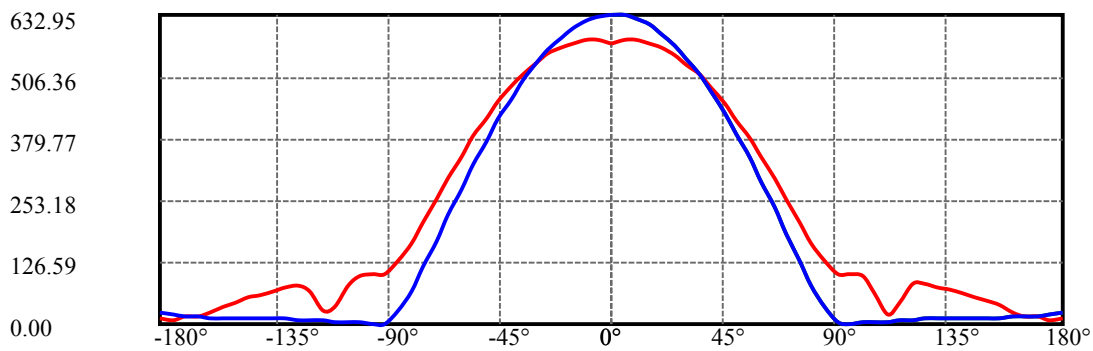
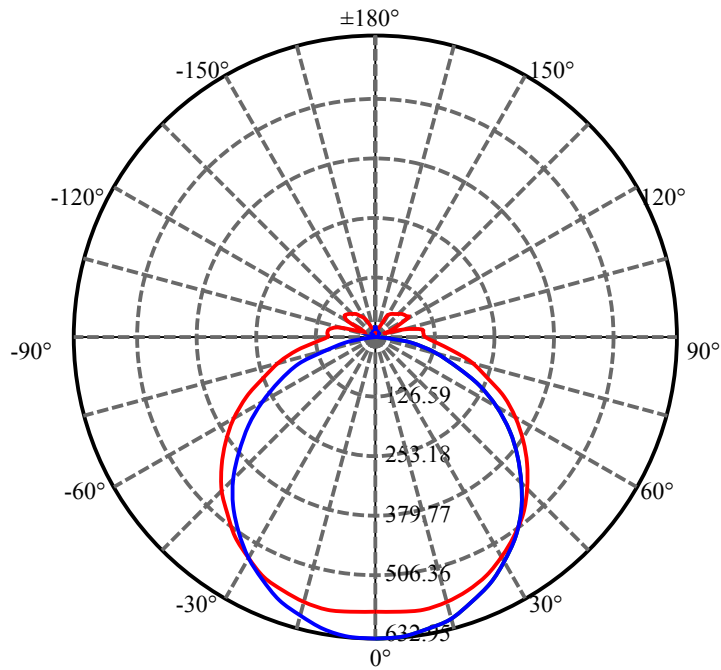
Operator: Zac

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	493.14	21.10%	21.10%
0-40	819.65	35.08%	35.08%
0-60	1502.94	64.32%	64.32%
0-90	2072.53	88.69%	88.69%
0-120	2218.71	94.95%	94.95%
0-180	2336.70	100.00%	100.00%
60-90	569.59	24.38%	24.38%
90-120	146.18	6.26%	6.26%
90-130	190.56	8.16%	8.16%
90-150	247.19	10.58%	10.58%
90-180	263.74	11.29%	11.29%
0-74.25	1869.36	80.00%	80.00%

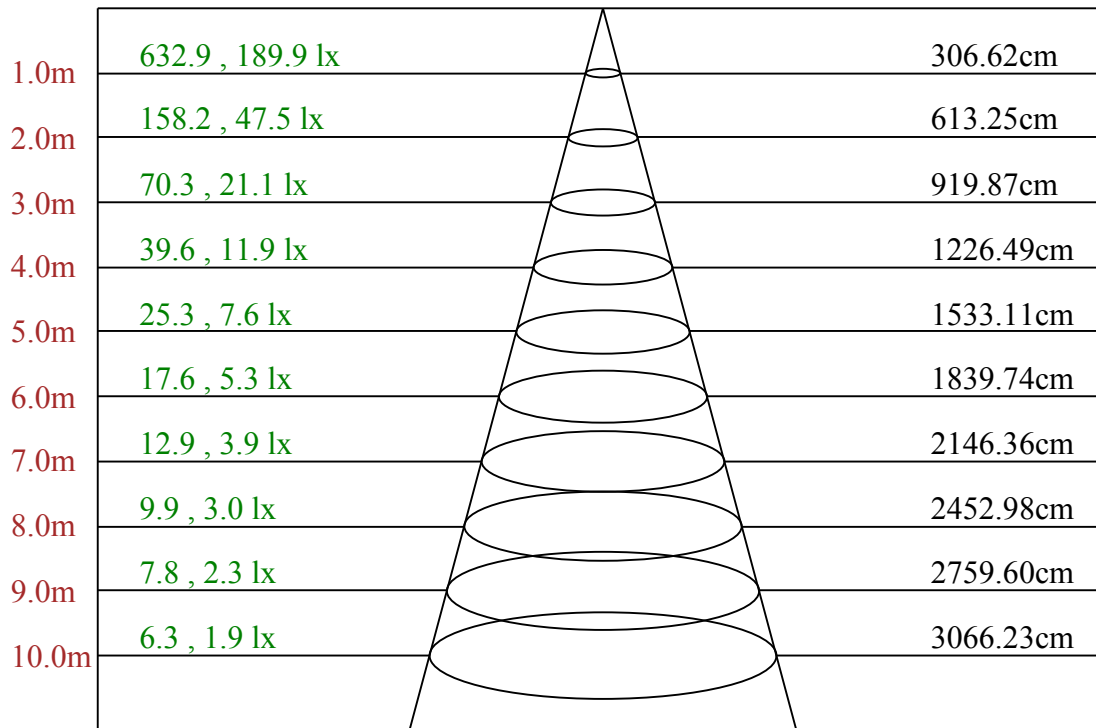
ZONAL LUMEN SUMMARY

0-10	58.71
10-20	170.60
20-30	263.83
30-40	326.51
40-50	350.44
50-60	332.85
60-70	275.78
70-80	189.84
80-90	103.98
90-100	67.03
100-110	39.53
110-120	39.62
120-130	44.38
130-140	34.31
140-150	22.32
150-160	10.63
160-170	4.73
170-180	1.18

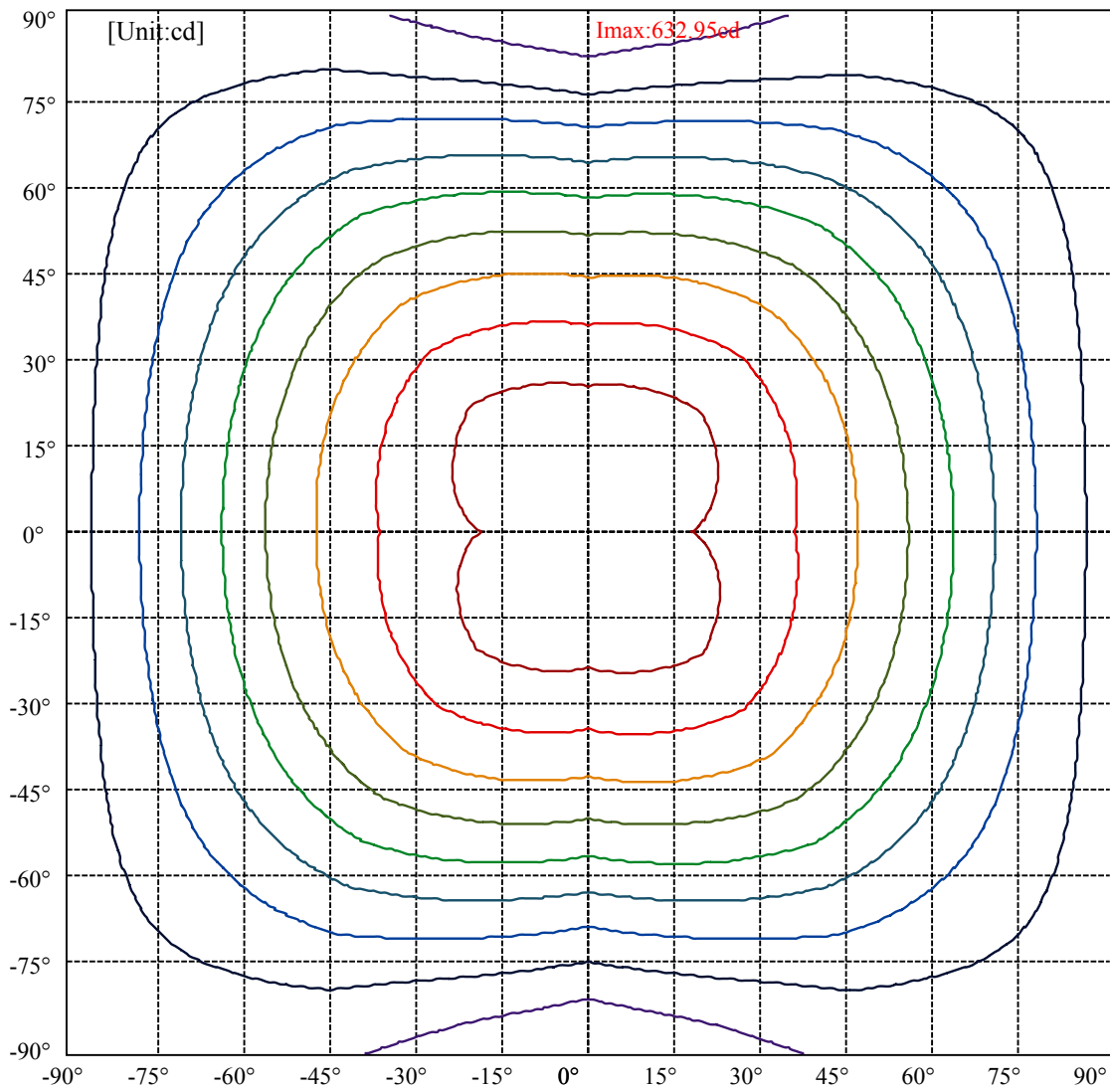


C90(Max): —————  
 C0/C180: —————  
 C90/C270: —————

Field angle(10%Imax):C0/180Left:142.3 Right:144.5  
                                   :C90/270Left:80.5 Right:81.8  
 Beam Angle(50%Imax):C0/180Left:66.3 Right:66.3  
                                   :C90/270Left:55.9 Right:57.5



Max , Ave      Beam angle of C90 plane 113.77



(10%Imax) 63.2946	—
(20%Imax) 126.589	—
(30%Imax) 189.884	—
(40%Imax) 253.178	—
(50%Imax) 316.473	—
(60%Imax) 379.768	—
(70%Imax) 443.062	—
(80%Imax) 506.357	—
(90%Imax) 569.651	—

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	575.48	580.15	580.35	575.28	565.33	551.92	532.23	509.48	483.90
45.0	626.45	626.85	623.00	614.26	601.07	582.79	561.06	533.45	501.56
90.0	632.95	631.12	623.81	611.62	593.35	570.40	543.40	511.11	473.95
135.0	628.89	629.49	626.45	618.33	605.53	588.07	566.95	540.35	509.08
180.0	575.48	580.35	581.37	574.87	566.95	554.77	535.07	511.31	485.93
225.0	626.45	626.45	621.57	613.86	600.05	581.77	558.22	531.21	499.53
270.0	632.95	629.90	620.97	606.35	586.85	562.08	533.45	499.74	461.56
315.0	628.89	627.87	624.82	616.70	603.71	585.63	562.89	536.90	505.63
360.0	575.48	580.15	580.35	575.28	565.33	551.92	532.23	509.48	483.90

C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	452.22	416.28	380.74	341.75	299.72	254.03	209.36	165.70	130.98
45.0	466.44	425.21	383.99	337.90	288.76	237.99	189.05	142.14	103.56
90.0	433.13	390.08	342.36	291.19	239.41	186.41	130.16	78.38	35.94
135.0	474.76	435.16	392.52	347.85	298.71	247.53	195.75	148.44	107.22
180.0	455.67	420.14	384.19	343.18	299.52	254.44	209.56	166.71	129.76
225.0	464.20	425.21	383.99	338.30	289.36	240.43	190.07	142.75	104.37
270.0	419.53	374.85	326.12	274.95	222.35	170.37	117.37	67.21	27.01
315.0	469.48	427.85	387.24	341.15	291.60	240.22	191.08	143.77	105.19
360.0	452.22	416.28	380.74	341.75	299.72	254.03	209.36	165.70	130.98

C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	103.56	103.16	97.27	63.76	21.53	42.24	81.02	80.82	76.15
45.0	75.54	74.73	57.47	22.74	47.92	60.72	58.69	56.05	53.00
90.0	2.03	1.22	2.64	3.86	5.48	7.11	8.33	10.15	10.76
135.0	75.34	74.52	67.21	31.27	36.35	60.92	58.48	55.03	51.17
180.0	101.13	102.55	98.08	79.80	34.93	25.99	65.99	79.40	73.71
225.0	73.71	72.70	65.59	28.83	34.72	58.89	57.06	54.22	50.56
270.0	0.61	1.42	2.03	3.66	5.28	6.50	8.33	9.34	10.15
315.0	76.56	74.73	56.86	21.93	48.13	61.93	59.90	57.47	54.22
360.0	103.56	103.16	97.27	63.76	21.53	42.24	81.02	80.82	76.15

C/ $\gamma$ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	70.46	63.97	56.86	48.94	37.57	23.56	15.23	15.03	9.34
45.0	49.95	45.28	38.79	28.43	17.87	14.62	14.42	17.26	17.46
90.0	11.78	12.79	13.61	13.40	13.00	14.21	15.43	17.67	20.31
135.0	47.11	41.83	35.54	27.41	18.07	15.03	14.01	16.65	17.26
180.0	67.21	60.92	53.61	45.08	34.11	23.35	16.25	17.06	9.54
225.0	46.70	41.43	34.72	28.43	21.53	18.48	19.29	18.07	16.85
270.0	11.17	12.39	13.00	12.18	11.98	13.20	15.03	17.46	20.92
315.0	51.17	45.89	39.80	31.07	21.32	18.07	18.68	17.06	16.65
360.0	70.46	63.97	56.86	48.94	37.57	23.56	15.23	15.03	9.34

C/ $\gamma$ (°)	180.0
0.0	13.40
45.0	21.12
90.0	22.34
135.0	21.53
180.0	13.40
225.0	21.12
270.0	22.34
315.0	21.53
360.0	13.40