



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

Tel:0755-21038430

Address:Rm. 108, No.1 Building, Meibaohe industrial park, No.14 Shilongzi Road, Dalang street, Longhua district, Shenzhen, China

Client:

LumCAT: LL4RR-3018K

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.08

LampCAT:

Current(A): 0.1380

Lamp flux(lm): -1.0

Power (W): 16.32

Number of Lamps: 1

PF: 0.9870

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 854.43, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 52.35

Central intensity(cd): 328.680, Maximum intensity(cd): 334.067

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=105.5

[C90/270]Total=105.7

Field angle(10%Imax): [C0/180]Total=150.6

[C90/270]Total=150.8

Maximum s/h(1/2): C0_180=1.26 C90_270=1.31

Maximum s/h(1/4): C0_180=1.37 C90_270=1.41

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.74%

Down flux rate of LUM(%): 99.26%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 83.068%

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

Date:
Humidity(%): 59%

Operator: Tester

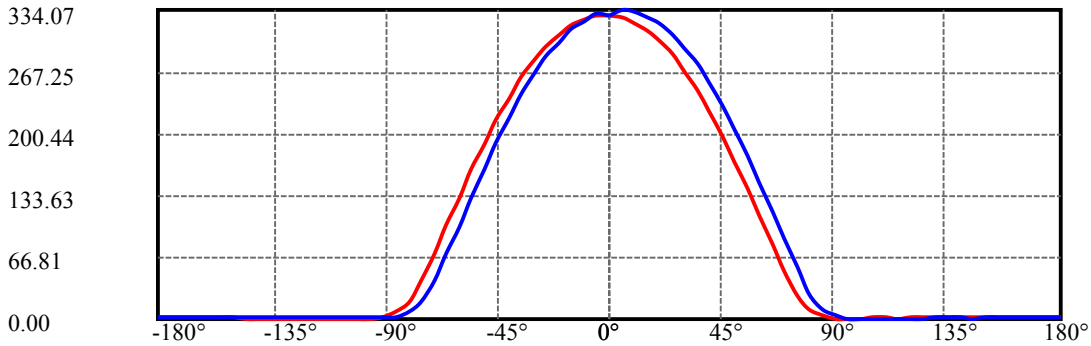
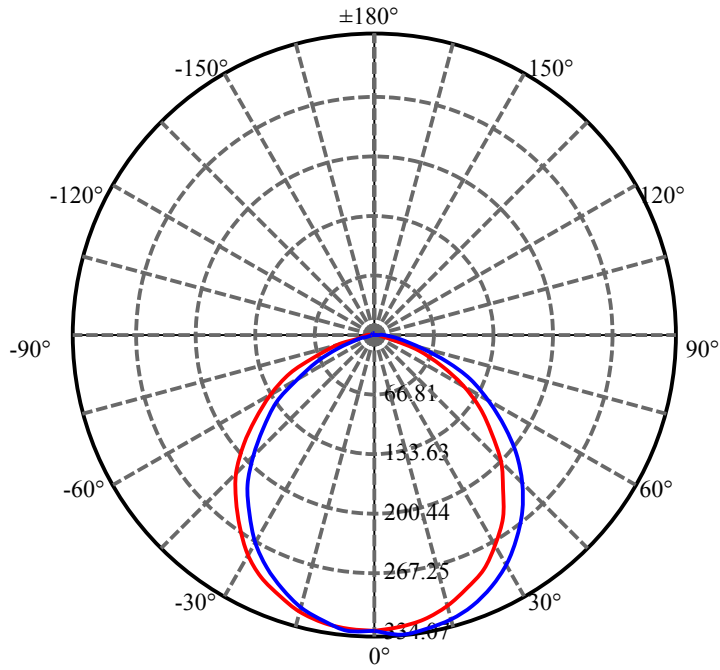
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	328.680	0.000	0	0.00%	0.00%
5.0	327.557	7.845	7.845	0.00%	0.92%
10.0	323.058	23.275	31.12	0.00%	3.64%
15.0	315.992	37.908	69.028	0.00%	8.08%
20.0	305.354	51.208	120.235	0.00%	14.07%
25.0	291.858	62.637	182.872	0.00%	21.40%
30.0	274.949	71.730	254.602	0.00%	29.80%
35.0	255.128	78.057	332.659	0.00%	38.93%
40.0	232.423	81.344	414.004	0.00%	48.45%
45.0	207.786	81.508	495.512	0.00%	57.99%
50.0	180.582	78.476	573.987	0.00%	67.18%
55.0	152.161	72.350	646.337	0.00%	75.65%
60.0	122.206	63.419	709.756	0.00%	83.07%
65.0	92.091	52.096	761.852	0.00%	89.17%
70.0	62.532	39.151	801.003	0.00%	93.75%
75.0	35.010	25.496	826.499	0.00%	96.73%
80.0	15.666	13.560	840.059	0.00%	98.32%
85.0	6.113	5.918	845.976	0.00%	99.01%
90.0	1.800	2.166	848.143	0.00%	99.26%
95.0	0.715	0.688	848.831	0.00%	99.35%
100.0	0.715	0.388	849.219	0.00%	99.39%
105.0	0.767	0.397	849.616	0.00%	99.44%
110.0	0.873	0.429	850.045	0.00%	99.49%
115.0	0.873	0.442	850.487	0.00%	99.54%
120.0	0.926	0.437	850.924	0.00%	99.59%
125.0	0.926	0.428	851.353	0.00%	99.64%
130.0	1.085	0.437	851.79	0.00%	99.69%
135.0	1.059	0.433	852.223	0.00%	99.74%
140.0	1.112	0.402	852.625	0.00%	99.79%
145.0	1.112	0.371	852.996	0.00%	99.83%
150.0	1.270	0.351	853.347	0.00%	99.87%
155.0	1.244	0.318	853.665	0.00%	99.91%
160.0	1.323	0.269	853.934	0.00%	99.94%
165.0	1.270	0.214	854.148	0.00%	99.97%
170.0	1.297	0.152	854.3	0.00%	99.99%
175.0	1.323	0.094	854.394	0.00%	100.00%
180.0	1.411	0.033	854.427	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	254.60	N.A.	29.80%
0-40	414.00	N.A.	48.45%
0-60	709.76	N.A.	83.07%
0-90	848.14	N.A.	99.26%
0-120	850.92	N.A.	99.59%
0-180	854.43	N.A.	100.00%
60-90	138.39	N.A.	16.20%
90-120	2.78	N.A.	0.33%
90-130	3.65	N.A.	0.43%
90-150	5.20	N.A.	0.61%
90-180	6.25	N.A.	0.73%
0-57.93	683.54	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	31.12
10-20	89.12
20-30	134.37
30-40	159.40
40-50	159.98
50-60	135.77
60-70	91.25
70-80	39.06
80-90	8.08
90-100	1.08
100-110	0.83
110-120	0.88
120-130	0.87
130-140	0.84
140-150	0.72
150-160	0.59
160-170	0.37
170-180	0.09

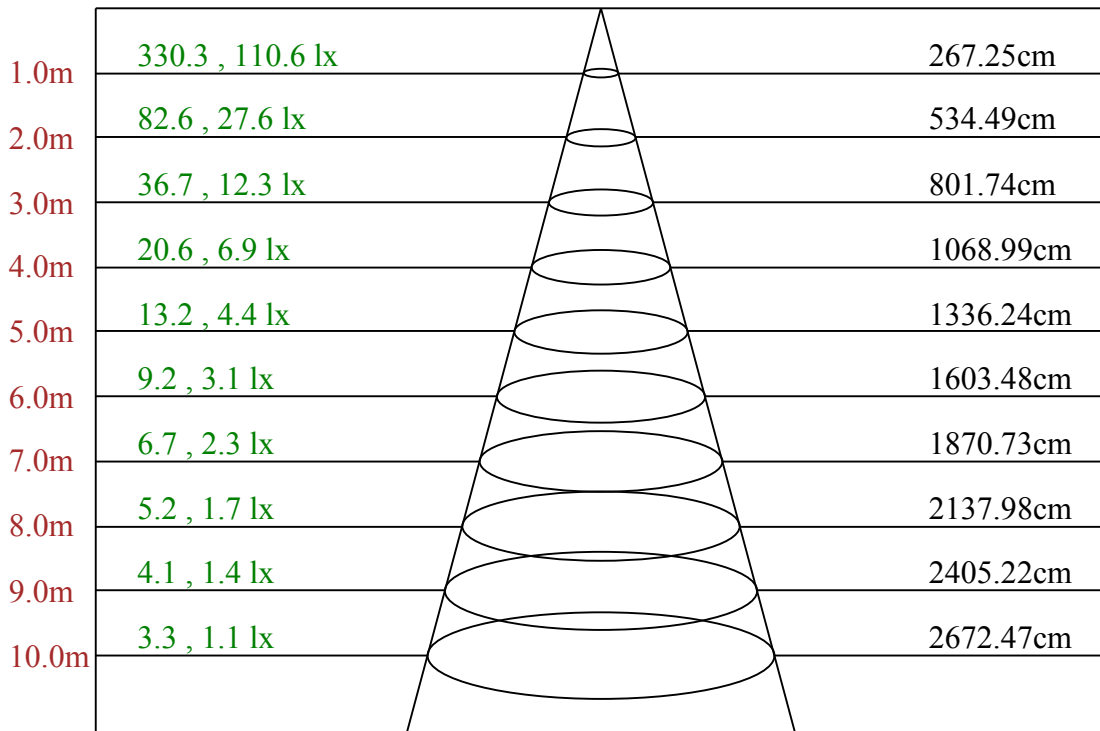


C0/C180: —

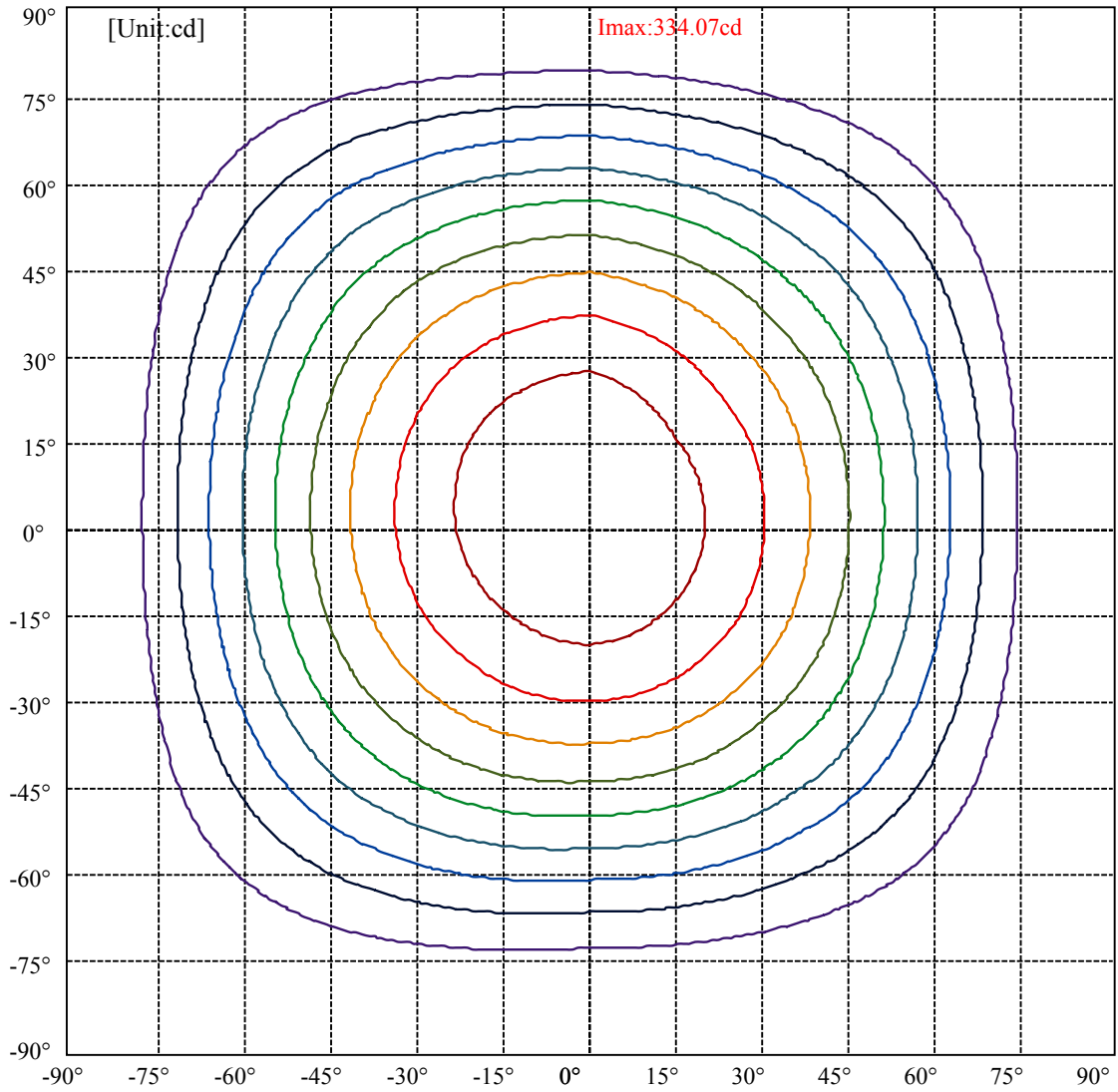
C90/C270: —

Field angle(10%Imax):C0/180Left:77.0 Right:73.6
:C90/270Left:71.8 Right:79.0

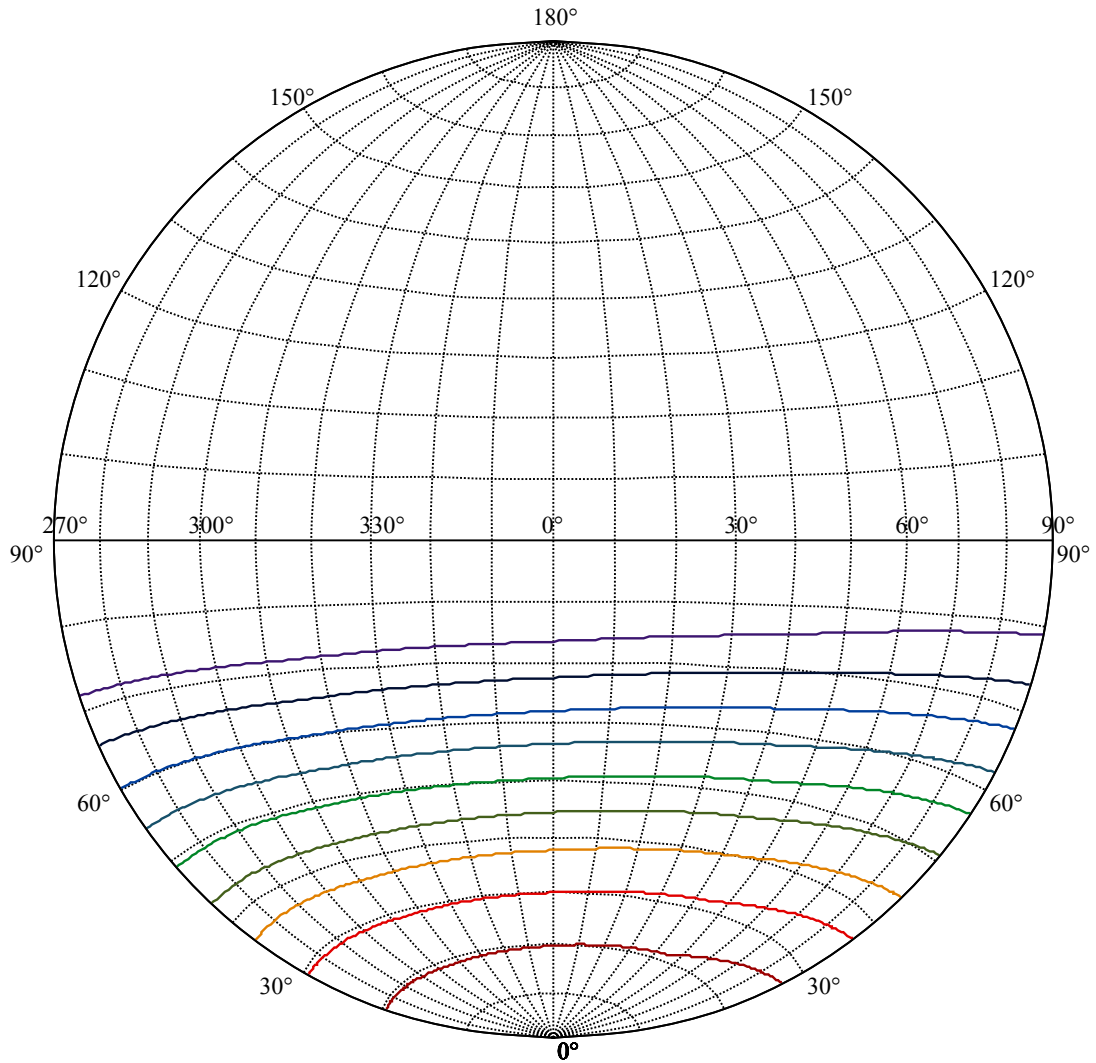
Beam Angle(50%Imax):C0/180Left:54.5 Right:51.0
:C90/270Left:49.0 Right:56.7



Max , Ave Beam angle of C90 plane 106.38



(10%Imax) 33.4067	—
(20%Imax) 66.8134	—
(30%Imax) 100.22	—
(40%Imax) 133.627	—
(50%Imax) 167.033	—
(60%Imax) 200.44	—
(70%Imax) 233.847	—
(80%Imax) 267.254	—
(90%Imax) 300.66	—



House

[Unit:cd]

Road

Imax:334.07

(10%Imax) 33.4067

(20%Imax) 66.8134

(30%Imax) 100.22

(40%Imax) 133.627

(50%Imax) 167.033

(60%Imax) 200.44

(70%Imax) 233.847

(80%Imax) 267.254

(90%Imax) 300.66



Intensity data(cd)

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	328.68	325.18	319.46	310.99	299.98	285.38	267.17	246.85	223.35
45.0	328.68	323.48	320.31	313.32	304.22	290.46	274.37	255.31	233.72
90.0	328.68	334.07	331.53	326.66	318.82	307.60	292.57	275.21	254.26
135.0	328.68	330.68	328.14	323.48	314.80	303.79	288.97	270.77	249.81
180.0	328.68	327.29	323.48	317.77	307.60	295.54	279.87	261.03	238.59
225.0	328.68	323.48	318.61	311.20	300.19	286.65	268.23	248.12	225.89
270.0	328.68	329.83	322.64	313.53	299.56	283.89	264.84	242.40	217.00
315.0	328.68	326.45	320.31	310.99	297.65	281.56	263.57	241.34	216.78
360.0	328.68	325.18	319.46	310.99	299.98	285.38	267.17	246.85	223.35
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	198.15	169.79	141.84	111.99	81.29	51.87	25.19	9.74	3.60
45.0	208.95	181.43	153.70	124.48	95.69	65.63	37.26	14.82	6.77
90.0	230.33	204.51	177.41	146.92	116.86	86.38	55.68	27.73	11.22
135.0	226.31	201.75	173.17	143.96	113.26	84.05	53.14	26.04	10.80
180.0	215.73	189.47	161.53	131.68	102.46	71.56	42.13	18.42	7.62
225.0	201.54	174.44	146.08	116.86	86.16	56.10	30.27	11.86	4.87
270.0	190.96	160.89	131.47	100.56	70.50	41.92	18.00	8.47	2.12
315.0	190.32	162.38	132.10	101.19	70.50	42.76	18.42	8.26	1.91
360.0	198.15	169.79	141.84	111.99	81.29	51.87	25.19	9.74	3.60
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.85	0.85	0.85	1.06	1.06	0.85	1.06	1.06	1.06
45.0	0.85	1.06	0.85	0.64	1.06	0.85	1.06	0.85	1.06
90.0	4.45	0.64	0.64	0.64	0.85	0.64	0.64	0.85	1.06
135.0	4.02	0.21	0.64	0.64	0.42	0.85	0.64	0.64	0.85
180.0	1.69	0.42	0.42	0.42	0.42	0.42	0.64	0.42	0.85
225.0	0.42	0.42	0.42	0.42	0.42	0.64	0.64	0.64	0.85
270.0	1.27	1.27	1.06	1.27	1.48	1.48	1.48	1.69	1.69
315.0	0.85	0.85	0.85	1.06	1.27	1.27	1.27	1.27	1.27
360.0	0.85	0.85	0.85	1.06	1.06	0.85	1.06	1.06	1.06
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.27	1.06	1.27	1.27	1.06	1.27	1.27	1.27	1.27
45.0	0.85	1.06	1.27	1.27	1.27	1.27	1.06	1.48	1.06
90.0	1.06	1.06	0.85	1.27	1.48	1.27	1.27	1.06	1.48
135.0	0.85	0.85	0.85	1.06	1.06	1.06	1.27	1.06	1.27
180.0	0.64	0.85	0.85	1.06	1.06	1.27	1.27	1.06	1.06
225.0	0.85	1.06	1.06	1.06	1.06	1.06	1.06	1.27	1.27
270.0	1.69	1.69	1.48	1.91	1.91	1.91	1.69	1.91	1.91
315.0	1.27	1.27	1.27	1.27	1.06	1.48	1.27	1.27	1.27
360.0	1.27	1.06	1.27	1.27	1.06	1.27	1.27	1.27	1.27
C/ γ (°)	180.0								
0.0	1.41								
45.0	1.41								
90.0	1.41								
135.0	1.41								
180.0	1.41								
225.0	1.41								
270.0	1.41								
315.0	1.41								
360.0	1.41								