



Shenzhen Belling Efficiency
www.bellingeel.com

Tel:0755-21038430

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

Client:

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.170

LampCAT:

Current(A): 4.119

Lamp flux(lm): -1.0

Power (W): 494.600

Number of Lamps: 1

PF: 0.999

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 75.512, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 148.15

Central intensity(cd): 226351.500, Maximum intensity(cd): 227312.000

Angle of maximum intensity: C=135.0 $\gamma=0.0$

Beam Angle(50%Imax): [C0/180]Total=27.4

[C90/270]Total=28.4

Field angle(10%Imax): [C0/180]Total=54.2

[C90/270]Total=54.6

Maximum s/h(1/2): C0_180=0.42 C90_270=0.55

Maximum s/h(1/4): C0_180=0.42 C90_270=0.51

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.11%

Down flux rate of LUM(%): 99.89%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.008%

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

Date:
Humidity(%): 58%

Operator: Sam

Zonal flux distribution table

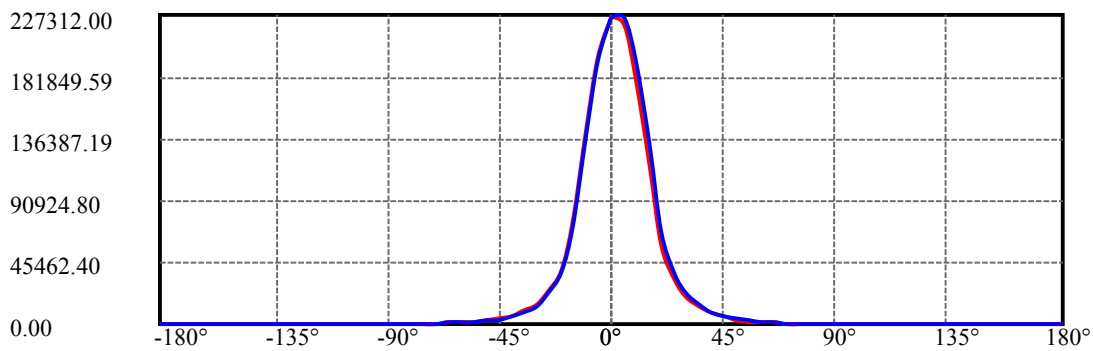
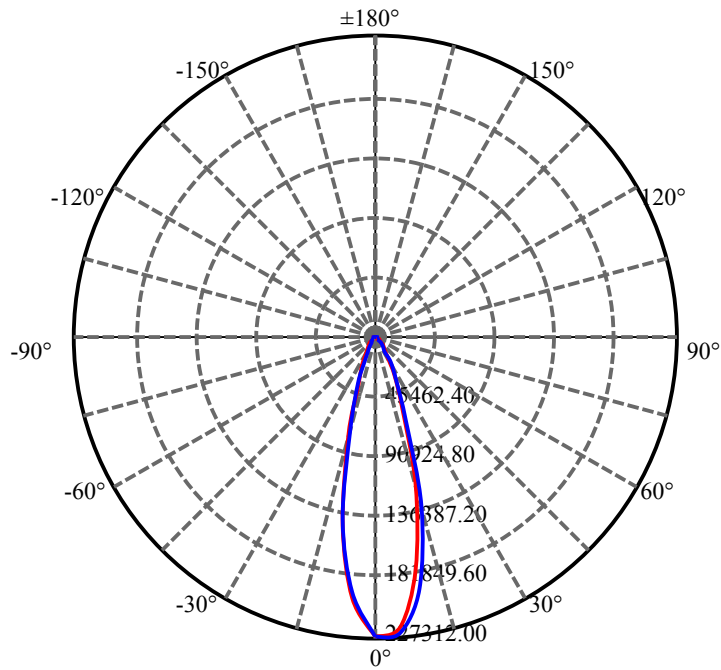
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	225547.609	0.000	0	0.00%	0.00%
5.0	207119.484	5172.412	5172.412	0.00%	7.06%
10.0	160560.453	13153.068	18325.48	0.00%	25.01%
15.0	95788.609	15206.453	33531.933	0.00%	45.76%
20.0	48457.406	11887.898	45419.832	0.00%	61.98%
25.0	28325.650	8053.126	53472.957	0.00%	72.97%
30.0	16991.590	5734.934	59207.892	0.00%	80.80%
35.0	10903.222	4107.706	63315.598	0.00%	86.41%
40.0	7204.573	3021.149	66336.747	0.00%	90.53%
45.0	4652.642	2195.460	68532.207	0.00%	93.52%
50.0	2912.221	1528.591	70060.798	0.00%	95.61%
55.0	1860.156	1037.674	71098.471	0.00%	97.03%
60.0	1249.618	718.815	71817.287	0.00%	98.01%
65.0	887.176	519.459	72336.745	0.00%	98.72%
70.0	613.814	380.060	72716.805	0.00%	99.24%
75.0	381.260	260.096	72976.902	0.00%	99.59%
80.0	179.139	149.947	73126.849	0.00%	99.80%
85.0	37.728	58.928	73185.777	0.00%	99.88%
90.0	1.031	10.613	73196.39	0.00%	99.89%
95.0	0.848	0.514	73196.904	0.00%	99.89%
100.0	0.887	0.472	73197.376	0.00%	99.89%
105.0	1.044	0.517	73197.893	0.00%	99.89%
110.0	1.357	0.628	73198.52	0.00%	99.89%
115.0	1.957	0.839	73199.36	0.00%	99.89%
120.0	2.793	1.155	73200.514	0.00%	99.90%
125.0	4.019	1.575	73202.089	0.00%	99.90%
130.0	5.912	2.159	73204.248	0.00%	99.90%
135.0	8.783	2.969	73207.218	0.00%	99.90%
140.0	13.898	4.200	73211.417	0.00%	99.91%
145.0	22.994	6.155	73217.572	0.00%	99.92%
150.0	36.567	8.771	73226.343	0.00%	99.93%
155.0	52.005	11.209	73237.552	0.00%	99.95%
160.0	65.016	12.273	73249.825	0.00%	99.96%
165.0	72.598	11.341	73261.167	0.00%	99.98%
170.0	74.347	8.717	73269.883	0.00%	99.99%
175.0	73.094	5.274	73275.158	0.00%	100.00%
180.0	75.613	1.778	73276.935	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	59207.89	N.A.	80.80%
0-40	66336.75	N.A.	90.53%
0-60	71817.29	N.A.	98.01%
0-90	73196.39	N.A.	99.89%
0-120	73200.51	N.A.	99.90%
0-180	73276.94	N.A.	100.00%
60-90	1379.10	N.A.	1.88%
90-120	4.12	N.A.	0.01%
90-130	7.86	N.A.	0.01%
90-150	29.95	N.A.	0.04%
90-180	78.77	N.A.	0.11%
0-29.49	58621.55	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	18325.48
10-20	27094.35
20-30	13788.06
30-40	7128.86
40-50	3724.05
50-60	1756.49
60-70	899.52
70-80	410.04
80-90	69.54
90-100	0.99
100-110	1.14
110-120	1.99
120-130	3.73
130-140	7.17
140-150	14.93
150-160	23.48
160-170	20.06
170-180	5.27

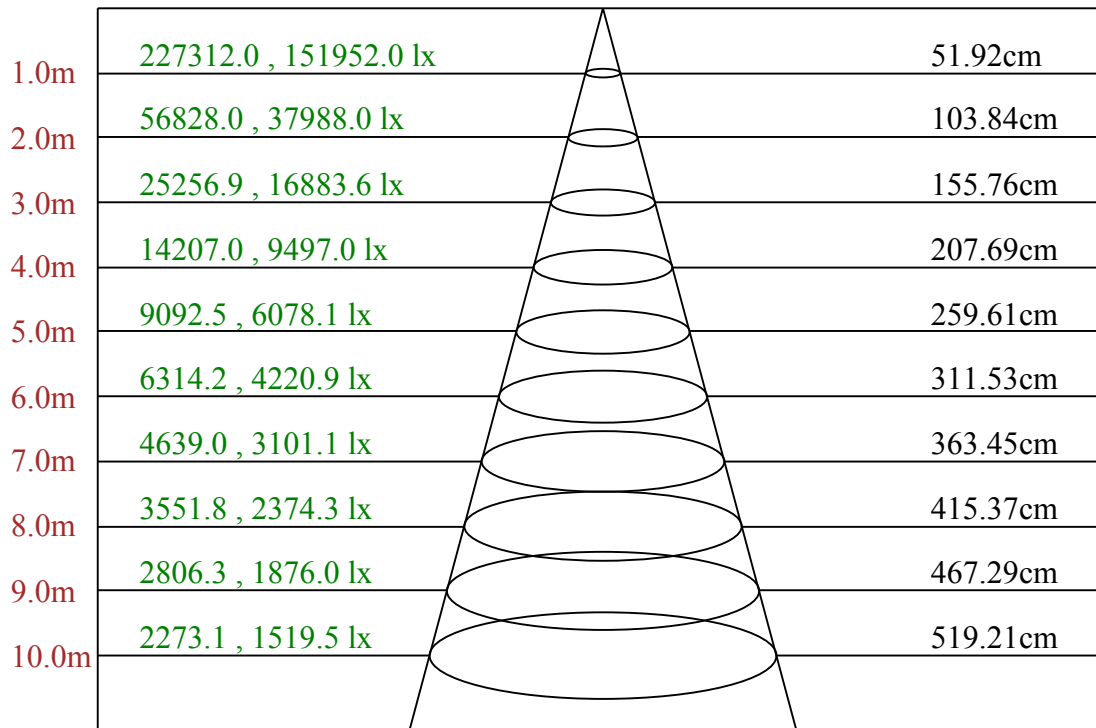


C0/C180: —

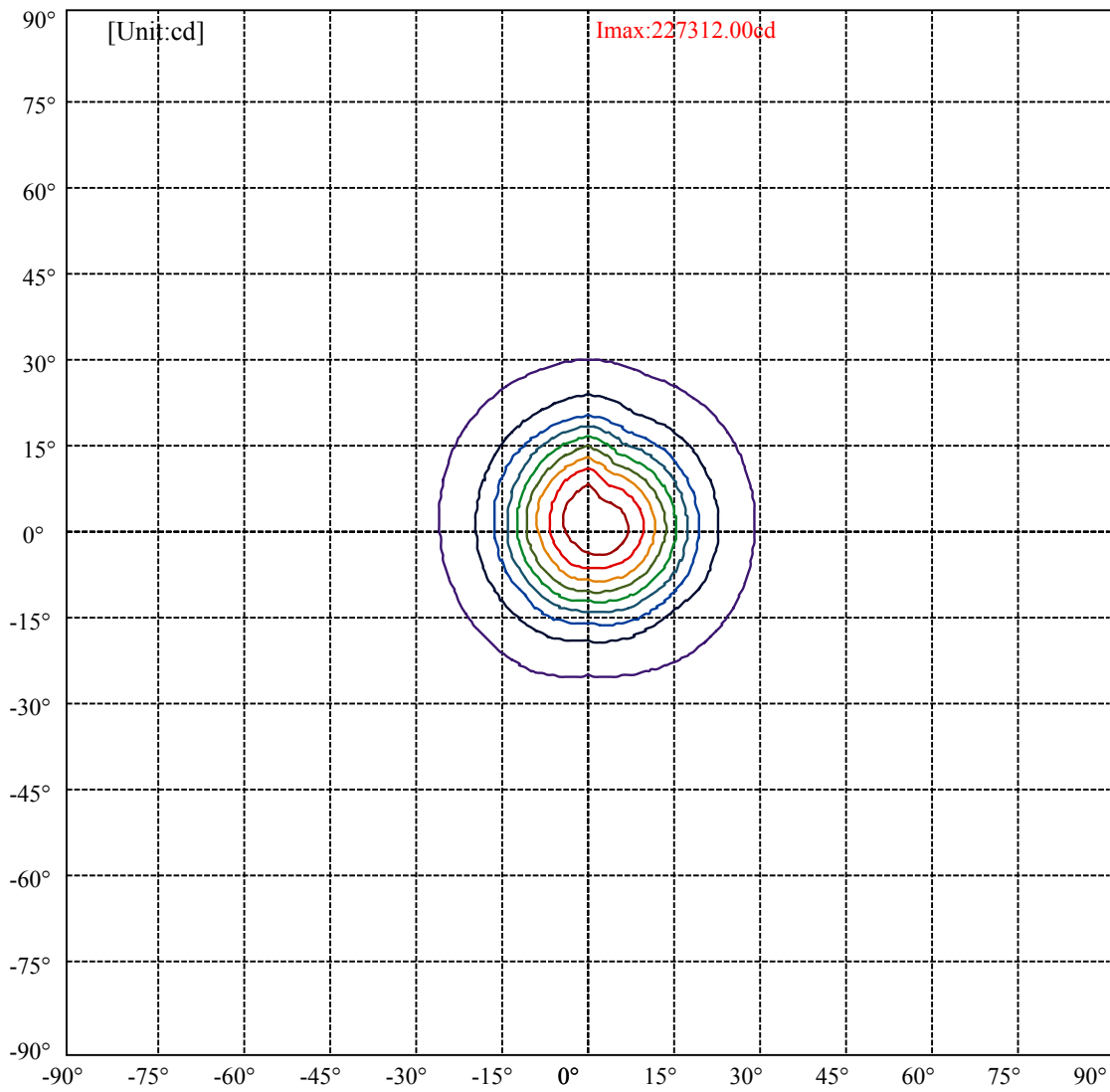
C90/C270: —

Field angle(10%Imax):C0/180Left:25.5 Right:28.7
:C90/270Left:24.8 Right:29.8

Beam Angle(50%Imax):C0/180Left:12.2 Right:15.2
:C90/270Left:12.0 Right:16.4



Max , Ave Beam angle of C135 plane 29.11



(10%Imax) 22641.4	—
(20%Imax) 45282.8	—
(30%Imax) 67924.2	—
(40%Imax) 90565.7	—
(50%Imax) 113207	—
(60%Imax) 135848	—
(70%Imax) 158490	—
(80%Imax) 181131	—
(90%Imax) 203773	—

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	226351.51	219231.35	177220.27	115769.70	57451.17	32550.85	19271.01	12217.66	8026.99
22.5	225015.17	219857.76	179892.96	115748.83	59372.16	33851.69	20179.30	12779.34	8517.68
45.0	223156.82	216704.82	176656.52	113806.97	57451.17	33448.70	20377.66	12954.73	8565.70
67.5	222050.18	211505.64	170246.28	104076.77	53128.96	32024.67	19421.35	12457.78	8254.59
90.0	226414.13	224179.96	192421.10	131722.22	67849.54	36508.28	21933.87	13477.37	9029.25
112.5	226789.99	216600.42	179684.15	114537.78	56762.12	32165.19	19637.04	12203.67	8054.14
135.0	227312.00	210085.79	164295.41	98313.82	49245.23	28657.31	17465.49	10950.86	7294.10
157.5	227291.12	203487.64	152205.74	83739.40	44066.93	25859.35	15732.43	10115.65	6721.98
180.0	226351.51	196952.11	143498.67	75825.79	40120.56	23646.05	14375.22	10136.53	6258.44
202.5	225015.17	193924.47	137067.56	72484.95	38471.02	22789.96	13707.05	9332.01	6131.07
225.0	223156.82	191961.74	137025.79	71148.61	37990.78	22873.48	13853.21	9227.61	6285.58
247.5	222050.18	195406.98	140408.40	76473.08	39849.12	24230.69	14437.86	10240.93	6636.37
270.0	226414.13	193820.07	139761.11	72610.23	37428.47	22045.99	12852.42	8158.54	5381.47
292.5	226789.99	199374.22	148489.06	84344.93	41397.81	24493.16	14435.14	9022.98	5951.14
315.0	227312.00	205617.41	160098.47	95682.91	41583.64	27671.13	16220.40	10050.29	6676.04
337.5	227291.12	215201.45	169995.71	106331.83	53149.84	30393.92	17965.99	11125.62	7448.61
360.0	226351.51	219231.35	177220.27	115769.70	57451.17	32550.85	19271.01	12217.66	8026.99
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	5366.85	3358.80	2100.14	1392.30	991.60	694.90	448.30	237.41	69.74
22.5	5540.16	3449.63	2188.88	1450.55	1013.11	712.85	465.84	241.79	71.83
45.0	5492.13	3439.19	2157.14	1434.06	1007.47	712.02	456.65	230.94	64.10
67.5	5297.95	3240.82	2038.12	1365.57	976.78	680.28	425.96	207.97	51.16
90.0	5728.08	3577.41	2245.25	1468.51	1030.02	685.50	448.51	235.11	72.87
112.5	5178.93	3214.10	2015.57	1336.96	918.52	634.76	405.49	202.96	49.90
135.0	4596.37	2869.57	1819.30	1209.59	854.63	586.32	358.72	163.70	30.69
157.5	4218.44	2635.71	1691.93	1140.69	807.65	563.77	329.91	140.73	16.29
180.0	4013.81	2474.94	1612.58	1115.63	791.99	535.16	317.59	130.08	10.65
202.5	3938.64	2443.62	1627.20	1113.54	804.52	542.89	310.70	125.91	11.90
225.0	4124.48	2558.46	1696.10	1151.13	825.40	560.22	335.75	136.56	12.74
247.5	4448.12	2823.64	1817.21	1205.42	869.04	601.98	370.00	164.12	23.60
270.0	3513.10	2193.47	1462.66	1028.14	744.59	505.30	295.46	114.01	6.89
292.5	3906.90	2463.66	1582.10	1089.11	788.86	553.12	334.92	145.54	18.58
315.0	4152.04	2776.03	1753.11	1188.09	850.24	603.44	376.68	178.32	38.42
337.5	4926.28	3076.50	1955.23	1304.60	920.40	648.54	419.69	211.10	54.29
360.0	5366.85	3358.80	2100.14	1392.30	991.60	694.90	448.30	237.41	69.74
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	1.25	1.04	1.04	1.04	1.04	1.88	2.71	3.76	5.22
22.5	1.25	0.84	0.84	1.25	1.25	1.88	2.51	3.76	5.01
45.0	1.67	1.04	1.04	1.04	1.25	1.67	2.71	3.55	5.43
67.5	1.25	1.04	1.04	1.04	1.46	2.09	2.71	3.76	5.43
90.0	1.25	0.63	0.84	0.63	1.04	1.46	1.88	2.92	4.18
112.5	0.84	0.84	0.63	0.63	0.84	1.25	2.09	2.92	4.59
135.0	0.84	0.63	0.63	0.84	1.25	1.88	2.30	3.55	5.22
157.5	0.84	0.63	0.84	0.84	1.46	1.88	2.51	3.55	5.43
180.0	0.63	1.04	0.63	1.04	1.46	1.88	2.92	4.18	6.26
202.5	0.84	0.63	0.63	1.04	1.46	2.09	3.13	4.59	6.68
225.0	0.84	0.84	0.84	1.04	1.46	2.09	3.13	4.80	6.89
247.5	0.84	0.84	1.04	1.04	1.46	2.30	3.34	4.80	7.31
270.0	1.04	1.04	1.25	1.46	1.88	2.71	3.76	5.43	8.14
292.5	0.84	0.84	1.04	1.46	1.67	2.30	3.34	4.80	6.89
315.0	1.25	0.84	1.04	1.04	1.46	2.09	2.92	4.18	6.26
337.5	1.04	0.84	0.84	1.25	1.25	1.88	2.71	3.76	5.64
360.0	1.25	1.04	1.04	1.04	1.04	1.88	2.71	3.76	5.22

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	7.93	11.90	19.63	31.95	48.44	63.89	73.08	75.59	74.13
22.5	7.52	11.48	18.38	30.49	46.77	62.43	74.13	78.30	77.47
45.0	7.52	11.69	18.58	30.49	46.15	63.06	76.00	81.64	79.76
67.5	7.93	11.90	19.42	32.16	47.82	64.52	77.47	83.10	81.43
90.0	6.26	9.81	16.50	28.40	44.48	60.76	73.08	79.76	79.14
112.5	6.06	10.44	18.17	30.49	46.35	61.60	72.87	77.88	76.21
135.0	7.52	11.69	20.05	33.83	50.32	64.52	73.92	77.05	73.71
157.5	8.35	13.57	23.18	37.38	54.29	68.28	74.75	75.38	71.41
180.0	9.19	15.03	25.47	41.55	58.05	70.58	75.38	73.71	70.37
202.5	10.23	16.50	27.35	43.43	59.72	70.78	72.87	70.37	66.61
225.0	10.65	17.12	27.98	43.43	58.67	68.49	71.20	69.11	65.98
247.5	10.65	16.70	27.77	42.39	55.96	65.36	69.53	69.53	67.65
270.0	12.11	19.63	31.74	45.52	57.84	65.15	69.32	69.53	73.29
292.5	10.65	16.91	27.98	40.93	54.08	62.85	67.23	67.65	70.16
315.0	9.61	14.62	24.22	38.21	52.83	63.69	69.11	68.91	69.95
337.5	8.35	13.36	21.51	34.45	50.32	64.31	71.62	72.04	72.25
360.0	7.93	11.90	19.63	31.95	48.44	63.89	73.08	75.59	74.13
C/γ(°)	180.0								
0.0	73.29								
22.5	75.38								
45.0	76.63								
67.5	78.72								
90.0	78.72								
112.5	74.96								
135.0	73.71								
157.5	73.50								
180.0	73.29								
202.5	75.38								
225.0	76.63								
247.5	78.72								
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292.5	74.96								
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