



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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: LD4R-50K-HO

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.06

LampCAT:

Current(A): 0.1460

Lamp flux(lm): -1.0

Power (W): 17.35

Number of Lamps: 1

PF: 0.9880

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1716.67, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 98.93

Central intensity(cd): 5061.957, Maximum intensity(cd): 5212.166

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=34.0

[C90/270]Total=33.4

Field angle(10%Imax): [C0/180]Total=51.2

[C90/270]Total=52.0

Maximum s/h(1/2): C0_180=0.59 C90_270=0.64

Maximum s/h(1/4): C0_180=0.54 C90_270=0.59

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.15%

Down flux rate of LUM(%): 99.85%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.872%

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

Date:
Humidity(%): 59%

Operator: jarvis

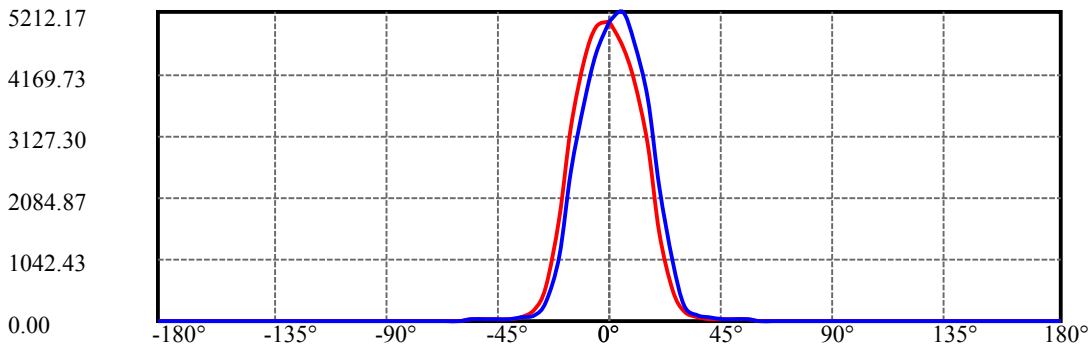
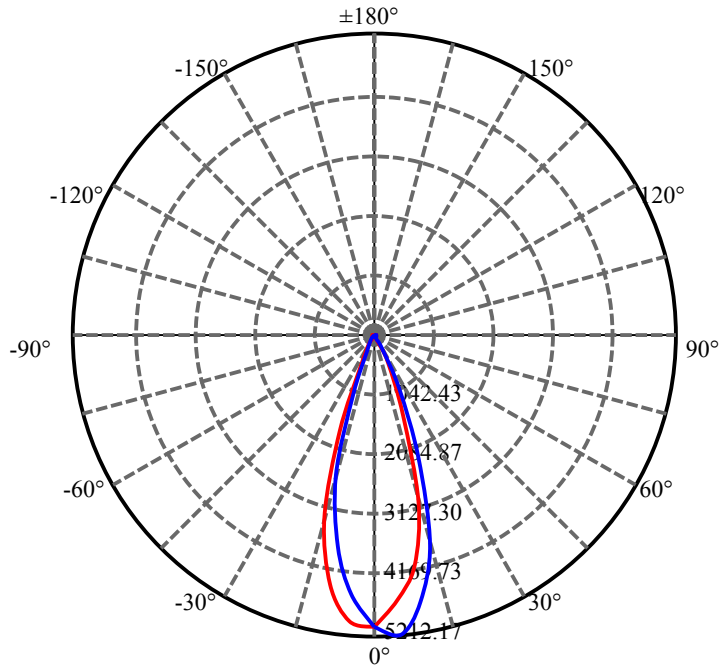
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5061.957	0.000	0	0.00%	0.00%
5.0	4802.742	117.930	117.93	0.00%	6.87%
10.0	4180.466	321.358	439.287	0.00%	25.59%
15.0	3117.563	432.914	872.201	0.00%	50.81%
20.0	1649.382	392.863	1265.065	0.00%	73.69%
25.0	609.350	236.899	1501.964	0.00%	87.49%
30.0	175.916	99.376	1601.34	0.00%	93.28%
35.0	71.224	36.393	1637.733	0.00%	95.40%
40.0	42.785	19.022	1656.754	0.00%	96.51%
45.0	30.921	13.647	1670.402	0.00%	97.31%
50.0	22.602	10.815	1681.217	0.00%	97.94%
55.0	17.816	8.788	1690.005	0.00%	98.45%
60.0	13.771	7.301	1697.306	0.00%	98.87%
65.0	10.252	5.840	1703.146	0.00%	99.21%
70.0	7.295	4.443	1707.589	0.00%	99.47%
75.0	4.812	3.165	1710.754	0.00%	99.66%
80.0	2.739	2.020	1712.774	0.00%	99.77%
85.0	1.152	1.057	1713.831	0.00%	99.83%
90.0	0.051	0.329	1714.161	0.00%	99.85%
95.0	0.026	0.021	1714.182	0.00%	99.86%
100.0	0.026	0.014	1714.196	0.00%	99.86%
105.0	0.038	0.017	1714.213	0.00%	99.86%
110.0	0.051	0.023	1714.236	0.00%	99.86%
115.0	0.064	0.029	1714.266	0.00%	99.86%
120.0	0.064	0.031	1714.297	0.00%	99.86%
125.0	0.090	0.036	1714.332	0.00%	99.86%
130.0	0.077	0.036	1714.369	0.00%	99.87%
135.0	0.167	0.049	1714.418	0.00%	99.87%
140.0	0.359	0.097	1714.515	0.00%	99.87%
145.0	0.653	0.169	1714.684	0.00%	99.88%
150.0	1.101	0.258	1714.942	0.00%	99.90%
155.0	1.574	0.339	1715.28	0.00%	99.92%
160.0	2.099	0.385	1715.666	0.00%	99.94%
165.0	2.611	0.388	1716.054	0.00%	99.96%
170.0	2.867	0.325	1716.379	0.00%	99.98%
175.0	3.059	0.212	1716.591	0.00%	100.00%
180.0	3.192	0.075	1716.665	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1601.34	N.A.	93.28%
0-40	1656.75	N.A.	96.51%
0-60	1697.31	N.A.	98.87%
0-90	1714.16	N.A.	99.85%
0-120	1714.30	N.A.	99.86%
0-180	1716.67	N.A.	100.00%
60-90	16.85	N.A.	0.98%
90-120	0.14	N.A.	0.01%
90-130	0.21	N.A.	0.01%
90-150	0.78	N.A.	0.05%
90-180	2.43	N.A.	0.14%
0-22.29	1373.33	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	439.29
10-20	825.78
20-30	336.28
30-40	55.41
40-50	24.46
50-60	16.09
60-70	10.28
70-80	5.19
80-90	1.39
90-100	0.03
100-110	0.04
110-120	0.06
120-130	0.07
130-140	0.15
140-150	0.43
150-160	0.72
160-170	0.71
170-180	0.21

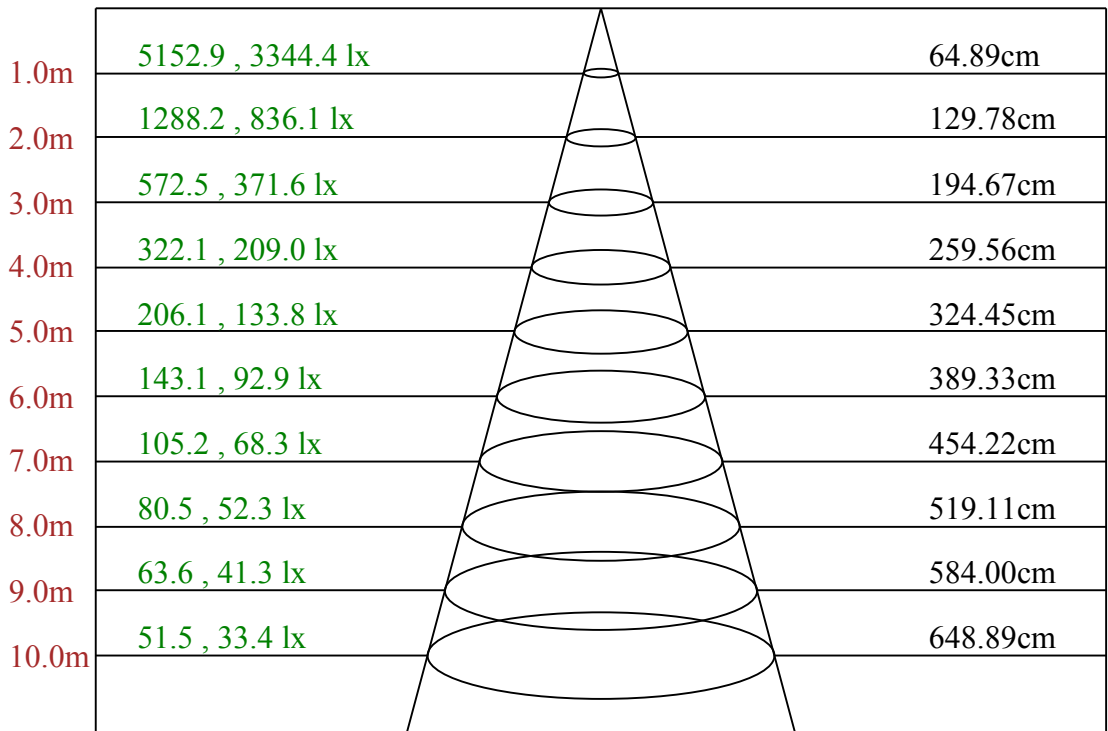


C0/C180: —

C90/C270: —

Field angle(10%Imax):C0/180Left:26.0 Right:25.2
:C90/270Left:23.7 Right:28.3

Beam Angle(50%Imax):C0/180Left:17.5 Right:16.5
:C90/270Left:14.6 Right:18.8



Max , Ave Beam angle of C90 plane 35.95

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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	5061.96	4614.22	4058.05	2979.49	1496.91	523.20	151.33	67.99	39.93
22.5	5061.96	4661.32	4069.72	3039.90	1559.37	541.43	161.57	67.99	40.75
45.0	5061.96	4706.37	4064.60	3091.30	1658.48	584.64	170.99	68.60	41.77
67.5	5061.96	4720.70	4063.17	3153.76	1708.24	634.60	193.72	71.26	41.57
90.0	5061.96	5212.17	4679.75	3739.83	2253.15	1018.35	273.58	86.62	53.04
112.5	5061.96	5169.16	4630.60	3705.01	2236.77	1034.73	277.88	87.24	52.83
135.0	5061.96	5089.30	4573.27	3659.96	2128.24	1016.30	284.84	87.24	49.97
157.5	5061.96	5027.87	4479.07	3483.86	1974.66	731.87	223.41	79.04	45.87
180.0	5061.96	4950.05	4391.01	3281.13	1751.45	586.68	182.05	71.47	42.80
202.5	5061.96	4890.67	4225.15	3084.54	1620.39	513.78	141.09	66.96	41.37
225.0	5061.96	4835.38	4176.00	2973.96	1495.48	480.41	135.56	65.73	40.55
247.5	5061.96	4806.71	4128.90	2963.73	1495.48	457.06	134.95	66.55	40.55
270.0	5061.96	4501.59	3699.49	2520.18	1089.20	320.27	100.34	59.39	37.68
292.5	5061.96	4548.69	3772.39	2588.17	1176.44	363.68	108.74	60.41	38.09
315.0	5061.96	4530.26	3882.56	2754.85	1303.81	437.20	131.06	65.32	38.50
337.5	5061.96	4579.41	3993.75	2861.34	1442.03	505.39	143.55	67.78	39.32
360.0	5061.96	4614.22	4058.05	2979.49	1496.91	523.20	151.33	67.99	39.93
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	29.90	21.91	17.82	13.52	10.03	6.96	4.71	2.87	1.23
22.5	30.92	22.32	17.82	13.52	10.24	7.37	4.71	2.87	1.43
45.0	31.13	22.32	17.82	13.72	10.24	7.37	5.12	2.87	1.43
67.5	30.72	22.73	17.82	13.72	10.44	7.37	4.71	2.66	1.23
90.0	34.61	25.39	19.45	15.15	11.67	8.40	5.32	3.07	1.43
112.5	33.79	24.78	19.04	14.95	11.06	7.99	5.12	2.87	1.23
135.0	33.58	24.57	18.43	14.54	10.65	7.78	5.12	3.28	1.43
157.5	32.76	23.55	18.23	13.93	10.65	7.37	4.92	3.07	1.23
180.0	31.74	22.53	17.61	13.93	10.44	7.58	4.92	2.46	1.23
202.5	31.13	22.12	17.61	13.72	10.03	7.17	4.92	2.66	0.82
225.0	30.51	22.12	17.61	13.31	9.83	7.17	4.71	2.46	1.02
247.5	29.49	21.91	17.41	13.52	9.62	6.96	4.71	2.46	0.82
270.0	28.05	21.09	17.00	13.11	9.83	6.76	4.51	2.66	1.02
292.5	28.26	21.09	16.79	13.11	9.83	6.76	4.30	2.25	1.02
315.0	28.87	21.50	17.20	13.31	9.62	6.96	4.51	2.46	1.02
337.5	29.28	21.71	17.41	13.31	9.83	6.76	4.71	2.87	0.82
360.0	29.90	21.91	17.82	13.52	10.03	6.96	4.71	2.87	1.23
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.21	0.00	0.00	0.21	0.00	0.00	0.21	0.00	0.21
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.5	0.21	0.21	0.21	0.00	0.00	0.00	0.21	0.21	0.00
90.0	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00
112.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
270.0	0.21	0.21	0.21	0.21	0.41	0.41	0.41	0.61	0.41
292.5	0.00	0.00	0.00	0.00	0.21	0.21	0.21	0.21	0.21
315.0	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00
337.5	0.00	0.00	0.00	0.21	0.21	0.00	0.00	0.21	0.00
360.0	0.21	0.00	0.00	0.21	0.00	0.00	0.21	0.00	0.21

Equipment: GMS-3000
Temperature(°C): 25Date:
Humidity(%): 59%

Operator: jarvis

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Intensity data(cd)

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C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.21	0.41	0.82	1.23	1.43	2.05	2.87	2.87	2.87
22.5	0.21	0.41	0.61	1.23	1.64	2.05	2.46	2.66	3.07
45.0	0.21	0.41	0.61	1.02	1.43	2.05	2.66	2.87	3.07
67.5	0.21	0.41	0.61	1.23	1.64	2.05	2.66	2.87	3.28
90.0	0.00	0.41	0.41	0.82	1.43	2.05	2.46	2.66	3.07
112.5	0.00	0.00	0.21	0.82	1.23	2.05	2.25	2.66	2.87
135.0	0.00	0.00	0.41	0.82	1.23	2.05	2.25	2.66	3.07
157.5	0.00	0.21	0.41	0.82	1.23	1.84	2.46	2.66	2.87
180.0	0.00	0.21	0.41	0.82	1.64	2.05	2.25	2.66	2.87
202.5	0.00	0.21	0.61	1.02	1.43	1.64	2.66	2.87	3.07
225.0	0.00	0.21	0.41	1.02	1.64	2.05	2.66	2.87	3.07
247.5	0.21	0.21	0.61	1.02	1.43	2.05	2.66	3.07	2.87
270.0	0.61	0.82	1.23	1.84	2.25	2.87	3.28	3.48	3.48
292.5	0.41	0.61	1.23	1.43	2.05	2.25	2.87	3.07	2.87
315.0	0.21	0.61	0.82	1.23	1.64	2.25	2.66	2.87	3.28
337.5	0.41	0.61	1.02	1.23	1.84	2.25	2.66	3.07	3.28
360.0	0.21	0.41	0.82	1.23	1.43	2.05	2.87	2.87	2.87
C/ γ (°)	180.0								
0.0	3.19								
22.5	3.19								
45.0	3.19								
67.5	3.19								
90.0	3.19								
112.5	3.19								
135.0	3.19								
157.5	3.19								
180.0	3.19								
202.5	3.19								
225.0	3.19								
247.5	3.19								
270.0	3.19								
292.5	3.19								
315.0	3.19								
337.5	3.19								
360.0	3.19								