



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.  
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Client:

LumCAT: LD8R-40K-HO

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.01

LampCAT:

Current(A): 0.2390

Lamp flux(lm): -1.0

Power (W): 28.41

Number of Lamps: 1

PF: 0.9905

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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### Photometric Results

Lumens(lm): 2902.77, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 102.19

Central intensity(cd): 5067.078, Maximum intensity(cd): 5277.470

Angle of maximum intensity: C=90.0  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=40.9

[C90/270]Total=42.1

Field angle(10%Imax): [C0/180]Total=71.4

[C90/270]Total=72.2

Maximum s/h(1/2): C0\_180=0.68 C90\_270=0.76

Maximum s/h(1/4): C0\_180=0.72 C90\_270=0.79

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.10%

Down flux rate of LUM(%): 99.90%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 98.580%

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

Date:  
Humidity(%): 59%

Operator: jarvis

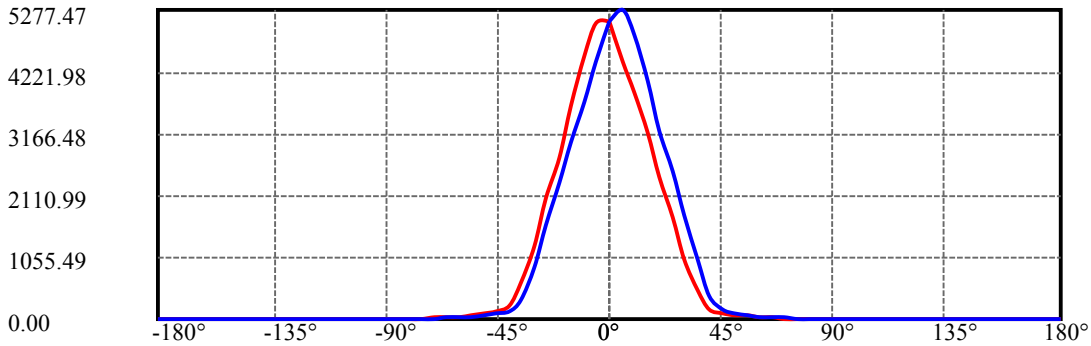
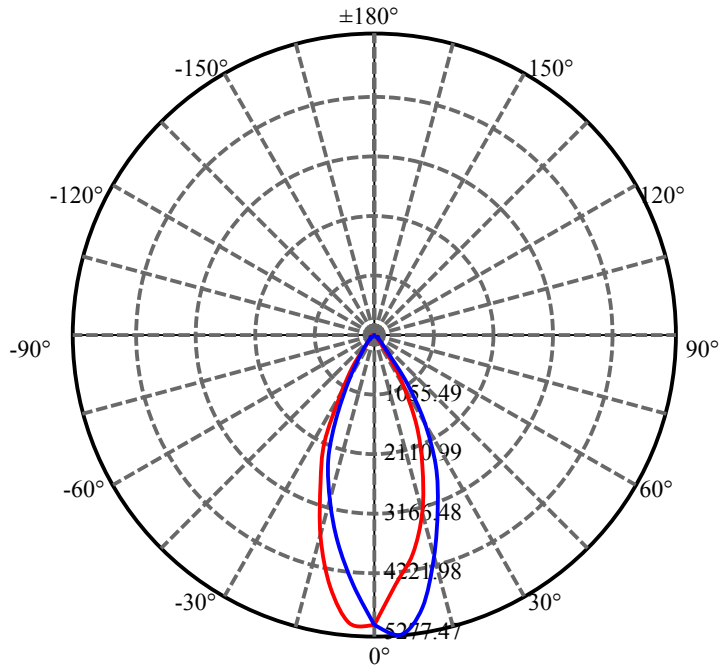
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5067.078	0.000	0	0.00%	0.00%
5.0	4777.569	117.690	117.69	0.00%	4.05%
10.0	4223.741	322.005	439.695	0.00%	15.15%
15.0	3469.966	456.385	896.081	0.00%	30.87%
20.0	2690.782	507.732	1403.813	0.00%	48.36%
25.0	1991.567	491.092	1894.905	0.00%	65.28%
30.0	1221.207	406.579	2301.484	0.00%	79.29%
35.0	600.336	268.235	2569.719	0.00%	88.53%
40.0	221.764	137.161	2706.88	0.00%	93.25%
45.0	118.217	62.950	2769.83	0.00%	95.42%
50.0	84.158	40.893	2810.723	0.00%	96.83%
55.0	54.560	30.162	2840.885	0.00%	97.87%
60.0	34.863	20.670	2861.555	0.00%	98.58%
65.0	23.972	14.303	2875.858	0.00%	99.07%
70.0	16.107	10.148	2886.006	0.00%	99.42%
75.0	10.191	6.874	2892.879	0.00%	99.66%
80.0	5.591	4.223	2897.102	0.00%	99.80%
85.0	2.000	2.063	2899.165	0.00%	99.88%
90.0	0.051	0.562	2899.727	0.00%	99.90%
95.0	0.017	0.019	2899.746	0.00%	99.90%
100.0	0.000	0.005	2899.75	0.00%	99.90%
105.0	0.000	0.000	2899.75	0.00%	99.90%
110.0	0.000	0.000	2899.75	0.00%	99.90%
115.0	0.017	0.004	2899.754	0.00%	99.90%
120.0	0.051	0.017	2899.771	0.00%	99.90%
125.0	0.051	0.024	2899.795	0.00%	99.90%
130.0	0.171	0.048	2899.843	0.00%	99.90%
135.0	0.257	0.086	2899.93	0.00%	99.90%
140.0	0.547	0.149	2900.078	0.00%	99.91%
145.0	1.043	0.265	2900.344	0.00%	99.92%
150.0	1.453	0.368	2900.711	0.00%	99.93%
155.0	2.052	0.444	2901.155	0.00%	99.94%
160.0	2.565	0.484	2901.639	0.00%	99.96%
165.0	2.924	0.452	2902.091	0.00%	99.98%
170.0	3.180	0.362	2902.454	0.00%	99.99%
175.0	3.403	0.235	2902.689	0.00%	100.00%
180.0	3.605	0.084	2902.773	0.00%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2301.48	N.A.	79.29%
0-40	2706.88	N.A.	93.25%
0-60	2861.55	N.A.	98.58%
0-90	2899.73	N.A.	99.90%
0-120	2899.77	N.A.	99.90%
0-180	2902.77	N.A.	100.00%
60-90	38.17	N.A.	1.32%
90-120	0.04	N.A.	0.00%
90-130	0.12	N.A.	0.00%
90-150	0.98	N.A.	0.03%
90-180	2.96	N.A.	0.10%
0-30.39	2322.22	N.A.	80.00%

## ZONAL LUMEN SUMMARY

0-10	439.70
10-20	964.12
20-30	897.67
30-40	405.40
40-50	103.84
50-60	50.83
60-70	24.45
70-80	11.10
80-90	2.62
90-100	0.02
100-110	0.00
110-120	0.02
120-130	0.07
130-140	0.24
140-150	0.63
150-160	0.93
160-170	0.81
170-180	0.24



C0/C180: —

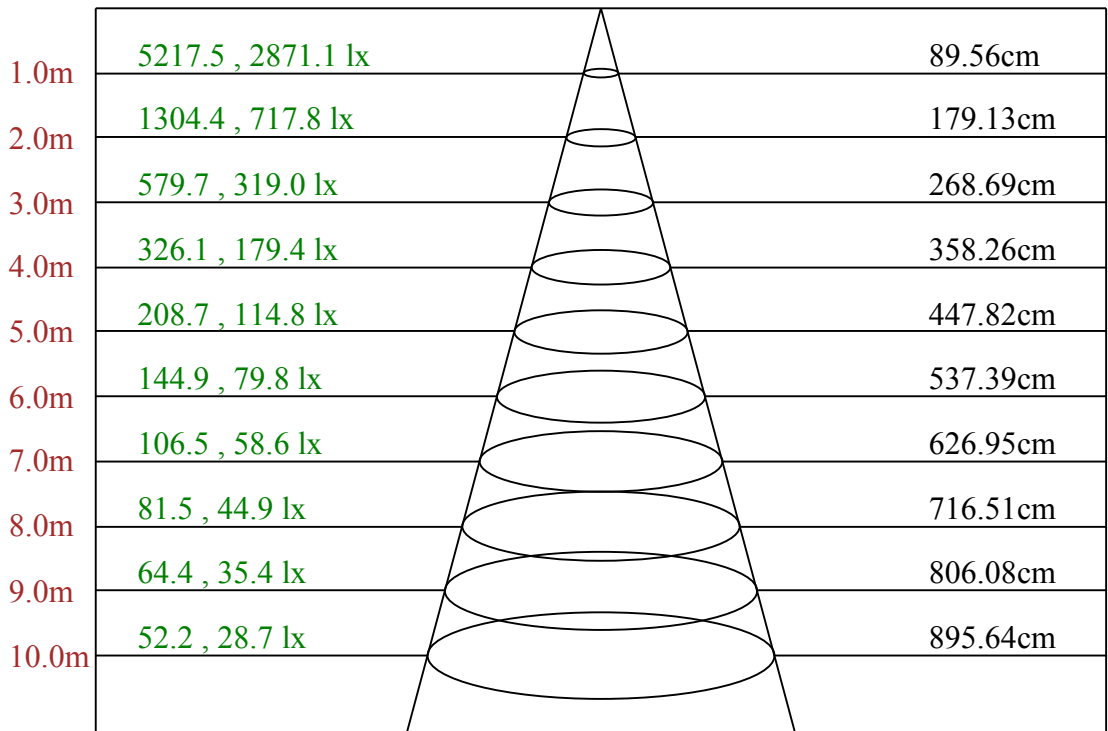
C90/C270: —

Field angle(10%Imax):C0/180Left:36.6 Right:34.8

:C90/270Left:33.3 Right:38.9

Beam Angle(50%Imax):C0/180Left:21.6 Right:19.3

:C90/270Left:17.8 Right:24.3



Max , Ave      Beam angle of C90 plane 48.25

## LD8R-40K-HO

## Intensity data(cd)

Appendix Page: 6 Total:7

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	5067.08	4393.01	3880.89	3195.59	2433.97	1739.64	1016.59	490.24	164.42
22.5	5067.08	4541.29	4046.12	3318.42	2627.11	1923.76	1182.10	578.60	198.07
45.0	5067.08	4747.84	4255.95	3498.98	2783.32	2157.39	1380.17	685.84	245.67
67.5	5067.08	4884.35	4365.93	3603.21	2918.74	2263.26	1484.67	783.24	290.26
90.0	5067.08	5277.47	4853.43	4048.59	3220.49	2538.47	1763.44	1011.94	383.55
112.5	5067.08	5270.36	4853.16	4056.52	3147.99	2467.34	1622.55	939.17	348.80
135.0	5067.08	5257.50	4778.48	3944.36	3030.63	2338.22	1483.31	810.87	309.14
157.5	5067.08	5178.98	4610.78	3761.88	2887.82	2186.38	1344.88	712.65	289.71
180.0	5067.08	5062.99	4476.18	3642.88	2748.30	2060.82	1236.27	637.42	217.22
202.5	5067.08	4948.64	4355.26	3522.24	2703.16	2002.54	1207.55	554.80	178.92
225.0	5067.08	4833.19	4181.54	3423.20	2675.53	1959.05	1170.07	503.92	170.98
247.5	5067.08	4747.02	4075.12	3335.11	2598.11	1872.87	1142.16	480.12	164.14
270.0	5067.08	4381.25	3699.24	3012.57	2333.57	1621.46	900.87	332.94	142.26
292.5	5067.08	4314.77	3677.62	3013.94	2284.60	1574.13	858.19	333.76	142.53
315.0	5067.08	4280.30	3693.22	3051.97	2308.67	1544.04	848.89	359.75	147.73
337.5	5067.08	4322.16	3776.93	3089.99	2350.53	1615.71	897.59	390.11	154.84
360.0	5067.08	4393.01	3880.89	3195.59	2433.97	1739.64	1016.59	490.24	164.42
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	109.70	78.52	49.79	33.10	22.98	15.05	9.58	4.92	1.92
22.5	115.99	83.44	54.17	34.74	23.80	15.87	10.40	5.75	2.19
45.0	122.01	86.45	57.18	35.56	24.62	16.96	10.67	6.02	2.46
67.5	125.30	88.36	58.82	36.39	24.90	16.96	10.94	6.57	2.46
90.0	148.00	100.40	70.86	41.58	28.73	19.70	12.86	7.66	3.56
112.5	143.63	98.21	69.49	40.22	27.90	19.15	12.04	7.39	3.01
135.0	135.69	96.02	65.66	38.57	26.81	18.06	11.76	6.57	3.01
157.5	129.40	92.19	61.28	37.75	25.99	17.24	10.94	6.29	2.46
180.0	122.29	88.36	57.72	35.84	24.35	16.41	10.67	5.47	2.19
202.5	116.54	84.26	53.07	34.47	23.53	15.59	9.58	5.47	1.09
225.0	111.62	80.43	50.34	33.38	22.98	15.32	9.58	4.92	1.09
247.5	108.88	79.88	47.60	32.83	22.43	14.77	9.03	4.92	1.37
270.0	98.21	71.13	43.50	30.37	20.79	13.68	8.75	4.65	1.09
292.5	99.03	71.13	43.22	30.09	21.07	13.95	8.48	4.10	1.09
315.0	100.13	72.50	44.05	30.91	20.79	14.23	8.75	4.38	1.37
337.5	105.05	75.23	46.23	32.01	21.89	14.77	9.03	4.38	1.64
360.0	109.70	78.52	49.79	33.10	22.98	15.05	9.58	4.92	1.92
C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27
90.0	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00
270.0	0.00	0.27	0.00	0.00	0.00	0.27	0.55	0.55	0.82
292.5	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.55
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
337.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27

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

Operator: jarvis

LD8R-40K-HO

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	0.27	0.82	1.09	1.64	2.19	2.74	3.01	3.01	3.56
22.5	0.27	0.82	1.37	1.64	2.46	2.46	3.01	3.56	3.28
45.0	0.27	0.82	1.09	1.37	1.92	2.74	2.74	3.01	3.28
67.5	0.27	0.55	1.09	1.64	1.64	2.46	2.74	3.01	3.56
90.0	0.00	0.27	1.09	1.37	1.92	2.46	3.01	3.01	3.28
112.5	0.00	0.00	0.55	0.82	1.92	2.19	2.74	2.74	3.28
135.0	0.00	0.00	0.55	1.09	1.64	1.92	2.74	2.74	3.28
157.5	0.00	0.00	0.27	0.82	1.64	2.19	2.19	3.01	3.28
180.0	0.00	0.27	0.82	0.82	1.37	2.19	2.74	3.01	3.56
202.5	0.00	0.55	0.82	1.09	1.92	2.46	2.74	3.01	3.01
225.0	0.00	0.27	0.82	1.37	1.92	2.19	2.74	3.28	3.28
247.5	0.27	0.27	0.82	1.37	1.92	2.74	3.01	3.28	3.28
270.0	1.09	1.09	1.92	2.46	3.28	3.56	3.83	4.10	4.10
292.5	0.55	1.09	1.64	1.92	2.46	3.01	3.01	3.28	3.28
315.0	0.55	0.82	1.37	1.92	2.46	3.01	3.28	3.56	3.56
337.5	0.55	1.09	1.37	1.92	2.19	2.74	3.28	3.28	3.56
360.0	0.27	0.82	1.09	1.64	2.19	2.74	3.01	3.01	3.56
C/γ(°)	180.0								
0.0	3.61								
22.5	3.61								
45.0	3.61								
67.5	3.61								
90.0	3.61								
112.5	3.61								
135.0	3.61								
157.5	3.61								
180.0	3.61								
202.5	3.61								
225.0	3.61								
247.5	3.61								
270.0	3.61								
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360.0	3.61								