



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

LumCAT: LD4S-40K-HO

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.00

LampCAT:

Current(A): 0.1470

Lamp flux(lm): -1.0

Power (W): 17.46

Number of Lamps: 1

PF: 0.9880

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1653.95, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 94.73

Central intensity(cd): 4899.110, Maximum intensity(cd): 8344.163

Angle of maximum intensity: C=337.5 γ =10.0

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

[C90/270]Total=33.6

Field angle(10%Imax): [C0/180]Total=49.1

[C90/270]Total=48.6

Maximum s/h(1/2): C0_180=0.60 C90_270=0.54

Maximum s/h(1/4): C0_180=0.54 C90_270=0.49

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.14%

Down flux rate of LUM(%): 99.86%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.430%

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

Date:
Humidity(%): 59%

Operator: jarvis

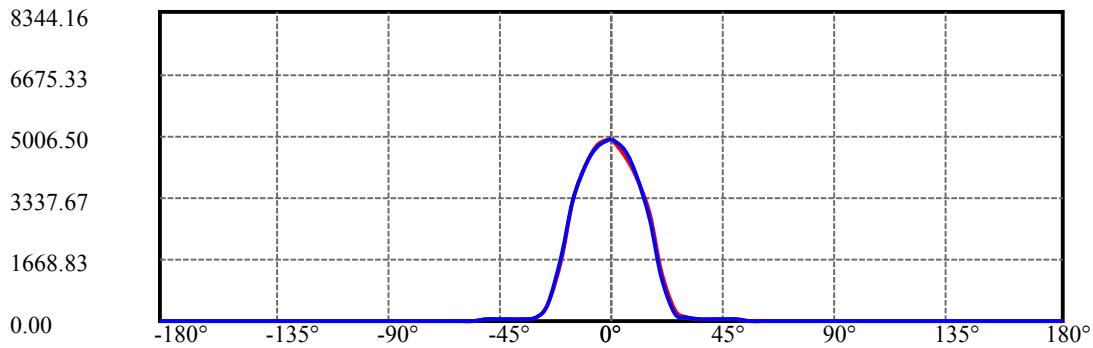
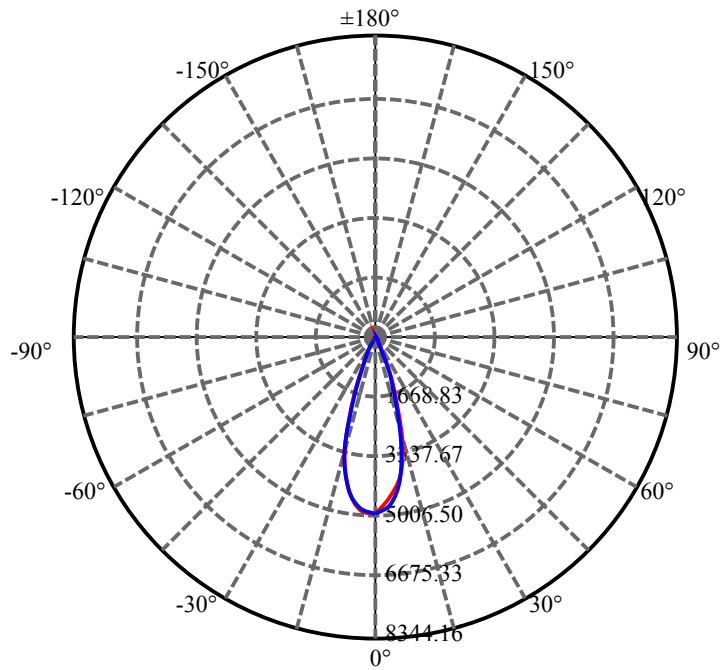
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4899.110	0.000	0	0.00%	0.00%
5.0	4652.670	114.189	114.189	0.00%	6.90%
10.0	4349.923	322.051	436.24	0.00%	26.38%
15.0	3019.922	437.174	873.414	0.00%	52.81%
20.0	1546.050	376.300	1249.714	0.00%	75.56%
25.0	488.352	213.371	1463.086	0.00%	88.46%
30.0	117.519	76.674	1539.759	0.00%	93.10%
35.0	61.073	26.299	1566.058	0.00%	94.69%
40.0	41.345	17.088	1583.146	0.00%	95.72%
45.0	31.850	13.553	1596.698	0.00%	96.54%
50.0	26.255	11.741	1608.439	0.00%	97.25%
55.0	21.787	10.446	1618.885	0.00%	97.88%
60.0	17.609	9.106	1627.991	0.00%	98.43%
65.0	13.721	7.616	1635.608	0.00%	98.89%
70.0	10.270	6.075	1641.682	0.00%	99.26%
75.0	7.194	4.565	1646.247	0.00%	99.53%
80.0	4.336	3.085	1649.332	0.00%	99.72%
85.0	1.889	1.691	1651.023	0.00%	99.82%
90.0	0.109	0.547	1651.57	0.00%	99.86%
95.0	0.024	0.037	1651.607	0.00%	99.86%
100.0	0.024	0.013	1651.62	0.00%	99.86%
105.0	0.012	0.010	1651.63	0.00%	99.86%
110.0	0.061	0.019	1651.649	0.00%	99.86%
115.0	0.036	0.025	1651.673	0.00%	99.86%
120.0	0.061	0.024	1651.697	0.00%	99.86%
125.0	0.061	0.028	1651.725	0.00%	99.87%
130.0	0.061	0.026	1651.751	0.00%	99.87%
135.0	0.170	0.047	1651.798	0.00%	99.87%
140.0	0.279	0.083	1651.881	0.00%	99.87%
145.0	0.642	0.154	1652.034	0.00%	99.88%
150.0	1.030	0.246	1652.281	0.00%	99.90%
155.0	1.526	0.323	1652.604	0.00%	99.92%
160.0	2.059	0.376	1652.98	0.00%	99.94%
165.0	2.519	0.377	1653.357	0.00%	99.96%
170.0	2.822	0.317	1653.674	0.00%	99.98%
175.0	3.003	0.208	1653.882	0.00%	100.00%
180.0	3.077	0.073	1653.955	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1539.76	N.A.	93.10%
0-40	1583.15	N.A.	95.72%
0-60	1627.99	N.A.	98.43%
0-90	1651.57	N.A.	99.86%
0-120	1651.70	N.A.	99.86%
0-180	1653.95	N.A.	100.00%
60-90	23.58	N.A.	1.43%
90-120	0.13	N.A.	0.01%
90-130	0.18	N.A.	0.01%
90-150	0.71	N.A.	0.04%
90-180	2.31	N.A.	0.14%
0-21.72	1323.16	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	436.24
10-20	813.47
20-30	290.04
30-40	43.39
40-50	25.29
50-60	19.55
60-70	13.69
70-80	7.65
80-90	2.24
90-100	0.05
100-110	0.03
110-120	0.05
120-130	0.05
130-140	0.13
140-150	0.40
150-160	0.70
160-170	0.69
170-180	0.21



C0/C180: —

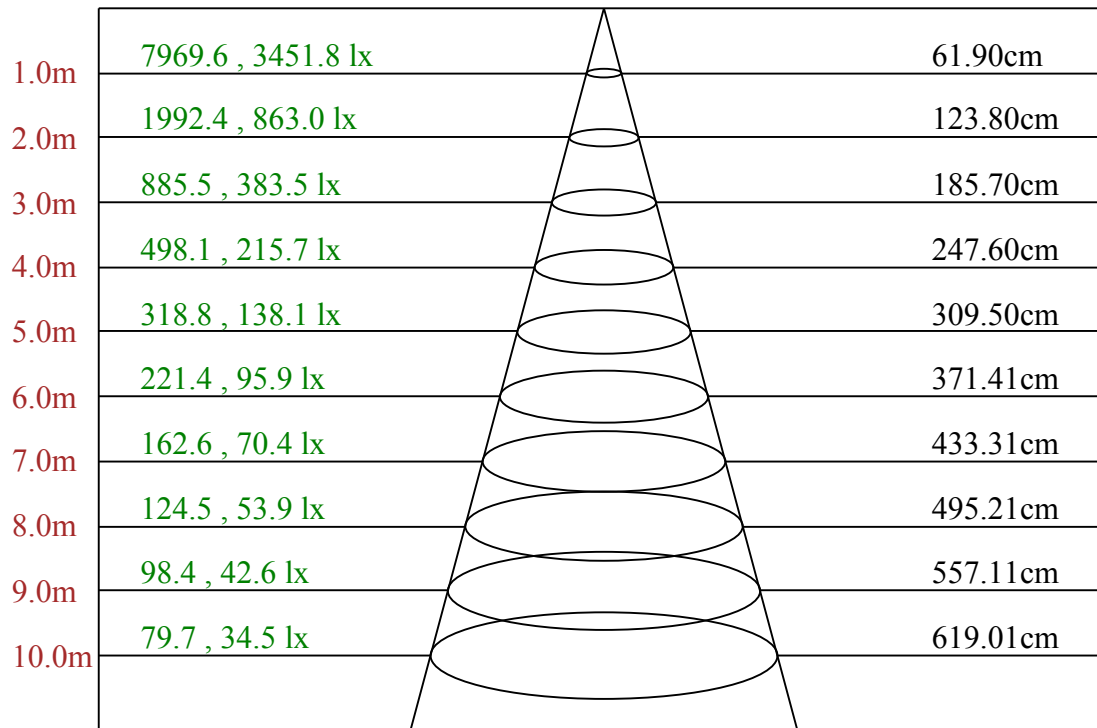
C90/C270: —

Field angle(10%Imax):C0/180Left:24.9 Right:24.2

:C90/270Left:25.0 Right:23.6

Beam Angle(50%Imax):C0/180Left:17.5 Right:16.5

:C90/270Left:17.7 Right:15.9



Max , Ave Beam angle of C337.5 plane 34.40

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	4899.11	4482.40	3862.15	2903.78	1348.42	333.47	85.26	51.35	37.01
22.5	4899.11	4404.89	3838.71	2745.09	1265.68	400.13	101.34	53.87	38.37
45.0	4899.11	4360.33	3673.23	2543.77	1216.85	372.23	113.16	63.75	38.75
67.5	4899.11	4313.82	3562.01	2408.52	1003.32	247.83	82.74	48.64	37.01
90.0	4899.11	4618.04	3937.92	2736.56	1178.68	225.93	84.29	49.99	38.17
112.5	4899.11	4623.85	3910.79	2711.37	1229.06	303.44	90.68	52.51	39.53
135.0	4899.11	4645.16	3990.23	2843.13	1399.58	376.88	137.19	68.01	41.66
157.5	4899.11	4714.92	4108.43	3046.59	1498.40	427.64	110.64	57.55	40.11
180.0	4899.11	4786.61	4240.19	3261.67	1668.91	461.75	93.40	54.45	38.75
202.5	4899.11	4893.18	4397.14	3461.25	1905.31	684.38	144.74	66.46	41.66
225.0	4899.11	4962.94	4488.21	3562.01	2097.13	973.29	217.99	86.03	54.84
247.5	4899.11	5013.32	4519.21	3558.13	2145.58	959.73	157.15	73.24	44.95
270.0	4899.11	4736.23	4257.63	3253.14	1738.28	486.16	99.79	61.42	41.66
292.5	4899.11	4697.48	4224.69	3175.64	1785.36	555.92	124.20	65.11	43.02
315.0	4899.11	4639.35	4244.07	3107.82	1737.50	566.57	139.32	68.01	46.31
337.5	4899.11	4550.22	8344.16	3000.28	1518.74	438.30	98.43	56.77	39.72
360.0	4899.11	4482.40	3862.15	2903.78	1348.42	333.47	85.26	51.35	37.01
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	30.03	26.16	21.51	17.44	13.95	10.08	7.36	4.65	1.94
22.5	31.00	25.77	21.31	17.05	13.56	10.08	6.98	4.26	1.74
45.0	30.62	24.22	20.35	16.47	12.60	9.11	6.39	3.68	1.36
67.5	29.45	25.00	20.35	16.28	12.79	9.30	6.01	3.29	1.55
90.0	30.42	25.97	21.51	17.25	12.98	9.69	6.39	3.49	1.16
112.5	31.39	25.97	21.31	16.86	12.98	9.88	6.59	3.49	1.16
135.0	31.78	25.00	20.54	16.86	12.98	9.69	6.59	3.88	1.36
157.5	31.97	26.55	21.90	17.63	13.37	9.88	6.98	4.26	1.74
180.0	31.00	26.74	22.28	17.63	13.37	10.27	6.98	4.26	1.94
202.5	33.13	27.13	22.67	18.60	14.34	10.46	7.75	4.84	2.33
225.0	34.68	27.32	22.09	18.02	14.53	11.24	7.75	4.65	2.33
247.5	34.88	27.13	23.45	18.99	14.92	11.43	8.14	5.04	2.33
270.0	32.36	27.32	22.86	18.41	14.73	11.05	7.75	4.84	2.33
292.5	33.13	26.55	22.48	18.41	14.34	10.85	7.94	5.04	2.33
315.0	32.36	26.74	21.90	17.63	13.95	10.66	7.94	4.84	2.33
337.5	31.39	26.55	22.09	18.21	14.15	10.66	7.56	4.84	2.33
360.0	30.03	26.16	21.51	17.44	13.95	10.08	7.36	4.65	1.94
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.19	0.00	0.00	0.00	0.19	0.00	0.19	0.19	0.00
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.19
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00
67.5	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.39
90.0	0.00	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	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.39	0.39	0.19	0.19	0.19	0.39	0.19	0.39	0.19
292.5	0.39	0.00	0.00	0.00	0.19	0.19	0.19	0.19	0.00
315.0	0.19	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00
337.5	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.19	0.19
360.0	0.19	0.00	0.00	0.00	0.19	0.00	0.19	0.19	0.00

LD4S-40K-HO

Intensity data(cd)

Appendix Page: 7 Total:7

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.39	0.39	0.78	1.16	1.74	2.13	2.71	2.91	3.10
22.5	0.19	0.39	0.78	1.16	1.74	2.13	2.71	2.71	3.29
45.0	0.39	0.39	0.97	1.36	1.74	2.33	2.71	3.10	2.91
67.5	0.19	0.39	0.97	1.16	1.74	2.33	2.71	2.71	3.10
90.0	0.00	0.39	0.78	1.16	1.74	2.13	2.71	2.91	2.91
112.5	0.19	0.19	0.58	0.97	1.55	1.94	2.71	2.71	2.91
135.0	0.00	0.19	0.58	1.16	1.36	2.13	2.33	2.91	2.91
157.5	0.00	0.19	0.58	0.78	1.55	1.94	2.52	2.71	2.91
180.0	0.00	0.00	0.58	0.78	1.36	1.94	2.33	2.71	3.10
202.5	0.00	0.00	0.39	0.78	1.16	1.94	2.33	2.71	2.91
225.0	0.00	0.19	0.39	0.78	1.36	1.74	2.13	2.91	2.91
247.5	0.00	0.00	0.39	0.78	1.16	1.74	2.13	2.91	2.71
270.0	0.58	0.39	0.78	1.16	1.74	2.33	2.91	3.10	3.29
292.5	0.19	0.39	0.58	0.97	1.36	2.13	2.33	2.52	2.91
315.0	0.19	0.58	0.58	1.16	1.55	1.94	2.52	2.71	3.10
337.5	0.39	0.39	0.58	1.16	1.55	2.13	2.52	2.91	3.10
360.0	0.39	0.39	0.78	1.16	1.74	2.13	2.71	2.91	3.10

C/γ(°)	180.0
0.0	3.08
22.5	3.08
45.0	3.08
67.5	3.08
90.0	3.08
112.5	3.08
135.0	3.08
157.5	3.08
180.0	3.08
202.5	3.08
225.0	3.08
247.5	3.08
270.0	3.08
292.5	3.08
315.0	3.08
337.5	3.08
360.0	3.08