



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.04

LampCAT:

Current(A): 0.3250

Lamp flux(lm): -1.0

Power (W): 38.90

Number of Lamps: 1

PF: 0.9968

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 4892.46, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 125.78

Central intensity(cd): 1689.193, Maximum intensity(cd): 1738.359

Angle of maximum intensity: C=112.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=111.2

[C90/270]Total=108.8

Field angle(10%Imax): [C0/180]Total=167.2

[C90/270]Total=159.3

Maximum s/h(1/2): C0_180=1.20 C90_270=1.28

Maximum s/h(1/4): C0_180=1.34 C90_270=1.38

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.07%

Down flux rate of LUM(%): 99.93%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 77.270%

Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1689.193	0.000	0	0.00%	0.00%
5.0	1688.677	40.381	40.381	0.00%	0.83%
10.0	1666.625	120.030	160.411	0.00%	3.28%
15.0	1626.636	195.354	355.765	0.00%	7.27%
20.0	1570.952	263.526	619.291	0.00%	12.66%
25.0	1501.514	322.245	941.536	0.00%	19.24%
30.0	1419.636	369.674	1311.21	0.00%	26.80%
35.0	1325.179	404.193	1715.403	0.00%	35.06%
40.0	1223.067	425.156	2140.559	0.00%	43.75%
45.0	1112.751	432.496	2573.054	0.00%	52.59%
50.0	994.999	425.902	2998.956	0.00%	61.30%
55.0	874.184	406.422	3405.378	0.00%	69.60%
60.0	748.364	375.047	3780.426	0.00%	77.27%
65.0	617.993	332.164	4112.59	0.00%	84.06%
70.0	485.844	279.499	4392.089	0.00%	89.77%
75.0	355.623	219.946	4612.035	0.00%	94.27%
80.0	231.336	157.054	4769.089	0.00%	97.48%
85.0	104.027	91.126	4860.215	0.00%	99.34%
90.0	1.285	28.835	4889.05	0.00%	99.93%
95.0	0.260	0.423	4889.473	0.00%	99.94%
100.0	0.164	0.115	4889.588	0.00%	99.94%
105.0	0.191	0.095	4889.683	0.00%	99.94%
110.0	0.232	0.111	4889.793	0.00%	99.95%
115.0	0.328	0.142	4889.935	0.00%	99.95%
120.0	0.396	0.176	4890.111	0.00%	99.95%
125.0	0.478	0.202	4890.314	0.00%	99.96%
130.0	0.615	0.238	4890.551	0.00%	99.96%
135.0	0.765	0.279	4890.83	0.00%	99.97%
140.0	0.738	0.278	4891.109	0.00%	99.97%
145.0	0.820	0.260	4891.369	0.00%	99.98%
150.0	0.916	0.256	4891.624	0.00%	99.98%
155.0	1.053	0.249	4891.873	0.00%	99.99%
160.0	0.971	0.212	4892.086	0.00%	99.99%
165.0	0.998	0.162	4892.248	0.00%	100.00%
170.0	1.012	0.119	4892.367	0.00%	100.00%
175.0	0.957	0.070	4892.438	0.00%	100.00%
180.0	1.094	0.025	4892.462	0.00%	100.00%

Equipment: GMS-3000
Temperature($^{\circ}\text{C}$): 25

Date:
Humidity(%): 59%

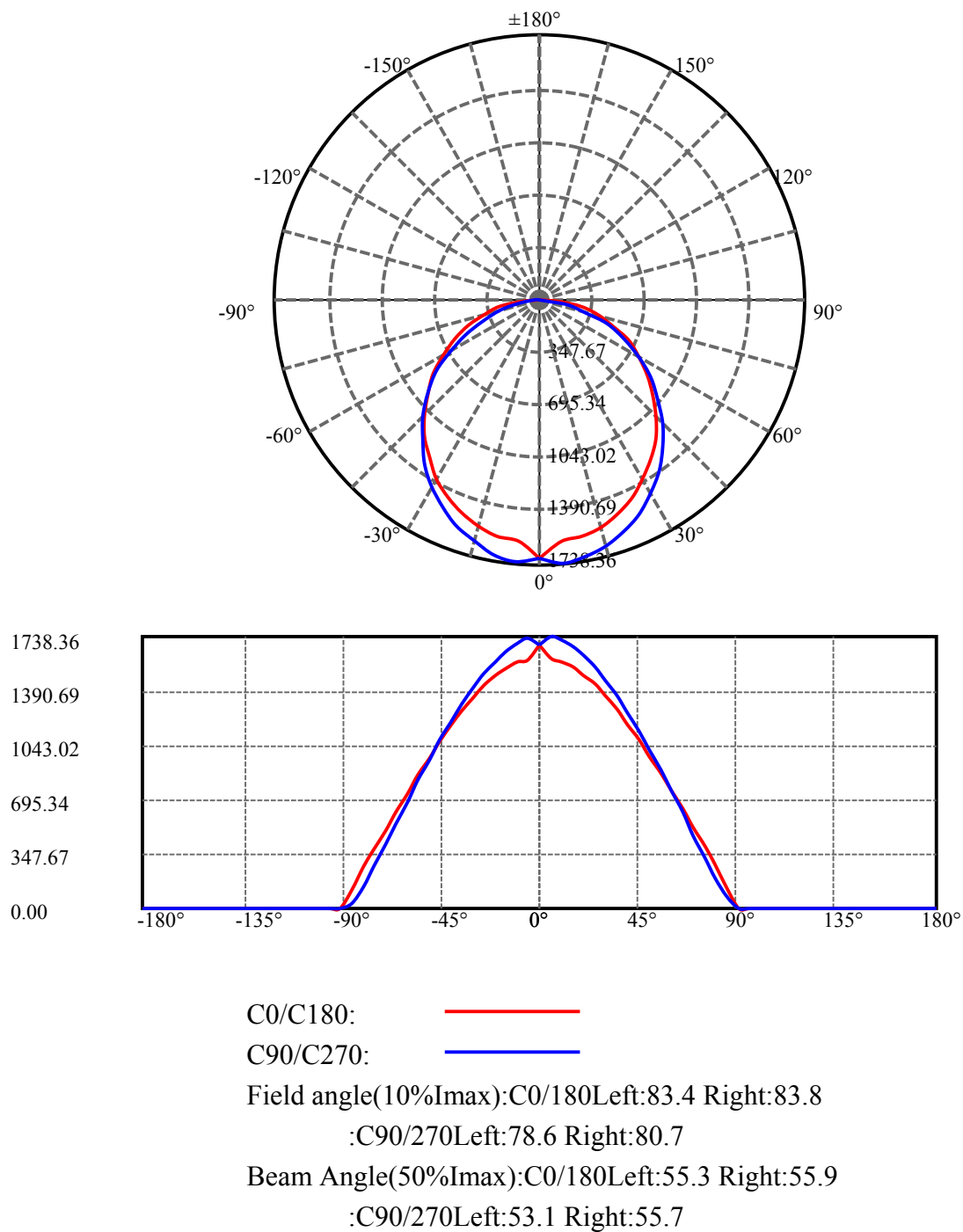
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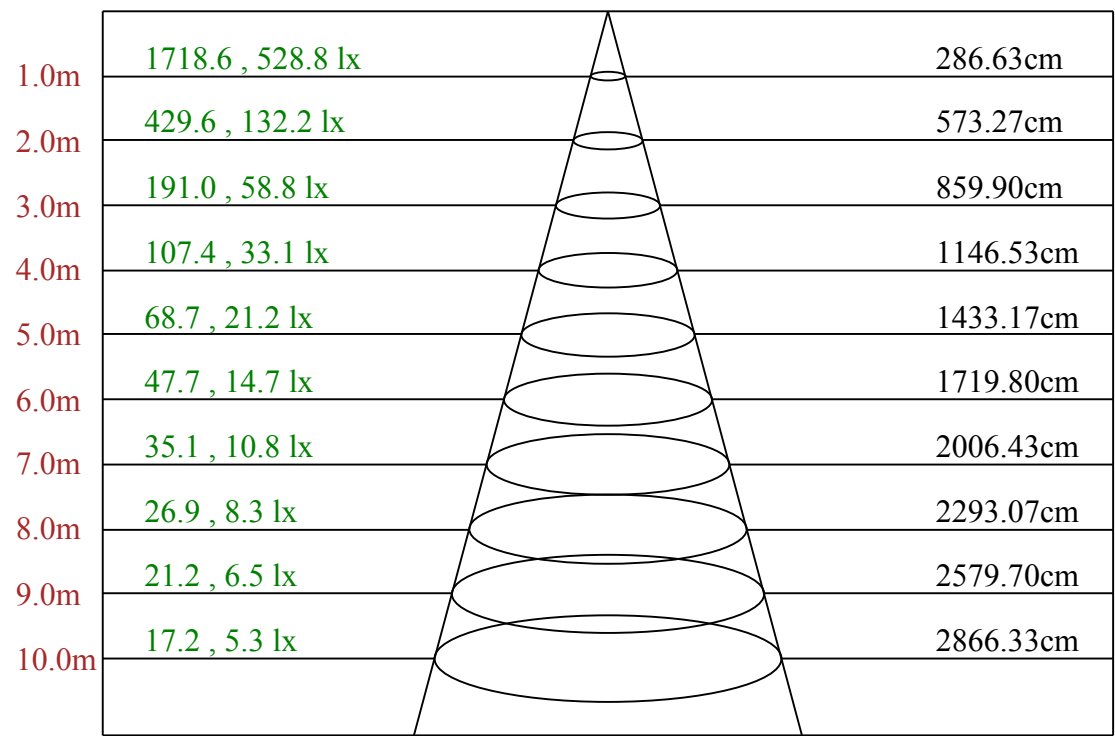
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1311.21	N.A.	26.80%
0-40	2140.56	N.A.	43.75%
0-60	3780.43	N.A.	77.27%
0-90	4889.05	N.A.	99.93%
0-120	4890.11	N.A.	99.95%
0-180	4892.46	N.A.	100.00%
60-90	1108.62	N.A.	22.66%
90-120	1.06	N.A.	0.02%
90-130	1.50	N.A.	0.03%
90-150	2.57	N.A.	0.05%
90-180	3.39	N.A.	0.07%
0-62.01	3913.97	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	160.41
10-20	458.88
20-30	691.92
30-40	829.35
40-50	858.40
50-60	781.47
60-70	611.66
70-80	377.00
80-90	119.96
90-100	0.54
100-110	0.21
110-120	0.32
120-130	0.44
130-140	0.56
140-150	0.52
150-160	0.46
160-170	0.28
170-180	0.07





Max , Ave Beam angle of C112.5 plane 110.19

Intensity data(cd)

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C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1689.19	1593.33	1577.58	1543.90	1494.46	1434.74	1356.21	1272.00	1182.09
22.5	1689.19	1650.42	1633.36	1593.99	1544.99	1477.84	1399.74	1314.87	1219.28
45.0	1689.19	1729.83	1705.99	1664.21	1609.52	1537.33	1453.34	1357.96	1256.90
67.5	1689.19	1720.42	1694.61	1650.64	1590.71	1516.12	1431.24	1331.50	1222.78
90.0	1689.19	1736.17	1714.08	1674.27	1617.83	1546.08	1462.74	1364.74	1255.81
112.5	1689.19	1738.36	1714.74	1675.58	1615.86	1545.21	1458.59	1359.06	1252.97
135.0	1689.19	1731.58	1707.74	1668.58	1612.58	1540.83	1459.24	1363.43	1258.65
157.5	1689.19	1642.99	1619.58	1581.96	1533.83	1472.80	1389.90	1304.37	1206.81
180.0	1689.19	1586.55	1575.40	1534.93	1487.24	1427.31	1351.18	1261.06	1172.03
202.5	1689.19	1631.18	1622.43	1590.71	1534.49	1472.15	1400.40	1307.43	1207.69
225.0	1689.19	1725.67	1697.02	1656.99	1599.46	1526.83	1442.84	1346.37	1240.94
247.5	1689.19	1719.55	1692.64	1649.55	1589.61	1515.24	1433.43	1332.59	1224.75
270.0	1689.19	1725.89	1694.39	1642.77	1579.99	1500.80	1410.90	1308.31	1195.66
292.5	1689.19	1730.70	1699.86	1652.83	1591.15	1513.71	1423.59	1322.96	1216.44
315.0	1689.19	1724.80	1701.17	1658.96	1601.21	1528.37	1446.12	1350.31	1245.97
337.5	1689.19	1631.39	1615.43	1586.33	1532.30	1468.87	1394.71	1305.90	1210.31
360.0	1689.19	1593.33	1577.58	1543.90	1494.46	1434.74	1356.21	1272.00	1182.09

C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1081.47	969.91	863.38	755.32	641.58	521.49	404.46	283.93	131.68
22.5	1110.13	997.91	894.23	776.76	653.39	527.17	407.74	284.37	126.00
45.0	1144.03	1025.25	901.44	775.89	641.80	503.99	363.99	240.62	113.31
67.5	1109.25	986.97	857.70	722.95	589.52	449.96	311.49	180.90	74.15
90.0	1139.00	1017.82	886.13	753.14	611.39	468.99	324.62	190.31	70.65
112.5	1135.94	1013.00	888.32	753.36	613.36	473.14	337.52	204.31	94.94
135.0	1145.56	1025.25	902.98	772.39	637.42	504.42	368.80	243.24	122.50
157.5	1107.50	994.19	878.48	757.95	635.45	510.11	386.52	275.62	127.31
180.0	1069.44	959.19	851.57	733.01	612.05	494.36	379.74	269.27	120.09
202.5	1101.38	990.47	872.57	750.51	625.83	501.58	380.83	262.49	124.90
225.0	1131.78	1012.35	887.45	762.10	628.23	491.74	361.80	239.53	121.84
247.5	1109.47	992.22	865.35	732.57	597.17	462.64	328.99	196.00	93.19
270.0	1075.57	949.35	820.29	682.70	542.49	405.55	266.21	135.84	34.34
292.5	1099.85	977.13	848.29	717.92	580.55	442.96	306.24	180.90	75.25
315.0	1136.81	1016.94	890.95	762.10	634.58	499.17	364.87	239.53	110.25
337.5	1106.85	992.00	877.82	765.17	643.11	516.24	396.15	274.52	124.03
360.0	1081.47	969.91	863.38	755.32	641.58	521.49	404.46	283.93	131.68

C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.66	0.44	0.44	0.22	0.66	0.44	0.44	0.66	0.44
22.5	0.44	0.44	0.44	0.44	0.22	0.44	0.66	0.44	0.66
45.0	0.44	0.44	0.22	0.22	0.44	0.66	0.44	0.66	0.66
67.5	0.66	0.44	0.22	0.44	0.44	0.66	0.44	0.66	0.88
90.0	3.72	0.00	0.00	0.00	0.00	0.22	0.22	0.44	0.66
112.5	1.31	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44
135.0	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.66
157.5	0.44	0.00	0.00	0.00	0.00	0.00	0.22	0.22	0.22
180.0	1.09	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.44
202.5	1.75	0.00	0.00	0.00	0.00	0.00	0.22	0.22	0.22
225.0	2.41	0.00	0.00	0.00	0.00	0.22	0.22	0.44	0.44
247.5	4.59	0.00	0.00	0.00	0.00	0.44	0.22	0.22	0.44
270.0	0.66	0.66	0.66	0.44	0.66	0.88	1.09	1.09	1.09
292.5	0.66	0.66	0.44	0.44	0.44	0.44	0.66	0.66	1.09
315.0	0.66	0.66	0.22	0.44	0.44	0.44	0.66	0.66	0.88
337.5	0.44	0.44	0.00	0.44	0.44	0.22	0.44	0.66	0.66
360.0	0.66	0.44	0.44	0.22	0.66	0.44	0.44	0.66	0.44

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	0.66	1.09	0.88	0.66	0.88	0.88	1.09	1.09	1.09
22.5	0.66	0.88	0.88	0.66	0.88	1.09	0.66	1.09	0.66
45.0	0.88	0.88	0.88	1.09	1.09	1.09	1.09	1.31	1.09
67.5	1.09	0.88	1.09	1.31	1.31	1.31	1.09	1.09	0.88
90.0	0.88	0.88	0.88	1.09	1.09	1.09	1.09	1.09	1.09
112.5	0.66	0.66	0.88	0.88	1.09	0.88	1.09	0.88	1.09
135.0	0.44	0.44	0.44	0.88	0.88	0.88	1.09	1.09	0.88
157.5	0.66	0.22	0.66	0.66	0.88	0.66	0.88	0.66	0.66
180.0	0.44	0.44	0.44	0.66	0.88	0.66	0.66	0.66	0.88
202.5	0.44	0.44	0.44	0.44	0.66	0.66	0.66	0.66	0.66
225.0	0.66	0.44	0.66	0.88	1.09	0.88	1.09	1.09	0.88
247.5	0.66	0.88	0.88	1.09	1.09	0.88	1.31	1.09	0.88
270.0	1.31	1.09	1.31	1.53	1.75	1.31	1.53	1.31	1.53
292.5	1.09	1.09	1.09	1.09	1.09	1.31	0.88	1.09	1.31
315.0	1.09	0.88	0.88	1.09	1.09	1.09	0.88	0.88	0.88
337.5	0.66	0.66	0.88	0.66	1.09	0.88	0.88	1.09	0.88
360.0	0.66	1.09	0.88	0.66	0.88	0.88	1.09	1.09	1.09
C/γ(°)	180.0								
0.0	1.09								
22.5	1.09								
45.0	1.09								
67.5	1.09								
90.0	1.09								
112.5	1.09								
135.0	1.09								
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