Shenzhen Belling Efficiency Testing Lab 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

ASD Lighting Corp.

Report No	:	Voltage	: 120.02 V
Test No	:	Current	: 0.2487 A
LumCAT	:	Power	: 29.697 W
Luminaire	: ASD-LWRF-4D3040	PF	: 0.9949
LampCAT	:	Ballast type	:
Lamp flux	: 3125.1 lm	Width	: 0 mm
Number of Lamps	: 1	Length	: 0 mm
Phm Type	: C	Height	: 0 mm

Photometric Results

Lumens(lm)	: 3125.07	Central intensity(cd)	: 1185.758
Efficiency(%)	: 100.00%	Maximum intensity(cd)	: 1282.890
Luminous Efficacy(lm/W)	: 105.23	Angle of maximum intensity	: C=112.5 γ=0.0

Beam Angle(50%Imax)	: [C0/180]Total=95.9 [C90/270]Total=100.4
Field angle(10%Imax)	: [C0/180]Total=160.7 [C90/270]Total=156.2
Maximum s/h(1/2)	: C0_180=1.16 C90_270=1.21
Maximum s/h(1/4)	: C0_180=1.27 C90_270=1.32
Up flux rate of lamp(%)	: 0.94%
Down flux rate of lamp(%)	: 99.06%
Up flux rate of LUM(%)	: 0.94%
Down flux rate of LUM(%)	: 99.06%
CIE Type	: Direct lighting
Output flux ratio in π solid angle :	: 79.732%

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

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1253.983	0.000	0	0.00%	0.00%
5.0	1246.441	29.892	29.892	0.96%	0.96%
10.0	1221.898	88.300	118.192	2.83%	3.78%
15.0	1179.836	142.469	260.661	4.56%	8.34%
20.0	1122.121	189.714	450.375	6.07%	14.41%
25.0	1052.017	228.027	678.402	7.30%	21.71%
30.0	971.663	256.098	934.5	8.19%	29.90%
35.0	883.940	273.251	1207.751	8.74%	38.65%
40.0	793.090	279.800	1487.551	8.95%	47.60%
45.0	700.063	276.469	1764.02	8.85%	56.45%
50.0	607.394	264.191	2028.211	8.45%	64.90%
55.0	517.632	244.618	2272.829	7.83%	72.73%
60.0	429.204	218.859	2491.687	7.00%	79.73%
65.0	343.831	187.926	2679.614	6.01%	85.75%
70.0	261.375	153.242	2832.856	4.90%	90.65%
75.0	183.099	116.178	2949.034	3.72%	94.37%
80.0	112.896	79.200	3028.234	2.53%	96.90%
85.0	56.269	45.966	3074.2	1.47%	98.37%
90.0	22.181	21.480	3095.68	0.69%	99.06%
95.0	8.630	8.436	3104.117	0.27%	99.33%
100.0	4.167	3.477	3107.594	0.11%	99.44%
105.0	2.226	1.710	3109.304	0.05%	99.50%
110.0	2.337	1.193	3110.497	0.04%	99.53%
115.0	2.560	1.240	3111.736	0.04%	99.57%
120.0	2.720	1.284	3113.02	0.04%	99.61%
125.0	2.967	1.315	3114.335	0.04%	99.66%
130.0	3.314	1.366	3115.7	0.04%	99.70%
135.0	3.647	1.407	3117.107	0.05%	99.75%
140.0	3.919	1.401	3118.508	0.04%	99.79%
145.0	4.290	1.370	3119.878	0.04%	99.83%
150.0	4.500	1.294	3121.172	0.04%	99.88%
155.0	4.661	1.159	3122.332	0.04%	99.91%
160.0	4.847	0.997	3123.329	0.03%	99.94%
165.0	4.748	0.791	3124.119	0.03%	99.97%
170.0	4.364	0.541	3124.66	0.02%	99.99%
175.0	4.253	0.308	3124.968	0.01%	100.00%
180.0	4.204	0.101	3125.069	0.00%	100.00%

Zonal flux distribution table

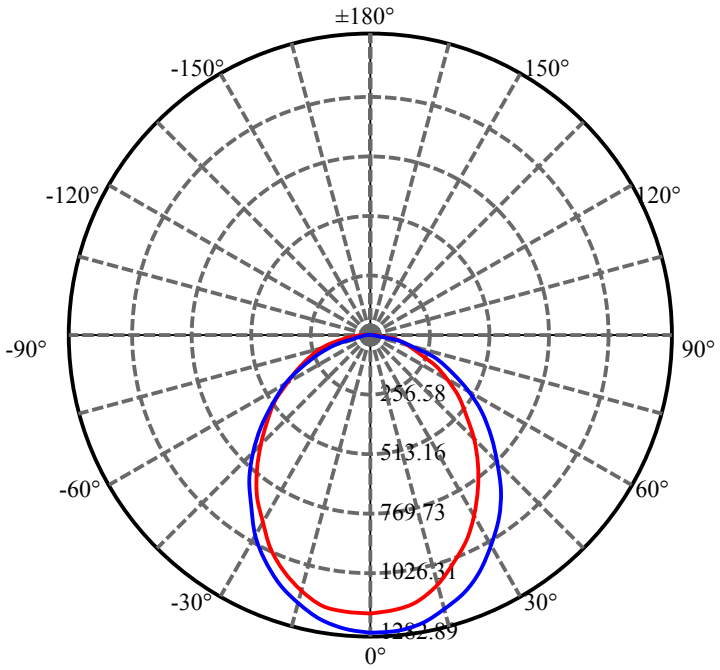
ZONAL LUMEN SUMMARY

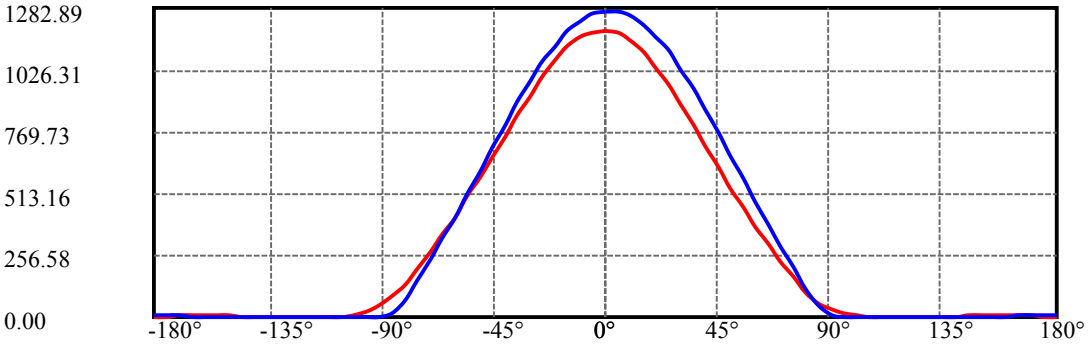
Zone	Lumens	%Lamp	%Fixt
0-30	934.50	29.90%	29.90%
0-40	1487.55	47.60%	47.60%
0-60	2491.69	79.73%	79.73%
0-90	3095.68	99.06%	99.06%
0-120	3113.02	99.61%	99.61%
0-180	3125.07	100.00%	100.00%
60-90	603.99	19.33%	19.33%
90-120	17.34	0.55%	0.55%
90-130	20.02	0.64%	0.64%
90-150	25.49	0.82%	0.82%
90-180	29.29	0.94%	0.94%
0-60.22	2500.06	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	118.19
10-20	332.18
20-30	484.13
30-40	553.05
40-50	540.66
50-60	463.48
60-70	341.17
70-80	195.38
80-90	67.45
90-100	11.91
100-110	2.90
110-120	2.52
120-130	2.68
130-140	2.81
140-150	2.66
150-160	2.16
160-170	1.33
170-180	0.31

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

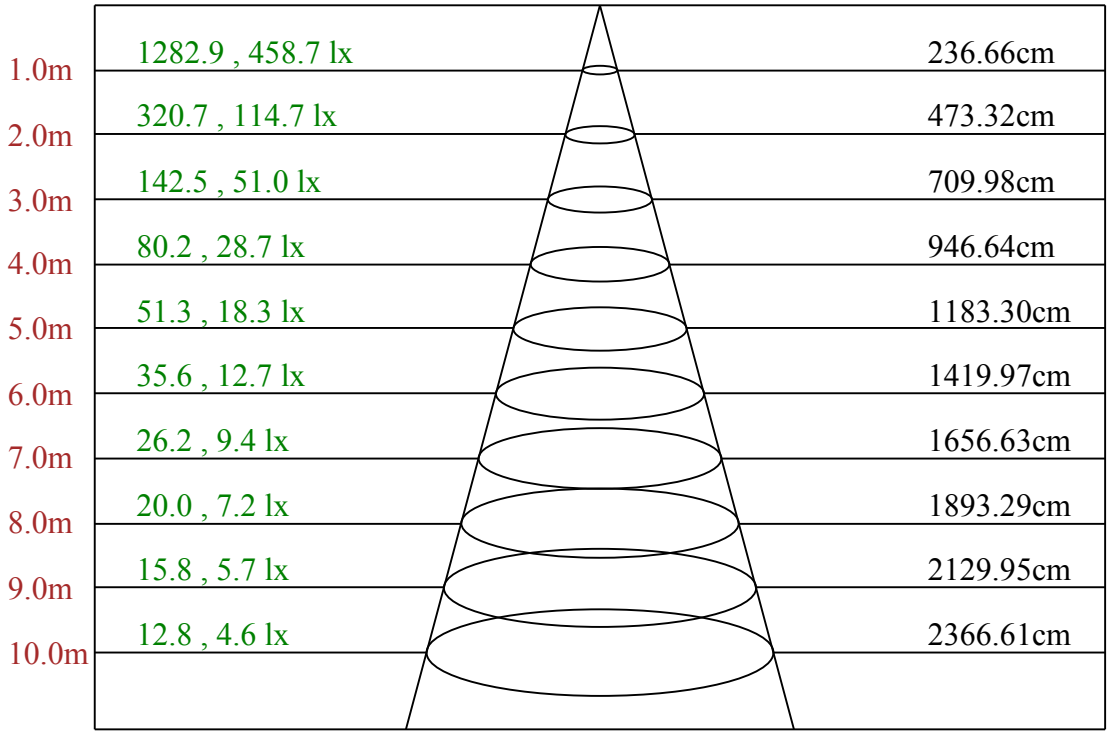
Field angle(10%Imax):C0/180Left:81.8 Right:78.9

:C90/270Left:76.5 Right:79.7

Beam Angle(50%Imax):C0/180Left:49.2 Right:46.7

:C90/270Left:48.5 Right:51.9

Lux distance Curve

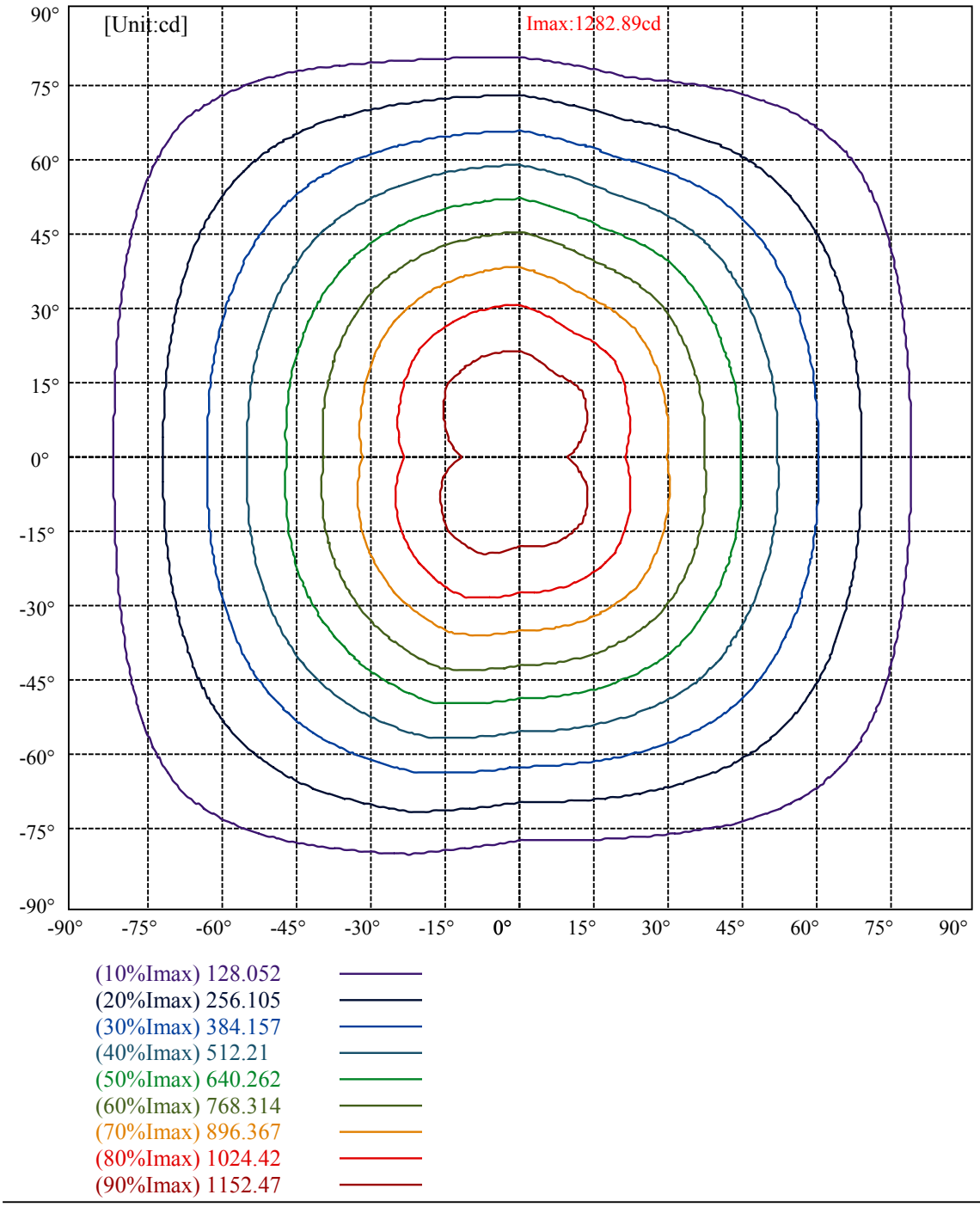


Max , Ave

Beam angle of C112.5 plane 99.60

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

ISO-Intensity(V-H)



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

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	1185.76	1175.47	1149.36	1100.89	1038.18	967.36	885.46	799.61	711.97
22.5	1239.96	1228.69	1195.65	1143.23	1082.30	1002.18	917.11	827.50	737.69
45.0	1282.10	1269.04	1238.38	1190.31	1127.20	1054.80	969.54	873.59	780.81
67.5	1272.21	1259.94	1230.86	1188.33	1129.38	1057.37	974.88	887.44	792.29
90.0	1268.65	1266.27	1247.88	1213.85	1166.97	1105.24	1030.86	947.78	859.74
112.5	1282.89	1278.93	1258.16	1221.96	1169.54	1105.64	1024.93	940.26	847.68
135.0	1278.93	1273.39	1251.44	1211.48	1155.69	1085.46	1007.32	919.09	825.92
157.5	1221.37	1231.06	1206.13	1163.40	1110.78	1041.74	957.27	872.21	784.18
180.0	1185.76	1178.44	1165.78	1123.64	1065.88	998.22	919.69	835.41	750.74
202.5	1239.96	1226.91	1213.45	1177.65	1117.51	1050.05	974.48	885.07	792.88
225.0	1282.10	1276.56	1252.62	1213.45	1156.09	1085.66	1004.95	915.93	826.91
247.5	1272.21	1268.65	1249.06	1214.05	1161.43	1096.34	1022.36	937.29	847.48
270.0	1268.65	1256.38	1227.30	1183.58	1127.20	1057.77	977.65	889.81	798.62
292.5	1282.89	1270.03	1240.16	1194.86	1134.13	1061.33	982.00	891.79	796.64
315.0	1278.93	1265.09	1234.42	1189.12	1127.99	1053.81	971.71	884.27	788.73
337.5	1221.37	1218.20	1189.72	1147.58	1083.68	1009.30	926.41	836.01	747.18
360.0	1185.76	1175.47	1149.36	1100.89	1038.18	967.36	885.46	799.61	711.97

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	623.15	534.52	456.97	376.46	302.47	229.87	164.39	105.44	58.75
22.5	642.73	554.11	471.22	390.90	310.58	234.82	164.39	105.24	56.97
45.0	686.45	591.69	499.11	408.90	323.64	239.76	161.23	93.57	43.92
67.5	695.35	599.61	508.01	412.07	323.64	234.62	152.52	78.73	26.11
90.0	765.38	669.24	574.88	477.75	384.18	291.99	206.53	122.45	49.65
112.5	751.73	659.15	564.00	470.82	378.83	291.40	205.14	125.22	58.56
135.0	734.13	639.96	546.98	457.17	373.49	290.01	208.51	136.10	73.79
157.5	695.95	608.31	519.49	436.80	357.27	279.53	207.12	140.65	84.08
180.0	663.50	579.82	498.91	417.81	339.66	270.23	200.40	137.29	84.87
202.5	701.68	616.22	527.40	442.73	361.62	282.89	206.73	140.85	83.48
225.0	733.33	640.36	551.53	462.12	374.28	289.81	211.08	136.50	73.79
247.5	756.88	661.52	565.98	470.82	378.83	291.79	206.92	127.40	60.14
270.0	701.88	604.35	507.62	415.83	324.43	235.21	149.16	74.18	17.21
292.5	702.08	601.39	508.21	415.23	325.42	240.55	156.08	81.50	27.30
315.0	691.79	596.44	506.03	414.84	326.81	241.94	163.60	97.33	45.50
337.5	655.00	561.62	475.77	397.03	316.12	237.59	165.78	103.86	56.18
360.0	623.15	534.52	456.97	376.46	302.47	229.87	164.39	105.44	58.75

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	28.29	12.46	6.13	2.18	2.37	3.17	2.77	2.97	2.97
22.5	25.72	10.29	5.54	2.18	3.17	2.77	2.57	2.97	3.36
45.0	16.02	5.74	2.18	2.57	2.57	2.97	3.17	3.17	3.76
67.5	5.54	1.98	2.18	2.37	2.57	2.77	3.36	3.76	4.15
90.0	6.33	0.99	1.39	1.58	2.37	2.18	2.37	2.57	2.57
112.5	15.43	3.36	1.39	1.98	2.18	2.18	2.77	3.36	3.76
135.0	30.86	10.68	4.75	1.98	2.18	2.37	2.97	3.17	3.56
157.5	42.33	18.79	7.91	1.78	1.78	2.37	2.18	2.57	2.97
180.0	44.91	20.57	9.10	3.56	1.78	2.77	2.18	2.37	2.97
202.5	41.94	18.00	7.72	1.98	1.98	2.77	2.37	2.77	3.17
225.0	31.06	10.88	4.55	1.78	2.18	2.18	2.57	2.77	3.17
247.5	16.22	3.76	1.78	1.98	2.18	2.37	2.97	3.17	3.56
270.0	1.38	1.78	1.98	2.57	2.18	2.37	2.97	2.77	2.97
292.5	6.13	1.98	1.98	2.18	2.57	2.57	2.77	3.17	3.36
315.0	16.82	6.13	2.37	2.57	2.57	2.37	2.77	2.97	3.36
337.5	25.92	10.68	5.74	2.37	2.77	2.77	2.77	2.97	3.36
360.0	28.29	12.46	6.13	2.18	2.37	3.17	2.77	2.97	2.97

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	3.36	3.76	4.35	4.55	4.55	5.54	4.75	4.15	3.96
22.5	3.56	3.76	4.35	4.55	4.95	5.54	4.35	3.56	4.15
45.0	3.76	4.35	4.75	5.14	4.95	4.55	4.35	4.35	4.55
67.5	4.75	4.95	4.35	4.35	3.96	4.35	3.96	4.35	4.55
90.0	3.56	3.17	3.17	2.97	3.17	3.56	4.15	4.35	4.35
112.5	3.76	4.15	4.95	4.15	4.15	3.96	4.35	3.96	4.35
135.0	3.56	4.15	4.55	4.55	4.35	4.55	4.55	3.76	4.35
157.5	3.17	3.56	4.15	4.55	4.95	4.55	4.75	4.35	3.56
180.0	2.97	3.36	3.76	4.15	4.75	4.75	6.33	5.34	3.76
202.5	3.56	3.56	4.15	4.55	4.75	4.95	6.33	5.74	4.15
225.0	3.56	3.96	4.55	4.95	4.95	6.33	5.74	4.55	4.35
247.5	3.76	4.15	4.55	4.75	5.54	5.14	4.55	4.15	4.55
270.0	3.36	2.97	3.17	3.17	3.36	3.96	3.76	4.15	4.15
292.5	3.96	4.95	4.55	5.54	4.95	4.35	4.15	4.55	4.75
315.0	3.96	4.15	4.75	5.34	6.33	5.14	4.75	4.15	4.55
337.5	3.76	3.76	4.55	4.75	4.95	6.33	5.14	4.35	3.96
360.0	3.36	3.76	4.35	4.55	4.55	5.54	4.75	4.15	3.96

C/γ(°)	180.0
0.0	3.56
22.5	4.15
45.0	4.15
67.5	4.35
90.0	4.15
112.5	4.55
135.0	4.55
157.5	4.15
180.0	3.56
202.5	4.15
225.0	4.15
247.5	4.35
270.0	4.15
292.5	4.55
315.0	4.55
337.5	4.15
360.0	3.56