Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
www.bellingtest.com

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LumCAT: LL2G-30K
Luminaire:
Report No:
Test No: Sam
LampCAT:
Lamp flux(lm): 401.6
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 120.12
Current(A): 0.0413
Power (W): 4.7080
PF: 0.9482
Ballast type:
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 401.57
Efficiency(%): 100.00%
Lumens(lm)/Power(W): 85.30
Central intensity(cd): 677.552
Maximum intensity(cd): 739.217
Angle of maximum intensity: C=202.5 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=36.7
[C90/270]Total=36.9
Field angle(10%Imax): [C0/180]Total=67.0
[C90/270]Total=67.3
Maximum s/h(1/2): C0_180=0.79 C90_270=0.38
Maximum s/h(1/4): C0_180=0.74 C90_270=0.44
Up flux rate of lamp(%): 0.26%
Down flux rate of lamp(%): 97.77%
Up flux rate of LUM(%): -1.75%
Down flux rate of LUM(%): 99.74%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.720%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	677.552	0.000	0	.000%	.000%
5.0	643.167	15.833	15.833	3.943%	3.943%
10.0	567.783	43.719	59.552	10.888%	14.830%
15.0	459.442	61.908	121.459	15.417%	30.246%
20.0	339.696	67.283	188.742	16.756%	47.001%
25.0	228.721	61.130	249.873	15.224%	62.223%
30.0	141.537	48.101	297.974	11.979%	74.201%
35.0	82.045	33.771	331.744	8.410%	82.611%
40.0	46.915	22.039	353.783	5.488%	88.099%
45.0	27.803	14.155	367.938	3.525%	91.624%
50.0	17.446	9.339	377.277	2.326%	93.949%
55.0	11.895	6.502	383.779	1.619%	95.568%
60.0	8.596	4.819	388.598	1.200%	96.768%
65.0	6.408	3.705	392.303	.923%	97.691%
70.0	4.742	2.867	395.17	.714%	98.405%
75.0	3.442	2.179	397.349	.543%	98.948%
80.0	2.236	1.560	398.909	.388%	99.336%
85.0	1.380	1.024	399.932	.255%	99.591%
90.0	0.730	0.606	400.538	.151%	99.742%
95.0	0.143	0.248	400.786	.062%	99.803%
100.0	0.016	0.043	400.829	.011%	99.814%
105.0	0.000	0.004	400.833	.001%	99.815%
110.0	0.000	0.000	400.833	.000%	99.815%
115.0	0.032	0.008	400.841	.002%	99.817%
120.0	0.064	0.023	400.864	.006%	99.823%
125.0	0.111	0.040	400.905	.010%	99.833%
130.0	0.143	0.054	400.958	.013%	99.846%
135.0	0.159	0.058	401.016	.014%	99.861%
140.0	0.238	0.072	401.088	.018%	99.879%
145.0	0.254	0.082	401.17	.020%	99.899%
150.0	0.270	0.077	401.247	.019%	99.918%
155.0	0.365	0.080	401.327	.020%	99.938%
160.0	0.381	0.077	401.405	.019%	99.958%
165.0	0.429	0.066	401.471	.016%	99.974%
170.0	0.508	0.056	401.526	.014%	99.988%
175.0	0.508	0.036	401.563	.009%	99.997%
180.0	0.508	0.012	401.575	.003%	100.000%

Zonal flux distribution table

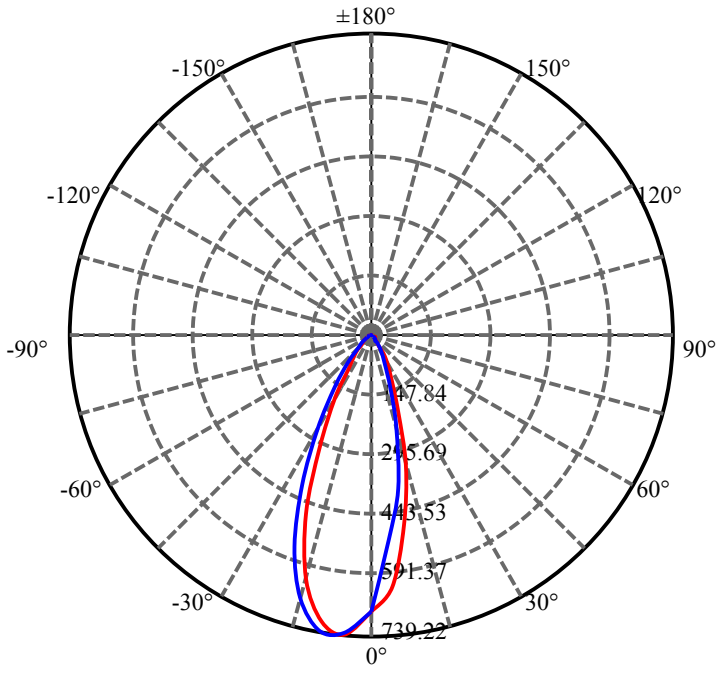
ZONAL LUMEN SUMMARY

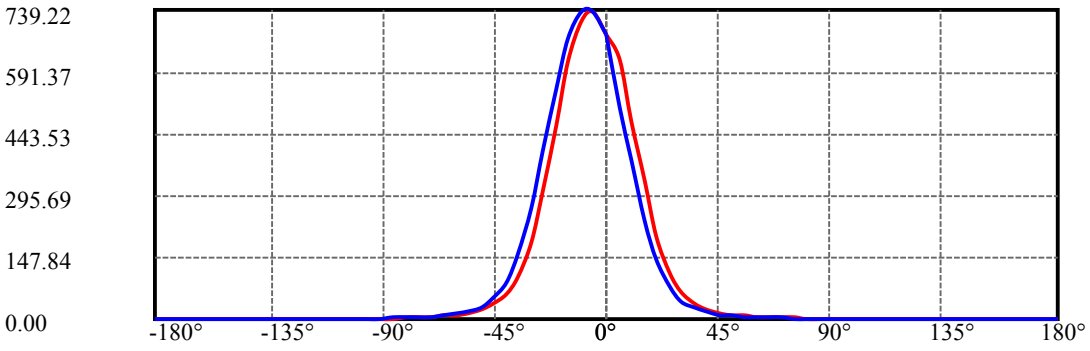
Zone	Lumens	%Lamp	%Fixt
0-30	297.97	74.21%	74.20%
0-40	353.78	88.10%	88.10%
0-60	388.60	96.77%	96.77%
0-90	400.54	99.75%	99.74%
0-120	400.86	99.83%	99.82%
0-180	401.57	100.01%	100.00%
60-90	16.76	4.17%	4.17%
90-120	0.93	0.23%	0.23%
90-130	1.03	0.26%	0.26%
90-150	1.31	0.33%	0.33%
90-180	1.63	0.41%	0.41%
0-33.45	321.26	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	59.55
10-20	129.19
20-30	109.23
30-40	55.81
40-50	23.49
50-60	11.32
60-70	6.57
70-80	3.74
80-90	1.63
90-100	0.29
100-110	0.00
110-120	0.03
120-130	0.09
130-140	0.13
140-150	0.16
150-160	0.16
160-170	0.12
170-180	0.04

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:33.2 Right:33.8

:C90/270Left:31.6 Right:35.7

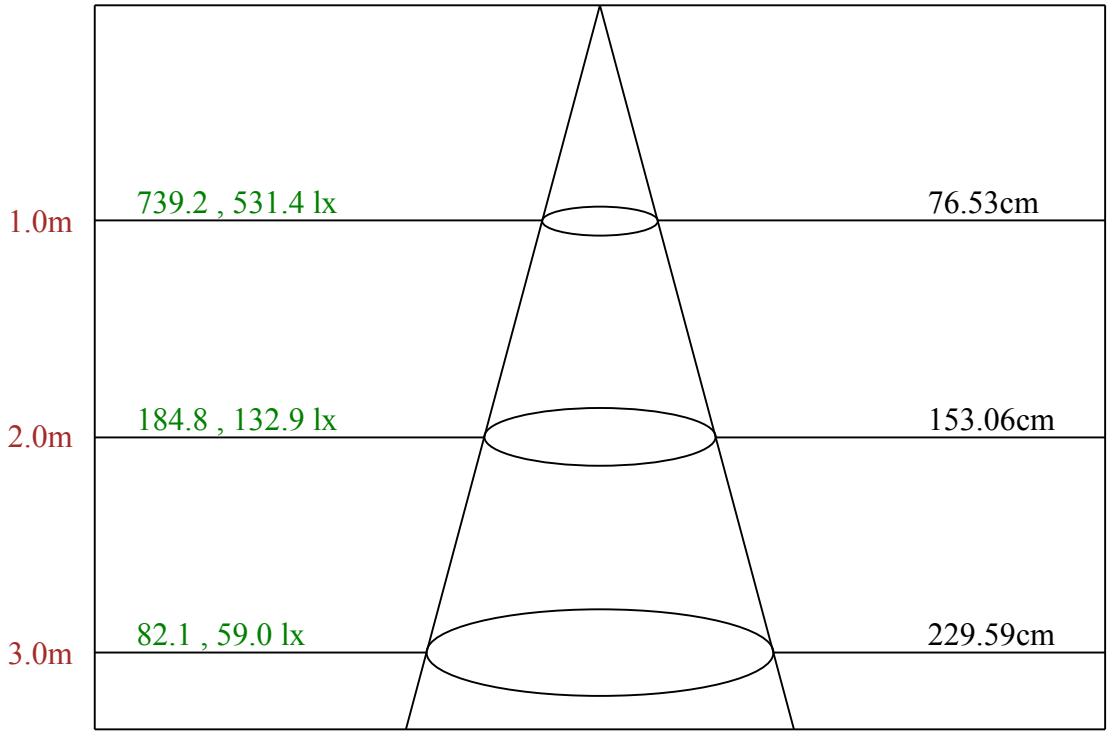
Beam Angle(50%Imax):C0/180Left:18.0 Right:18.7

:C90/270Left:16.4 Right:20.5

Equipment: GMS-3000 Date: Operator: Sam

Temperature(°C): 25 Humidity(%): 58%

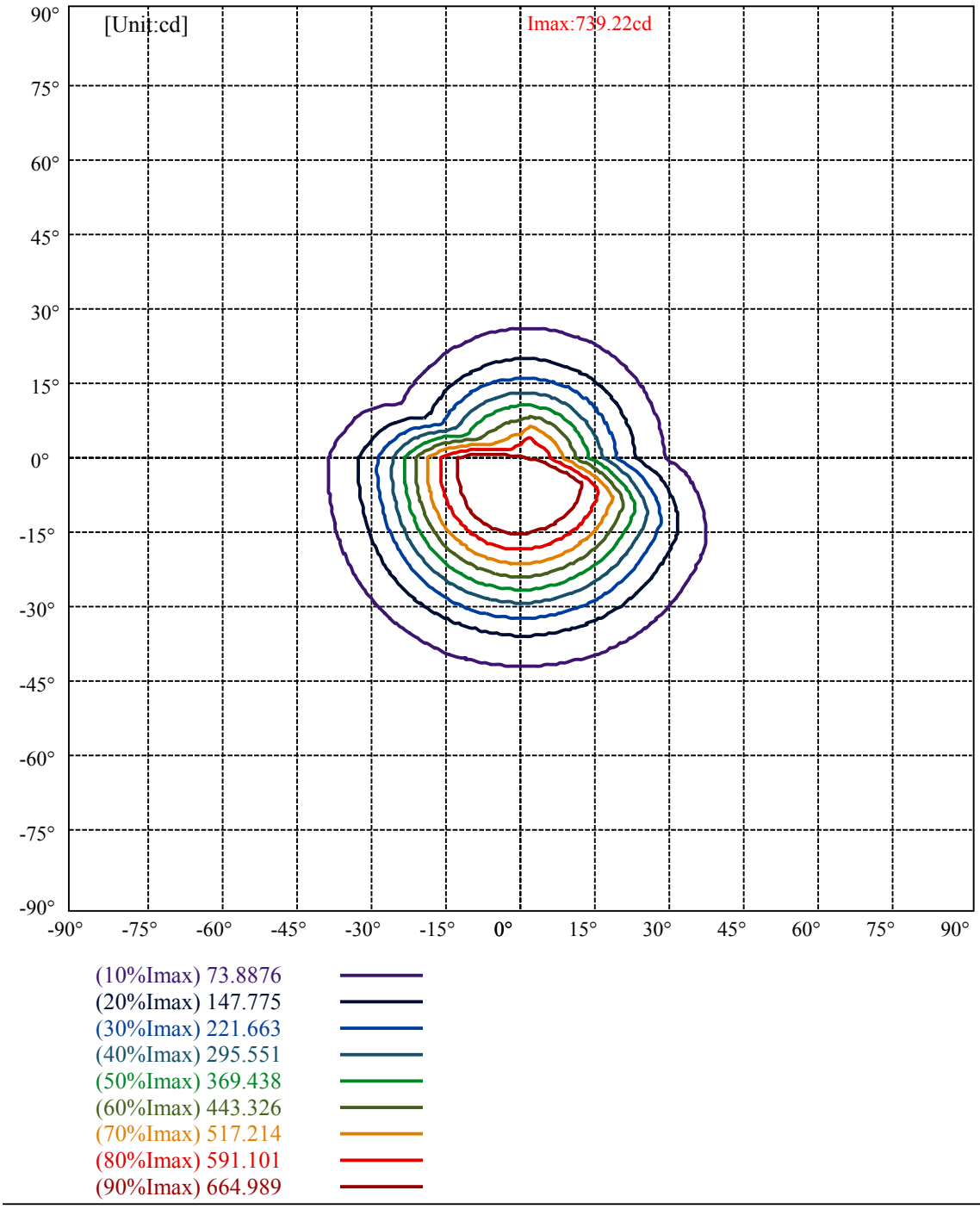
Lux distance Curve



Max , Ave

Beam angle of C202.5 plane 41.45

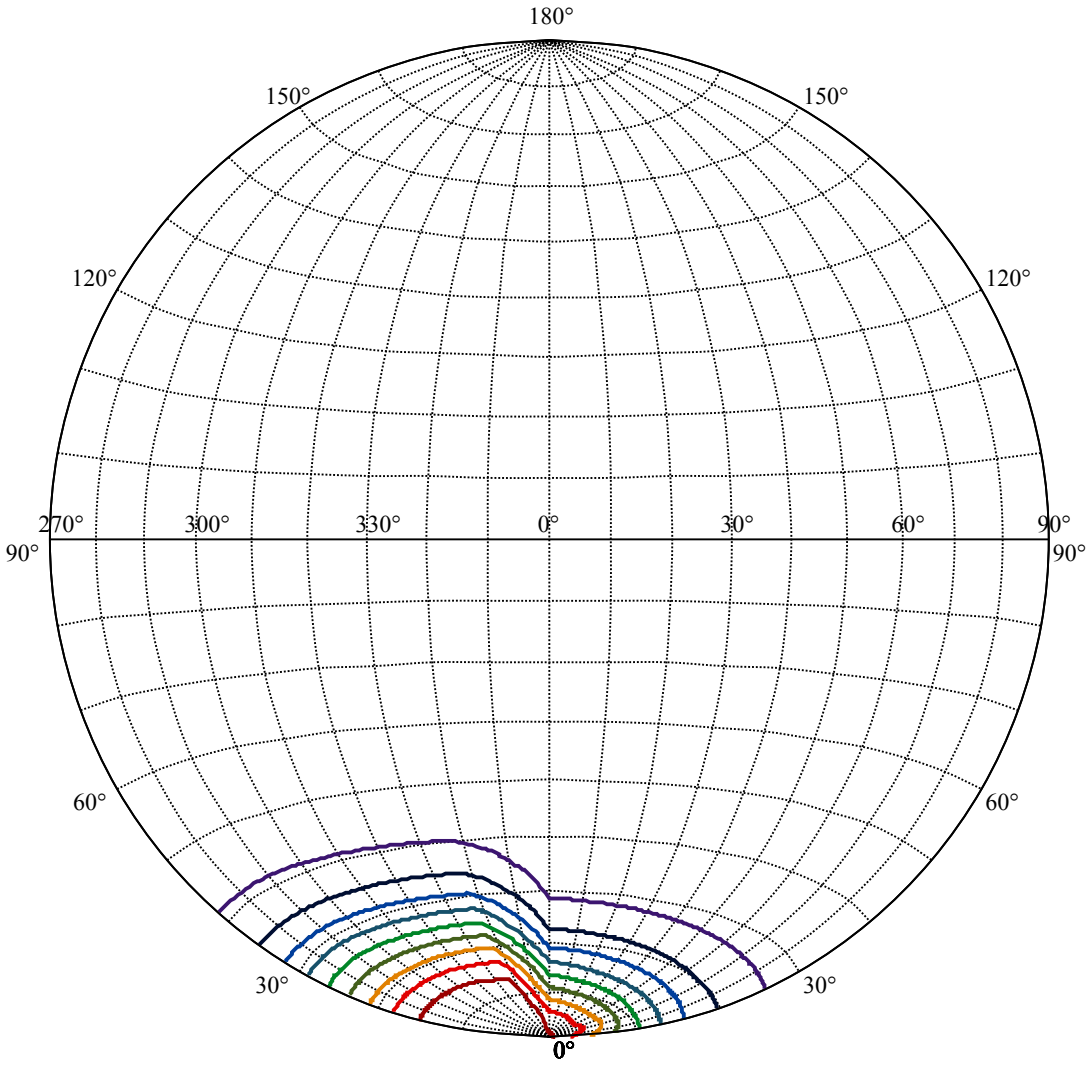
ISO-Intensity(V-H)



Equipment: GMS-3000 Date: Operator: Sam

Temperature(°C): 25 Humidity(%): 58%

ISO candela diagram on circular web



House [Unit:cd] Road

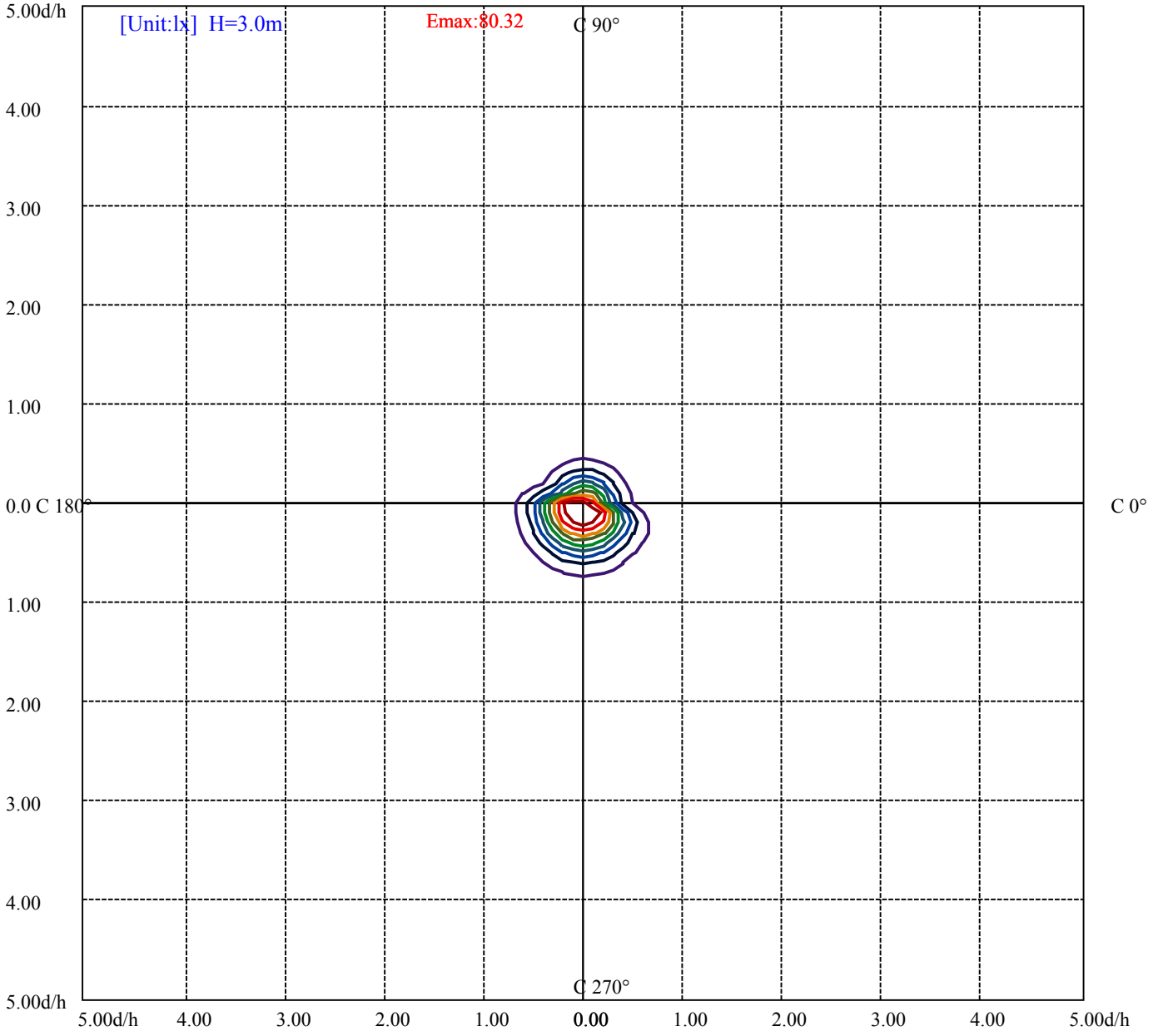
Imax:739.22

(10%Imax) 73.9206
(20%Imax) 147.841
(30%Imax) 221.762
(40%Imax) 295.682
(50%Imax) 369.603
(60%Imax) 443.523
(70%Imax) 517.444
(80%Imax) 591.365
(90%Imax) 665.285

Equipment: GMS-3000 Date: Operator: Sam
Temperature(°C): 25 Humidity(%): 58%

LL2G-30K

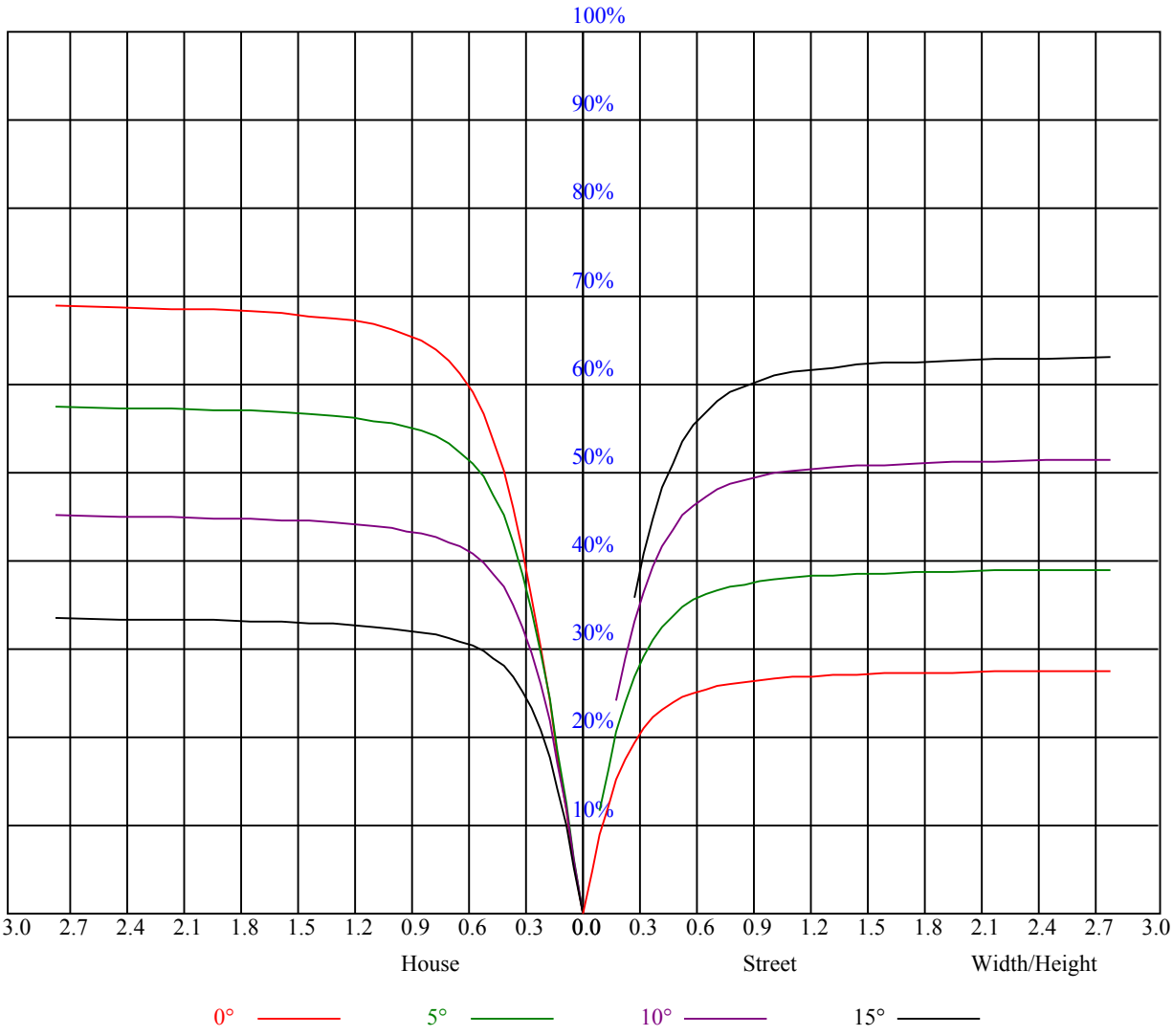
ISO illuminance diagram



(10%Emax) 8.0319
(20%Emax) 16.06378
(30%Emax) 24.09566
(40%Emax) 32.12756
(50%Emax) 40.15944
(60%Emax) 48.19144
(70%Emax) 56.22334
(80%Emax) 64.25522
(90%Emax) 72.28711

Equipment: GMS-3000 Date: Operator: Sam
Temperature(°C): 25 Humidity(%): 58%

Coefficient Utilization Curve



Equipment: GMS-3000 Date: Operator: Sam
Temperature(°C): 25 Humidity(%): 58%

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	677.55	618.43	472.51	330.66	199.46	110.39	62.43	36.54	22.08
22.5	677.55	593.30	442.57	297.16	181.44	100.24	55.58	32.23	20.30
45.0	677.55	571.73	418.21	270.26	162.16	90.85	49.99	29.69	18.78
67.5	677.55	581.88	391.05	248.69	146.93	83.74	46.19	27.15	17.51
90.0	677.55	506.26	380.90	233.46	142.11	78.41	43.39	25.63	16.50
112.5	677.55	505.25	375.57	239.81	137.79	76.64	42.13	24.87	15.99
135.0	677.55	502.96	390.04	253.00	140.84	74.86	42.89	24.87	16.24
157.5	677.55	558.79	416.17	267.72	147.95	80.95	45.93	27.15	17.00
180.0	677.55	736.68	711.56	616.65	465.91	305.79	181.70	101.25	57.61
202.5	677.55	739.22	718.41	634.67	497.63	334.46	201.74	114.45	65.73
225.0	677.55	738.71	726.78	659.03	525.55	372.02	232.96	137.03	75.11
247.5	677.55	736.68	734.14	668.16	547.12	397.90	256.56	146.42	81.71
270.0	677.55	733.63	734.40	668.16	548.89	405.77	264.68	154.54	85.27
292.5	677.55	731.60	735.66	662.07	541.03	398.41	261.38	151.50	85.52
315.0	677.55	720.19	729.57	658.52	533.92	382.42	245.64	145.66	80.44
337.5	677.55	715.36	706.99	643.04	516.41	366.69	231.43	133.73	74.86
360.0	677.55	618.43	472.51	330.66	199.46	110.39	62.43	36.54	22.08

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	14.72	10.40	7.87	6.09	4.82	3.55	2.54	1.02	0.00
22.5	13.45	9.64	7.11	5.58	4.31	3.05	1.78	0.76	0.00
45.0	12.43	8.88	6.60	5.08	3.81	2.79	1.78	0.51	0.00
67.5	11.93	8.37	6.34	4.82	3.81	2.54	1.52	0.51	0.00
90.0	11.42	8.12	6.09	4.82	3.55	2.54	1.27	0.25	0.00
112.5	11.17	8.12	6.09	4.82	3.81	2.54	1.27	0.25	0.00
135.0	11.17	8.12	6.34	5.08	3.81	2.79	1.52	0.25	0.00
157.5	11.67	8.63	6.60	5.08	4.06	2.79	1.78	0.51	0.00
180.0	34.51	21.57	14.72	10.66	7.87	6.09	4.82	3.55	2.28
202.5	38.57	24.11	15.99	11.67	8.63	6.60	5.08	3.81	2.54
225.0	42.89	25.88	17.26	12.18	9.14	6.85	5.33	4.06	2.79
247.5	45.93	27.41	17.76	12.43	9.14	6.85	5.33	4.06	3.05
270.0	48.22	28.42	18.53	12.69	9.14	6.85	5.33	4.31	3.05
292.5	47.45	28.42	18.53	12.69	9.14	6.85	5.33	4.06	3.05
315.0	45.93	27.15	17.76	12.43	8.88	6.85	5.33	4.06	2.79
337.5	43.39	25.88	16.75	11.42	8.63	6.34	5.08	3.81	2.54
360.0	14.72	10.40	7.87	6.09	4.82	3.55	2.54	1.02	0.00

C/γ(°)	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	0.25
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.25
90.0	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.25	0.25
112.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25
157.5	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.25
180.0	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	1.27	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	1.52	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	1.52	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	1.52	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
292.5	1.78	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	1.52	0.51	0.25	0.00	0.00	0.00	0.25	0.00	0.00
337.5	1.52	0.25	0.00	0.00	0.00	0.25	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25

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	0.25	0.25	0.25	0.25	0.25	0.51	0.51	0.51	0.51
22.5	0.25	0.25	0.25	0.25	0.51	0.51	0.51	0.51	0.51
45.0	0.25	0.25	0.25	0.25	0.51	0.51	0.51	0.51	0.51
67.5	0.25	0.25	0.25	0.25	0.51	0.51	0.51	0.51	0.51
90.0	0.25	0.25	0.25	0.51	0.51	0.51	0.51	0.51	0.51
112.5	0.25	0.25	0.25	0.25	0.51	0.51	0.51	0.51	0.51
135.0	0.25	0.25	0.25	0.25	0.51	0.51	0.51	0.51	0.51
157.5	0.25	0.25	0.25	0.25	0.51	0.51	0.51	0.51	0.51
180.0	0.00	0.25	0.25	0.25	0.25	0.25	0.51	0.51	0.51
202.5	0.25	0.00	0.25	0.25	0.25	0.25	0.51	0.51	0.51
225.0	0.00	0.25	0.25	0.25	0.25	0.25	0.51	0.51	0.51
247.5	0.00	0.25	0.25	0.25	0.25	0.25	0.25	0.51	0.51
270.0	0.00	0.25	0.25	0.25	0.25	0.25	0.25	0.51	0.51
292.5	0.00	0.25	0.25	0.25	0.25	0.25	0.25	0.51	0.51
315.0	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.51	0.51
337.5	0.00	0.25	0.25	0.25	0.25	0.25	0.25	0.51	0.51
360.0	0.25	0.25	0.25	0.25	0.25	0.51	0.51	0.51	0.51

C/γ(°)	180.0
0.0	0.51
22.5	0.51
45.0	0.51
67.5	0.51
90.0	0.51
112.5	0.51
135.0	0.51
157.5	0.51
180.0	0.51
202.5	0.51
225.0	0.51
247.5	0.51
270.0	0.51
292.5	0.51
315.0	0.51
337.5	0.51
360.0	0.51