



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

Tel:0755-29351191 Fax:0755-29351120

Address:1 F,No.1 building,Meibaoh industrial park,Dalang street,Longhua district,Shenzhen,China

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LumCAT: LL4RBX-27K

Luminaire:

Report No:

Voltage(V): 120.04

Test No:

Current(A): 0.0894

LampCAT:

Power (W): 10.4940

Lamp flux(lm): 620.6

PF: 0.9783

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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### Photometric Results

Lumens(lm): 620.59

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 58.65

Central intensity(cd): 215.463

Maximum intensity(cd): 222.953

Angle of maximum intensity: C=180.0  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=112.1

[C90/270]Total=111.0

Field angle(10%Imax): [C0/180]Total=158.7

[C90/270]Total=158.6

Maximum s/h(1/2): C0\_180=1.37 C90\_270=1.18

Maximum s/h(1/4): C0\_180=1.47 C90\_270=1.29

Up flux rate of lamp(%): 0.39%

Down flux rate of lamp(%): 98.80%

Up flux rate of LUM(%): -0.43%

Down flux rate of LUM(%): 99.61%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 79.695%

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

Date:  
Humidity(%): 58%

Operator: Sam

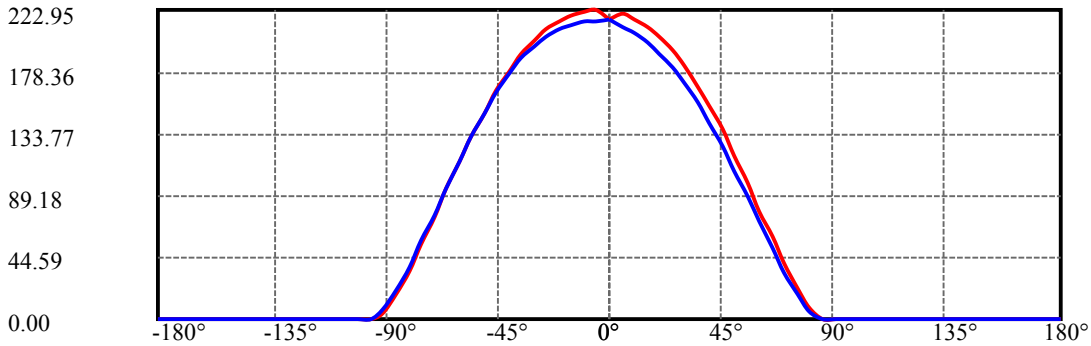
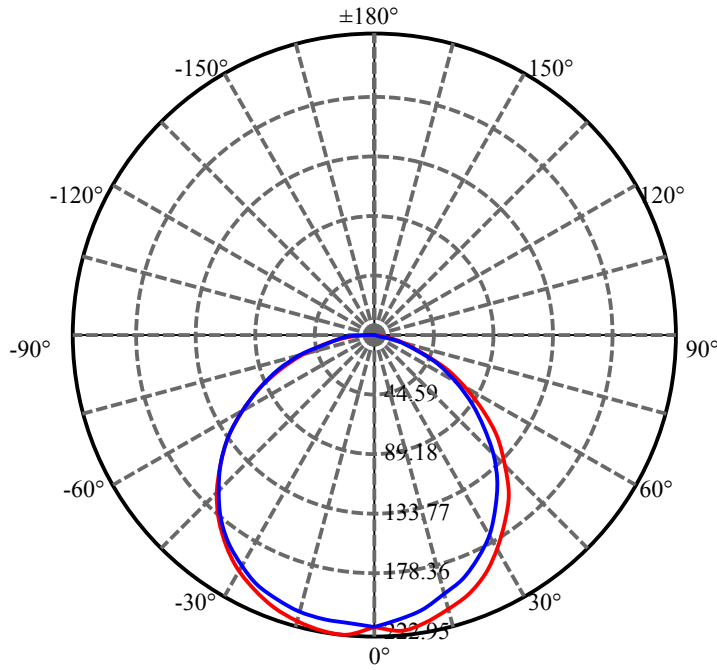
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	215.463	0.000	0	.000%	.000%
5.0	214.260	5.138	5.138	.828%	.828%
10.0	211.831	15.252	20.391	2.458%	3.286%
15.0	207.804	24.919	45.31	4.015%	7.301%
20.0	202.131	33.836	79.145	5.452%	12.753%
25.0	194.524	41.689	120.834	6.718%	19.471%
30.0	185.049	48.167	169.001	7.762%	27.232%
35.0	173.543	52.992	221.993	8.539%	35.771%
40.0	160.311	55.949	277.942	9.016%	44.787%
45.0	145.194	56.875	334.817	9.165%	53.951%
50.0	128.575	55.692	390.509	8.974%	62.925%
55.0	110.949	52.517	443.026	8.463%	71.388%
60.0	92.460	47.511	490.536	7.656%	79.044%
65.0	73.604	40.901	531.437	6.591%	85.634%
70.0	54.971	33.100	564.537	5.334%	90.968%
75.0	37.218	24.638	589.175	3.970%	94.938%
80.0	21.365	16.171	605.346	2.606%	97.544%
85.0	10.163	8.945	614.291	1.441%	98.985%
90.0	3.212	3.848	618.139	.620%	99.605%
95.0	0.240	0.985	619.124	.159%	99.764%
100.0	0.256	0.137	619.261	.022%	99.786%
105.0	0.256	0.137	619.398	.022%	99.808%
110.0	0.256	0.134	619.532	.022%	99.829%
115.0	0.256	0.130	619.661	.021%	99.850%
120.0	0.256	0.124	619.786	.020%	99.870%
125.0	0.256	0.118	619.904	.019%	99.889%
130.0	0.256	0.111	620.016	.018%	99.907%
135.0	0.256	0.103	620.119	.017%	99.924%
140.0	0.256	0.095	620.214	.015%	99.939%
145.0	0.256	0.085	620.299	.014%	99.953%
150.0	0.256	0.075	620.375	.012%	99.965%
155.0	0.256	0.065	620.439	.010%	99.976%
160.0	0.256	0.054	620.493	.009%	99.984%
165.0	0.256	0.042	620.535	.007%	99.991%
170.0	0.256	0.030	620.566	.005%	99.996%
175.0	0.256	0.018	620.584	.003%	99.999%
180.0	0.256	0.006	620.59	.001%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	169.00	27.23%	27.23%
0-40	277.94	44.79%	44.79%
0-60	490.54	79.04%	79.04%
0-90	618.14	99.61%	99.61%
0-120	619.79	99.87%	99.87%
0-180	620.59	100.00%	100.00%
60-90	175.11	28.22%	28.22%
90-120	5.49	0.89%	0.89%
90-130	5.72	0.92%	0.92%
90-150	6.08	0.98%	0.98%
90-180	6.29	1.01%	1.01%
0-60.73	496.47	80.00%	80.00%

## ZONAL LUMEN SUMMARY

0-10	20.39
10-20	58.75
20-30	89.86
30-40	108.94
40-50	112.57
50-60	100.03
60-70	74.00
70-80	40.81
80-90	12.79
90-100	1.12
100-110	0.27
110-120	0.25
120-130	0.23
130-140	0.20
140-150	0.16
150-160	0.12
160-170	0.07
170-180	0.02



C0/C180: —

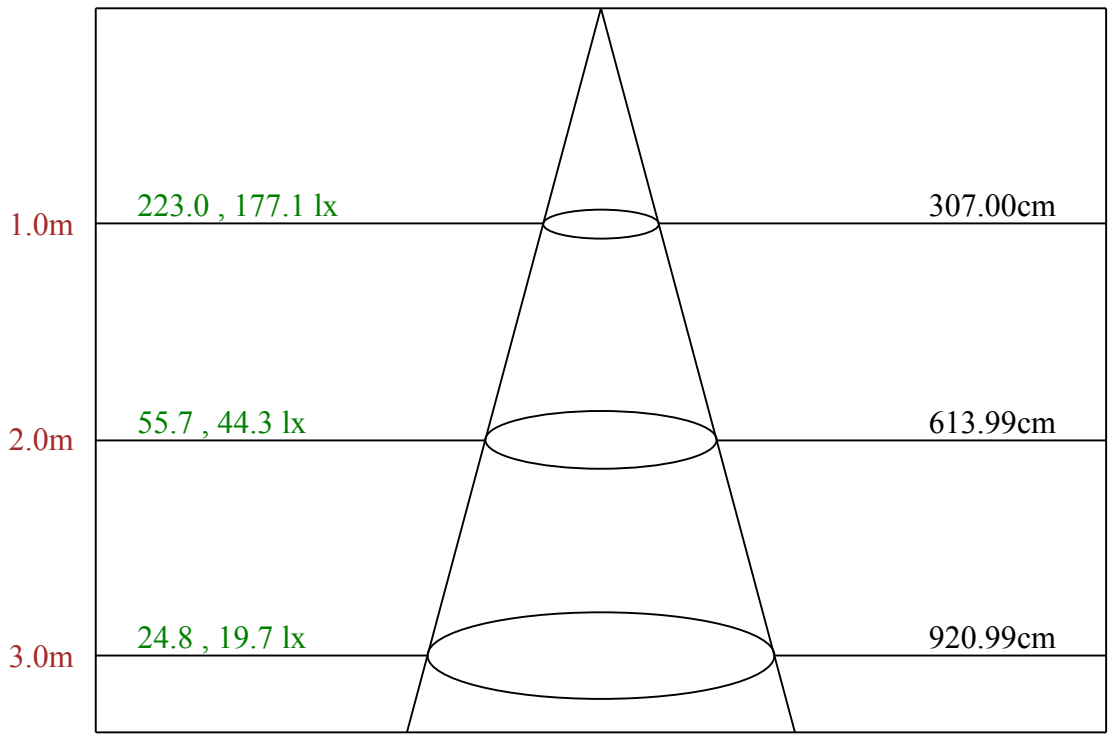
C90/C270: —

Field angle(10%Imax):C0/180Left:78.7 Right:80.0

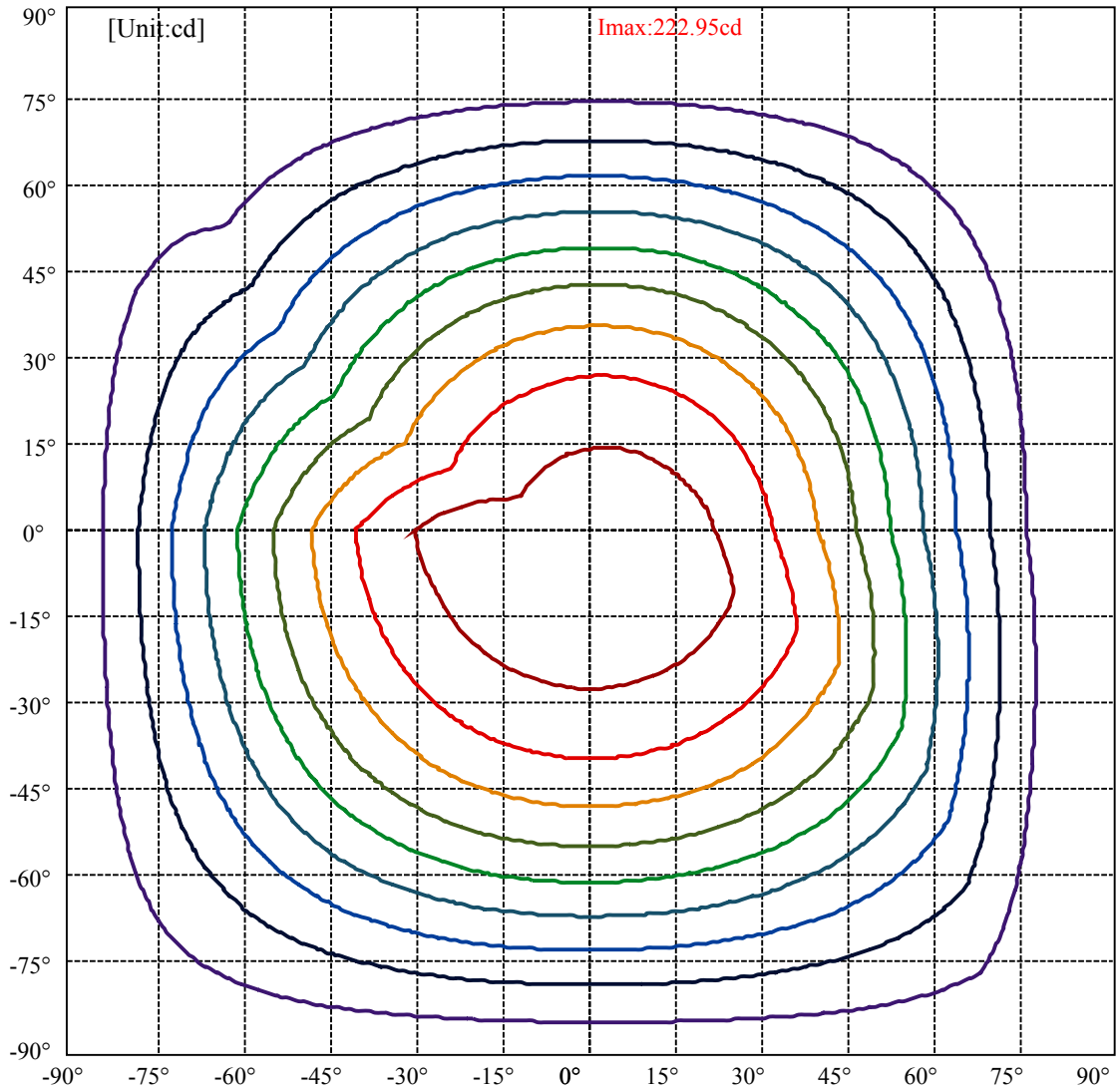
:C90/270Left:84.8 Right:73.8

Beam Angle(50%Imax):C0/180Left:55.5 Right:56.6

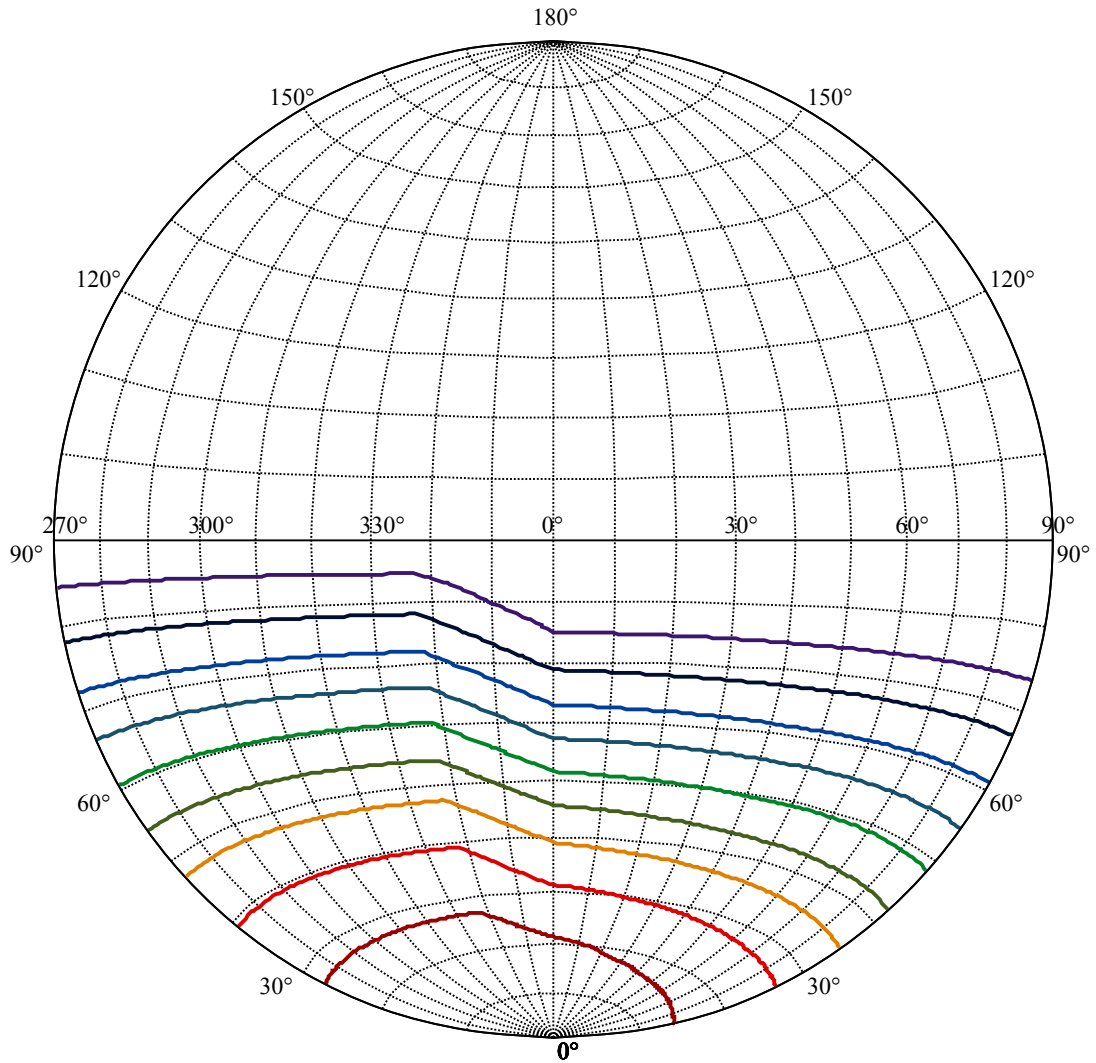
:C90/270Left:61.5 Right:49.5



Max , Ave      Beam angle of C180 plane 112.80



(10%Imax)	22.2953	—
(20%Imax)	44.5906	—
(30%Imax)	66.8859	—
(40%Imax)	89.1812	—
(50%Imax)	111.477	—
(60%Imax)	133.772	—
(70%Imax)	156.067	—
(80%Imax)	178.362	—
(90%Imax)	200.658	—



House

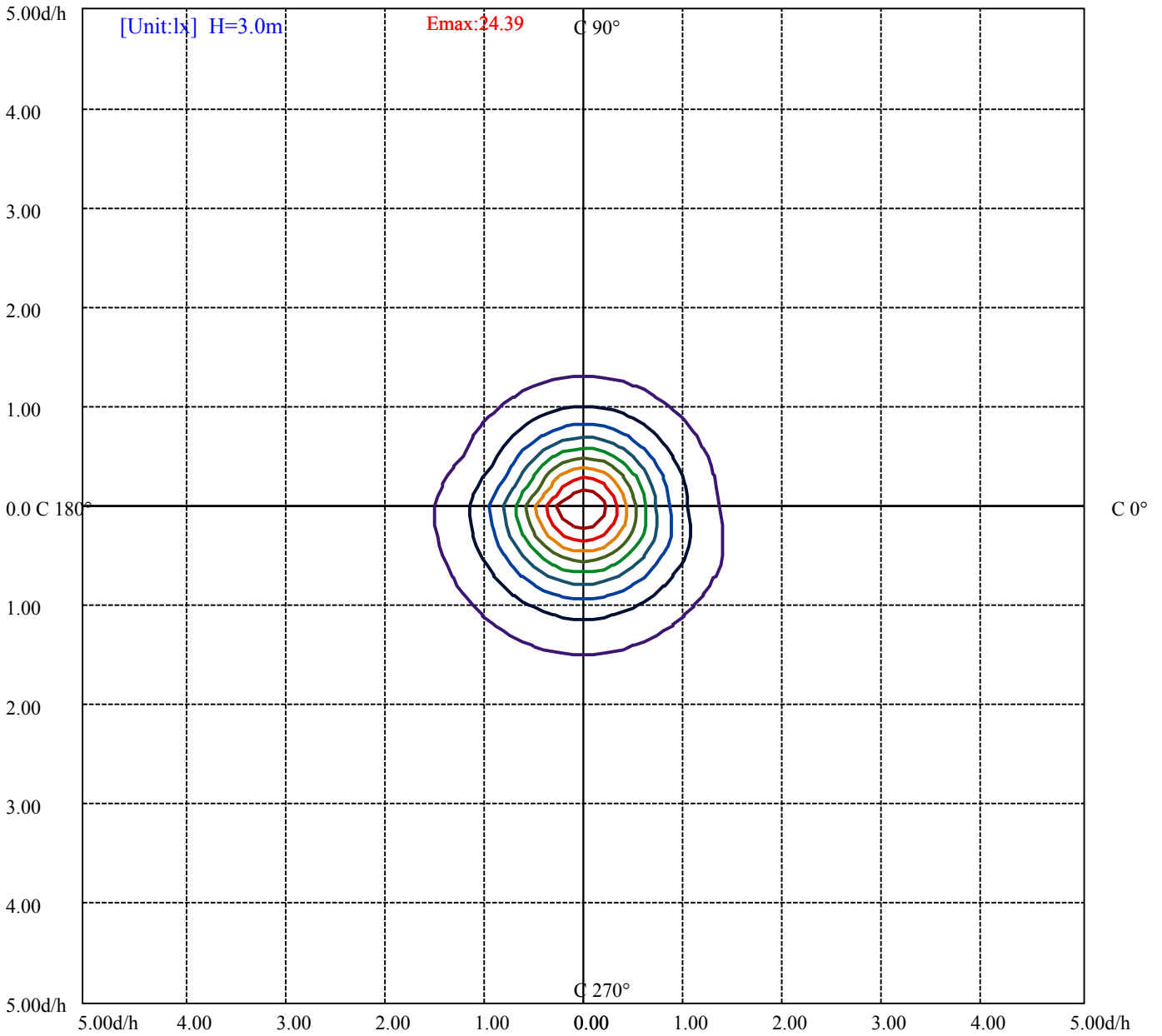
[Unit:cd]

Road

**I<sub>max</sub>:222.95**

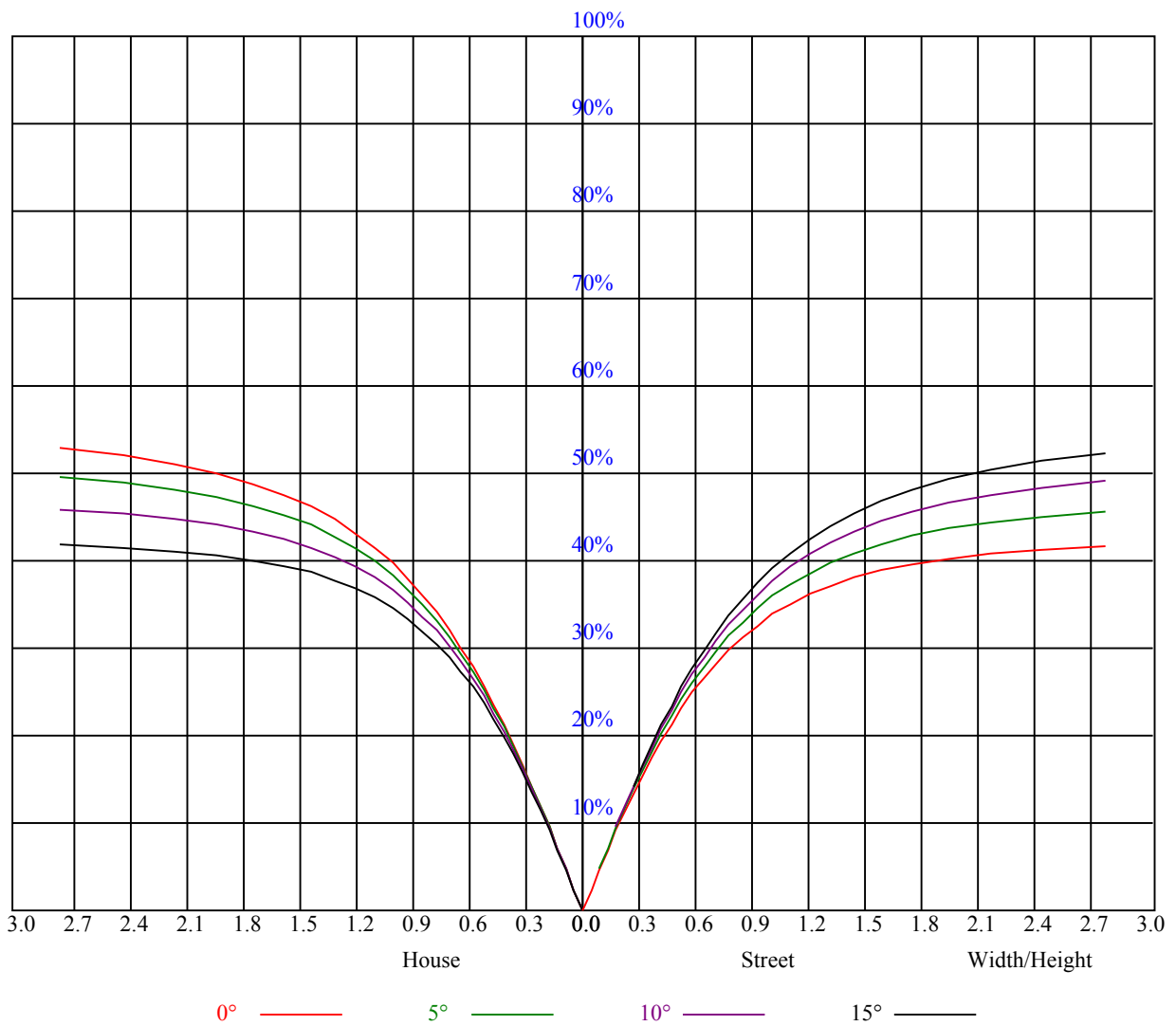
- (10%I<sub>max</sub>) 22.2953
- (20%I<sub>max</sub>) 44.5906
- (30%I<sub>max</sub>) 66.8859
- (40%I<sub>max</sub>) 89.1812
- (50%I<sub>max</sub>) 111.477
- (60%I<sub>max</sub>) 133.772
- (70%I<sub>max</sub>) 156.067
- (80%I<sub>max</sub>) 178.362
- (90%I<sub>max</sub>) 200.658





- (10%Emax) 2.439344
- (20%Emax) 4.878689
- (30%Emax) 7.318044
- (40%Emax) 9.757389
- (50%Emax) 12.19678
- (60%Emax) 14.63611
- (70%Emax) 17.07545
- (80%Emax) 19.51478
- (90%Emax) 21.95411





## Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	215.46	220.14	216.31	210.94	203.52	194.06	182.56	167.98	153.66
22.5	215.46	215.54	211.45	205.82	198.66	189.46	177.44	164.15	148.55
45.0	215.46	212.73	208.64	202.75	195.08	185.37	174.37	160.31	144.97
67.5	215.46	211.19	206.85	200.71	192.78	183.58	171.31	158.01	142.41
90.0	215.46	210.43	206.08	199.18	191.76	181.79	170.03	156.22	141.39
112.5	215.46	209.91	204.80	198.66	190.23	180.25	168.75	155.20	139.86
135.0	215.46	209.40	204.54	198.41	190.48	180.25	168.49	154.69	139.86
157.5	215.46	209.66	204.80	198.66	190.74	180.51	168.75	155.45	140.11
180.0	215.46	222.95	222.19	219.37	215.03	209.15	200.71	190.48	178.72
202.5	215.46	218.61	218.10	215.54	211.70	205.31	197.90	188.18	176.42
225.0	215.46	216.31	215.79	213.75	209.66	204.29	196.87	187.41	176.16
247.5	215.46	215.03	214.77	212.73	209.15	203.78	196.62	187.67	176.42
270.0	215.46	214.52	214.00	212.21	209.15	203.78	196.87	187.67	176.68
292.5	215.46	214.26	214.00	212.21	208.89	203.78	196.62	187.93	176.68
315.0	215.46	213.75	213.49	211.96	208.64	203.52	196.87	187.93	176.68
337.5	215.46	213.75	213.49	211.96	208.64	203.52	196.62	187.41	176.42
360.0	215.46	220.14	216.31	210.94	203.52	194.06	182.56	167.98	153.66
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	136.53	117.87	98.18	78.24	59.06	39.89	22.24	8.18	0.51
22.5	131.68	113.27	94.86	75.43	55.99	37.33	20.97	6.65	0.26
45.0	127.84	109.69	91.79	72.10	53.44	36.05	19.43	6.14	0.26
67.5	126.05	108.15	89.74	70.82	52.16	34.77	18.41	5.63	0.26
90.0	124.01	106.11	87.95	70.06	51.39	33.75	17.90	5.11	0.26
112.5	122.98	105.85	87.44	69.29	50.88	33.75	17.13	4.86	0.26
135.0	123.24	105.34	87.19	68.78	51.14	33.24	17.39	4.86	0.26
157.5	123.49	105.85	87.95	69.55	51.39	33.49	17.90	5.11	0.26
180.0	164.66	148.81	131.42	113.27	93.84	73.89	54.46	35.28	17.90
202.5	162.61	147.53	130.40	111.99	93.07	73.64	54.20	35.28	18.67
225.0	162.61	147.27	130.91	112.50	93.84	74.40	54.97	36.31	19.69
247.5	163.38	148.04	131.68	113.78	94.09	75.17	55.99	37.33	20.20
270.0	163.64	148.29	131.42	113.52	94.35	74.91	56.25	37.59	20.71
292.5	163.64	148.55	131.42	113.27	94.60	75.17	55.99	38.10	20.97
315.0	163.38	148.55	131.68	113.27	94.09	75.17	55.99	37.59	21.22
337.5	163.38	148.04	131.16	113.52	94.35	74.91	56.25	37.84	20.97
360.0	136.53	117.87	98.18	78.24	59.06	39.89	22.24	8.18	0.51
C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.26	0.00	0.26	0.26	0.26	0.26	0.26	0.26	0.26
22.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
45.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
67.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
90.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
112.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
135.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
157.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
180.0	4.60	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
202.5	5.37	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
225.0	5.88	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
247.5	6.39	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
270.0	6.39	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
292.5	6.65	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
315.0	7.16	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
337.5	6.90	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
360.0	0.26	0.00	0.26	0.26	0.26	0.26	0.26	0.26	0.26

## LL4RBX-27K

## Intensity data(cd)

Appendix Page: 11 Total:11

C/ $\gamma$ ( $^{\circ}$ )	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
22.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
45.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
67.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
90.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
112.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
135.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
157.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
180.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
202.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
225.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
247.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
270.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
292.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
315.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
337.5	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
360.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
C/ $\gamma$ ( $^{\circ}$ )	180.0								
0.0	0.26								
22.5	0.26								
45.0	0.26								
67.5	0.26								
90.0	0.26								
112.5	0.26								
135.0	0.26								
157.5	0.26								
180.0	0.26								
202.5	0.26								
225.0	0.26								
247.5	0.26								
270.0	0.26								
292.5	0.26								
315.0	0.26								
337.5	0.26								
360.0	0.26								