



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT: LL4SRG-27K

Luminaire:

Report No:

Voltage(V): 120.01

Test No:

Current(A): 0.1154

LampCAT:

Power (W): 13.7050

Lamp flux(lm): 856.0

PF: 0.9896

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 856.03

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 61.78

Central intensity(cd): 401.324

Maximum intensity(cd): 415.434

Angle of maximum intensity: C=180.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=89.0

[C90/270]Total=88.3

Field angle(10%Imax): [C0/180]Total=142.1

[C90/270]Total=142.4

Maximum s/h(1/2): C0_180=1.25 C90_270=1.01

Maximum s/h(1/4): C0_180=1.32 C90_270=1.11

Up flux rate of lamp(%): 0.29%

Down flux rate of lamp(%): 98.62%

Up flux rate of LUM(%): -0.81%

Down flux rate of LUM(%): 99.71%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 87.209%

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

Date:
Humidity(%): 58%

Operator: Sam

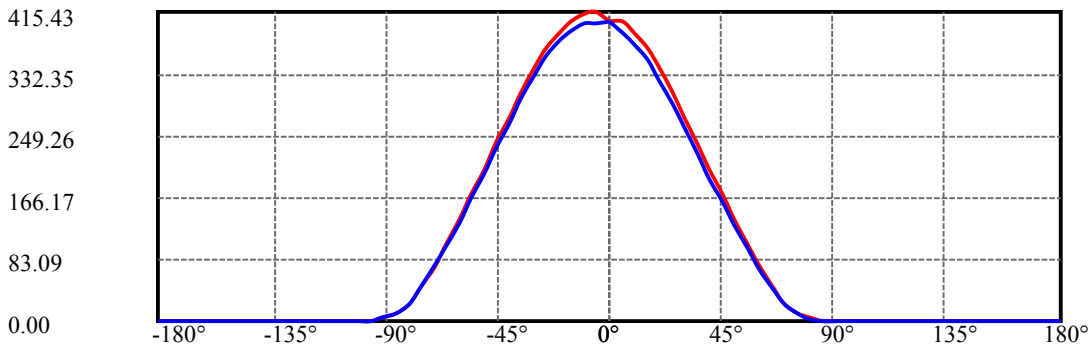
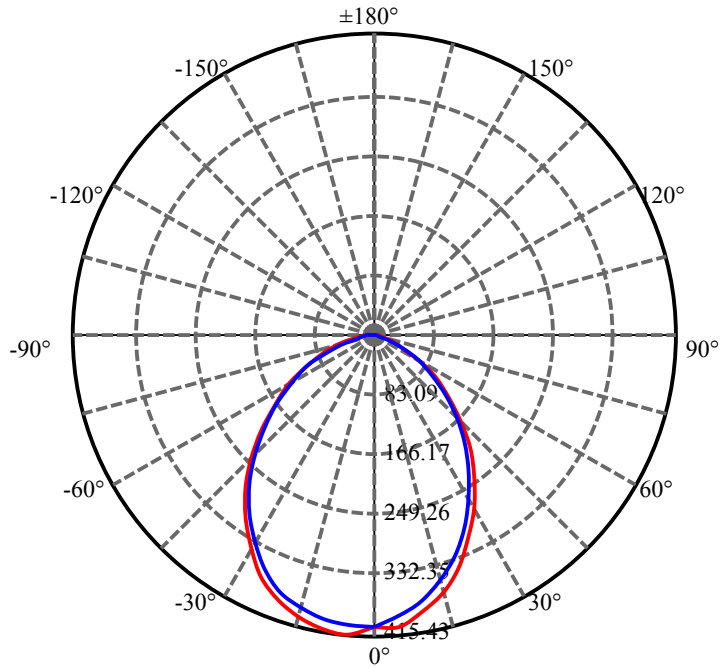
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	401.324	0.000	0	.000%	.000%
5.0	397.521	9.555	9.555	1.116%	1.116%
10.0	388.600	28.164	37.718	3.290%	4.406%
15.0	373.993	45.349	83.067	5.298%	9.704%
20.0	353.572	60.178	143.245	7.030%	16.734%
25.0	328.221	71.858	215.103	8.394%	25.128%
30.0	299.178	79.894	294.996	9.333%	34.461%
35.0	266.358	83.900	378.897	9.801%	44.262%
40.0	232.627	83.975	462.871	9.810%	54.072%
45.0	198.611	80.657	543.529	9.422%	63.494%
50.0	164.823	74.311	617.84	8.681%	72.175%
55.0	132.360	65.530	683.37	7.655%	79.830%
60.0	101.621	55.010	738.379	6.426%	86.256%
65.0	73.063	43.374	781.753	5.067%	91.323%
70.0	47.825	31.452	813.205	3.674%	94.998%
75.0	28.387	20.604	833.809	2.407%	97.405%
80.0	14.165	11.819	845.628	1.381%	98.785%
85.0	5.558	5.593	851.221	.653%	99.439%
90.0	2.480	2.325	853.547	.272%	99.710%
95.0	0.228	0.778	854.325	.091%	99.801%
100.0	0.228	0.124	854.449	.014%	99.816%
105.0	0.228	0.122	854.571	.014%	99.830%
110.0	0.228	0.119	854.69	.014%	99.844%
115.0	0.228	0.115	854.806	.013%	99.857%
120.0	0.228	0.111	854.916	.013%	99.870%
125.0	0.228	0.105	855.022	.012%	99.883%
130.0	0.242	0.102	855.124	.012%	99.894%
135.0	0.342	0.117	855.241	.014%	99.908%
140.0	0.371	0.131	855.371	.015%	99.923%
145.0	0.456	0.138	855.509	.016%	99.939%
150.0	0.456	0.134	855.644	.016%	99.955%
155.0	0.456	0.115	855.759	.013%	99.969%
160.0	0.456	0.096	855.855	.011%	99.980%
165.0	0.456	0.075	855.93	.009%	99.989%
170.0	0.456	0.054	855.984	.006%	99.995%
175.0	0.456	0.033	856.016	.004%	99.999%
180.0	0.456	0.011	856.027	.001%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	295.00	34.46%	34.46%
0-40	462.87	54.07%	54.07%
0-60	738.38	86.26%	86.26%
0-90	853.55	99.71%	99.71%
0-120	854.92	99.87%	99.87%
0-180	856.03	100.00%	100.00%
60-90	170.18	19.88%	19.88%
90-120	3.70	0.43%	0.43%
90-130	3.90	0.46%	0.46%
90-150	4.42	0.52%	0.52%
90-180	4.80	0.56%	0.56%
0-55.13	684.82	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	37.72
10-20	105.53
20-30	151.75
30-40	167.88
40-50	154.97
50-60	120.54
60-70	74.83
70-80	32.42
80-90	7.92
90-100	0.90
100-110	0.24
110-120	0.23
120-130	0.21
130-140	0.25
140-150	0.27
150-160	0.21
160-170	0.13
170-180	0.03

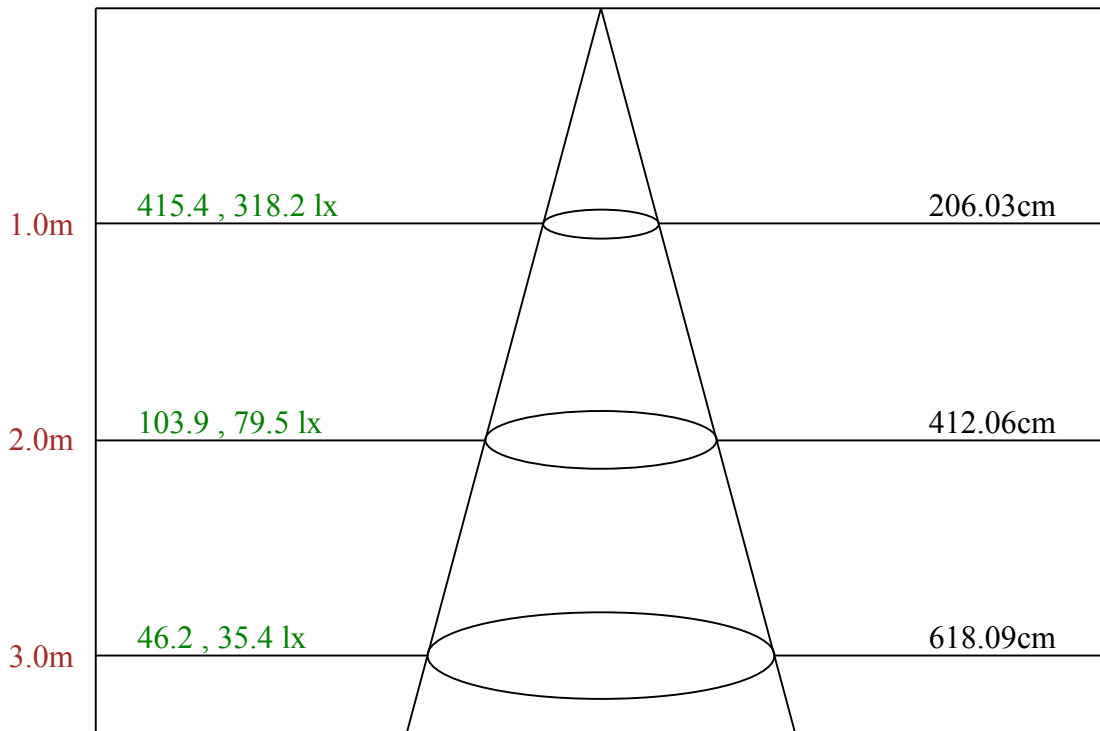


C0/C180: —

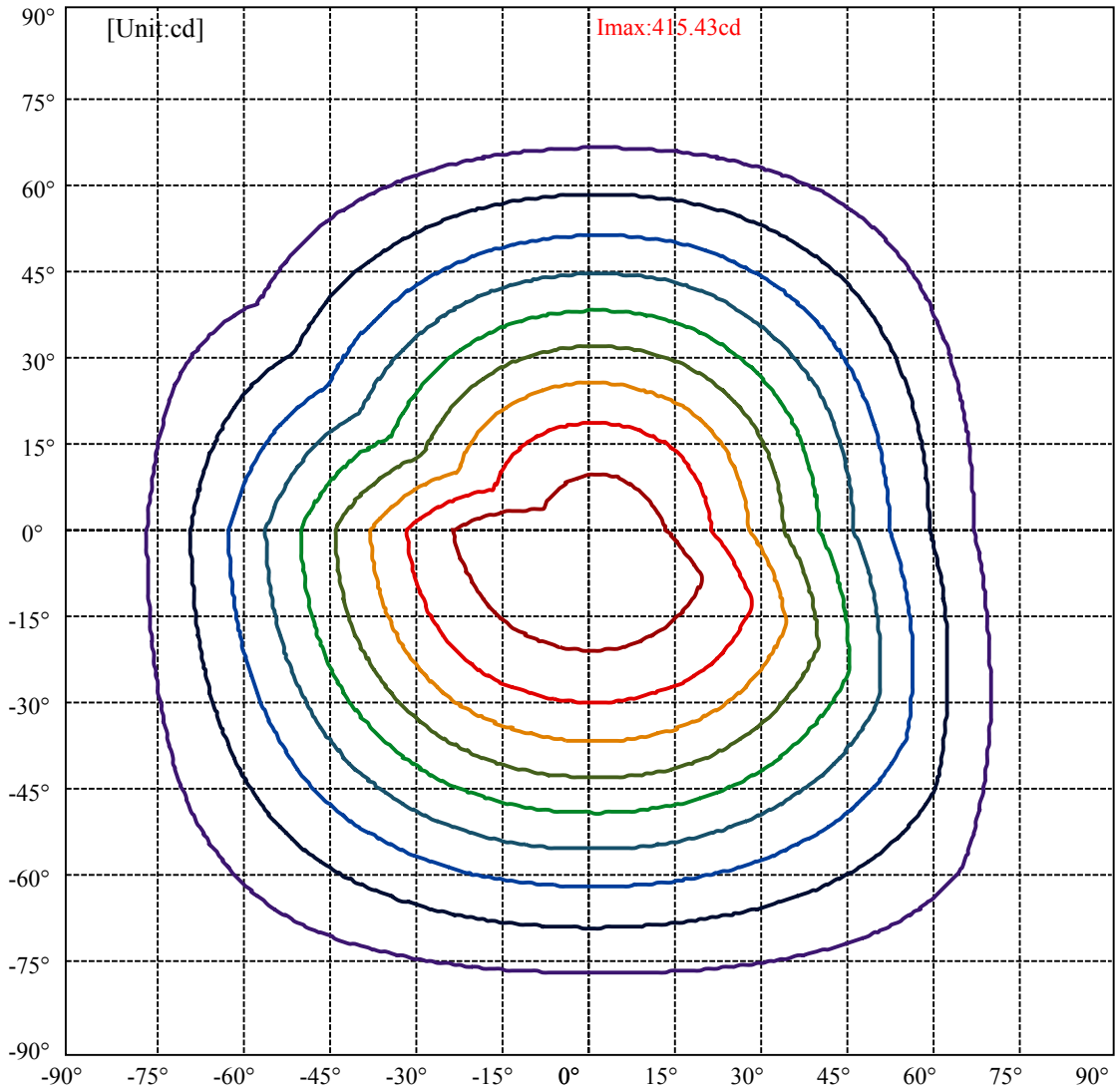
C90/C270: —










Field angle(10%Imax):C0/180Left:70.9 Right:71.2
:C90/270Left:76.4 Right:66.0

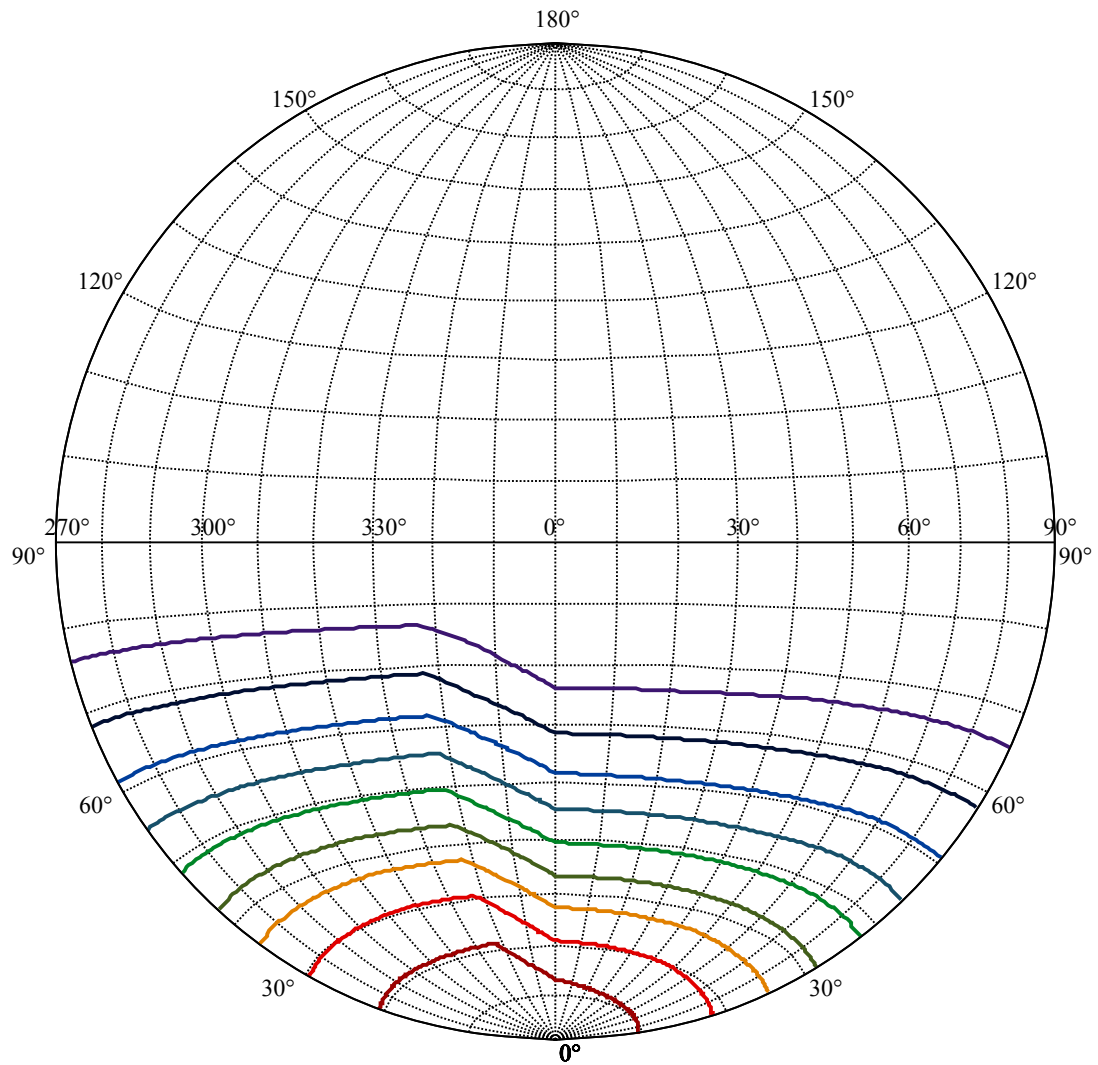
Beam Angle(50%Imax):C0/180Left:44.5 Right:44.5
:C90/270Left:49.6 Right:38.7



Max , Ave Beam angle of C180 plane 90.82



(10%Imax)	41.5434	
(20%Imax)	83.0868	
(30%Imax)	124.63	
(40%Imax)	166.174	
(50%Imax)	207.717	
(60%Imax)	249.26	
(70%Imax)	290.804	
(80%Imax)	332.347	
(90%Imax)	373.891	



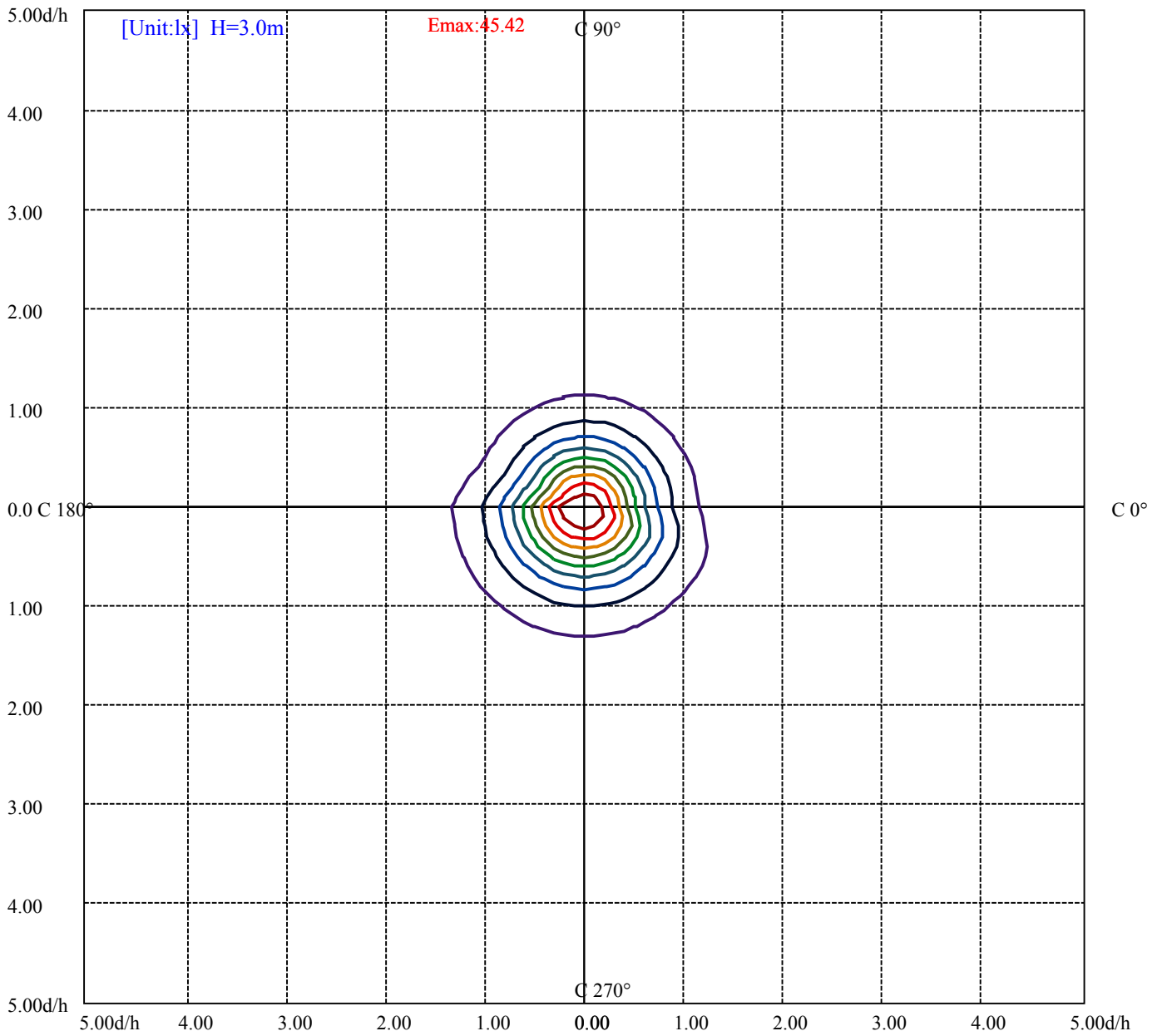
House

[Unit:cd]

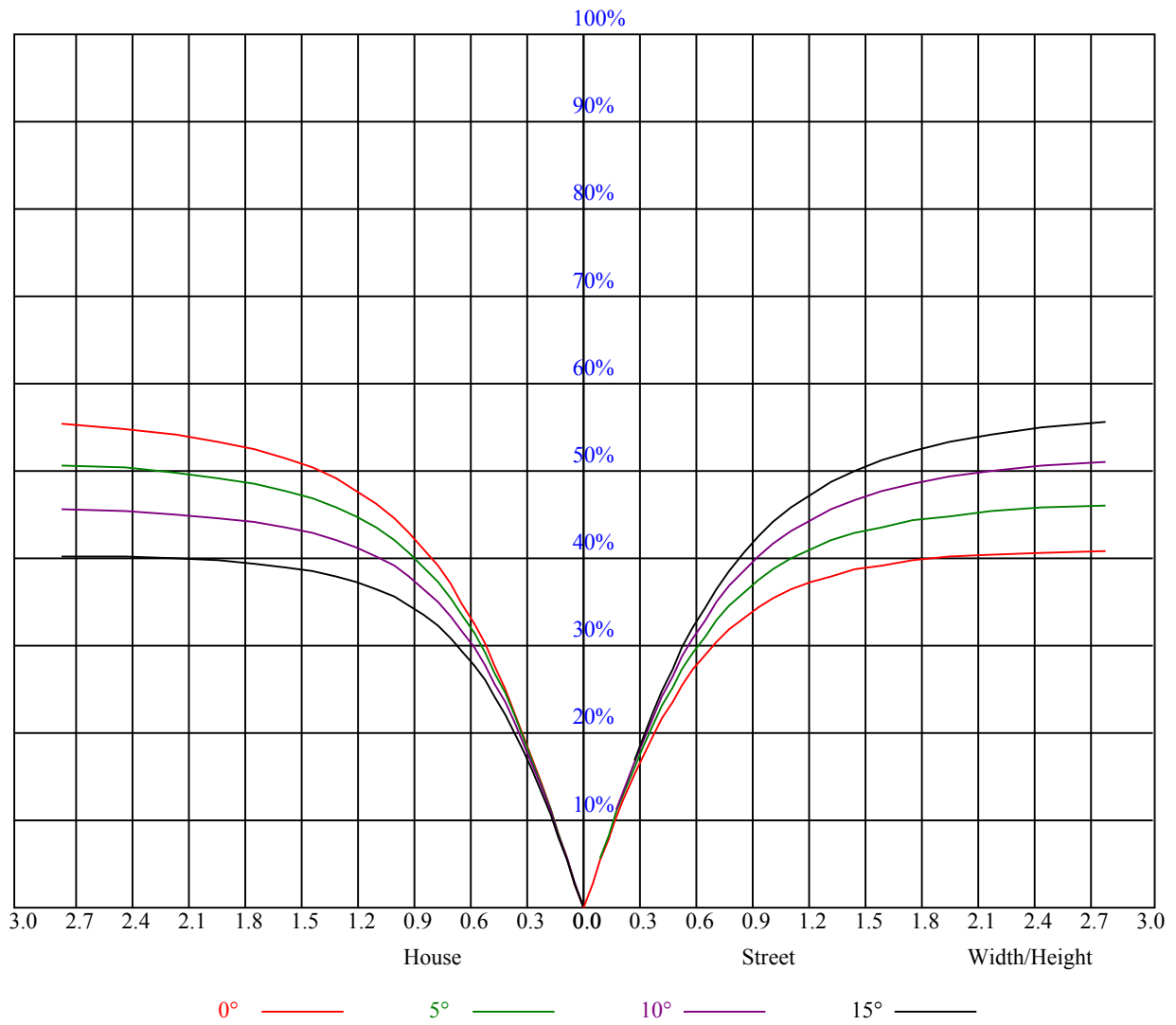
Road

I_{max}:415.43

(10%I _{max}) 41.5434	
(20%I _{max}) 83.0868	
(30%I _{max}) 124.63	
(40%I _{max}) 166.174	
(50%I _{max}) 207.717	
(60%I _{max}) 249.26	
(70%I _{max}) 290.804	
(80%I _{max}) 332.347	
(90%I _{max}) 373.891	



- (10%Emax) 4.541844
- (20%Emax) 9.083689
- (30%Emax) 13.62556
- (40%Emax) 18.16733
- (50%Emax) 22.70922
- (60%Emax) 27.25111
- (70%Emax) 31.79289
- (80%Emax) 36.33478
- (90%Emax) 40.87656



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	401.32	402.67	387.39	366.64	339.51	307.59	273.84	238.50	204.30
22.5	401.32	395.83	381.01	360.94	335.40	304.62	272.02	236.67	201.33
45.0	401.32	392.18	376.90	357.29	331.76	301.66	268.37	233.03	197.69
67.5	401.32	389.21	374.62	353.42	326.51	295.27	263.35	229.61	196.09
90.0	401.32	387.39	372.34	350.91	323.32	292.77	259.48	225.73	192.21
112.5	401.32	387.39	370.74	349.54	323.55	292.31	259.02	224.36	191.07
135.0	401.32	386.02	369.83	349.31	323.55	292.31	258.11	223.91	189.02
157.5	401.32	385.34	369.38	347.26	319.44	287.75	255.83	221.85	188.11
180.0	401.32	415.43	411.79	402.67	387.39	366.64	340.19	307.13	274.30
202.5	401.32	407.91	405.40	396.28	381.01	361.40	336.32	304.85	271.33
225.0	401.32	404.72	401.98	393.09	378.27	358.43	334.26	303.71	268.82
247.5	401.32	401.98	399.47	391.27	376.67	356.84	330.62	298.69	266.09
270.0	401.32	401.07	398.79	390.35	376.45	356.61	329.93	299.38	265.86
292.5	401.32	401.53	399.25	391.04	377.59	357.98	332.67	302.11	270.19
315.0	401.32	400.84	399.47	391.49	377.81	359.12	336.77	306.90	272.93
337.5	401.32	400.84	399.25	392.41	378.95	360.26	336.09	305.31	272.70
360.0	401.32	402.67	387.39	366.64	339.51	307.59	273.84	238.50	204.30
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	169.18	135.67	103.52	74.56	46.97	23.94	11.40	5.02	0.23
22.5	167.13	132.02	101.46	72.51	45.60	24.85	11.40	5.02	0.23
45.0	163.48	130.42	99.87	71.37	46.51	25.31	11.17	4.79	0.23
67.5	163.71	131.33	100.32	71.37	46.06	23.71	10.26	3.88	0.23
90.0	159.84	128.60	98.27	70.46	44.69	22.12	9.58	3.65	0.23
112.5	157.78	125.41	95.99	67.72	42.87	22.12	9.80	3.65	0.23
135.0	154.82	122.67	93.03	65.21	40.81	21.21	9.58	3.88	0.23
157.5	156.19	124.04	93.48	64.98	40.13	18.93	9.35	3.65	0.23
180.0	239.18	204.07	169.41	136.81	104.20	73.19	45.83	22.35	10.49
202.5	236.90	200.88	165.31	131.33	99.18	70.46	44.01	23.03	10.49
225.0	233.03	198.60	163.48	129.97	99.41	70.23	44.46	23.49	10.72
247.5	231.89	197.69	164.62	131.79	100.55	72.05	45.60	23.03	10.49
270.0	231.66	197.69	164.62	132.25	101.69	73.65	46.74	23.26	10.26
292.5	235.76	200.42	165.99	133.39	101.92	72.96	47.65	25.31	10.94
315.0	238.73	202.47	167.36	134.75	103.06	73.88	48.11	26.22	11.86
337.5	238.50	205.21	171.01	137.49	105.34	76.61	49.25	26.45	11.86
360.0	169.18	135.67	103.52	74.56	46.97	23.94	11.40	5.02	0.23
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
22.5	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
45.0	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
67.5	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
90.0	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
112.5	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
135.0	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
157.5	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.46
180.0	4.56	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
202.5	4.56	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
225.0	4.56	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
247.5	4.56	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
270.0	4.33	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
292.5	4.56	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
315.0	5.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
337.5	5.47	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
360.0	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23

LL4SRG-27K

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	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
22.5	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
45.0	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
67.5	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
90.0	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
112.5	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
135.0	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
157.5	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
180.0	0.23	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
202.5	0.23	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
225.0	0.23	0.23	0.46	0.46	0.46	0.46	0.46	0.46	0.46
247.5	0.23	0.23	0.46	0.46	0.46	0.46	0.46	0.46	0.46
270.0	0.23	0.23	0.46	0.46	0.46	0.46	0.46	0.46	0.46
292.5	0.23	0.23	0.46	0.46	0.46	0.46	0.46	0.46	0.46
315.0	0.23	0.23	0.46	0.46	0.46	0.46	0.46	0.46	0.46
337.5	0.23	0.23	0.46	0.46	0.46	0.46	0.46	0.46	0.46
360.0	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
C/γ(°)	180.0								
0.0	0.46								
22.5	0.46								
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360.0	0.46								