



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT: LB8R 41K

Luminaire:

Report No:

Voltage(V): 120.05

Test No:

Current(A): 0.1453

LampCAT:

Power (W): 17.2440

Lamp flux(lm): 1264.8

PF: 0.9883

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1264.78

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 73.35

Central intensity(cd): 463.271

Maximum intensity(cd): 465.456

Angle of maximum intensity: C=180.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=106.6

[C90/270]Total=106.3

Field angle(10%Imax): [C0/180]Total=159.4

[C90/270]Total=159.7

Maximum s/h(1/2): C0_180=1.29 C90_270=1.17

Maximum s/h(1/4): C0_180=1.40 C90_270=1.29

Up flux rate of lamp(%): 0.33%

Down flux rate of lamp(%): 98.75%

Up flux rate of LUM(%): -0.60%

Down flux rate of LUM(%): 99.67%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.744%

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

Date:
Humidity(%): 58%

Operator: Sam

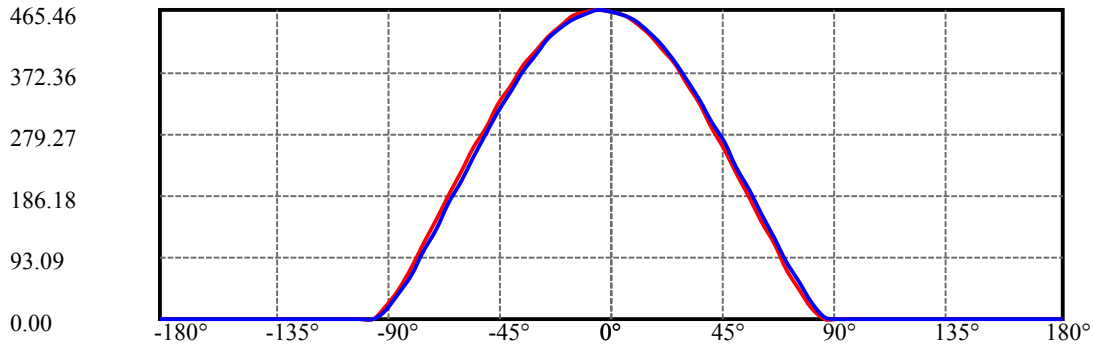
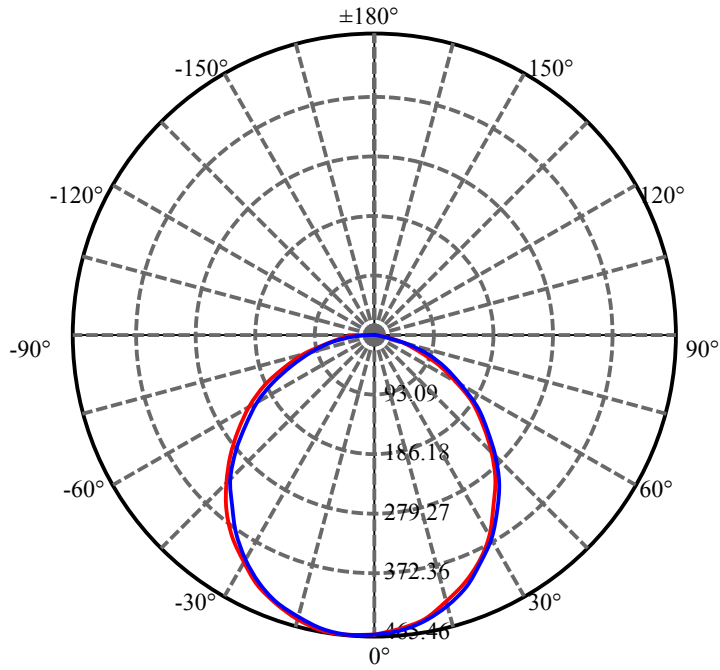
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	463.271	0.000	0	.000%	.000%
5.0	460.858	11.051	11.051	.874%	.874%
10.0	453.581	32.743	43.794	2.589%	3.463%
15.0	441.647	53.188	96.982	4.205%	7.668%
20.0	425.071	71.593	168.575	5.660%	13.328%
25.0	404.476	87.263	255.839	6.899%	20.228%
30.0	379.820	99.623	355.462	7.877%	28.105%
35.0	351.815	108.237	463.699	8.558%	36.662%
40.0	321.325	112.941	576.64	8.930%	45.592%
45.0	288.886	113.739	690.38	8.993%	54.585%
50.0	254.438	110.647	801.026	8.748%	63.333%
55.0	219.485	104.016	905.042	8.224%	71.557%
60.0	183.489	94.214	999.256	7.449%	79.006%
65.0	147.687	81.636	1080.892	6.455%	85.461%
70.0	112.242	66.972	1147.865	5.295%	90.756%
75.0	78.047	50.884	1198.749	4.023%	94.779%
80.0	46.918	34.500	1233.249	2.728%	97.507%
85.0	20.803	19.283	1252.532	1.525%	99.032%
90.0	6.503	8.002	1260.534	.633%	99.664%
95.0	0.298	2.007	1262.54	.159%	99.823%
100.0	0.253	0.146	1262.686	.012%	99.835%
105.0	0.298	0.141	1262.827	.011%	99.846%
110.0	0.298	0.148	1262.975	.012%	99.857%
115.0	0.327	0.153	1263.127	.012%	99.869%
120.0	0.387	0.170	1263.297	.013%	99.883%
125.0	0.431	0.187	1263.485	.015%	99.898%
130.0	0.476	0.197	1263.682	.016%	99.913%
135.0	0.476	0.192	1263.874	.015%	99.928%
140.0	0.476	0.176	1264.051	.014%	99.942%
145.0	0.476	0.159	1264.209	.013%	99.955%
150.0	0.506	0.143	1264.353	.011%	99.966%
155.0	0.491	0.125	1264.478	.010%	99.976%
160.0	0.506	0.105	1264.583	.008%	99.984%
165.0	0.476	0.081	1264.663	.006%	99.991%
170.0	0.536	0.060	1264.723	.005%	99.996%
175.0	0.610	0.041	1264.764	.003%	99.999%
180.0	0.616	0.015	1264.779	.001%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	355.46	28.10%	28.10%
0-40	576.64	45.59%	45.59%
0-60	999.26	79.01%	79.01%
0-90	1260.53	99.66%	99.66%
0-120	1263.30	99.88%	99.88%
0-180	1264.78	100.00%	100.00%
60-90	355.49	28.11%	28.11%
90-120	10.77	0.85%	0.85%
90-130	11.15	0.88%	0.88%
90-150	11.82	0.93%	0.93%
90-180	12.23	0.97%	0.97%
0-60.77	1011.82	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	43.79
10-20	124.78
20-30	186.89
30-40	221.18
40-50	224.39
50-60	198.23
60-70	148.61
70-80	85.38
80-90	27.28
90-100	2.15
100-110	0.29
110-120	0.32
120-130	0.38
130-140	0.37
140-150	0.30
150-160	0.23
160-170	0.14
170-180	0.04

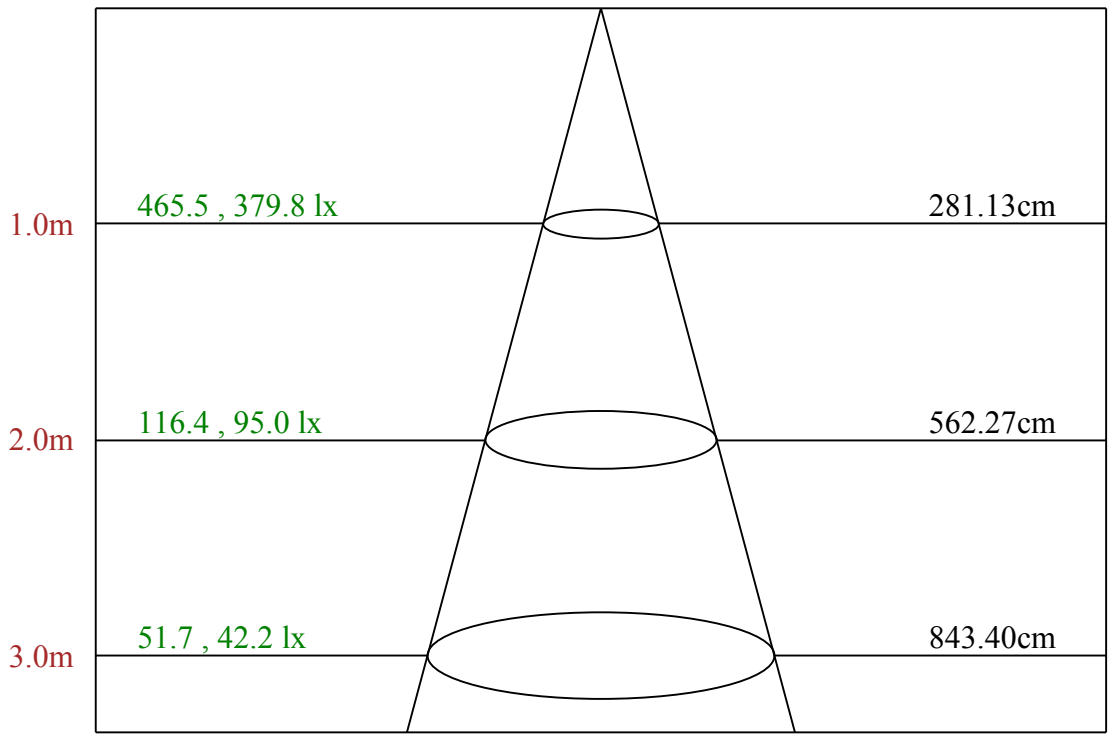


C0/C180: —

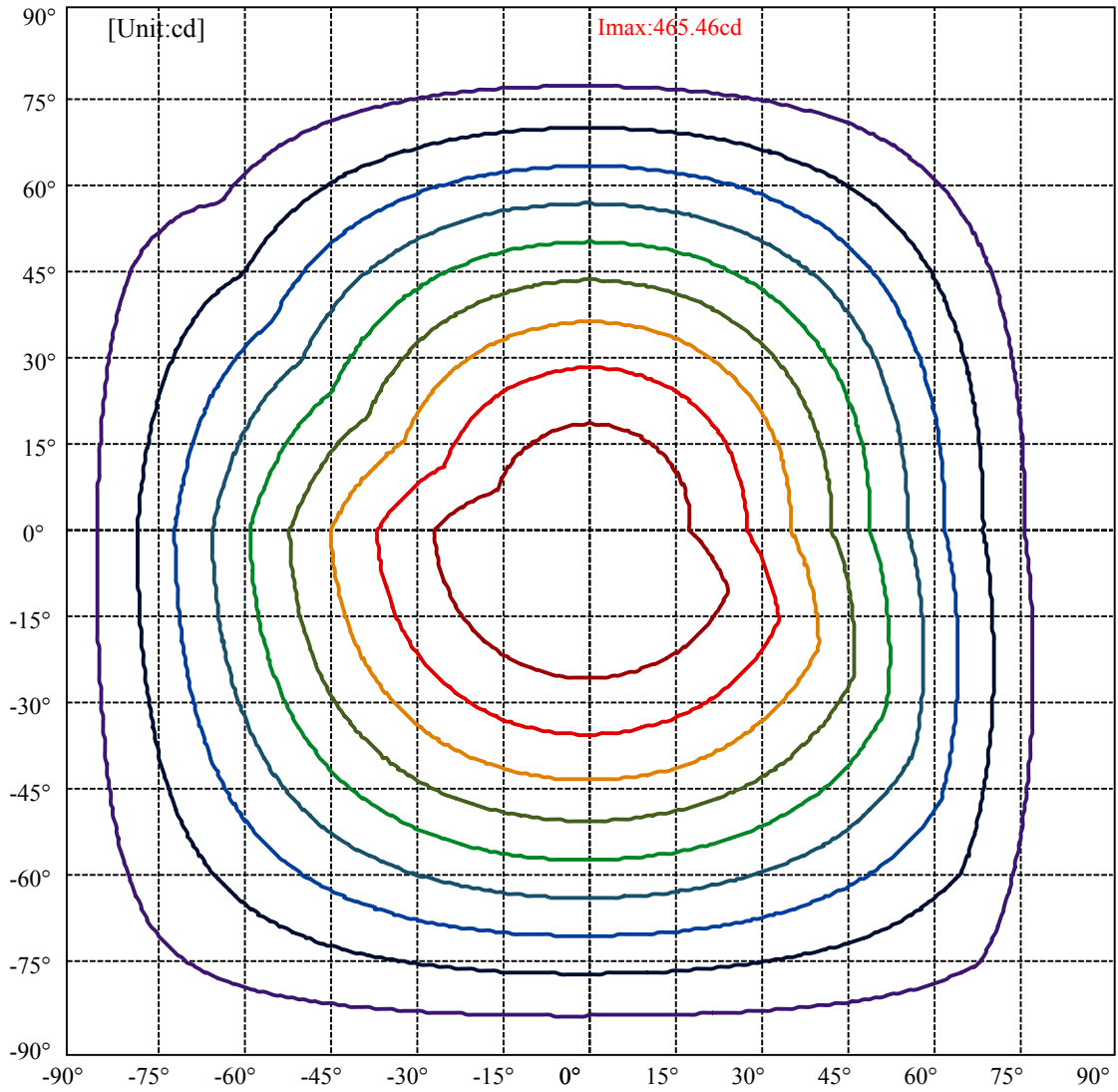
C90/C270: —

Field angle(10%Imax):C0/180Left:79.7 Right:79.7
:C90/270Left:78.4 Right:81.3

Beam Angle(50%Imax):C0/180Left:53.4 Right:53.2
:C90/270Left:51.7 Right:54.6



Max , Ave Beam angle of C180 plane 107.89

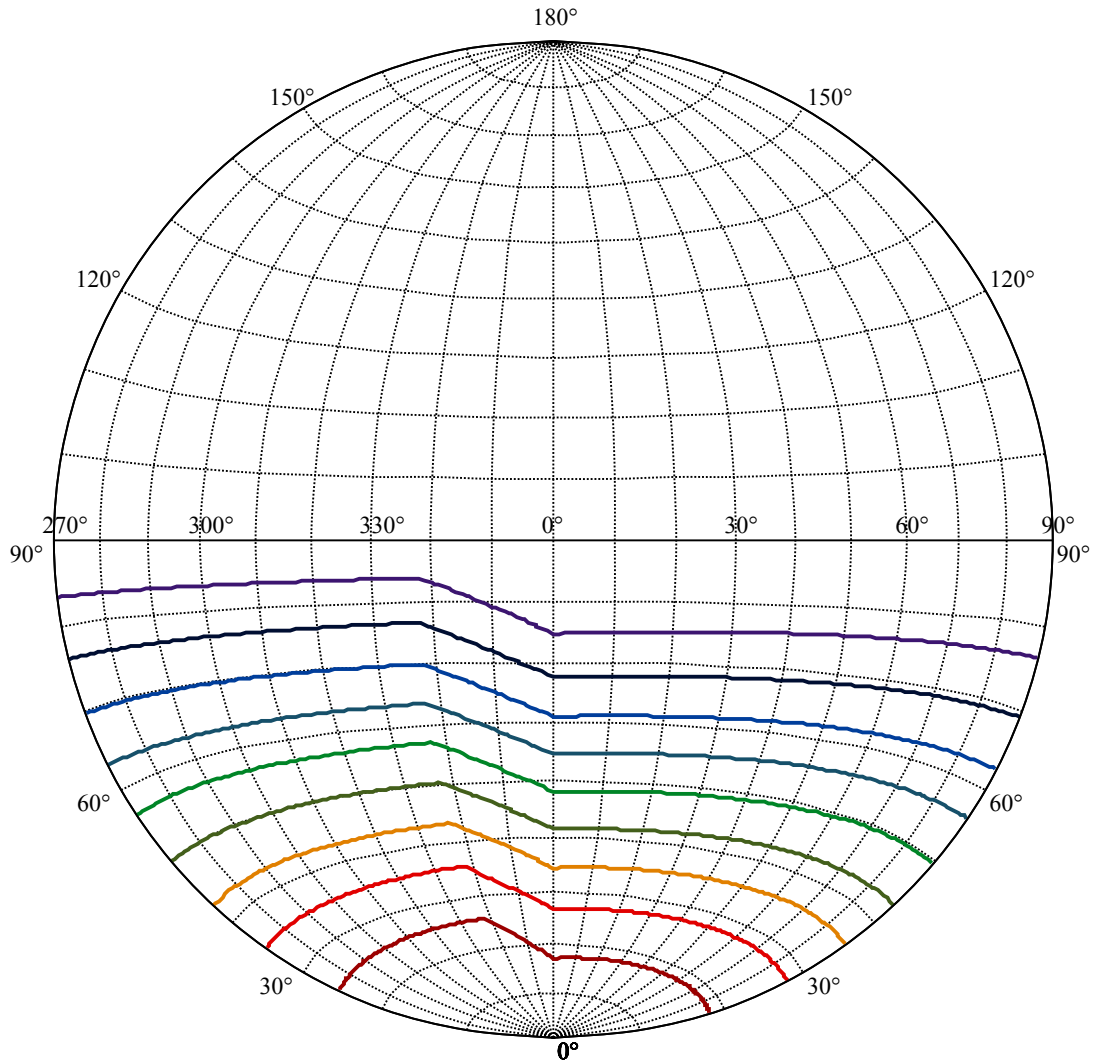


(10%I _{max})	46.5456	—
(20%I _{max})	93.0912	—
(30%I _{max})	139.637	—
(40%I _{max})	186.182	—
(50%I _{max})	232.728	—
(60%I _{max})	279.274	—
(70%I _{max})	325.819	—
(80%I _{max})	372.365	—
(90%I _{max})	418.91	—

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

Date:
Humidity(%): 58%

Operator: Sam



House

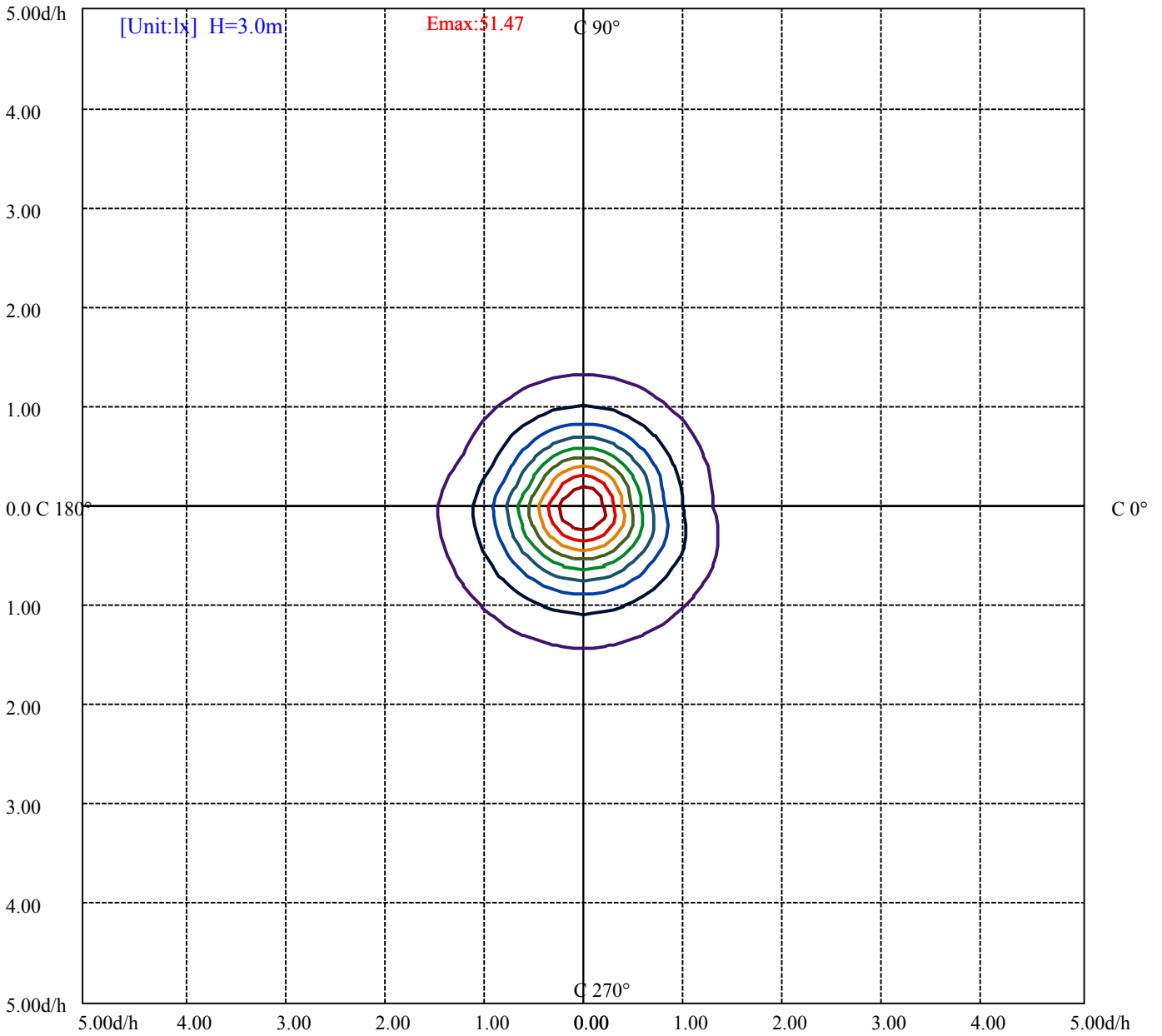
[Unit:cd]

Road

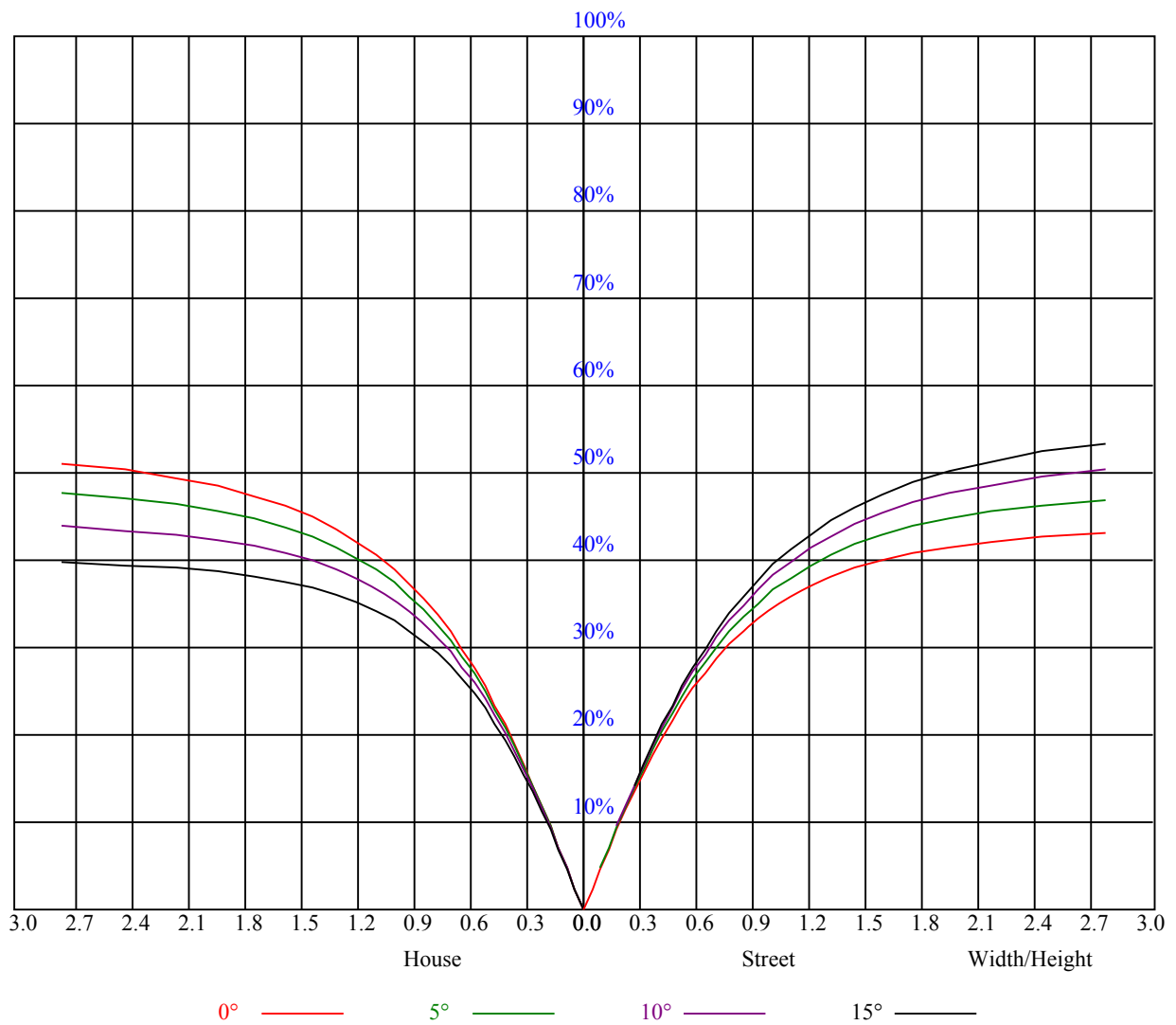
I_{max}:465.46

- (10%I_{max}) 46.5456
- (20%I_{max}) 93.0912
- (30%I_{max}) 139.637
- (40%I_{max}) 186.182
- (50%I_{max}) 232.728
- (60%I_{max}) 279.274
- (70%I_{max}) 325.819
- (80%I_{max}) 372.365
- (90%I_{max}) 418.91





- (10%Emax) 5.147455
- (20%Emax) 10.29491
- (30%Emax) 15.44233
- (40%Emax) 20.58978
- (50%Emax) 25.73722
- (60%Emax) 30.88467
- (70%Emax) 36.03222
- (80%Emax) 41.17967
- (90%Emax) 46.32711



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	463.27	455.93	444.74	428.08	407.13	383.32	354.51	322.84	289.51
22.5	463.27	456.89	445.93	429.98	409.51	384.98	357.13	326.41	293.32
45.0	463.27	458.08	446.89	431.41	410.94	387.13	359.27	328.32	296.42
67.5	463.27	458.08	446.65	431.89	411.89	387.84	360.94	330.94	298.08
90.0	463.27	457.60	447.12	431.41	412.36	388.08	361.18	330.94	299.04
112.5	463.27	457.12	446.65	430.46	411.65	387.84	360.46	329.99	298.56
135.0	463.27	456.65	445.70	429.98	409.74	386.89	359.03	329.03	297.37
157.5	463.27	455.22	444.03	428.32	407.60	384.51	356.65	326.41	293.56
180.0	463.27	465.46	462.60	455.46	443.08	426.41	404.98	380.70	353.08
202.5	463.27	464.98	462.36	454.27	441.65	424.51	403.32	378.32	349.75
225.0	463.27	465.46	461.65	453.31	440.22	422.84	401.41	375.70	347.84
247.5	463.27	464.98	461.41	452.60	439.51	421.65	399.75	374.51	345.22
270.0	463.27	464.50	460.93	452.12	438.55	420.70	399.03	372.84	343.56
292.5	463.27	464.50	460.22	451.89	438.31	420.70	398.32	372.37	344.03
315.0	463.27	464.50	460.46	452.36	438.79	421.65	399.98	373.79	344.51
337.5	463.27	463.79	459.98	452.84	440.22	422.60	401.17	375.94	347.37
360.0	463.27	455.93	444.74	428.08	407.13	383.32	354.51	322.84	289.51
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	255.70	219.75	183.33	146.42	111.42	76.43	44.76	17.86	0.48
22.5	258.32	223.56	187.37	150.47	114.28	80.00	47.86	20.24	0.95
45.0	262.13	226.66	191.18	154.52	118.33	82.62	50.95	22.86	1.67
67.5	264.51	229.51	192.85	156.42	121.19	85.71	52.62	24.76	2.62
90.0	265.70	229.28	194.28	157.85	122.61	87.14	53.81	25.71	3.33
112.5	264.75	229.28	194.75	158.33	121.90	86.66	54.52	26.19	3.10
135.0	263.32	228.32	192.37	155.95	120.95	85.47	52.62	24.52	2.62
157.5	260.70	225.70	189.52	153.33	118.09	83.09	50.24	22.62	1.67
180.0	322.37	289.27	256.42	221.18	184.99	149.04	112.38	77.38	44.76
202.5	319.03	286.89	252.85	217.13	180.95	144.99	109.52	73.57	42.62
225.0	316.65	283.56	248.56	213.09	177.85	142.14	105.95	70.95	39.28
247.5	313.80	279.99	246.66	210.71	174.28	139.28	102.85	68.33	37.86
270.0	312.84	279.04	244.04	209.28	173.09	137.14	100.95	67.85	36.67
292.5	313.32	278.32	244.28	208.56	172.37	137.61	101.66	67.38	37.38
315.0	313.56	279.99	244.99	210.23	174.28	138.33	102.62	69.28	38.09
337.5	315.46	281.89	248.32	212.37	176.42	140.23	105.47	71.19	39.76
360.0	255.70	219.75	183.33	146.42	111.42	76.43	44.76	17.86	0.48
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.24	0.48	0.48	0.71	0.71	0.48	0.48	0.48	0.48
22.5	0.48	0.24	0.24	0.48	0.48	0.48	0.48	0.48	0.48
45.0	0.24	0.24	0.24	0.24	0.24	0.24	0.48	0.48	0.48
67.5	0.24	0.24	0.24	0.24	0.24	0.24	0.48	0.48	0.48
90.0	0.24	0.24	0.24	0.24	0.24	0.24	0.48	0.48	0.48
112.5	0.24	0.24	0.24	0.24	0.24	0.24	0.48	0.48	0.48
135.0	0.24	0.24	0.24	0.24	0.24	0.48	0.48	0.48	0.48
157.5	0.24	0.24	0.24	0.24	0.24	0.48	0.48	0.48	0.48
180.0	17.38	0.24	0.24	0.24	0.24	0.24	0.24	0.48	0.48
202.5	14.76	0.24	0.24	0.24	0.24	0.24	0.24	0.48	0.48
225.0	12.38	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.48
247.5	11.19	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.48
270.0	10.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.48
292.5	10.95	0.48	0.24	0.24	0.24	0.24	0.24	0.48	0.48
315.0	11.43	0.48	0.24	0.24	0.24	0.48	0.48	0.48	0.48
337.5	13.57	0.48	0.24	0.48	0.48	0.48	0.48	0.48	0.48
360.0	0.24	0.48	0.48	0.71	0.71	0.48	0.48	0.48	0.48

LB8R 41K

Intensity data(cd)

Appendix Page: 11 Total:11

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.48	0.48	0.48	0.71	0.48	0.48	0.48	0.48	0.71
22.5	0.48	0.48	0.48	0.71	0.48	0.48	0.48	0.71	0.71
45.0	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.71	0.71
67.5	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.71
90.0	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.71
112.5	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.71
135.0	0.48	0.48	0.48	0.48	0.48	0.71	0.48	0.71	0.71
157.5	0.48	0.48	0.48	0.48	0.71	0.71	0.48	0.48	0.71
180.0	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
202.5	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
225.0	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.71
247.5	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
270.0	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
292.5	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
315.0	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
337.5	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.71	0.48
360.0	0.48	0.48	0.48	0.71	0.48	0.48	0.48	0.48	0.71

C/γ(°)	180.0
0.0	0.62
22.5	0.62
45.0	0.62
67.5	0.62
90.0	0.62
112.5	0.62
135.0	0.62
157.5	0.62
180.0	0.62
202.5	0.62
225.0	0.62
247.5	0.62
270.0	0.62
292.5	0.62
315.0	0.62
337.5	0.62
360.0	0.62