



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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Address:1 F,No.1 building,Meibaohe industrial park,Dalang street,Longhua district,Shenzhen,China

LumCAT: LL4G-41K

Luminaire:

Report No:

Voltage(V): 120.04

Test No:

Current(A): 0.0945

LampCAT:

Power (W): 11.2120

Lamp flux(lm): 1084.6

PF: 0.9882

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1084.60

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 96.74

Central intensity(cd): 1647.732

Maximum intensity(cd): 1714.241

Angle of maximum intensity: C=202.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=42.1

[C90/270]Total=41.2

Field angle(10%Imax): [C0/180]Total=75.5

[C90/270]Total=73.7

Maximum s/h(1/2): C0_180=0.84 C90_270=0.74

Maximum s/h(1/4): C0_180=0.83 C90_270=0.74

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 100.00%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.425%

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

Date:
Humidity(%): 58%

Operator: Sam

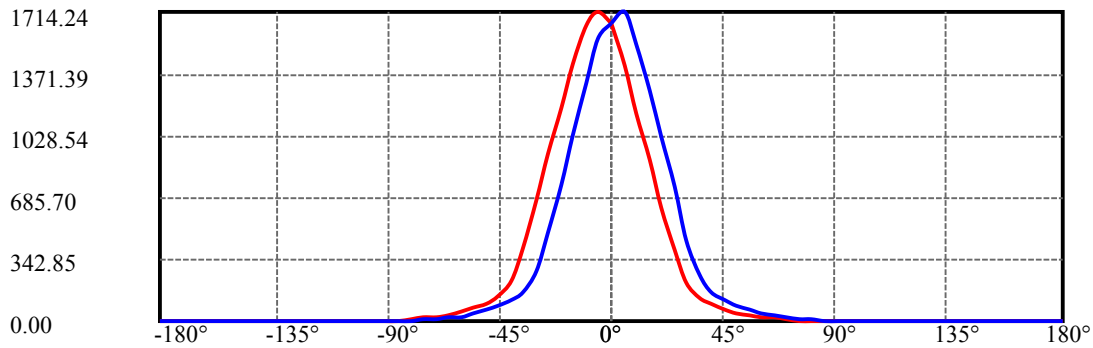
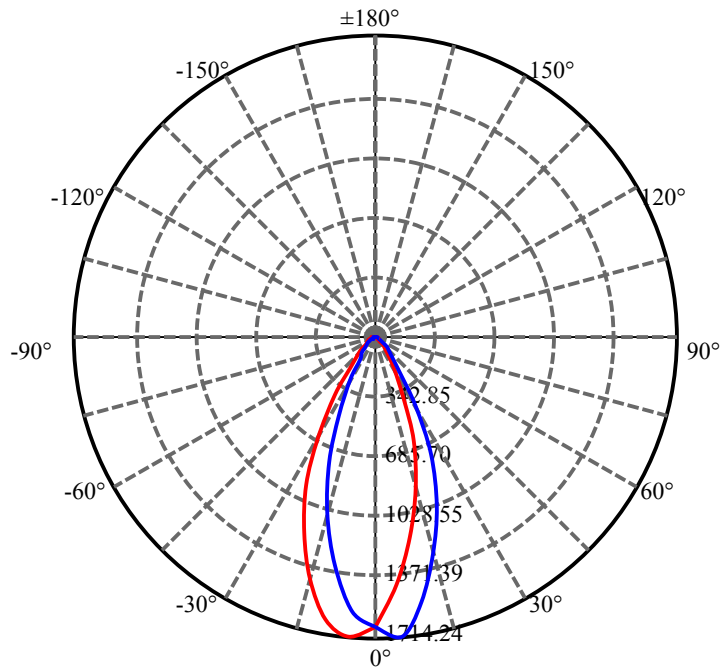
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1647.732	0.000	0	.000%	.000%
5.0	1577.445	38.556	38.556	3.555%	3.555%
10.0	1393.684	106.287	144.843	9.799%	13.354%
15.0	1152.425	151.033	295.876	13.925%	27.280%
20.0	894.780	168.718	464.595	15.556%	42.836%
25.0	634.501	160.393	624.988	14.788%	57.624%
30.0	408.019	131.932	756.92	12.164%	69.788%
35.0	243.278	95.908	852.828	8.843%	78.631%
40.0	148.764	65.409	918.237	6.031%	84.661%
45.0	100.044	46.069	964.306	4.247%	88.909%
50.0	72.392	34.843	999.149	3.212%	92.121%
55.0	50.446	26.709	1025.859	2.463%	94.584%
60.0	35.962	19.973	1045.832	1.841%	96.425%
65.0	25.428	14.924	1060.756	1.376%	97.801%
70.0	16.796	10.691	1071.447	.986%	98.787%
75.0	10.212	7.060	1078.507	.651%	99.438%
80.0	4.740	4.001	1082.508	.369%	99.807%
85.0	1.478	1.690	1084.197	.156%	99.963%
90.0	0.000	0.405	1084.602	.037%	100.000%
95.0	0.000	0.000	1084.602	.000%	100.000%
100.0	0.000	0.000	1084.602	.000%	100.000%
105.0	0.000	0.000	1084.602	.000%	100.000%
110.0	0.000	0.000	1084.602	.000%	100.000%
115.0	0.000	0.000	1084.602	.000%	100.000%
120.0	0.000	0.000	1084.602	.000%	100.000%
125.0	0.000	0.000	1084.602	.000%	100.000%
130.0	0.000	0.000	1084.602	.000%	100.000%
135.0	0.000	0.000	1084.602	.000%	100.000%
140.0	0.000	0.000	1084.602	.000%	100.000%
145.0	0.000	0.000	1084.602	.000%	100.000%
150.0	0.000	0.000	1084.602	.000%	100.000%
155.0	0.000	0.000	1084.602	.000%	100.000%
160.0	0.000	0.000	1084.602	.000%	100.000%
165.0	0.000	0.000	1084.602	.000%	100.000%
170.0	0.000	0.000	1084.602	.000%	100.000%
175.0	0.000	0.000	1084.602	.000%	100.000%
180.0	0.000	0.000	1084.602	.000%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	756.92	69.79%	69.79%
0-40	918.24	84.66%	84.66%
0-60	1045.83	96.42%	96.43%
0-90	1084.60	100.00%	100.00%
0-120	1084.60	100.00%	100.00%
0-180	1084.60	100.00%	100.00%
60-90	58.74	5.42%	5.42%
90-120	0.40	0.04%	0.04%
90-130	0.40	0.04%	0.04%
90-150	0.40	0.04%	0.04%
90-180	0.40	0.04%	0.04%
0-36.14	867.68	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	144.84
10-20	319.75
20-30	292.33
30-40	161.32
40-50	80.91
50-60	46.68
60-70	25.62
70-80	11.06
80-90	2.09
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

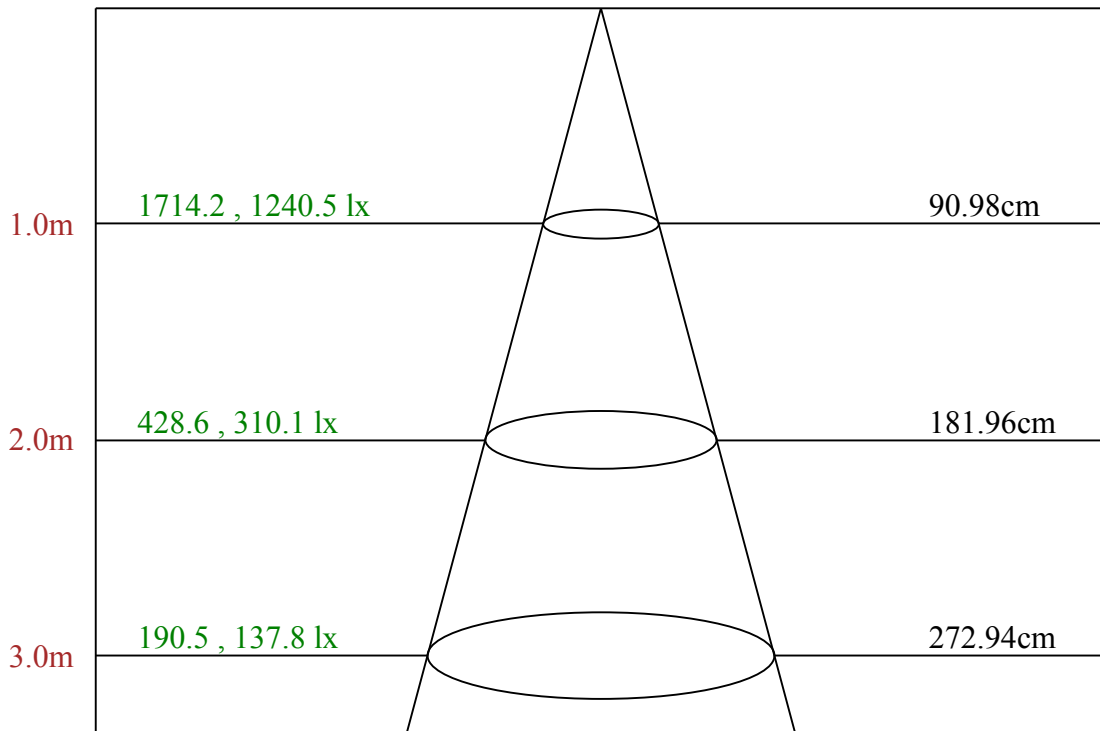


C0/C180: —

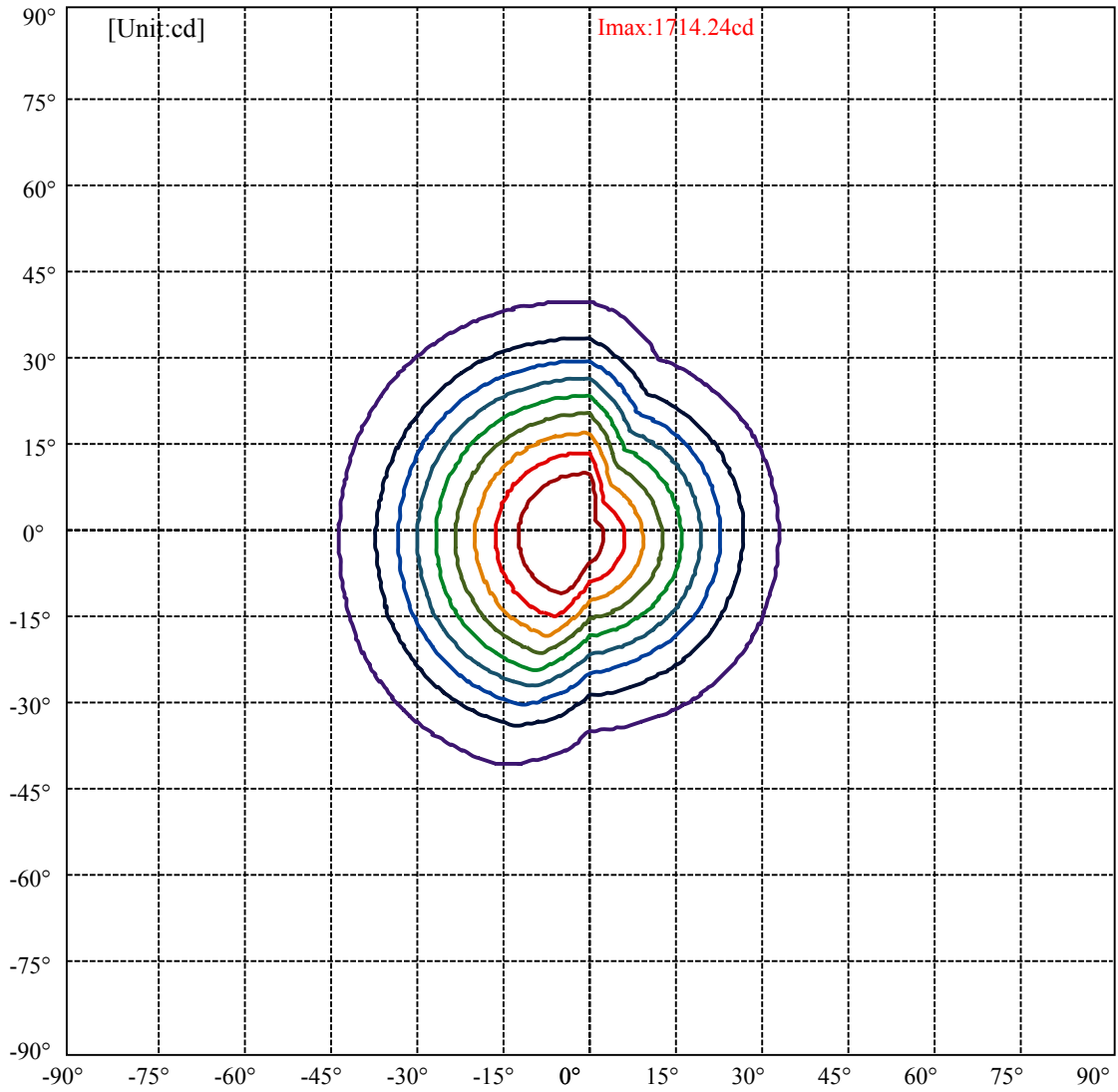
C90/C270: —

Field angle(10%I_{max}):C0/180Left:38.0 Right:37.5
:C90/270Left:39.5 Right:34.2

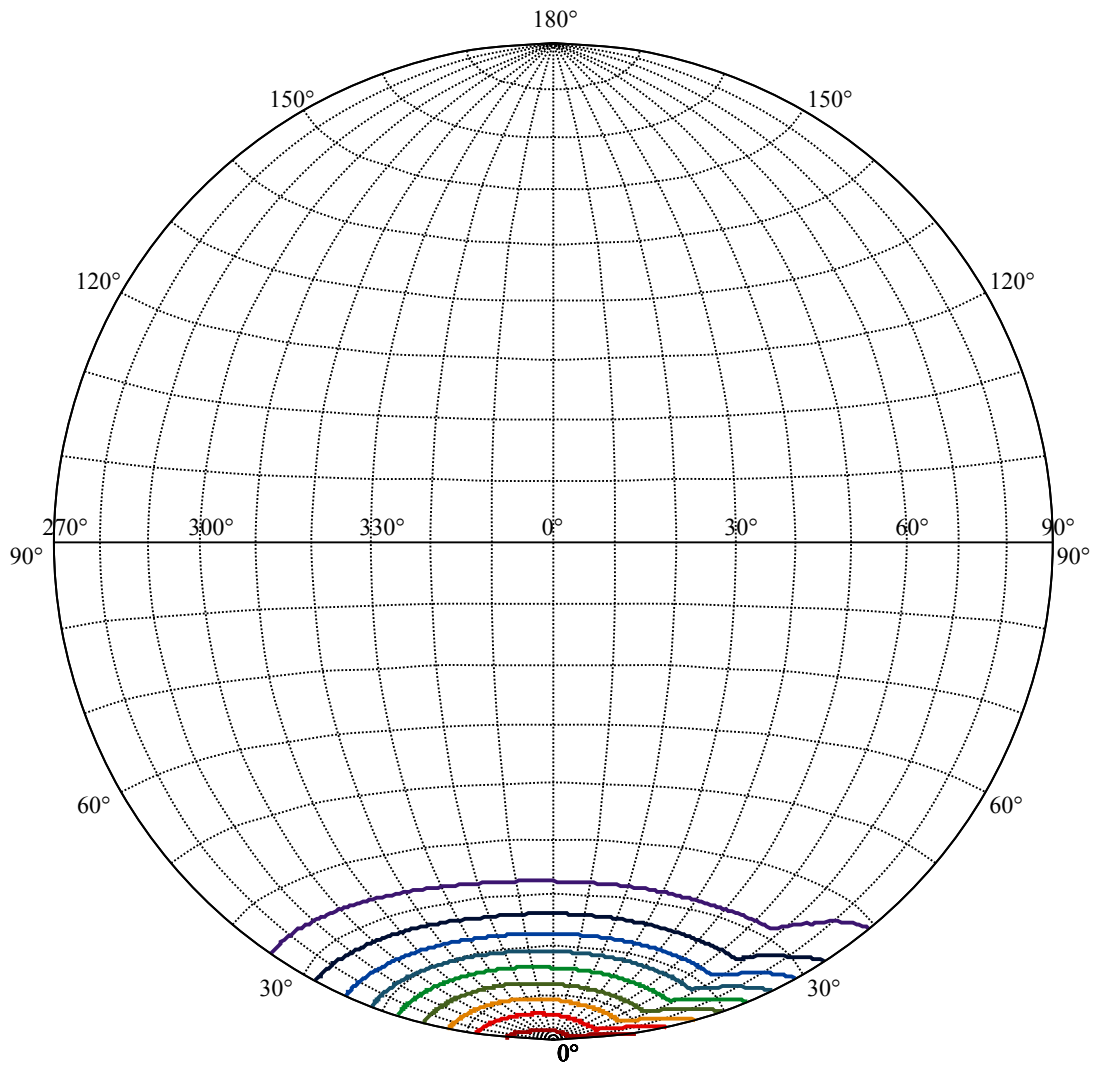
Beam Angle(50%I_{max}):C0/180Left:21.4 Right:20.7
:C90/270Left:23.2 Right:18.0



Max , Ave Beam angle of C202.5 plane 48.41



(10%I _{max}) 171.19	—
(20%I _{max}) 342.38	—
(30%I _{max}) 513.57	—
(40%I _{max}) 684.76	—
(50%I _{max}) 855.95	—
(60%I _{max}) 1027.14	—
(70%I _{max}) 1198.33	—
(80%I _{max}) 1369.52	—
(90%I _{max}) 1540.71	—



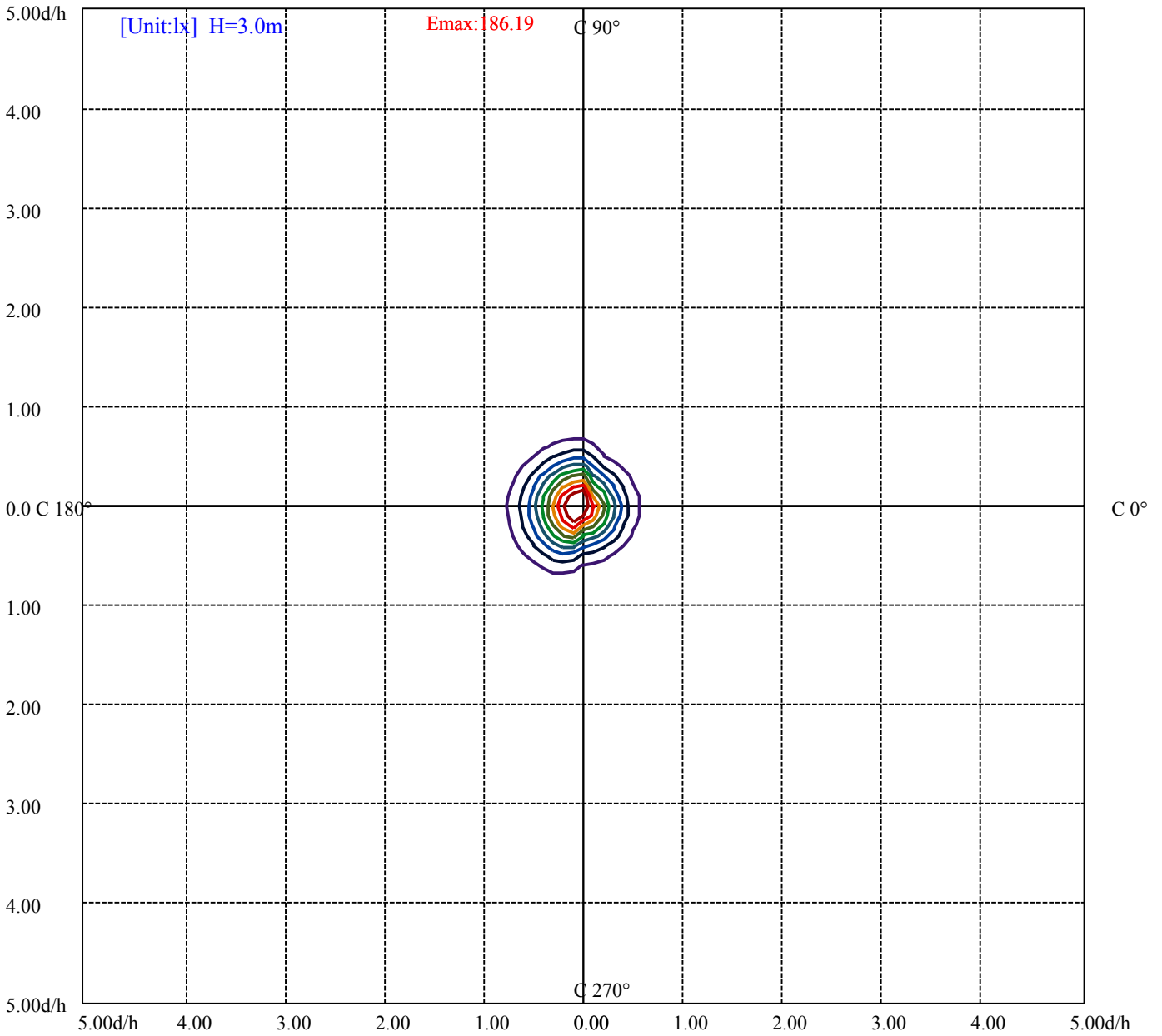
House

[Unit:cd]

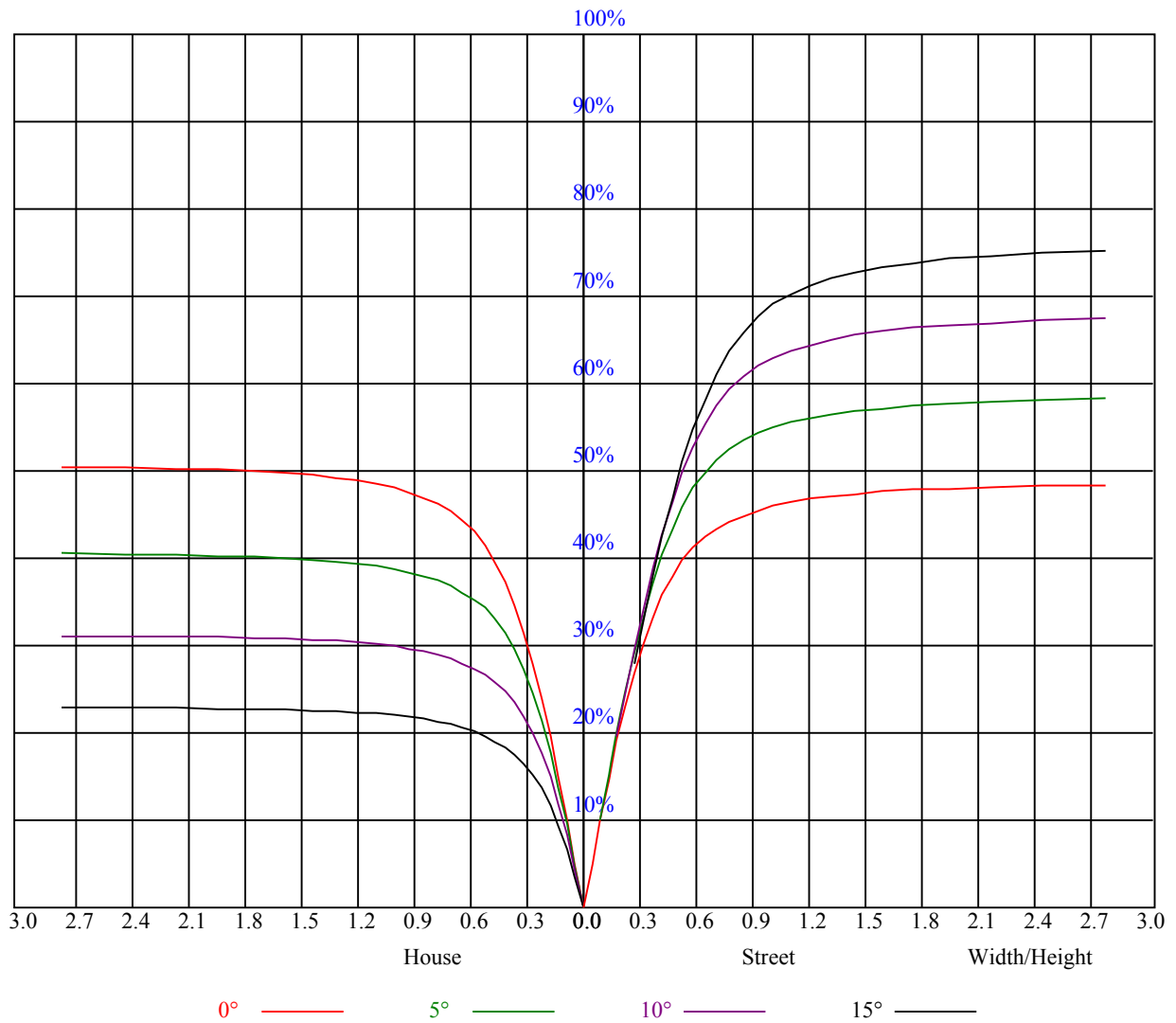
Road

Imax:1714.24

(10%Imax) 171.419	—
(20%Imax) 342.838	—
(30%Imax) 514.257	—
(40%Imax) 685.676	—
(50%Imax) 857.094	—
(60%Imax) 1028.51	—
(70%Imax) 1199.93	—
(80%Imax) 1371.35	—
(90%Imax) 1542.77	—



- (10%Emax) 18.61911
- (20%Emax) 37.23811
- (30%Emax) 55.85722
- (40%Emax) 74.47623
- (50%Emax) 93.09533
- (60%Emax) 111.7144
- (70%Emax) 130.3333
- (80%Emax) 148.9522
- (90%Emax) 167.5711



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	1647.73	1412.27	1147.74	890.24	632.75	393.97	213.72	127.11	92.00
22.5	1647.73	1388.86	1117.31	873.86	618.70	377.59	206.70	124.77	89.66
45.0	1647.73	1374.81	1114.97	859.81	604.66	361.20	192.66	122.43	89.66
67.5	1647.73	1393.54	1119.65	866.84	592.95	354.18	192.66	124.77	92.00
90.0	1647.73	1711.90	1529.31	1278.83	1023.68	740.43	452.50	255.86	155.20
112.5	1647.73	1709.56	1548.04	1304.58	1047.09	770.86	489.95	279.27	169.25
135.0	1647.73	1704.88	1578.47	1346.72	1089.22	820.02	548.47	314.38	180.95
157.5	1647.73	1707.22	1611.24	1393.54	1145.40	887.90	621.04	358.86	199.68
180.0	1647.73	1711.90	1634.65	1421.63	1185.20	930.04	665.52	403.34	225.43
202.5	1647.73	1714.24	1646.36	1442.70	1196.90	948.77	688.93	426.75	234.79
225.0	1647.73	1709.56	1639.33	1449.72	1201.58	934.72	670.20	410.36	227.77
247.5	1647.73	1700.20	1622.95	1421.63	1178.18	901.95	614.02	361.20	209.04
270.0	1647.73	1564.42	1320.97	1035.38	756.81	489.95	274.59	159.88	113.07
292.5	1647.73	1524.63	1264.79	981.54	710.00	433.77	248.84	148.18	106.04
315.0	1647.73	1470.79	1217.97	948.77	677.22	415.04	230.11	141.16	99.02
337.5	1647.73	1440.36	1185.20	923.02	656.15	391.63	218.41	134.13	96.68
360.0	1647.73	1412.27	1147.74	890.24	632.75	393.97	213.72	127.11	92.00
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	66.25	45.18	31.13	21.77	17.09	10.07	3.04	0.00	0.00
22.5	63.91	45.18	31.13	24.11	17.09	10.07	3.04	0.00	0.00
45.0	63.91	45.18	31.13	19.43	17.09	10.07	3.04	0.00	0.00
67.5	66.25	47.52	31.13	21.77	17.09	7.73	0.70	0.00	0.00
90.0	113.07	80.29	59.23	42.84	28.79	19.43	14.75	5.38	0.00
112.5	117.75	87.32	61.57	42.84	31.13	21.77	17.09	7.73	0.70
135.0	124.77	92.00	61.57	45.18	33.48	21.77	17.09	10.07	3.04
157.5	131.79	96.68	68.59	49.86	33.48	24.11	17.09	10.07	3.04
180.0	136.48	99.02	70.93	52.20	35.82	24.11	17.09	10.07	3.04
202.5	143.50	101.36	73.27	52.20	35.82	26.45	17.09	12.41	3.04
225.0	141.16	103.70	70.93	54.54	35.82	26.45	17.09	10.07	5.38
247.5	134.13	99.02	68.59	52.20	35.82	24.11	17.09	10.07	5.38
270.0	82.63	59.23	40.50	26.45	17.09	12.41	5.38	0.00	0.00
292.5	77.95	54.54	35.82	24.11	17.09	10.07	5.38	0.00	0.00
315.0	70.93	52.20	35.82	24.11	17.09	10.07	5.38	0.00	0.00
337.5	66.25	49.86	35.82	21.77	17.09	10.07	3.04	0.00	0.00
360.0	66.25	45.18	31.13	21.77	17.09	10.07	3.04	0.00	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	0.00
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
292.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
337.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Intensity data(cd)

C/ γ ($^{\circ}$)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
292.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
337.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/ γ ($^{\circ}$)	180.0								
0.0	0.00								
22.5	0.00								
45.0	0.00								
67.5	0.00								
90.0	0.00								
112.5	0.00								
135.0	0.00								
157.5	0.00								
180.0	0.00								
202.5	0.00								
225.0	0.00								
247.5	0.00								
270.0	0.00								
292.5	0.00								
315.0	0.00								
337.5	0.00								
360.0	0.00								