Client: P.Q.L., Inc.
LumCAT:
Luminaire: STR-32-X-35K-24-HH
Report No:
Ballast type:
Test No:
LampCAT:
Lamp flux(lm)
Number of Lamps: 1
Length(mm): -75
Phm Type: C

Voltage(V): 211.700
Current(A): 0.165
Power (W): 33.270
PF: 0.947
Width(mm): -75
Height(mm): 0

Photometric Results

Lumens(lm): 2854.52, Luminous Efficacy(lm/W): 85.80
Central intensity(cd): 16187.130, Maximum intensity(cd): 16187.130
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=23.4
[C90/270]Total=23.8
Field angle(10%Imax): [C0/180]Total=37.4
[C90/270]Total=38.4
Maximum s/h(1/2): C0_180=0.40 C90_270=0.41
Maximum s/h(1/4): C0_180=0.38 C90_270=0.39
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.500%

Equipment: GMS-1800
Temperature(°C): 25.0
Date: 2020/3/25 星期三
Humidity(%): 65.0%
Operator: 01
Distance(m): 11.88

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	16133.026	0.000	0	0.00%	0.00%
2.0	15810.769	61.133	61.133	2.14%	2.14%
4.0	14993.366	176.785	237.918	6.19%	8.33%
6.0	13772.553	274.922	512.84	9.63%	17.97%
8.0	12202.433	347.124	859.964	12.16%	30.13%
10.0	10277.125	385.616	1245.581	13.51%	43.64%
12.0	7844.909	379.176	1624.757	13.28%	56.92%
14.0	5625.570	332.282	1957.038	11.64%	68.56%
16.0	3559.127	260.673	2217.711	9.13%	77.69%
18.0	2059.574	180.138	2397.85	6.31%	84.00%
20.0	1133.968	114.012	2511.862	3.99%	88.00%
22.0	622.356	69.019	2580.881	2.42%	90.41%
24.0	360.081	42.094	2622.975	1.47%	91.89%
26.0	223.651	27.052	2650.026	0.95%	92.84%
28.0	163.669	19.282	2669.308	0.68%	93.51%
30.0	135.442	15.902	2685.21	0.56%	94.07%
32.0	110.743	13.904	2699.114	0.49%	94.56%
34.0	94.278	12.245	2711.358	0.43%	94.98%
36.0	81.340	11.046	2722.404	0.39%	95.37%
38.0	69.579	9.960	2732.364	0.35%	95.72%
40.0	61.346	9.035	2741.399	0.32%	96.04%
42.0	55.466	8.404	2749.802	0.29%	96.33%
44.0	50.761	7.944	2757.747	0.28%	96.61%
46.0	50.761	7.872	2765.619	0.28%	96.89%
48.0	47.233	7.859	2773.478	0.28%	97.16%
50.0	41.352	7.331	2780.809	0.26%	97.42%
52.0	39.000	6.848	2787.656	0.24%	97.66%
54.0	33.120	6.316	2793.972	0.22%	97.88%
56.0	31.943	5.844	2799.817	0.20%	98.08%
58.0	33.120	5.984	2805.8	0.21%	98.29%
60.0	29.591	5.894	2811.695	0.21%	98.50%
62.0	28.415	5.563	2817.258	0.19%	98.69%
64.0	22.534	4.978	2822.236	0.17%	98.87%
66.0	19.006	4.128	2826.364	0.14%	99.01%
68.0	14.490	3.381	2829.745	0.12%	99.13%
70.0	17.924	3.318	2833.064	0.12%	99.25%
72.0	12.043	3.107	2836.171	0.11%	99.36%
74.0	10.961	2.412	2838.583	0.08%	99.44%

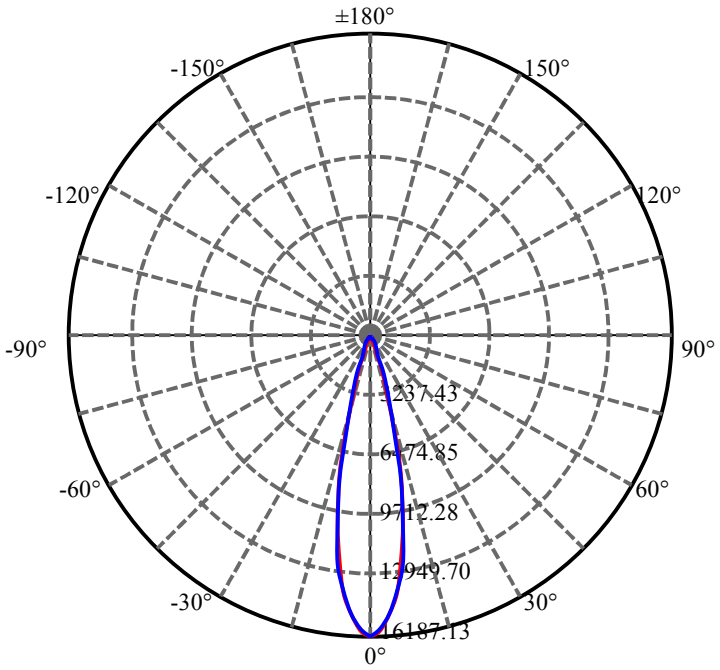
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.879	2.207	2840.791	0.08%	99.52%
78.0	8.868	2.003	2842.794	0.07%	99.59%
80.0	9.950	2.026	2844.819	0.07%	99.66%
82.0	9.879	2.148	2846.967	0.08%	99.74%
84.0	8.774	2.030	2848.997	0.07%	99.81%
86.0	9.879	2.038	2851.035	0.07%	99.88%
88.0	6.610	1.806	2852.841	0.06%	99.94%
90.0	8.750	1.684	2854.525	0.06%	100.00%

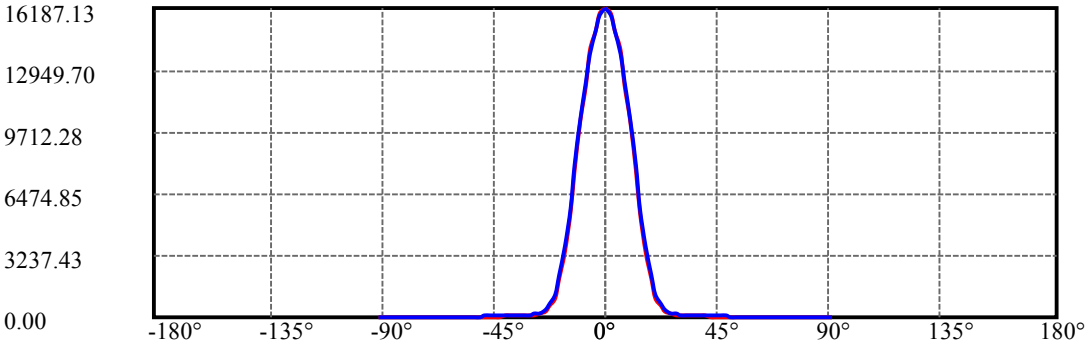
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	2685.21	94.07%
0-40	2741.40	96.04%
0-60	2811.69	98.50%
0-90	2852.84	99.94%
0-120	2852.84	99.94%
0-180	2854.52	100.00%
60-90	41.15	1.44%
90-120	0.00	0.00%
90-130	0.00	0.00%
90-150	0.00	0.00%
90-180	0.00	0.00%
0-16.73	2283.62	80.00%

ZONAL LUMEN SUMMARY

0-10	1245.58
10-20	1266.28
20-30	173.35
30-40	56.19
40-50	39.41
50-60	30.89
60-70	21.37
70-80	11.76
80-90	8.02
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



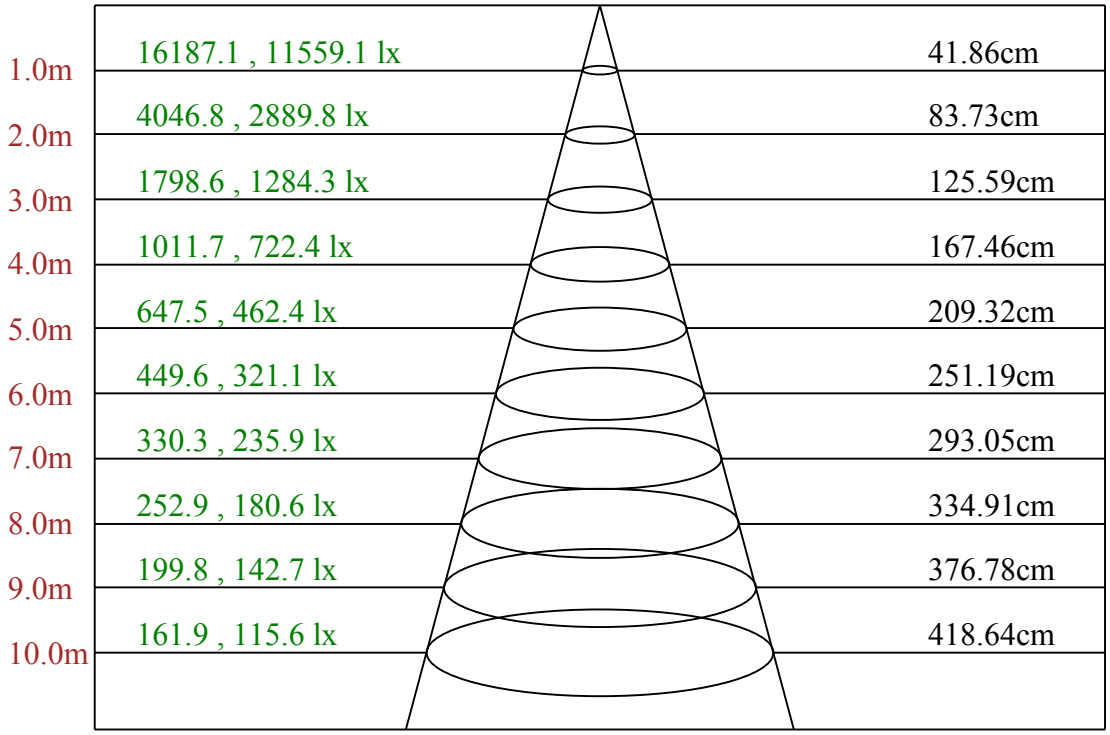


C0/C180:

C90/C270:

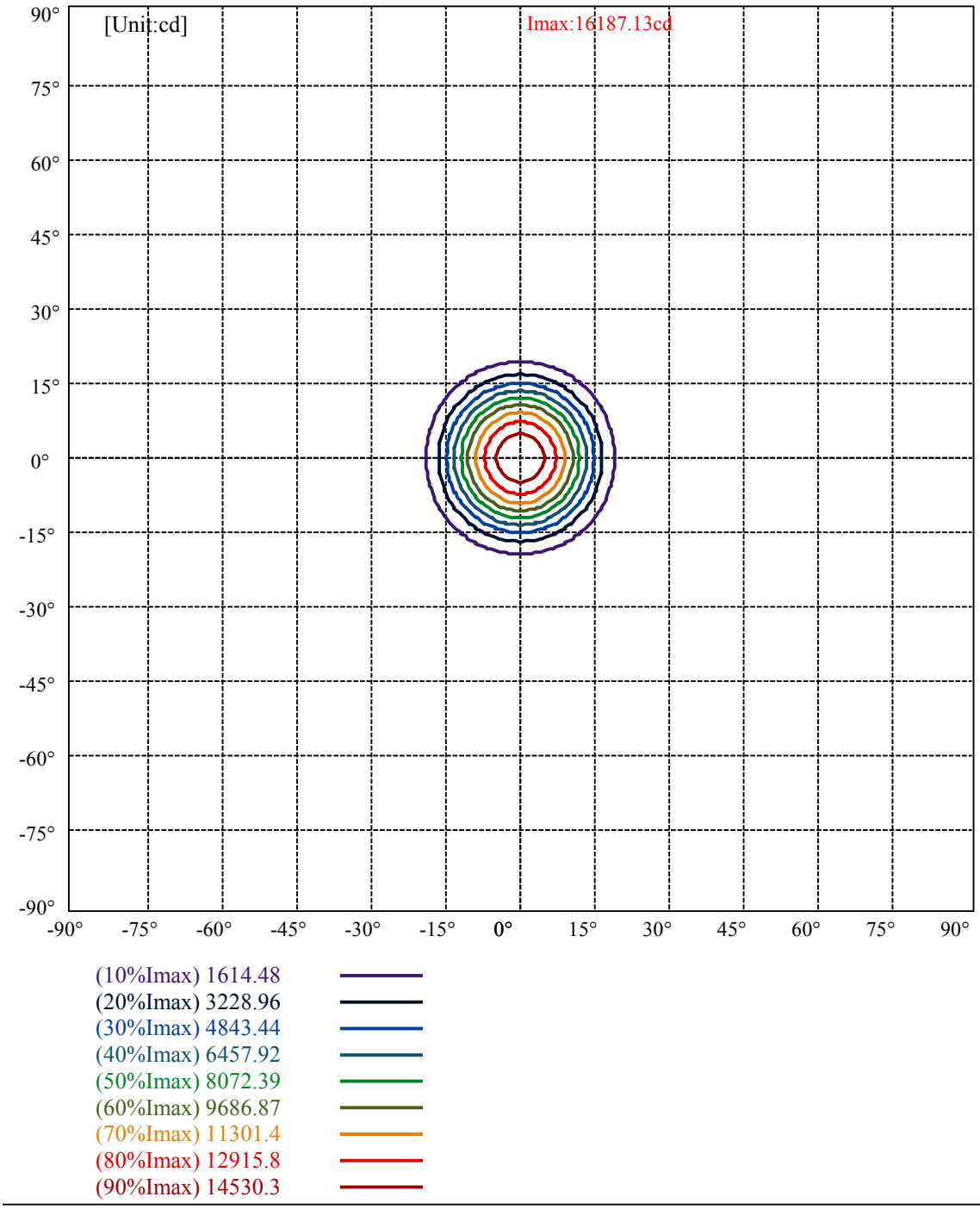
Field angle(10%Imax):C0/180Left:18.7 Right:18.7
:C90/270Left:19.2 Right:19.2

Beam Angle(50%Imax):C0/180Left:11.7 Right:11.7
:C90/270Left:11.9 Right:11.9



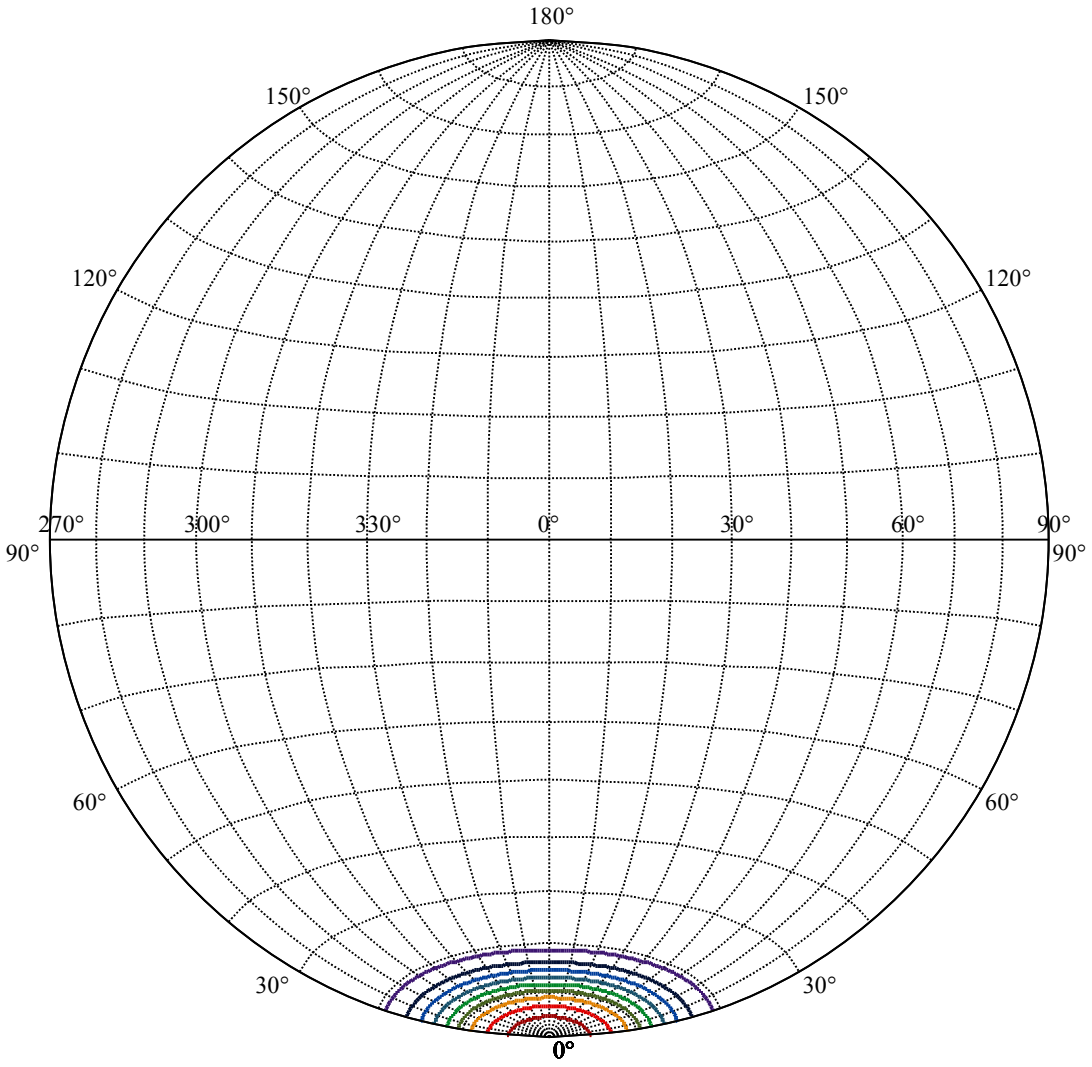
Max , Ave

Beam angle of C0 plane 23.65



Equipment: GMS-1800
Temperature(°C): 25.0
Date: 2020/3/25 星期三
Humidity(%): 65.0%
Operator: 01
Distance(m): 11.88

ISO candela diagram on circular web

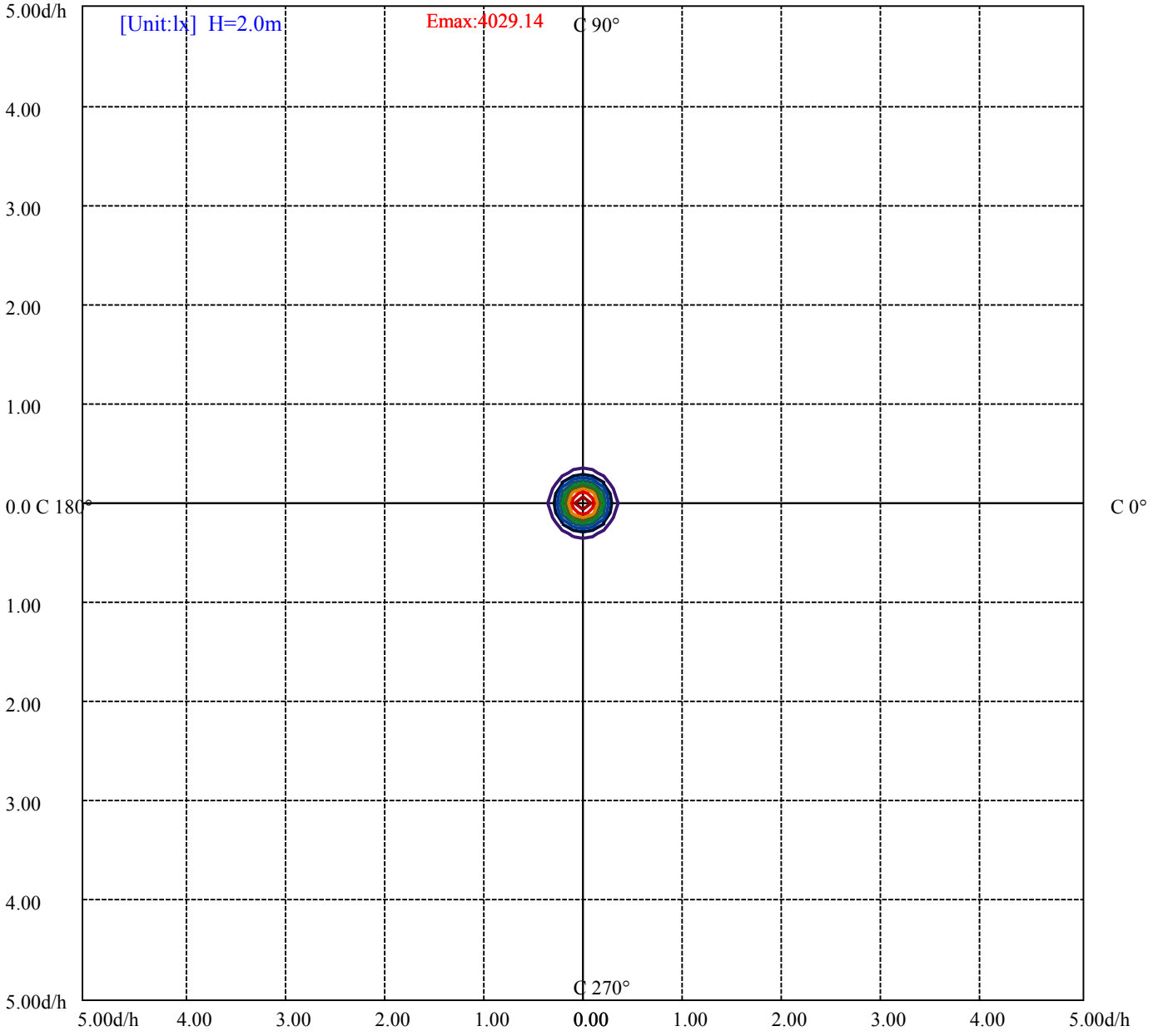


House [Unit:cd] Road

Imax:16187.13

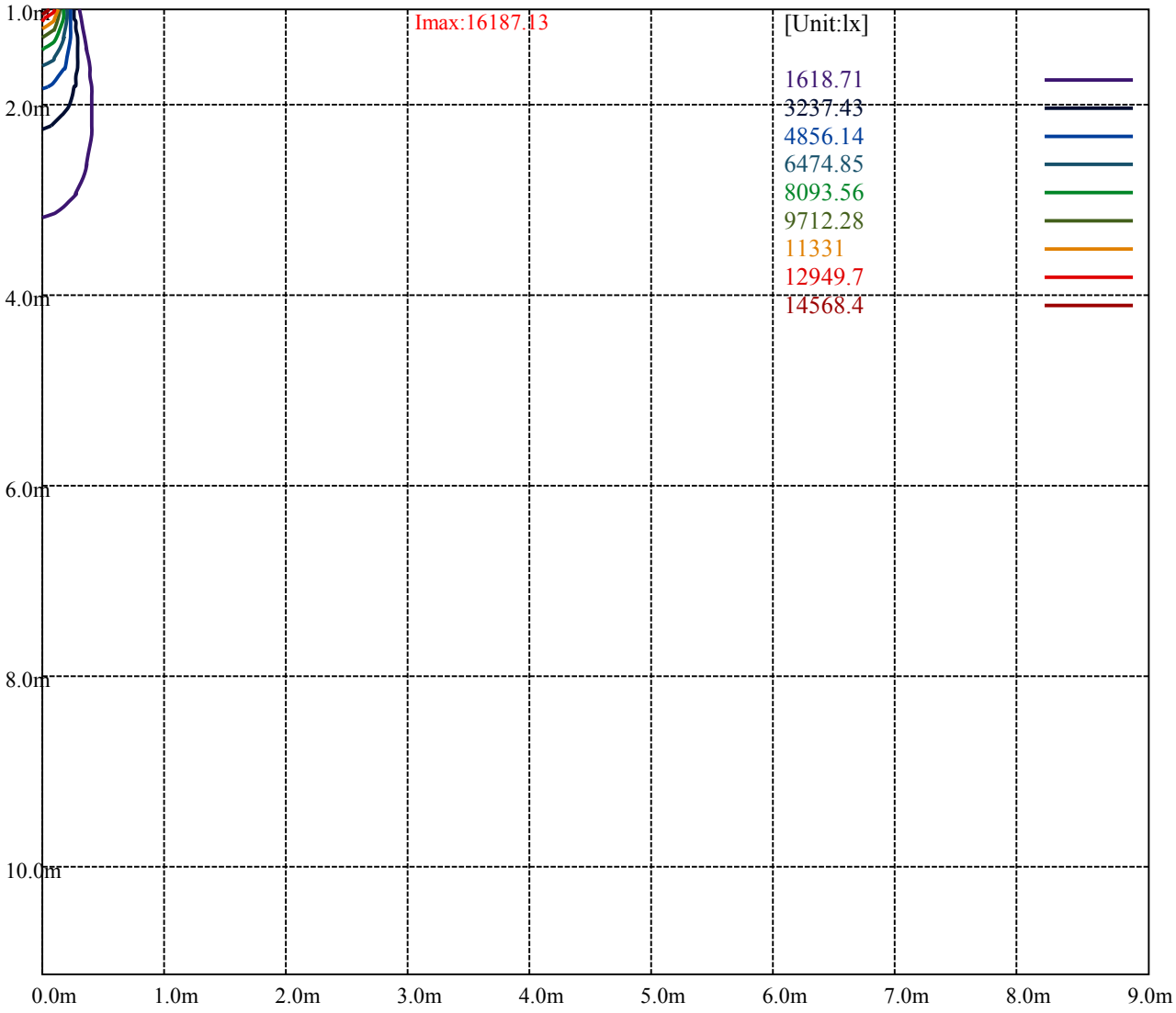
(10%Imax) 1618.71
(20%Imax) 3237.43
(30%Imax) 4856.14
(40%Imax) 6474.85
(50%Imax) 8093.56
(60%Imax) 9712.28
(70%Imax) 11331
(80%Imax) 12949.7
(90%Imax) 14568.4

ISO illuminance diagram



(10%Emax) 402.9125
(20%Emax) 805.8275
(30%Emax) 1208.74
(40%Emax) 1611.655
(50%Emax) 2014.568
(60%Emax) 2417.48
(70%Emax) 2820.4
(80%Emax) 3223.3
(90%Emax) 3626.225

Equipment: GMS-1800
Temperature(°C): 25.0
Date: 2020/3/25 星期三
Humidity(%): 65.0%
Operator: 01
Distance(m): 11.88


Imax:16187.13
[Unit:lx]
1618.71
3237.43
4856.14
6474.85
8093.56
9712.28
11331
12949.7
14568.4
1.0m
2.0m
4.0m
6.0m
8.0m
10.0m
0.0m
1.0m
2.0m
3.0m
4.0m
5.0m
6.0m
7.0m
8.0m
9.0m

Luminance Limitting Curve(luminous side)

Luminance Table

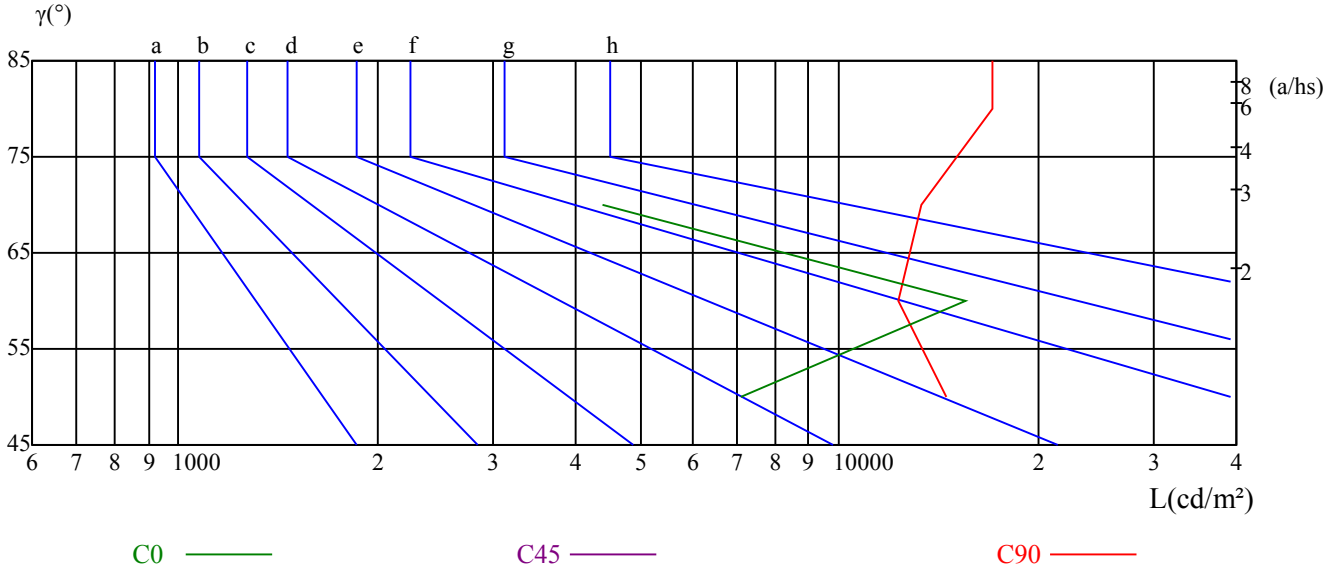
γ	45	50	55	60	65	70	75	80	85
C0	0	7107	0	15526	0	4390	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	14562	0	12331	0	13357	0	17109	17044

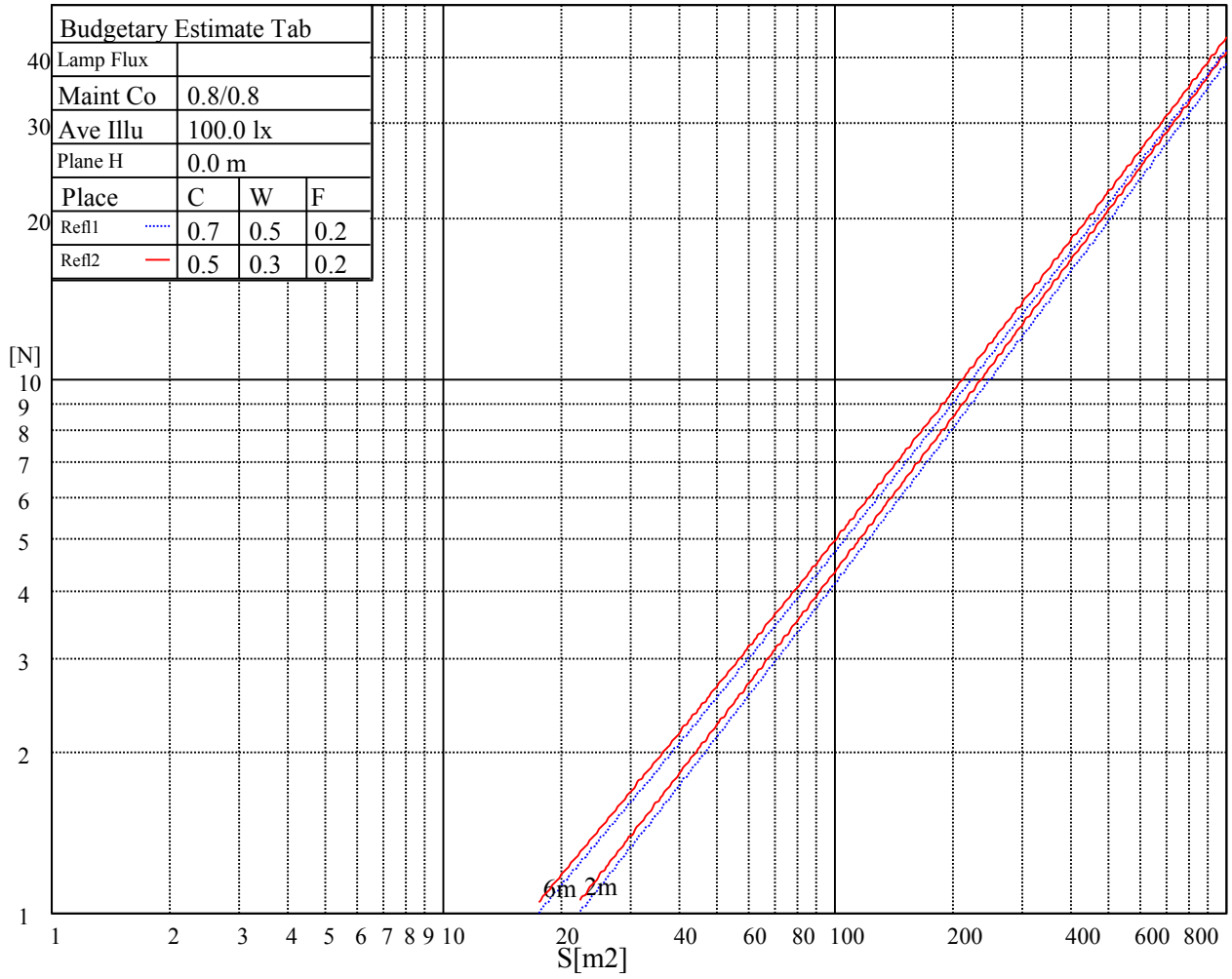
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

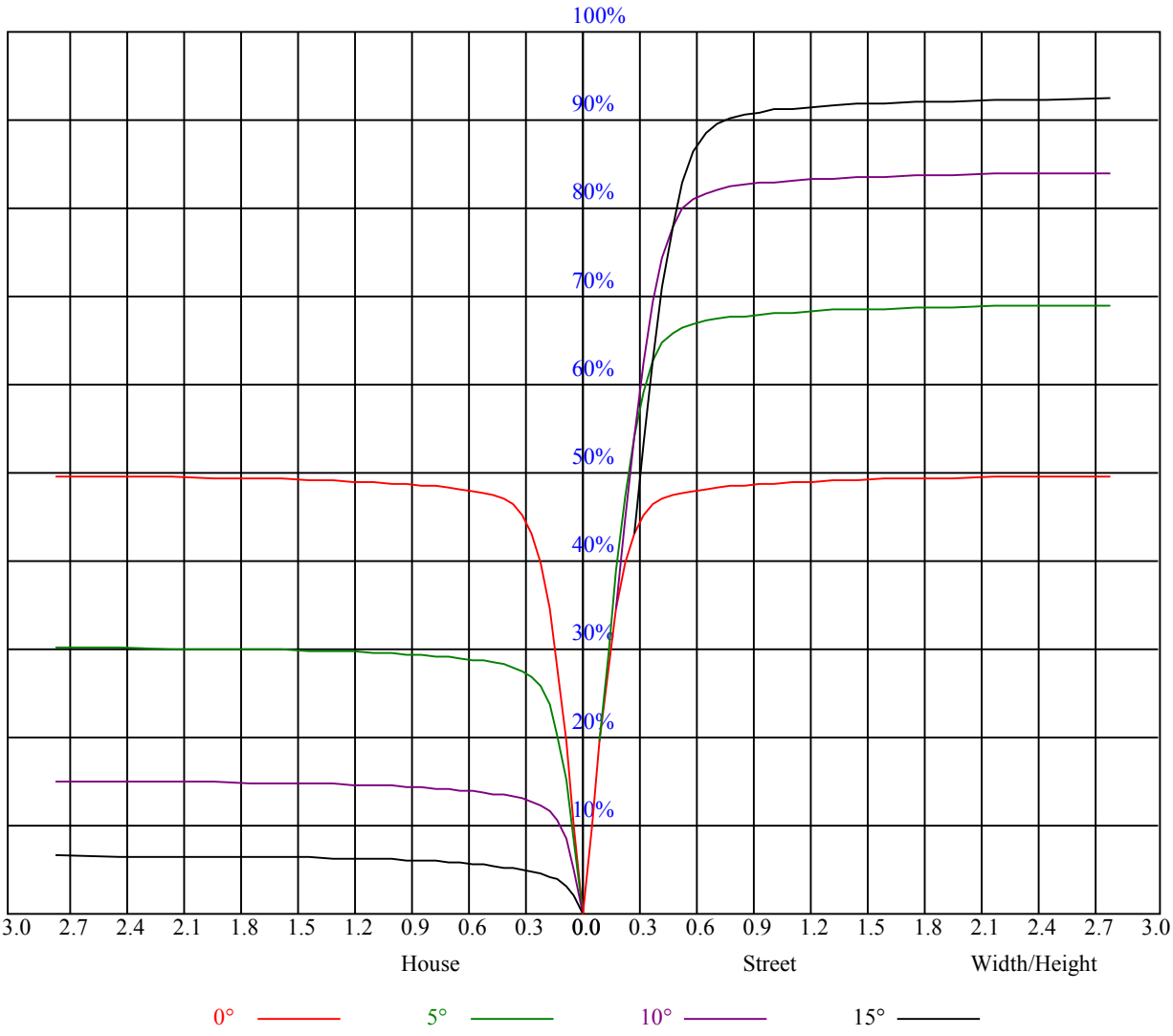
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limitting Curve




Budgetary Estimate Tab
Lamp Flux
Maint Co 0.8/0.8
Ave Illu 100.0 lx
Plane H 0.0 m
Place C W F
Refl1 0.7 0.5 0.2
Refl2 0.5 0.3 0.2
[N]
40
30
20
10
9
8
7
6
5
4
3
2
1
6m 2m
1 2 3 4 5 6 7 8 9 10 20 40 60 80 100 200 400 600 800
S[m2]

RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.13	1.11	1.09	1.11	1.09	1.08	1.07	1.05	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97
2	1.08	1.05	1.02	1.06	1.03	1.01	1.03	1.01	0.99	1.00	0.98	0.97	0.98	0.96	0.95	0.94
3	1.03	1.00	0.97	1.02	0.99	0.96	1.00	0.97	0.95	0.97	0.95	0.94	0.95	0.94	0.92	0.91
4	1.00	0.96	0.93	0.99	0.95	0.93	0.97	0.94	0.92	0.95	0.93	0.91	0.93	0.91	0.90	0.88
5	0.97	0.93	0.90	0.96	0.92	0.89	0.94	0.91	0.89	0.93	0.90	0.88	0.91	0.89	0.87	0.86
6	0.94	0.90	0.87	0.93	0.89	0.87	0.92	0.89	0.86	0.91	0.88	0.86	0.89	0.87	0.85	0.84
7	0.91	0.87	0.85	0.91	0.87	0.84	0.90	0.86	0.84	0.89	0.86	0.84	0.88	0.85	0.83	0.82
8	0.89	0.85	0.82	0.88	0.85	0.82	0.87	0.84	0.82	0.87	0.84	0.82	0.86	0.83	0.81	0.80
9	0.87	0.83	0.80	0.86	0.83	0.80	0.86	0.82	0.80	0.85	0.82	0.80	0.84	0.82	0.80	0.79
10	0.85	0.81	0.79	0.84	0.81	0.79	0.84	0.81	0.78	0.83	0.80	0.78	0.83	0.80	0.78	0.77


100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
3.0 2.7 2.4 2.1 1.8 1.5 1.2 0.9 0.6 0.3 0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0
House
Street
Width/Height
0°
5°
10°
15°

Intensity data(cd)

C/γ(°)	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0
0.0	16187.13	15841.35	15022.77	13928.98	12207.14	10280.65	7690.84	5531.48	3400.35
30.0	16095.39	15806.06	14955.73	13720.80	12136.57	10231.26	7828.44	5580.88	3527.37
60.0	16137.73	15799.01	14998.07	13731.39	12189.50	10280.65	7906.07	5654.97	3594.41
90.0	16144.79	15813.12	15029.83	13801.96	12355.33	10358.28	7909.60	5750.24	3710.85
120.0	16137.73	15799.01	14998.07	13731.39	12189.50	10280.65	7906.07	5654.97	3594.41
150.0	16095.39	15806.06	14955.73	13720.80	12136.57	10231.26	7828.44	5580.88	3527.37
180.0	16187.13	15841.35	15022.77	13928.98	12207.14	10280.65	7690.84	5531.48	3400.35
210.0	16095.39	15806.06	14955.73	13720.80	12136.57	10231.26	7828.44	5580.88	3527.37
240.0	16137.73	15799.01	14998.07	13731.39	12189.50	10280.65	7906.07	5654.97	3594.41
270.0	16144.79	15813.12	15029.83	13801.96	12355.33	10358.28	7909.60	5750.24	3710.85
300.0	16137.73	15799.01	14998.07	13731.39	12189.50	10280.65	7906.07	5654.97	3594.41
330.0	16095.39	15806.06	14955.73	13720.80	12136.57	10231.26	7828.44	5580.88	3527.37
360.0	16187.13	15841.35	15022.77	13928.98	12207.14	10280.65	7690.84	5531.48	3400.35

C/γ(°)	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0	34.0
0.0	1974.89	1022.24	570.61	316.56	203.66	147.20	118.98	104.86	76.64
30.0	2003.12	1096.33	605.89	376.55	249.53	182.49	150.73	115.45	101.33
60.0	2101.91	1181.01	630.59	348.32	207.19	157.79	133.09	111.92	94.28
90.0	2172.48	1226.88	690.57	394.19	224.83	154.26	126.03	104.86	97.81
120.0	2101.91	1181.01	630.59	348.32	207.19	157.79	133.09	111.92	94.28
150.0	2003.12	1096.33	605.89	376.55	249.53	182.49	150.73	115.45	101.33
180.0	1974.89	1022.24	570.61	316.56	203.66	147.20	118.98	104.86	76.64
210.0	2003.12	1096.33	605.89	376.55	249.53	182.49	150.73	115.45	101.33
240.0	2101.91	1181.01	630.59	348.32	207.19	157.79	133.09	111.92	94.28
270.0	2172.48	1226.88	690.57	394.19	224.83	154.26	126.03	104.86	97.81
300.0	2101.91	1181.01	630.59	348.32	207.19	157.79	133.09	111.92	94.28
330.0	2003.12	1096.33	605.89	376.55	249.53	182.49	150.73	115.45	101.33
360.0	1974.89	1022.24	570.61	316.56	203.66	147.20	118.98	104.86	76.64

C/γ(°)	36.0	38.0	40.0	42.0	44.0	46.0	48.0	50.0	52.0
0.0	76.64	55.47	55.47	41.35	41.35	48.41	34.30	20.18	27.24
30.0	87.22	76.64	62.52	62.52	51.94	48.41	51.94	44.88	41.35
60.0	80.16	69.58	66.05	55.47	51.94	51.94	44.88	48.41	37.82
90.0	76.64	69.58	55.47	55.47	55.47	55.47	55.47	41.35	48.41
120.0	80.16	69.58	66.05	55.47	51.94	51.94	44.88	48.41	37.82
150.0	87.22	76.64	62.52	62.52	51.94	48.41	51.94	44.88	41.35
180.0	76.64	55.47	55.47	41.35	41.35	48.41	34.30	20.18	27.24
210.0	87.22	76.64	62.52	62.52	51.94	48.41	51.94	44.88	41.35
240.0	80.16	69.58	66.05	55.47	51.94	51.94	44.88	48.41	37.82
270.0	76.64	69.58	55.47	55.47	55.47	55.47	55.47	41.35	48.41
300.0	80.16	69.58	66.05	55.47	51.94	51.94	44.88	48.41	37.82
330.0	87.22	76.64	62.52	62.52	51.94	48.41	51.94	44.88	41.35
360.0	76.64	55.47	55.47	41.35	41.35	48.41	34.30	20.18	27.24

C/γ(°)	54.0	56.0	58.0	60.0	62.0	64.0	66.0	68.0	70.0
0.0	41.35	20.18	27.24	34.30	27.24	20.18	13.13	6.63	6.63
30.0	30.77	37.82	34.30	30.77	27.24	23.71	27.24	13.13	16.65
60.0	34.30	34.30	37.82	27.24	30.77	23.71	16.65	23.71	23.71
90.0	27.24	27.24	27.24	27.24	27.24	20.18	13.13	6.63	20.18
120.0	34.30	34.30	37.82	27.24	30.77	23.71	16.65	23.71	23.71
150.0	30.77	37.82	34.30	30.77	27.24	23.71	27.24	13.13	16.65
180.0	41.35	20.18	27.24	34.30	27.24	20.18	13.13	6.63	6.63
210.0	30.77	37.82	34.30	30.77	27.24	23.71	27.24	13.13	16.65
240.0	34.30	34.30	37.82	27.24	30.77	23.71	16.65	23.71	23.71
270.0	27.24	27.24	27.24	27.24	27.24	20.18	13.13	6.63	20.18
300.0	34.30	34.30	37.82	27.24	30.77	23.71	16.65	23.71	23.71
330.0	30.77	37.82	34.30	30.77	27.24	23.71	27.24	13.13	16.65
360.0	41.35	20.18	27.24	34.30	27.24	20.18	13.13	6.63	6.63

Intensity data(cd)

C/γ(°)	72.0	74.0	76.0	78.0	80.0	82.0	84.0	86.0	88.0
0.0	6.63	13.13	6.63	0.00	0.00	13.13	13.13	6.63	0.00
30.0	13.13	9.88	13.13	16.65	13.41	9.88	9.88	13.13	9.88
60.0	13.13	9.88	9.88	6.63	9.88	6.63	9.88	6.63	6.63
90.0	13.13	13.13	6.63	6.63	13.13	13.13	0.00	13.13	6.63
120.0	13.13	9.88	9.88	6.63	9.88	6.63	9.88	6.63	6.63
150.0	13.13	9.88	13.13	16.65	13.41	9.88	9.88	13.13	9.88
180.0	6.63	13.13	6.63	0.00	0.00	13.13	13.13	6.63	0.00
210.0	13.13	9.88	13.13	16.65	13.41	9.88	9.88	13.13	9.88
240.0	13.13	9.88	9.88	6.63	9.88	6.63	9.88	6.63	6.63
270.0	13.13	13.13	6.63	6.63	13.13	13.13	0.00	13.13	6.63
300.0	13.13	9.88	9.88	6.63	9.88	6.63	9.88	6.63	6.63
330.0	13.13	9.88	13.13	16.65	13.41	9.88	9.88	13.13	9.88
360.0	6.63	13.13	6.63	0.00	0.00	13.13	13.13	6.63	0.00

C/γ(°)	90.0
0.0	13.13
30.0	13.13
60.0	0.00
90.0	13.13
120.0	0.00
150.0	13.13
180.0	13.13
210.0	13.13
240.0	0.00
270.0	13.13
300.0	0.00
330.0	13.13
360.0	13.13