
PQL 91313 LED SMD 4'13WT8/35K/SC/V5

LumCAT: /

Luminaire: /

Report No: SL/BG6-172568-03

Test No:

LampCAT: 13WT8/35K/SC/V5

Lamp flux(lm): -1.0

Number of Lamps: 4

Length(mm): 1200

Phm Type: C

Voltage(V):

Current(A):

Power (W): 63.7000

PF:

Ballast type:

Width(mm): 320

Height(mm): 100

Photometric Results

Lumens(lm): 7330.76

Efficiency(%): 0.00%

Lumens(lm)/Power(W): 115.08

Central intensity(cd): 2897.973

Maximum intensity(cd): 2925.806

Angle of maximum intensity: C=90.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=108.2

[C90/270]Total=90.6

Field angle(10%Imax): [C0/180]Total=163.6

[C90/270]Total=147.8

Maximum s/h(1/2): C0_180=1.23 C90_270=1.11

Maximum s/h(1/4): C0_180=1.35 C90_270=1.25

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 1.46%

Down flux rate of LUM(%): 98.54%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.926%

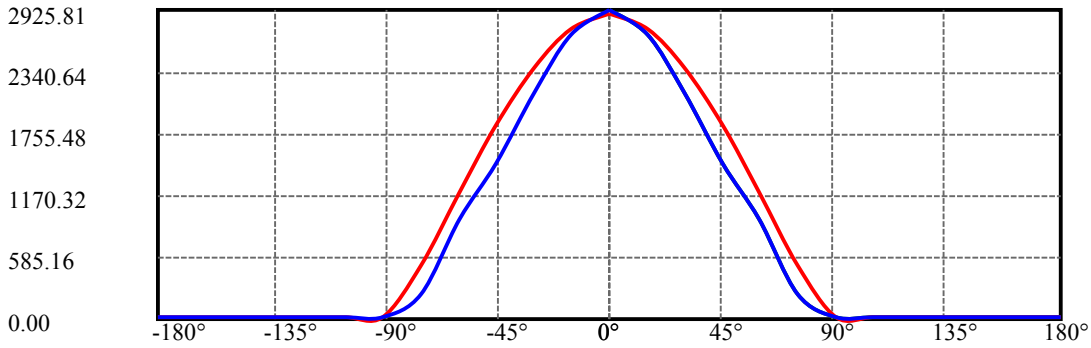
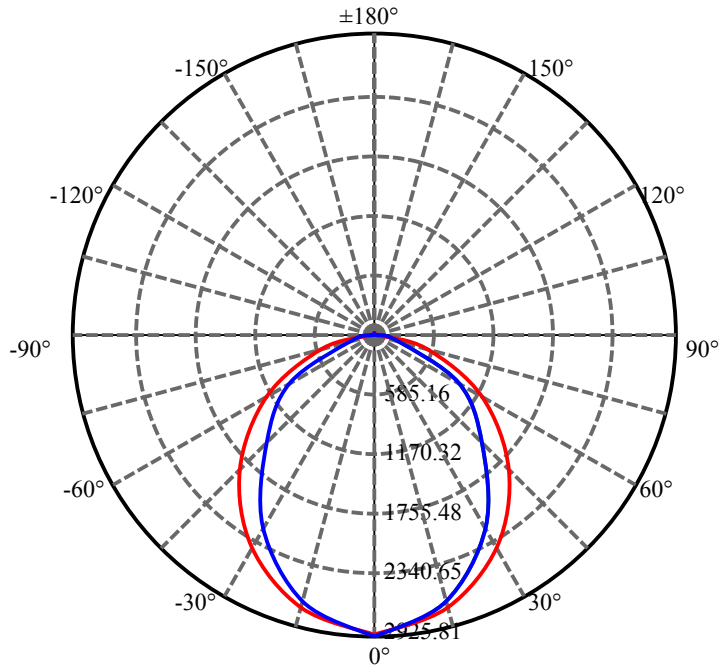
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2909.849	0.000	0	.000%	.000%
15.0	2695.160	600.000	600	.000%	8.185%
30.0	2282.851	1562.331	2162.331	.000%	29.497%
45.0	1647.878	1962.446	4124.778	.000%	56.267%
60.0	1017.840	1734.436	5859.214	.000%	79.926%
75.0	368.836	1050.674	6909.889	.000%	94.259%
90.0	17.500	314.132	7224.02	.000%	98.544%
105.0	14.188	25.765	7249.786	.000%	98.895%
120.0	15.498	22.492	7272.278	.000%	99.202%
135.0	17.700	21.600	7293.878	.000%	99.497%
150.0	20.091	18.867	7312.745	.000%	99.754%
165.0	22.016	13.215	7325.961	.000%	99.935%
180.0	22.823	4.800	7330.76	.000%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2162.33	N.A.	29.50%
0-40	2162.33	N.A.	29.50%
0-60	5859.21	N.A.	79.93%
0-90	7224.02	N.A.	98.54%
0-120	7272.28	N.A.	99.20%
0-180	7330.76	N.A.	100.00%
60-90	3099.24	N.A.	42.28%
90-120	362.39	N.A.	4.94%
90-130	362.39	N.A.	4.94%
90-150	402.86	N.A.	5.50%
90-180	416.07	N.A.	5.68%
0-60.08	5864.61	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	0.00
10-20	600.00
20-30	1562.33
30-40	0.00
40-50	1962.45
50-60	1734.44
60-70	0.00
70-80	1050.67
80-90	314.13
90-100	0.00
100-110	25.77
110-120	22.49
120-130	0.00
130-140	21.60
140-150	18.87
150-160	0.00
160-170	13.22
170-180	0.00



C90(Max): —

C0/C180: —

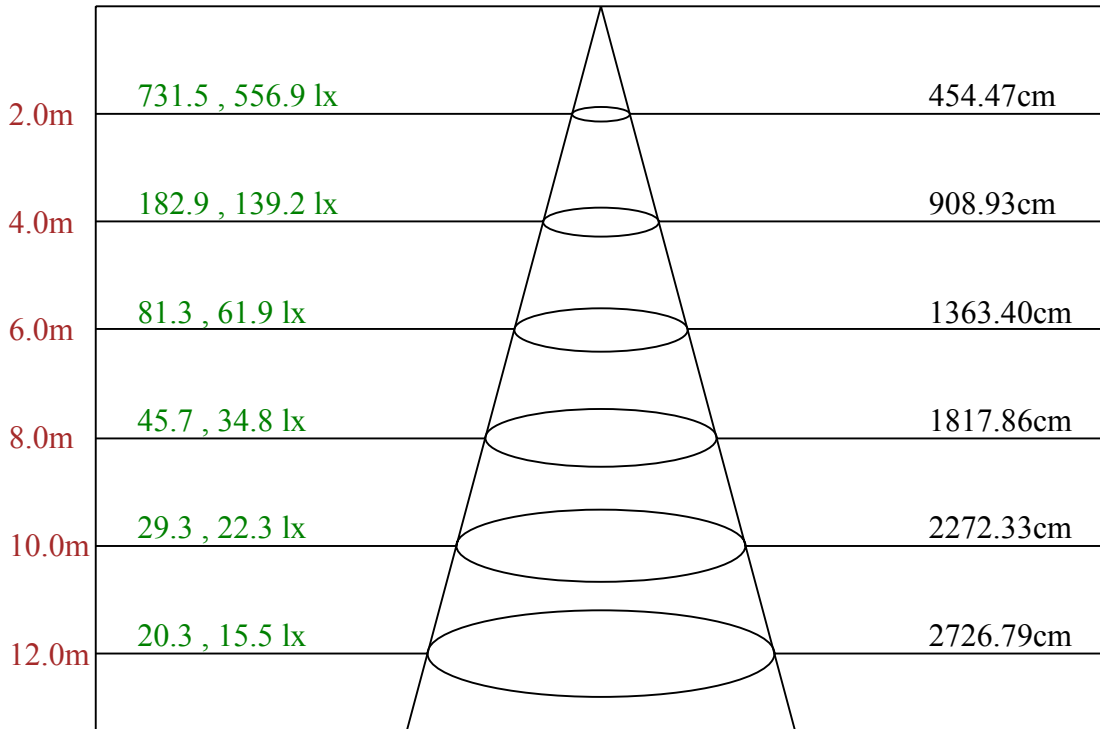
C90/C270: —

Field angle(10%Imax):C0/180Left:81.8 Right:81.8

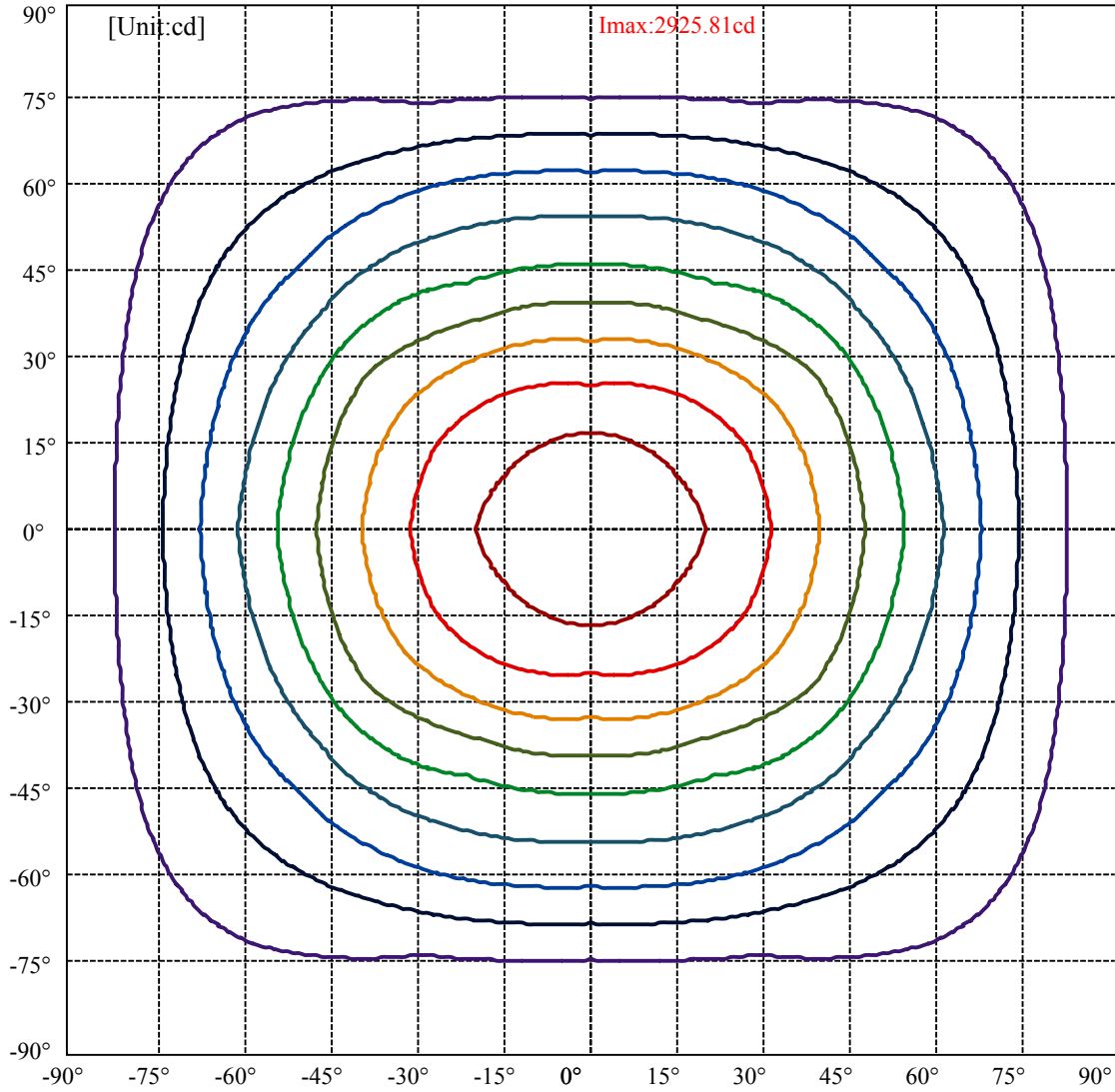
:C90/270Left:73.9 Right:73.9

Beam Angle(50%Imax):C0/180Left:54.1 Right:54.1

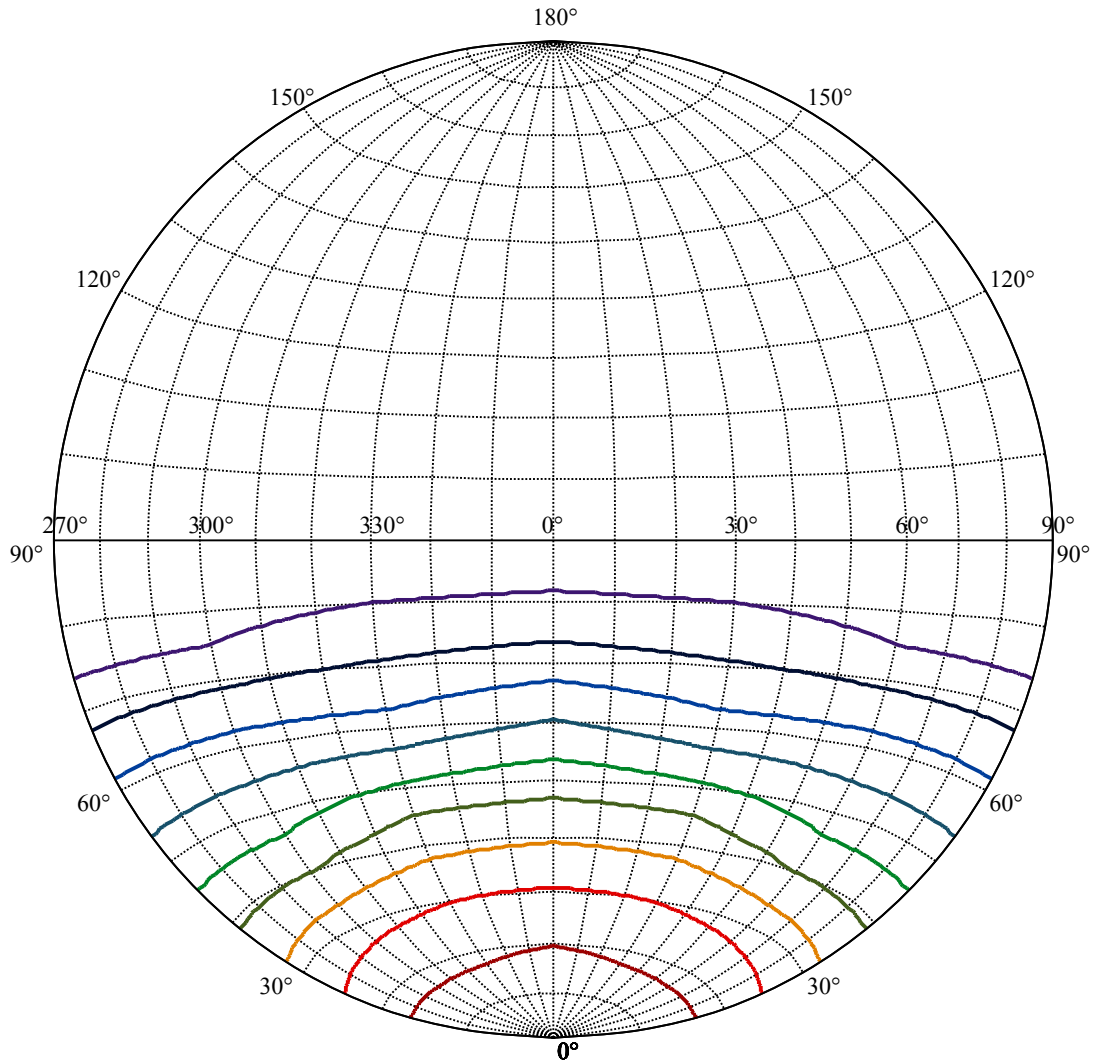
:C90/270Left:45.3 Right:45.3



Max , Ave Beam angle of C90 plane 97.29



(10%Imax) 292.581	—
(20%Imax) 585.161	—
(30%Imax) 877.742	—
(40%Imax) 1170.32	—
(50%Imax) 1462.9	—
(60%Imax) 1755.48	—
(70%Imax) 2048.06	—
(80%Imax) 2340.64	—
(90%Imax) 2633.23	—












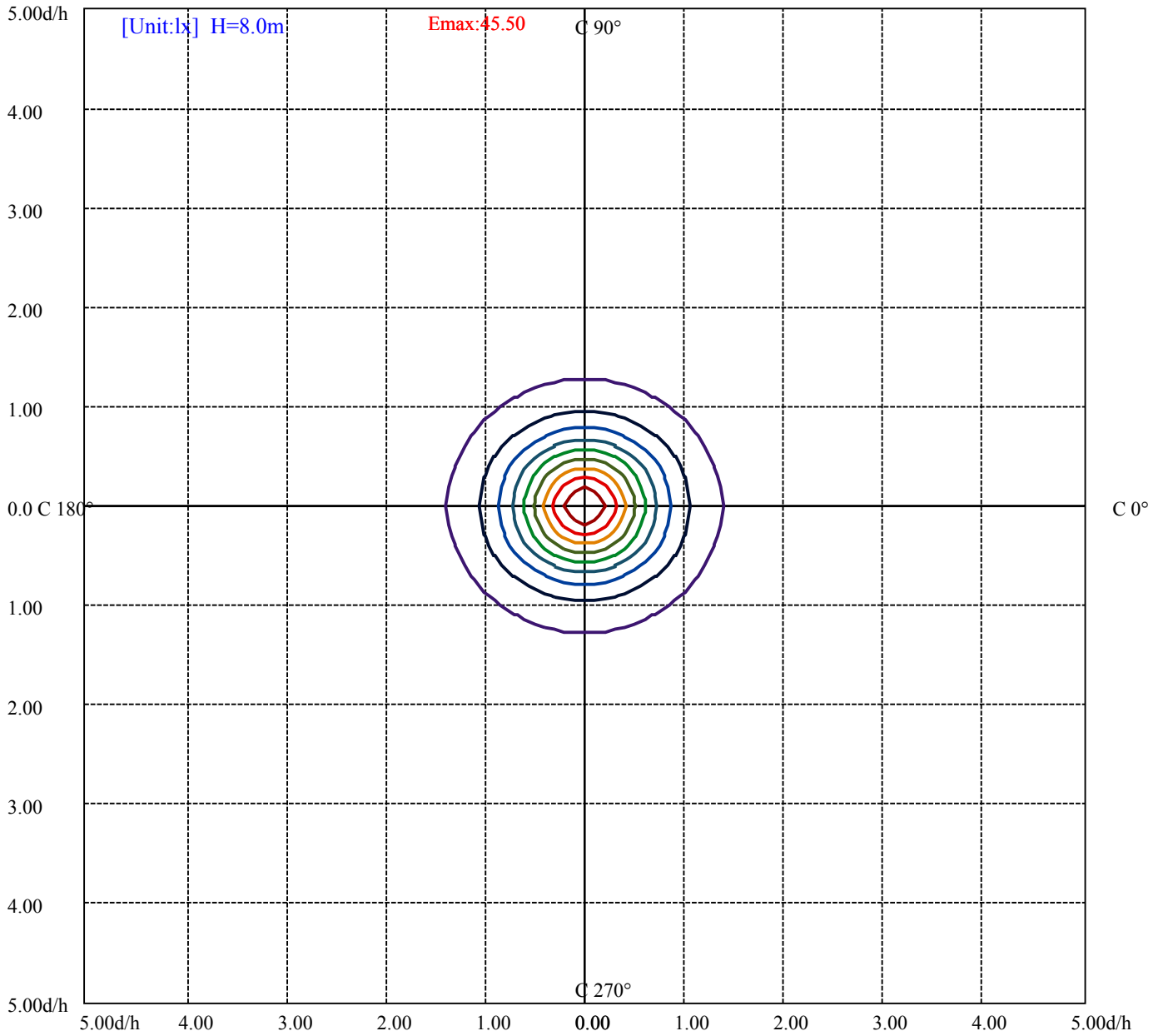
House

[Unit:cd]

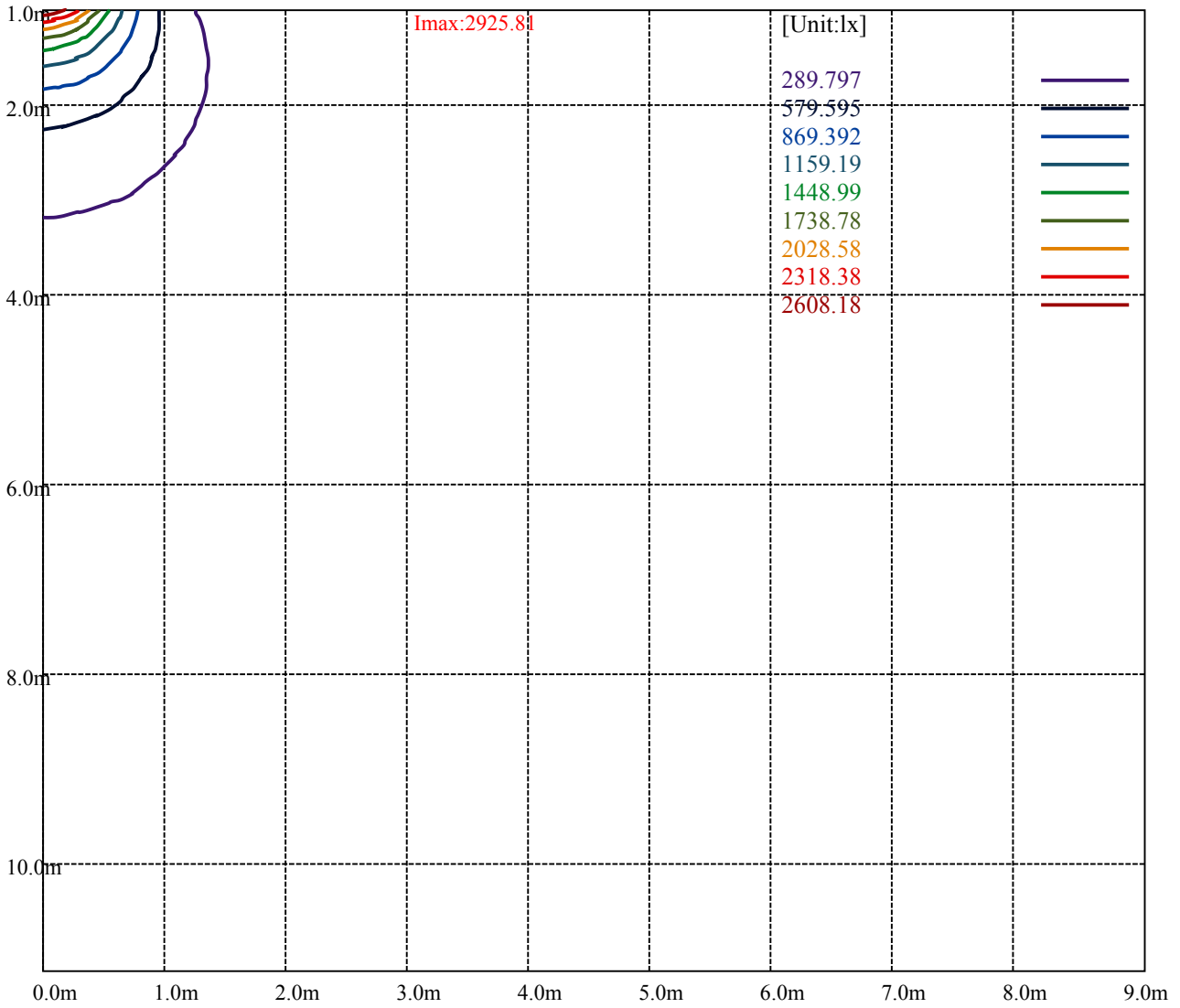
Road

Imax:2925.81

(10%Imax) 292.581	
(20%Imax) 585.161	
(30%Imax) 877.742	
(40%Imax) 1170.32	
(50%Imax) 1462.9	
(60%Imax) 1755.48	
(70%Imax) 2048.06	
(80%Imax) 2340.64	
(90%Imax) 2633.23	



(10%Emax) 4.549828	—
(20%Emax) 9.099656	—
(30%Emax) 13.64947	—
(40%Emax) 18.19938	—
(50%Emax) 22.74906	—
(60%Emax) 27.29891	—
(70%Emax) 31.84875	—
(80%Emax) 36.39859	—
(90%Emax) 40.94844	—



Luminance Table

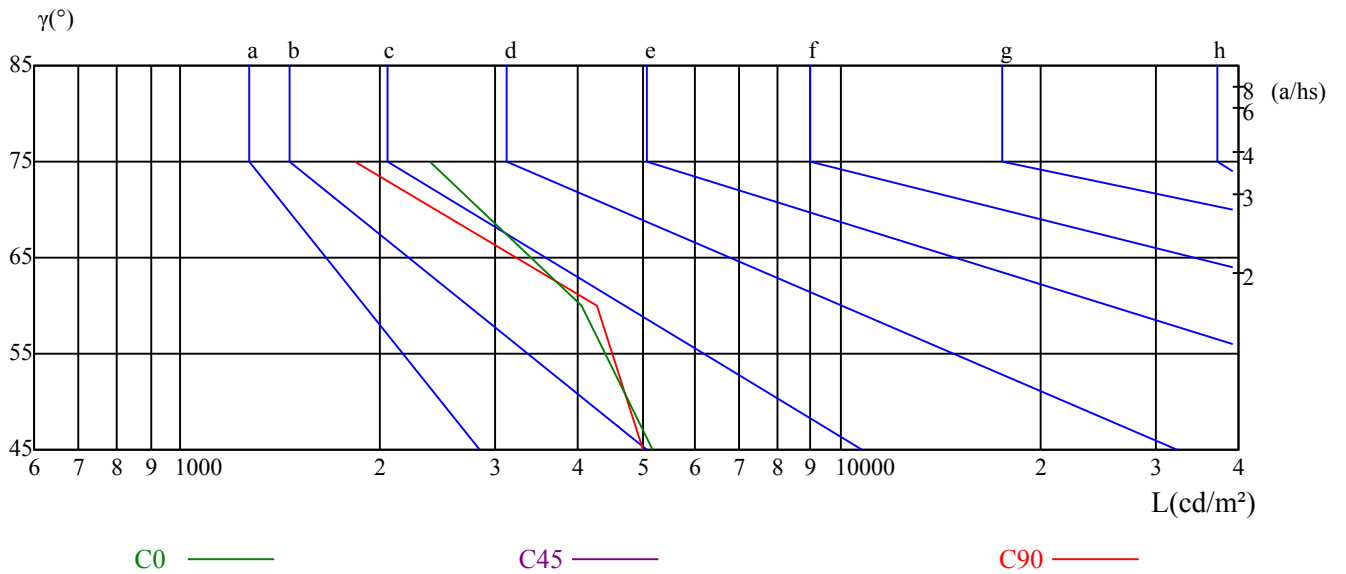
γ	45	50	55	60	65	70	75	80	85
C0	5170	0	0	4038	0	0	2379	0	0
C45	0	0	0	0	0	0	0	0	0
C90	5013	0	0	4275	0	0	1835	0	0

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	5153	2406	0	0	0	0

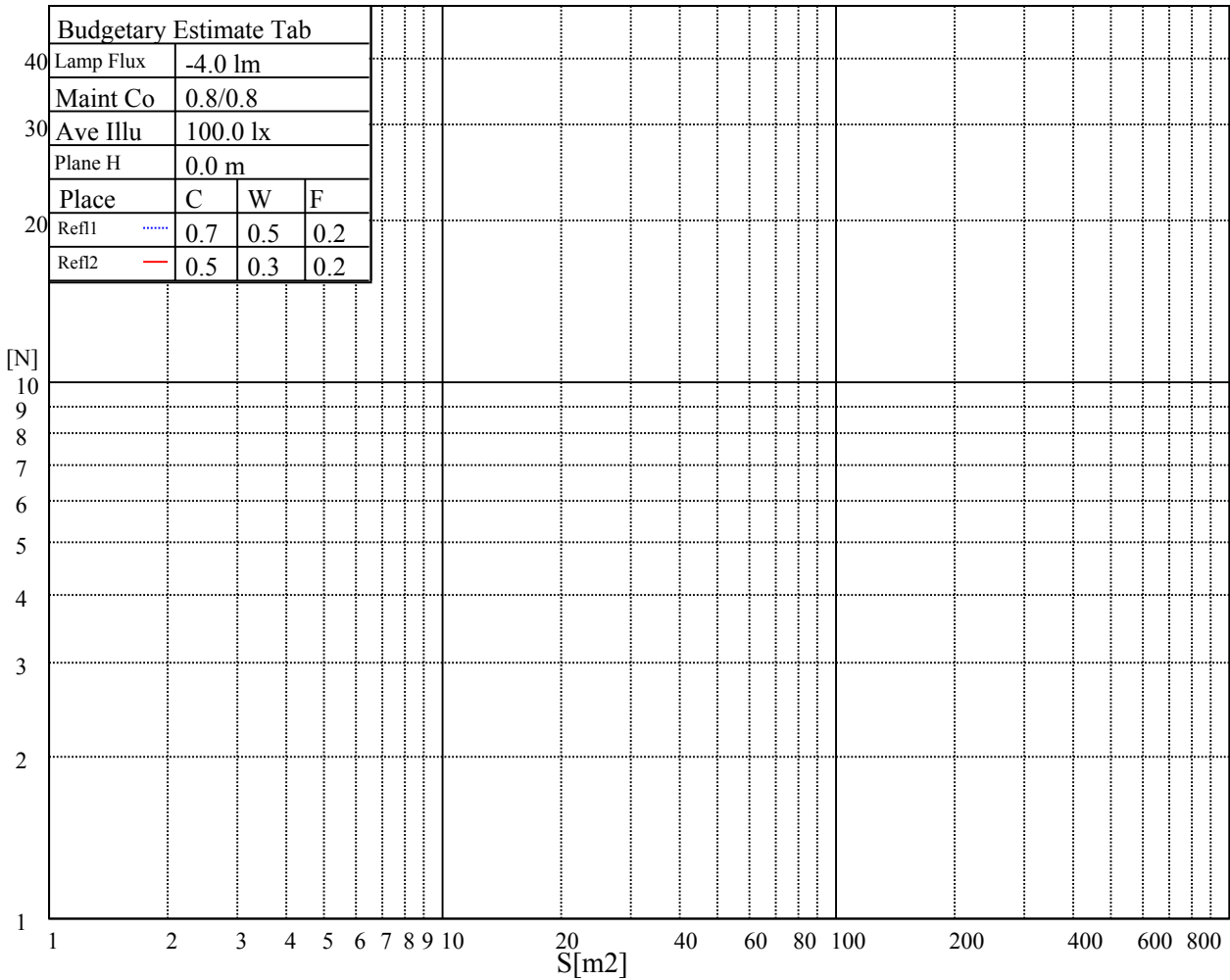
Glare Table

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

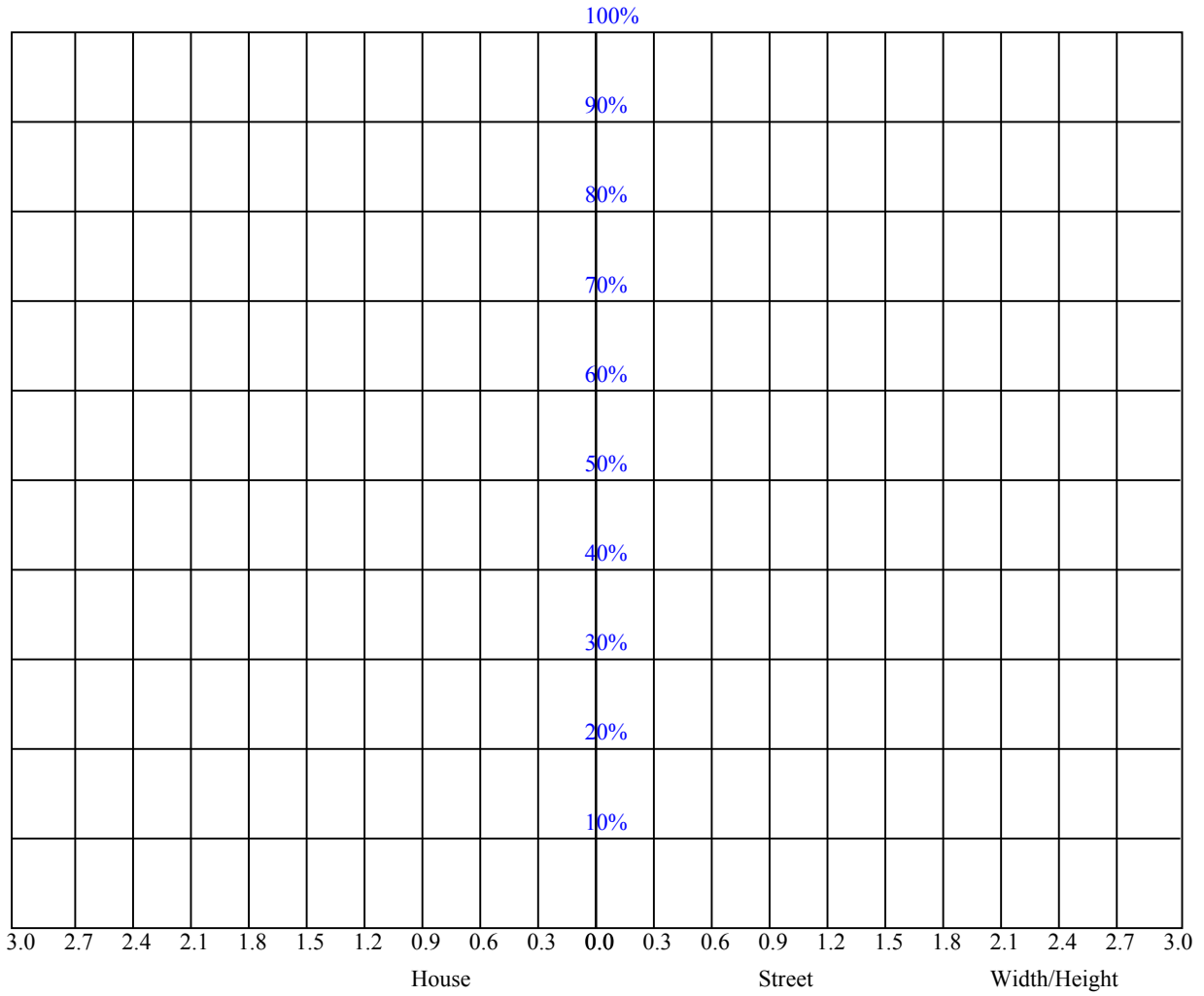
Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	9.80	11.38	10.18	11.72	12.06	10.43	12.01	10.81	12.35	12.69
	3H	11.04	12.47	11.43	12.82	13.20	11.82	13.25	12.21	13.60	13.98
	4H	11.29	12.64	11.71	13.01	13.41	12.30	13.65	12.72	14.02	14.42
	6H	11.48	12.73	11.91	13.11	13.53	12.67	13.91	13.09	14.30	14.71
	8H	11.54	12.73	11.99	13.14	13.57	12.78	13.97	13.22	14.38	14.81
	12H	11.64	12.78	12.09	13.19	13.64	12.93	14.07	13.37	14.47	14.93
4H	2H	10.25	11.59	10.66	11.96	12.36	10.78	12.12	11.19	12.49	12.89
	3H	11.65	12.77	12.07	13.19	13.62	12.35	13.48	12.78	13.90	14.32
	4H	11.97	12.99	12.42	13.42	13.88	12.94	13.96	13.39	14.40	14.86
	6H	12.16	13.05	12.63	13.51	13.99	13.34	14.23	13.81	14.69	15.17
	8H	12.26	13.10	12.74	13.56	14.05	13.51	14.34	13.98	14.80	15.29
	12H	12.39	13.14	12.88	13.63	14.12	13.68	14.43	14.18	14.93	15.42
8H	4H	12.16	12.99	12.63	13.45	13.94	13.06	13.90	13.54	14.36	14.85
	6H	12.43	13.21	12.94	13.64	14.13	13.56	14.34	14.07	14.76	15.26
	8H	12.58	13.21	13.11	13.73	14.24	13.79	14.42	14.32	14.94	15.45
	12H	13.06	13.62	13.59	14.19	14.71	14.21	14.77	14.74	15.34	15.86
12H	4H	12.18	12.93	12.68	13.42	13.92	13.06	13.81	13.55	14.30	14.79
	6H	13.49	13.11	13.02	13.59	14.15	14.59	14.21	14.11	14.69	15.25
	8H	12.67	13.22	13.19	13.73	14.31	13.84	14.40	14.36	14.91	15.49
Variation with the observer position at spacings:											
S = 1.0H	0.4/-0.4					0.3/-0.5					
S = 1.5H	0.7/-0.9					0.7/-0.7					
S = 2.0H	1.2/-1.2					1.0/-0.9					
Standard tables:	BK3					BK3					
Uncorrected UGR	1.6					2.6					



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	COEFFICIENTS OF UTILIZATION RHOF=20 CU															
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Intensity data(cd)

C/γ(°)	0.0	15.0	30.0	45.0	60.0	75.0	90.0	105.0	120.0
0.0	2897.97	2769.19	2407.02	1884.87	1254.07	571.63	26.42	15.54	16.73
30.0	2910.22	2725.99	2360.50	1839.33	1043.01	491.15	18.98	14.98	16.29
60.0	2913.56	2721.56	2367.15	1602.08	1101.08	376.05	19.20	14.42	15.84
90.0	2925.81	2700.51	2165.44	1495.20	963.95	246.08	18.09	14.31	16.06
120.0	2912.45	2677.25	2211.18	1536.06	1011.30	301.46	15.43	12.52	13.83
150.0	2899.09	2714.91	2336.13	1834.77	1021.80	455.41	16.43	13.30	14.17
180.0	2897.97	2729.31	2340.56	1800.03	1136.03	452.64	14.98	13.97	14.84
210.0	2910.22	2661.74	2313.98	1702.28	934.69	380.27	15.43	14.20	15.28
240.0	2913.56	2645.13	2172.97	1410.70	892.26	211.11	14.10	13.53	14.84
270.0	2925.81	2677.25	2136.75	1454.01	914.59	232.20	13.99	12.63	14.28
300.0	2912.45	2661.74	2268.56	1481.84	982.71	293.03	18.98	15.09	16.62
330.0	2899.09	2657.31	2313.98	1733.34	958.59	415.01	17.98	15.76	17.18
360.0	2897.97	2769.19	2407.02	1884.87	1254.07	571.63	26.42	15.54	16.73
C/γ(°)	135.0	150.0	165.0	180.0					
0.0	18.76	21.11	22.49	22.71					
30.0	18.42	20.66	22.27	22.82					
60.0	18.09	20.32	22.05	22.60					
90.0	18.31	20.55	22.15	22.82					
120.0	16.19	18.87	21.60	23.04					
150.0	16.42	18.98	21.49	22.93					
180.0	17.09	19.65	21.82	22.71					
210.0	17.20	19.54	21.60	22.82					
240.0	17.20	19.54	21.60	22.60					
270.0	16.64	19.21	21.60	22.82					
300.0	18.87	21.22	22.71	23.04					
330.0	19.21	21.44	22.82	22.93					
360.0	18.76	21.11	22.49	22.71					