
PQL 90421 LED SMD 4'15WT8/35K/FR/V5

LumCAT: /

Luminaire: /

Report No: SL/BG6-172568-03

Test No: SL/BG6-172568-03

LampCAT: 15WT8/35K/FR/V5

Lamp flux(lm)

Number of Lamps: 4

Length(mm): 1200

Phm Type: C

Voltage(V):

Current(A):

Power (W): 71.6000

PF:

Ballast type:

Width(mm): 320

Height(mm): 100

Photometric Results

Lumens(lm): 7725.15

Lumens(lm)/Power(W): 107.89

Central intensity(cd): 2826.638

Maximum intensity(cd): 2863.348

Angle of maximum intensity: C=90.0 γ =0.0

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

[C90/270]Total=101.0

Field angle(10%Imax): [C0/180]Total=162.2

[C90/270]Total=148.6

Maximum s/h(1/2): C0_180=1.25 C90_270=1.14

Maximum s/h(1/4): C0_180=1.36 C90_270=1.29

Up flux rate of LUM(%): 1.45%

Down flux rate of LUM(%): 98.55%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.321%

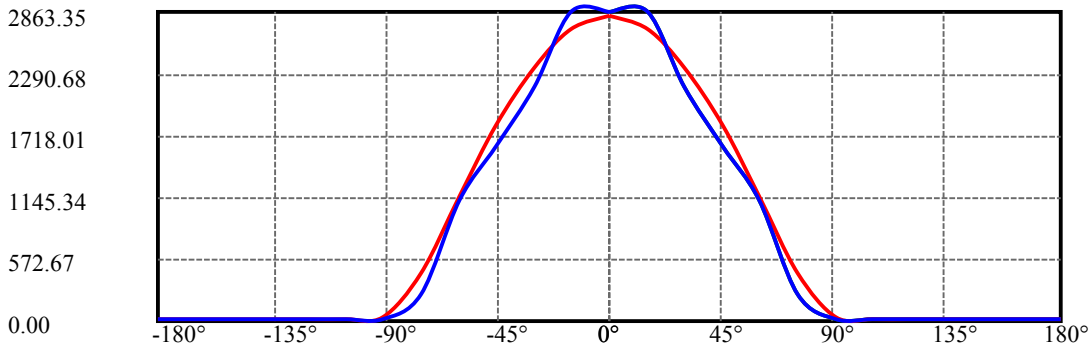
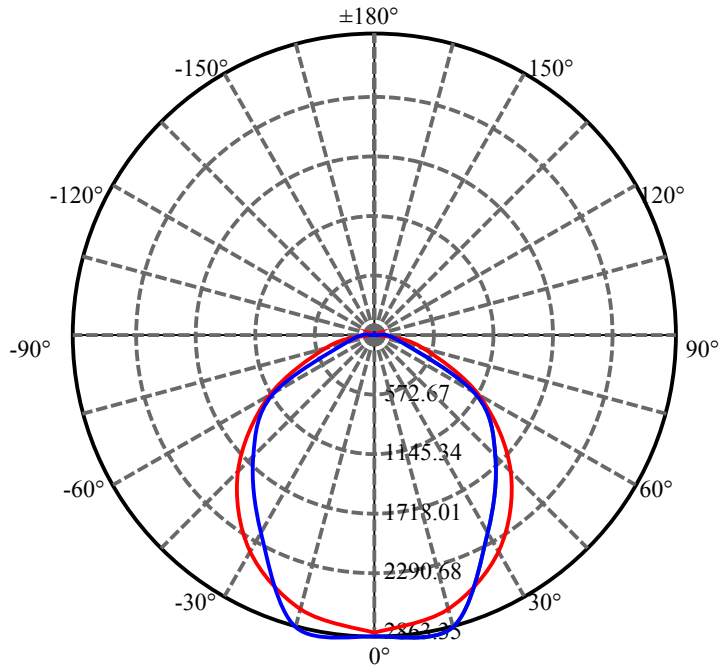
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2843.664	0.000	0	.000%	.000%
15.0	2758.255	599.670	599.67	7.763%	7.763%
30.0	2390.104	1615.794	2215.464	20.916%	28.679%
45.0	1731.176	2057.580	4273.044	26.635%	55.313%
60.0	1119.261	1854.622	6127.666	24.008%	79.321%
75.0	394.929	1147.290	7274.956	14.851%	94.172%
90.0	20.596	337.864	7612.82	4.374%	98.546%
105.0	14.735	28.727	7641.547	.372%	98.918%
120.0	16.012	23.296	7664.844	.302%	99.219%
135.0	18.257	22.297	7687.141	.289%	99.508%
150.0	20.694	19.447	7706.588	.252%	99.760%
165.0	22.656	13.605	7720.193	.176%	99.936%
180.0	23.627	4.954	7725.147	.064%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	2215.46	28.68%
0-40	2215.46	28.68%
0-60	6127.67	79.32%
0-90	7612.82	98.55%
0-120	7664.84	99.22%
0-180	7725.15	100.00%
60-90	3339.78	43.23%
90-120	389.89	5.05%
90-130	389.89	5.05%
90-150	431.63	5.59%
90-180	445.24	5.76%
0-60.69	6180.12	80.00%

ZONAL LUMEN SUMMARY

0-10	0.00
10-20	599.67
20-30	1615.79
30-40	0.00
40-50	2057.58
50-60	1854.62
60-70	0.00
70-80	1147.29
80-90	337.86
90-100	0.00
100-110	28.73
110-120	23.30
120-130	0.00
130-140	22.30
140-150	19.45
150-160	0.00
160-170	13.61
170-180	0.00



C90(Max): ———

C0/C180: ———

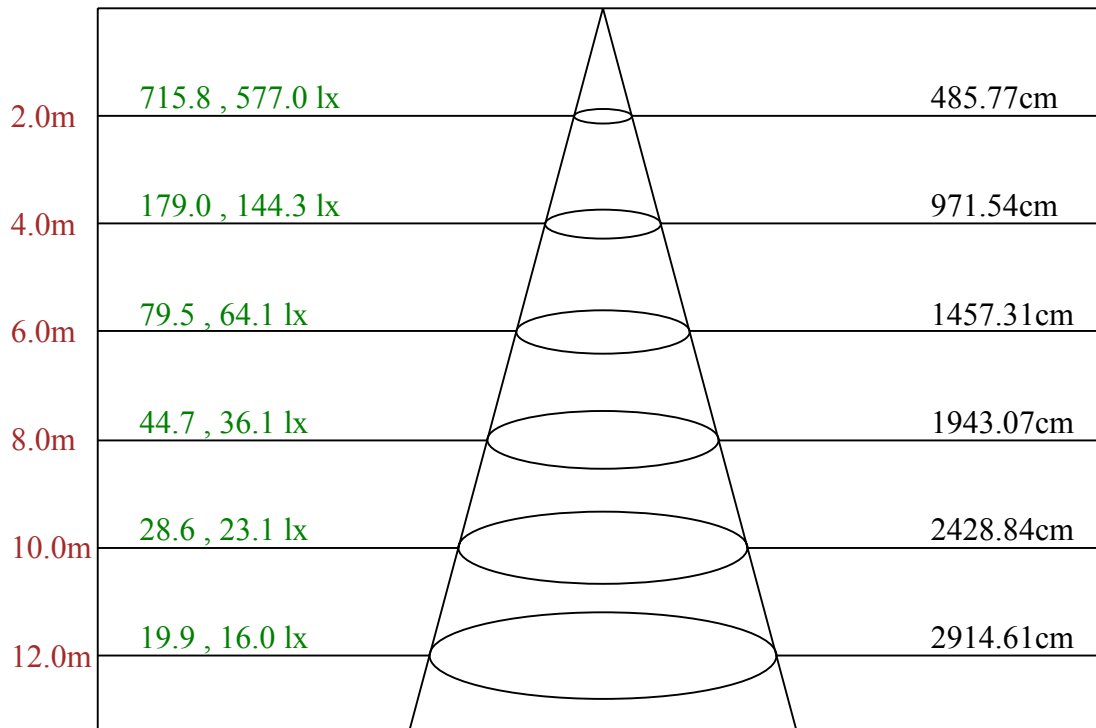
C90/C270: ———

Field angle(10%Imax):C0/180Left:81.1 Right:81.1

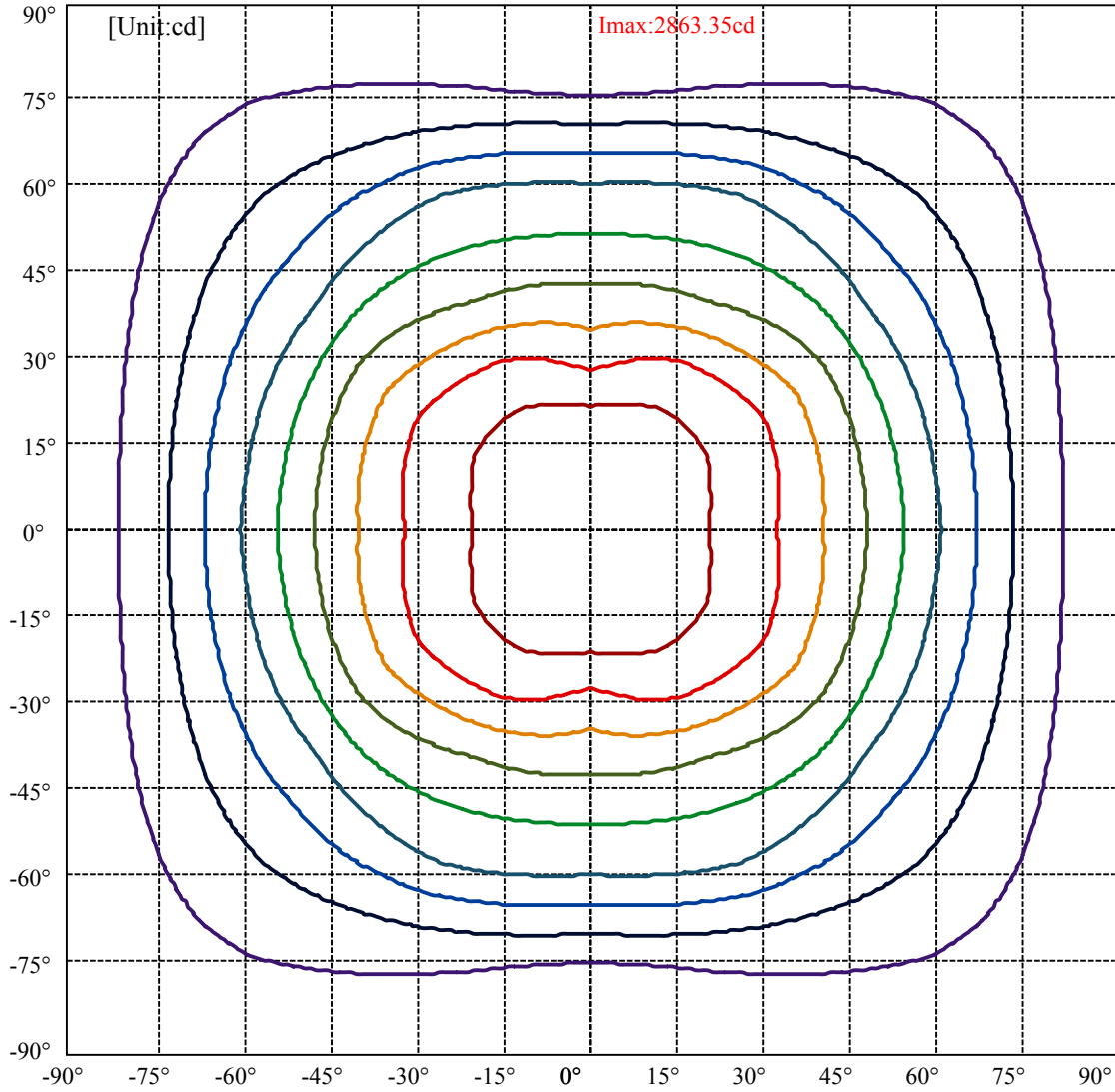
:C90/270Left:74.3 Right:74.3

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

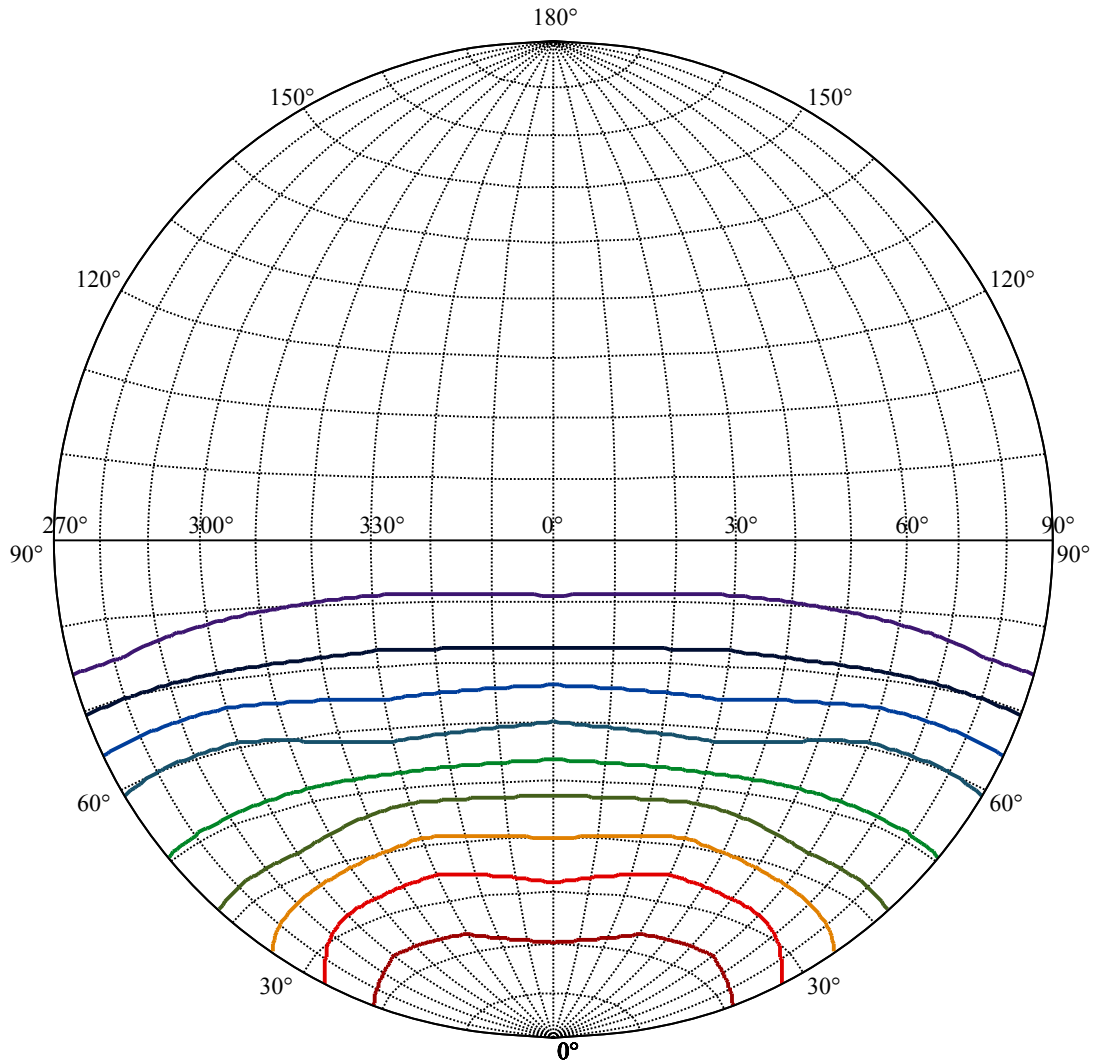
:C90/270Left:50.5 Right:50.5



Max , Ave Beam angle of C90 plane 101.06



(10%Imax) 286.335	—
(20%Imax) 572.67	—
(30%Imax) 859.004	—
(40%Imax) 1145.34	—
(50%Imax) 1431.67	—
(60%Imax) 1718.01	—
(70%Imax) 2004.34	—
(80%Imax) 2290.68	—
(90%Imax) 2577.01	—



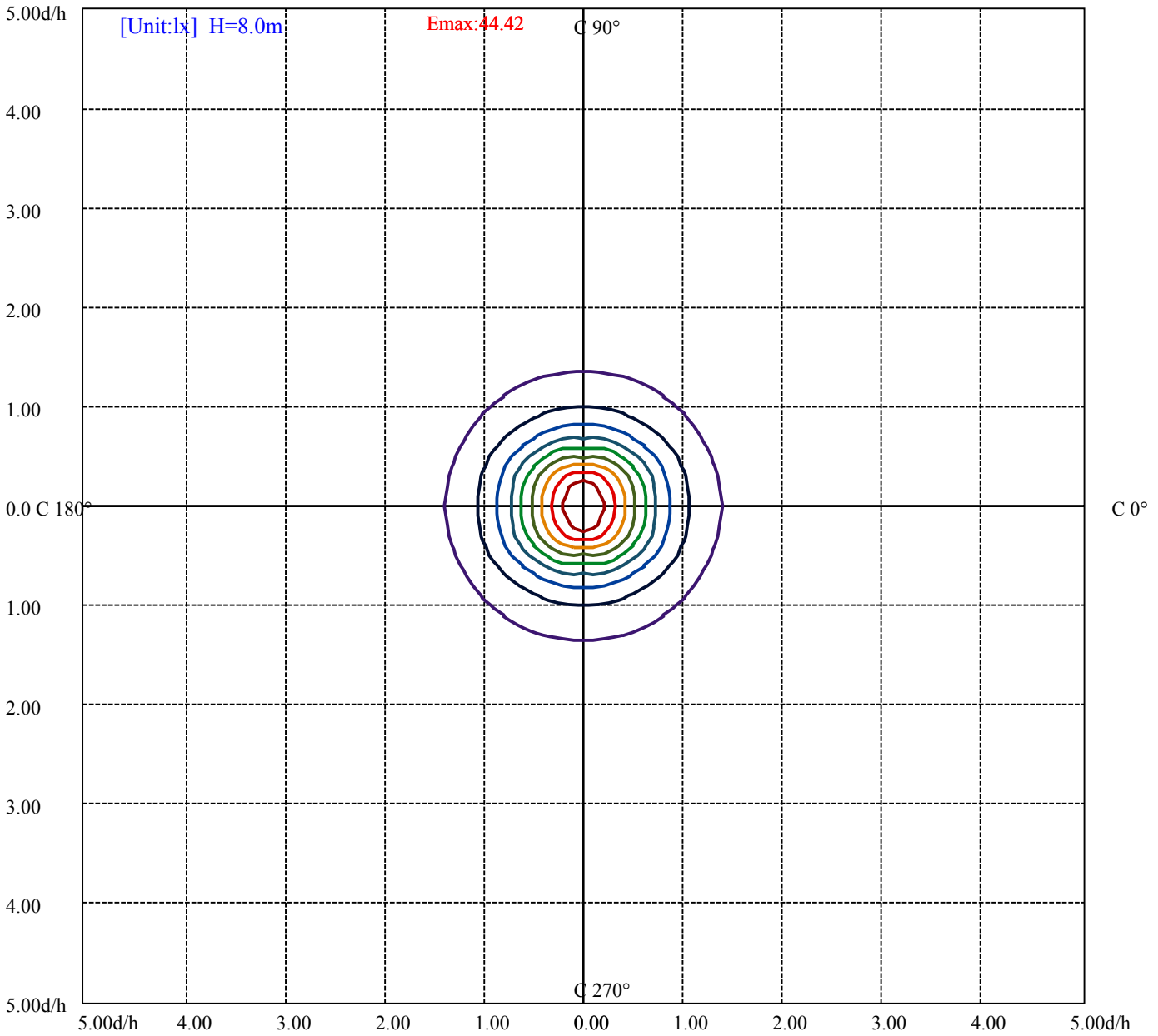
House

[Unit:cd]

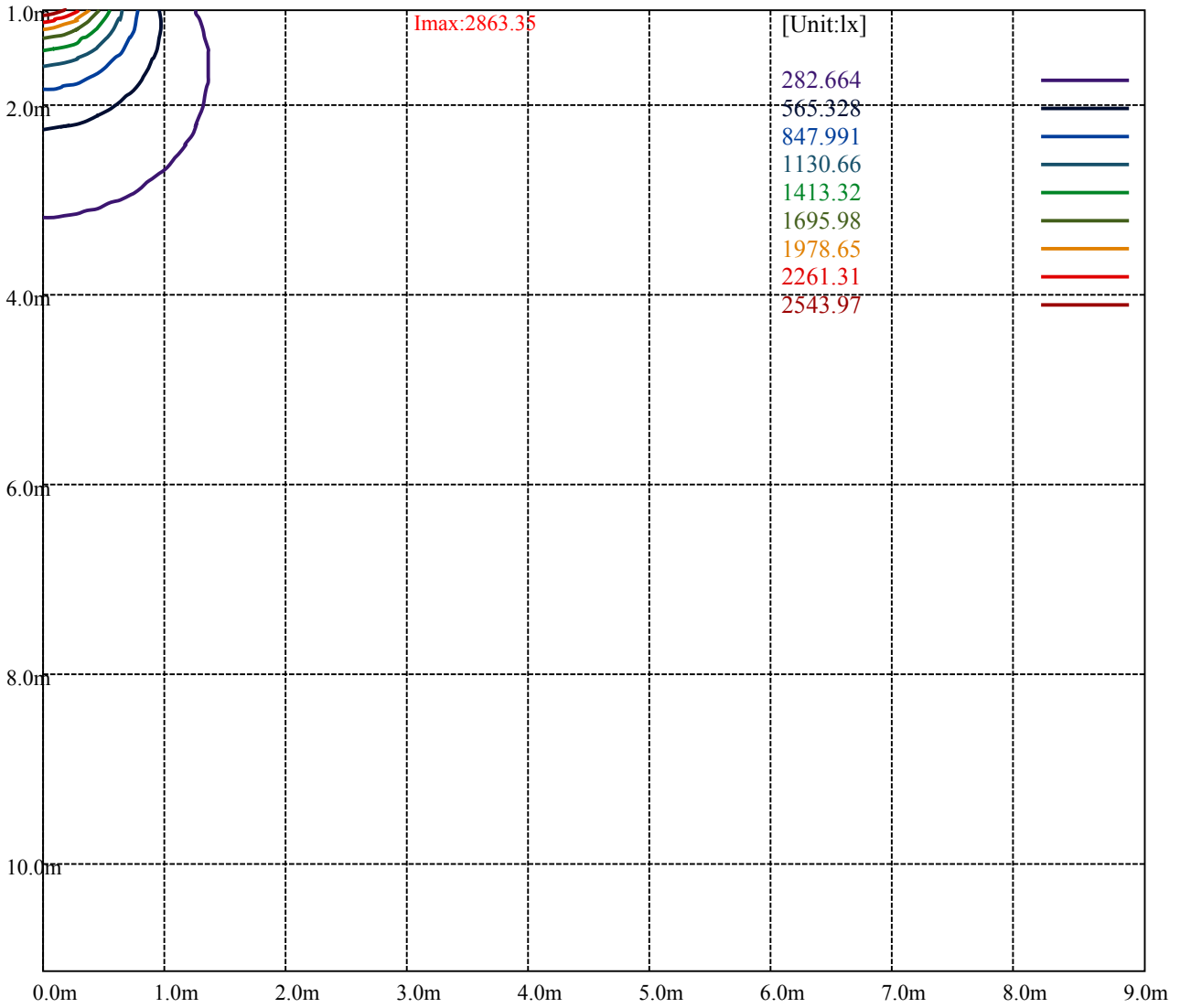
Road

I_{max}:2863.35

(10%I _{max})	286.335	—
(20%I _{max})	572.67	—
(30%I _{max})	859.004	—
(40%I _{max})	1145.34	—
(50%I _{max})	1431.67	—
(60%I _{max})	1718.01	—
(70%I _{max})	2004.34	—
(80%I _{max})	2290.68	—
(90%I _{max})	2577.01	—



- (10%Emax) 4.441609
- (20%Emax) 8.883204
- (30%Emax) 13.32481
- (40%Emax) 17.76641
- (50%Emax) 22.20797
- (60%Emax) 26.64969
- (70%Emax) 31.09125
- (80%Emax) 35.53281
- (90%Emax) 39.97438



Luminance Table

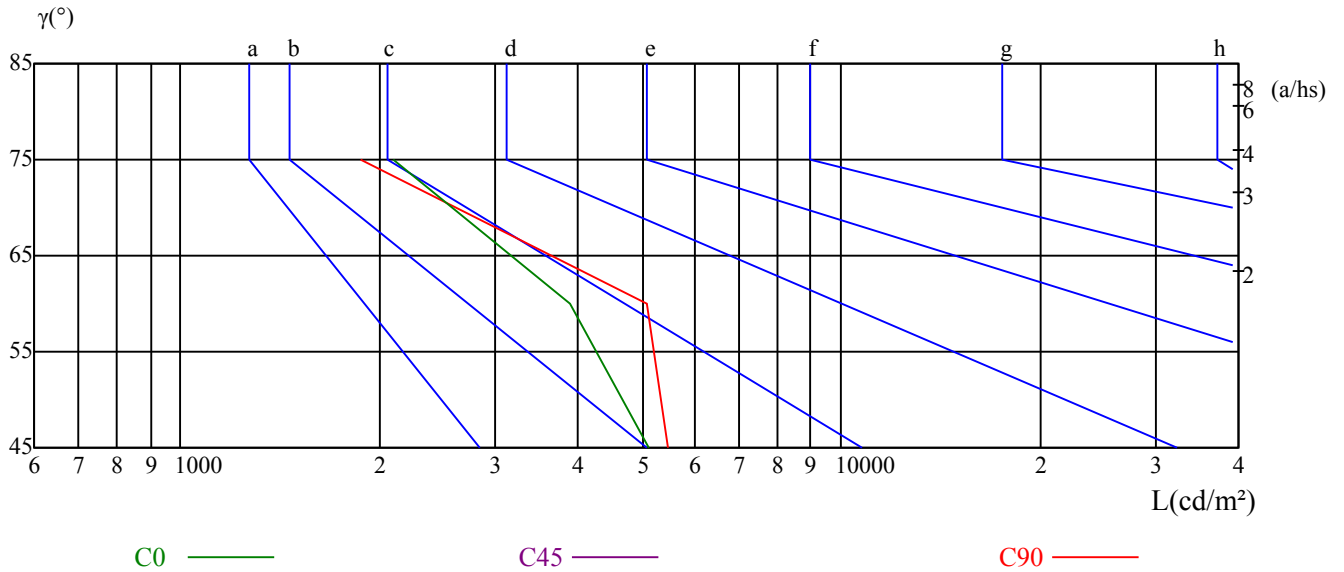
γ	45	50	55	60	65	70	75	80	85
C0	5113	0	0	3885	0	0	2106	0	0
C45	0	0	0	0	0	0	0	0	0
C90	5486	0	0	5094	0	0	1871	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
25	25	0	4561	2453	0	25	26	0

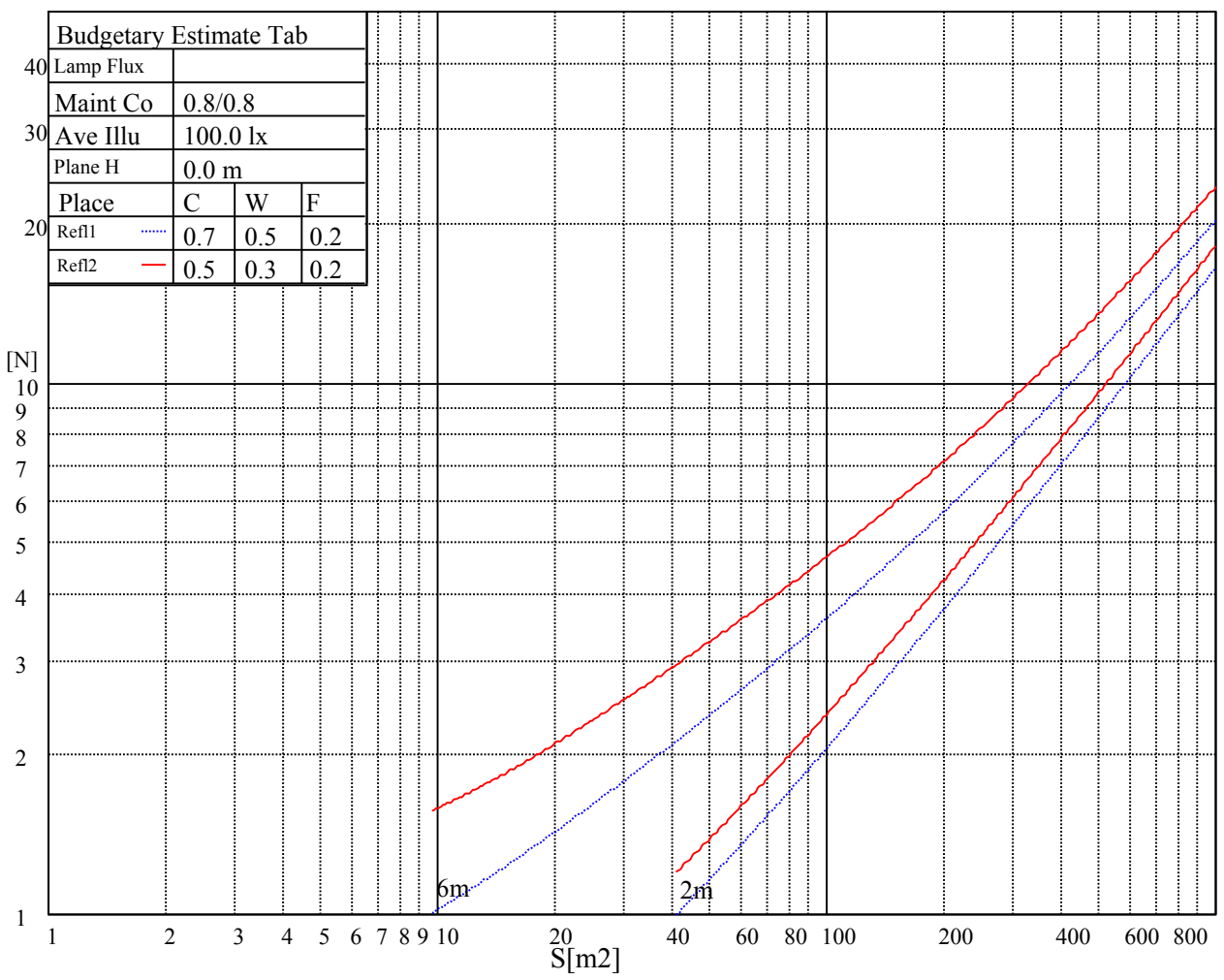
Glare Table

Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
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

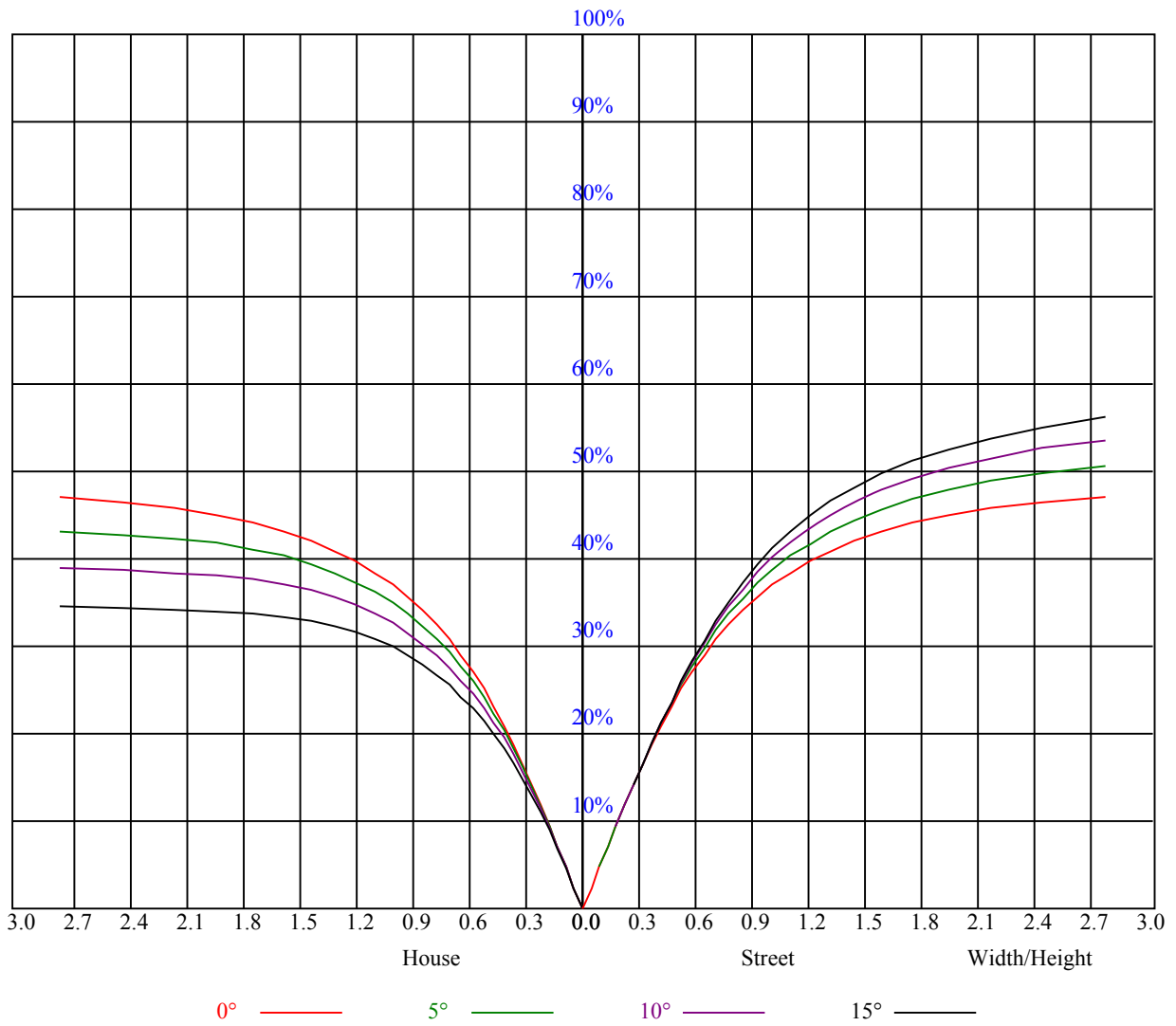
Luminance Limiting Curve



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	10.52	12.11	10.90	12.45	12.79	10.12	11.71	10.50	12.05	12.39
	3H	11.76	13.20	12.15	13.54	13.93	11.43	12.87	11.83	13.22	13.60
	4H	11.98	13.33	12.39	13.70	14.10	11.86	13.21	12.28	13.58	13.98
	6H	12.12	13.37	12.55	13.76	14.18	12.18	13.43	12.61	13.82	14.24
	8H	12.17	13.37	12.61	13.78	14.20	12.28	13.48	12.72	13.89	14.31
	12H	12.24	13.39	12.69	13.80	14.25	12.42	13.56	12.86	13.97	14.42
4H	2H	10.92	12.28	11.34	12.64	13.05	10.59	11.94	11.00	12.31	12.71
	3H	12.35	13.49	12.78	13.90	14.33	12.10	13.24	12.53	13.66	14.08
	4H	12.64	13.67	13.09	14.10	14.56	12.65	13.68	13.10	14.11	14.57
	6H	12.80	13.70	13.27	14.16	14.64	13.00	13.90	13.47	14.36	14.84
	8H	12.89	13.73	13.36	14.19	14.68	13.15	13.99	13.63	14.46	14.94
	12H	12.99	13.74	13.48	14.24	14.73	13.31	14.07	13.81	14.56	15.05
8H	4H	12.82	13.66	13.29	14.12	14.61	12.83	13.67	13.31	14.13	14.62
	6H	13.07	13.85	13.58	14.28	14.77	13.30	14.09	13.81	14.51	15.01
	8H	13.20	13.83	13.73	14.36	14.86	13.52	14.15	14.05	14.68	15.19
	12H	13.68	14.24	14.20	14.81	15.33	13.93	14.49	14.45	15.06	15.58
12H	4H	12.83	13.59	13.33	14.09	14.58	12.83	13.59	13.33	14.09	14.58
	6H	14.14	13.75	13.65	14.23	14.79	14.36	13.97	13.87	14.45	15.01
	8H	13.28	13.84	13.80	14.35	14.93	13.59	14.15	14.11	14.66	15.24
Variation with the observer position at spacings:											
S = 1.0H	0.4/-0.4					0.4/-0.5					
S = 1.5H	0.8/-0.8					0.6/-0.7					
S = 2.0H	1.1/-1.2					1.1/-0.9					
Standard tables:	BK3					BK3					
Uncorrected UGR	2.4					2.5					



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	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	0.99
1	0.96	0.89	0.83	0.93	0.87	0.82	0.88	0.83	0.79	0.84	0.80	0.76	0.80	0.77	0.74	0.71
2	0.82	0.74	0.66	0.80	0.72	0.65	0.76	0.69	0.64	0.72	0.67	0.62	0.69	0.64	0.60	0.58
3	0.71	0.61	0.54	0.69	0.60	0.53	0.66	0.58	0.52	0.63	0.56	0.51	0.60	0.54	0.50	0.47
4	0.62	0.52	0.44	0.60	0.51	0.44	0.58	0.49	0.43	0.55	0.48	0.42	0.52	0.46	0.41	0.39
5	0.54	0.44	0.36	0.53	0.43	0.36	0.51	0.42	0.35	0.48	0.41	0.35	0.46	0.40	0.34	0.32
6	0.48	0.38	0.31	0.47	0.37	0.30	0.45	0.36	0.30	0.43	0.35	0.29	0.41	0.34	0.29	0.27
7	0.43	0.33	0.26	0.42	0.32	0.26	0.40	0.32	0.25	0.38	0.31	0.25	0.37	0.30	0.25	0.23
8	0.38	0.29	0.22	0.38	0.29	0.22	0.36	0.28	0.22	0.35	0.27	0.22	0.33	0.26	0.21	0.19
9	0.35	0.26	0.20	0.34	0.25	0.19	0.33	0.25	0.19	0.31	0.24	0.19	0.30	0.24	0.19	0.17
10	0.32	0.23	0.17	0.31	0.23	0.17	0.30	0.22	0.17	0.29	0.22	0.17	0.28	0.21	0.17	0.15



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	2826.64	2703.81	2359.03	1846.29	1172.88	486.76	37.14	15.94	17.09
30.0	2838.51	2686.62	2505.13	1932.02	1066.42	509.04	19.70	15.61	16.98
60.0	2843.91	2814.46	2501.90	1667.06	1235.69	415.82	20.24	15.18	16.45
90.0	2863.35	2876.76	2138.70	1616.42	1117.75	251.02	19.38	14.96	16.66
120.0	2854.71	2833.79	2429.93	1626.57	1168.54	321.42	17.33	13.44	14.61
150.0	2832.04	2680.18	2484.72	1934.83	1052.66	553.28	17.22	13.77	14.82
180.0	2826.64	2692.74	2347.47	1797.94	1126.53	419.91	33.97	14.20	15.26
210.0	2838.51	2669.44	2502.98	1753.44	987.68	404.84	15.18	14.31	15.36
240.0	2849.56	2808.55	2321.42	1603.31	1191.86	352.40	16.41	13.98	15.26
270.0	2863.35	2848.83	2186.08	1610.92	1120.89	236.60	14.64	13.33	14.71
300.0	2854.71	2811.23	2395.55	1599.04	1181.54	327.23	18.51	15.94	17.20
330.0	2832.04	2672.66	2508.35	1786.26	1008.69	460.82	17.44	16.15	17.74
360.0	2826.64	2703.81	2359.03	1846.29	1172.88	486.76	37.14	15.94	17.09
C/γ(°)	135.0	150.0	165.0	180.0					
0.0	19.39	21.66	23.21	23.54					
30.0	19.17	21.34	23.11	23.75					
60.0	18.84	21.23	22.78	23.43					
90.0	18.95	21.34	22.89	23.43					
120.0	16.90	19.71	22.46	23.86					
150.0	16.90	19.60	22.13	23.75					
180.0	17.55	20.14	22.35	23.54					
210.0	17.33	19.71	22.13	23.75					
240.0	17.55	19.93	22.03	23.43					
270.0	17.00	19.71	22.03	23.43					
300.0	19.71	21.99	23.21	23.86					
330.0	19.82	21.99	23.54	23.75					
360.0	19.39	21.66	23.21	23.54					