
P.Q.L., Inc. 4 LAMPS

LumCAT: 4 LAMPS	Luminaire: 5000K
Report No: /	Voltage(V):
Test No:	Current(A):
LampCAT: LED 18WT8/50K/FR	Power (W): 70.400
Lamp flux(lm): 1982.1	PF:
Number of Lamps: 4	Ballast type:
Length(mm): 1200	Width(mm): 500
Phm Type: C	Height(mm): 150

Photometric Results

Lumens(lm): 7928.37
Efficiency(%): 100.00%
Lumens(lm)/Power(W): 112.62
Central intensity(cd): 2661.118
Maximum intensity(cd): 2661.118
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [H]Left=55.2 Right=53.5
[V]Left=60.9 Right=56.9
Field angle(10%Imax): [H]Left=82.5 Right=81.8
[V]Left=85.4 Right=85.4
Maximum s/h: C0_180=1.19 C90_270=1.22
Up flux rate of lamp(%): 1.69%
Down flux rate of lamp(%): 98.31%
Up flux rate of LUM(%): 1.69%
Down flux rate of LUM(%): 98.31%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 73.223%

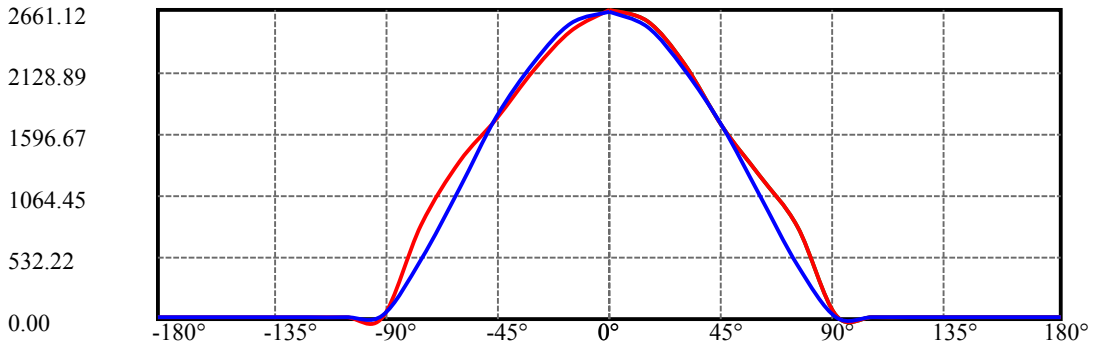
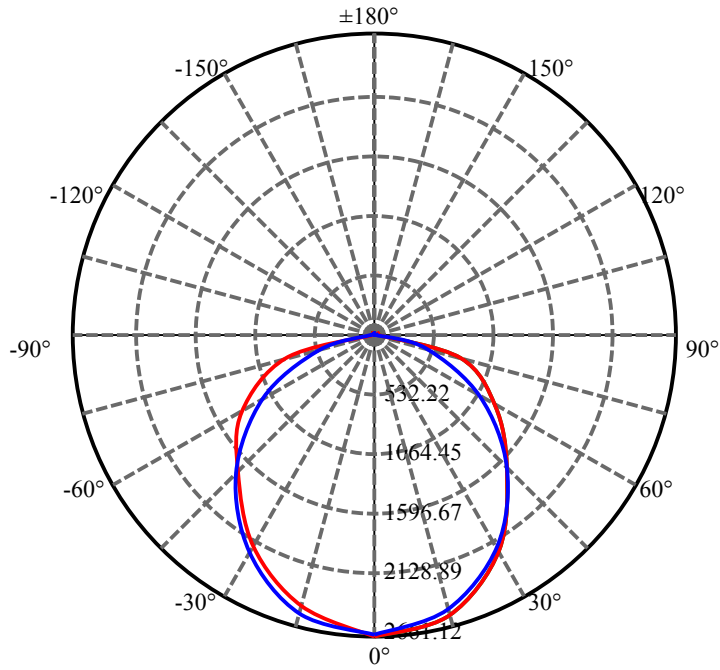
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2655.815	.000	.000	.000%	.000%
15.0	2523.004	554.378	554.378	6.992%	6.992%
30.0	2173.243	1473.900	2028.278	18.590%	25.583%
45.0	1680.500	1924.010	3952.289	24.267%	49.850%
60.0	1167.644	1853.131	5805.419	23.373%	73.223%
75.0	682.552	1401.879	7207.298	17.682%	90.905%
90.0	39.024	586.717	7794.015	7.400%	98.305%
105.0	17.083	45.621	7839.636	.575%	98.881%
120.0	17.424	26.146	7865.782	.330%	99.211%
135.0	18.873	23.617	7889.399	.298%	99.509%
150.0	20.852	19.833	7909.232	.250%	99.759%
165.0	24.015	14.081	7923.313	.178%	99.936%
180.0	23.182	5.052	7928.366	.064%	100.000%

ZONAL LUMEN SUMMARY

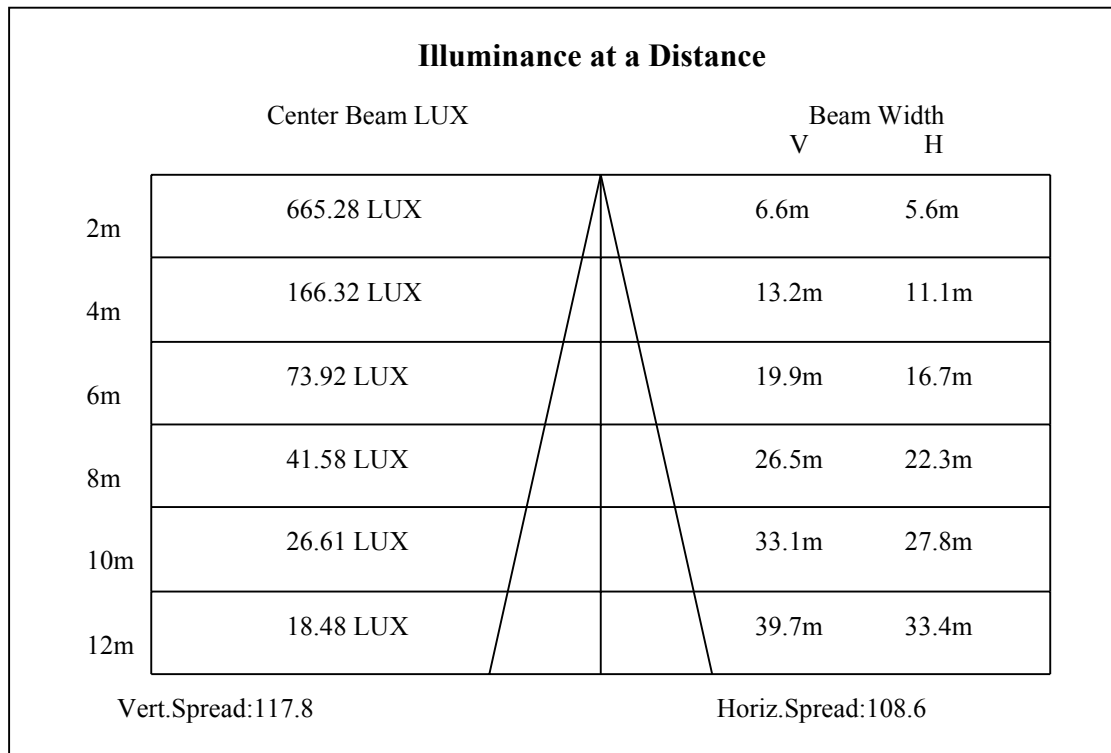
Zone	Lumens	%Lamp	%Fixt
0-30	2028.28	25.58%	25.58%
0-40	2028.28	25.58%	25.58%
0-60	5805.42	73.22%	73.22%
0-90	7794.02	98.31%	98.31%
90-120	71.77	0.91%	0.91%
90-130	71.77	0.91%	0.91%
90-150	115.22	1.45%	1.45%
90-180	129.30	1.63%	1.63%
0-180	7928.37	100.00%	100.00%

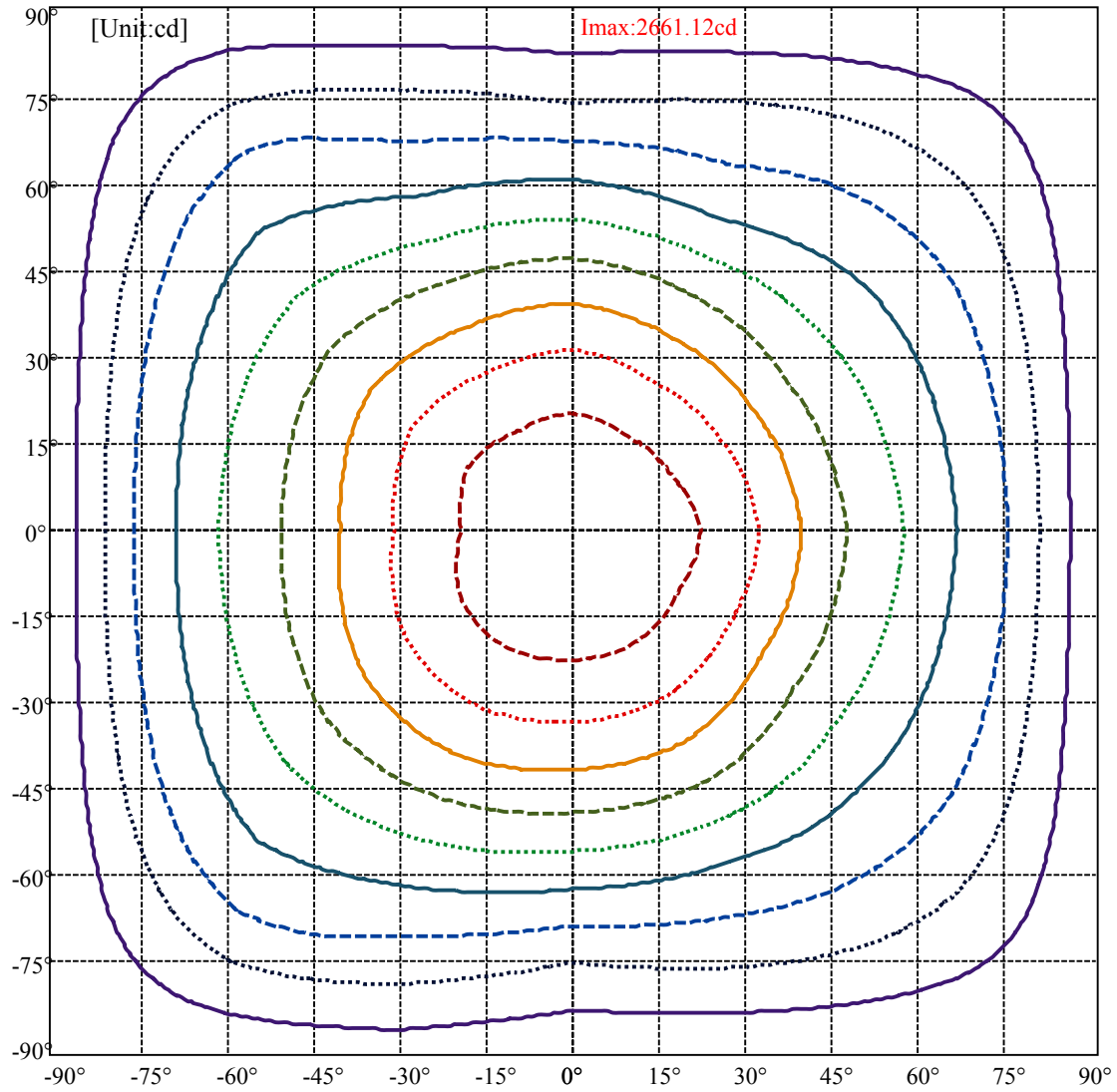
ZONAL LUMEN SUMMARY

0-10	0.00
10-20	554.38
20-30	1473.90
30-40	0.00
40-50	1924.01
50-60	1853.13
60-70	0.00
70-80	1401.88
80-90	586.72
90-100	0.00
100-110	45.62
110-120	26.15
120-130	0.00
130-140	23.62
140-150	19.83
150-160	0.00
160-170	14.08
170-180	0.00

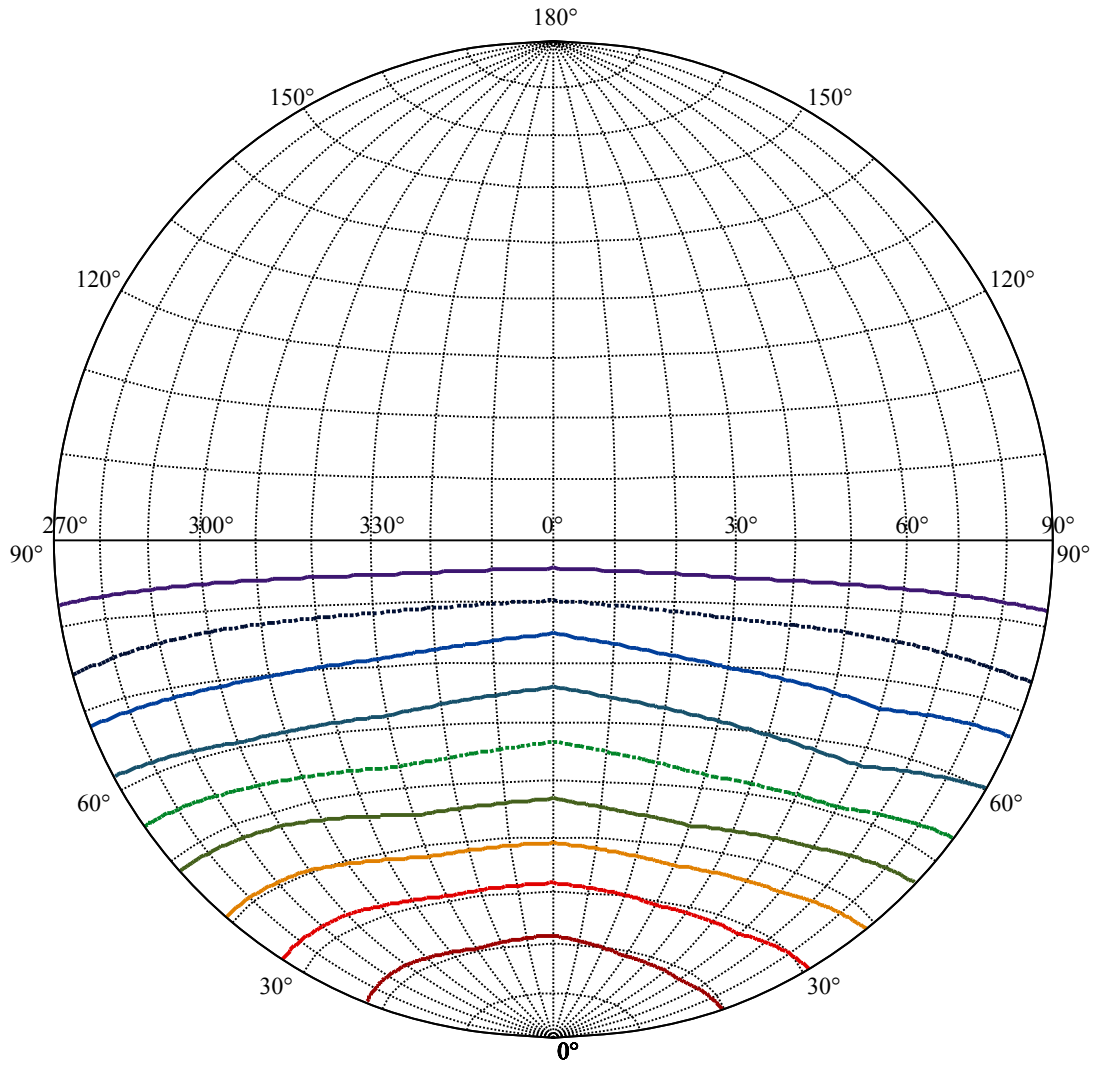


C0(Max): —
C0/C180: —
C90/C270: —





(10%Imax) 265.434	———
(20%Imax) 530.868
(30%Imax) 796.301	- - - - -
(40%Imax) 1061.74	—————
(50%Imax) 1327.17
(60%Imax) 1592.6	- - - - -
(70%Imax) 1858.04	—————
(80%Imax) 2123.47
(90%Imax) 2388.9	- - - - -

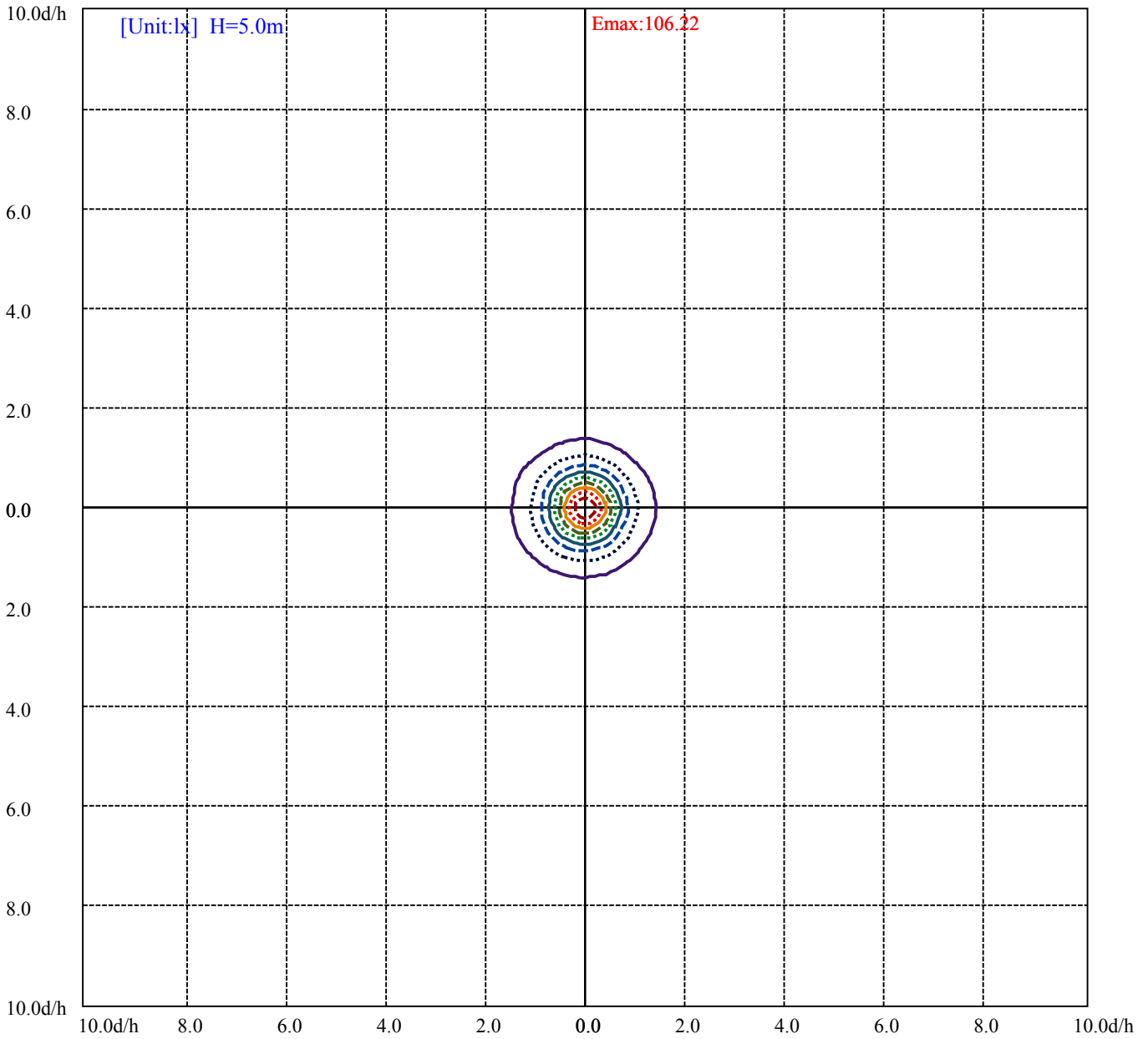


House

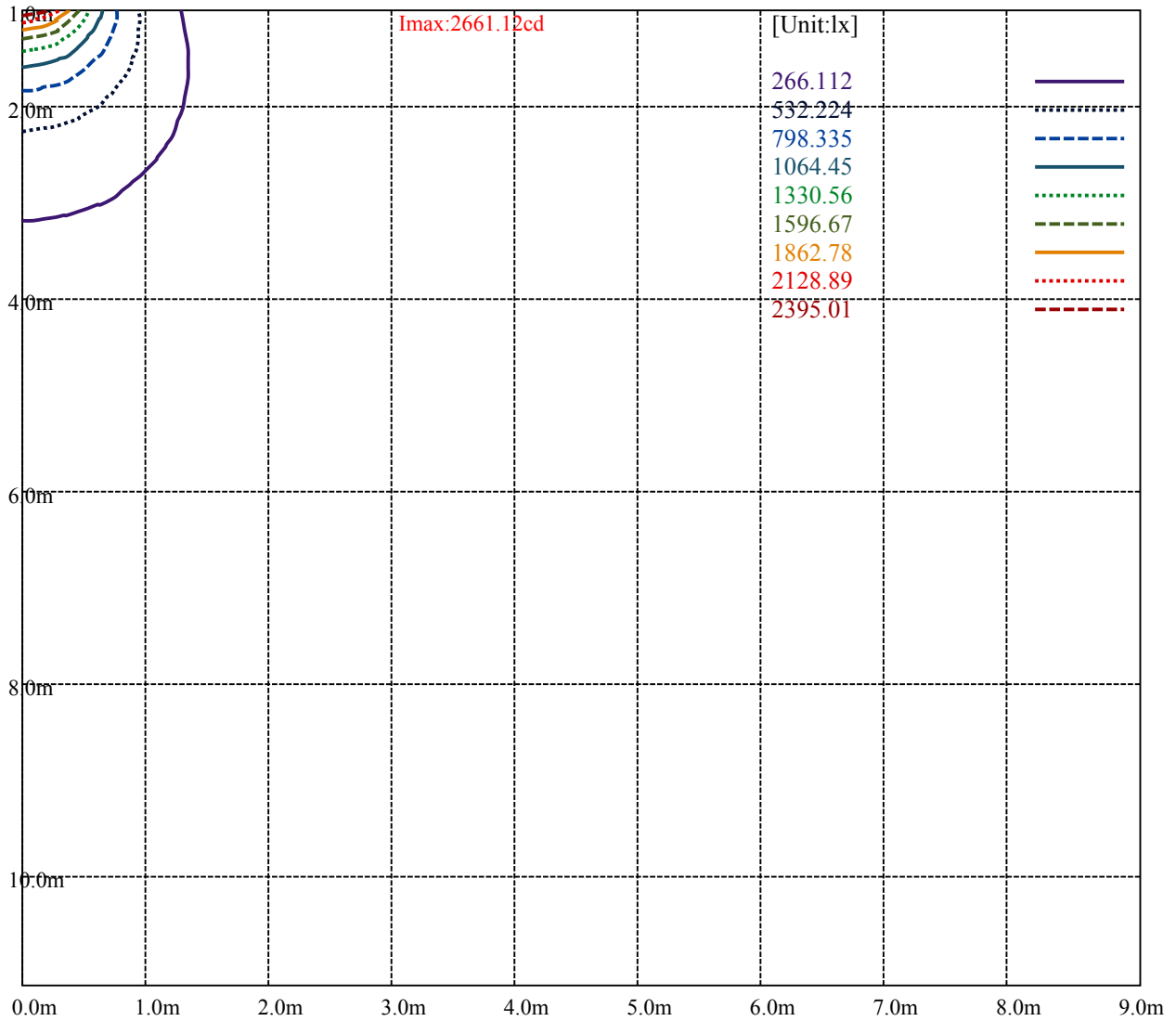
Road

Imax:2661.12cd

(10%Imax) 266.112	—
(20%Imax) 532.224	⋯
(30%Imax) 798.335	- - -
(40%Imax) 1064.45	—
(50%Imax) 1330.56	⋯
(60%Imax) 1596.67	- - -
(70%Imax) 1862.78	—
(80%Imax) 2128.89	⋯
(90%Imax) 2395.01	- - -



- (10%Emax) 10.6222 ————
- (20%Emax) 21.24436 ······
- (30%Emax) 31.86656 - - - -
- (40%Emax) 42.4888 ————
- (50%Emax) 53.1108 ······
- (60%Emax) 63.7332 - - - -
- (70%Emax) 74.3552 ————
- (80%Emax) 84.9776 ······
- (90%Emax) 95.5996 - - - -



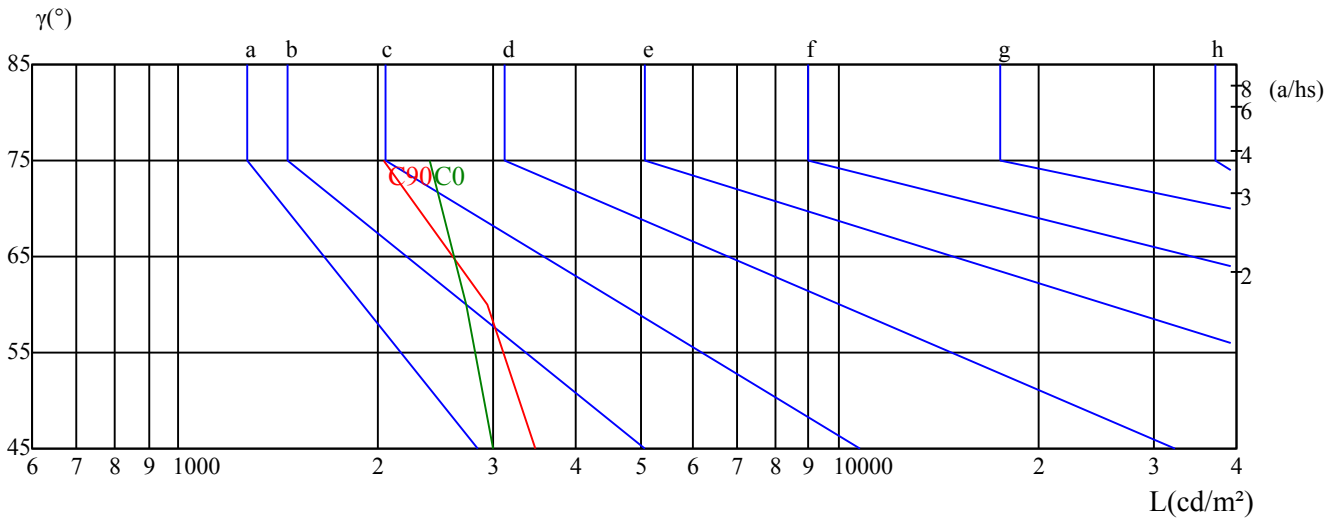
Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	2991	0	0	2724	0	0	2404	0	0
C45	0	0	0	0	0	0	0	0	0
C90	3472	0	0	2930	0	0	2046	0	0

Glare Table

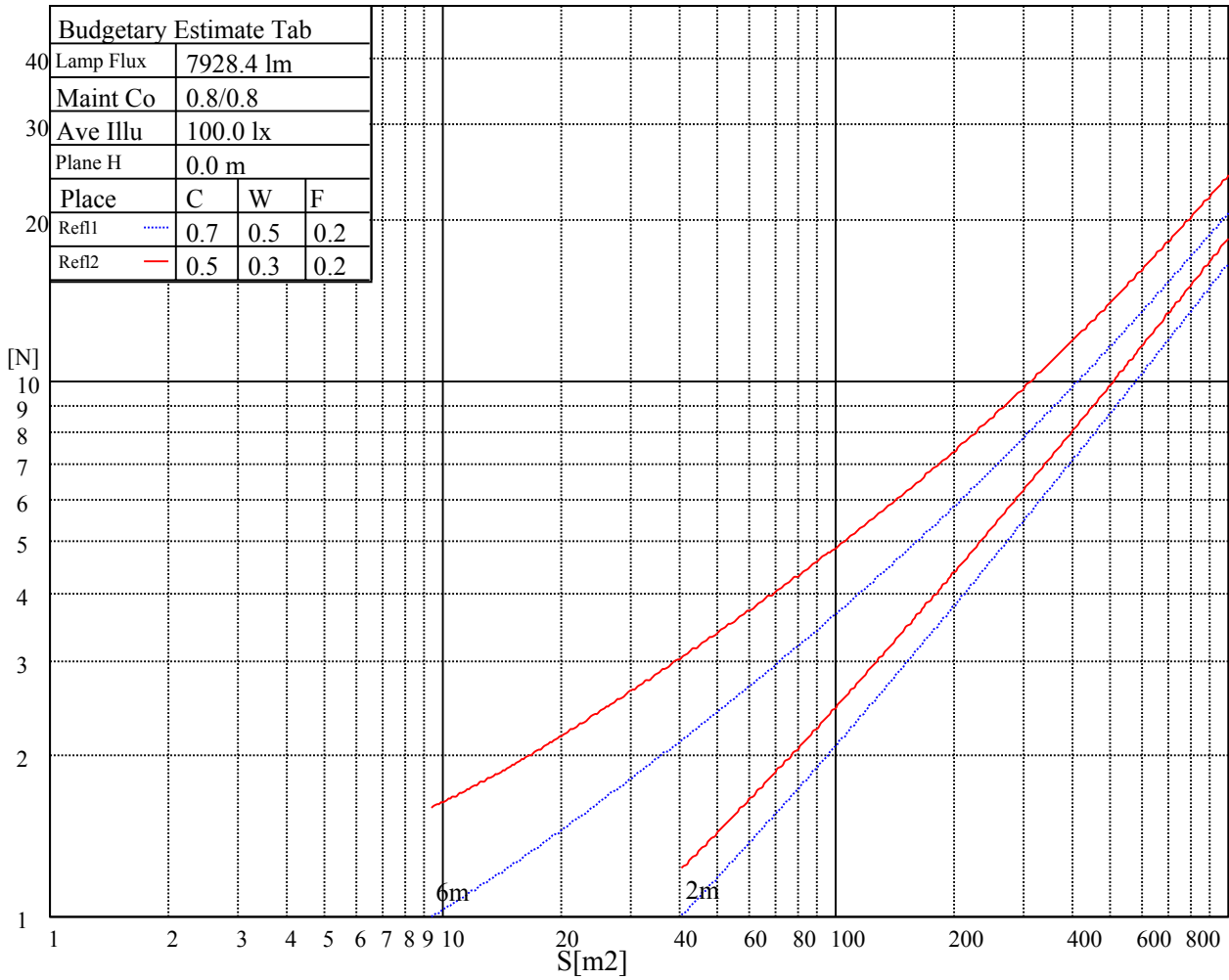
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

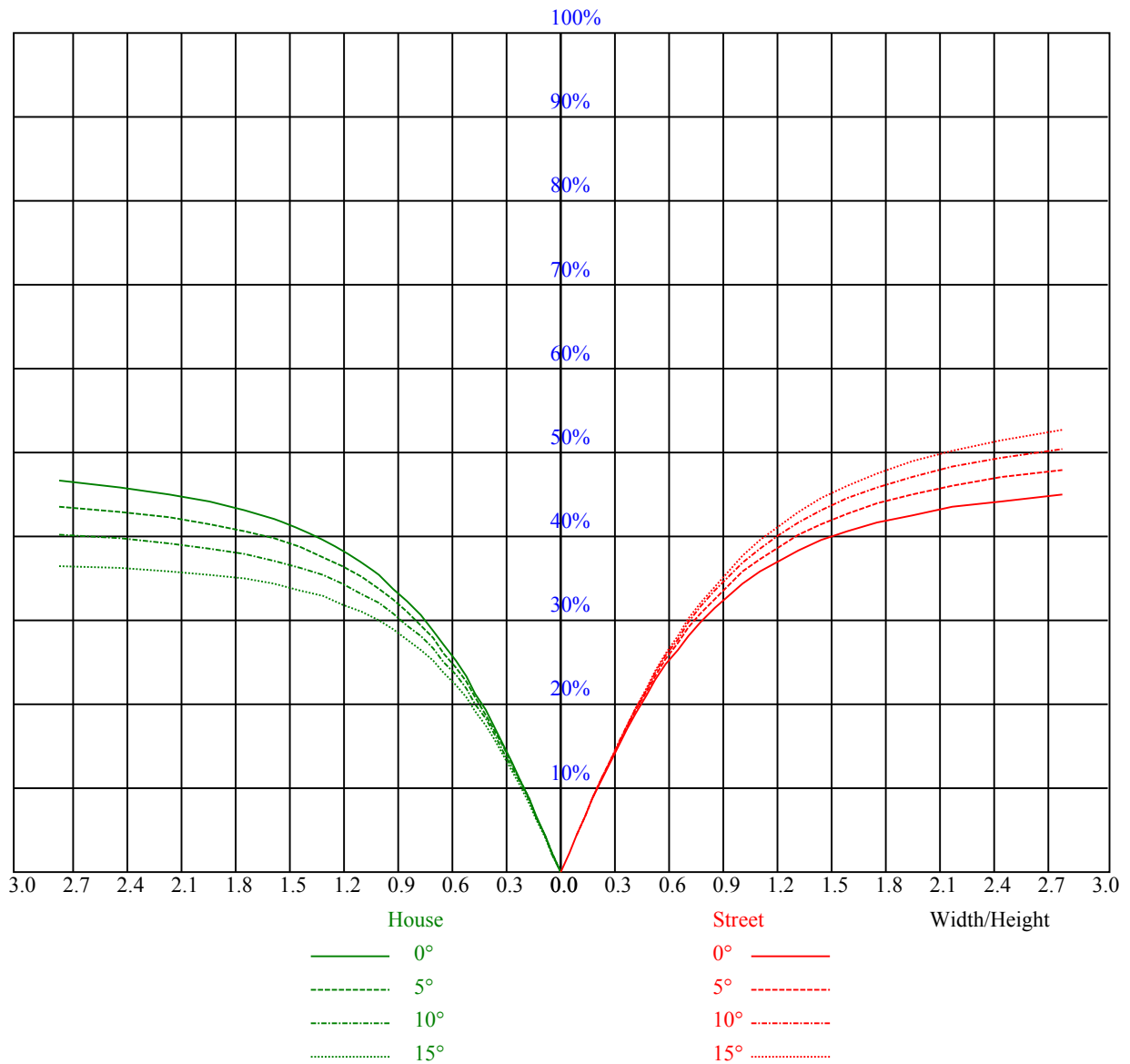


Illuminatin assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	8.3	10.0	8.7	10.3	10.6	7.9	9.5	8.2	9.8	10.1
	3H	10.3	11.8	10.7	12.1	12.5	9.5	11.0	9.9	11.3	11.7
	4H	11.1	12.4	11.5	12.7	13.1	10.0	11.3	10.4	11.7	12.0
	6H	11.8	13.1	12.3	13.5	13.9	10.6	11.9	11.0	12.2	12.6
	8H	12.1	13.4	12.5	13.8	14.2	10.8	12.1	11.2	12.5	12.9
	12H	12.1	13.2	12.6	13.6	14.0	10.7	11.8	11.2	12.2	12.7
4H	2H	8.7	10.0	9.1	10.4	10.8	8.3	9.6	8.8	10.0	10.4
	3H	10.8	11.9	11.3	12.3	12.8	10.1	11.2	10.6	11.6	12.1
	4H	12.0	13.0	12.4	13.5	13.9	11.0	12.1	11.5	12.5	13.0
	6H	12.9	13.9	13.3	14.4	14.8	11.7	12.8	12.2	13.2	13.7
	8H	13.0	13.8	13.6	14.3	14.8	11.8	12.5	12.3	13.1	13.6
	12H	13.3	14.0	13.8	14.5	15.1	12.0	12.7	12.5	13.3	13.8
8H	4H	12.1	12.9	12.7	13.4	14.0	11.3	12.0	11.8	12.6	13.1
	6H	13.2	13.9	13.7	14.4	15.0	12.2	12.9	12.7	13.4	14.0
	8H	13.6	14.3	14.1	14.9	15.4	12.5	13.3	13.1	13.8	14.3
	12H	13.9	14.7	14.5	15.2	15.7	12.8	13.5	13.3	14.1	14.6
12H	4H	12.2	12.9	12.7	13.4	14.0	11.4	12.1	11.9	12.6	13.2
	6H	13.3	14.0	13.8	14.5	15.1	12.3	13.0	12.8	13.5	14.1
	8H	13.7	14.5	14.3	15.0	15.5	12.7	13.4	13.2	13.9	14.5
Variation with the observer position at spacings:											
S = 1.0H	0.2/-0.8					0.2/-0.6					
S = 1.5H	0.6/-0.5					0.6/-0.6					
S = 2.0H	0.7/-0.5					0.7/-0.7					
Standard tables:	BKBF					BKBF					
Uncorrected UGR	-1.8					-2.9					
According 1000lm											

五、灯具的概算曲线



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	1.00	1.00	1.00	0.98
1	0.93	0.85	0.79	0.90	0.83	0.77	0.85	0.79	0.74	0.80	0.76	0.72	0.76	0.73	0.69	0.66
2	0.79	0.70	0.62	0.77	0.68	0.61	0.73	0.66	0.59	0.69	0.63	0.57	0.66	0.60	0.56	0.53
3	0.68	0.58	0.50	0.67	0.57	0.49	0.63	0.55	0.48	0.60	0.53	0.47	0.57	0.51	0.46	0.43
4	0.59	0.49	0.41	0.58	0.48	0.40	0.55	0.46	0.39	0.52	0.45	0.39	0.50	0.43	0.38	0.35
5	0.52	0.41	0.34	0.51	0.41	0.33	0.48	0.39	0.33	0.46	0.38	0.32	0.44	0.37	0.32	0.29
6	0.46	0.36	0.28	0.45	0.35	0.28	0.43	0.34	0.27	0.41	0.33	0.27	0.39	0.32	0.27	0.24
7	0.41	0.31	0.24	0.40	0.30	0.24	0.38	0.30	0.23	0.36	0.29	0.23	0.35	0.28	0.23	0.20
8	0.37	0.27	0.21	0.36	0.27	0.20	0.34	0.26	0.20	0.33	0.25	0.20	0.32	0.25	0.20	0.17
9	0.33	0.24	0.18	0.33	0.24	0.18	0.31	0.23	0.18	0.30	0.23	0.17	0.29	0.22	0.17	0.15
10	0.30	0.22	0.16	0.30	0.21	0.16	0.29	0.21	0.16	0.28	0.20	0.15	0.27	0.20	0.15	0.13



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	2661.12	2559.42	2193.96	1649.42	1242.04	791.36	35.00	16.93	16.70
30.0	2660.78	2501.01	2107.37	1544.08	1103.29	640.34	19.89	17.84	18.64
60.0	2650.32	2482.60	2088.85	1570.44	955.45	554.31	19.09	17.39	18.30
90.0	2650.21	2507.26	2153.96	1657.15	1069.43	466.02	22.16	17.50	18.07
120.0	2652.94	2491.23	2138.96	1654.53	1095.33	625.68	31.02	17.73	18.30
150.0	2659.53	2517.14	2191.24	1752.94	1292.49	879.20	55.80	17.84	18.30
180.0	2661.12	2481.69	2143.96	1712.15	1356.47	812.95	20.80	17.73	18.41
210.0	2660.78	2546.23	2230.33	1791.35	1322.72	914.99	68.30	17.05	16.82
240.0	2650.32	2553.96	2246.46	1786.01	1225.90	704.54	127.84	16.48	16.36
270.0	2650.21	2547.26	2220.21	1731.69	1132.04	504.32	25.91	15.91	16.02
300.0	2652.94	2553.39	2204.53	1709.76	1091.36	608.86	23.41	16.02	16.36
330.0	2659.53	2534.87	2159.08	1606.47	1125.22	688.06	19.09	16.59	16.82
360.0	2661.12	2559.42	2193.96	1649.42	1242.04	791.36	35.00	16.93	16.70
C/γ(°)	135.0	150.0	165.0	180.0					
0.0	18.18	20.34	22.27	23.41					
30.0	20.23	21.82	23.07	23.41					
60.0	20.00	21.82	41.82	23.07					
90.0	19.66	21.59	22.73	22.84					
120.0	19.77	21.59	22.84	23.07					
150.0	19.66	21.59	22.84	23.30					
180.0	19.89	21.48	22.95	23.41					
210.0	17.95	20.11	22.27	23.41					
240.0	17.50	19.66	21.82	23.07					
270.0	17.50	19.77	21.70	22.84					
300.0	17.84	20.00	21.82	23.07					
330.0	18.30	20.45	22.05	23.30					
360.0	18.18	20.34	22.27	23.41					