
P.Q.L., Inc. 4 LAMPS

LumCAT: 4 LAMPS	Luminaire: 5000K
Report No: /	Voltage(V):
Test No:	Current(A):
LampCAT: LEDSM4' 18WT8/50K/FR/V4	Power (W): 69.200
Lamp flux(lm)	PF:
Number of Lamps: 4	Ballast type:
Length(mm): 1200	Width(mm): 500
Phm Type: C	Height(mm): 150

Photometric Results

Lumens(lm): 7353.95
Lumens(lm)/Power(W): 106.27
Central intensity(cd): 2488.392
Maximum intensity(cd): 2489.983
Angle of maximum intensity: C=210.0 γ =15.0
Beam Angle(50%Imax): [H]Left=46.5 Right=58.9
[V]Left=42.9 Right=72.7
Field angle(10%Imax): [H]Left=75.1 Right=88.1
[V]Left=72.3 Right=98.3
Maximum s/h: C0_180=1.23 C90_270=1.22
Up flux rate of LUM(%): 1.57%
Down flux rate of LUM(%): 98.44%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 74.048%

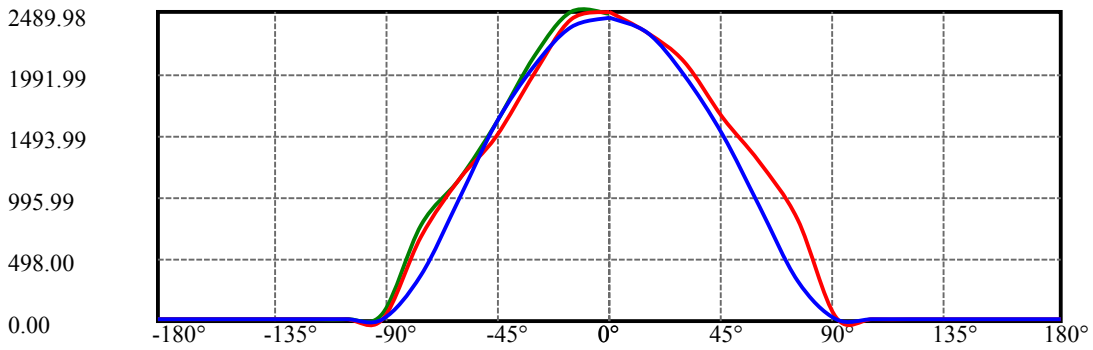
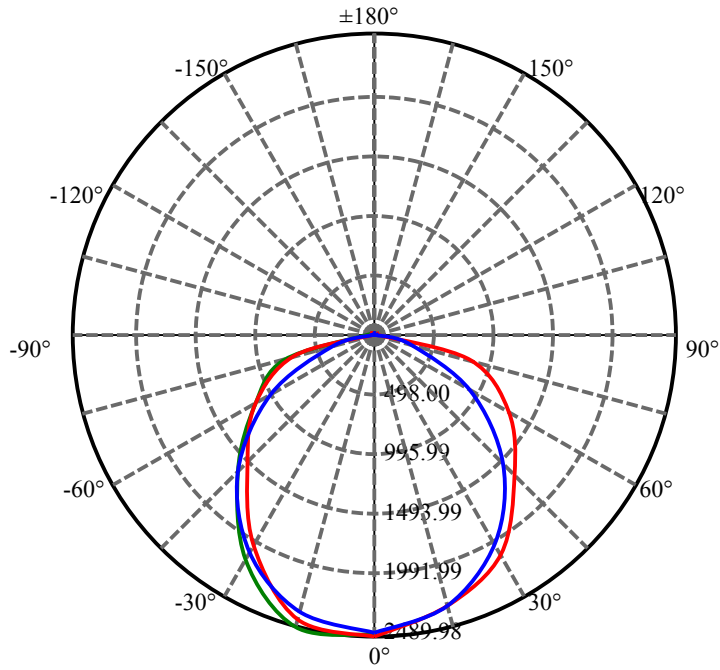
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2465.116	.000	.000	.000%	.000%
15.0	2366.594	517.221	517.221	7.033%	7.033%
30.0	2059.929	1389.248	1906.469	18.891%	25.924%
45.0	1576.542	1815.536	3722.005	24.688%	50.612%
60.0	1072.275	1723.440	5445.446	23.436%	74.048%
75.0	607.344	1272.635	6718.081	17.305%	91.353%
90.0	33.134	520.776	7238.856	7.082%	98.435%
105.0	14.953	39.100	7277.956	.532%	98.967%
120.0	15.170	22.824	7300.780	.310%	99.277%
135.0	16.250	20.443	7321.223	.278%	99.555%
150.0	17.756	16.977	7338.201	.231%	99.786%
165.0	19.138	11.579	7349.780	.157%	99.943%
180.0	19.792	4.167	7353.947	.057%	100.000%

ZONAL LUMEN SUMMARY

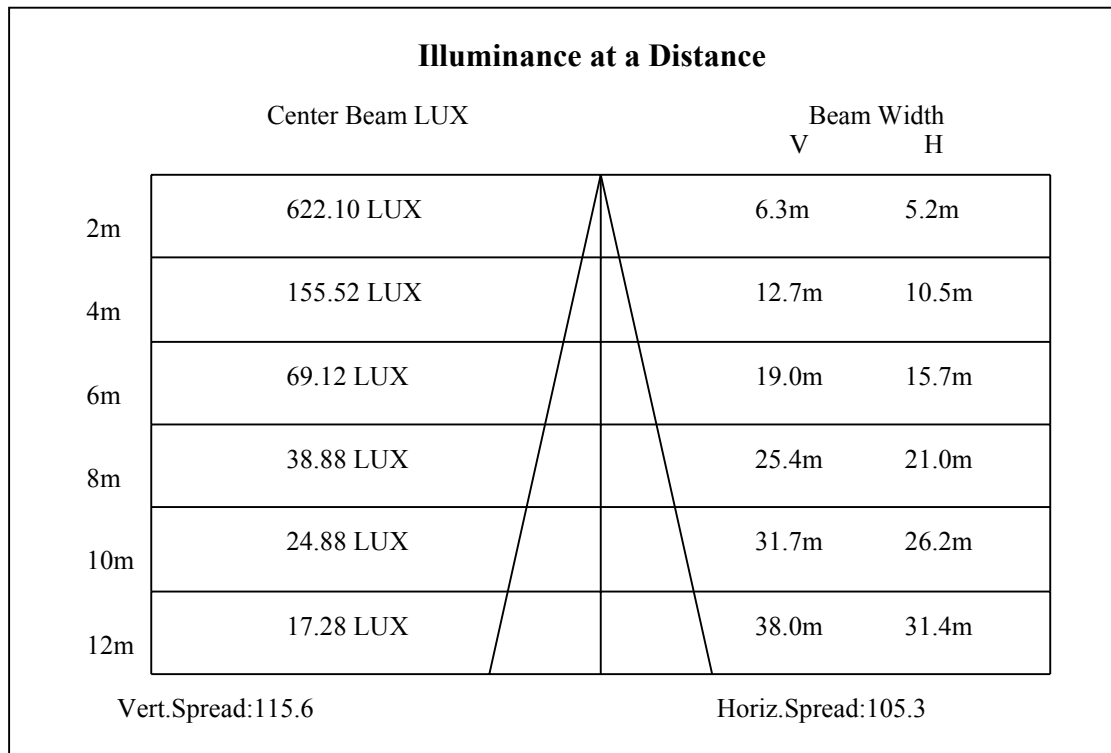
Zone	Lumens	%Fixt
0-30	1906.47	25.92%
0-40	1906.47	25.92%
0-60	5445.45	74.05%
0-90	7238.86	98.43%
90-120	61.92	0.84%
90-130	61.92	0.84%
90-150	99.34	1.35%
90-180	110.92	1.51%
0-180	7353.95	100.00%

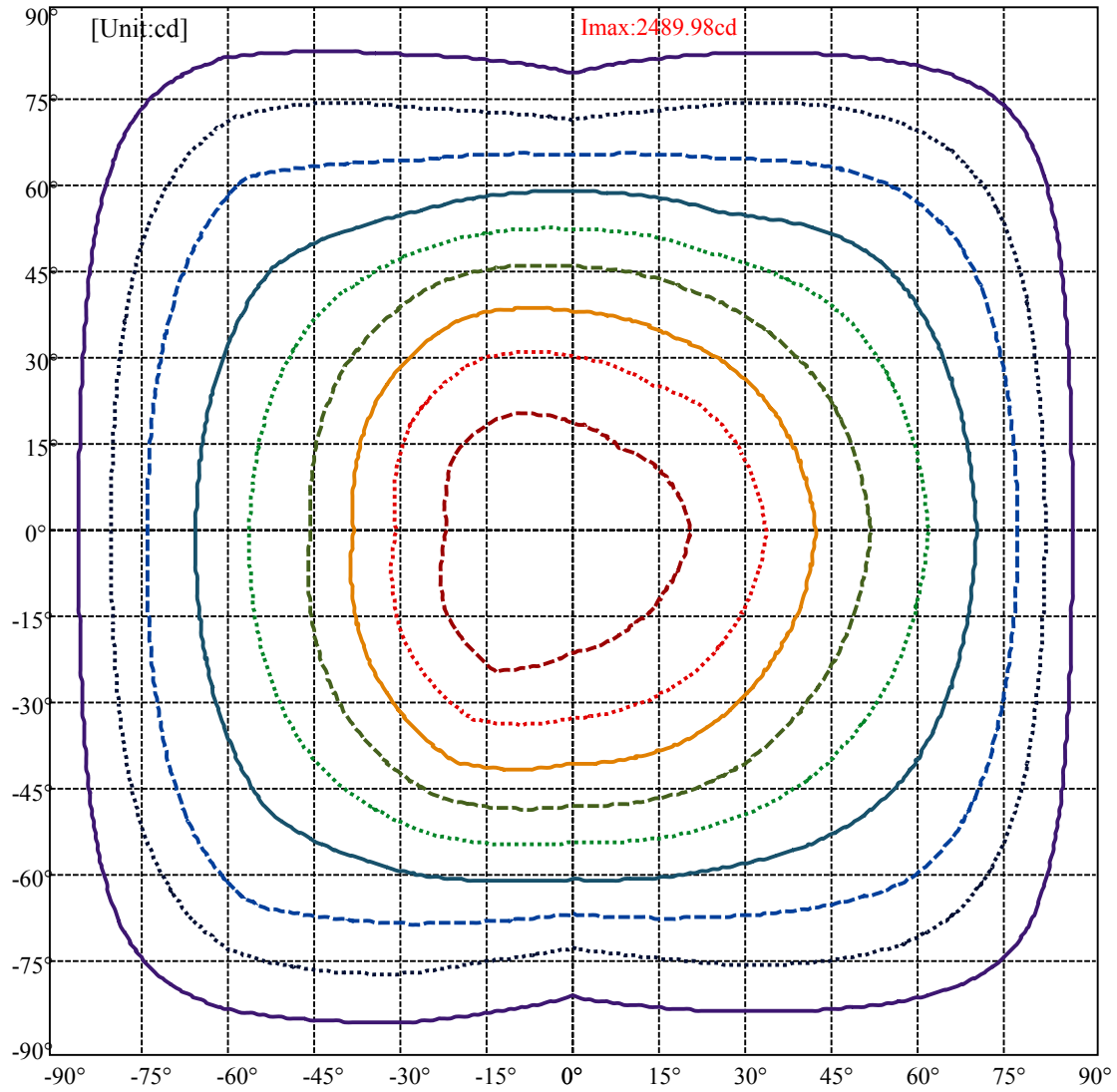
ZONAL LUMEN SUMMARY

0-10	0.00
10-20	517.22
20-30	1389.25
30-40	0.00
40-50	1815.54
50-60	1723.44
60-70	0.00
70-80	1272.64
80-90	520.78
90-100	0.00
100-110	39.10
110-120	22.82
120-130	0.00
130-140	20.44
140-150	16.98
150-160	0.00
160-170	11.58
170-180	0.00



C210(Max): —
C0/C180: —
C90/C270: —



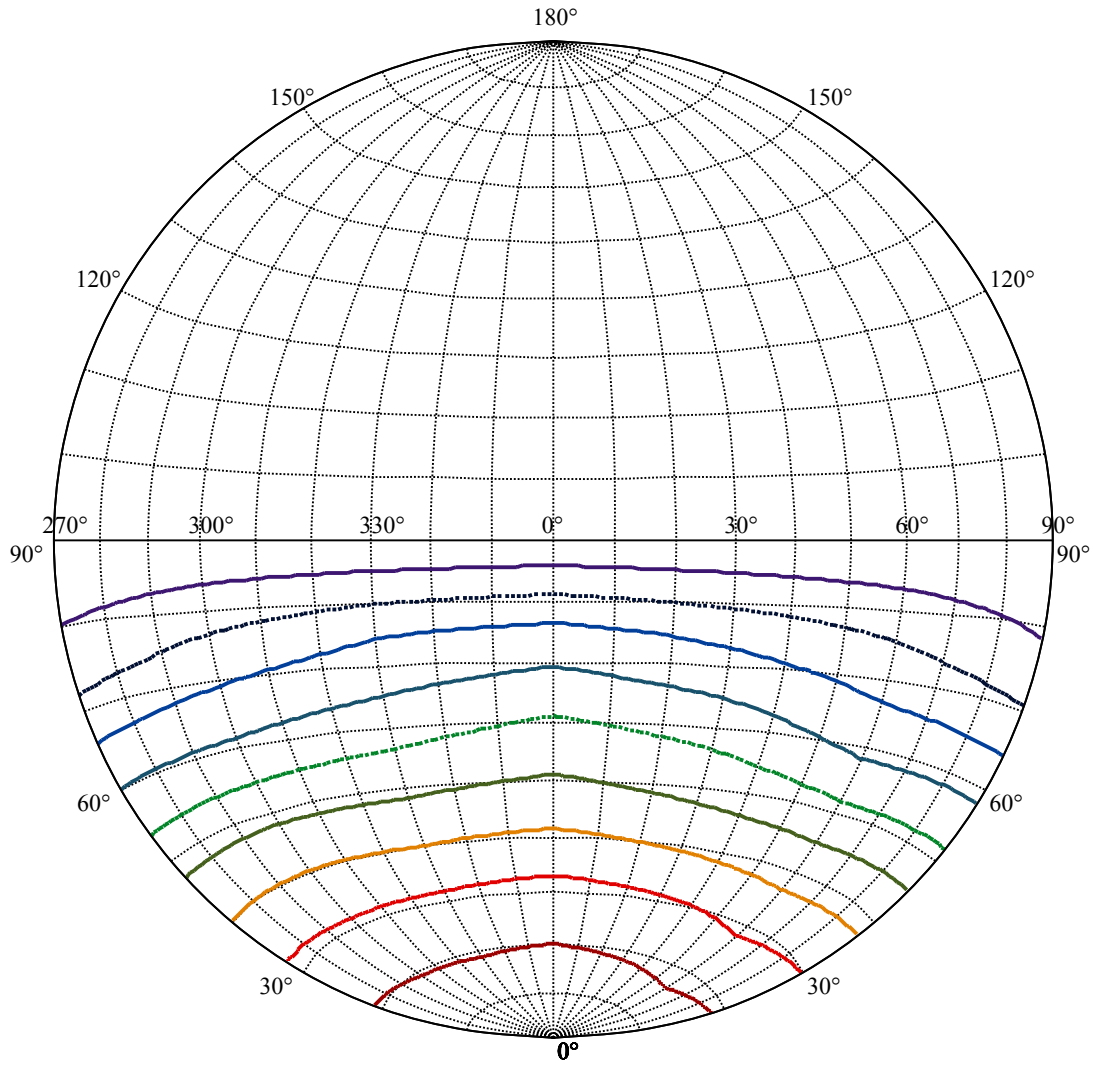


- (10%I_{max}) 248.851
- (20%I_{max}) 497.702
- (30%I_{max}) 746.553
- (40%I_{max}) 995.404
- (50%I_{max}) 1244.25
- (60%I_{max}) 1493.11
- (70%I_{max}) 1741.96
- (80%I_{max}) 1990.81
- (90%I_{max}) 2239.66

Equipment: 123
Temperature(°C): 345

Date: 2015-7-14
Humidity(%): 456%

Operator: 234
Distance(m): 567

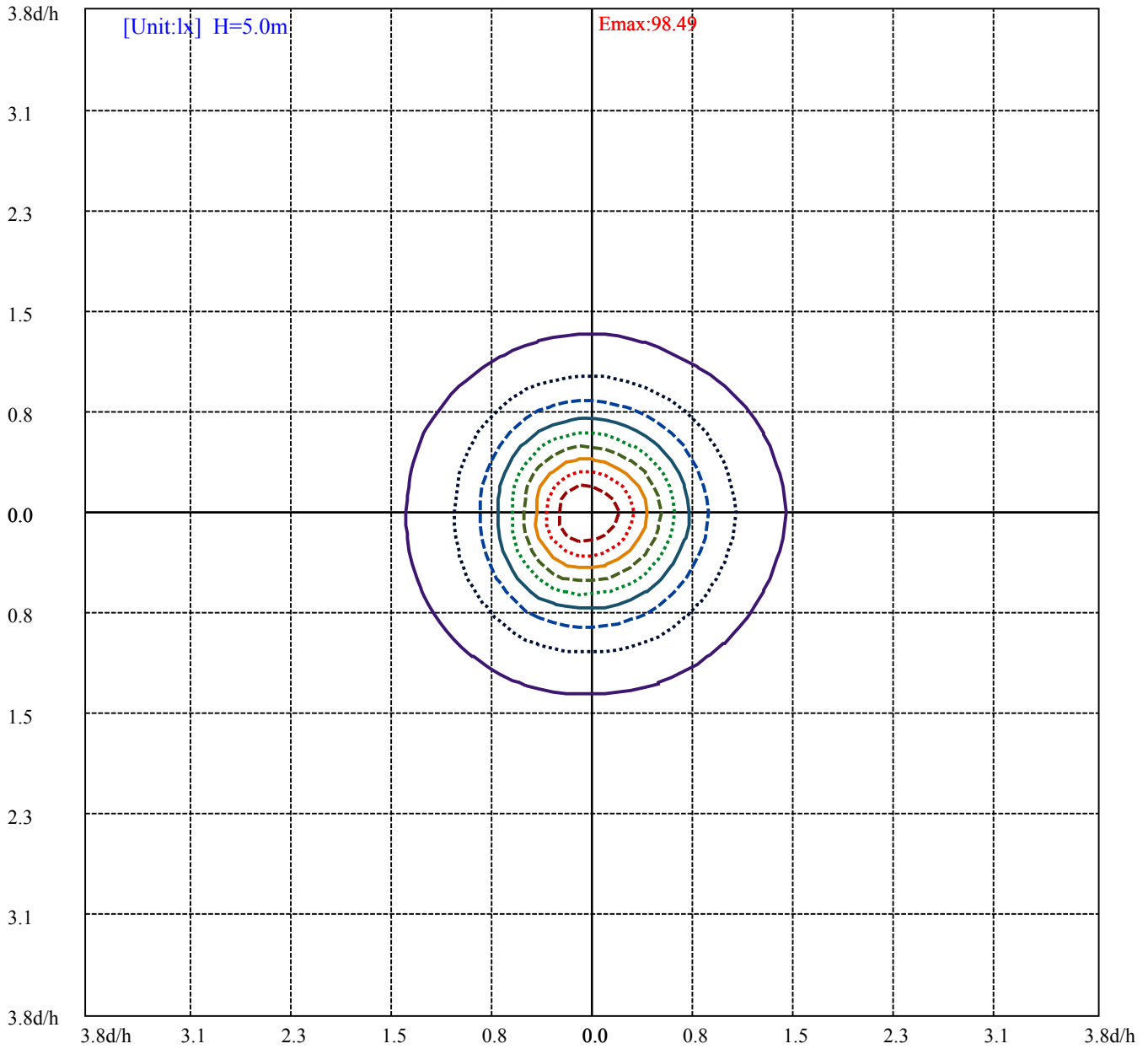


House

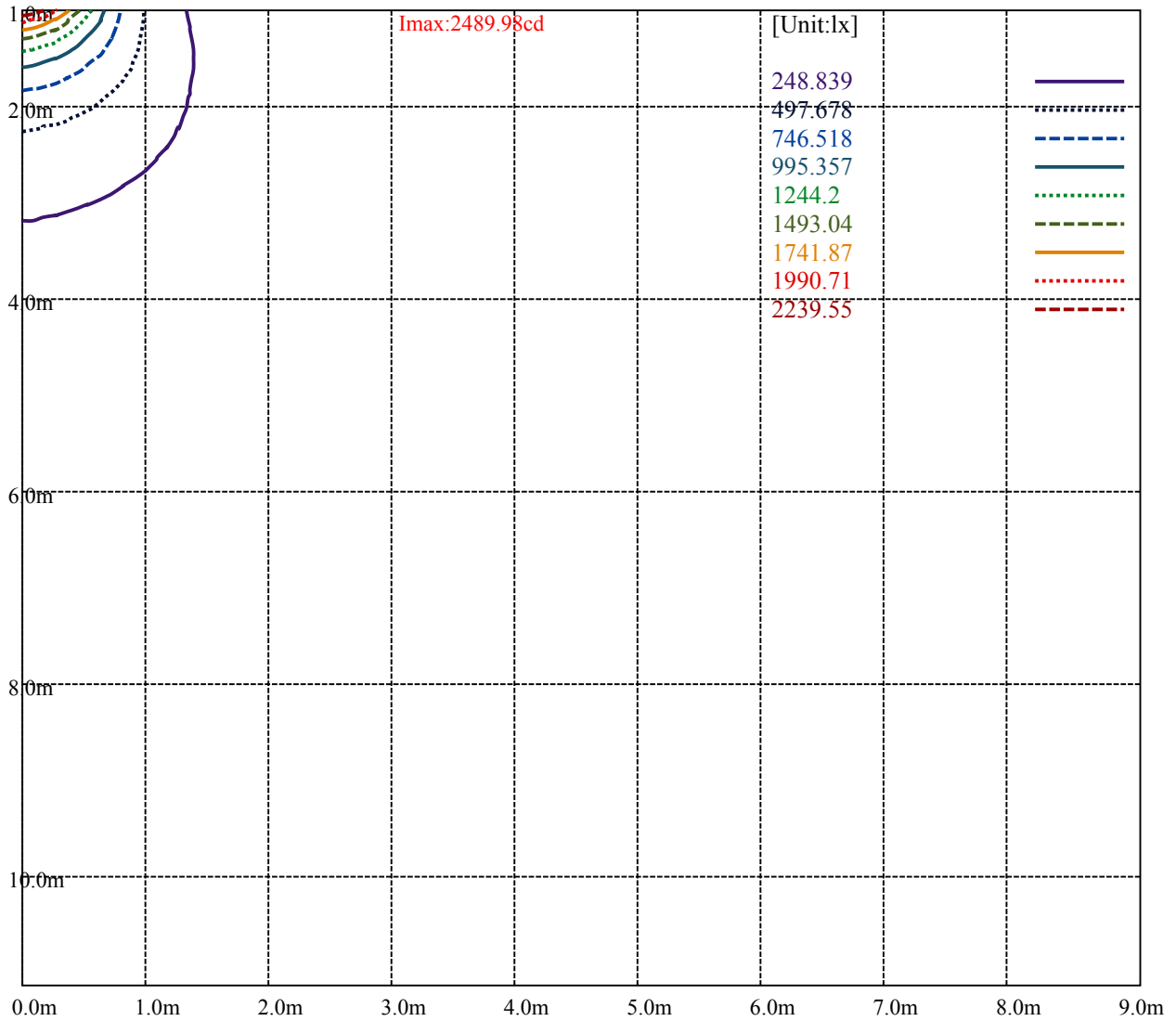
Road

I_{max}:2489.98cd

(10%I _{max}) 248.998	—
(20%I _{max}) 497.997	⋯
(30%I _{max}) 746.995	- - -
(40%I _{max}) 995.993	—
(50%I _{max}) 1244.99	⋯
(60%I _{max}) 1493.99	- - -
(70%I _{max}) 1742.99	—
(80%I _{max}) 1991.99	⋯
(90%I _{max}) 2240.98	- - -



(10%Emax) 9.84944	———
(20%Emax) 19.69892
(30%Emax) 29.54836	- - - - -
(40%Emax) 39.39784	—————
(50%Emax) 49.2472
(60%Emax) 59.0968	- - - - -
(70%Emax) 68.9464	—————
(80%Emax) 78.7956
(90%Emax) 88.6452	- - - - -



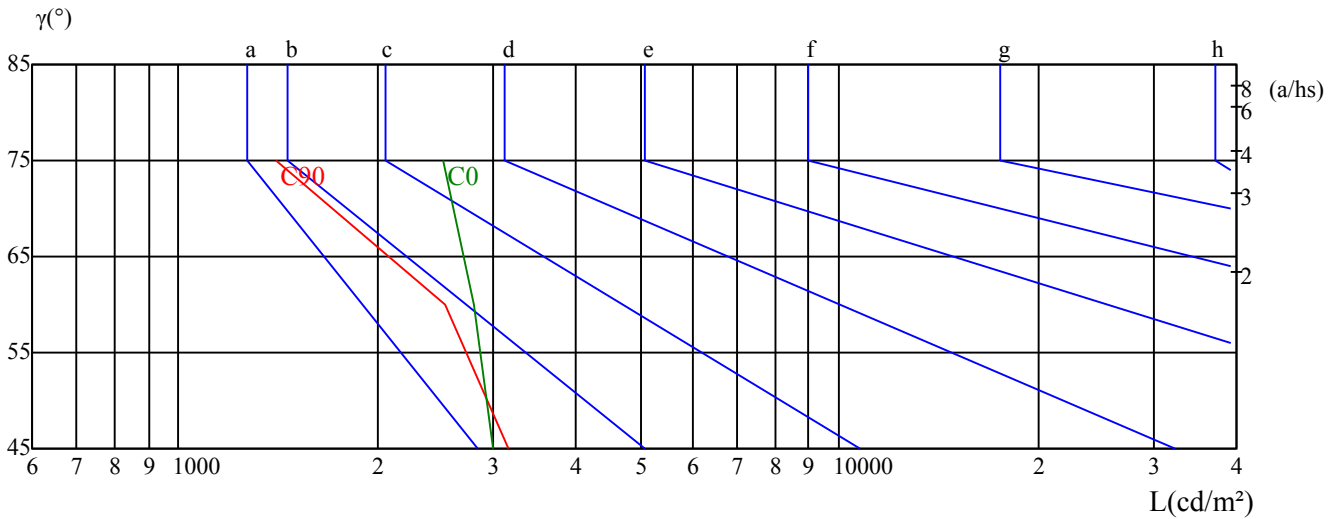
Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	2985	0	0	2802	0	0	2510	0	0
C45	0	0	0	0	0	0	0	0	0
C90	3153	0	0	2530	0	0	1404	0	0

Glare Table

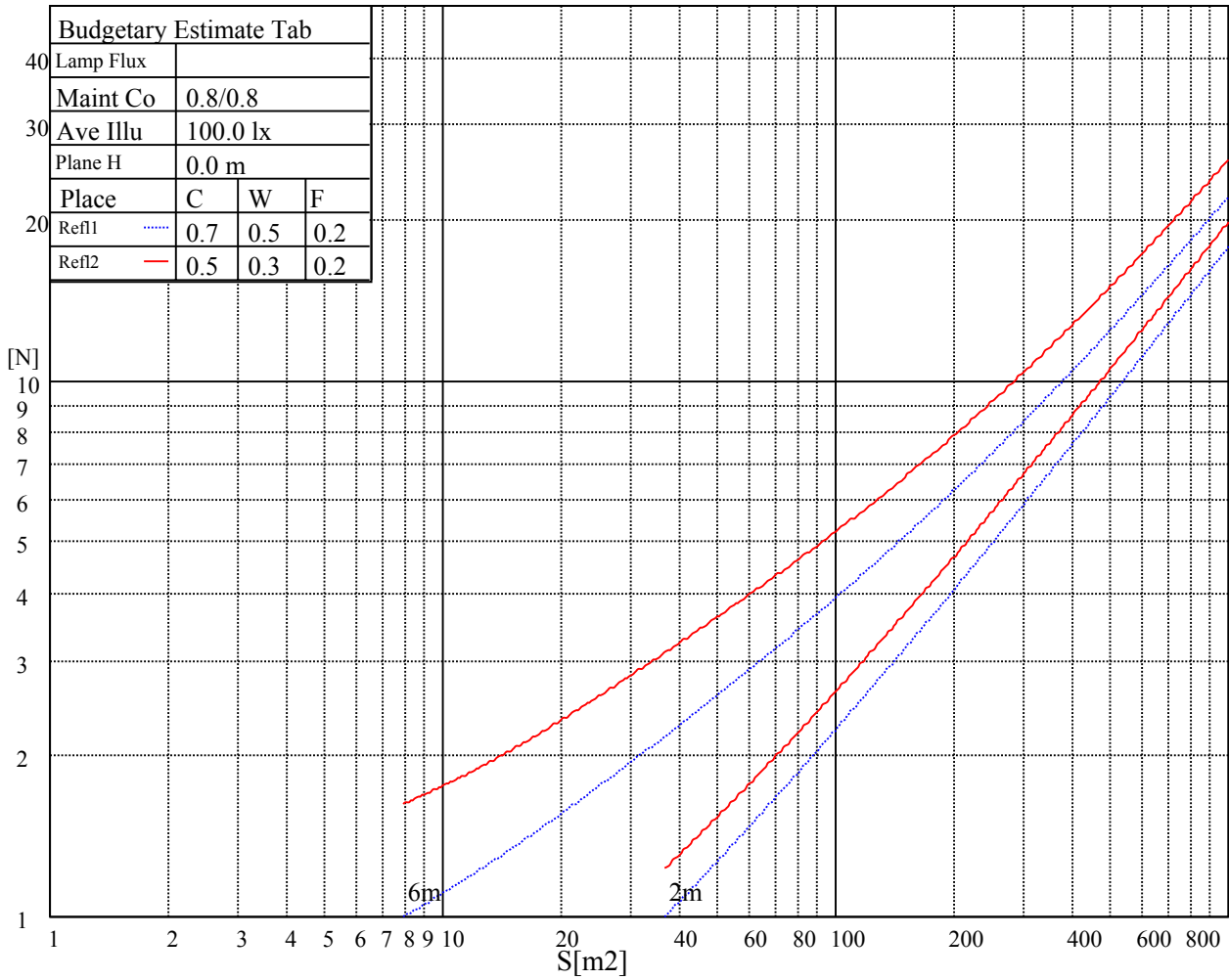
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

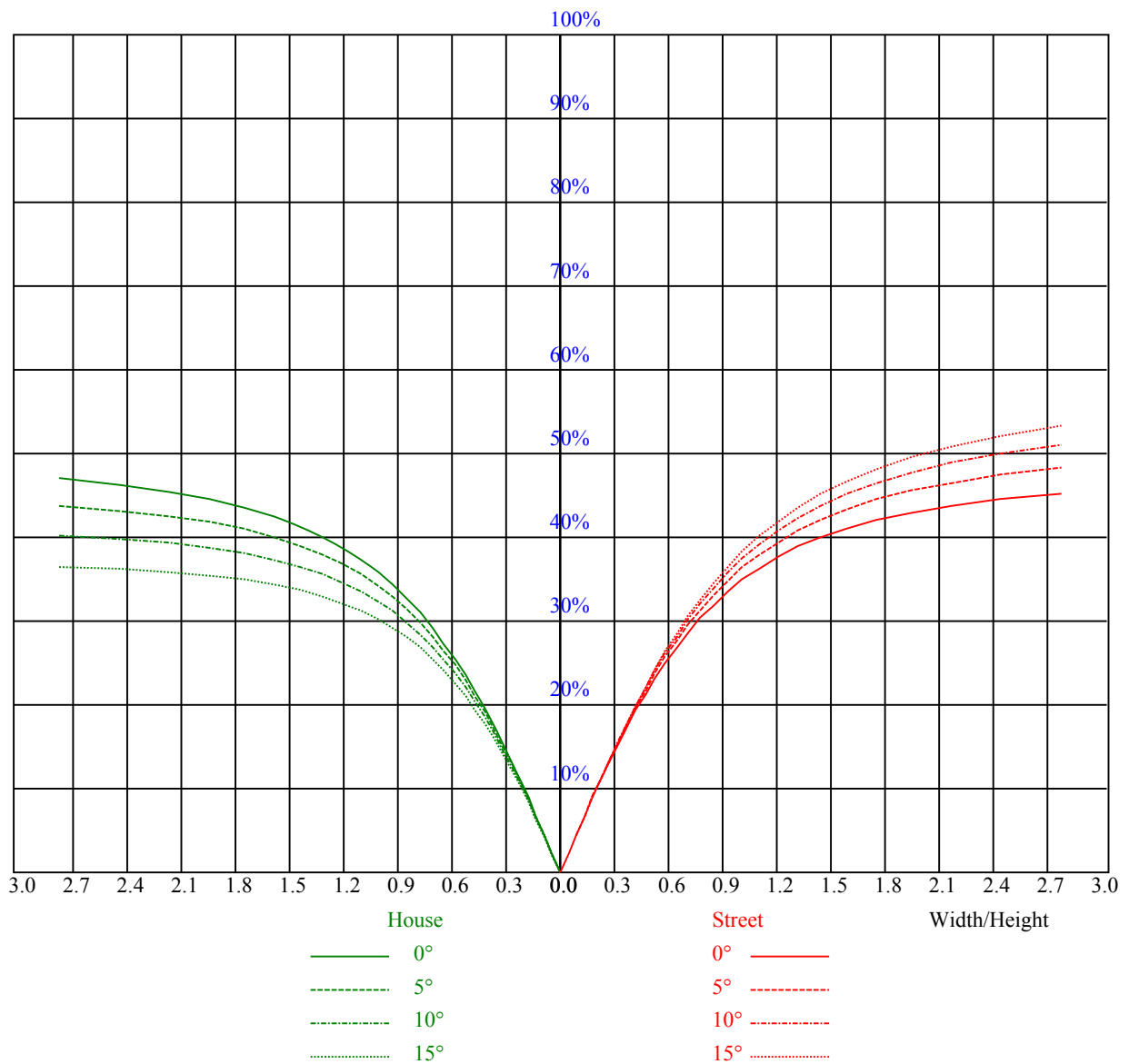


Illuminatin assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	9.0	10.6	9.3	10.9	11.2	7.9	9.6	8.3	9.8	10.1
	3H	11.0	12.5	11.4	12.8	13.2	9.3	10.8	9.7	11.1	11.5
	4H	11.8	13.1	12.2	13.5	13.9	9.6	10.9	10.0	11.3	11.7
	6H	12.6	13.9	13.0	14.3	14.7	10.0	11.3	10.5	11.7	12.1
	8H	12.9	14.2	13.3	14.6	15.0	10.2	11.5	10.6	11.9	12.3
	12H	12.9	13.9	13.3	14.4	14.8	10.1	11.2	10.6	11.6	12.0
4H	2H	9.4	10.6	9.8	11.0	11.4	8.5	9.8	8.9	10.2	10.6
	3H	11.6	12.6	12.0	13.1	13.5	10.1	11.2	10.6	11.6	12.0
	4H	12.8	13.8	13.2	14.2	14.7	10.8	11.9	11.3	12.3	12.8
	6H	13.7	14.7	14.1	15.2	15.6	11.4	12.4	11.8	12.9	13.3
	8H	13.8	14.6	14.4	15.1	15.6	11.4	12.1	11.9	12.6	13.2
	12H	14.1	14.8	14.6	15.3	15.9	11.5	12.3	12.1	12.8	13.3
8H	4H	12.9	13.6	13.4	14.2	14.7	11.2	12.0	11.8	12.5	13.0
	6H	14.0	14.7	14.5	15.2	15.8	12.0	12.7	12.5	13.2	13.8
	8H	14.4	15.1	14.9	15.7	16.2	12.3	13.0	12.8	13.5	14.0
	12H	14.7	15.5	15.3	16.0	16.5	12.5	13.2	13.0	13.7	14.3
12H	4H	13.0	13.7	13.5	14.2	14.8	11.3	12.1	11.9	12.6	13.1
	6H	14.1	14.8	14.6	15.3	15.9	12.1	12.9	12.7	13.4	13.9
	8H	14.5	15.3	15.1	15.8	16.3	12.5	13.2	13.0	13.7	14.3
Variation with the observer position at spacings:											
S = 1.0H		0.2/-0.8					0.3/-0.5				
S = 1.5H		0.6/-0.5					0.5/-0.7				
S = 2.0H		0.7/-0.5					0.7/-0.9				
Standard tables:		BKBF					BK4				
Uncorrected UGR		-1.1					-5.9				
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	1.01	1.01	1.01	0.98
1	0.93	0.86	0.79	0.90	0.84	0.78	0.85	0.80	0.75	0.81	0.76	0.72	0.77	0.73	0.70	0.67
2	0.80	0.70	0.62	0.77	0.69	0.62	0.73	0.66	0.60	0.69	0.63	0.58	0.66	0.61	0.56	0.54
3	0.69	0.59	0.50	0.67	0.57	0.50	0.63	0.55	0.49	0.60	0.53	0.47	0.57	0.51	0.46	0.44
4	0.60	0.49	0.41	0.58	0.48	0.41	0.55	0.47	0.40	0.53	0.45	0.39	0.50	0.44	0.38	0.36
5	0.52	0.42	0.34	0.51	0.41	0.34	0.49	0.40	0.33	0.46	0.39	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	0.28	0.41	0.33	0.27	0.39	0.32	0.27	0.24
7	0.41	0.31	0.24	0.40	0.31	0.24	0.38	0.30	0.24	0.37	0.29	0.23	0.35	0.28	0.23	0.21
8	0.37	0.27	0.21	0.36	0.27	0.21	0.35	0.26	0.20	0.33	0.26	0.20	0.32	0.25	0.20	0.18
9	0.34	0.24	0.18	0.33	0.24	0.18	0.31	0.23	0.18	0.30	0.23	0.18	0.29	0.22	0.17	0.15
10	0.31	0.22	0.16	0.30	0.22	0.16	0.29	0.21	0.16	0.28	0.21	0.16	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	2488.39	2322.14	2082.71	1646.35	1277.26	826.13	27.95	13.86	13.30
30.0	2474.76	2301.92	2026.12	1559.31	1152.27	683.97	18.64	16.59	17.27
60.0	2449.98	2266.24	1952.83	1494.54	935.68	518.07	17.39	16.14	17.05
90.0	2450.44	2317.03	1986.35	1504.76	923.40	319.77	18.86	16.14	16.82
120.0	2459.64	2389.30	2094.42	1585.33	947.15	494.66	25.45	16.36	17.16
150.0	2467.48	2451.12	2095.55	1546.81	1088.40	728.40	48.75	16.82	17.27
180.0	2488.39	2427.94	2002.60	1490.79	1138.97	687.61	19.20	16.59	17.16
210.0	2474.76	2489.98	2138.74	1594.08	1137.95	777.95	64.09	14.09	13.64
240.0	2449.98	2442.48	2197.94	1705.56	1082.72	598.18	93.98	13.64	13.41
270.0	2450.44	2360.44	2061.92	1587.38	995.33	367.38	19.89	12.73	12.73
300.0	2459.64	2321.69	2036.12	1610.44	1045.22	557.04	26.93	12.95	12.95
330.0	2467.48	2308.85	2043.85	1593.17	1142.95	728.97	16.48	13.52	13.30
360.0	2488.39	2322.14	2082.71	1646.35	1277.26	826.13	27.95	13.86	13.30
C/γ(°)	135.0	150.0	165.0	180.0					
0.0	14.43	16.25	18.07	19.77					
30.0	18.18	19.20	19.89	19.89					
60.0	18.18	19.20	20.00	19.77					
90.0	18.07	19.32	20.00	19.77					
120.0	18.07	19.43	20.11	19.77					
150.0	18.07	19.20	20.00	19.77					
180.0	18.18	18.98	20.00	19.77					
210.0	14.55	16.48	18.64	19.89					
240.0	14.20	16.25	18.41	19.77					
270.0	14.20	16.25	18.41	19.77					
300.0	14.20	16.14	18.07	19.77					
330.0	14.66	16.36	18.07	19.77					
360.0	14.43	16.25	18.07	19.77					