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P.Q.L., Inc. 4 LAMPS

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LumCAT: 4 LAMPS	Luminaire: 5000K
Report No: /	Voltage(V):
Test No:	Current(A):
LampCAT: LED SMD 18WT8/50K/CL	Power (W): 71.700
Lamp flux(lm)	PF:
Number of Lamps: 4	Ballast type:
Length(mm): 1200	Width(mm): 500
Phm Type: C	Height(mm): 150

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Photometric Results

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Lumens(lm): 8155.59  
Lumens(lm)/Power(W): 113.75  
Central intensity(cd): 3097.306  
Maximum intensity(cd): 3141.913  
Angle of maximum intensity: C=30.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [H]Left=53.0 Right=52.1  
[V]Left=45.4 Right=56.4  
Field angle(10%Imax): [H]Left=79.2 Right=79.4  
[V]Left=81.2 Right=79.2  
Maximum s/h: C0\_180=1.12 C90\_270=1.23  
Up flux rate of LUM(%): 1.51%  
Down flux rate of LUM(%): 98.49%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 77.476%

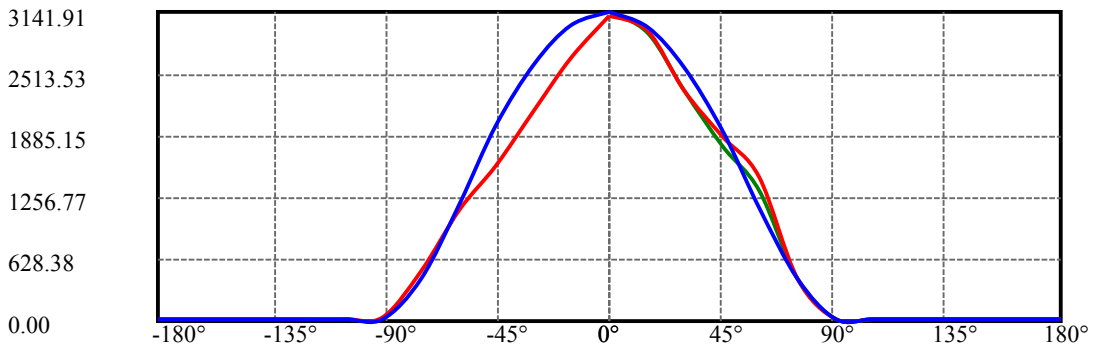
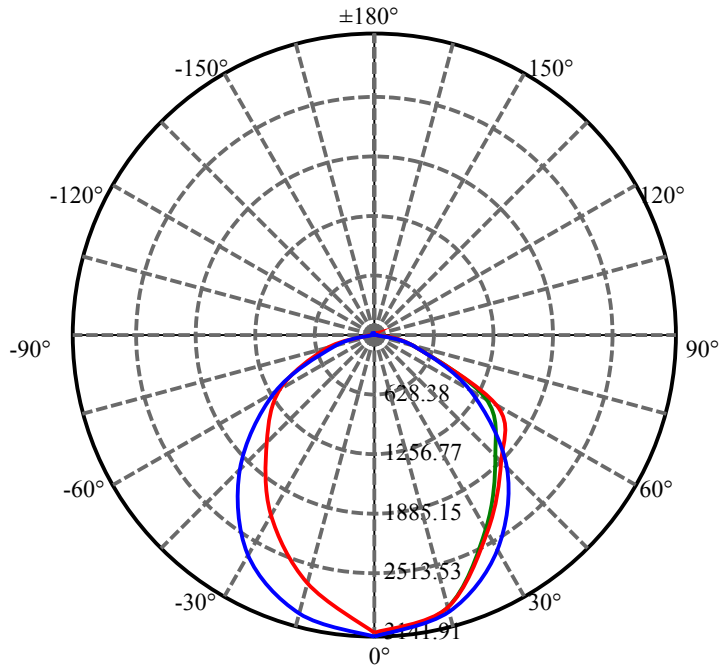
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3129.143	.000	.000	.000%	.000%
15.0	2895.650	644.937	644.937	7.908%	7.908%
30.0	2392.346	1659.618	2304.555	20.349%	28.257%
45.0	1785.026	2085.585	4390.140	25.572%	53.830%
60.0	1178.930	1928.484	6318.624	23.646%	77.476%
75.0	505.162	1276.024	7594.647	15.646%	93.122%
90.0	33.195	437.741	8032.388	5.367%	98.489%
105.0	15.900	39.919	8072.307	.489%	98.979%
120.0	16.333	24.422	8096.729	.299%	99.278%
135.0	18.182	22.457	8119.187	.275%	99.554%
150.0	19.588	18.857	8138.043	.231%	99.785%
165.0	21.475	12.888	8150.931	.158%	99.943%
180.0	22.053	4.660	8155.591	.057%	100.000%

## ZONAL LUMEN SUMMARY

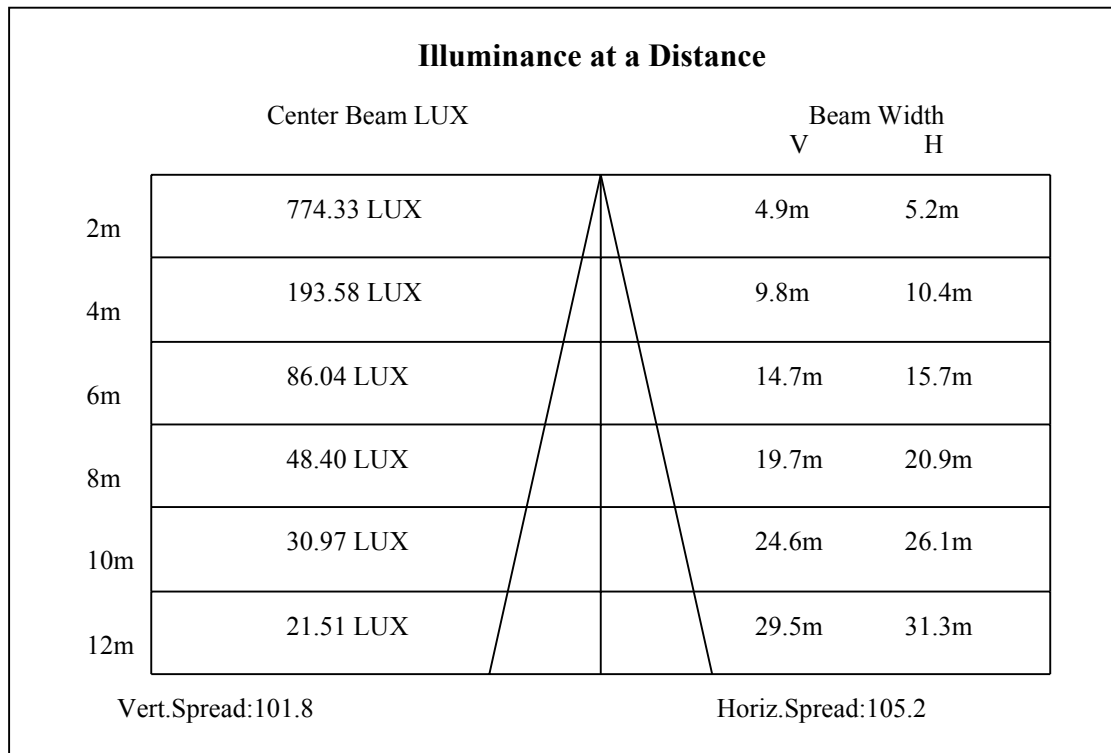
Zone	Lumens	%Fixt
0-30	2304.56	28.26%
0-40	2304.56	28.26%
0-60	6318.62	77.48%
0-90	8032.39	98.49%
90-120	64.34	0.79%
90-130	64.34	0.79%
90-150	105.66	1.30%
90-180	118.54	1.45%
0-180	8155.59	100.00%

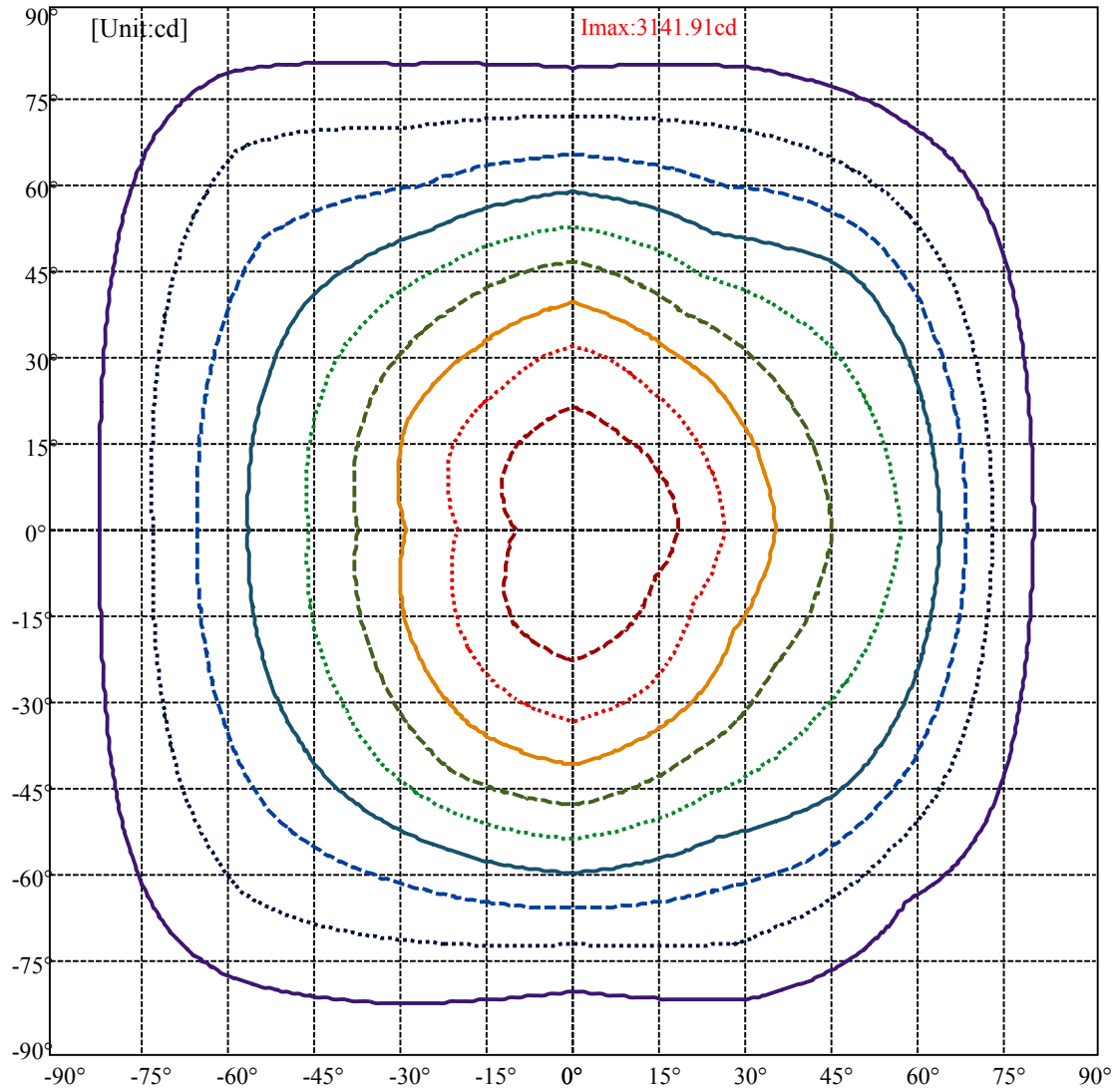
## ZONAL LUMEN SUMMARY

0-10	0.00
10-20	644.94
20-30	1659.62
30-40	0.00
40-50	2085.59
50-60	1928.48
60-70	0.00
70-80	1276.02
80-90	437.74
90-100	0.00
100-110	39.92
110-120	24.42
120-130	0.00
130-140	22.46
140-150	18.86
150-160	0.00
160-170	12.89
170-180	0.00

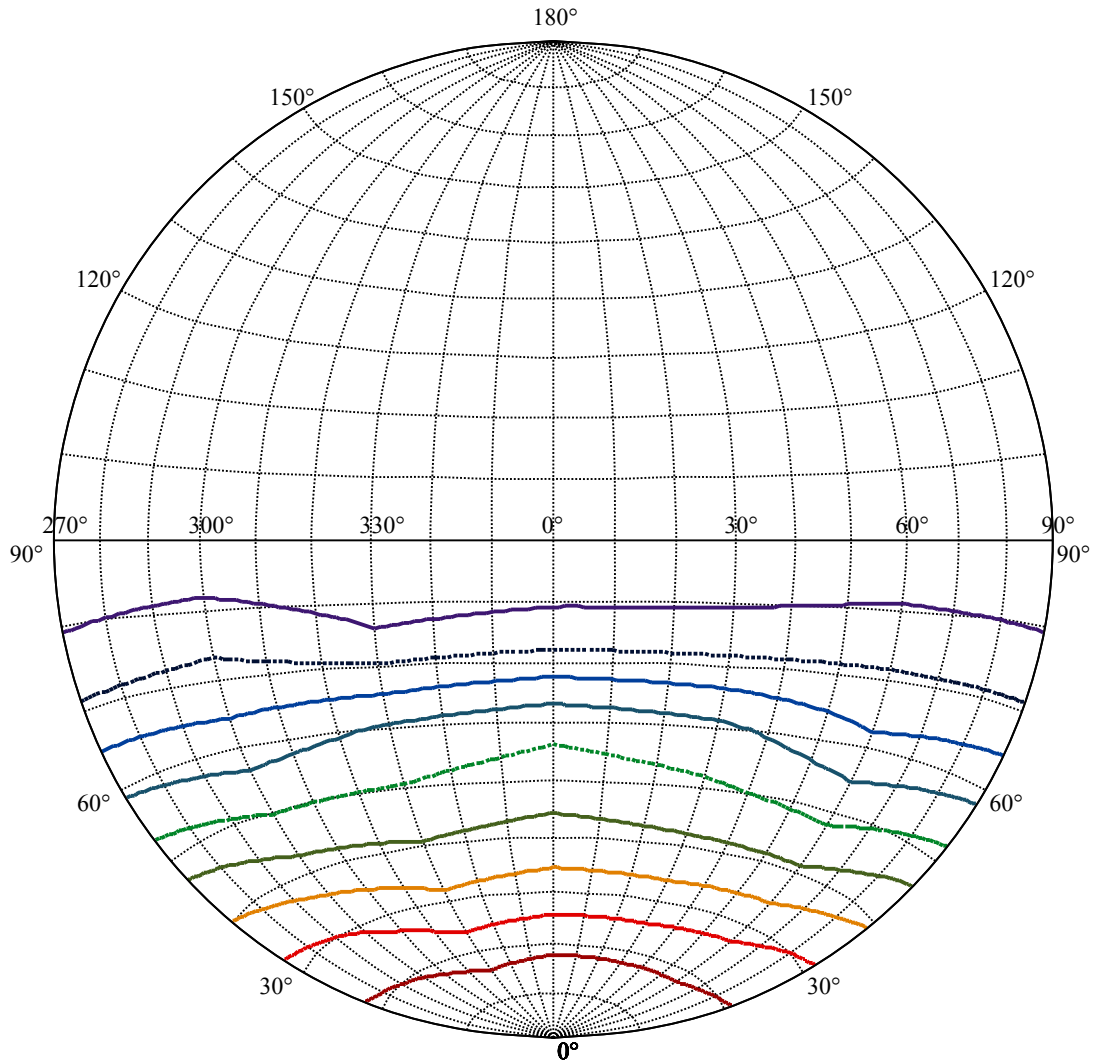


C30(Max): ———  
C0/C180: ———  
C90/C270: ———





(10%Imax) 313.29	—
(20%Imax) 626.58	⋯
(30%Imax) 939.87	- - -
(40%Imax) 1253.16	—
(50%Imax) 1566.45	⋯
(60%Imax) 1879.74	- - -
(70%Imax) 2193.03	—
(80%Imax) 2506.32	⋯
(90%Imax) 2819.61	- - -

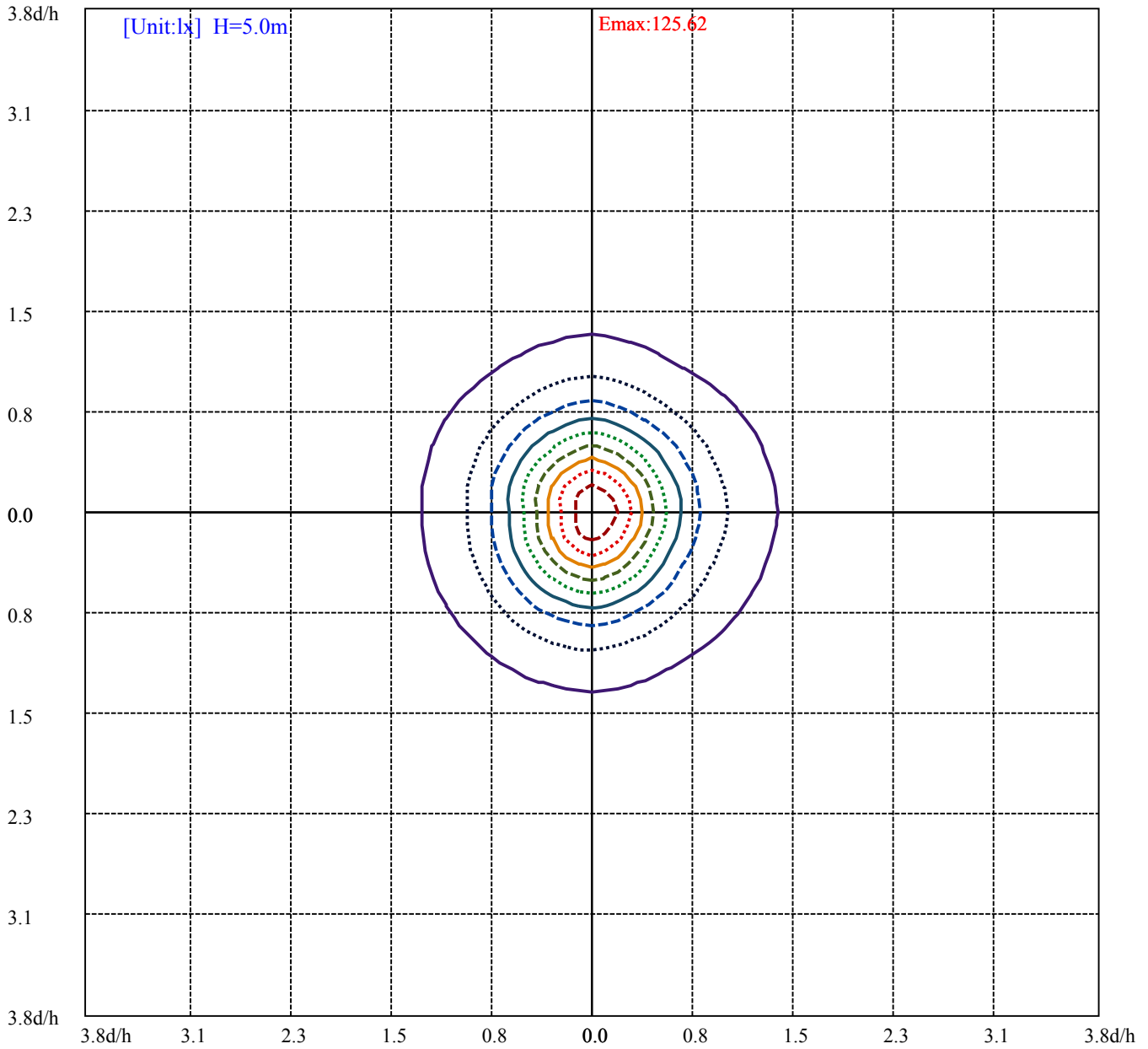


House

Road

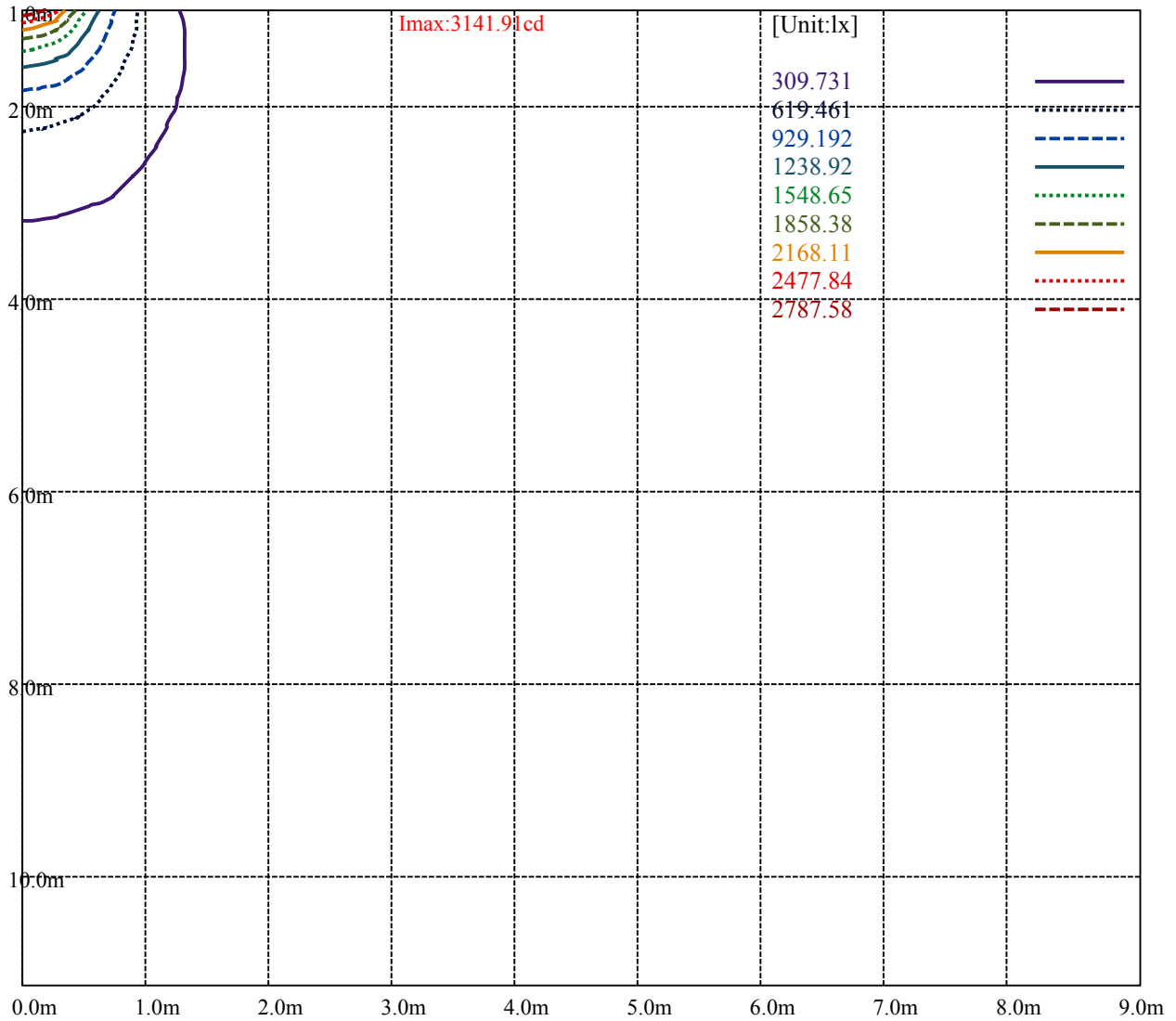
I<sub>max</sub>:3141.91cd

(10%I <sub>max</sub> ) 314.191	—
(20%I <sub>max</sub> ) 628.383	·····
(30%I <sub>max</sub> ) 942.574	- - - - -
(40%I <sub>max</sub> ) 1256.77	—
(50%I <sub>max</sub> ) 1570.96	·····
(60%I <sub>max</sub> ) 1885.15	- - - - -
(70%I <sub>max</sub> ) 2199.34	—
(80%I <sub>max</sub> ) 2513.53	·····
(90%I <sub>max</sub> ) 2827.72	- - - - -



- (10%Emax) 12.56188
- (20%Emax) 25.12372
- (30%Emax) 37.6856
- (40%Emax) 50.2476
- (50%Emax) 62.8092
- (60%Emax) 75.3712
- (70%Emax) 87.9332
- (80%Emax) 100.4948
- (90%Emax) 113.0568





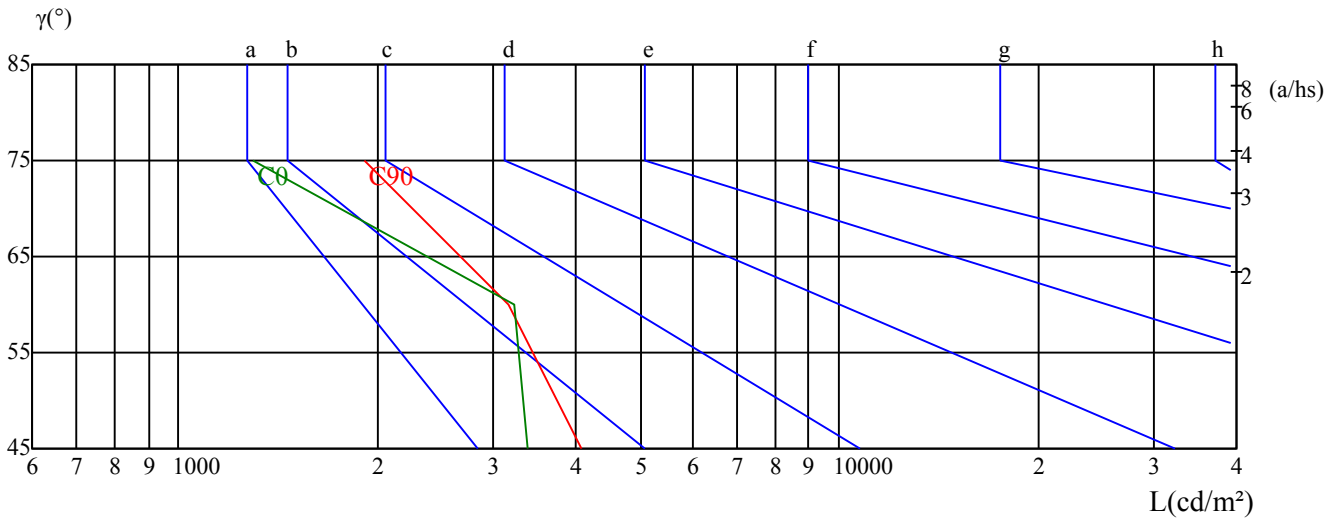
Luminance Table

$\gamma$	45	50	55	60	65	70	75	80	85
C0	3384	0	0	3229	0	0	1299	0	0
C45	0	0	0	0	0	0	0	0	0
C90	4068	0	0	3162	0	0	1908	0	0

Glare Table

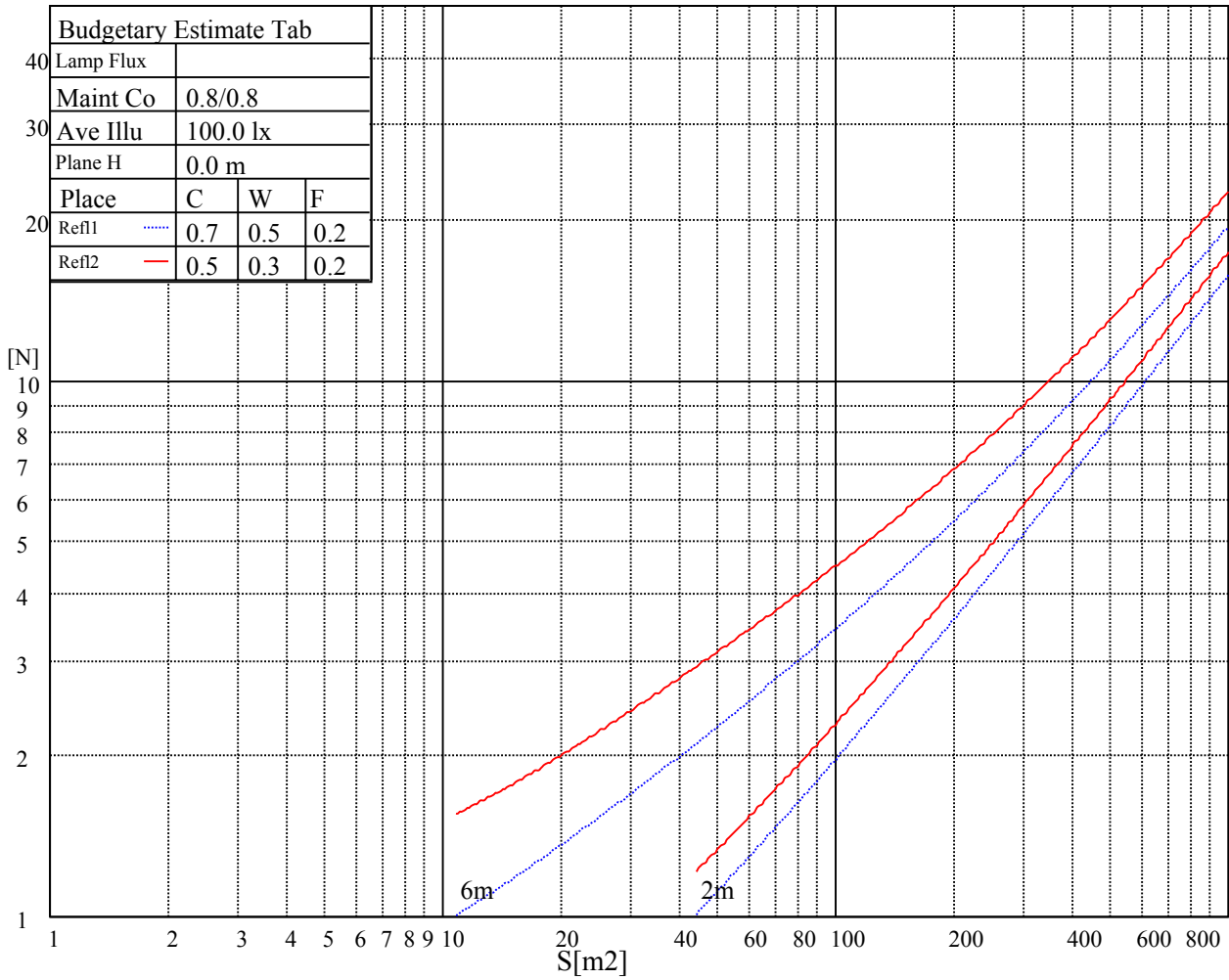
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

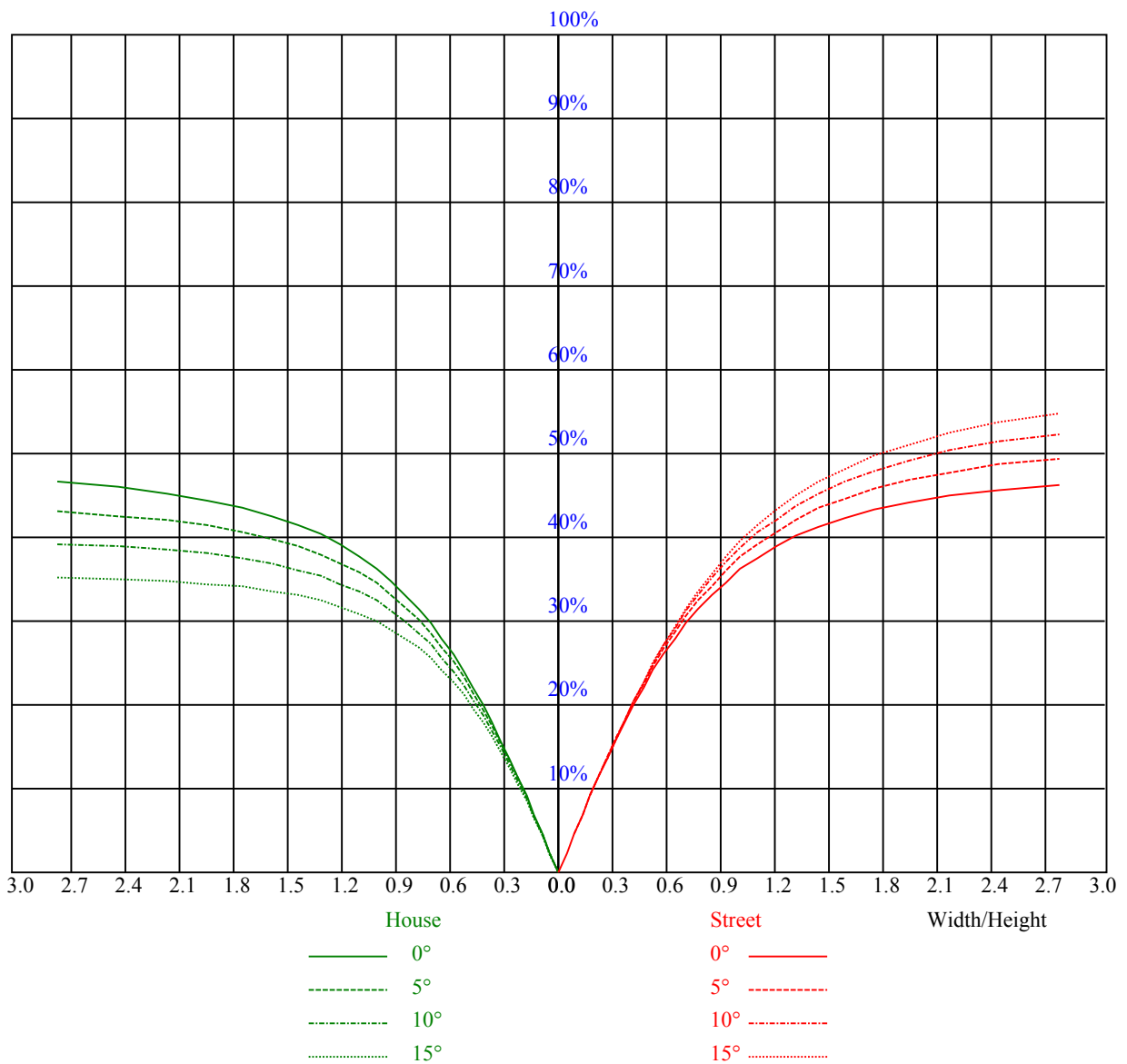


Illuminatin assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	9.1	10.7	9.5	11.0	11.3	8.4	10.0	8.7	10.2	10.5
	3H	10.5	11.9	10.9	12.3	12.6	9.8	11.2	10.1	11.5	11.9
	4H	10.7	11.9	11.1	12.3	12.7	10.1	11.4	10.5	11.7	12.1
	6H	11.0	12.2	11.4	12.6	13.0	10.6	11.8	11.0	12.2	12.6
	8H	11.1	12.3	11.5	12.7	13.1	10.8	12.0	11.2	12.4	12.8
	12H	10.9	11.9	11.4	12.4	12.8	10.7	11.7	11.2	12.1	12.6
4H	2H	9.4	10.7	9.8	11.0	11.4	8.8	10.0	9.2	10.4	10.8
	3H	10.9	11.9	11.4	12.4	12.8	10.4	11.4	10.8	11.8	12.2
	4H	11.4	12.4	11.9	12.8	13.3	11.1	12.1	11.5	12.5	13.0
	6H	11.8	12.8	12.2	13.2	13.7	11.7	12.7	12.1	13.1	13.5
	8H	11.7	12.4	12.3	12.9	13.5	11.7	12.4	12.2	12.9	13.4
	12H	11.8	12.5	12.4	13.0	13.6	11.9	12.6	12.4	13.1	13.6
8H	4H	11.5	12.2	12.0	12.7	13.2	11.2	11.9	11.7	12.4	12.9
	6H	12.0	12.7	12.5	13.2	13.7	11.9	12.6	12.5	13.1	13.7
	8H	12.2	12.9	12.7	13.4	13.9	12.3	12.9	12.8	13.5	14.0
	12H	12.3	13.0	12.9	13.5	14.1	12.5	13.2	13.0	13.7	14.3
12H	4H	11.5	12.2	12.1	12.7	13.3	11.2	11.9	11.8	12.4	13.0
	6H	12.1	12.7	12.6	13.3	13.8	12.0	12.7	12.5	13.2	13.8
	8H	12.3	13.0	12.8	13.5	14.0	12.4	13.1	12.9	13.6	14.1
Variation with the observer position at spacings:											
S = 1.0H	0.4/-0.4					0.3/-0.5					
S = 1.5H	0.8/-0.6					0.6/-0.7					
S = 2.0H	1.2/-0.8					0.9/-0.8					
Standard tables:	BK3					BK3					
Uncorrected UGR	-5.8					-6.1					
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	0.95	0.88	0.82	0.92	0.86	0.81	0.87	0.82	0.78	0.83	0.79	0.75	0.79	0.75	0.72	0.70
2	0.81	0.73	0.65	0.79	0.71	0.64	0.75	0.68	0.62	0.71	0.66	0.61	0.68	0.63	0.59	0.56
3	0.70	0.61	0.53	0.69	0.60	0.52	0.65	0.57	0.51	0.62	0.55	0.50	0.59	0.54	0.49	0.46
4	0.61	0.51	0.43	0.60	0.50	0.43	0.57	0.49	0.42	0.54	0.47	0.41	0.52	0.46	0.40	0.38
5	0.54	0.43	0.36	0.52	0.43	0.35	0.50	0.41	0.35	0.48	0.40	0.34	0.46	0.39	0.34	0.31
6	0.47	0.37	0.30	0.46	0.37	0.30	0.44	0.36	0.29	0.42	0.35	0.29	0.41	0.34	0.28	0.26
7	0.42	0.32	0.26	0.41	0.32	0.25	0.40	0.31	0.25	0.38	0.30	0.25	0.36	0.30	0.24	0.22
8	0.38	0.29	0.22	0.37	0.28	0.22	0.36	0.28	0.22	0.34	0.27	0.21	0.33	0.26	0.21	0.19
9	0.35	0.25	0.19	0.34	0.25	0.19	0.32	0.25	0.19	0.31	0.24	0.19	0.30	0.23	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	0.16	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	3097.31	2942.45	2347.54	1866.33	1472.27	427.70	16.64	13.75	13.29
30.0	3141.91	2934.36	2338.87	1777.81	1334.17	429.43	18.84	17.91	18.72
60.0	3139.02	2924.31	2410.87	1701.31	1024.69	509.86	18.37	17.91	18.84
90.0	3132.90	2989.60	2578.08	1941.45	1154.01	434.63	23.58	18.03	18.95
120.0	3129.20	2909.29	2395.15	1780.93	1030.70	512.87	40.91	18.03	19.07
150.0	3134.52	2804.47	2342.34	1693.22	1156.20	716.60	65.41	18.03	18.95
180.0	3097.31	2675.39	2142.53	1577.20	1125.58	509.52	34.78	18.14	19.18
210.0	3141.91	2775.00	2311.60	1665.95	1134.48	636.75	47.96	14.10	14.21
240.0	3139.02	2960.48	2472.58	1897.31	1121.88	548.81	80.89	13.87	13.87
270.0	3132.90	3011.21	2624.42	1994.72	1193.65	429.32	18.37	13.52	13.64
300.0	3129.20	2951.70	2476.74	1786.25	1103.04	567.99	16.53	13.75	13.52
330.0	3134.52	2869.53	2267.45	1737.83	1296.50	338.48	16.06	13.75	13.75
360.0	3097.31	2942.45	2347.54	1866.33	1472.27	427.70	16.64	13.75	13.29

C/γ(°)	135.0	150.0	165.0	180.0
0.0	14.79	16.99	19.88	21.50
30.0	20.34	21.61	22.54	22.19
60.0	20.46	21.61	22.54	22.54
90.0	24.62	21.73	23.11	22.54
120.0	20.69	21.84	22.77	21.96
150.0	20.46	21.84	22.42	21.61
180.0	20.34	21.15	22.07	21.50
210.0	15.37	18.14	20.80	22.19
240.0	15.37	17.80	20.92	22.54
270.0	15.49	17.57	20.69	22.54
300.0	15.02	17.33	19.99	21.96
330.0	15.25	17.45	19.99	21.61
360.0	14.79	16.99	19.88	21.50