



NATA LIGHTING CO.,LTD.  
www.nata.cn  
Email:info@nata.com  
Tel:+86-750-3770000 Fax:+86-750-3771111  
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

---

## NATA

---

LumCAT: 4-2271-E

Luminaire:

Report No: NATA0100

Voltage(V): 64.0000

Test No: GC2018101015

Current(A): 0.4200

LampCAT: BRIDGELUX VERO 29

Power (W): 26.8800

Lamp flux(lm): 4386.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 100

Width(mm): 100

Phm Type: C

Height(mm): 0

---

## Photometric Results

---

Lumens(lm): 3743.54

Efficiency(%): 85.35%

Lumens(lm)/Power(W): 140.01

Central intensity(cd): 3936.094

Maximum intensity(cd): 3936.094

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=63.4

[C90/270]Total=63.4

Field angle(10%Imax): [C0/180]Total=85.7

[C90/270]Total=85.7

Maximum s/h(1/2): C0\_180=0.97 C90\_270=0.97

Maximum s/h(1/4): C0\_180=0.93 C90\_270=0.93

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 85.81%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 98.041%

---

Equipment:  
Temperature(°C): 25.0

Date: 2018/10/10  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.50

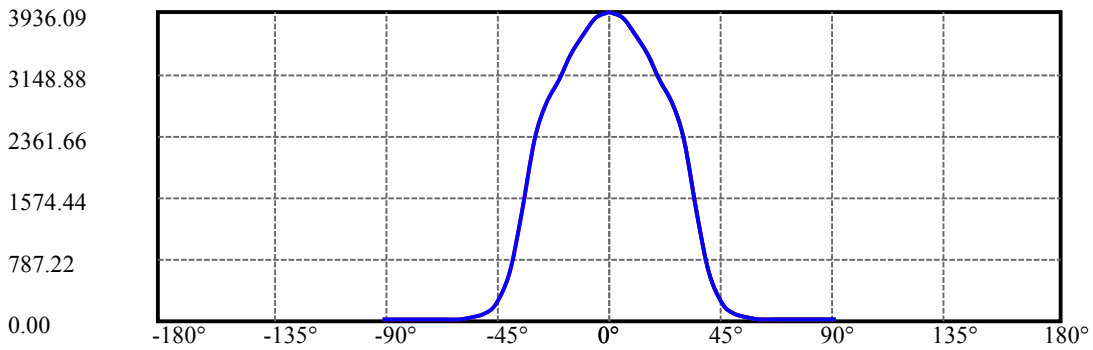
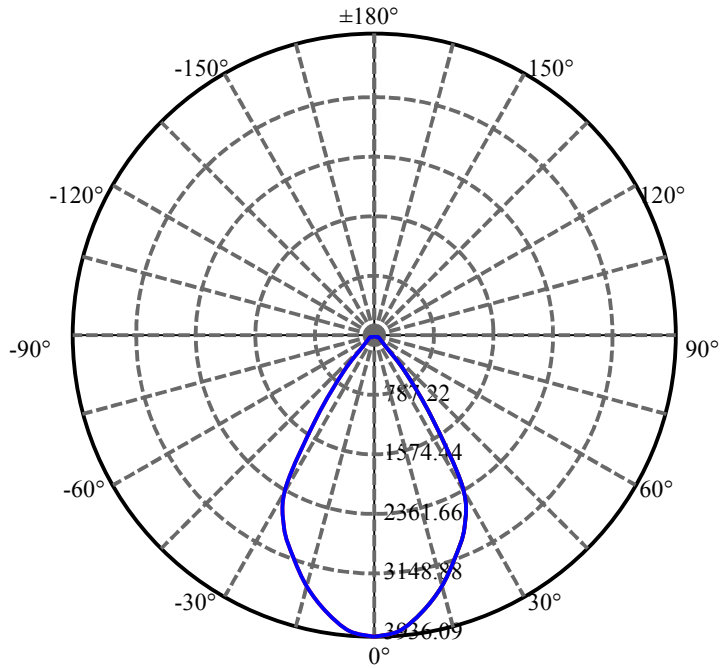
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3936.094	23.539	23.539	.537%	.629%
5.0	3870.914	184.926	208.465	4.216%	5.569%
10.0	3676.781	349.967	558.432	7.979%	14.917%
15.0	3395.320	481.689	1040.121	10.982%	27.784%
20.0	3089.250	579.154	1619.275	13.205%	43.255%
25.0	2758.992	639.128	2258.404	14.572%	60.328%
30.0	2291.695	628.082	2886.486	14.320%	77.106%
35.0	1329.645	418.038	3304.524	9.531%	88.273%
40.0	620.346	218.570	3523.094	4.983%	94.111%
45.0	224.156	86.881	3609.975	1.981%	96.432%
50.0	96.764	40.631	3650.606	.926%	97.517%
55.0	53.374	23.965	3674.572	.546%	98.158%
60.0	32.063	15.220	3689.792	.347%	98.564%
65.0	23.520	11.684	3701.476	.266%	98.876%
70.0	20.187	10.398	3711.874	.237%	99.154%
75.0	18.239	9.657	3721.531	.220%	99.412%
80.0	17.016	9.185	3730.716	.209%	99.657%
85.0	15.926	8.696	3739.412	.198%	99.890%
90.0	15.061	4.128	3743.54	.094%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2886.49	65.81%	77.11%
0-40	3523.09	80.33%	94.11%
0-60	3689.79	84.13%	98.56%
0-90	3739.41	85.26%	99.89%
0-120	3739.41	85.26%	99.89%
0-180	3743.54	85.35%	100.00%
60-90	64.84	1.48%	1.73%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-31.30	2994.83	68.28%	80.00%

ZONAL LUMEN SUMMARY

0-10	558.43
10-20	1060.84
20-30	1267.21
30-40	636.61
40-50	127.51
50-60	39.19
60-70	22.08
70-80	18.84
80-90	8.70
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



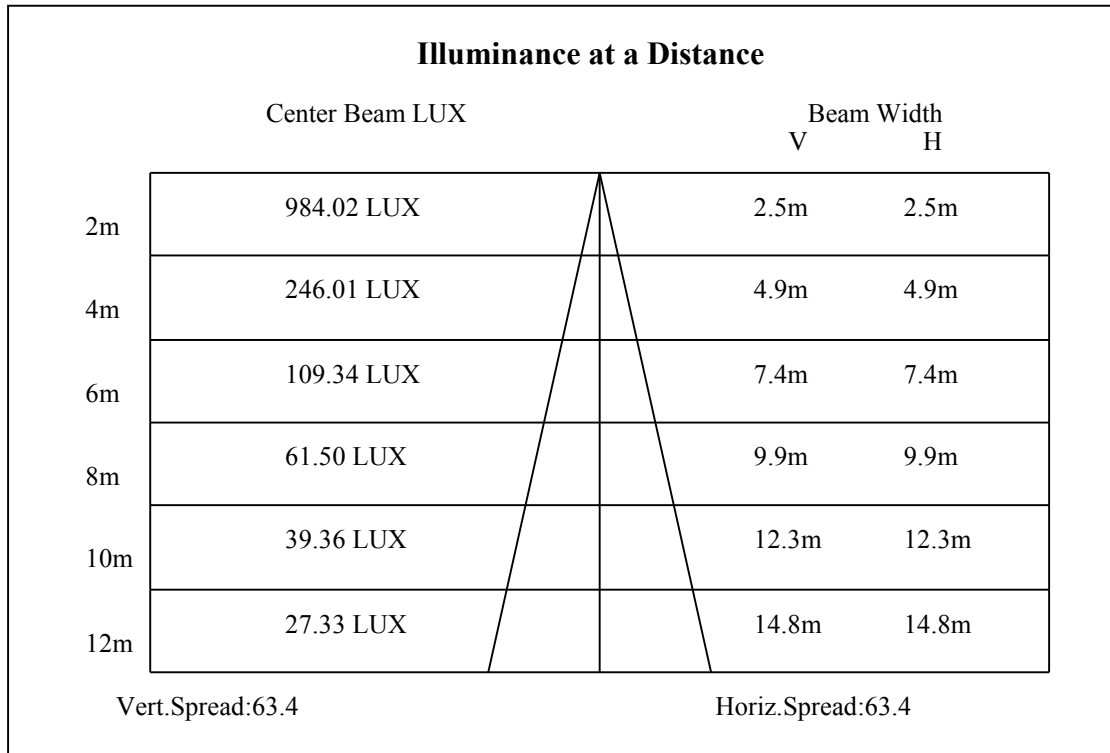
C0(Max): —————

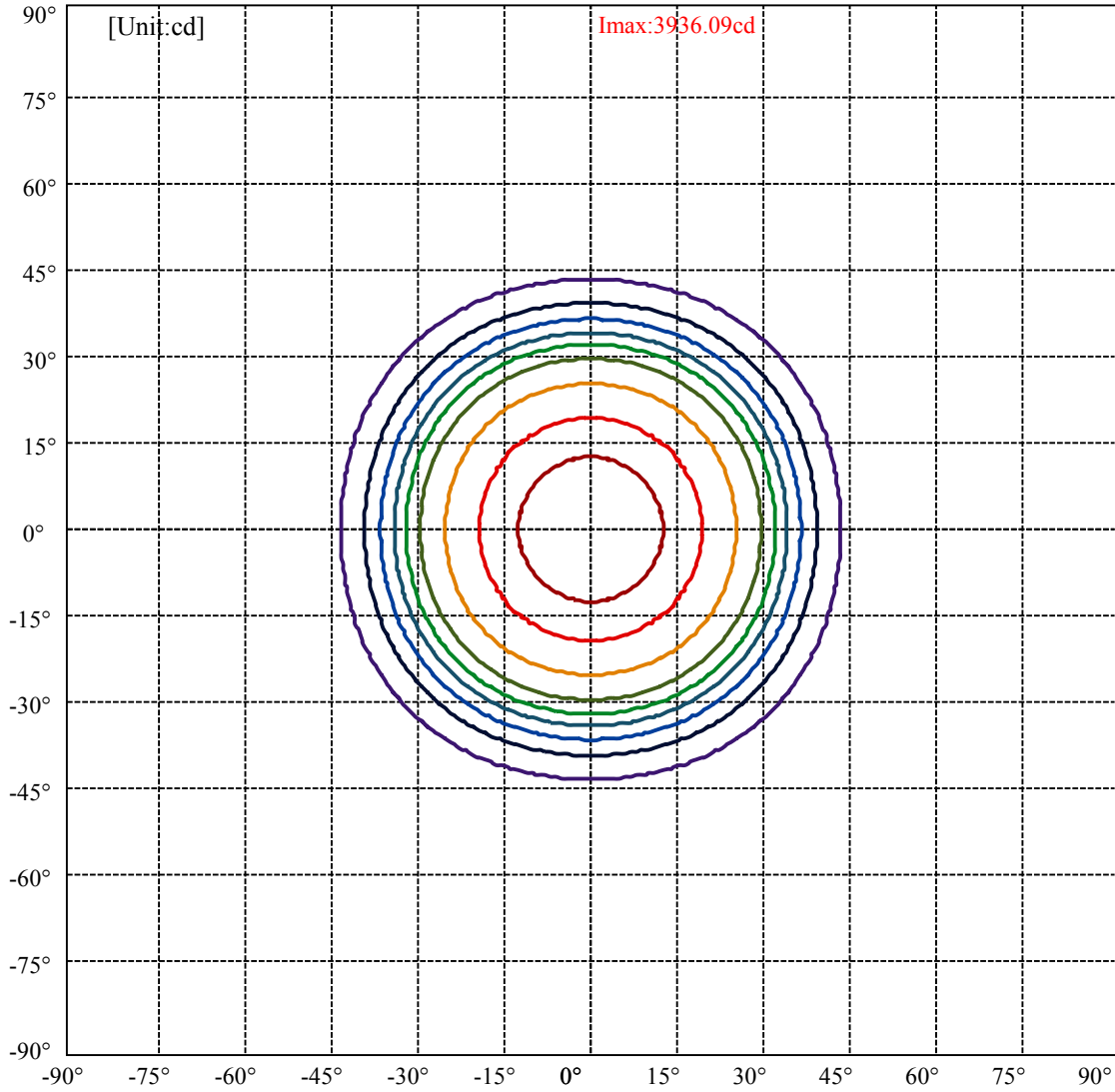
C0/C180: —————

C90/C270: —————

Field angle(10%Imax):C0/180Left:42.9 Right:42.9  
:C90/270Left:42.9 Right:42.9

Beam Angle(50%Imax):C0/180Left:31.7 Right:31.7  
:C90/270Left:31.7 Right:31.7



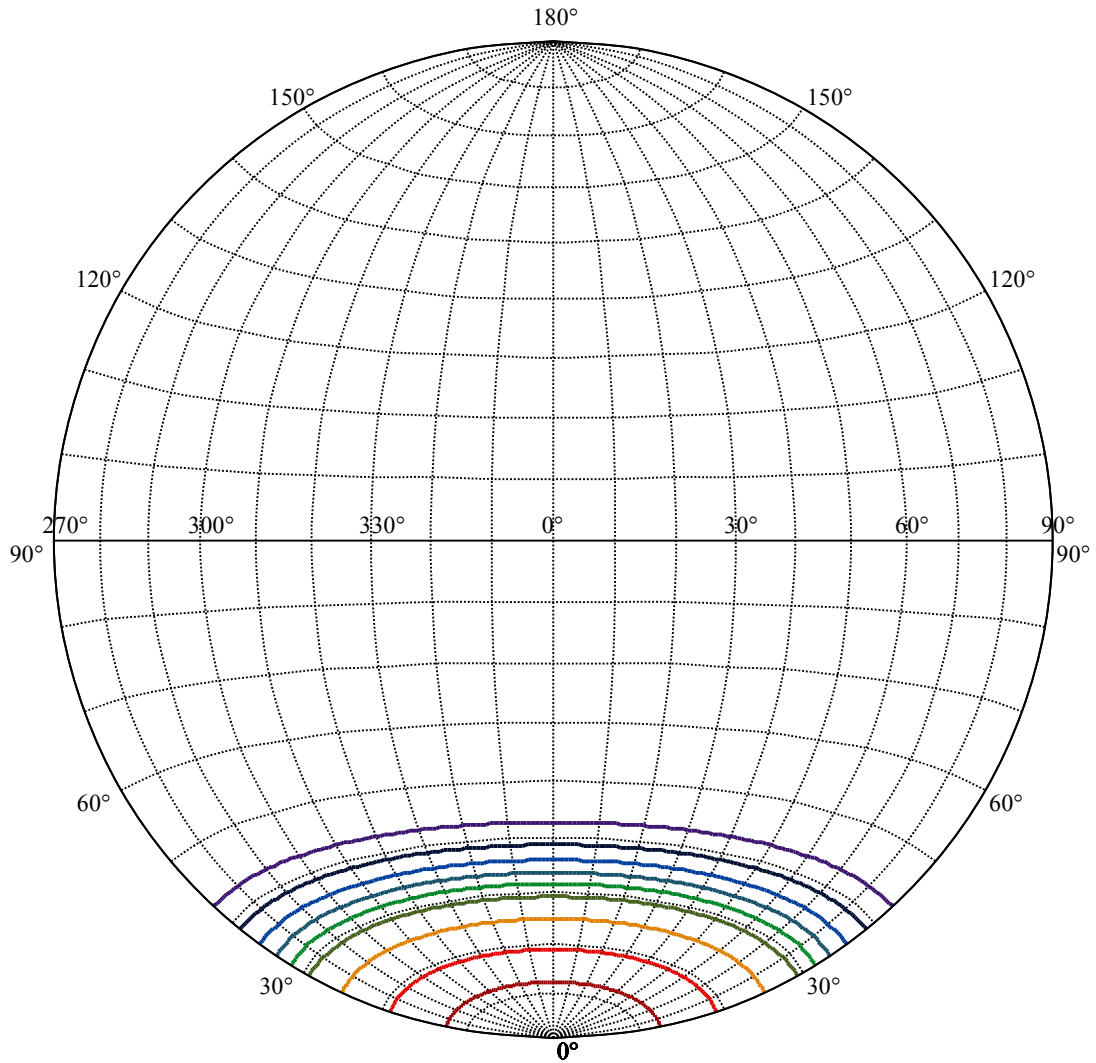


(10%Imax) 393.609	—
(20%Imax) 787.219	—
(30%Imax) 1180.83	—
(40%Imax) 1574.44	—
(50%Imax) 1968.05	—
(60%Imax) 2361.66	—
(70%Imax) 2755.27	—
(80%Imax) 3148.88	—
(90%Imax) 3542.48	—

Equipment:  
Temperature(°C): 25.0

Date: 2018/10/10  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.50



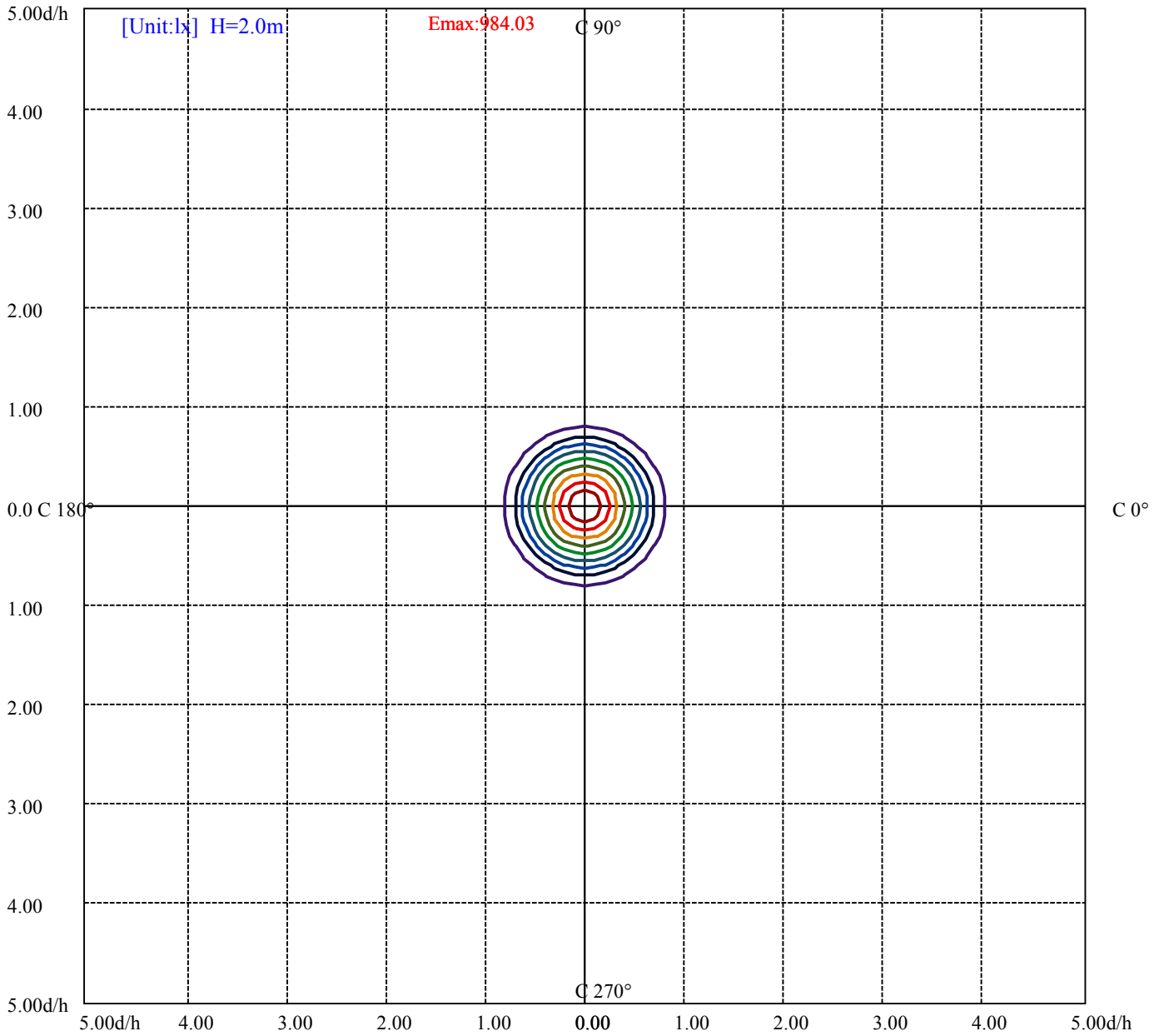
House

[Unit:cd]

Road

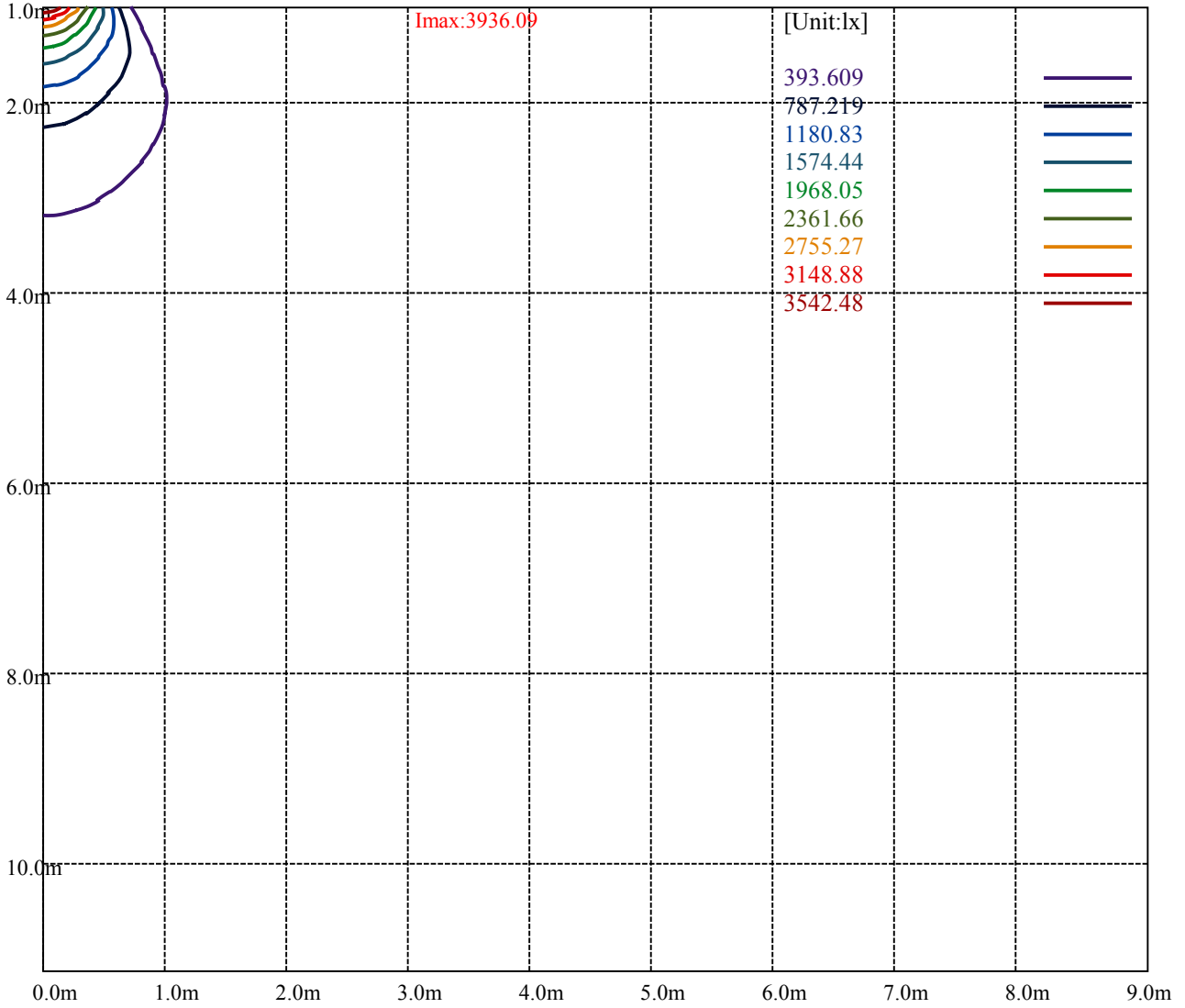
Imax:3936.09

(10%Imax)	393.609	—
(20%Imax)	787.219	—
(30%Imax)	1180.83	—
(40%Imax)	1574.44	—
(50%Imax)	1968.05	—
(60%Imax)	2361.66	—
(70%Imax)	2755.27	—
(80%Imax)	3148.88	—
(90%Imax)	3542.48	—



- (10%Emax) 98.40225
- (20%Emax) 196.8045
- (30%Emax) 295.2075
- (40%Emax) 393.61
- (50%Emax) 492.0125
- (60%Emax) 590.415
- (70%Emax) 688.815
- (80%Emax) 787.2175
- (90%Emax) 885.62





Luminance Table

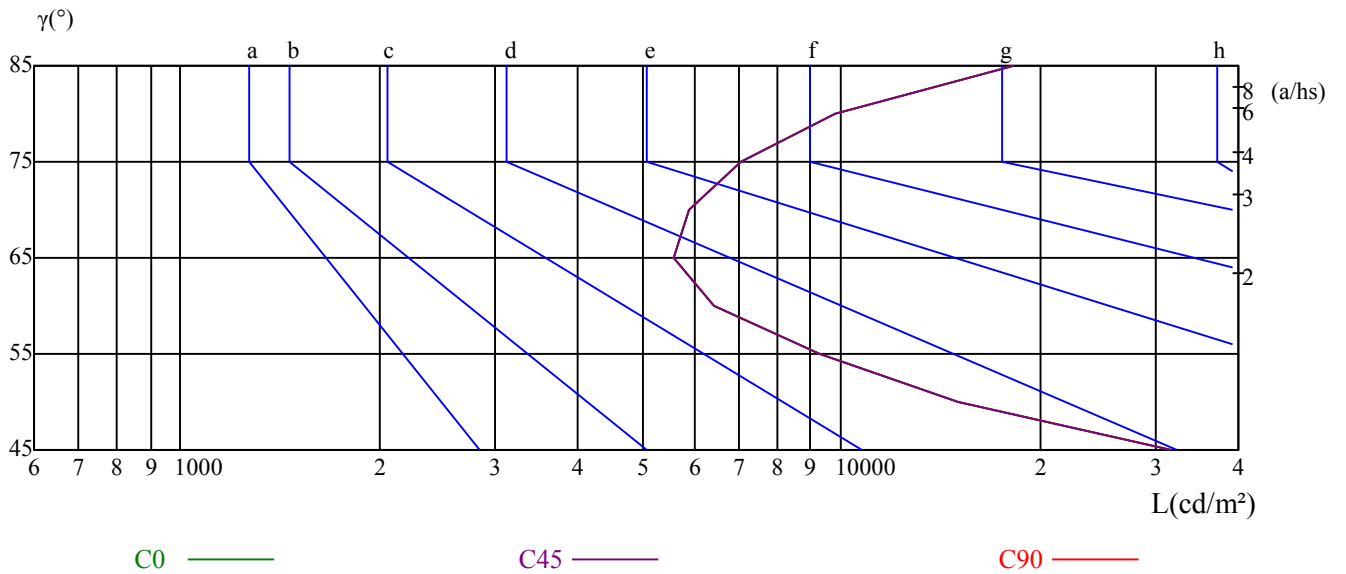
$\gamma$	45	50	55	60	65	70	75	80	85
C0	31700	15054	9306	6413	5565	5902	7047	9799	18273
C45	31700	15054	9306	6413	5565	5902	7047	9799	18273
C90	31700	15054	9306	6413	5565	5902	7047	9799	18273

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5565	5565	5565	7047	7047	7047	18273	18273	18273

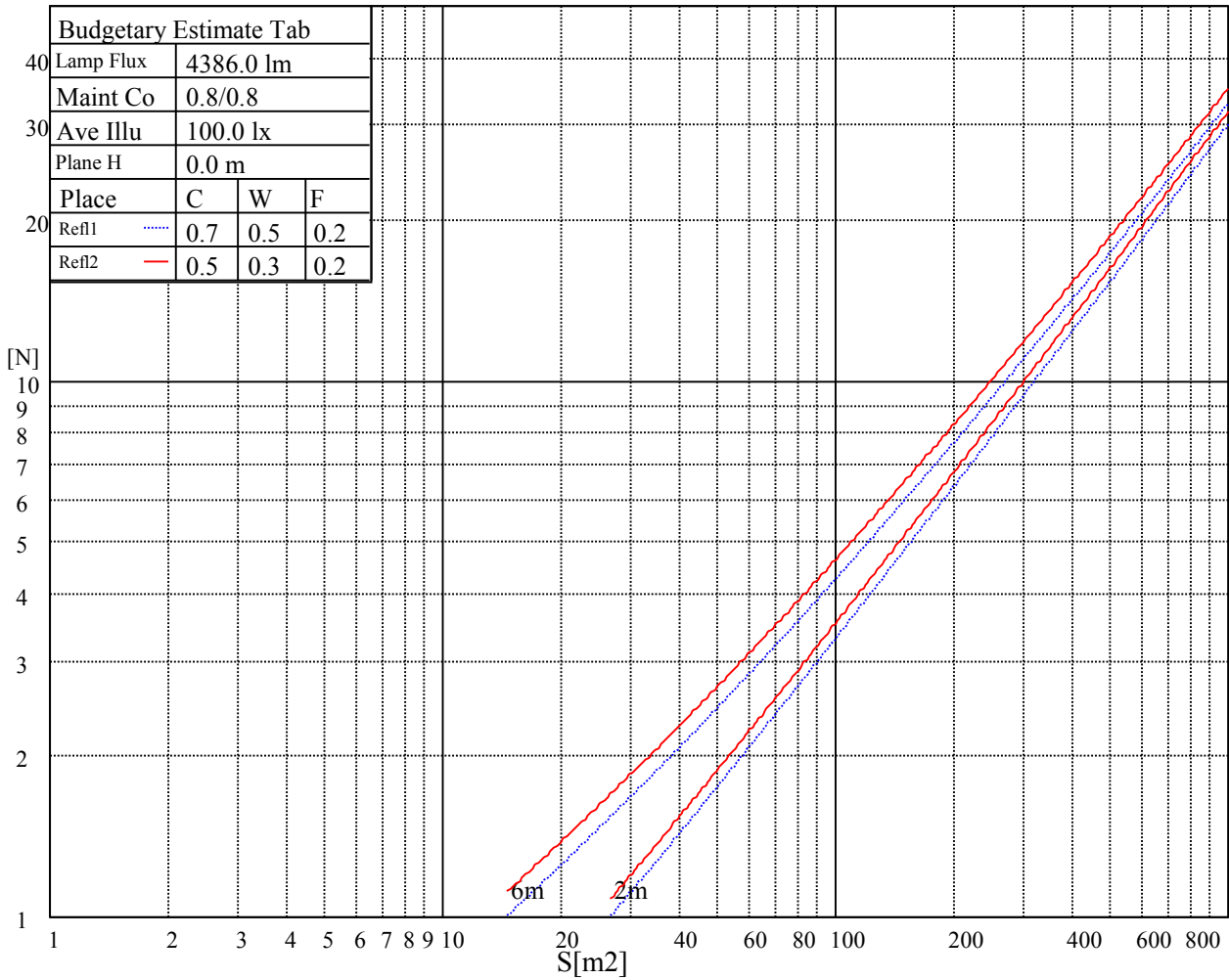
Glare Table

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

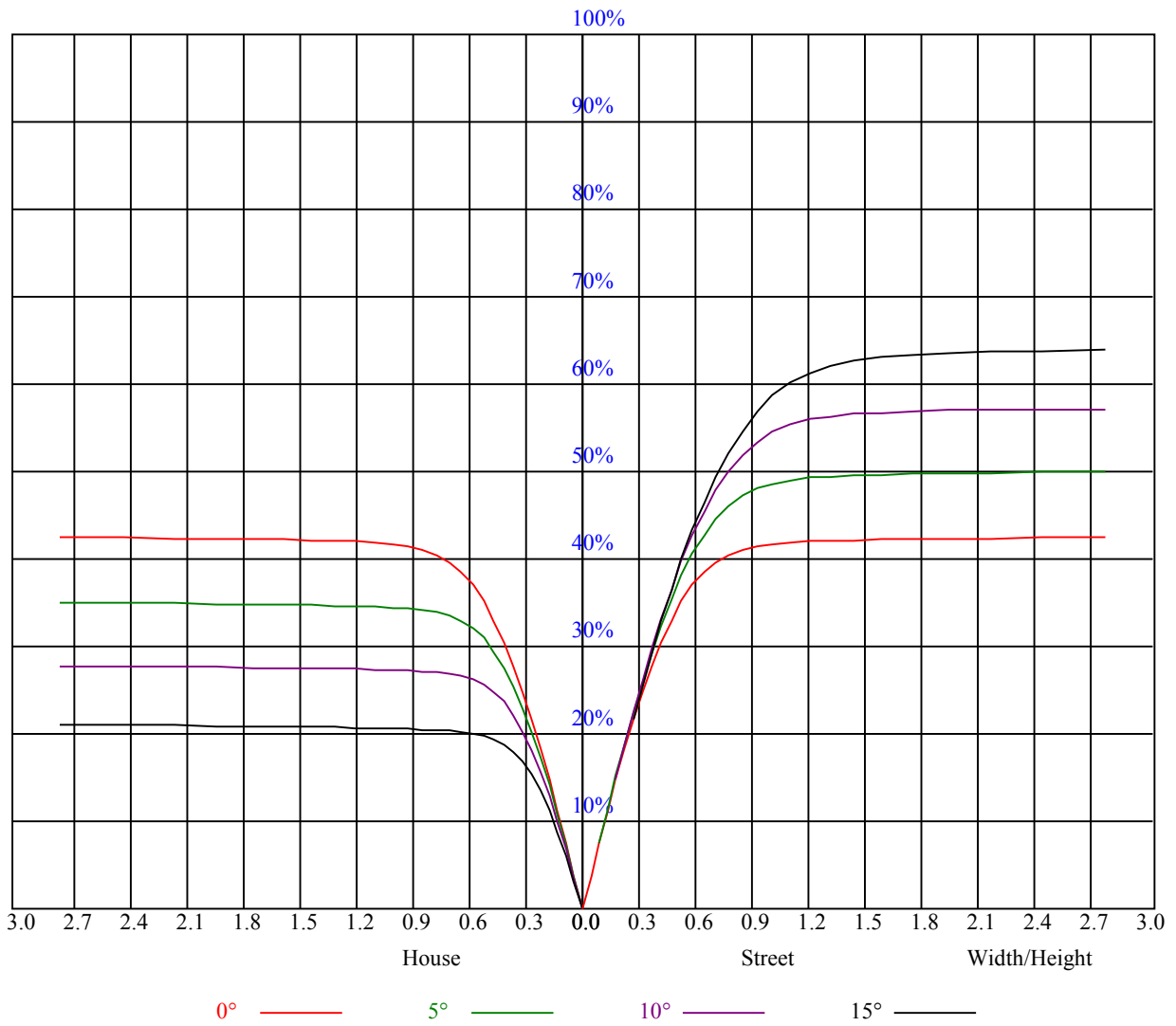
Luminance Limiting Curve



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	6.13	7.11	6.49	7.43	7.74	6.37	7.36	6.73	7.67	7.98
	3H	7.36	8.23	7.74	8.56	8.93	7.49	8.36	7.87	8.69	9.06
	4H	8.17	8.98	8.58	9.33	9.72	8.26	9.07	8.67	9.42	9.81
	6H	9.27	10.00	9.69	10.38	10.77	9.31	10.05	9.73	10.42	10.82
	8H	9.95	10.64	10.38	11.03	11.44	9.97	10.66	10.41	11.05	11.46
	12H	11.17	11.83	11.61	12.22	12.65	11.17	11.83	11.60	12.21	12.65
4H	2H	6.33	7.13	6.74	7.49	7.88	6.54	7.34	6.95	7.70	8.09
	3H	7.91	8.57	8.32	8.98	9.38	8.01	8.66	8.42	9.07	9.48
	4H	8.97	9.55	9.40	9.98	10.43	9.02	9.61	9.46	10.03	10.48
	6H	10.28	10.79	10.76	11.24	11.71	10.30	10.81	10.77	11.26	11.73
	8H	11.13	11.60	11.61	12.05	12.53	11.13	11.60	11.61	12.05	12.53
8H	12H	12.41	12.81	12.90	13.30	13.78	12.38	12.79	12.87	13.28	13.75
	4H	9.38	9.85	9.86	10.30	10.78	9.43	9.90	9.90	10.35	10.82
	6H	11.02	11.39	11.53	11.89	12.38	11.03	11.40	11.54	11.90	12.39
	8H	12.08	12.41	12.61	12.93	13.43	12.07	12.40	12.60	12.92	13.42
12H	12H	13.61	13.90	14.13	14.40	14.98	13.58	13.87	14.10	14.37	14.95
	4H	9.49	9.89	9.98	10.38	10.86	9.53	9.94	10.03	10.43	10.91
	6H	11.51	11.58	11.78	12.05	12.60	11.52	11.59	11.79	12.06	12.61
	8H	12.43	12.72	12.95	13.22	13.80	12.43	12.71	12.95	13.21	13.79
Variation with the observer position at spacings:											
S = 1.0H	4.7/-7.9					4.7/-7.9					
S = 1.5H	7.2/-7.0					7.2/-7.0					
S = 2.0H	8.9/-6.0					8.9/-6.0					
Standard tables:	BK1					BK1					
Uncorrected UGR	3.7					3.7					



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 RHOFC=20 CU															
0	1.02	1.02	1.02	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.88	0.88	0.88	0.86
1	0.94	0.92	0.90	0.93	0.91	0.89	0.89	0.87	0.86	0.86	0.85	0.83	0.83	0.82	0.81	0.79
2	0.88	0.85	0.82	0.87	0.83	0.81	0.84	0.81	0.79	0.81	0.79	0.77	0.79	0.77	0.76	0.74
3	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.75	0.73	0.71	0.69
4	0.77	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.67	0.71	0.69	0.66	0.65
5	0.73	0.68	0.64	0.72	0.68	0.64	0.71	0.67	0.64	0.69	0.66	0.63	0.68	0.65	0.62	0.61
6	0.69	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.64	0.61	0.59	0.58
7	0.65	0.60	0.56	0.64	0.60	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.61	0.58	0.55	0.54
8	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.52	0.51
9	0.58	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.53	0.50	0.56	0.52	0.50	0.49
10	0.56	0.51	0.48	0.55	0.51	0.48	0.54	0.50	0.47	0.54	0.50	0.47	0.53	0.50	0.47	0.46



Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	3933.00	3899.81	3736.13	3470.63	3184.88	2850.75	2417.63	1658.81	743.63
45.0	3931.88	3892.50	3716.44	3463.88	3165.19	2838.94	2459.25	1610.44	768.38
90.0	3938.63	3863.81	3655.13	3373.31	3069.00	2736.00	2260.69	1120.84	598.50
135.0	3940.88	3875.63	3702.38	3441.94	3135.94	2824.88	2391.75	1463.06	657.00
180.0	3933.00	3844.69	3631.50	3347.44	3067.88	2733.75	2138.06	1078.43	484.88
225.0	3931.88	3836.25	3607.88	3296.25	2977.31	2640.38	2091.38	1113.36	500.91
270.0	3938.63	3875.06	3686.06	3376.13	3038.63	2713.50	2306.81	1478.81	660.94
315.0	3940.88	3879.56	3678.75	3393.00	3075.19	2733.75	2268.00	1113.41	548.55
360.0	3933.00	3899.81	3736.13	3470.63	3184.88	2850.75	2417.63	1658.81	743.63
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	296.44	104.40	54.90	31.84	23.34	20.31	18.28	17.16	15.98
45.0	310.50	98.61	51.02	31.56	23.85	20.59	18.51	17.33	16.31
90.0	175.05	82.91	42.30	28.29	22.78	19.97	18.11	16.93	16.03
135.0	221.91	97.59	52.71	30.88	22.95	20.14	18.17	16.99	15.81
180.0	160.93	96.30	56.53	33.86	23.46	19.80	17.94	16.65	15.69
225.0	166.84	96.08	57.54	34.20	24.08	20.31	18.23	16.99	15.81
270.0	286.88	105.98	60.41	35.89	24.81	20.64	18.62	17.21	15.98
315.0	174.71	92.25	51.58	29.98	22.89	19.74	18.06	16.88	15.81
360.0	296.44	104.40	54.90	31.84	23.34	20.31	18.28	17.16	15.98
C/γ(°)	90.0								
0.0	15.08								
45.0	15.13								
90.0	15.08								
135.0	15.02								
180.0	15.02								
225.0	15.13								
270.0	15.02								
315.0	15.02								
360.0	15.08								