



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: NA01D020060BW

Luminaire:

Report No: NATA0100

Voltage(V): 3.6000

Test No: GC2018121905

Current(A): 0.2500

LampCAT: NICHIA NF2W757

Power (W): 0.9000

Lamp flux(lm): 95.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 20

Width(mm): 20

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 88.08

Efficiency(%): 92.72%

Lumens(lm)/Power(W): 98.28

Central intensity(cd): 75.305

Maximum intensity(cd): 75.305

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=61.4

[C90/270]Total=61.4

Field angle(10%Imax): [C0/180]Total=104.5

[C90/270]Total=104.5

Maximum s/h(1/2): C0_180=0.93 C90_270=0.93

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(%): 93.11%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.318%

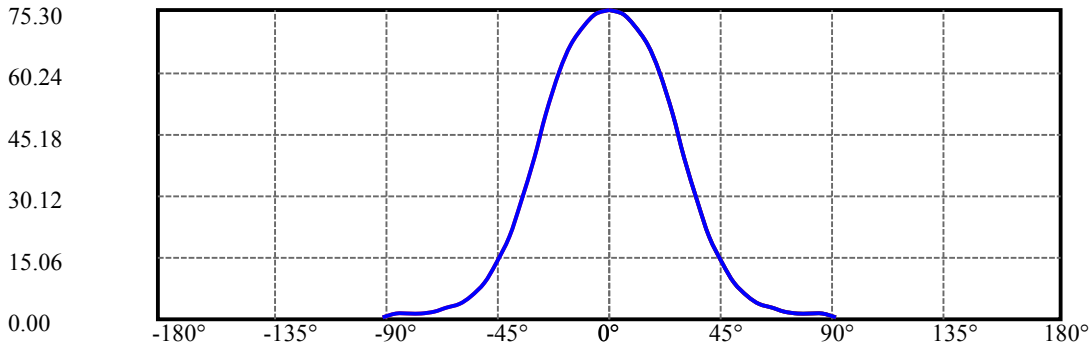
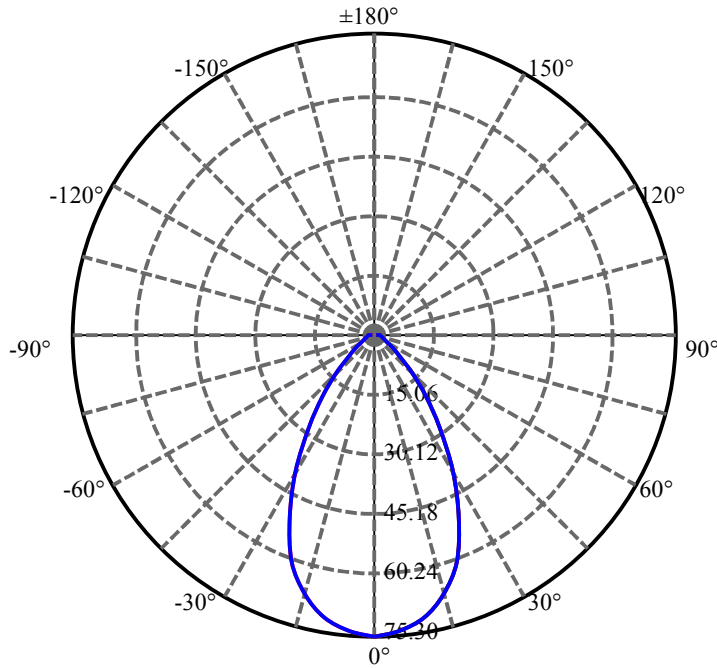
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	75.305	0.450	0.45	.474%	.511%
5.0	74.180	3.544	3.994	3.730%	4.534%
10.0	71.445	6.800	10.794	7.158%	12.255%
15.0	67.029	9.509	20.304	10.010%	23.050%
20.0	60.279	11.301	31.604	11.896%	35.880%
25.0	50.168	11.622	43.226	12.233%	49.073%
30.0	39.136	10.726	53.952	11.290%	61.250%
35.0	28.392	8.926	62.878	9.396%	71.384%
40.0	20.243	7.132	70.011	7.508%	79.481%
45.0	13.451	5.213	75.224	5.488%	85.400%
50.0	8.986	3.773	78.997	3.972%	89.683%
55.0	5.773	2.592	81.589	2.728%	92.626%
60.0	3.867	1.836	83.425	1.932%	94.710%
65.0	2.623	1.303	84.728	1.371%	96.189%
70.0	1.941	1.000	85.728	1.052%	97.324%
75.0	1.582	0.838	86.565	.882%	98.275%
80.0	1.413	0.763	87.328	.803%	99.141%
85.0	1.223	0.668	87.996	.703%	99.899%
90.0	0.323	0.089	88.085	.093%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	53.95	56.79%	61.25%
0-40	70.01	73.70%	79.48%
0-60	83.43	87.82%	94.71%
0-90	88.00	92.63%	99.90%
0-120	88.00	92.63%	99.90%
0-180	88.08	92.72%	100.00%
60-90	6.41	6.74%	7.27%
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%
0-40.44	70.47	74.18%	80.00%

ZONAL LUMEN SUMMARY

0-10	10.79
10-20	20.81
20-30	22.35
30-40	16.06
40-50	8.99
50-60	4.43
60-70	2.30
70-80	1.60
80-90	0.67
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: ———

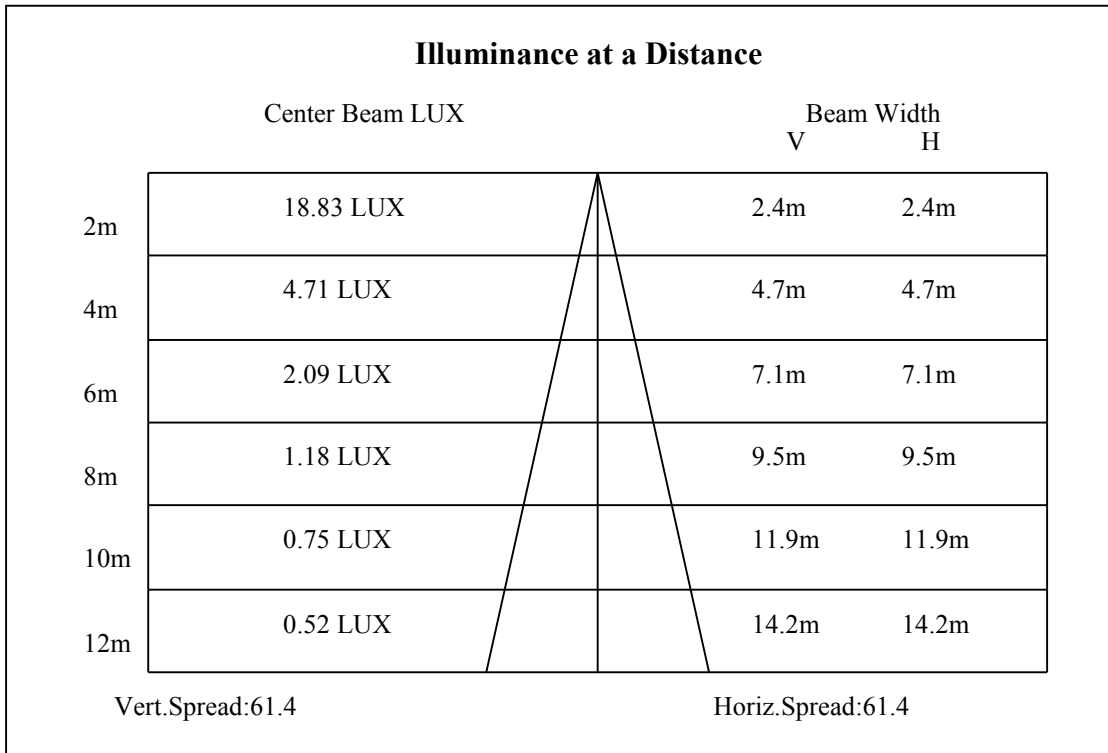
C90/C270: ———

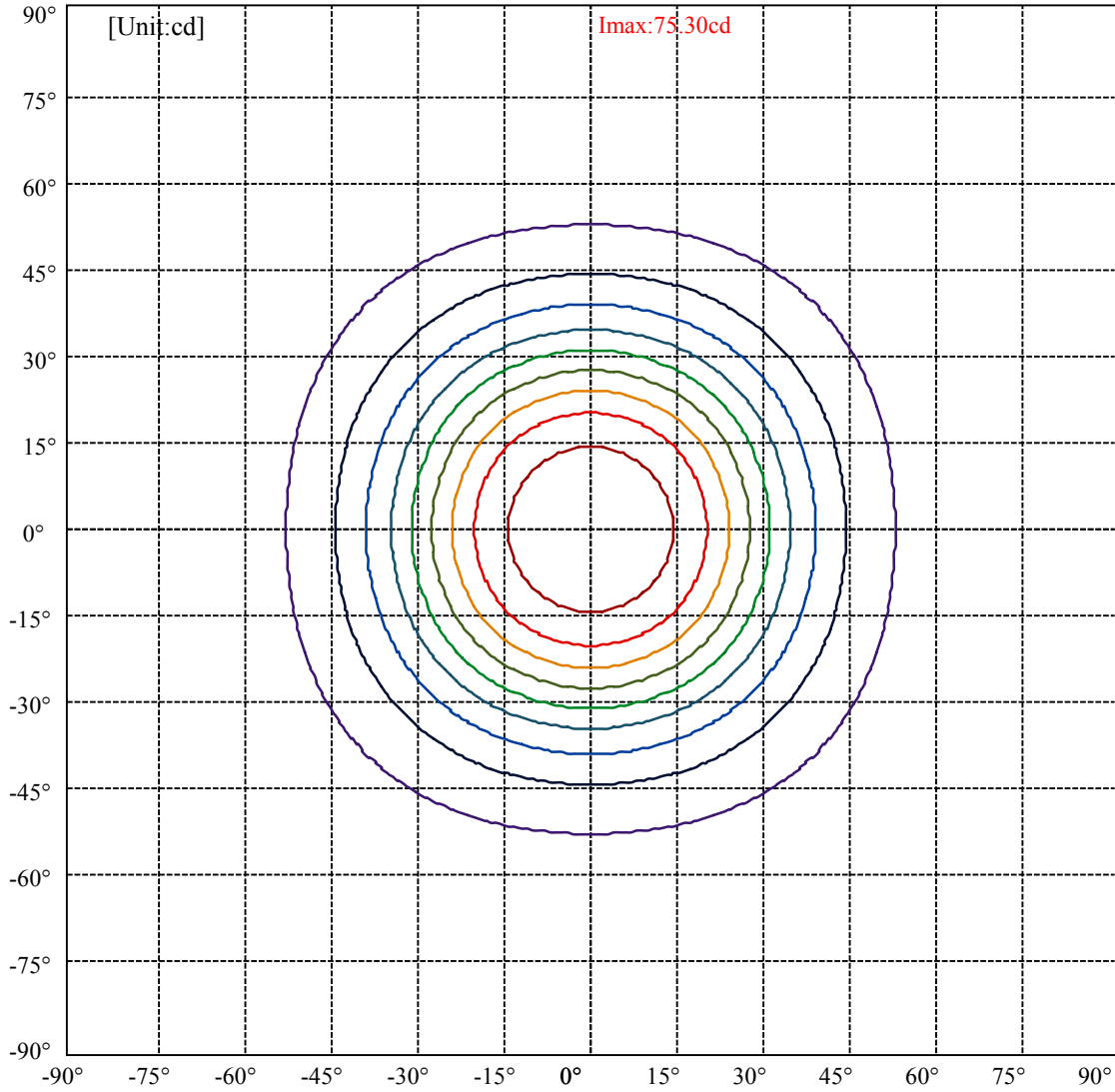
Field angle(10%Imax):C0/180Left:52.3 Right:52.3

:C90/270Left:52.3 Right:52.3

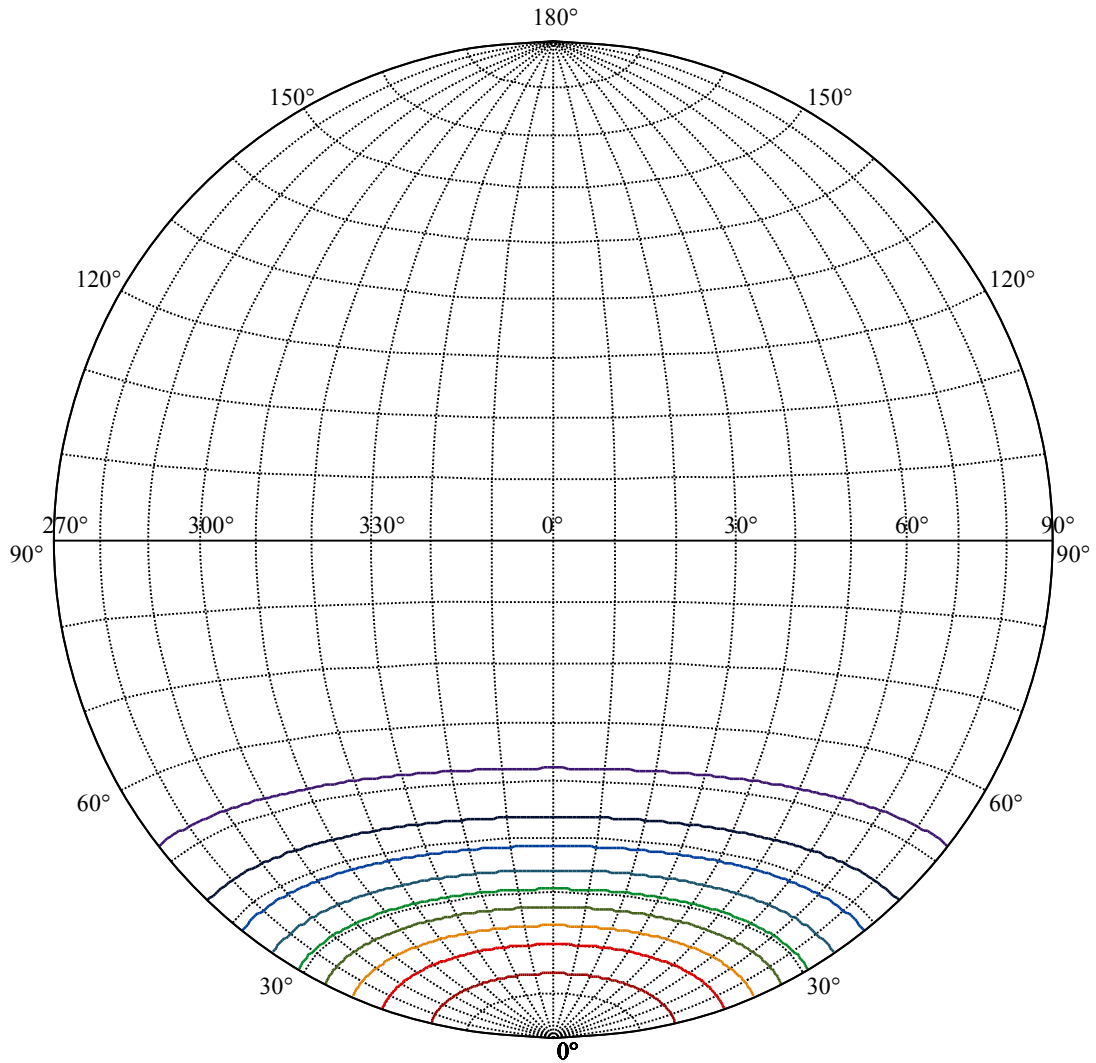
Beam Angle(50%Imax):C0/180Left:30.7 Right:30.7

:C90/270Left:30.7 Right:30.7





(10%Imax) 7.53047	—
(20%Imax) 15.0609	—
(30%Imax) 22.5914	—
(40%Imax) 30.1219	—
(50%Imax) 37.6523	—
(60%Imax) 45.1828	—
(70%Imax) 52.7133	—
(80%Imax) 60.2438	—
(90%Imax) 67.7742	—



House

[Unit:cd]

Road

Imax:75.30

(10%Imax) 7.53047

(20%Imax) 15.0609

(30%Imax) 22.5914

(40%Imax) 30.1219

(50%Imax) 37.6523

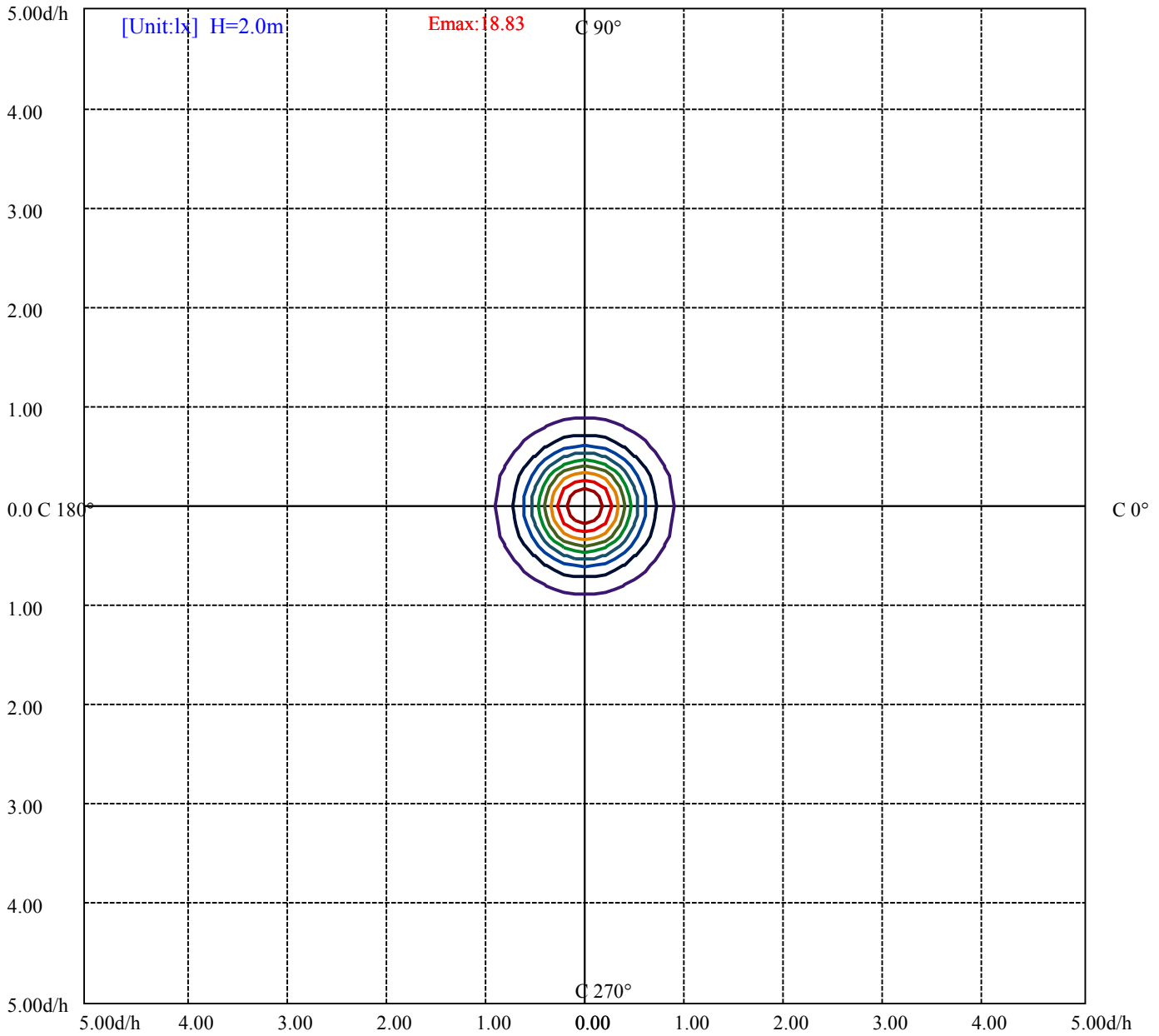
(60%Imax) 45.1828

(70%Imax) 52.7133

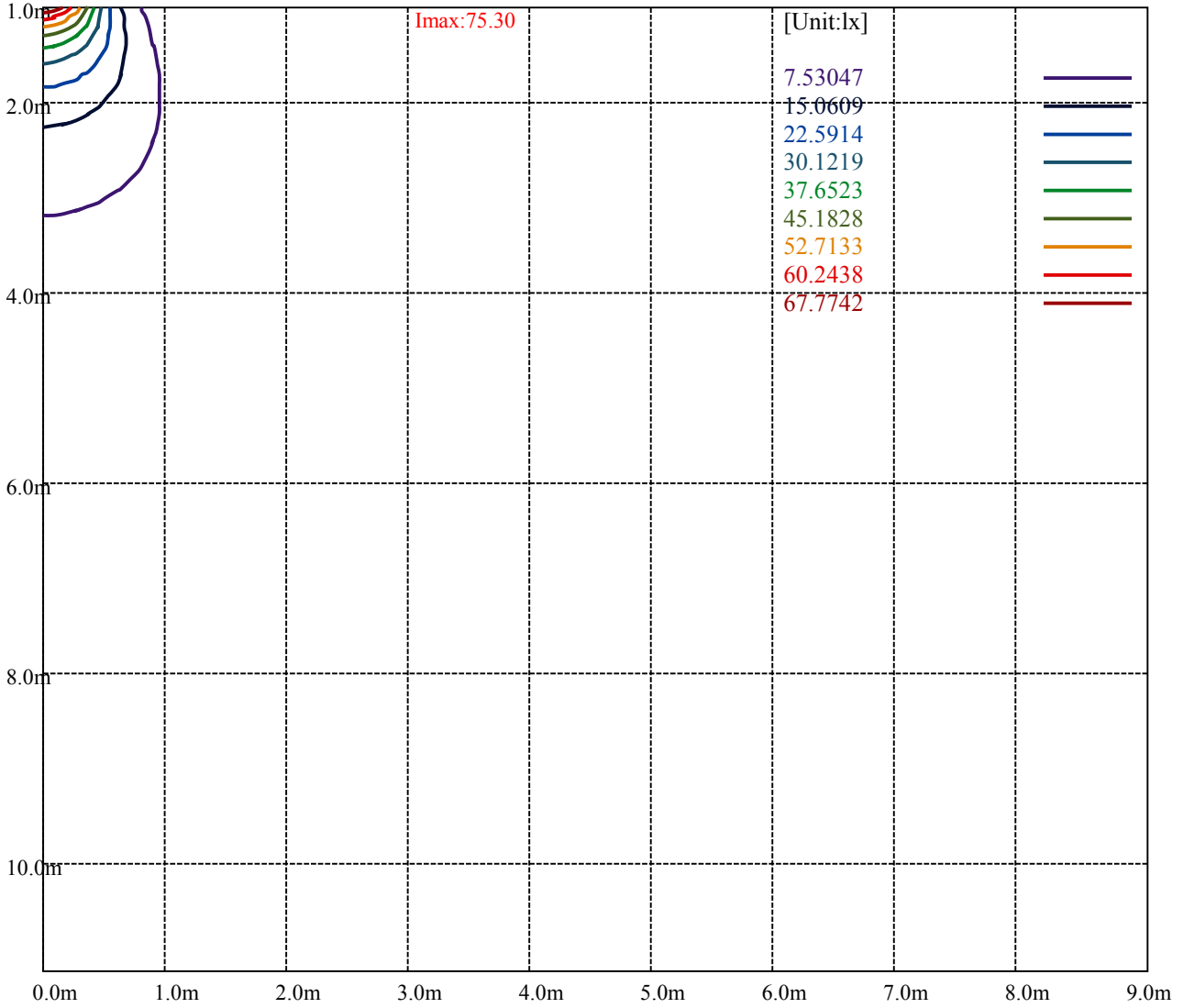
(80%Imax) 60.2438

(90%Imax) 67.7742





- (10%Emax) 1.882617
- (20%Emax) 3.765225
- (30%Emax) 5.64785
- (40%Emax) 7.530475
- (50%Emax) 9.413075
- (60%Emax) 11.2957
- (70%Emax) 13.17832
- (80%Emax) 15.06092
- (90%Emax) 16.94355



Luminance Table

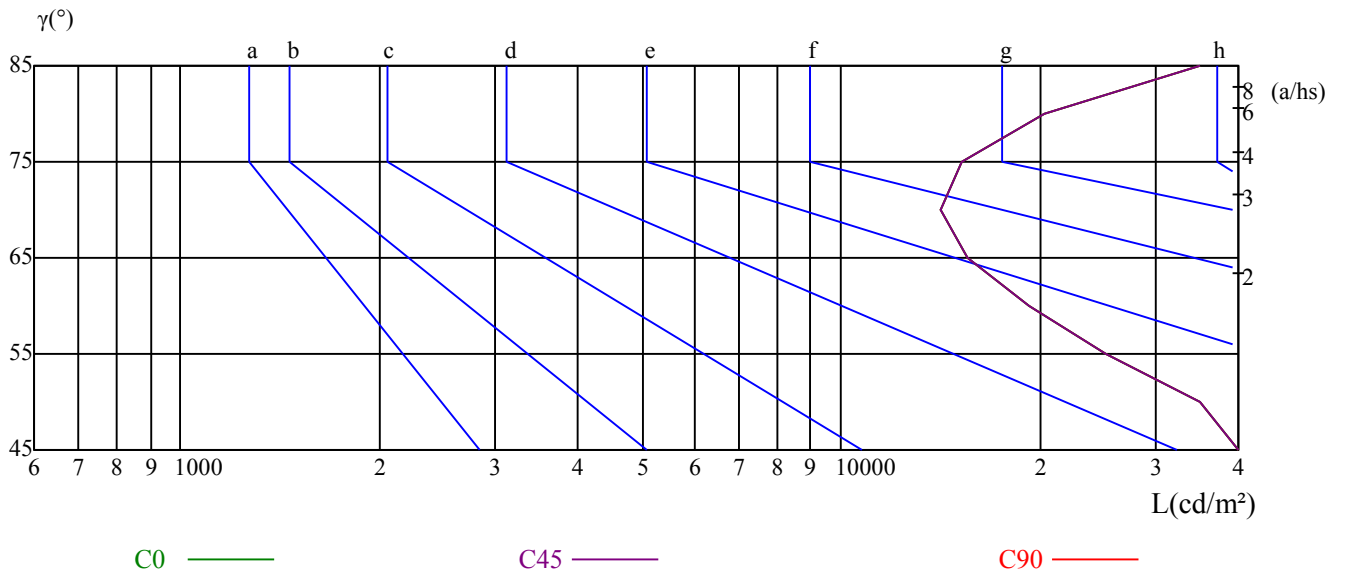
γ	45	50	55	60	65	70	75	80	85
C0	47556	34949	25161	19336	15514	14185	15281	20347	35093
C45	47556	34949	25161	19336	15514	14185	15281	20347	35093
C90	47556	34949	25161	19336	15514	14185	15281	20347	35093

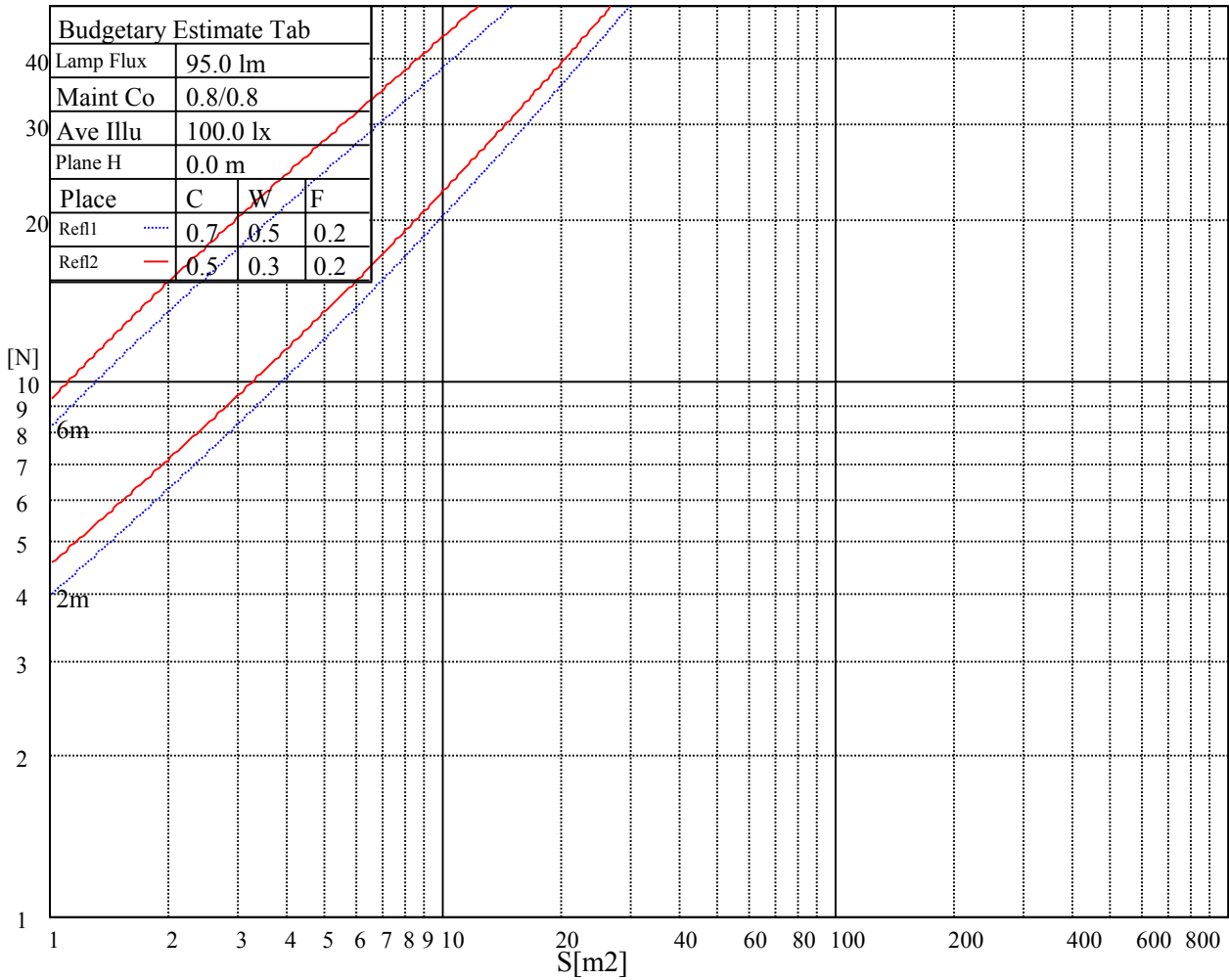
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
15514	15514	15514	15281	15281	15281	35093	35093	35093

Glare Table

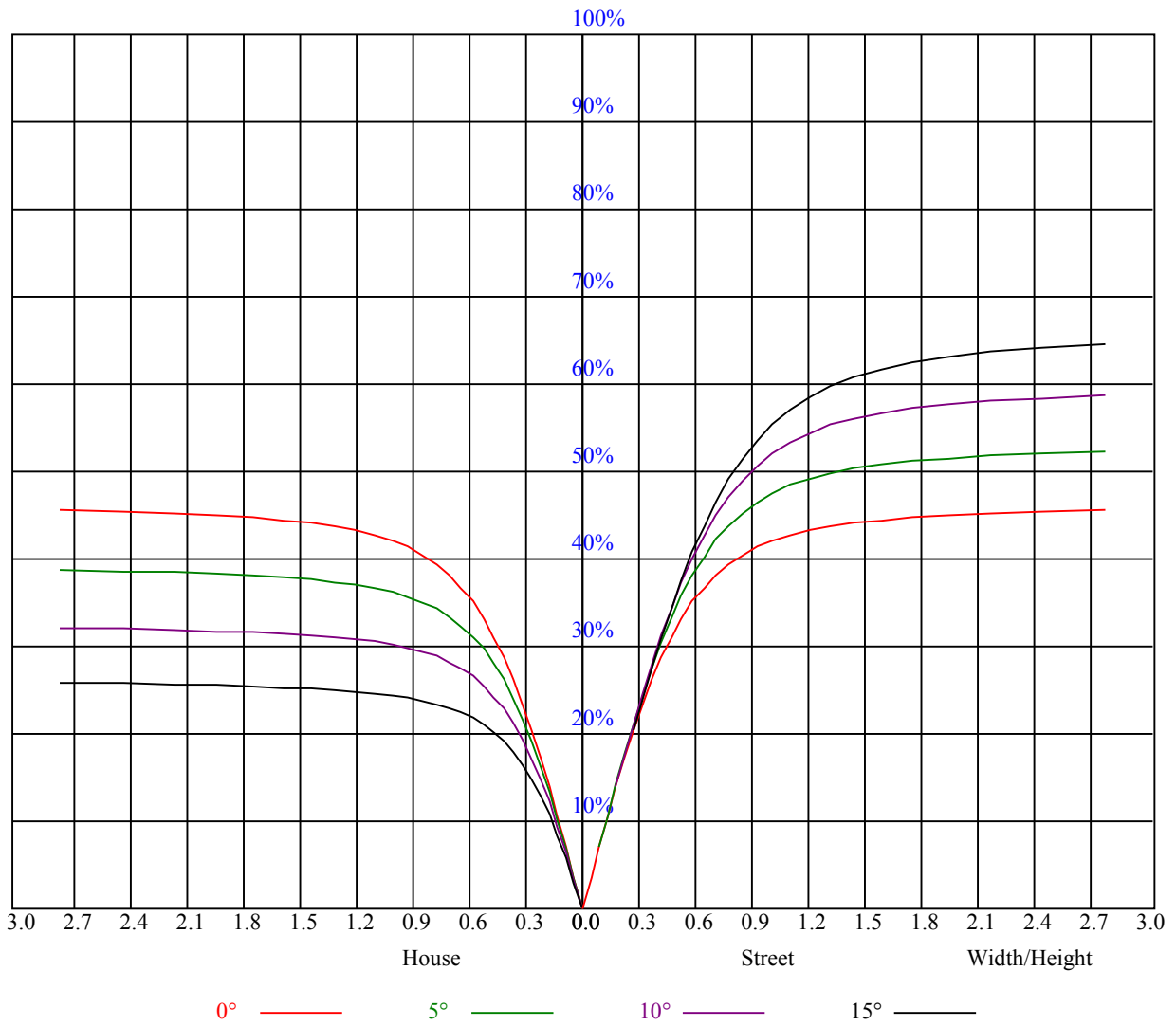
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	1.11	1.11	1.11	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.01	0.98	0.96	0.99	0.96	0.94	0.95	0.93	0.91	0.92	0.90	0.88	0.88	0.87	0.86	0.84
2	0.93	0.88	0.84	0.91	0.87	0.84	0.88	0.85	0.82	0.85	0.82	0.80	0.82	0.80	0.78	0.77
3	0.86	0.80	0.76	0.84	0.79	0.75	0.82	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.70
4	0.79	0.73	0.69	0.78	0.73	0.68	0.76	0.71	0.68	0.74	0.70	0.67	0.72	0.69	0.66	0.64
5	0.74	0.68	0.63	0.73	0.67	0.63	0.71	0.66	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.59
6	0.69	0.63	0.58	0.68	0.62	0.58	0.66	0.61	0.57	0.65	0.61	0.57	0.64	0.60	0.57	0.55
7	0.64	0.58	0.54	0.64	0.58	0.54	0.62	0.57	0.53	0.61	0.57	0.53	0.60	0.56	0.53	0.51
8	0.60	0.54	0.50	0.60	0.54	0.50	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.49	0.48
9	0.57	0.51	0.47	0.56	0.51	0.47	0.56	0.50	0.47	0.55	0.50	0.47	0.54	0.50	0.46	0.45
10	0.54	0.48	0.44	0.53	0.48	0.44	0.53	0.48	0.44	0.52	0.47	0.44	0.51	0.47	0.44	0.42



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	75.54	72.28	68.06	63.45	57.04	47.59	36.96	26.44	18.34
45.0	74.76	71.27	66.99	61.76	56.14	47.31	37.13	27.28	19.18
90.0	75.49	73.35	68.96	63.51	56.98	47.03	36.56	26.49	19.13
135.0	75.43	75.26	73.01	69.41	62.27	52.37	42.69	31.16	22.33
180.0	75.54	76.33	75.32	70.99	63.56	53.16	41.40	30.21	22.05
225.0	74.76	75.32	74.70	70.59	63.62	51.98	40.22	28.97	20.93
270.0	75.49	75.94	74.36	70.99	64.35	53.49	41.18	30.32	21.38
315.0	75.43	73.69	70.14	65.53	58.28	48.43	36.96	26.27	18.62
360.0	75.54	72.28	68.06	63.45	57.04	47.59	36.96	26.44	18.34
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	12.38	8.10	5.29	3.60	2.53	1.97	1.69	1.46	1.24
45.0	12.54	8.66	5.57	3.77	2.59	1.97	1.63	1.41	1.24
90.0	12.60	8.44	5.46	3.66	2.48	1.86	1.58	1.41	1.18
135.0	14.85	10.01	6.36	4.16	2.76	2.03	1.63	1.58	1.41
180.0	14.74	9.79	6.08	4.28	2.76	2.03	1.74	1.63	1.41
225.0	14.01	9.23	5.96	3.94	2.70	1.91	1.41	1.18	1.07
270.0	14.29	9.68	6.19	4.05	2.76	1.91	1.46	1.24	1.07
315.0	12.21	7.99	5.29	3.49	2.42	1.86	1.52	1.41	1.18
360.0	12.38	8.10	5.29	3.60	2.53	1.97	1.69	1.46	1.24
C/ γ (°)	90.0								
0.0	0.34								
45.0	0.39								
90.0	0.28								
135.0	0.34								
180.0	0.28								
225.0	0.28								
270.0	0.34								
315.0	0.34								
360.0	0.34								