



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

Nata

Client:

LumCAT: 2-2756-L

Luminaire: 92.70.412.00

Report No: 2024815-B012

Ballast type: AC

Test No: 2024817-C012

Voltage(V): 36.480

LampCAT: CREE CXA1830 LES14

Current(A): 0.795

Lamp flux(lm): 3731.0

Power (W): 29.000

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 3432.60, Efficiency(%): 92.00% , Luminous Efficacy(lm/W): 118.37

Central intensity(cd): 7461.128, Maximum intensity(cd): 7461.128

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=36.8

[C90/270]Total=36.8

Field angle(10%Imax): [C0/180]Total=68.2

[C90/270]Total=68.2

Maximum s/h(1/2): C0_180=0.59 C90_270=0.59

Maximum s/h(1/4): C0_180=0.62 C90_270=0.62

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.00%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.400%

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2024/8/17
Humidity(%): 60.0%

Operator: NT
Distance(m): 7.25

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7461.129	0.000	0	0.00%	0.00%
1.0	7440.793	7.130	7.13	0.19%	0.21%
2.0	7392.245	21.290	28.42	0.57%	0.83%
3.0	7305.110	35.151	63.571	0.94%	1.85%
4.0	7191.516	48.525	112.096	1.30%	3.27%
5.0	7065.740	61.334	173.43	1.64%	5.05%
6.0	6905.352	73.422	246.852	1.97%	7.19%
7.0	6705.957	84.485	331.337	2.26%	9.65%
8.0	6485.385	94.408	425.745	2.53%	12.40%
9.0	6257.296	103.273	529.018	2.77%	15.41%
10.0	5994.254	110.872	639.89	2.97%	18.64%
11.0	5752.236	117.372	757.261	3.15%	22.06%
12.0	5477.821	122.761	880.022	3.29%	25.64%
13.0	5213.596	126.880	1006.902	3.40%	29.33%
14.0	4942.951	130.003	1136.905	3.48%	33.12%
15.0	4669.804	131.968	1268.873	3.54%	36.97%
16.0	4386.768	132.704	1401.577	3.56%	40.83%
17.0	4114.448	132.387	1533.964	3.55%	44.69%
18.0	3861.977	131.514	1665.478	3.52%	48.52%
19.0	3566.970	129.248	1794.726	3.46%	52.28%
20.0	3317.640	126.007	1920.734	3.38%	55.96%
21.0	3061.135	122.485	2043.219	3.28%	59.52%
22.0	2806.719	117.917	2161.136	3.16%	62.96%
23.0	2615.464	113.772	2274.908	3.05%	66.27%
24.0	2397.763	109.607	2384.515	2.94%	69.47%
25.0	2208.538	104.737	2489.253	2.81%	72.52%
26.0	2048.768	100.494	2589.747	2.69%	75.45%
27.0	1877.375	96.054	2685.801	2.57%	78.24%
28.0	1717.388	91.012	2776.812	2.44%	80.90%
29.0	1504.339	84.289	2861.102	2.26%	83.35%
30.0	1355.232	77.208	2938.31	2.07%	85.60%
31.0	1196.421	71.009	3009.319	1.90%	87.67%
32.0	1058.681	64.606	3073.925	1.73%	89.55%
33.0	907.649	57.929	3131.853	1.55%	91.24%
34.0	753.707	50.278	3182.131	1.35%	92.70%
35.0	618.069	42.602	3224.733	1.14%	93.94%
36.0	485.494	35.138	3259.871	0.94%	94.97%
37.0	361.446	27.622	3287.493	0.74%	95.77%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	282.852	21.506	3308.999	0.58%	96.40%
39.0	213.102	16.928	3325.927	0.45%	96.89%
40.0	171.360	13.409	3339.336	0.36%	97.28%
41.0	110.565	10.039	3349.375	0.27%	97.58%
42.0	92.595	7.381	3356.756	0.20%	97.79%
43.0	80.276	6.404	3363.16	0.17%	97.98%
44.0	69.461	5.652	3368.812	0.15%	98.14%
45.0	60.414	4.991	3373.803	0.13%	98.29%
46.0	53.252	4.445	3378.248	0.12%	98.42%
47.0	47.359	4.002	3382.25	0.11%	98.53%
48.0	41.997	3.612	3385.862	0.10%	98.64%
49.0	37.339	3.258	3389.12	0.09%	98.73%
50.0	33.666	2.960	3392.08	0.08%	98.82%
51.0	30.361	2.709	3394.789	0.07%	98.90%
52.0	27.628	2.488	3397.278	0.07%	98.97%
53.0	25.237	2.300	3399.577	0.06%	99.04%
54.0	23.305	2.140	3401.717	0.06%	99.10%
55.0	21.340	1.993	3403.71	0.05%	99.16%
56.0	19.842	1.861	3405.571	0.05%	99.21%
57.0	18.476	1.752	3407.323	0.05%	99.26%
58.0	17.142	1.647	3408.97	0.04%	99.31%
59.0	16.196	1.559	3410.528	0.04%	99.36%
60.0	15.151	1.481	3412.009	0.04%	99.40%
61.0	14.251	1.403	3413.412	0.04%	99.44%
62.0	13.436	1.334	3414.746	0.04%	99.48%
63.0	12.641	1.268	3416.015	0.03%	99.52%
64.0	12.030	1.211	3417.225	0.03%	99.55%
65.0	11.367	1.158	3418.383	0.03%	99.59%
66.0	10.756	1.104	3419.487	0.03%	99.62%
67.0	10.197	1.054	3420.541	0.03%	99.65%
68.0	9.698	1.008	3421.548	0.03%	99.68%
69.0	9.192	0.964	3422.512	0.03%	99.71%
70.0	8.679	0.918	3423.43	0.02%	99.73%
71.0	8.233	0.874	3424.304	0.02%	99.76%
72.0	7.733	0.830	3425.134	0.02%	99.78%
73.0	7.293	0.786	3425.92	0.02%	99.81%
74.0	6.840	0.743	3426.663	0.02%	99.83%
75.0	6.413	0.700	3427.363	0.02%	99.85%

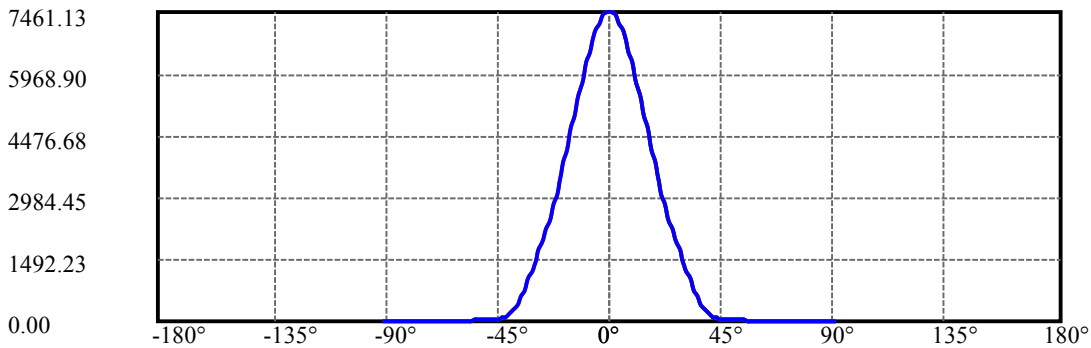
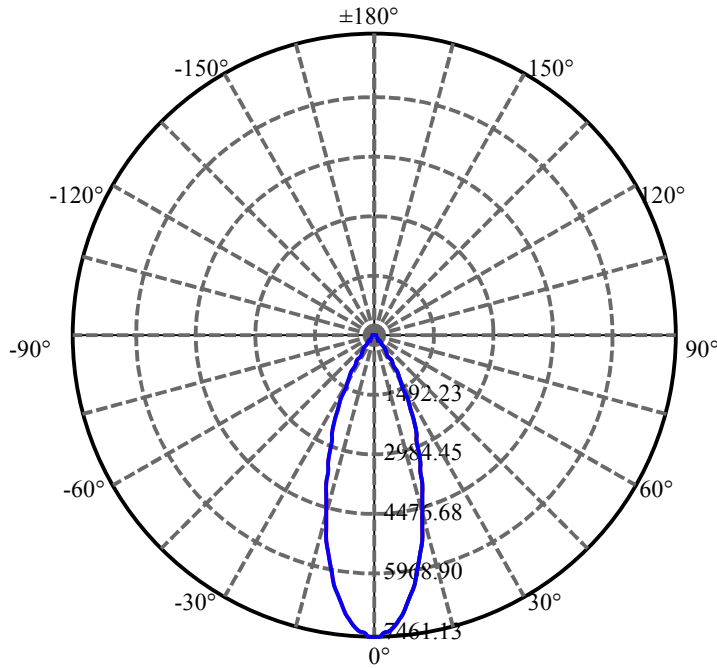
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	5.894	0.653	3428.016	0.02%	99.87%
77.0	5.460	0.605	3428.622	0.02%	99.88%
78.0	5.020	0.561	3429.183	0.02%	99.90%
79.0	4.488	0.511	3429.694	0.01%	99.92%
80.0	4.120	0.464	3430.158	0.01%	99.93%
81.0	3.594	0.417	3430.575	0.01%	99.94%
82.0	3.206	0.369	3430.943	0.01%	99.95%
83.0	2.832	0.328	3431.272	0.01%	99.96%
84.0	2.444	0.287	3431.559	0.01%	99.97%
85.0	2.129	0.250	3431.809	0.01%	99.98%
86.0	1.807	0.215	3432.024	0.01%	99.98%
87.0	1.551	0.184	3432.208	0.00%	99.99%
88.0	1.281	0.155	3432.363	0.00%	99.99%
89.0	1.045	0.127	3432.49	0.00%	100.00%
90.0	0.920	0.108	3432.598	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2938.31	78.75%	85.60%
0-40	3339.34	89.50%	97.28%
0-60	3412.01	91.45%	99.40%
0-90	3432.49	92.00%	100.00%
0-120	3432.49	92.00%	100.00%
0-180	3432.60	92.00%	100.00%
60-90	20.48	0.55%	0.60%
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%
0-27.66	2746.08	73.60%	80.00%

ZONAL LUMEN SUMMARY

0-10	639.89
10-20	1280.84
20-30	1017.58
30-40	401.03
40-50	52.74
50-60	19.93
60-70	11.42
70-80	6.73
80-90	2.33
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: —————

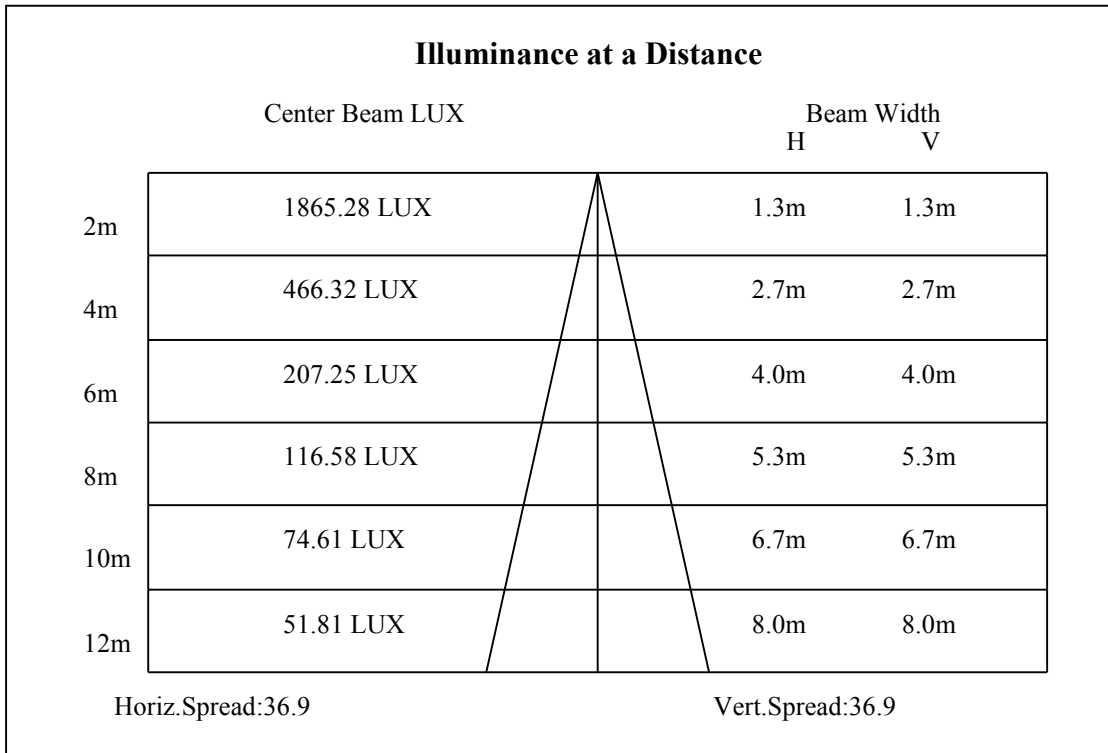
C90/C270: —————

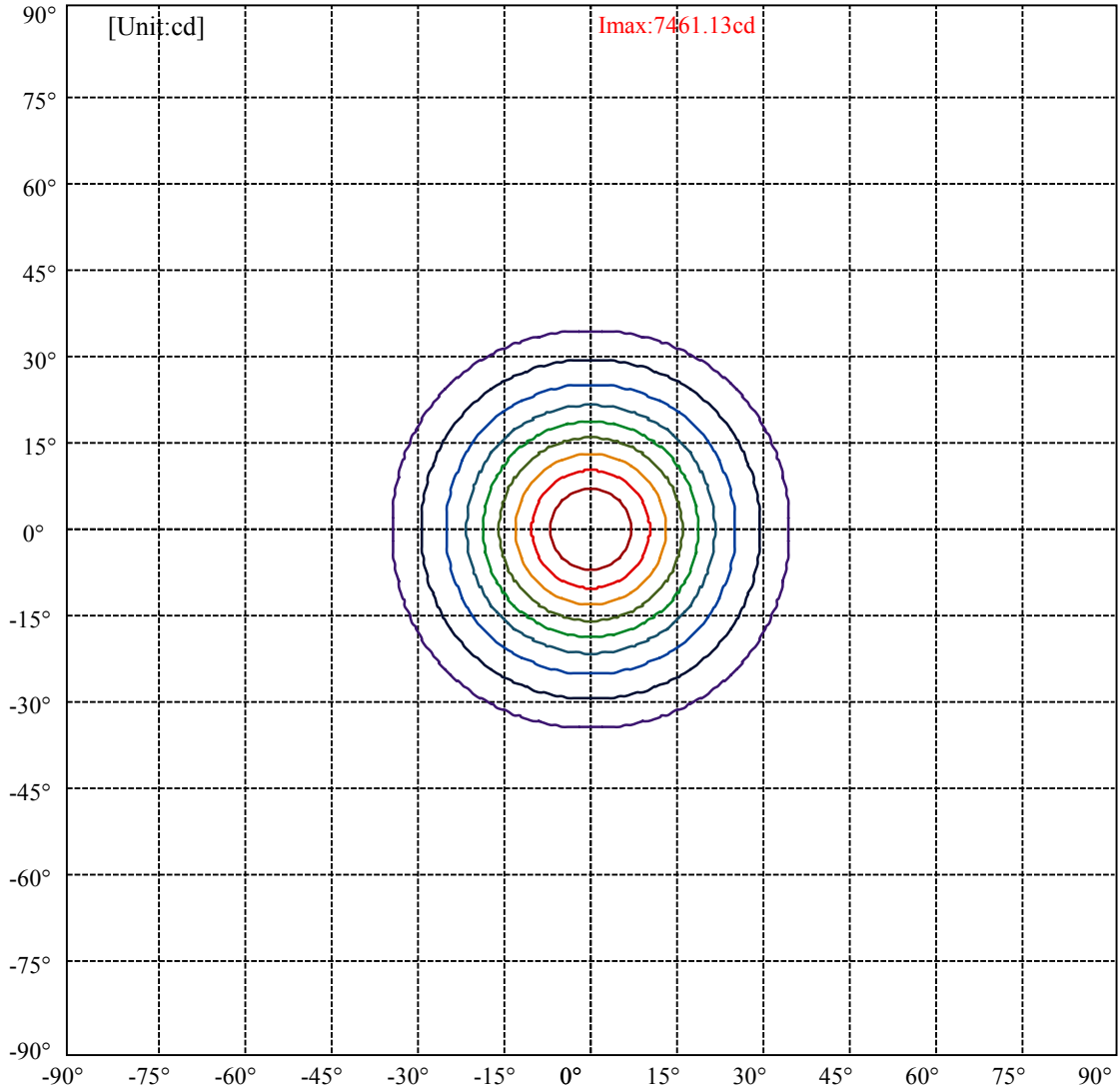
Field angle(10%Imax):C0/180Left:34.1 Right:34.1

:C90/270Left:34.1 Right:34.1

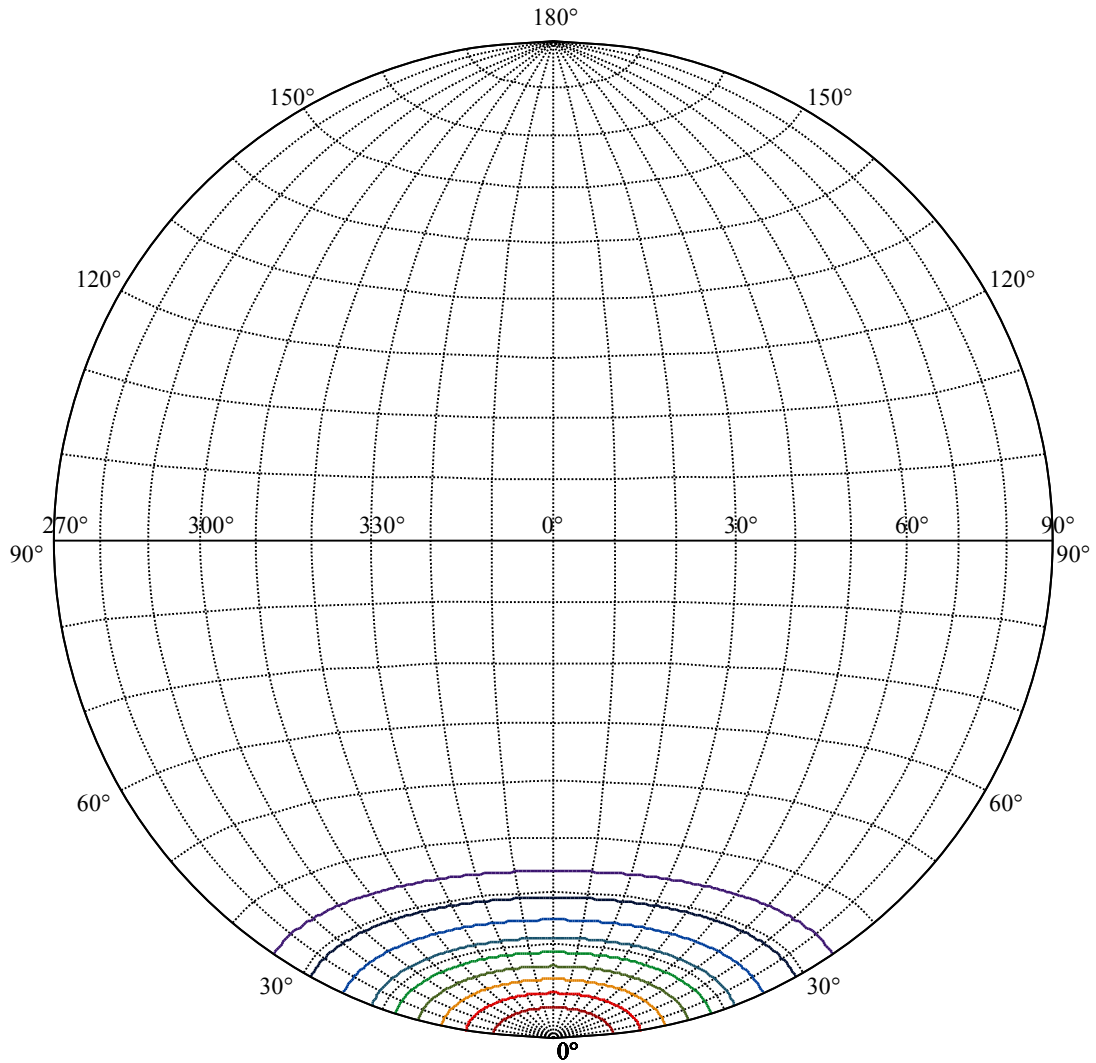
Beam Angle(50%Imax):C0/180Left:18.4 Right:18.4

:C90/270Left:18.4 Right:18.4





(10%Imax) 746.113	—
(20%Imax) 1492.23	—
(30%Imax) 2238.34	—
(40%Imax) 2984.45	—
(50%Imax) 3730.56	—
(60%Imax) 4476.68	—
(70%Imax) 5222.79	—
(80%Imax) 5968.9	—
(90%Imax) 6715.02	—



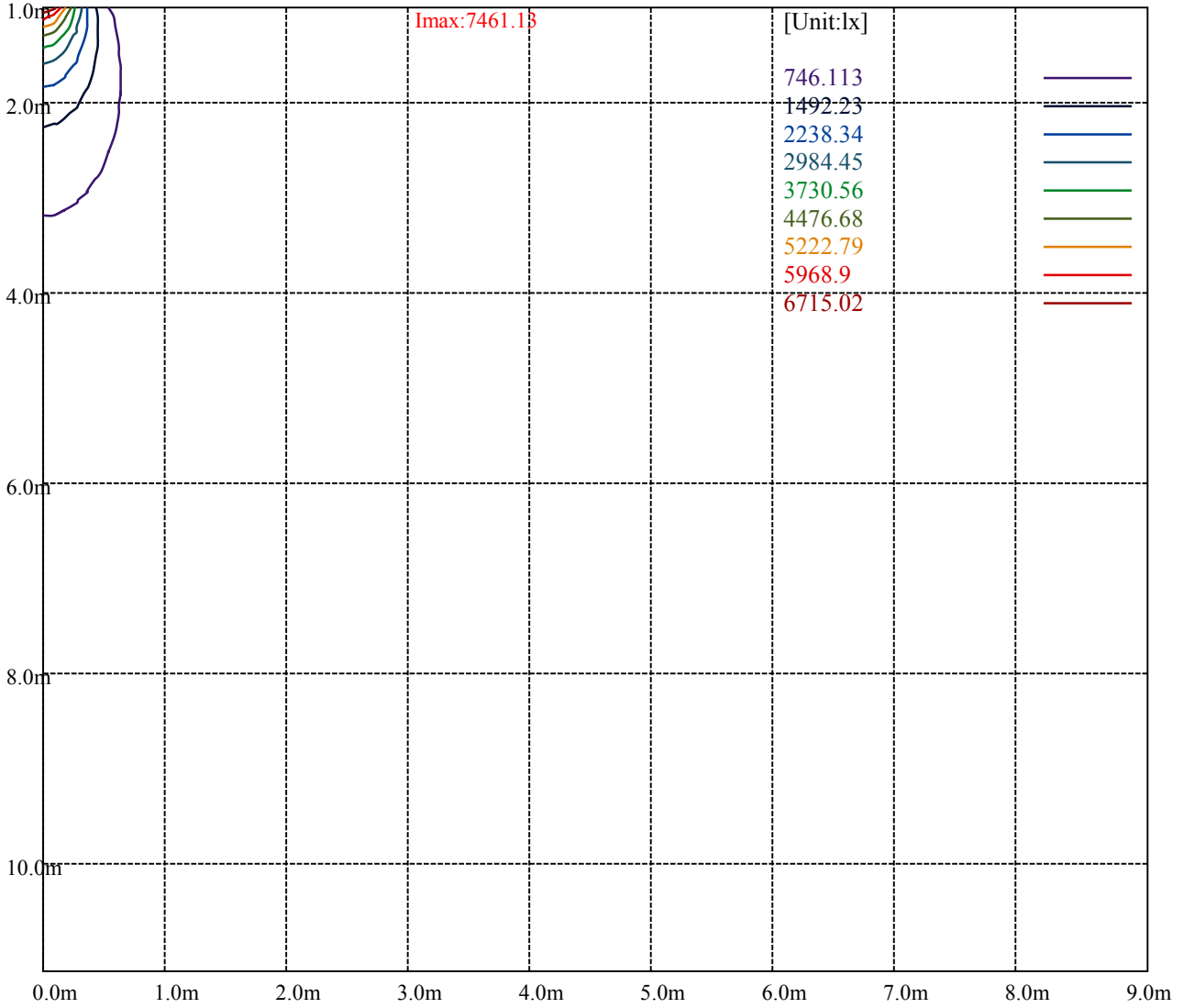
House

[Unit:cd]

Road

Imax:7461.13

(10%Imax)	746.113	—
(20%Imax)	1492.23	—
(30%Imax)	2238.34	—
(40%Imax)	2984.45	—
(50%Imax)	3730.56	—
(60%Imax)	4476.68	—
(70%Imax)	5222.79	—
(80%Imax)	5968.9	—
(90%Imax)	6715.02	—



Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	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



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										
	3H										
	4H										
	6H										
	8H										
	12H										
4H	2H										
	3H										
	4H										
	6H										
	8H										
	12H										
8H	4H										
	6H										
	8H										
	12H										
12H	4H										
	6H										
	8H										
Variation with the observer position at spacings:											
S = 1.0H											
S = 1.5H											
S = 2.0H											
Standard tables:											
Uncorrected UGR											