



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: 2-2456-L

Luminaire: 92.70.411.00

Report No: 2024827-B011

Ballast type: AC

Test No: 2024827-C011

Voltage(V): 35.230

LampCAT: Fortimo_SLM_C_1205

Current(A): 0.403

Lamp flux(lm): 2294.0

Power (W): 14.190

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2053.03, Efficiency(%): 89.50% , Luminous Efficacy(lm/W): 144.68

Central intensity(cd): 4613.595, Maximum intensity(cd): 4613.595

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=65.6

[C90/270]Total=65.6

Maximum s/h(1/2): C0_180=0.60 C90_270=0.60

Maximum s/h(1/4): C0_180=0.61 C90_270=0.61

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 89.50%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.299%

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2024/8/27
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	4613.595	0.000	0	0.00%	0.00%
1.0	4604.961	4.411	4.411	0.19%	0.21%
2.0	4572.589	13.172	17.583	0.57%	0.86%
3.0	4530.027	21.770	39.354	0.95%	1.92%
4.0	4461.485	30.097	69.451	1.31%	3.38%
5.0	4370.598	37.995	107.446	1.66%	5.23%
6.0	4277.563	45.448	152.895	1.98%	7.45%
7.0	4157.083	52.354	205.249	2.28%	10.00%
8.0	4020.768	58.527	263.776	2.55%	12.85%
9.0	3893.252	64.139	327.915	2.80%	15.97%
10.0	3738.652	69.066	396.981	3.01%	19.34%
11.0	3575.879	73.087	470.068	3.19%	22.90%
12.0	3408.107	76.345	546.413	3.33%	26.61%
13.0	3238.034	78.873	625.286	3.44%	30.46%
14.0	3065.235	80.681	705.967	3.52%	34.39%
15.0	2890.504	81.763	787.73	3.56%	38.37%
16.0	2714.801	82.133	869.863	3.58%	42.37%
17.0	2550.562	81.996	951.859	3.57%	46.36%
18.0	2377.776	81.258	1033.117	3.54%	50.32%
19.0	2209.445	79.808	1112.925	3.48%	54.21%
20.0	2054.892	78.049	1190.974	3.40%	58.01%
21.0	1885.180	75.657	1266.632	3.30%	61.70%
22.0	1729.234	72.633	1339.265	3.17%	65.23%
23.0	1580.403	69.445	1408.71	3.03%	68.62%
24.0	1395.199	65.057	1473.767	2.84%	71.78%
25.0	1284.871	60.939	1534.706	2.66%	74.75%
26.0	1152.545	57.535	1592.242	2.51%	77.56%
27.0	1055.074	54.010	1646.252	2.35%	80.19%
28.0	943.129	50.590	1696.842	2.21%	82.65%
29.0	827.426	46.323	1743.165	2.02%	84.91%
30.0	724.173	41.893	1785.057	1.83%	86.95%
31.0	622.452	37.475	1822.532	1.63%	88.77%
32.0	528.851	32.983	1855.516	1.44%	90.38%
33.0	442.911	28.628	1884.144	1.25%	91.77%
34.0	369.659	24.591	1908.735	1.07%	92.97%
35.0	298.877	20.762	1929.497	0.91%	93.98%
36.0	258.535	17.748	1947.245	0.77%	94.85%
37.0	200.585	14.974	1962.219	0.65%	95.58%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	166.590	12.256	1974.475	0.53%	96.17%
39.0	117.957	9.712	1984.187	0.42%	96.65%
40.0	92.477	7.339	1991.526	0.32%	97.00%
41.0	73.390	5.906	1997.433	0.26%	97.29%
42.0	59.087	4.813	2002.246	0.21%	97.53%
43.0	49.107	4.008	2006.254	0.17%	97.72%
44.0	42.030	3.440	2009.694	0.15%	97.89%
45.0	37.254	3.047	2012.741	0.13%	98.04%
46.0	32.944	2.745	2015.486	0.12%	98.17%
47.0	29.744	2.493	2017.979	0.11%	98.29%
48.0	27.103	2.298	2020.277	0.10%	98.40%
49.0	24.698	2.127	2022.404	0.09%	98.51%
50.0	22.641	1.974	2024.378	0.09%	98.60%
51.0	20.788	1.837	2026.216	0.08%	98.69%
52.0	19.212	1.716	2027.932	0.07%	98.78%
53.0	17.852	1.612	2029.544	0.07%	98.86%
54.0	16.557	1.517	2031.061	0.07%	98.93%
55.0	15.565	1.434	2032.495	0.06%	99.00%
56.0	14.560	1.361	2033.856	0.06%	99.07%
57.0	13.607	1.288	2035.144	0.06%	99.13%
58.0	12.891	1.225	2036.369	0.05%	99.19%
59.0	12.050	1.166	2037.535	0.05%	99.25%
60.0	11.413	1.108	2038.644	0.05%	99.30%
61.0	10.742	1.057	2039.701	0.05%	99.35%
62.0	10.099	1.004	2040.705	0.04%	99.40%
63.0	9.540	0.955	2041.66	0.04%	99.45%
64.0	8.962	0.908	2042.568	0.04%	99.49%
65.0	8.476	0.863	2043.431	0.04%	99.53%
66.0	8.009	0.822	2044.254	0.04%	99.57%
67.0	7.503	0.780	2045.034	0.03%	99.61%
68.0	7.011	0.735	2045.769	0.03%	99.65%
69.0	6.564	0.692	2046.461	0.03%	99.68%
70.0	6.051	0.648	2047.109	0.03%	99.71%
71.0	5.572	0.601	2047.71	0.03%	99.74%
72.0	5.131	0.557	2048.266	0.02%	99.77%
73.0	4.671	0.513	2048.779	0.02%	99.79%
74.0	4.310	0.472	2049.251	0.02%	99.82%
75.0	3.949	0.436	2049.688	0.02%	99.84%

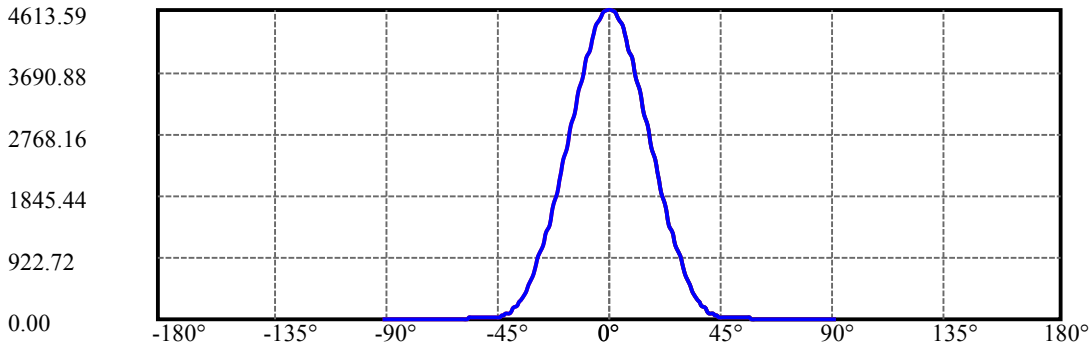
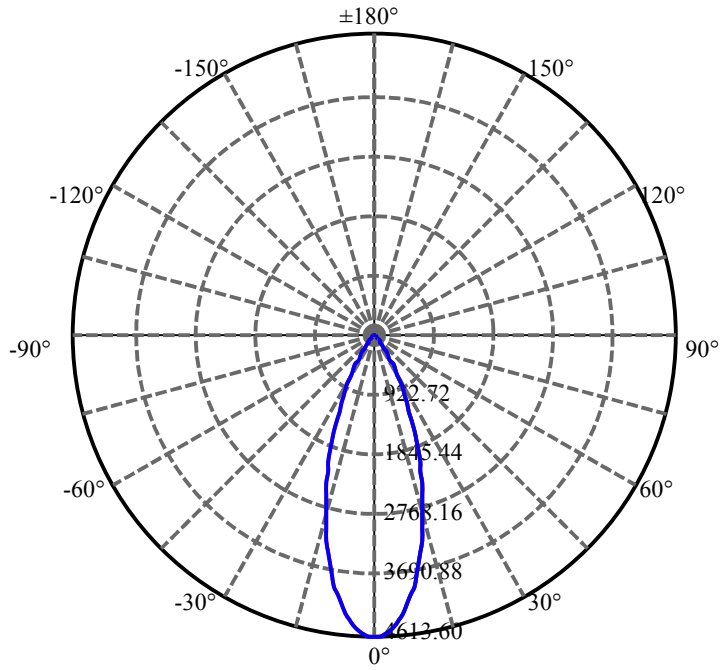
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.627	0.402	2050.09	0.02%	99.86%
77.0	3.364	0.373	2050.463	0.02%	99.87%
78.0	3.042	0.343	2050.805	0.01%	99.89%
79.0	2.832	0.316	2051.121	0.01%	99.91%
80.0	2.556	0.290	2051.412	0.01%	99.92%
81.0	2.280	0.262	2051.673	0.01%	99.93%
82.0	2.043	0.234	2051.907	0.01%	99.95%
83.0	1.833	0.211	2052.118	0.01%	99.96%
84.0	1.603	0.187	2052.305	0.01%	99.96%
85.0	1.399	0.164	2052.469	0.01%	99.97%
86.0	1.268	0.146	2052.615	0.01%	99.98%
87.0	1.097	0.129	2052.745	0.01%	99.99%
88.0	0.920	0.110	2052.855	0.00%	99.99%
89.0	0.815	0.095	2052.95	0.00%	100.00%
90.0	0.710	0.084	2053.034	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1785.06	77.81%	86.95%
0-40	1991.53	86.81%	97.00%
0-60	2038.64	88.87%	99.30%
0-90	2052.95	89.49%	100.00%
0-120	2052.95	89.49%	100.00%
0-180	2053.03	89.50%	100.00%
60-90	14.31	0.62%	0.70%
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%
0-26.93	1642.43	71.60%	80.00%

ZONAL LUMEN SUMMARY

0-10	396.98
10-20	793.99
20-30	594.08
30-40	206.47
40-50	32.85
50-60	14.27
60-70	8.47
70-80	4.30
80-90	1.54
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: —————

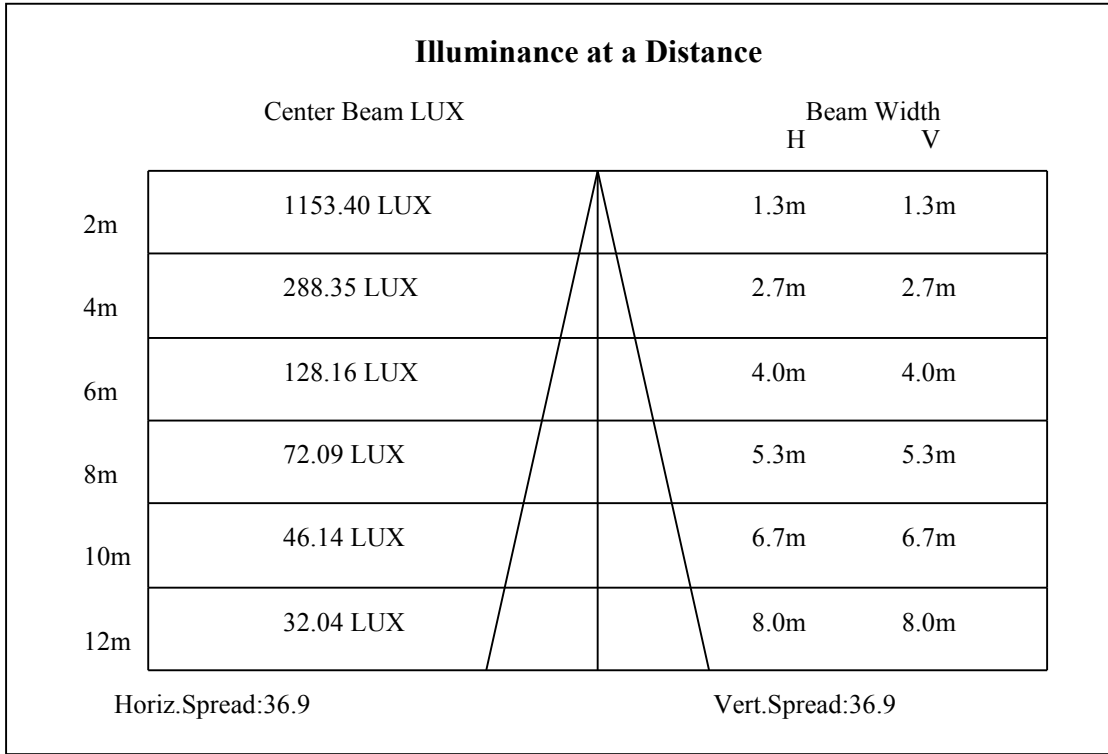
C90/C270: —————

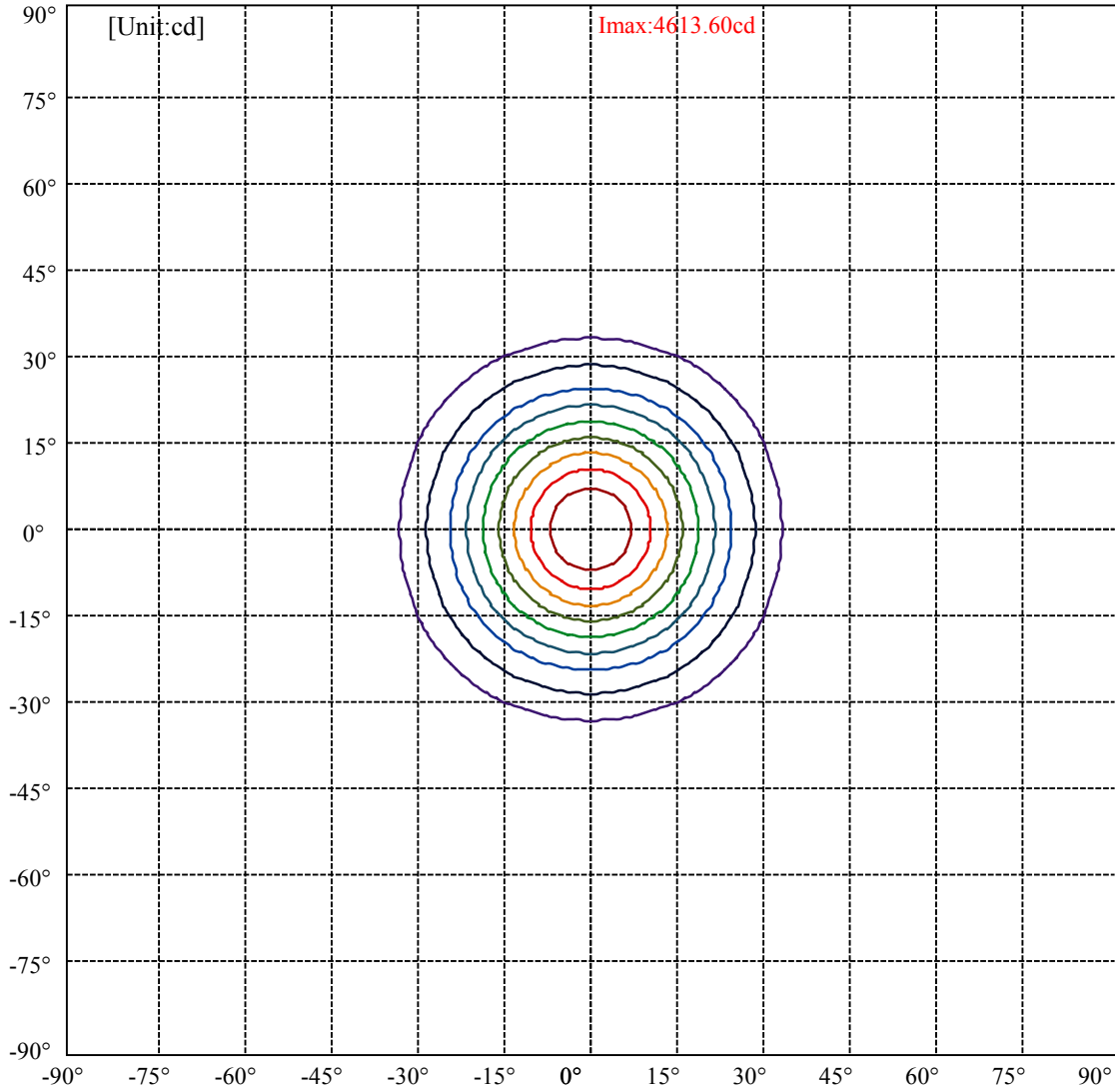
Field angle(10%Imax):C0/180Left:32.8 Right:32.8

:C90/270Left:32.8 Right:32.8

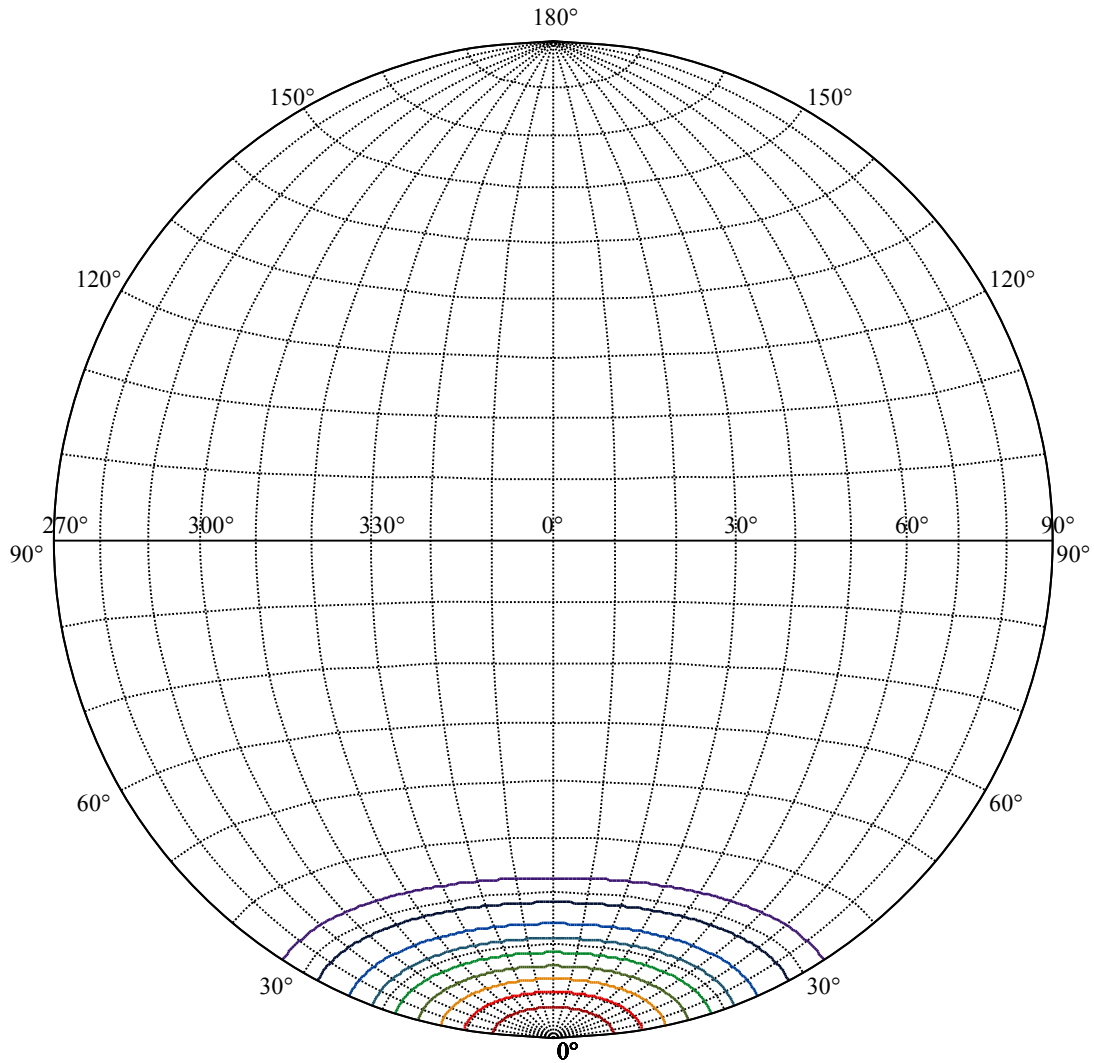
Beam Angle(50%Imax):C0/180Left:18.4 Right:18.4

:C90/270Left:18.4 Right:18.4





(10%Imax) 461.359	—
(20%Imax) 922.719	—
(30%Imax) 1384.08	—
(40%Imax) 1845.44	—
(50%Imax) 2306.8	—
(60%Imax) 2768.16	—
(70%Imax) 3229.52	—
(80%Imax) 3690.88	—
(90%Imax) 4152.24	—



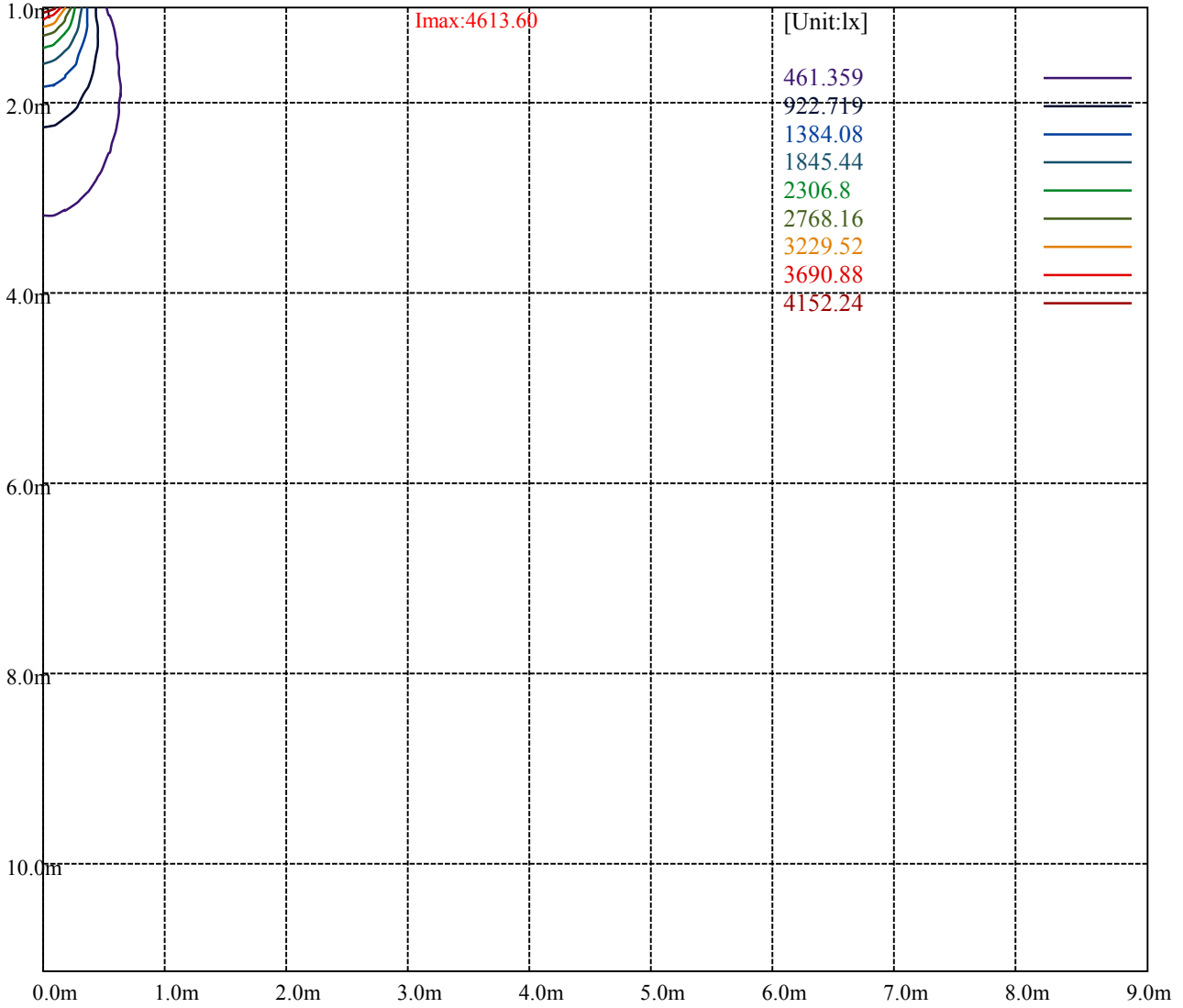
House

[Unit:cd]

Road

I_{max}:4613.60

(10%I _{max}) 461.359	—
(20%I _{max}) 922.719	—
(30%I _{max}) 1384.08	—
(40%I _{max}) 1845.44	—
(50%I _{max}) 2306.8	—
(60%I _{max}) 2768.16	—
(70%I _{max}) 3229.52	—
(80%I _{max}) 3690.88	—
(90%I _{max}) 4152.24	—



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											