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Nata

Client:

LumCAT: 2-2752-L

Luminaire: 92.70.412.00

Report No: 2024814-B014

Ballast type: AC

Test No: 2024814-C014

Voltage(V): 34.710

LampCAT: LUMINUS CXM-14-AC40

Current(A): 0.694

Lamp flux(lm): 3147.0

Power (W): 24.100

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2916.69, Efficiency(%): 92.68% , Luminous Efficacy(lm/W): 121.02

Central intensity(cd): 10758.690, Maximum intensity(cd): 10758.690

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=24.6

[C90/270]Total=24.6

Field angle(10%Imax): [C0/180]Total=56.0

[C90/270]Total=56.0

Maximum s/h(1/2): C0_180=0.42 C90_270=0.42

Maximum s/h(1/4): C0_180=0.44 C90_270=0.44

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.68%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.322%

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2024/8/14
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	10758.690	0.000	0	0.00%	0.00%
1.0	10696.988	10.266	10.266	0.33%	0.35%
2.0	10542.093	30.484	40.75	0.97%	1.40%
3.0	10294.431	49.834	90.585	1.58%	3.11%
4.0	9932.696	67.707	158.291	2.15%	5.43%
5.0	9571.592	83.906	242.198	2.67%	8.30%
6.0	9055.927	97.893	340.09	3.11%	11.66%
7.0	8514.645	109.060	449.15	3.47%	15.40%
8.0	7965.348	117.944	567.095	3.75%	19.44%
9.0	7370.853	124.292	691.386	3.95%	23.70%
10.0	6761.607	127.894	819.28	4.06%	28.09%
11.0	6190.371	129.417	948.697	4.11%	32.53%
12.0	5553.458	128.377	1077.074	4.08%	36.93%
13.0	4976.236	124.961	1202.034	3.97%	41.21%
14.0	4459.192	120.773	1322.807	3.84%	45.35%
15.0	3961.025	115.596	1438.404	3.67%	49.32%
16.0	3529.151	109.752	1548.156	3.49%	53.08%
17.0	3127.863	103.668	1651.823	3.29%	56.63%
18.0	2776.778	97.355	1749.178	3.09%	59.97%
19.0	2469.150	91.268	1840.446	2.90%	63.10%
20.0	2216.337	85.757	1926.204	2.73%	66.04%
21.0	1995.772	80.881	2007.085	2.57%	68.81%
22.0	1820.404	76.688	2083.772	2.44%	71.44%
23.0	1640.095	72.611	2156.383	2.31%	73.93%
24.0	1507.979	68.828	2225.211	2.19%	76.29%
25.0	1377.900	65.619	2290.83	2.09%	78.54%
26.0	1268.438	62.467	2353.297	1.98%	80.68%
27.0	1179.555	59.891	2413.188	1.90%	82.74%
28.0	1075.048	57.082	2470.269	1.81%	84.69%
29.0	997.544	54.225	2524.494	1.72%	86.55%
30.0	894.640	51.089	2575.583	1.62%	88.30%
31.0	792.051	46.938	2622.521	1.49%	89.91%
32.0	687.445	42.386	2664.907	1.35%	91.37%
33.0	585.684	37.507	2702.414	1.19%	92.65%
34.0	487.169	32.468	2734.881	1.03%	93.77%
35.0	393.687	27.356	2762.238	0.87%	94.70%
36.0	320.690	22.746	2784.983	0.72%	95.48%
37.0	255.887	18.805	2803.788	0.60%	96.13%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	183.555	14.668	2818.456	0.47%	96.63%
39.0	149.238	11.359	2829.815	0.36%	97.02%
40.0	91.400	8.393	2838.208	0.27%	97.31%
41.0	70.900	5.779	2843.987	0.18%	97.51%
42.0	61.058	4.794	2848.782	0.15%	97.67%
43.0	54.428	4.278	2853.059	0.14%	97.82%
44.0	49.028	3.905	2856.964	0.12%	97.95%
45.0	44.041	3.577	2860.541	0.11%	98.07%
46.0	40.092	3.290	2863.831	0.10%	98.19%
47.0	36.866	3.061	2866.892	0.10%	98.29%
48.0	34.113	2.869	2869.761	0.09%	98.39%
49.0	31.767	2.705	2872.467	0.09%	98.48%
50.0	29.875	2.570	2875.037	0.08%	98.57%
51.0	28.246	2.459	2877.496	0.08%	98.66%
52.0	27.083	2.374	2879.87	0.08%	98.74%
53.0	26.196	2.318	2882.188	0.07%	98.82%
54.0	25.289	2.269	2884.457	0.07%	98.89%
55.0	24.448	2.220	2886.677	0.07%	98.97%
56.0	23.647	2.173	2888.85	0.07%	99.05%
57.0	22.773	2.122	2890.973	0.07%	99.12%
58.0	21.794	2.061	2893.034	0.07%	99.19%
59.0	20.598	1.982	2895.016	0.06%	99.26%
60.0	19.396	1.889	2896.905	0.06%	99.32%
61.0	17.996	1.784	2898.689	0.06%	99.38%
62.0	16.636	1.669	2900.358	0.05%	99.44%
63.0	15.447	1.560	2901.919	0.05%	99.49%
64.0	13.929	1.441	2903.36	0.05%	99.54%
65.0	12.707	1.318	2904.678	0.04%	99.59%
66.0	11.518	1.209	2905.887	0.04%	99.63%
67.0	10.447	1.104	2906.991	0.04%	99.67%
68.0	9.481	1.009	2908.001	0.03%	99.70%
69.0	8.509	0.918	2908.918	0.03%	99.73%
70.0	7.654	0.830	2909.749	0.03%	99.76%
71.0	6.886	0.752	2910.5	0.02%	99.79%
72.0	6.209	0.681	2911.181	0.02%	99.81%
73.0	5.572	0.616	2911.797	0.02%	99.83%
74.0	5.007	0.556	2912.353	0.02%	99.85%
75.0	4.606	0.508	2912.861	0.02%	99.87%

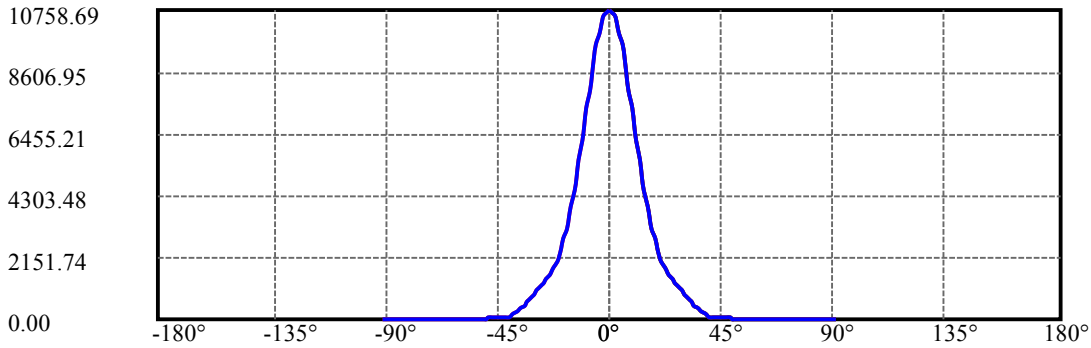
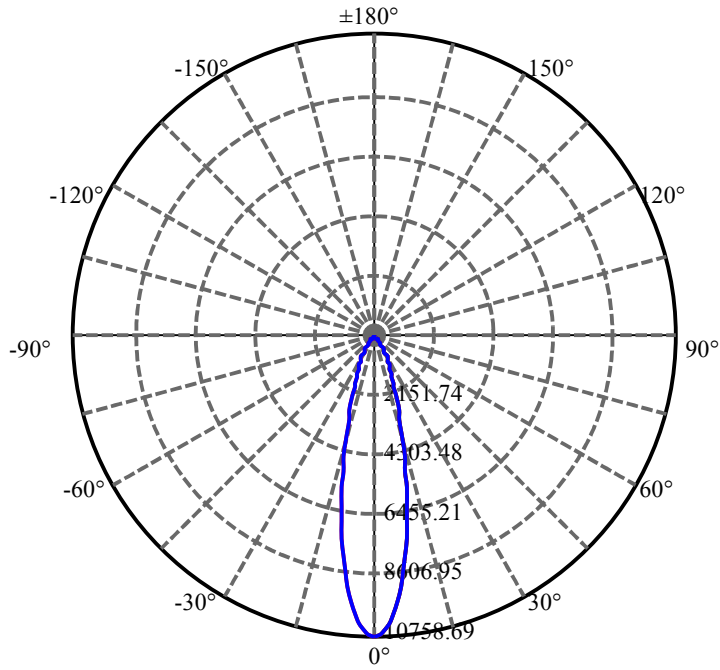
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.172	0.466	2913.327	0.01%	99.88%
77.0	3.857	0.428	2913.755	0.01%	99.90%
78.0	3.522	0.395	2914.15	0.01%	99.91%
79.0	3.206	0.361	2914.512	0.01%	99.93%
80.0	2.858	0.327	2914.838	0.01%	99.94%
81.0	2.589	0.295	2915.133	0.01%	99.95%
82.0	2.359	0.268	2915.401	0.01%	99.96%
83.0	2.103	0.243	2915.644	0.01%	99.96%
84.0	1.859	0.216	2915.86	0.01%	99.97%
85.0	1.623	0.190	2916.05	0.01%	99.98%
86.0	1.386	0.164	2916.214	0.01%	99.98%
87.0	1.216	0.142	2916.357	0.00%	99.99%
88.0	1.091	0.126	2916.483	0.00%	99.99%
89.0	0.940	0.111	2916.594	0.00%	100.00%
90.0	0.874	0.099	2916.694	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2575.58	81.84%	88.30%
0-40	2838.21	90.19%	97.31%
0-60	2896.90	92.05%	99.32%
0-90	2916.59	92.68%	100.00%
0-120	2916.59	92.68%	100.00%
0-180	2916.69	92.68%	100.00%
60-90	19.69	0.63%	0.68%
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%
0-25.68	2333.36	74.15%	80.00%

ZONAL LUMEN SUMMARY

0-10	819.28
10-20	1106.92
20-30	649.38
30-40	262.63
40-50	36.83
50-60	21.87
60-70	12.84
70-80	5.09
80-90	1.76
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: —————

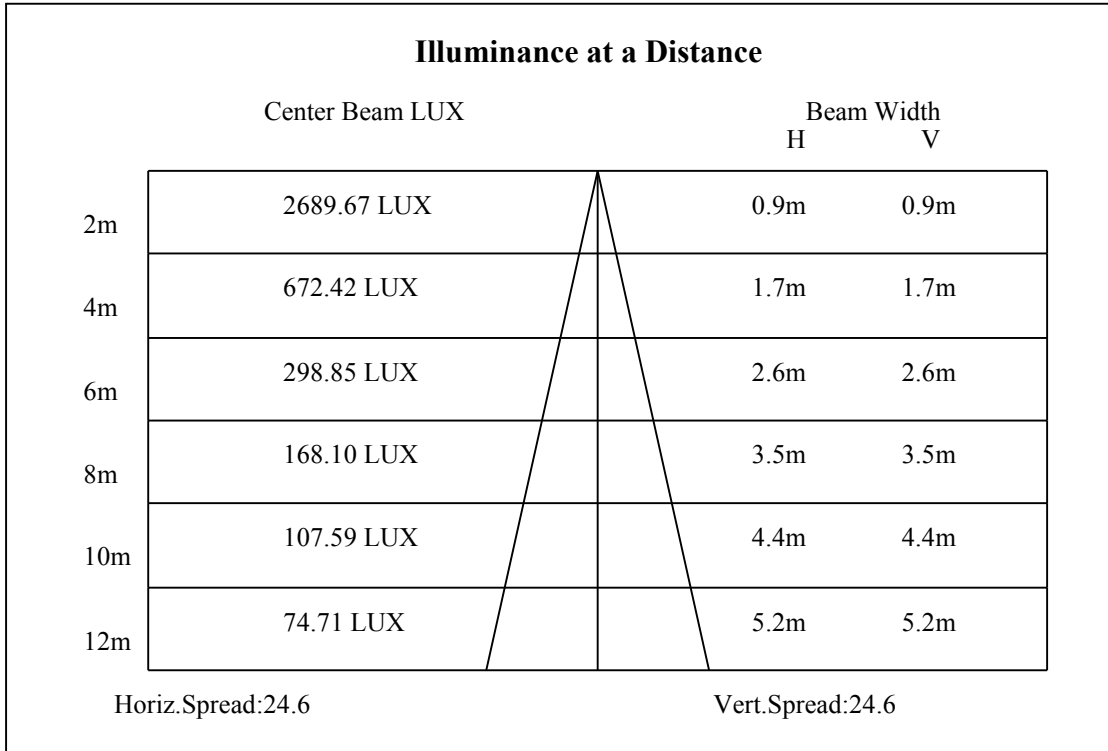
C90/C270: —————

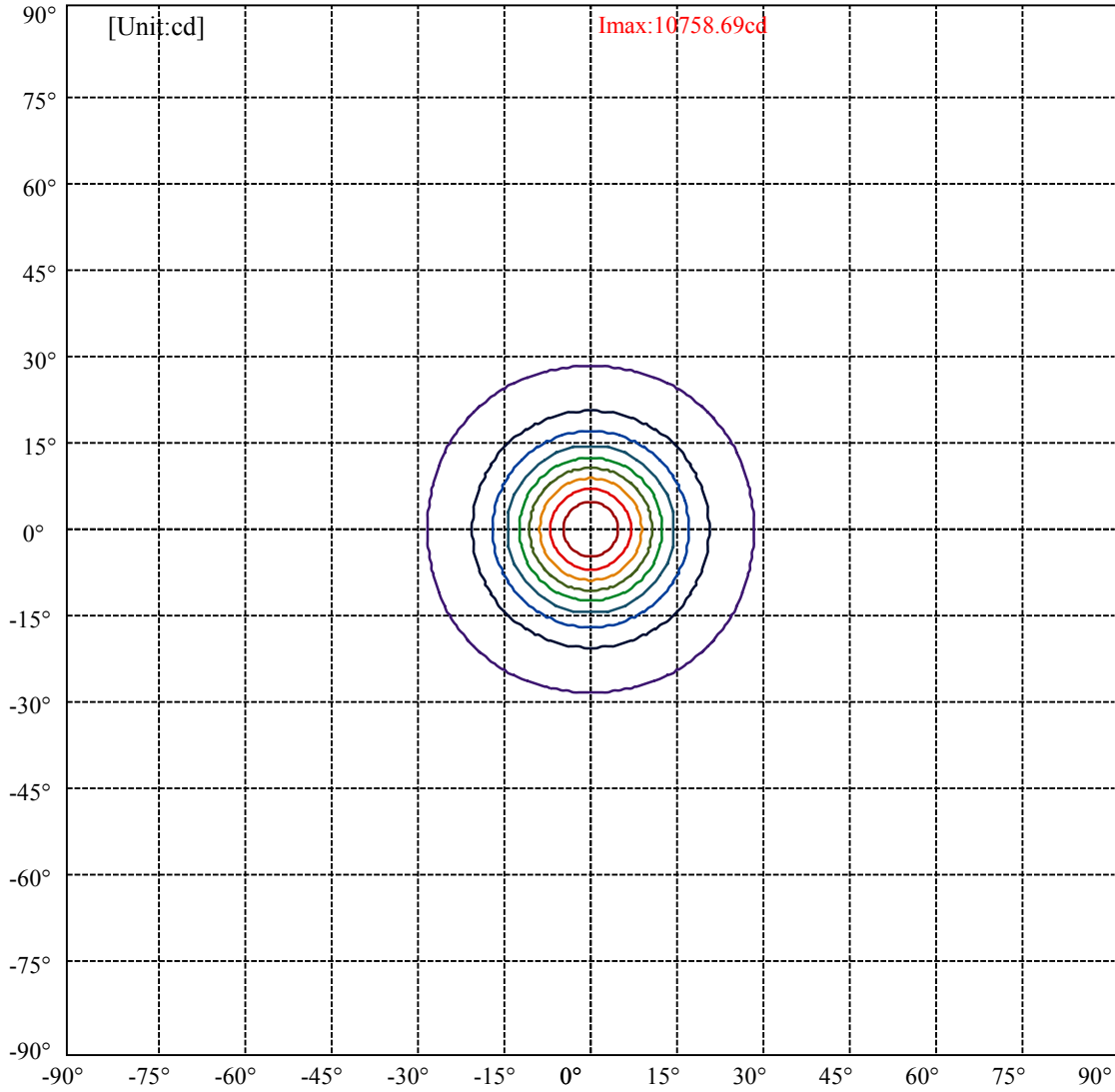
Field angle(10%Imax):C0/180Left:28.0 Right:28.0

:C90/270Left:28.0 Right:28.0

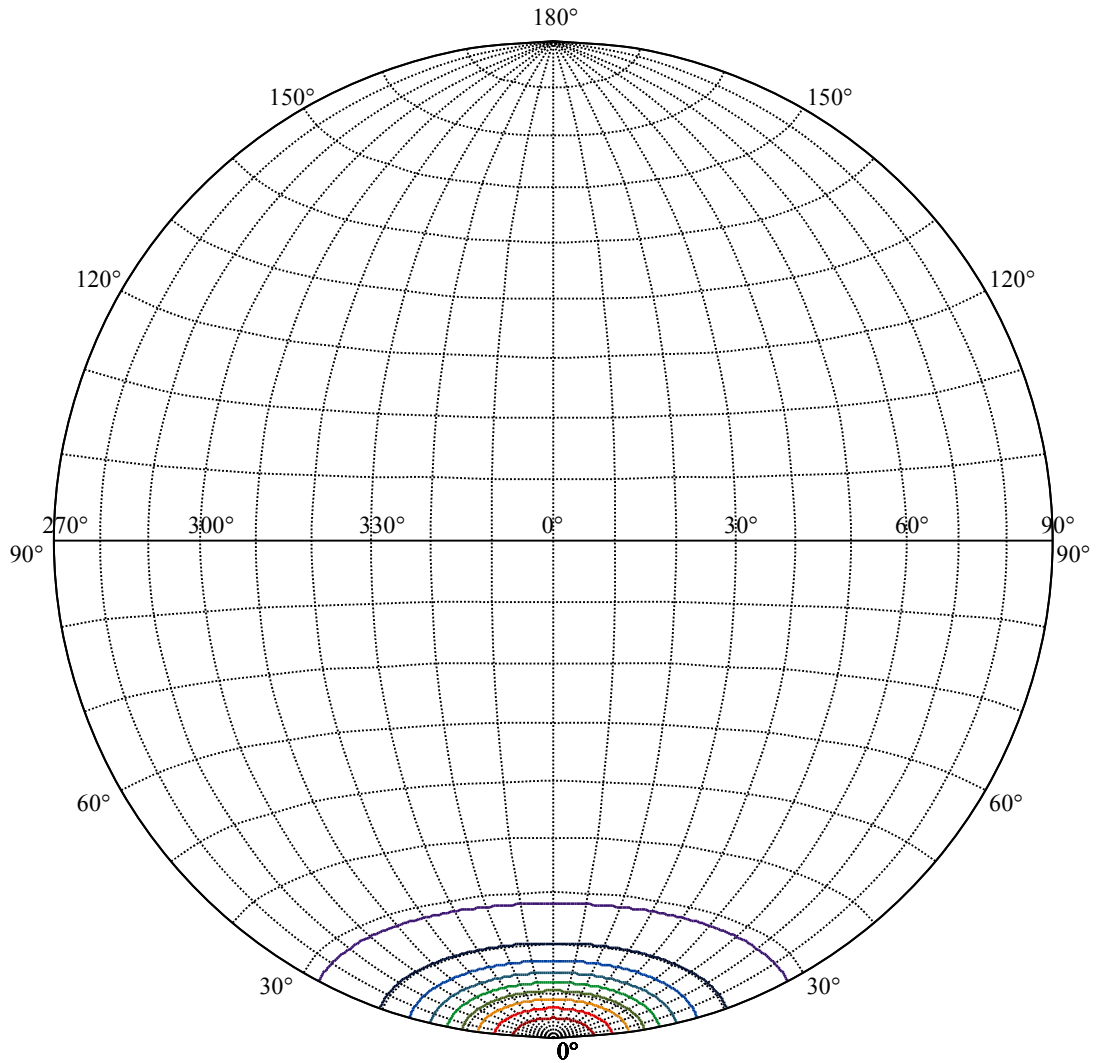
Beam Angle(50%Imax):C0/180Left:12.3 Right:12.3

:C90/270Left:12.3 Right:12.3





(10%Imax) 1075.87	—
(20%Imax) 2151.74	—
(30%Imax) 3227.61	—
(40%Imax) 4303.48	—
(50%Imax) 5379.35	—
(60%Imax) 6455.21	—
(70%Imax) 7531.08	—
(80%Imax) 8606.95	—
(90%Imax) 9682.82	—



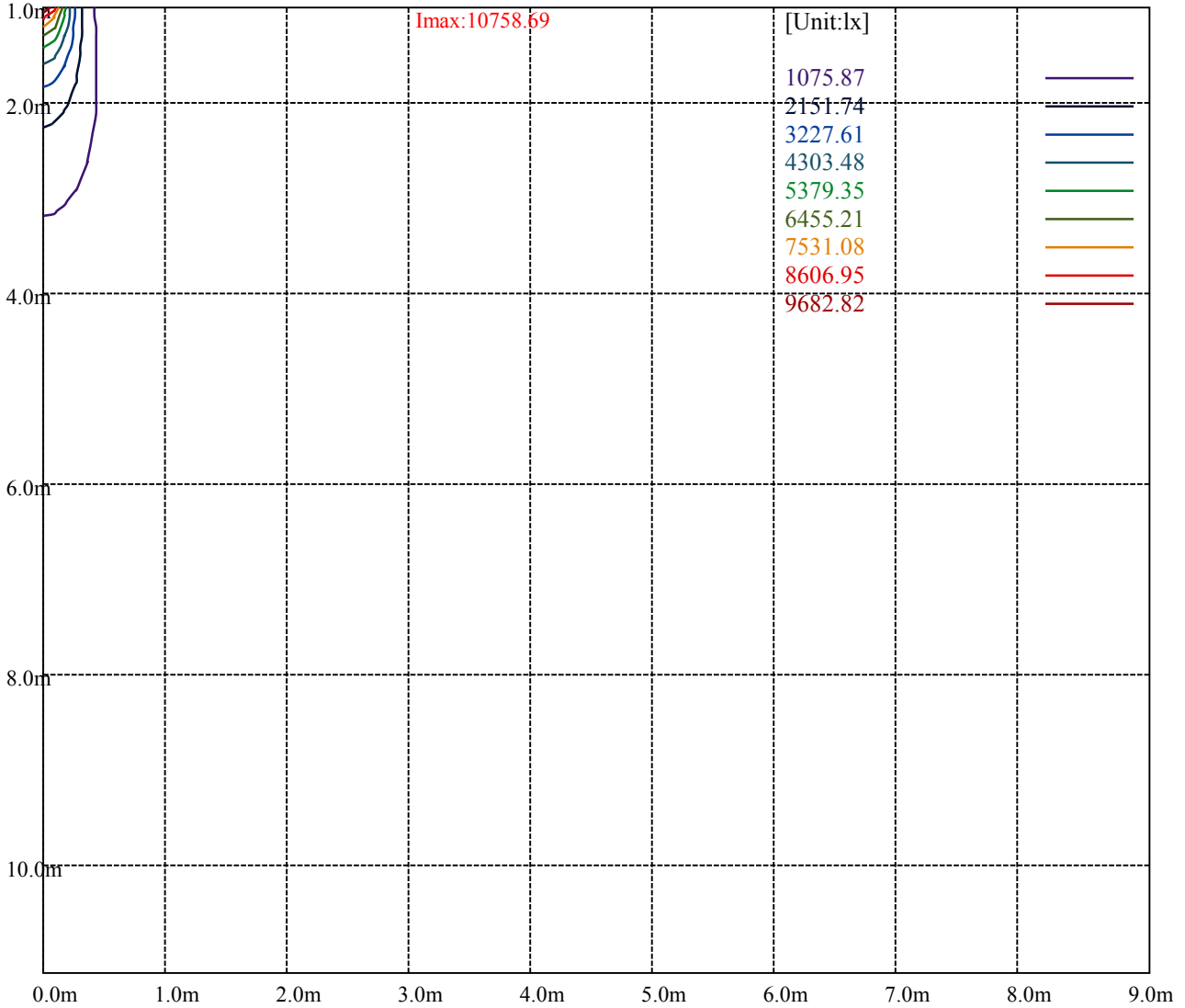
House

[Unit:cd]

Road

I_{max}:10758.69

(10%I _{max}) 1075.87	—
(20%I _{max}) 2151.74	—
(30%I _{max}) 3227.61	—
(40%I _{max}) 4303.48	—
(50%I _{max}) 5379.35	—
(60%I _{max}) 6455.21	—
(70%I _{max}) 7531.08	—
(80%I _{max}) 8606.95	—
(90%I _{max}) 9682.82	—



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											