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Nata

Client:

LumCAT: 2-2760-L

Luminaire: 92.70.412.00

Report No: 2024815-B017

Ballast type: AC

Test No: 2024815-C017

LampCAT: BRIDGELUX V13B LES13

Lamp flux(lm): 2544.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 35.220

Current(A): 0.450

Power (W): 15.840

PF: 0.000

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 2346.07, Efficiency(%): 92.22% , Luminous Efficacy(lm/W): 148.11

Central intensity(cd): 3467.102, Maximum intensity(cd): 3467.102

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=50.8

[C90/270]Total=50.8

Field angle(10%Imax): [C0/180]Total=73.6

[C90/270]Total=73.6

Maximum s/h(1/2): C0_180=0.80 C90_270=0.80

Maximum s/h(1/4): C0_180=0.77 C90_270=0.77

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.22%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.375%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3467.101	0.000	0	0.00%	0.00%
1.0	3466.195	3.317	3.317	0.13%	0.14%
2.0	3466.254	9.950	13.268	0.39%	0.57%
3.0	3463.468	16.574	29.841	0.65%	1.27%
4.0	3455.958	23.162	53.003	0.91%	2.26%
5.0	3443.560	29.681	82.684	1.17%	3.52%
6.0	3429.841	36.122	118.806	1.42%	5.06%
7.0	3407.410	42.439	161.244	1.67%	6.87%
8.0	3379.696	48.574	209.818	1.91%	8.94%
9.0	3343.967	54.492	264.31	2.14%	11.27%
10.0	3294.585	60.076	324.386	2.36%	13.83%
11.0	3243.540	65.329	389.716	2.57%	16.61%
12.0	3178.691	70.204	459.92	2.76%	19.60%
13.0	3109.262	74.622	534.542	2.93%	22.78%
14.0	3031.529	78.602	613.144	3.09%	26.13%
15.0	2945.524	82.056	695.199	3.23%	29.63%
16.0	2845.024	84.848	780.047	3.34%	33.25%
17.0	2736.174	86.914	866.961	3.42%	36.95%
18.0	2635.109	88.561	955.522	3.48%	40.73%
19.0	2510.162	89.517	1045.039	3.52%	44.54%
20.0	2393.591	89.752	1134.792	3.53%	48.37%
21.0	2277.901	89.702	1224.494	3.53%	52.19%
22.0	2156.028	89.102	1313.595	3.50%	55.99%
23.0	2034.701	87.933	1401.528	3.46%	59.74%
24.0	1895.765	85.934	1487.462	3.38%	63.40%
25.0	1779.037	83.557	1571.019	3.28%	66.96%
26.0	1651.993	80.990	1652.009	3.18%	70.42%
27.0	1479.648	76.616	1728.625	3.01%	73.68%
28.0	1366.592	72.061	1800.686	2.83%	76.75%
29.0	1225.330	67.812	1868.498	2.67%	79.64%
30.0	1086.697	62.424	1930.922	2.45%	82.30%
31.0	967.150	57.156	1988.078	2.25%	84.74%
32.0	827.419	51.412	2039.49	2.02%	86.93%
33.0	692.879	44.789	2084.279	1.76%	88.84%
34.0	579.948	38.520	2122.798	1.51%	90.48%
35.0	487.340	33.146	2155.944	1.30%	91.90%
36.0	402.510	28.333	2184.277	1.11%	93.10%
37.0	331.958	23.954	2208.232	0.94%	94.12%

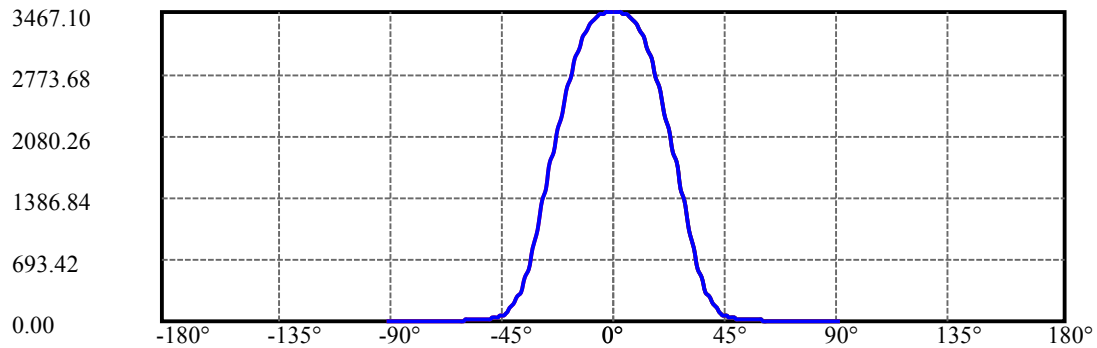
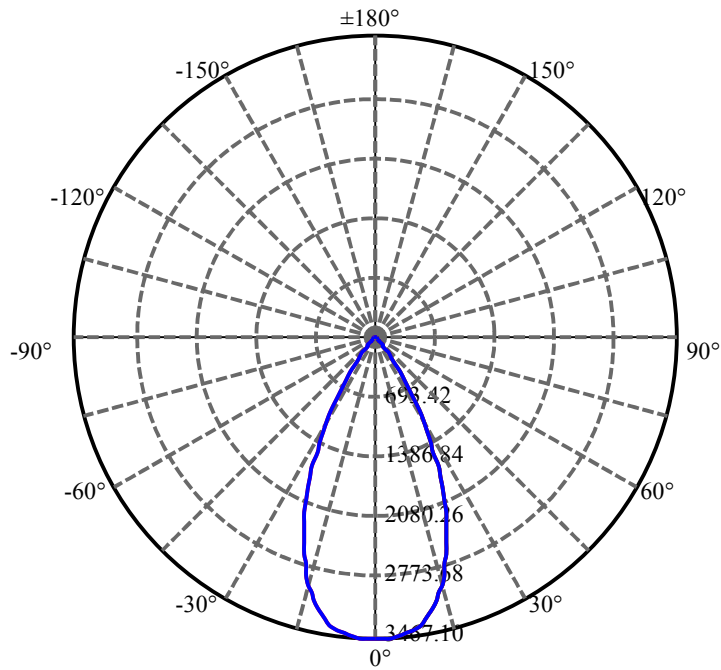
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	281.643	20.481	2228.713	0.81%	95.00%
39.0	228.410	17.410	2246.122	0.68%	95.74%
40.0	193.134	14.702	2260.824	0.58%	96.37%
41.0	149.140	12.188	2273.013	0.48%	96.89%
42.0	115.769	9.625	2282.637	0.38%	97.30%
43.0	94.258	7.780	2290.417	0.31%	97.63%
44.0	74.310	6.362	2296.779	0.25%	97.90%
45.0	60.381	5.176	2301.956	0.20%	98.12%
46.0	48.541	4.260	2306.215	0.17%	98.30%
47.0	39.704	3.510	2309.725	0.14%	98.45%
48.0	33.154	2.945	2312.67	0.12%	98.58%
49.0	28.364	2.526	2315.197	0.10%	98.68%
50.0	24.849	2.219	2317.415	0.09%	98.78%
51.0	21.813	1.974	2319.39	0.08%	98.86%
52.0	19.586	1.776	2321.166	0.07%	98.94%
53.0	17.733	1.623	2322.789	0.06%	99.01%
54.0	16.183	1.495	2324.284	0.06%	99.07%
55.0	14.783	1.382	2325.667	0.05%	99.13%
56.0	13.725	1.288	2326.955	0.05%	99.19%
57.0	12.727	1.209	2328.164	0.05%	99.24%
58.0	11.820	1.135	2329.299	0.04%	99.29%
59.0	11.189	1.076	2330.375	0.04%	99.33%
60.0	10.480	1.024	2331.399	0.04%	99.37%
61.0	9.928	0.974	2332.373	0.04%	99.42%
62.0	9.336	0.928	2333.301	0.04%	99.46%
63.0	8.824	0.883	2334.184	0.03%	99.49%
64.0	8.443	0.847	2335.031	0.03%	99.53%
65.0	7.976	0.813	2335.844	0.03%	99.56%
66.0	7.608	0.778	2336.622	0.03%	99.60%
67.0	7.208	0.745	2337.367	0.03%	99.63%
68.0	6.840	0.712	2338.078	0.03%	99.66%
69.0	6.498	0.680	2338.759	0.03%	99.69%
70.0	6.143	0.649	2339.408	0.03%	99.72%
71.0	5.821	0.618	2340.026	0.02%	99.74%
72.0	5.480	0.588	2340.614	0.02%	99.77%
73.0	5.204	0.559	2341.173	0.02%	99.79%
74.0	4.895	0.531	2341.703	0.02%	99.81%
75.0	4.599	0.502	2342.205	0.02%	99.84%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.258	0.470	2342.675	0.02%	99.86%
77.0	3.968	0.439	2343.114	0.02%	99.87%
78.0	3.660	0.408	2343.522	0.02%	99.89%
79.0	3.298	0.374	2343.896	0.01%	99.91%
80.0	3.009	0.340	2344.236	0.01%	99.92%
81.0	2.700	0.309	2344.545	0.01%	99.94%
82.0	2.405	0.277	2344.822	0.01%	99.95%
83.0	2.109	0.245	2345.067	0.01%	99.96%
84.0	1.833	0.215	2345.282	0.01%	99.97%
85.0	1.570	0.186	2345.468	0.01%	99.97%
86.0	1.360	0.160	2345.628	0.01%	99.98%
87.0	1.170	0.138	2345.766	0.01%	99.99%
88.0	0.986	0.118	2345.884	0.00%	99.99%
89.0	0.815	0.099	2345.983	0.00%	100.00%
90.0	0.723	0.084	2346.067	0.00%	100.00%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	1930.92	75.90%	82.30%
0-40	2260.82	88.87%	96.37%
0-60	2331.40	91.64%	99.37%
0-90	2345.98	92.22%	100.00%
0-120	2345.98	92.22%	100.00%
0-180	2346.07	92.22%	100.00%
60-90	14.58	0.57%	0.62%
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%
0-29.13	1876.85	73.78%	80.00%

ZONAL LUMEN SUMMARY

0-10	324.39
10-20	810.41
20-30	796.13
30-40	329.90
40-50	56.59
50-60	13.98
60-70	8.01
70-80	4.83
80-90	1.75
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:

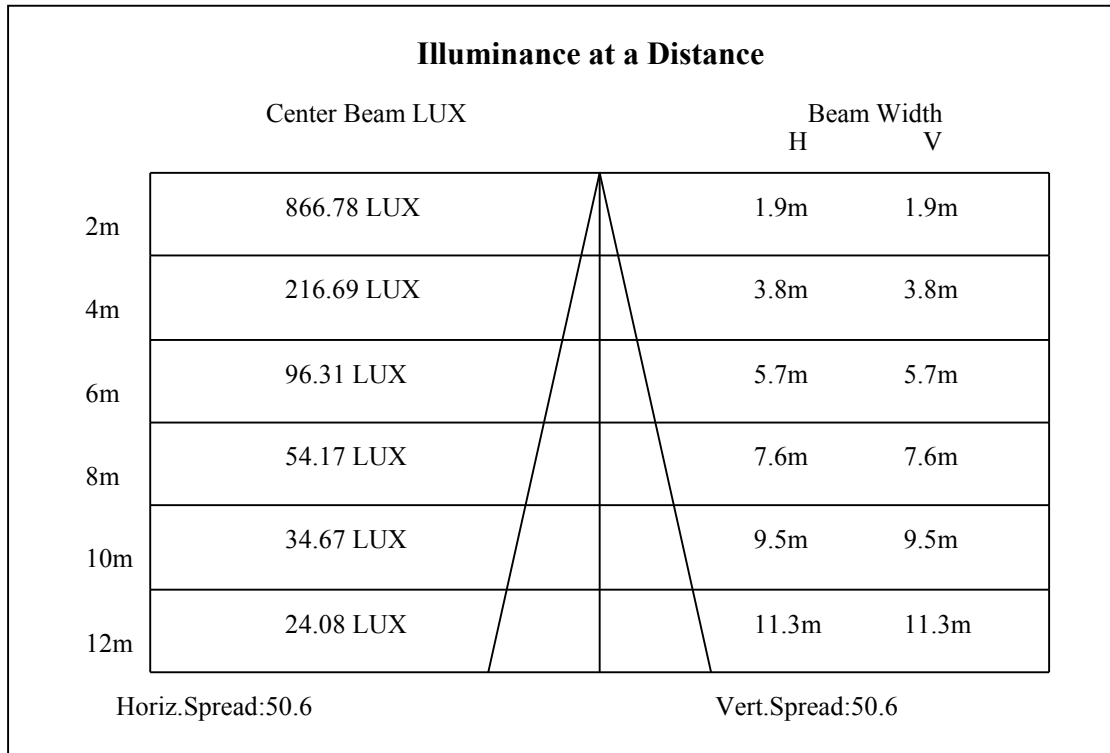
C90/C270:

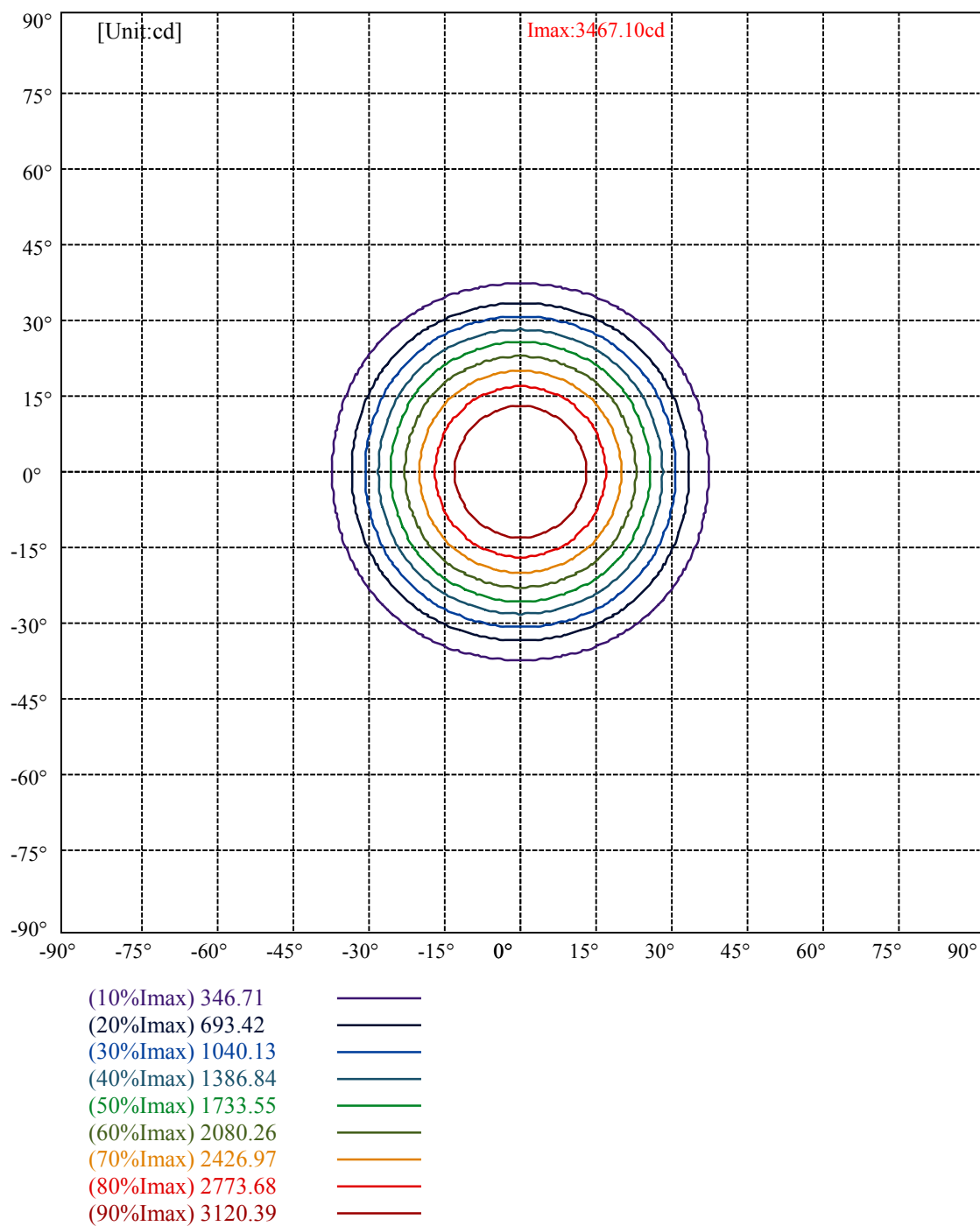
Field angle(10%Imax):C0/180Left:36.8 Right:36.8

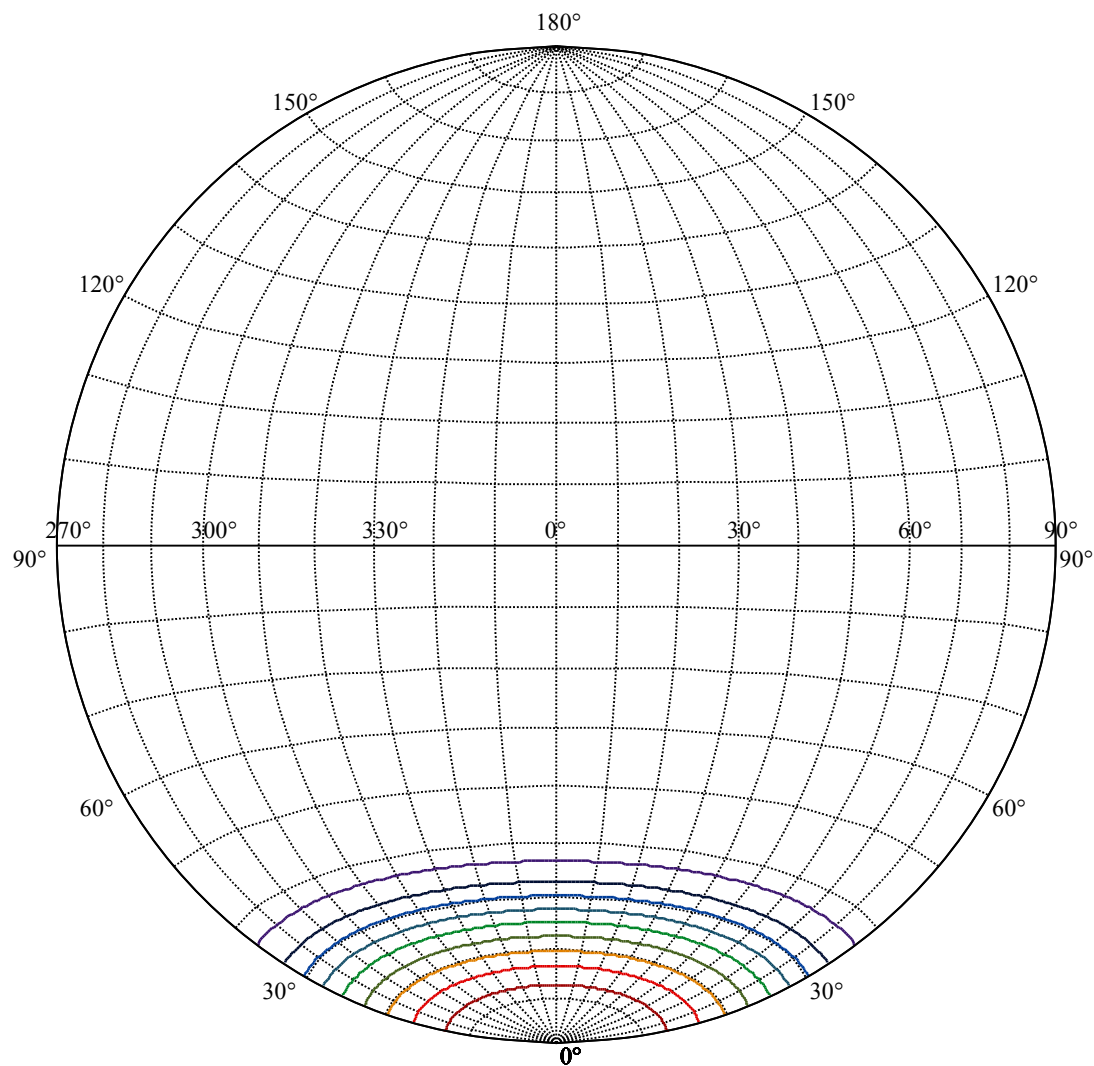
:C90/270Left:36.8 Right:36.8

Beam Angle(50%Imax):C0/180Left:25.4 Right:25.4

:C90/270Left:25.4 Right:25.4





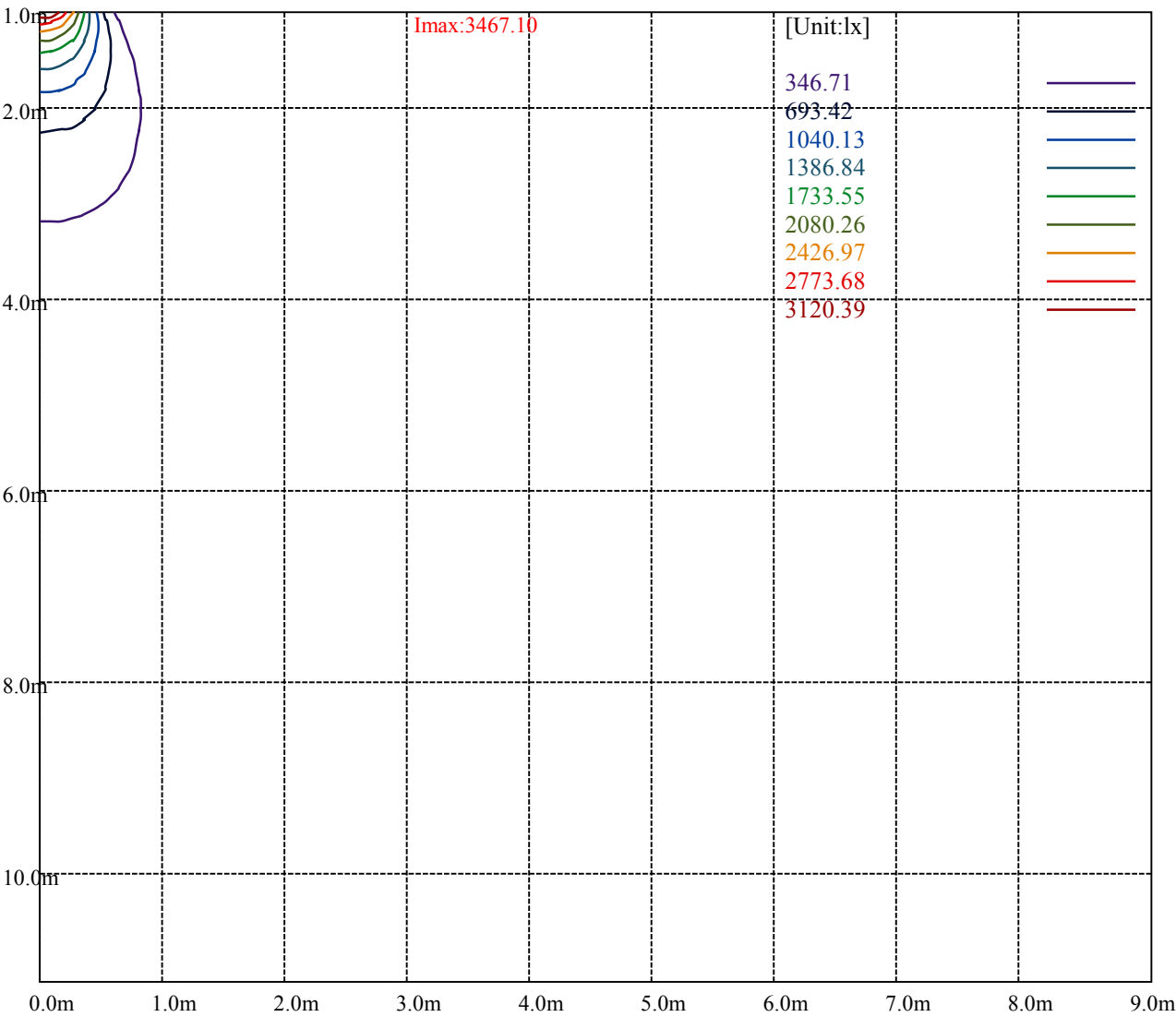


House

[Unit:cd]

Road

Imax:3467.10	
(10%Imax) 346.71	—
(20%Imax) 693.42	—
(30%Imax) 1040.13	—
(40%Imax) 1386.84	—
(50%Imax) 1733.55	—
(60%Imax) 2080.26	—
(70%Imax) 2426.97	—
(80%Imax) 2773.68	—
(90%Imax) 3120.39	—



Luminance Limiting Curve(no luminous side)

Luminance Table

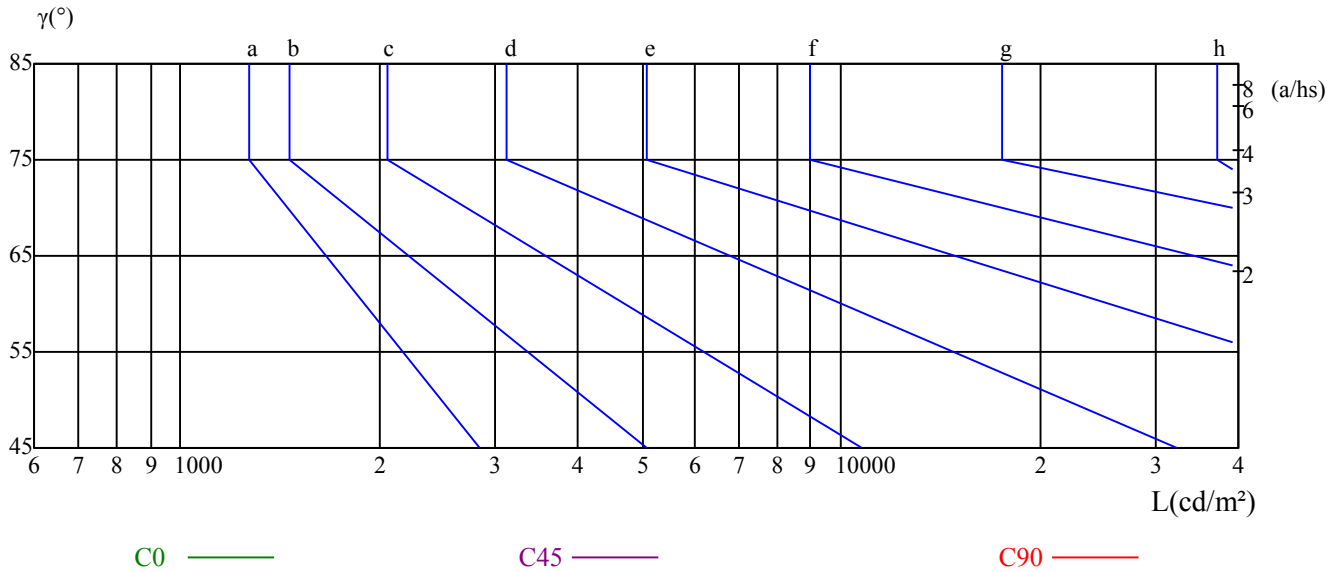
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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									
4H	12H									
	2H									
	3H									
	4H									
	6H									
8H	8H									
	12H									
	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										