



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

NT

Client:

LumCAT: 91.61.0188.000

Luminaire:

Report No: 2025421-B009

Ballast type: AC

Test No: 2024311-C009

Voltage(V): 3.350

LampCAT: CREE XPE2

Current(A): 0.326

Lamp flux(lm): 93.9

Power (W): 1.092

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 85.05, Efficiency(%): 90.60% , Luminous Efficacy(lm/W): 77.88

Central intensity(cd): 5571.299, Maximum intensity(cd): 5571.299

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=4.2

[C90/270]Total=4.2

Field angle(10%Imax): [C0/180]Total=8.0

[C90/270]Total=8.0

Maximum s/h(1/2): C0_180=0.07 C90_270=0.07

Maximum s/h(1/4): C0_180=0.08 C90_270=0.08

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 90.60%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 90.477%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/3/11
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5571.298	0.000	0	0.00%	0.00%
1.0	4756.028	4.941	4.941	5.26%	5.81%
2.0	2970.361	11.090	16.031	11.81%	18.85%
3.0	1576.633	10.875	26.906	11.59%	31.64%
4.0	532.972	7.062	33.968	7.52%	39.94%
5.0	261.479	3.418	37.385	3.64%	43.96%
6.0	178.808	2.314	39.699	2.46%	46.68%
7.0	134.719	1.946	41.645	2.07%	48.97%
8.0	94.704	1.642	43.287	1.75%	50.90%
9.0	79.722	1.414	44.701	1.51%	52.56%
10.0	68.983	1.346	46.046	1.43%	54.14%
11.0	60.212	1.291	47.337	1.38%	55.66%
12.0	52.612	1.233	48.571	1.31%	57.11%
13.0	46.577	1.177	49.748	1.25%	58.50%
14.0	41.405	1.126	50.874	1.20%	59.82%
15.0	37.140	1.078	51.952	1.15%	61.09%
16.0	33.292	1.032	52.984	1.10%	62.30%
17.0	29.912	0.984	53.968	1.05%	63.46%
18.0	27.235	0.942	54.911	1.00%	64.57%
19.0	24.675	0.903	55.814	0.96%	65.63%
20.0	22.436	0.862	56.676	0.92%	66.64%
21.0	20.329	0.821	57.497	0.87%	67.61%
22.0	18.581	0.782	58.279	0.83%	68.53%
23.0	17.089	0.748	59.028	0.80%	69.41%
24.0	15.801	0.719	59.747	0.77%	70.25%
25.0	14.536	0.690	60.437	0.73%	71.06%
26.0	13.446	0.660	61.097	0.70%	71.84%
27.0	12.560	0.636	61.733	0.68%	72.59%
28.0	11.800	0.617	62.35	0.66%	73.31%
29.0	11.127	0.600	62.95	0.64%	74.02%
30.0	10.519	0.584	63.534	0.62%	74.71%
31.0	9.993	0.571	64.105	0.61%	75.38%
32.0	9.561	0.560	64.665	0.60%	76.04%
33.0	9.173	0.552	65.217	0.59%	76.69%
34.0	8.808	0.544	65.761	0.58%	77.33%
35.0	8.427	0.535	66.297	0.57%	77.95%
36.0	8.135	0.527	66.824	0.56%	78.57%
37.0	7.827	0.521	67.345	0.55%	79.19%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	7.542	0.513	67.858	0.55%	79.79%
39.0	7.242	0.505	68.362	0.54%	80.38%
40.0	6.964	0.495	68.858	0.53%	80.97%
41.0	6.694	0.486	69.344	0.52%	81.54%
42.0	6.430	0.477	69.821	0.51%	82.10%
43.0	6.203	0.468	70.289	0.50%	82.65%
44.0	5.955	0.459	70.748	0.49%	83.19%
45.0	5.728	0.449	71.197	0.48%	83.72%
46.0	5.523	0.440	71.637	0.47%	84.23%
47.0	5.318	0.431	72.068	0.46%	84.74%
48.0	5.128	0.422	72.49	0.45%	85.24%
49.0	4.931	0.413	72.903	0.44%	85.72%
50.0	4.770	0.404	73.308	0.43%	86.20%
51.0	4.594	0.396	73.704	0.42%	86.66%
52.0	4.448	0.388	74.092	0.41%	87.12%
53.0	4.294	0.380	74.472	0.41%	87.57%
54.0	4.155	0.372	74.844	0.40%	88.01%
55.0	4.045	0.366	75.21	0.39%	88.44%
56.0	3.928	0.360	75.571	0.38%	88.86%
57.0	3.797	0.353	75.924	0.38%	89.27%
58.0	3.687	0.346	76.27	0.37%	89.68%
59.0	3.599	0.341	76.611	0.36%	90.08%
60.0	3.504	0.336	76.946	0.36%	90.48%
61.0	3.424	0.331	77.277	0.35%	90.87%
62.0	3.358	0.327	77.604	0.35%	91.25%
63.0	3.285	0.323	77.927	0.34%	91.63%
64.0	3.226	0.319	78.246	0.34%	92.01%
65.0	3.153	0.316	78.562	0.34%	92.38%
66.0	3.124	0.313	78.875	0.33%	92.74%
67.0	3.080	0.312	79.187	0.33%	93.11%
68.0	3.029	0.309	79.496	0.33%	93.48%
69.0	3.021	0.309	79.805	0.33%	93.84%
70.0	2.963	0.307	80.112	0.33%	94.20%
71.0	2.933	0.305	80.417	0.32%	94.56%
72.0	2.897	0.303	80.72	0.32%	94.91%
73.0	2.860	0.301	81.021	0.32%	95.27%
74.0	2.831	0.299	81.32	0.32%	95.62%
75.0	2.787	0.297	81.617	0.32%	95.97%

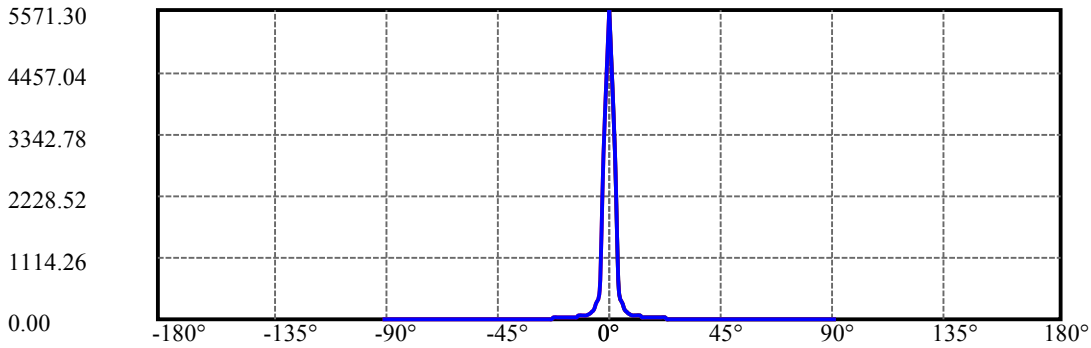
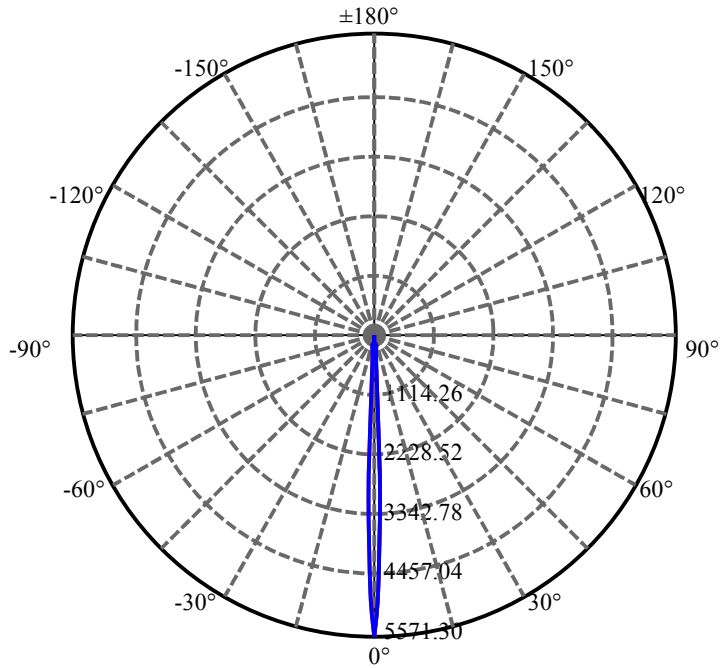
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	2.765	0.295	81.912	0.31%	96.32%
77.0	2.729	0.293	82.205	0.31%	96.66%
78.0	2.692	0.290	82.495	0.31%	97.00%
79.0	2.634	0.286	82.781	0.30%	97.34%
80.0	2.568	0.280	83.062	0.30%	97.67%
81.0	2.524	0.275	83.337	0.29%	97.99%
82.0	2.429	0.269	83.606	0.29%	98.31%
83.0	2.356	0.260	83.866	0.28%	98.61%
84.0	2.268	0.252	84.117	0.27%	98.91%
85.0	2.019	0.234	84.351	0.25%	99.18%
86.0	1.675	0.202	84.553	0.22%	99.42%
87.0	1.295	0.163	84.716	0.17%	99.61%
88.0	1.083	0.130	84.846	0.14%	99.77%
89.0	0.914	0.109	84.956	0.12%	99.89%
90.0	0.717	0.089	85.045	0.10%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	63.53	67.68%	74.71%
0-40	68.86	73.35%	80.97%
0-60	76.95	81.97%	90.48%
0-90	84.96	90.50%	99.89%
0-120	84.96	90.50%	99.89%
0-180	85.05	90.60%	100.00%
60-90	8.01	8.53%	9.42%
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%
0-38.35	68.04	72.48%	80.00%

ZONAL LUMEN SUMMARY

0-10	46.05
10-20	10.63
20-30	6.86
30-40	5.32
40-50	4.45
50-60	3.64
60-70	3.17
70-80	2.95
80-90	1.89
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



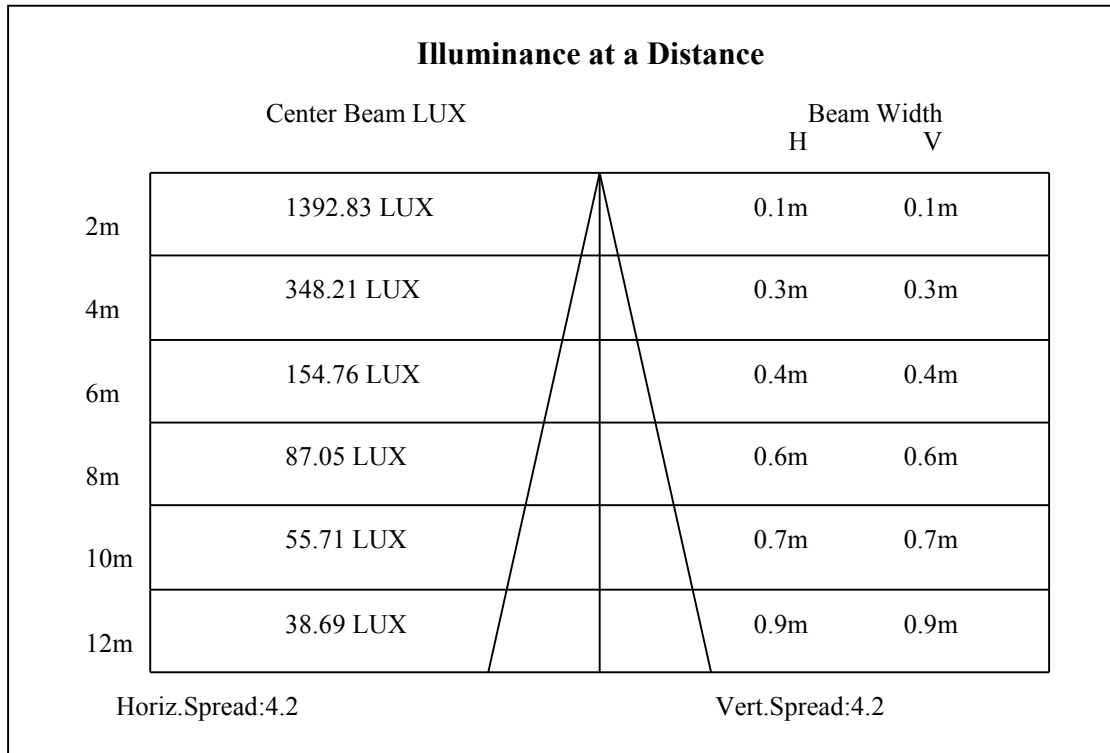
C0(Max): ———

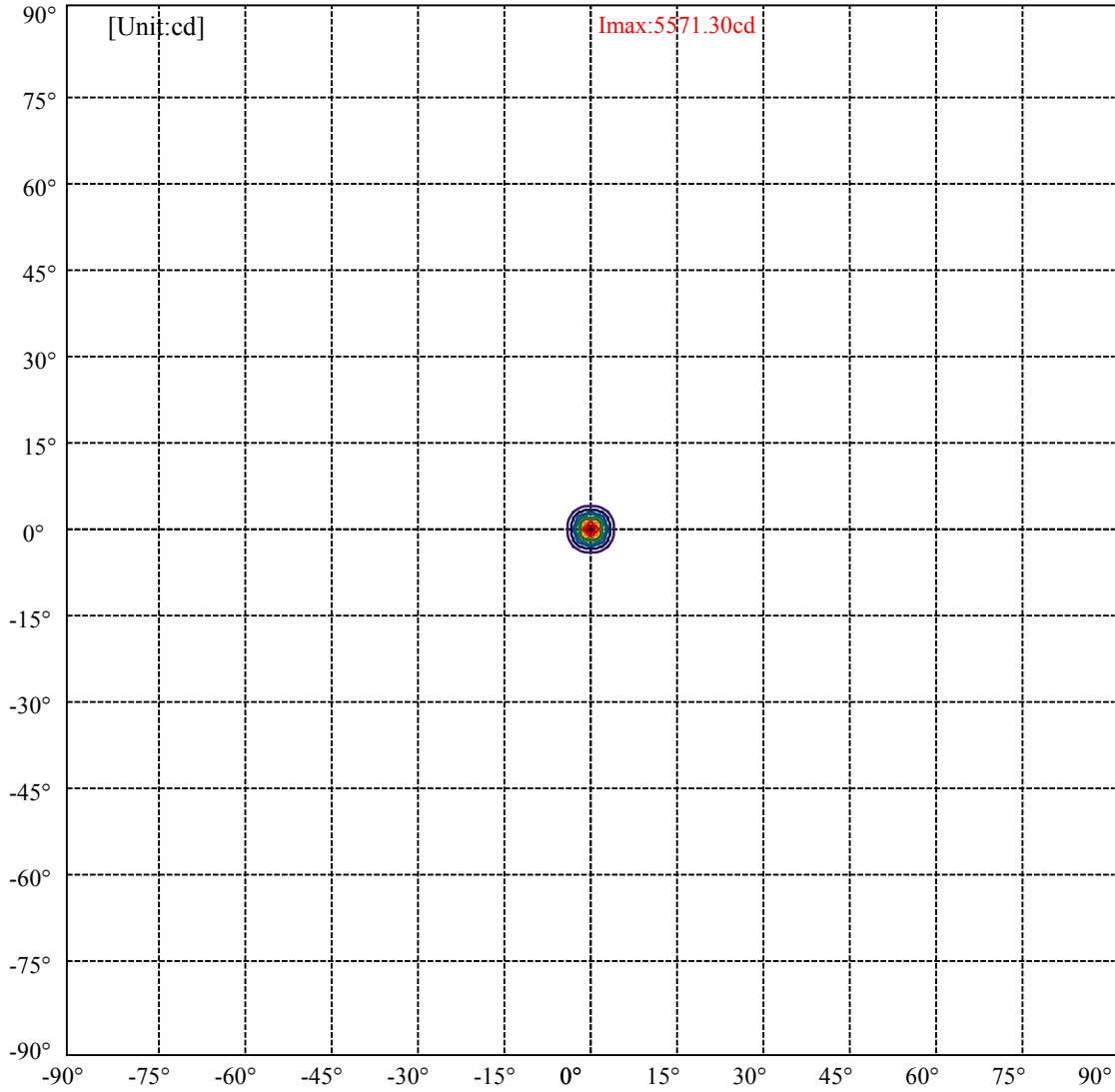
C0/C180: ———

C90/C270: ———

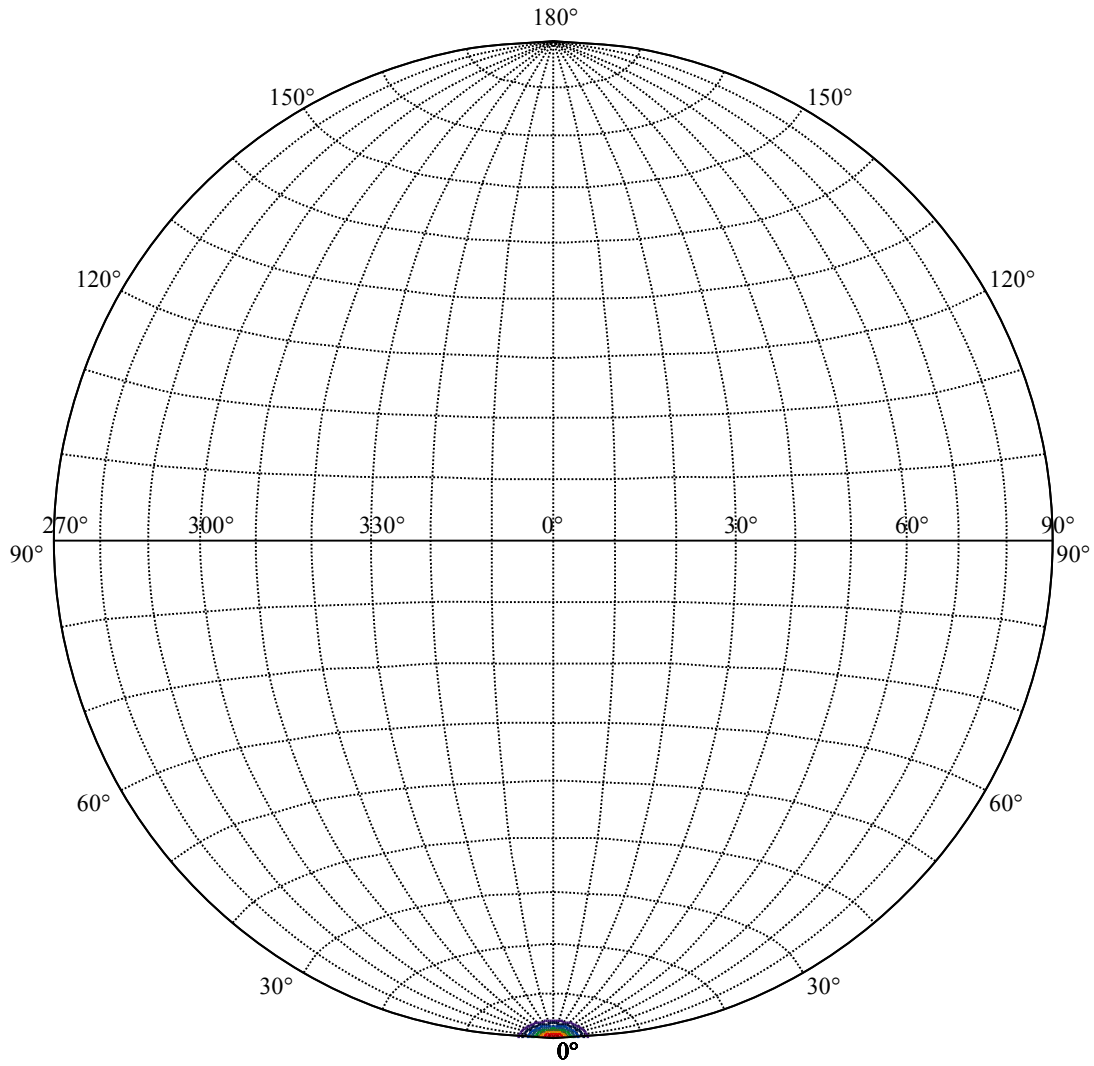
Field angle(10%Imax):C0/180Left:4.0 Right:4.0
:C90/270Left:4.0 Right:4.0

Beam Angle(50%Imax):C0/180Left:2.1 Right:2.1
:C90/270Left:2.1 Right:2.1





- (10%I_{max}) 557.13
- (20%I_{max}) 1114.26
- (30%I_{max}) 1671.39
- (40%I_{max}) 2228.52
- (50%I_{max}) 2785.65
- (60%I_{max}) 3342.78
- (70%I_{max}) 3899.91
- (80%I_{max}) 4457.04
- (90%I_{max}) 5014.17



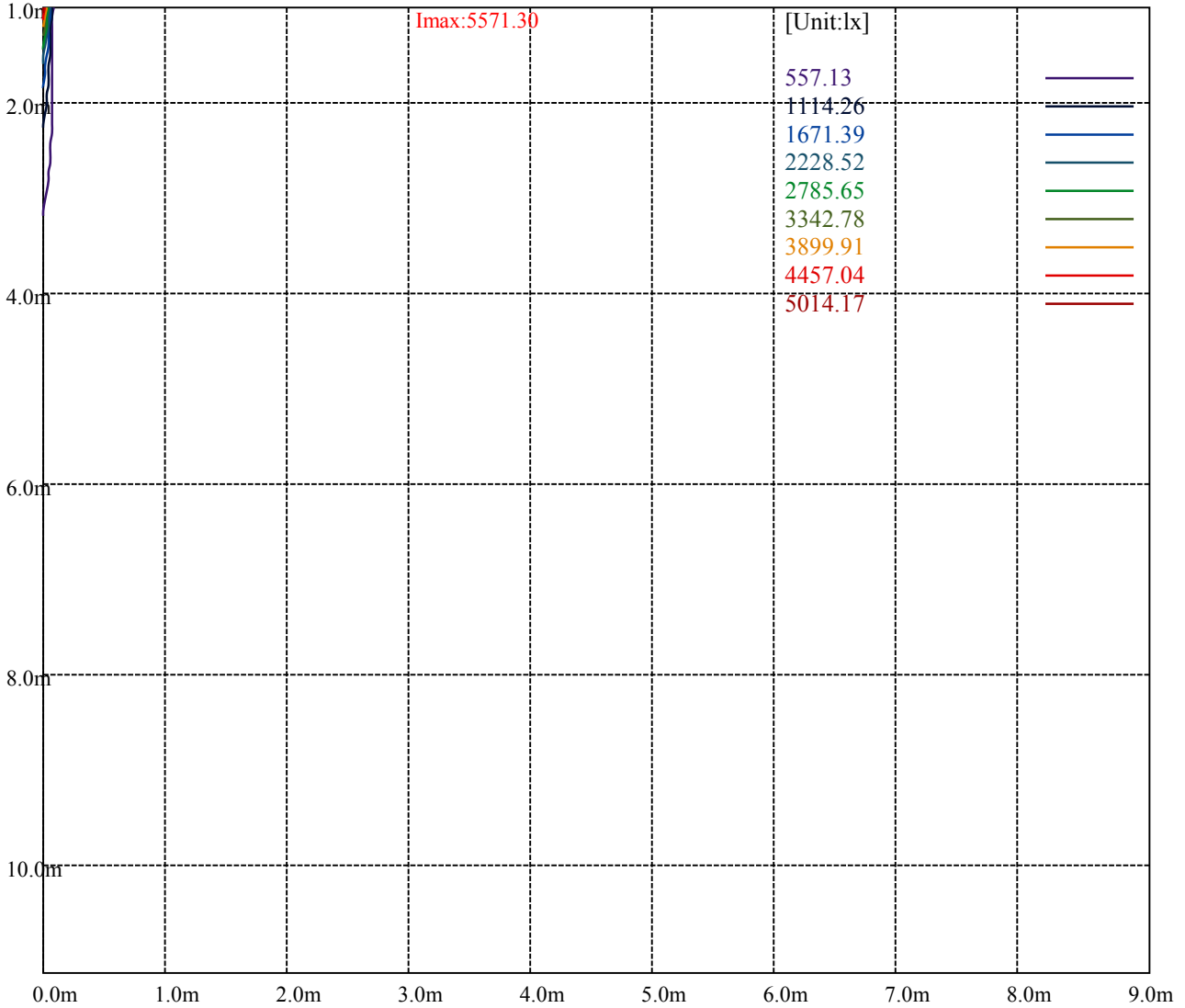
House

[Unit:cd]

Road

Imax:5571.30

(10%Imax) 557.13	—
(20%Imax) 1114.26	—
(30%Imax) 1671.39	—
(40%Imax) 2228.52	—
(50%Imax) 2785.65	—
(60%Imax) 3342.78	—
(70%Imax) 3899.91	—
(80%Imax) 4457.04	—
(90%Imax) 5014.17	—



Luminance Table

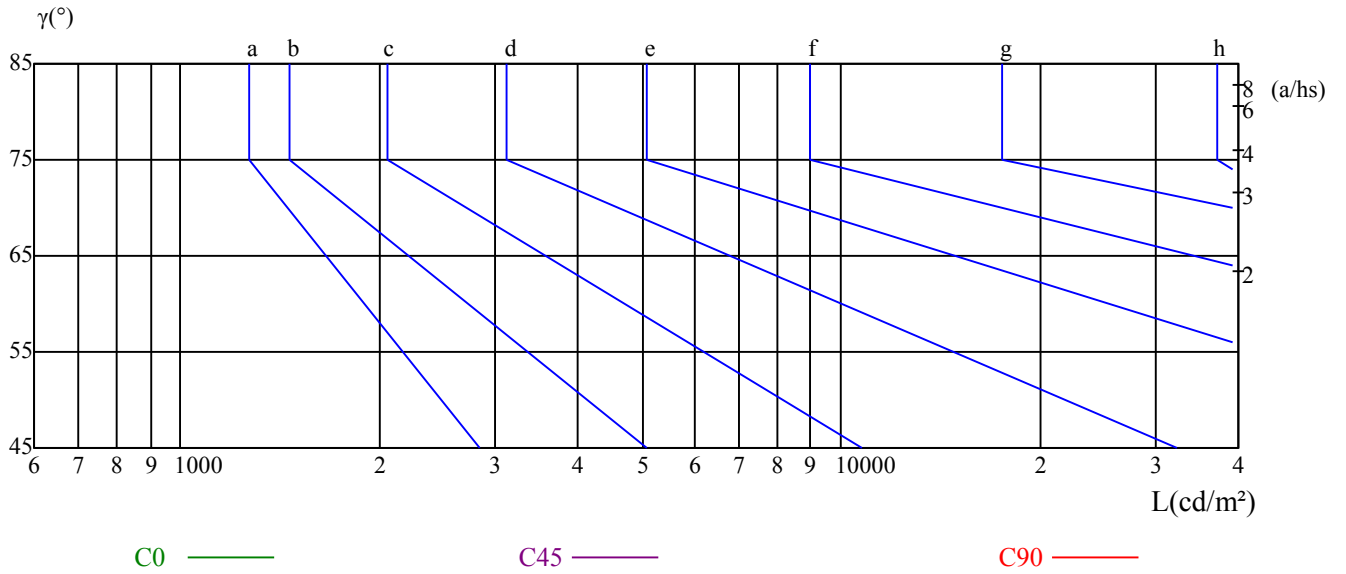
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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											