
Nata

LumCAT: 3-1939-M
Luminaire: BJB 47.319.2021
Report No: GC2017070603
Test No: NT-0010
LampCAT: SEOUL SAWx15
Lamp flux(lm): 2402.0
Number of Lamps: 1
Length(mm): 78
Phm Type: C

Voltage(V): 34.5600
Current(A): 0.5000
Power (W): 17.2800
PF: 0.0000
Ballast type: DC
Width(mm): 78
Height(mm): 0

Photometric Results

Lumens(lm): 2171.06
Efficiency(%): 90.39%
Lumens(lm)/Power(W): 125.64
Central intensity(cd): 7183.787
Maximum intensity(cd): 7183.787
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=28.1
 [C90/270]Total=28.1
Field angle(10%Imax): [C0/180]Total=58.6
 [C90/270]Total=58.6
Maximum s/h(1/2): C0_180=0.48 C90_270=0.48
Maximum s/h(1/4): C0_180=0.45 C90_270=0.45
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.39%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.718%

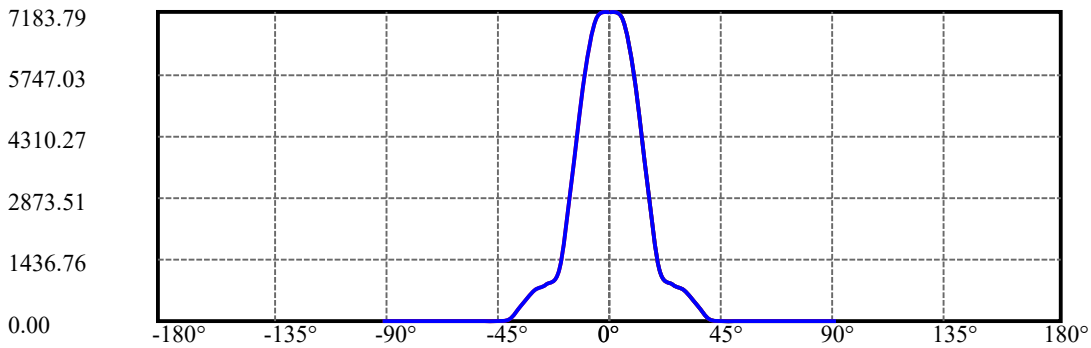
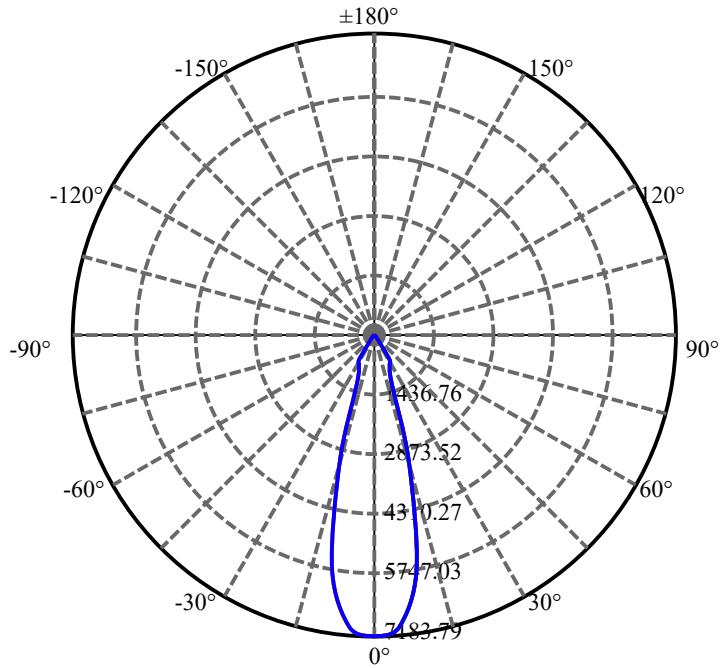
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7183.787	0.000	0	.000%	.000%
5.0	6992.276	169.471	169.471	7.055%	7.806%
10.0	5666.585	452.847	622.318	18.853%	28.664%
15.0	3102.855	520.197	1142.515	21.657%	52.625%
20.0	1196.843	354.356	1496.871	14.753%	68.946%
25.0	832.534	212.844	1709.715	8.861%	78.750%
30.0	699.193	193.841	1903.556	8.070%	87.679%
35.0	335.823	152.413	2055.97	6.345%	94.699%
40.0	39.951	62.695	2118.665	2.610%	97.587%
45.0	14.456	10.074	2128.738	.419%	98.051%
50.0	11.367	5.218	2133.956	.217%	98.291%
55.0	10.254	4.701	2138.657	.196%	98.507%
60.0	9.537	4.575	2143.232	.190%	98.718%
65.0	9.155	4.544	2147.776	.189%	98.927%
70.0	8.946	4.583	2152.359	.191%	99.139%
75.0	8.786	4.635	2156.994	.193%	99.352%
80.0	8.675	4.672	2161.666	.195%	99.567%
85.0	8.619	4.699	2166.365	.196%	99.784%
90.0	8.536	4.697	2171.062	.196%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1903.56	79.25%	87.68%
0-40	2118.66	88.20%	97.59%
0-60	2143.23	89.23%	98.72%
0-90	2166.37	90.19%	99.78%
0-120	2166.37	90.19%	99.78%
0-180	2171.06	90.39%	100.00%
60-90	27.71	1.15%	1.28%
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%
0-25.70	1736.85	72.31%	80.00%

ZONAL LUMEN SUMMARY

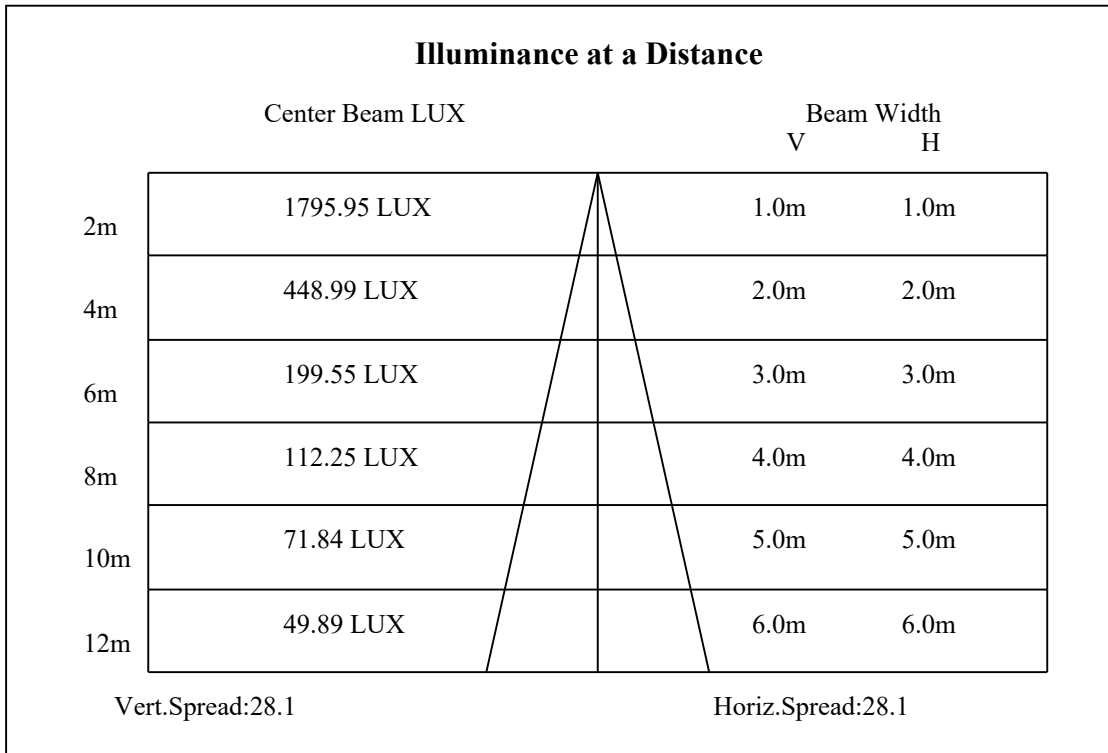
0-10	622.32
10-20	874.55
20-30	406.69
30-40	215.11
40-50	15.29
50-60	9.28
60-70	9.13
70-80	9.31
80-90	4.70
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

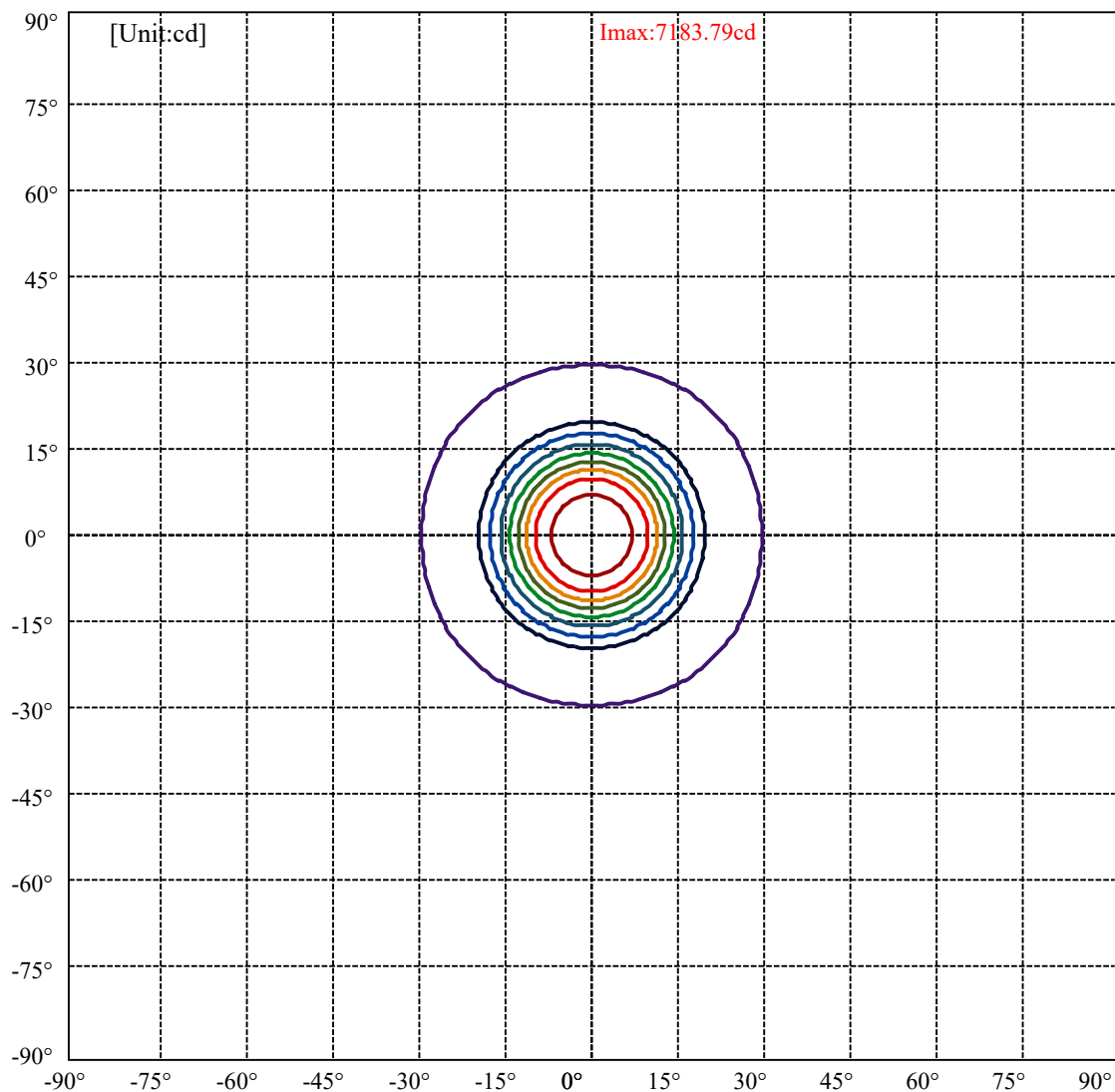


C0(Max): —————
C0/C180: —————
C90/C270: —————

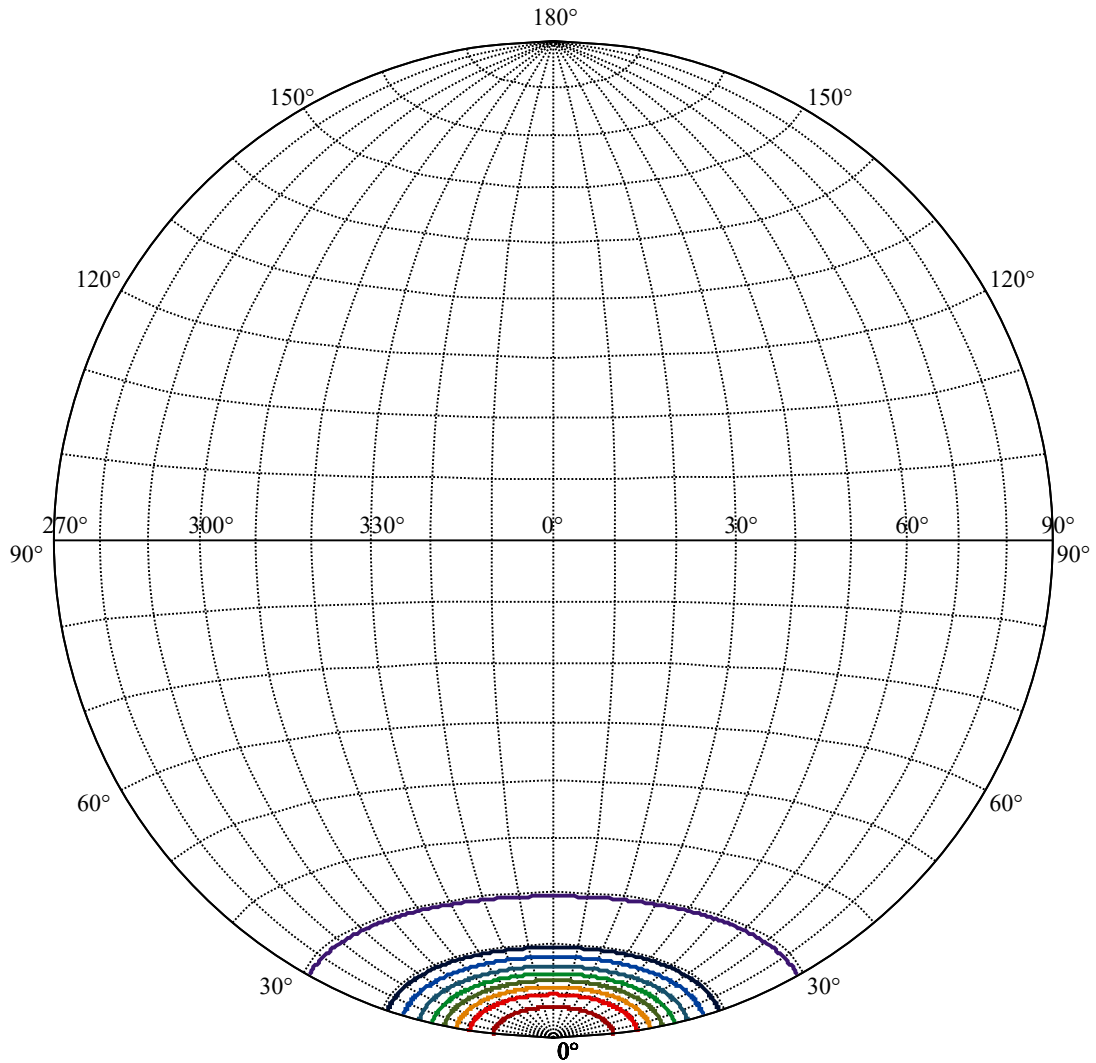
Field angle(10%Imax):C0/180Left:29.3 Right:29.3
:C90/270Left:29.3 Right:29.3

Beam Angle(50%Imax):C0/180Left:14.0 Right:14.0
:C90/270Left:14.0 Right:14.0





(10%Imax) 718.379	—
(20%Imax) 1436.76	—
(30%Imax) 2155.14	—
(40%Imax) 2873.51	—
(50%Imax) 3591.89	—
(60%Imax) 4310.27	—
(70%Imax) 5028.65	—
(80%Imax) 5747.03	—
(90%Imax) 6465.41	—



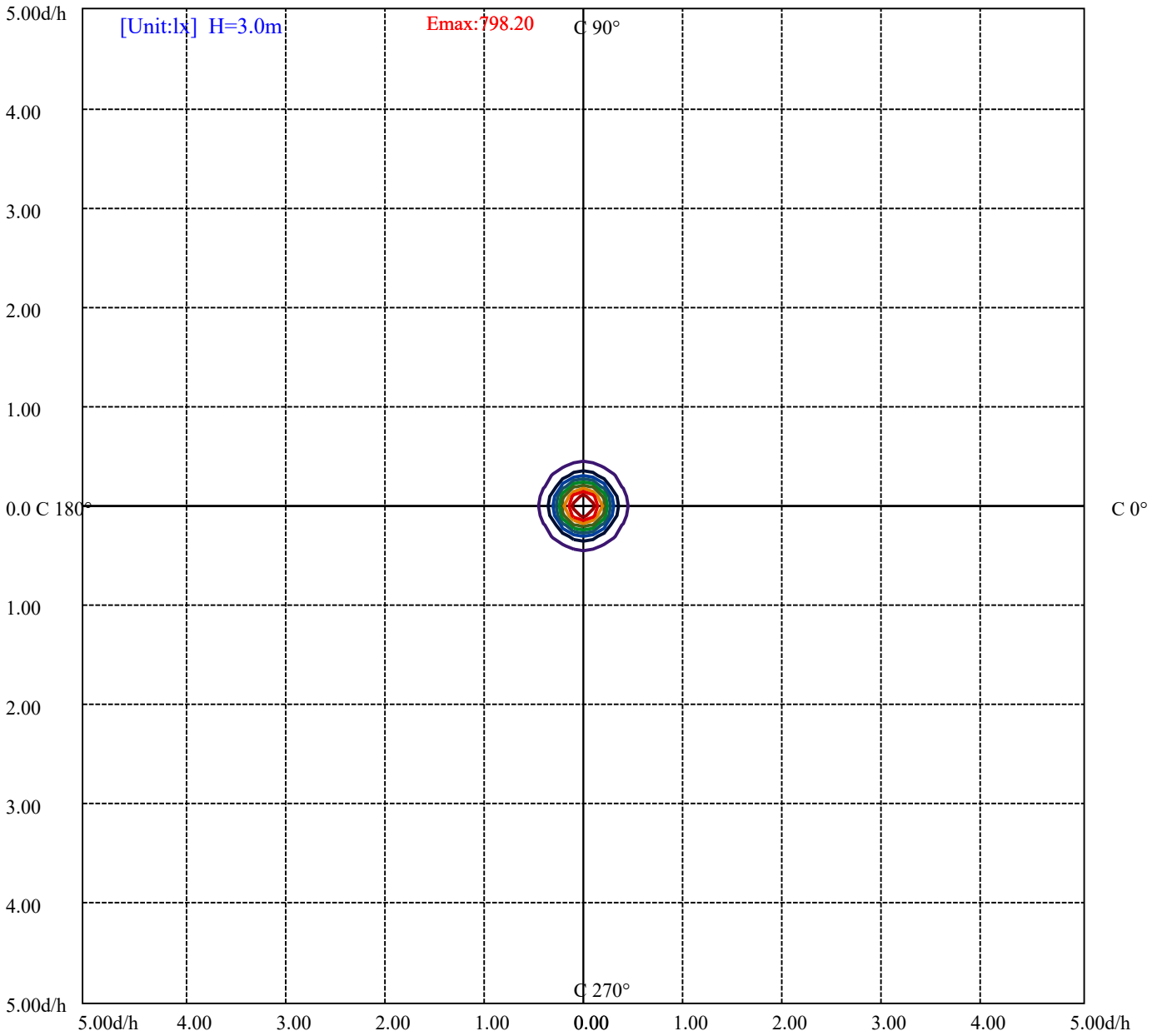
House

[Unit:cd]

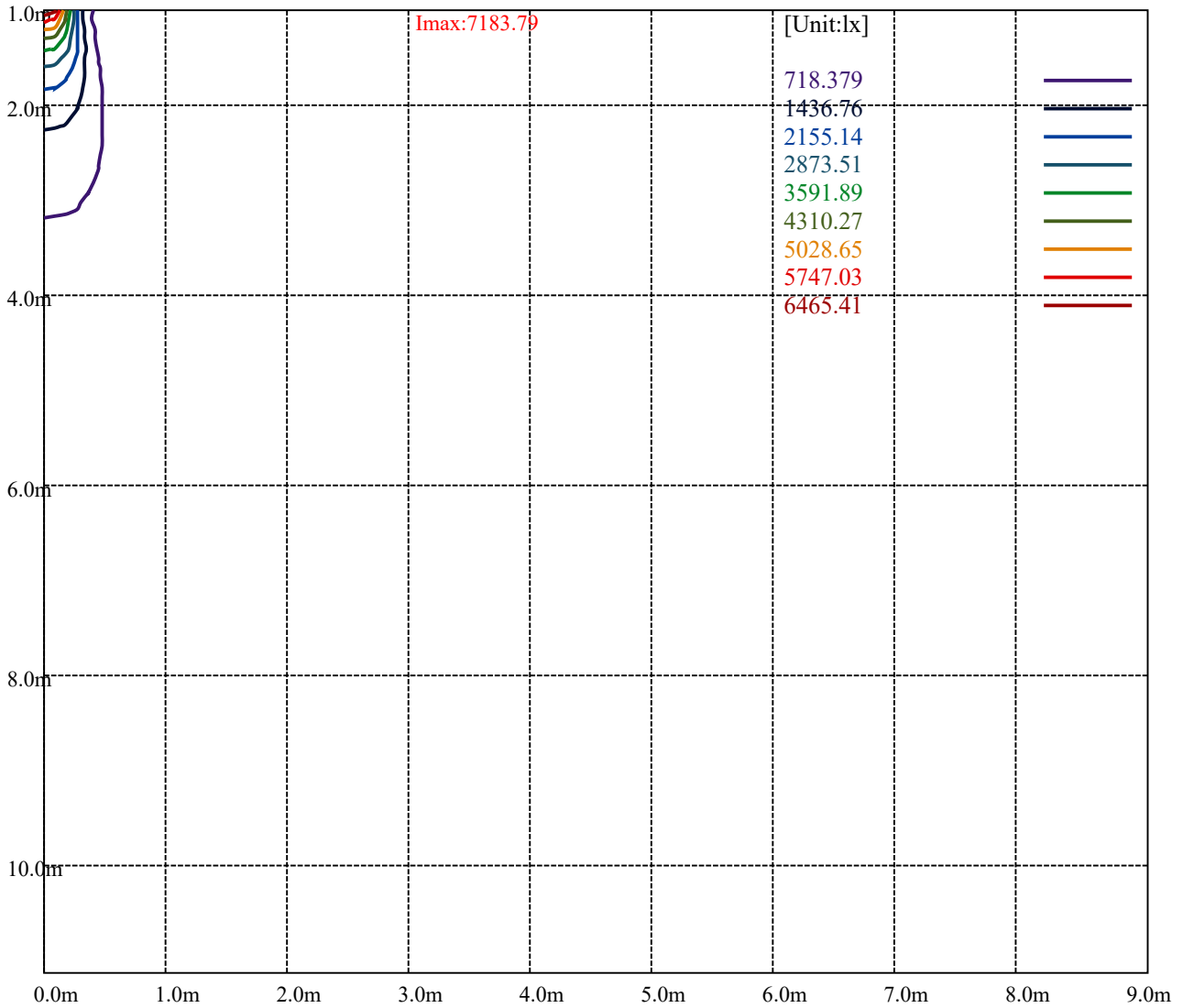
Road

Imax:7183.79

(10%Imax)	718.379	—
(20%Imax)	1436.76	—
(30%Imax)	2155.14	—
(40%Imax)	2873.51	—
(50%Imax)	3591.89	—
(60%Imax)	4310.27	—
(70%Imax)	5028.65	—
(80%Imax)	5747.03	—
(90%Imax)	6465.41	—



(10%Emax) 79.81978	—
(20%Emax) 159.64	—
(30%Emax) 239.4589	—
(40%Emax) 319.2789	—
(50%Emax) 399.0989	—
(60%Emax) 478.9189	—
(70%Emax) 558.7389	—
(80%Emax) 638.5578	—
(90%Emax) 718.3777	—



Luminance Table

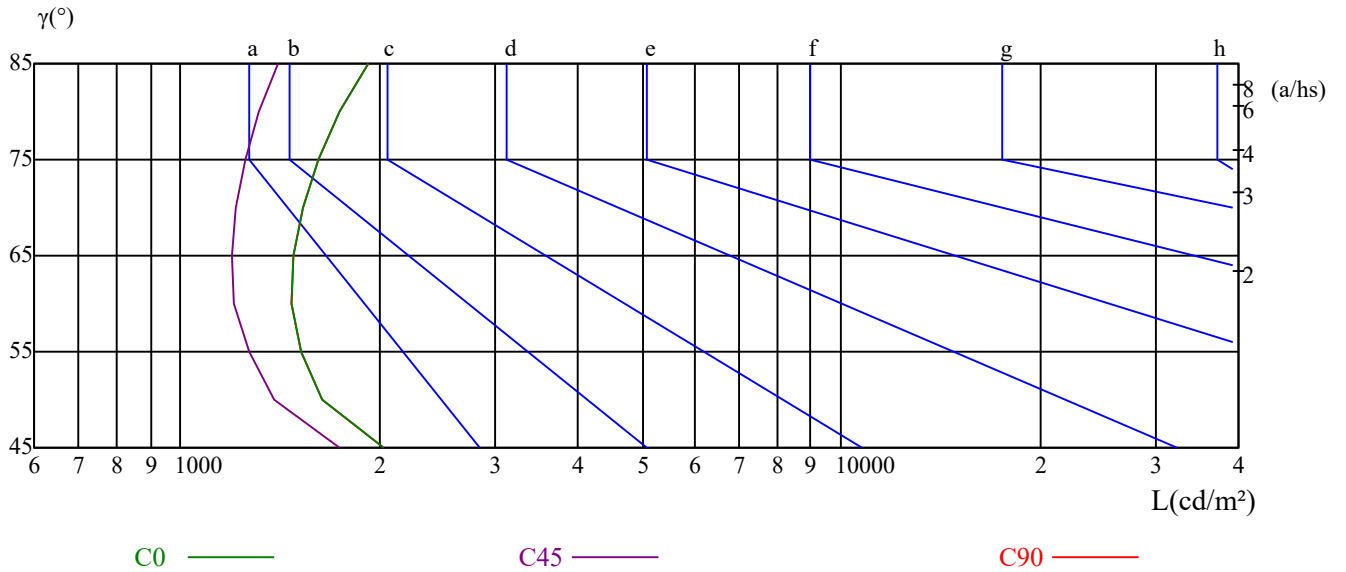
γ	45	50	55	60	65	70	75	80	85
C0	2032	1634	1519	1470	1482	1537	1622	1744	1918
C45	1746	1383	1266	1205	1194	1214	1254	1315	1405
C90	2032	1634	1519	1470	1482	1537	1622	1744	1918

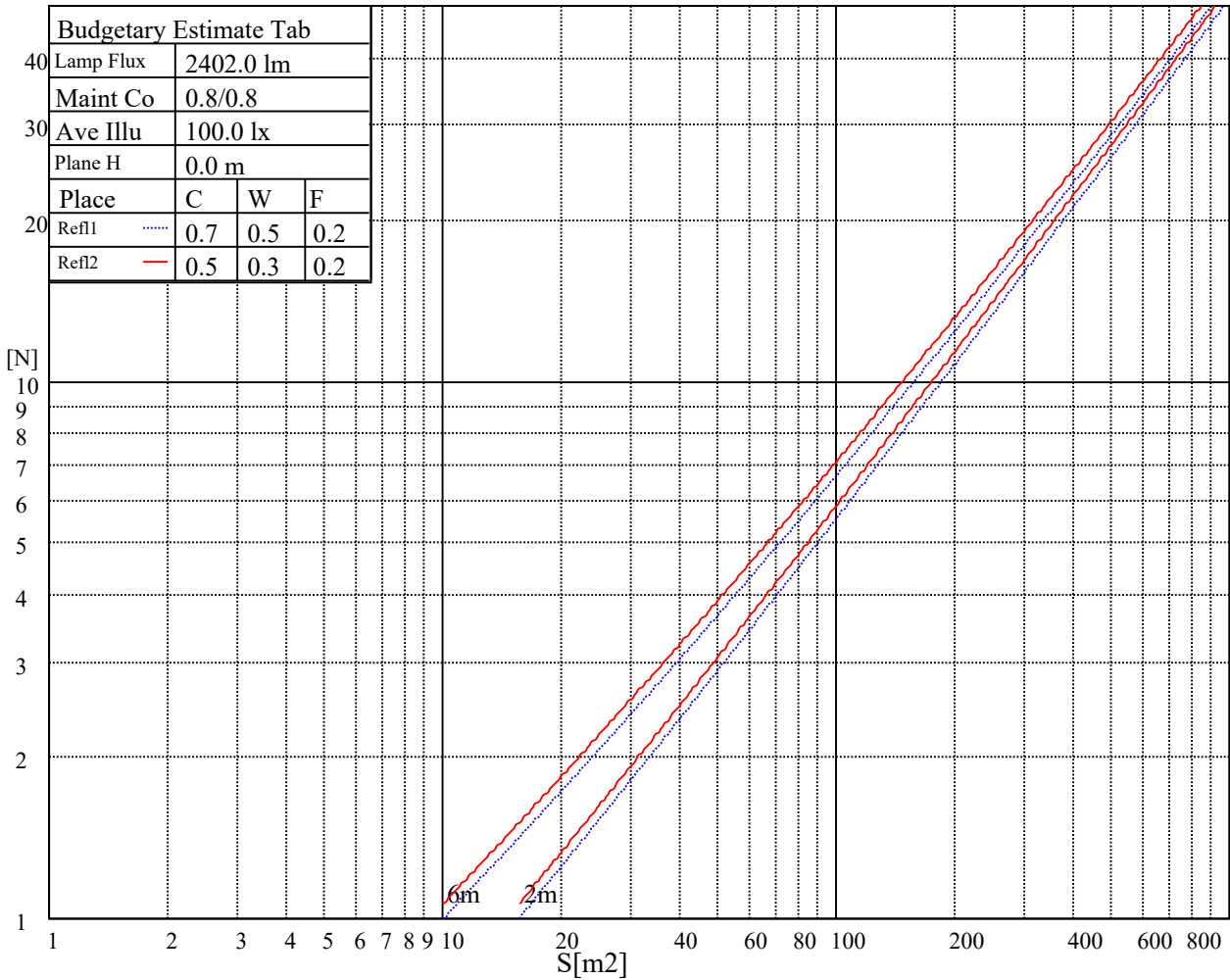
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3560	3560	3560	5580	5580	5580	16255	16255	16255

Glare Table

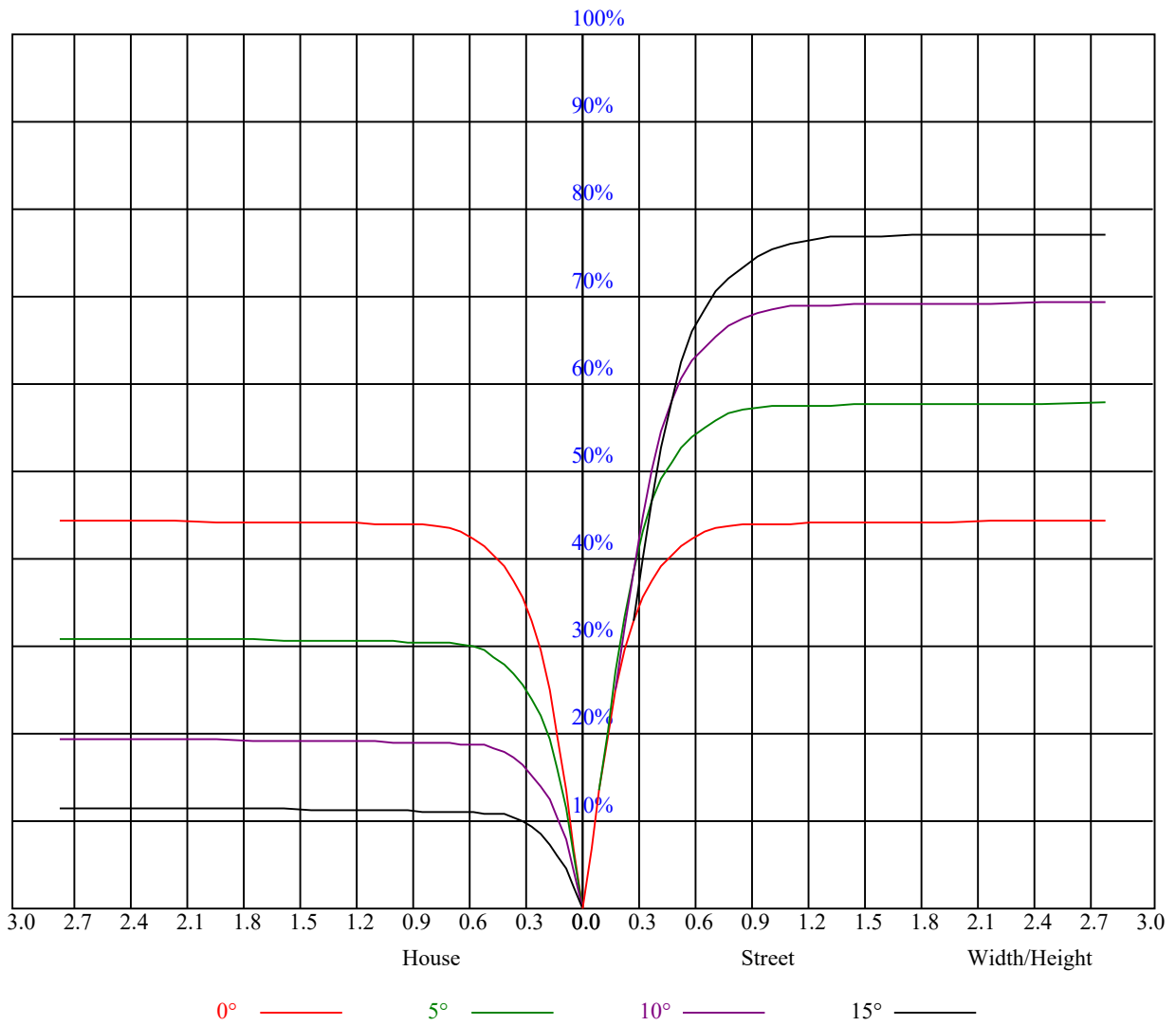
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.08	1.08	1.08	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.01	0.99	0.98	0.99	0.98	0.96	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.86
2	0.96	0.93	0.90	0.94	0.92	0.89	0.91	0.89	0.87	0.89	0.87	0.85	0.86	0.85	0.84	0.82
3	0.91	0.87	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.86	0.83	0.81	0.84	0.82	0.80	0.79
4	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.79	0.82	0.80	0.78	0.81	0.79	0.77	0.76
5	0.83	0.79	0.76	0.82	0.79	0.76	0.81	0.78	0.75	0.79	0.77	0.74	0.78	0.76	0.74	0.73
6	0.80	0.76	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.70
7	0.77	0.72	0.70	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
8	0.74	0.70	0.67	0.73	0.69	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.65
9	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.63
10	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.61



Nata 3-1939-M

Intensity data(cd)

C/\u03b3(\u00b0)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	7179.61	7214.12	6497.32	4195.57	1648.40	893.76	764.10	496.97	93.38
45.0	7169.04	7141.77	6111.66	3644.62	1310.04	850.91	747.40	392.90	33.17
90.0	7187.96	6854.05	5065.41	2444.77	1012.58	788.25	653.63	215.98	20.76
135.0	7198.53	6920.83	5275.77	2480.39	1046.25	795.82	650.01	293.84	22.48
180.0	7179.61	6746.64	4813.31	2110.31	975.13	783.18	593.80	168.90	20.26
225.0	7169.04	6795.06	5311.39	2605.61	1076.47	816.30	690.91	261.84	23.76
270.0	7187.96	7110.05	6106.09	3822.71	1414.11	869.83	751.30	430.74	55.65
315.0	7198.53	7155.68	6151.73	3518.85	1091.77	862.21	742.39	425.40	50.14
360.0	7179.61	7214.12	6497.32	4195.57	1648.40	893.76	764.10	496.97	93.38
C/\u03b3(\u00b0)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	17.42	11.97	10.63	9.79	9.41	9.07	8.96	8.79	8.74
45.0	14.86	11.52	10.30	9.57	9.07	8.96	8.74	8.63	8.51
90.0	12.91	10.96	9.96	9.29	9.02	8.79	8.63	8.57	8.51
135.0	12.69	11.24	10.13	9.52	9.18	8.90	8.85	8.68	8.63
180.0	12.86	11.02	10.18	9.52	9.18	9.07	8.85	8.79	8.79
225.0	13.58	11.30	10.18	9.46	9.13	8.85	8.74	8.57	8.51
270.0	15.69	11.52	10.41	9.57	9.13	8.90	8.74	8.68	8.63
315.0	15.64	11.41	10.24	9.57	9.13	9.02	8.79	8.68	8.63
360.0	17.42	11.97	10.63	9.79	9.41	9.07	8.96	8.79	8.74
C/\u03b3(\u00b0)	90.0								
0.0	8.63								
45.0	8.46								
90.0	8.51								
135.0	8.51								
180.0	8.68								
225.0	8.46								
270.0	8.51								
315.0	8.51								
360.0	8.63								