
Nata

LumCAT: 3-1941-M
Luminaire: BJB 47.319.2011
Report No: GC2017060804
Test No: NT-0010
LampCAT: LUMILEDS LUXEON CoB 1205
Lamp flux(lm): 2095.0
Number of Lamps: 1
Length(mm): 78
Phm Type: C

Voltage(V): 219.2000
Current(A): 0.1030
Power (W): 20.6000
PF: 0.9090
Ballast type: DC
Width(mm): 78
Height(mm): 51

Photometric Results

Lumens(lm): 1894.99
Efficiency(%): 90.45%
Lumens(lm)/Power(W): 91.99
Central intensity(cd): 2243.135
Maximum intensity(cd): 2247.196
Angle of maximum intensity: C=0.0 γ =5.0
Beam Angle(50%Imax): [C0/180]Total=58.5
 [C90/270]Total=58.5
Field angle(10%Imax): [C0/180]Total=77.0
 [C90/270]Total=77.0
Maximum s/h(1/2): C0_180=0.95 C90_270=0.95
Maximum s/h(1/4): C0_180=0.86 C90_270=0.86
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.45%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.671%

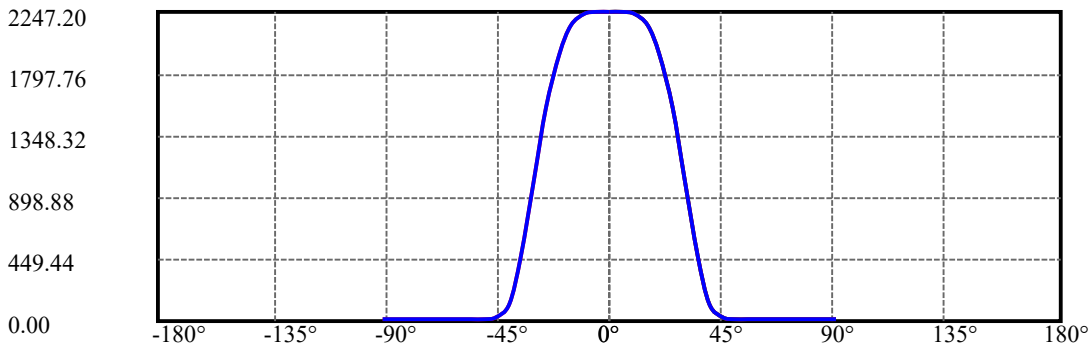
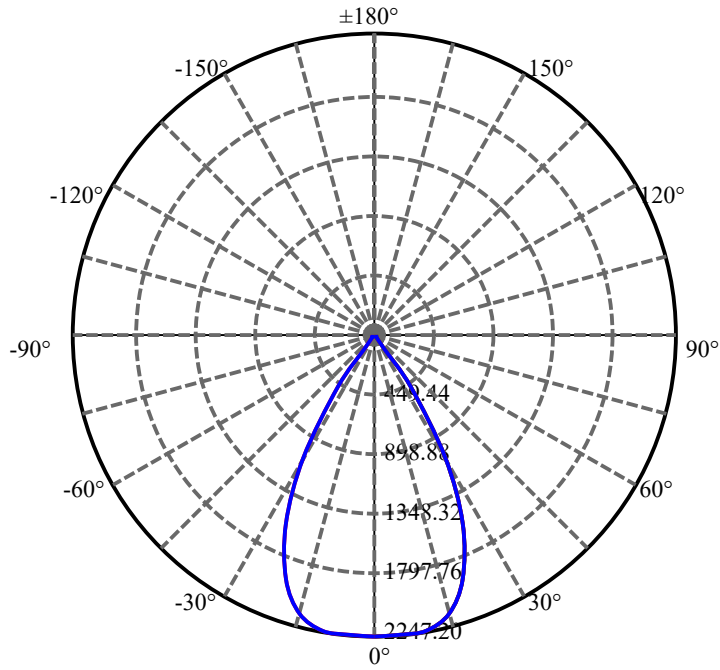
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2243.135	0.000	0	.000%	.000%
5.0	2247.196	53.681	53.681	2.562%	2.833%
10.0	2232.537	160.254	213.935	7.649%	11.289%
15.0	2143.346	259.574	473.509	12.390%	24.987%
20.0	1941.839	336.677	810.186	16.070%	42.754%
25.0	1549.218	366.148	1176.333	17.477%	62.076%
30.0	1051.068	329.068	1505.402	15.707%	79.441%
35.0	469.617	223.932	1729.333	10.689%	91.258%
40.0	121.860	98.684	1828.017	4.710%	96.466%
45.0	21.383	26.523	1854.54	1.266%	97.865%
50.0	11.170	6.578	1861.117	.314%	98.213%
55.0	9.442	4.482	1865.599	.214%	98.449%
60.0	8.788	4.214	1869.813	.201%	98.671%
65.0	8.341	4.164	1873.977	.199%	98.891%
70.0	8.011	4.140	1878.117	.198%	99.110%
75.0	7.873	4.152	1882.269	.198%	99.329%
80.0	7.811	4.197	1886.466	.200%	99.550%
85.0	7.818	4.247	1890.713	.203%	99.774%
90.0	7.804	4.277	1894.99	.204%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1505.40	71.86%	79.44%
0-40	1828.02	87.26%	96.47%
0-60	1869.81	89.25%	98.67%
0-90	1890.71	90.25%	99.77%
0-120	1890.71	90.25%	99.77%
0-180	1894.99	90.45%	100.00%
60-90	25.11	1.20%	1.33%
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%
0-30.24	1515.99	72.36%	80.00%

ZONAL LUMEN SUMMARY

0-10	213.93
10-20	596.25
20-30	695.22
30-40	322.62
40-50	33.10
50-60	8.70
60-70	8.30
70-80	8.35
80-90	4.25
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: —————

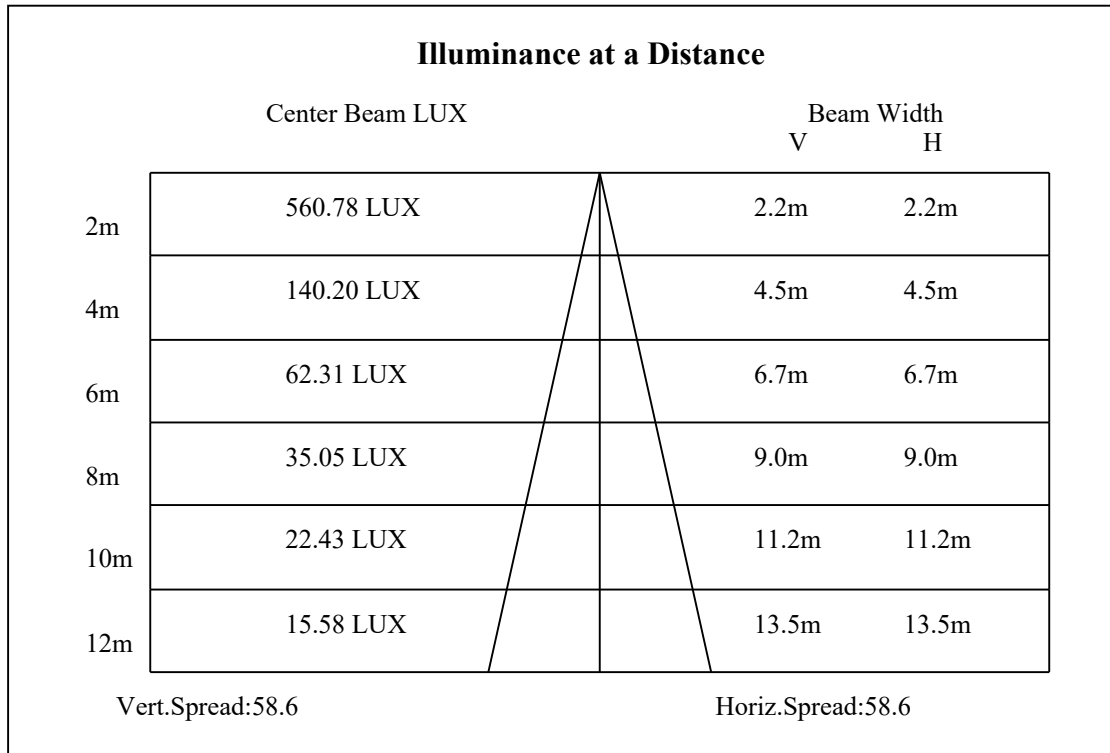
C90/C270: —————

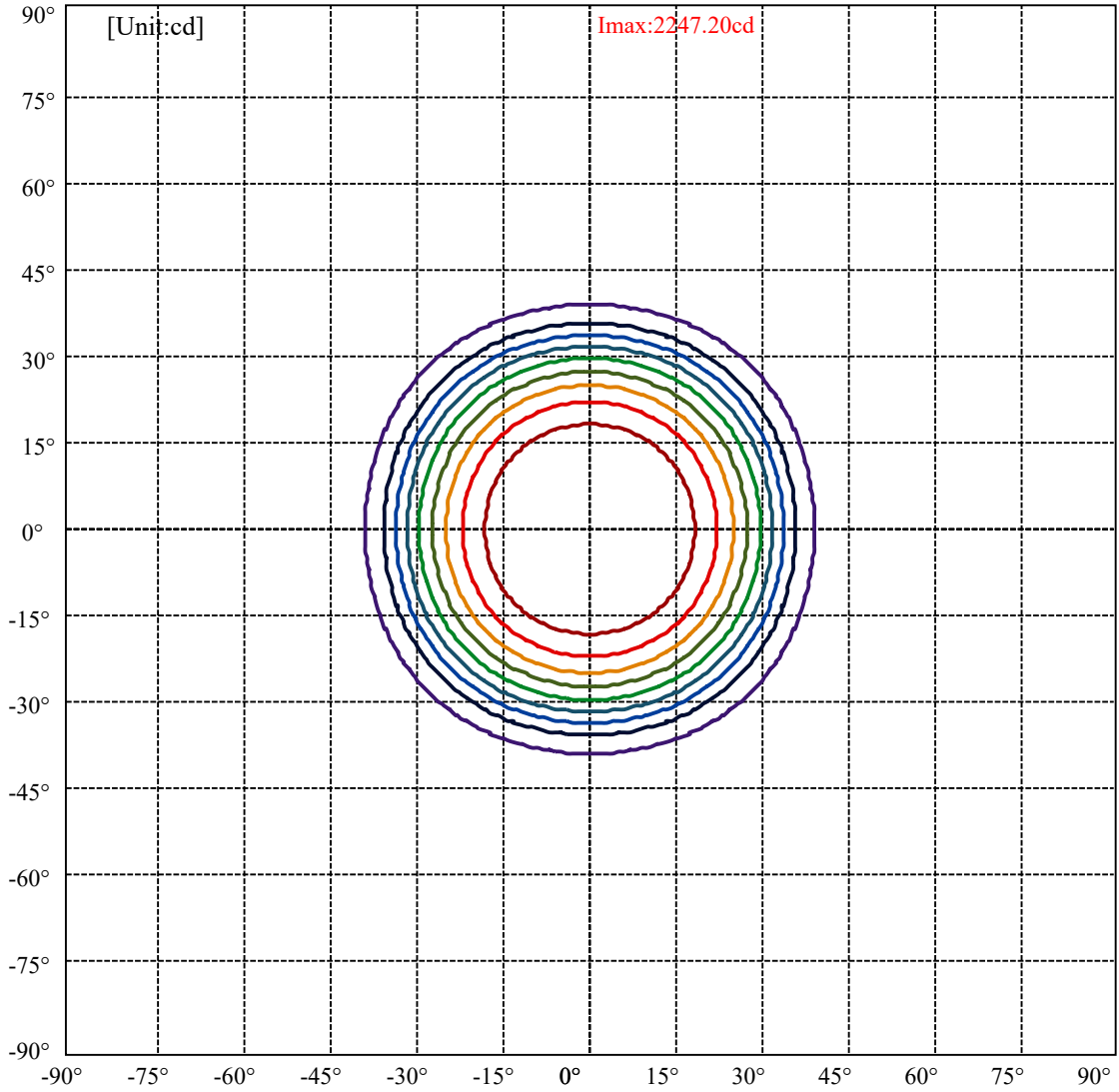
Field angle(10%Imax):C0/180Left:43.5 Right:33.5

:C90/270Left:43.5 Right:33.5

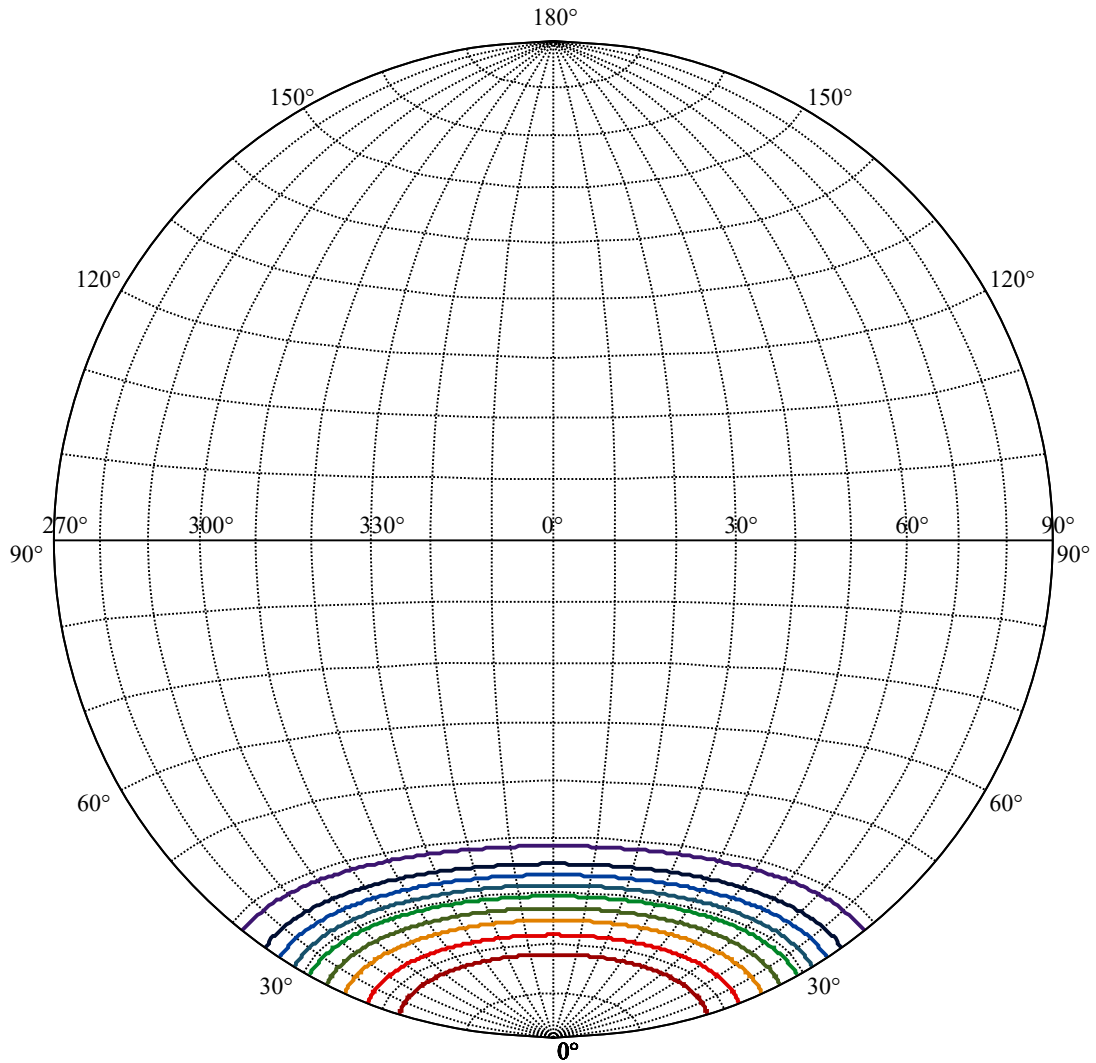
Beam Angle(50%Imax):C0/180Left:34.3 Right:24.3

:C90/270Left:34.3 Right:24.3





(10%Imax) 224.72	—
(20%Imax) 449.439	—
(30%Imax) 674.159	—
(40%Imax) 898.878	—
(50%Imax) 1123.6	—
(60%Imax) 1348.32	—
(70%Imax) 1573.04	—
(80%Imax) 1797.76	—
(90%Imax) 2022.48	—



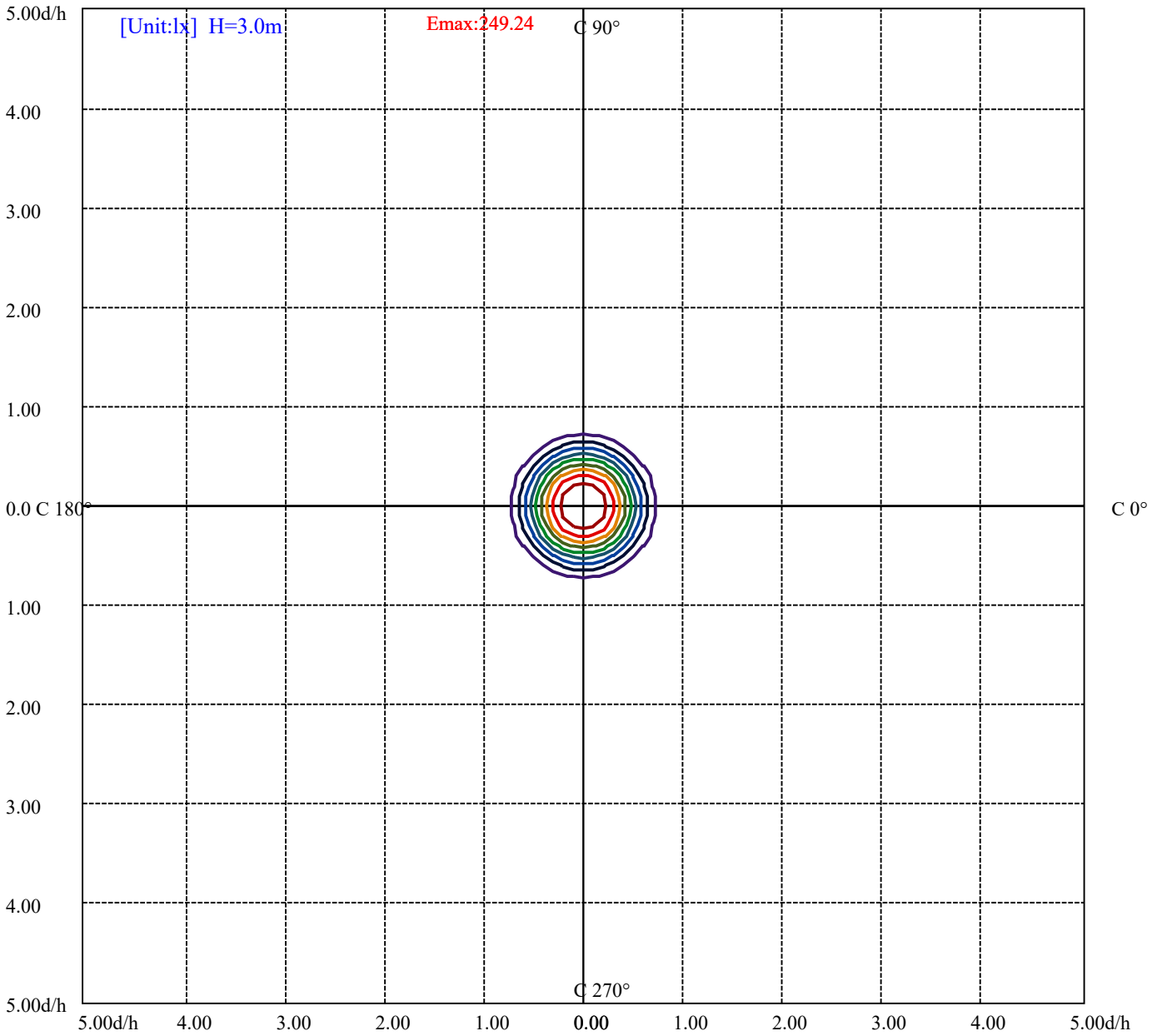
House

[Unit:cd]

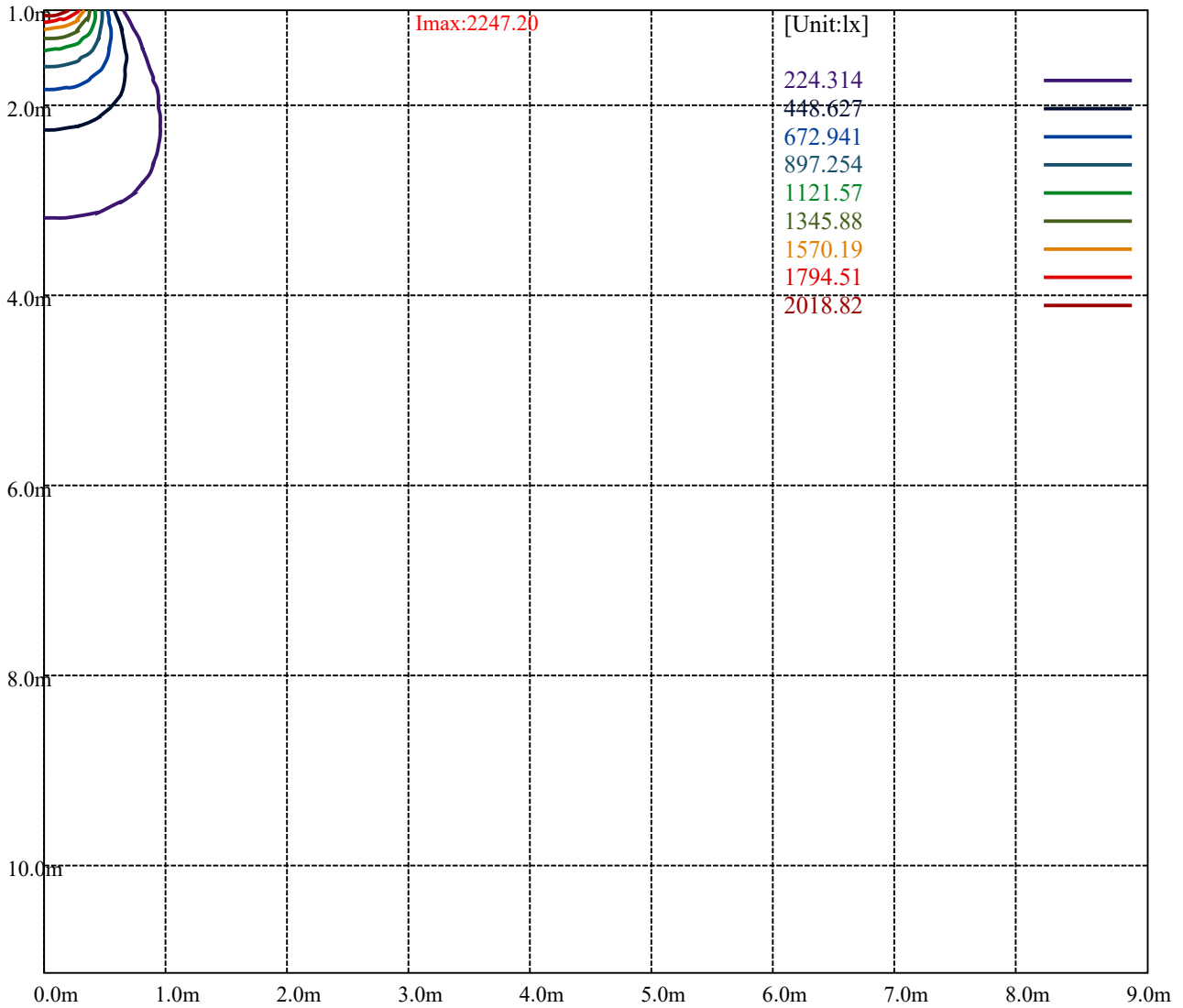
Road

Imax:2247.20

(10%Imax)	224.72	—
(20%Imax)	449.439	—
(30%Imax)	674.159	—
(40%Imax)	898.878	—
(50%Imax)	1123.6	—
(60%Imax)	1348.32	—
(70%Imax)	1573.04	—
(80%Imax)	1797.76	—
(90%Imax)	2022.48	—



- (10%Emax) 24.92378
- (20%Emax) 49.84745
- (30%Emax) 74.77122
- (40%Emax) 99.69489
- (50%Emax) 124.6189
- (60%Emax) 149.5422
- (70%Emax) 174.4667
- (80%Emax) 199.39
- (90%Emax) 224.3133



Luminance Table

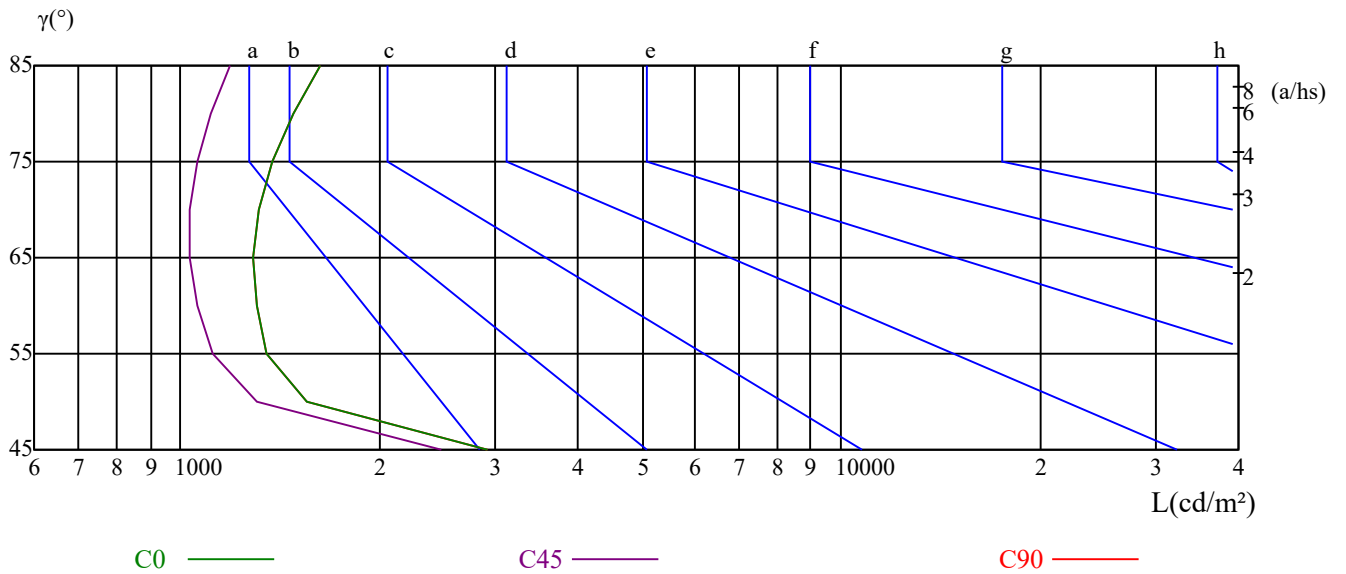
γ	45	50	55	60	65	70	75	80	85
C0	2915	1552	1348	1301	1291	1311	1377	1479	1627
C45	2489	1305	1116	1059	1034	1029	1059	1111	1189
C90	2915	1552	1348	1301	1291	1311	1377	1479	1627

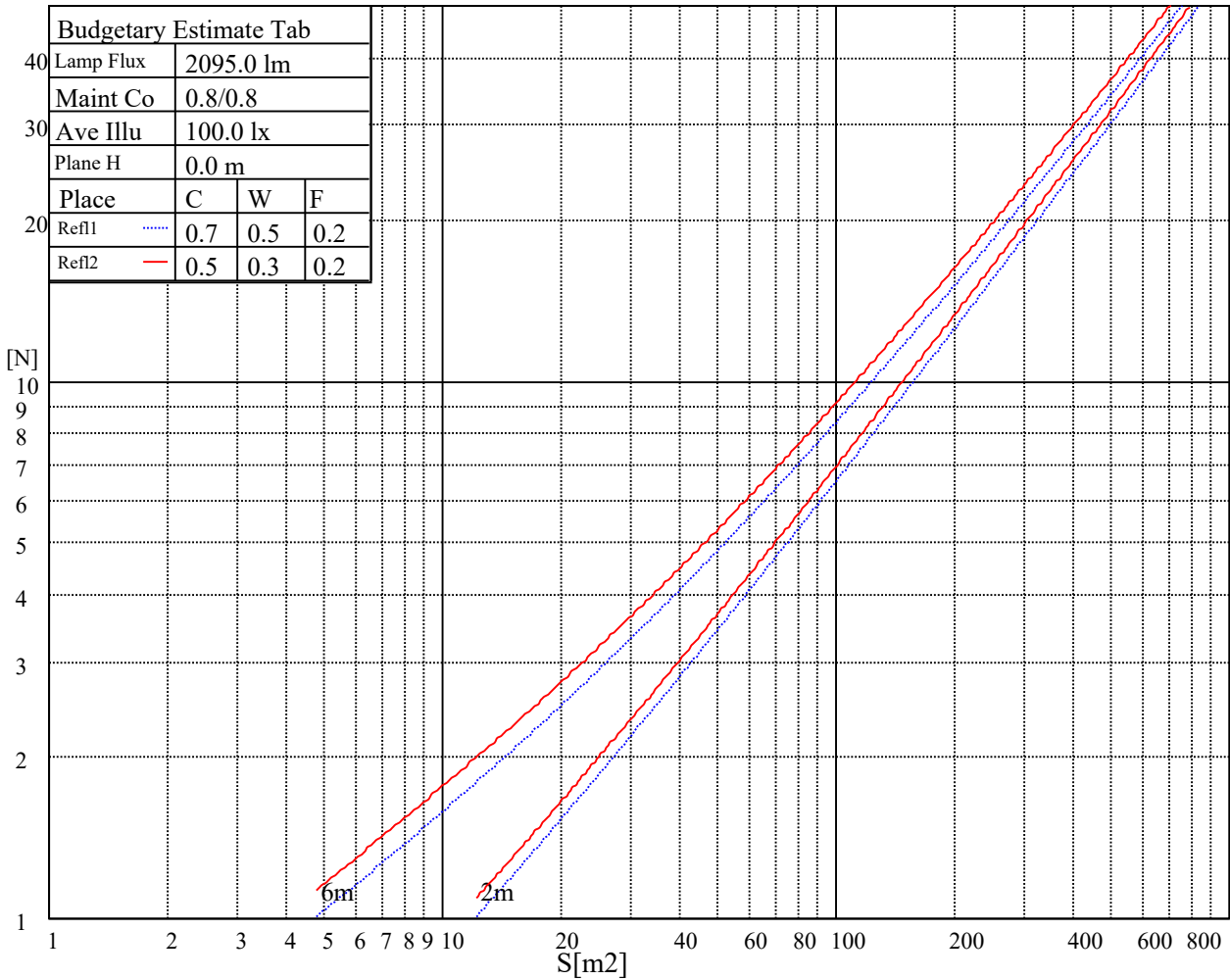
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3244	3244	3244	5000	5000	5000	14744	14744	14744

Glare Table

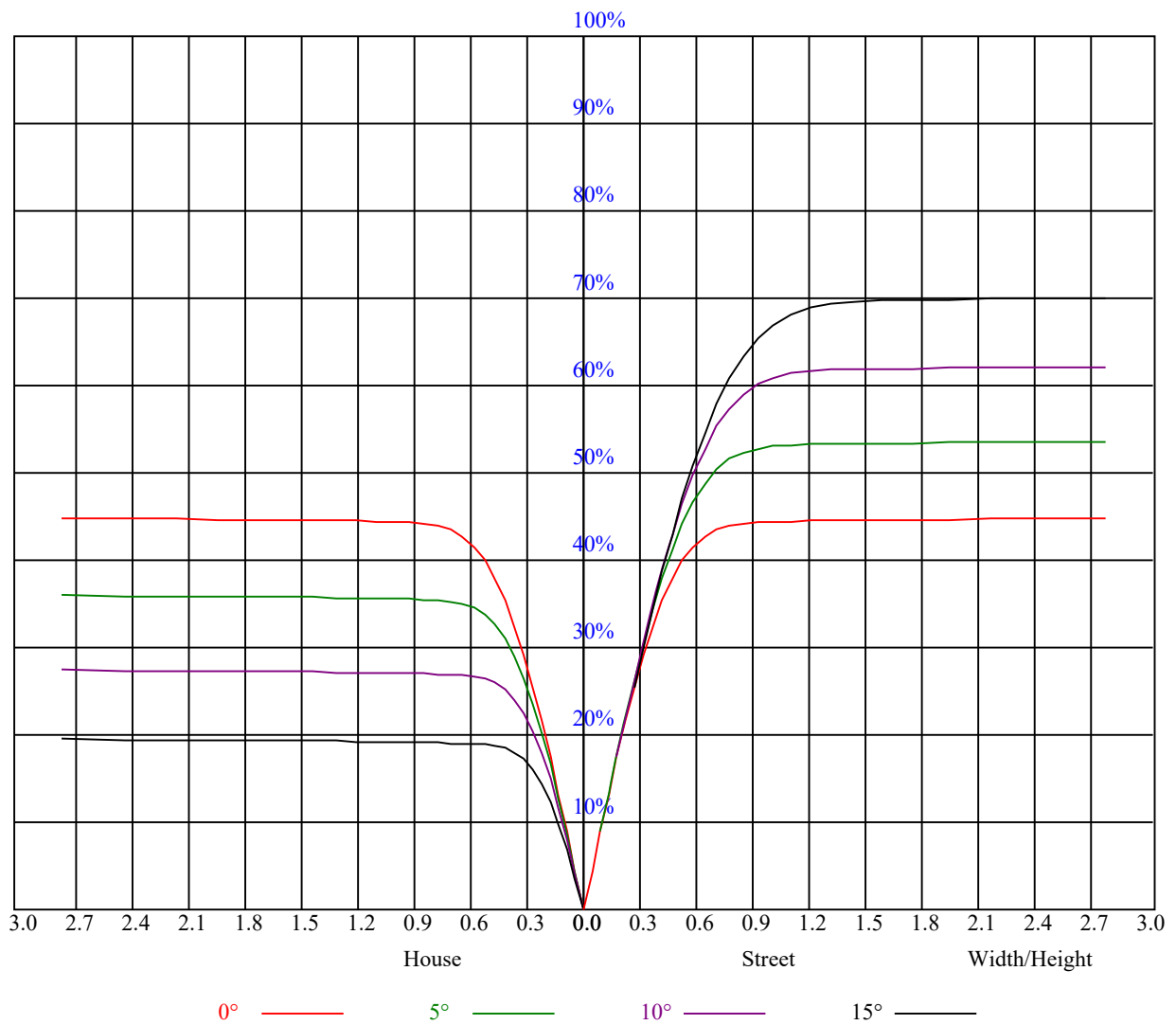
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.00	0.98	0.96	0.98	0.96	0.94	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.90	0.87	0.92	0.89	0.86	0.89	0.87	0.84	0.86	0.84	0.82	0.84	0.82	0.81	0.79
3	0.88	0.83	0.80	0.86	0.83	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.74
4	0.82	0.78	0.74	0.81	0.77	0.74	0.79	0.76	0.73	0.78	0.74	0.72	0.76	0.73	0.71	0.70
5	0.78	0.73	0.69	0.77	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.67	0.72	0.69	0.67	0.65
6	0.73	0.68	0.64	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.65	0.63	0.62
7	0.69	0.64	0.60	0.69	0.64	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.58
8	0.65	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.55
9	0.62	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.56	0.53	0.52
10	0.59	0.54	0.51	0.58	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.53	0.50	0.49



Nata 3-1941-M

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	2240.80	2237.49	2212.17	2083.88	1849.34	1427.06	908.43	292.90	43.22
45.0	2251.26	2241.90	2239.14	2197.30	2066.82	1798.14	1364.85	769.69	295.65
90.0	2243.55	2246.85	2251.81	2206.66	2040.39	1745.29	1218.40	660.51	127.02
135.0	2236.94	2250.71	2272.73	2254.01	2140.04	1860.91	1397.88	810.98	288.50
180.0	2240.80	2258.96	2258.96	2228.68	2057.46	1731.52	1073.88	641.46	111.21
225.0	2251.26	2270.53	2233.64	2077.28	1789.88	1348.33	796.56	162.47	38.43
270.0	2243.55	2241.35	2210.51	2093.79	1842.74	1385.77	891.91	280.24	40.30
315.0	2236.94	2229.78	2181.33	2005.15	1748.04	1096.72	756.64	138.69	30.56
360.0	2240.80	2237.49	2212.17	2083.88	1849.34	1427.06	908.43	292.90	43.22

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	13.60	10.13	9.08	8.59	8.20	7.87	7.87	7.76	7.76
45.0	31.22	12.22	9.86	9.03	8.59	8.15	7.93	7.87	7.87
90.0	24.89	12.00	9.80	9.08	8.48	8.15	7.93	7.82	7.87
135.0	33.53	12.66	9.97	9.03	8.53	8.15	7.87	7.87	7.82
180.0	27.69	12.06	9.63	8.97	8.42	8.04	7.82	7.76	7.76
225.0	13.43	10.19	9.14	8.59	8.15	7.93	7.87	7.82	7.87
270.0	14.31	10.30	9.19	8.64	8.26	7.93	7.82	7.82	7.82
315.0	12.39	9.80	8.86	8.37	8.09	7.87	7.87	7.76	7.76
360.0	13.60	10.13	9.08	8.59	8.20	7.87	7.87	7.76	7.76

C/γ(°)	90.0
0.0	7.76
45.0	7.82
90.0	7.82
135.0	7.82
180.0	7.71
225.0	7.87
270.0	7.87
315.0	7.76
360.0	7.76