
Nata

LumCAT: 3-1941-M
Luminaire: BJB 47.319.2021
Report No: GC2017062003
Test No: NT-0010
LampCAT: CLU036
Lamp flux(lm): 2279.0
Number of Lamps: 1
Length(mm): 78
Phm Type: C

Voltage(V): 218.3000
Current(A): 0.1030
Power (W): 20.5000
PF: 0.9070
Ballast type: DC
Width(mm): 78
Height(mm): 0

Photometric Results

Lumens(lm): 2078.61
Efficiency(%): 91.21%
Lumens(lm)/Power(W): 101.40
Central intensity(cd): 2656.196
Maximum intensity(cd): 2656.196
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=56.9
 [C90/270]Total=56.9
Field angle(10%Imax): [C0/180]Total=75.0
 [C90/270]Total=75.0
Maximum s/h(1/2): C0_180=0.92 C90_270=0.92
Maximum s/h(1/4): C0_180=0.84 C90_270=0.84
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.21%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.720%

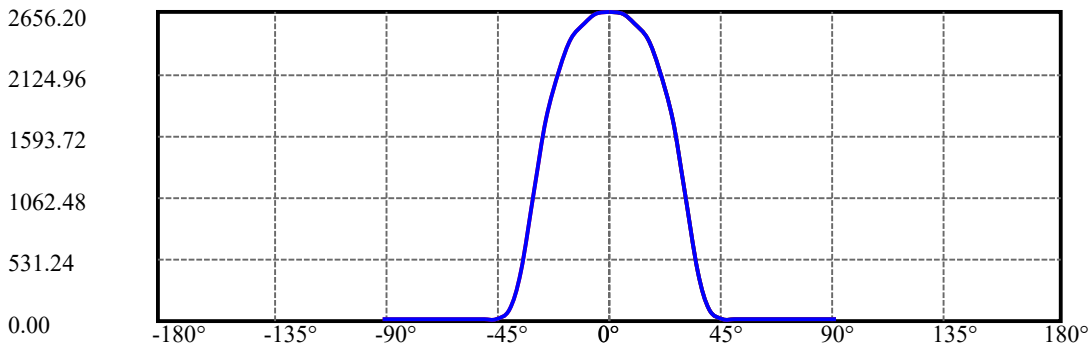
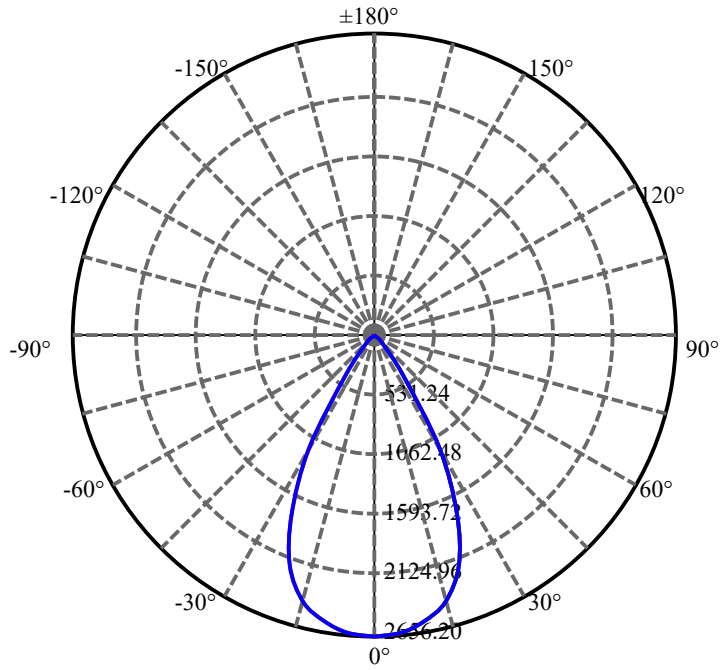
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2656.196	0.000	0	.000%	.000%
5.0	2634.669	63.251	63.251	2.775%	3.043%
10.0	2555.773	185.678	248.929	8.147%	11.976%
15.0	2426.501	295.545	544.474	12.968%	26.194%
20.0	2163.496	378.280	922.755	16.599%	44.393%
25.0	1732.570	408.625	1331.38	17.930%	64.052%
30.0	1143.466	363.965	1695.345	15.970%	81.562%
35.0	437.148	232.757	1928.101	10.213%	92.759%
40.0	93.431	88.523	2016.624	3.884%	97.018%
45.0	18.224	20.674	2037.298	.907%	98.013%
50.0	11.011	5.907	2043.205	.259%	98.297%
55.0	9.580	4.477	2047.683	.196%	98.512%
60.0	9.084	4.314	2051.997	.189%	98.720%
65.0	8.699	4.323	2056.32	.190%	98.928%
70.0	8.479	4.349	2060.669	.191%	99.137%
75.0	8.369	4.404	2065.073	.193%	99.349%
80.0	8.314	4.464	2069.537	.196%	99.564%
85.0	8.314	4.518	2074.055	.198%	99.781%
90.0	8.314	4.553	2078.607	.200%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1695.34	74.39%	81.56%
0-40	2016.62	88.49%	97.02%
0-60	2052.00	90.04%	98.72%
0-90	2074.05	91.01%	99.78%
0-120	2074.05	91.01%	99.78%
0-180	2078.61	91.21%	100.00%
60-90	26.37	1.16%	1.27%
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%
0-29.55	1662.89	72.97%	80.00%

ZONAL LUMEN SUMMARY

0-10	248.93
10-20	673.83
20-30	772.59
30-40	321.28
40-50	26.58
50-60	8.79
60-70	8.67
70-80	8.87
80-90	4.52
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: —————

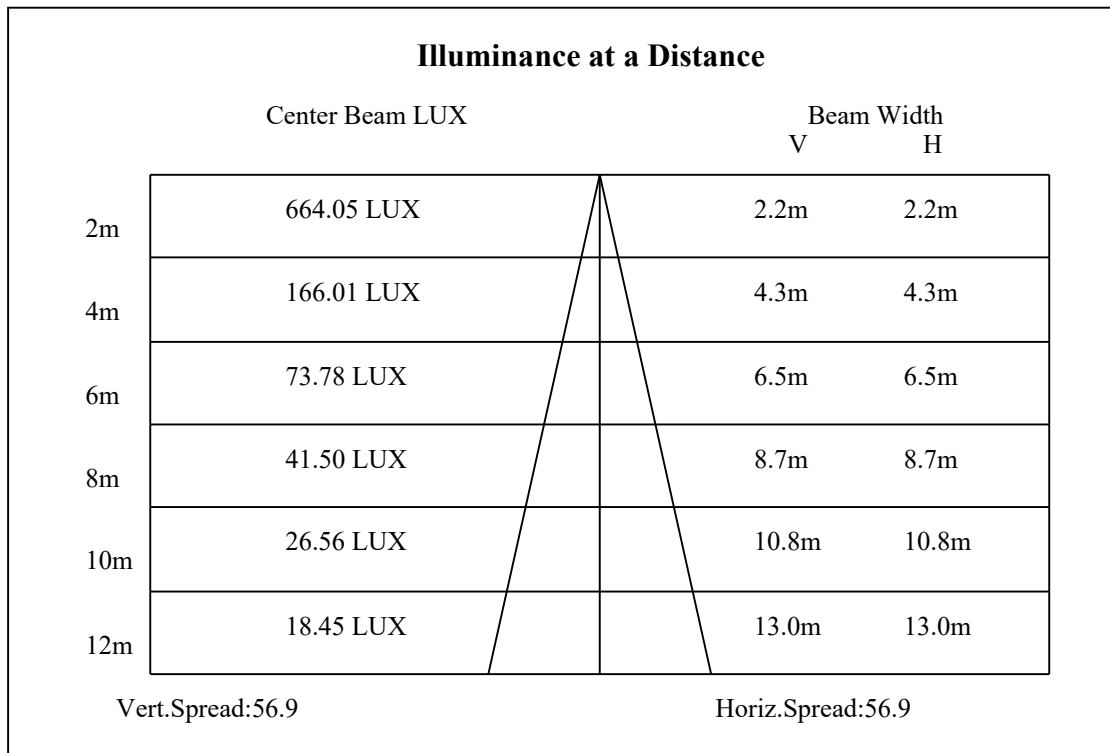
C90/C270: —————

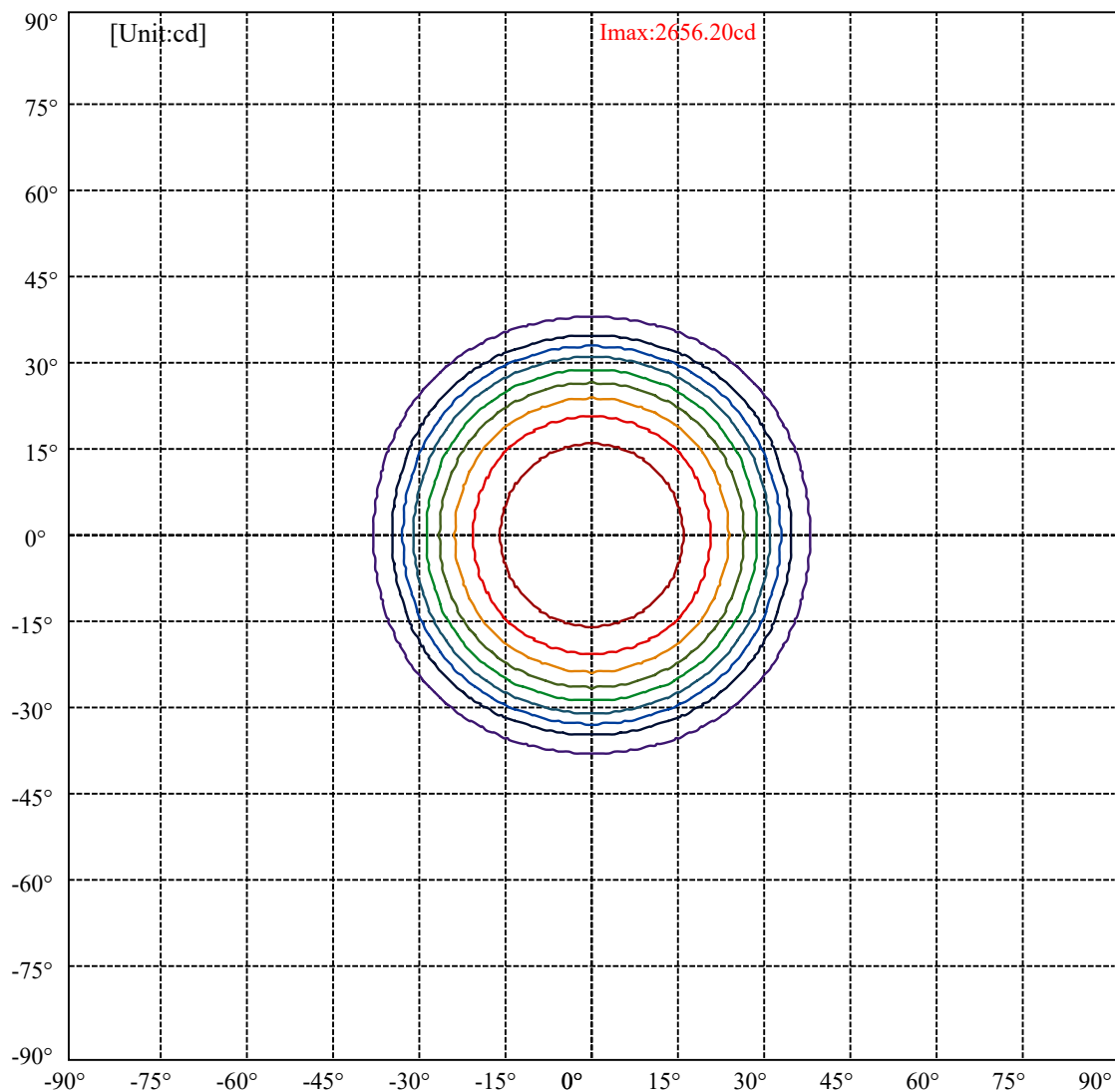
Field angle(10%Imax):C0/180Left:37.5 Right:37.5

:C90/270Left:37.5 Right:37.5

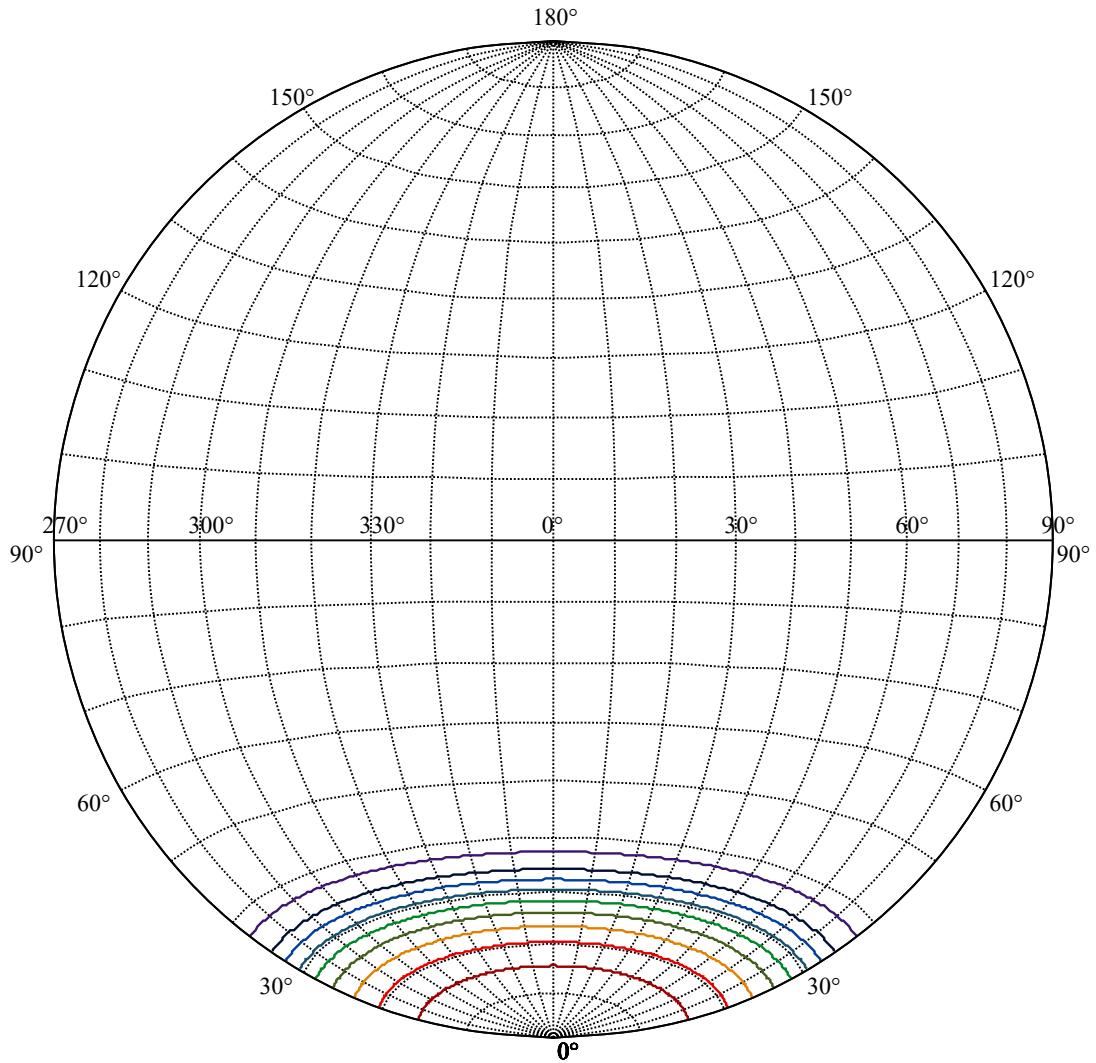
Beam Angle(50%Imax):C0/180Left:28.4 Right:28.4

:C90/270Left:28.4 Right:28.4





(10%Imax) 265.62	—
(20%Imax) 531.239	—
(30%Imax) 796.859	—
(40%Imax) 1062.48	—
(50%Imax) 1328.1	—
(60%Imax) 1593.72	—
(70%Imax) 1859.34	—
(80%Imax) 2124.96	—
(90%Imax) 2390.58	—



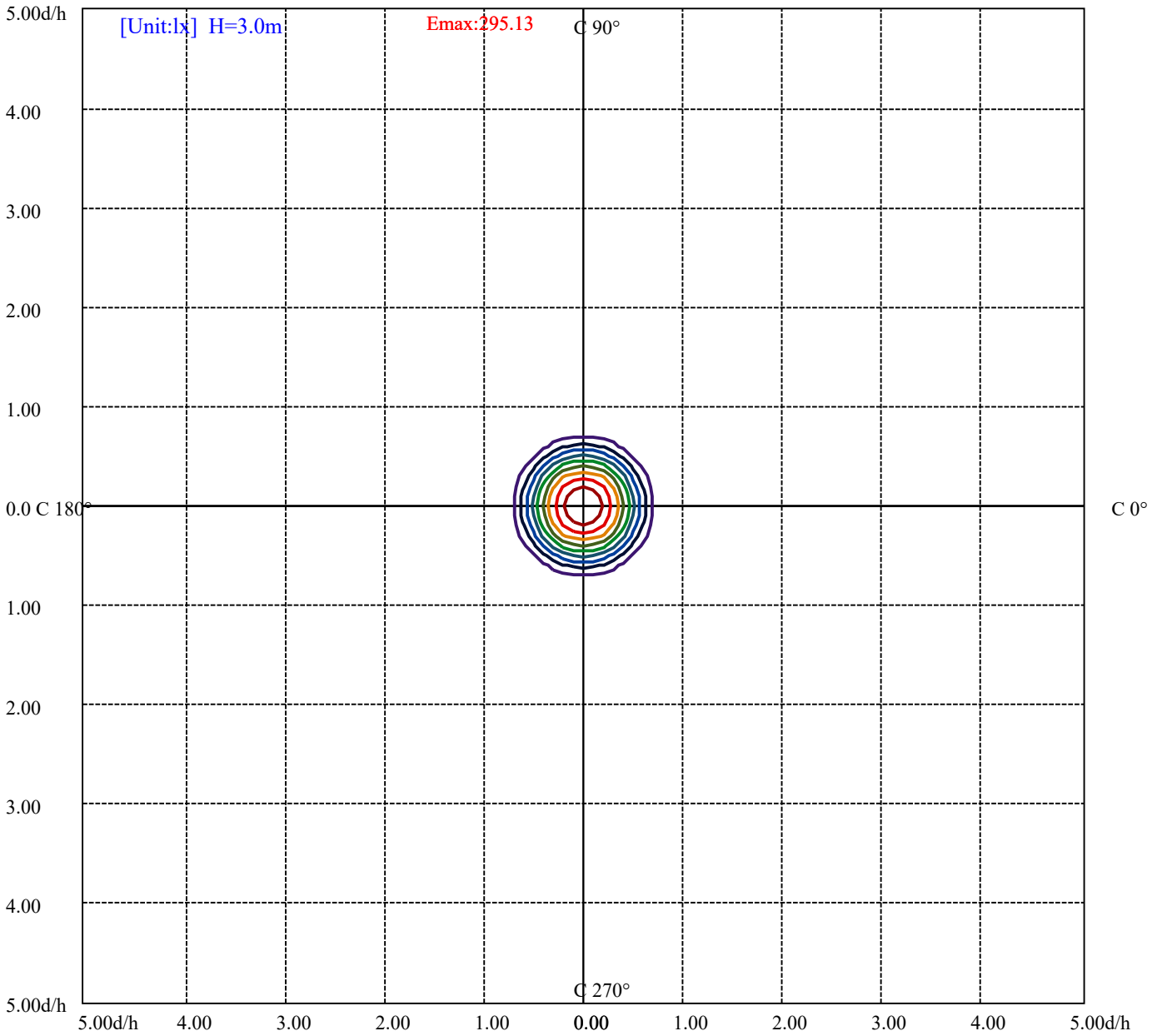
House

[Unit:cd]

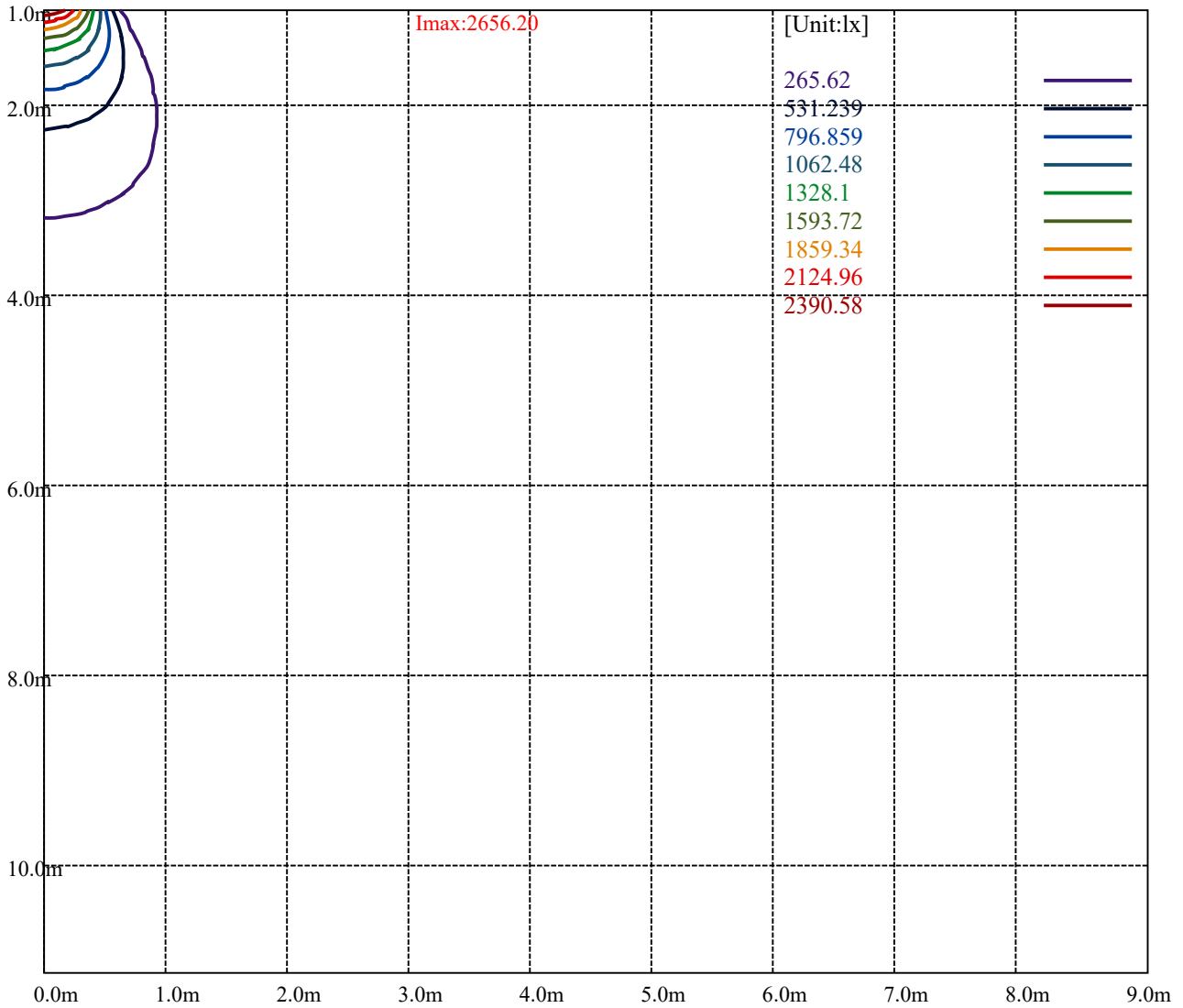
Road

Imax:2656.20

(10%Imax)	265.62	—
(20%Imax)	531.239	—
(30%Imax)	796.859	—
(40%Imax)	1062.48	—
(50%Imax)	1328.1	—
(60%Imax)	1593.72	—
(70%Imax)	1859.34	—
(80%Imax)	2124.96	—
(90%Imax)	2390.58	—



(10%E _{max}) 29.51333	—
(20%E _{max}) 59.02656	—
(30%E _{max}) 88.53989	—
(40%E _{max}) 118.0533	—
(50%E _{max}) 147.5667	—
(60%E _{max}) 177.08	—
(70%E _{max}) 206.5933	—
(80%E _{max}) 236.1067	—
(90%E _{max}) 265.62	—



Luminance Table

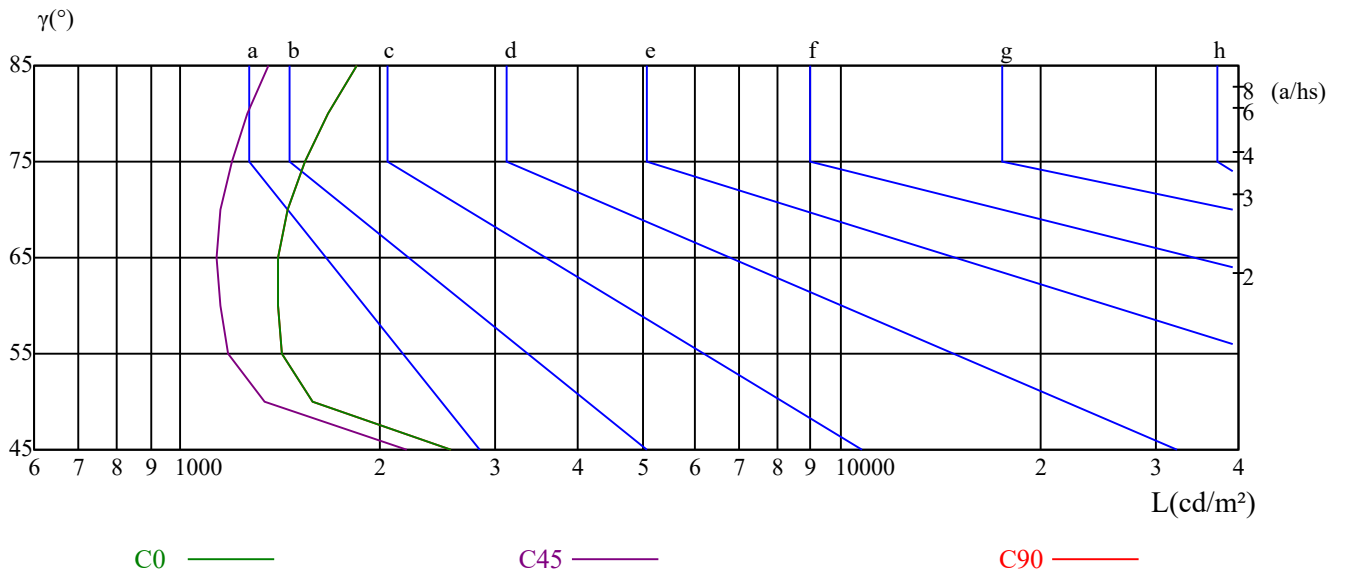
γ	45	50	55	60	65	70	75	80	85
C0	2561	1583	1420	1400	1408	1457	1545	1671	1850
C45	2201	1340	1183	1148	1134	1151	1194	1260	1355
C90	2561	1583	1420	1400	1408	1457	1545	1671	1850

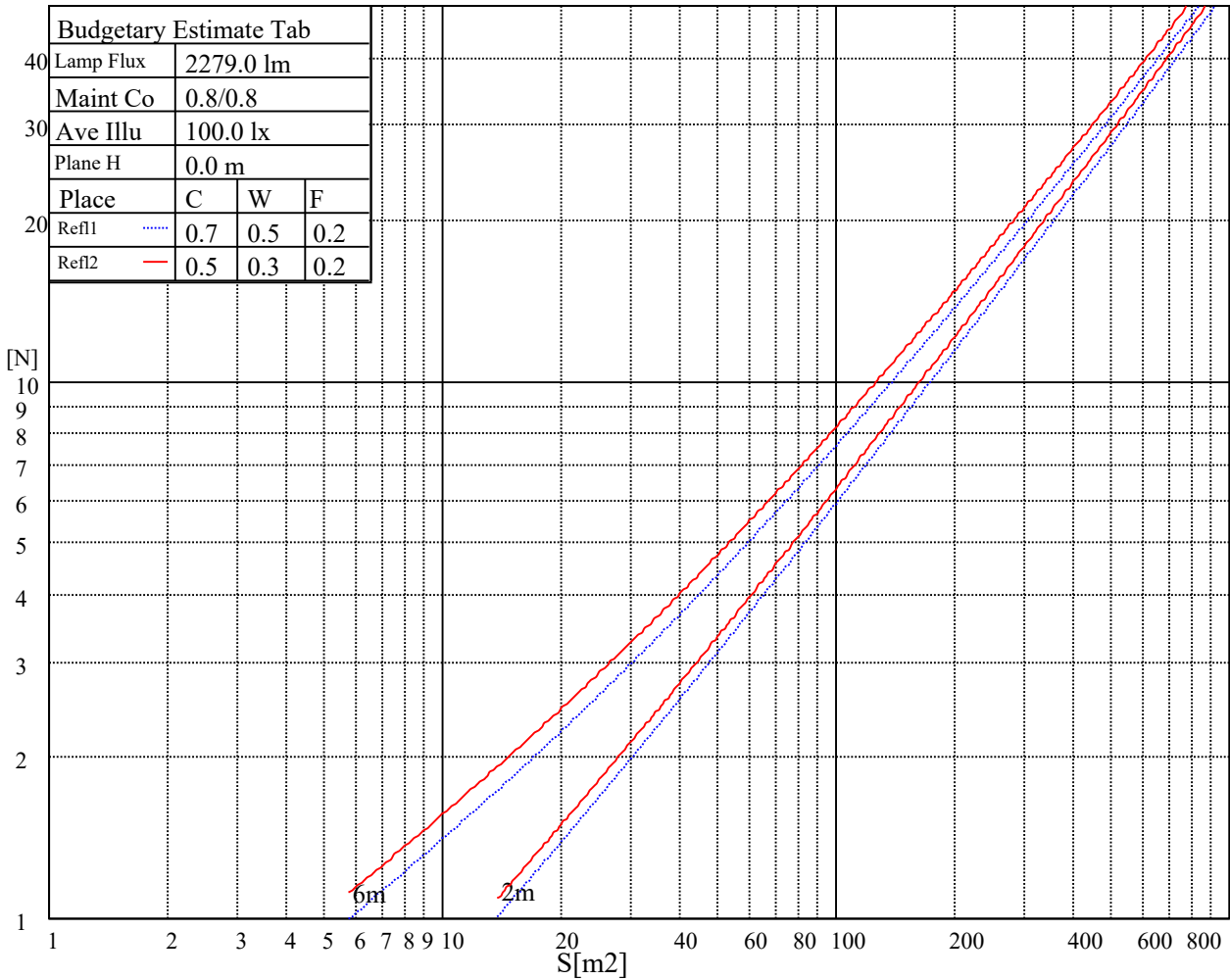
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3383	3383	3383	5315	5315	5315	15678	15678	15678

Glare Table

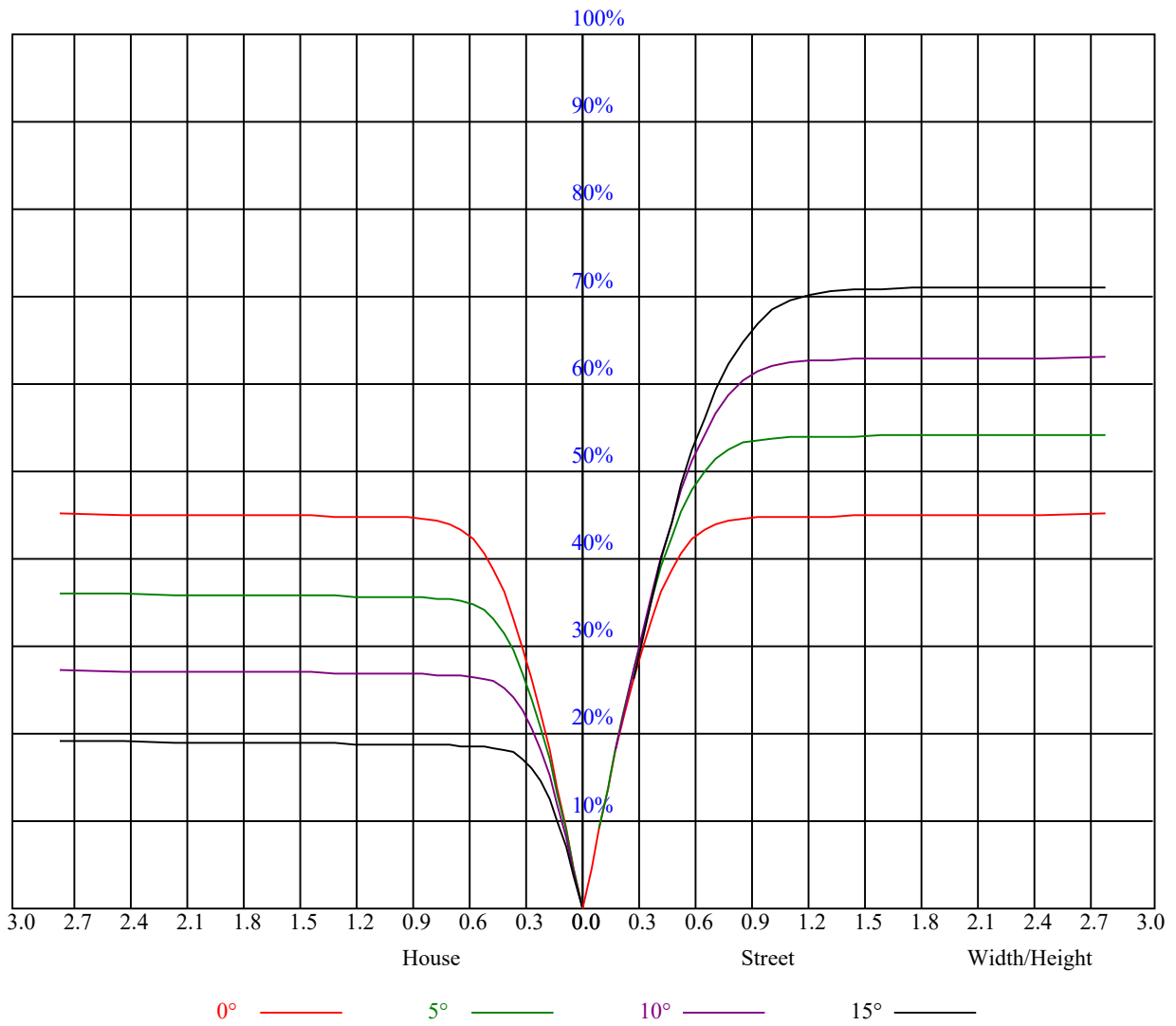
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.01	0.99	0.97	0.99	0.97	0.95	0.96	0.94	0.92	0.92	0.91	0.90	0.89	0.88	0.87	0.86
2	0.95	0.91	0.88	0.93	0.90	0.87	0.90	0.88	0.85	0.87	0.85	0.83	0.85	0.83	0.82	0.80
3	0.89	0.85	0.81	0.88	0.84	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.75
4	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.71
5	0.79	0.74	0.70	0.78	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.69	0.73	0.70	0.68	0.67
6	0.74	0.69	0.66	0.74	0.69	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
7	0.70	0.65	0.62	0.70	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.59
8	0.67	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.63	0.60	0.57	0.56
9	0.63	0.58	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.61	0.57	0.54	0.53
10	0.60	0.55	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.58	0.54	0.51	0.50



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	2656.20	2634.67	2555.77	2426.50	2163.50	1732.57	1143.47	437.15	93.43
45.0	2656.20	2634.67	2555.77	2426.50	2163.50	1732.57	1143.47	437.15	93.43
90.0	2656.20	2634.67	2555.77	2426.50	2163.50	1732.57	1143.47	437.15	93.43
135.0	2656.20	2634.67	2555.77	2426.50	2163.50	1732.57	1143.47	437.15	93.43
180.0	2656.20	2634.67	2555.77	2426.50	2163.50	1732.57	1143.47	437.15	93.43
225.0	2656.20	2634.67	2555.77	2426.50	2163.50	1732.57	1143.47	437.15	93.43
270.0	2656.20	2634.67	2555.77	2426.50	2163.50	1732.57	1143.47	437.15	93.43
315.0	2656.20	2634.67	2555.77	2426.50	2163.50	1732.57	1143.47	437.15	93.43
360.0	2656.20	2634.67	2555.77	2426.50	2163.50	1732.57	1143.47	437.15	93.43

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	18.22	11.01	9.58	9.08	8.70	8.48	8.37	8.31	8.31
45.0	18.22	11.01	9.58	9.08	8.70	8.48	8.37	8.31	8.31
90.0	18.22	11.01	9.58	9.08	8.70	8.48	8.37	8.31	8.31
135.0	18.22	11.01	9.58	9.08	8.70	8.48	8.37	8.31	8.31
180.0	18.22	11.01	9.58	9.08	8.70	8.48	8.37	8.31	8.31
225.0	18.22	11.01	9.58	9.08	8.70	8.48	8.37	8.31	8.31
270.0	18.22	11.01	9.58	9.08	8.70	8.48	8.37	8.31	8.31
315.0	18.22	11.01	9.58	9.08	8.70	8.48	8.37	8.31	8.31
360.0	18.22	11.01	9.58	9.08	8.70	8.48	8.37	8.31	8.31

C/γ(°)	90.0
0.0	8.31
45.0	8.31
90.0	8.31
135.0	8.31
180.0	8.31
225.0	8.31
270.0	8.31
315.0	8.31
360.0	8.31