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## NATA

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LumCAT: 3-1939-M  
Luminaire: BJB 47.319.2030  
Report No: NATA0100  
Test No: GC2018111418  
LampCAT: BRIDGELUX V22B  
Lamp flux(lm): 3359.2  
Number of Lamps: 1  
Length(mm): 78  
Phm Type: C

Voltage(V): 48.9000  
Current(A): 0.4550  
Power (W): 22.2600  
PF: 0.0000  
Ballast type: DC  
Width(mm): 78  
Height(mm): 0

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## Photometric Results

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Lumens(lm): 2876.48  
Efficiency(%): 85.63%  
Lumens(lm)/Power(W): 129.22  
Central intensity(cd): 7121.953  
Maximum intensity(cd): 7121.953  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=34.4  
                                  [C90/270]Total=34.4  
Field angle(10%Imax): [C0/180]Total=64.5  
                                  [C90/270]Total=64.5  
Maximum s/h(1/2): C0\_180=0.58 C90\_270=0.58  
Maximum s/h(1/4): C0\_180=0.53 C90\_270=0.53  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 86.82%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.209%

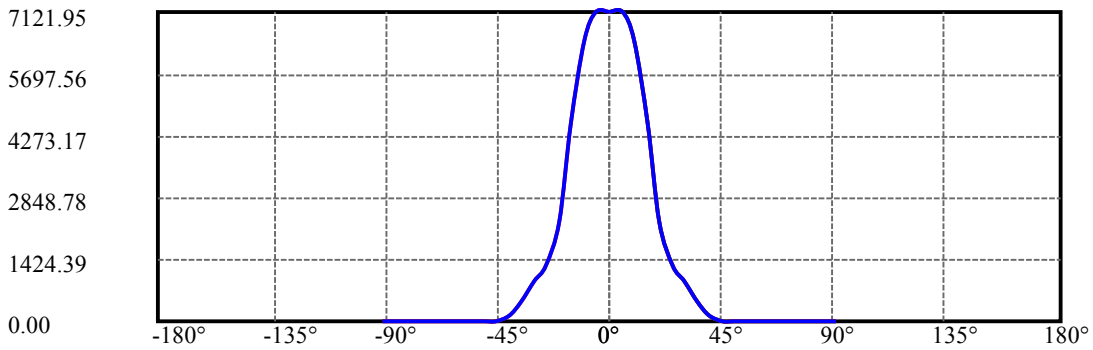
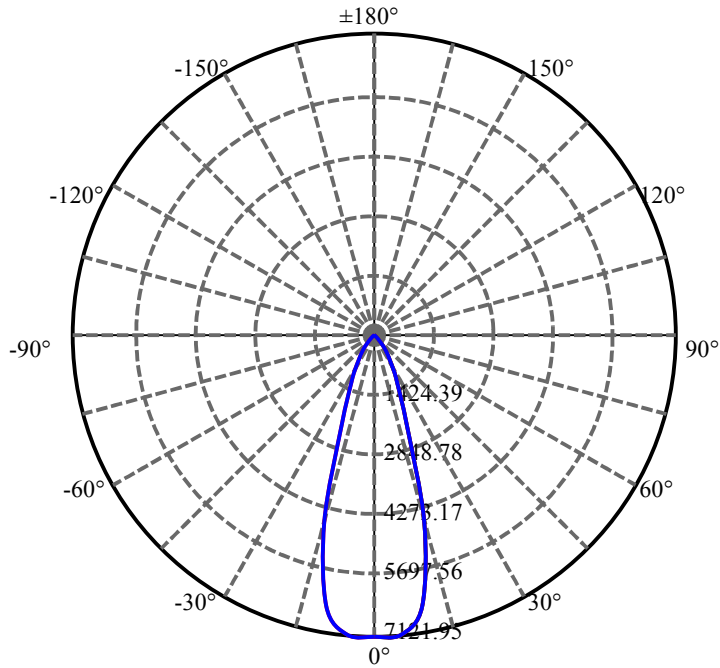
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7121.953	42.591	42.591	1.268%	1.481%
5.0	7108.875	339.615	382.205	10.110%	13.287%
10.0	6475.078	616.318	998.523	18.347%	34.713%
15.0	4549.219	645.390	1643.913	19.213%	57.150%
20.0	2286.211	428.605	2072.519	12.759%	72.051%
25.0	1261.673	292.270	2364.789	8.701%	82.211%
30.0	919.076	251.890	2616.679	7.499%	90.968%
35.0	460.181	144.680	2761.359	4.307%	95.998%
40.0	128.637	45.323	2806.682	1.349%	97.573%
45.0	21.087	8.173	2814.855	.243%	97.858%
50.0	16.207	6.805	2821.661	.203%	98.094%
55.0	14.815	6.652	2828.313	.198%	98.325%
60.0	13.985	6.639	2834.952	.198%	98.556%
65.0	14.288	7.098	2842.049	.211%	98.803%
70.0	15.033	7.743	2849.792	.231%	99.072%
75.0	15.616	8.268	2858.061	.246%	99.360%
80.0	14.913	8.050	2866.111	.240%	99.640%
85.0	13.001	7.099	2873.21	.211%	99.886%
90.0	11.932	3.270	2876.48	.097%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2616.68	77.90%	90.97%
0-40	2806.68	83.55%	97.57%
0-60	2834.95	84.39%	98.56%
0-90	2873.21	85.53%	99.89%
0-120	2873.21	85.53%	99.89%
0-180	2876.48	85.63%	100.00%
60-90	44.90	1.34%	1.56%
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%
0-23.91	2301.18	68.50%	80.00%

ZONAL LUMEN SUMMARY

0-10	998.52
10-20	1074.00
20-30	544.16
30-40	190.00
40-50	14.98
50-60	13.29
60-70	14.84
70-80	16.32
80-90	7.10
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: —————

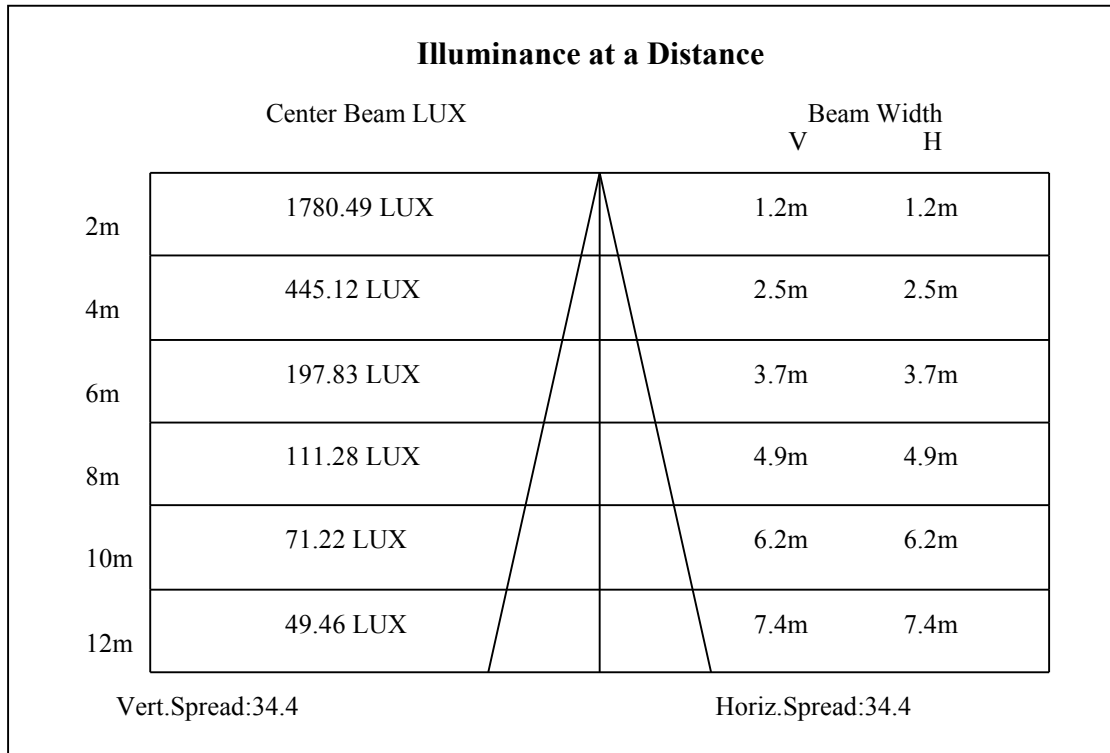
C90/C270: —————

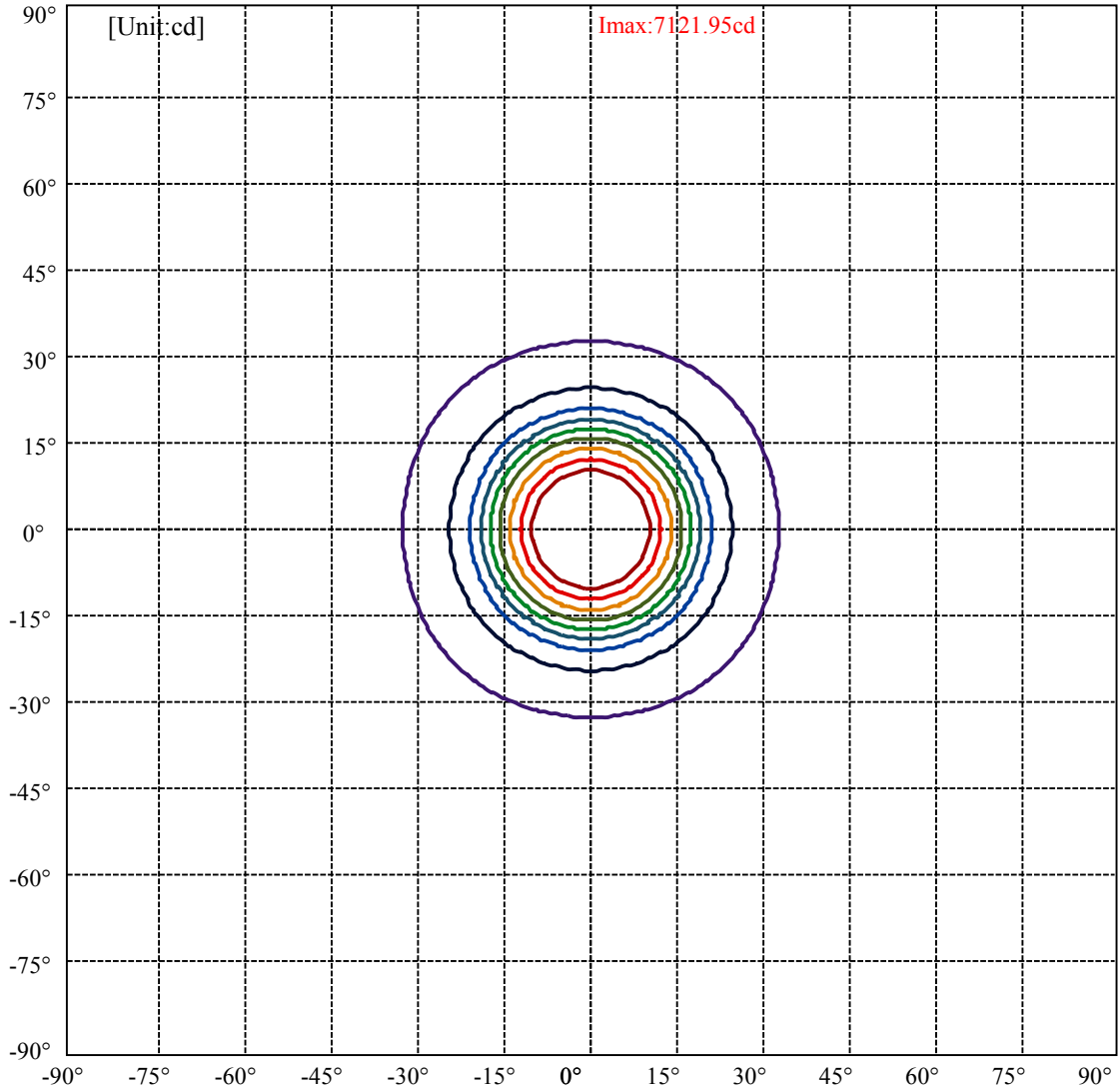
Field angle(10%Imax):C0/180Left:32.3 Right:32.3

:C90/270Left:32.3 Right:32.3

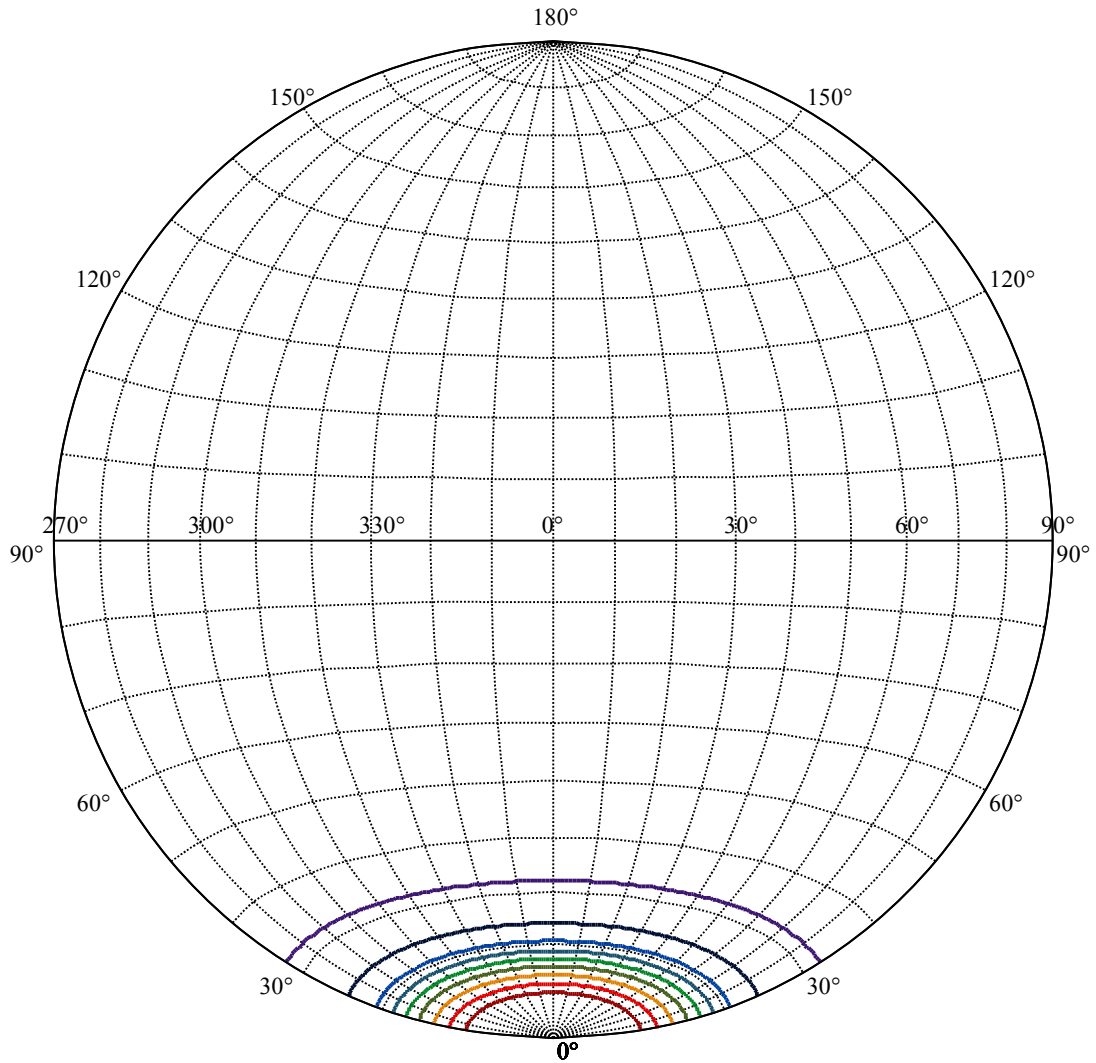
Beam Angle(50%Imax):C0/180Left:17.2 Right:17.2

:C90/270Left:17.2 Right:17.2





(10%Imax) 712.195	—
(20%Imax) 1424.39	—
(30%Imax) 2136.59	—
(40%Imax) 2848.78	—
(50%Imax) 3560.98	—
(60%Imax) 4273.17	—
(70%Imax) 4985.37	—
(80%Imax) 5697.56	—
(90%Imax) 6409.76	—



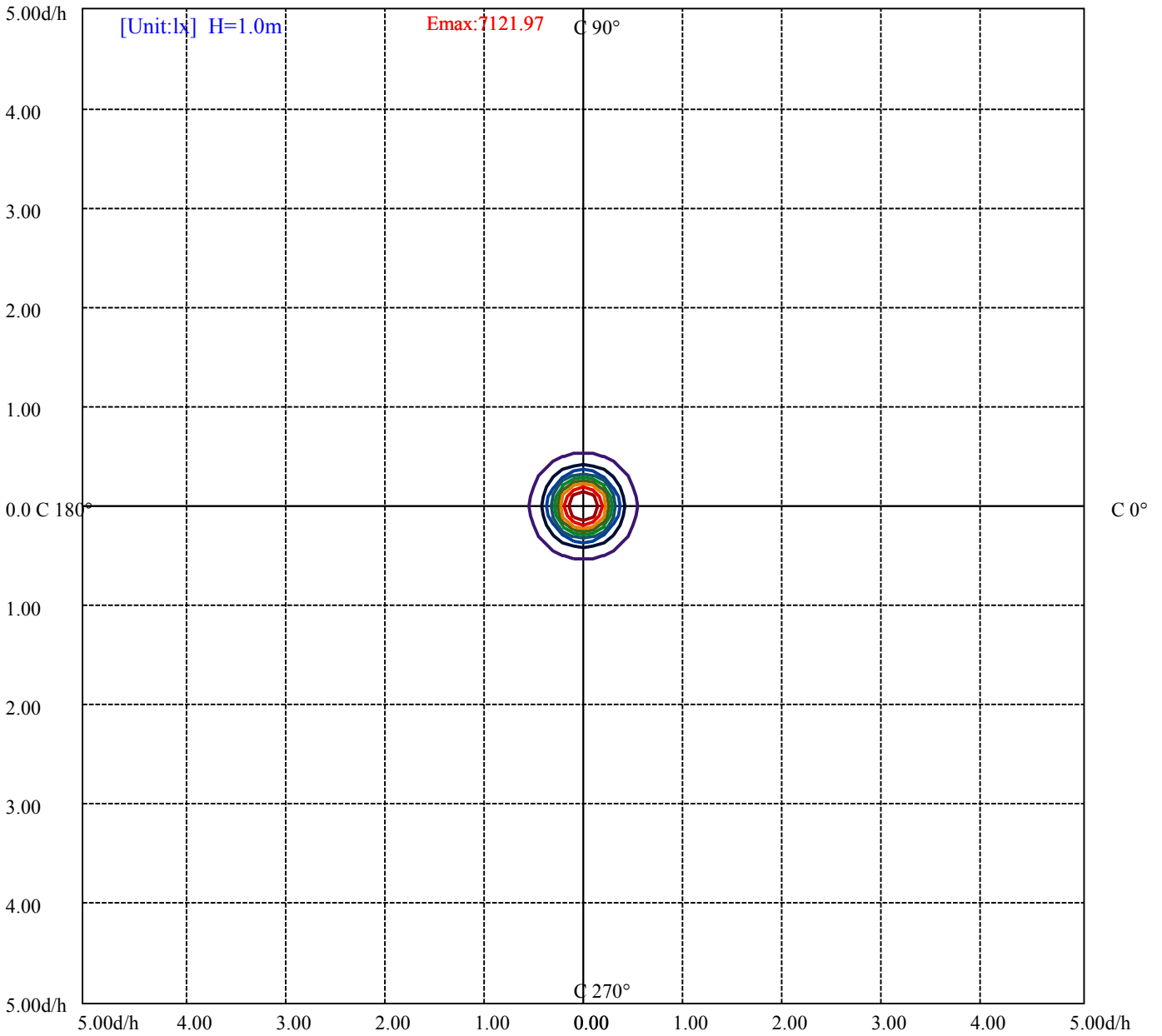
House

[Unit:cd]

Road

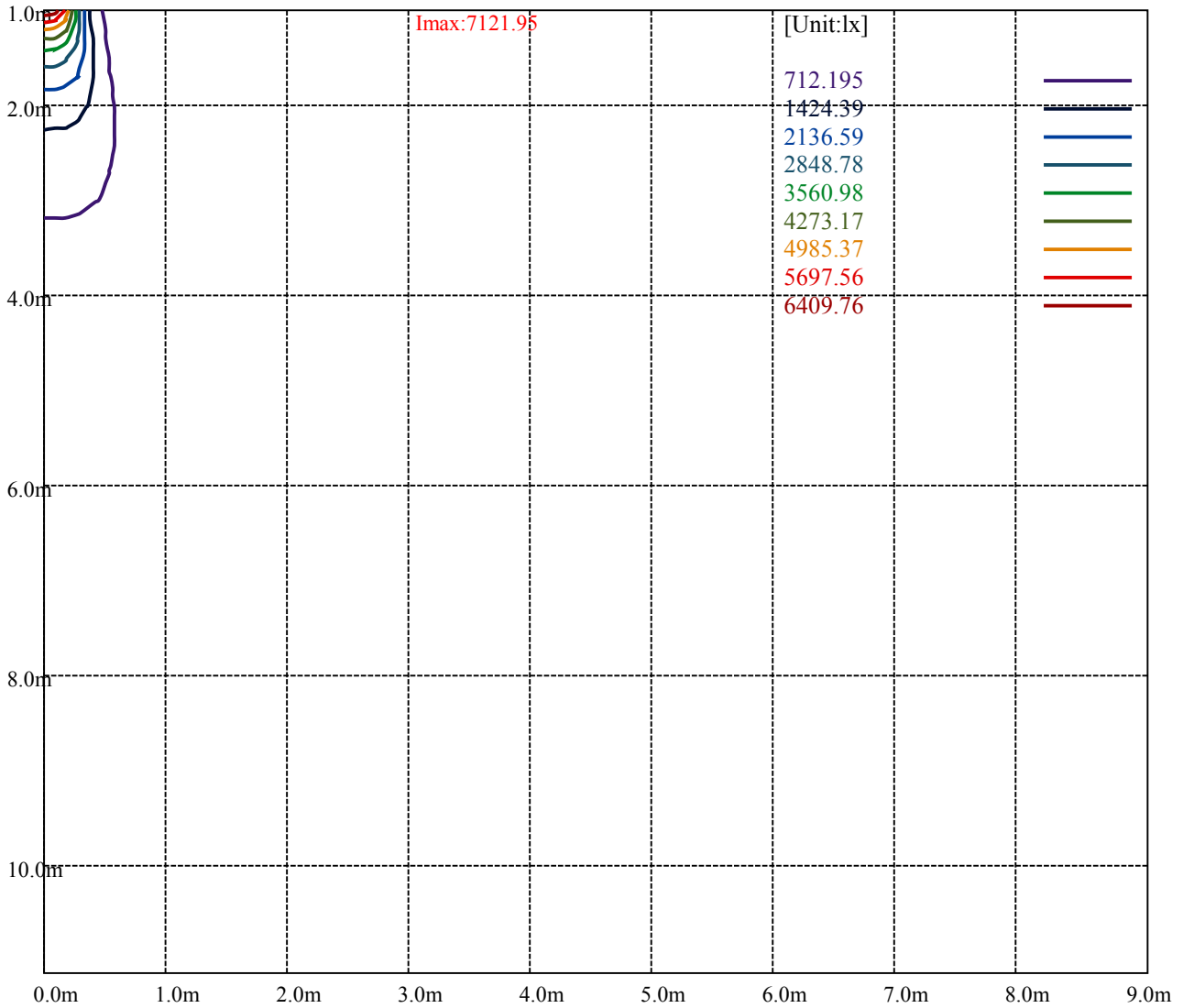
Imax:7121.95

(10%Imax)	712.195	—
(20%Imax)	1424.39	—
(30%Imax)	2136.59	—
(40%Imax)	2848.78	—
(50%Imax)	3560.98	—
(60%Imax)	4273.17	—
(70%Imax)	4985.37	—
(80%Imax)	5697.56	—
(90%Imax)	6409.76	—



(10%E <sub>max</sub> ) 712.195	—
(20%E <sub>max</sub> ) 1424.39	—
(30%E <sub>max</sub> ) 2136.59	—
(40%E <sub>max</sub> ) 2848.78	—
(50%E <sub>max</sub> ) 3560.98	—
(60%E <sub>max</sub> ) 4273.17	—
(70%E <sub>max</sub> ) 4985.37	—
(80%E <sub>max</sub> ) 5697.56	—
(90%E <sub>max</sub> ) 6409.76	—





Luminance Table

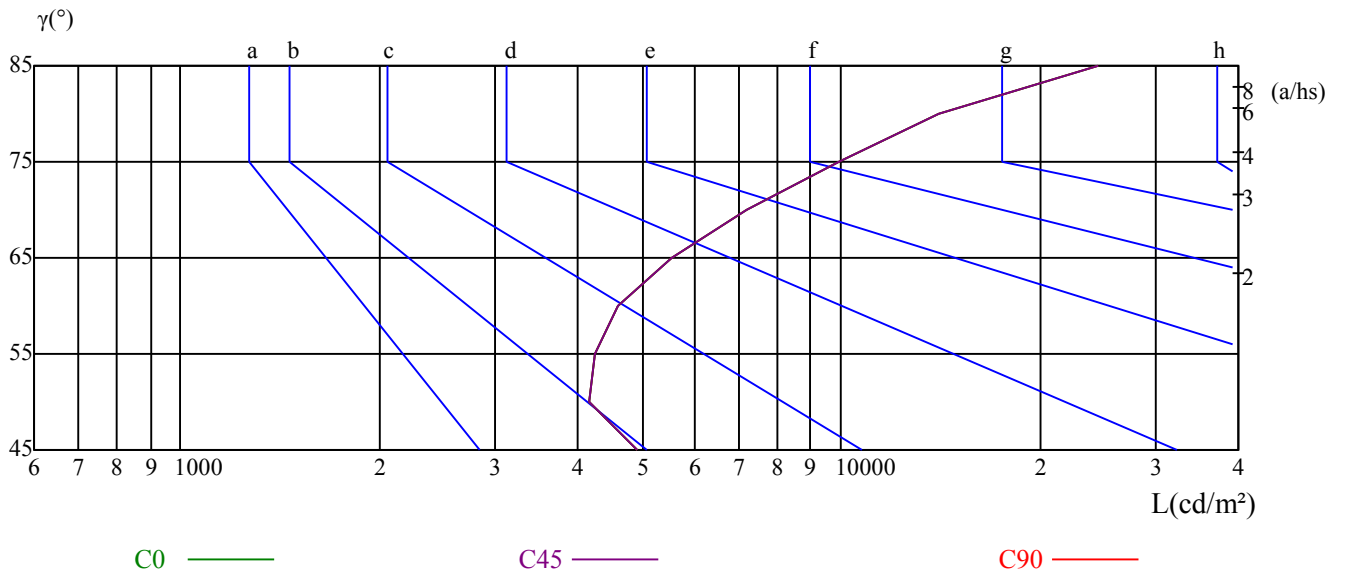
$\gamma$	45	50	55	60	65	70	75	80	85
C0	4902	4144	4245	4597	5557	7224	9917	14116	24518
C45	4902	4144	4245	4597	5557	7224	9917	14116	24518
C90	4902	4144	4245	4597	5557	7224	9917	14116	24518

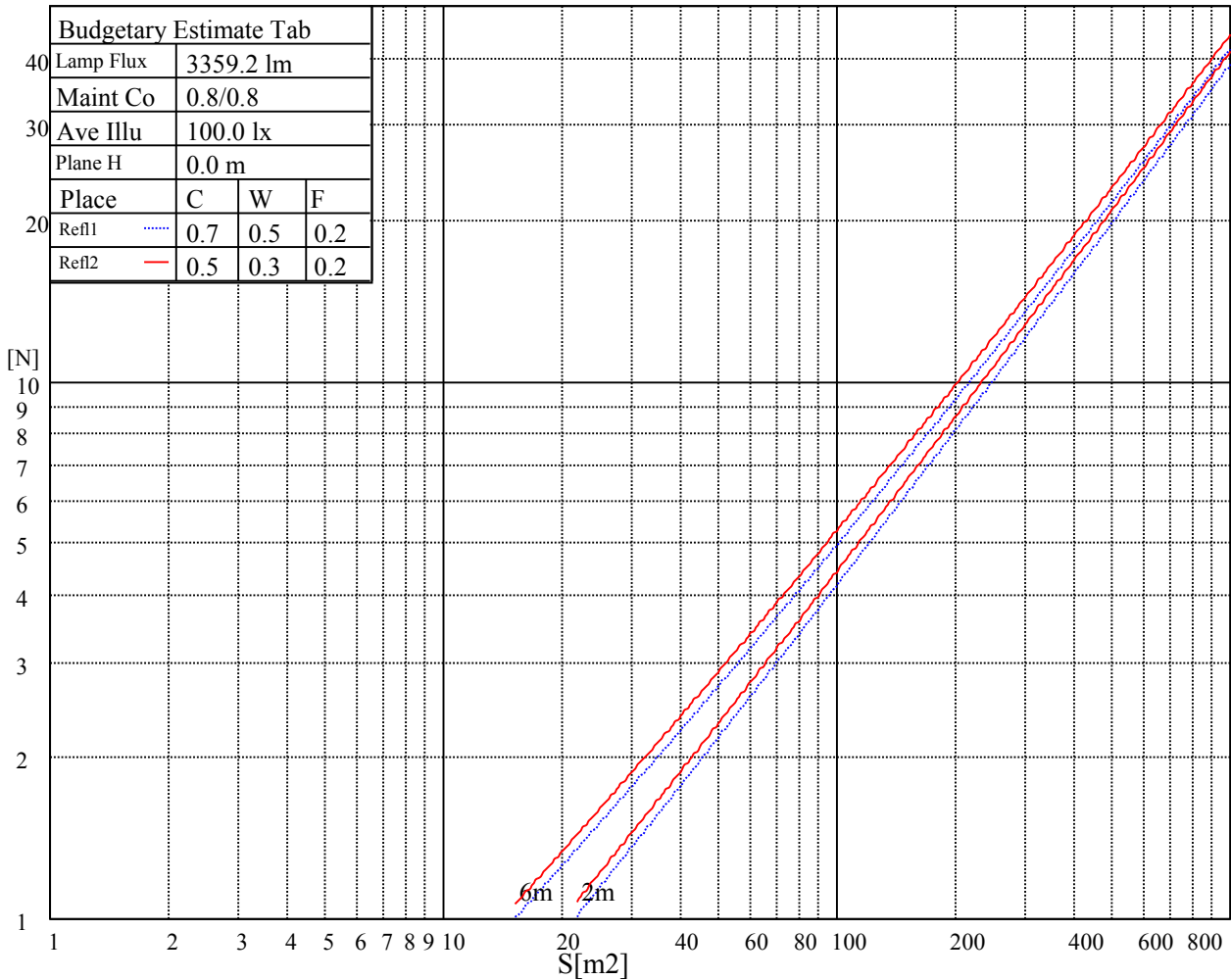
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5557	5557	5557	9917	9917	9917	24518	24518	24518

Glare Table

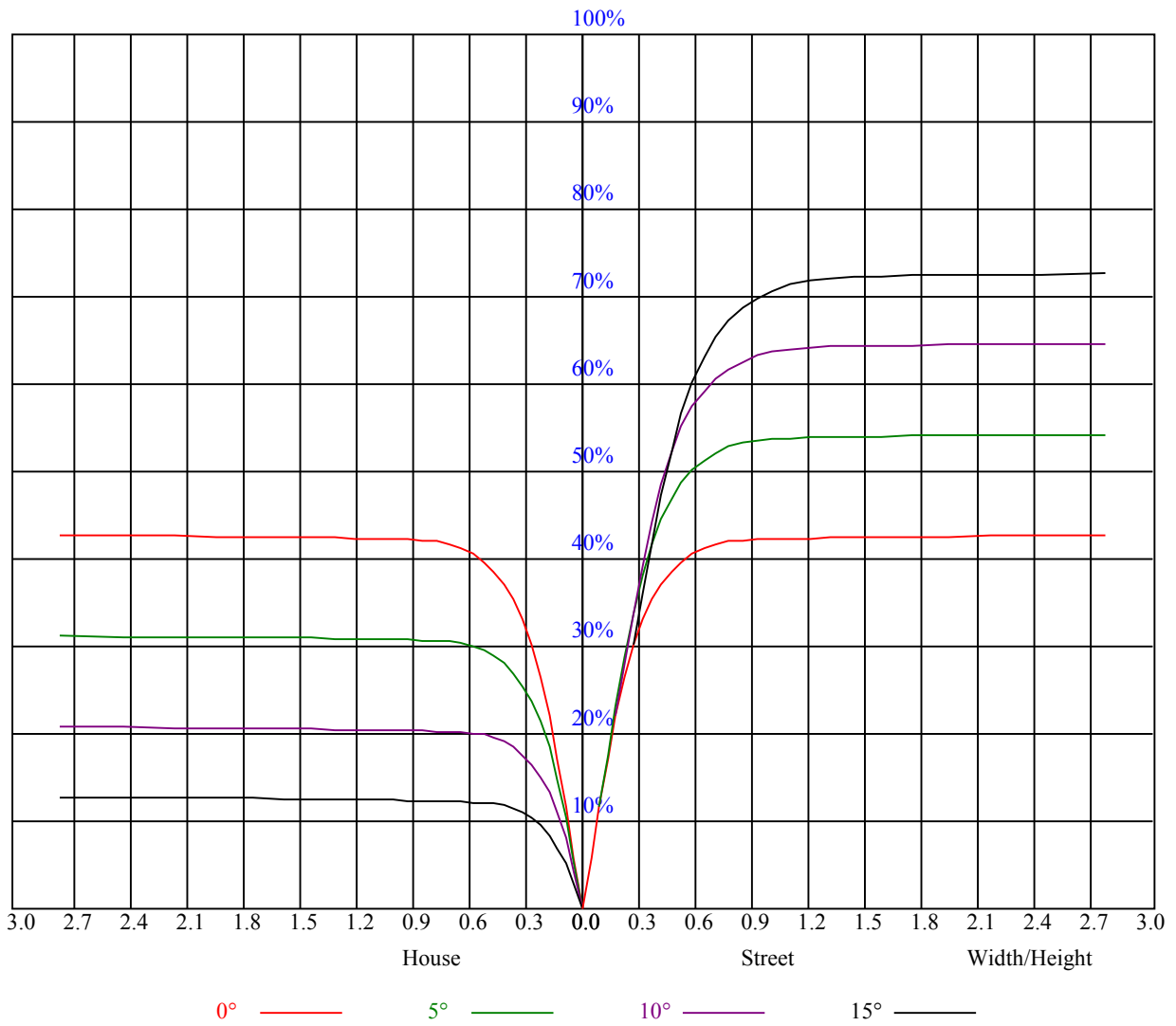
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.03	1.03	1.03	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.89	0.89	0.89	0.87
1	0.96	0.94	0.92	0.94	0.92	0.90	0.90	0.89	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81
2	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.82	0.84	0.82	0.80	0.82	0.80	0.79	0.77
3	0.87	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.79	0.77	0.76	0.74
4	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.78	0.76	0.74	0.77	0.75	0.73	0.72
5	0.79	0.75	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.75	0.72	0.70	0.69
6	0.76	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.73	0.71	0.68	0.72	0.70	0.68	0.67
7	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.68	0.66	0.65
8	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.66	0.64	0.63
9	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
10	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.65	0.62	0.60	0.59



NATA 3-1939-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	7138.13	7102.13	6773.63	5419.69	3081.94	1446.75	1085.06	626.06	305.44
45.0	7111.13	7119.56	6553.69	4701.38	2297.81	1294.31	950.63	468.00	104.79
90.0	7117.88	7158.38	6246.00	4173.19	1899.56	1117.97	849.43	389.25	53.38
135.0	7120.69	7169.63	6464.81	4345.88	2109.38	1240.31	873.00	439.88	72.39
180.0	7138.13	7021.69	6010.31	3628.69	1637.44	1120.11	761.34	295.14	31.56
225.0	7111.13	7095.94	6485.63	4459.50	2118.94	1203.19	908.83	436.84	59.01
270.0	7117.88	7115.63	6707.25	4987.13	2698.88	1353.94	987.75	531.00	291.94
315.0	7120.69	7088.06	6559.31	4678.31	2445.75	1316.81	936.56	495.28	110.59
360.0	7138.13	7102.13	6773.63	5419.69	3081.94	1446.75	1085.06	626.06	305.44

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	25.65	16.93	15.08	14.12	13.39	13.05	12.99	12.88	12.88
45.0	21.99	16.26	14.91	14.18	15.53	18.90	21.15	18.90	12.77
90.0	18.79	15.64	14.40	13.67	13.28	13.05	12.88	12.54	12.54
135.0	18.39	15.75	14.34	13.50	13.05	12.83	12.66	12.88	13.05
180.0	18.45	15.75	14.63	13.89	13.67	13.95	13.50	13.22	13.28
225.0	21.38	16.48	15.30	14.63	18.56	21.94	24.36	21.94	13.33
270.0	23.06	16.76	15.24	14.34	13.78	13.73	14.63	13.84	13.05
315.0	20.98	16.09	14.63	13.56	13.05	12.83	12.77	13.11	13.11
360.0	25.65	16.93	15.08	14.12	13.39	13.05	12.99	12.88	12.88

C/γ(°)	90.0
0.0	11.98
45.0	11.98
90.0	11.87
135.0	11.93
180.0	11.98
225.0	11.98
270.0	11.87
315.0	11.87
360.0	11.98