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NATA

LumCAT: 2-1567-M	
Luminaire: BJB47.319.2011	
Report No: NT2017060701	Voltage(V): 219.3000
Test No: GC2017060701	Current(A): 0.1030
LampCAT: LUMILEDS 1204	Power (W): 20.6000
Lamp flux(lm): 2095.0	PF: 0.9090
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 45

Photometric Results

Lumens(lm): 1903.54
Efficiency(%): 90.86%
Lumens(lm)/Power(W): 92.41
Central intensity(cd): 6188.339
Maximum intensity(cd): 6188.339
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=25.8
 [C90/270]Total=25.8
Field angle(10%Imax): [C0/180]Total=64.6
 [C90/270]Total=64.6
Maximum s/h(1/2): C0_180=0.44 C90_270=0.44
Maximum s/h(1/4): C0_180=0.44 C90_270=0.44
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.54%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.049%

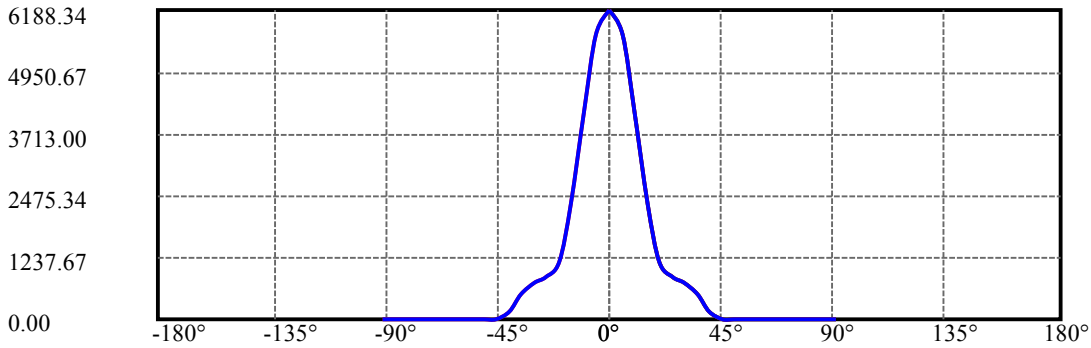
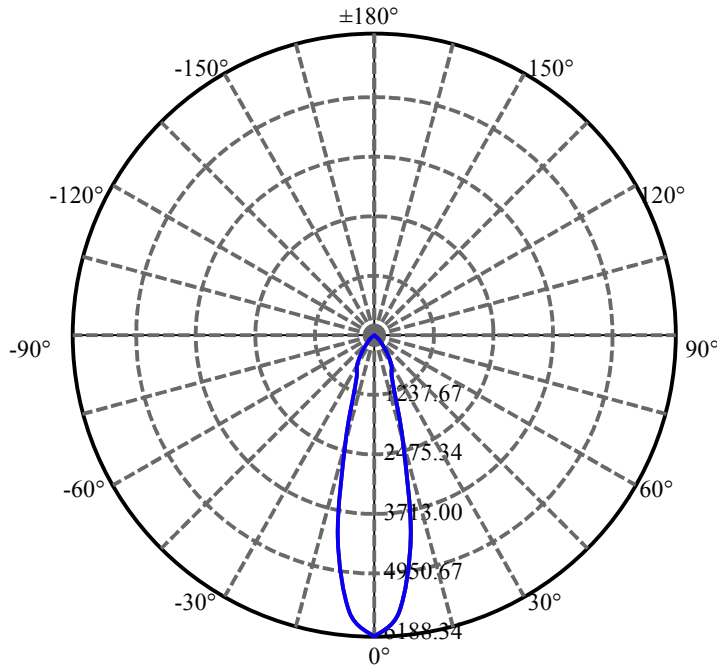
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6188.339	37.008	37.008	1.766%	1.944%
5.0	5696.823	272.156	309.164	12.991%	16.241%
10.0	4202.730	400.029	709.192	19.094%	37.256%
15.0	2300.119	326.314	1035.507	15.576%	54.399%
20.0	1150.459	215.681	1251.188	10.295%	65.729%
25.0	851.310	197.208	1448.396	9.413%	76.089%
30.0	722.003	197.878	1646.274	9.445%	86.485%
35.0	497.097	156.287	1802.561	7.460%	94.695%
40.0	168.032	59.204	1861.765	2.826%	97.805%
45.0	18.458	7.154	1868.919	.341%	98.181%
50.0	10.915	4.583	1873.502	.219%	98.422%
55.0	9.022	4.051	1877.553	.193%	98.635%
60.0	8.362	3.969	1881.522	.189%	98.843%
65.0	7.969	3.959	1885.481	.189%	99.051%
70.0	7.687	3.960	1889.441	.189%	99.259%
75.0	7.522	3.983	1893.424	.190%	99.468%
80.0	7.550	4.075	1897.499	.195%	99.682%
85.0	7.391	4.036	1901.535	.193%	99.894%
90.0	7.329	2.009	1903.544	.096%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1646.27	78.58%	86.48%
0-40	1861.76	88.87%	97.81%
0-60	1881.52	89.81%	98.84%
0-90	1901.54	90.77%	99.89%
0-120	1901.54	90.77%	99.89%
0-180	1903.54	90.86%	100.00%
60-90	23.98	1.14%	1.26%
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%
0-26.88	1522.84	72.69%	80.00%

ZONAL LUMEN SUMMARY

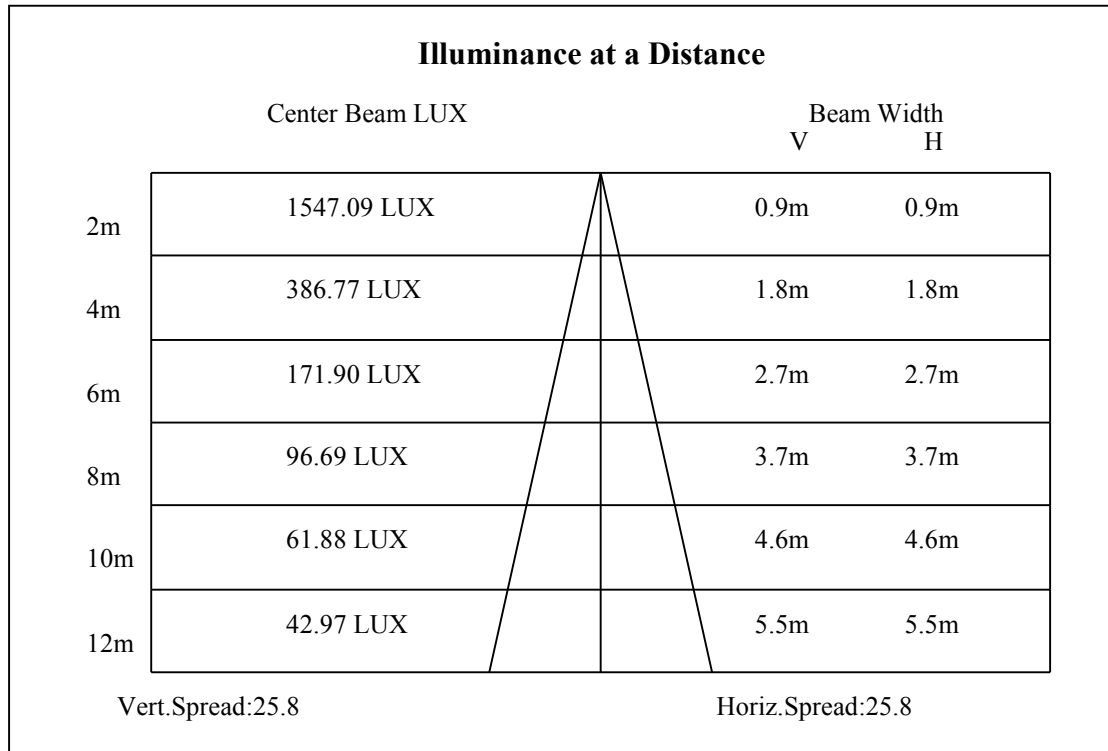
0-10	709.19
10-20	542.00
20-30	395.09
30-40	215.49
40-50	11.74
50-60	8.02
60-70	7.92
70-80	8.06
80-90	4.04
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

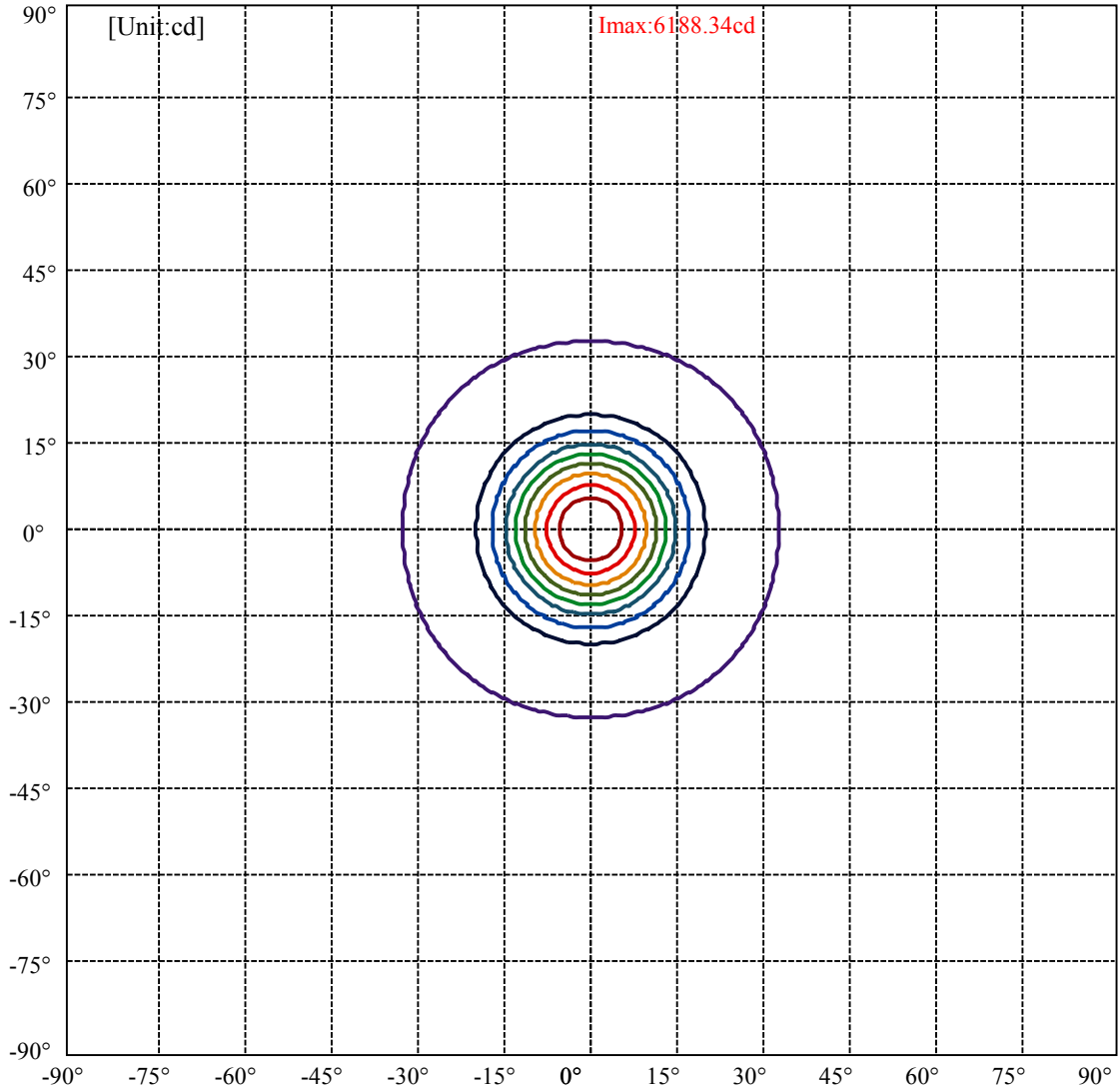


C0(Max): —————
C0/C180: —————
C90/C270: —————

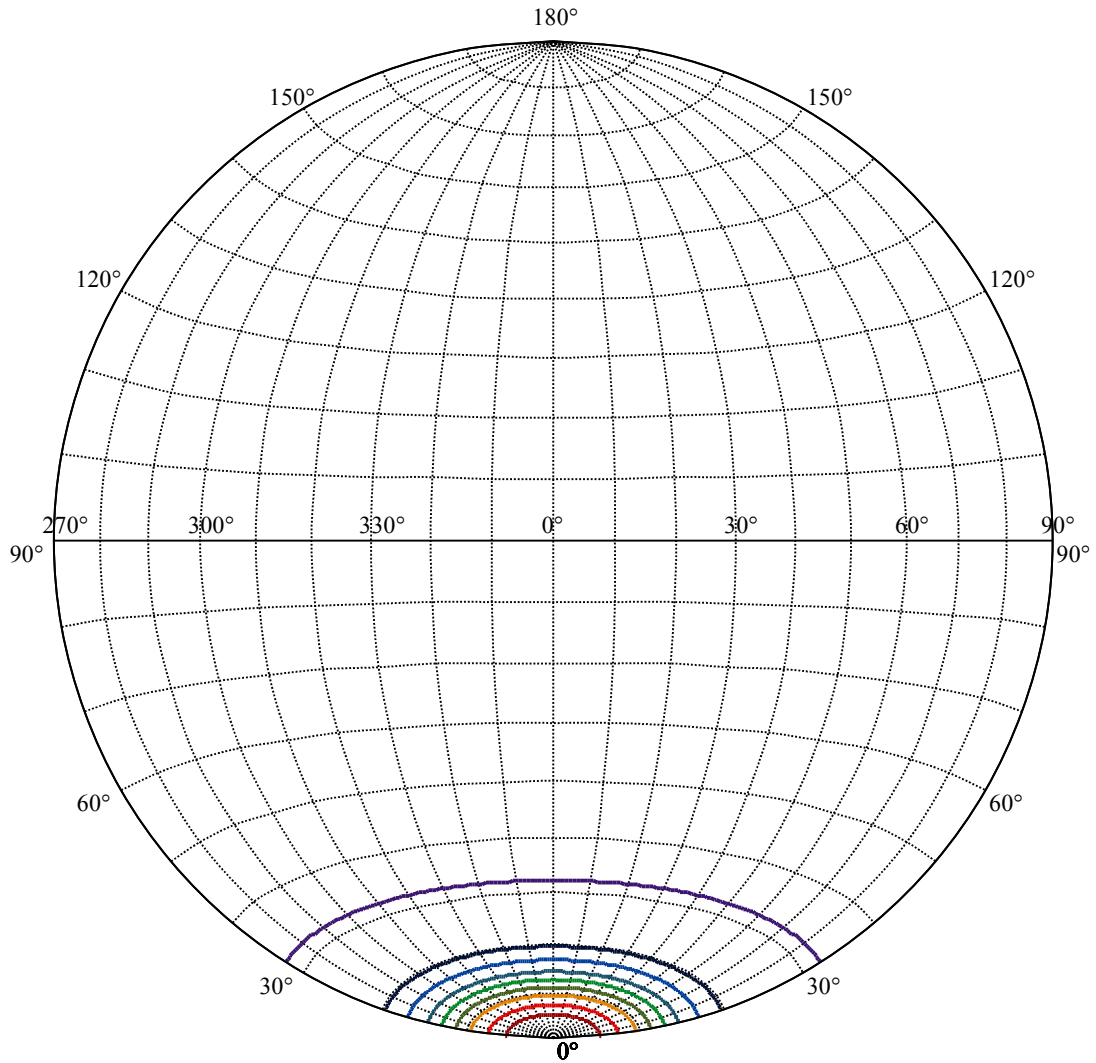
Field angle(10%Imax):C0/180Left:32.3 Right:32.3
:C90/270Left:32.3 Right:32.3

Beam Angle(50%Imax):C0/180Left:12.9 Right:12.9
:C90/270Left:12.9 Right:12.9





(10%Imax) 618.834	—
(20%Imax) 1237.67	—
(30%Imax) 1856.5	—
(40%Imax) 2475.34	—
(50%Imax) 3094.17	—
(60%Imax) 3713	—
(70%Imax) 4331.84	—
(80%Imax) 4950.67	—
(90%Imax) 5569.5	—



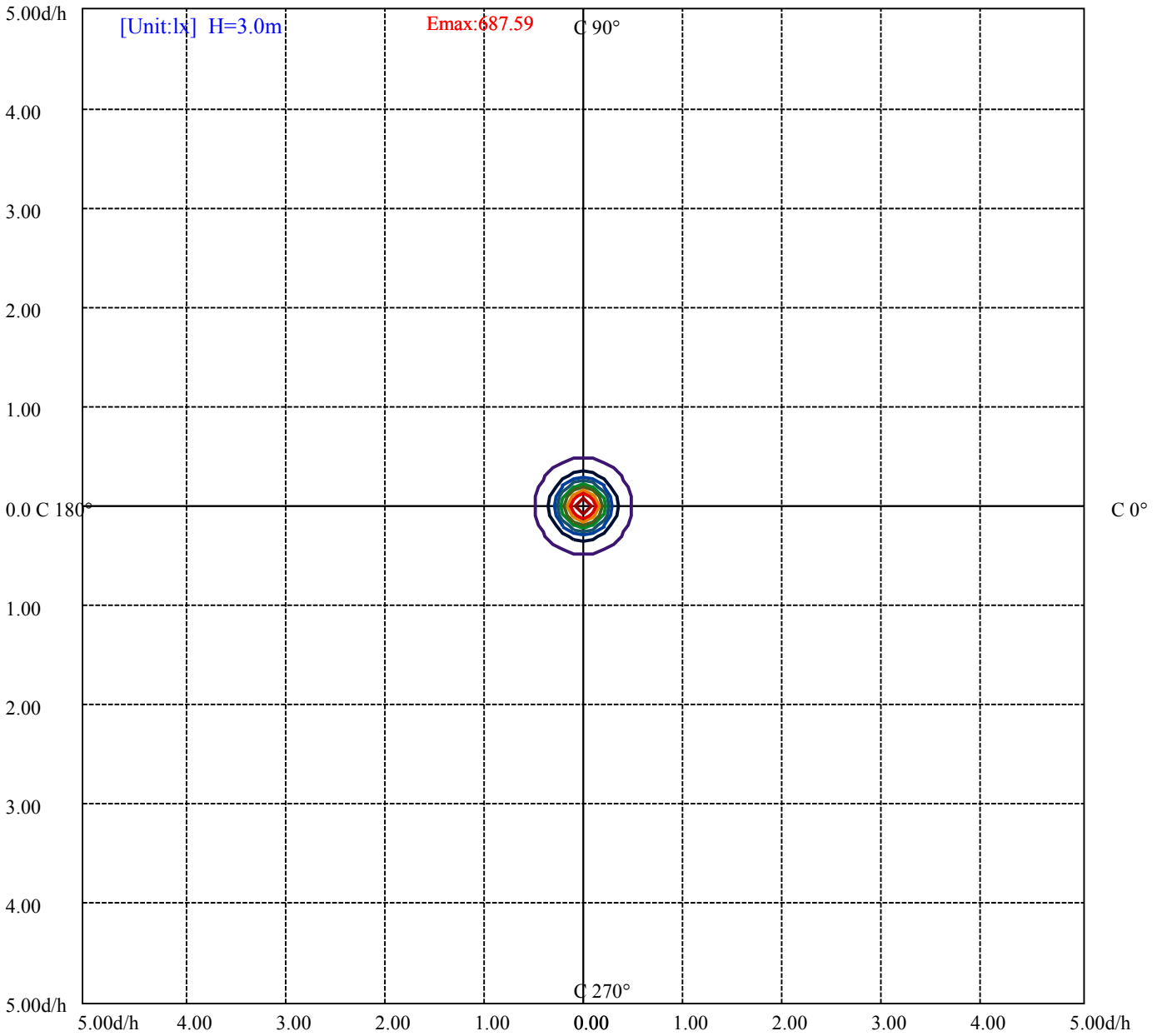
House

[Unit:cd]

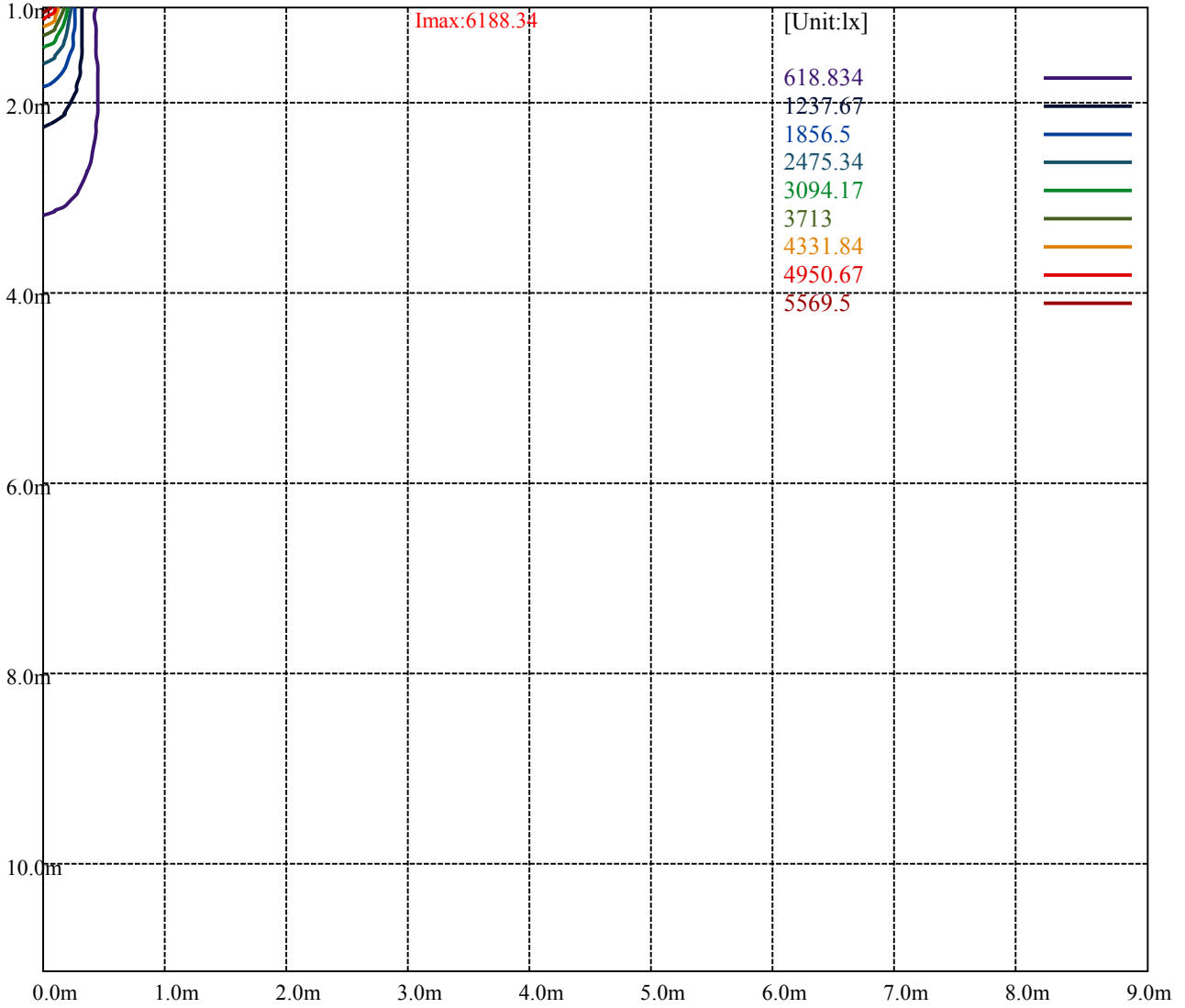
Road

I_{max}:6188.34

(10%I _{max}) 618.834	—
(20%I _{max}) 1237.67	—
(30%I _{max}) 1856.5	—
(40%I _{max}) 2475.34	—
(50%I _{max}) 3094.17	—
(60%I _{max}) 3713	—
(70%I _{max}) 4331.84	—
(80%I _{max}) 4950.67	—
(90%I _{max}) 5569.5	—



- (10%Emax) 68.75911
- (20%Emax) 137.5178
- (30%Emax) 206.2778
- (40%Emax) 275.0367
- (50%Emax) 343.7955
- (60%Emax) 412.5544
- (70%Emax) 481.3145
- (80%Emax) 550.0734
- (90%Emax) 618.8323



Luminance Table

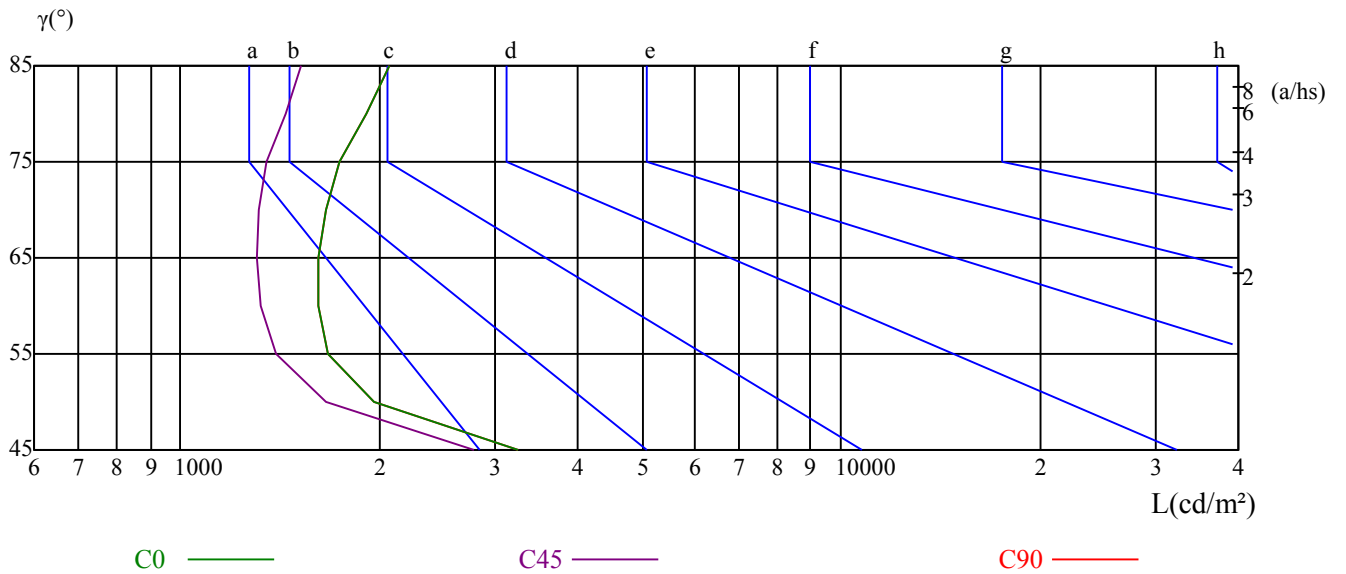
γ	45	50	55	60	65	70	75	80	85
C0	3243	1962	1674	1615	1618	1658	1745	1910	2073
C45	2790	1663	1397	1326	1305	1311	1350	1441	1519
C90	3243	1962	1674	1615	1618	1658	1745	1910	2073

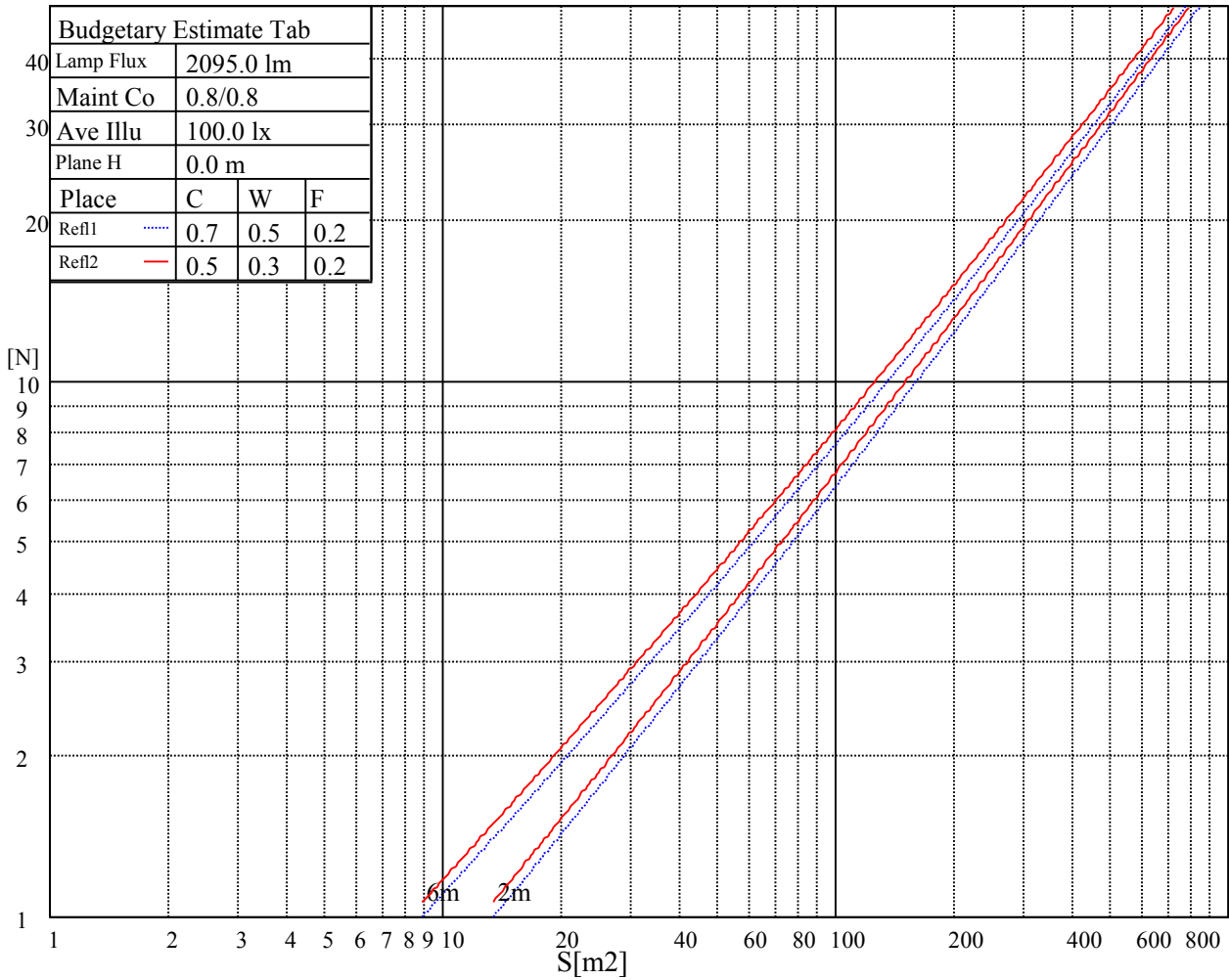
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3848	3848	3848	5931	5931	5931	17307	17307	17307

Glare Table

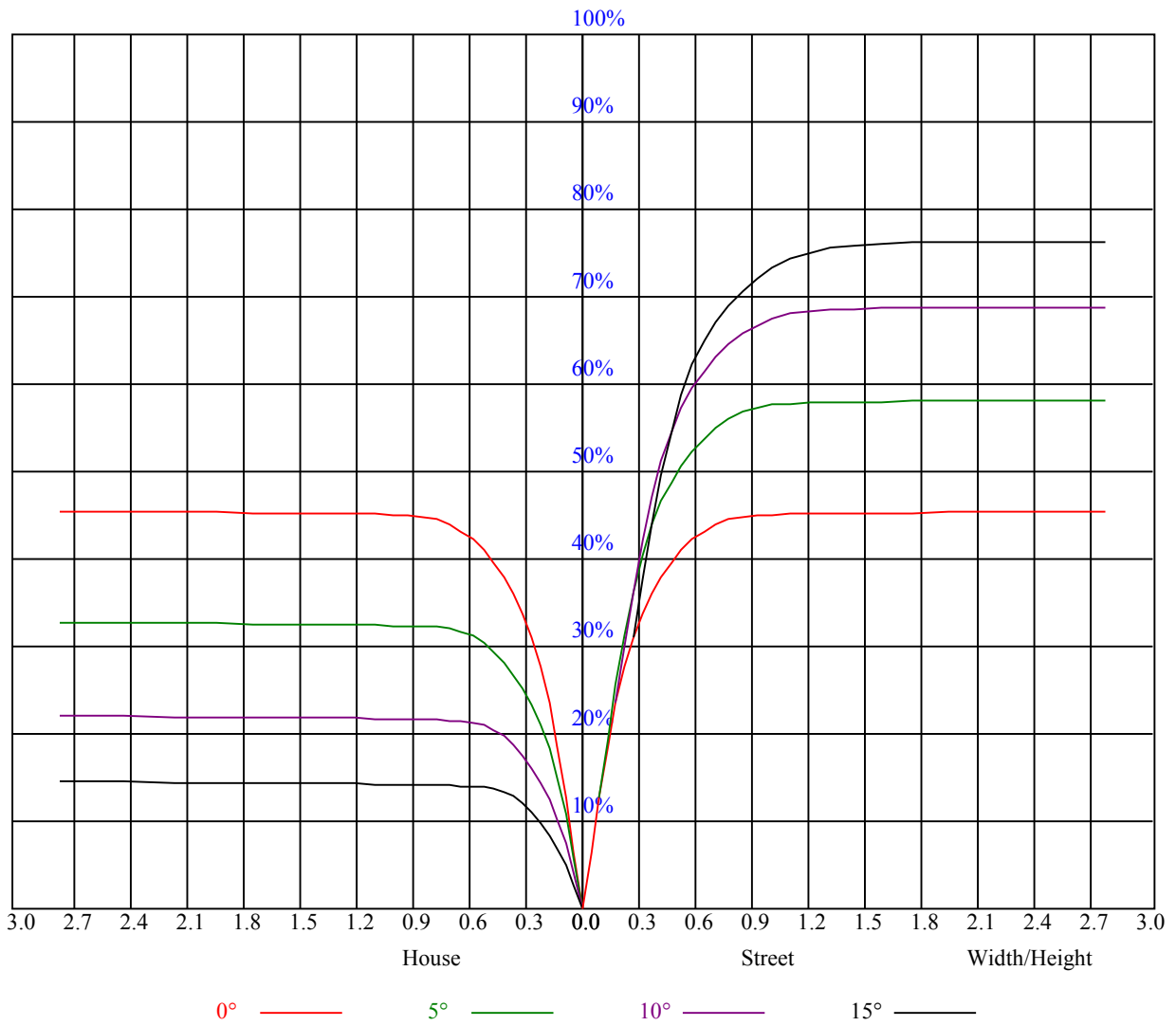
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.93
1	1.02	0.99	0.97	0.99	0.97	0.95	0.96	0.94	0.92	0.92	0.91	0.89	0.89	0.88	0.87	0.85
2	0.96	0.92	0.89	0.94	0.91	0.88	0.92	0.89	0.87	0.89	0.87	0.85	0.86	0.85	0.83	0.81
3	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.83	0.81	0.79	0.78
4	0.87	0.83	0.79	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.80	0.77	0.81	0.78	0.76	0.75
5	0.83	0.79	0.76	0.83	0.78	0.75	0.81	0.77	0.75	0.80	0.76	0.74	0.78	0.76	0.73	0.72
6	0.80	0.76	0.72	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	0.73	0.69	0.77	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.71	0.68	0.67
8	0.74	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.65
9	0.72	0.68	0.65	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63
10	0.70	0.65	0.63	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.61



NATA 2-1567-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	6240.09	5751.19	4161.16	2208.31	1128.11	842.36	723.99	494.96	179.76
45.0	6079.88	6132.73	5185.76	3286.32	1530.57	940.91	785.65	648.56	316.02
90.0	6201.55	5946.09	4415.52	2587.65	1079.05	867.41	734.62	556.90	195.67
135.0	6231.83	5969.21	4579.59	2690.06	1309.79	885.31	742.71	590.76	281.89
180.0	6240.09	5856.90	4271.83	2362.47	1096.06	854.92	729.28	516.65	171.01
225.0	6079.88	4970.49	3303.38	1516.80	948.57	781.42	654.95	301.05	28.96
270.0	6201.55	5454.99	3938.73	1962.21	1066.99	824.19	708.03	443.75	93.65
315.0	6231.83	5492.98	3765.86	1787.13	1044.53	813.95	696.79	424.15	77.30
360.0	6240.09	5751.19	4161.16	2208.31	1128.11	842.36	723.99	494.96	179.76
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	19.05	10.74	8.97	8.31	7.98	7.71	7.49	7.49	7.43
45.0	25.55	13.21	9.58	8.70	8.20	7.76	7.54	7.43	7.32
90.0	19.55	11.34	9.14	8.37	8.04	7.65	7.54	7.43	7.38
135.0	19.43	11.73	9.14	8.48	8.04	7.82	7.65	8.31	7.54
180.0	17.84	10.63	9.08	8.48	8.04	7.76	7.54	7.49	7.49
225.0	13.82	9.63	8.64	8.15	7.76	7.60	7.43	7.38	7.32
270.0	16.57	10.02	8.92	8.26	7.87	7.60	7.49	7.43	7.32
315.0	15.86	10.02	8.70	8.15	7.82	7.60	7.49	7.43	7.32
360.0	19.05	10.74	8.97	8.31	7.98	7.71	7.49	7.49	7.43
C/ γ (°)	90.0								
0.0	7.32								
45.0	7.32								
90.0	7.32								
135.0	7.32								
180.0	7.38								
225.0	7.32								
270.0	7.32								
315.0	7.32								
360.0	7.32								