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Nata

LumCAT: 3-1940-M	
Luminaire: BJB47.319.2011	
Report No: NT2017060502	Voltage(V): 219.4000
Test No: GC2017060502	Current(A): 0.1350
LampCAT: LUMILEDS 1208	Power (W): 28.0000
Lamp flux(lm): 3235.0	PF: 0.9430
Number of Lamps: 1	Ballast type: AC
Length(mm): 78	Width(mm): 78
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2933.90
Efficiency(%): 90.69%
Lumens(lm)/Power(W): 104.78
Central intensity(cd): 6389.570
Maximum intensity(cd): 6389.570
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=37.5
 [C90/270]Total=37.5
Field angle(10%Imax): [C0/180]Total=67.4
 [C90/270]Total=67.4
Maximum s/h(1/2): C0_180=0.61 C90_270=0.61
Maximum s/h(1/4): C0_180=0.62 C90_270=0.62
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.79%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.622%

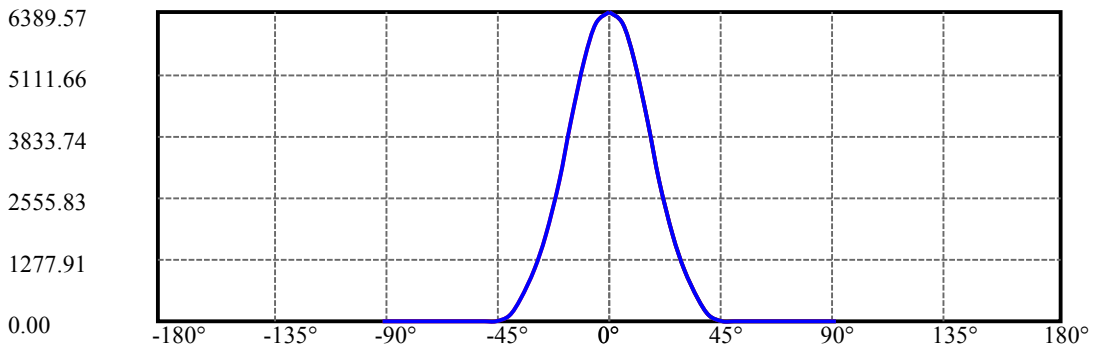
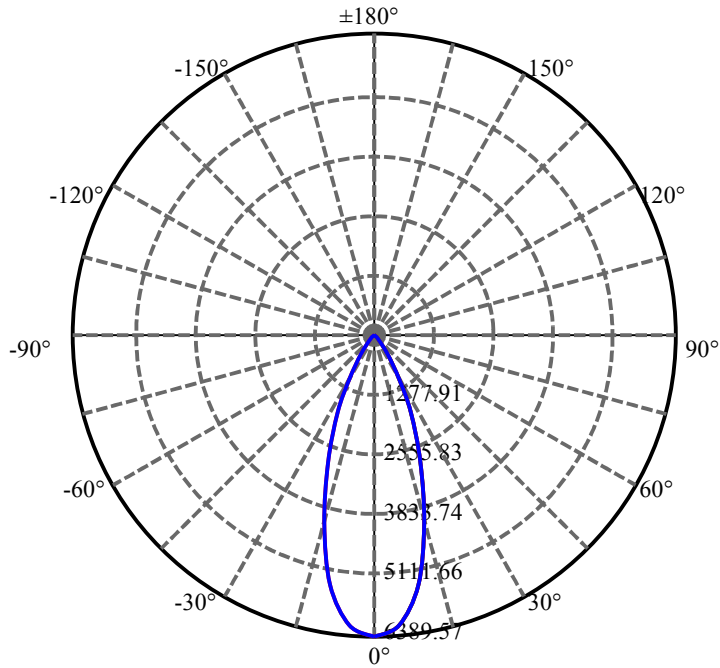
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6389.571	38.211	38.211	1.181%	1.302%
5.0	6162.325	294.395	332.606	9.100%	11.337%
10.0	5382.451	512.318	844.924	15.837%	28.799%
15.0	4130.882	586.042	1430.965	18.116%	48.773%
20.0	2879.863	539.899	1970.865	16.689%	67.176%
25.0	1794.082	415.604	2386.469	12.847%	81.341%
30.0	1081.996	296.541	2683.01	9.167%	91.449%
35.0	483.161	151.905	2834.915	4.696%	96.626%
40.0	107.505	37.878	2872.793	1.171%	97.917%
45.0	19.242	7.458	2880.251	.231%	98.171%
50.0	14.721	6.181	2886.432	.191%	98.382%
55.0	13.633	6.121	2892.554	.189%	98.591%
60.0	13.000	6.171	2898.725	.191%	98.801%
65.0	12.587	6.253	2904.978	.193%	99.014%
70.0	12.346	6.359	2911.338	.197%	99.231%
75.0	12.140	6.428	2917.765	.199%	99.450%
80.0	11.947	6.449	2924.214	.199%	99.670%
85.0	11.830	6.460	2930.674	.200%	99.890%
90.0	11.775	3.227	2933.902	.100%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2683.01	82.94%	91.45%
0-40	2872.79	88.80%	97.92%
0-60	2898.73	89.61%	98.80%
0-90	2930.67	90.59%	99.89%
0-120	2930.67	90.59%	99.89%
0-180	2933.90	90.69%	100.00%
60-90	38.12	1.18%	1.30%
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%
0-24.53	2347.12	72.55%	80.00%

ZONAL LUMEN SUMMARY

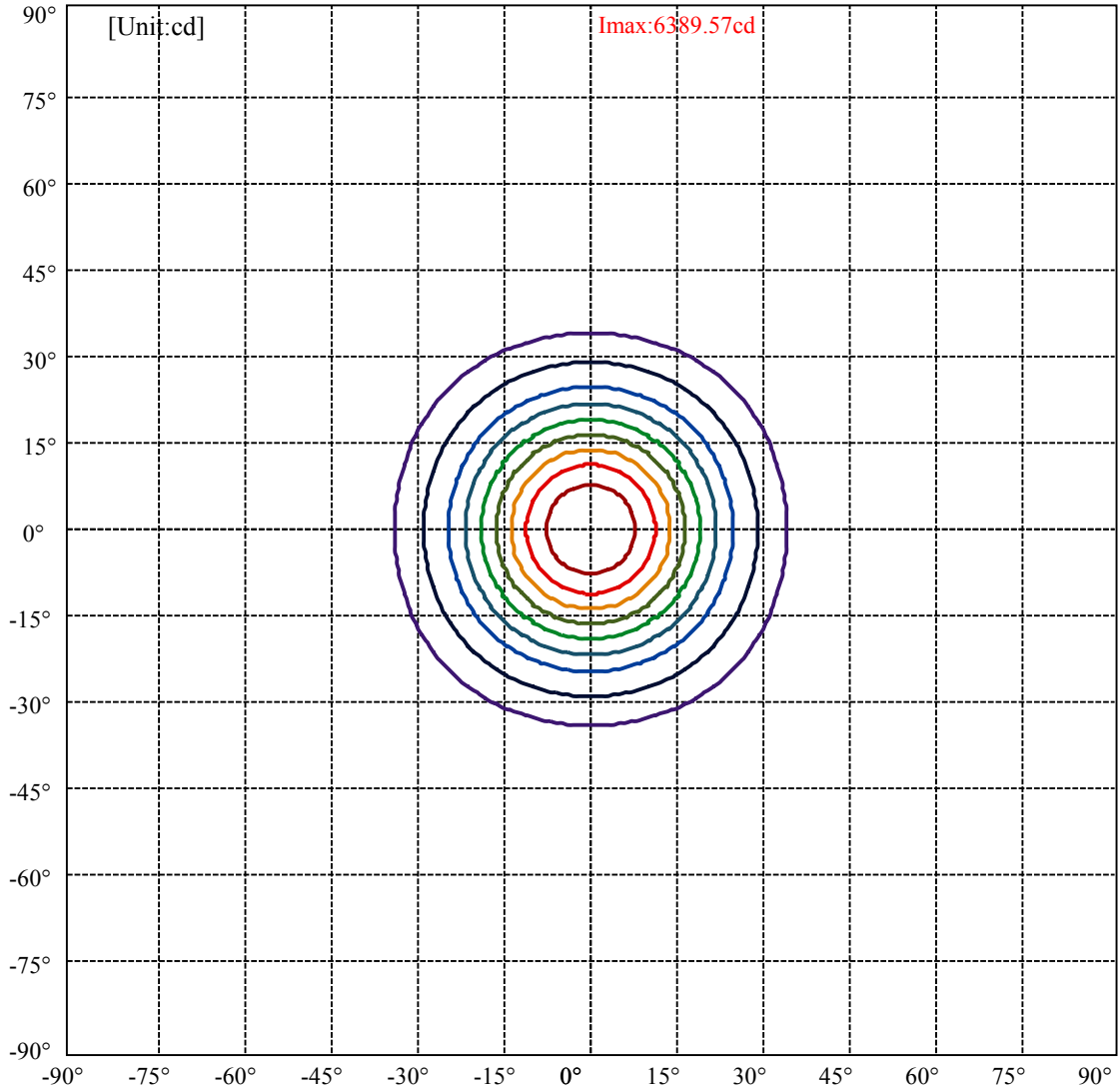
0-10	844.92
10-20	1125.94
20-30	712.15
30-40	189.78
40-50	13.64
50-60	12.29
60-70	12.61
70-80	12.88
80-90	6.46
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



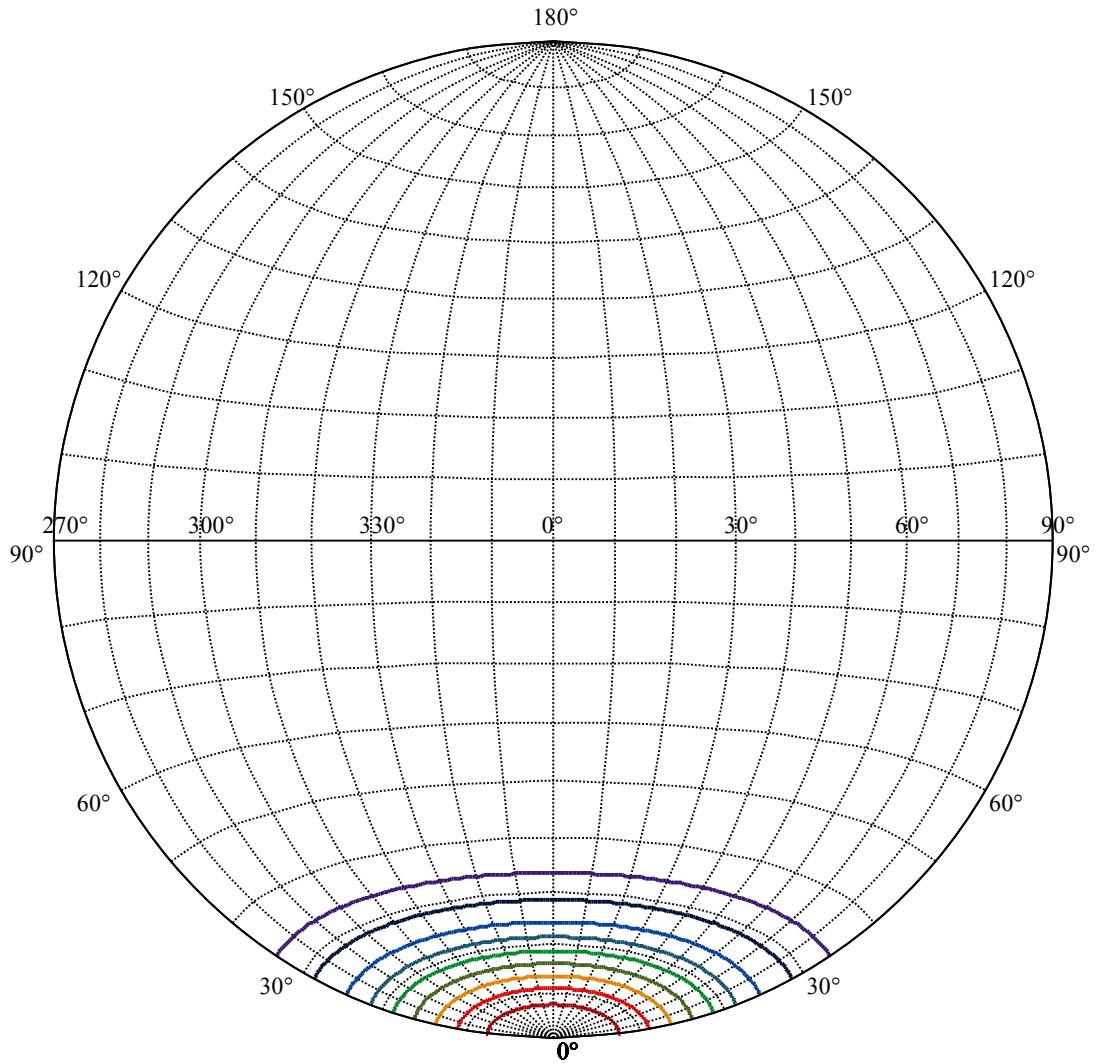
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:33.7 Right:33.7
:C90/270Left:33.7 Right:33.7

Beam Angle(50%Imax):C0/180Left:18.7 Right:18.7
:C90/270Left:18.7 Right:18.7



(10%Imax) 638.957	—
(20%Imax) 1277.91	—
(30%Imax) 1916.87	—
(40%Imax) 2555.83	—
(50%Imax) 3194.79	—
(60%Imax) 3833.74	—
(70%Imax) 4472.7	—
(80%Imax) 5111.66	—
(90%Imax) 5750.61	—



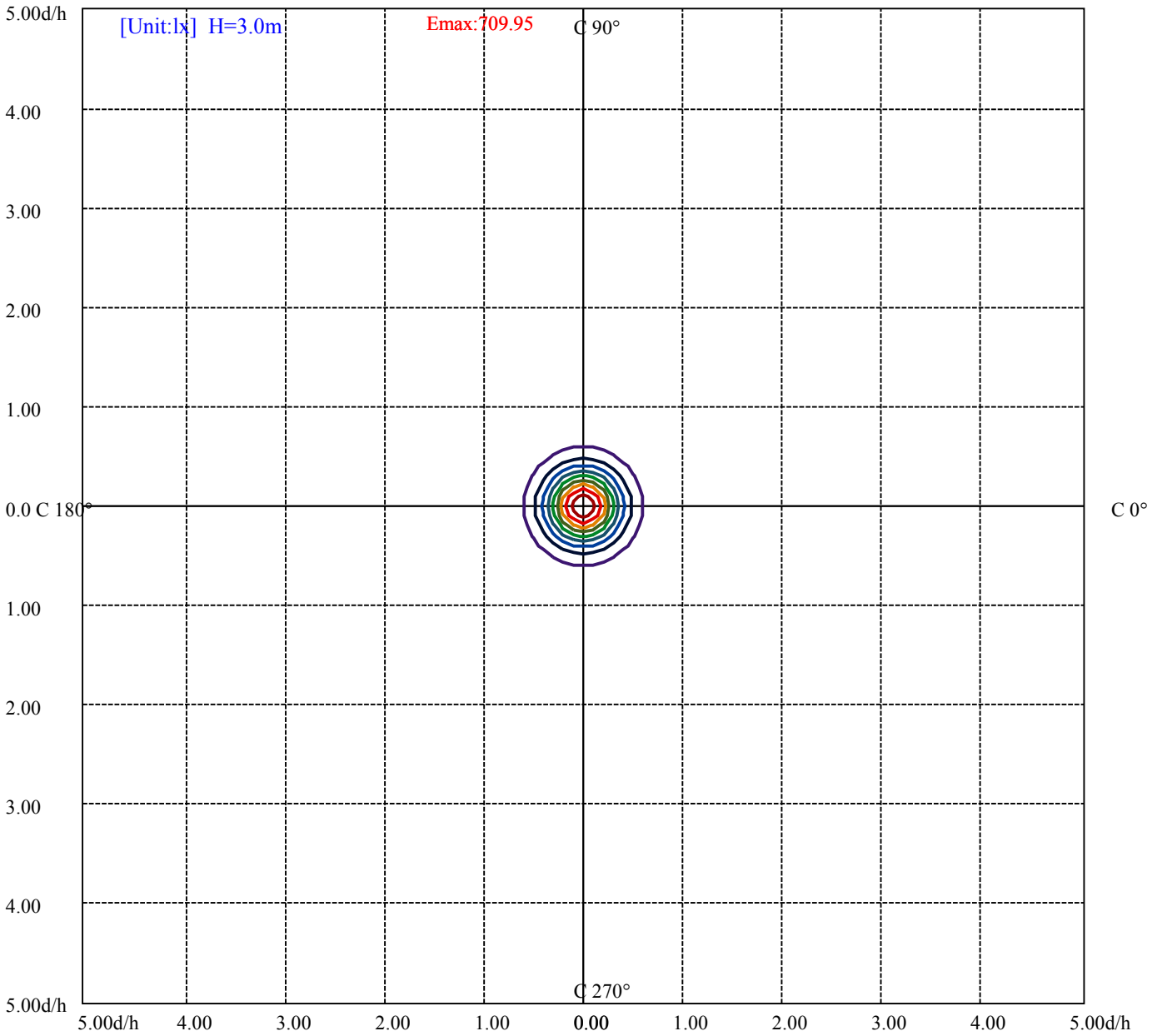
House

[Unit:cd]

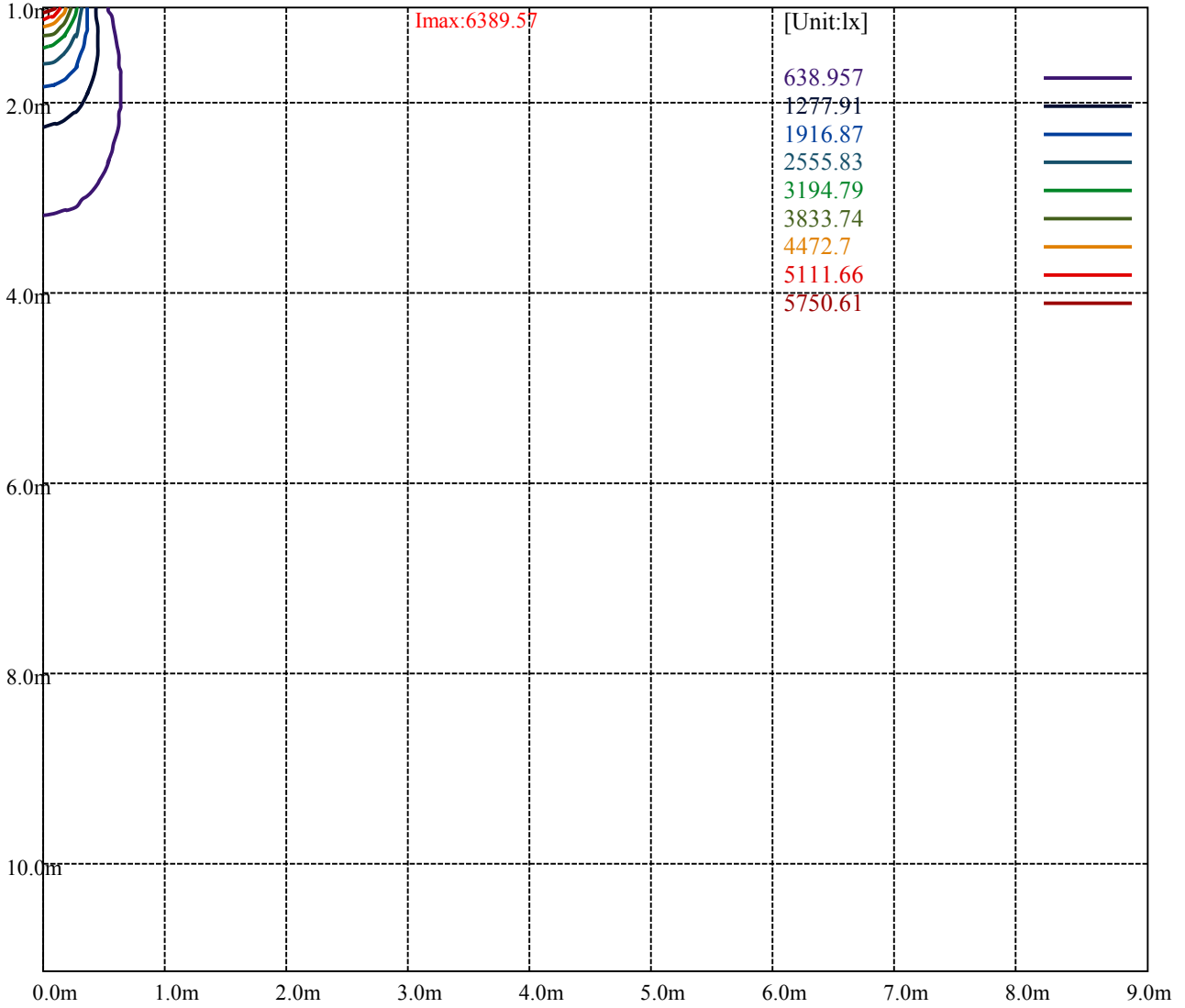
Road

Imax:6389.57

(10%Imax) 638.957	—
(20%Imax) 1277.91	—
(30%Imax) 1916.87	—
(40%Imax) 2555.83	—
(50%Imax) 3194.79	—
(60%Imax) 3833.74	—
(70%Imax) 4472.7	—
(80%Imax) 5111.66	—
(90%Imax) 5750.61	—



(10%Emax) 70.99511	—
(20%Emax) 141.99	—
(30%Emax) 212.9855	—
(40%Emax) 283.9811	—
(50%Emax) 354.9756	—
(60%Emax) 425.9711	—
(70%Emax) 496.9655	—
(80%Emax) 567.9611	—
(90%Emax) 638.9567	—



Luminance Table

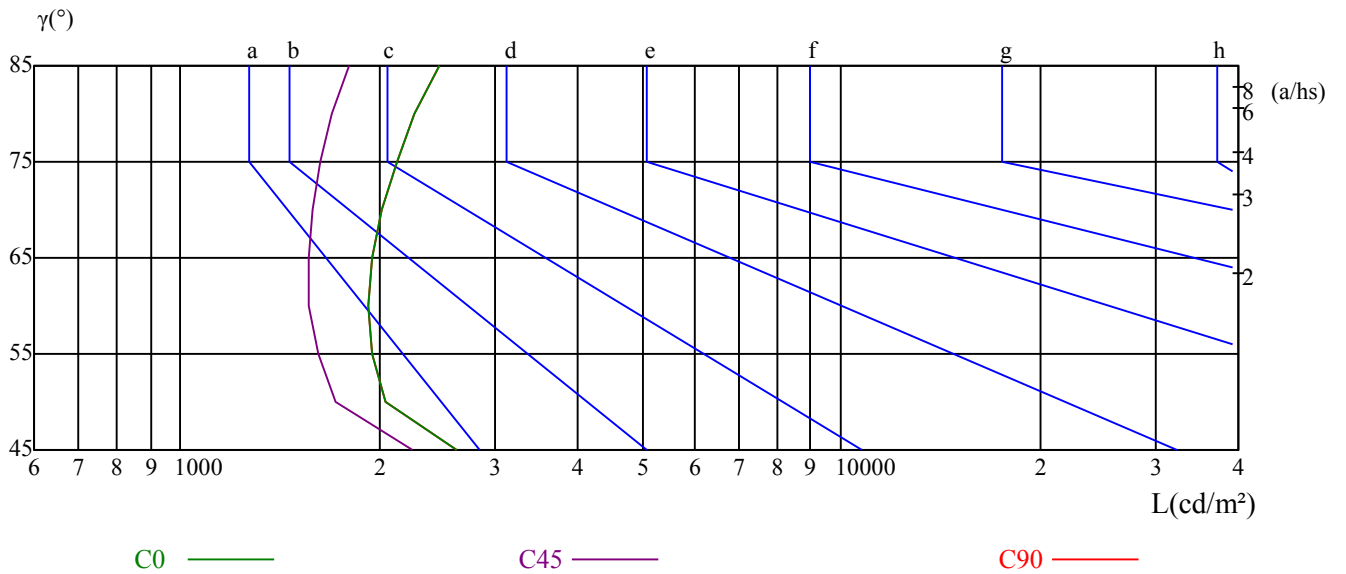
γ	45	50	55	60	65	70	75	80	85
C0	2623	2045	1947	1924	1949	2020	2123	2262	2463
C45	2240	1720	1612	1567	1560	1587	1633	1699	1800
C90	2623	2045	1947	1924	1949	2020	2123	2262	2463

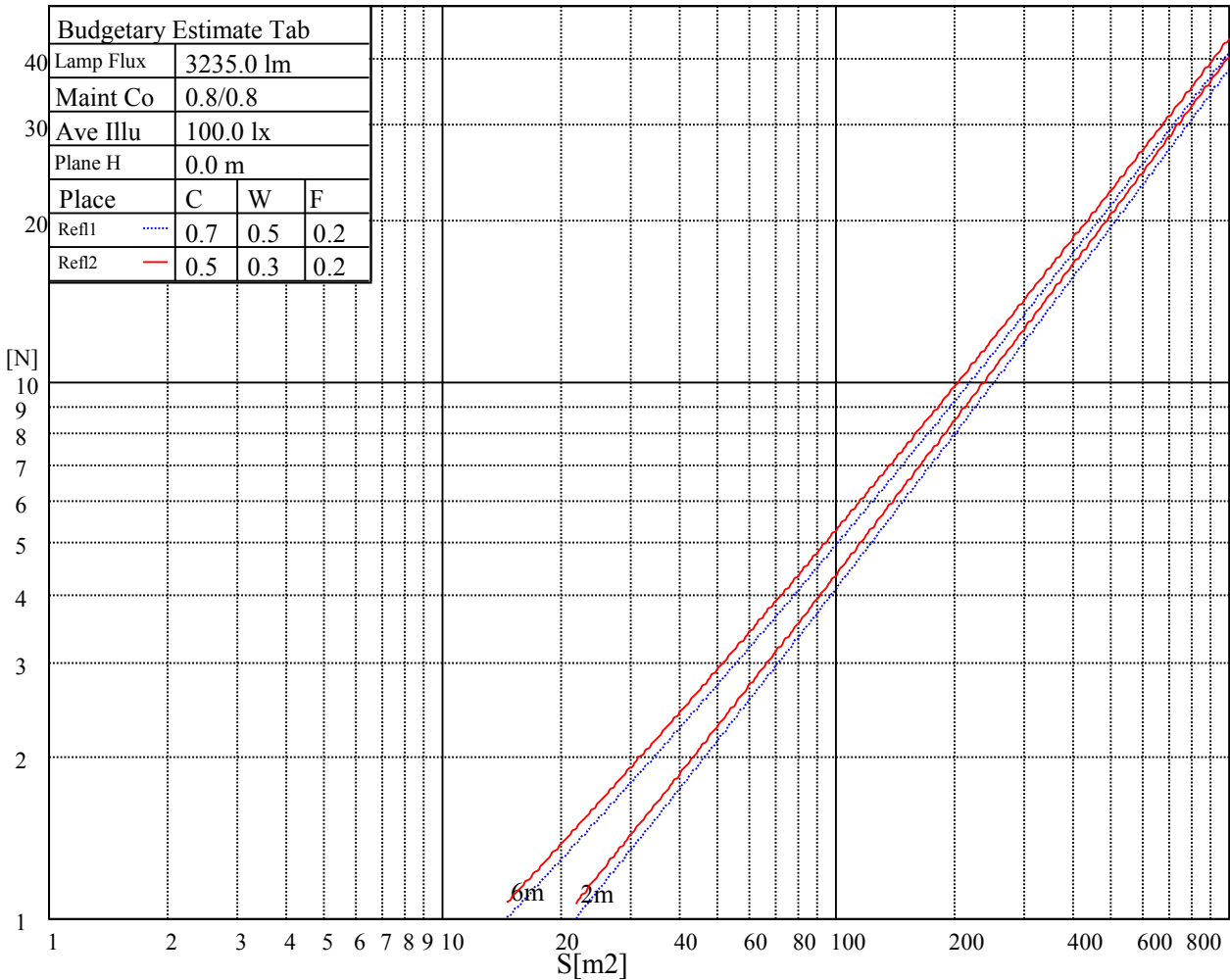
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4895	4895	4895	7710	7710	7710	22310	22310	22310

Glare Table

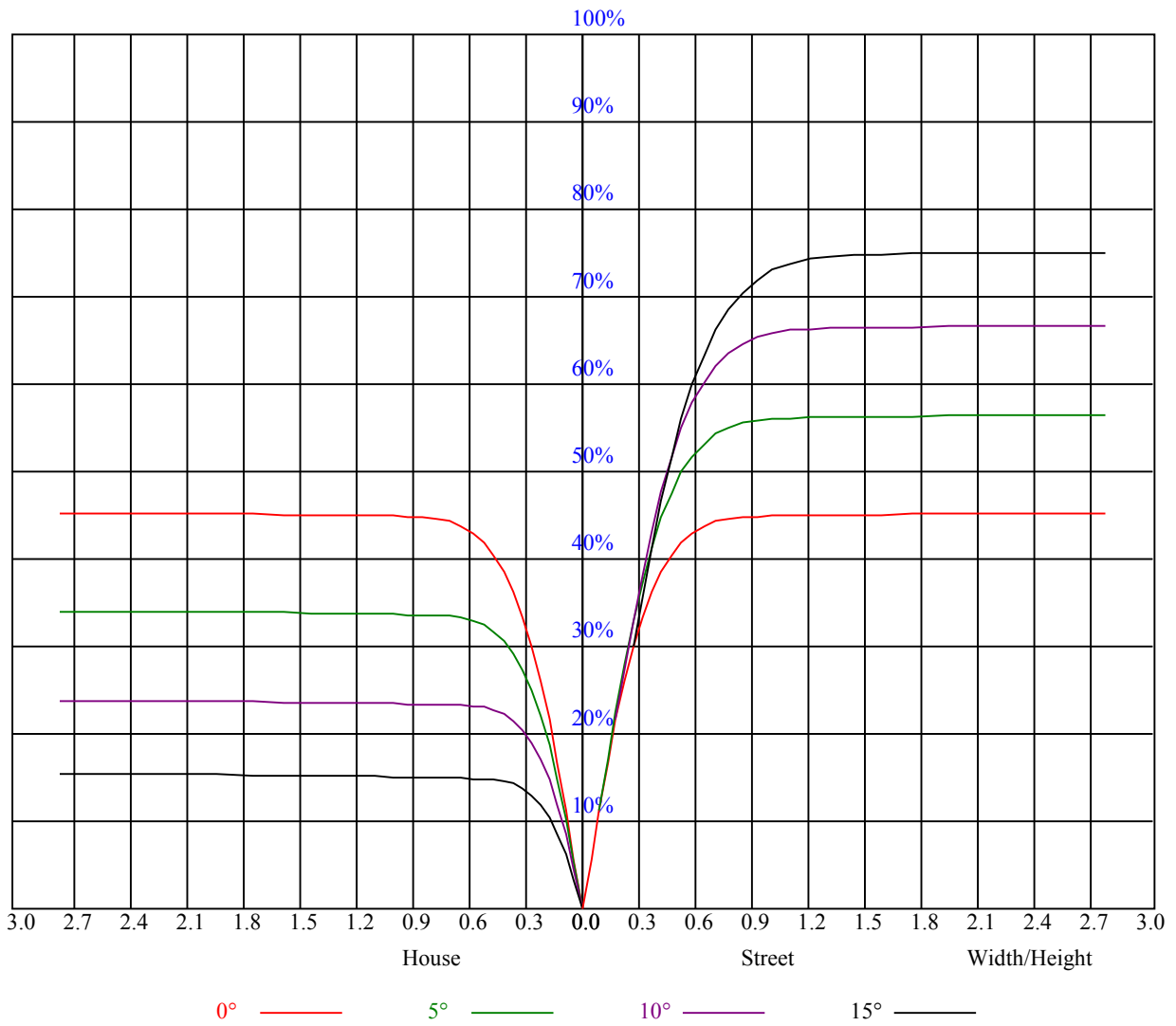
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
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	0.85
2	0.96	0.92	0.90	0.94	0.91	0.89	0.91	0.89	0.87	0.89	0.87	0.85	0.86	0.85	0.83	0.82
3	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.84	0.82	0.85	0.83	0.81	0.83	0.81	0.80	0.78
4	0.87	0.83	0.79	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.81	0.78	0.76	0.75
5	0.83	0.79	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.72
6	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.75	0.73	0.70	0.69
7	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.67
8	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.64
9	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.69	0.65	0.63	0.62
10	0.69	0.64	0.62	0.68	0.64	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.60



Nata 3-1940-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	6464.17	6218.07	5388.92	4039.49	2832.10	1688.58	1076.90	436.60	33.31
45.0	6295.70	6441.05	6063.91	5000.77	3727.32	2331.64	1449.08	867.14	285.74
90.0	6394.80	6376.63	5783.12	4576.84	3209.79	2038.19	1090.72	656.22	125.25
135.0	6403.61	6335.89	5796.34	4614.28	3302.28	2201.71	1366.50	719.04	293.45
180.0	6464.17	6248.35	5440.67	4252.56	2958.18	1866.96	1089.84	533.99	45.53
225.0	6295.70	5746.24	4610.97	3241.17	2167.02	1249.23	730.27	136.59	23.45
270.0	6394.80	5938.38	4974.35	3700.89	2461.02	1517.35	951.37	280.24	26.65
315.0	6403.61	5993.99	5001.32	3621.06	2381.19	1458.99	901.27	235.48	26.65
360.0	6464.17	6218.07	5388.92	4039.49	2832.10	1688.58	1076.90	436.60	33.31

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	17.40	14.59	13.60	12.94	12.55	12.28	12.06	11.95	11.89
45.0	25.00	15.91	14.09	13.32	12.83	12.44	12.17	12.06	11.89
90.0	21.69	14.92	13.76	13.10	12.61	12.33	12.00	11.89	11.73
135.0	23.73	15.42	14.09	13.32	12.77	12.39	12.17	11.89	11.84
180.0	19.27	14.87	13.76	13.10	12.72	12.33	12.11	11.95	11.84
225.0	14.87	13.76	13.10	12.61	12.28	12.11	11.95	11.89	11.78
270.0	16.30	14.04	13.27	12.77	12.44	12.44	12.39	11.95	11.84
315.0	15.69	14.26	13.38	12.83	12.50	12.44	12.28	12.00	11.84
360.0	17.40	14.59	13.60	12.94	12.55	12.28	12.06	11.95	11.89

C/γ(°)	90.0
0.0	11.84
45.0	11.78
90.0	11.73
135.0	11.73
180.0	11.78
225.0	11.84
270.0	11.73
315.0	11.78
360.0	11.84