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Nata

LumCAT: 1681-S
Luminaire: 92.70.123.00
Report No: NATA0100
Test No: GC2018080709
LampCAT: LUMINUS CXM-6-AC30
Lamp flux(lm): 970.0
Number of Lamps: 1
Length(mm): 47
Phm Type: C

Voltage(V): 34.9000
Current(A): 0.2000
Power (W): 6.9800
PF: 0.0000
Ballast type: DC
Width(mm): 47
Height(mm): 0

Photometric Results

Lumens(lm): 866.45
Efficiency(%): 89.33%
Lumens(lm)/Power(W): 124.13
Central intensity(cd): 1277.033
Maximum intensity(cd): 1277.033
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=52.9
 [C90/270]Total=52.9
Field angle(10%Imax): [C0/180]Total=75.3
 [C90/270]Total=75.3
Maximum s/h(1/2): C0_180=0.78 C90_270=0.78
Maximum s/h(1/4): C0_180=0.83 C90_270=0.83
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.03%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.872%

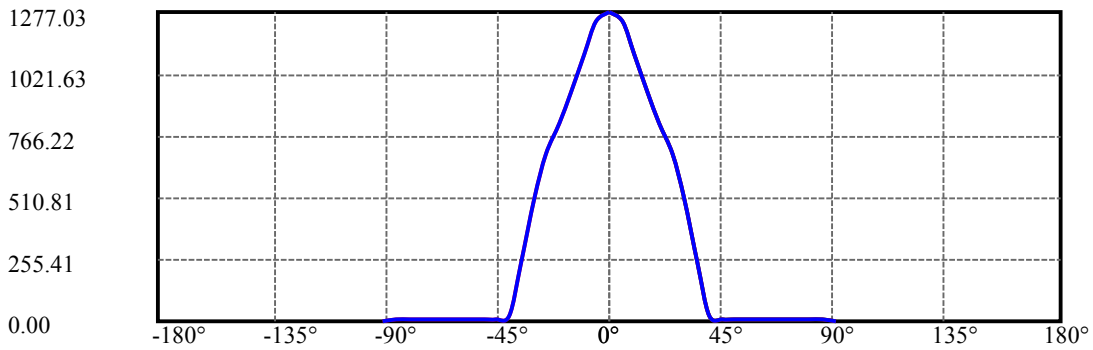
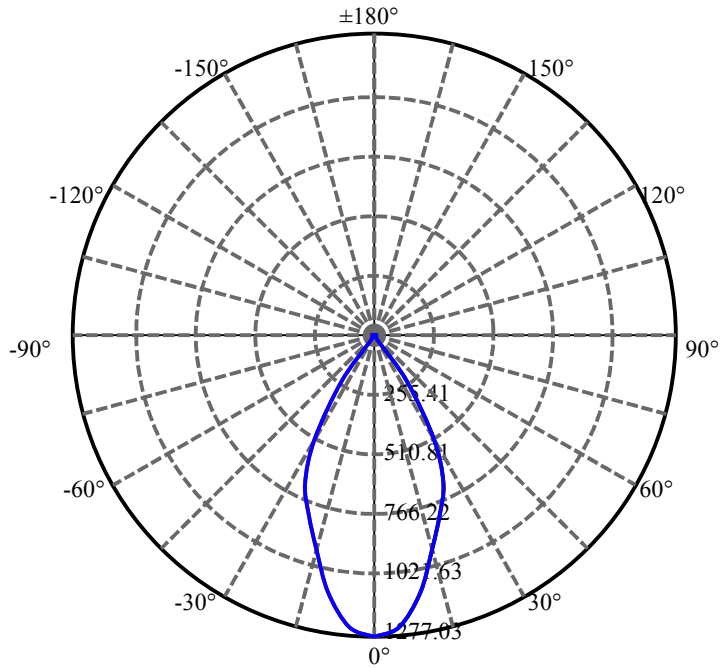
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1277.033	7.637	7.637	.787%	.881%
5.0	1237.117	59.101	66.738	6.093%	7.702%
10.0	1104.762	105.155	171.893	10.841%	19.839%
15.0	945.917	134.196	306.088	13.835%	35.327%
20.0	817.684	153.294	459.383	15.804%	53.019%
25.0	691.935	160.289	619.672	16.525%	71.518%
30.0	509.712	139.696	759.368	14.402%	87.641%
35.0	240.734	75.686	835.054	7.803%	96.376%
40.0	26.764	9.430	844.484	.972%	97.465%
45.0	9.724	3.769	848.253	.389%	97.900%
50.0	5.588	2.346	850.6	.242%	98.170%
55.0	4.570	2.052	852.652	.212%	98.407%
60.0	4.281	2.032	854.684	.209%	98.642%
65.0	4.102	2.038	856.721	.210%	98.877%
70.0	4.067	2.095	858.816	.216%	99.119%
75.0	4.047	2.143	860.959	.221%	99.366%
80.0	4.033	2.177	863.136	.224%	99.617%
85.0	4.115	2.247	865.383	.232%	99.877%
90.0	3.902	1.069	866.453	.110%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	759.37	78.29%	87.64%
0-40	844.48	87.06%	97.46%
0-60	854.68	88.11%	98.64%
0-90	865.38	89.21%	99.88%
0-120	865.38	89.21%	99.88%
0-180	866.45	89.33%	100.00%
60-90	12.73	1.31%	1.47%
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%
0-27.63	693.16	71.46%	80.00%

ZONAL LUMEN SUMMARY

0-10	171.89
10-20	287.49
20-30	299.98
30-40	85.12
40-50	6.12
50-60	4.08
60-70	4.13
70-80	4.32
80-90	2.25
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: —————

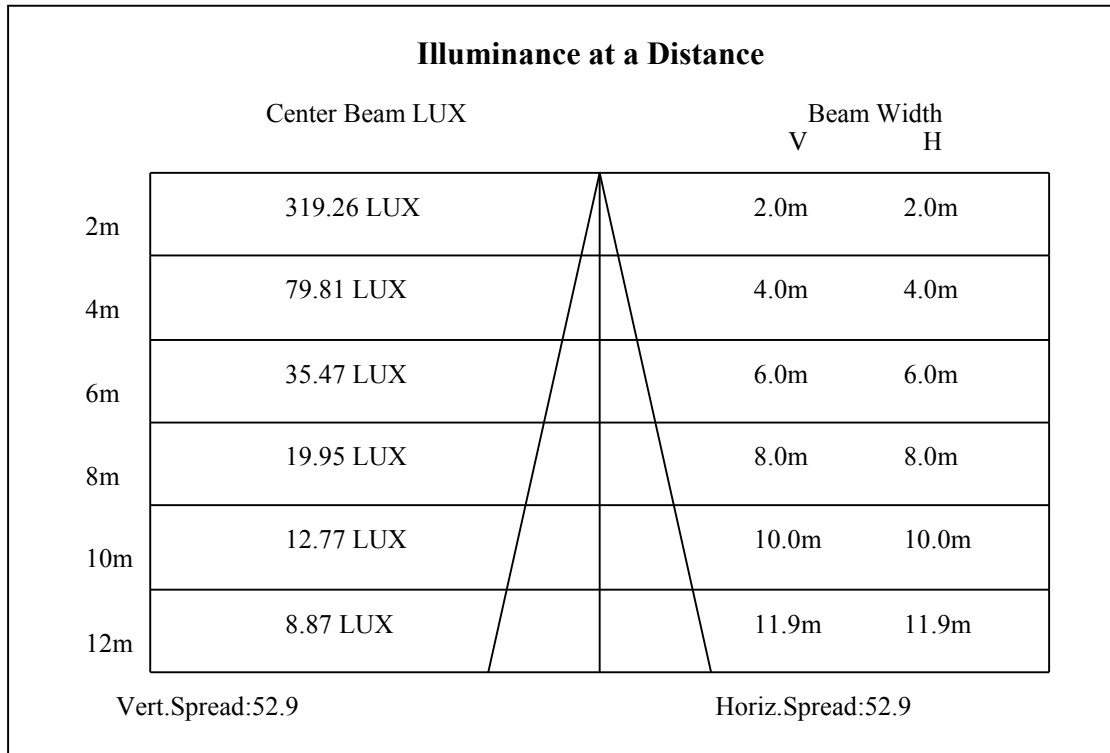
C90/C270: —————

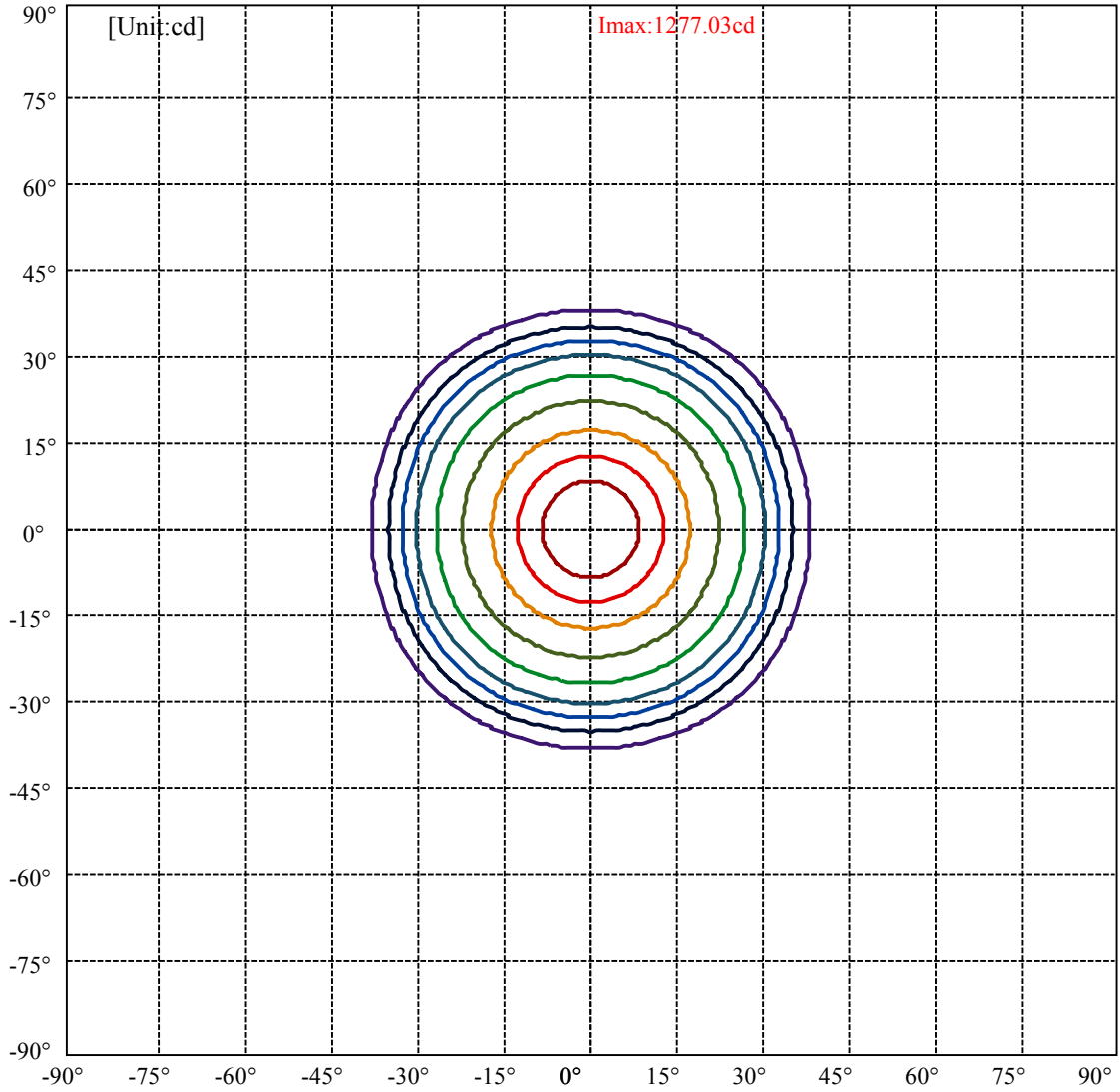
Field angle(10%Imax):C0/180Left:37.6 Right:37.6

:C90/270Left:37.6 Right:37.6

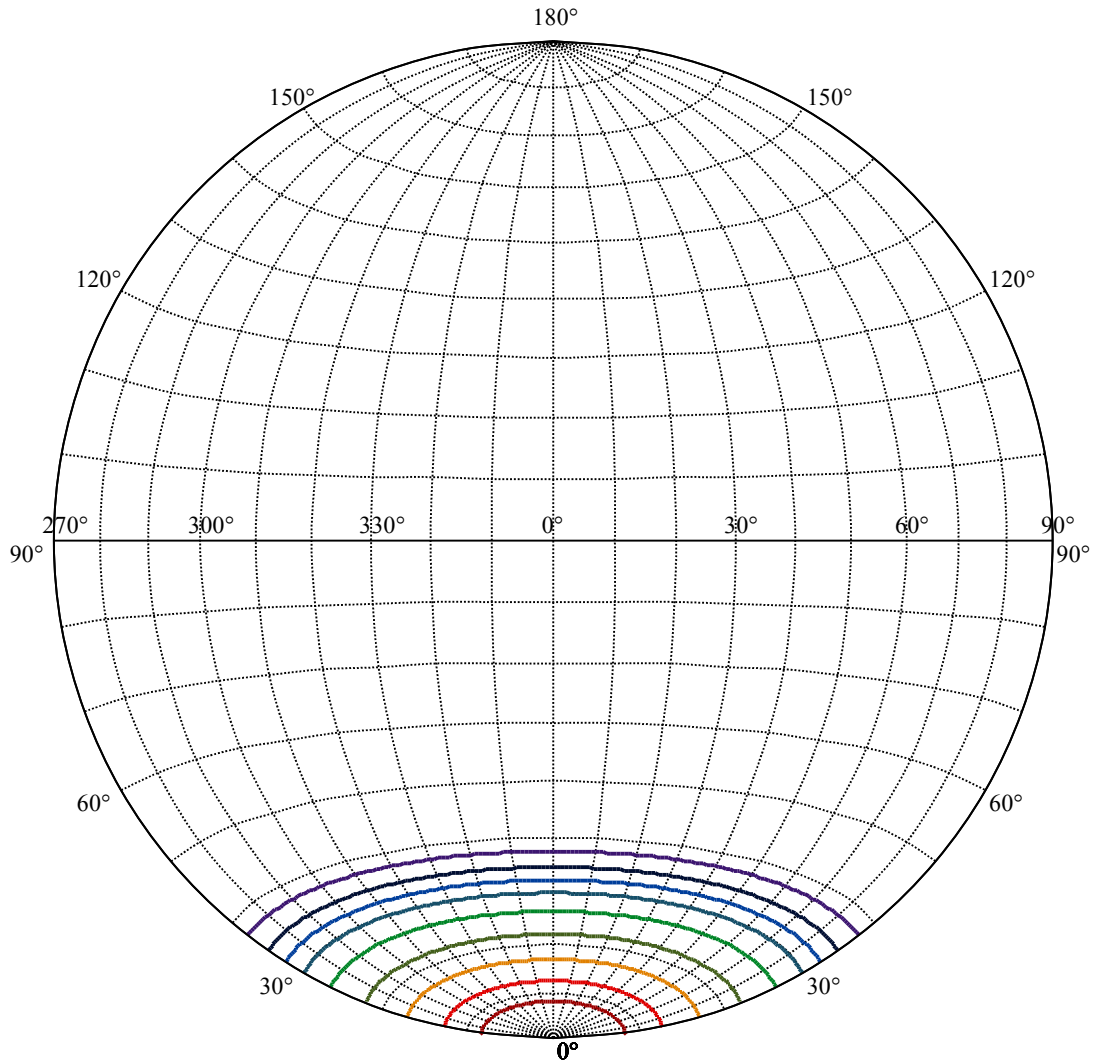
Beam Angle(50%Imax):C0/180Left:26.5 Right:26.5

:C90/270Left:26.5 Right:26.5





(10%Imax) 127.703	—
(20%Imax) 255.407	—
(30%Imax) 383.11	—
(40%Imax) 510.813	—
(50%Imax) 638.517	—
(60%Imax) 766.22	—
(70%Imax) 893.923	—
(80%Imax) 1021.63	—
(90%Imax) 1149.33	—












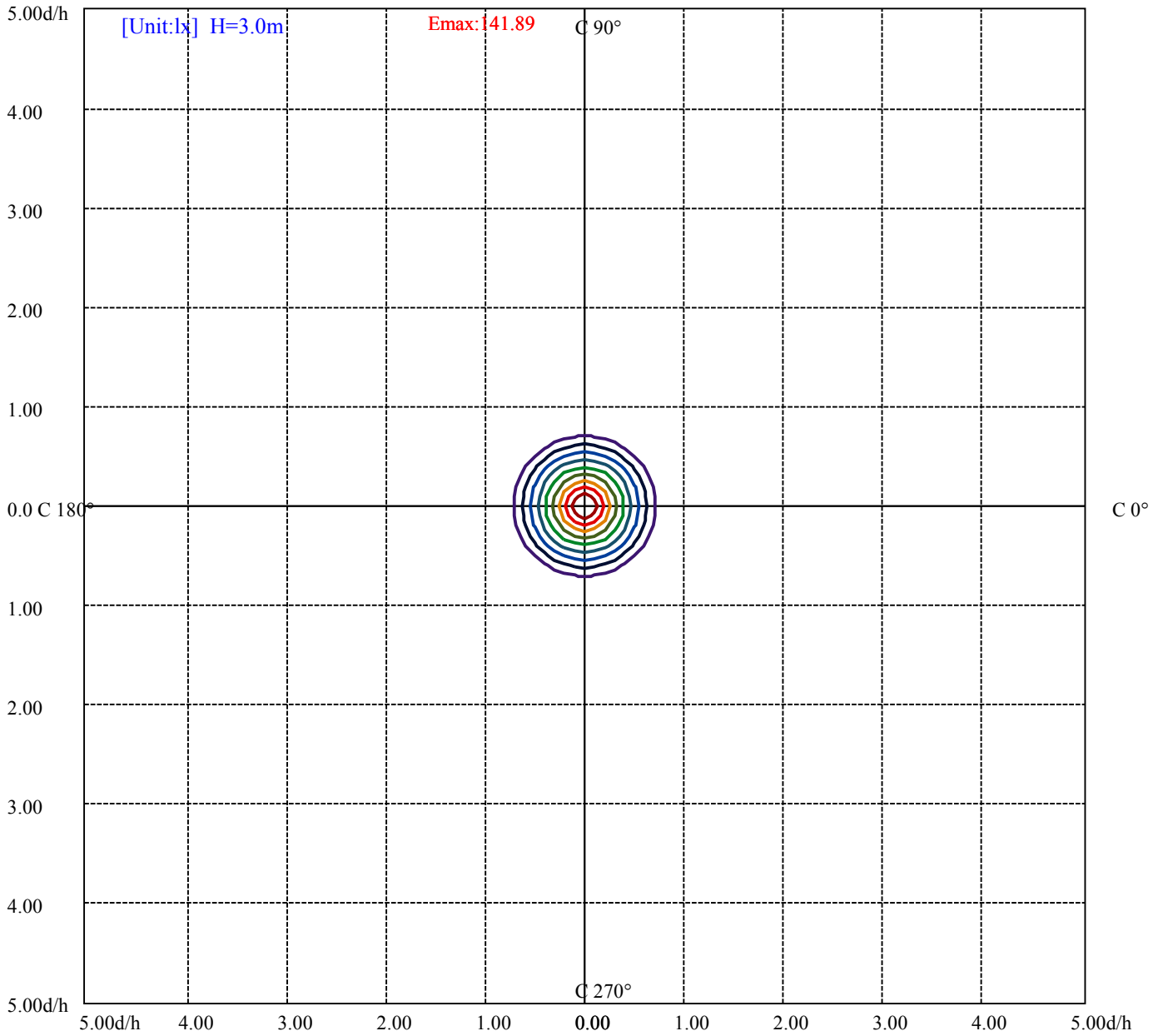
House

[Unit:cd]

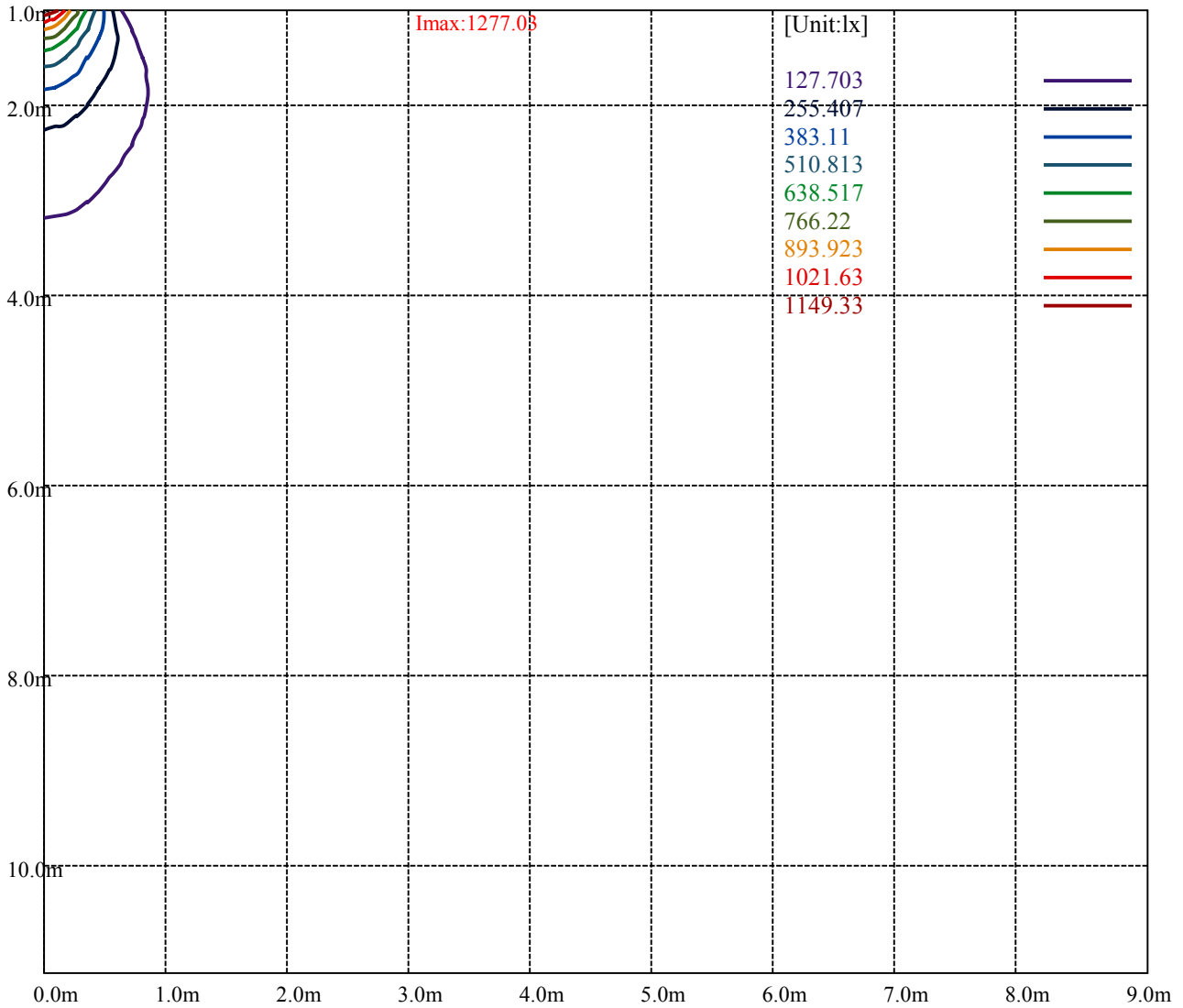
Road

Imax:1277.03

(10%Imax)	127.703	
(20%Imax)	255.407	
(30%Imax)	383.11	
(40%Imax)	510.813	
(50%Imax)	638.517	
(60%Imax)	766.22	
(70%Imax)	893.923	
(80%Imax)	1021.63	
(90%Imax)	1149.33	



- (10%Emax) 14.18922
- (20%Emax) 28.37844
- (30%Emax) 42.56778
- (40%Emax) 56.757
- (50%Emax) 70.94622
- (60%Emax) 85.13544
- (70%Emax) 99.32467
- (80%Emax) 113.5144
- (90%Emax) 127.7033



Luminance Table

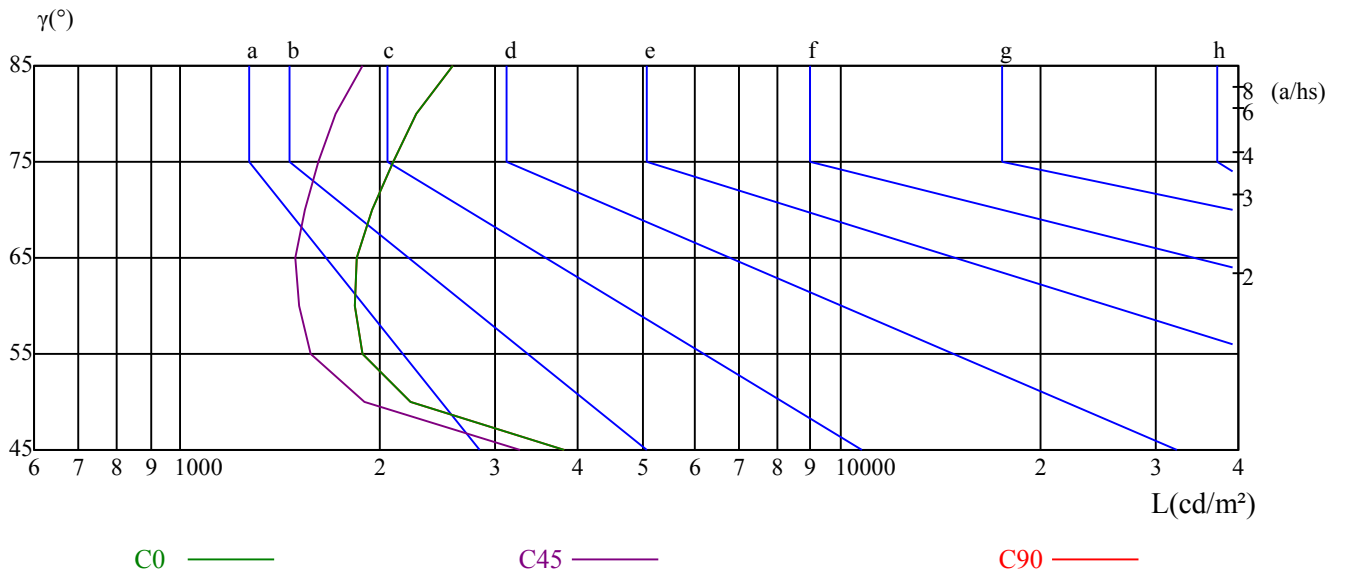
γ	45	50	55	60	65	70	75	80	85
C0	3800	2235	1887	1841	1855	1955	2093	2276	2577
C45	3272	1896	1576	1512	1497	1547	1620	1718	1889
C90	3800	2235	1887	1841	1855	1955	2093	2276	2577

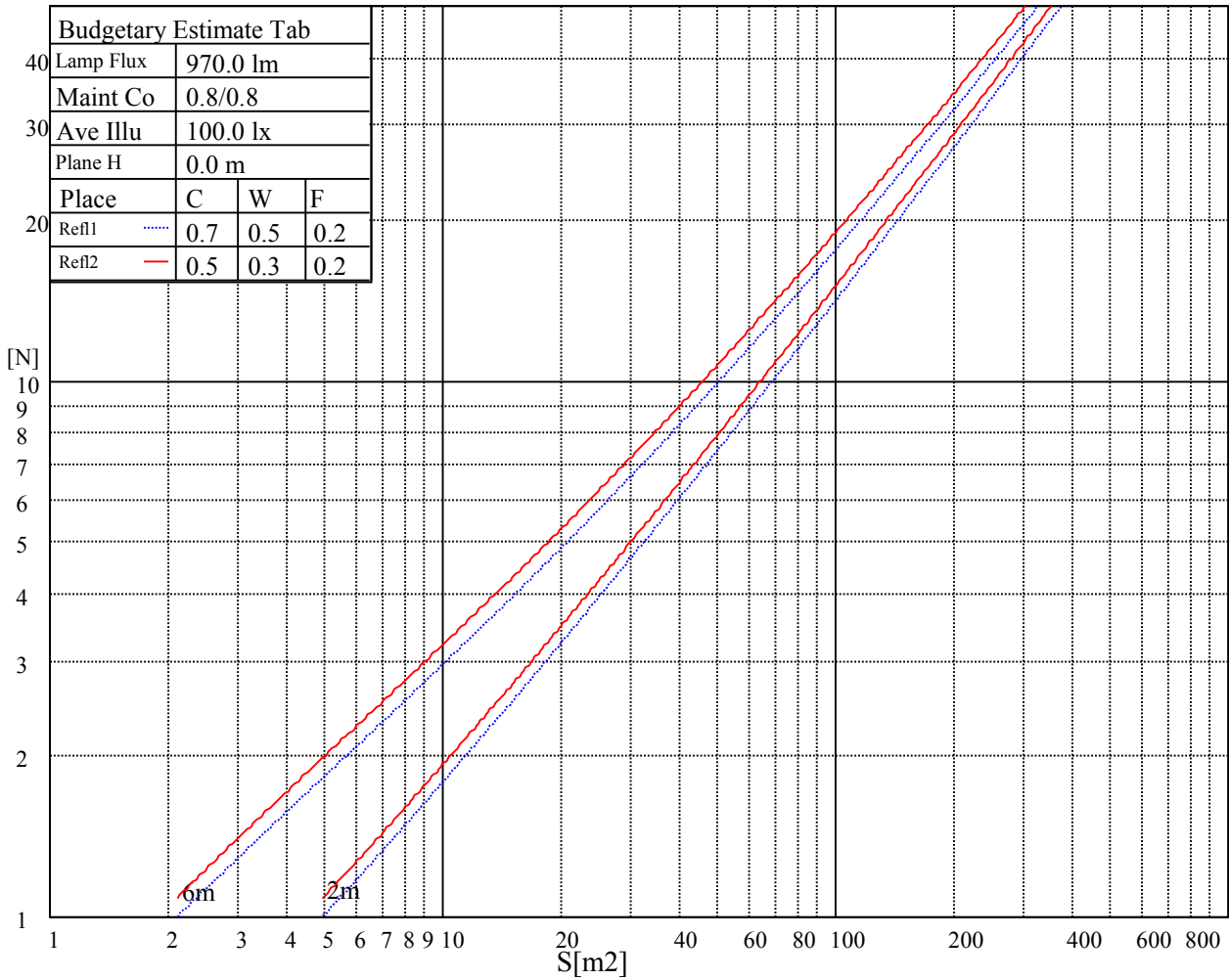
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4394	4394	4394	7078	7078	7078	21376	21376	21376

Glare Table

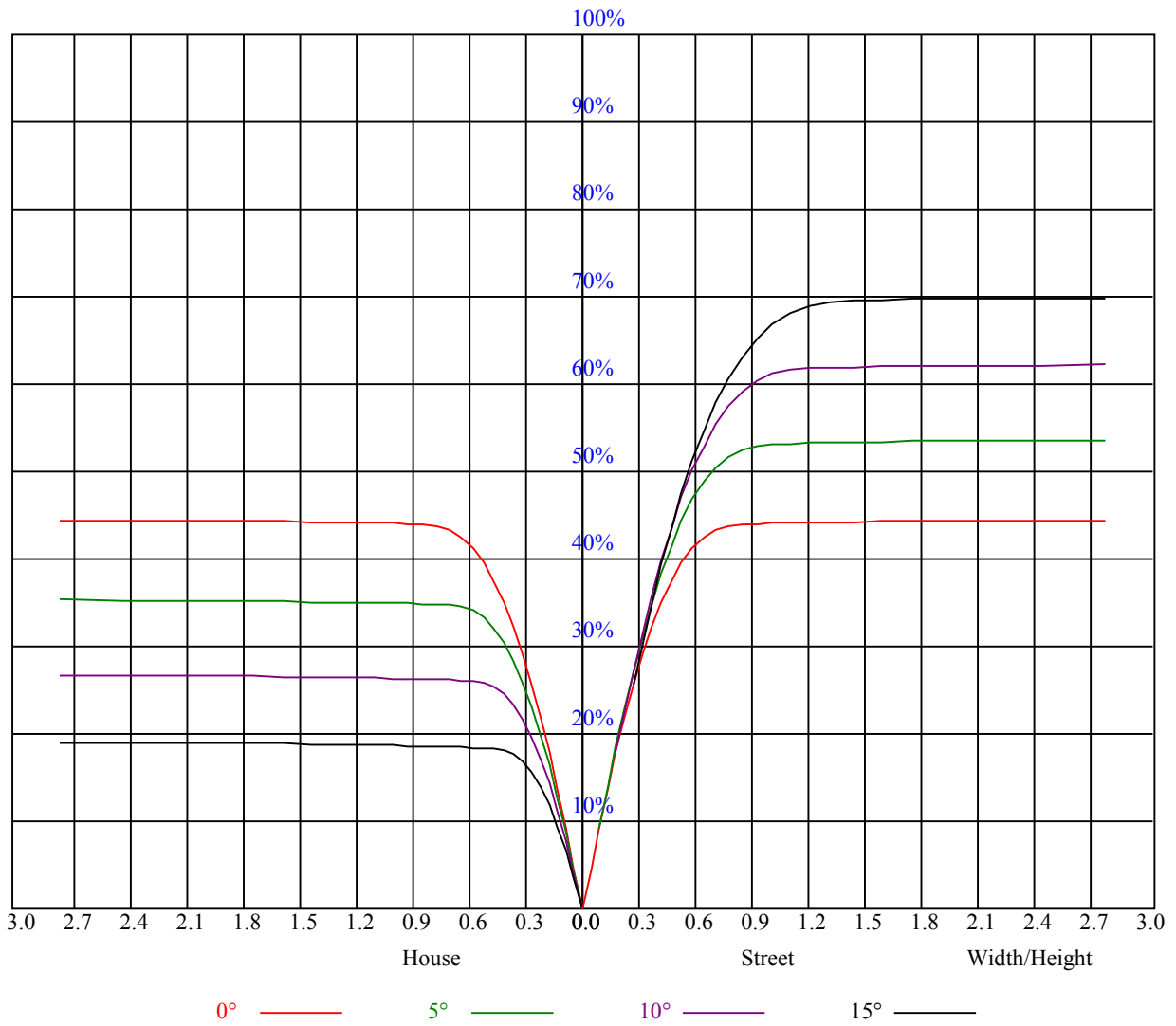
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.07	1.07	1.07	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	0.99	0.97	0.95	0.97	0.95	0.93	0.94	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84
2	0.93	0.90	0.87	0.92	0.89	0.86	0.89	0.86	0.84	0.86	0.84	0.82	0.84	0.82	0.81	0.79
3	0.88	0.84	0.81	0.87	0.83	0.80	0.85	0.81	0.79	0.82	0.80	0.77	0.80	0.78	0.76	0.75
4	0.83	0.79	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.72	0.71
5	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.68
6	0.75	0.70	0.67	0.75	0.70	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.65	0.64
7	0.72	0.67	0.64	0.71	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61
8	0.68	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.59
9	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.56
10	0.63	0.58	0.55	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.54



Nata 1681-S

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	1272.35	1225.56	1102.23	945.32	829.15	717.38	532.40	289.60	27.20
45.0	1282.26	1228.31	1115.44	953.03	830.25	701.42	488.35	291.25	21.91
90.0	1275.66	1216.75	1067.32	922.58	796.01	647.79	412.21	107.19	17.62
135.0	1277.86	1251.43	1119.30	949.17	815.94	689.86	501.01	280.24	25.60
180.0	1272.35	1237.12	1098.49	939.87	810.10	669.71	500.41	199.08	24.61
225.0	1282.26	1254.18	1097.88	948.07	805.86	680.72	526.45	235.42	28.41
270.0	1275.66	1259.14	1156.73	977.25	843.46	732.25	586.35	303.36	40.30
315.0	1277.86	1224.45	1080.70	932.05	810.71	696.35	530.52	219.73	28.46
360.0	1272.35	1225.56	1102.23	945.32	829.15	717.38	532.40	289.60	27.20
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	9.86	5.62	4.40	4.13	3.96	3.96	3.91	3.96	4.02
45.0	8.70	5.34	4.51	4.24	4.18	4.13	4.07	4.02	4.07
90.0	7.54	5.12	4.51	4.35	4.24	4.29	4.18	4.13	4.29
135.0	9.58	5.56	4.68	4.40	4.18	4.18	4.18	4.18	4.35
180.0	9.63	5.45	4.62	4.35	4.13	4.02	4.02	4.02	4.07
225.0	10.24	5.62	4.62	4.29	4.07	4.02	4.02	3.96	4.07
270.0	12.44	6.22	4.68	4.29	4.07	4.02	4.02	4.02	4.02
315.0	9.80	5.78	4.51	4.18	3.96	3.91	3.96	3.96	4.02
360.0	9.86	5.62	4.40	4.13	3.96	3.96	3.91	3.96	4.02
C/ γ (°)	90.0								
0.0	3.85								
45.0	3.96								
90.0	3.91								
135.0	3.91								
180.0	3.91								
225.0	3.91								
270.0	3.91								
315.0	3.85								
360.0	3.85								