



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.cn
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380 JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 3-1701-N
Luminaire: 92.70.065.00+92.70.061.00
Report No: NT2018041604
Test No: nata-0100
LampCAT: CITIZEN CLU038
Lamp flux(lm): 2449.0
Number of Lamps: 1
Length(mm): 86
Phm Type: C

Voltage(V): 36.6000
Current(A): 0.6000
Power (W): 21.9600
PF: 0.0000
Ballast type: DC
Width(mm): 86
Height(mm): 0

Photometric Results

Lumens(lm): 1955.86
Efficiency(%): 79.86%
Lumens(lm)/Power(W): 92.17
Central intensity(cd): 11727.430
Maximum intensity(cd): 11727.430
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=18.2
 [C90/270]Total=18.2
Field angle(10%Imax): [C0/180]Total=36.8
 [C90/270]Total=36.8
Maximum s/h(1/2): C0_180=0.31 C90_270=0.31
Maximum s/h(1/4): C0_180=0.32 C90_270=0.32
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 82.65%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 94.754%

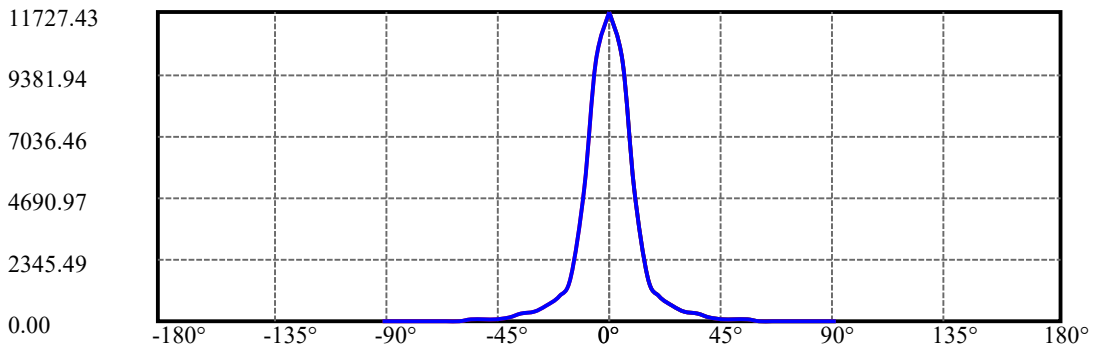
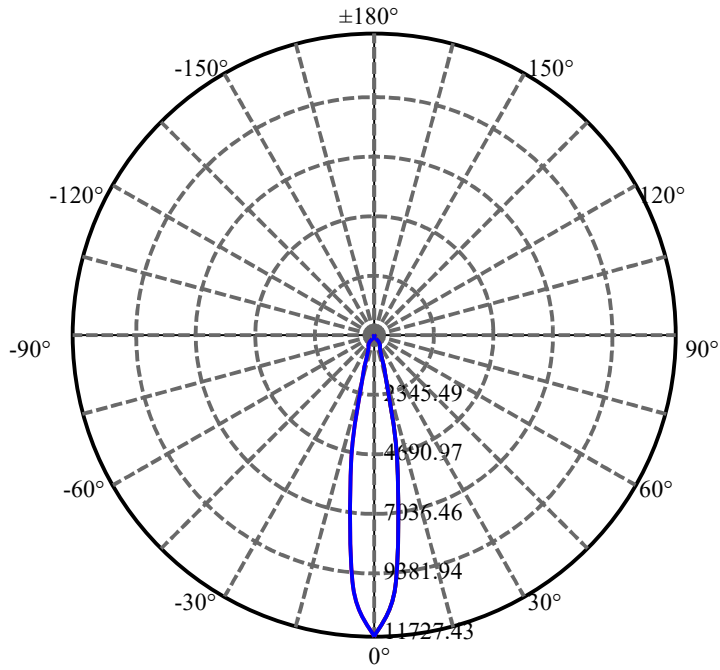
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11727.426	70.132	70.132	2.864%	3.586%
5.0	9826.673	469.453	539.585	19.169%	27.588%
10.0	5022.245	478.033	1017.618	19.520%	52.029%
15.0	1696.831	240.727	1258.345	9.830%	64.337%
20.0	929.304	174.220	1432.565	7.114%	73.245%
25.0	599.041	138.770	1571.334	5.666%	80.340%
30.0	392.394	107.543	1678.877	4.391%	85.838%
35.0	261.759	82.297	1761.174	3.360%	90.046%
40.0	169.698	59.791	1820.964	2.441%	93.103%
45.0	104.277	40.417	1861.381	1.650%	95.170%
50.0	65.985	27.707	1889.088	1.131%	96.586%
55.0	38.484	17.280	1906.368	.706%	97.470%
60.0	24.404	11.584	1917.953	.473%	98.062%
65.0	18.320	9.101	1927.054	.372%	98.527%
70.0	15.657	8.064	1935.118	.329%	98.940%
75.0	13.702	7.255	1942.373	.296%	99.310%
80.0	11.727	6.330	1948.703	.258%	99.634%
85.0	9.263	5.058	1953.761	.207%	99.893%
90.0	7.653	2.097	1955.859	.086%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1678.88	68.55%	85.84%
0-40	1820.96	74.36%	93.10%
0-60	1917.95	78.32%	98.06%
0-90	1953.76	79.78%	99.89%
0-120	1953.76	79.78%	99.89%
0-180	1955.86	79.86%	100.00%
60-90	47.39	1.94%	2.42%
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%
0-24.76	1564.69	63.89%	80.00%

ZONAL LUMEN SUMMARY

0-10	1017.62
10-20	414.95
20-30	246.31
30-40	142.09
40-50	68.12
50-60	28.86
60-70	17.17
70-80	13.59
80-90	5.06
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: —————

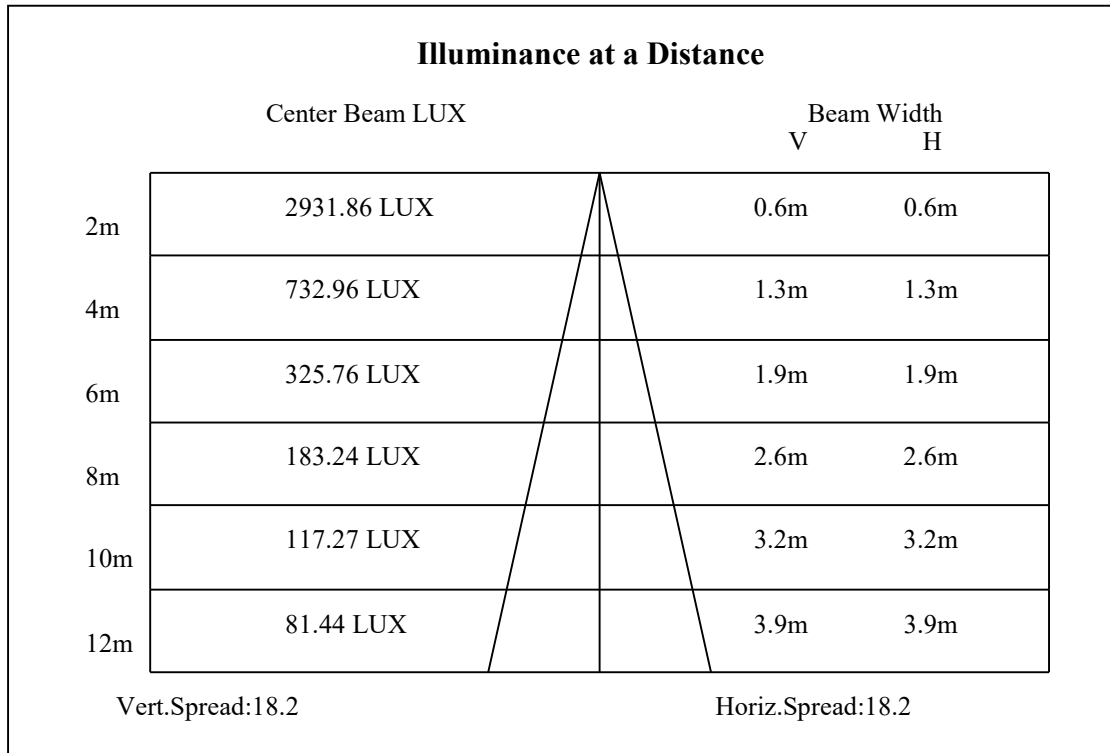
C90/C270: —————

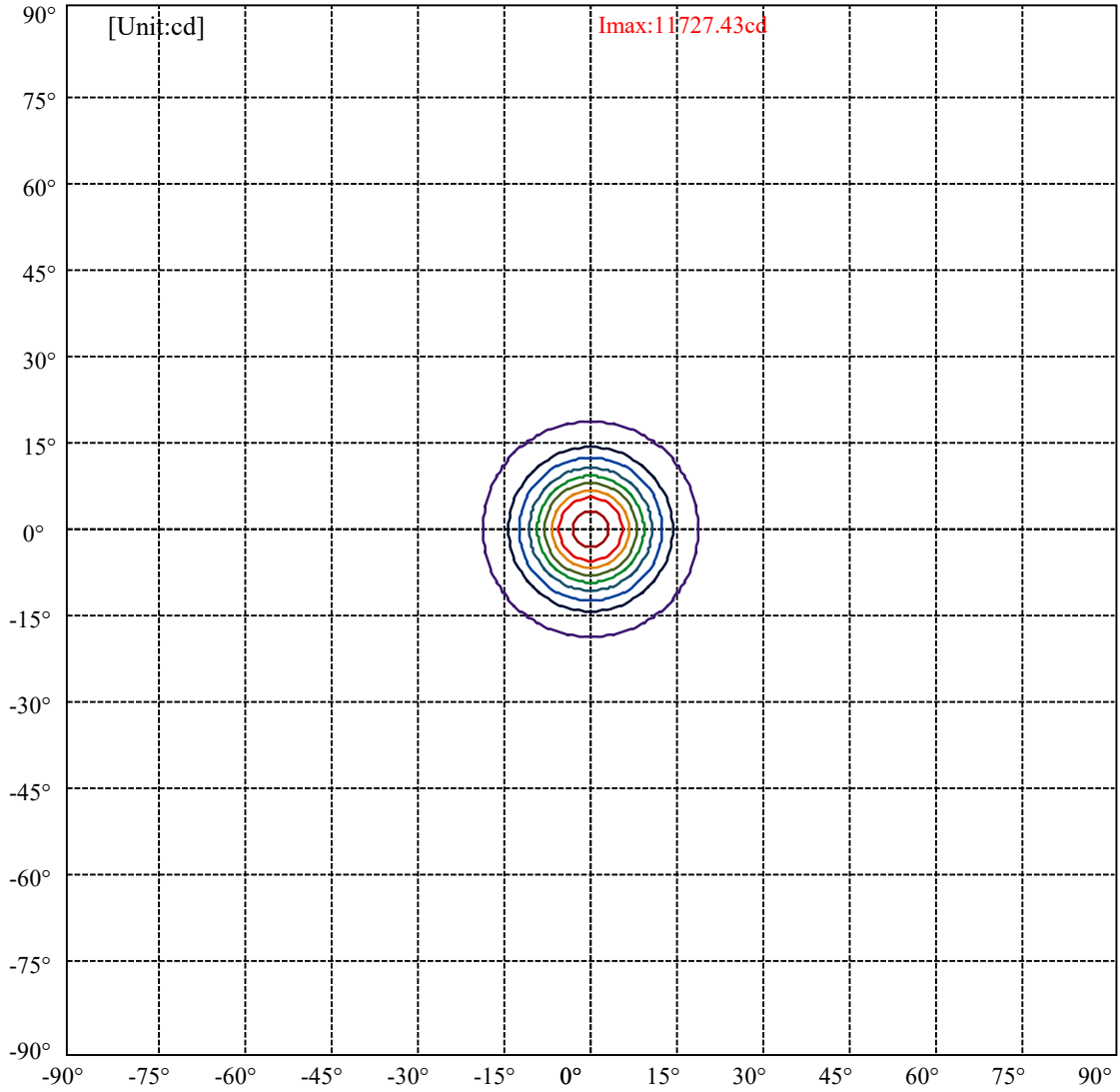
Field angle(10%Imax):C0/180Left:18.4 Right:18.4

:C90/270Left:18.4 Right:18.4

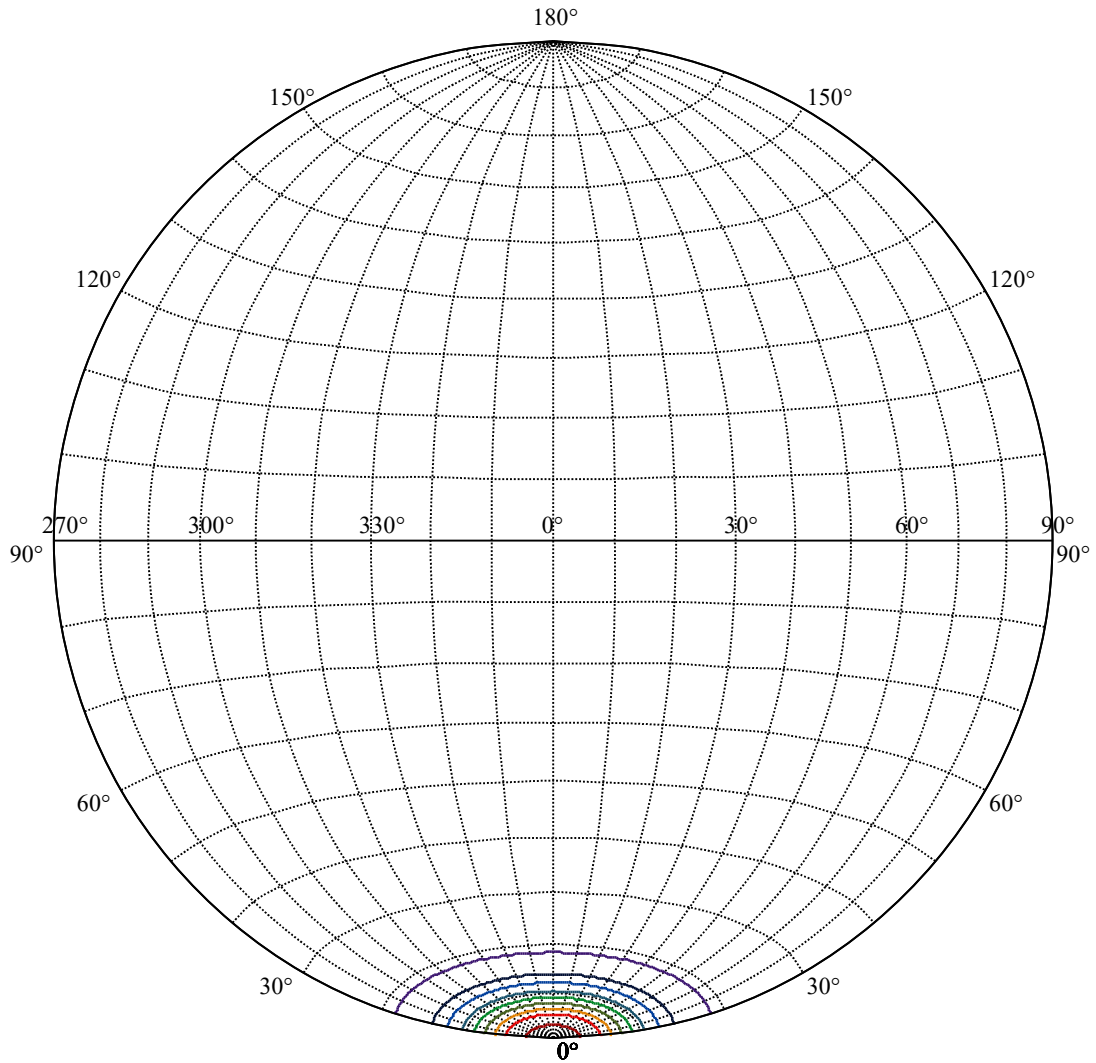
Beam Angle(50%Imax):C0/180Left:9.1 Right:9.1

:C90/270Left:9.1 Right:9.1





(10%Imax) 1172.74	—
(20%Imax) 2345.49	—
(30%Imax) 3518.23	—
(40%Imax) 4690.97	—
(50%Imax) 5863.71	—
(60%Imax) 7036.46	—
(70%Imax) 8209.2	—
(80%Imax) 9381.94	—
(90%Imax) 10554.7	—



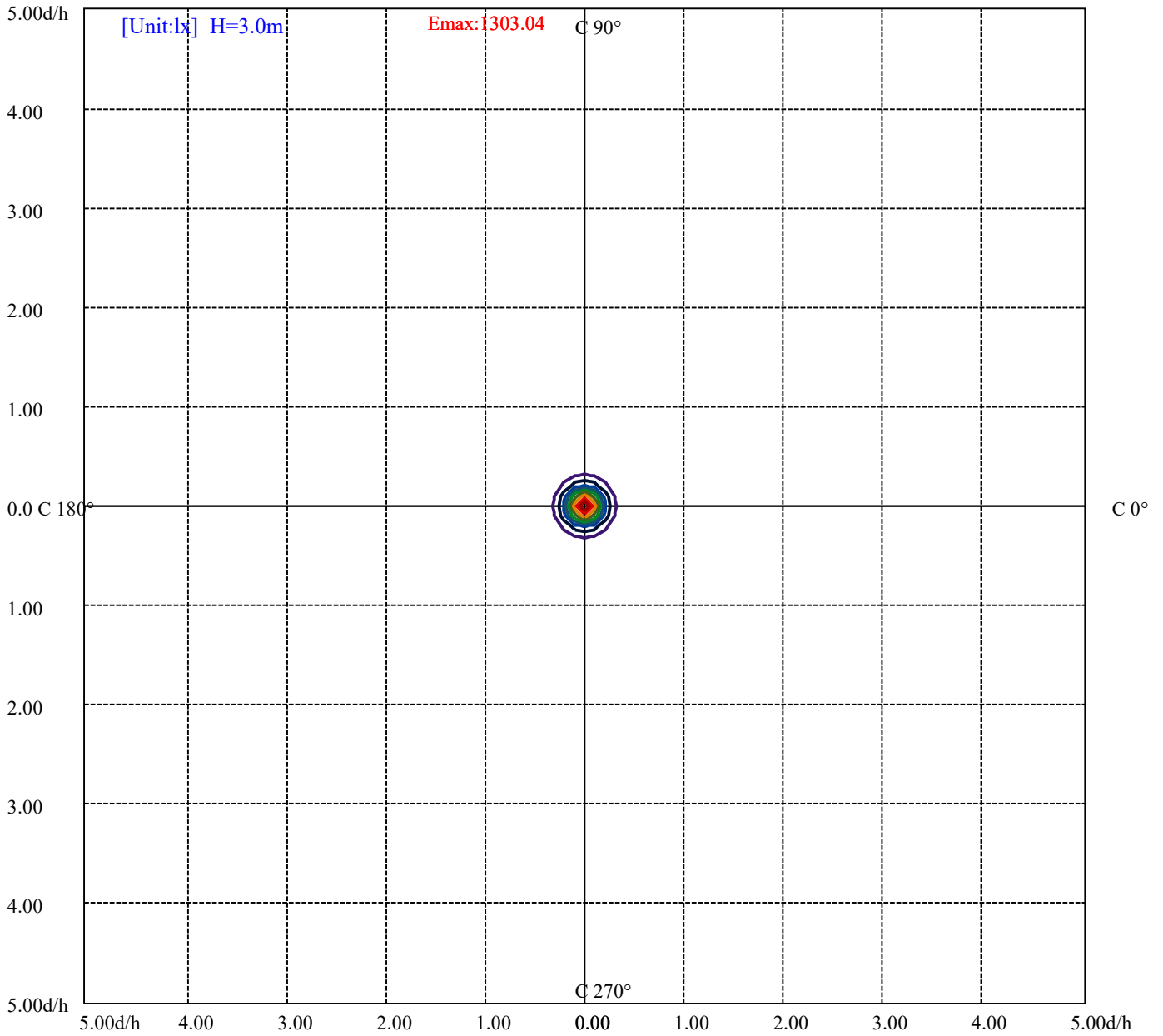
House

[Unit:cd]

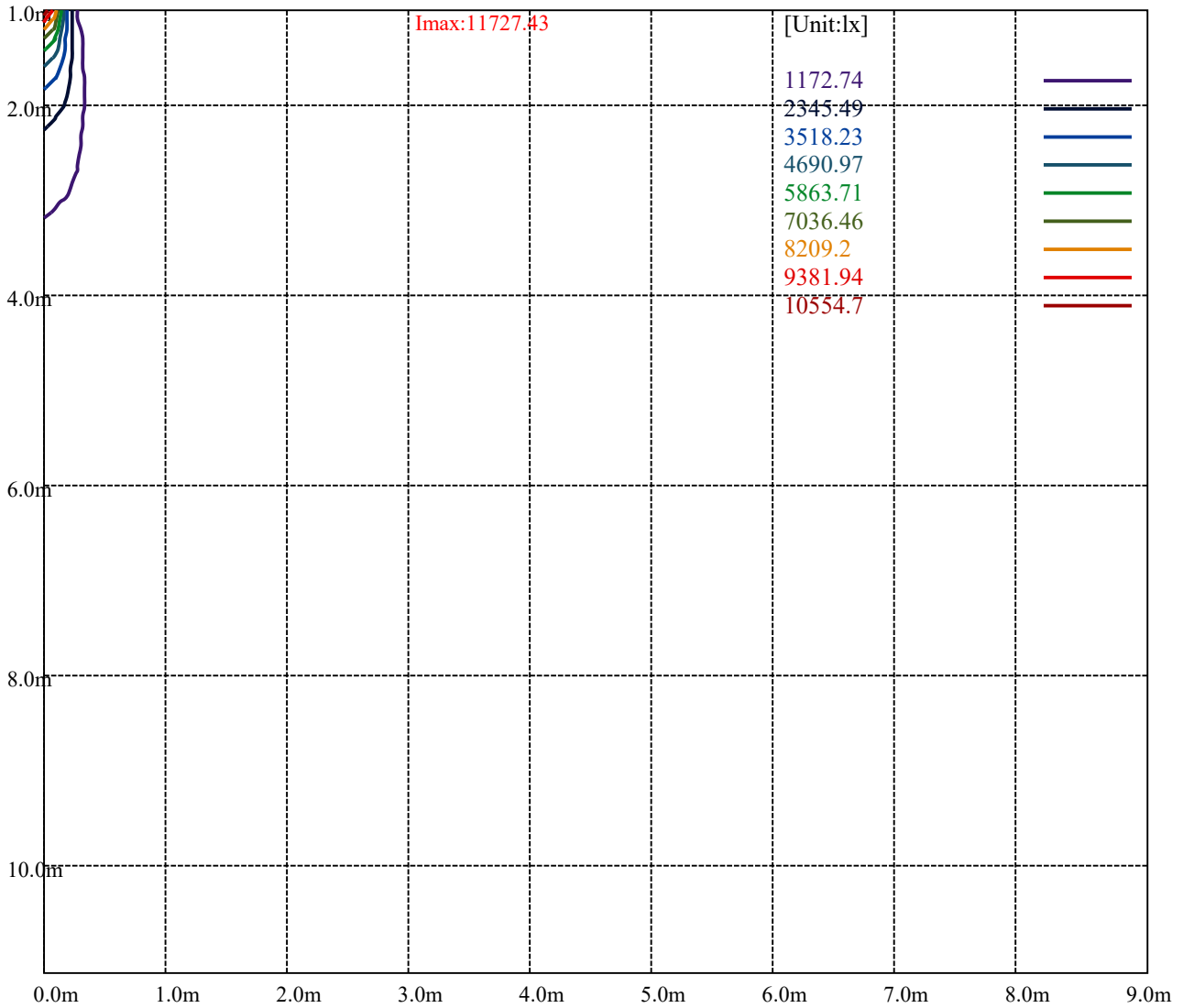
Road

Imax:11727.43

(10%Imax)	1172.74	—
(20%Imax)	2345.49	—
(30%Imax)	3518.23	—
(40%Imax)	4690.97	—
(50%Imax)	5863.71	—
(60%Imax)	7036.46	—
(70%Imax)	8209.2	—
(80%Imax)	9381.94	—
(90%Imax)	10554.7	—



(10%Emax) 130.3044	—
(20%Emax) 260.6078	—
(30%Emax) 390.9122	—
(40%Emax) 521.2167	—
(50%Emax) 651.52	—
(60%Emax) 781.8245	—
(70%Emax) 912.1289	—
(80%Emax) 1042.433	—
(90%Emax) 1172.733	—



Luminance Table

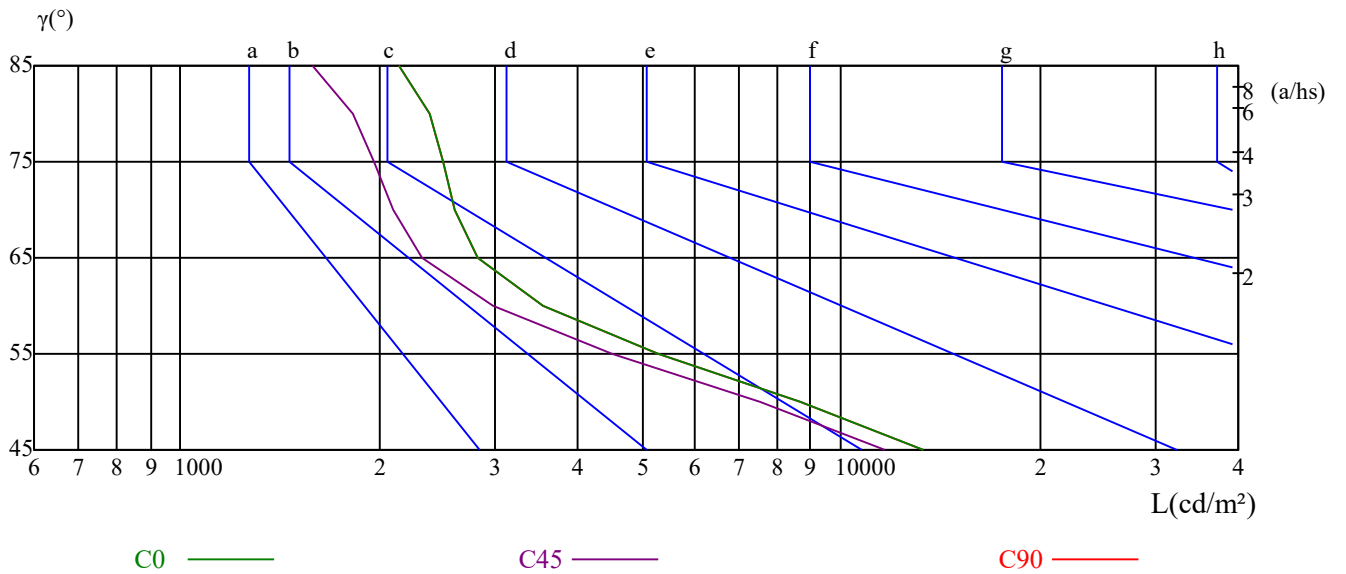
γ	45	50	55	60	65	70	75	80	85
C0	13293	8697	5293	3536	2828	2607	2498	2381	2140
C45	11680	7532	4514	2966	2329	2103	1967	1822	1582
C90	13293	8697	5293	3536	2828	2607	2498	2381	2140

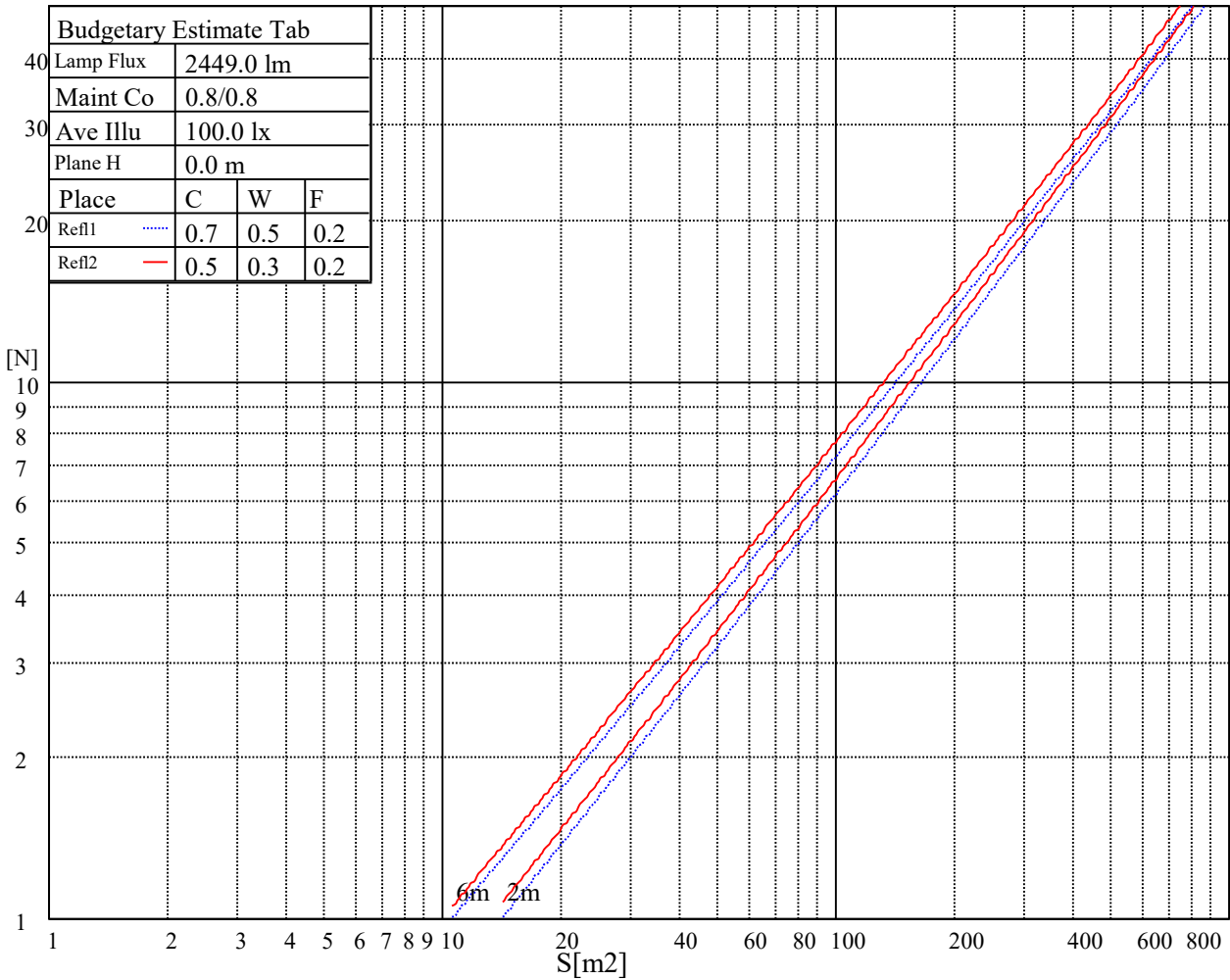
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5861	5861	5861	7158	7158	7158	14370	14370	14370

Glare Table

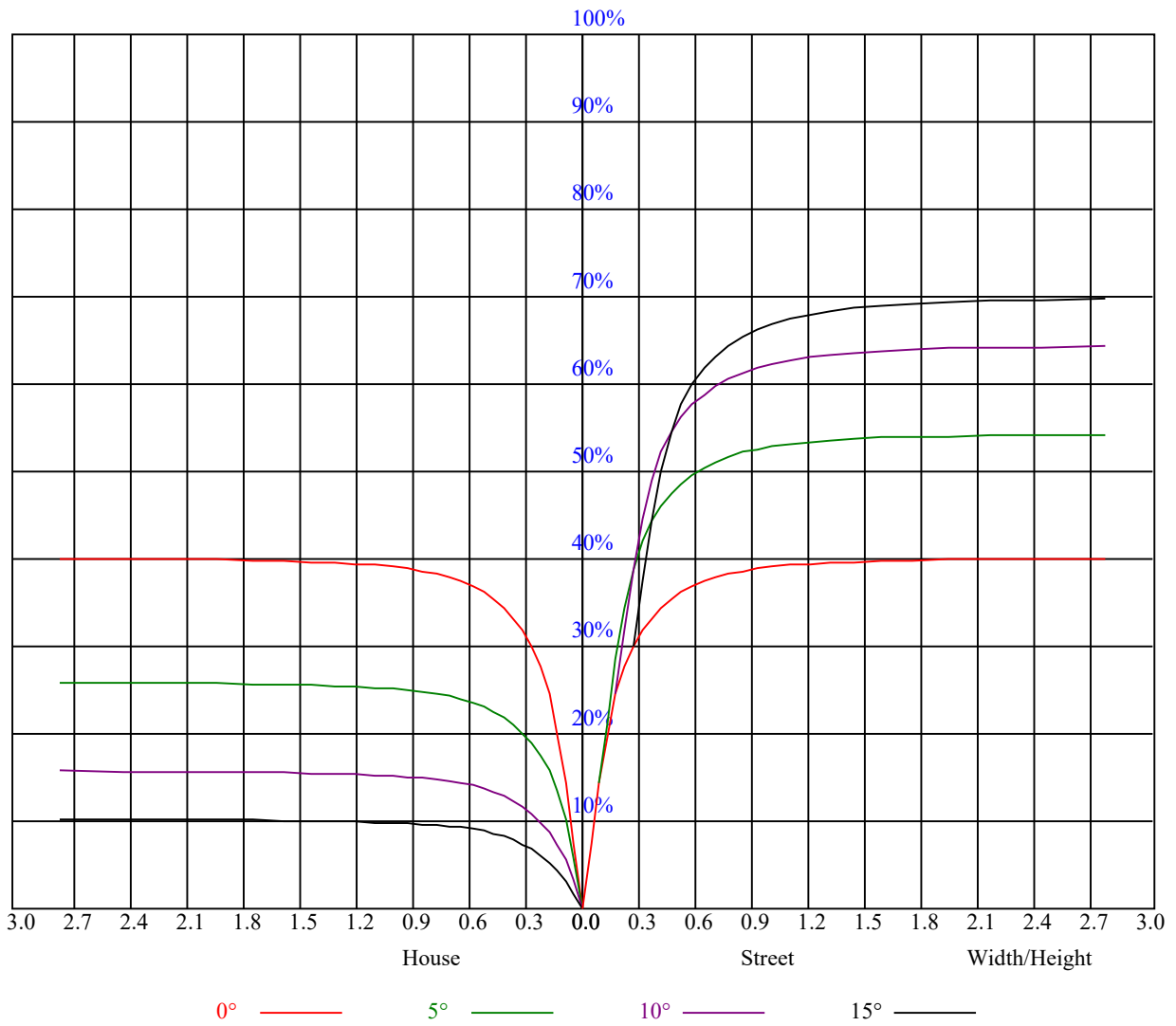
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.98	0.98	0.98	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.83
1	0.89	0.86	0.84	0.87	0.85	0.83	0.84	0.82	0.80	0.81	0.79	0.78	0.78	0.77	0.75	0.74
2	0.84	0.81	0.78	0.83	0.80	0.77	0.80	0.78	0.76	0.78	0.76	0.74	0.76	0.74	0.72	0.71
3	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.75	0.73	0.71	0.73	0.71	0.70	0.68
4	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.71	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.66
5	0.74	0.70	0.67	0.74	0.70	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.64
6	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.62
7	0.69	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.61
8	0.67	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.65	0.63	0.60	0.65	0.62	0.60	0.59
9	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.58
10	0.64	0.60	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.63	0.60	0.58	0.62	0.59	0.58	0.57



Nata 3-1701-N

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	12007.80	9414.64	4388.00	1440.83	881.45	556.62	362.27	252.27	156.42
45.0	11969.26	10157.91	5577.21	2052.50	938.16	617.18	398.61	284.64	169.46
90.0	11963.76	10012.56	5197.32	1541.03	959.30	614.70	404.55	264.44	173.04
135.0	10968.89	11352.63	6860.03	2895.97	1072.50	709.68	455.32	290.15	199.85
180.0	12007.80	10509.17	5969.77	1663.25	980.11	628.41	406.76	265.65	180.64
225.0	11969.26	9486.22	4641.81	1439.72	892.57	580.62	379.01	242.03	165.44
270.0	11963.76	9689.93	4531.14	1447.98	916.69	579.74	400.26	279.14	168.91
315.0	10968.89	7990.34	3012.69	1093.37	793.64	505.36	332.38	215.77	143.81
360.0	12007.80	9414.64	4388.00	1440.83	881.45	556.62	362.27	252.27	156.42

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	95.30	62.10	35.95	22.96	18.06	15.25	13.38	11.40	8.75
45.0	105.87	67.55	40.58	25.60	18.61	16.02	13.87	11.84	9.30
90.0	105.32	67.22	39.31	24.72	18.28	15.69	13.71	11.73	9.41
135.0	124.04	75.92	46.14	28.19	19.38	16.68	14.31	12.55	9.97
180.0	110.33	70.53	40.36	25.05	18.50	15.91	13.76	11.89	9.58
225.0	102.85	64.58	37.05	23.95	18.17	15.36	13.65	11.56	9.41
270.0	103.29	64.91	36.78	23.51	18.28	15.58	13.65	11.78	9.08
315.0	87.21	55.06	31.71	21.25	17.29	14.76	13.27	11.07	8.59
360.0	95.30	62.10	35.95	22.96	18.06	15.25	13.38	11.40	8.75

C/γ(°)	90.0
0.0	7.54
45.0	7.71
90.0	7.65
135.0	7.71
180.0	7.54
225.0	7.76
270.0	7.71
315.0	7.60
360.0	7.54