



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

NATA

Client:

LumCAT: 1407-N

Luminaire: 92.70.046.00

Report No: nt0100

Voltage(V): 34.1700

Test No: GC2020010817

Current(A): 0.3070

LampCAT: LUMINUS CLM-9-AA40

Power (W): 10.4900

Lamp flux(lm): 1288.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1036.62, Efficiency(%): 80.48% , Luminous Efficacy(lm/W): 98.82

Central intensity(cd): 1114.003, Maximum intensity(cd): 1114.003

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=49.2

[C90/270]Total=49.2

Field angle(10%Imax): [C0/180]Total=97.8

[C90/270]Total=97.8

Maximum s/h(1/2): C0_180=0.74 C90_270=0.74

Maximum s/h(1/4): C0_180=0.82 C90_270=0.82

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 80.48%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.091%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/1/8
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

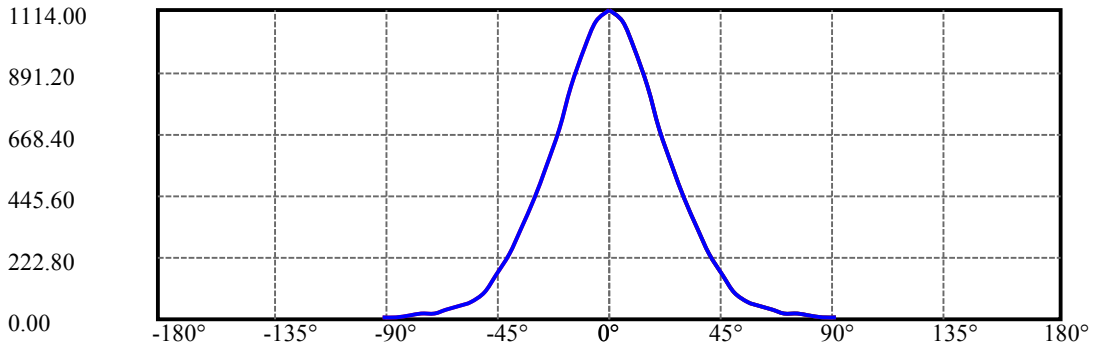
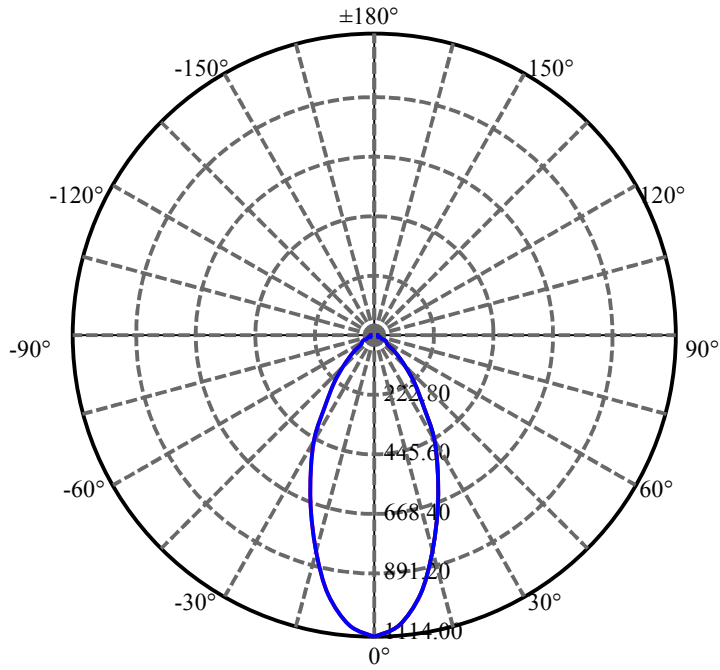
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1114.003	0.000	0	.000%	.000%
5.0	1074.030	26.157	26.157	2.031%	2.523%
10.0	973.083	73.232	99.389	5.686%	9.588%
15.0	834.335	107.215	206.604	8.324%	19.931%
20.0	685.990	125.296	331.9	9.728%	32.018%
25.0	546.933	129.311	461.211	10.040%	44.492%
30.0	433.927	124.129	585.339	9.637%	56.466%
35.0	325.891	111.889	697.228	8.687%	67.260%
40.0	234.816	93.550	790.778	7.263%	76.285%
45.0	155.988	72.361	863.138	5.618%	83.265%
50.0	99.408	51.607	914.745	4.007%	88.243%
55.0	63.513	35.424	950.169	2.750%	91.661%
60.0	45.499	25.198	975.367	1.956%	94.091%
65.0	32.871	19.052	994.419	1.479%	95.929%
70.0	24.209	14.453	1008.872	1.122%	97.324%
75.0	17.367	10.867	1019.739	.844%	98.372%
80.0	12.220	7.917	1027.656	.615%	99.136%
85.0	8.065	5.512	1033.168	.428%	99.667%
90.0	4.528	3.448	1036.616	.268%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	585.34	45.45%	56.47%
0-40	790.78	61.40%	76.28%
0-60	975.37	75.73%	94.09%
0-90	1033.17	80.21%	99.67%
0-120	1033.17	80.21%	99.67%
0-180	1036.62	80.48%	100.00%
60-90	83.00	6.44%	8.01%
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%
0-42.66	829.29	64.39%	80.00%

ZONAL LUMEN SUMMARY

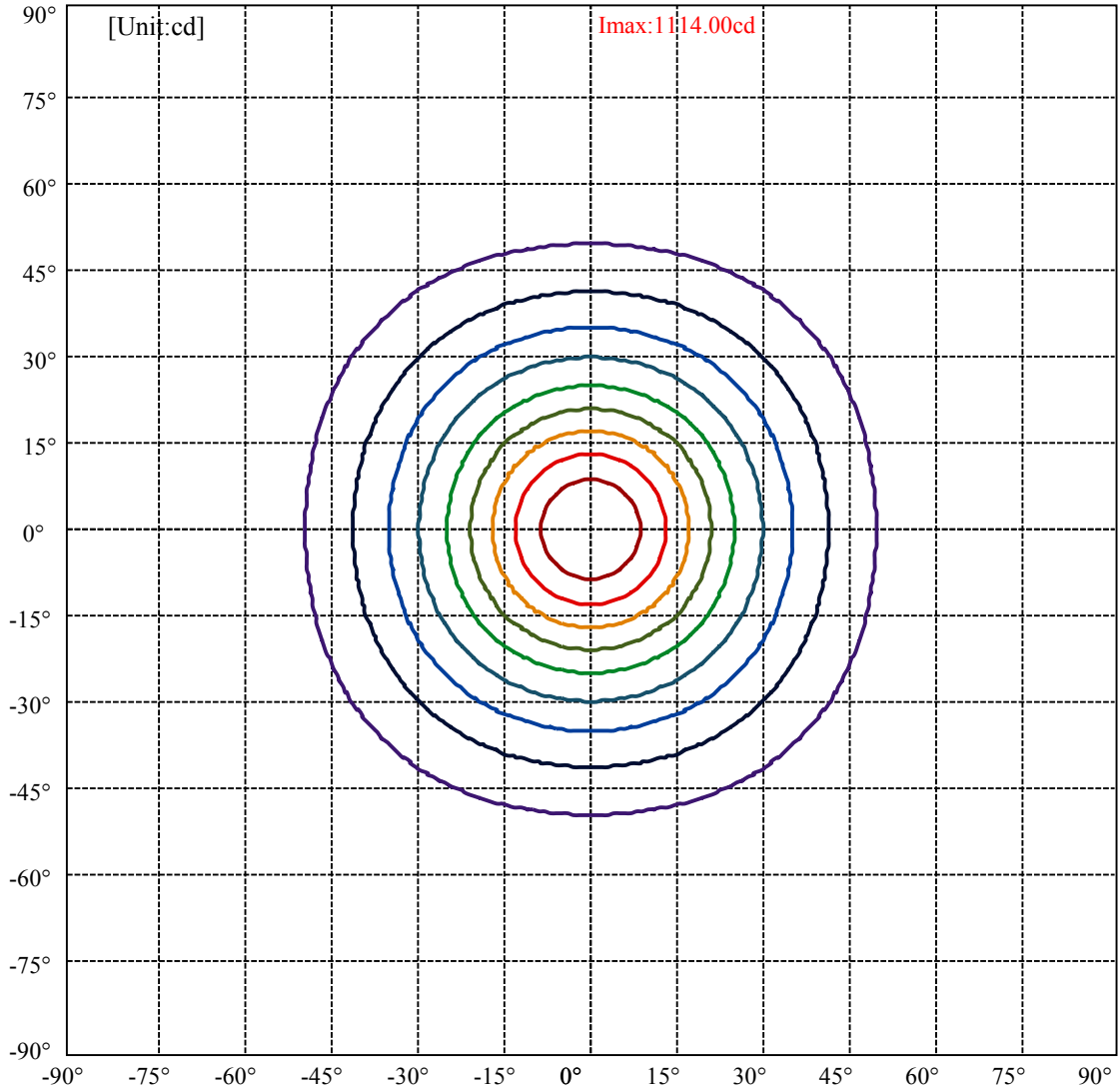
0-10	99.39
10-20	232.51
20-30	253.44
30-40	205.44
40-50	123.97
50-60	60.62
60-70	33.50
70-80	18.78
80-90	5.51
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



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

Field angle(10%Imax):C0/180Left:48.9 Right:48.9
:C90/270Left:48.9 Right:48.9

Beam Angle(50%Imax):C0/180Left:24.6 Right:24.6
:C90/270Left:24.6 Right:24.6

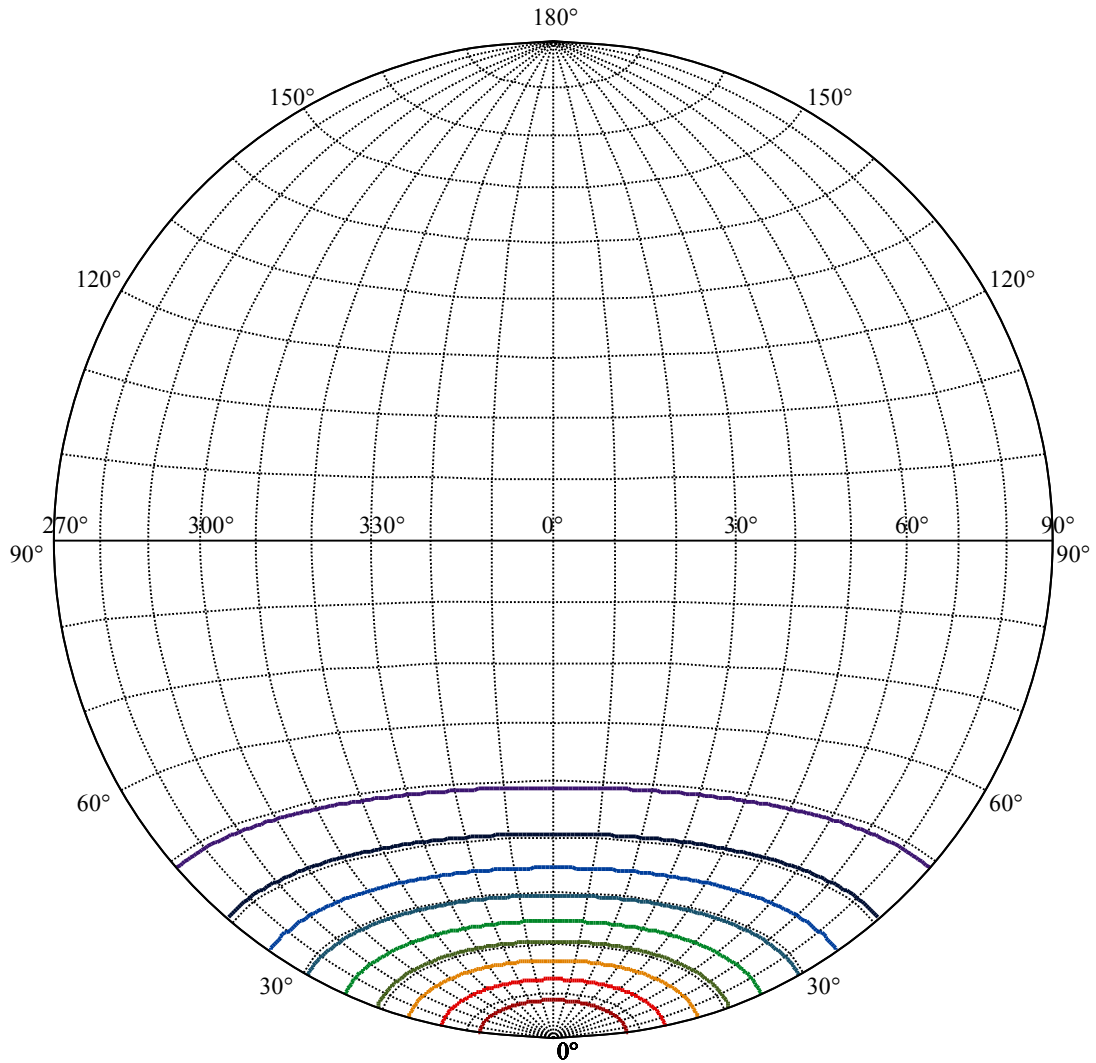


(10%Imax) 111.4	—
(20%Imax) 222.801	—
(30%Imax) 334.201	—
(40%Imax) 445.601	—
(50%Imax) 557.002	—
(60%Imax) 668.402	—
(70%Imax) 779.802	—
(80%Imax) 891.202	—
(90%Imax) 1002.6	—

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/1/8
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50



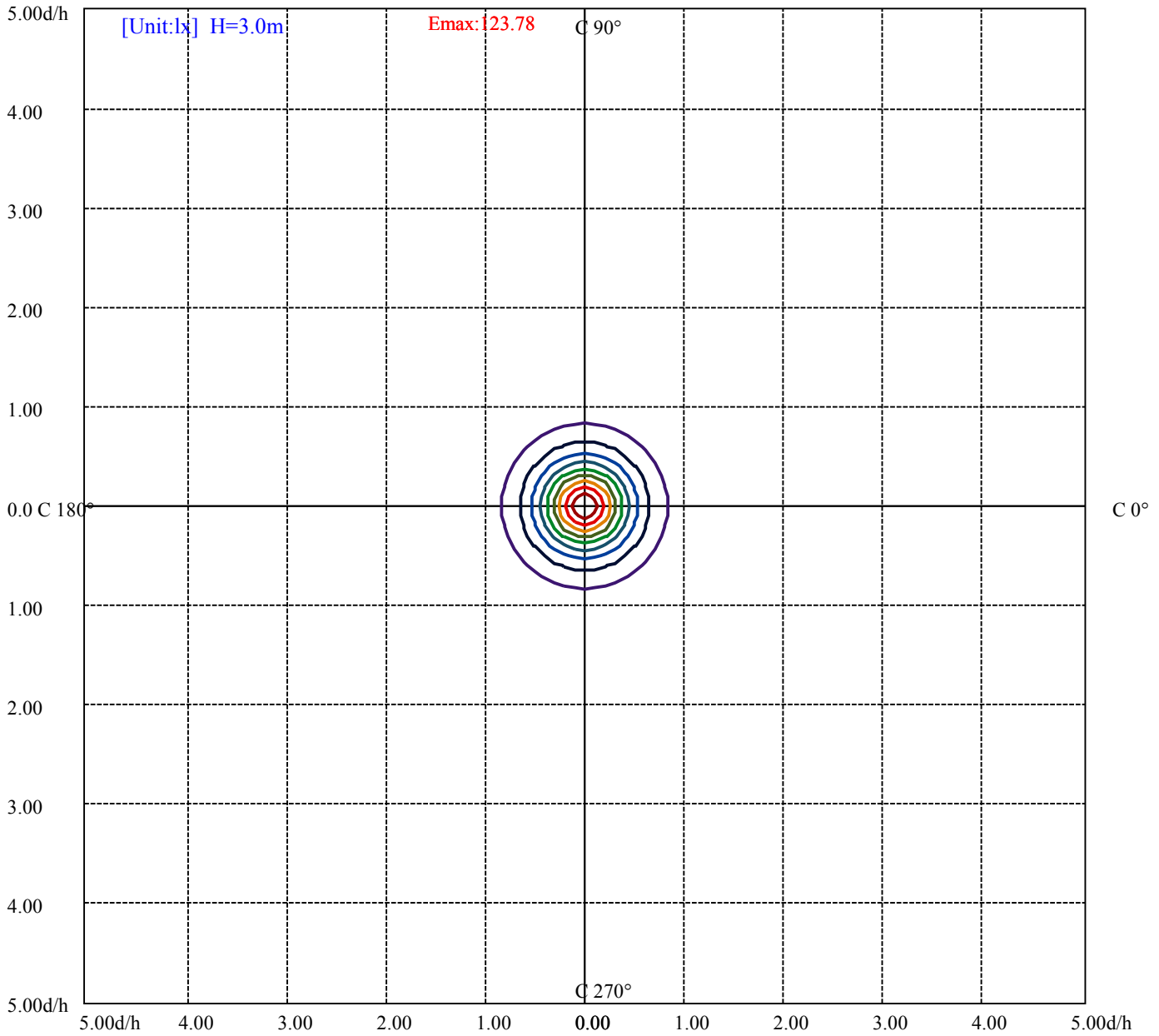
House

[Unit:cd]

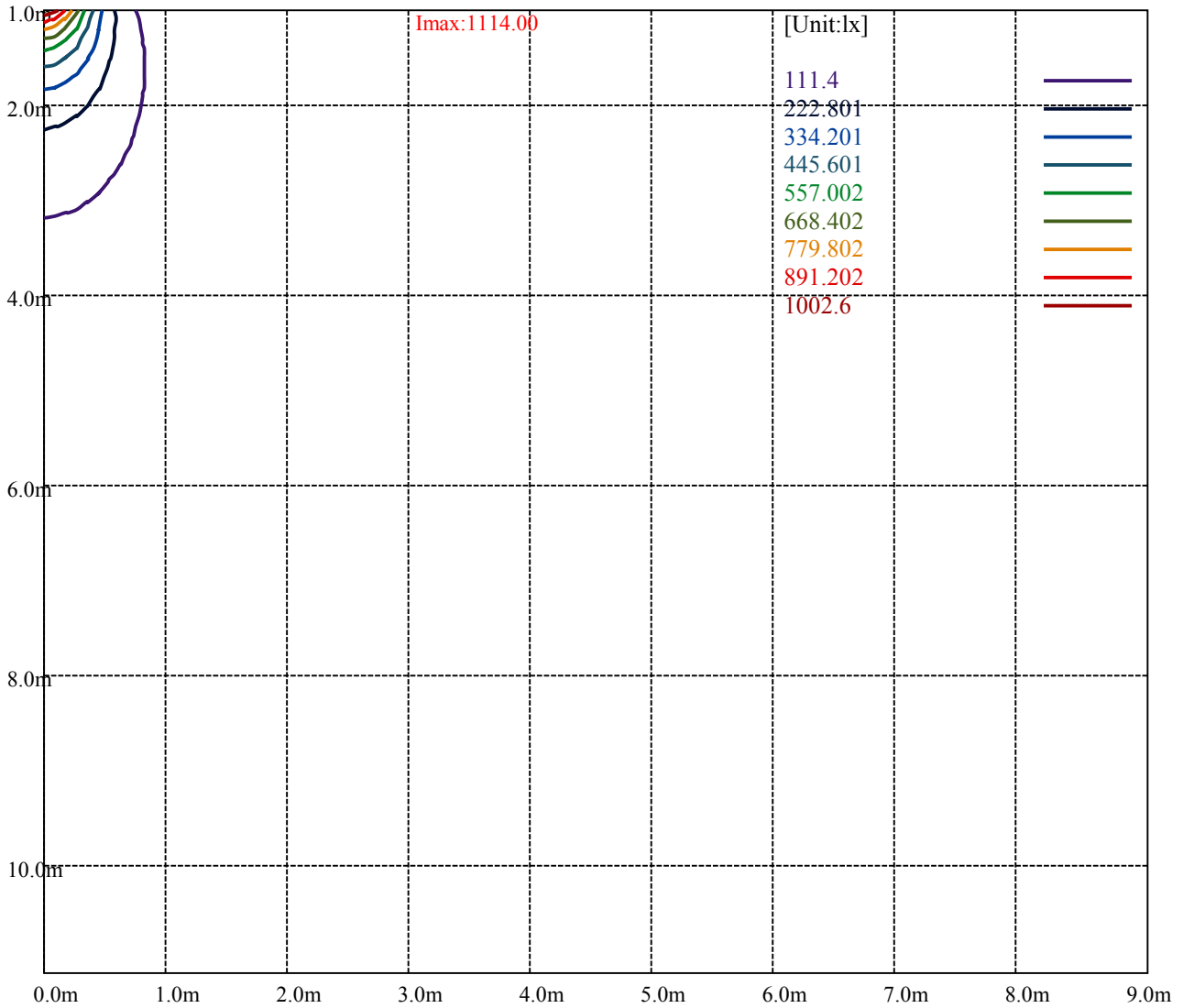
Road

I_{max}:1114.00

(10%I _{max})	111.4	—
(20%I _{max})	222.801	—
(30%I _{max})	334.201	—
(40%I _{max})	445.601	—
(50%I _{max})	557.002	—
(60%I _{max})	668.402	—
(70%I _{max})	779.802	—
(80%I _{max})	891.202	—
(90%I _{max})	1002.6	—



(10%Emax) 12.37778	—
(20%Emax) 24.75556	—
(30%Emax) 37.13344	—
(40%Emax) 49.51122	—
(50%Emax) 61.889	—
(60%Emax) 74.26678	—
(70%Emax) 86.64456	—
(80%Emax) 99.02233	—
(90%Emax) 111.4	—



Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

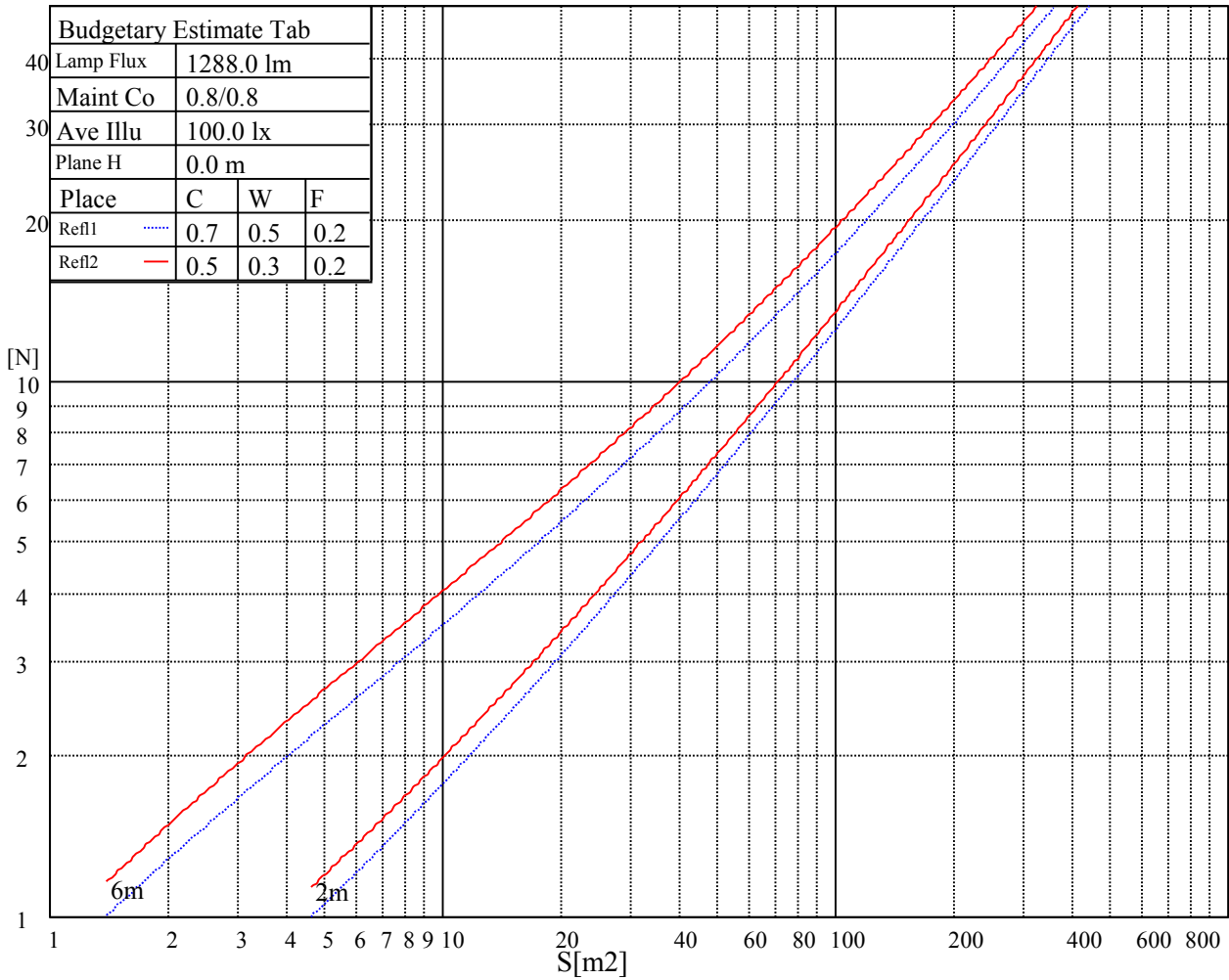
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

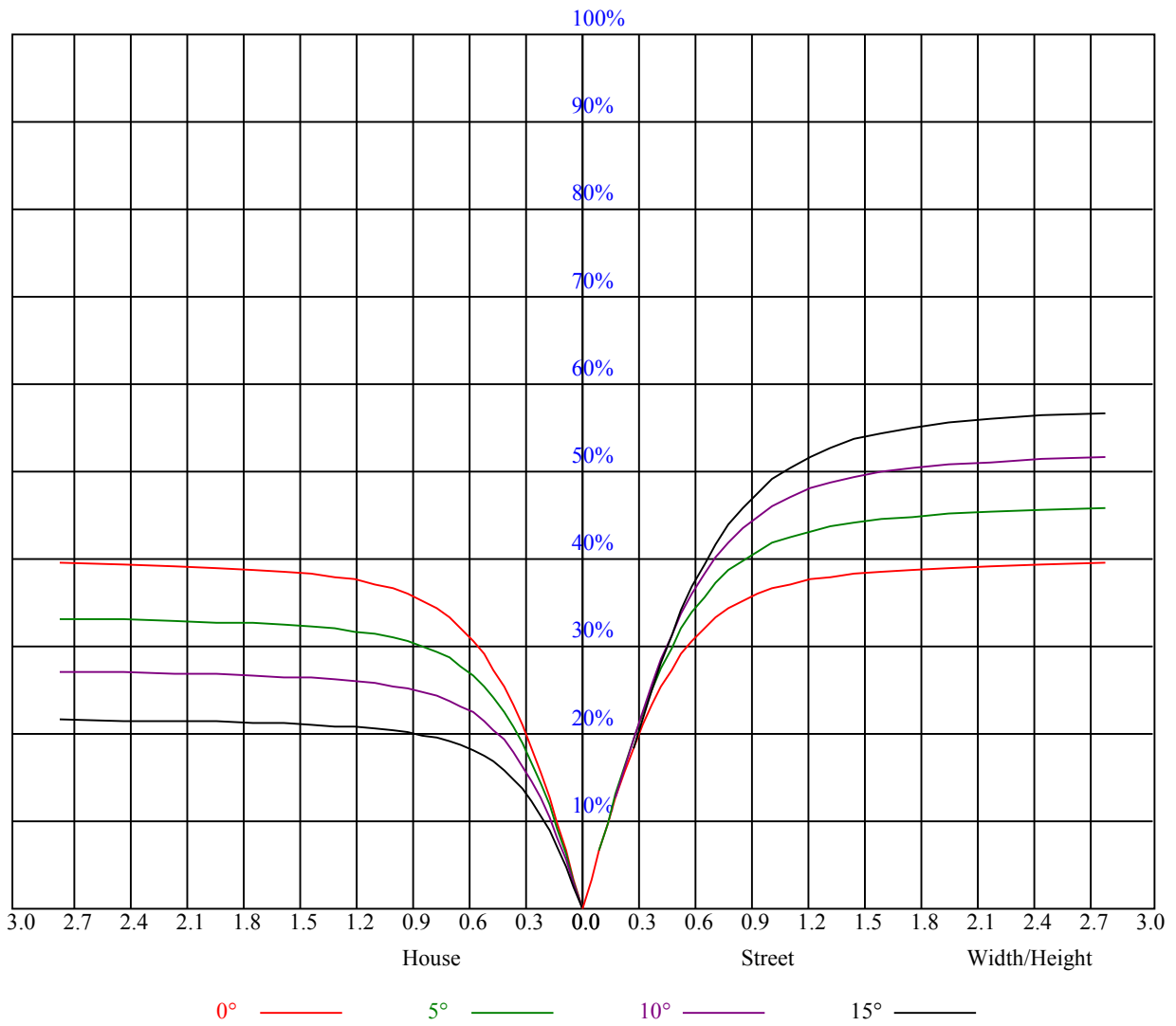
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

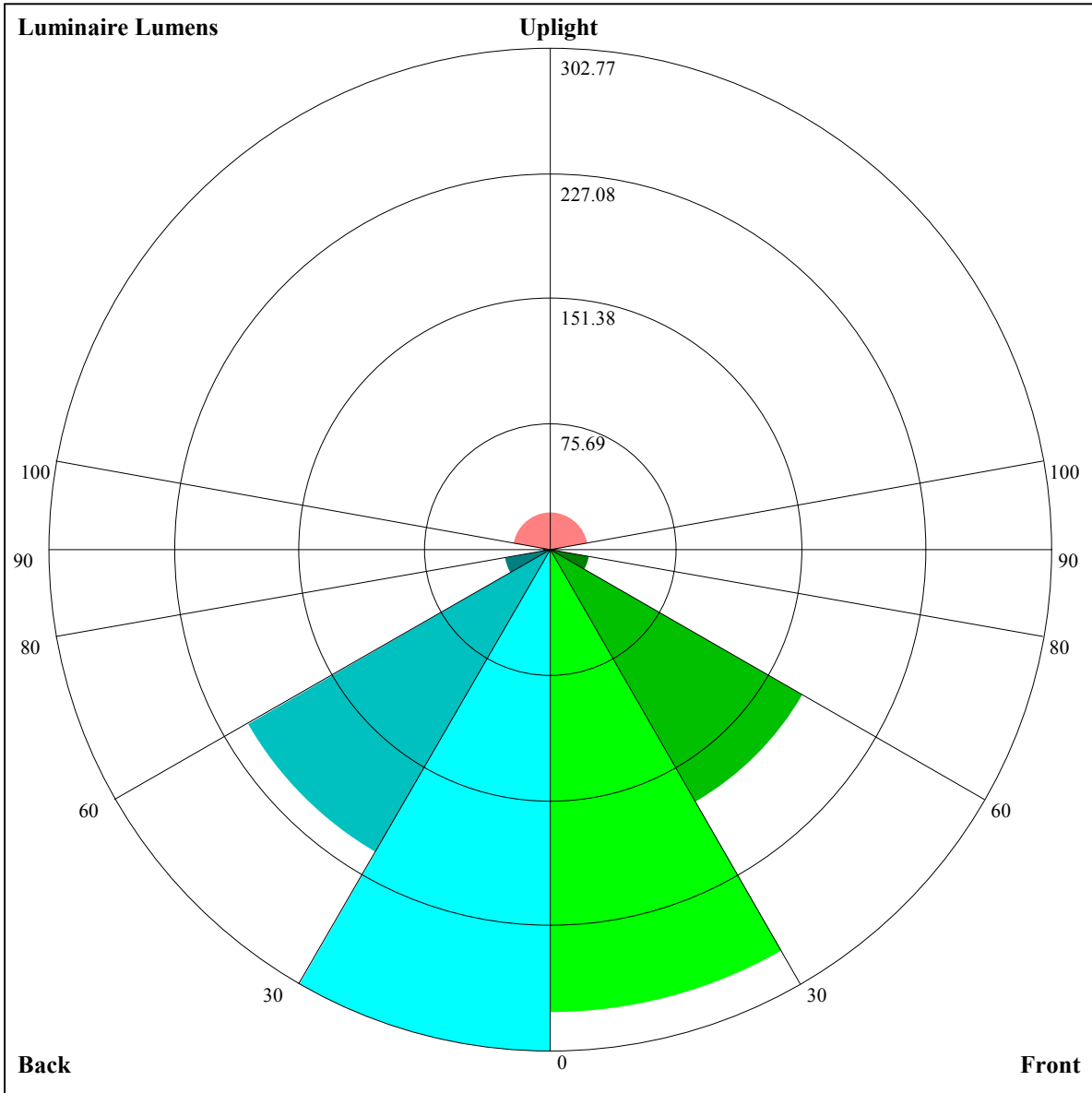
Luminance Limiting Curve





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	0.96	0.96	0.96	0.94	0.94	0.94	0.89	0.89	0.89	0.86	0.86	0.86	0.82	0.82	0.82	0.80
1	0.87	0.85	0.83	0.86	0.84	0.82	0.82	0.81	0.79	0.79	0.78	0.77	0.77	0.75	0.74	0.73
2	0.80	0.76	0.73	0.79	0.75	0.72	0.76	0.73	0.70	0.73	0.71	0.69	0.71	0.69	0.67	0.66
3	0.73	0.69	0.65	0.72	0.68	0.64	0.70	0.66	0.63	0.68	0.65	0.62	0.66	0.63	0.61	0.60
4	0.68	0.62	0.58	0.67	0.62	0.58	0.65	0.61	0.57	0.63	0.60	0.57	0.62	0.59	0.56	0.55
5	0.63	0.57	0.53	0.62	0.57	0.53	0.60	0.56	0.52	0.59	0.55	0.52	0.58	0.54	0.51	0.50
6	0.58	0.53	0.49	0.57	0.52	0.48	0.56	0.52	0.48	0.55	0.51	0.48	0.54	0.50	0.47	0.46
7	0.54	0.49	0.45	0.54	0.48	0.45	0.53	0.48	0.44	0.52	0.47	0.44	0.51	0.47	0.44	0.43
8	0.51	0.45	0.42	0.50	0.45	0.42	0.49	0.45	0.41	0.48	0.44	0.41	0.48	0.44	0.41	0.40
9	0.48	0.42	0.39	0.47	0.42	0.39	0.46	0.42	0.39	0.46	0.41	0.38	0.45	0.41	0.38	0.37
10	0.45	0.40	0.36	0.44	0.40	0.36	0.44	0.39	0.36	0.43	0.39	0.36	0.42	0.39	0.36	0.35





Luminaire Lumens:

FL=279.29,FM=176.35,FH=23.91,FVH=4.24

BL=302.77,BM=211.33,BH=28.38,BVH=4.69

UL=4.94,UH=23.51

BUG Rating:B1-U2-G0

NATA 1407-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	1114.71	1046.25	919.41	786.04	638.27	503.33	395.33	287.66	195.69
45.0	1114.71	1051.82	936.79	797.51	654.81	514.52	404.66	294.58	203.01
90.0	1115.44	1067.18	964.13	819.00	675.62	537.69	428.63	318.99	219.26
135.0	1111.16	1106.16	1028.87	901.41	746.27	604.07	481.39	368.16	276.86
180.0	1114.71	1104.02	1029.09	890.44	739.63	599.12	478.01	370.69	283.78
225.0	1114.71	1098.00	1010.81	869.40	721.91	584.66	467.72	362.25	275.29
270.0	1115.44	1082.93	984.15	846.79	690.98	547.31	434.53	327.94	236.25
315.0	1111.16	1035.90	911.42	764.10	620.44	484.76	381.15	276.86	188.38
360.0	1114.71	1046.25	919.41	786.04	638.27	503.33	395.33	287.66	195.69
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	129.71	81.06	53.61	38.14	28.01	20.48	14.57	11.03	7.71
45.0	134.61	84.66	55.52	39.43	28.97	21.09	15.02	10.74	7.20
90.0	145.91	93.38	60.30	43.93	31.67	23.34	16.43	11.08	7.14
135.0	183.04	117.79	74.31	52.37	37.18	27.45	19.91	13.50	7.99
180.0	190.24	120.38	72.73	52.14	36.96	27.11	19.74	13.56	8.55
225.0	184.28	117.56	73.13	52.93	37.91	27.90	20.25	14.06	9.11
270.0	159.64	103.11	66.71	47.76	34.26	25.54	18.28	13.39	8.83
315.0	120.49	77.34	51.81	37.29	28.01	20.76	14.74	10.41	7.99
360.0	129.71	81.06	53.61	38.14	28.01	20.48	14.57	11.03	7.71
C/γ(°)	90.0								
0.0	4.16								
45.0	4.22								
90.0	4.22								
135.0	4.50								
180.0	5.06								
225.0	5.34								
270.0	4.39								
315.0	4.33								
360.0	4.16								