



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: 1547-S

Luminaire: 92.70.064.00

Report No: nt0100

Test No: GC20191225121

LampCAT: LUMINUS CXM-9-AC40

Lamp flux(lm): 1100.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 33.5900

Current(A): 0.2970

Power (W): 9.9700

PF: 1.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 885.41, Efficiency(%): 80.49% , Luminous Efficacy(lm/W): 88.81

Central intensity(cd): 753.216, Maximum intensity(cd): 753.216

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=67.4

[C90/270]Total=67.4

Field angle(10%Imax): [C0/180]Total=99.2

[C90/270]Total=99.2

Maximum s/h(1/2): C0_180=0.98 C90_270=0.98

Maximum s/h(1/4): C0_180=1.00 C90_270=1.00

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 80.49%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.608%

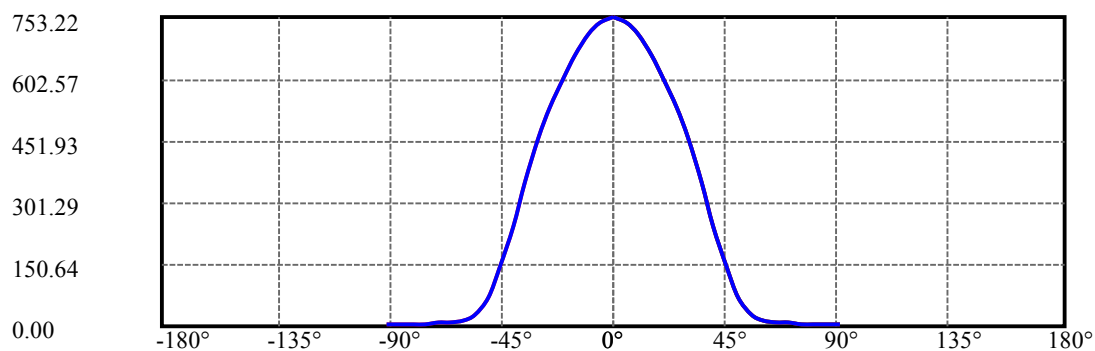
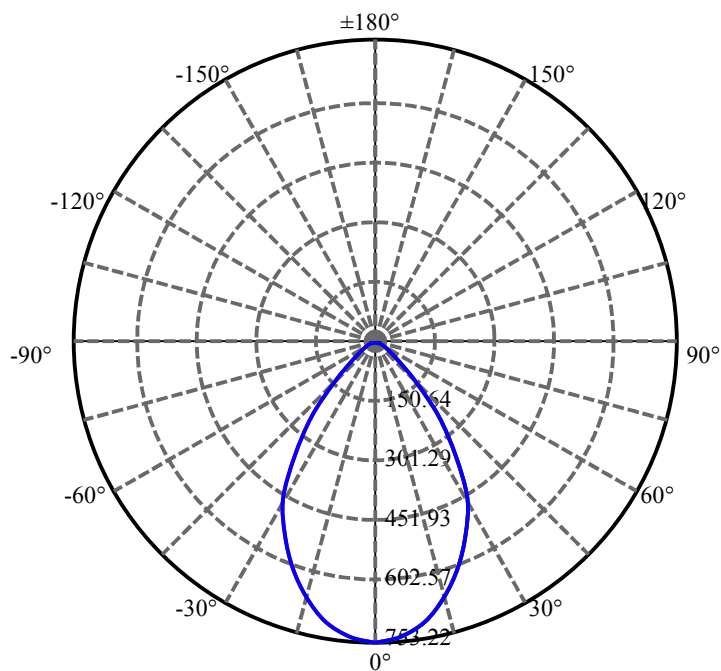
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	753.216	0.000	0	.000%	.000%
5.0	739.976	17.851	17.851	1.623%	2.016%
10.0	710.508	51.888	69.739	4.717%	7.876%
15.0	661.929	81.412	151.151	7.401%	17.071%
20.0	602.051	104.170	255.321	9.470%	28.836%
25.0	535.669	119.326	374.647	10.848%	42.313%
30.0	456.623	125.575	500.222	11.416%	56.496%
35.0	349.847	118.758	618.98	10.796%	69.909%
40.0	244.807	99.214	718.194	9.019%	81.114%
45.0	145.230	72.219	790.412	6.565%	89.271%
50.0	69.117	43.312	833.724	3.937%	94.163%
55.0	27.591	21.027	854.752	1.912%	96.537%
60.0	13.416	9.478	864.23	.862%	97.608%
65.0	8.909	5.427	869.658	.493%	98.221%
70.0	7.362	4.120	873.777	.375%	98.686%
75.0	6.272	3.564	877.341	.324%	99.089%
80.0	5.498	3.149	880.49	.286%	99.444%
85.0	4.507	2.719	883.209	.247%	99.751%
90.0	3.530	2.201	885.41	.200%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	500.22	45.47%	56.50%
0-40	718.19	65.29%	81.11%
0-60	864.23	78.57%	97.61%
0-90	883.21	80.29%	99.75%
0-120	883.21	80.29%	99.75%
0-180	885.41	80.49%	100.00%
60-90	28.46	2.59%	3.21%
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%
0-39.50	708.33	64.39%	80.00%

ZONAL LUMEN SUMMARY

0-10	69.74
10-20	185.58
20-30	244.90
30-40	217.97
40-50	115.53
50-60	30.51
60-70	9.55
70-80	6.71
80-90	2.72
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

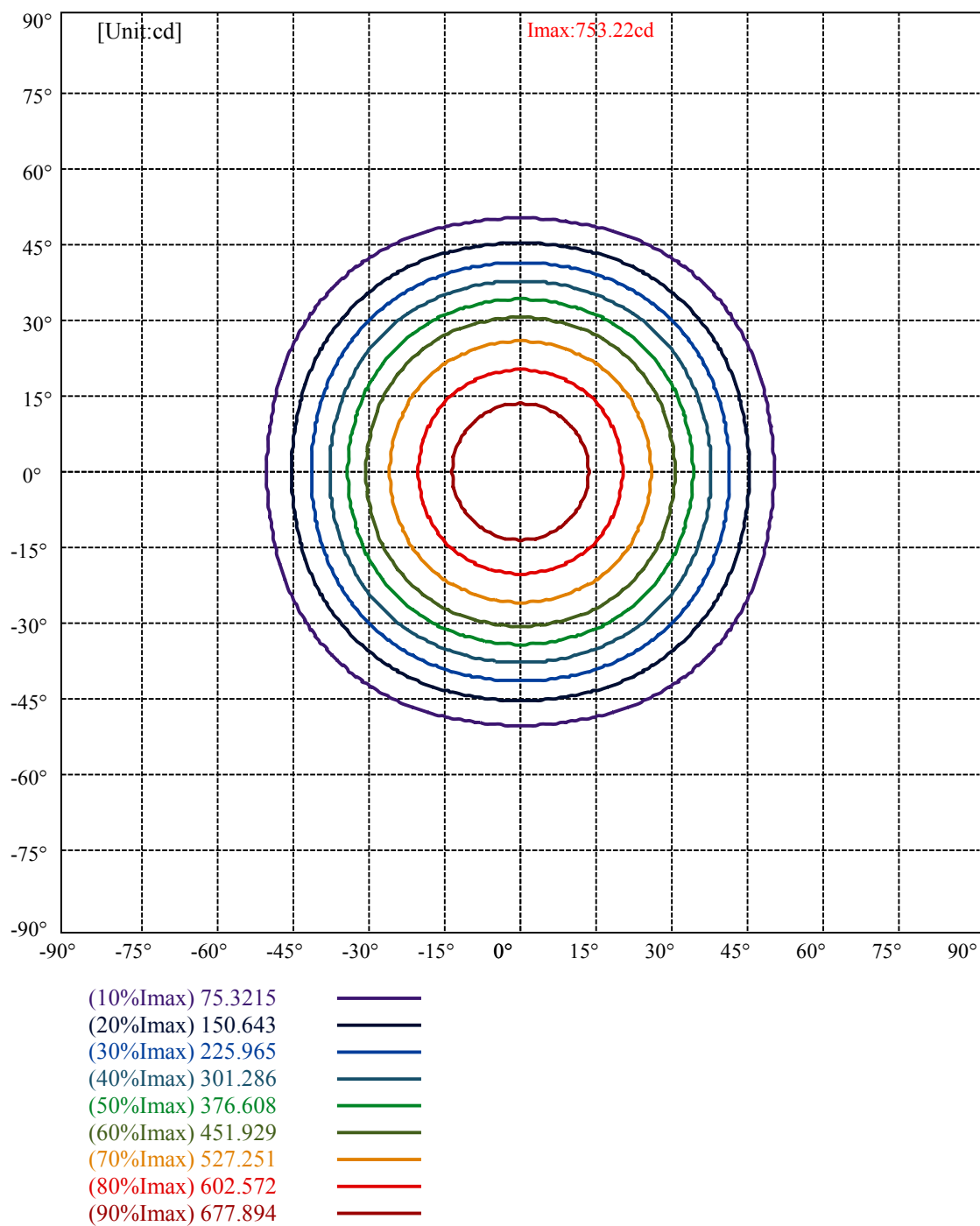
C0(Max): —————C0/C180: —————C90/C270: —————

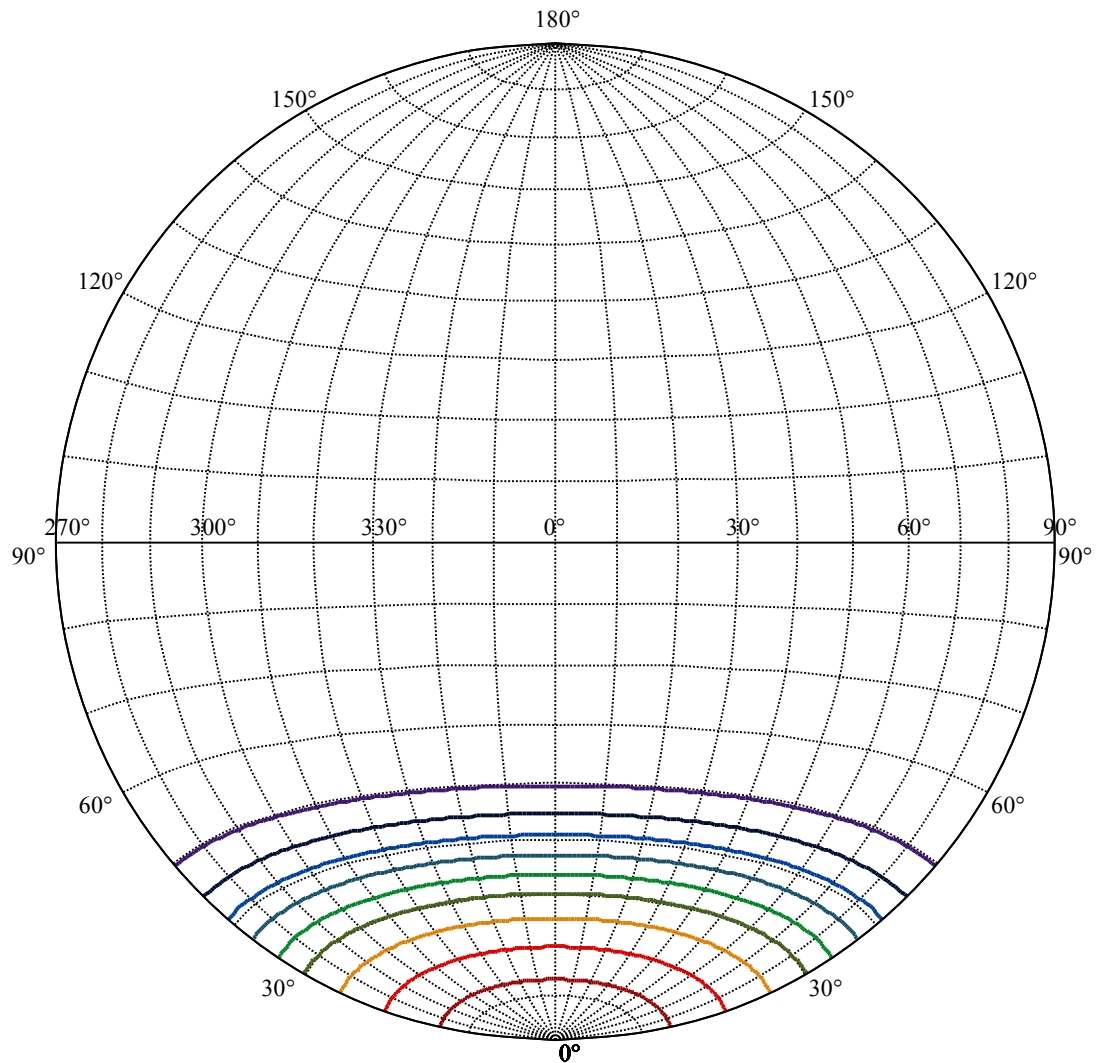
Field angle(10%Imax):C0/180Left:49.6 Right:49.6

:C90/270Left:49.6 Right:49.6

Beam Angle(50%Imax):C0/180Left:33.7 Right:33.7

:C90/270Left:33.7 Right:33.7





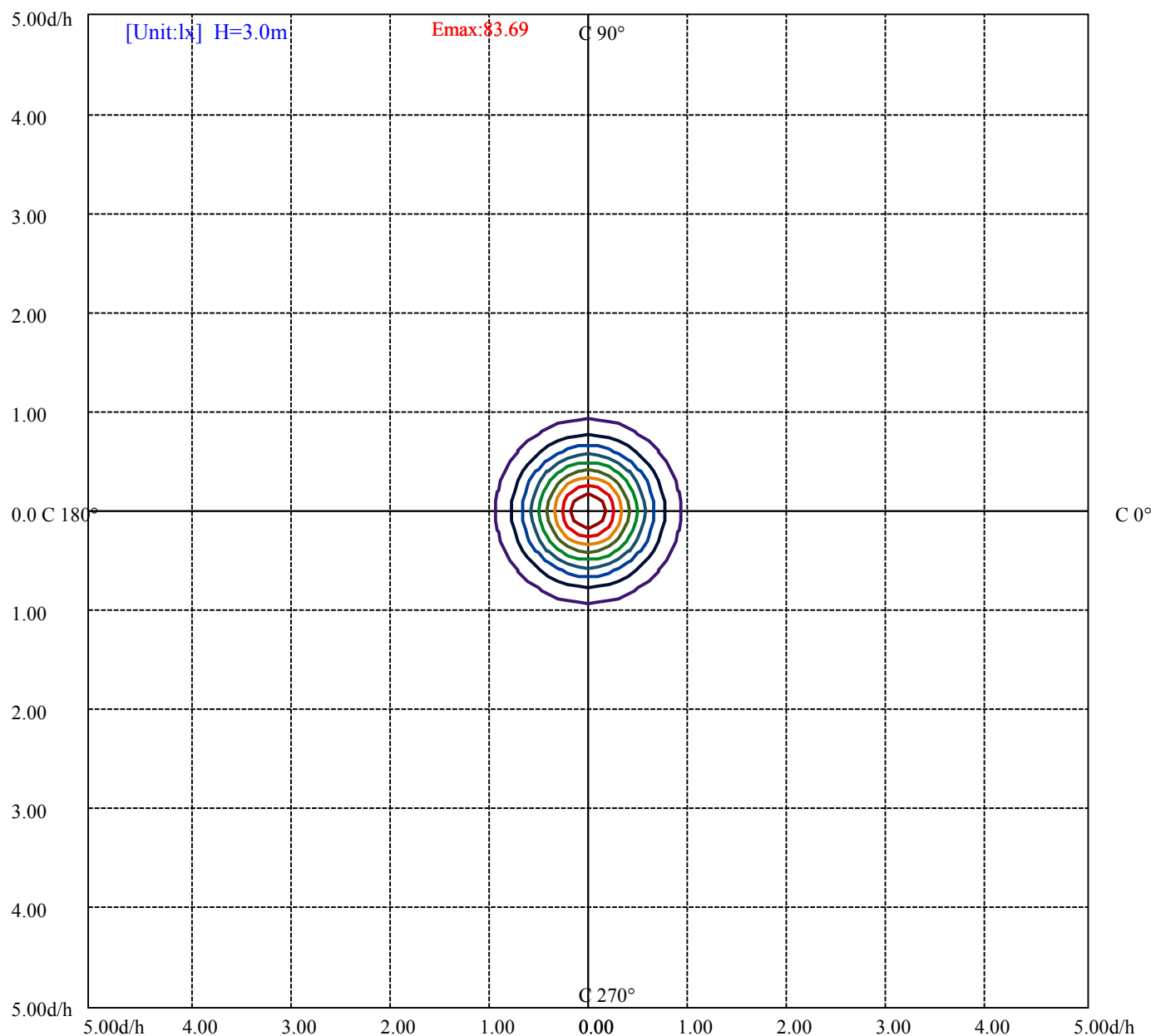
House

[Unit:cd]

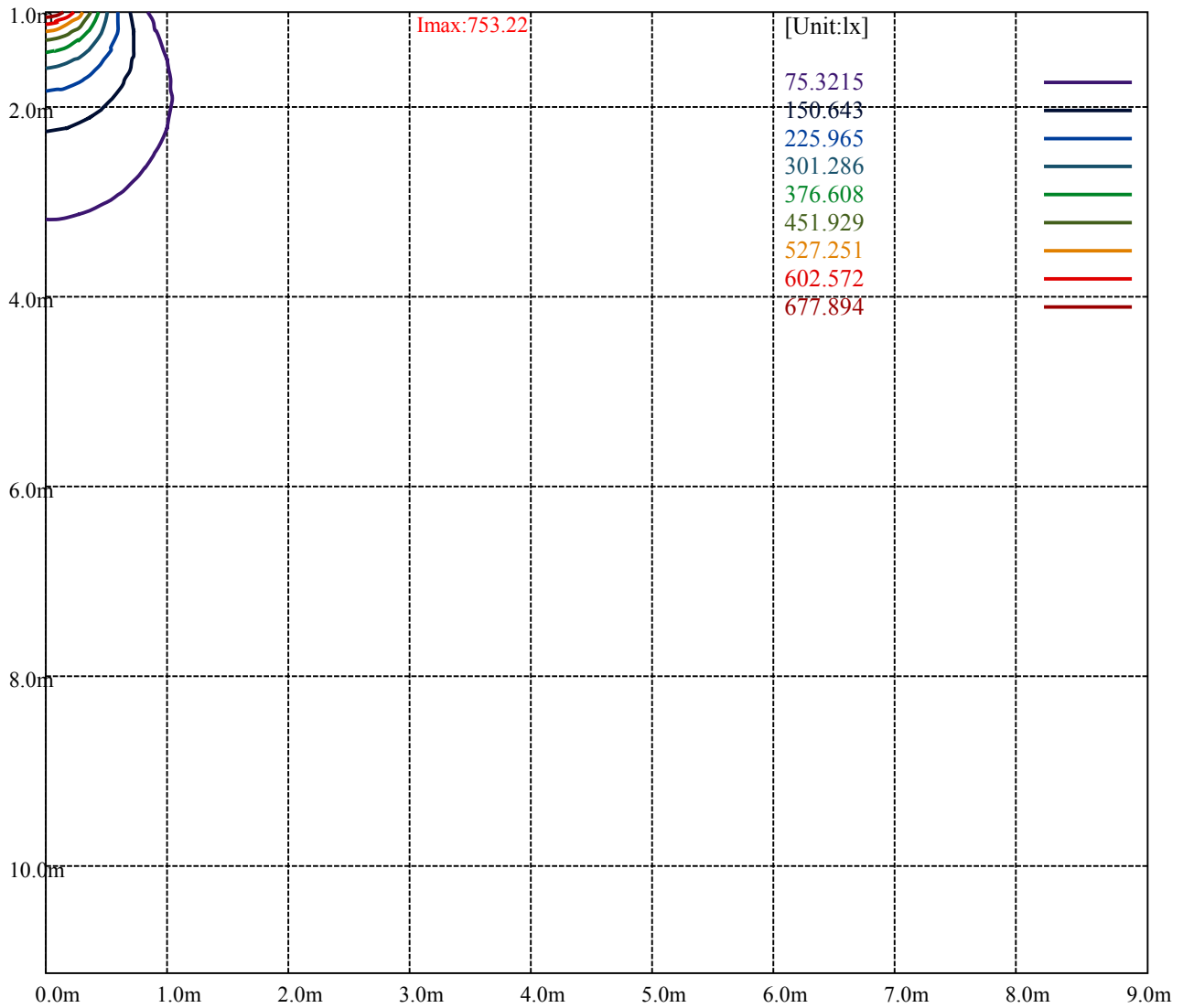
Road

Imax:753.22
 (10%Imax) 75.3215
 (20%Imax) 150.643
 (30%Imax) 225.965
 (40%Imax) 301.286
 (50%Imax) 376.608
 (60%Imax) 451.929
 (70%Imax) 527.251
 (80%Imax) 602.572
 (90%Imax) 677.894





(10%E _{max}) 8.369056	—
(20%E _{max}) 16.73811	—
(30%E _{max}) 25.10722	—
(40%E _{max}) 33.47622	—
(50%E _{max}) 41.84533	—
(60%E _{max}) 50.21433	—
(70%E _{max}) 58.58344	—
(80%E _{max}) 66.95245	—
(90%E _{max}) 75.32156	—



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

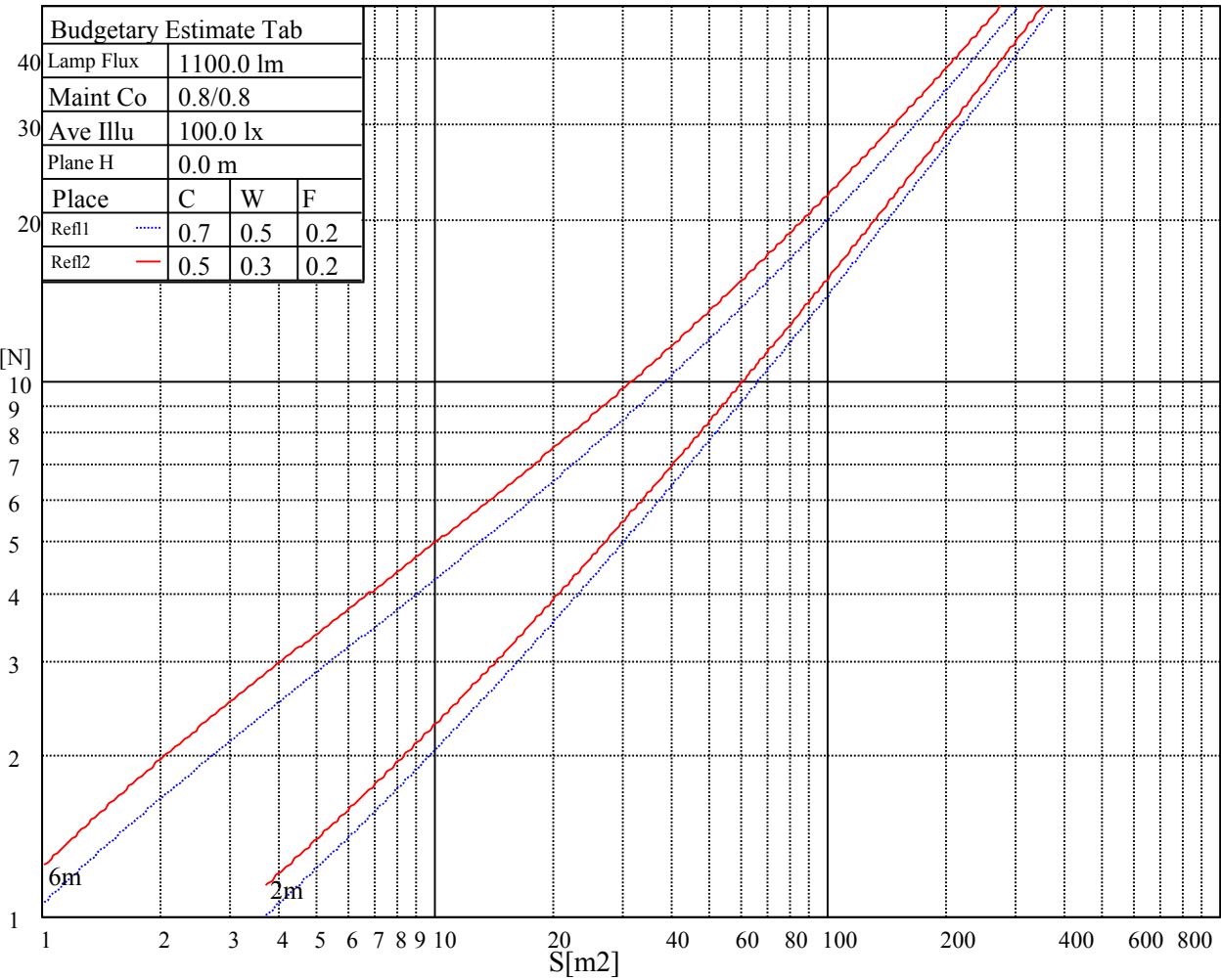
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

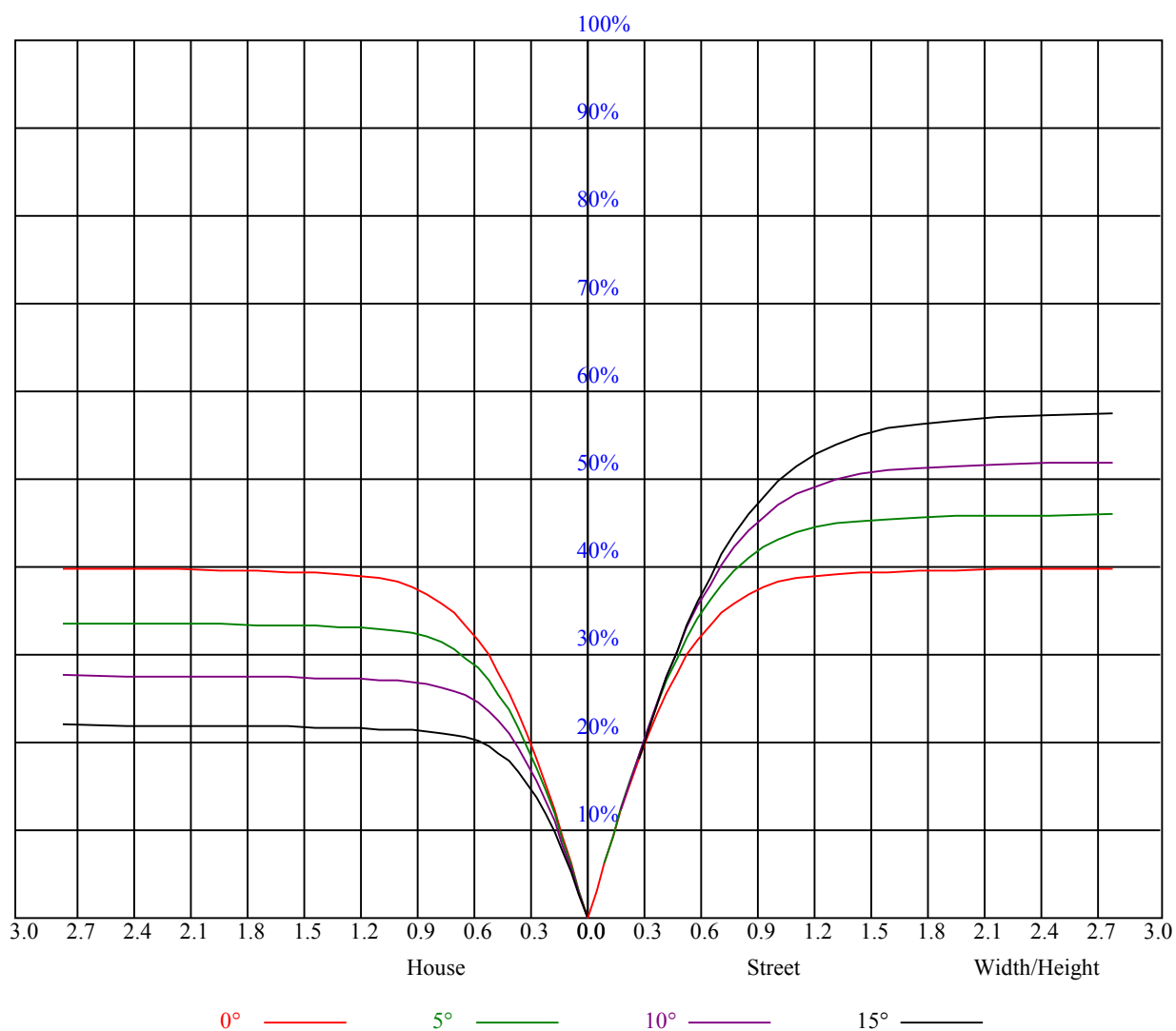
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

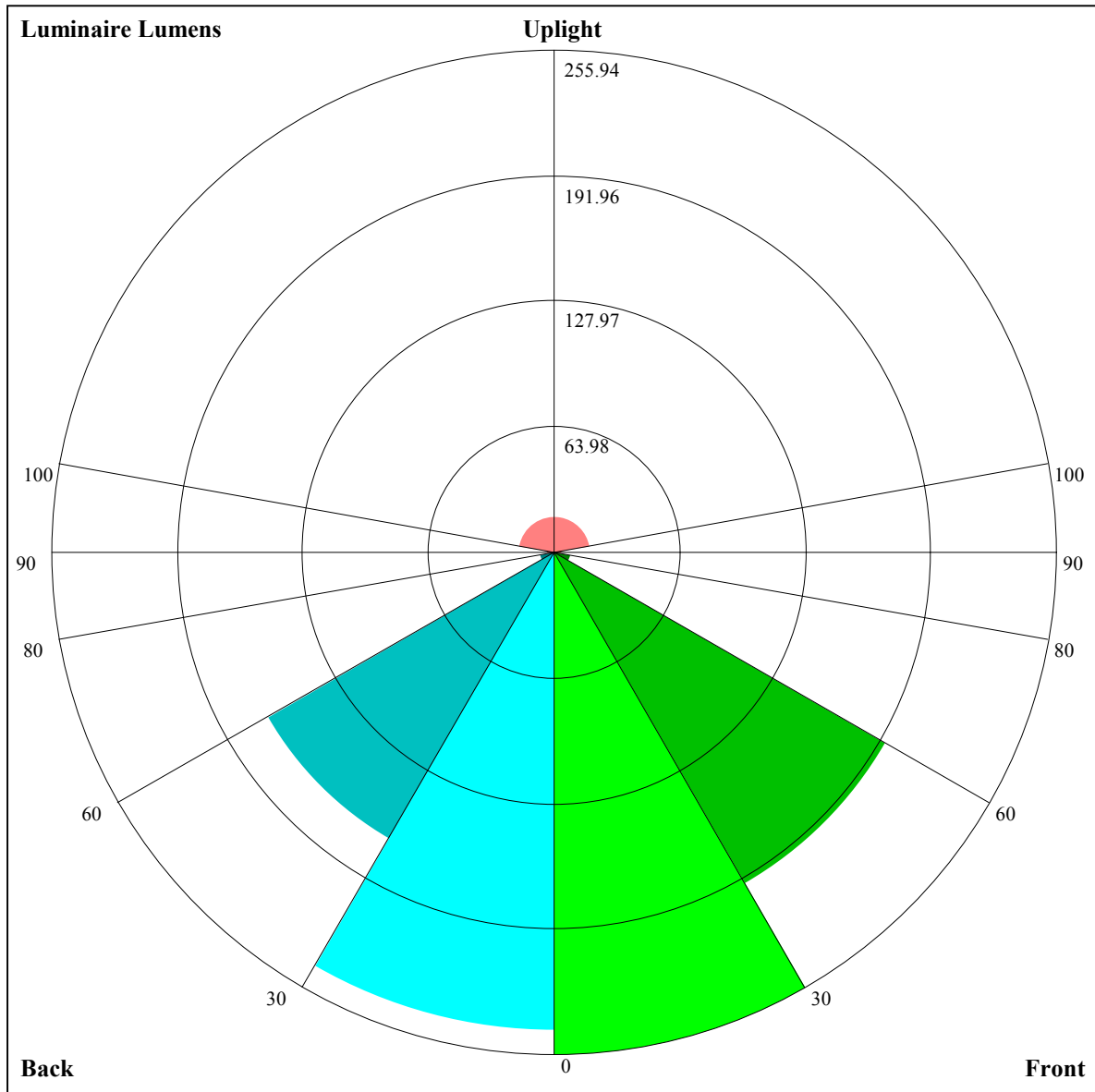
Luminance Limiting Curve





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	0.88	0.86	0.84	0.86	0.84	0.82	0.83	0.81	0.80	0.80	0.79	0.77	0.77	0.76	0.75	0.74
2	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.74	0.72	0.70	0.72	0.70	0.69	0.67
3	0.74	0.70	0.66	0.73	0.69	0.66	0.71	0.68	0.65	0.69	0.66	0.64	0.67	0.65	0.63	0.61
4	0.69	0.64	0.60	0.68	0.63	0.59	0.66	0.62	0.59	0.64	0.61	0.58	0.63	0.60	0.57	0.56
5	0.64	0.58	0.54	0.63	0.58	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.59	0.55	0.53	0.51
6	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.49	0.56	0.52	0.49	0.55	0.51	0.48	0.47
7	0.55	0.49	0.46	0.54	0.49	0.46	0.53	0.49	0.45	0.52	0.48	0.45	0.51	0.48	0.45	0.44
8	0.51	0.46	0.42	0.51	0.46	0.42	0.50	0.45	0.42	0.49	0.45	0.42	0.48	0.44	0.41	0.40
9	0.48	0.43	0.39	0.47	0.42	0.39	0.47	0.42	0.39	0.46	0.42	0.39	0.45	0.41	0.39	0.37
10	0.45	0.40	0.36	0.45	0.40	0.36	0.44	0.39	0.36	0.43	0.39	0.36	0.43	0.39	0.36	0.35





Luminaire Lumens:

FL=255.94,FM=194.68,FH=8.4,FVH=2.47

BL=243.32,BM=168.33,BH=7.77,BVH=2.46

UL=3.85,UH=18.33

BUG Rating:B1-U2-G0

NATA 1547-S

Intensity data(cd)

Appendix Page: 15 Total:15

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	751.84	757.41	740.64	707.85	650.25	578.19	512.04	409.56	299.48
45.0	756.68	747.28	724.67	680.91	623.59	554.18	465.92	356.96	249.75
90.0	753.36	734.96	706.95	652.61	596.31	529.99	444.43	330.86	229.39
135.0	750.99	724.11	690.30	640.18	581.79	518.57	442.01	333.51	229.16
180.0	751.84	721.74	681.92	615.77	552.04	484.59	390.32	283.22	175.61
225.0	756.68	737.33	700.09	648.34	590.34	524.98	446.18	340.26	236.70
270.0	753.36	746.44	713.25	672.86	609.53	546.92	476.38	370.63	263.25
315.0	750.99	750.54	726.24	676.91	612.56	547.93	475.71	373.78	275.12
360.0	751.84	757.41	740.64	707.85	650.25	578.19	512.04	409.56	299.48
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	194.51	102.94	38.48	21.04	9.96	7.88	6.47	5.51	4.61
45.0	143.66	70.37	28.86	13.05	9.51	7.65	6.24	4.84	4.56
90.0	129.49	54.79	22.89	9.79	7.76	6.53	5.63	5.06	4.22
135.0	126.39	54.23	21.94	9.90	8.10	6.75	5.79	5.12	3.99
180.0	96.13	38.14	17.55	10.07	8.16	6.98	6.24	5.91	3.83
225.0	139.95	63.45	27.11	11.64	9.17	7.82	6.86	6.30	5.29
270.0	163.80	85.28	33.30	16.37	9.45	7.82	6.64	5.91	5.01
315.0	167.91	83.76	30.60	15.47	9.17	7.48	6.30	5.34	4.56
360.0	194.51	102.94	38.48	21.04	9.96	7.88	6.47	5.51	4.61
C/γ(°)	90.0								
0.0	3.71								
45.0	3.43								
90.0	3.43								
135.0	3.43								
180.0	3.43								
225.0	3.43								
270.0	3.66								
315.0	3.71								
360.0	3.71								