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Nata

Client:

LumCAT: CT01D03538AF

Luminaire:

Report No: GC2019091909

Voltage(V): 220.5000

Test No: NATA07

Current(A): 0.0420

LampCAT: CREE CXA1507

Power (W): 8.5100

Lamp flux(lm): 573.0

PF: 0.9000

Number of Lamps: 1

Ballast type: AC

Length(mm): 33

Width(mm): 33

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 518.33, Efficiency(%): 90.46% , Luminous Efficacy(lm/W): 60.91

Central intensity(cd): 884.541, Maximum intensity(cd): 884.541

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=41.2

[C90/270]Total=41.2

Field angle(10%Imax): [C0/180]Total=69.8

[C90/270]Total=69.8

Maximum s/h(1/2): C0_180=0.67 C90_270=0.67

Maximum s/h(1/4): C0_180=0.65 C90_270=0.65

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 90.46%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 92.471%

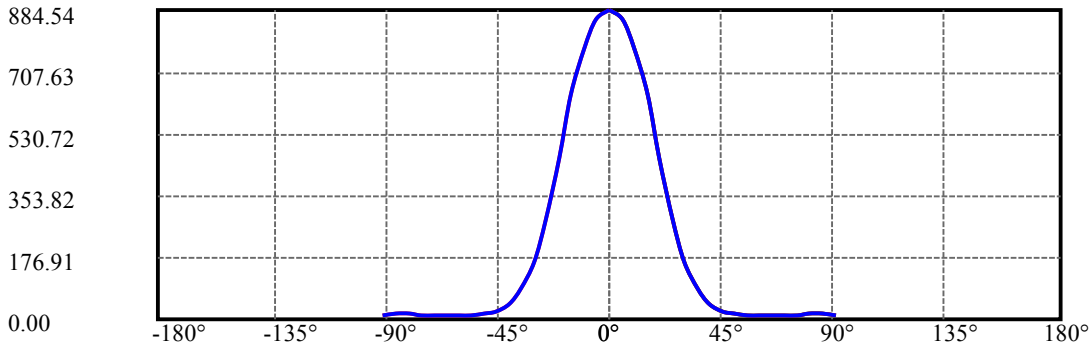
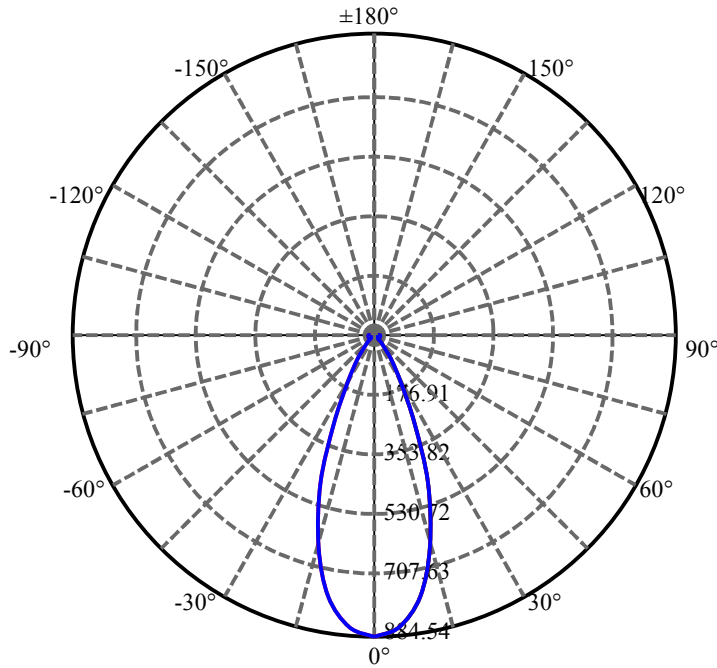
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	884.541	0.000	0	.000%	.000%
5.0	859.036	20.844	20.844	3.638%	4.021%
10.0	776.983	58.526	79.37	10.214%	15.313%
15.0	640.940	84.110	163.48	14.679%	31.540%
20.0	462.340	90.926	254.406	15.868%	49.082%
25.0	283.118	78.185	332.59	13.645%	64.166%
30.0	162.783	56.429	389.02	9.848%	75.052%
35.0	86.351	36.687	425.706	6.403%	82.130%
40.0	45.400	21.982	447.688	3.836%	86.371%
45.0	22.413	12.556	460.244	2.191%	88.794%
50.0	14.466	7.452	467.696	1.301%	90.231%
55.0	13.034	5.979	473.675	1.044%	91.385%
60.0	11.317	5.628	479.304	.982%	92.471%
65.0	9.385	5.033	484.336	.878%	93.442%
70.0	8.266	4.469	488.806	.780%	94.304%
75.0	10.951	5.023	493.829	.877%	95.273%
80.0	16.264	7.282	501.111	1.271%	96.678%
85.0	17.778	9.250	510.361	1.614%	98.462%
90.0	11.328	7.970	518.33	1.391%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	389.02	67.89%	75.05%
0-40	447.69	78.13%	86.37%
0-60	479.30	83.65%	92.47%
0-90	510.36	89.07%	98.46%
0-120	510.36	89.07%	98.46%
0-180	518.33	90.46%	100.00%
60-90	36.69	6.40%	7.08%
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%
0-33.50	414.66	72.37%	80.00%

ZONAL LUMEN SUMMARY

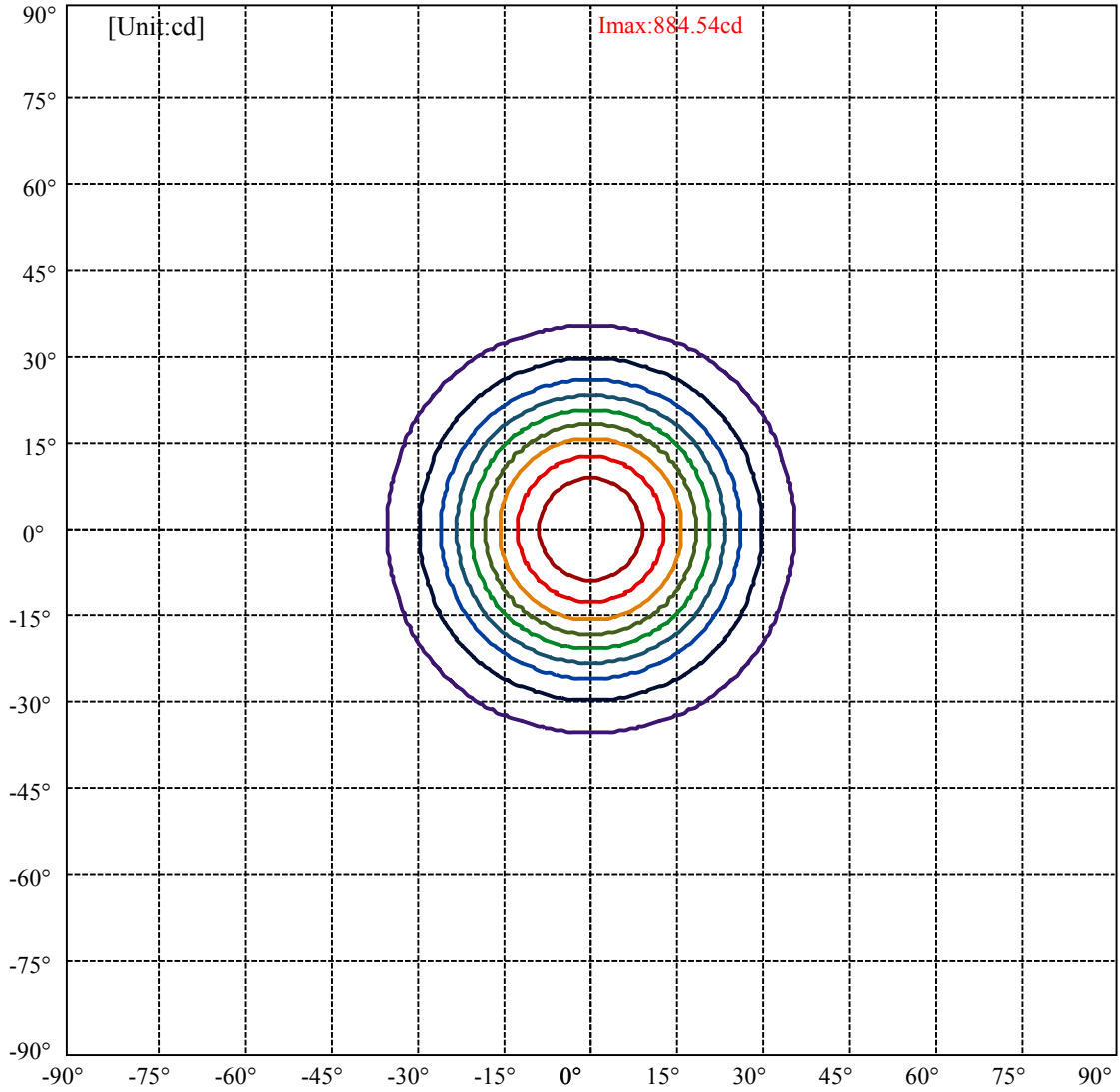
0-10	79.37
10-20	175.04
20-30	134.61
30-40	58.67
40-50	20.01
50-60	11.61
60-70	9.50
70-80	12.31
80-90	9.25
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



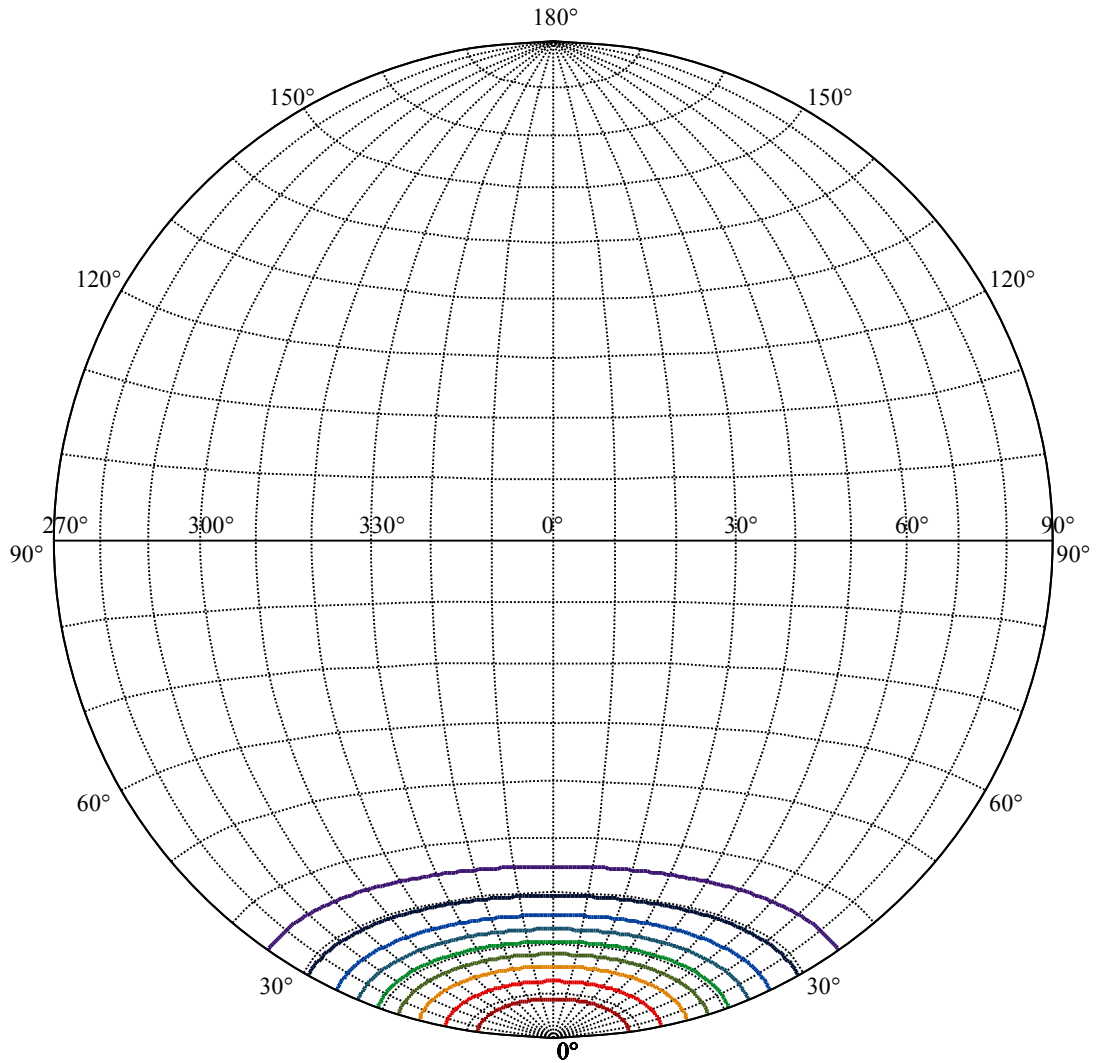
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:34.9 Right:34.9
:C90/270Left:34.9 Right:34.9

Beam Angle(50%Imax):C0/180Left:20.6 Right:20.6
:C90/270Left:20.6 Right:20.6



(10%Imax) 88.454	—
(20%Imax) 176.908	—
(30%Imax) 265.362	—
(40%Imax) 353.816	—
(50%Imax) 442.27	—
(60%Imax) 530.724	—
(70%Imax) 619.178	—
(80%Imax) 707.632	—
(90%Imax) 796.086	—



House

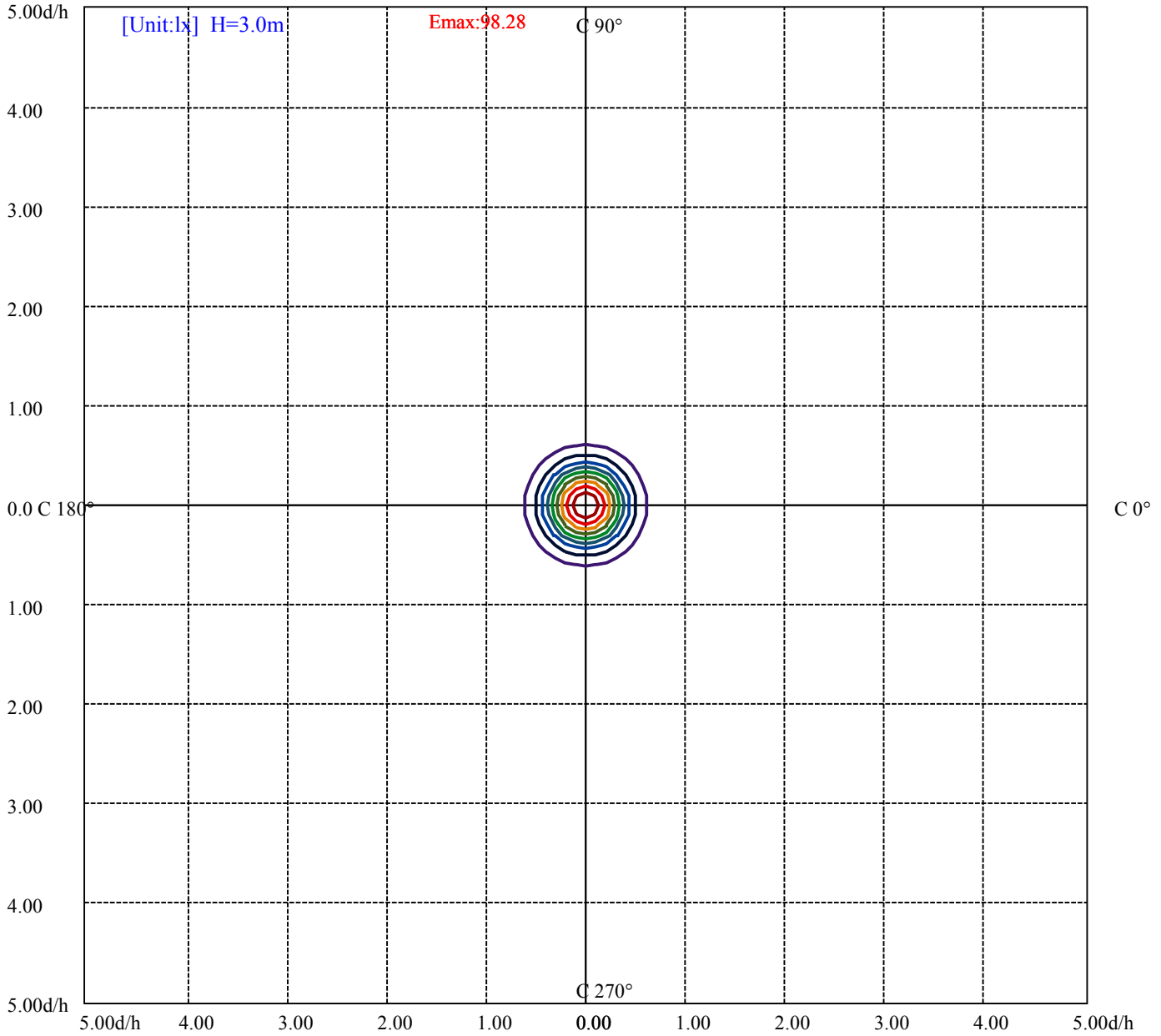
[Unit:cd]

Road

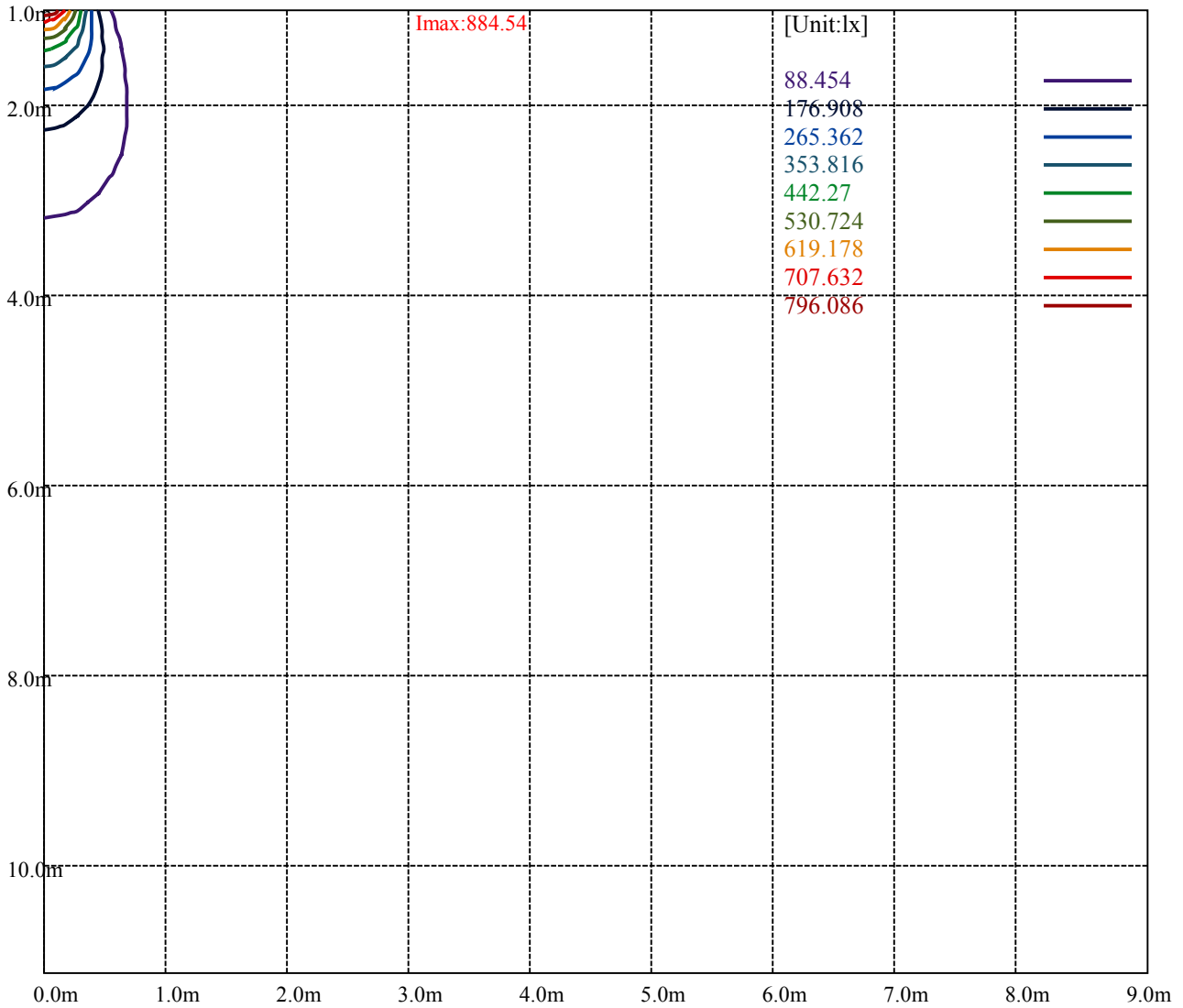
Imax:884.54

- (10%Imax) 88.454
- (20%Imax) 176.908
- (30%Imax) 265.362
- (40%Imax) 353.816
- (50%Imax) 442.27
- (60%Imax) 530.724
- (70%Imax) 619.178
- (80%Imax) 707.632
- (90%Imax) 796.086





- (10%Emax) 9.828222
- (20%Emax) 19.65644
- (30%Emax) 29.48467
- (40%Emax) 39.31289
- (50%Emax) 49.14111
- (60%Emax) 58.96933
- (70%Emax) 68.79755
- (80%Emax) 78.62578
- (90%Emax) 88.454



Luminance Table

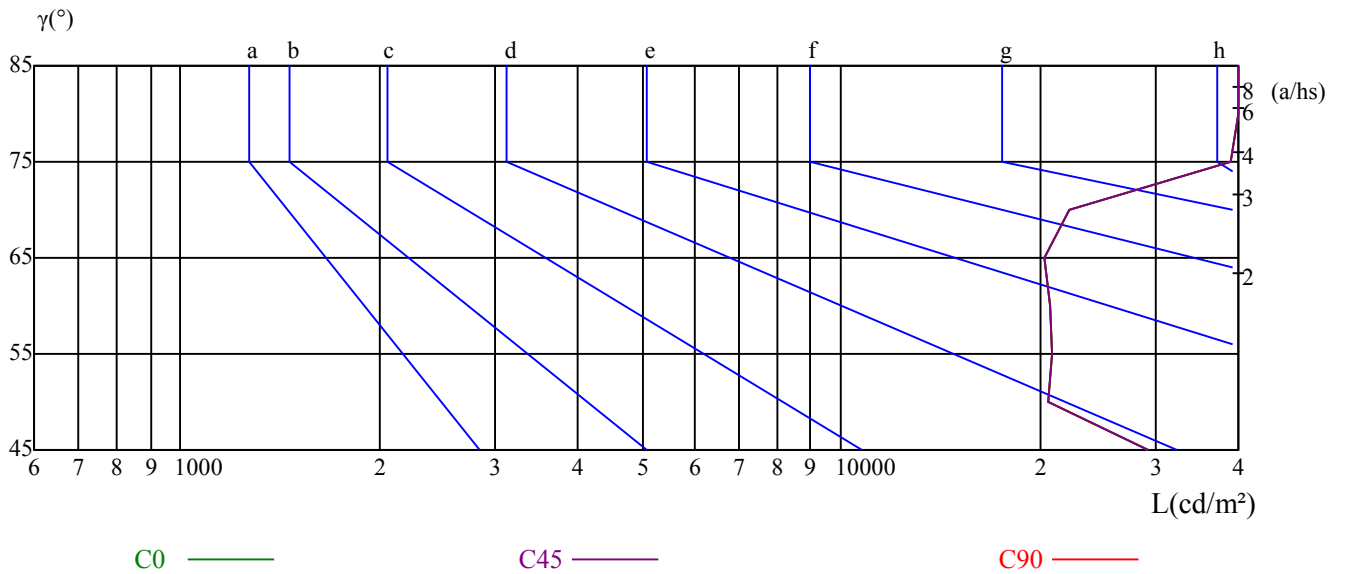
γ	45	50	55	60	65	70	75	80	85
C0	29106	20666	20866	20784	20392	22192	38854	86008	187312
C45	29106	20666	20866	20784	20392	22192	38854	86008	187312
C90	29106	20666	20866	20784	20392	22192	38854	86008	187312

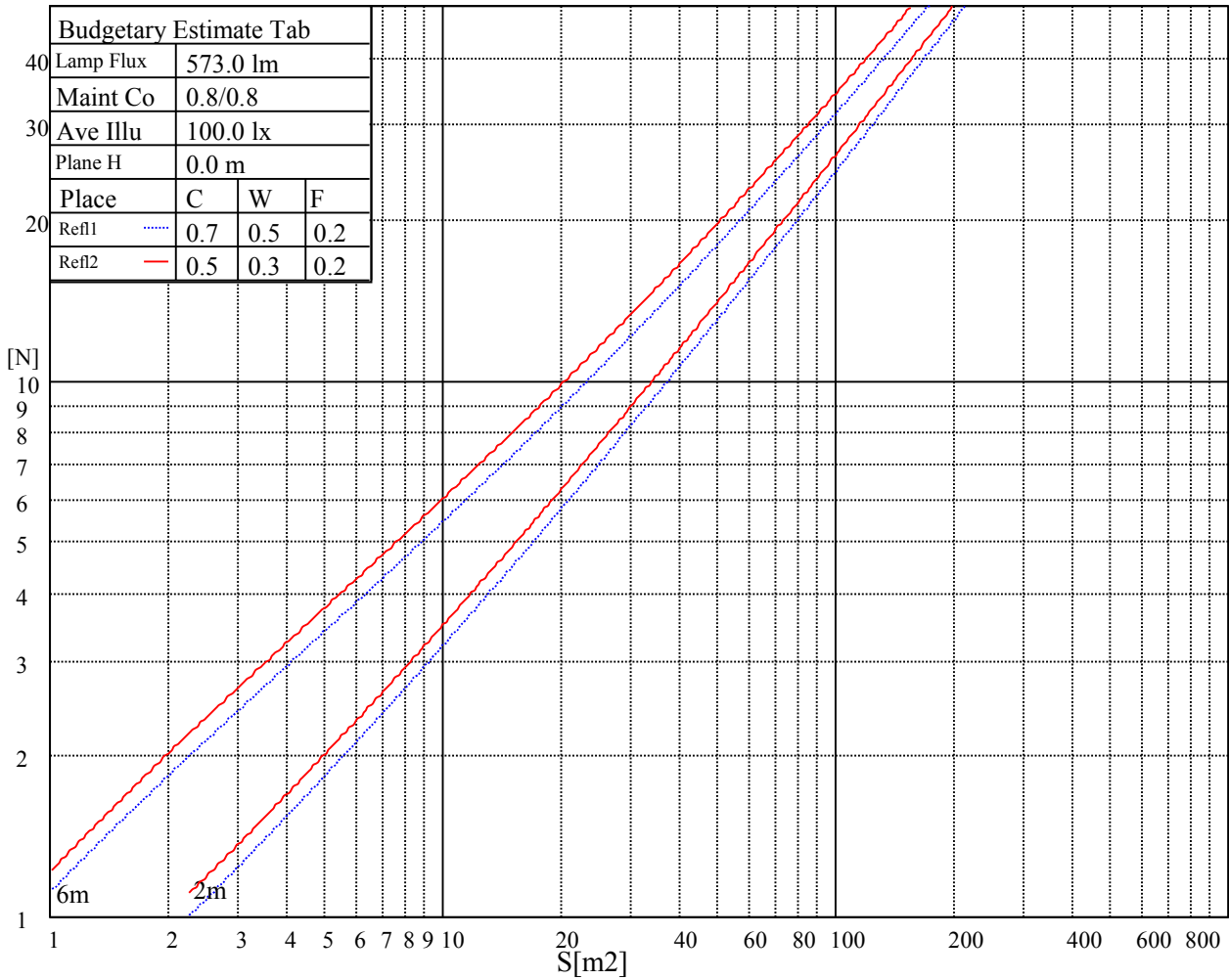
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
20392	20392	20392	38854	38854	38854	187312	187312	187312

Glare Table

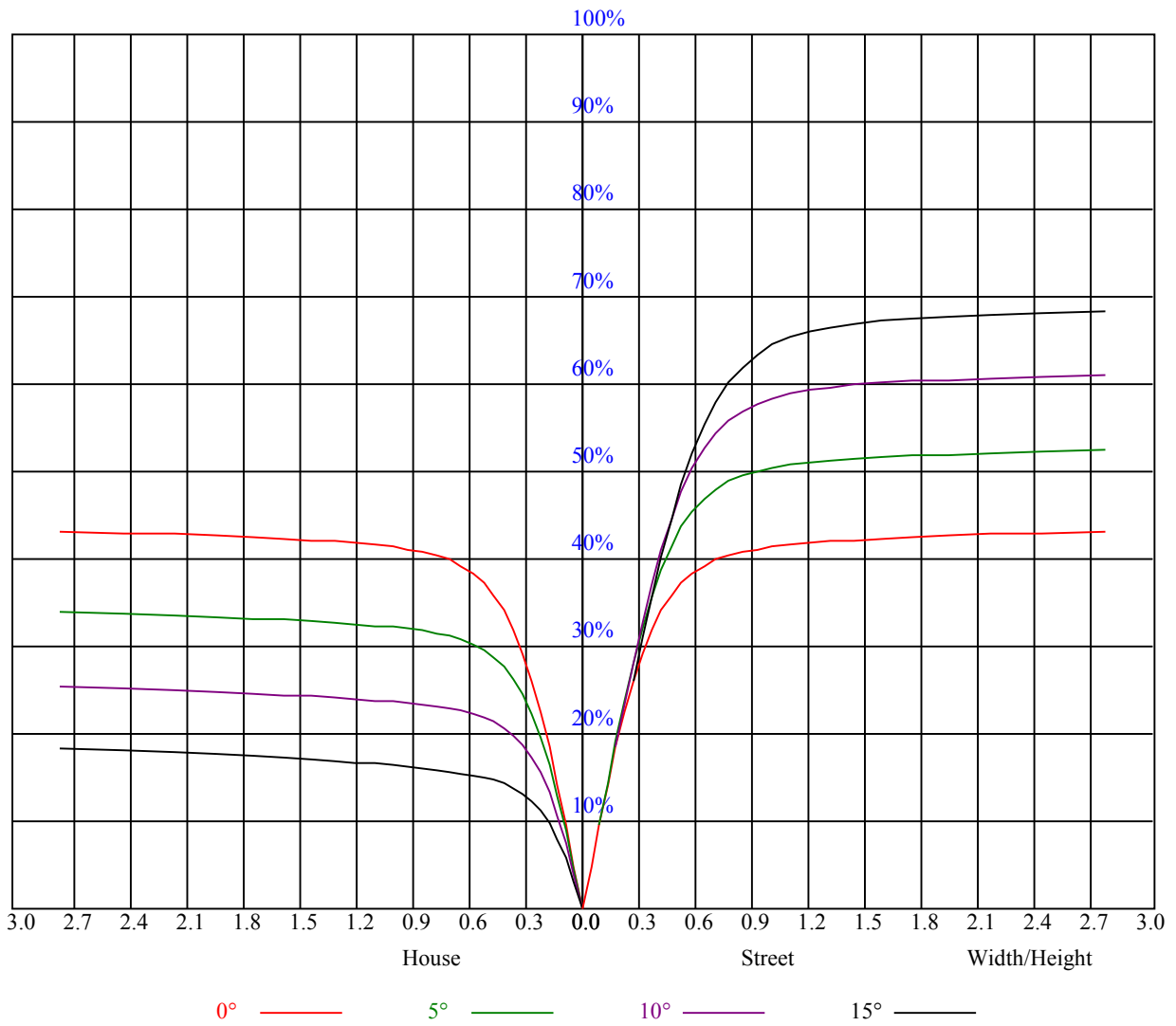
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

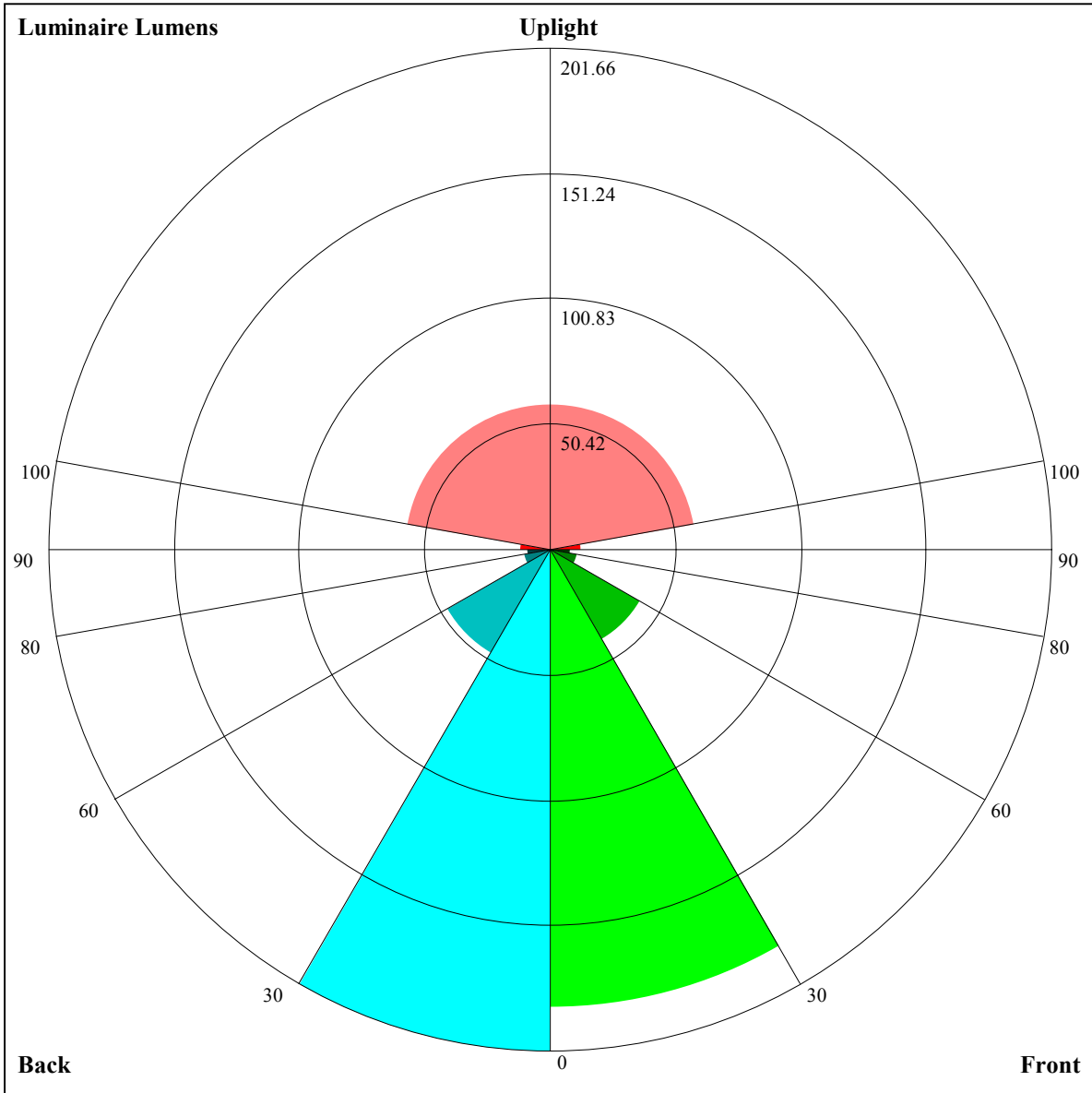
Luminance Limiting Curve





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	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	0.98	0.95	0.93	0.96	0.94	0.91	0.93	0.90	0.89	0.89	0.87	0.86	0.86	0.85	0.83	0.82
2	0.91	0.87	0.84	0.90	0.86	0.83	0.87	0.83	0.81	0.84	0.81	0.79	0.81	0.79	0.77	0.76
3	0.85	0.80	0.76	0.84	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.73	0.77	0.75	0.72	0.71
4	0.80	0.75	0.71	0.79	0.74	0.70	0.77	0.73	0.70	0.75	0.72	0.69	0.73	0.70	0.68	0.66
5	0.75	0.70	0.66	0.75	0.70	0.66	0.73	0.69	0.65	0.71	0.68	0.65	0.70	0.67	0.64	0.63
6	0.71	0.66	0.62	0.71	0.66	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.59
7	0.68	0.62	0.59	0.67	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.56
8	0.64	0.59	0.55	0.64	0.59	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.53
9	0.61	0.56	0.53	0.61	0.56	0.53	0.60	0.56	0.52	0.59	0.55	0.52	0.58	0.55	0.52	0.51
10	0.59	0.53	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.57	0.53	0.50	0.56	0.52	0.50	0.49





Luminaire Lumens:

FL=184.5,FM=41.51,FH=11.17,FVH=8.05

BL=201.66,BM=48.05,BH=10.8,BVH=9.38

UL=12.36,UH=58.82

BUG Rating:B1-U2-G0

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	879.71	831.08	731.83	562.50	370.99	209.74	115.22	61.99	33.97
45.0	885.47	871.92	800.09	677.91	518.09	303.52	183.57	99.02	52.67
90.0	889.37	869.51	786.91	658.56	459.35	280.09	158.47	79.16	41.95
135.0	883.61	884.22	826.12	732.99	555.40	380.18	222.83	114.48	59.95
180.0	879.71	877.95	822.64	716.47	559.72	355.22	207.89	108.03	56.33
225.0	885.47	844.96	738.97	586.91	411.92	224.87	134.29	74.34	35.59
270.0	889.37	864.08	784.40	640.83	459.21	285.19	154.89	87.89	50.35
315.0	883.61	828.58	724.91	551.36	364.03	226.12	125.10	65.89	32.39
360.0	879.71	831.08	731.83	562.50	370.99	209.74	115.22	61.99	33.97
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	16.43	13.32	12.67	10.07	8.40	8.26	14.94	17.08	13.22
45.0	24.18	13.97	12.39	11.00	9.33	7.61	8.40	13.18	15.13
90.0	22.00	13.69	12.71	11.97	9.65	8.31	9.84	14.52	17.26
135.0	30.02	16.24	12.39	12.20	10.72	8.77	7.80	12.48	22.51
180.0	29.65	14.43	12.81	12.58	10.30	8.45	7.70	14.29	21.35
225.0	18.61	14.62	13.55	10.58	8.77	7.61	12.02	18.47	16.84
270.0	22.60	15.96	14.85	11.79	9.47	8.35	12.81	20.46	20.05
315.0	15.82	13.50	12.90	10.35	8.45	8.77	14.11	19.63	15.87
360.0	16.43	13.32	12.67	10.07	8.40	8.26	14.94	17.08	13.22
C/γ(°)	90.0								
0.0	4.87								
45.0	8.54								
90.0	13.55								
135.0	17.03								
180.0	15.78								
225.0	10.49								
270.0	10.77								
315.0	9.61								
360.0	4.87								