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NT

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Client:

LumCAT: 1547-E

Luminaire: 92.70.046.00

Report No: nata-0100

Test No:

LampCAT: CREE CXA1512

Lamp flux(lm): 894.7

Number of Lamps: 1

Length(mm): 21

Phm Type: C

Voltage(V): 36.9000

Current(A): 0.2500

Power (W): 9.2250

PF: 0.0000

Ballast type:

Width(mm): 21

Height(mm): 0

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Photometric Results

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Lumens(lm): 788.32, Efficiency(%): 88.11% , Luminous Efficacy(lm/W): 85.46

Central intensity(cd): 713.620, Maximum intensity(cd): 713.620

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=66.0

[C90/270]Total=66.0

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

[C90/270]Total=97.8

Maximum s/h(1/2): C0\_180=0.95 C90\_270=0.95

Maximum s/h(1/4): C0\_180=0.98 C90\_270=0.98

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 88.51%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 98.349%

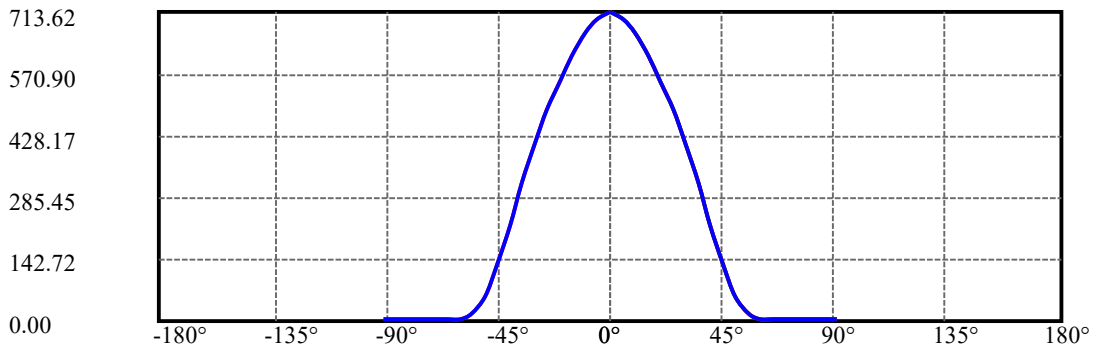
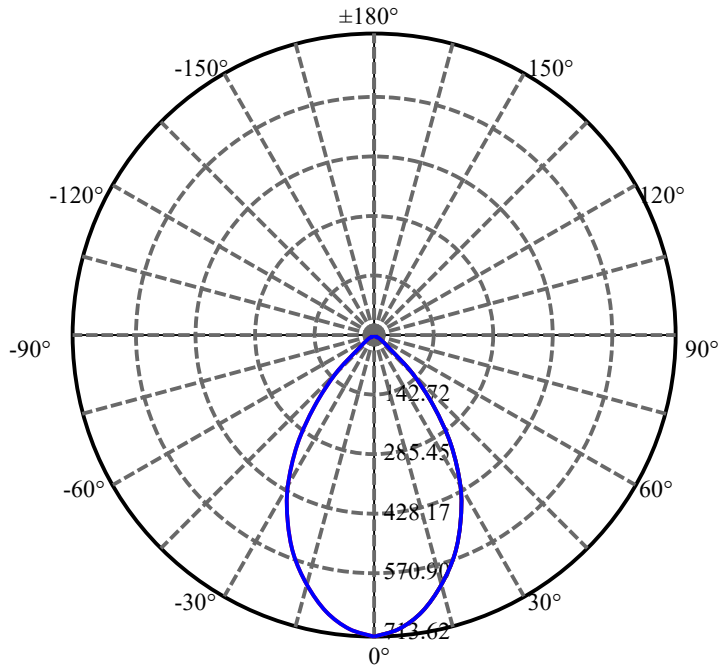
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	713.620	4.268	4.268	.477%	.541%
5.0	697.344	33.314	37.582	3.724%	4.767%
10.0	665.009	63.298	100.88	7.075%	12.797%
15.0	613.696	87.064	187.944	9.731%	23.841%
20.0	552.601	103.598	291.542	11.580%	36.983%
25.0	486.822	112.774	404.316	12.605%	51.288%
30.0	413.570	113.347	517.663	12.669%	65.666%
35.0	319.011	100.296	617.959	11.210%	78.389%
40.0	221.774	78.139	696.098	8.734%	88.301%
45.0	127.531	49.430	745.528	5.525%	94.571%
50.0	55.662	23.372	768.9	2.612%	97.536%
55.0	16.765	7.527	776.428	.841%	98.491%
60.0	4.924	2.337	778.765	.261%	98.788%
65.0	3.606	1.791	780.557	.200%	99.015%
70.0	3.434	1.769	782.326	.198%	99.239%
75.0	3.334	1.765	784.091	.197%	99.463%
80.0	3.362	1.815	785.906	.203%	99.693%
85.0	3.107	1.697	787.603	.190%	99.909%
90.0	2.629	0.721	788.323	.081%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	517.66	57.86%	65.67%
0-40	696.10	77.81%	88.30%
0-60	778.77	87.04%	98.79%
0-90	787.60	88.03%	99.91%
0-120	787.60	88.03%	99.91%
0-180	788.32	88.11%	100.00%
60-90	11.17	1.25%	1.42%
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%
0-35.81	630.66	70.49%	80.00%

ZONAL LUMEN SUMMARY

0-10	100.88
10-20	190.66
20-30	226.12
30-40	178.44
40-50	72.80
50-60	9.86
60-70	3.56
70-80	3.58
80-90	1.70
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: ———

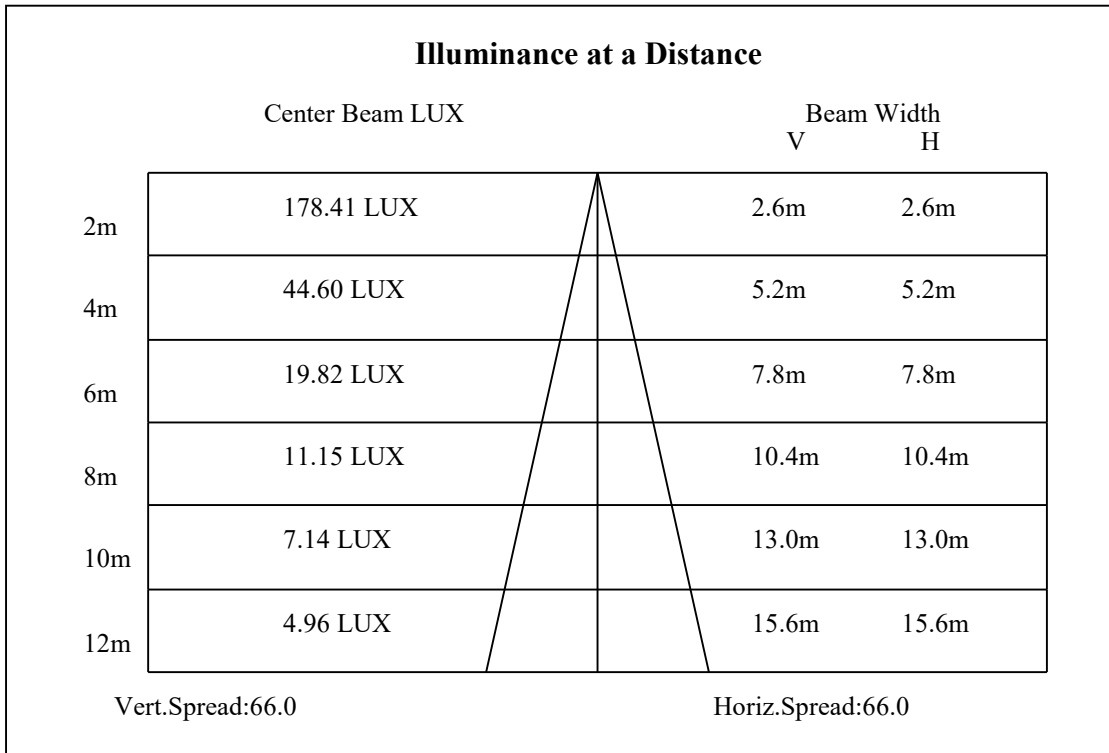
C90/C270: ———

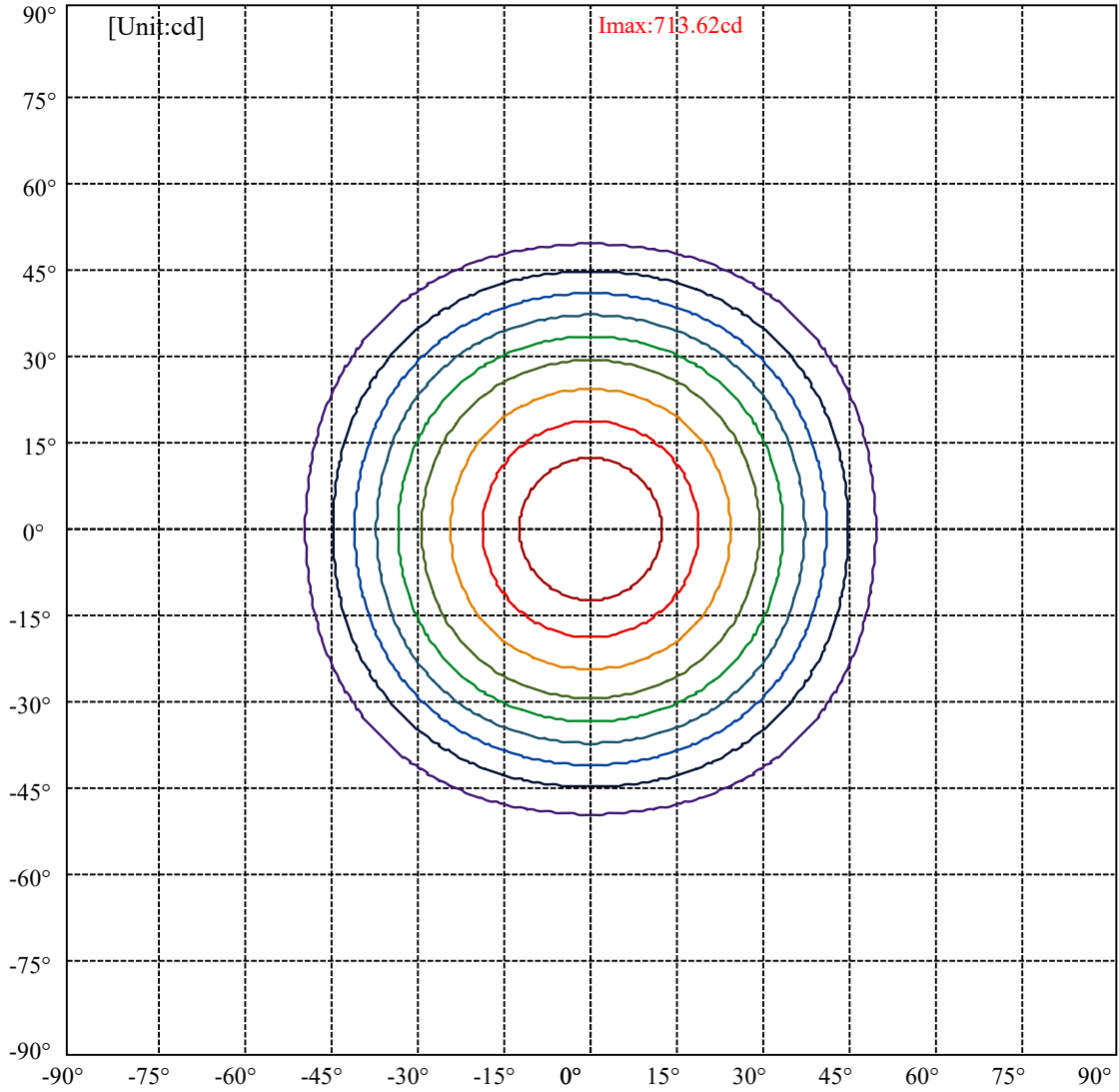
Field angle(10%Imax):C0/180Left:48.9 Right:48.9

:C90/270Left:48.9 Right:48.9

Beam Angle(50%Imax):C0/180Left:33.0 Right:33.0

:C90/270Left:33.0 Right:33.0



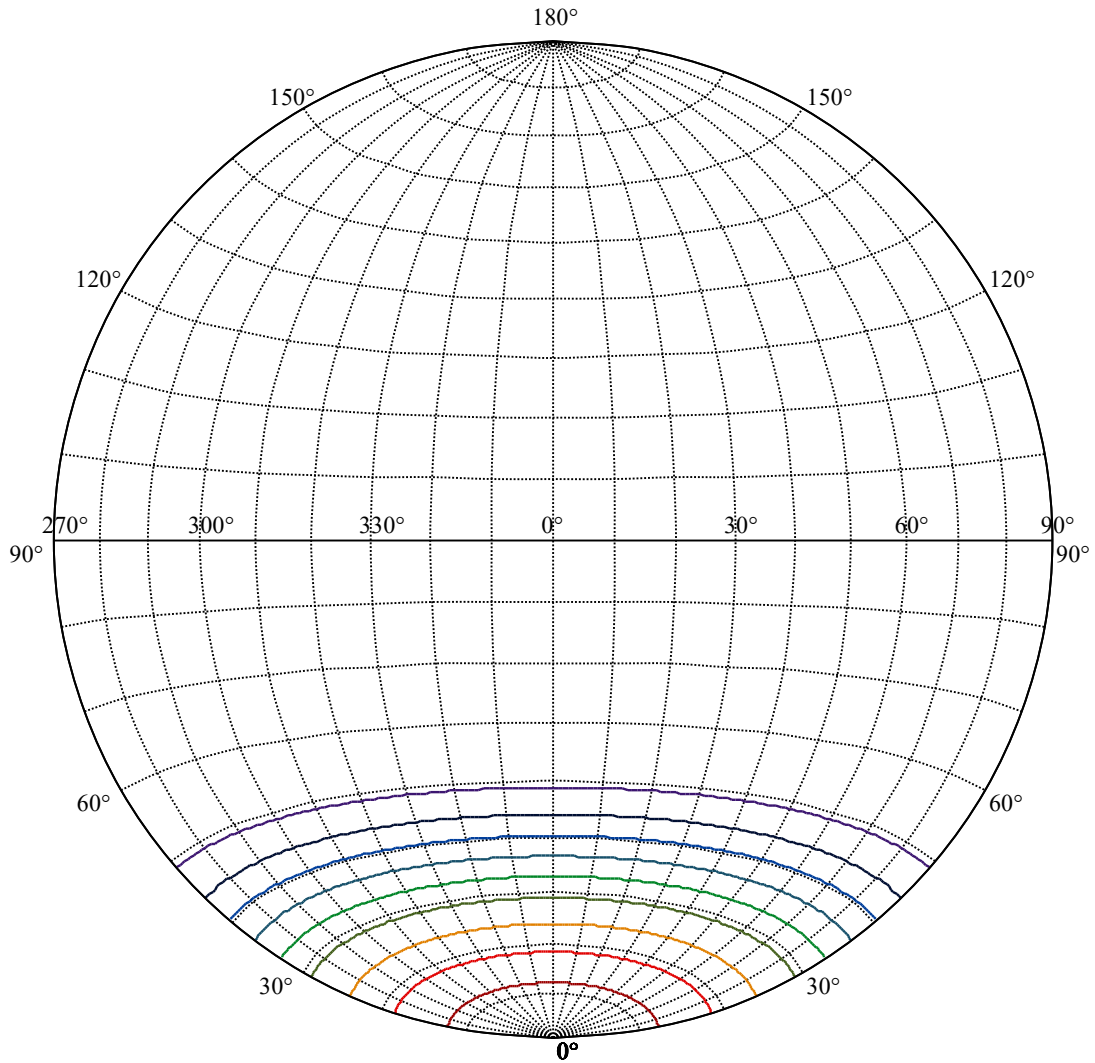


(10%Imax) 71.362	—
(20%Imax) 142.724	—
(30%Imax) 214.086	—
(40%Imax) 285.448	—
(50%Imax) 356.81	—
(60%Imax) 428.172	—
(70%Imax) 499.534	—
(80%Imax) 570.896	—
(90%Imax) 642.258	—

Equipment: gms1980  
Temperature(°C): 25.0

Date: 2016/8/26  
Humidity(%): 60.0%

Operator: NT03  
Distance(m): 7.42



House

[Unit:cd]

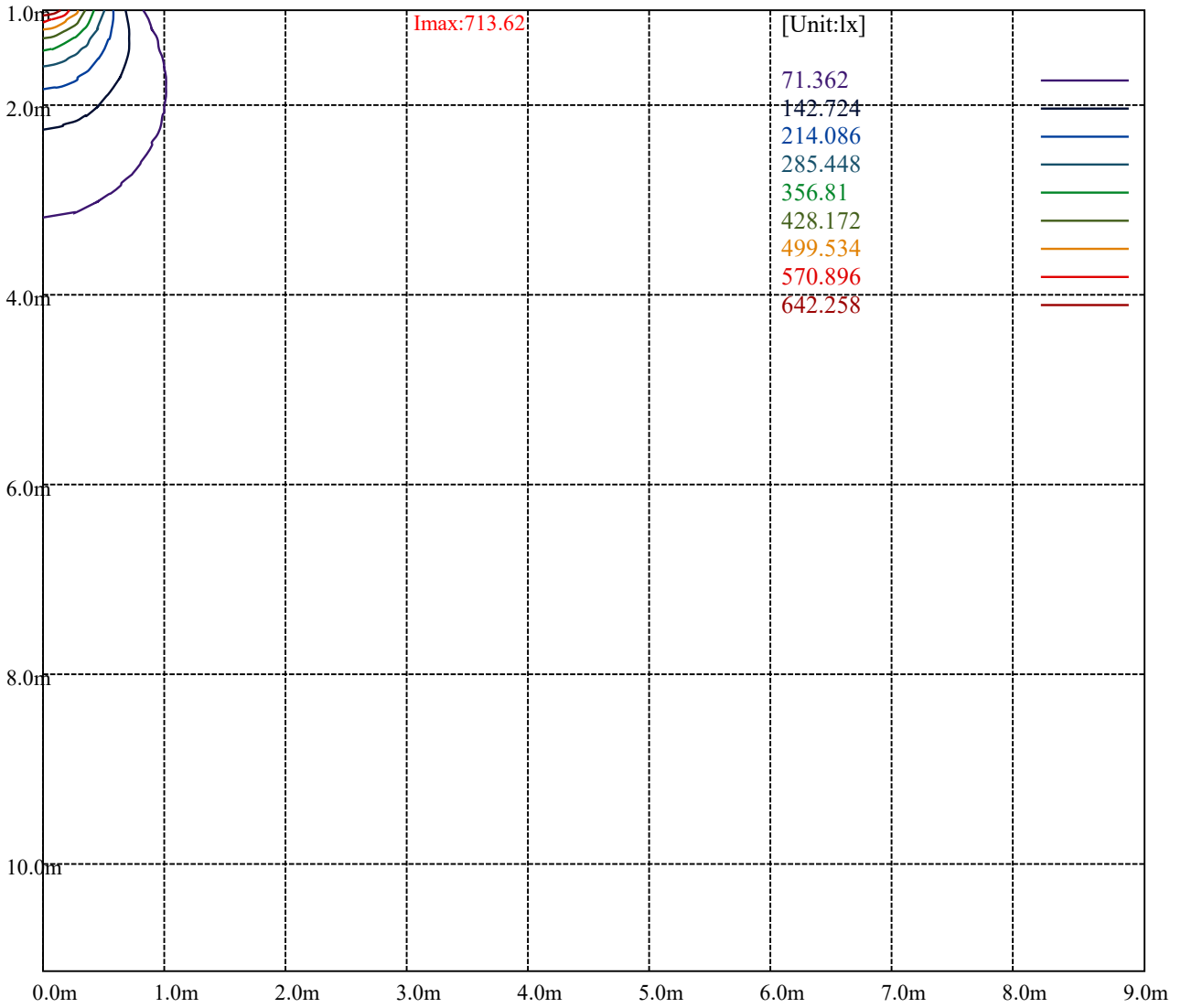
Road

**Imax:713.62**

- (10%Imax) 71.362
- (20%Imax) 142.724
- (30%Imax) 214.086
- (40%Imax) 285.448
- (50%Imax) 356.81
- (60%Imax) 428.172
- (70%Imax) 499.534
- (80%Imax) 570.896
- (90%Imax) 642.258







Luminance Table

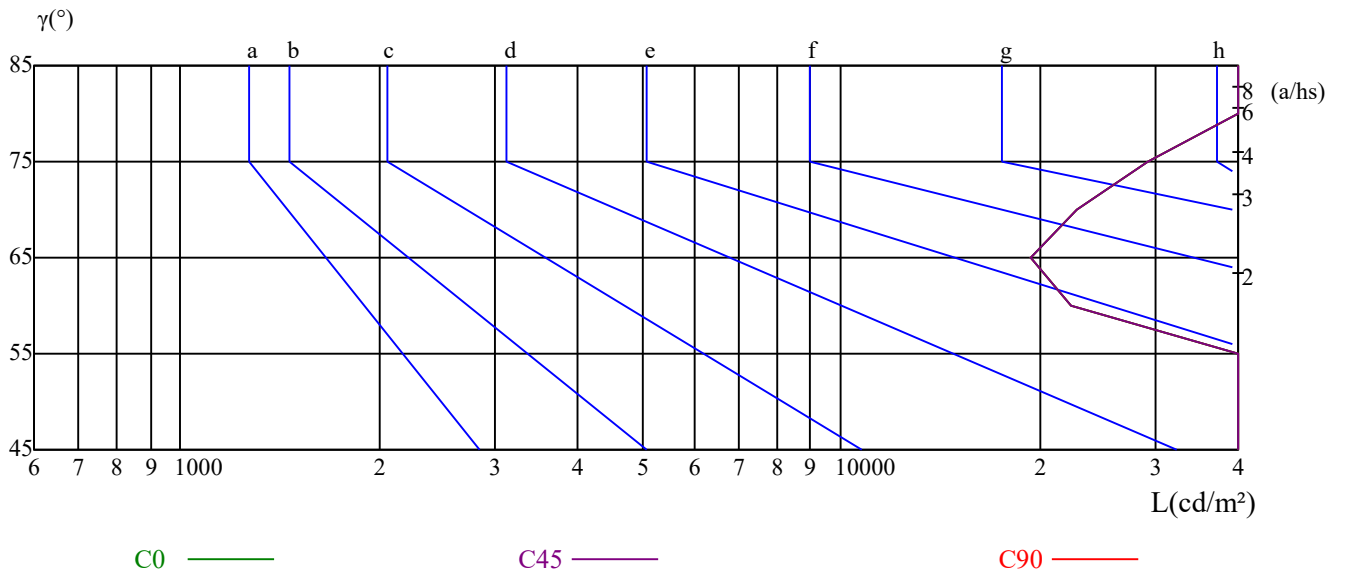
$\gamma$	45	50	55	60	65	70	75	80	85
C0	408972	196360	66277	22332	19349	22768	29213	43901	80843
C45	408972	196360	66277	22332	19349	22768	29213	43901	80843
C90	408972	196360	66277	22332	19349	22768	29213	43901	80843

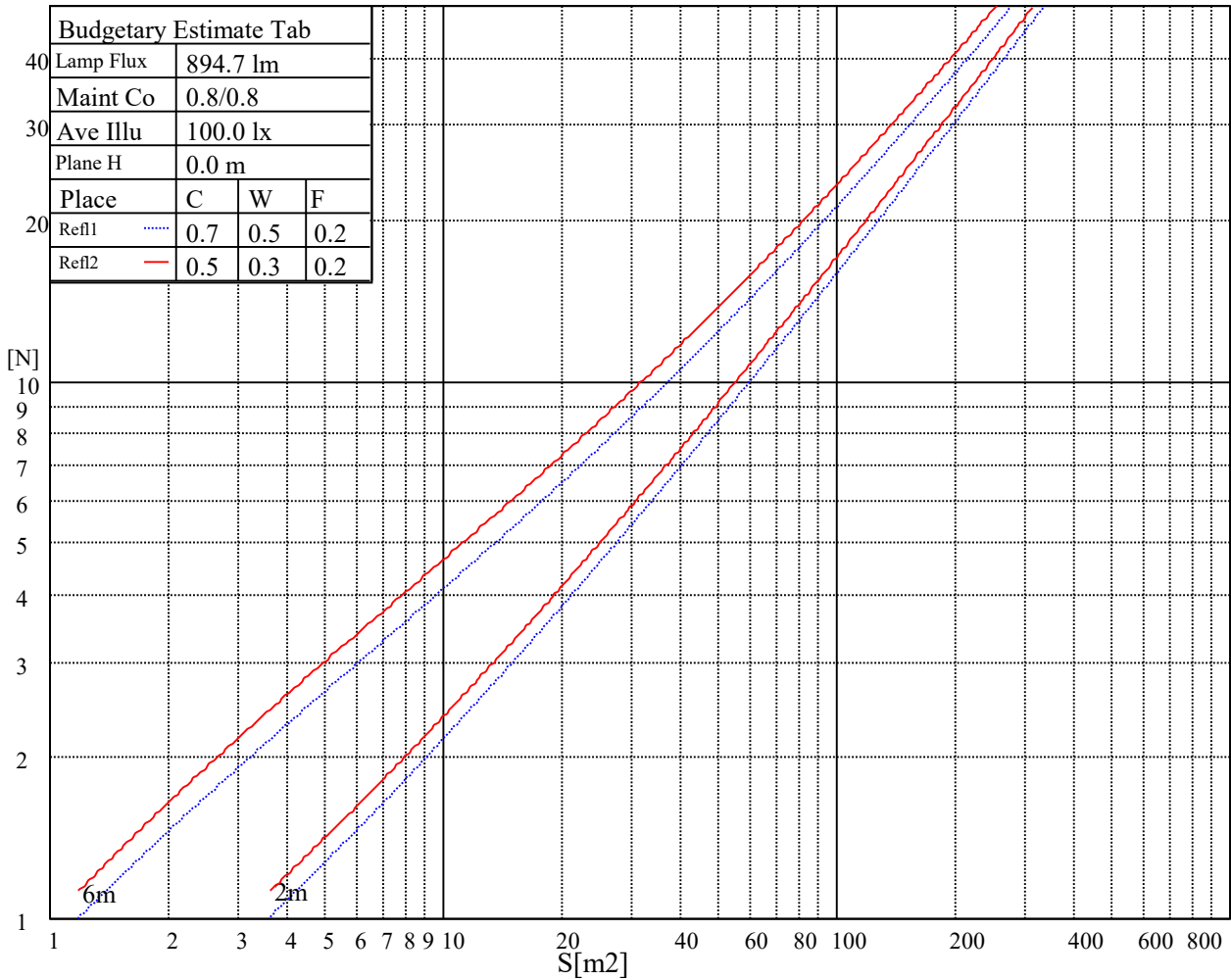
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
19349	19349	19349	29213	29213	29213	80843	80843	80843

Glare Table

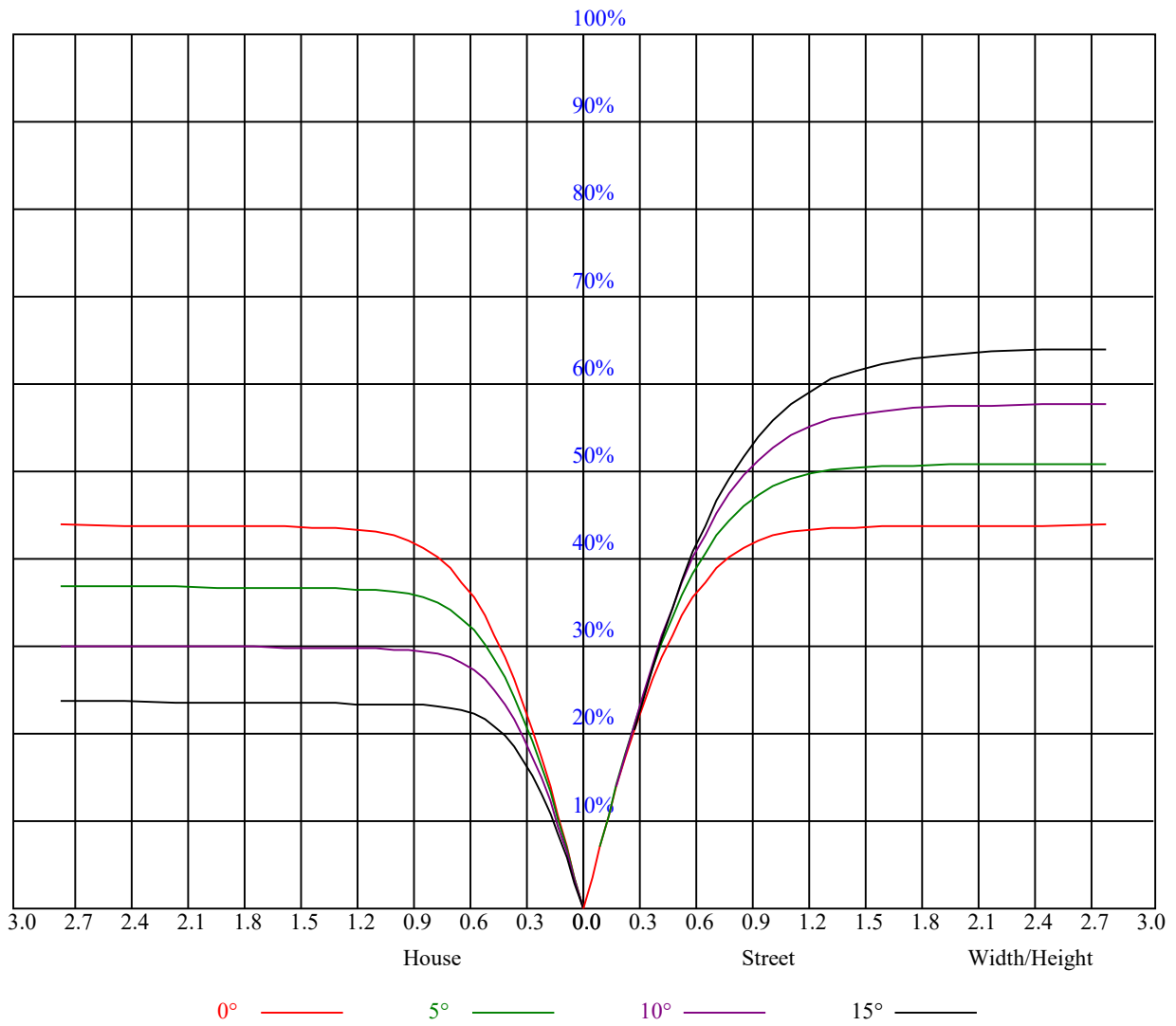
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

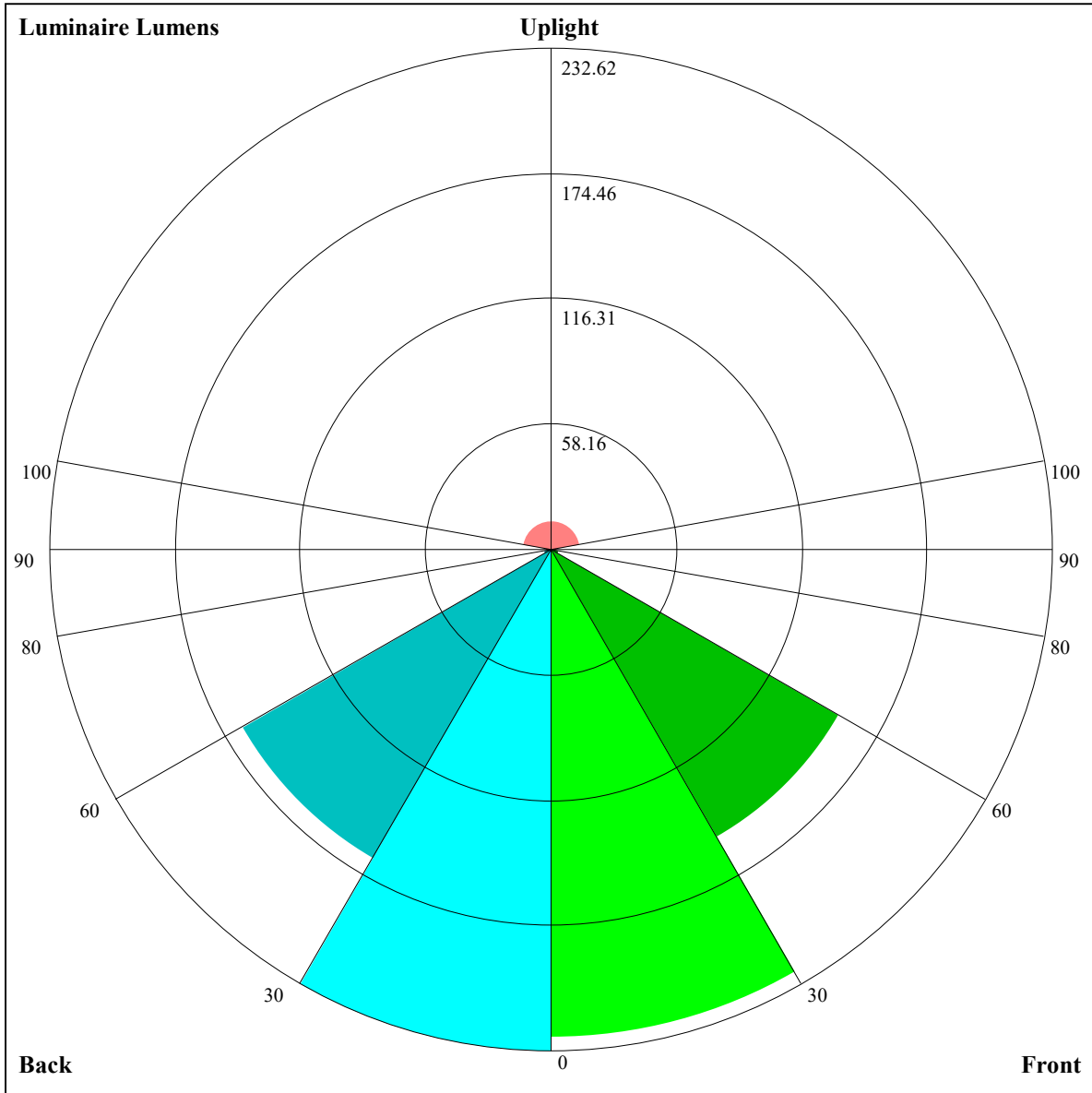
Luminance Limiting Curve





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	1.05	1.05	1.05	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.89
1	0.97	0.95	0.92	0.95	0.93	0.91	0.92	0.90	0.88	0.88	0.87	0.86	0.85	0.84	0.83	0.81
2	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.80	0.83	0.81	0.79	0.80	0.79	0.77	0.75
3	0.84	0.79	0.75	0.82	0.78	0.75	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.71	0.70
4	0.78	0.73	0.69	0.77	0.72	0.68	0.75	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.66	0.65
5	0.73	0.67	0.63	0.72	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.67	0.64	0.61	0.60
6	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.56
7	0.64	0.58	0.55	0.63	0.58	0.54	0.62	0.58	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.52
8	0.60	0.55	0.51	0.60	0.54	0.51	0.59	0.54	0.51	0.58	0.54	0.50	0.57	0.53	0.50	0.49
9	0.57	0.51	0.48	0.56	0.51	0.48	0.55	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.46
10	0.54	0.48	0.45	0.53	0.48	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.51	0.47	0.44	0.43





Luminaire Lumens:

FL=226.54,FM=153.97,FH=3.65,FVH=1.63

BL=232.62,BM=165.55,BH=3.82,BVH=1.69

UL=2.87,UH=13.65

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	705.44	688.15	655.67	604.74	544.40	478.11	406.21	319.11	215.55	
22.5	722.40	697.78	660.02	601.44	537.68	472.66	396.68	300.72	203.32	
45.0	718.38	688.76	641.57	580.73	518.91	452.18	366.57	275.28	180.25	
67.5	717.72	690.35	649.23	590.92	523.48	462.64	387.60	286.46	197.16	
90.0	714.96	684.68	641.08	579.96	515.44	450.47	376.20	275.94	180.03	
112.5	712.26	690.35	652.36	597.42	532.40	470.40	401.80	301.60	205.75	
135.0	709.68	687.76	649.39	596.37	533.99	472.38	395.36	295.32	203.21	
157.5	708.14	695.09	664.37	619.11	559.59	494.08	422.34	330.39	230.96	
180.0	705.44	692.44	665.08	619.77	558.99	491.60	418.15	325.38	226.61	
202.5	722.40	713.92	688.48	636.62	580.24	512.19	438.47	345.97	243.95	
225.0	718.38	716.45	694.37	650.22	598.02	528.16	456.64	365.19	269.56	
247.5	717.72	710.56	686.17	638.65	580.57	511.42	442.10	348.18	249.74	
270.0	714.96	711.00	687.65	644.55	586.02	519.90	449.98	359.02	260.47	
292.5	712.26	700.15	674.55	624.50	563.06	498.37	426.25	329.51	232.28	
315.0	709.68	701.03	672.13	629.74	565.81	498.76	430.76	337.50	239.17	
337.5	708.14	689.03	658.03	604.41	543.02	475.85	402.02	308.59	210.37	
360.0	705.44	688.15	655.67	604.74	544.40	478.11	406.21	319.11	215.55	
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	
0.0	121.67	49.61	16.02	3.85	3.41	3.25	3.08	3.08	2.86	
22.5	109.89	48.45	14.09	3.85	3.58	3.41	3.36	3.69	2.97	
45.0	91.78	33.47	12.11	3.74	3.58	3.47	3.69	4.02	3.25	
67.5	105.16	41.07	15.53	3.85	3.63	3.52	3.52	4.13	3.30	
90.0	96.02	35.95	14.65	3.80	3.63	3.52	3.41	3.80	3.08	
112.5	121.12	46.91	15.25	3.96	3.63	3.52	3.36	3.25	2.97	
135.0	109.73	42.17	14.20	3.91	3.63	3.58	3.52	3.14	2.81	
157.5	132.03	63.92	15.91	4.24	3.74	3.63	3.58	3.58	3.80	
180.0	128.34	56.43	14.15	4.02	3.69	3.52	3.47	3.41	3.47	
202.5	142.16	62.38	16.79	4.51	3.80	3.58	3.41	3.36	3.36	
225.0	167.70	80.88	24.45	8.37	3.80	3.58	3.36	3.30	3.41	
247.5	147.99	71.52	19.77	5.29	3.63	3.41	3.25	3.19	3.08	
270.0	165.72	81.10	23.62	10.24	3.63	3.36	3.19	3.08	2.97	
292.5	141.55	62.38	16.68	4.79	3.47	3.19	3.03	2.92	2.81	
315.0	142.82	67.94	19.43	6.61	3.47	3.19	3.08	2.92	2.75	
337.5	116.83	46.41	15.58	3.74	3.36	3.19	3.03	2.92	2.81	
360.0	121.67	49.61	16.02	3.85	3.41	3.25	3.08	3.08	2.86	
C/γ(°)	90.0									
0.0	2.59									
22.5	2.70									
45.0	2.64									
67.5	2.64									
90.0	2.64									
112.5	2.64									
135.0	2.59									
157.5	2.59									
180.0	2.59									
202.5	2.70									
225.0	2.64									
247.5	2.64									
270.0	2.64									
292.5	2.64									
315.0	2.59									
337.5	2.59									
360.0	2.59									