
Nata

Client:

LumCAT: 3-2040-M

Luminaire: 92.70.131.00

Report No: nata-0100

Test No:

LampCAT: CREE CMT1922

Lamp flux(lm): 2545.4

Number of Lamps: 1

Length(mm): 79

Phm Type: C

Voltage(V): 35.0000

Current(A): 0.6000

Power (W): 21.0000

PF: 0.0000

Ballast type: DC

Width(mm): 79

Height(mm): 0

Photometric Results

Lumens(lm): 2392.22, Efficiency(%): 93.98% , Luminous Efficacy(lm/W): 113.92

Central intensity(cd): 10934.340, Maximum intensity(cd): 10934.340

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=20.8

[C90/270]Total=20.8

Field angle(10%Imax): [C0/180]Total=47.0

[C90/270]Total=47.0

Maximum s/h(1/2): C0_180=0.35 C90_270=0.35

Maximum s/h(1/4): C0_180=0.37 C90_270=0.37

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 96.46%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.257%

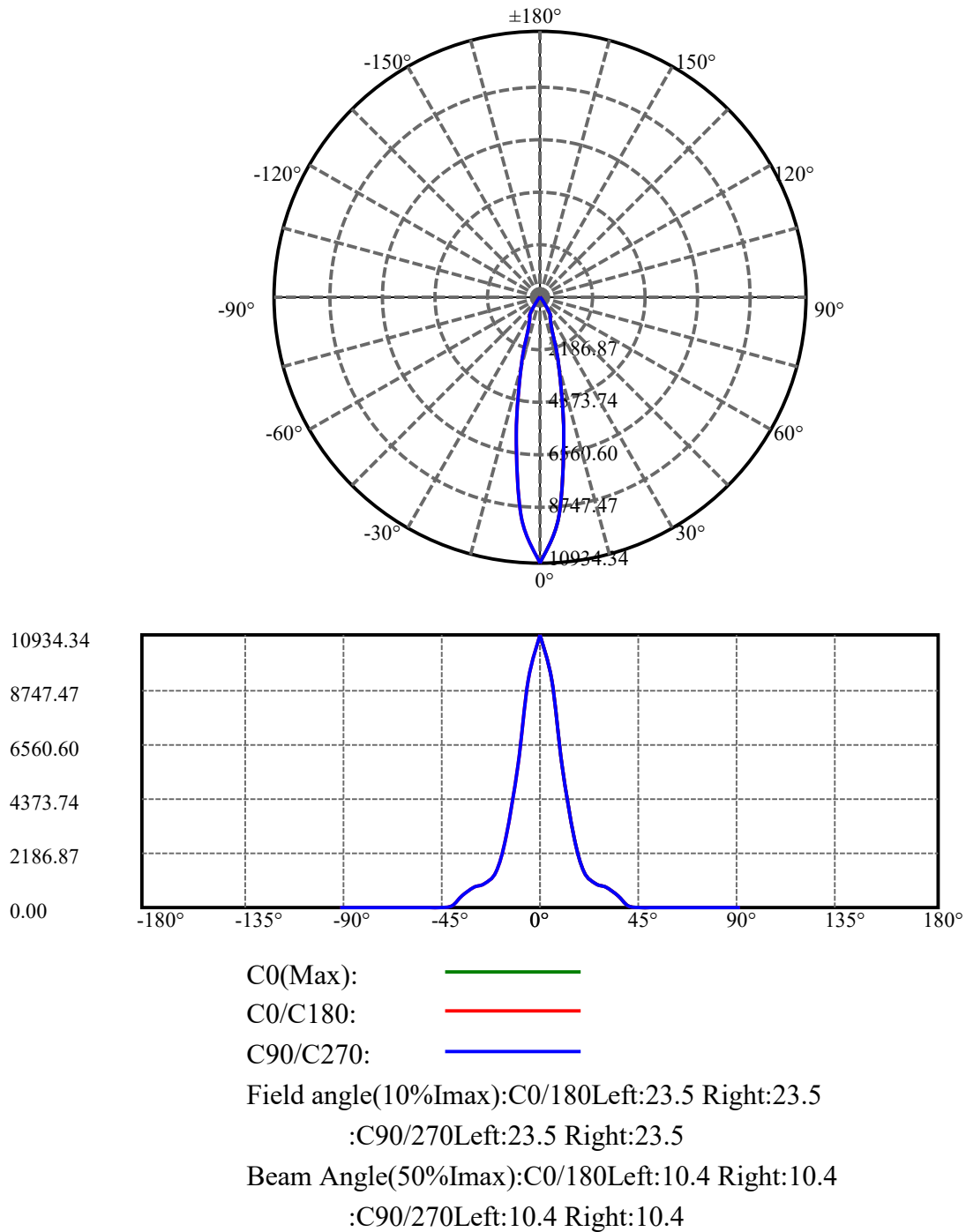
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10934.339	65.390	65.39	2.569%	2.733%
5.0	9094.285	434.464	499.854	17.069%	20.895%
10.0	5722.218	544.658	1044.512	21.398%	43.663%
15.0	2862.795	406.140	1450.652	15.956%	60.640%
20.0	1438.486	269.679	1720.331	10.595%	71.913%
25.0	945.841	219.107	1939.438	8.608%	81.073%
30.0	811.580	222.429	2161.866	8.739%	90.371%
35.0	483.953	152.154	2314.02	5.978%	96.731%
40.0	84.319	29.709	2343.729	1.167%	97.973%
45.0	13.626	5.282	2349.01	.207%	98.194%
50.0	11.321	4.754	2353.764	.187%	98.392%
55.0	10.647	4.780	2358.544	.188%	98.592%
60.0	10.296	4.887	2363.432	.192%	98.796%
65.0	10.103	5.019	2368.451	.197%	99.006%
70.0	9.993	5.147	2373.598	.202%	99.221%
75.0	9.896	5.240	2378.837	.206%	99.440%
80.0	9.862	5.324	2384.161	.209%	99.663%
85.0	9.834	5.370	2389.531	.211%	99.887%
90.0	9.821	2.692	2392.223	.106%	100.000%

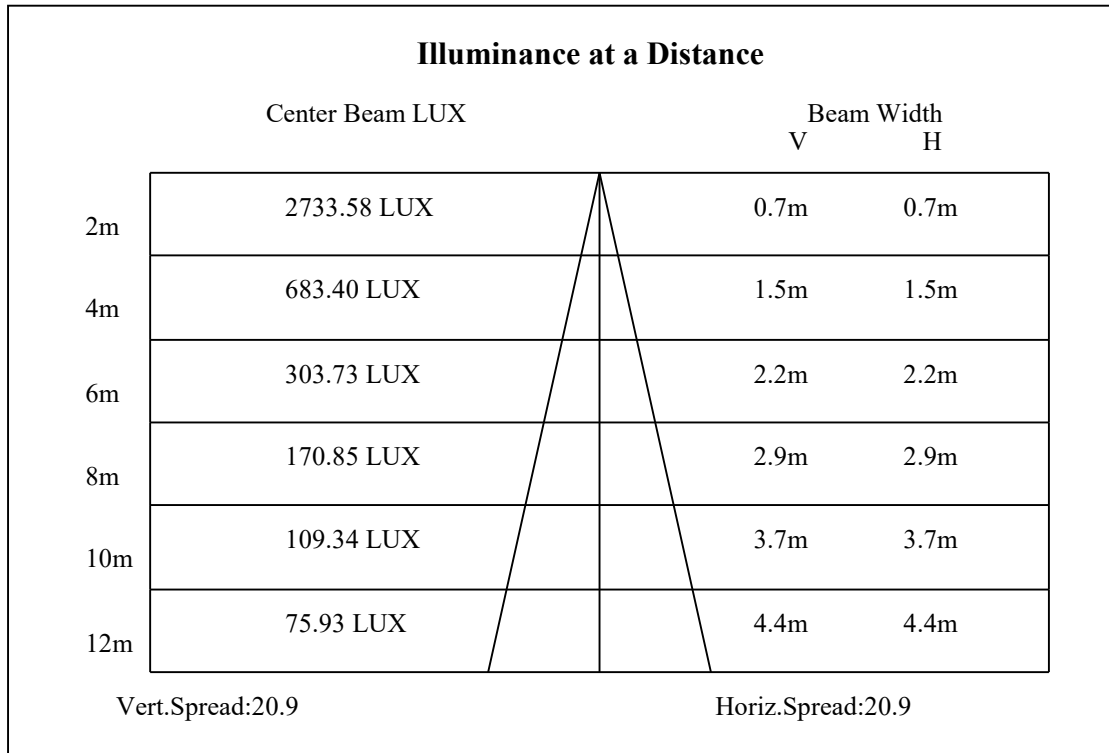
ZONAL LUMEN SUMMARY

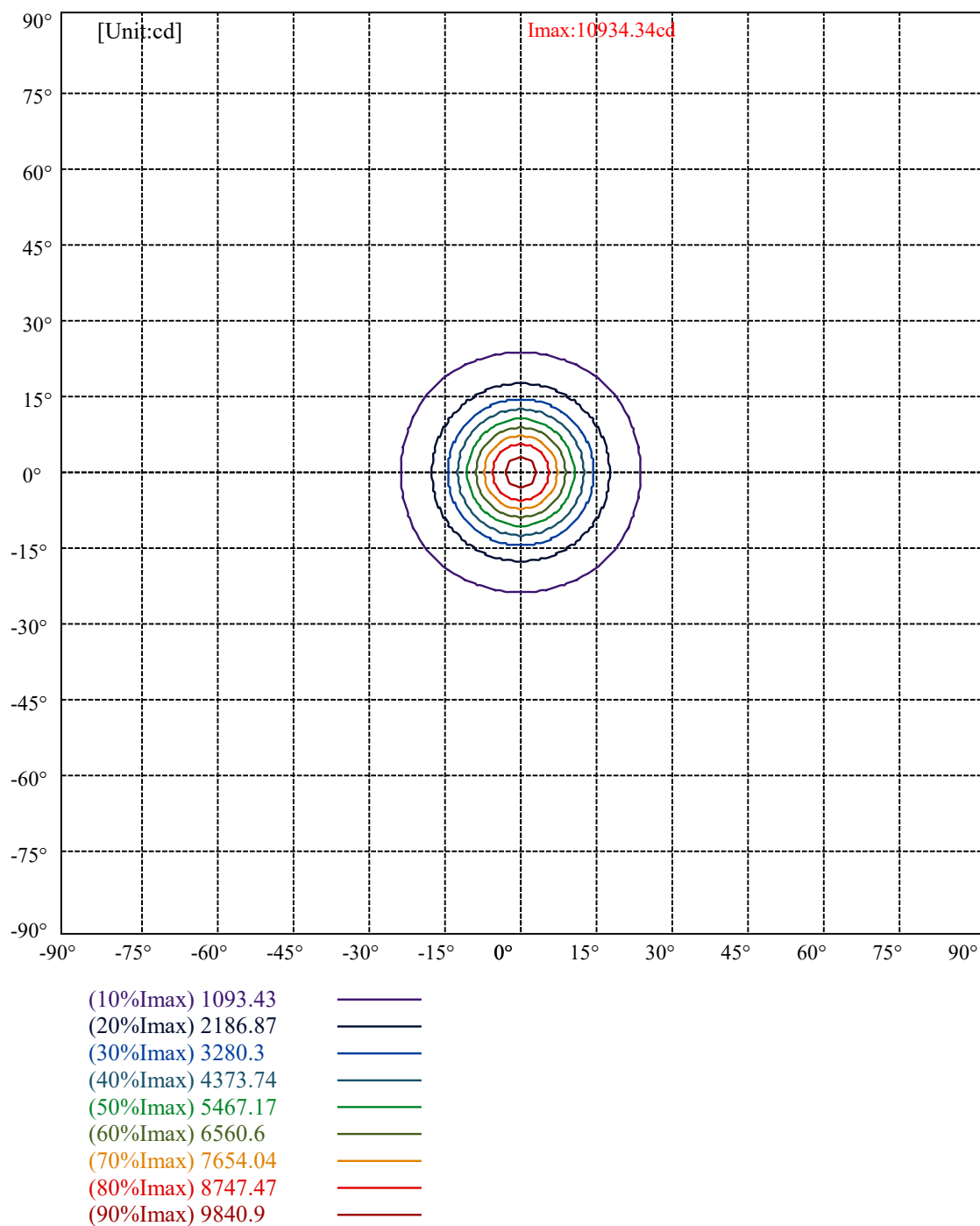
Zone	Lumens	%Lamp	%Fixt
0-30	2161.87	84.93%	90.37%
0-40	2343.73	92.08%	97.97%
0-60	2363.43	92.85%	98.80%
0-90	2389.53	93.88%	99.89%
0-120	2389.53	93.88%	99.89%
0-180	2392.22	93.98%	100.00%
60-90	30.99	1.22%	1.30%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-24.41	1913.78	75.19%	80.00%

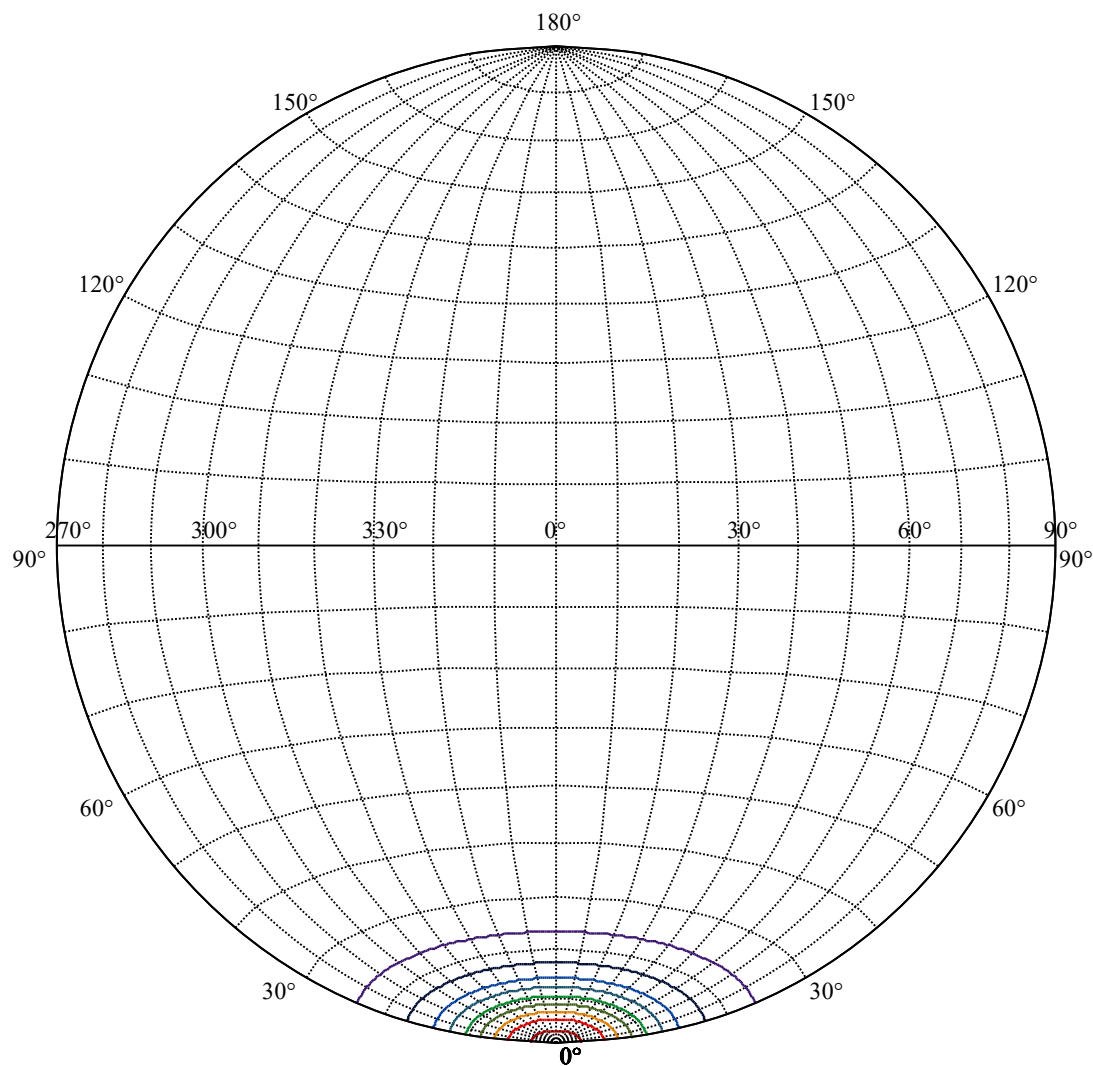
ZONAL LUMEN SUMMARY

0-10	1044.51
10-20	675.82
20-30	441.54
30-40	181.86
40-50	10.04
50-60	9.67
60-70	10.17
70-80	10.56
80-90	5.37
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







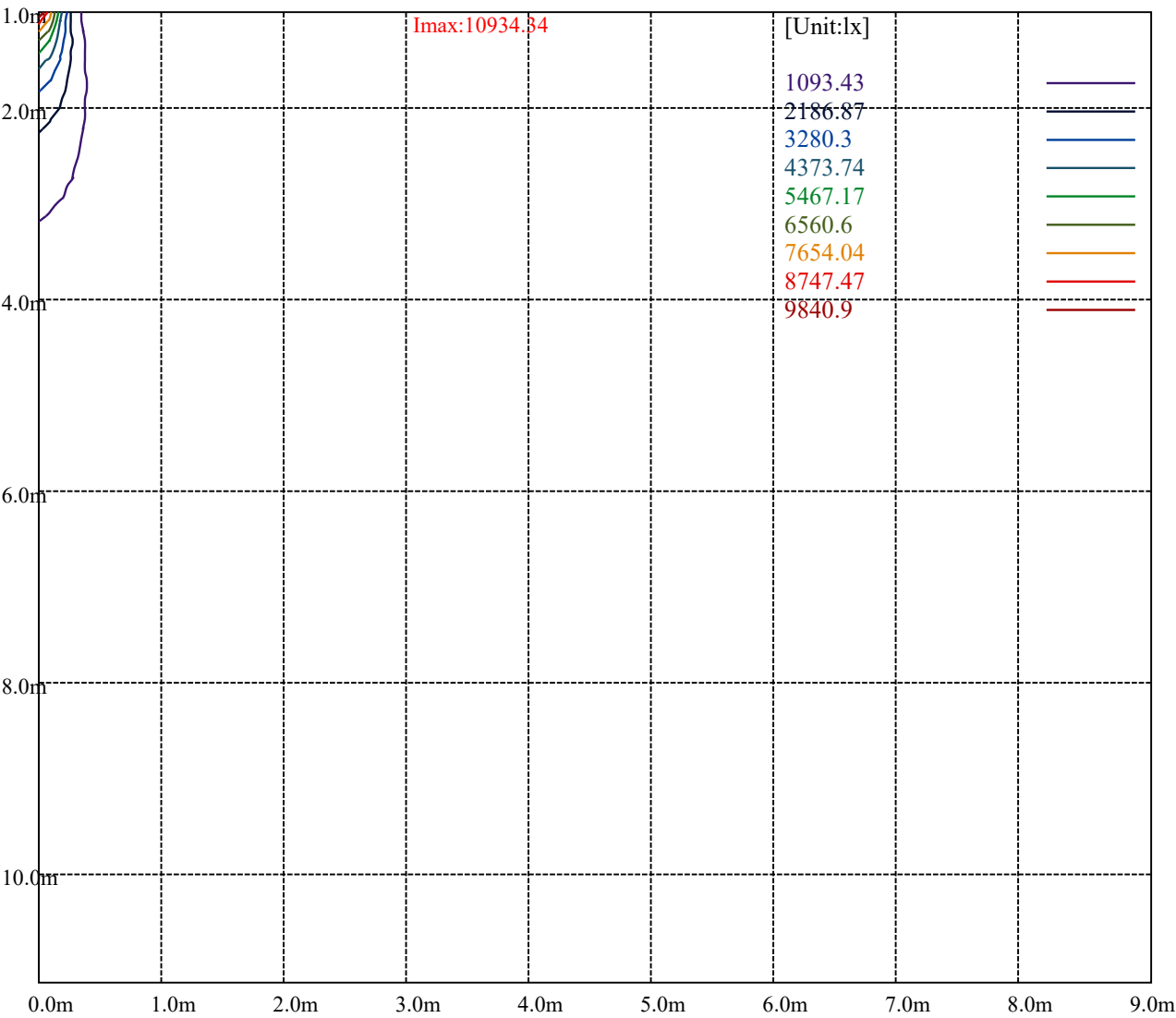


House

[Unit:cd]

Road

Imax:10934.34	
(10%Imax)	1093.43
(20%Imax)	2186.87
(30%Imax)	3280.3
(40%Imax)	4373.74
(50%Imax)	5467.17
(60%Imax)	6560.6
(70%Imax)	7654.04
(80%Imax)	8747.47
(90%Imax)	9840.9



Luminance Table

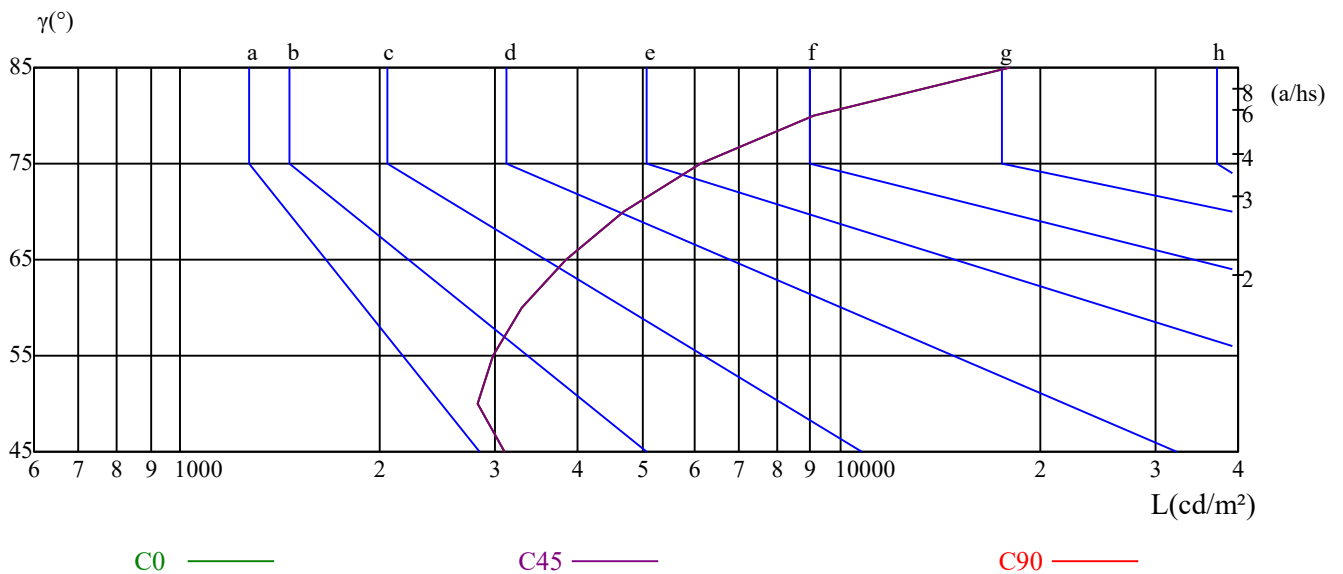
γ	45	50	55	60	65	70	75	80	85
C0	3088	2822	2974	3299	3830	4681	6127	9100	18080
C45	3088	2822	2974	3299	3830	4681	6127	9100	18080
C90	3088	2822	2974	3299	3830	4681	6127	9100	18080

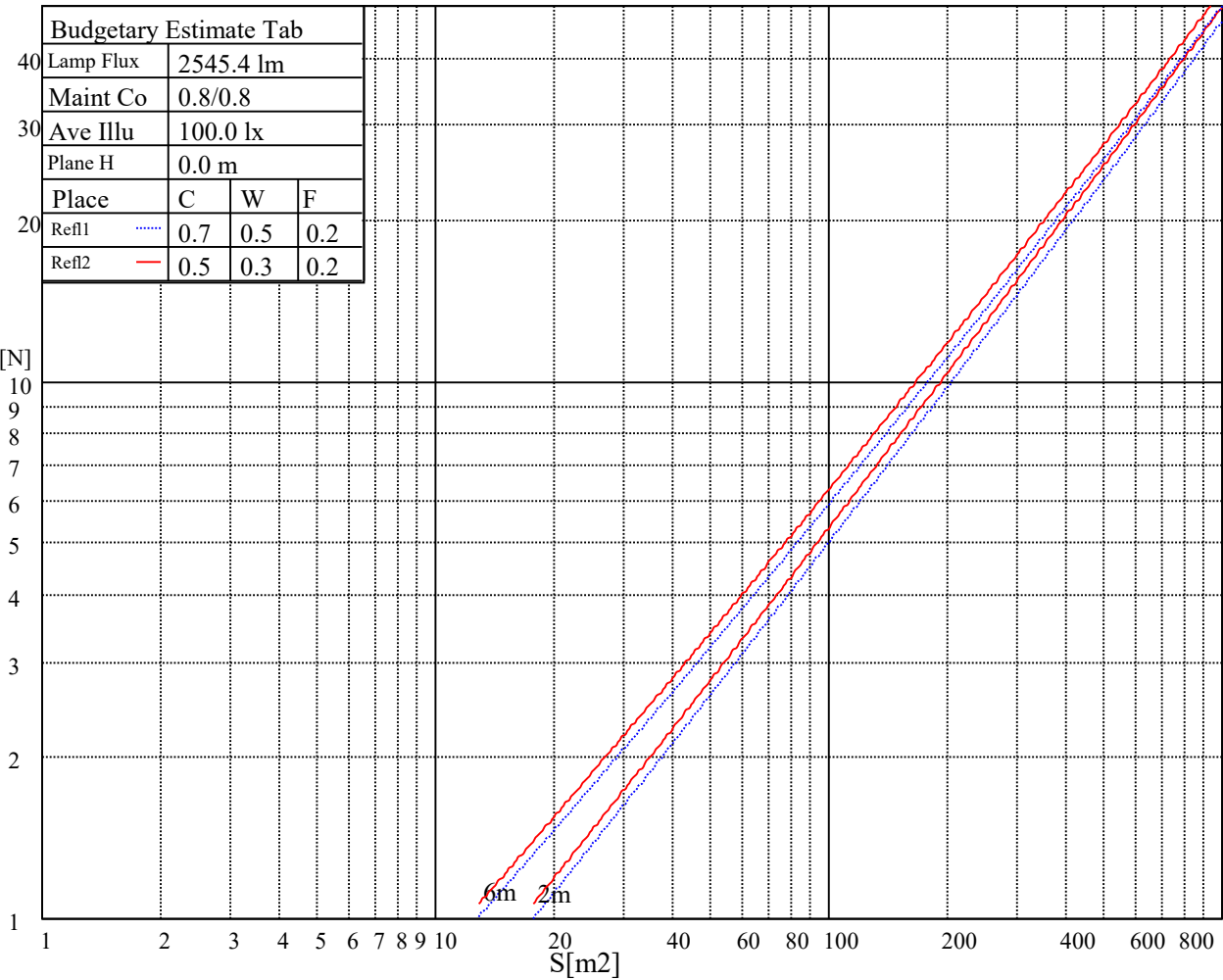
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3830	3830	3830	6127	6127	6127	18080	18080	18080

Glare Table

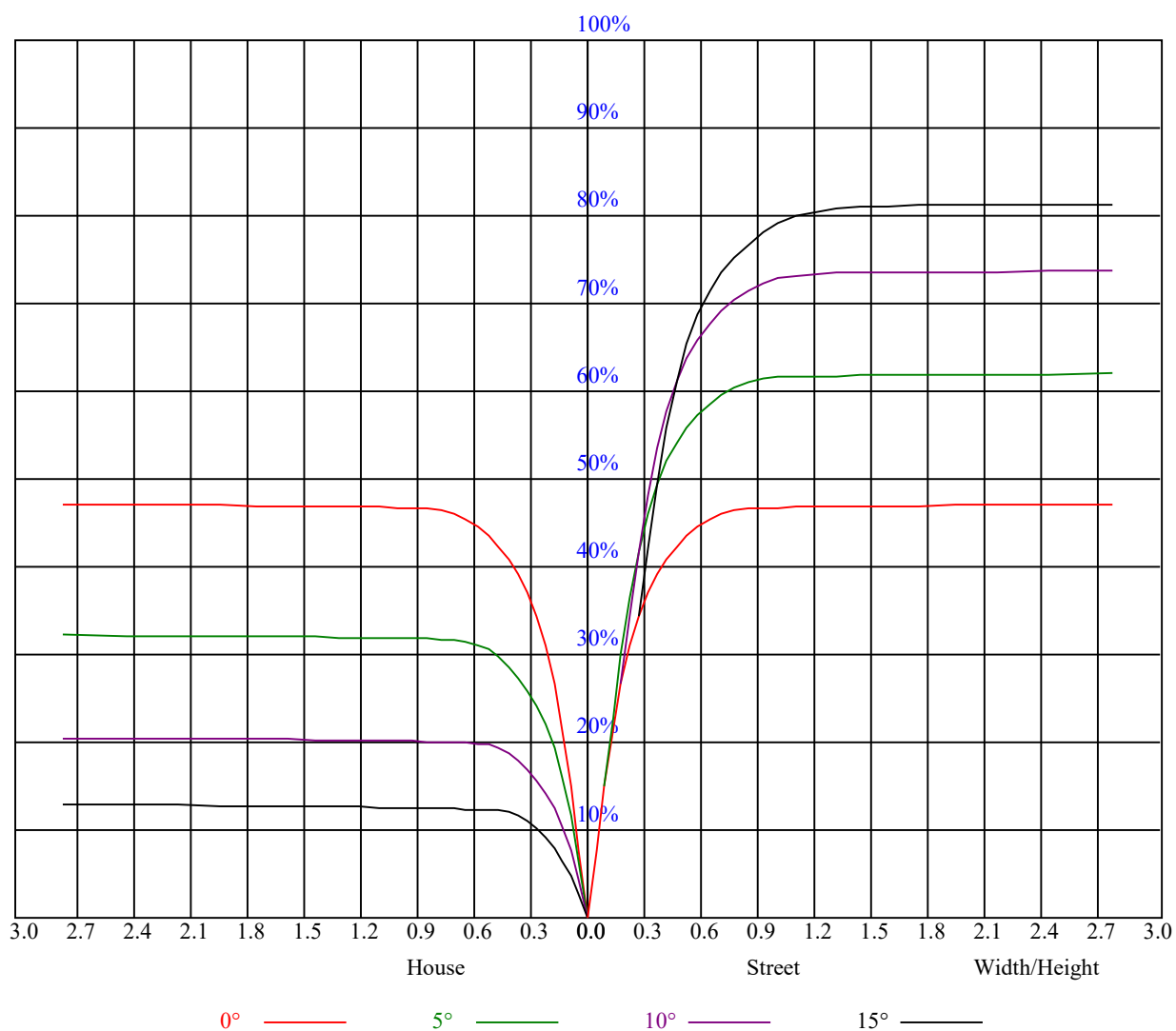
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

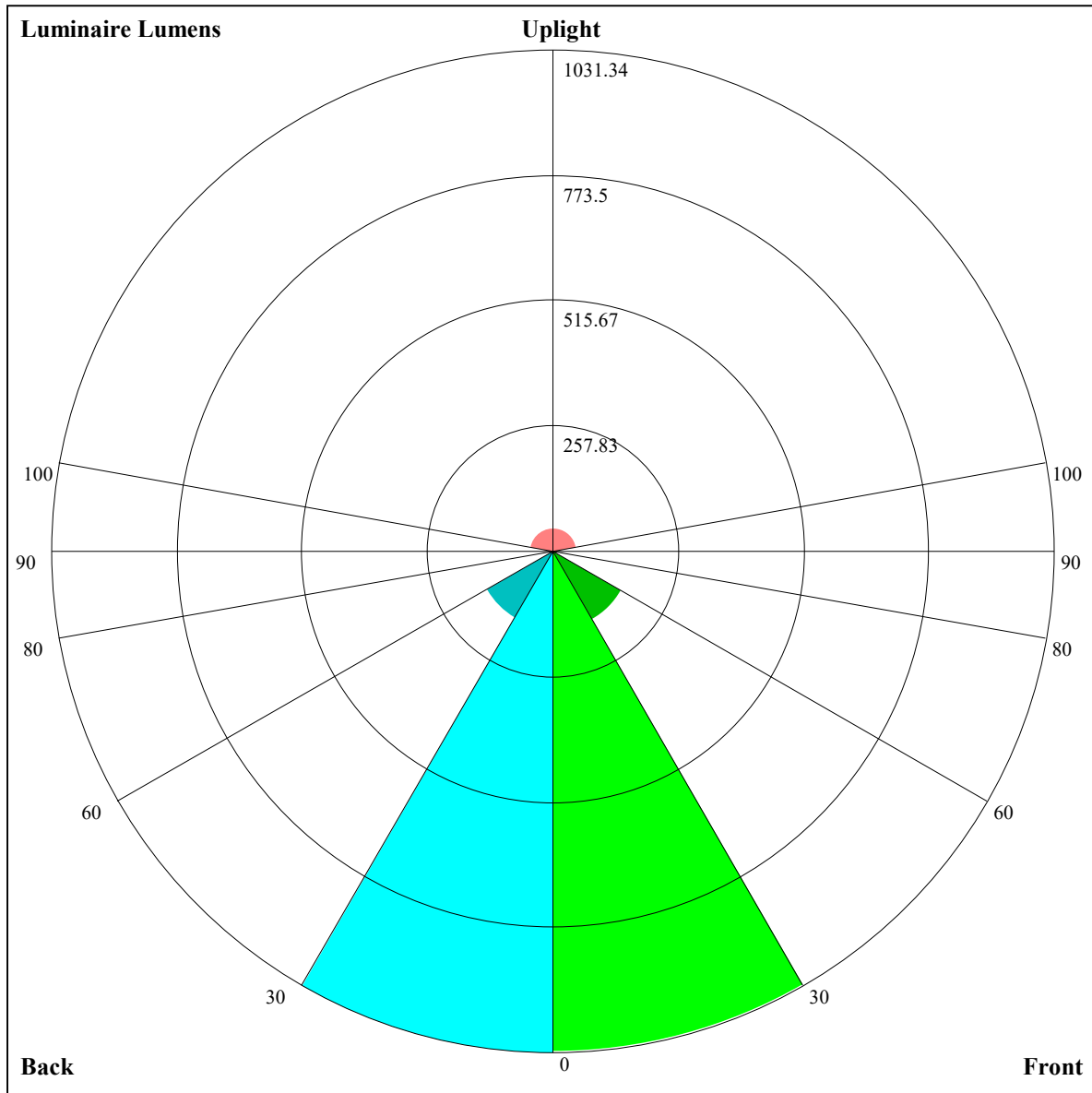
Luminance Limiting Curve





RHOC	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	1.15	1.15	1.15	1.12	1.12	1.12	1.07	1.07	1.07	1.03	1.03	1.03	0.98	0.98	0.98	0.96
1	1.05	1.02	1.00	1.03	1.00	0.98	0.99	0.97	0.95	0.95	0.94	0.92	0.92	0.91	0.90	0.88
2	1.00	0.96	0.93	0.98	0.95	0.92	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.85
3	0.95	0.91	0.88	0.94	0.90	0.87	0.92	0.88	0.86	0.89	0.87	0.84	0.87	0.85	0.83	0.82
4	0.91	0.87	0.83	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.85	0.82	0.80	0.79
5	0.88	0.83	0.80	0.87	0.83	0.80	0.85	0.82	0.79	0.84	0.81	0.78	0.82	0.80	0.78	0.76
6	0.85	0.80	0.77	0.84	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.74
7	0.82	0.77	0.74	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.72
8	0.79	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.71	0.70
9	0.77	0.73	0.70	0.77	0.72	0.70	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.68
10	0.75	0.71	0.68	0.74	0.70	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.73	0.69	0.67	0.66





Luminaire Lumens:

FL=1030.79,FM=160.4,FH=10.27,FVH=5.37

BL=1031.34,BM=159.85,BH=10.27,BVH=5.37

UL=10.71,UH=50.99

BUG Rating:B3-U2-G0

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	10980.45	9188.91	6050.70	2912.48	1477.16	978.35	830.25	524.69	79.50		
45.0	10988.71	8588.80	5186.31	2802.37	1315.30	901.27	797.77	387.05	29.46		
90.0	10791.60	7808.10	4217.87	2082.23	1093.42	862.40	761.93	298.63	21.47		
135.0	10976.59	8930.15	5417.55	2829.90	1357.69	919.44	804.92	442.65	37.93		
180.0	10980.45	8883.35	5519.40	2595.91	1344.48	911.84	801.24	430.43	30.45		
225.0	10988.71	9704.79	6277.53	3167.95	1558.10	968.11	827.94	577.32	110.72		
270.0	10791.60	10328.58	7096.77	3655.74	1877.97	1064.24	846.77	670.04	286.29		
315.0	10976.59	9321.60	6011.61	2855.78	1483.77	961.06	821.83	540.82	78.73		
360.0	10980.45	9188.91	6050.70	2912.48	1477.16	978.35	830.25	524.69	79.50		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	14.09	11.40	10.74	10.35	10.08	10.02	9.91	9.86	9.86		
45.0	12.17	11.12	10.57	10.24	10.08	9.97	9.86	9.86	9.80		
90.0	11.84	10.96	10.46	10.19	10.08	9.97	9.86	9.86	9.80		
135.0	12.83	11.23	10.63	10.30	10.13	10.02	9.97	9.91	9.91		
180.0	12.28	11.23	10.57	10.30	10.08	9.97	9.91	9.86	9.86		
225.0	15.47	11.56	10.74	10.30	10.08	9.97	9.86	9.80	9.74		
270.0	16.96	11.73	10.85	10.41	10.19	10.02	9.91	9.91	9.86		
315.0	13.38	11.34	10.63	10.30	10.13	10.02	9.91	9.86	9.86		
360.0	14.09	11.40	10.74	10.35	10.08	10.02	9.91	9.86	9.86		
C/ γ (°)	90.0										
0.0	9.86										
45.0	9.80										
90.0	9.80										
135.0	9.86										
180.0	9.80										
225.0	9.74										
270.0	9.86										
315.0	9.86										
360.0	9.86										