
Nata

Client:

LumCAT: 4-2267-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): 100

Phm Type: C

Voltage(V): 0.6000

Current(A): 34.8000

Power (W): 20.8800

PF: 0.0000

Ballast type: DC

Width(mm): 100

Height(mm): 0

Photometric Results

Lumens(lm): 2325.15, Efficiency(%): 91.35% , Luminous Efficacy(lm/W): 111.36

Central intensity(cd): 5304.134, Maximum intensity(cd): 5304.134

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=34.6

[C90/270]Total=34.6

Field angle(10%Imax): [C0/180]Total=69.6

[C90/270]Total=69.6

Maximum s/h(1/2): C0_180=0.56 C90_270=0.56

Maximum s/h(1/4): C0_180=0.60 C90_270=0.60

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.51%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.391%

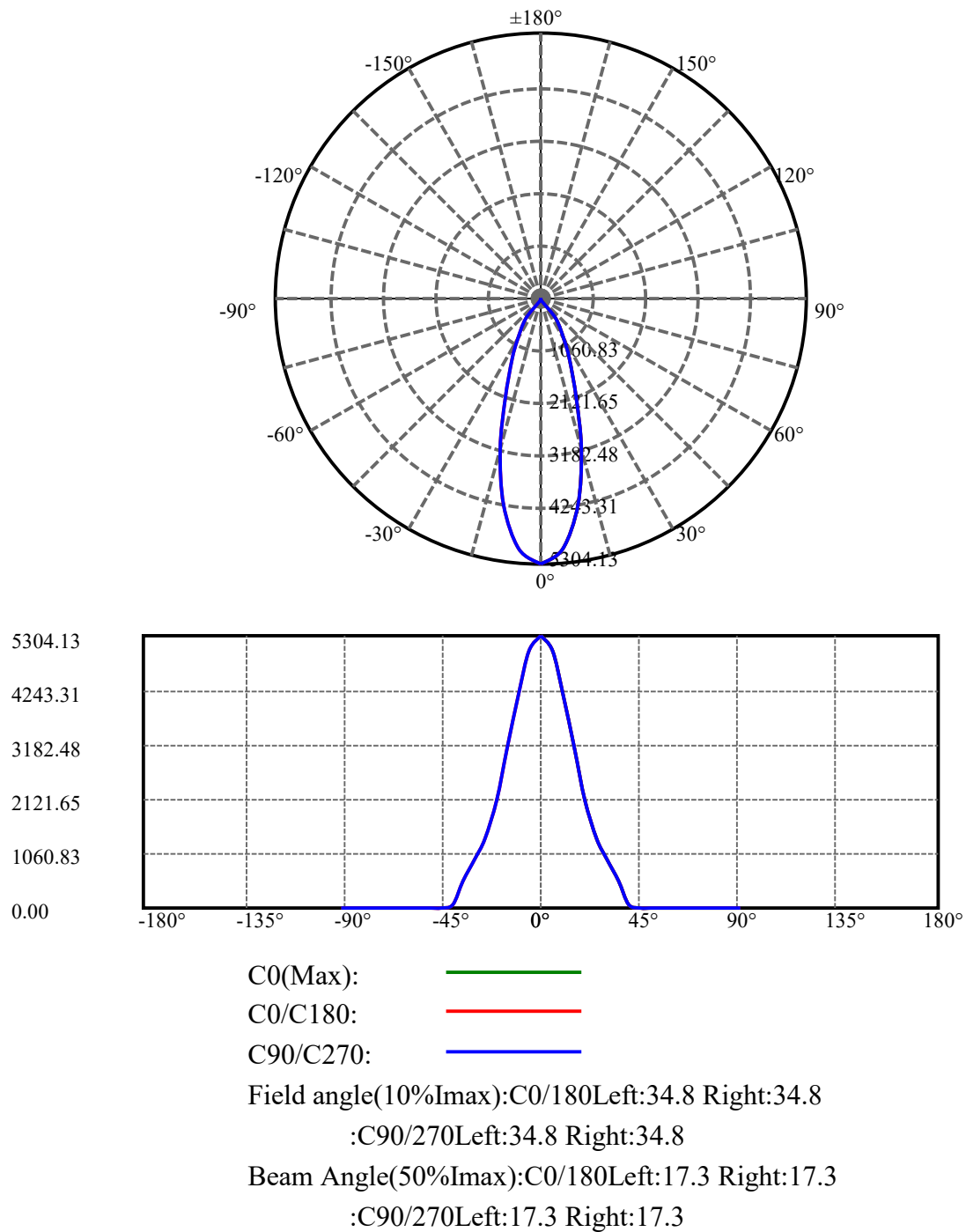
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5304.134	31.720	31.72	1.246%	1.364%
5.0	5003.182	239.019	270.738	9.390%	11.644%
10.0	4193.440	399.144	669.883	15.681%	28.810%
15.0	3098.092	439.521	1109.404	17.267%	47.713%
20.0	2122.700	397.951	1507.355	15.634%	64.828%
25.0	1354.408	313.753	1821.108	12.326%	78.322%
30.0	968.511	265.439	2086.546	10.428%	89.738%
35.0	513.718	161.512	2248.058	6.345%	96.684%
40.0	73.762	25.989	2274.047	1.021%	97.802%
45.0	13.117	5.084	2279.131	.200%	98.021%
50.0	11.128	4.673	2283.804	.184%	98.222%
55.0	10.385	4.663	2288.467	.183%	98.422%
60.0	10.041	4.766	2293.234	.187%	98.627%
65.0	9.972	4.954	2298.187	.195%	98.840%
70.0	10.027	5.165	2303.352	.203%	99.062%
75.0	13.365	7.076	2310.428	.278%	99.367%
80.0	12.202	6.587	2317.015	.259%	99.650%
85.0	9.993	5.457	2322.472	.214%	99.885%
90.0	9.786	2.682	2325.154	.105%	100.000%

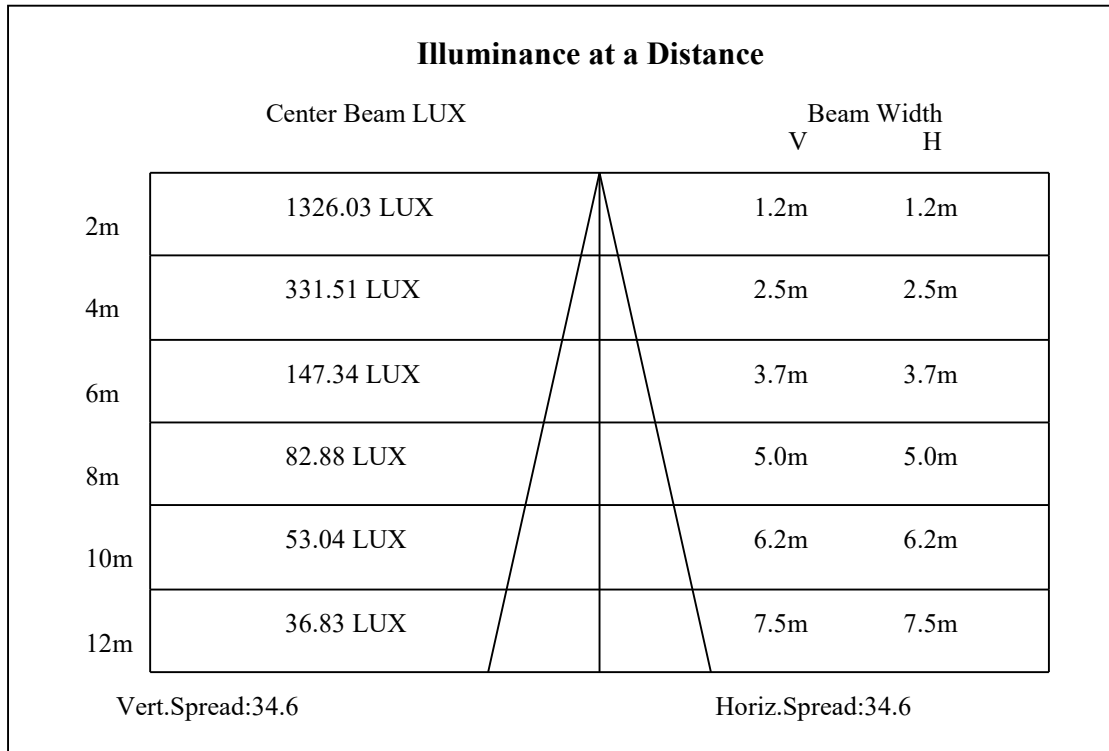
ZONAL LUMEN SUMMARY

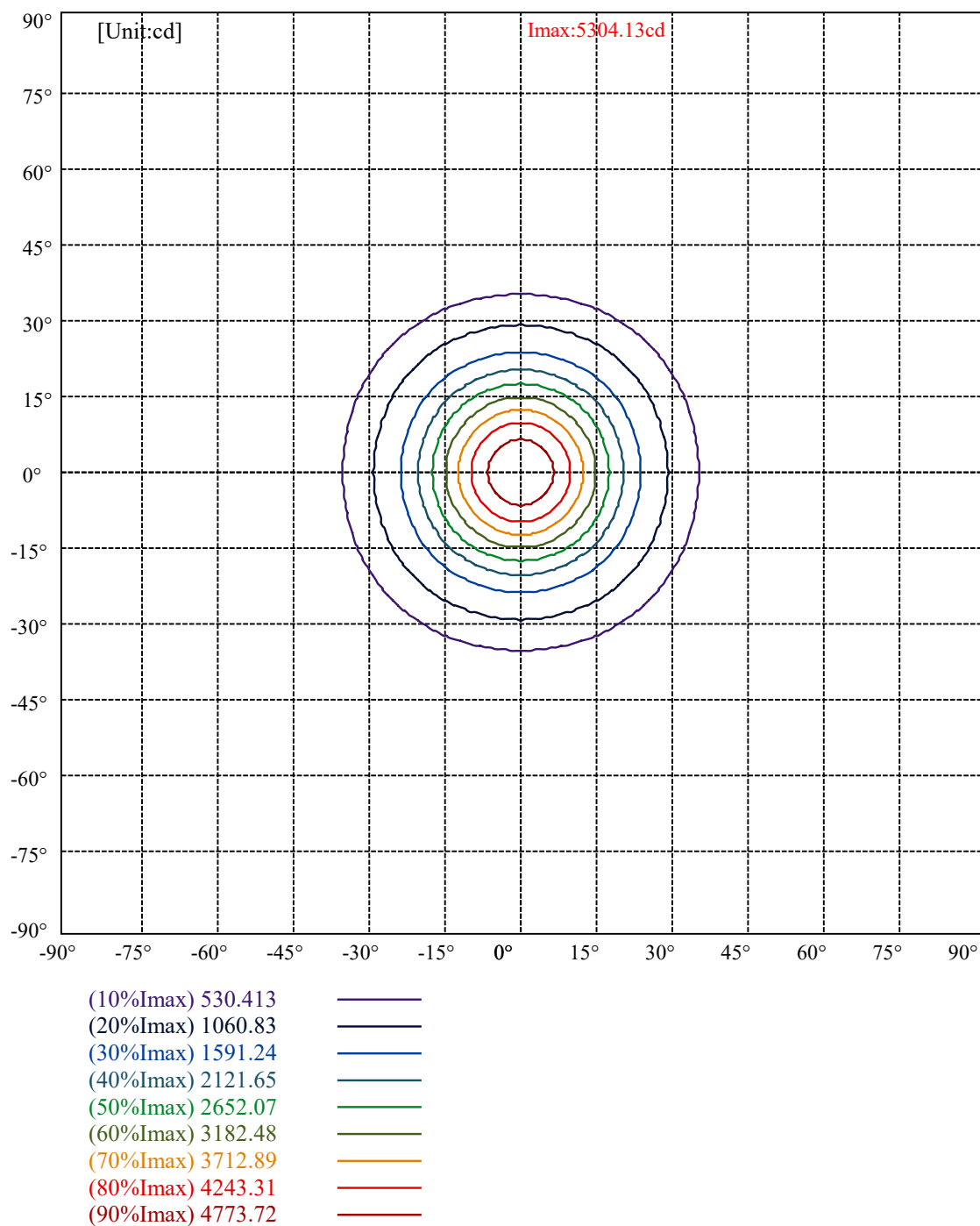
Zone	Lumens	%Lamp	%Fixt
0-30	2086.55	81.97%	89.74%
0-40	2274.05	89.34%	97.80%
0-60	2293.23	90.09%	98.63%
0-90	2322.47	91.24%	99.88%
0-120	2322.47	91.24%	99.88%
0-180	2325.15	91.35%	100.00%
60-90	34.00	1.34%	1.46%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.73	1860.12	73.08%	80.00%

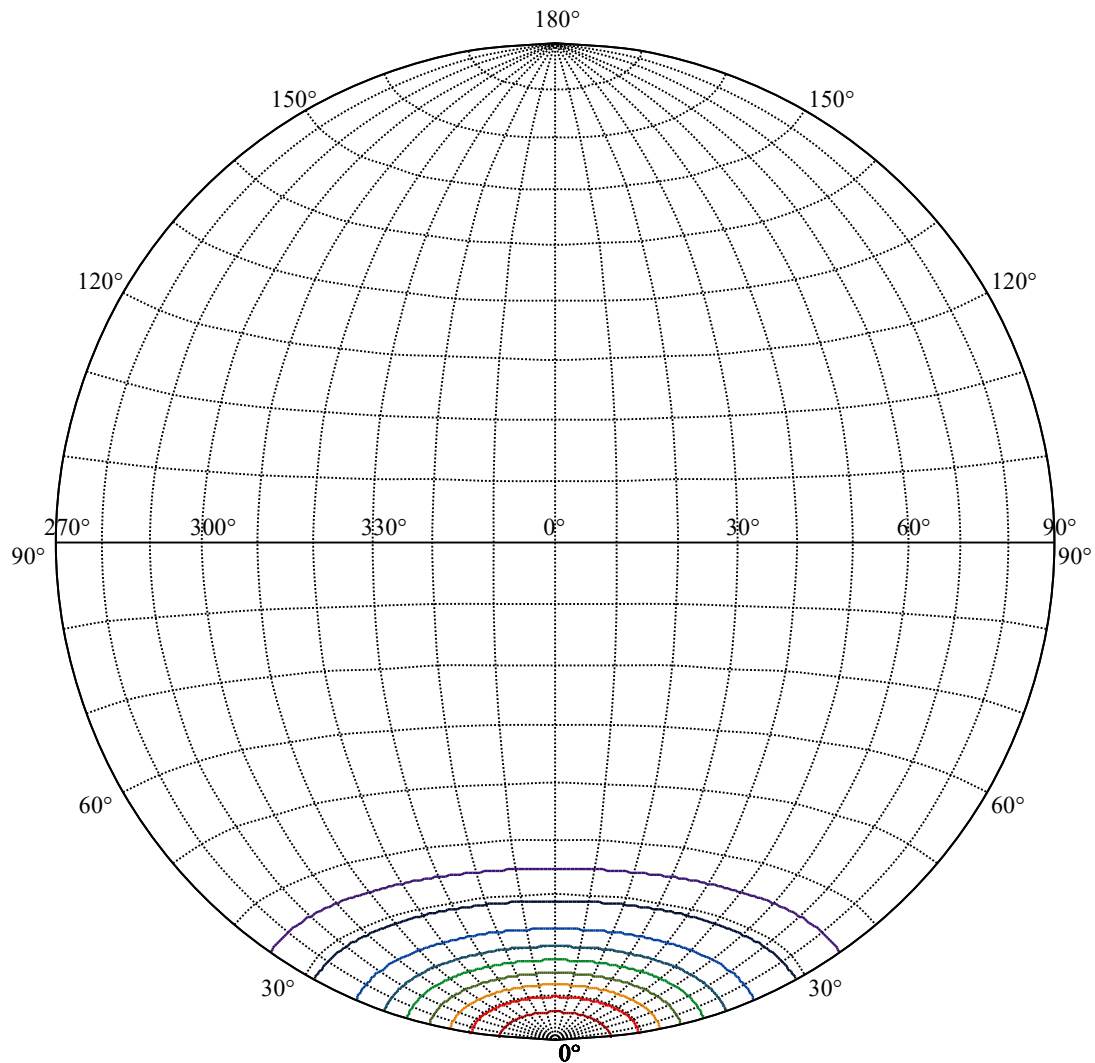
ZONAL LUMEN SUMMARY

0-10	669.88
10-20	837.47
20-30	579.19
30-40	187.50
40-50	9.76
50-60	9.43
60-70	10.12
70-80	13.66
80-90	5.46
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









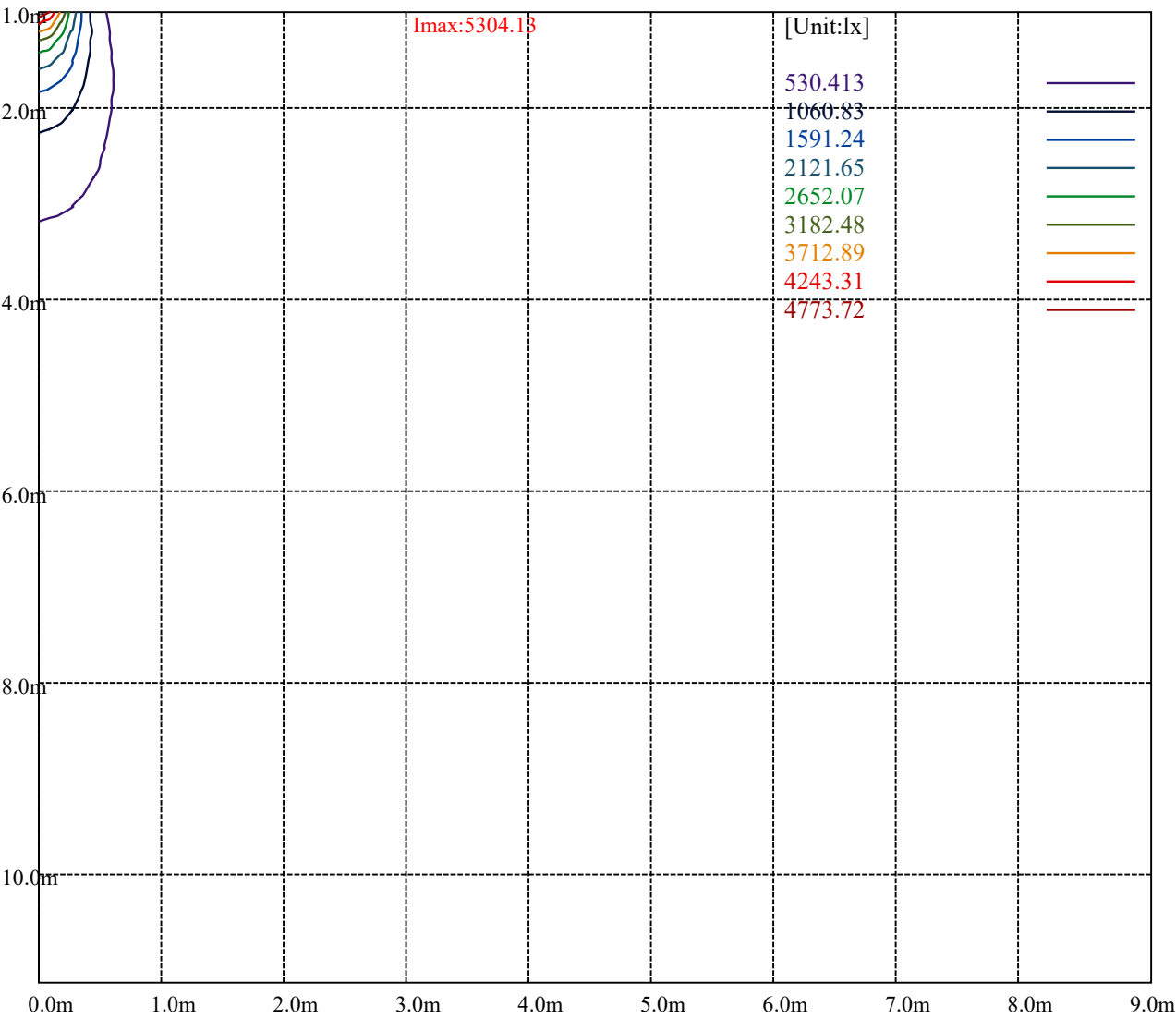
House

[Unit:cd]

Road

Imax:5304.13

(10%Imax)	530.413	—
(20%Imax)	1060.83	—
(30%Imax)	1591.24	—
(40%Imax)	2121.65	—
(50%Imax)	2652.07	—
(60%Imax)	3182.48	—
(70%Imax)	3712.89	—
(80%Imax)	4243.31	—
(90%Imax)	4773.72	—



Luminance Table

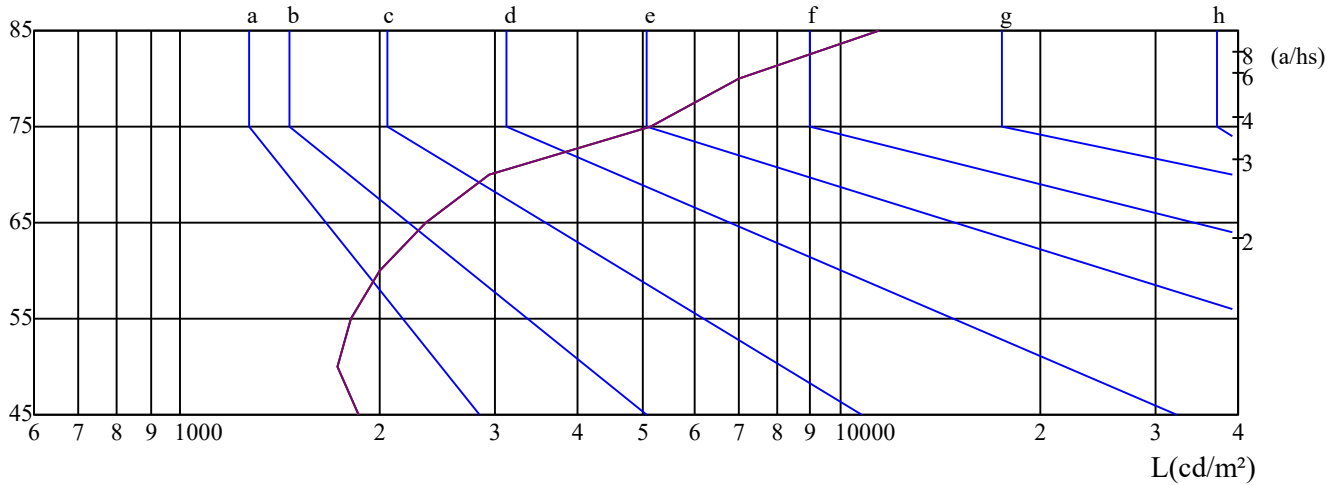
γ	45	50	55	60	65	70	75	80	85
C0	1855	1731	1811	2008	2360	2932	5164	7027	11465
C45	1855	1731	1811	2008	2360	2932	5164	7027	11465
C90	1855	1731	1811	2008	2360	2932	5164	7027	11465

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2360	2360	2360	5164	5164	5164	11465	11465	11465

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

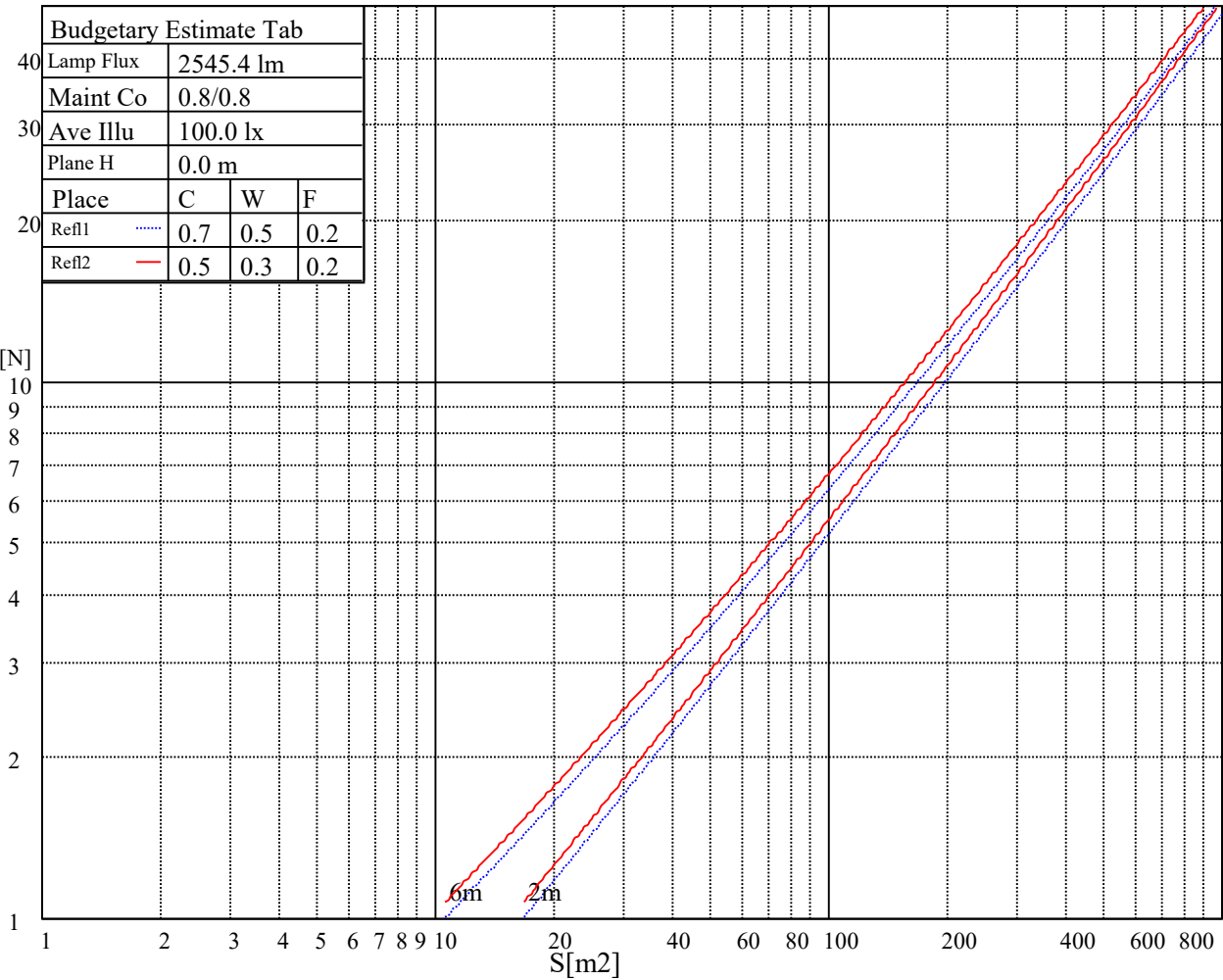
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

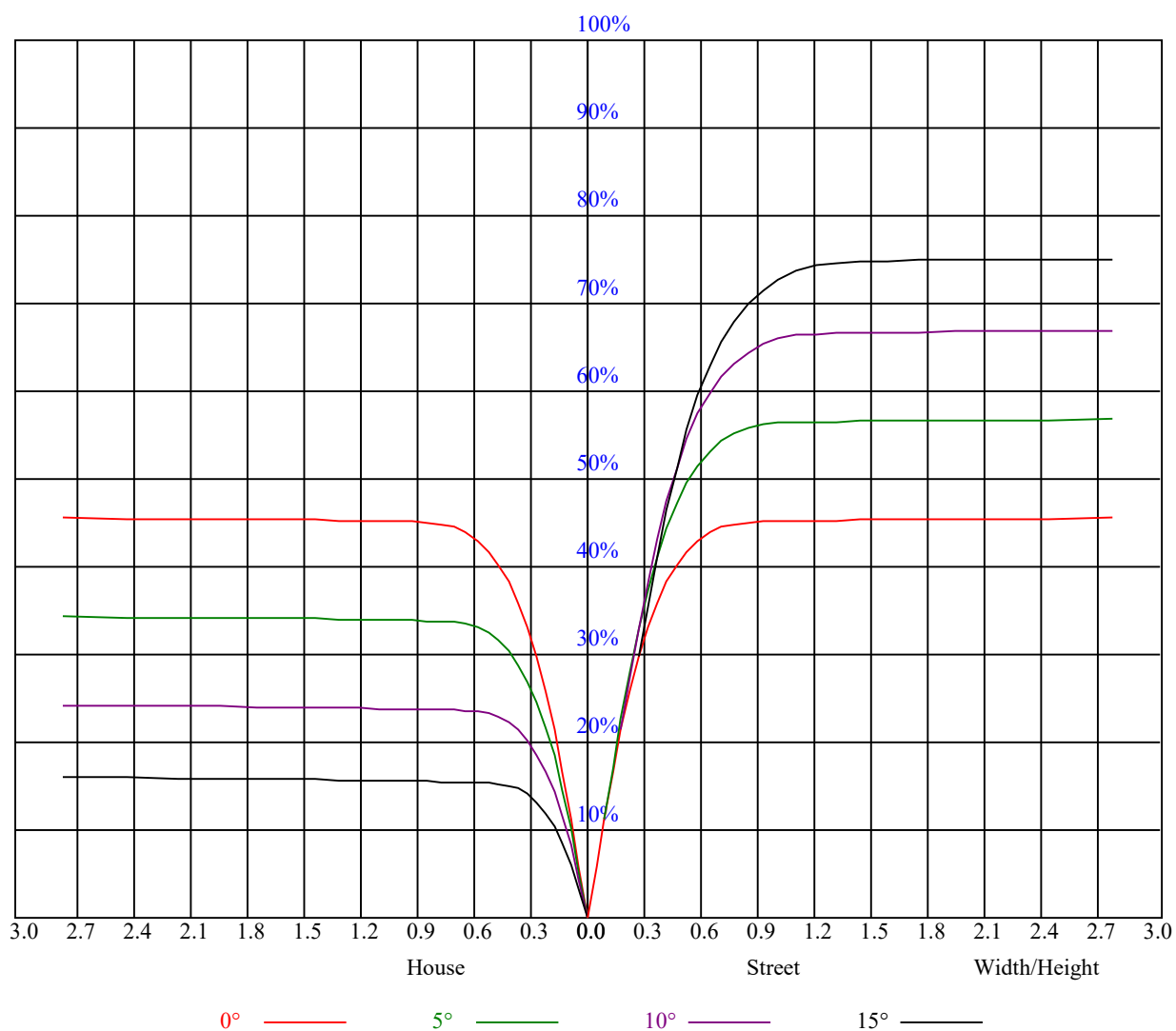
C0 ———

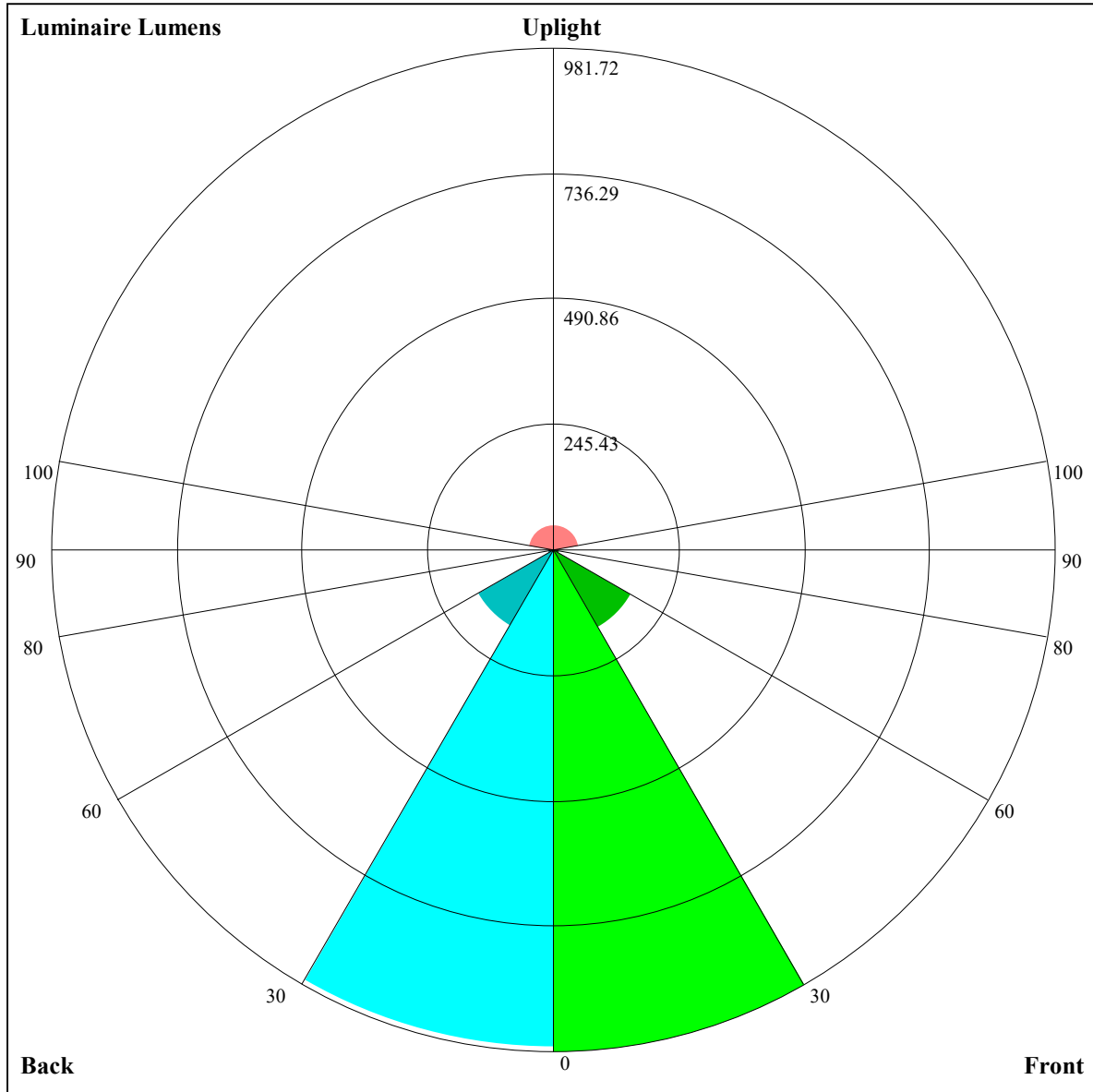
C45 ———

C90 ———



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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.93
1	1.02	1.00	0.97	1.00	0.98	0.96	0.96	0.94	0.93	0.93	0.91	0.90	0.90	0.88	0.87	0.86
2	0.96	0.93	0.90	0.95	0.92	0.89	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.83	0.82
3	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.84	0.81	0.80	0.78
4	0.87	0.83	0.79	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.81	0.78	0.76	0.75
5	0.83	0.79	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.72
6	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.75	0.73	0.70	0.69
7	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.68	0.66
8	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.71	0.67	0.65	0.64
9	0.71	0.67	0.64	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.63	0.62
10	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.60





Luminaire Lumens:

FL=981.72,FM=176.68,FH=11.27,FVH=5.76

BL=974.39,BM=171.87,BH=11.56,BVH=5.74

UL=10.68,UH=50.81

BUG Rating:B2-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	5303.03	5081.71	4342.85	3218.60	2195.10	1401.74	1019.64	585.80	55.44		
45.0	5307.44	4936.91	4081.33	2932.30	1944.59	1277.31	918.34	415.68	27.20		
90.0	5292.02	4789.36	3799.44	2718.13	1764.01	1082.02	807.62	297.52	19.88		
135.0	5314.04	4990.86	4095.10	3038.56	2034.88	1293.27	925.50	453.11	26.81		
180.0	5303.03	4897.27	4081.33	2992.87	1998.00	1308.69	927.54	441.44	30.12		
225.0	5307.44	5060.78	4299.90	3258.79	2243.55	1424.86	1027.74	599.12	73.78		
270.0	5292.02	5198.43	4550.41	3499.94	2569.48	1619.21	1111.04	721.79	292.90		
315.0	5314.04	5070.14	4297.15	3125.55	2231.99	1428.16	1010.67	595.27	63.98		
360.0	5303.03	5081.71	4342.85	3218.60	2195.10	1401.74	1019.64	585.80	55.44		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	13.49	11.18	10.41	10.08	9.97	10.08	13.21	12.61	9.97		
45.0	12.28	10.85	10.24	9.97	9.86	9.91	13.32	10.19	9.91		
90.0	11.78	10.74	10.19	9.91	9.91	9.97	13.49	9.91	9.91		
135.0	12.28	10.96	10.30	10.02	9.97	9.97	12.94	11.07	9.91		
180.0	12.39	10.96	10.30	10.02	9.97	10.02	14.59	11.84	9.97		
225.0	13.54	11.40	10.52	10.08	10.02	10.13	16.41	12.61	9.97		
270.0	15.86	11.73	10.68	10.19	10.08	10.13	11.18	16.08	10.24		
315.0	13.32	11.23	10.46	10.08	10.02	10.02	11.78	13.32	10.08		
360.0	13.49	11.18	10.41	10.08	9.97	10.08	13.21	12.61	9.97		
C/ γ (°)	90.0										
0.0	9.80										
45.0	9.74										
90.0	9.80										
135.0	9.80										
180.0	9.80										
225.0	9.74										
270.0	9.80										
315.0	9.80										
360.0	9.80										