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Nata

Client:

LumCAT: 2-1682-M

Luminaire: 92.70.125.00

Report No: NT2018010504

Test No:

LampCAT: BXRV-DR-1830-H-1000-A-13

Lamp flux(lm): 610.0

Number of Lamps: 1

Length(mm): 70

Phm Type: C

Voltage(V): 17.6000

Current(A): 0.4000

Power (W): 7.0400

PF: 0.0000

Ballast type: DC

Width(mm): 70

Height(mm): 0

Photometric Results

Lumens(lm): 553.33, Efficiency(%): 90.71% , Luminous Efficacy(lm/W): 78.60

Central intensity(cd): 1243.999, Maximum intensity(cd): 1243.999

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=36.0

[C90/270]Total=36.0

Field angle(10%Imax): [C0/180]Total=68.2

[C90/270]Total=68.2

Maximum s/h(1/2): C0_180=0.59 C90_270=0.59

Maximum s/h(1/4): C0_180=0.61 C90_270=0.61

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.84%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.422%

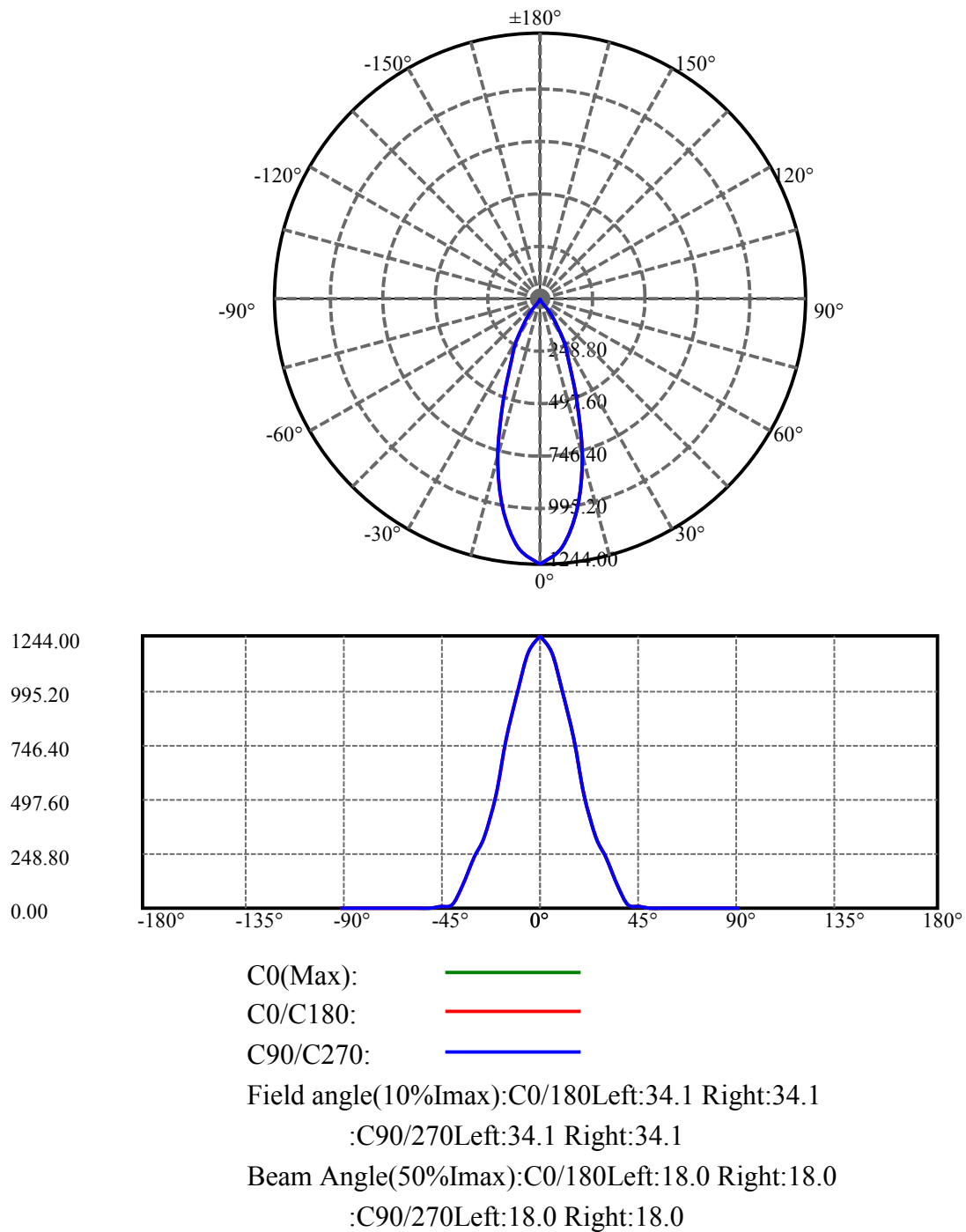
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1243.999	7.439	7.439	1.220%	1.344%
5.0	1169.322	55.862	63.302	9.158%	11.440%
10.0	996.266	94.828	158.129	15.546%	28.578%
15.0	768.931	109.087	267.217	17.883%	48.293%
20.0	520.600	97.599	364.815	16.000%	65.931%
25.0	323.787	75.006	439.822	12.296%	79.487%
30.0	229.606	62.928	502.749	10.316%	90.859%
35.0	100.065	31.460	534.21	5.157%	96.545%
40.0	15.670	5.521	539.731	.905%	97.543%
45.0	4.446	1.723	541.454	.282%	97.854%
50.0	3.634	1.526	542.98	.250%	98.130%
55.0	3.200	1.437	544.417	.236%	98.390%
60.0	2.904	1.379	545.795	.226%	98.639%
65.0	2.712	1.347	547.142	.221%	98.882%
70.0	2.608	1.343	548.486	.220%	99.125%
75.0	2.567	1.359	549.845	.223%	99.371%
80.0	2.553	1.378	551.223	.226%	99.620%
85.0	2.567	1.402	552.625	.230%	99.873%
90.0	2.560	0.702	553.327	.115%	100.000%

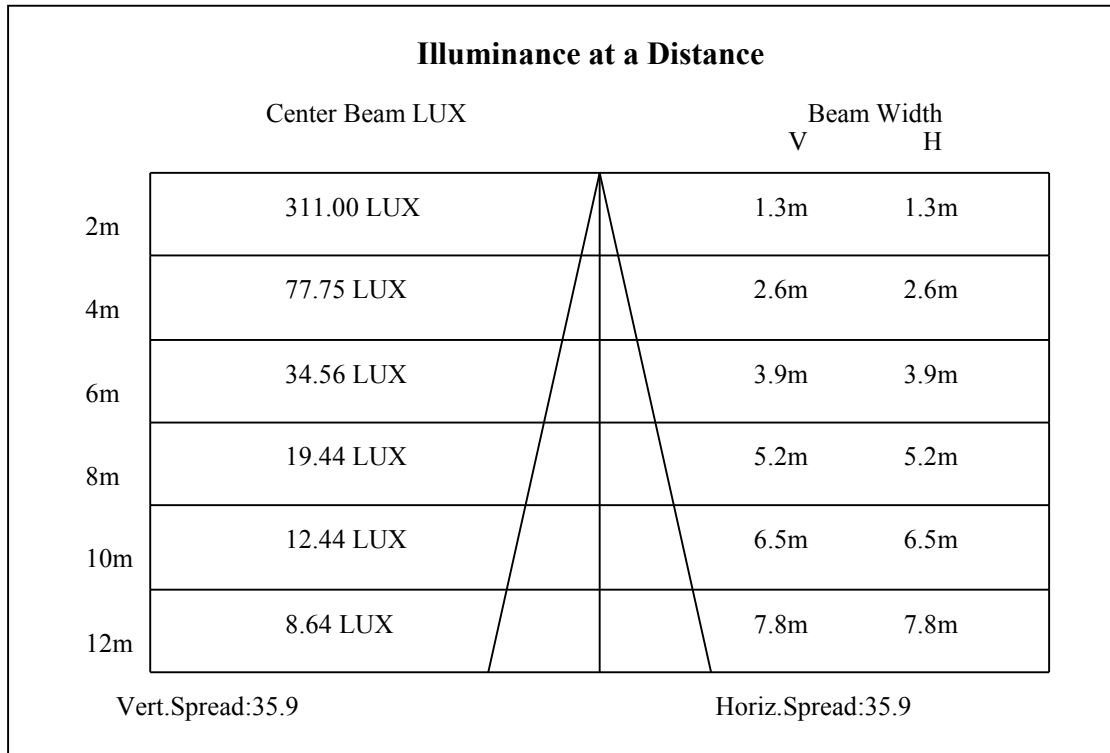
ZONAL LUMEN SUMMARY

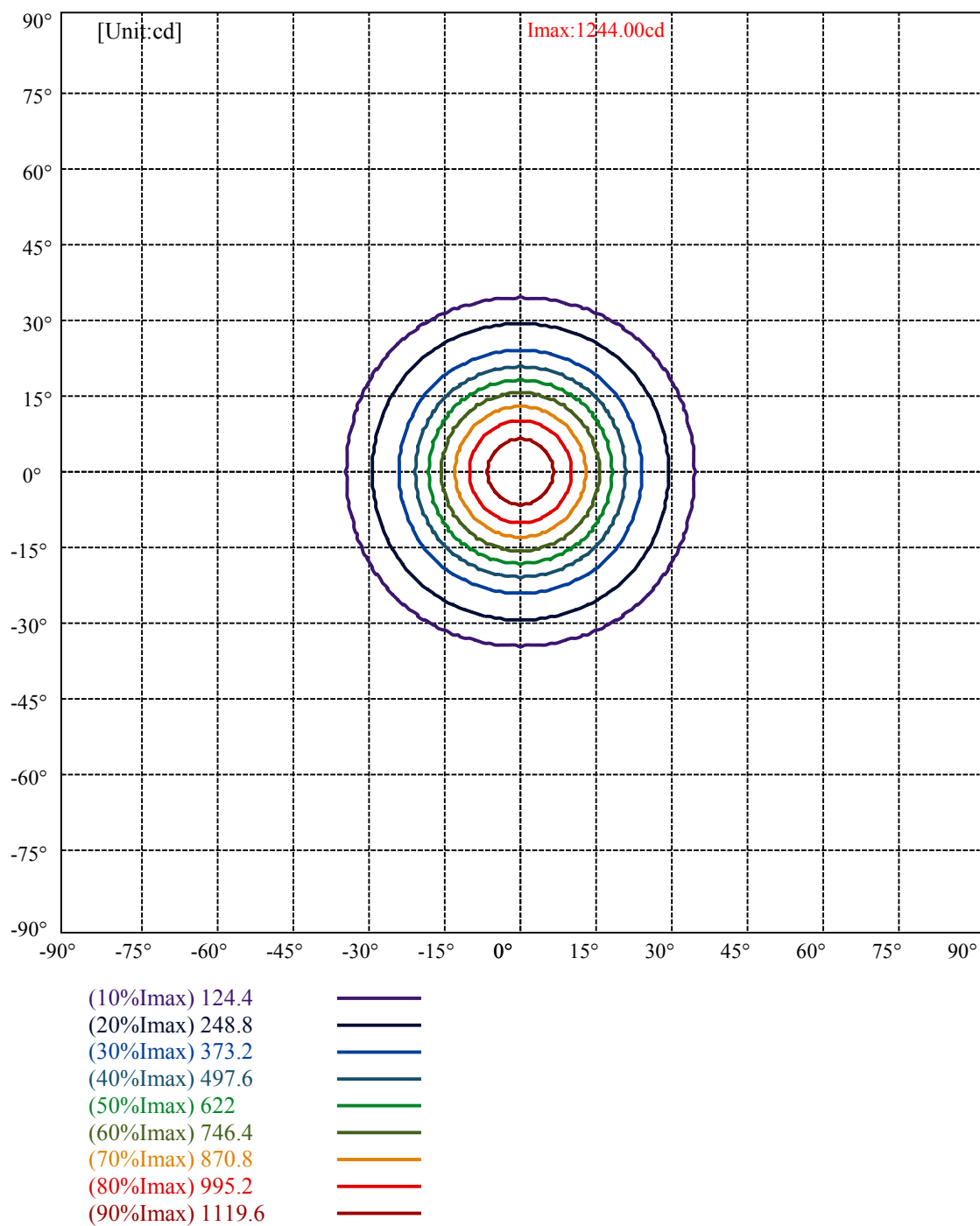
Zone	Lumens	%Lamp	%Fixt
0-30	502.75	82.42%	90.86%
0-40	539.73	88.48%	97.54%
0-60	545.80	89.47%	98.64%
0-90	552.62	90.59%	99.87%
0-120	552.62	90.59%	99.87%
0-180	553.33	90.71%	100.00%
60-90	8.21	1.35%	1.48%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.23	442.66	72.57%	80.00%

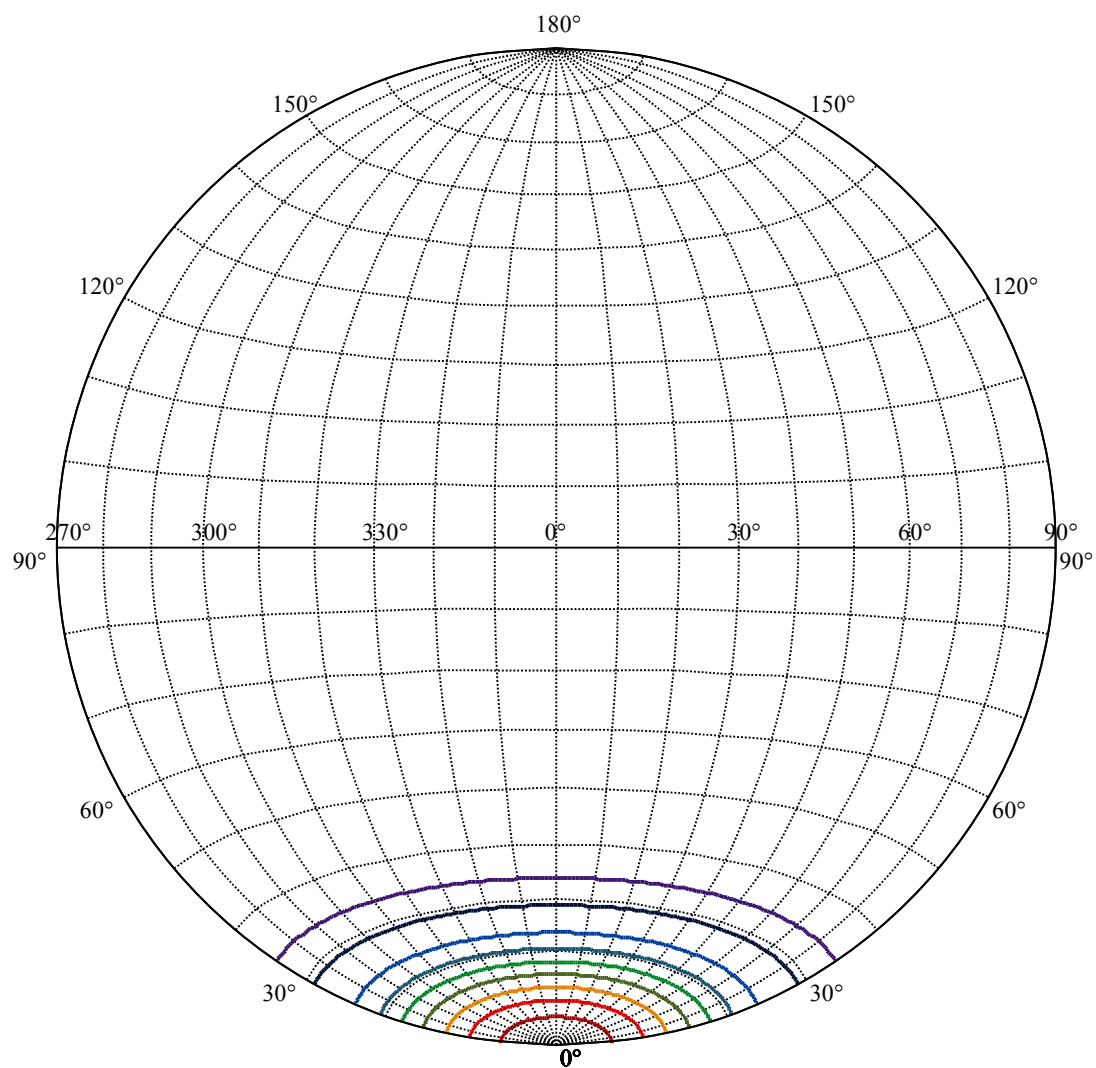
ZONAL LUMEN SUMMARY

0-10	158.13
10-20	206.69
20-30	137.93
30-40	36.98
40-50	3.25
50-60	2.82
60-70	2.69
70-80	2.74
80-90	1.40
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:1244.00

(10%Imax) 124.4

(20%Imax) 248.8

(30%Imax) 373.2

(40%Imax) 497.6

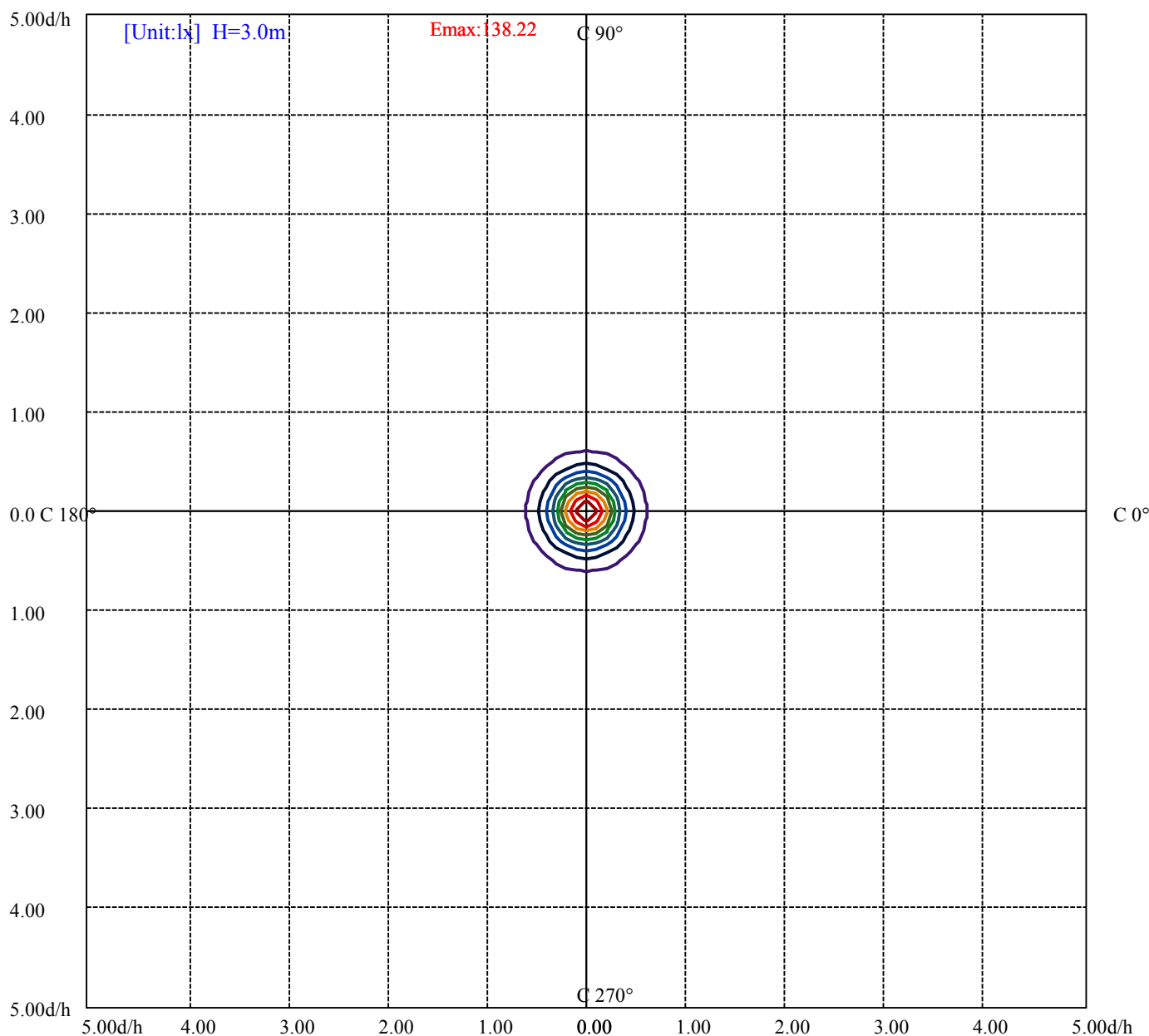
(50%Imax) 622

(60%Imax) 746.4

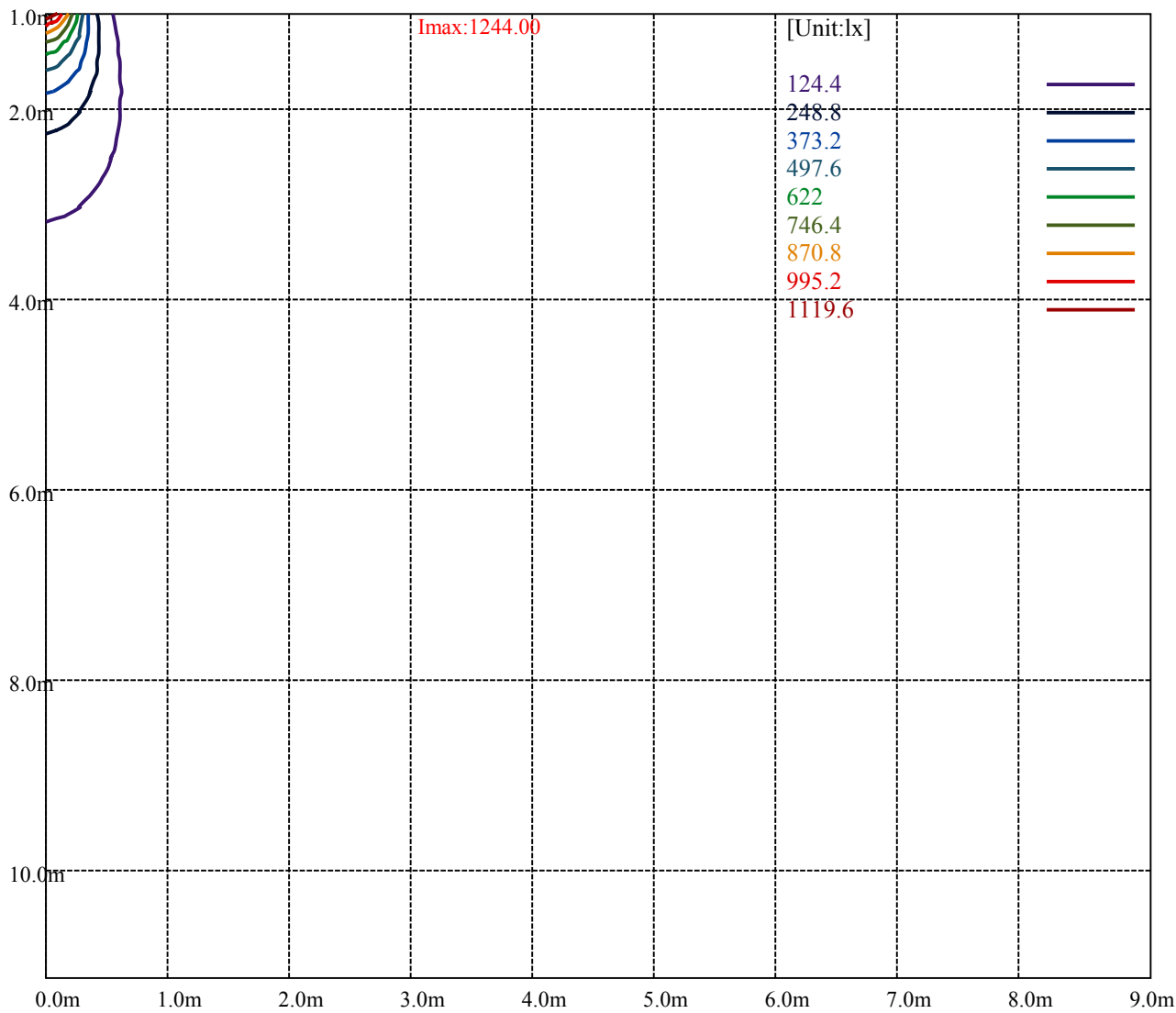
(70%Imax) 870.8

(80%Imax) 995.2

(90%Imax) 1119.6



(10%Emax)	13.82222	—
(20%Emax)	27.64433	—
(30%Emax)	41.46656	—
(40%Emax)	55.28878	—
(50%Emax)	69.111	—
(60%Emax)	82.93311	—
(70%Emax)	96.75533	—
(80%Emax)	110.5776	—
(90%Emax)	124.4	—



Luminance Table

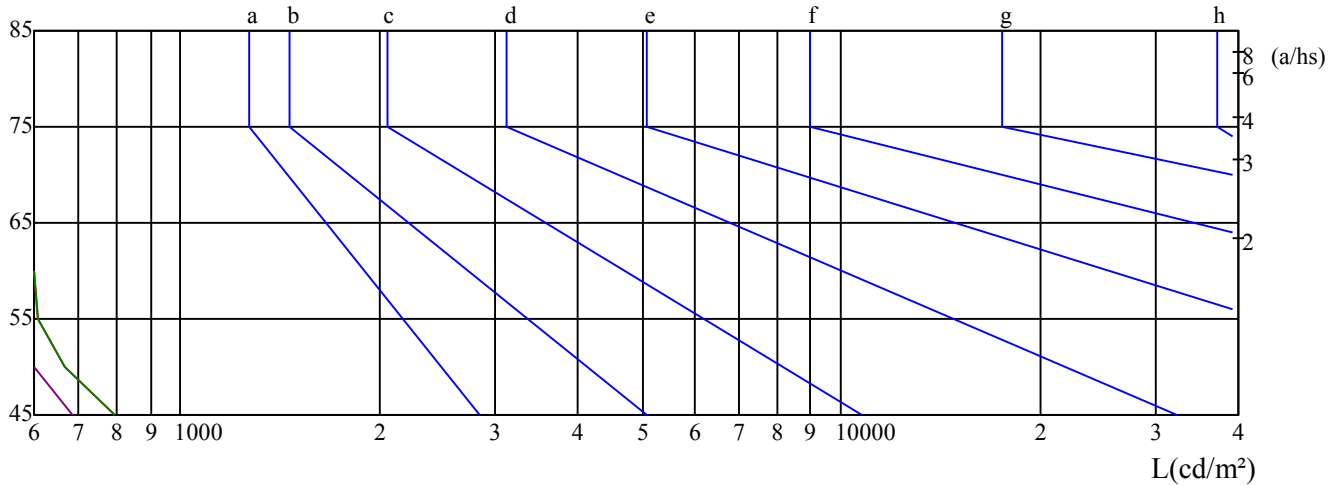
γ	45	50	55	60	65	70	75	80	85
C0	795	666	607	574	565	579	615	669	749
C45	687	567	508	473	457	460	477	506	550
C90	795	666	607	574	565	579	615	669	749

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1309	1309	1309	2024	2024	2024	6011	6011	6011

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

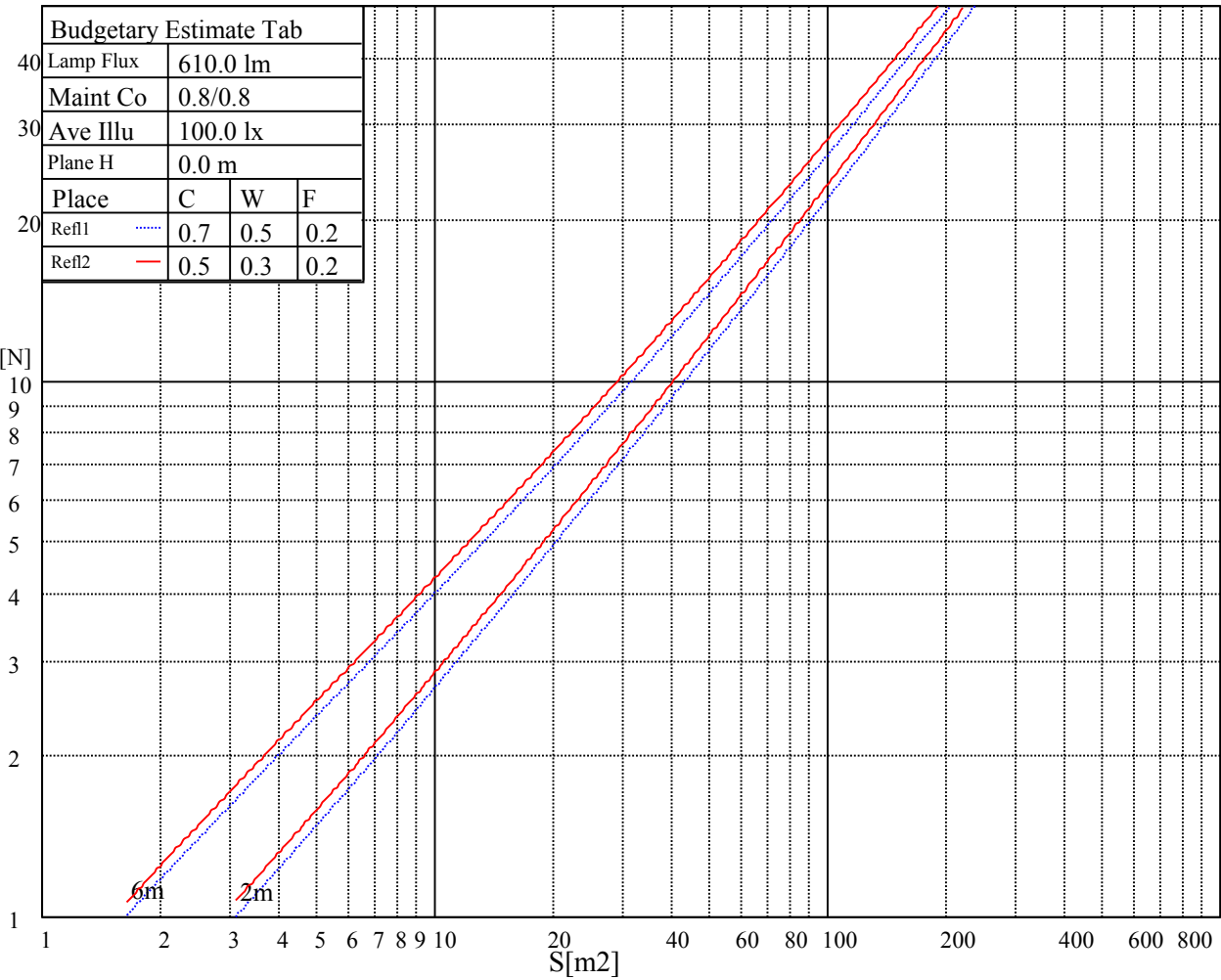
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

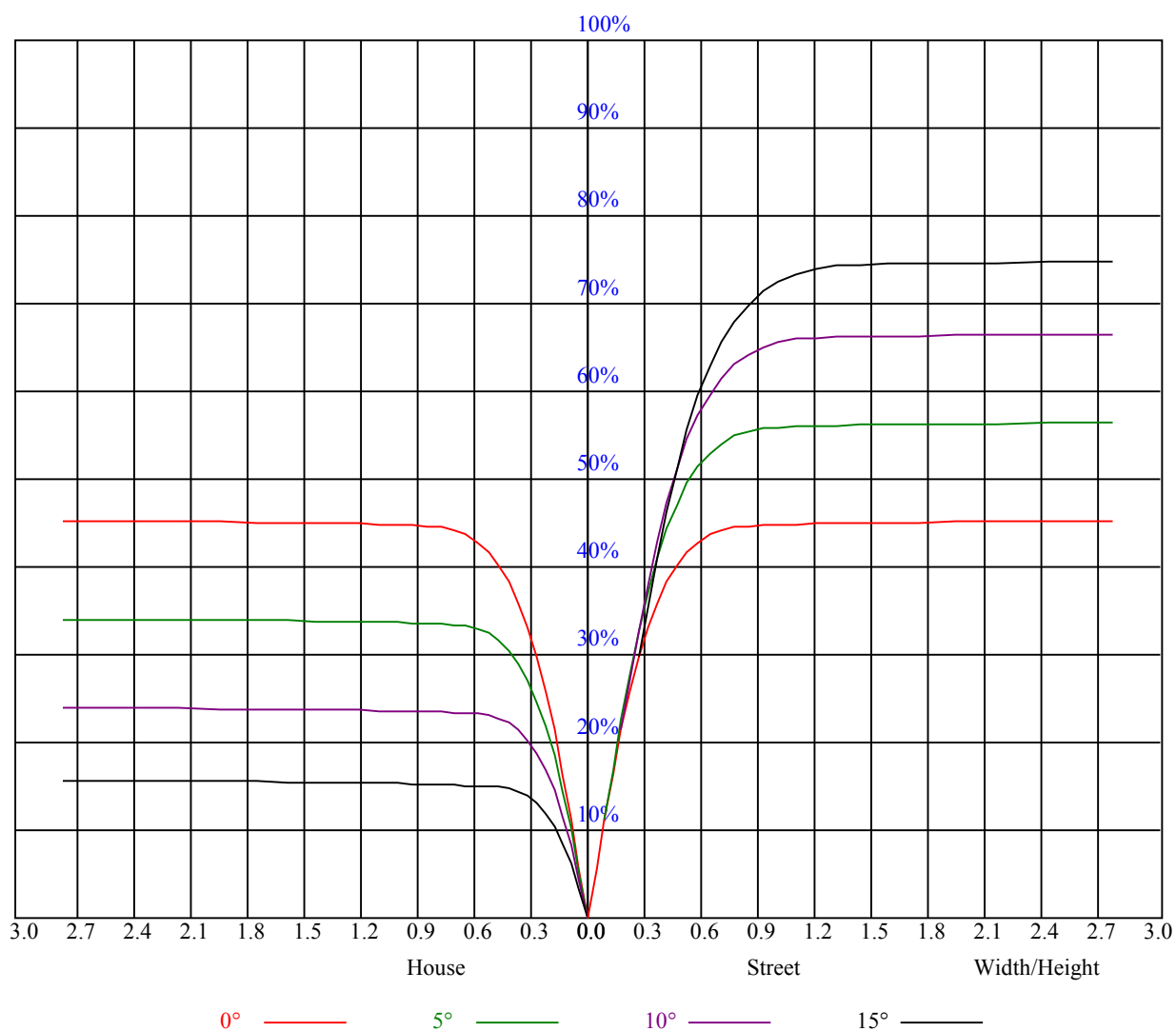
C0 ———

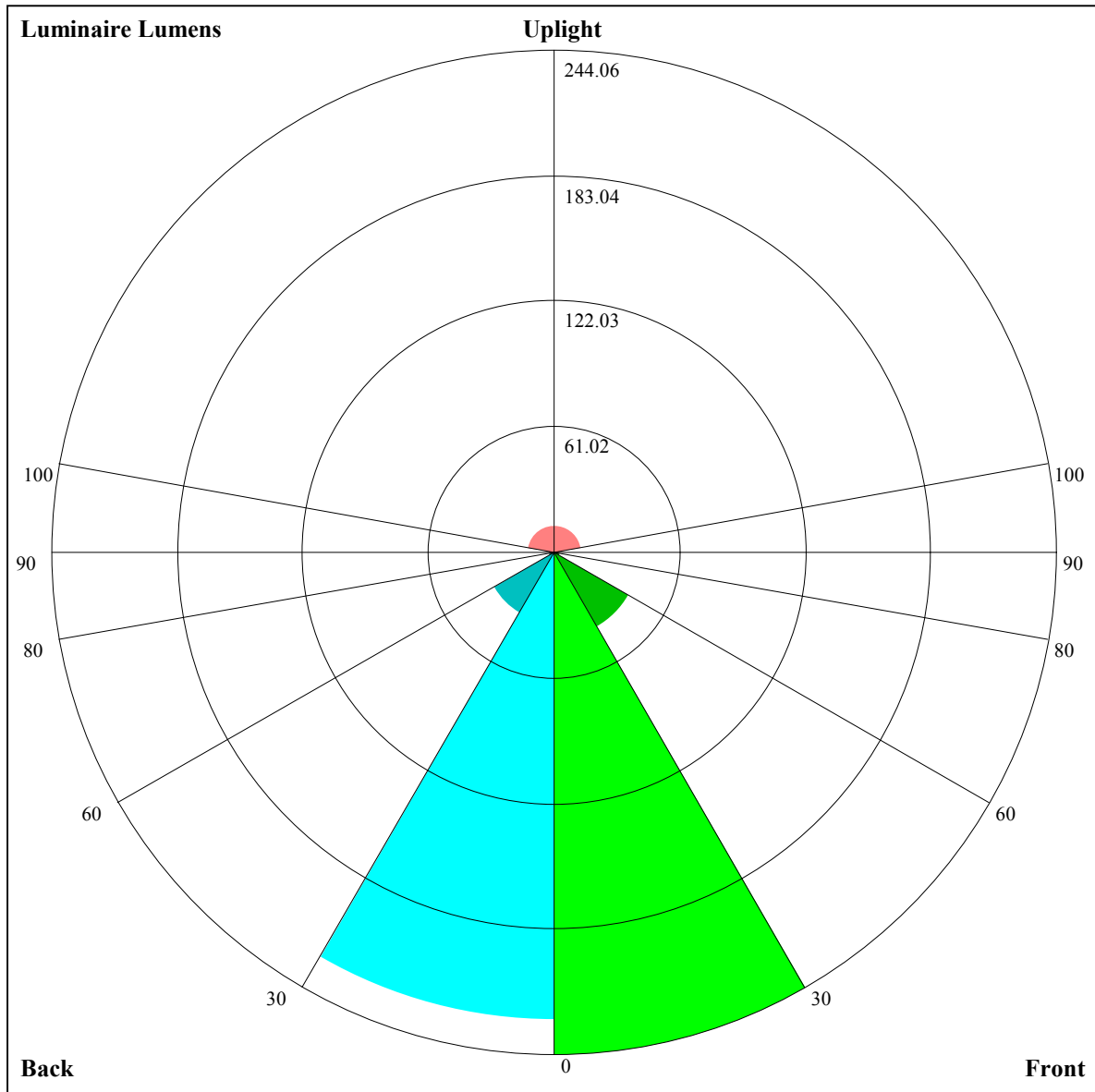
C45 ———

C90 ———



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	1.09	1.09	1.09	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.01	0.99	0.97	0.99	0.97	0.95	0.96	0.94	0.92	0.92	0.91	0.89	0.89	0.88	0.87	0.85
2	0.96	0.92	0.89	0.94	0.91	0.88	0.91	0.89	0.86	0.89	0.86	0.85	0.86	0.84	0.83	0.81
3	0.91	0.87	0.84	0.90	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.80	0.83	0.81	0.79	0.78
4	0.87	0.82	0.79	0.86	0.82	0.79	0.84	0.80	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.75
5	0.83	0.78	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.72
6	0.79	0.75	0.72	0.79	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
7	0.76	0.72	0.69	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
8	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.64
9	0.71	0.66	0.63	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	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	0.63	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.60





Luminaire Lumens:

FL=244.06,FM=41.57,FH=2.72,FVH=1.4

BL=227.32,BM=34.21,BH=2.71,BVH=1.4

UL=2.79,UH=13.29

BUG Rating:B1-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	1244.83	1213.44	1058.18	851.72	620.49	373.83	281.89	142.60	26.37		
45.0	1244.83	1189.22	982.76	755.92	503.22	312.17	221.55	93.49	9.19		
90.0	1242.07	1087.20	907.22	660.62	406.48	271.65	181.41	53.24	7.21		
135.0	1244.27	1164.99	953.03	701.97	447.06	288.50	199.19	67.94	8.20		
180.0	1244.83	1091.33	930.12	697.07	442.87	278.26	196.77	66.89	7.43		
225.0	1244.83	1185.91	1009.68	779.10	534.87	325.77	227.99	94.53	11.29		
270.0	1242.07	1225.56	1080.21	873.75	624.34	384.84	281.34	150.69	33.03		
315.0	1244.27	1196.93	1048.93	831.30	585.47	355.28	246.71	131.14	22.63		
360.0	1244.83	1213.44	1058.18	851.72	620.49	373.83	281.89	142.60	26.37		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	5.07	3.91	3.41	3.03	2.75	2.64	2.59	2.59	2.59		
45.0	4.07	3.58	3.14	2.86	2.70	2.59	2.53	2.53	2.53		
90.0	3.96	3.47	3.08	2.81	2.70	2.59	2.59	2.53	2.59		
135.0	3.96	3.52	3.14	2.86	2.70	2.64	2.59	2.59	2.59		
180.0	3.96	3.47	3.08	2.86	2.70	2.64	2.59	2.59	2.59		
225.0	4.40	3.63	3.19	2.86	2.64	2.59	2.53	2.53	2.53		
270.0	5.34	3.80	3.30	2.97	2.75	2.59	2.53	2.53	2.53		
315.0	4.79	3.69	3.25	2.97	2.75	2.59	2.59	2.53	2.59		
360.0	5.07	3.91	3.41	3.03	2.75	2.64	2.59	2.59	2.59		
C/γ(°)	90.0										
0.0	2.59										
45.0	2.53										
90.0	2.53										
135.0	2.59										
180.0	2.59										
225.0	2.53										
270.0	2.53										
315.0	2.59										
360.0	2.59										