
Nata

Client:

LumCAT: 2-1284-N

Luminaire: 92.70.064.00

Report No: nata-0100

Test No:

LampCAT: CREE CMT1420

Lamp flux(lm): 1910.2

Number of Lamps: 1

Length(mm): 57

Phm Type: C

Voltage(V): 35.2000

Current(A): 0.4000

Power (W): 14.0800

PF: 0.0000

Ballast type: DC

Width(mm): 57

Height(mm): 0

Photometric Results

Lumens(lm): 1580.30, Efficiency(%): 82.73% , Luminous Efficacy(lm/W): 112.24

Central intensity(cd): 5324.091, Maximum intensity(cd): 5324.091

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=23.4

[C90/270]Total=23.4

Field angle(10%Imax): [C0/180]Total=62.4

[C90/270]Total=62.4

Maximum s/h(1/2): C0_180=0.39 C90_270=0.39

Maximum s/h(1/4): C0_180=0.45 C90_270=0.45

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 84.32%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.267%

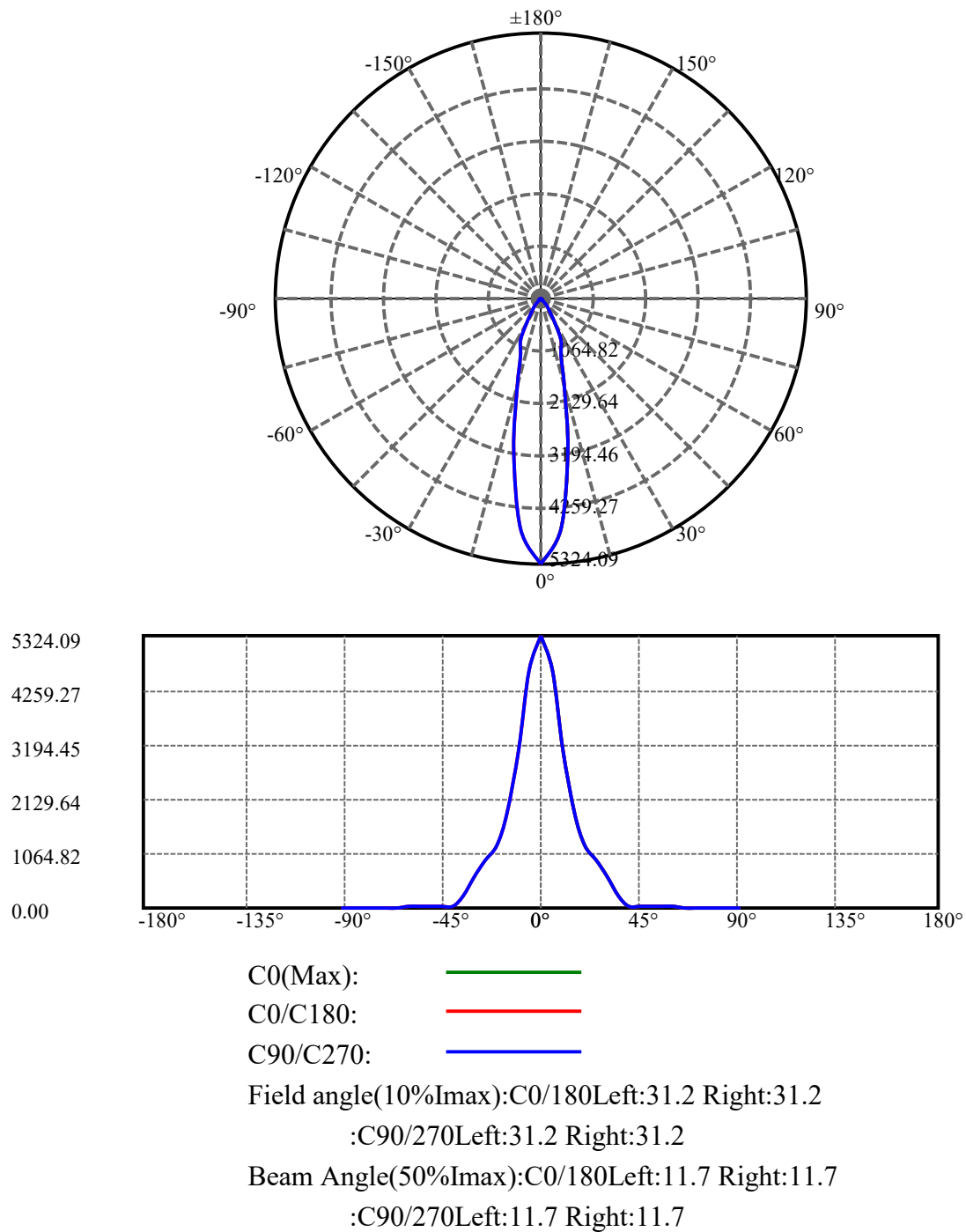
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5324.092	31.839	31.839	1.667%	2.015%
5.0	4622.673	220.840	252.68	11.561%	15.989%
10.0	3099.538	295.023	547.703	15.445%	34.658%
15.0	1847.005	262.032	809.735	13.717%	51.239%
20.0	1210.456	226.929	1036.664	11.880%	65.599%
25.0	925.711	214.444	1251.107	11.226%	79.169%
30.0	626.604	171.732	1422.84	8.990%	90.036%
35.0	222.201	69.860	1492.7	3.657%	94.457%
40.0	45.126	15.899	1508.599	.832%	95.463%
45.0	29.689	11.507	1520.106	.602%	96.191%
50.0	25.195	10.579	1530.686	.554%	96.861%
55.0	23.399	10.506	1541.192	.550%	97.525%
60.0	19.634	9.321	1550.512	.488%	98.115%
65.0	15.354	7.628	1558.14	.399%	98.598%
70.0	12.119	6.242	1564.382	.327%	98.993%
75.0	9.669	5.119	1569.502	.268%	99.317%
80.0	8.713	4.703	1574.205	.246%	99.614%
85.0	7.797	4.258	1578.463	.223%	99.884%
90.0	6.696	1.835	1580.298	.096%	100.000%

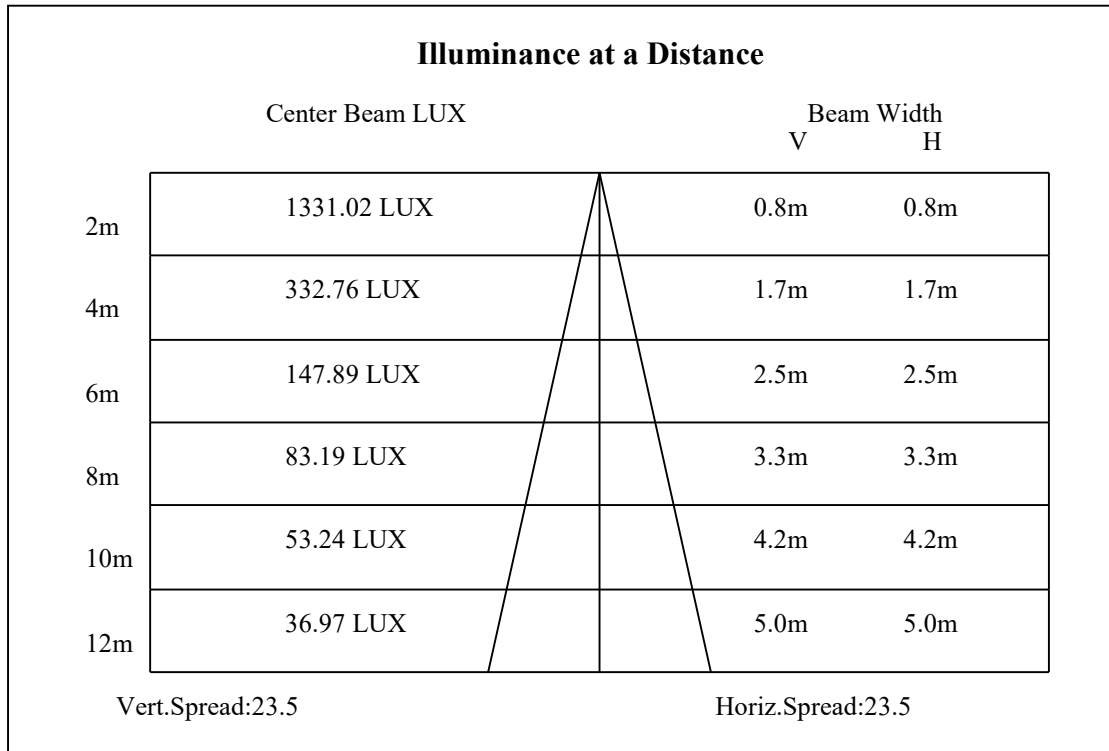
ZONAL LUMEN SUMMARY

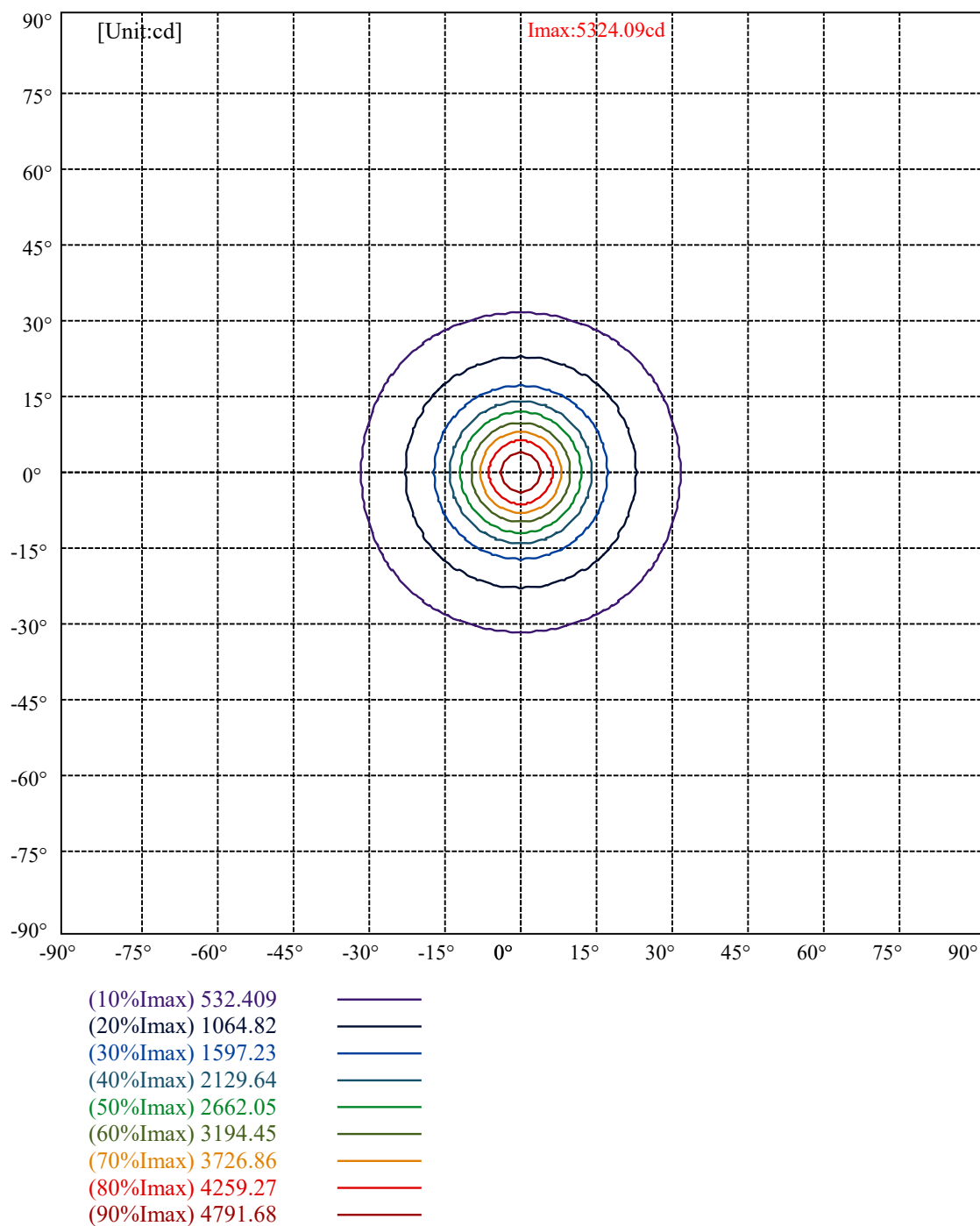
Zone	Lumens	%Lamp	%Fixt
0-30	1422.84	74.49%	90.04%
0-40	1508.60	78.98%	95.46%
0-60	1550.51	81.17%	98.12%
0-90	1578.46	82.63%	99.88%
0-120	1578.46	82.63%	99.88%
0-180	1580.30	82.73%	100.00%
60-90	37.27	1.95%	2.36%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.38	1264.24	66.18%	80.00%

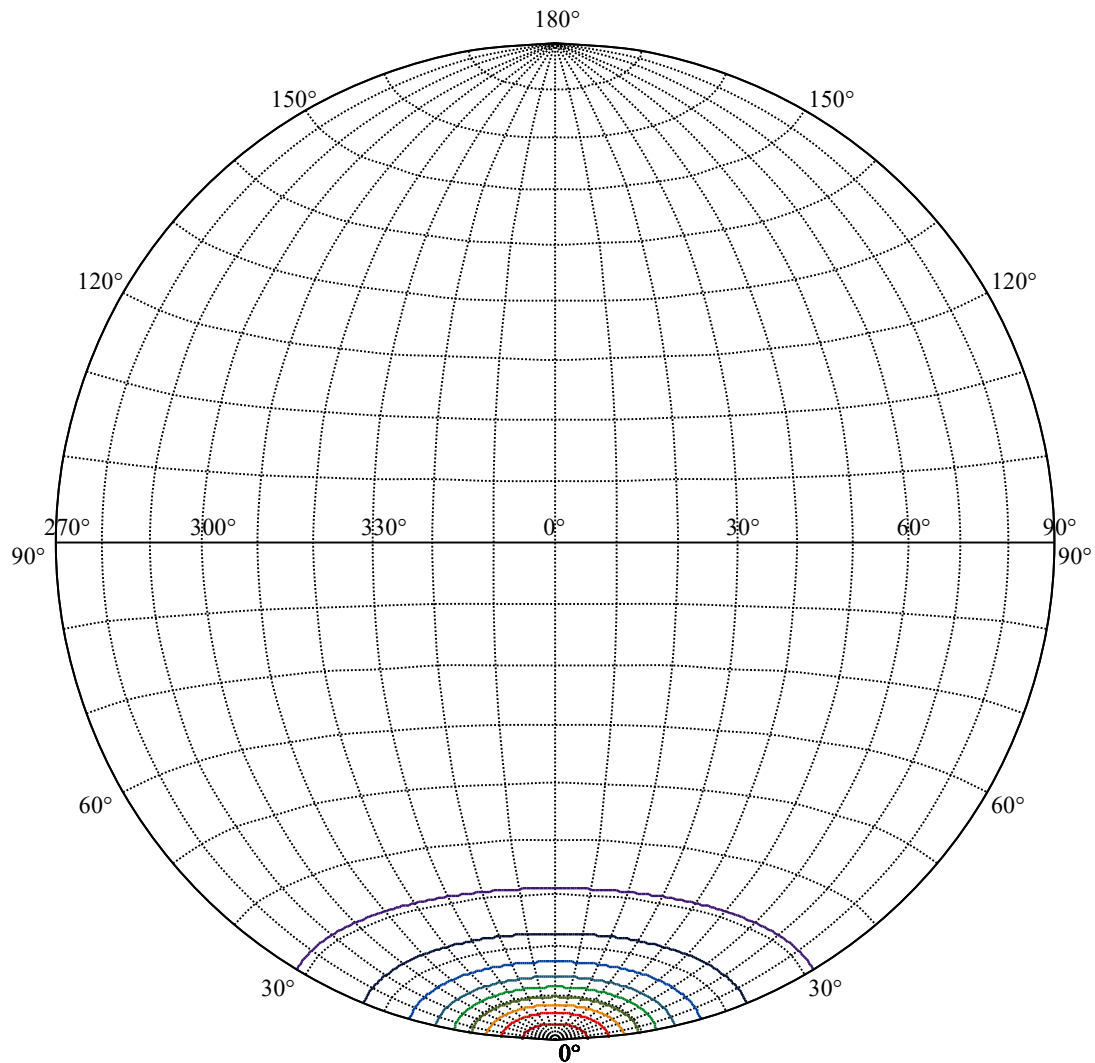
ZONAL LUMEN SUMMARY

0-10	547.70
10-20	488.96
20-30	386.18
30-40	85.76
40-50	22.09
50-60	19.83
60-70	13.87
70-80	9.82
80-90	4.26
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









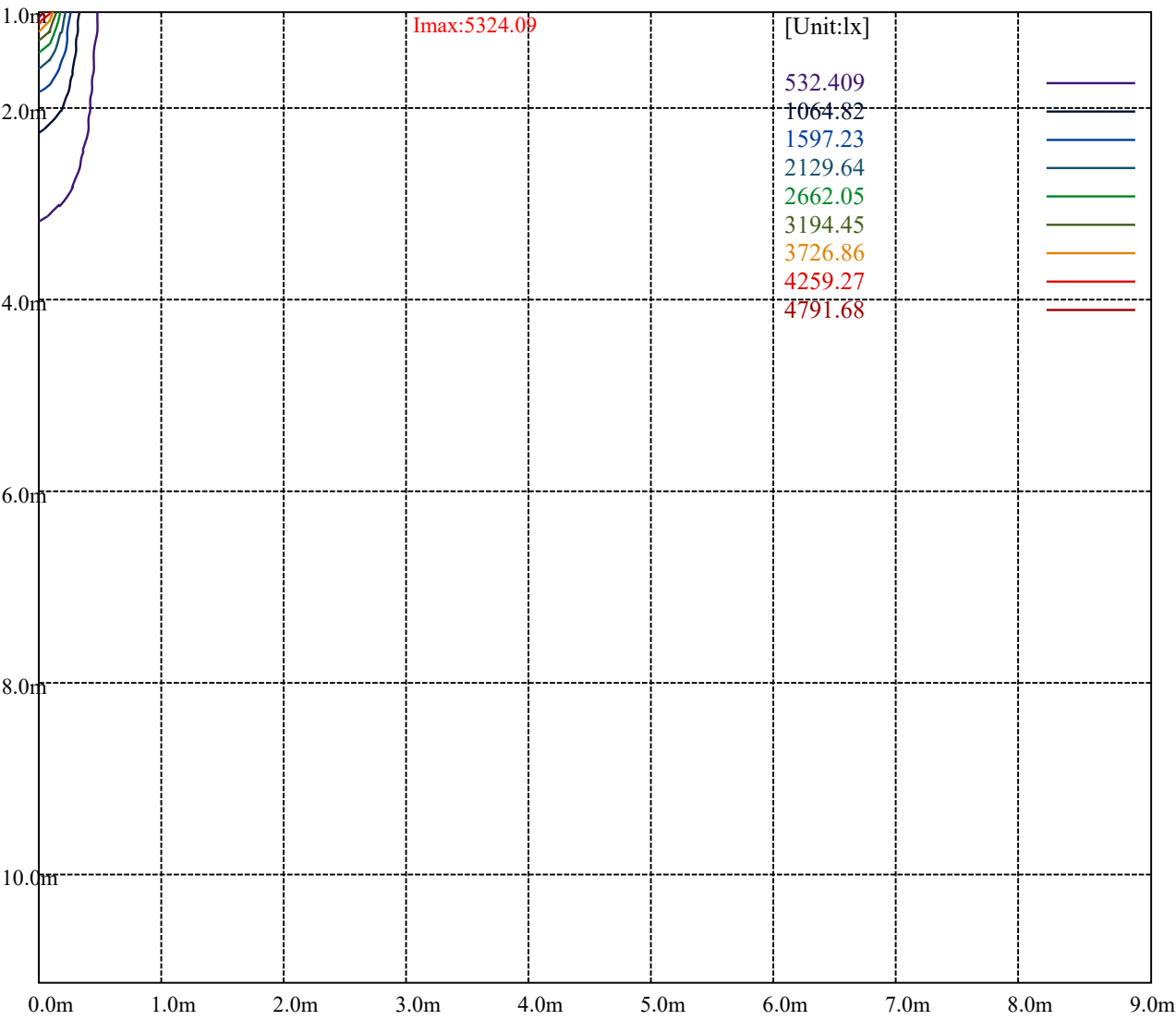
House

[Unit:cd]

Road

Imax:5324.09

(10%Imax)	532.409	—
(20%Imax)	1064.82	—
(30%Imax)	1597.23	—
(40%Imax)	2129.64	—
(50%Imax)	2662.05	—
(60%Imax)	3194.45	—
(70%Imax)	3726.86	—
(80%Imax)	4259.27	—
(90%Imax)	4791.68	—



Luminance Table

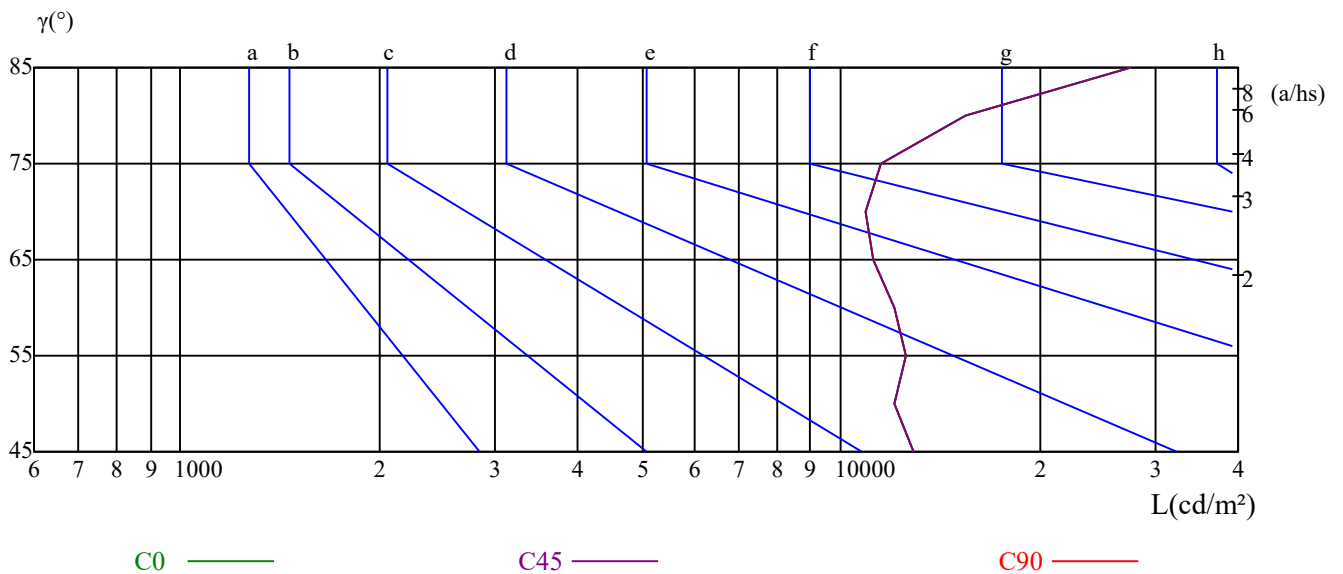
γ	45	50	55	60	65	70	75	80	85
C0	12923	12064	12556	12086	11182	10906	11499	15443	27536
C45	12923	12064	12556	12086	11182	10906	11499	15443	27536
C90	12923	12064	12556	12086	11182	10906	11499	15443	27536

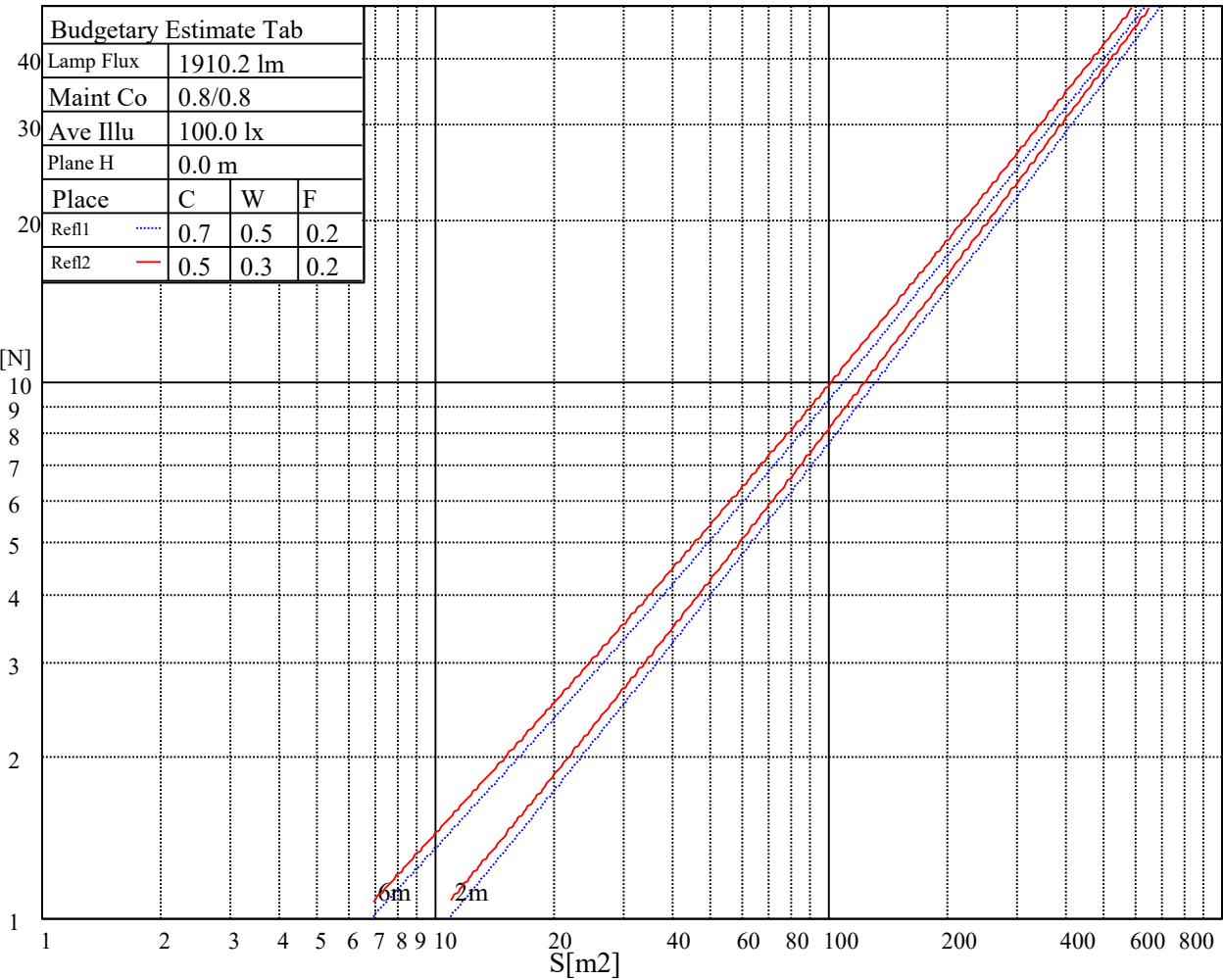
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
11182	11182	11182	11499	11499	11499	27536	27536	27536

Glare Table

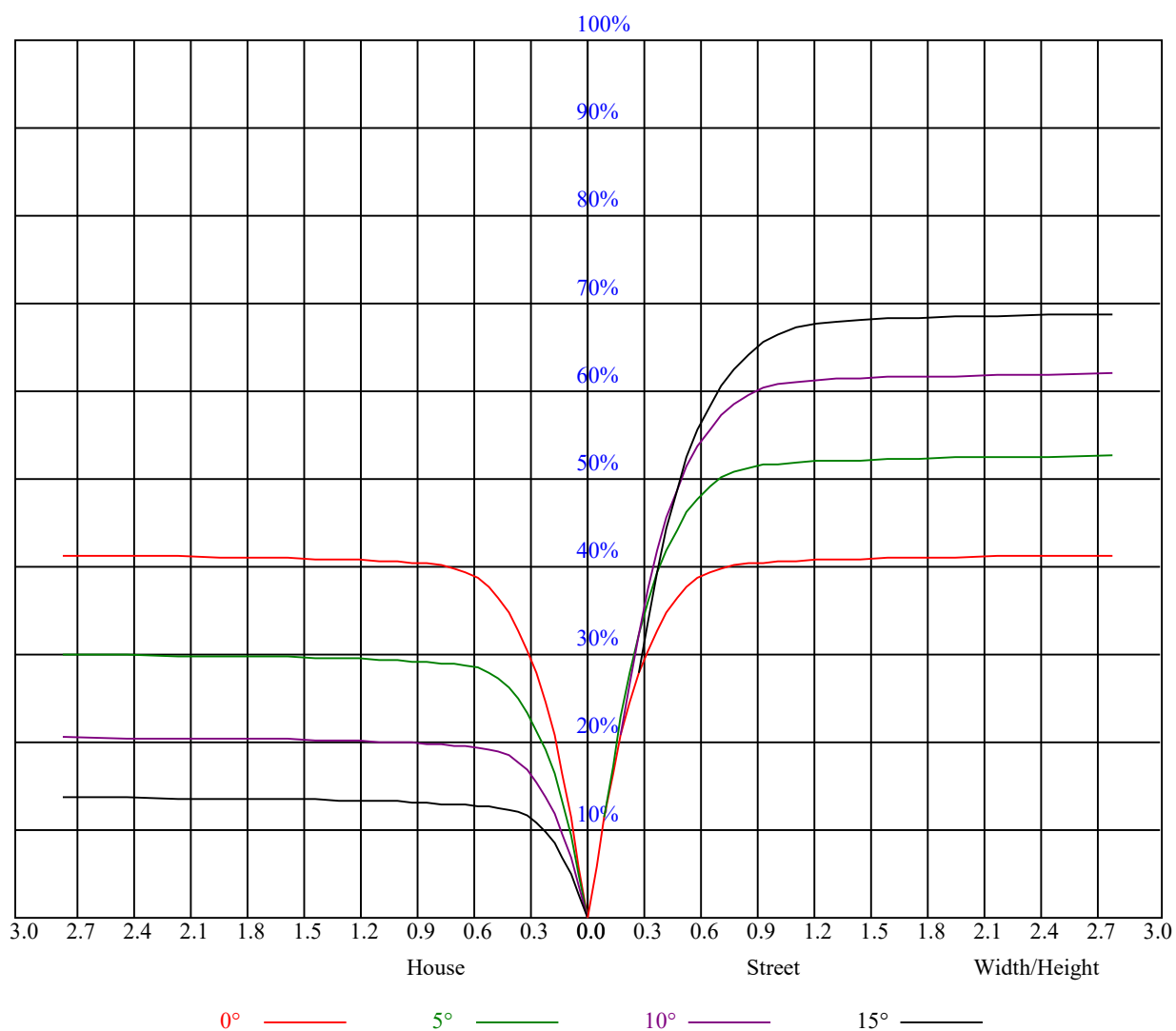
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

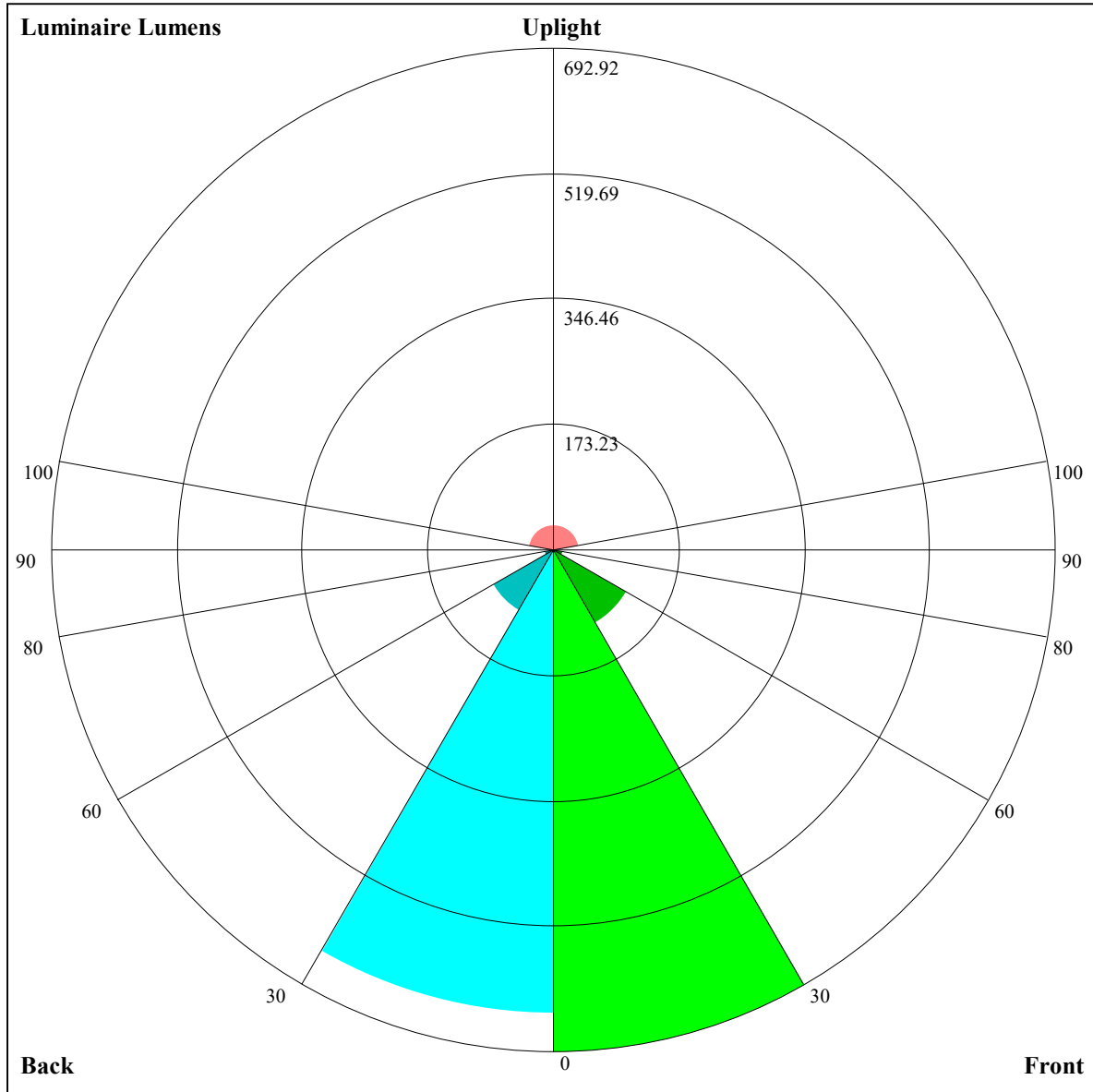
Luminance Limiting Curve





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	1.00	1.00	1.00	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.84
1	0.92	0.90	0.88	0.90	0.88	0.86	0.87	0.85	0.84	0.84	0.82	0.81	0.81	0.80	0.79	0.77
2	0.87	0.84	0.81	0.86	0.83	0.80	0.83	0.80	0.78	0.80	0.78	0.77	0.78	0.77	0.75	0.74
3	0.83	0.79	0.76	0.82	0.78	0.75	0.79	0.76	0.74	0.77	0.75	0.73	0.76	0.74	0.72	0.71
4	0.79	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.73	0.71	0.69	0.68
5	0.76	0.71	0.68	0.75	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.68	0.66	0.65
6	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.66	0.64	0.69	0.66	0.64	0.63
7	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.61
8	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.64	0.62	0.59	0.59
9	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.63	0.60	0.58	0.57
10	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.61	0.58	0.56	0.55





Luminaire Lumens:

FL=692.92,FM=116.39,FH=13.15,FVH=4.22

BL=639.31,BM=97.8,BH=12.82,BVH=4.18

UL=7.31,UH=34.77

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	5286.52	5030.50	3581.42	2152.15	1421.56	1010.28	739.41	307.21	60.29		
45.0	5292.57	5153.28	3682.17	2176.38	1446.88	1037.81	769.69	341.90	57.42		
90.0	5380.66	4679.79	3248.88	1815.21	1086.98	892.08	646.69	217.20	45.15		
135.0	5336.62	4756.87	3309.99	1895.04	1285.02	965.14	691.51	284.64	44.54		
180.0	5286.52	4266.32	2652.62	1674.27	1085.27	861.63	486.53	100.09	37.49		
225.0	5292.57	4218.97	2624.54	1628.57	1090.34	863.34	490.39	99.16	37.00		
270.0	5380.66	4475.53	2870.09	1725.47	1181.51	879.25	580.85	282.44	39.42		
315.0	5336.62	4400.11	2826.60	1708.95	1086.10	896.15	607.77	144.96	39.70		
360.0	5286.52	5030.50	3581.42	2152.15	1421.56	1010.28	739.41	307.21	60.29		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	33.75	25.66	23.78	20.43	16.30	13.60	10.19	9.08	8.20		
45.0	32.87	26.04	23.89	20.32	16.24	13.21	9.97	9.08	8.04		
90.0	30.06	24.94	23.29	19.77	15.31	12.83	9.63	8.59	7.76		
135.0	28.79	24.17	23.89	21.03	16.08	13.49	9.97	9.03	8.15		
180.0	25.77	22.30	21.20	18.44	15.09	11.01	9.58	8.81	8.04		
225.0	27.20	24.22	22.41	18.55	14.26	10.63	9.25	8.37	7.54		
270.0	30.01	28.08	25.00	19.66	14.81	11.01	9.30	8.31	7.21		
315.0	29.07	26.15	23.73	18.88	14.76	11.18	9.47	8.42	7.43		
360.0	33.75	25.66	23.78	20.43	16.30	13.60	10.19	9.08	8.20		
C/ γ (°)	90.0										
0.0	7.16										
45.0	6.94										
90.0	6.72										
135.0	6.61										
180.0	6.55										
225.0	6.50										
270.0	6.50										
315.0	6.61										
360.0	7.16										