
Nata

Client:

LumCAT: 2-1795-N

Luminaire: 92.70.135.00

Report No: nata-0100

Test No: GC2018052806

LampCAT: NICHIA NFDWJ130B-V3

Lamp flux(lm): 2340.9

Number of Lamps: 1

Length(mm): 69

Phm Type: C

Voltage(V): 36.3000

Current(A): 0.4900

Power (W): 17.7870

PF: 0.0000

Ballast type: DC

Width(mm): 69

Height(mm): 0

Photometric Results

Lumens(lm): 1930.23, Efficiency(%): 82.46% , Luminous Efficacy(lm/W): 108.52

Central intensity(cd): 3934.193, Maximum intensity(cd): 3934.193

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=41.0

[C90/270]Total=41.0

Field angle(10%Imax): [C0/180]Total=64.6

[C90/270]Total=64.6

Maximum s/h(1/2): C0_180=0.67 C90_270=0.67

Maximum s/h(1/4): C0_180=0.64 C90_270=0.64

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 83.38%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.695%

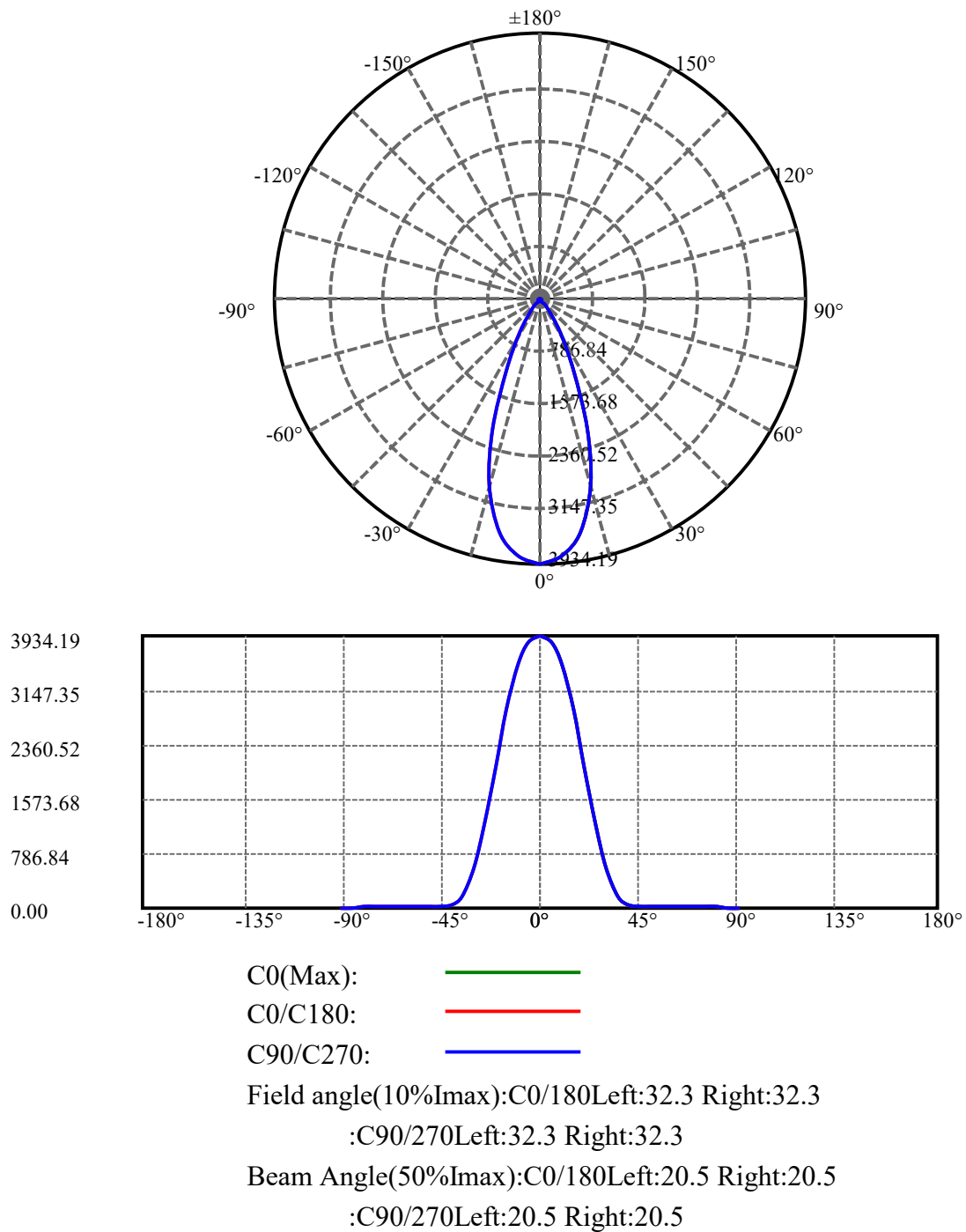
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3934.193	23.527	23.527	1.005%	1.219%
5.0	3831.581	183.047	206.575	7.820%	10.702%
10.0	3515.282	334.595	541.17	14.294%	28.037%
15.0	2862.795	406.140	947.31	17.350%	49.078%
20.0	2044.244	383.243	1330.553	16.372%	68.932%
25.0	1202.150	278.481	1609.034	11.896%	83.360%
30.0	582.738	159.710	1768.744	6.823%	91.634%
35.0	166.690	52.407	1821.151	2.239%	94.349%
40.0	55.462	19.541	1840.693	.835%	95.361%
45.0	34.486	13.366	1854.059	.571%	96.054%
50.0	28.093	11.796	1865.855	.504%	96.665%
55.0	24.493	10.998	1876.853	.470%	97.235%
60.0	22.257	10.565	1887.418	.451%	97.782%
65.0	19.820	9.846	1897.265	.421%	98.292%
70.0	17.577	9.053	1906.318	.387%	98.761%
75.0	15.423	8.166	1914.484	.349%	99.184%
80.0	13.392	7.229	1921.713	.309%	99.559%
85.0	11.080	6.050	1927.763	.258%	99.872%
90.0	9.009	2.469	1930.232	.105%	100.000%

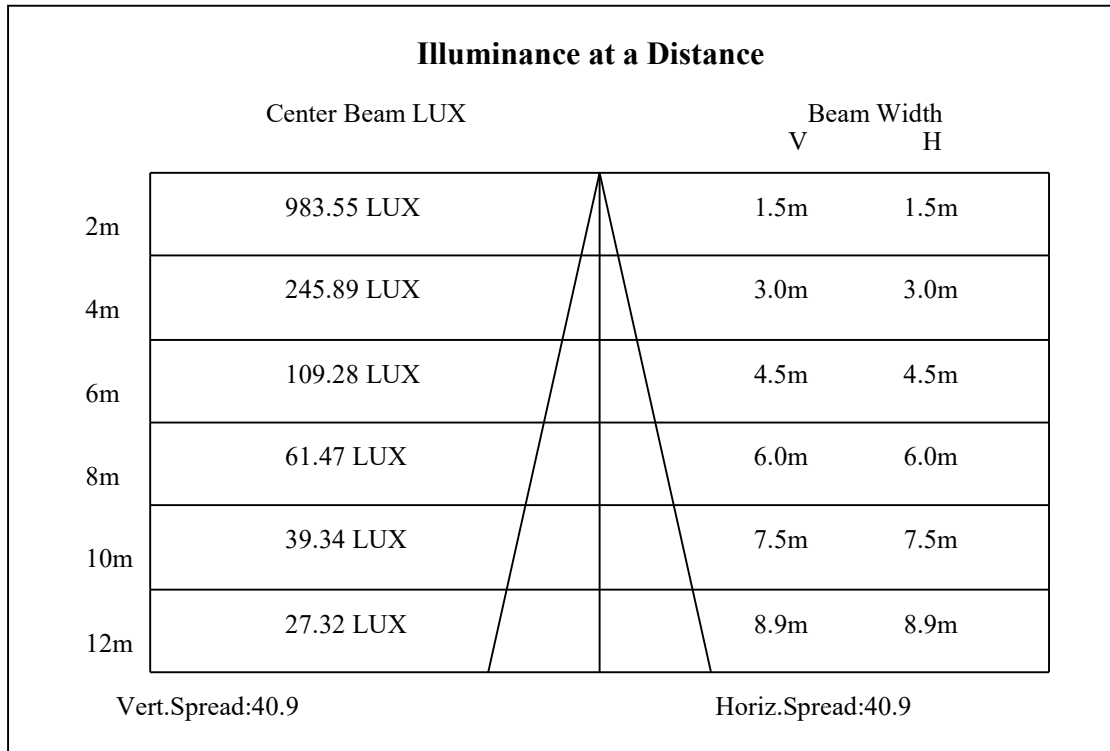
ZONAL LUMEN SUMMARY

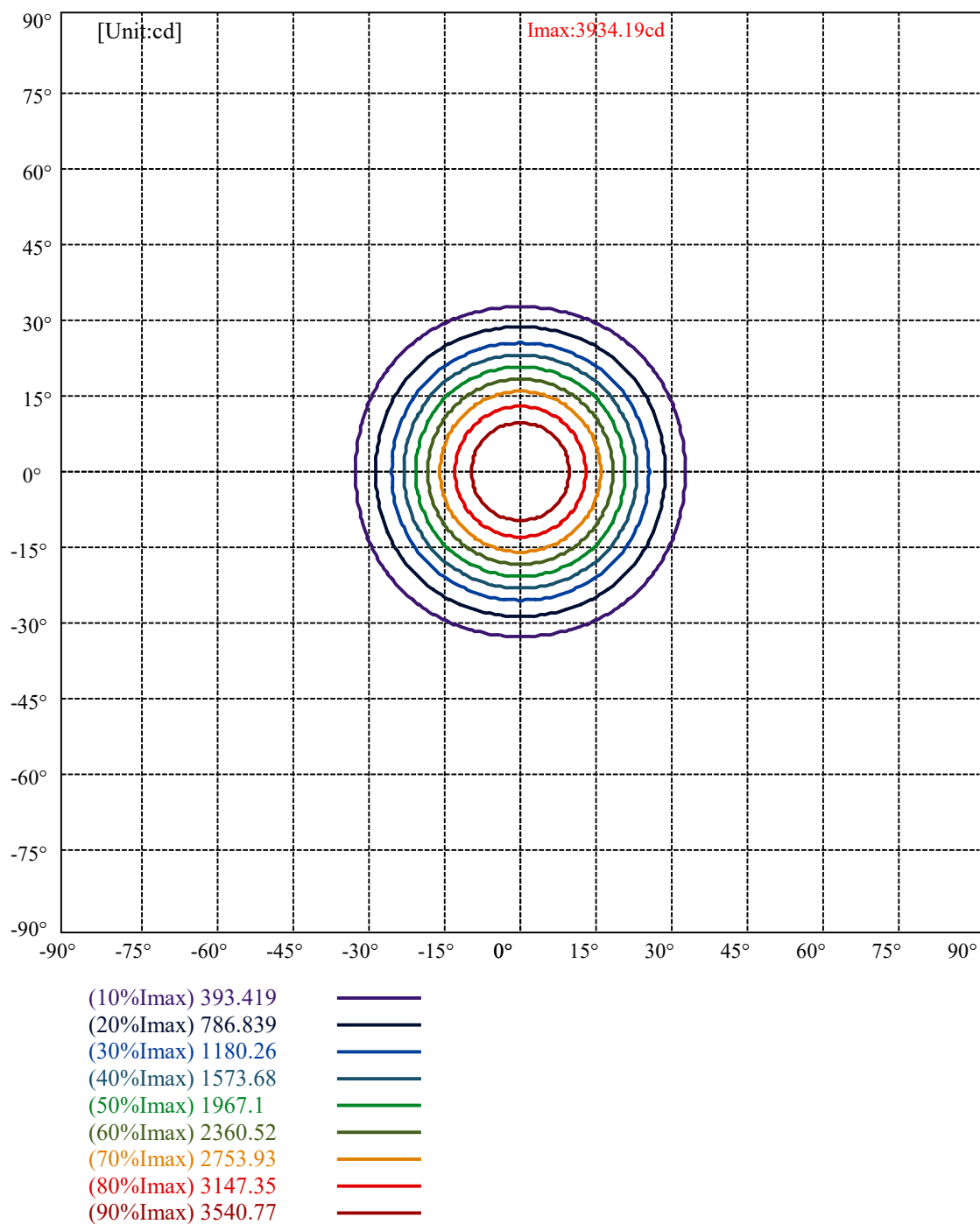
Zone	Lumens	%Lamp	%Fixt
0-30	1768.74	75.56%	91.63%
0-40	1840.69	78.63%	95.36%
0-60	1887.42	80.63%	97.78%
0-90	1927.76	82.35%	99.87%
0-120	1927.76	82.35%	99.87%
0-180	1930.23	82.46%	100.00%
60-90	50.91	2.17%	2.64%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-23.84	1544.19	65.97%	80.00%

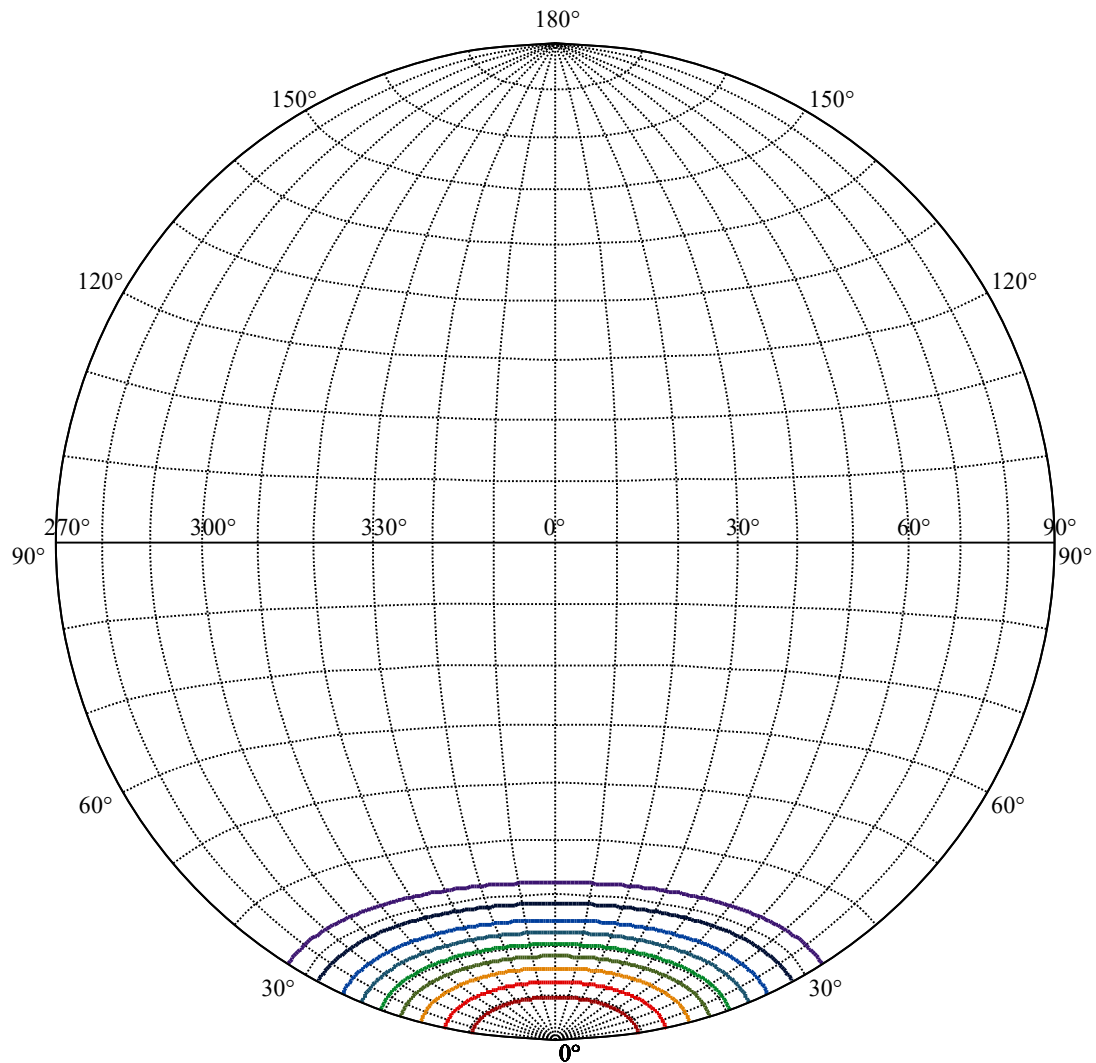
ZONAL LUMEN SUMMARY

0-10	541.17
10-20	789.38
20-30	438.19
30-40	71.95
40-50	25.16
50-60	21.56
60-70	18.90
70-80	15.40
80-90	6.05
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









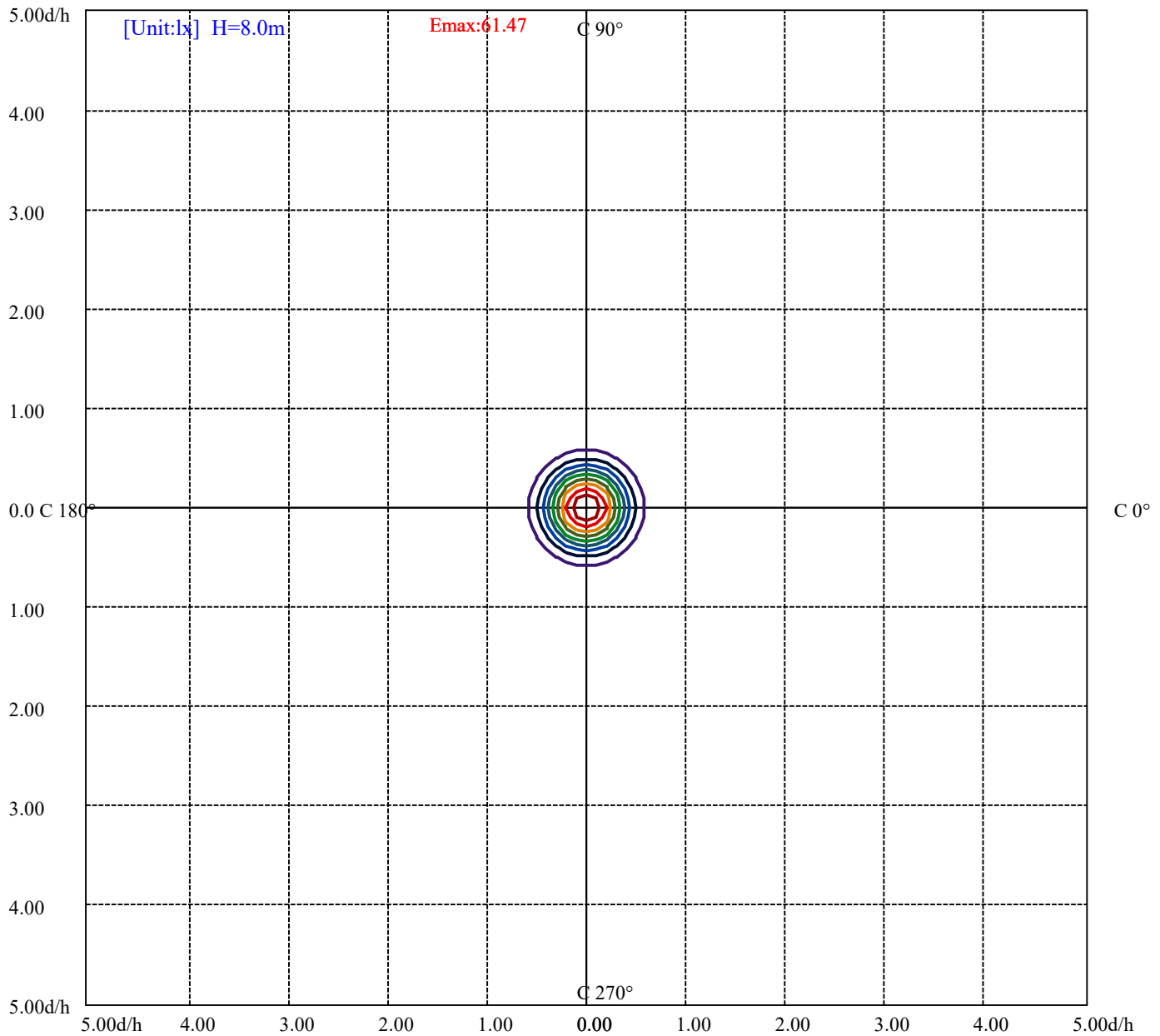
House

[Unit:cd]

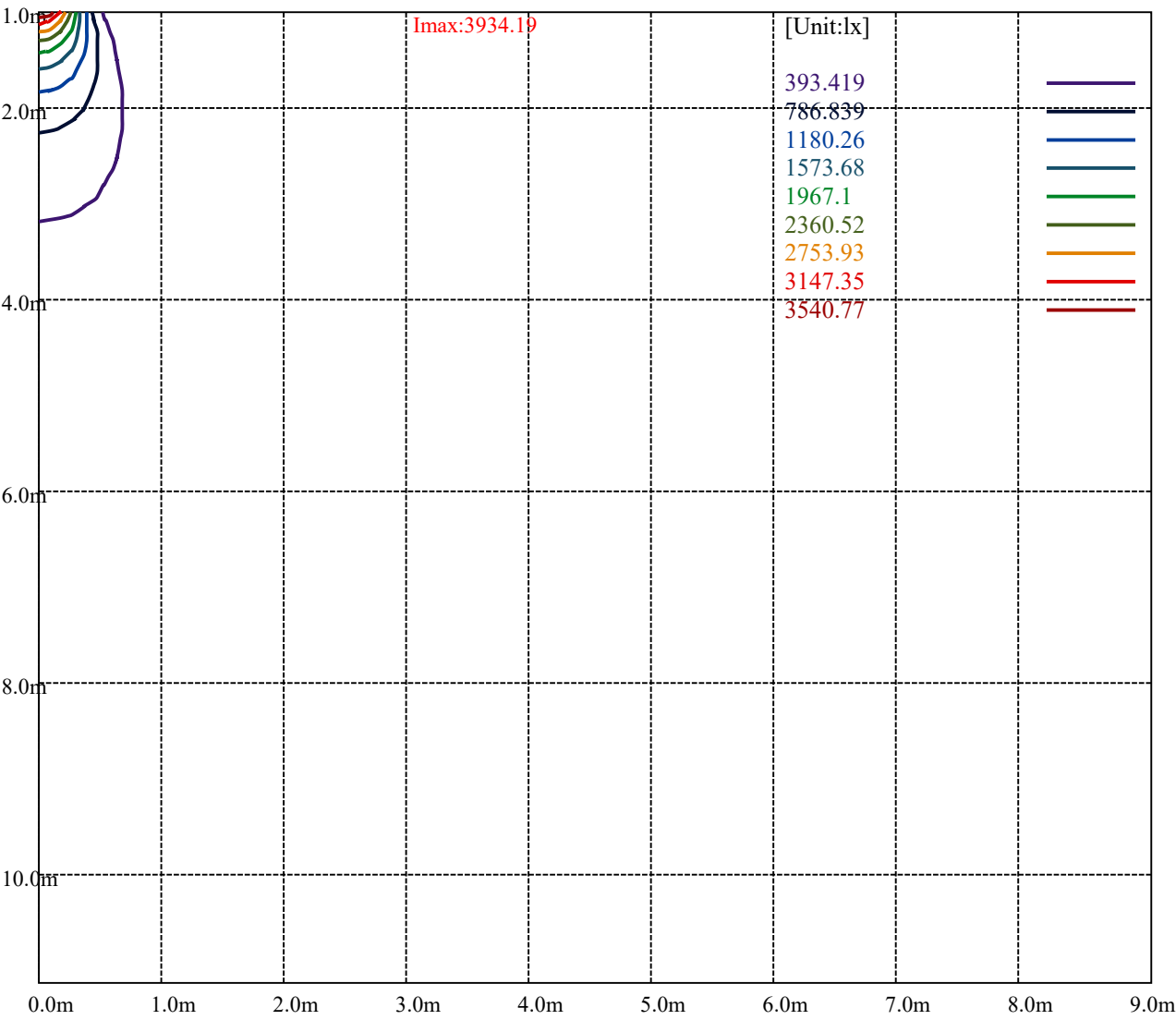
Road

Imax:3934.19

(10%Imax)	393.419	—
(20%Imax)	786.839	—
(30%Imax)	1180.26	—
(40%Imax)	1573.68	—
(50%Imax)	1967.1	—
(60%Imax)	2360.52	—
(70%Imax)	2753.93	—
(80%Imax)	3147.35	—
(90%Imax)	3540.77	—



(10%Emax) 6.147172	—
(20%Emax) 12.29434	—
(30%Emax) 18.44156	—
(40%Emax) 24.58875	—
(50%Emax) 30.73578	—
(60%Emax) 36.88297	—
(70%Emax) 43.03016	—
(80%Emax) 49.17735	—
(90%Emax) 55.32453	—



Luminance Table

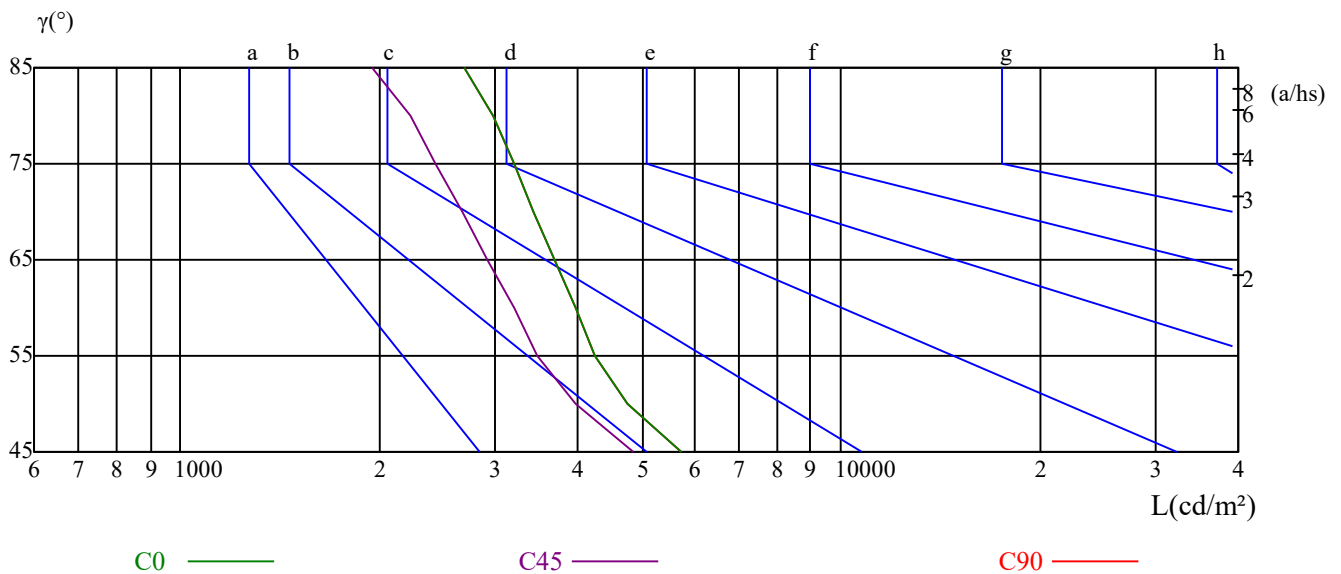
γ	45	50	55	60	65	70	75	80	85
C0	5746	4750	4235	3969	3678	3427	3192	2979	2685
C45	4862	3958	3476	3205	2920	2671	2440	2226	1956
C90	5746	4750	4235	3969	3678	3427	3192	2979	2685

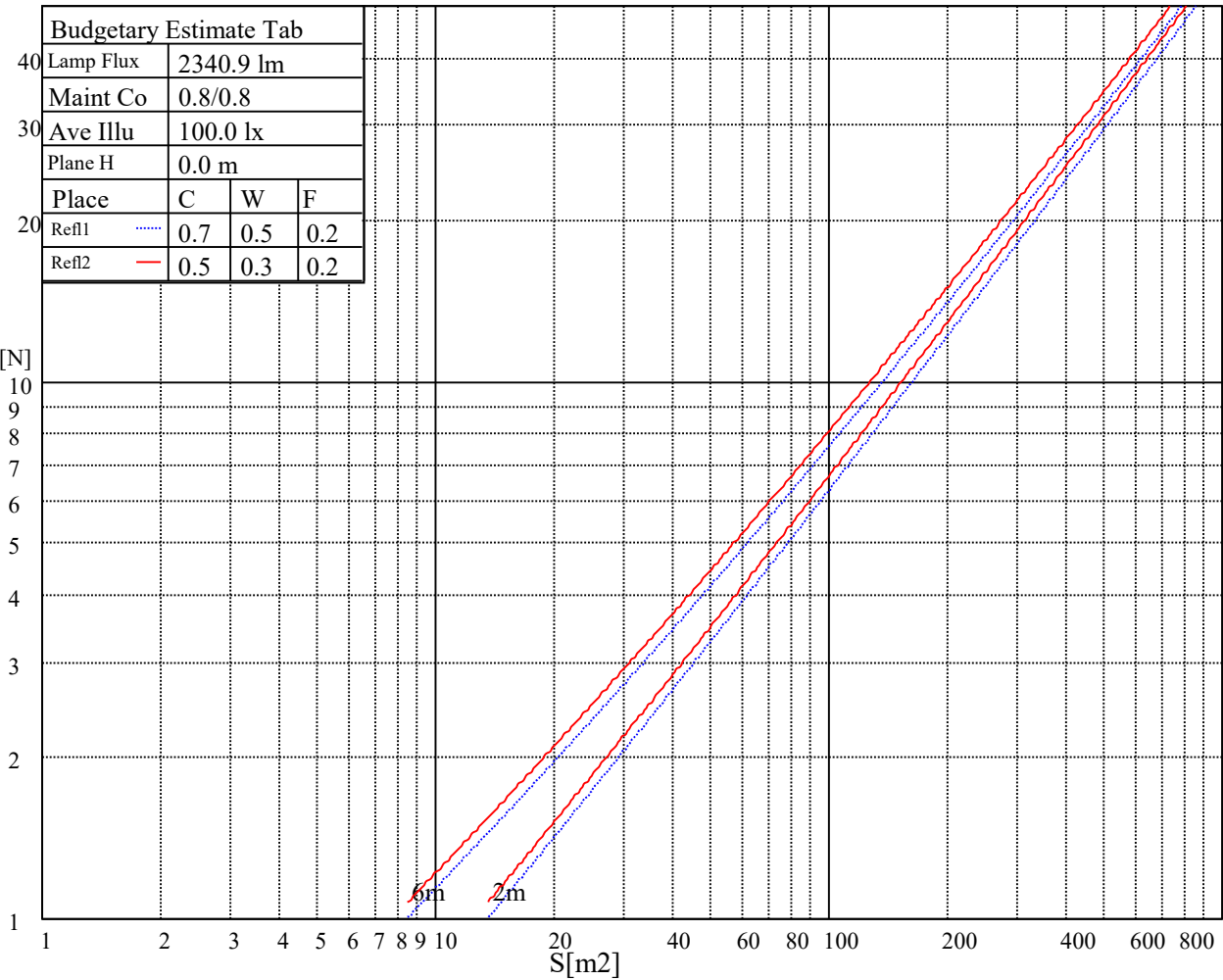
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
9851	9851	9851	12516	12516	12516	26702	26702	26702

Glare Table

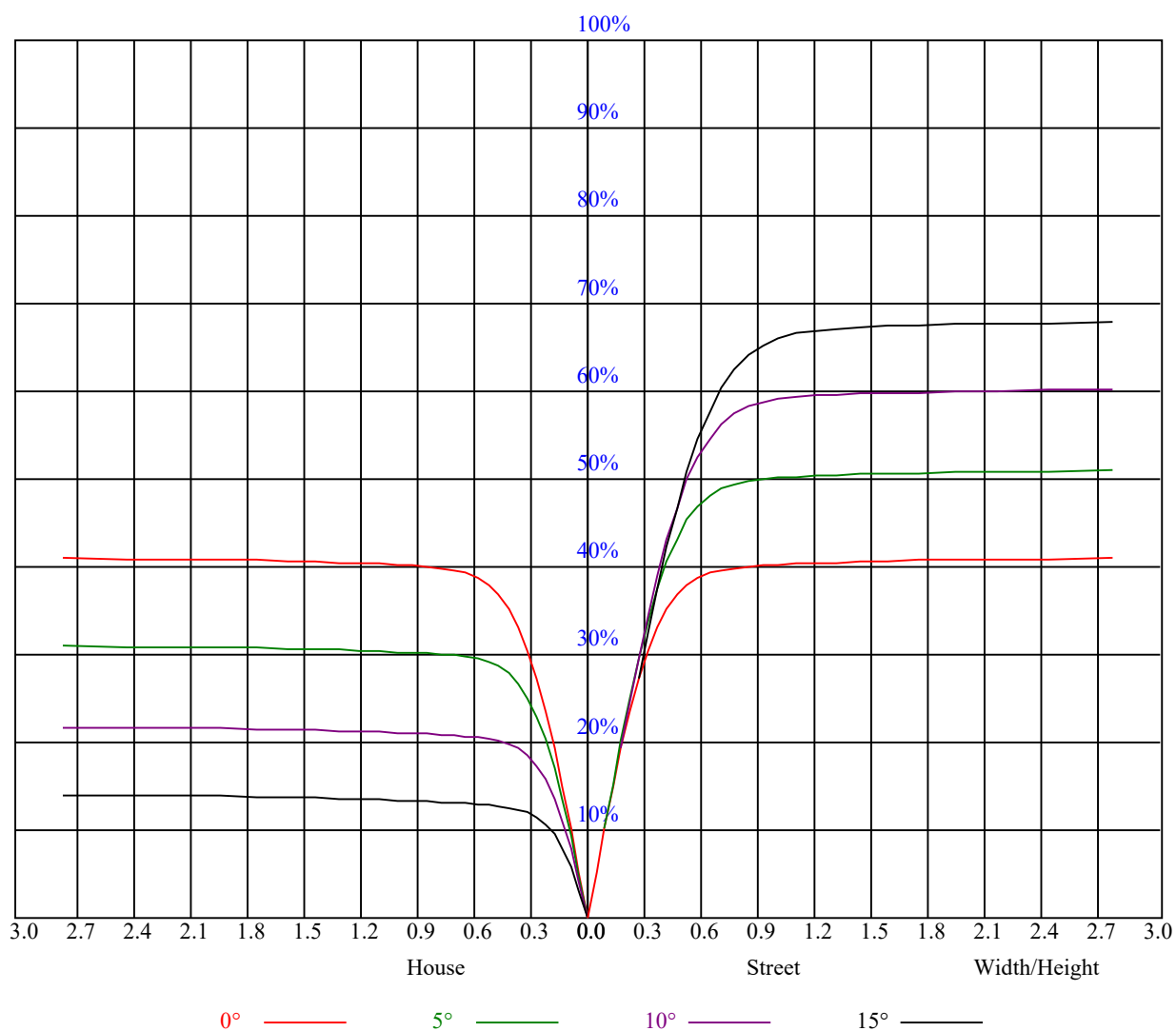
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

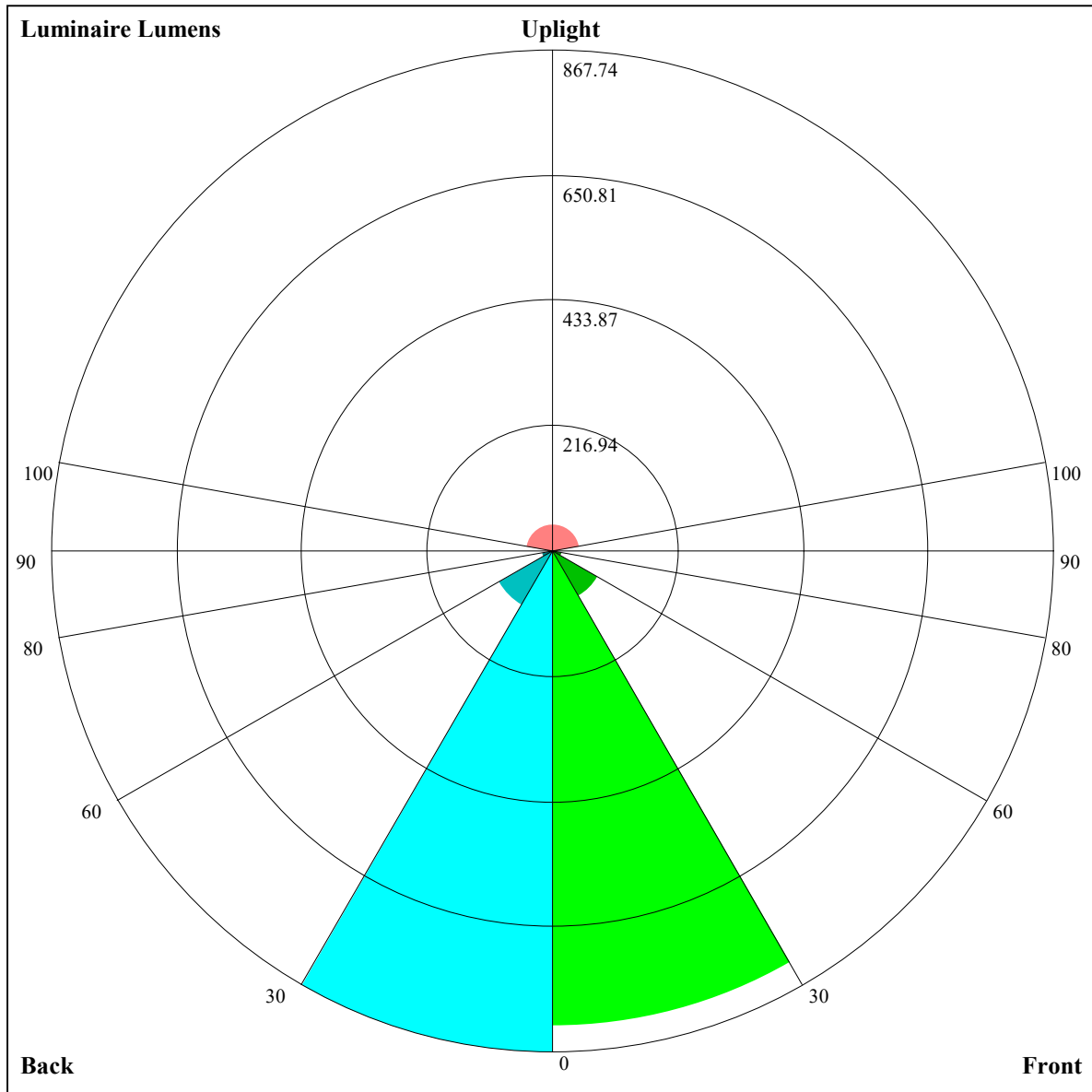
Luminance Limiting Curve





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 RHOF=20 CU															
0	0.99	0.99	0.99	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.83
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	0.85	0.83	0.80	0.83	0.80	0.78	0.80	0.78	0.77	0.78	0.76	0.75	0.74
3	0.82	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.77	0.75	0.73	0.75	0.73	0.72	0.71
4	0.79	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.70	0.74	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.70	0.68	0.66	0.65
6	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.66	0.64	0.63
7	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.60
8	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.58
9	0.64	0.60	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.56
10	0.62	0.58	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.61	0.58	0.55	0.60	0.57	0.55	0.54





Luminaire Lumens:

FL=822.16,FM=89.39,FH=17.78,FVH=6.01

BL=867.74,BM=109.13,BH=18.48,BVH=6.17

UL=9.83,UH=46.77

BUG Rating:B2-U2-G0

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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	3948.65	3838.53	3554.99	2881.10	2028.83	1194.17	539.55	120.79	50.27		
45.0	3929.38	3760.90	3389.82	2579.94	1753.00	1013.59	358.97	79.39	42.28		
90.0	3921.12	3745.49	3300.08	2513.32	1673.71	885.47	349.55	78.18	39.75		
135.0	3937.63	3837.43	3526.36	2897.62	2067.37	1248.13	574.24	192.15	51.86		
180.0	3948.65	3833.03	3521.96	2898.72	2058.56	1092.76	623.51	161.26	58.58		
225.0	3929.38	3902.95	3654.64	3163.54	2343.75	1521.76	837.02	273.58	74.44		
270.0	3921.12	3896.34	3664.00	3153.63	2392.75	1568.01	828.05	294.00	74.38		
315.0	3937.63	3837.98	3510.40	2814.48	2035.99	1093.31	551.00	134.17	52.14		
360.0	3948.65	3838.53	3554.99	2881.10	2028.83	1194.17	539.55	120.79	50.27		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	35.07	28.13	24.45	21.97	19.38	17.01	15.20	13.21	11.40		
45.0	31.22	25.93	22.68	20.65	18.06	15.80	14.09	11.84	10.30		
90.0	30.89	26.48	23.56	21.14	18.88	16.63	14.15	11.73	9.80		
135.0	33.42	27.64	24.11	21.69	19.49	17.01	14.98	12.88	10.46		
180.0	34.85	28.41	24.61	22.57	19.93	17.84	15.47	13.49	11.07		
225.0	38.70	30.34	25.82	23.89	21.42	18.99	16.74	14.76	12.11		
270.0	38.21	30.83	26.59	24.17	21.86	20.04	17.73	16.19	12.55		
315.0	33.53	26.98	24.11	21.97	19.55	17.29	15.03	13.05	10.96		
360.0	35.07	28.13	24.45	21.97	19.38	17.01	15.20	13.21	11.40		
C/γ(°)	90.0										
0.0	9.19										
45.0	8.70										
90.0	8.70										
135.0	8.70										
180.0	8.81										
225.0	9.97										
270.0	9.14										
315.0	8.86										
360.0	9.19										