
Nata

Client:

LumCAT: 2-1794-N

Luminaire: 92.70.135.00

Report No: nata-0100

Test No: GC2018052805

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): 1991.01, Efficiency(%): 85.05% , Luminous Efficacy(lm/W): 111.94

Central intensity(cd): 6371.264, Maximum intensity(cd): 6371.264

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=28.0

[C90/270]Total=28.0

Field angle(10%Imax): [C0/180]Total=58.0

[C90/270]Total=58.0

Maximum s/h(1/2): C0_180=0.47 C90_270=0.47

Maximum s/h(1/4): C0_180=0.49 C90_270=0.49

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 86.60%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.559%

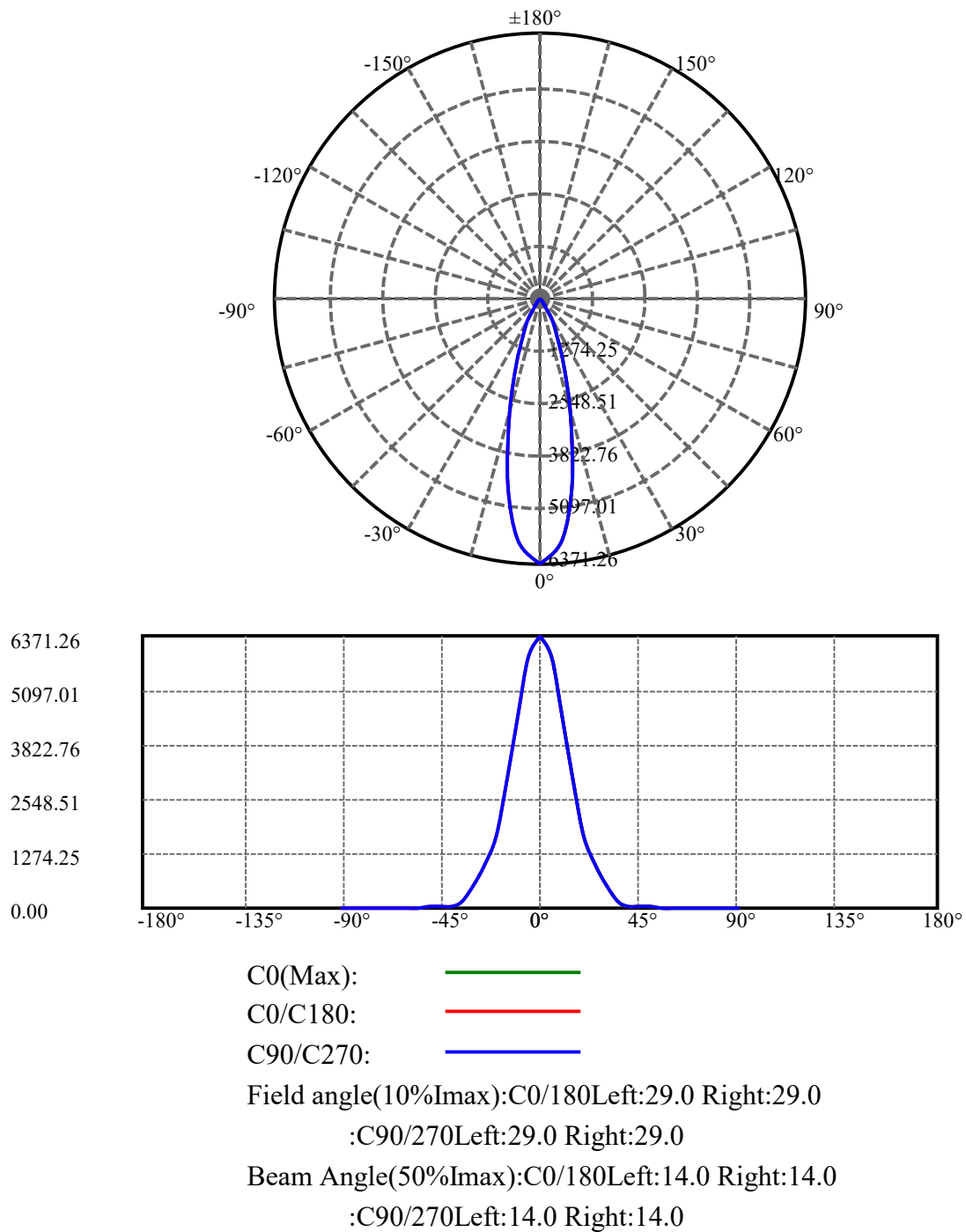
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6371.264	38.101	38.101	1.628%	1.914%
5.0	5841.966	279.090	317.192	11.922%	15.931%
10.0	4516.621	429.906	747.097	18.365%	37.524%
15.0	2871.260	407.341	1154.438	17.401%	57.983%
20.0	1673.247	313.690	1468.129	13.401%	73.738%
25.0	986.521	228.530	1696.659	9.763%	85.216%
30.0	554.081	151.856	1848.515	6.487%	92.843%
35.0	169.649	53.338	1901.853	2.279%	95.522%
40.0	46.970	16.549	1918.402	.707%	96.353%
45.0	31.891	12.361	1930.763	.528%	96.974%
50.0	24.135	10.134	1940.897	.433%	97.483%
55.0	19.545	8.776	1949.673	.375%	97.924%
60.0	16.407	7.788	1957.461	.333%	98.315%
65.0	14.005	6.957	1964.419	.297%	98.665%
70.0	12.635	6.508	1970.927	.278%	98.991%
75.0	11.548	6.114	1977.041	.261%	99.298%
80.0	10.729	5.792	1982.833	.247%	99.589%
85.0	10.461	5.712	1988.545	.244%	99.876%
90.0	8.988	2.463	1991.008	.105%	100.000%

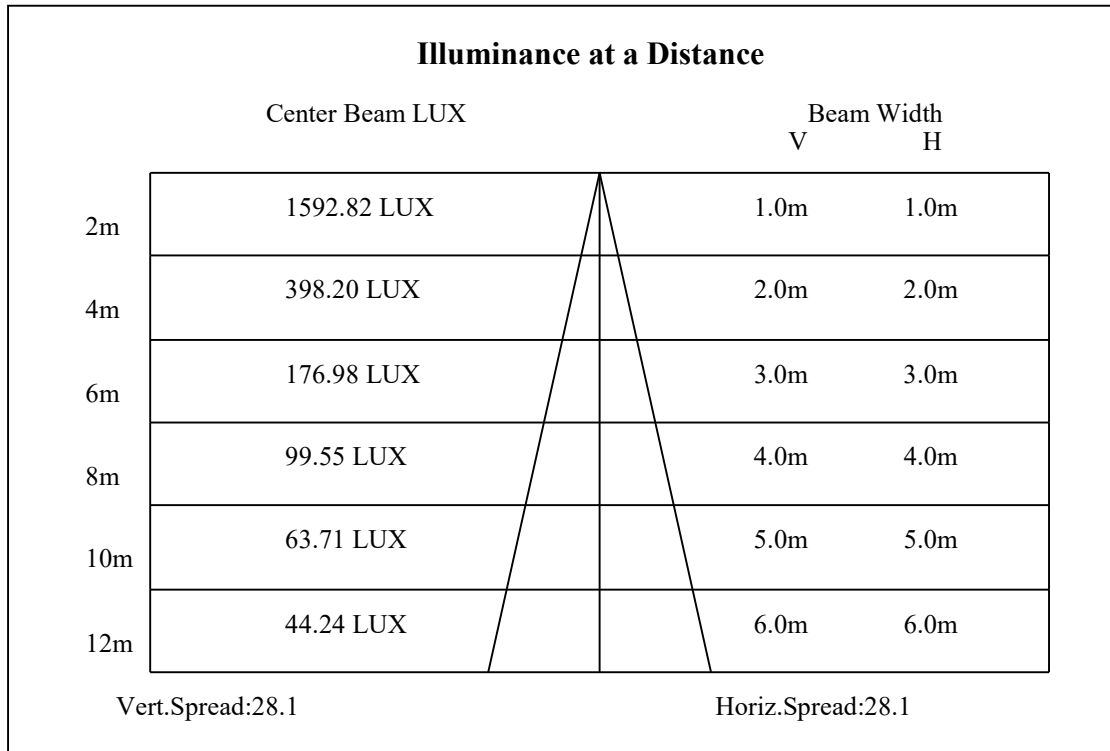
ZONAL LUMEN SUMMARY

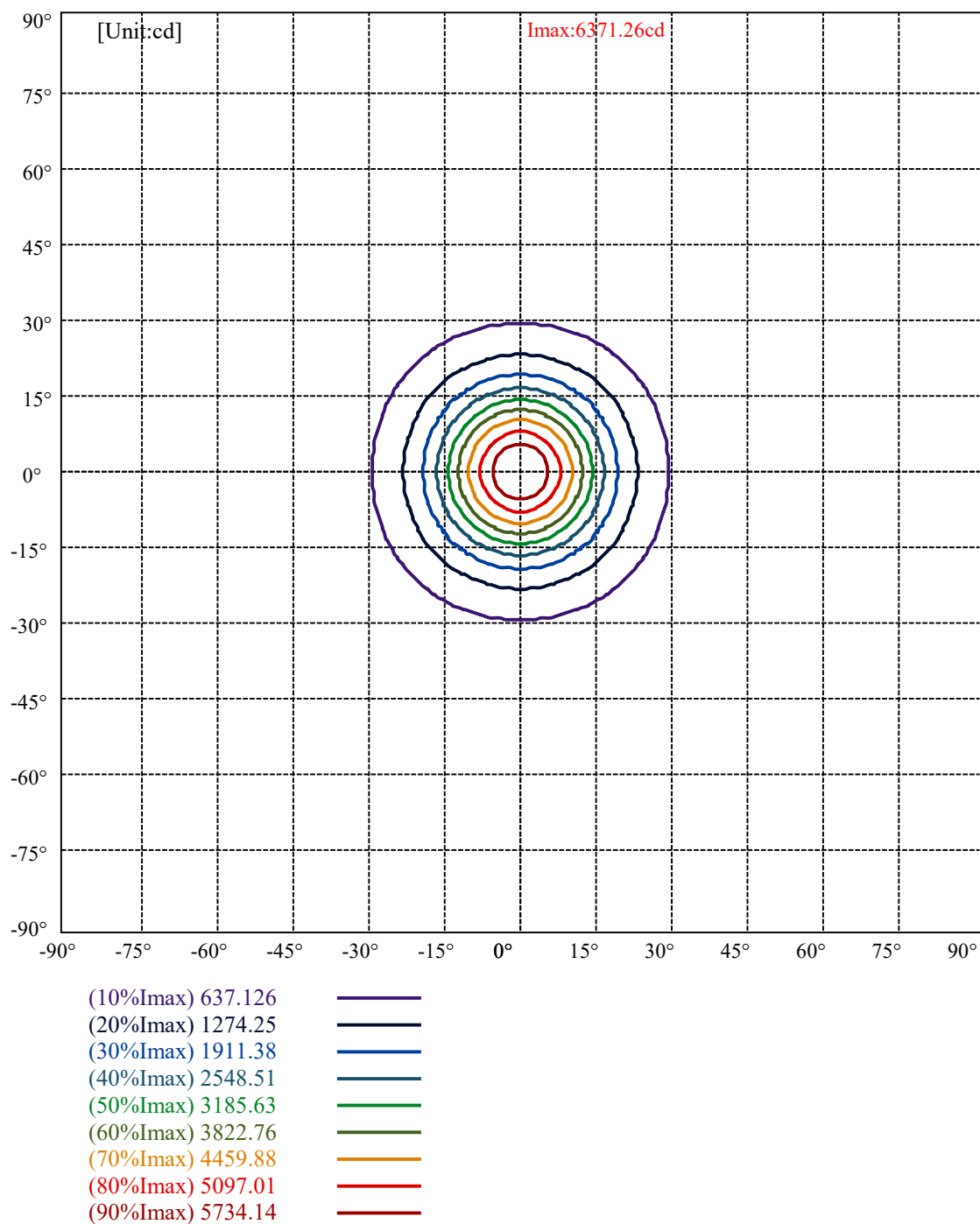
Zone	Lumens	%Lamp	%Fixt
0-30	1848.52	78.97%	92.84%
0-40	1918.40	81.95%	96.35%
0-60	1957.46	83.62%	98.32%
0-90	1988.55	84.95%	99.88%
0-120	1988.55	84.95%	99.88%
0-180	1991.01	85.05%	100.00%
60-90	38.87	1.66%	1.95%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-22.73	1592.81	68.04%	80.00%

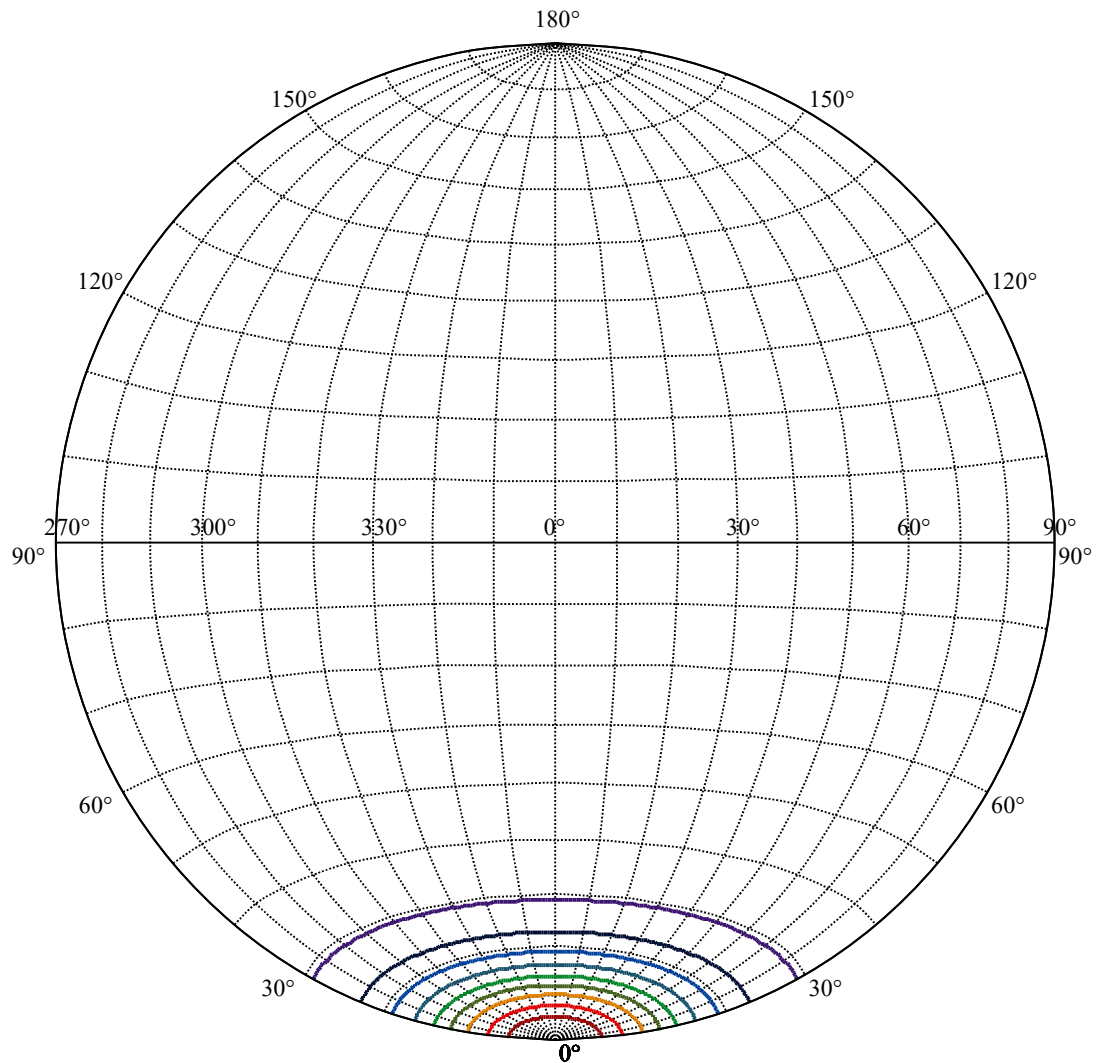
ZONAL LUMEN SUMMARY

0-10	747.10
10-20	721.03
20-30	380.39
30-40	69.89
40-50	22.50
50-60	16.56
60-70	13.47
70-80	11.91
80-90	5.71
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









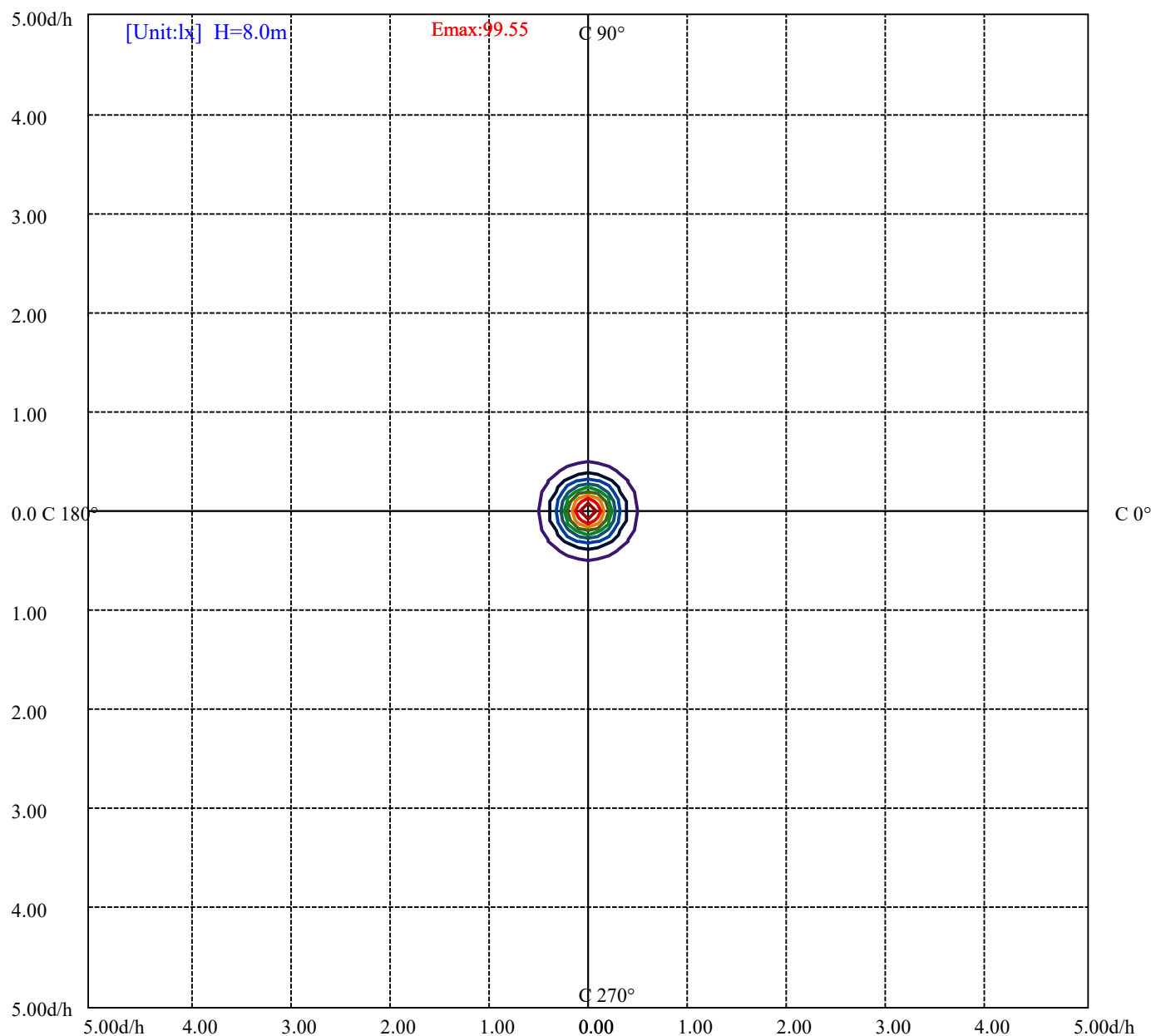
House

[Unit:cd]

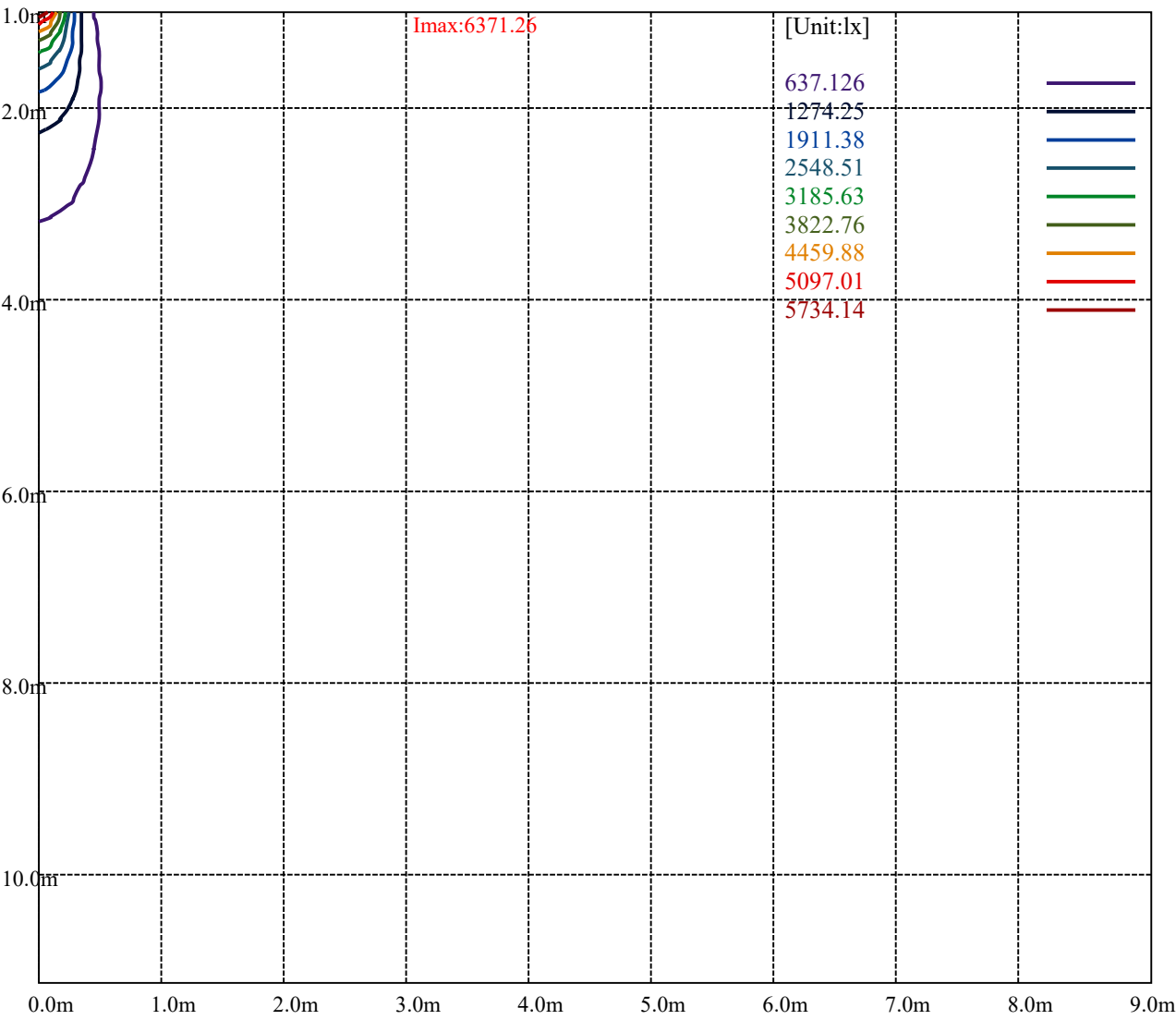
Road

Imax:6371.26

(10%Imax)	637.126	—
(20%Imax)	1274.25	—
(30%Imax)	1911.38	—
(40%Imax)	2548.51	—
(50%Imax)	3185.63	—
(60%Imax)	3822.76	—
(70%Imax)	4459.88	—
(80%Imax)	5097.01	—
(90%Imax)	5734.14	—



(10%E _{max}) 9.955078	—
(20%E _{max}) 19.91016	—
(30%E _{max}) 29.86516	—
(40%E _{max}) 39.82031	—
(50%E _{max}) 49.77531	—
(60%E _{max}) 59.73047	—
(70%E _{max}) 69.68547	—
(80%E _{max}) 79.64063	—
(90%E _{max}) 89.59563	—



Luminance Table

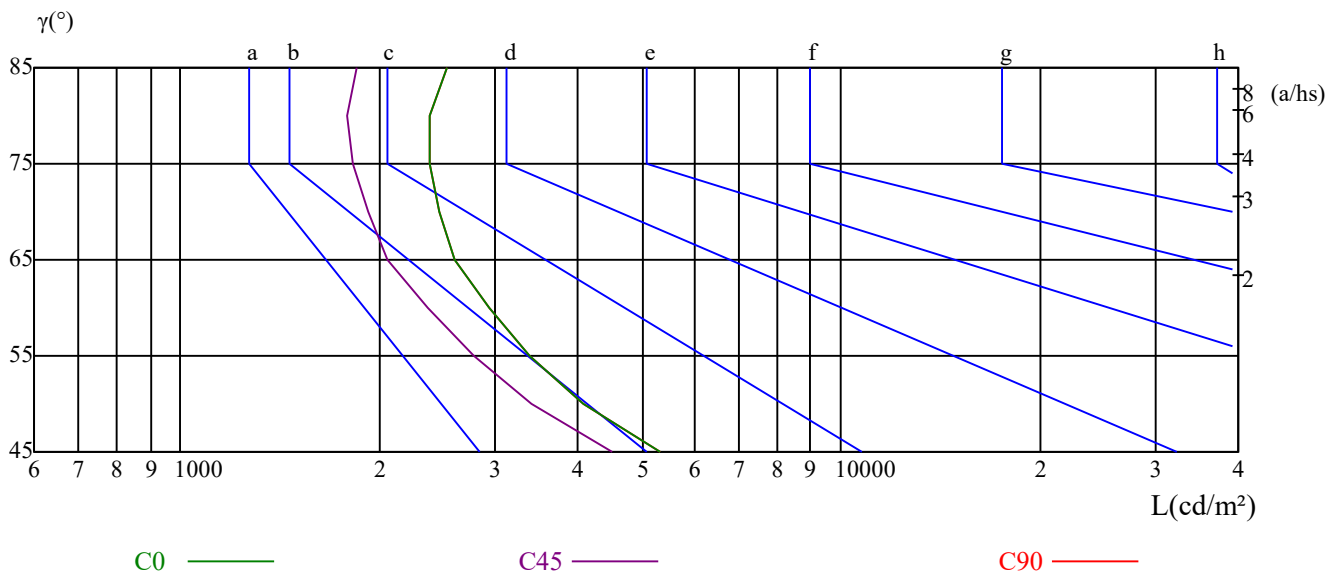
γ	45	50	55	60	65	70	75	80	85
C0	5314	4081	3380	2926	2599	2463	2390	2386	2535
C45	4496	3401	2773	2363	2063	1920	1827	1783	1847
C90	5314	4081	3380	2926	2599	2463	2390	2386	2535

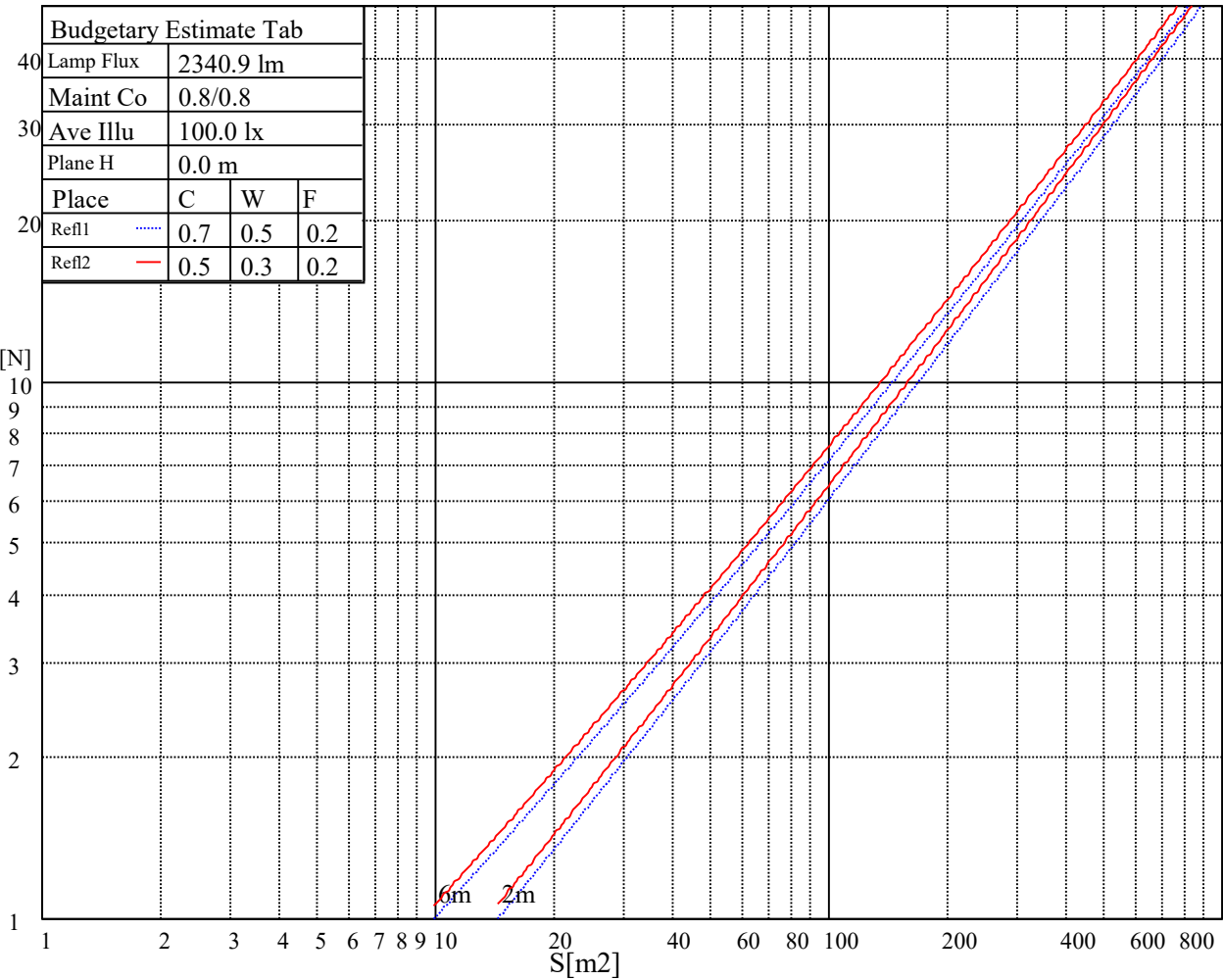
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6960	6960	6960	9372	9372	9372	25210	25210	25210

Glare Table

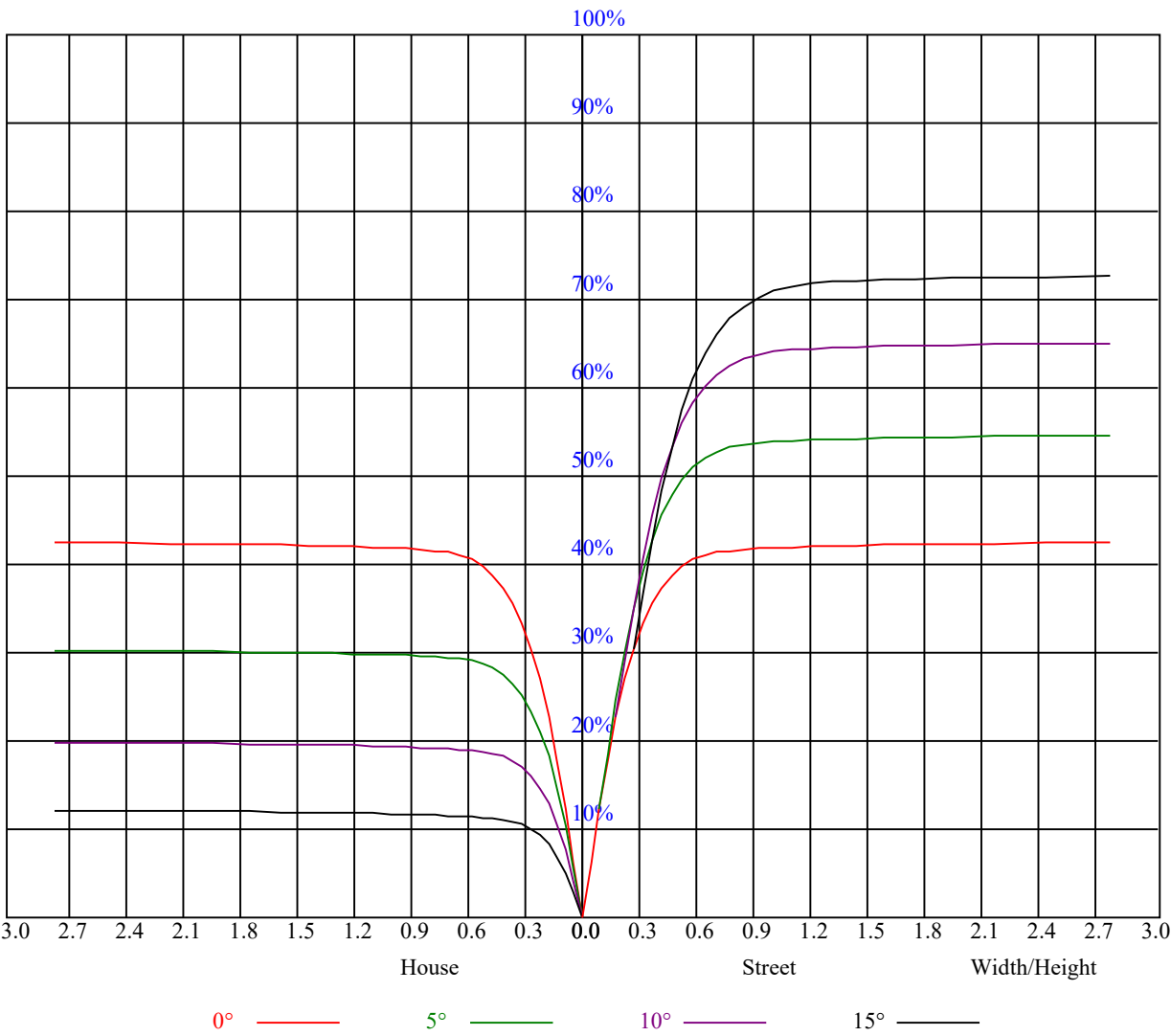
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

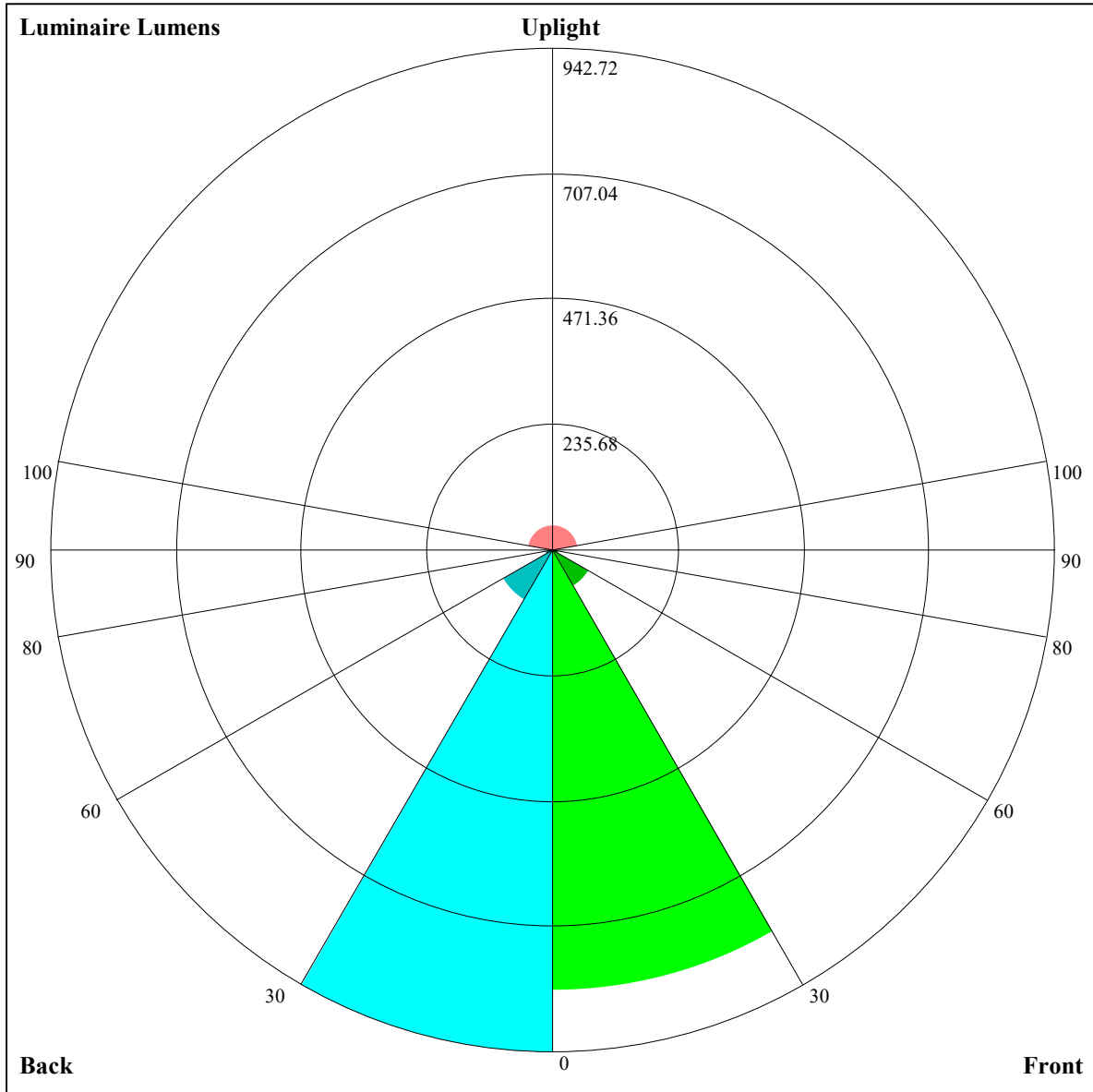
Luminance Limiting Curve





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	1.03	1.03	1.03	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.87
1	0.95	0.93	0.91	0.93	0.91	0.89	0.90	0.88	0.86	0.86	0.85	0.84	0.83	0.82	0.81	0.80
2	0.90	0.87	0.84	0.89	0.86	0.83	0.86	0.84	0.81	0.83	0.81	0.80	0.81	0.79	0.78	0.77
3	0.86	0.82	0.79	0.85	0.81	0.79	0.83	0.80	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
4	0.82	0.78	0.75	0.81	0.78	0.75	0.80	0.77	0.74	0.78	0.75	0.73	0.77	0.74	0.72	0.71
5	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.74	0.72	0.70	0.69
6	0.76	0.72	0.69	0.76	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.72	0.70	0.68	0.67
7	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.68	0.66	0.65
8	0.71	0.67	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.63
9	0.69	0.65	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.61
10	0.67	0.63	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.60	0.65	0.62	0.60	0.59





Luminaire Lumens:

FL=826.68,FM=77.72,FH=13.07,FVH=5.57

BL=942.72,BM=107.15,BH=13.43,BVH=5.55

UL=9.81,UH=46.67

BUG Rating:B2-U2-G0

Nata 2-1794-N

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	6452.61	5697.24	4272.93	2626.74	1565.80	948.07	477.34	92.00	42.39		
45.0	6364.52	5401.58	3838.53	2331.64	1315.85	801.07	351.81	57.81	37.11		
90.0	6294.60	5441.22	3881.48	2317.87	1091.33	848.36	373.78	65.41	40.58		
135.0	6382.69	6021.52	4781.10	3058.38	1800.34	1072.50	640.31	297.86	49.44		
180.0	6433.89	6128.33	4887.36	3153.63	1895.59	1079.38	634.75	187.69	48.56		
225.0	6364.52	6289.64	5246.87	3572.06	2223.73	1085.66	774.59	275.39	58.25		
270.0	6294.60	6072.72	5086.66	3323.20	1978.18	1123.15	697.01	295.10	55.17		
315.0	6382.69	5683.47	4138.04	2586.55	1515.15	933.98	483.06	85.94	44.27		
360.0	6452.61	5697.24	4272.93	2626.74	1565.80	948.07	477.34	92.00	42.39		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	29.40	22.79	18.83	15.69	13.65	12.44	11.45	10.68	10.96		
45.0	26.32	21.14	17.67	14.92	13.27	12.11	11.12	10.41	10.24		
90.0	28.52	21.97	18.22	15.47	13.38	12.17	11.18	10.30	9.63		
135.0	32.65	24.39	19.88	16.57	13.87	12.66	11.51	10.63	9.80		
180.0	32.37	24.50	19.66	16.41	13.76	12.55	11.45	10.63	10.02		
225.0	36.72	26.70	21.09	17.89	15.03	13.32	12.11	11.23	10.57		
270.0	37.71	27.69	21.58	18.39	15.25	13.43	12.22	11.34	12.00		
315.0	31.44	23.89	19.43	15.91	13.82	12.39	11.34	10.63	10.46		
360.0	29.40	22.79	18.83	15.69	13.65	12.44	11.45	10.68	10.96		
C/γ(°)	90.0										
0.0	8.70										
45.0	8.81										
90.0	8.81										
135.0	8.92										
180.0	9.08										
225.0	9.58										
270.0	9.08										
315.0	8.92										
360.0	8.70										