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Nata

LumCAT: 2-1795-N
Luminaire: 92.70.135.00
Report No: NATA0100
Test No: GC2018062506
LampCAT: NICHIA NFCWJ120B-V3
Lamp flux(lm): 2272.0
Number of Lamps: 1
Length(mm): 69
Phm Type: C

Voltage(V): 33.8000
Current(A): 0.5000
Power (W): 16.9000
PF: 0.0000
Ballast type: DC
Width(mm): 69
Height(mm): 0

Photometric Results

Lumens(lm): 1865.93
Efficiency(%): 82.13%
Lumens(lm)/Power(W): 111.66
Central intensity(cd): 3821.189
Maximum intensity(cd): 3821.189
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=64.4
 [C90/270]Total=64.4
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(%): 83.06%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.740%

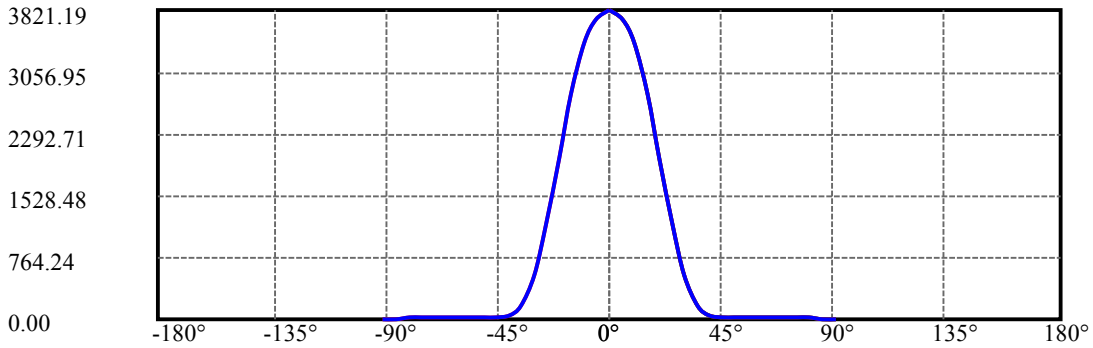
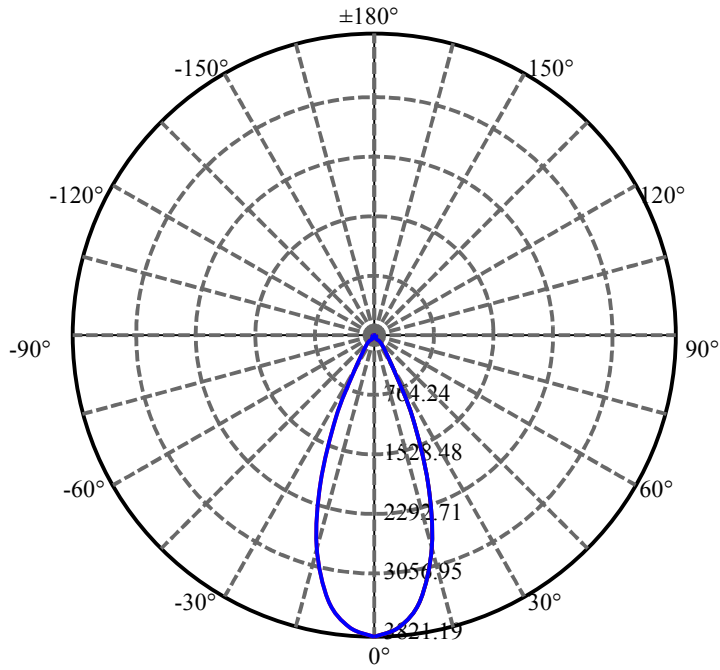
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3821.189	22.851	22.851	1.006%	1.225%
5.0	3711.145	177.294	200.145	7.803%	10.726%
10.0	3411.707	324.737	524.882	14.293%	28.130%
15.0	2781.518	394.610	919.491	17.368%	49.278%
20.0	1989.876	373.050	1292.542	16.419%	69.270%
25.0	1164.519	269.764	1562.306	11.873%	83.728%
30.0	556.379	152.486	1714.792	6.712%	91.900%
35.0	159.134	50.031	1764.823	2.202%	94.581%
40.0	49.028	17.274	1782.097	.760%	95.507%
45.0	31.699	12.286	1794.384	.541%	96.165%
50.0	26.062	10.944	1805.327	.482%	96.752%
55.0	22.890	10.278	1815.605	.452%	97.303%
60.0	20.825	9.886	1825.49	.435%	97.833%
65.0	18.561	9.221	1834.711	.406%	98.327%
70.0	16.551	8.525	1843.236	.375%	98.784%
75.0	14.748	7.809	1851.045	.344%	99.202%
80.0	12.801	6.910	1857.955	.304%	99.572%
85.0	10.309	5.629	1863.584	.248%	99.874%
90.0	8.575	2.350	1865.934	.103%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1714.79	75.47%	91.90%
0-40	1782.10	78.44%	95.51%
0-60	1825.49	80.35%	97.83%
0-90	1863.58	82.02%	99.87%
0-120	1863.58	82.02%	99.87%
0-180	1865.93	82.13%	100.00%
60-90	47.98	2.11%	2.57%
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%
0-23.71	1492.75	65.70%	80.00%

ZONAL LUMEN SUMMARY

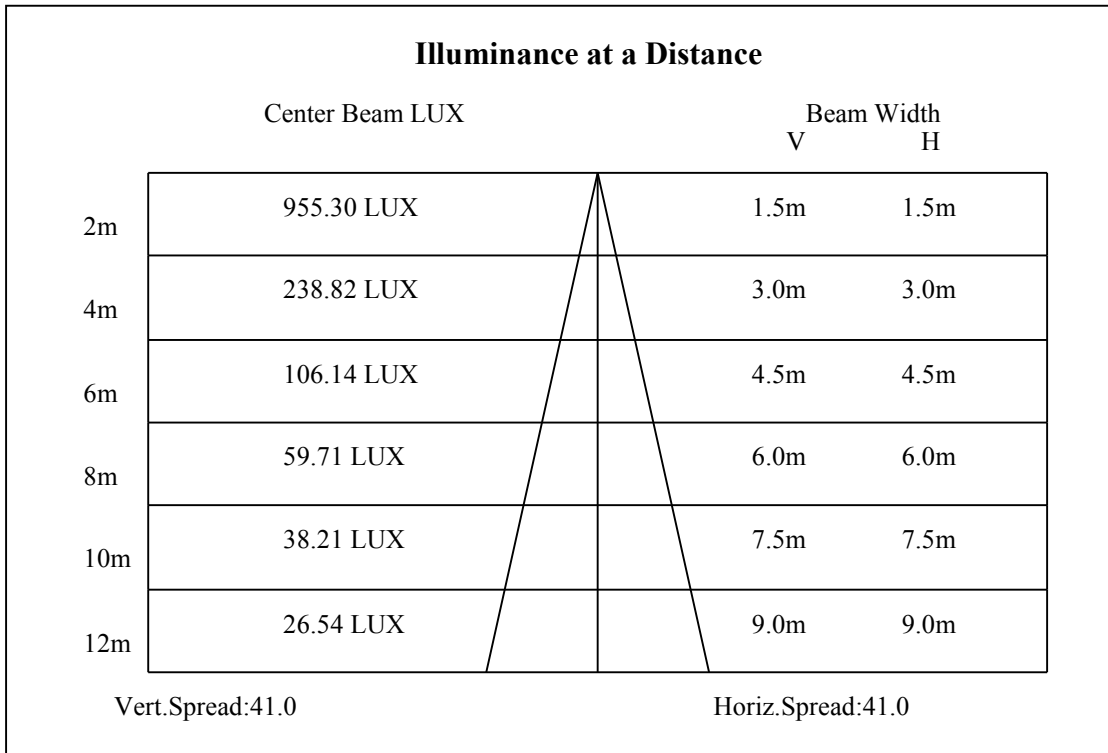
0-10	524.88
10-20	767.66
20-30	422.25
30-40	67.31
40-50	23.23
50-60	20.16
60-70	17.75
70-80	14.72
80-90	5.63
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

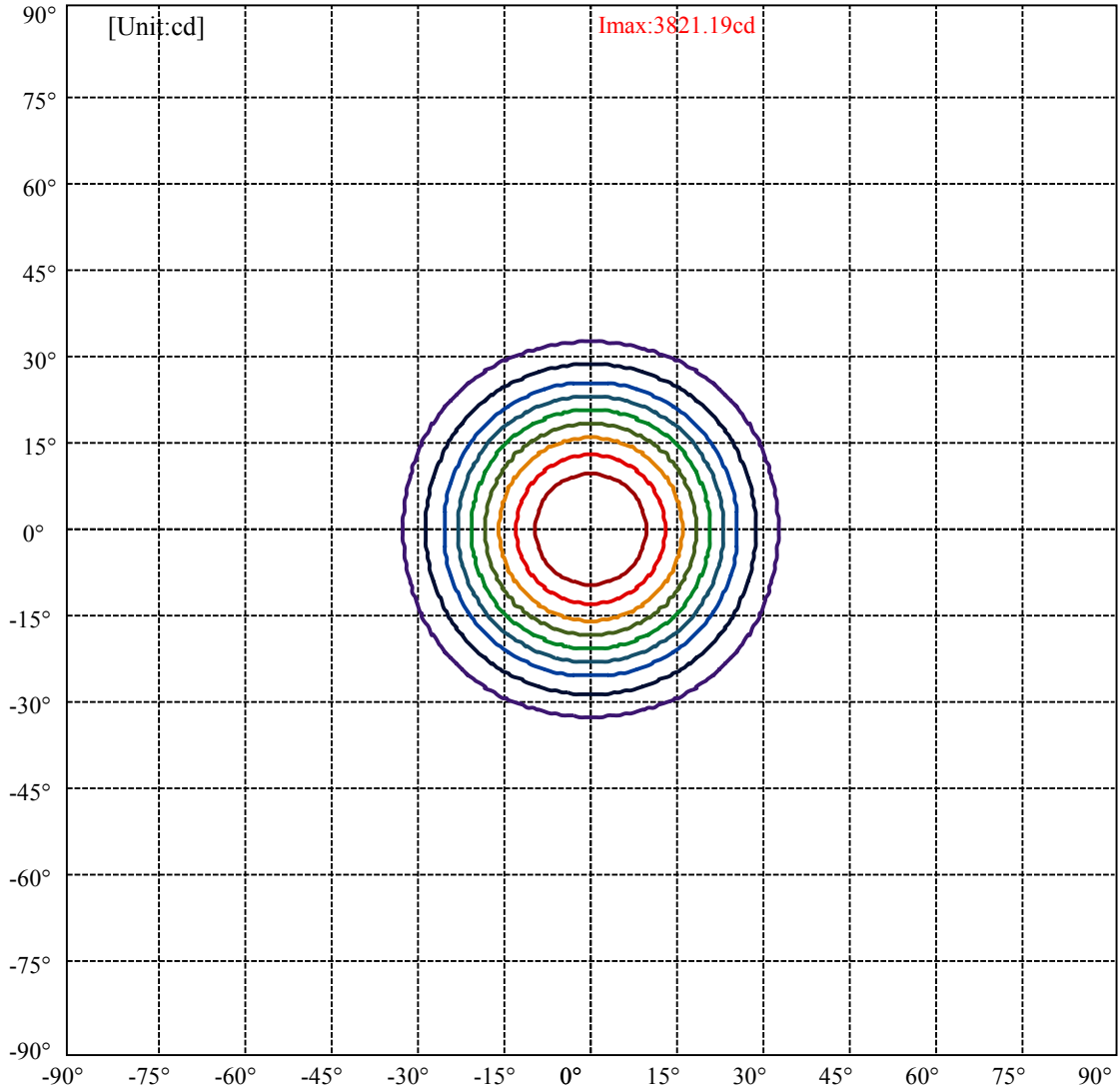


C0(Max): ———
C0/C180: ———
C90/C270: ———

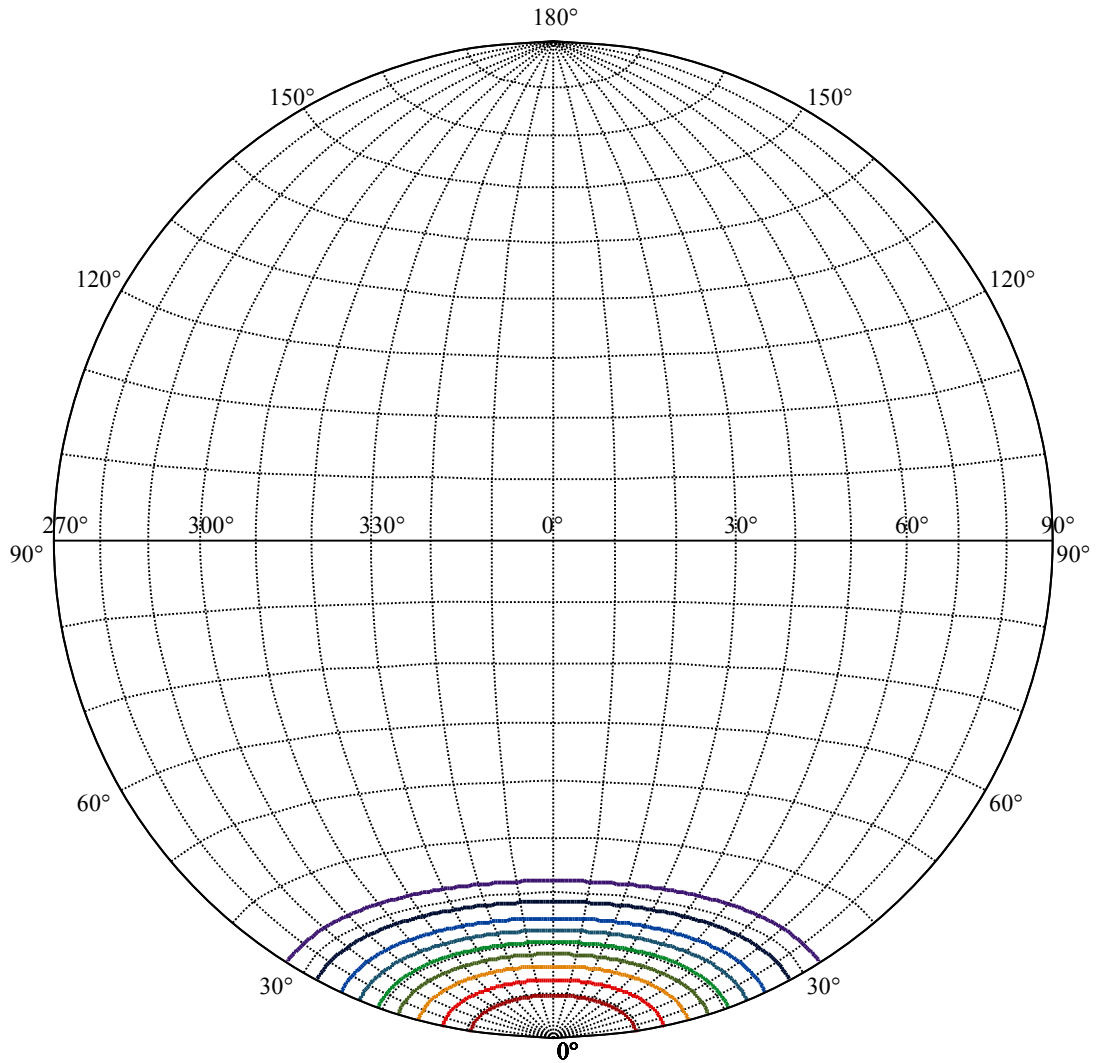
Field angle(10%Imax):C0/180Left:32.2 Right:32.2
:C90/270Left:32.2 Right:32.2

Beam Angle(50%Imax):C0/180Left:20.5 Right:20.5
:C90/270Left:20.5 Right:20.5





(10%Imax) 382.119	—
(20%Imax) 764.238	—
(30%Imax) 1146.36	—
(40%Imax) 1528.48	—
(50%Imax) 1910.59	—
(60%Imax) 2292.71	—
(70%Imax) 2674.83	—
(80%Imax) 3056.95	—
(90%Imax) 3439.07	—



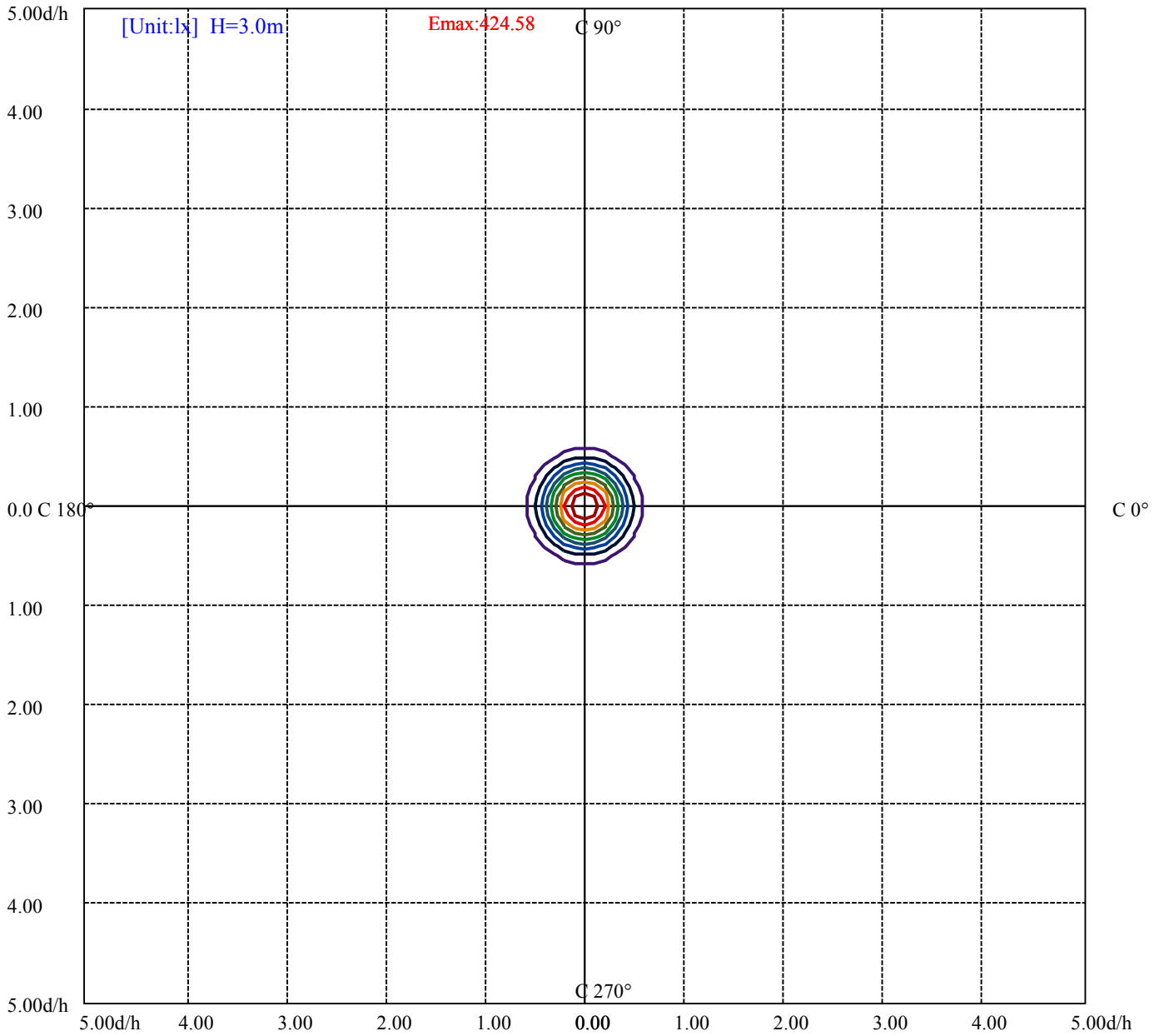
House

[Unit:cd]

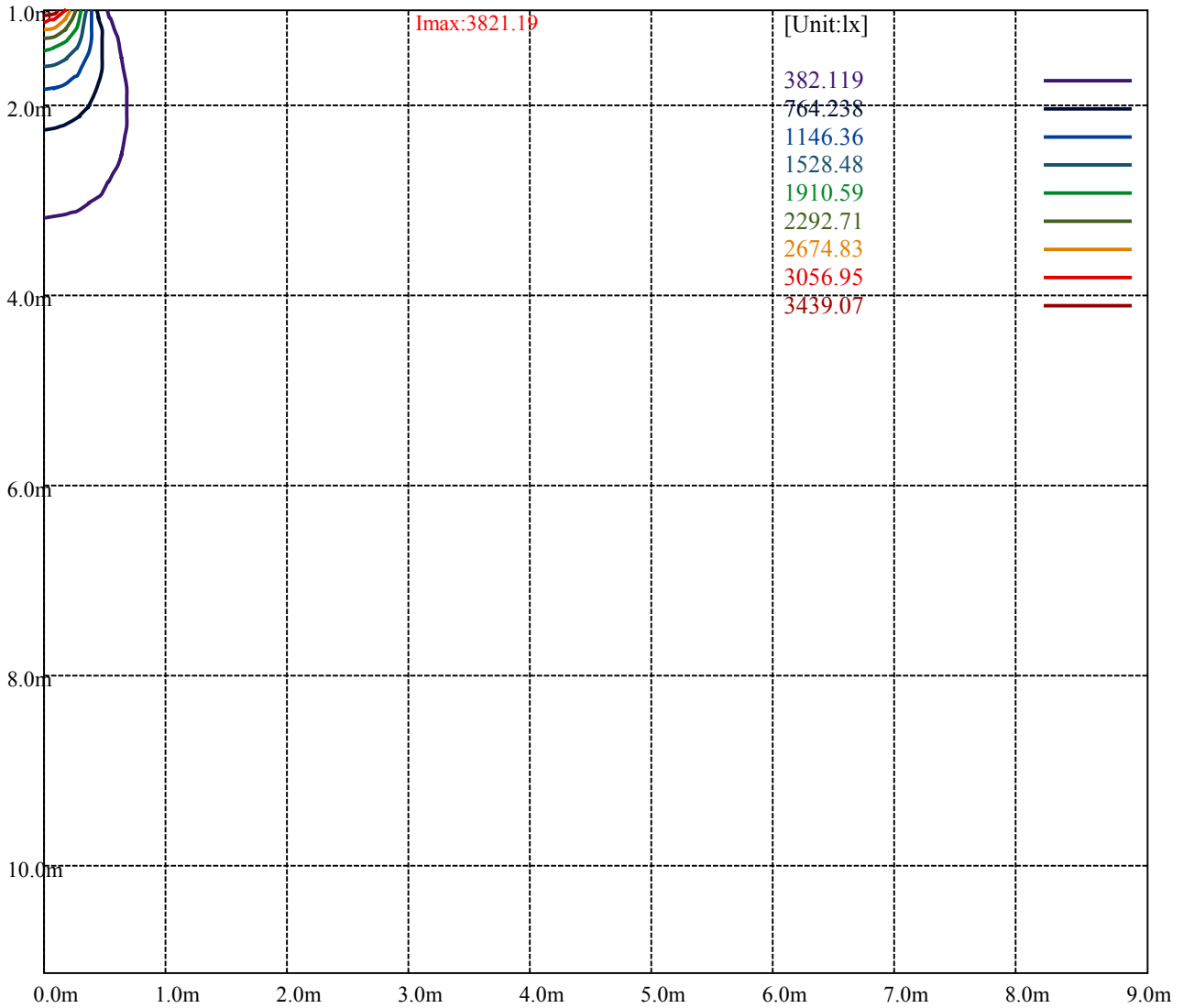
Road

Imax:3821.19

(10%Imax)	382.119	—
(20%Imax)	764.238	—
(30%Imax)	1146.36	—
(40%Imax)	1528.48	—
(50%Imax)	1910.59	—
(60%Imax)	2292.71	—
(70%Imax)	2674.83	—
(80%Imax)	3056.95	—
(90%Imax)	3439.07	—



- (10%Emax) 42.45766
- (20%Emax) 84.91522
- (30%Emax) 127.3733
- (40%Emax) 169.83
- (50%Emax) 212.2878
- (60%Emax) 254.7455
- (70%Emax) 297.2033
- (80%Emax) 339.6611
- (90%Emax) 382.1189



Luminance Table

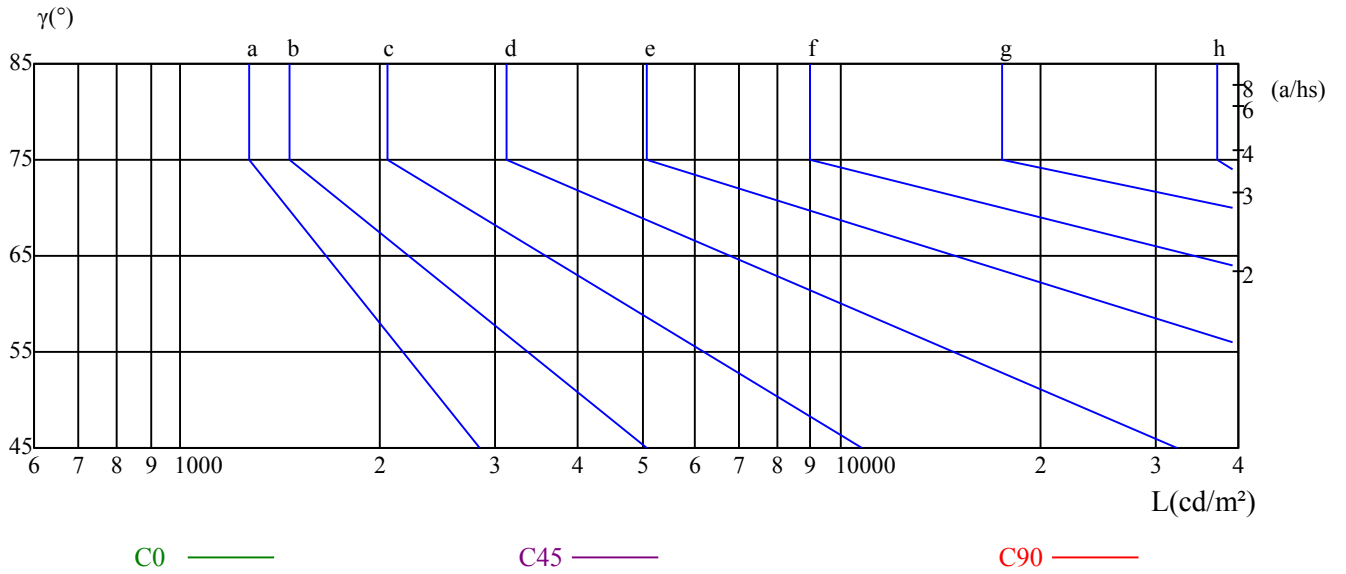
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

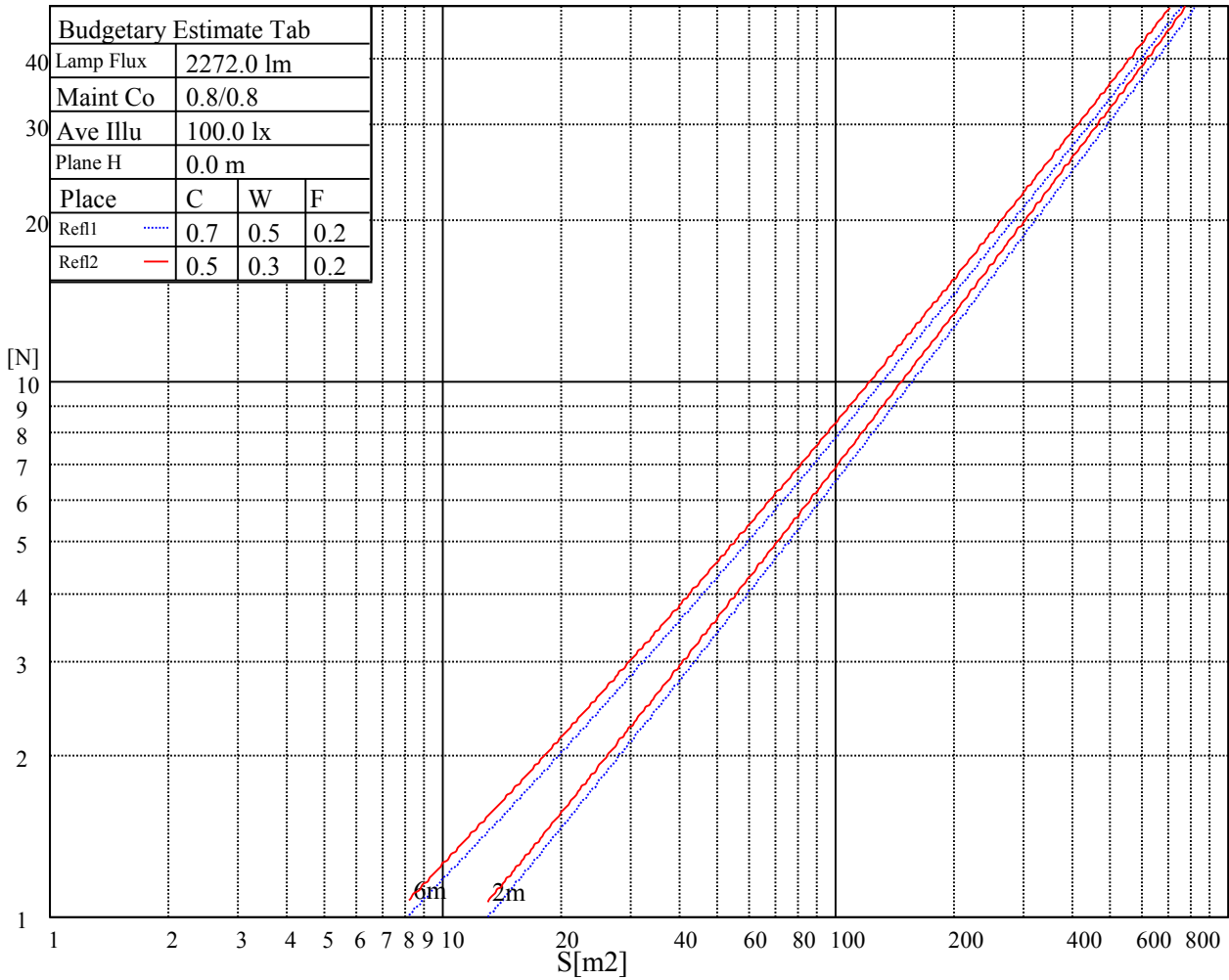
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

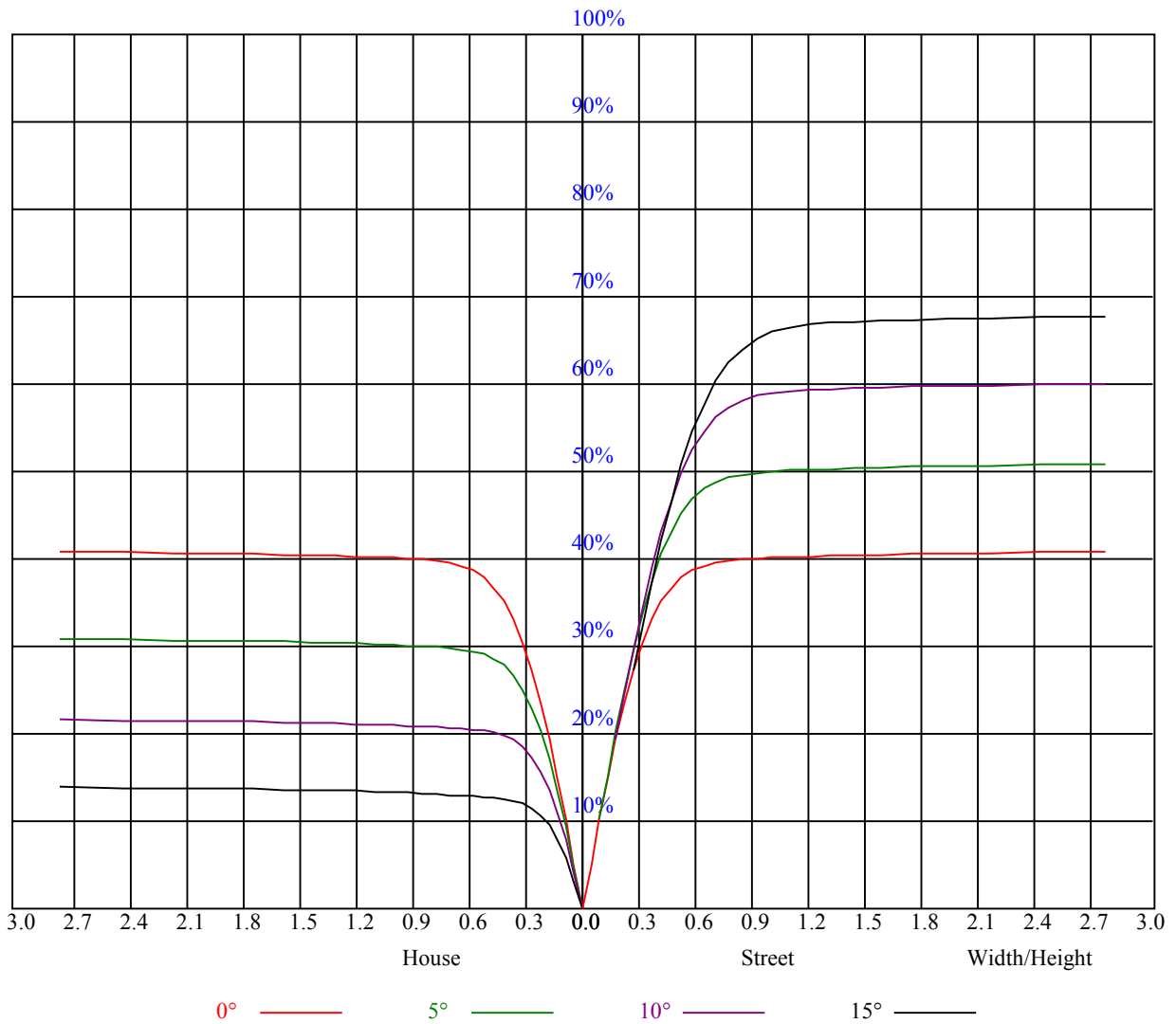
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	0.99	0.99	0.99	0.97	0.97	0.97	0.92	0.92	0.92	0.88	0.88	0.88	0.85	0.85	0.85	0.83
1	0.92	0.89	0.88	0.90	0.88	0.86	0.86	0.85	0.83	0.83	0.82	0.81	0.80	0.80	0.79	0.77
2	0.87	0.83	0.81	0.85	0.82	0.80	0.82	0.80	0.78	0.80	0.78	0.76	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	0.70
4	0.78	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.70	0.74	0.72	0.69	0.73	0.70	0.69	0.67
5	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.66	0.70	0.68	0.66	0.65
6	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.62
7	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	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	0.59	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	0.57	0.63	0.59	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



Intensity data(cd)

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	3818.16	3716.31	3453.69	2869.54	2055.81	1246.48	598.46	195.29	51.09
45.0	3824.77	3716.31	3436.62	2791.91	1973.77	1231.06	556.07	119.58	47.46
90.0	3819.26	3663.45	3287.97	2526.54	1761.80	997.90	405.49	93.16	40.41
135.0	3822.57	3714.66	3411.29	2815.58	1999.10	1210.69	561.58	185.60	48.01
180.0	3818.16	3684.37	3381.56	2735.75	1917.61	1093.14	523.70	122.89	49.44
225.0	3824.77	3720.71	3397.53	2788.61	1977.63	1073.88	574.51	131.97	47.84
270.0	3819.26	3759.25	3507.09	2953.23	2220.98	1378.61	682.70	287.94	57.86
315.0	3822.57	3714.10	3417.90	2770.99	2012.31	1084.39	548.53	136.65	50.10
360.0	3818.16	3716.31	3453.69	2869.54	2055.81	1246.48	598.46	195.29	51.09
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	33.31	26.70	23.01	20.81	18.39	16.30	14.37	12.83	10.41
45.0	31.55	25.77	22.35	20.32	17.89	15.91	14.37	12.39	10.02
90.0	29.90	25.49	22.41	20.43	18.22	16.19	14.48	11.95	9.91
135.0	31.33	26.21	23.18	20.81	18.88	16.74	14.70	12.88	10.52
180.0	32.04	26.54	23.51	21.47	19.05	17.01	15.64	13.60	11.18
225.0	31.33	25.71	22.74	20.87	18.61	16.52	14.65	12.88	10.30
270.0	32.92	26.70	23.45	21.53	19.49	17.73	15.75	13.71	10.19
315.0	31.22	25.38	22.46	20.37	17.95	16.02	14.04	12.17	9.97
360.0	33.31	26.70	23.01	20.81	18.39	16.30	14.37	12.83	10.41
C/ γ (°)	90.0								
0.0	8.70								
45.0	8.53								
90.0	8.53								
135.0	8.53								
180.0	8.59								
225.0	8.53								
270.0	8.59								
315.0	8.59								
360.0	8.70								