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## Nata

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LumCAT: 3-2117-N	
Luminaire: 92.70.135.00	
Report No: NATA0100	Voltage(V): 33.8000
Test No: GC2018062505	Current(A): 0.5000
LampCAT: NICHIA NFCWJ120B-V3	Power (W): 6.9000
Lamp flux(lm): 2272.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 74	Width(mm): 74
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 1862.15  
Efficiency(%): 81.96%  
Lumens(lm)/Power(W): 273.83  
Central intensity(cd): 4852.671  
Maximum intensity(cd): 4852.671  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=35.4  
                                  [C90/270]Total=35.4  
Field angle(10%Imax): [C0/180]Total=58.8  
                                  [C90/270]Total=58.8  
Maximum s/h(1/2): C0\_180=0.60 C90\_270=0.60  
Maximum s/h(1/4): C0\_180=0.56 C90\_270=0.56  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 83.16%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 96.884%

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Equipment: GMS1980  
Temperature(°C): 25.0

Date: 2018/6/25  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.42

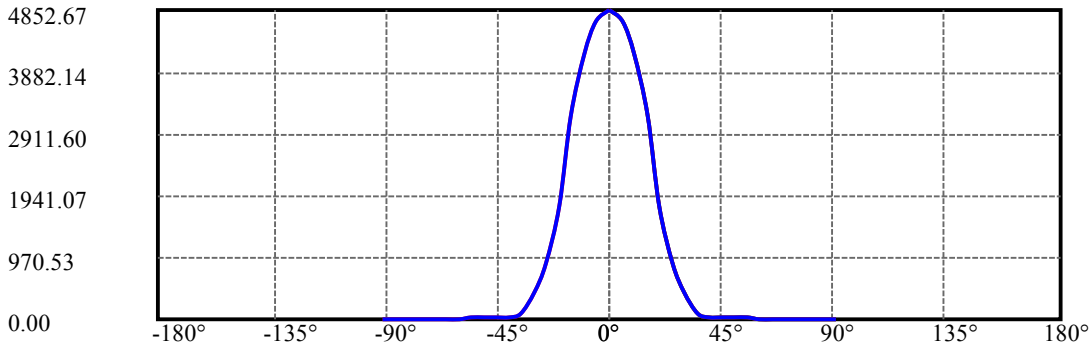
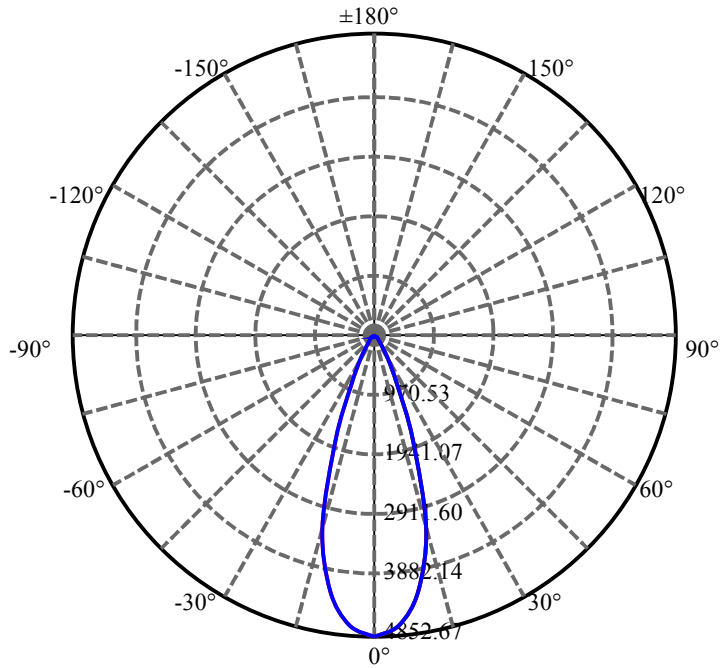
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4852.671	29.020	29.02	1.277%	1.558%
5.0	4671.054	223.152	252.172	9.822%	13.542%
10.0	4163.296	396.275	648.447	17.442%	34.823%
15.0	3184.187	451.735	1100.182	19.883%	59.081%
20.0	1781.859	334.052	1434.235	14.703%	77.020%
25.0	880.221	203.906	1638.14	8.975%	87.971%
30.0	432.021	118.403	1756.544	5.211%	94.329%
35.0	87.271	27.438	1783.982	1.208%	95.802%
40.0	39.007	13.744	1797.726	.605%	96.540%
45.0	25.835	10.014	1807.739	.441%	97.078%
50.0	19.868	8.343	1816.082	.367%	97.526%
55.0	16.586	7.447	1823.529	.328%	97.926%
60.0	14.714	6.985	1830.514	.307%	98.301%
65.0	13.296	6.605	1837.119	.291%	98.656%
70.0	12.209	6.288	1843.407	.277%	98.994%
75.0	11.183	5.921	1849.328	.261%	99.312%
80.0	10.151	5.480	1854.808	.241%	99.606%
85.0	9.194	5.021	1859.829	.221%	99.876%
90.0	8.458	2.318	1862.147	.102%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1756.54	77.31%	94.33%
0-40	1797.73	79.13%	96.54%
0-60	1830.51	80.57%	98.30%
0-90	1859.83	81.86%	99.88%
0-120	1859.83	81.86%	99.88%
0-180	1862.15	81.96%	100.00%
60-90	36.30	1.60%	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%
0-21.36	1489.72	65.57%	80.00%

ZONAL LUMEN SUMMARY

0-10	648.45
10-20	785.79
20-30	322.31
30-40	41.18
40-50	18.36
50-60	14.43
60-70	12.89
70-80	11.40
80-90	5.02
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: —————

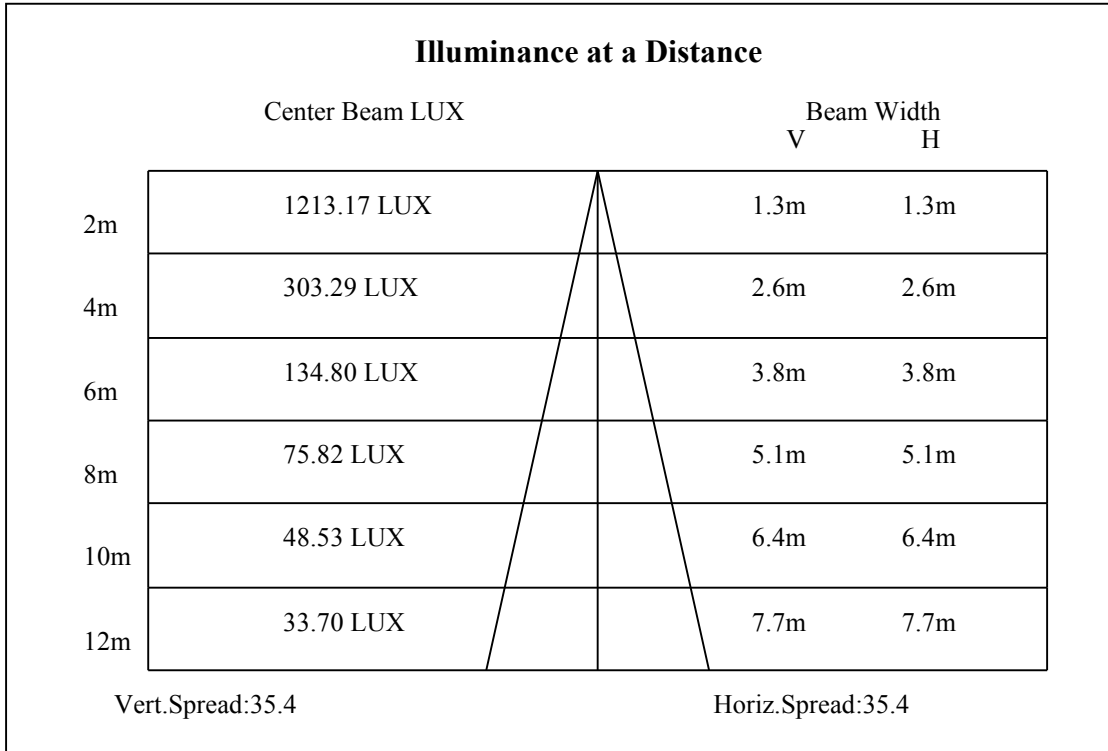
C90/C270: —————

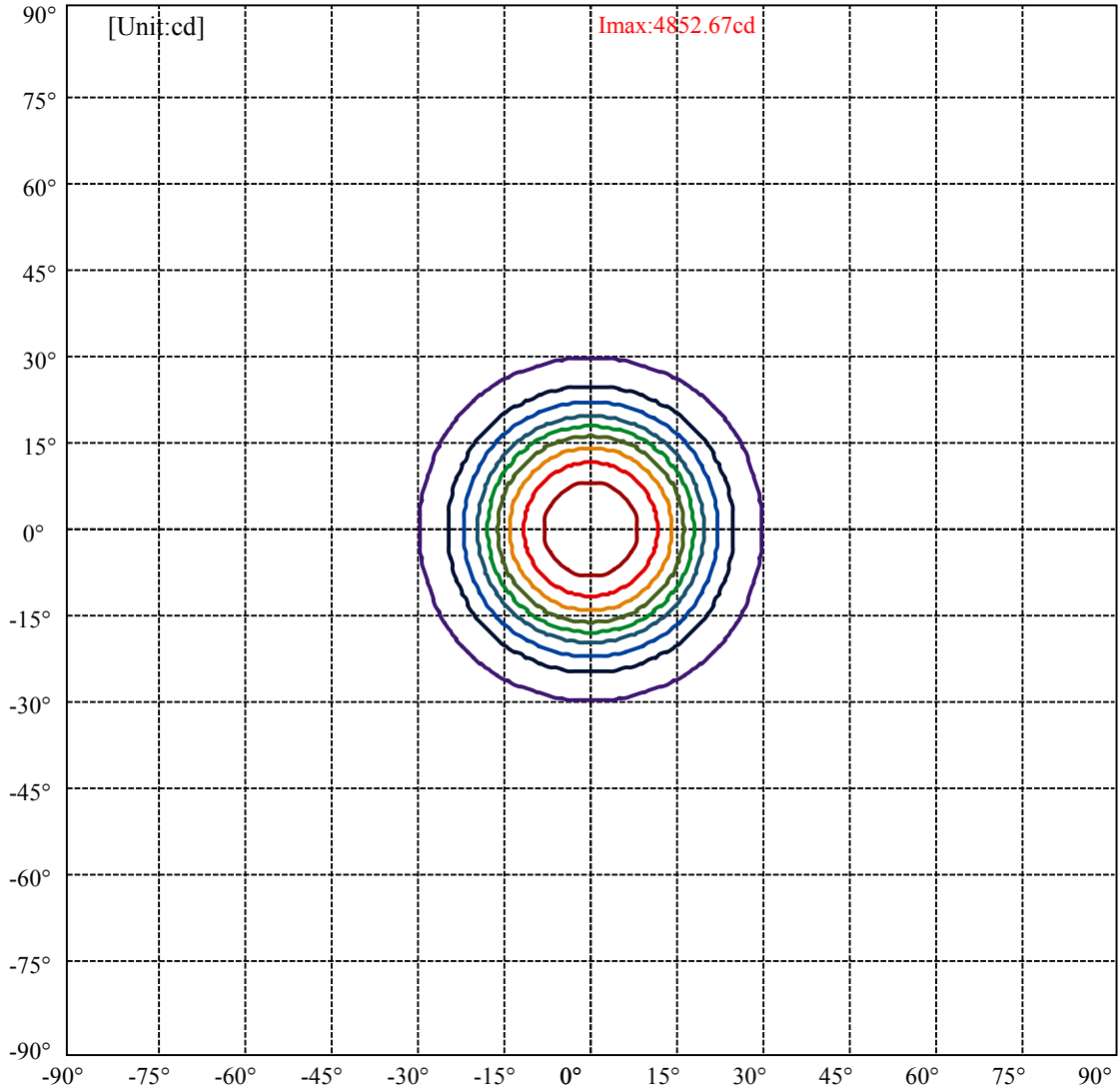
Field angle(10%Imax):C0/180Left:29.4 Right:29.4

:C90/270Left:29.4 Right:29.4

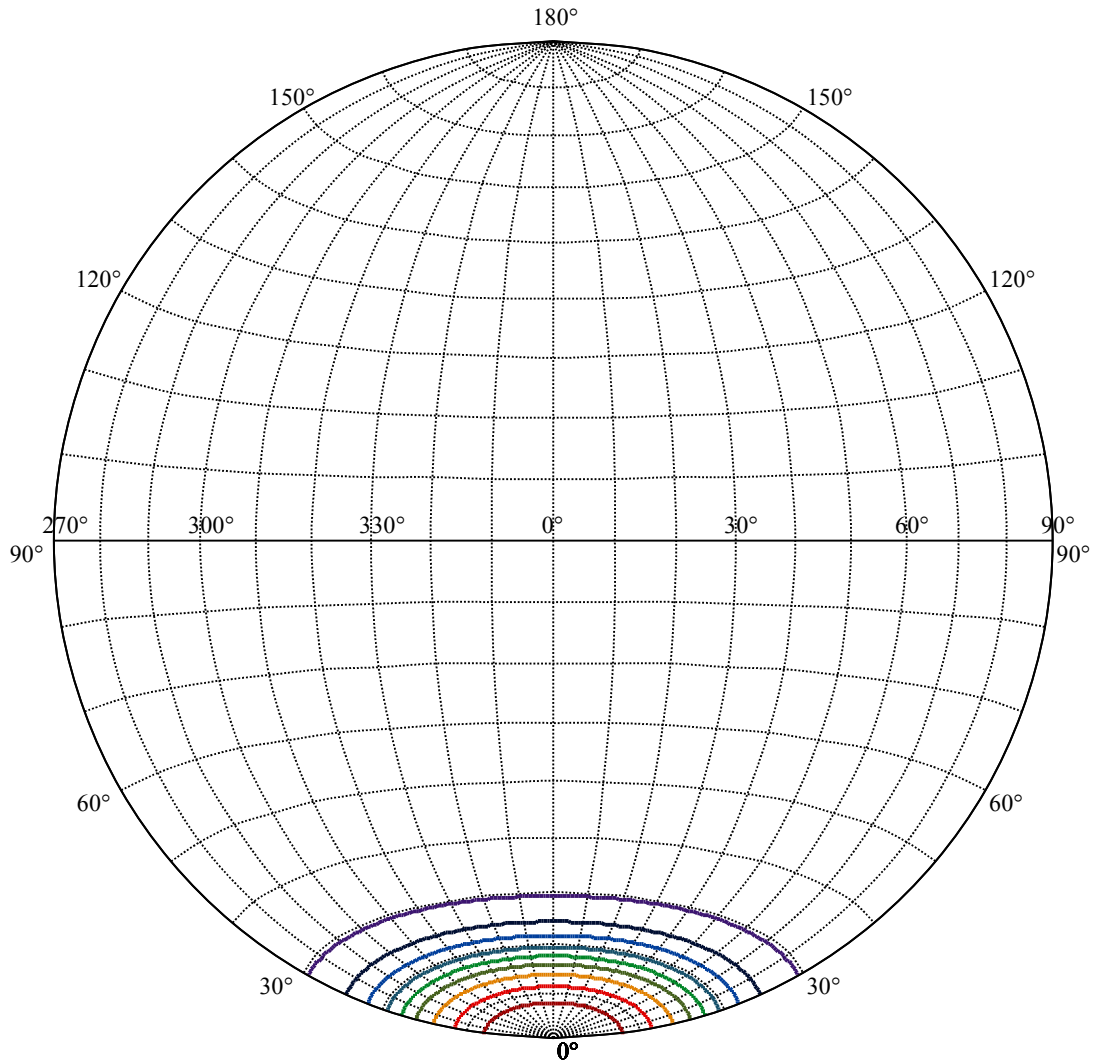
Beam Angle(50%Imax):C0/180Left:17.7 Right:17.7

:C90/270Left:17.7 Right:17.7





(10%Imax) 485.267	—
(20%Imax) 970.534	—
(30%Imax) 1455.8	—
(40%Imax) 1941.07	—
(50%Imax) 2426.34	—
(60%Imax) 2911.6	—
(70%Imax) 3396.87	—
(80%Imax) 3882.14	—
(90%Imax) 4367.4	—



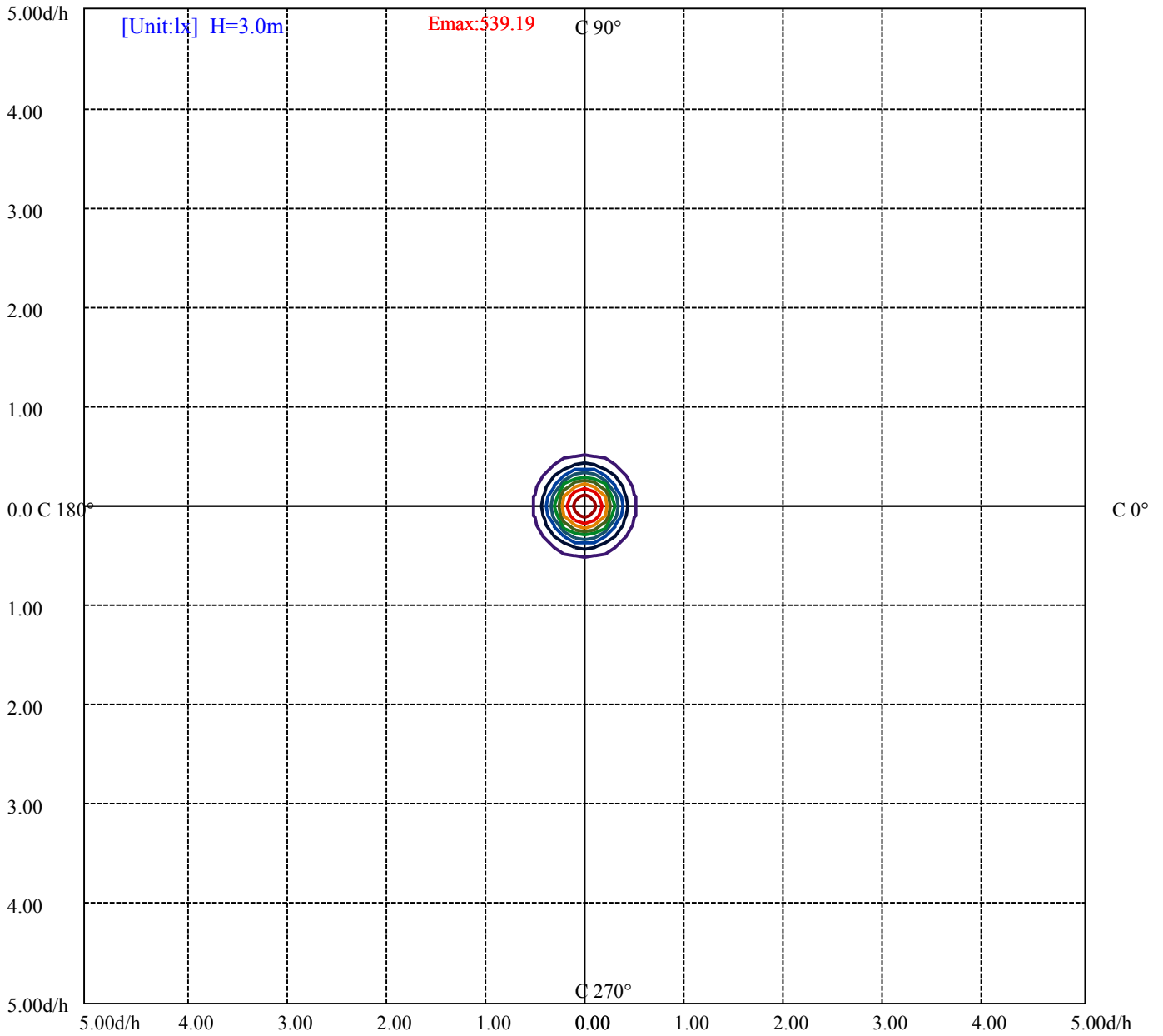
House

[Unit:cd]

Road

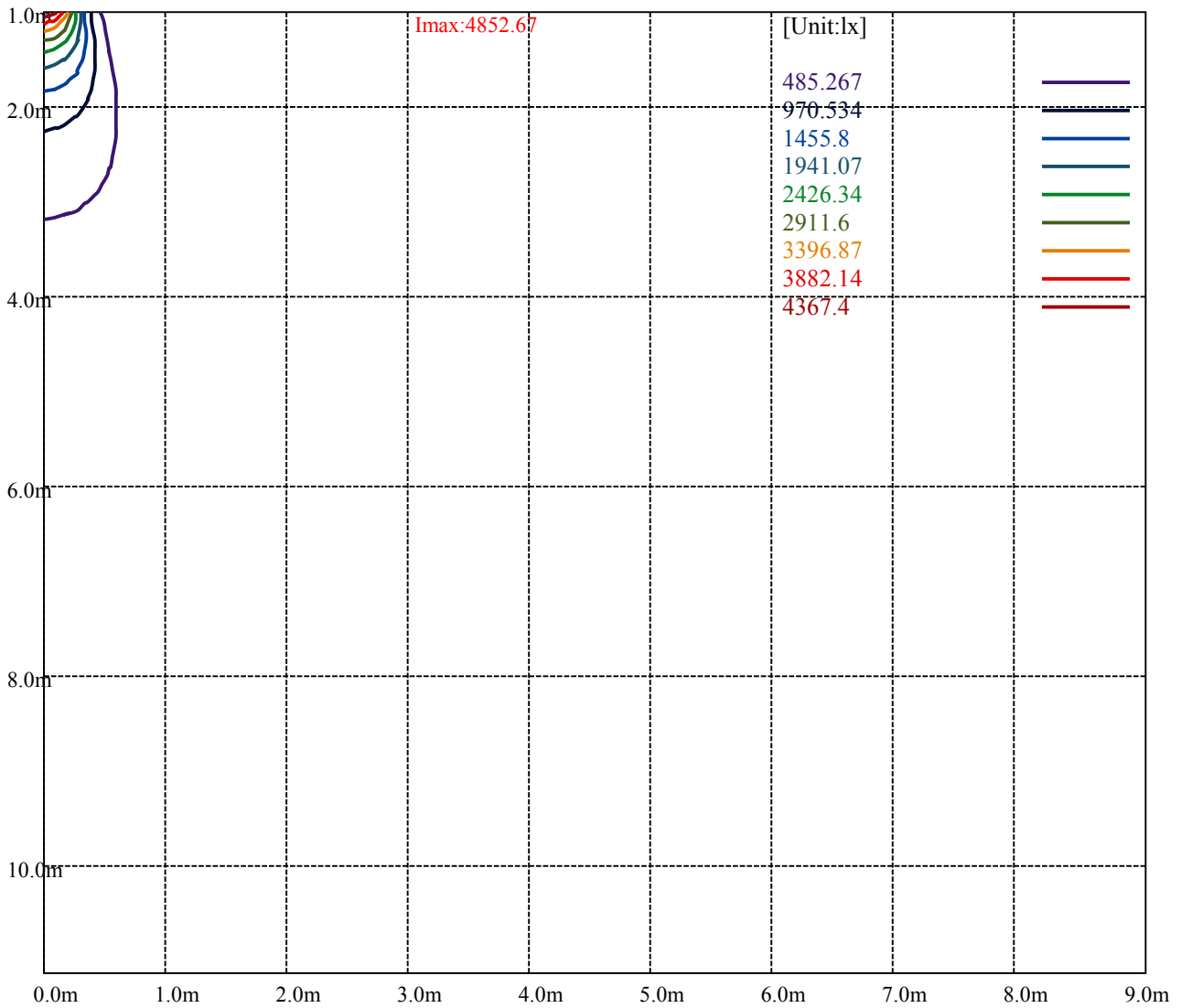
**Imax:4852.67**

(10%Imax) 485.267	—
(20%Imax) 970.534	—
(30%Imax) 1455.8	—
(40%Imax) 1941.07	—
(50%Imax) 2426.34	—
(60%Imax) 2911.6	—
(70%Imax) 3396.87	—
(80%Imax) 3882.14	—
(90%Imax) 4367.4	—



- (10%Emax) 53.91856
- (20%Emax) 107.837
- (30%Emax) 161.7556
- (40%Emax) 215.6744
- (50%Emax) 269.5922
- (60%Emax) 323.5111
- (70%Emax) 377.43
- (80%Emax) 431.3478
- (90%Emax) 485.2667





Luminance Table

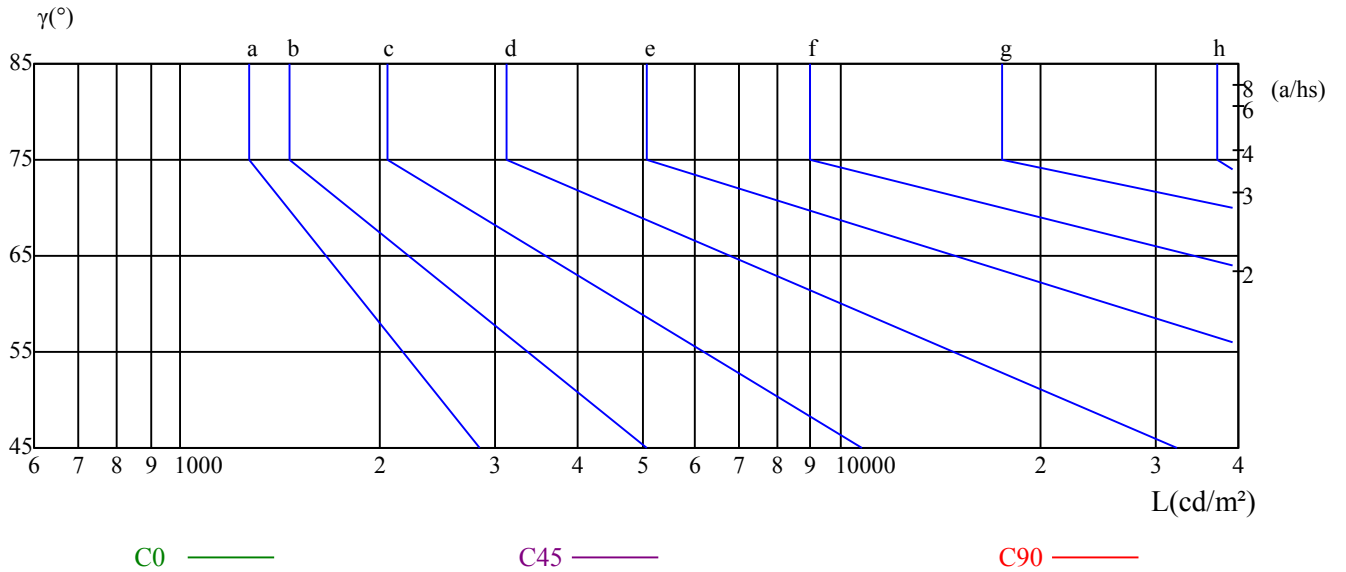
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

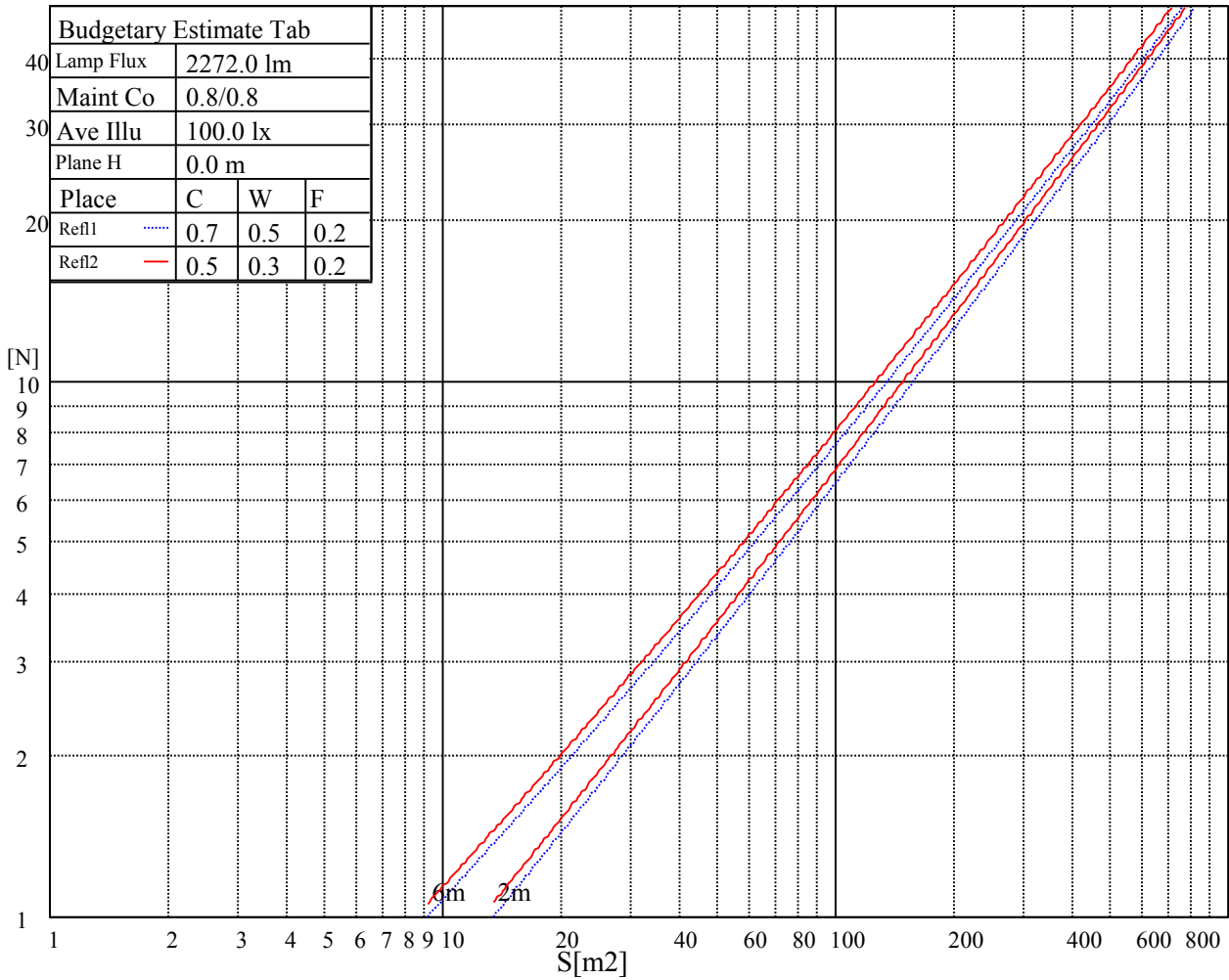
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

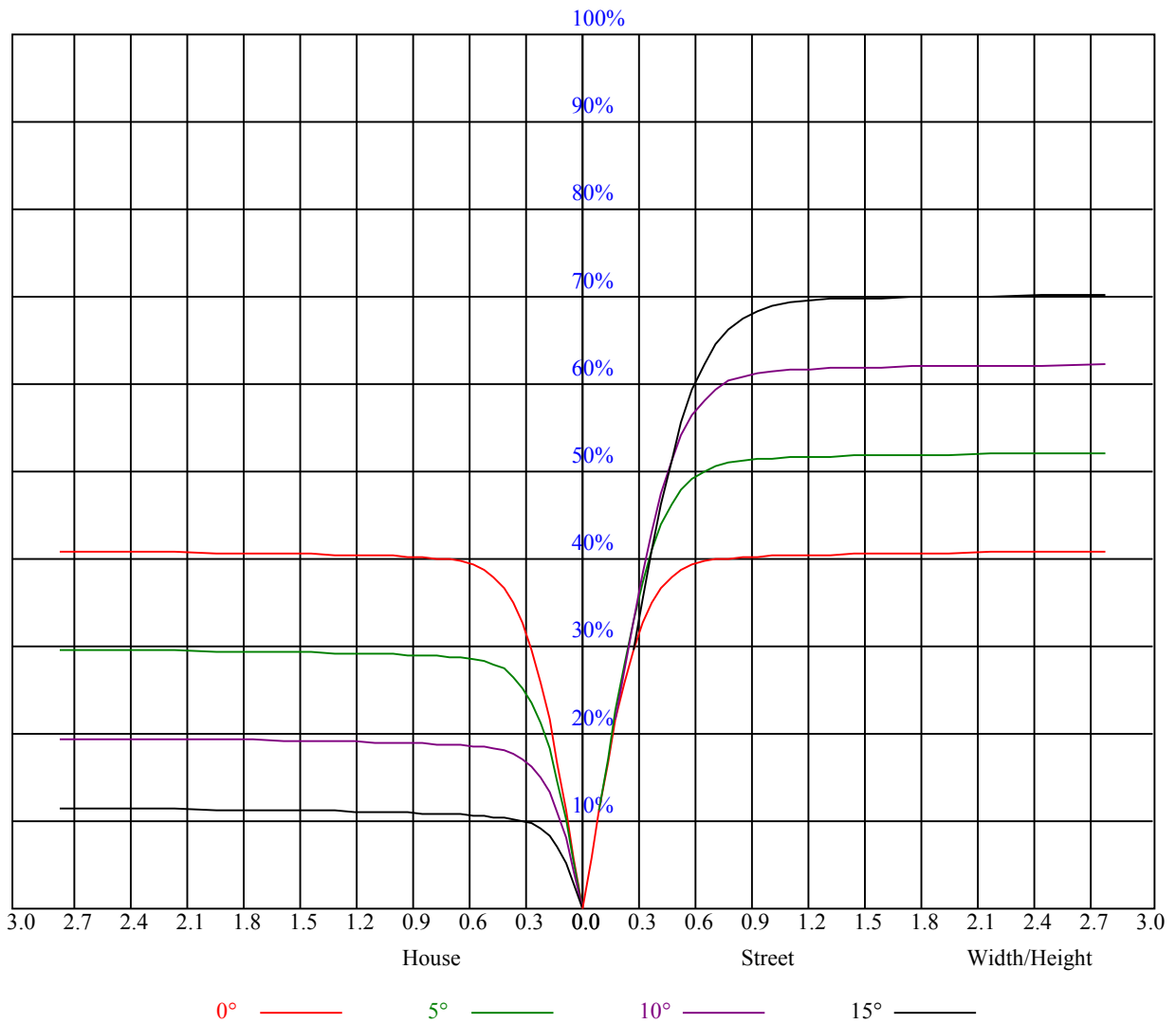
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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



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	4864.23	4662.73	4206.86	3296.23	1972.12	957.43	485.60	74.55	39.97
45.0	4838.91	4793.21	4359.37	3470.76	2295.30	1010.28	556.62	188.29	43.94
90.0	4873.04	4793.76	4330.74	3305.59	1982.03	881.34	469.74	85.23	40.30
135.0	4834.50	4820.74	4440.30	3520.86	2157.66	942.02	542.86	99.71	42.72
180.0	4864.23	4688.05	4077.48	3083.71	1700.14	829.81	378.57	64.14	37.27
225.0	4838.91	4537.75	3913.96	2832.65	1084.28	746.07	304.41	60.62	35.13
270.0	4873.04	4576.29	4018.02	3080.41	1732.07	863.83	394.75	65.41	36.78
315.0	4834.50	4495.91	3959.66	2883.30	1331.26	810.98	323.62	60.23	35.95
360.0	4864.23	4662.73	4206.86	3296.23	1972.12	957.43	485.60	74.55	39.97
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	26.32	19.99	16.79	14.81	13.38	12.33	11.29	10.30	9.30
45.0	28.08	20.87	17.18	15.09	13.54	12.50	11.45	10.41	9.41
90.0	26.37	19.99	16.68	14.70	13.27	12.22	11.18	10.13	9.19
135.0	28.24	21.14	17.23	15.36	13.65	12.50	11.51	10.41	9.30
180.0	25.49	19.77	16.52	14.65	13.27	12.17	11.07	10.02	9.08
225.0	23.45	18.99	16.08	14.37	13.10	12.00	10.96	9.97	9.08
270.0	24.56	19.27	16.19	14.37	13.10	12.00	11.01	10.08	9.08
315.0	24.17	18.94	16.02	14.37	13.05	11.95	11.01	9.91	9.08
360.0	26.32	19.99	16.79	14.81	13.38	12.33	11.29	10.30	9.30
C/γ(°)	90.0								
0.0	8.48								
45.0	8.53								
90.0	8.42								
135.0	8.42								
180.0	8.42								
225.0	8.53								
270.0	8.42								
315.0	8.42								
360.0	8.48								