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Nata

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LumCAT: 3-2117-N  
Luminaire: 92.70.135.00  
Report No: NT2017122809  
Test No: nata-0100  
LampCAT: NICHIA NVEWJ048Z-V1  
Lamp flux(lm): 3051.0  
Number of Lamps: 1  
Length(mm): 79  
Phm Type: C

Voltage(V): 43.4000  
Current(A): 0.5000  
Power (W): 21.7000  
PF: 0.0000  
Ballast type: DC  
Width(mm): 79  
Height(mm): 0

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Photometric Results

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Lumens(lm): 2528.11  
Efficiency(%): 82.86%  
Lumens(lm)/Power(W): 116.50  
Central intensity(cd): 6598.923  
Maximum intensity(cd): 6598.923  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=35.7  
                                  [C90/270]Total=35.7  
Field angle(10%Imax): [C0/180]Total=58.5  
                                  [C90/270]Total=58.5  
Maximum s/h(1/2): C0\_180=0.60 C90\_270=0.60  
Maximum s/h(1/4): C0\_180=0.57 C90\_270=0.57  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 84.08%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 96.874%

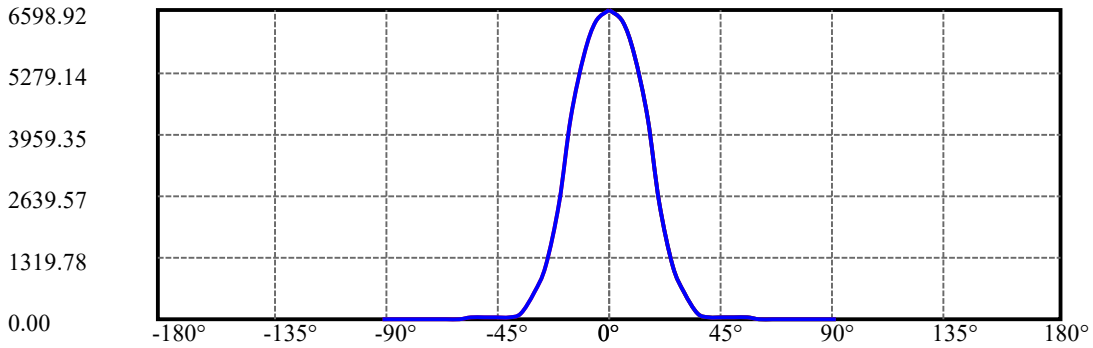
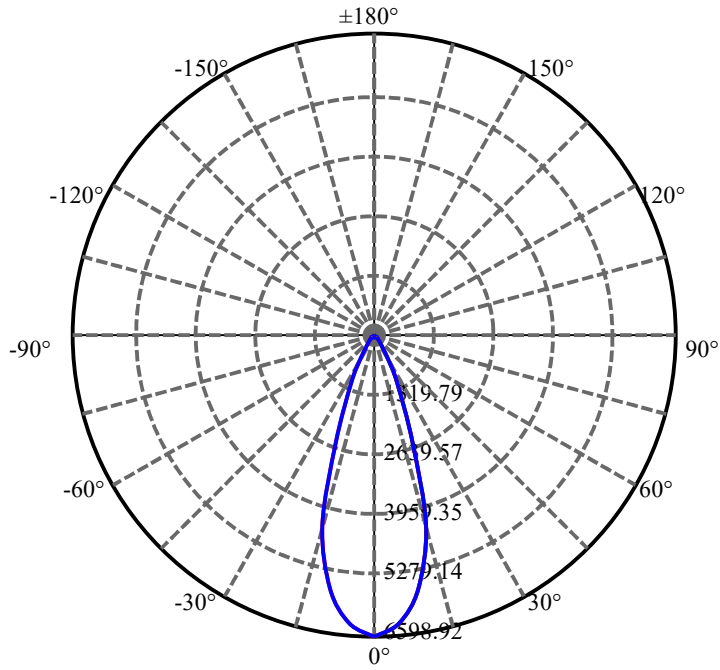
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6598.922	39.463	39.463	1.293%	1.561%
5.0	6341.534	302.956	342.419	9.930%	13.544%
10.0	5652.985	538.068	880.487	17.636%	34.828%
15.0	4315.183	612.188	1492.675	20.065%	59.043%
20.0	2518.624	472.177	1964.852	15.476%	77.720%
25.0	1164.278	269.708	2234.56	8.840%	88.388%
30.0	573.770	157.252	2391.813	5.154%	94.609%
35.0	116.954	36.770	2428.583	1.205%	96.063%
40.0	45.222	15.933	2444.516	.522%	96.693%
45.0	30.756	11.921	2456.437	.391%	97.165%
50.0	24.301	10.204	2466.641	.334%	97.568%
55.0	20.873	9.372	2476.013	.307%	97.939%
60.0	18.926	8.984	2484.997	.294%	98.294%
65.0	17.439	8.663	2493.66	.284%	98.637%
70.0	16.317	8.405	2502.065	.275%	98.970%
75.0	15.202	8.049	2510.114	.264%	99.288%
80.0	14.046	7.582	2517.696	.249%	99.588%
85.0	12.973	7.084	2524.78	.232%	99.868%
90.0	12.167	3.335	2528.115	.109%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2391.81	78.39%	94.61%
0-40	2444.52	80.12%	96.69%
0-60	2485.00	81.45%	98.29%
0-90	2524.78	82.75%	99.87%
0-120	2524.78	82.75%	99.87%
0-180	2528.11	82.86%	100.00%
60-90	48.77	1.60%	1.93%
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%
0-21.07	2022.49	66.29%	80.00%

ZONAL LUMEN SUMMARY

0-10	880.49
10-20	1084.36
20-30	426.96
30-40	52.70
40-50	22.12
50-60	18.36
60-70	17.07
70-80	15.63
80-90	7.08
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: —————

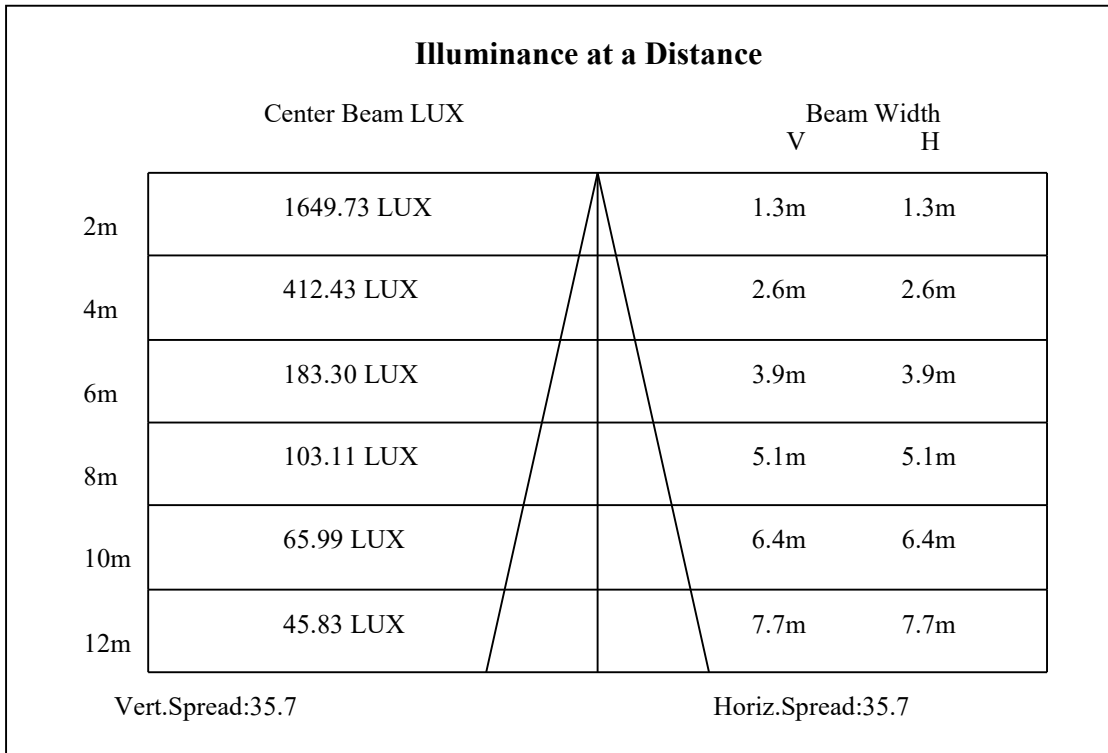
C90/C270: —————

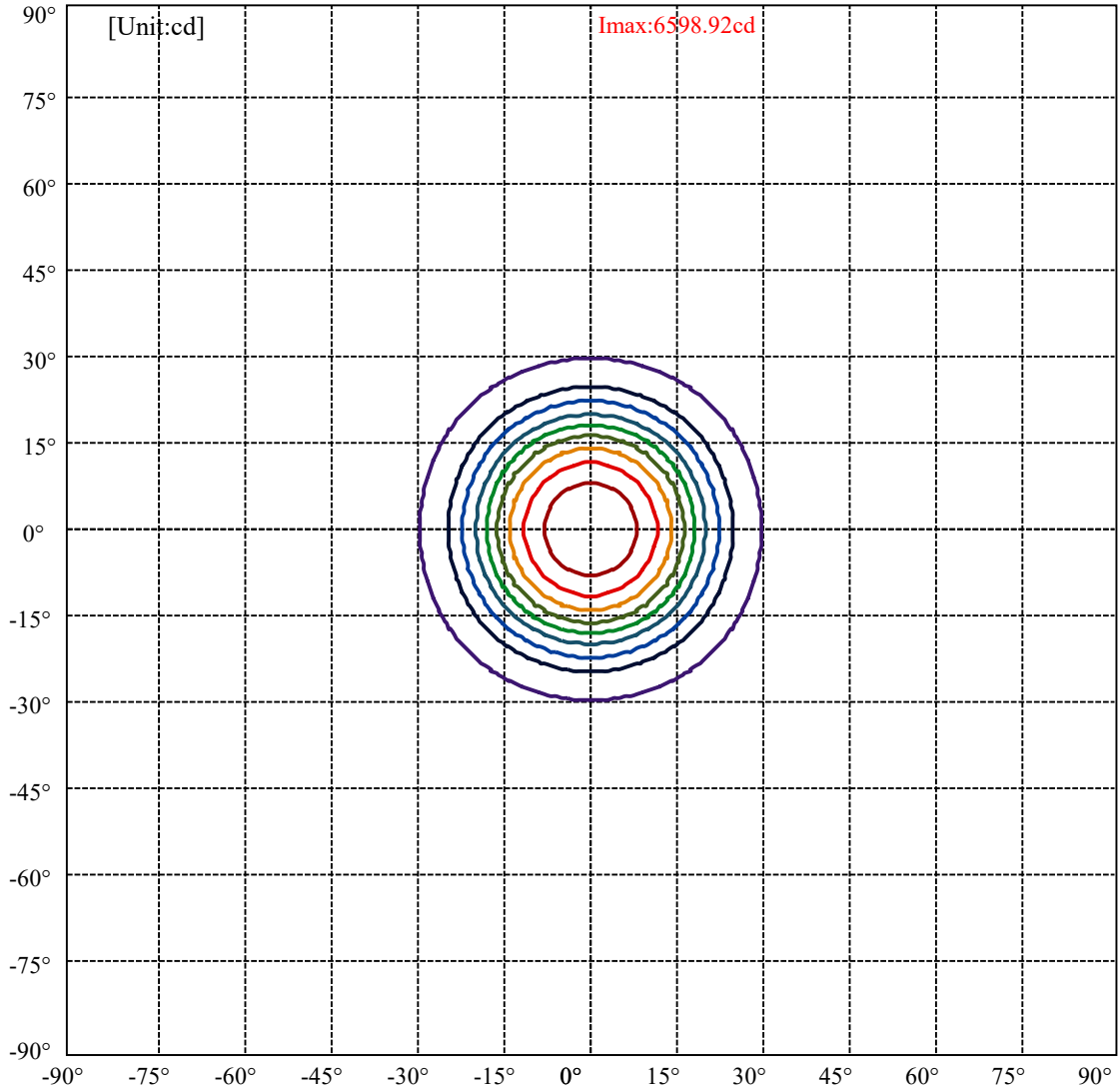
Field angle(10%Imax):C0/180Left:29.3 Right:29.3

:C90/270Left:29.3 Right:29.3

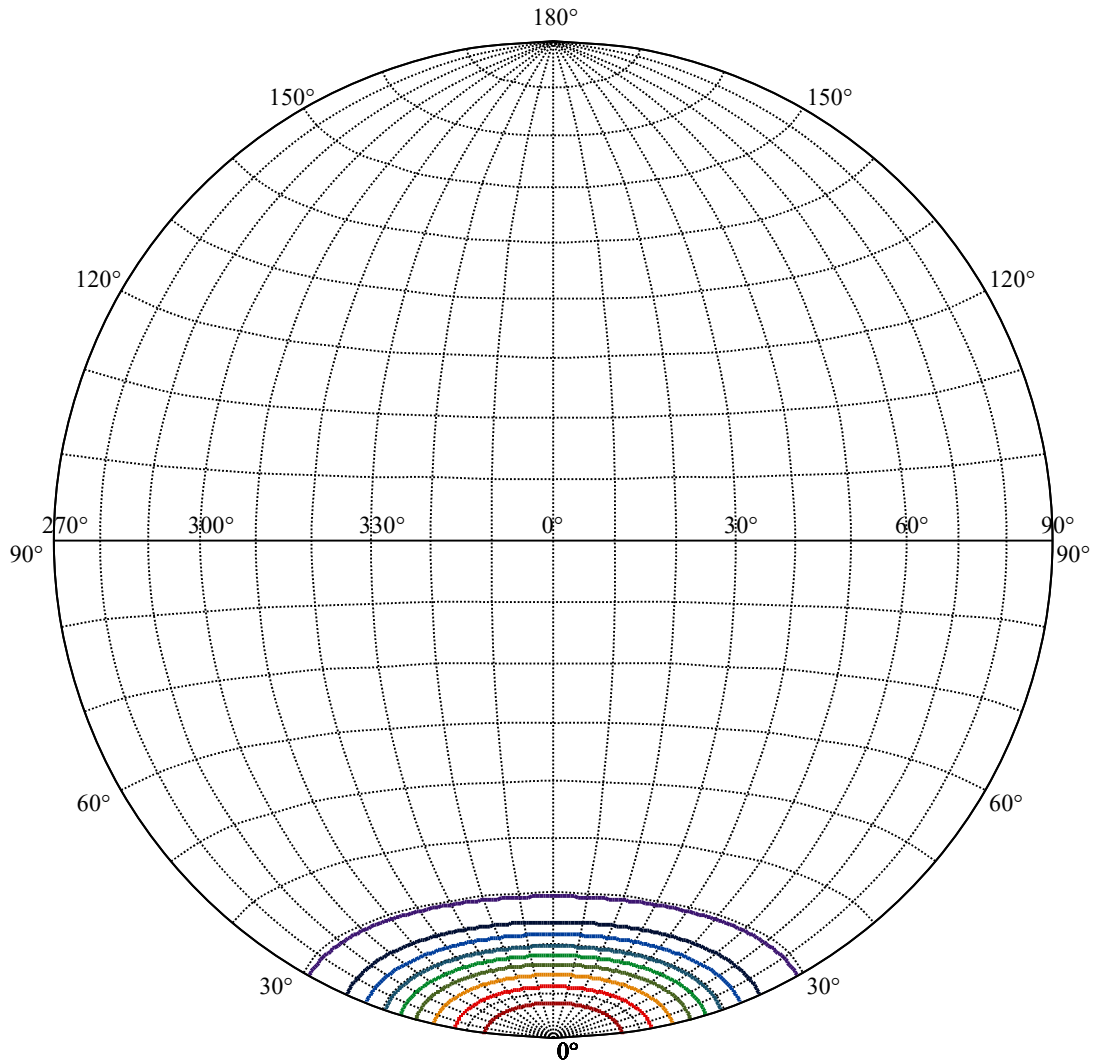
Beam Angle(50%Imax):C0/180Left:17.8 Right:17.8

:C90/270Left:17.8 Right:17.8





(10%Imax) 659.892	—
(20%Imax) 1319.78	—
(30%Imax) 1979.68	—
(40%Imax) 2639.57	—
(50%Imax) 3299.46	—
(60%Imax) 3959.35	—
(70%Imax) 4619.25	—
(80%Imax) 5279.14	—
(90%Imax) 5939.03	—



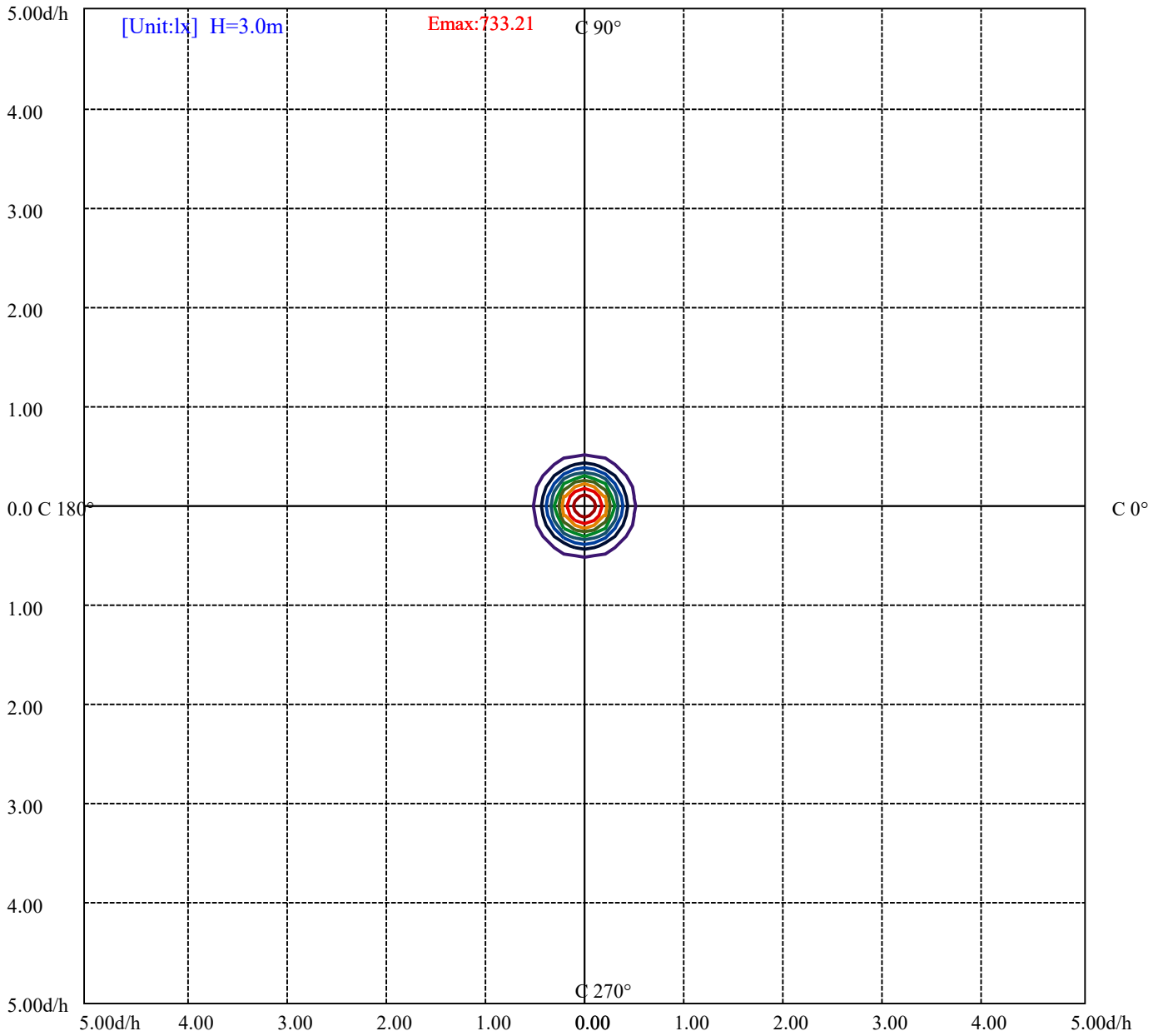
House

[Unit:cd]

Road

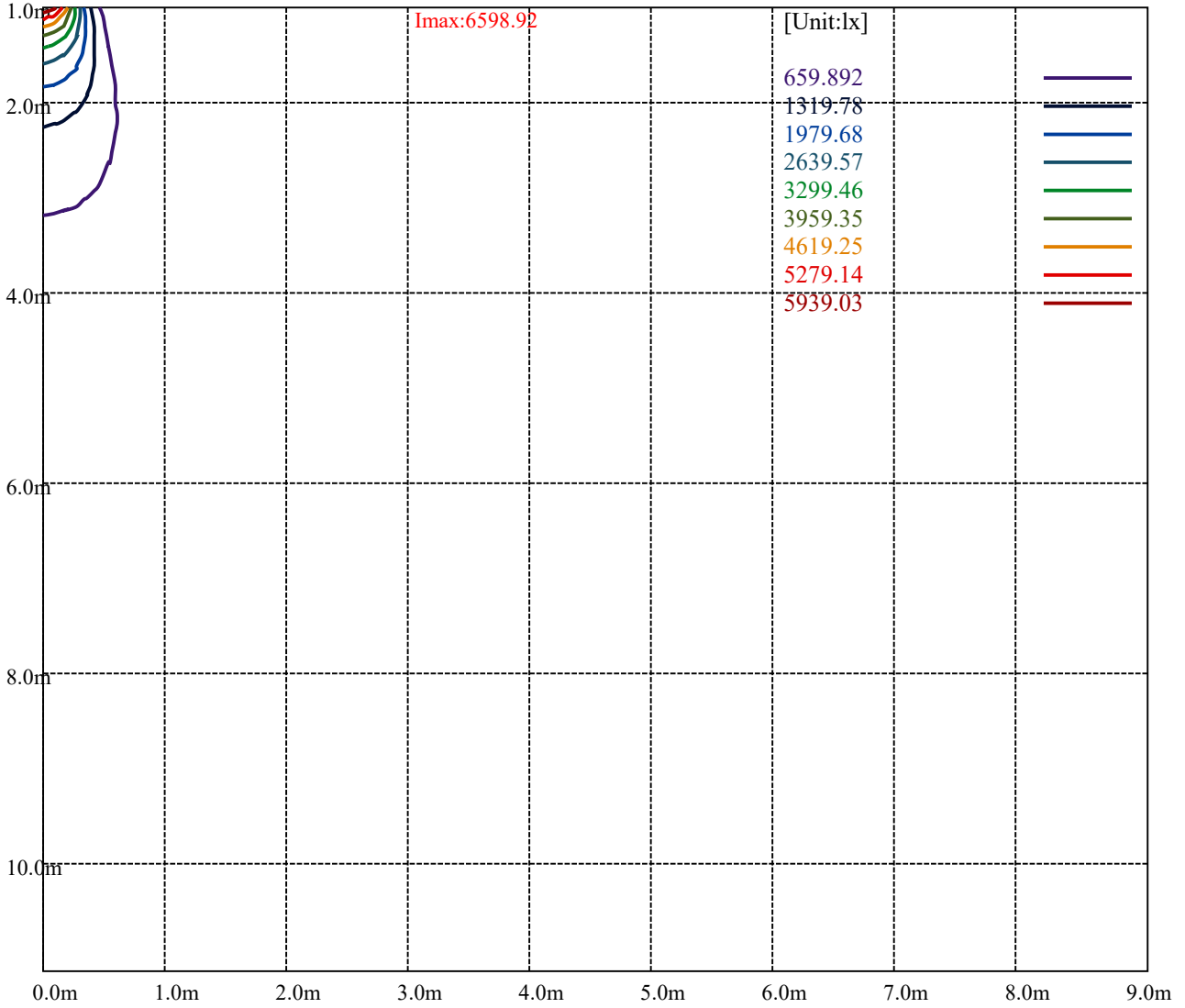
Imax:6598.92

(10%Imax)	659.892	—
(20%Imax)	1319.78	—
(30%Imax)	1979.68	—
(40%Imax)	2639.57	—
(50%Imax)	3299.46	—
(60%Imax)	3959.35	—
(70%Imax)	4619.25	—
(80%Imax)	5279.14	—
(90%Imax)	5939.03	—



- (10%Emax) 73.32122
- (20%Emax) 146.6422
- (30%Emax) 219.9633
- (40%Emax) 293.2856
- (50%Emax) 366.6067
- (60%Emax) 439.9278
- (70%Emax) 513.2489
- (80%Emax) 586.57
- (90%Emax) 659.8911





Luminance Table

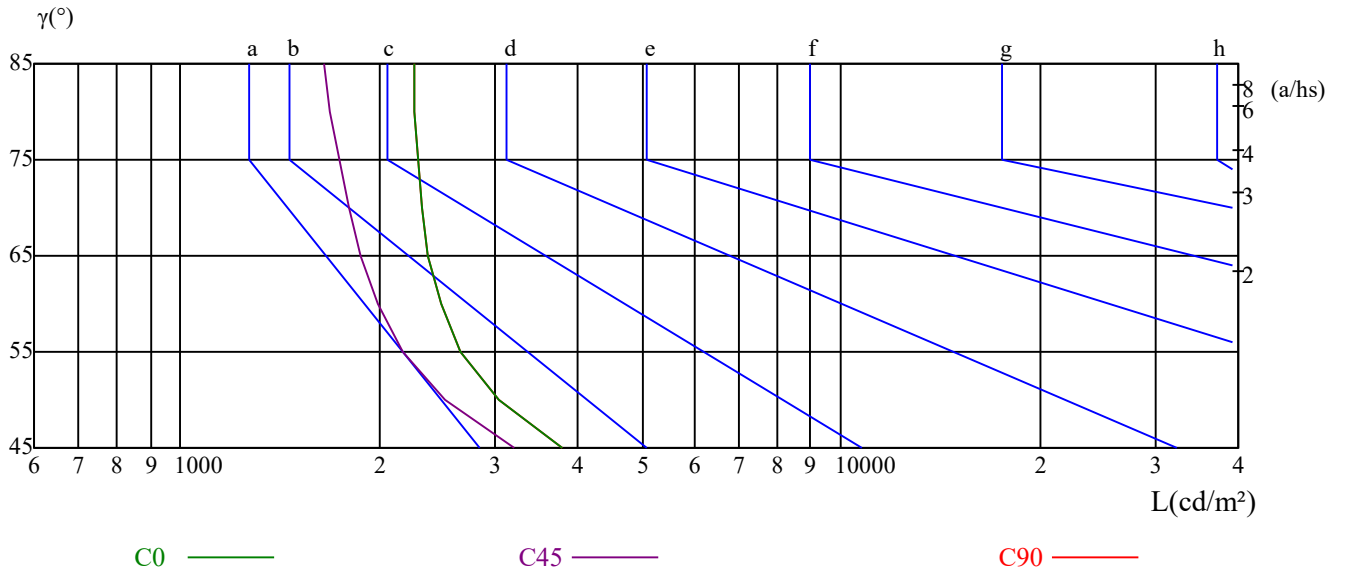
$\gamma$	45	50	55	60	65	70	75	80	85
C0	3797	3035	2659	2478	2368	2320	2286	2259	2261
C45	3195	2516	2170	1991	1871	1800	1740	1683	1644
C90	3797	3035	2659	2478	2368	2320	2286	2259	2261

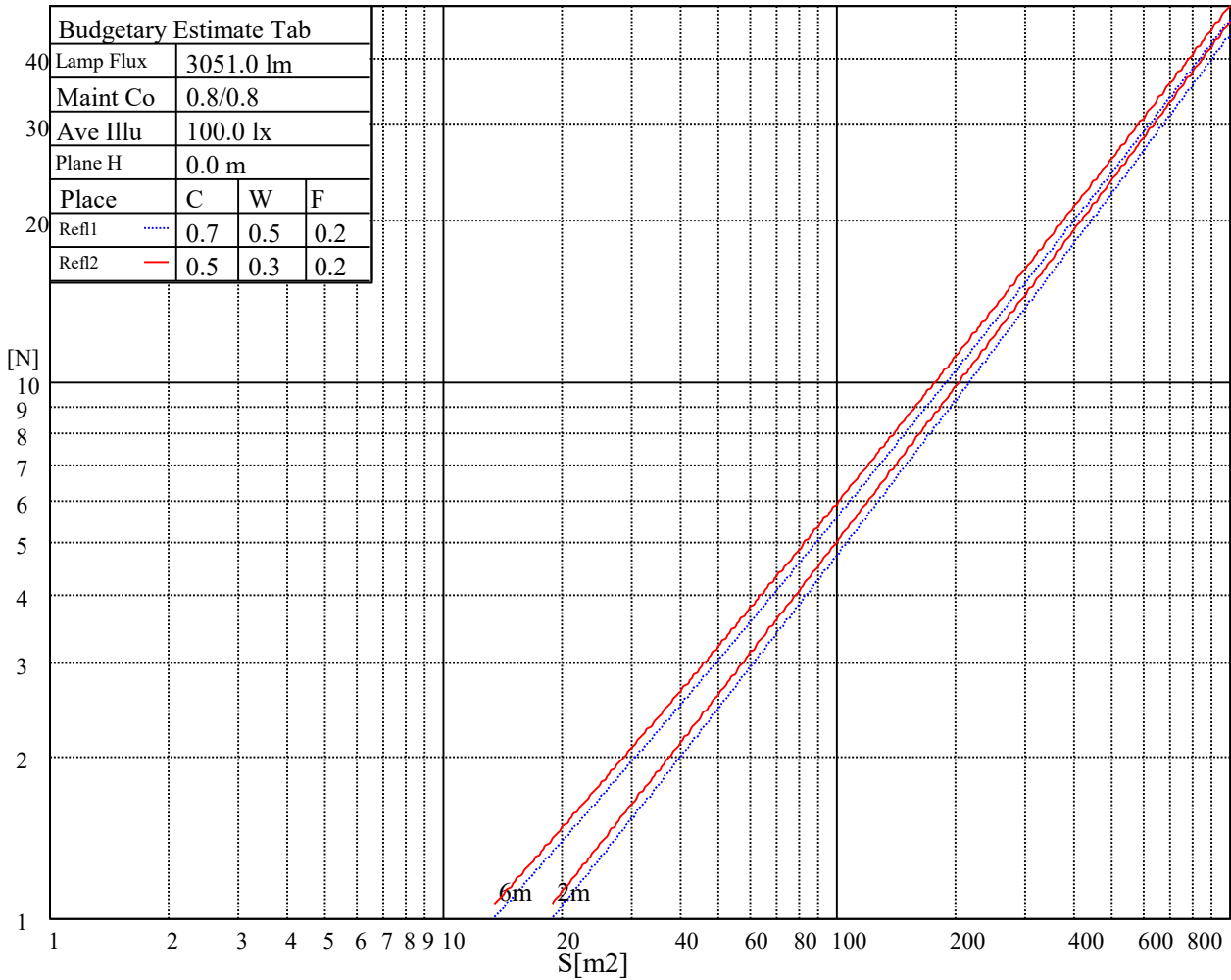
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6612	6612	6612	9412	9412	9412	23849	23849	23849

Glare Table

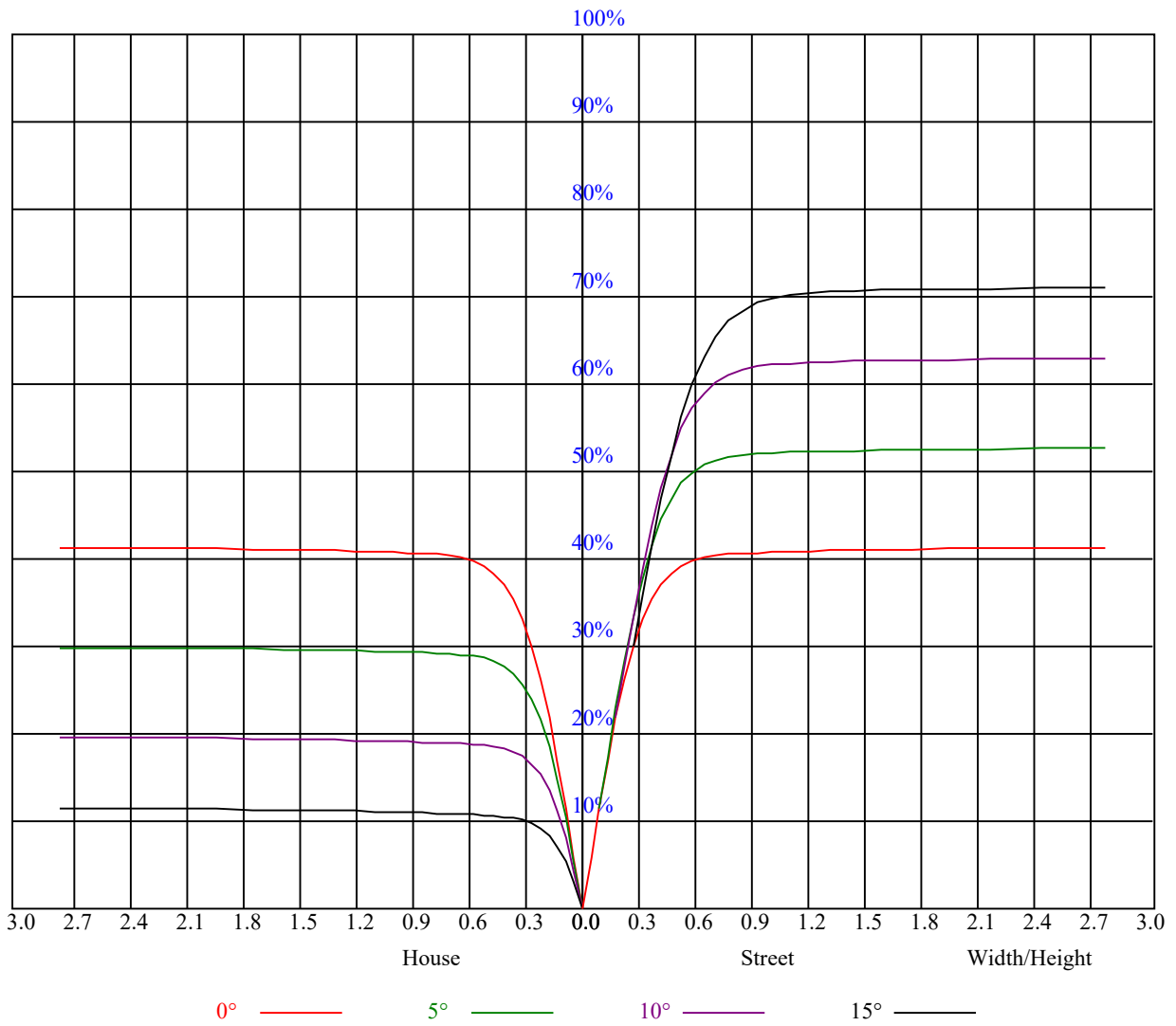
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.00	1.00	1.00	0.98	0.98	0.98	0.93	0.93	0.93	0.89	0.89	0.89	0.86	0.86	0.86	0.84
1	0.93	0.91	0.89	0.91	0.89	0.87	0.88	0.86	0.85	0.84	0.83	0.82	0.82	0.81	0.80	0.78
2	0.88	0.85	0.82	0.87	0.84	0.82	0.84	0.82	0.80	0.82	0.80	0.78	0.79	0.78	0.76	0.75
3	0.84	0.81	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.77	0.75	0.74	0.72
4	0.81	0.77	0.74	0.80	0.76	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.75	0.73	0.71	0.70
5	0.78	0.74	0.71	0.77	0.73	0.71	0.75	0.72	0.70	0.74	0.71	0.69	0.73	0.71	0.69	0.68
6	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.68	0.67	0.66
7	0.72	0.68	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.67	0.65	0.64
8	0.70	0.66	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.63	0.67	0.65	0.63	0.62
9	0.68	0.64	0.62	0.67	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.60
10	0.66	0.62	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.64	0.62	0.60	0.64	0.61	0.59	0.59



Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	6586.40	6505.46	5944.44	4733.75	2948.82	1311.44	726.74	289.60	50.32
45.0	6605.12	6378.28	5736.33	4523.43	2756.12	1330.71	655.72	98.94	50.10
90.0	6588.05	6196.05	5413.15	4043.34	2295.85	1069.14	518.69	75.37	43.33
135.0	6616.13	6250.55	5562.90	4343.40	2494.05	1174.90	580.29	80.66	44.43
180.0	6586.40	6135.49	5372.95	3885.88	2046.45	1051.14	421.35	69.92	41.90
225.0	6605.12	6286.34	5500.13	4088.49	2214.92	1090.56	491.71	70.36	40.58
270.0	6588.05	6492.80	5897.09	4571.88	2878.35	1200.23	625.44	165.72	46.69
315.0	6616.13	6487.30	5796.89	4331.29	2514.43	1086.10	570.22	85.06	44.43
360.0	6586.40	6505.46	5944.44	4733.75	2948.82	1311.44	726.74	289.60	50.32
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	34.02	25.88	21.69	19.60	17.89	16.68	15.58	14.48	13.27
45.0	32.48	25.27	21.64	19.38	17.78	16.63	15.47	14.26	13.10
90.0	29.35	24.17	20.81	18.83	17.45	16.30	15.09	13.87	12.88
135.0	30.17	24.17	20.76	18.77	17.40	16.24	15.14	13.98	12.88
180.0	29.12	23.51	20.43	18.77	17.34	16.19	15.09	13.82	12.99
225.0	29.35	23.51	20.32	18.61	17.23	16.13	15.09	13.98	12.88
270.0	31.27	24.17	20.81	18.83	17.29	16.24	15.14	14.04	12.88
315.0	30.28	23.73	20.54	18.61	17.12	16.13	15.03	13.93	12.88
360.0	34.02	25.88	21.69	19.60	17.89	16.68	15.58	14.48	13.27
C/ $\gamma$ (°)	90.0								
0.0	12.28								
45.0	12.22								
90.0	12.11								
135.0	12.11								
180.0	12.22								
225.0	12.22								
270.0	12.11								
315.0	12.06								
360.0	12.28								