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Nata

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LumCAT: 3-2046-M  
Luminaire: 92.70.135.00  
Report No: GCGC2017122802  
Test No: NT-0010  
LampCAT: NICHIA NVEWJ048Z-V1  
Lamp flux(lm): 3051.0  
Number of Lamps: 1  
Length(mm): 84  
Phm Type: C

Voltage(V): 43.4000  
Current(A): 0.5000  
Power (W): 21.7000  
PF: 0.0000  
Ballast type: DC  
Width(mm): 84  
Height(mm): 0

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Photometric Results

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Lumens(lm): 2783.34  
Efficiency(%): 91.23%  
Lumens(lm)/Power(W): 128.26  
Central intensity(cd): 6413.658  
Maximum intensity(cd): 6413.658  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=34.9  
                                  [C90/270]Total=34.9  
Field angle(10%Imax): [C0/180]Total=68.1  
                                  [C90/270]Total=68.1  
Maximum s/h(1/2): C0\_180=0.57 C90\_270=0.57  
Maximum s/h(1/4): C0\_180=0.58 C90\_270=0.58  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 91.23%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.483%

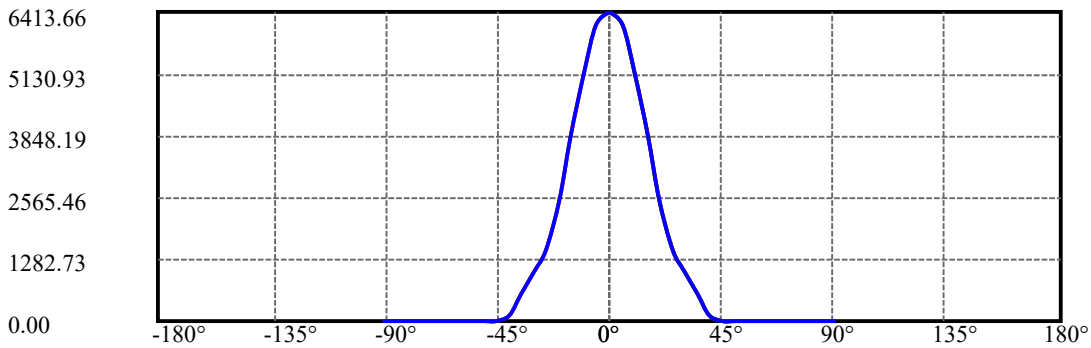
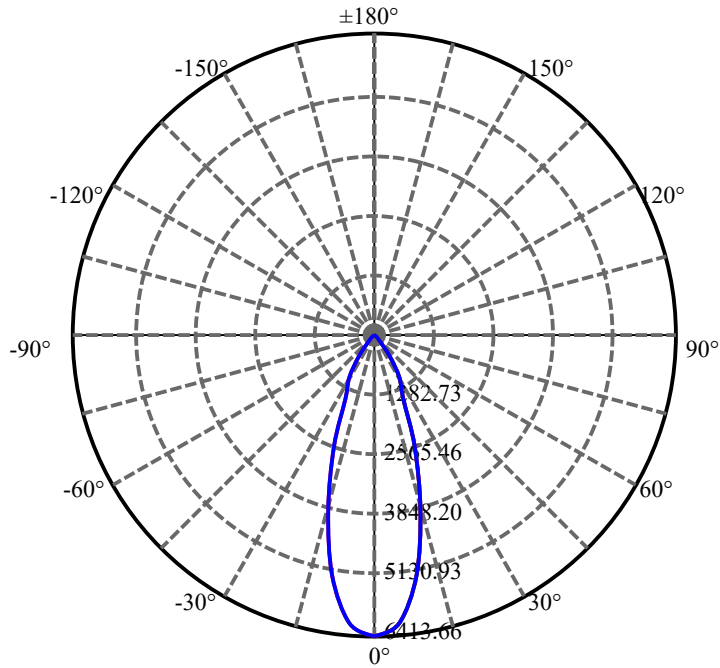
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6413.658	0.000	0	.000%	.000%
5.0	6132.595	149.987	149.987	4.916%	5.389%
10.0	5187.552	404.957	554.944	13.273%	19.938%
15.0	3865.923	537.046	1091.99	17.602%	39.233%
20.0	2519.450	526.244	1618.235	17.248%	58.140%
25.0	1476.888	419.142	2037.377	13.738%	73.199%
30.0	1026.767	316.840	2354.216	10.385%	84.582%
35.0	550.530	232.268	2586.484	7.613%	92.927%
40.0	108.461	109.948	2696.432	3.604%	96.877%
45.0	18.988	23.598	2720.03	.773%	97.725%
50.0	16.648	7.201	2727.231	.236%	97.984%
55.0	15.381	6.964	2734.195	.228%	98.234%
60.0	14.590	6.928	2741.123	.227%	98.483%
65.0	14.026	6.956	2748.079	.228%	98.733%
70.0	13.668	7.012	2755.091	.230%	98.985%
75.0	13.351	7.062	2762.154	.231%	99.239%
80.0	13.103	7.079	2769.232	.232%	99.493%
85.0	12.918	7.071	2776.303	.232%	99.747%
90.0	12.801	7.042	2783.345	.231%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2354.22	77.16%	84.58%
0-40	2696.43	88.38%	96.88%
0-60	2741.12	89.84%	98.48%
0-90	2776.30	91.00%	99.75%
0-120	2776.30	91.00%	99.75%
0-180	2783.34	91.23%	100.00%
60-90	42.11	1.38%	1.51%
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%
0-27.99	2226.68	72.98%	80.00%

ZONAL LUMEN SUMMARY

0-10	554.94
10-20	1063.29
20-30	735.98
30-40	342.22
40-50	30.80
50-60	13.89
60-70	13.97
70-80	14.14
80-90	7.07
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): —————

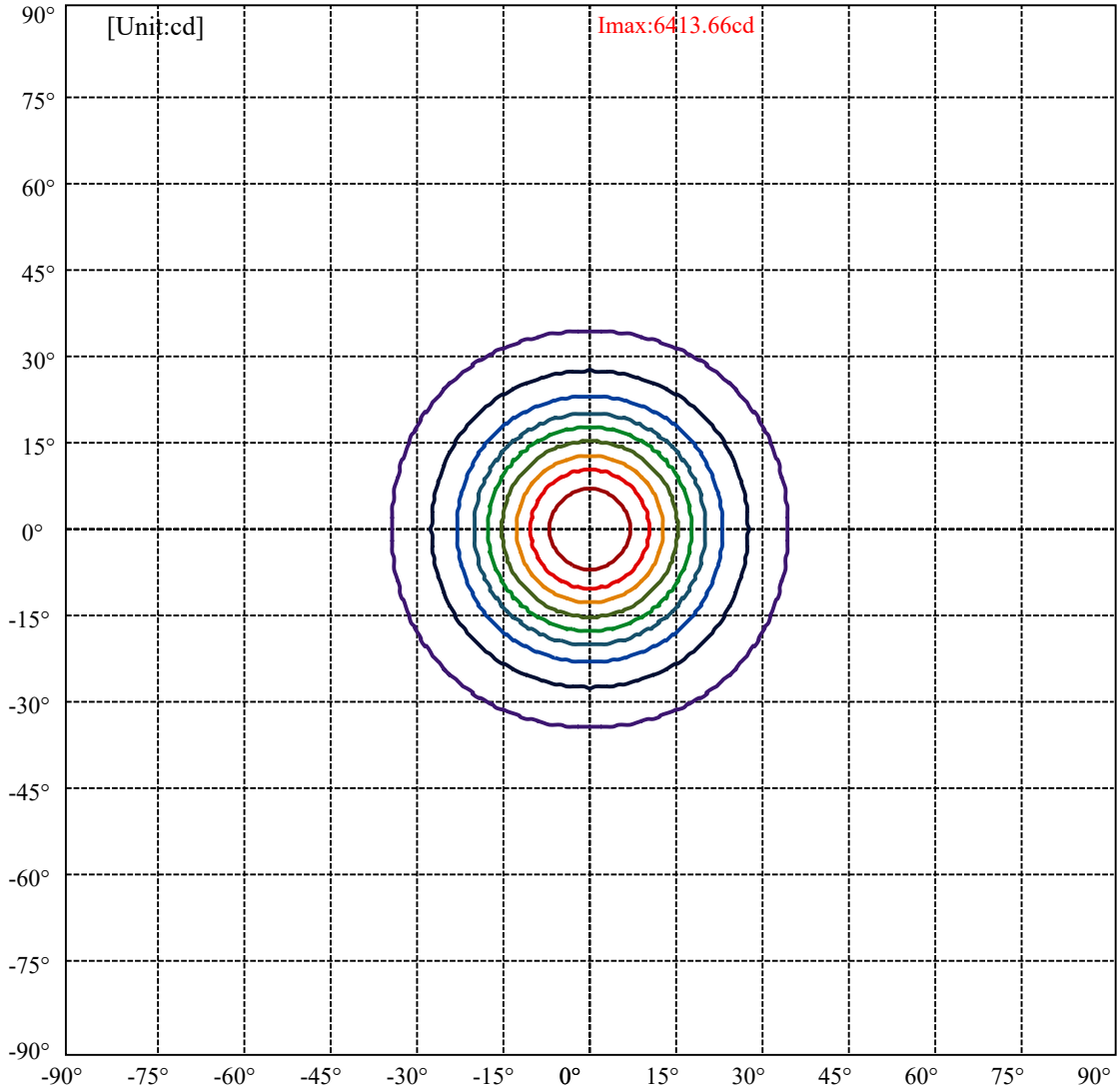
C0/C180: —————

C90/C270: —————

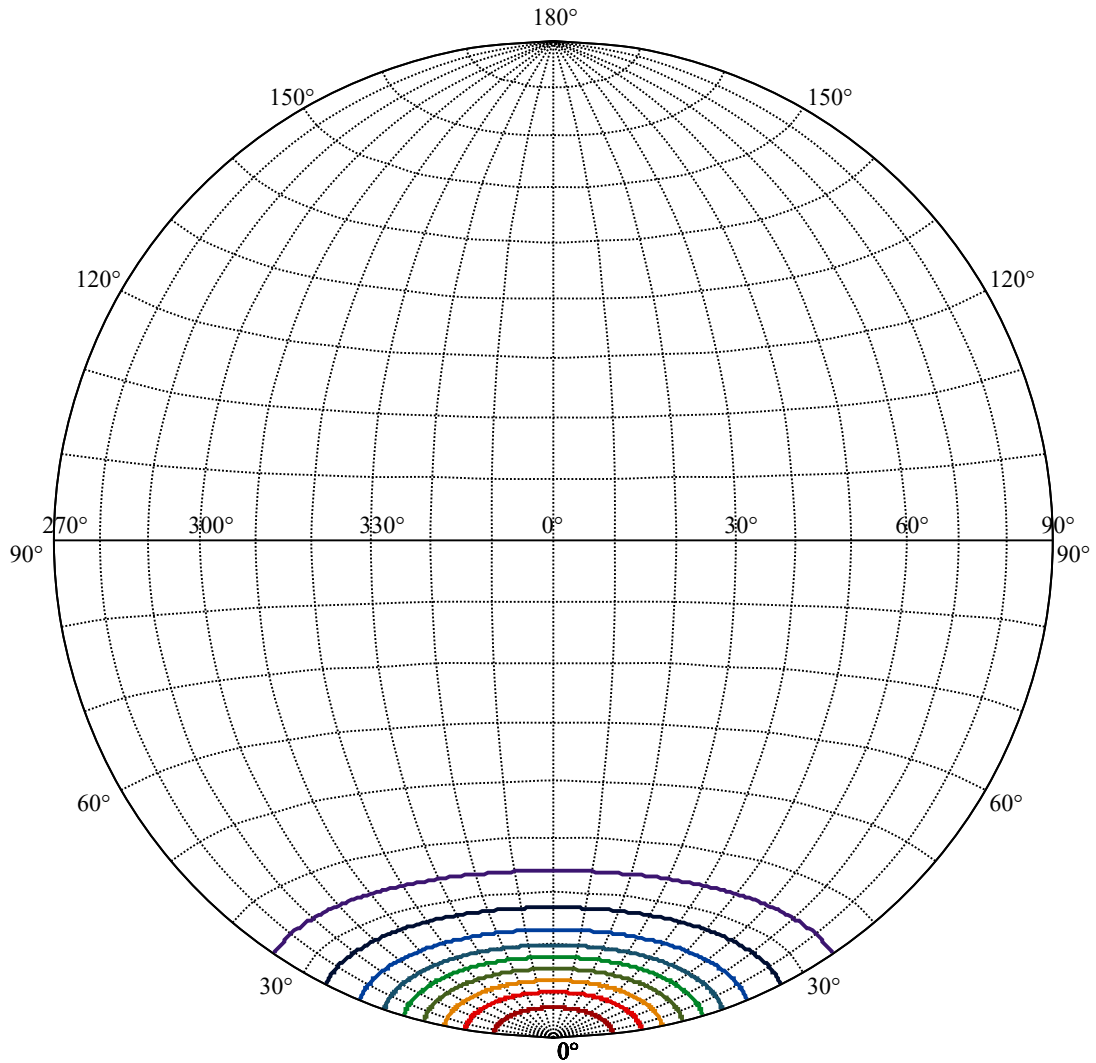
Field angle(10%Imax):C0/180Left:34.0 Right:34.0  
:C90/270Left:34.0 Right:34.0

Beam Angle(50%Imax):C0/180Left:17.4 Right:17.4  
:C90/270Left:17.4 Right:17.4





(10%Imax) 641.366	—
(20%Imax) 1282.73	—
(30%Imax) 1924.1	—
(40%Imax) 2565.46	—
(50%Imax) 3206.83	—
(60%Imax) 3848.19	—
(70%Imax) 4489.56	—
(80%Imax) 5130.93	—
(90%Imax) 5772.29	—



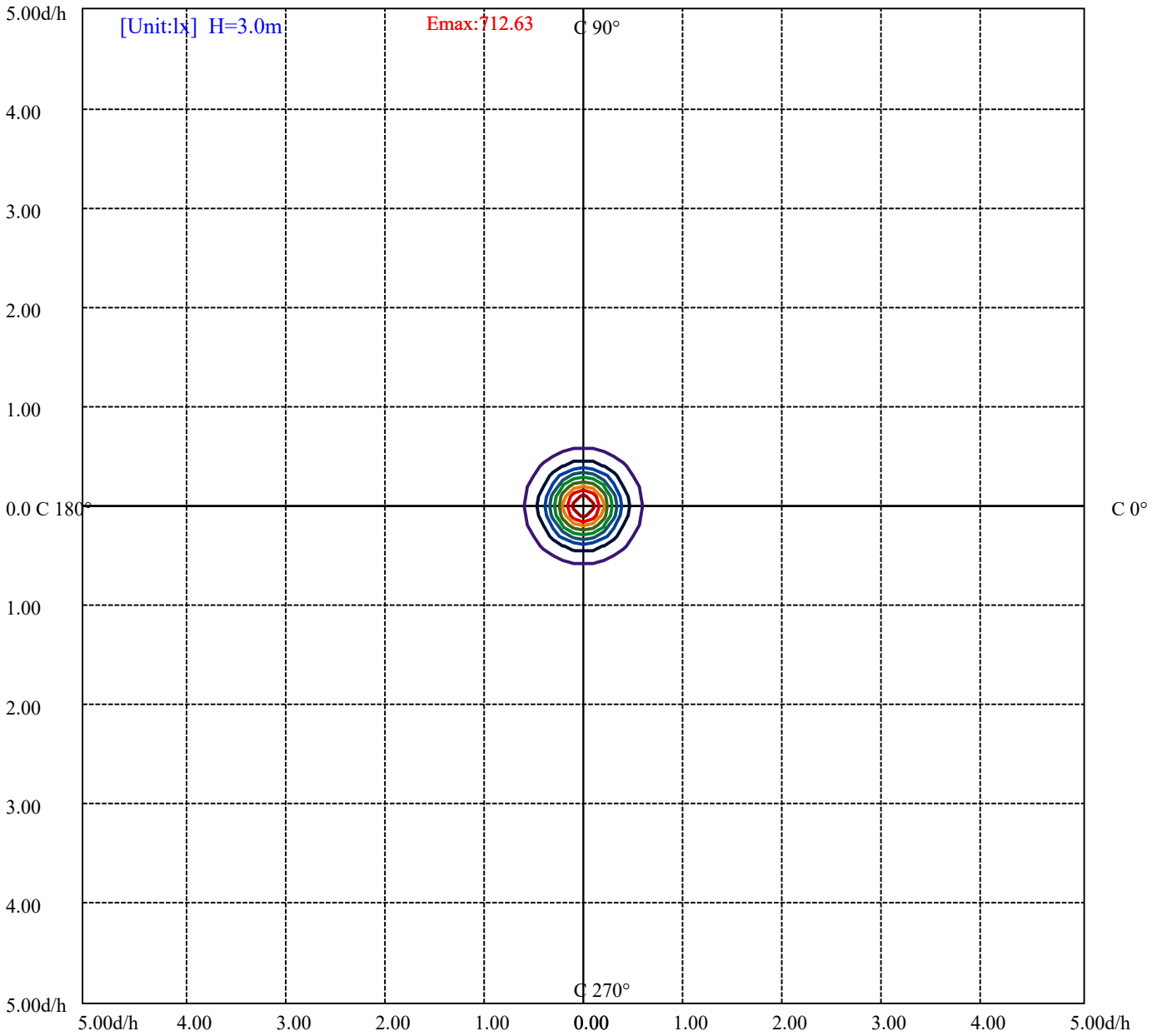
House

[Unit:cd]

Road

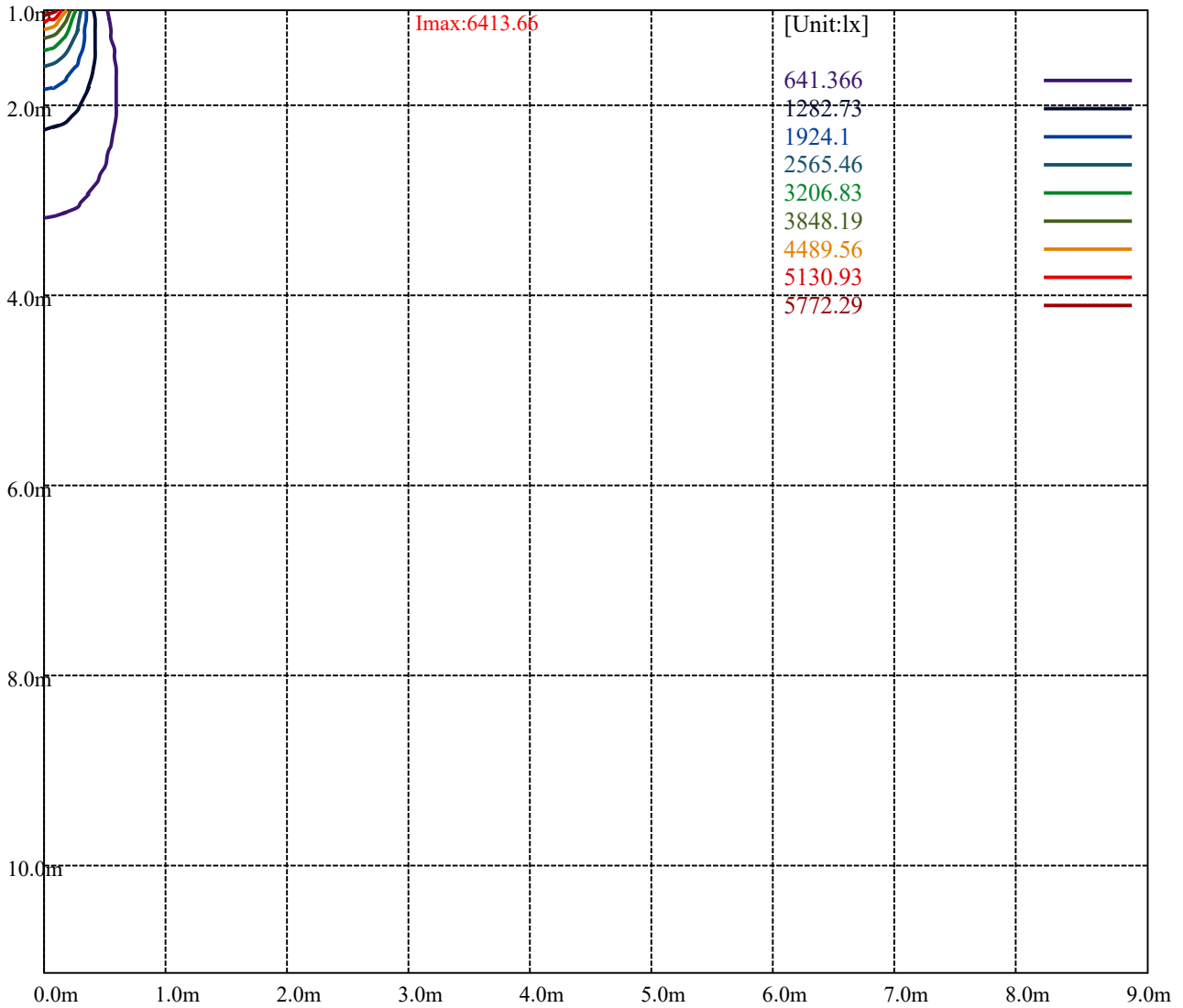
**Imax:6413.66**

(10%Imax) 641.366	—
(20%Imax) 1282.73	—
(30%Imax) 1924.1	—
(40%Imax) 2565.46	—
(50%Imax) 3206.83	—
(60%Imax) 3848.19	—
(70%Imax) 4489.56	—
(80%Imax) 5130.93	—
(90%Imax) 5772.29	—



- (10%Emax) 71.26278
- (20%Emax) 142.5256
- (30%Emax) 213.7878
- (40%Emax) 285.0511
- (50%Emax) 356.3134
- (60%Emax) 427.5767
- (70%Emax) 498.8389
- (80%Emax) 570.1022
- (90%Emax) 641.3644





Luminance Table

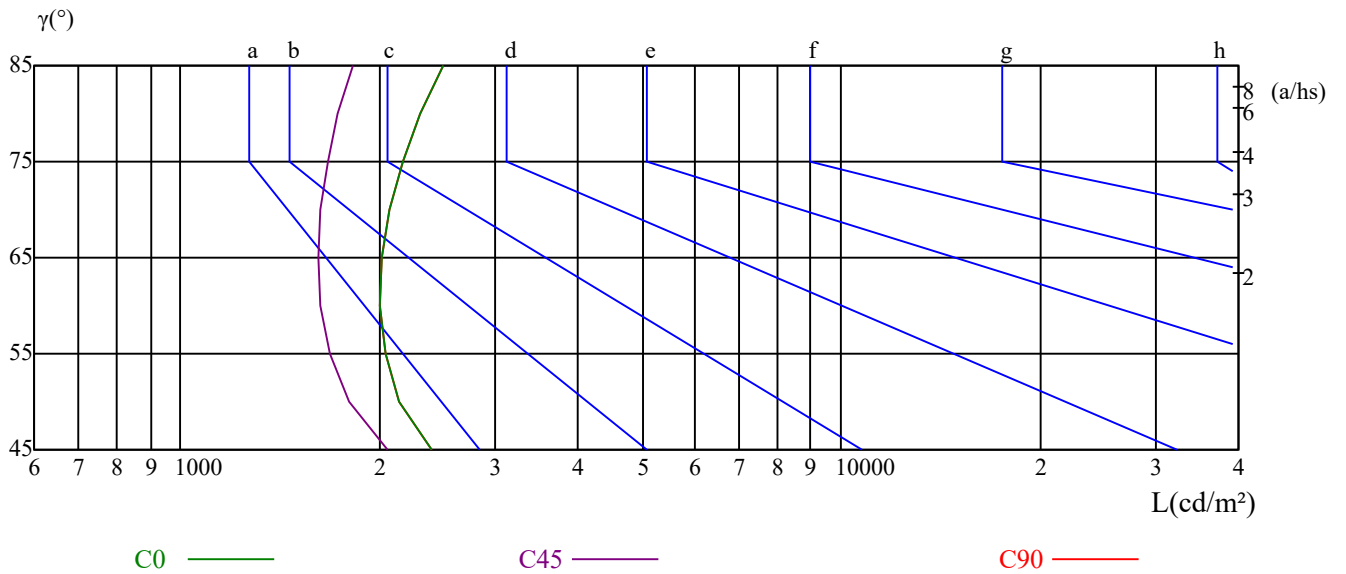
$\gamma$	45	50	55	60	65	70	75	80	85
C0	2402	2147	2039	2004	2016	2076	2168	2304	2498
C45	2051	1806	1688	1633	1614	1631	1668	1731	1825
C90	2402	2147	2039	2004	2016	2076	2168	2304	2498

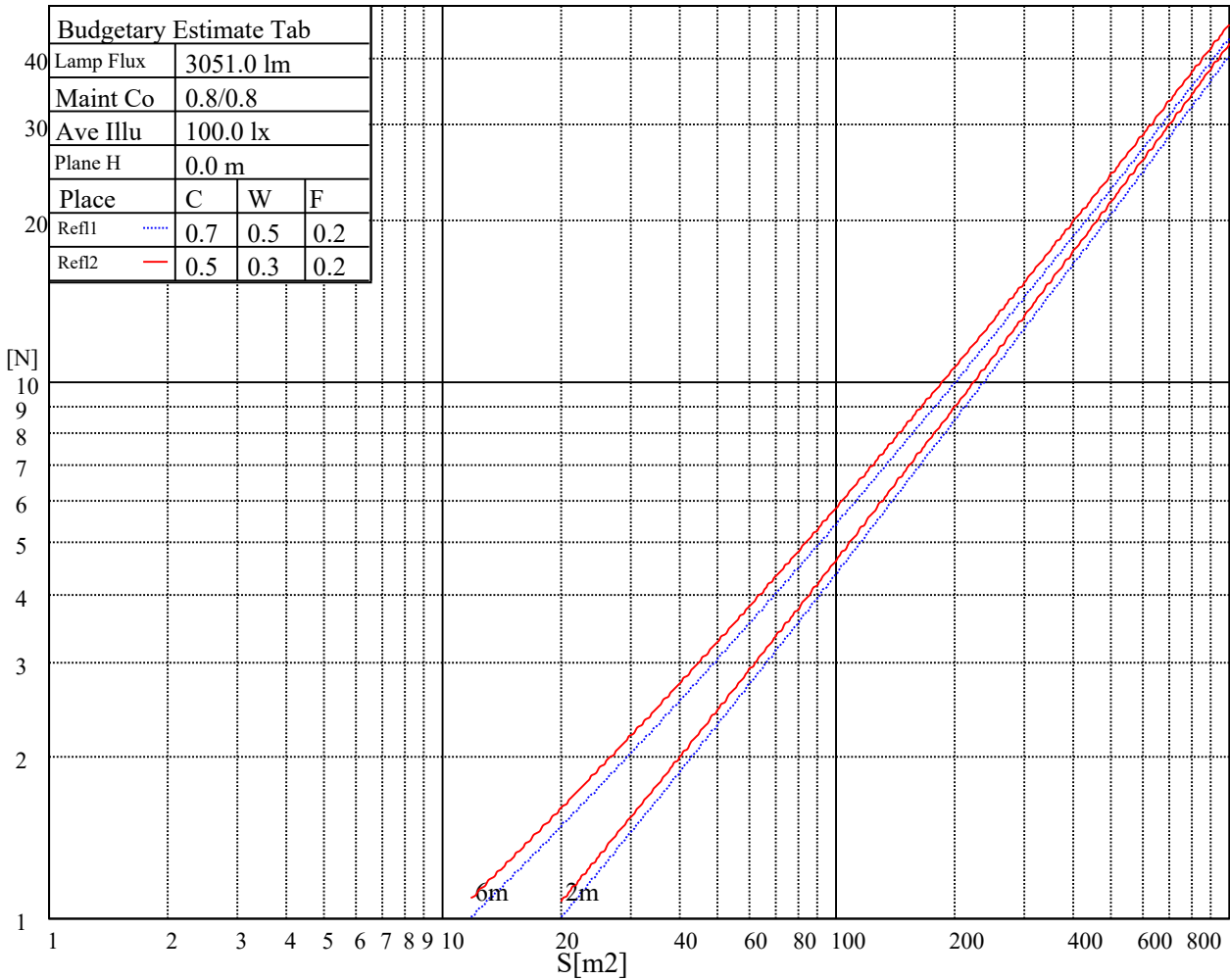
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5058	5058	5058	7862	7862	7862	22590	22590	22590

Glare Table

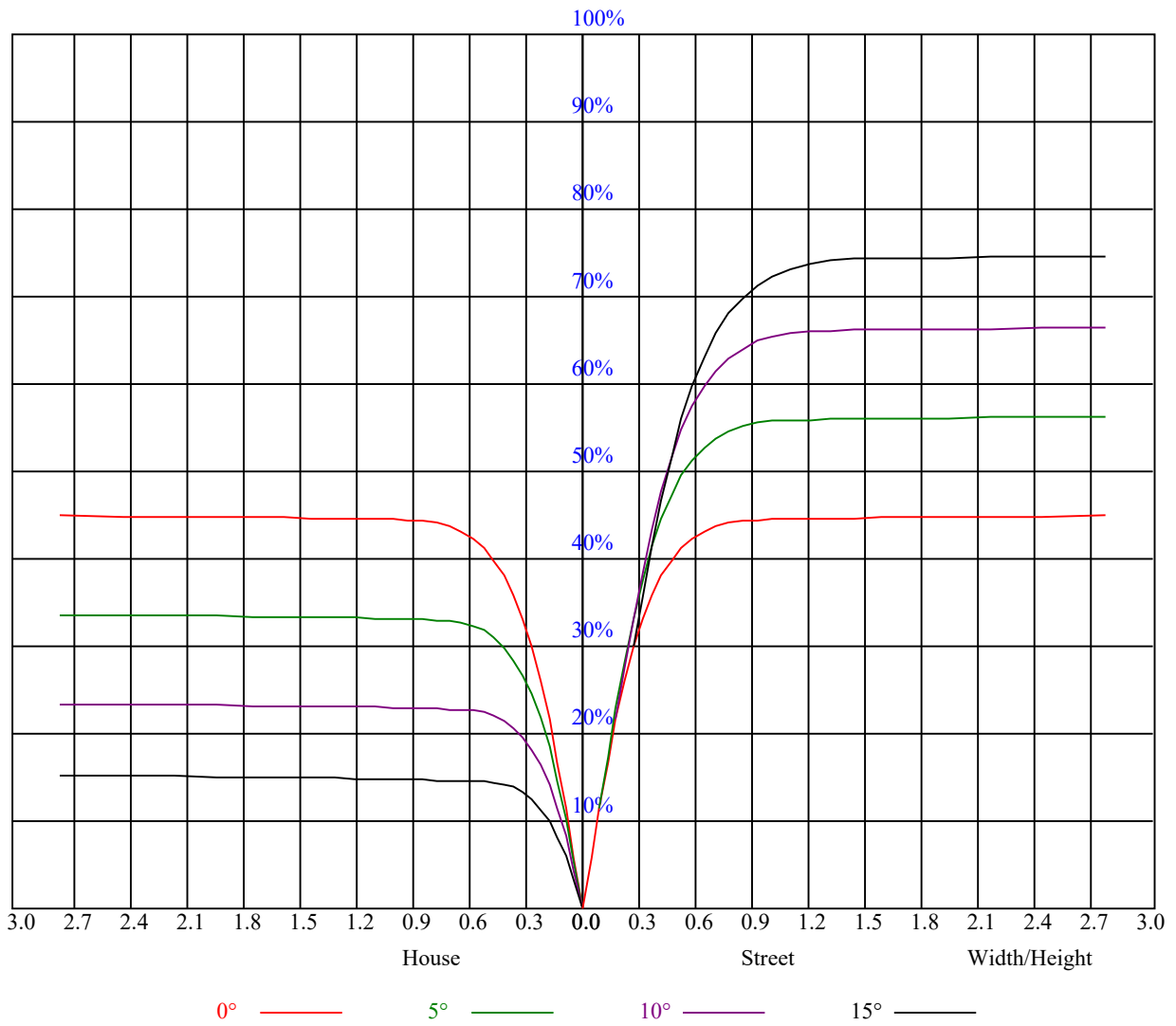
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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 RHOF=20 CU															
0	1.09	1.09	1.09	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.02	1.00	0.98	1.00	0.98	0.96	0.96	0.95	0.93	0.93	0.91	0.90	0.90	0.89	0.88	0.86
2	0.96	0.92	0.90	0.94	0.91	0.89	0.91	0.89	0.87	0.88	0.87	0.85	0.86	0.84	0.83	0.82
3	0.90	0.86	0.83	0.89	0.85	0.82	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.77
4	0.86	0.81	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.81	0.78	0.76	0.79	0.77	0.75	0.74
5	0.81	0.77	0.73	0.81	0.76	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.76	0.73	0.71	0.70
6	0.77	0.73	0.69	0.77	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.67
7	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.64
8	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.61
9	0.68	0.63	0.60	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.58
10	0.65	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.56



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	6401.96	6291.85	5644.38	4347.80	2915.79	1716.66	1118.20	741.06	292.90
45.0	6410.22	6287.99	5489.67	4248.70	2811.73	1687.48	1089.02	668.94	300.61
90.0	6421.23	6094.19	5066.29	3652.99	2481.94	1450.19	992.78	524.19	45.70
135.0	6421.23	6111.26	5130.71	3866.61	2533.70	1475.51	1038.91	553.32	47.40
180.0	6401.96	5908.10	4836.70	3440.47	2134.54	1205.18	944.38	359.96	29.29
225.0	6410.22	6010.51	4888.46	3622.71	2229.23	1307.04	976.15	411.22	34.36
270.0	6421.23	6192.74	5259.54	3949.75	2586.55	1502.49	1036.16	610.58	61.94
315.0	6421.23	6164.11	5184.66	3798.34	2462.12	1470.56	1018.54	534.98	55.50
360.0	6401.96	6291.85	5644.38	4347.80	2915.79	1716.66	1118.20	741.06	292.90

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	22.41	17.18	15.69	14.81	14.20	13.82	13.49	13.21	12.99
45.0	20.26	16.90	15.69	14.70	14.15	13.76	13.49	13.21	12.94
90.0	18.33	16.68	15.36	14.59	13.98	13.65	13.32	13.05	12.88
135.0	18.11	16.46	15.20	14.48	13.93	13.60	13.21	13.05	12.88
180.0	17.45	16.02	14.92	14.31	13.82	13.54	13.27	13.05	12.94
225.0	17.56	16.13	15.03	14.31	13.87	13.54	13.27	13.05	12.88
270.0	18.99	17.01	15.64	14.81	14.15	13.71	13.38	13.10	12.94
315.0	18.77	16.79	15.53	14.70	14.09	13.71	13.38	13.10	12.88
360.0	22.41	17.18	15.69	14.81	14.20	13.82	13.49	13.21	12.99

C/γ(°)	90.0
0.0	12.83
45.0	12.83
90.0	12.77
135.0	12.77
180.0	12.83
225.0	12.83
270.0	12.77
315.0	12.77
360.0	12.83