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Nata

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LumCAT: 2-1676-M  
Luminaire: 92.70.135.00  
Report No: NT017122803  
Test No: GC2017122803  
LampCAT: NICHIA NVEWJ048Z-V1  
Lamp flux(lm): 3051.0  
Number of Lamps: 1  
Length(mm): 70  
Phm Type: C

Voltage(V): 43.4000  
Current(A): 0.5000  
Power (W): 21.7000  
PF: 0.0000  
Ballast type: DC  
Width(mm): 70  
Height(mm): 0

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Photometric Results

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Lumens(lm): 2778.61  
Efficiency(%): 91.07%  
Lumens(lm)/Power(W): 128.05  
Central intensity(cd): 5821.939  
Maximum intensity(cd): 5821.939  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=36.5  
                                  [C90/270]Total=36.5  
Field angle(10%Imax): [C0/180]Total=72.1  
                                  [C90/270]Total=72.1  
Maximum s/h(1/2): C0\_180=0.60 C90\_270=0.60  
Maximum s/h(1/4): C0\_180=0.60 C90\_270=0.60  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 91.07%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.403%

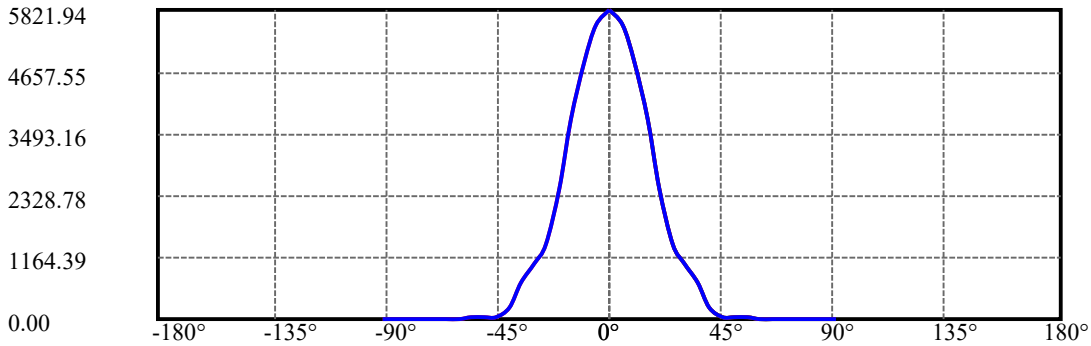
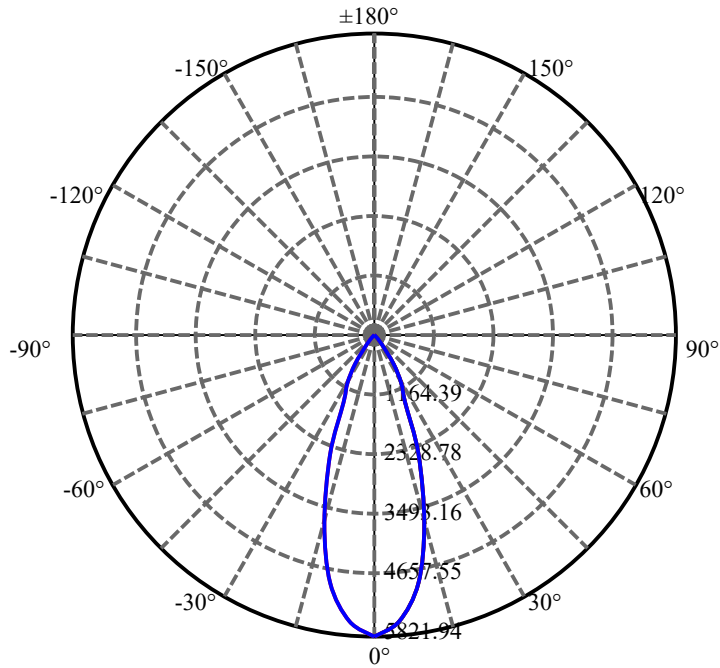
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5821.939	0.000	0	.000%	.000%
5.0	5531.241	135.724	135.724	4.449%	4.885%
10.0	4845.996	371.226	506.95	12.167%	18.245%
15.0	3749.272	509.865	1016.816	16.711%	36.594%
20.0	2458.475	511.606	1528.421	16.768%	55.007%
25.0	1426.649	407.478	1935.899	13.356%	69.671%
30.0	1053.325	313.843	2249.742	10.287%	80.966%
35.0	674.090	254.374	2504.116	8.337%	90.121%
40.0	234.203	151.542	2655.658	4.967%	95.575%
45.0	32.642	49.408	2705.066	1.619%	97.353%
50.0	23.131	11.270	2716.336	.369%	97.759%
55.0	19.772	9.328	2725.664	.306%	98.094%
60.0	17.357	8.582	2734.247	.281%	98.403%
65.0	15.684	8.032	2742.279	.263%	98.692%
70.0	14.576	7.662	2749.941	.251%	98.968%
75.0	13.737	7.400	2757.341	.243%	99.234%
80.0	13.214	7.211	2764.553	.236%	99.494%
85.0	12.863	7.085	2771.638	.232%	99.749%
90.0	12.615	6.976	2778.614	.229%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2249.74	73.74%	80.97%
0-40	2655.66	87.04%	95.57%
0-60	2734.25	89.62%	98.40%
0-90	2771.64	90.84%	99.75%
0-120	2771.64	90.84%	99.75%
0-180	2778.61	91.07%	100.00%
60-90	45.97	1.51%	1.65%
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%
0-29.57	2222.89	72.86%	80.00%

ZONAL LUMEN SUMMARY

0-10	506.95
10-20	1021.47
20-30	721.32
30-40	405.92
40-50	60.68
50-60	17.91
60-70	15.69
70-80	14.61
80-90	7.09
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

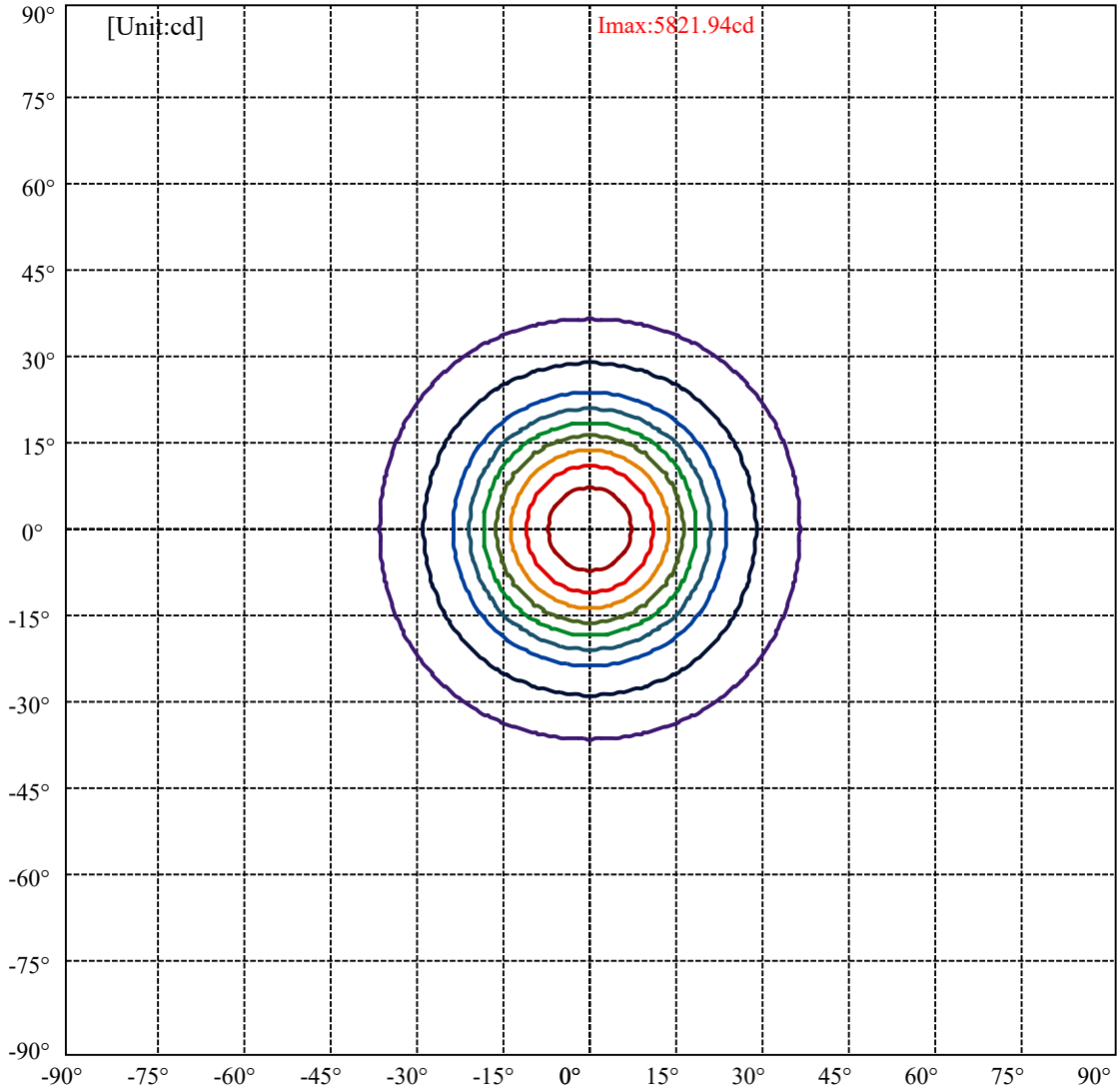


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

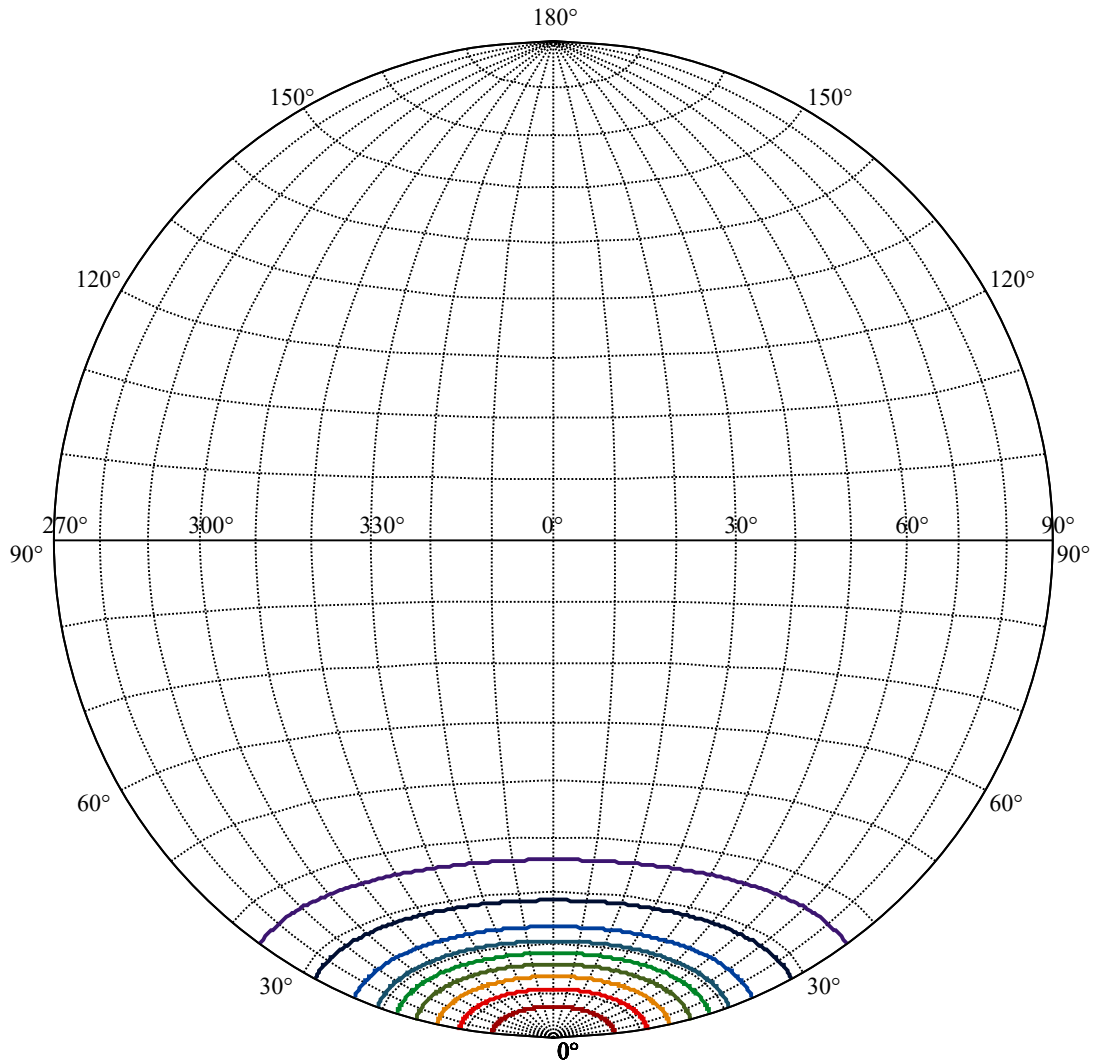
Field angle(10%Imax):C0/180Left:36.0 Right:36.0  
:C90/270Left:36.0 Right:36.0

Beam Angle(50%Imax):C0/180Left:18.2 Right:18.2  
:C90/270Left:18.2 Right:18.2





(10%Imax) 582.194	—
(20%Imax) 1164.39	—
(30%Imax) 1746.58	—
(40%Imax) 2328.78	—
(50%Imax) 2910.97	—
(60%Imax) 3493.16	—
(70%Imax) 4075.36	—
(80%Imax) 4657.55	—
(90%Imax) 5239.75	—



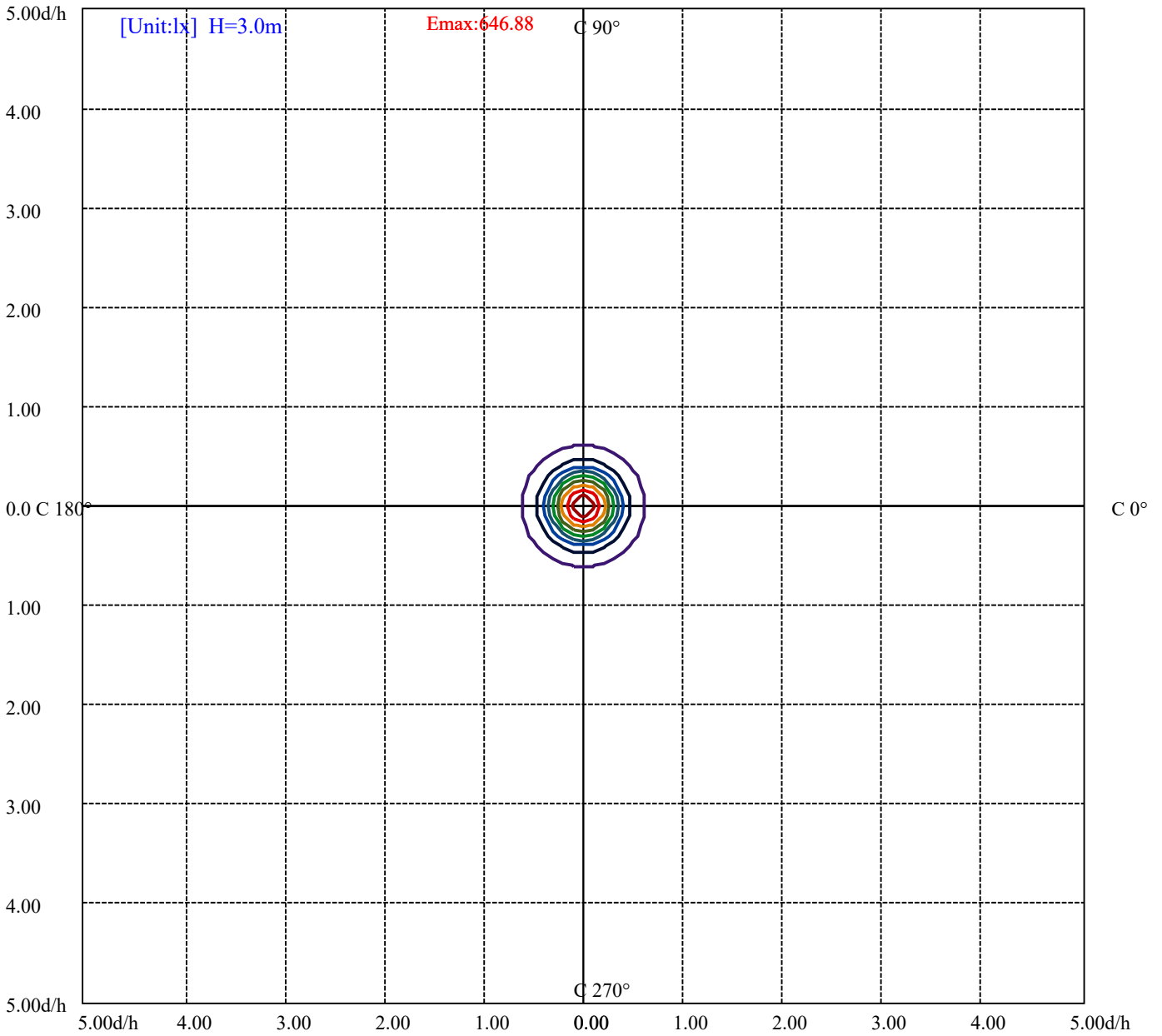
House

[Unit:cd]

Road

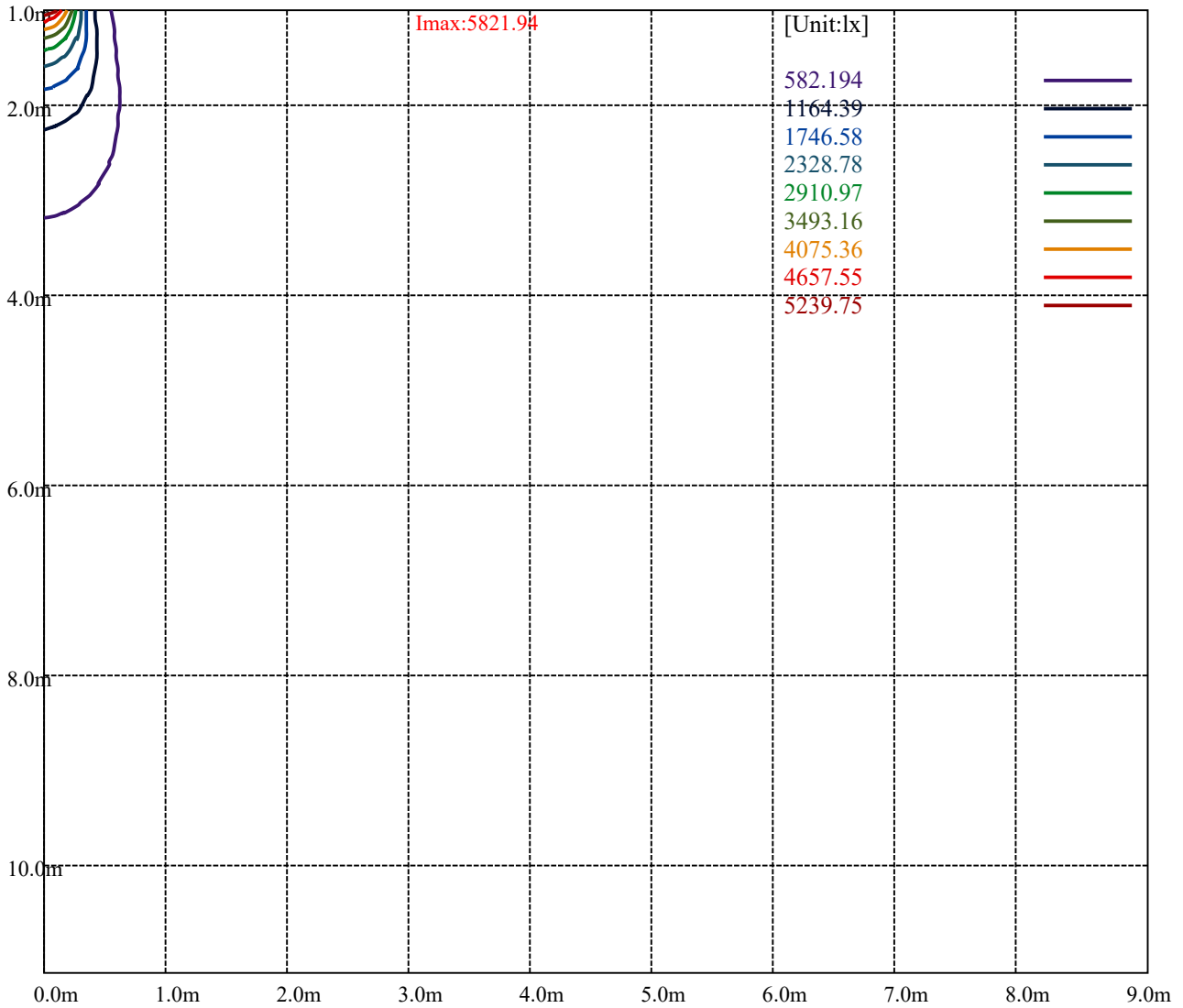
Imax:5821.94

(10%Imax)	582.194	—
(20%Imax)	1164.39	—
(30%Imax)	1746.58	—
(40%Imax)	2328.78	—
(50%Imax)	2910.97	—
(60%Imax)	3493.16	—
(70%Imax)	4075.36	—
(80%Imax)	4657.55	—
(90%Imax)	5239.75	—



- (10%Emax) 64.68811
- (20%Emax) 129.3767
- (30%Emax) 194.0644
- (40%Emax) 258.7522
- (50%Emax) 323.4411
- (60%Emax) 388.1289
- (70%Emax) 452.8167
- (80%Emax) 517.5045
- (90%Emax) 582.1934





Luminance Table

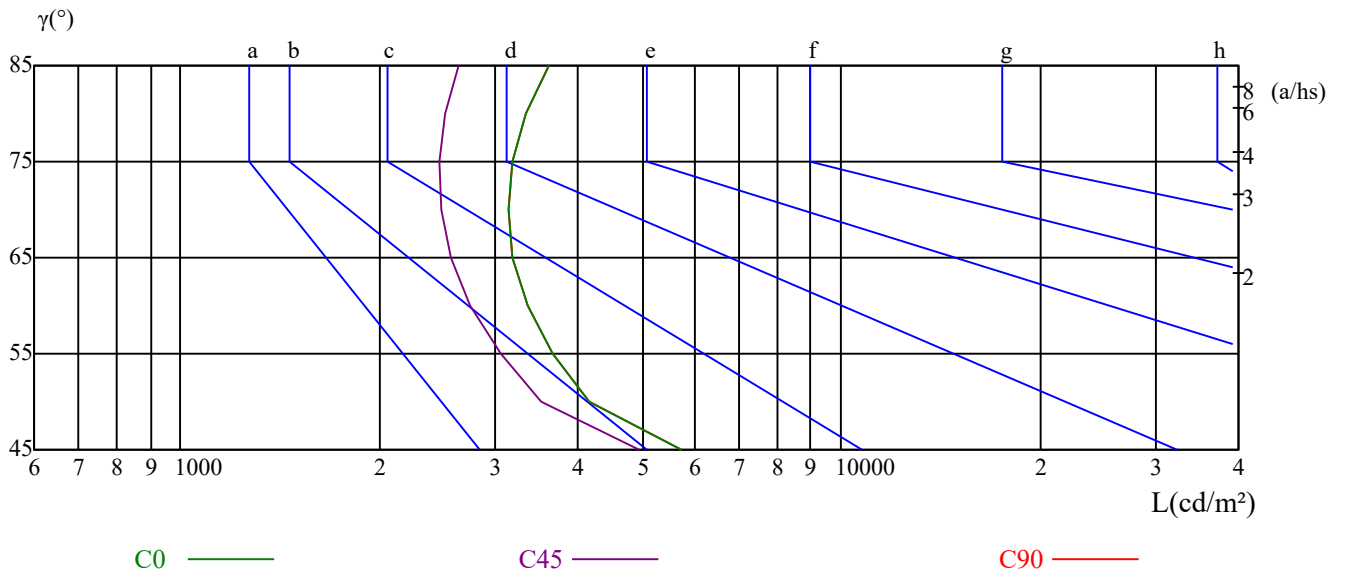
$\gamma$	45	50	55	60	65	70	75	80	85
C0	5734	4158	3668	3352	3184	3144	3186	3343	3608
C45	4935	3525	3061	2752	2568	2487	2466	2523	2644
C90	5734	4158	3668	3352	3184	3144	3186	3343	3608

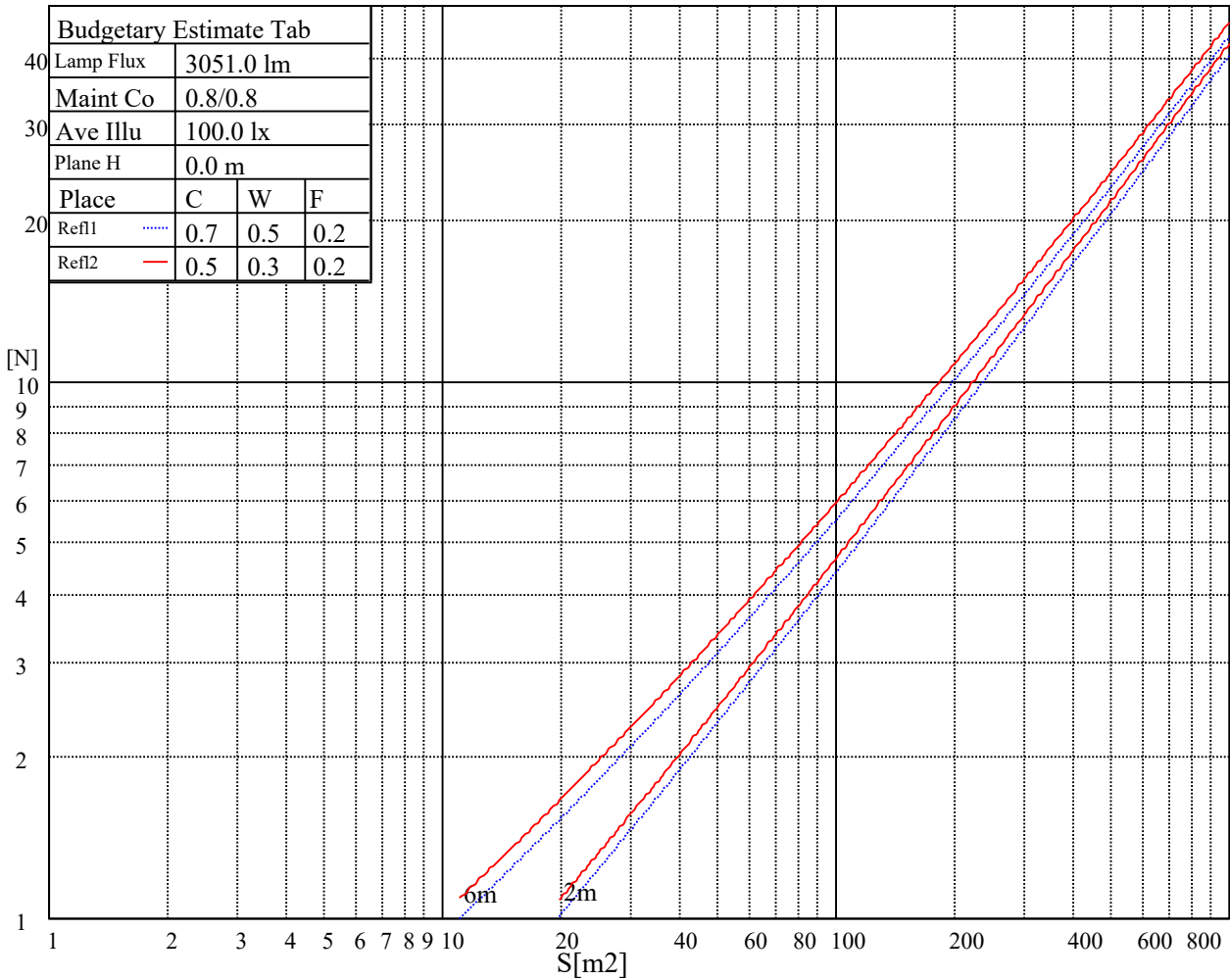
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7574	7574	7574	10831	10831	10831	30119	30119	30119

Glare Table

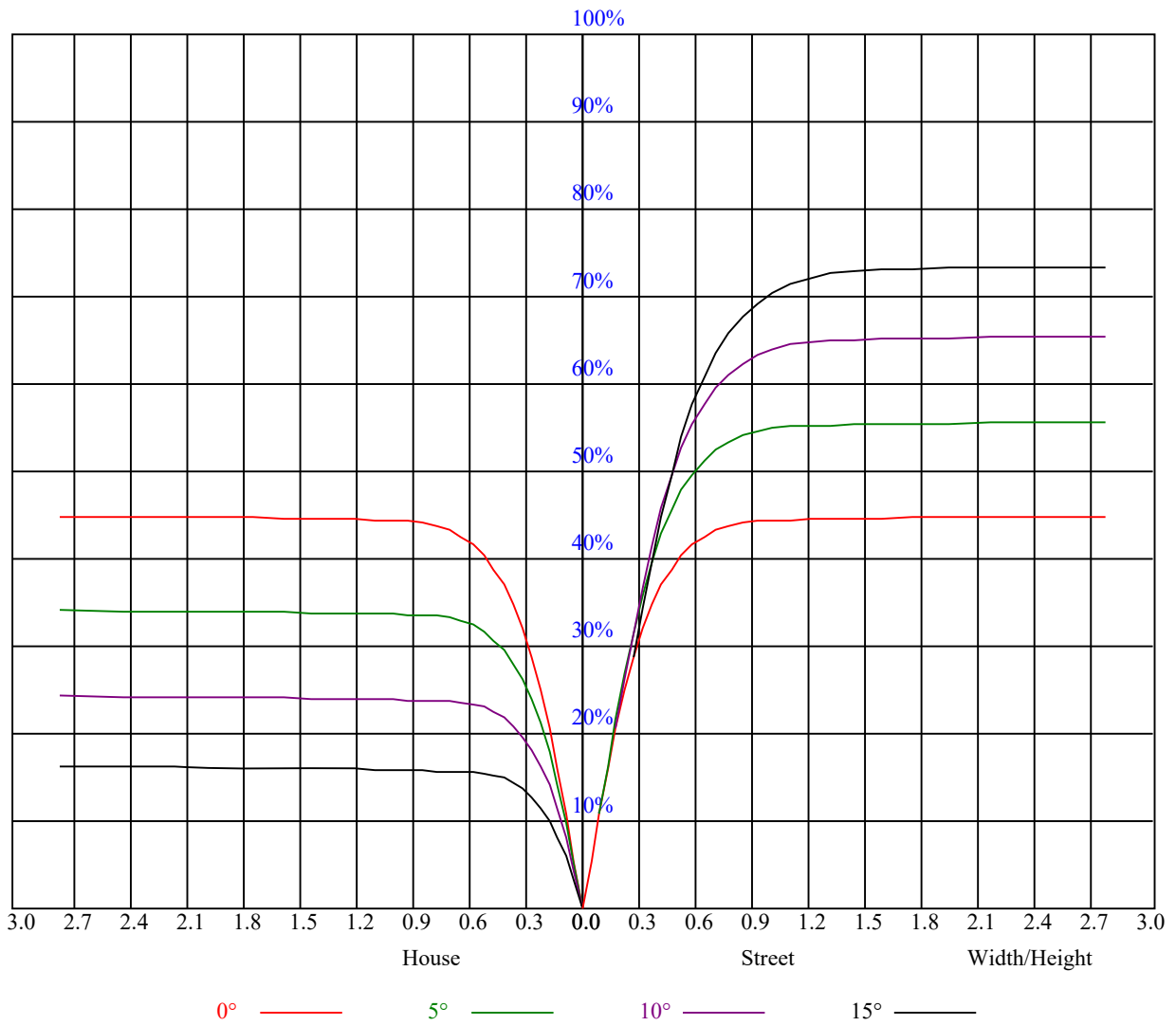
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	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	1.01	0.99	0.97	0.99	0.97	0.96	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
2	0.95	0.92	0.89	0.93	0.90	0.88	0.91	0.88	0.86	0.88	0.86	0.84	0.85	0.84	0.82	0.81
3	0.90	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.76
4	0.85	0.80	0.77	0.84	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.78	0.76	0.74	0.72
5	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
6	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.65
7	0.72	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
8	0.69	0.64	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.66	0.63	0.60	0.59
9	0.66	0.61	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.56
10	0.63	0.59	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.61	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	5824.97	5522.71	4844.96	3765.31	2505.62	1446.88	1064.24	703.62	304.46
45.0	5837.08	5518.30	4775.04	3665.10	2318.98	1342.28	1027.90	621.04	289.05
90.0	5812.30	5457.74	4688.05	3457.54	2124.08	1299.33	989.53	558.99	131.20
135.0	5813.41	5619.61	4988.66	3941.49	2546.36	1495.88	1084.06	712.98	303.36
180.0	5824.97	5566.75	4847.72	3655.19	2480.84	1425.96	1030.44	668.05	192.15
225.0	5837.08	5570.61	4927.00	3846.24	2628.94	1492.58	1076.96	738.75	241.20
270.0	5812.30	5582.17	5024.45	4018.57	2729.15	1549.29	1116.54	784.55	280.79
315.0	5813.41	5412.04	4672.09	3644.73	2333.84	1360.99	1036.93	604.74	131.42
360.0	5824.97	5522.71	4844.96	3765.31	2505.62	1446.88	1064.24	703.62	304.46

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	30.61	23.01	19.43	17.01	15.42	14.42	13.60	13.21	12.88
45.0	29.12	22.41	19.27	17.01	15.53	14.48	13.65	13.16	12.83
90.0	28.52	22.08	18.83	16.96	15.47	14.42	13.65	13.10	12.83
135.0	33.80	23.40	20.32	17.78	15.97	14.81	13.93	13.32	12.88
180.0	32.43	23.73	20.21	17.67	16.02	14.76	13.87	13.27	12.83
225.0	36.72	23.67	20.43	17.73	15.91	14.76	13.87	13.27	12.94
270.0	39.70	24.06	20.37	17.84	15.86	14.65	13.76	13.27	12.88
315.0	30.23	22.68	19.32	16.85	15.31	14.31	13.54	13.10	12.83
360.0	30.61	23.01	19.43	17.01	15.42	14.42	13.60	13.21	12.88

C/γ(°)	90.0
0.0	12.61
45.0	12.61
90.0	12.66
135.0	12.61
180.0	12.61
225.0	12.61
270.0	12.61
315.0	12.61
360.0	12.61