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Nata

LumCAT: 3-1742-N	
Luminaire: 92.70.045.00+92.70.061.00	
Report No: NATA0100	Voltage(V): 33.9000
Test No: GC2018070217	Current(A): 0.5000
LampCAT: NICHIA NFCWD096B-V3	Power (W): 16.9500
Lamp flux(lm): 2246.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 86	Width(mm): 86
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1798.07
Efficiency(%): 80.06%
Lumens(lm)/Power(W): 108.48
Central intensity(cd): 7100.210
Maximum intensity(cd): 7100.210
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=23.6
 [C90/270]Total=23.6
Field angle(10%Imax): [C0/180]Total=47.3
 [C90/270]Total=47.3
Maximum s/h(1/2): C0_180=0.40 C90_270=0.40
Maximum s/h(1/4): C0_180=0.41 C90_270=0.41
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 81.87%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.756%

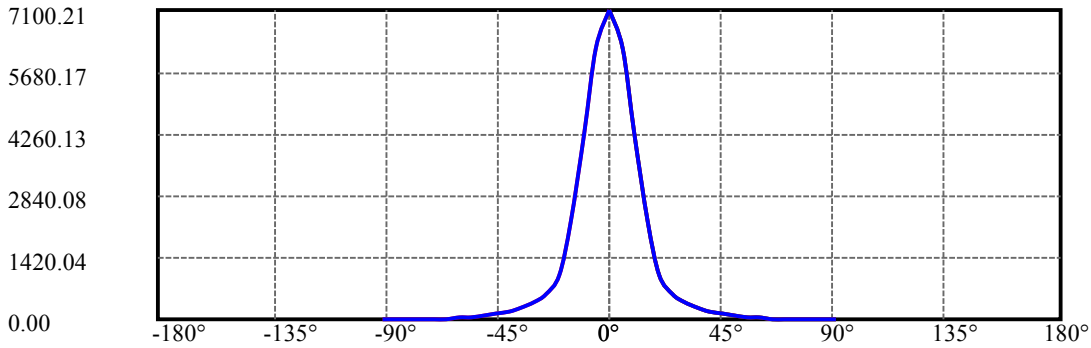
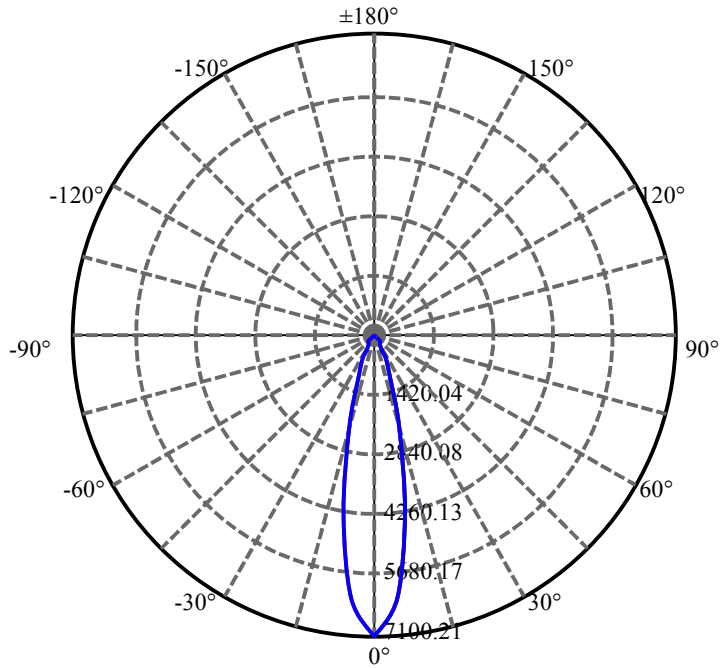
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7100.211	42.461	42.461	1.891%	2.361%
5.0	6230.251	297.640	340.1	13.252%	18.915%
10.0	4289.926	408.328	748.429	18.180%	41.624%
15.0	2246.370	318.689	1067.118	14.189%	59.348%
20.0	1029.630	193.029	1260.147	8.594%	70.083%
25.0	592.407	137.233	1397.379	6.110%	77.716%
30.0	395.725	108.456	1505.835	4.829%	83.747%
35.0	266.617	83.824	1589.659	3.732%	88.409%
40.0	183.806	64.761	1654.421	2.883%	92.011%
45.0	118.020	45.744	1700.164	2.037%	94.555%
50.0	71.394	29.978	1730.143	1.335%	96.222%
55.0	41.361	18.571	1748.714	.827%	97.255%
60.0	25.402	12.058	1760.772	.537%	97.926%
65.0	18.533	9.207	1769.979	.410%	98.438%
70.0	15.787	8.132	1778.111	.362%	98.890%
75.0	13.468	7.131	1785.242	.317%	99.287%
80.0	11.176	6.033	1791.275	.269%	99.622%
85.0	8.733	4.769	1796.044	.212%	99.887%
90.0	7.391	2.026	1798.07	.090%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1505.84	67.05%	83.75%
0-40	1654.42	73.66%	92.01%
0-60	1760.77	78.40%	97.93%
0-90	1796.04	79.97%	99.89%
0-120	1796.04	79.97%	99.89%
0-180	1798.07	80.06%	100.00%
60-90	47.33	2.11%	2.63%
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%
0-26.89	1438.46	64.05%	80.00%

ZONAL LUMEN SUMMARY

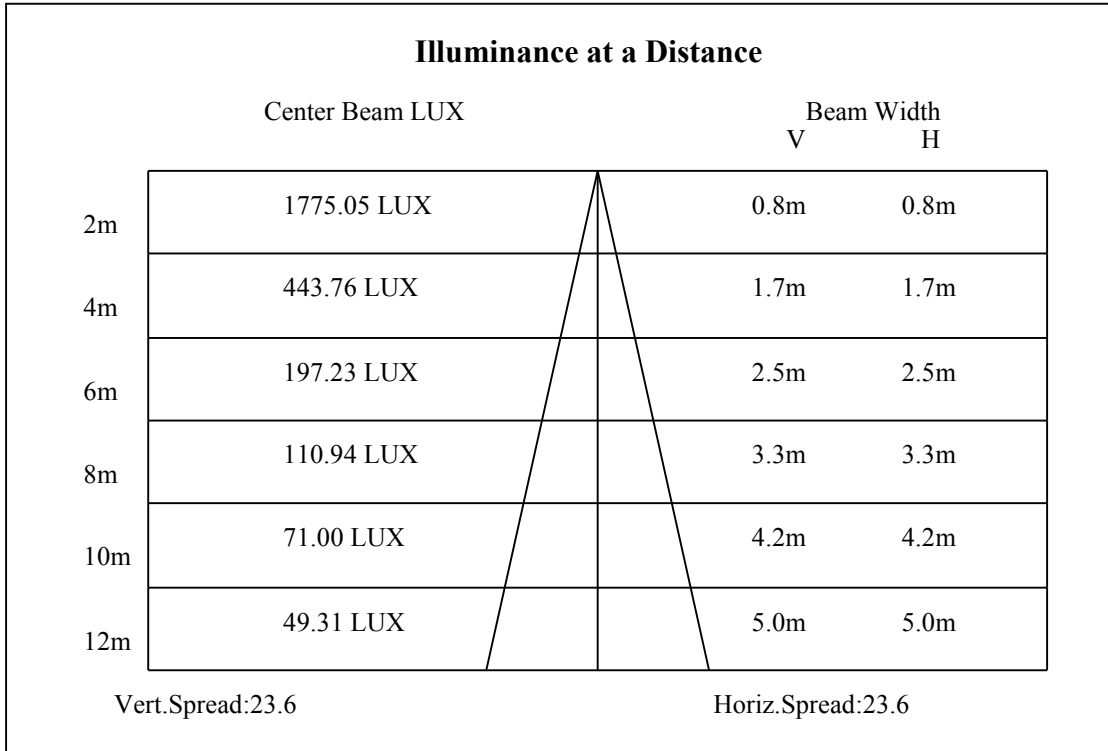
0-10	748.43
10-20	511.72
20-30	245.69
30-40	148.59
40-50	75.72
50-60	30.63
60-70	17.34
70-80	13.16
80-90	4.77
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

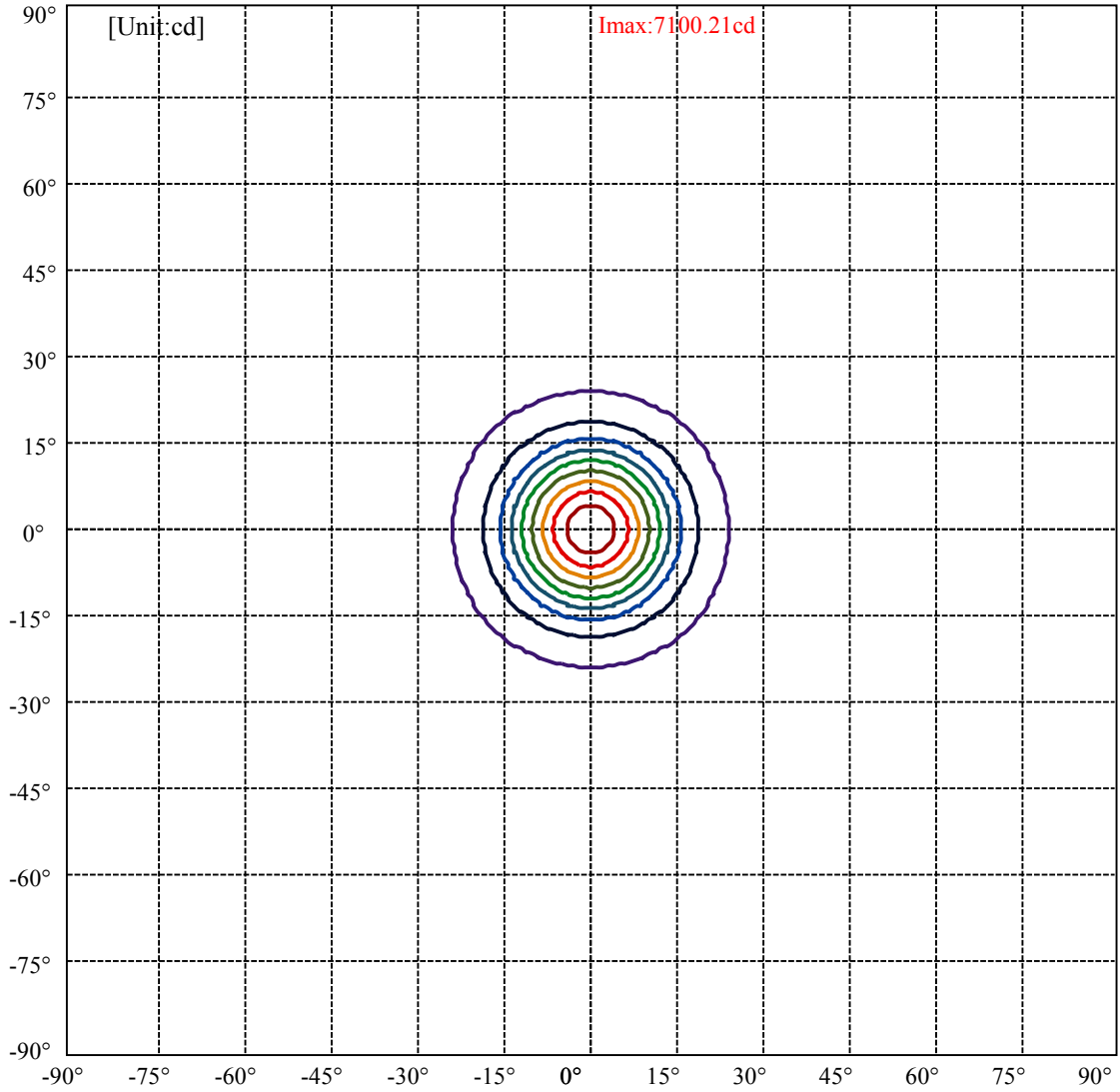


C0(Max): ———
C0/C180: ———
C90/C270: ———

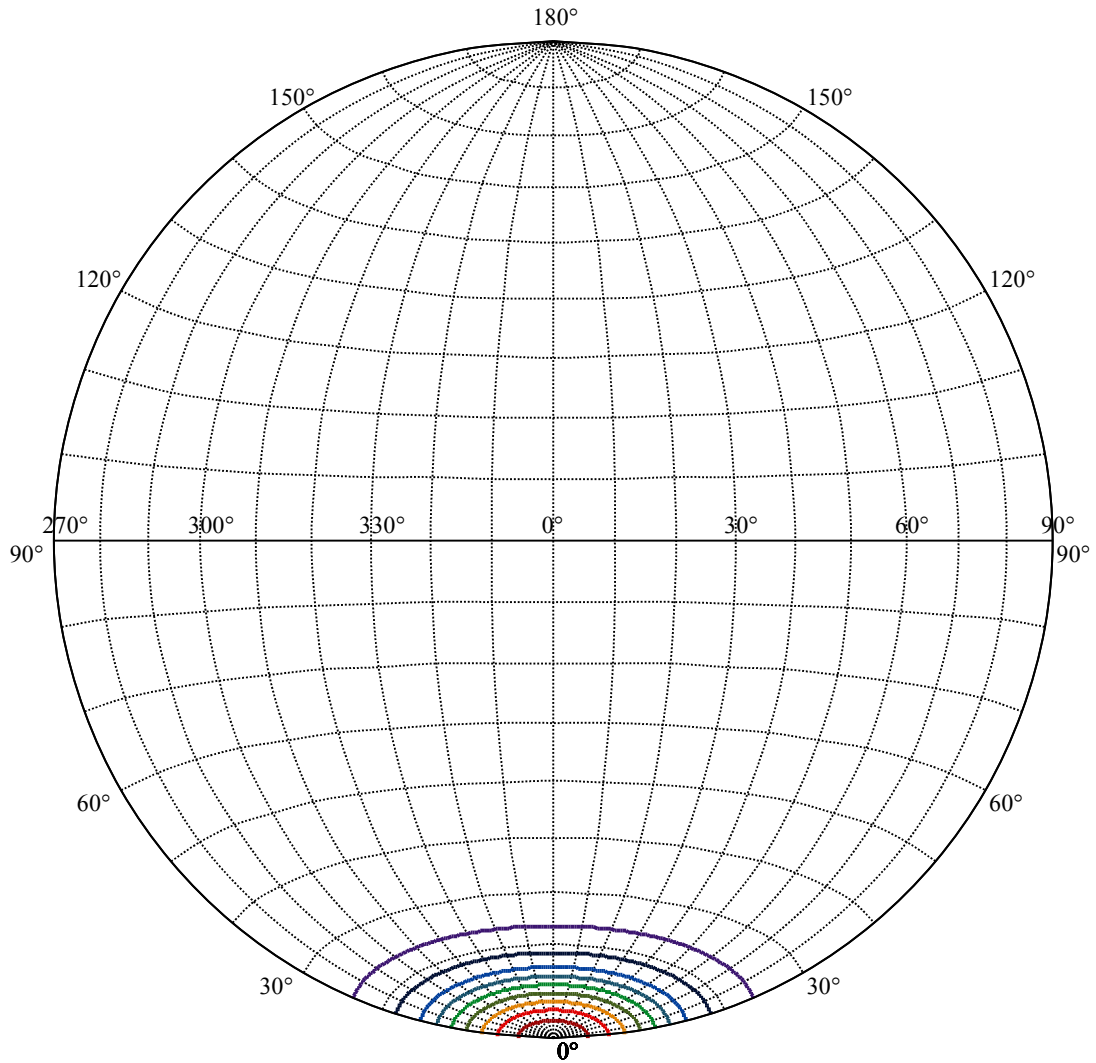
Field angle(10%Imax):C0/180Left:23.7 Right:23.7
:C90/270Left:23.7 Right:23.7

Beam Angle(50%Imax):C0/180Left:11.8 Right:11.8
:C90/270Left:11.8 Right:11.8





(10%Imax) 710.021	—
(20%Imax) 1420.04	—
(30%Imax) 2130.06	—
(40%Imax) 2840.08	—
(50%Imax) 3550.11	—
(60%Imax) 4260.13	—
(70%Imax) 4970.15	—
(80%Imax) 5680.17	—
(90%Imax) 6390.19	—



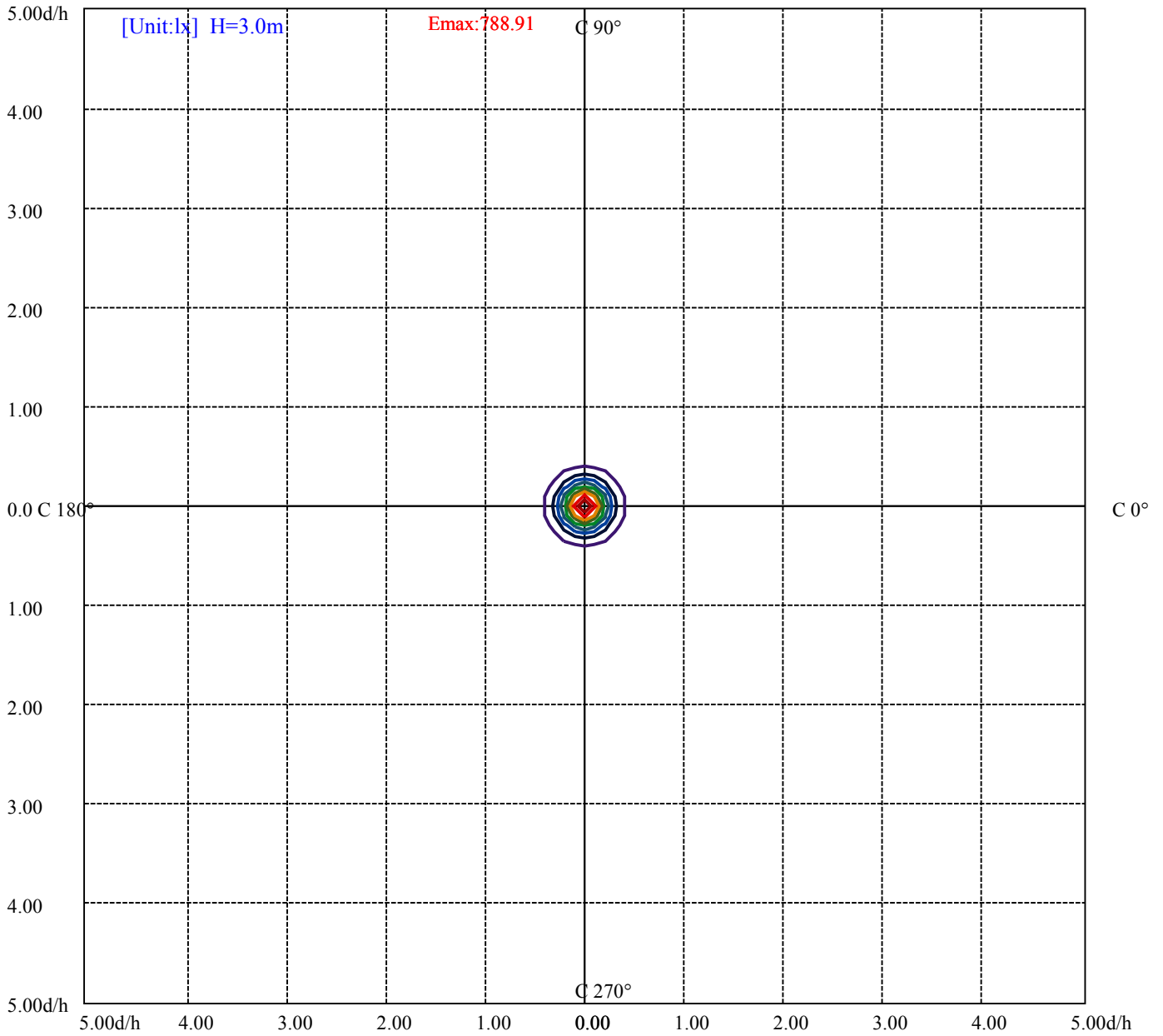
House

[Unit:cd]

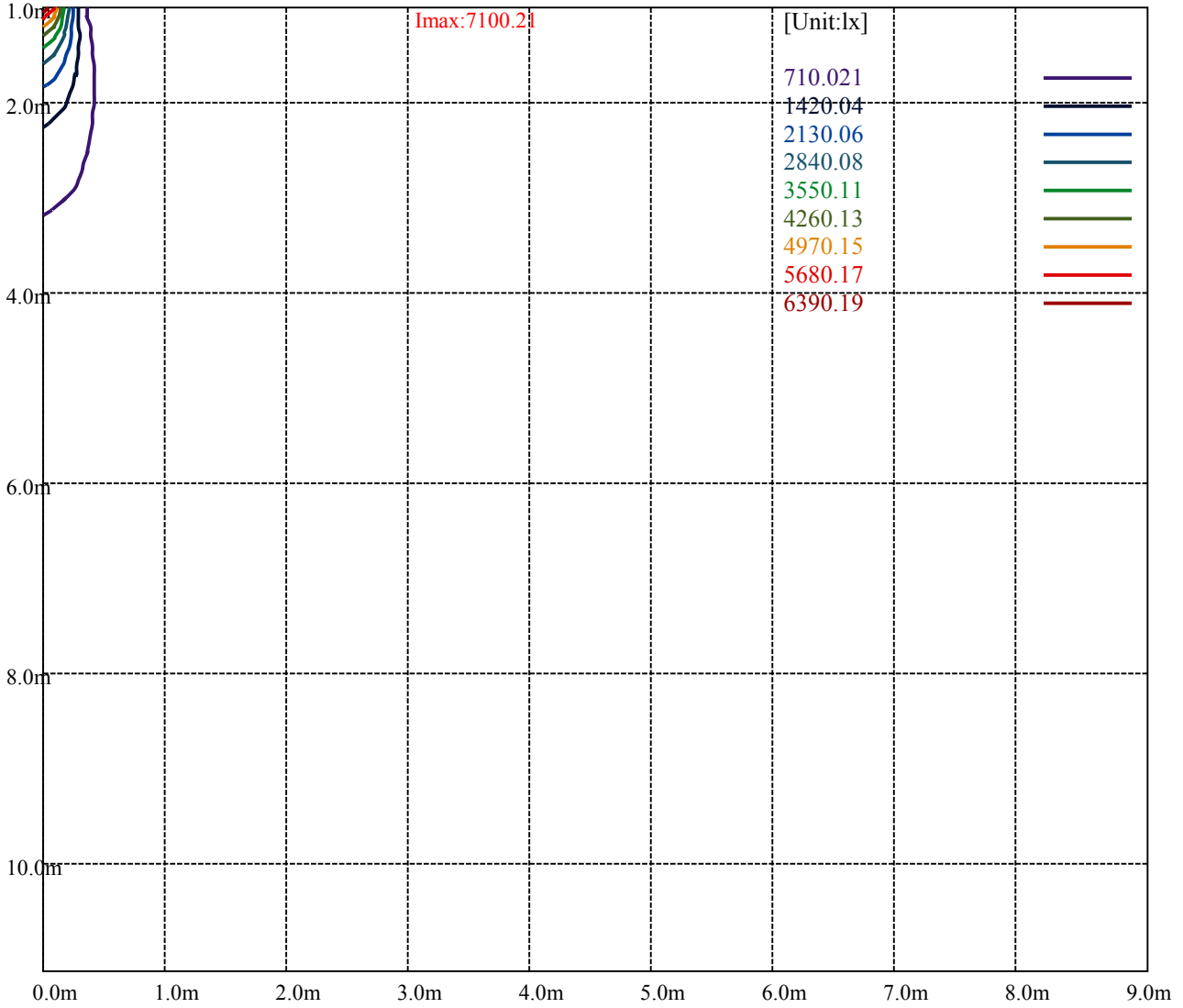
Road

Imax:7100.21

(10%Imax)	710.021	—
(20%Imax)	1420.04	—
(30%Imax)	2130.06	—
(40%Imax)	2840.08	—
(50%Imax)	3550.11	—
(60%Imax)	4260.13	—
(70%Imax)	4970.15	—
(80%Imax)	5680.17	—
(90%Imax)	6390.19	—



(10%Emax) 78.89089	—
(20%Emax) 157.7822	—
(30%Emax) 236.6733	—
(40%Emax) 315.5634	—
(50%Emax) 394.4545	—
(60%Emax) 473.3456	—
(70%Emax) 552.2366	—
(80%Emax) 631.1277	—
(90%Emax) 710.0189	—



Luminance Table

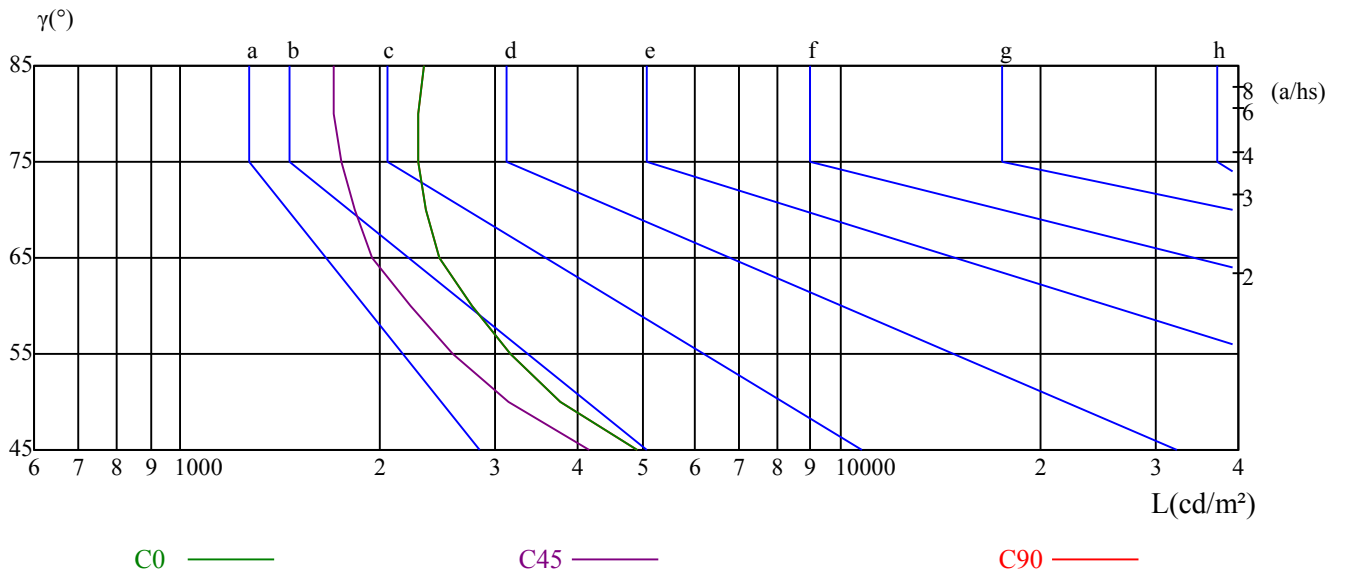
γ	45	50	55	60	65	70	75	80	85
C0	4917	3770	3151	2759	2462	2351	2291	2290	2335
C45	4161	3142	2586	2228	1955	1832	1750	1711	1701
C90	4917	3770	3151	2759	2462	2351	2291	2290	2335

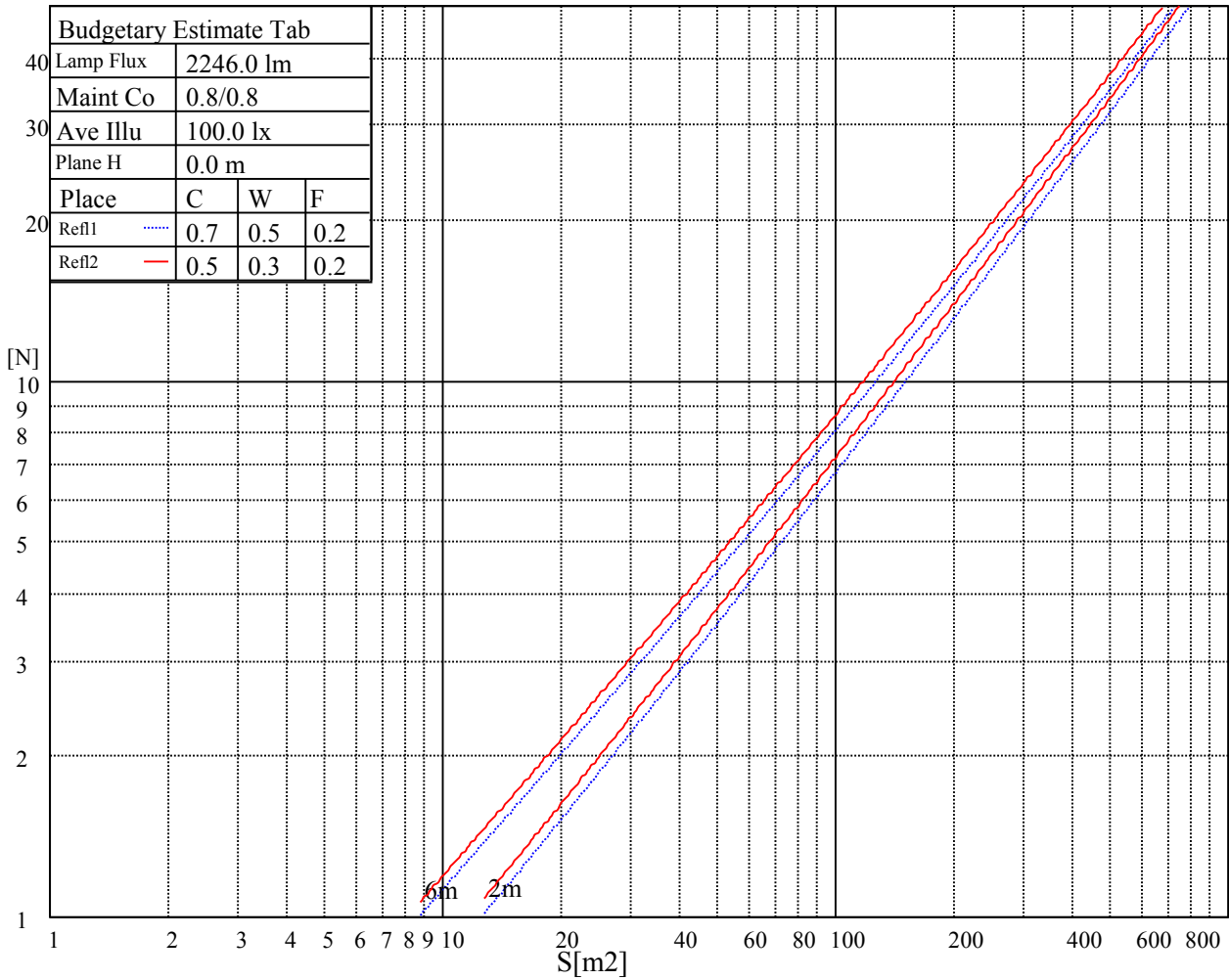
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6594	6594	6594	8981	8981	8981	23219	23219	23219

Glare Table

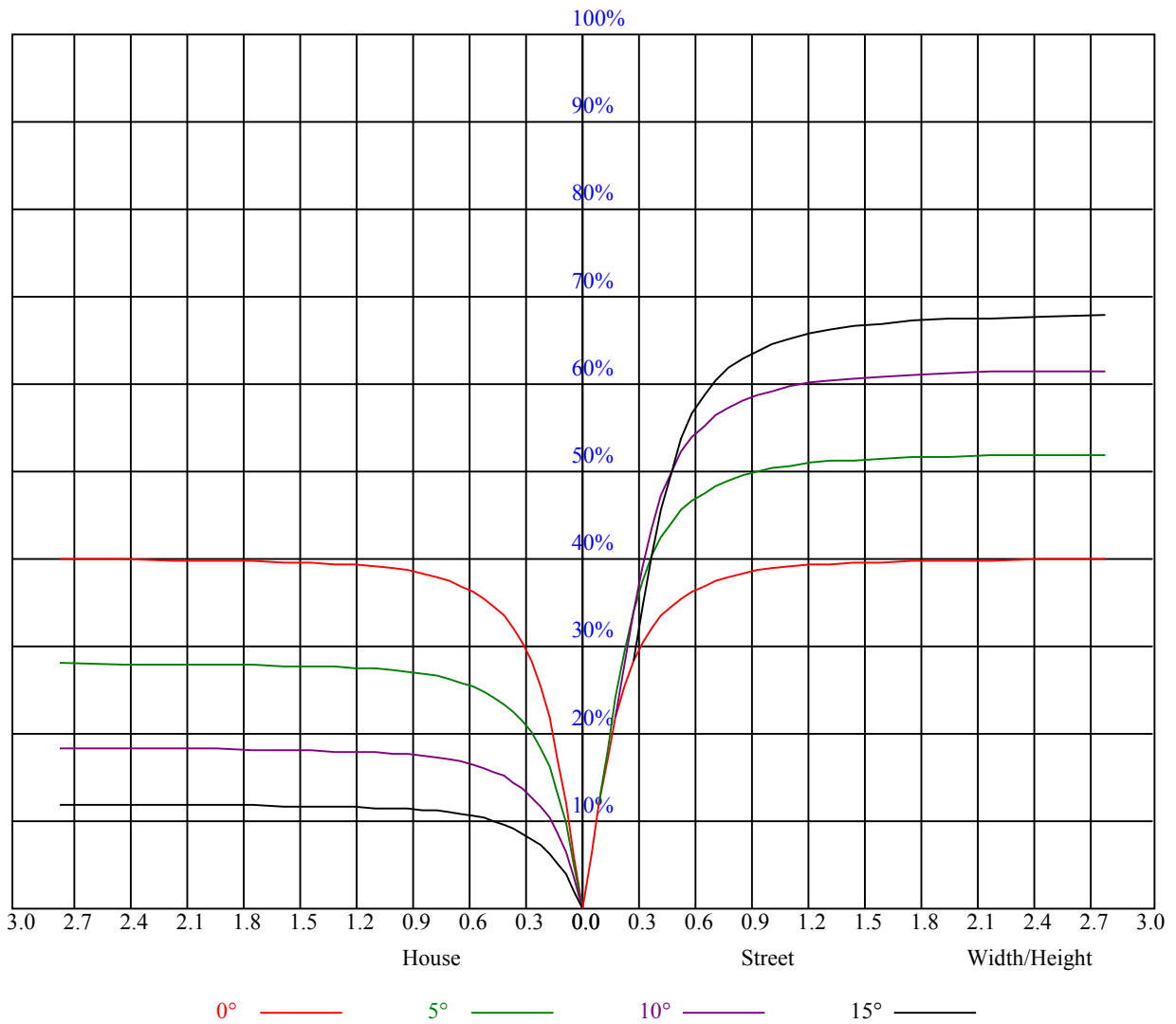
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.97	0.97	0.97	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87	0.84	0.84	0.84	0.82
1	0.89	0.87	0.85	0.87	0.85	0.83	0.84	0.82	0.81	0.81	0.80	0.78	0.78	0.77	0.76	0.74
2	0.84	0.81	0.78	0.83	0.80	0.77	0.80	0.78	0.76	0.78	0.76	0.74	0.76	0.74	0.72	0.71
3	0.80	0.76	0.73	0.79	0.75	0.73	0.77	0.74	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.68
4	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.72	0.69	0.67	0.71	0.68	0.67	0.65
5	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.63
6	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.66	0.64	0.62	0.61
7	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.65	0.62	0.60	0.65	0.62	0.60	0.59
8	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.64	0.61	0.58	0.63	0.60	0.58	0.57
9	0.64	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.61	0.58	0.56	0.56
10	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.57	0.55	0.60	0.57	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	7127.05	6235.14	4476.09	2418.63	1128.11	656.27	437.70	291.80	203.38
45.0	7045.57	6702.02	4932.50	2927.35	1321.90	682.70	450.91	297.30	205.58
90.0	7156.23	6564.37	4662.18	2454.41	1056.97	621.75	412.70	271.92	189.61
135.0	7071.99	6701.47	4913.23	2604.72	1155.63	643.06	422.83	283.54	191.05
180.0	7127.05	6128.88	3946.44	1994.14	908.65	539.99	368.11	243.35	167.76
225.0	7045.57	5723.66	3499.94	1619.76	806.14	485.49	320.98	216.32	156.20
270.0	7156.23	5940.03	4156.21	2038.19	948.07	559.92	380.44	278.03	178.11
315.0	7071.99	5846.44	3732.82	1913.76	911.57	550.07	372.13	250.67	178.77
360.0	7127.05	6235.14	4476.09	2418.63	1128.11	656.27	437.70	291.80	203.38

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	131.03	76.91	43.33	26.43	18.61	15.75	13.43	11.12	8.59
45.0	136.15	85.01	49.00	28.90	19.49	16.41	13.93	11.84	9.19
90.0	121.51	74.33	42.78	26.54	18.88	16.02	13.65	11.45	9.03
135.0	124.21	76.36	46.08	27.75	19.10	16.30	14.09	11.67	9.08
180.0	108.24	66.07	38.04	24.33	18.22	15.58	13.32	11.01	8.75
225.0	95.96	57.86	34.58	21.86	17.56	15.25	12.94	10.63	8.31
270.0	114.85	68.44	39.37	24.61	18.55	15.86	13.60	11.18	8.59
315.0	112.20	66.18	37.71	22.79	17.84	15.14	12.77	10.52	8.31
360.0	131.03	76.91	43.33	26.43	18.61	15.75	13.43	11.12	8.59

C/γ(°)	90.0
0.0	7.38
45.0	7.49
90.0	7.38
135.0	7.38
180.0	7.38
225.0	7.43
270.0	7.38
315.0	7.32
360.0	7.38