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Nata

LumCAT: 3-2040-M	
Luminaire: 92.70.135.00	
Report No: NATA0100	Voltage(V): 33.9000
Test No: GC2018062005	Current(A): 0.4900
LampCAT: NICHIA NFCW108B-V3	Power (W): 16.6110
Lamp flux(lm): 2255.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 79	Width(mm): 79
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2013.95
Efficiency(%): 89.31%
Lumens(lm)/Power(W): 121.24
Central intensity(cd): 8971.577
Maximum intensity(cd): 8971.577
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=21.3
 [C90/270]Total=21.3
Field angle(10%Imax): [C0/180]Total=47.7
 [C90/270]Total=47.7
Maximum s/h(1/2): C0_180=0.36 C90_270=0.36
Maximum s/h(1/4): C0_180=0.37 C90_270=0.37
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.60%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.272%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/6/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

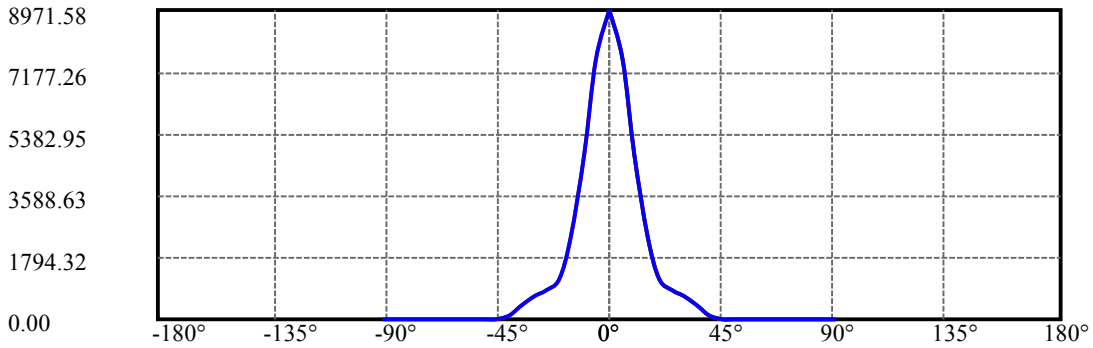
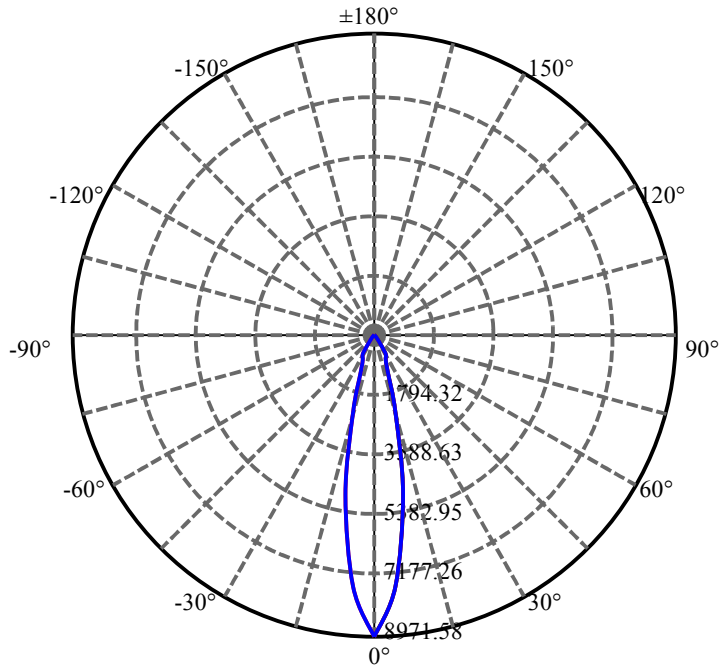
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8971.578	53.652	53.652	2.379%	2.664%
5.0	7522.906	359.394	413.046	15.938%	20.509%
10.0	4802.432	457.110	870.156	20.271%	43.206%
15.0	2388.140	338.802	1208.958	15.024%	60.029%
20.0	1179.693	221.162	1430.12	9.808%	71.011%
25.0	815.103	188.821	1618.941	8.373%	80.386%
30.0	690.008	189.110	1808.05	8.386%	89.776%
35.0	416.935	131.084	1939.134	5.813%	96.285%
40.0	91.483	32.233	1971.367	1.429%	97.886%
45.0	11.686	4.529	1975.896	.201%	98.110%
50.0	9.993	4.196	1980.092	.186%	98.319%
55.0	9.449	4.243	1984.335	.188%	98.529%
60.0	9.139	4.338	1988.673	.192%	98.745%
65.0	8.919	4.431	1993.104	.196%	98.965%
70.0	8.788	4.527	1997.631	.201%	99.190%
75.0	8.692	4.602	2002.233	.204%	99.418%
80.0	8.651	4.670	2006.903	.207%	99.650%
85.0	8.603	4.697	2011.6	.208%	99.883%
90.0	8.575	2.350	2013.95	.104%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1808.05	80.18%	89.78%
0-40	1971.37	87.42%	97.89%
0-60	1988.67	88.19%	98.74%
0-90	2011.60	89.21%	99.88%
0-120	2011.60	89.21%	99.88%
0-180	2013.95	89.31%	100.00%
60-90	27.27	1.21%	1.35%
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%
0-24.79	1611.16	71.45%	80.00%

ZONAL LUMEN SUMMARY

0-10	870.16
10-20	559.96
20-30	377.93
30-40	163.32
40-50	8.73
50-60	8.58
60-70	8.96
70-80	9.27
80-90	4.70
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: —————

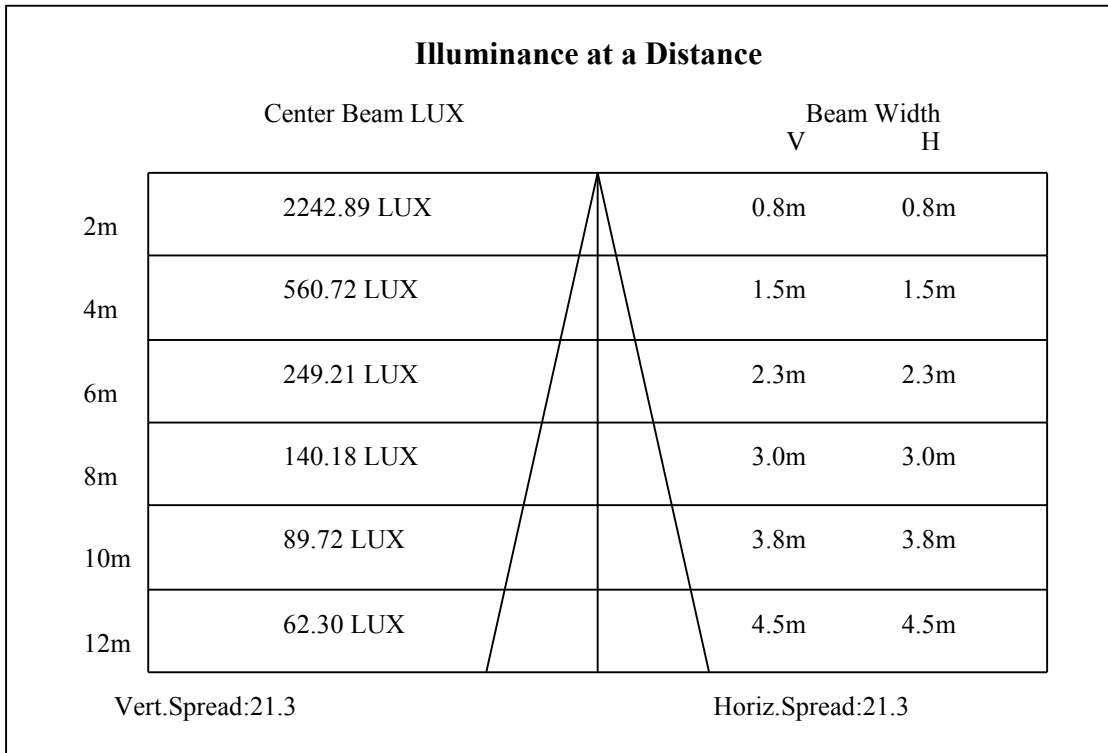
C90/C270: —————

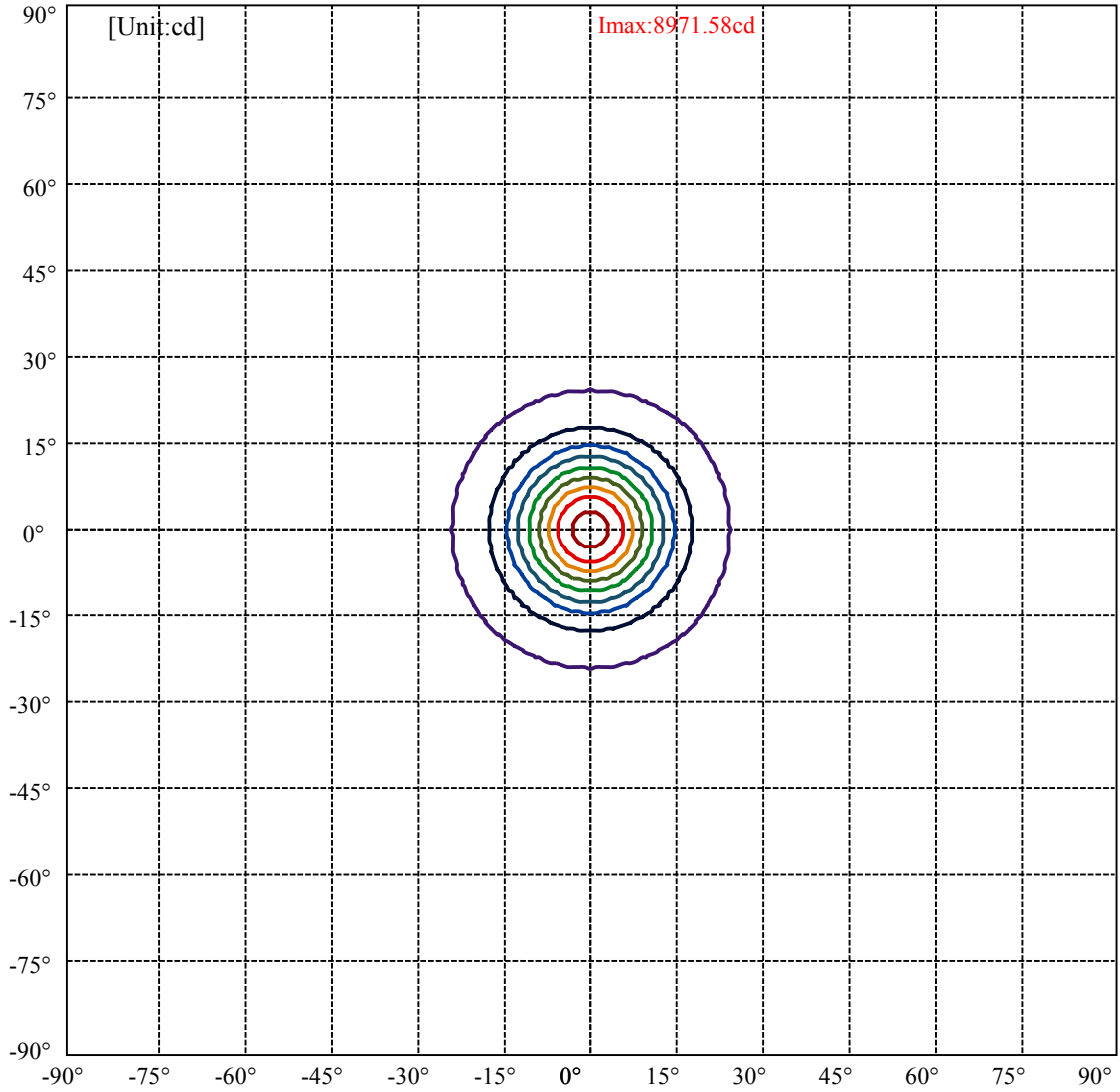
Field angle(10%Imax):C0/180Left:23.9 Right:23.9

:C90/270Left:23.9 Right:23.9

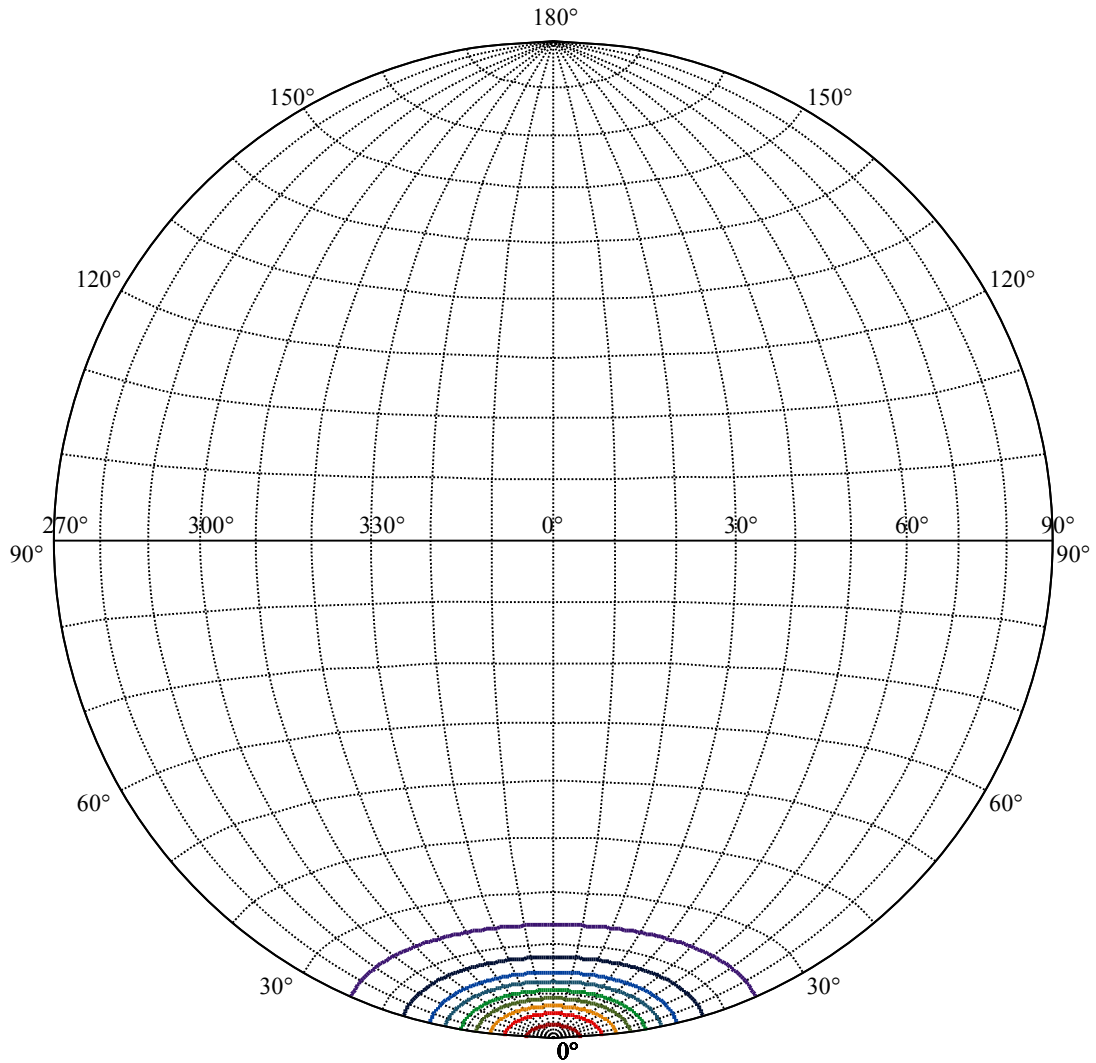
Beam Angle(50%Imax):C0/180Left:10.7 Right:10.7

:C90/270Left:10.7 Right:10.7





(10%Imax) 897.158	—
(20%Imax) 1794.32	—
(30%Imax) 2691.47	—
(40%Imax) 3588.63	—
(50%Imax) 4485.79	—
(60%Imax) 5382.95	—
(70%Imax) 6280.1	—
(80%Imax) 7177.26	—
(90%Imax) 8074.42	—



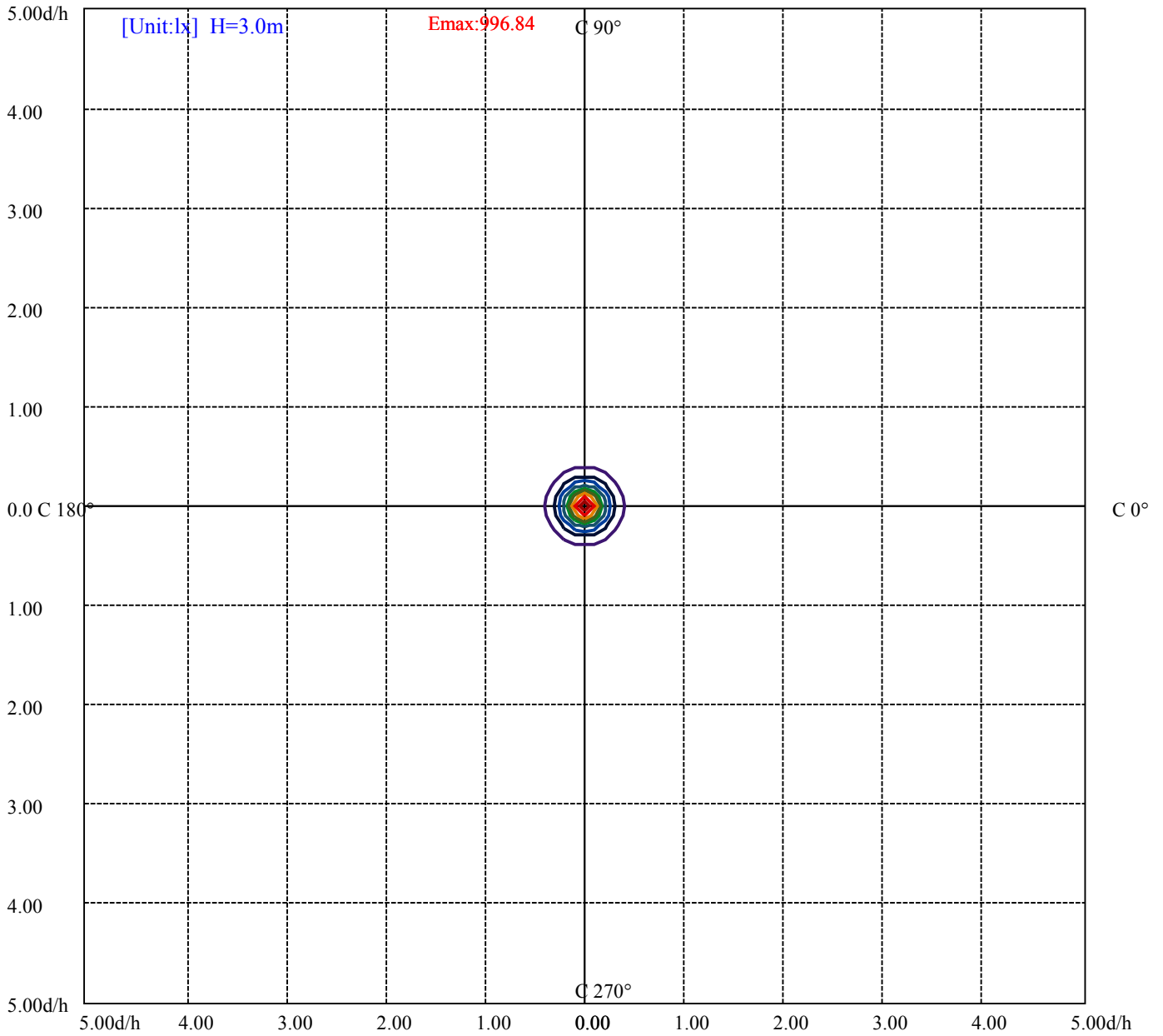
House

[Unit:cd]

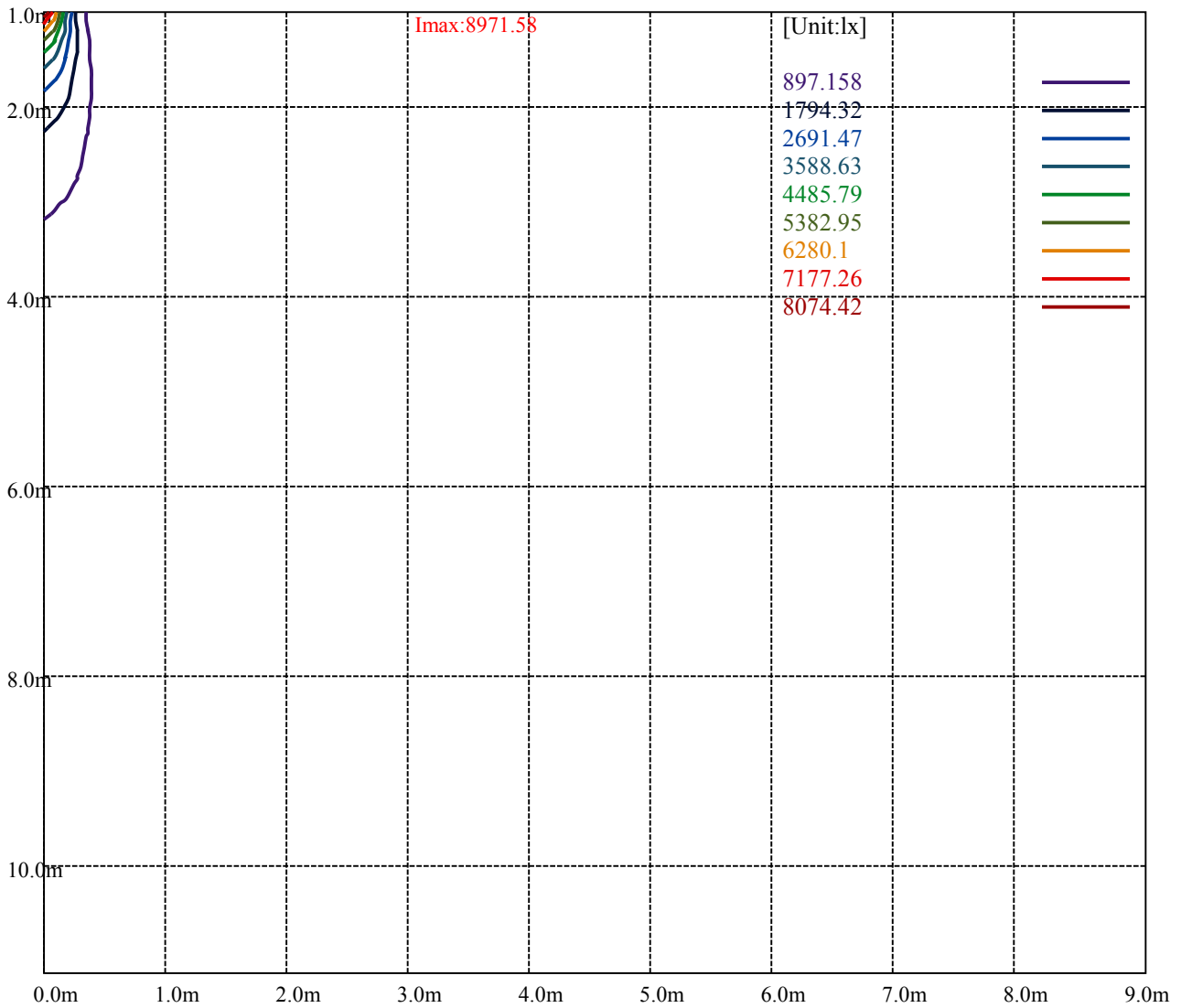
Road

Imax:8971.58

(10%Imax) 897.158	—
(20%Imax) 1794.32	—
(30%Imax) 2691.47	—
(40%Imax) 3588.63	—
(50%Imax) 4485.79	—
(60%Imax) 5382.95	—
(70%Imax) 6280.1	—
(80%Imax) 7177.26	—
(90%Imax) 8074.42	—



(10%Emax) 99.68367	—
(20%Emax) 199.3678	—
(30%Emax) 299.0511	—
(40%Emax) 398.7345	—
(50%Emax) 498.4189	—
(60%Emax) 598.1022	—
(70%Emax) 697.7855	—
(80%Emax) 797.47	—
(90%Emax) 897.1533	—



Luminance Table

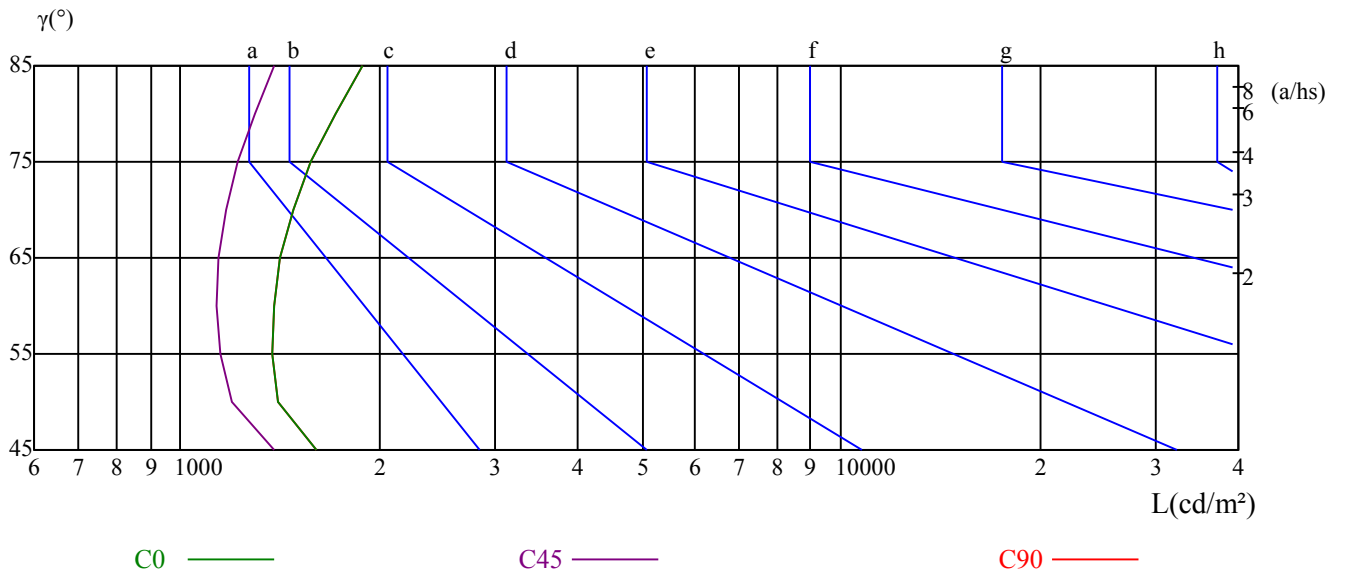
γ	45	50	55	60	65	70	75	80	85
C0	1609	1408	1373	1383	1418	1484	1578	1712	1888
C45	1384	1193	1146	1135	1143	1174	1221	1292	1383
C90	1609	1408	1373	1383	1418	1484	1578	1712	1888

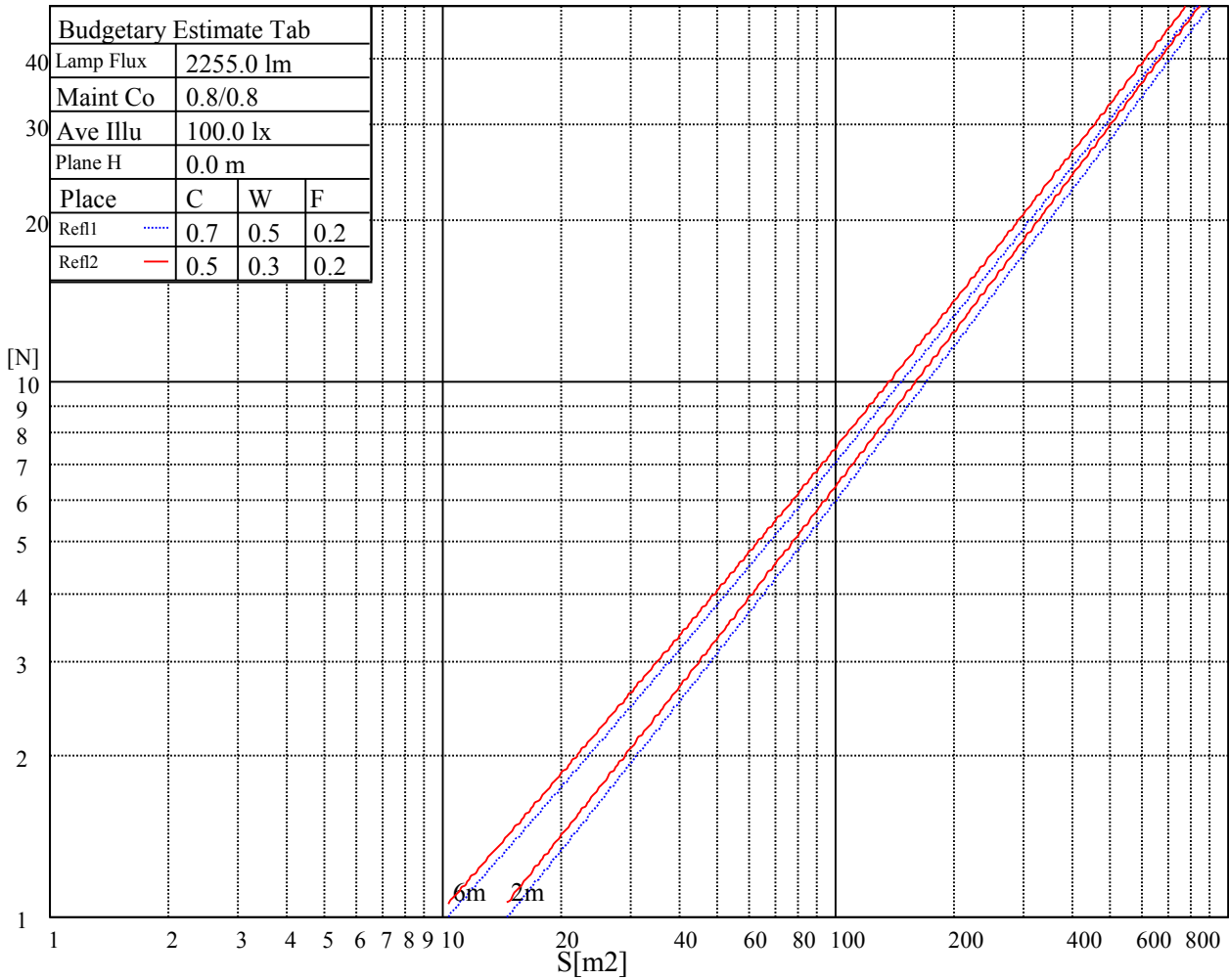
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3382	3382	3382	5381	5381	5381	15815	15815	15815

Glare Table

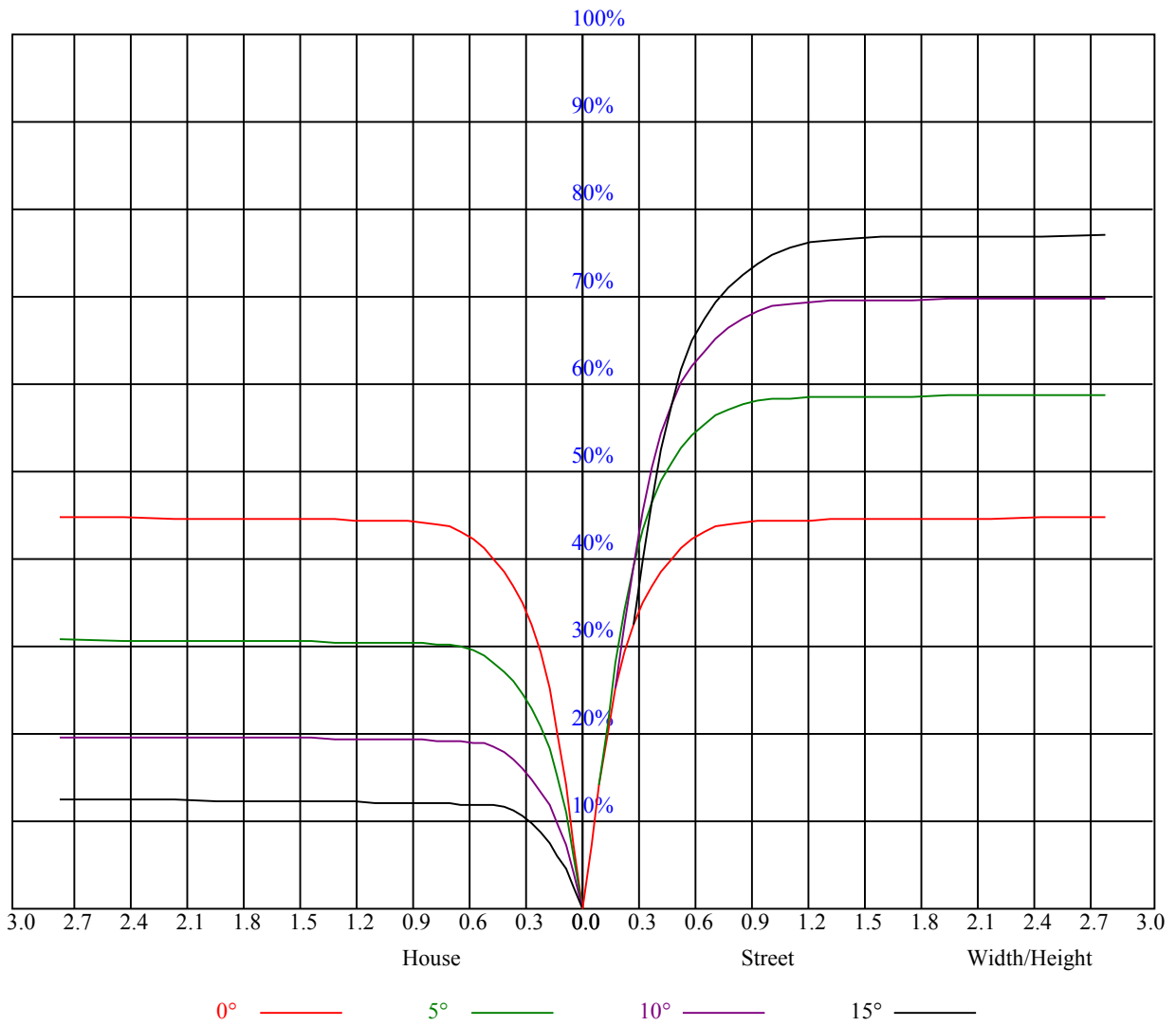
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.07	1.07	1.07	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.92
1	1.00	0.97	0.95	0.98	0.95	0.93	0.94	0.92	0.90	0.91	0.89	0.88	0.88	0.86	0.85	0.83
2	0.95	0.91	0.88	0.93	0.90	0.87	0.90	0.88	0.85	0.88	0.85	0.83	0.85	0.83	0.82	0.80
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	0.87	0.82	0.79	0.86	0.82	0.79	0.84	0.80	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.75
5	0.83	0.79	0.76	0.82	0.78	0.75	0.81	0.77	0.75	0.79	0.76	0.74	0.78	0.76	0.73	0.72
6	0.80	0.76	0.73	0.80	0.75	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.70
7	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.68
8	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
9	0.73	0.69	0.66	0.72	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.64
10	0.71	0.67	0.64	0.70	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.63



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	9022.09	7948.49	5344.32	2682.90	1338.42	871.54	714.08	494.41	165.72
45.0	9052.92	7161.74	4437.00	2083.33	1112.69	783.45	678.29	337.50	29.46
90.0	8729.74	6748.26	3839.08	1853.20	1030.22	741.00	640.91	283.38	19.77
135.0	9081.55	7304.33	4693.56	2224.28	1144.07	775.19	681.60	376.59	33.09
180.0	9022.09	7141.37	4203.56	2053.05	1091.93	757.25	670.97	327.42	35.29
225.0	9052.92	7949.59	5154.93	2775.39	1092.59	853.43	705.49	498.54	92.05
270.0	8729.74	8233.13	5723.11	2981.30	1529.47	905.13	723.44	565.43	278.59
315.0	9081.55	7696.33	5023.90	2451.66	1098.15	833.83	705.27	452.23	77.90
360.0	9022.09	7948.49	5344.32	2682.90	1338.42	871.54	714.08	494.41	165.72
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	12.55	10.02	9.47	9.14	8.92	8.75	8.70	8.64	8.59
45.0	10.68	9.97	9.41	9.14	8.92	8.81	8.70	8.64	8.59
90.0	10.52	9.91	9.41	9.14	8.92	8.81	8.70	8.70	8.59
135.0	10.74	9.97	9.47	9.19	8.97	8.86	8.75	8.64	8.59
180.0	10.52	9.80	9.36	9.08	8.86	8.75	8.64	8.59	8.59
225.0	12.55	10.08	9.47	9.14	8.92	8.75	8.64	8.64	8.59
270.0	13.93	10.24	9.58	9.19	8.97	8.81	8.75	8.70	8.64
315.0	12.00	9.97	9.41	9.08	8.86	8.75	8.64	8.64	8.64
360.0	12.55	10.02	9.47	9.14	8.92	8.75	8.70	8.64	8.59
C/ γ (°)	90.0								
0.0	8.59								
45.0	8.59								
90.0	8.53								
135.0	8.59								
180.0	8.53								
225.0	8.59								
270.0	8.59								
315.0	8.59								
360.0	8.59								