



NATA LIGHTING CO.,LTD.  
www.nata.cn  
Email:info@nata.com  
Tel:+86-750-3770000 Fax:+86-750-3771111  
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

---

## Nata

---

LumCAT: LN01D05036DA-N

Luminaire: 97.70.234.00

Report No: 210107-B011

Test No: 210107-C011

LampCAT: XICATO XOB LES 9.8MM

Lamp flux(lm): 1260.0

Number of Lamps: 1

Length(mm): 92

Phm Type: C

Voltage(V): 34.7400

Current(A): 0.3810

Power (W): 13.2350

PF: 0.0000

Ballast type: DC

Width(mm): 92

Height(mm): 50

---

## Photometric Results

---

Lumens(lm): 1156.72

Efficiency(%): 91.80%

Lumens(lm)/Power(W): 87.40

Central intensity(cd): 2256.047

Maximum intensity(cd): 2256.047

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=40.9

[C90/270]Total=40.9

Field angle(10%Imax): [C0/180]Total=64.5

[C90/270]Total=64.5

Maximum s/h(1/2): C0\_180=0.67 C90\_270=0.67

Maximum s/h(1/4): C0\_180=0.64 C90\_270=0.64

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.80%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 96.927%

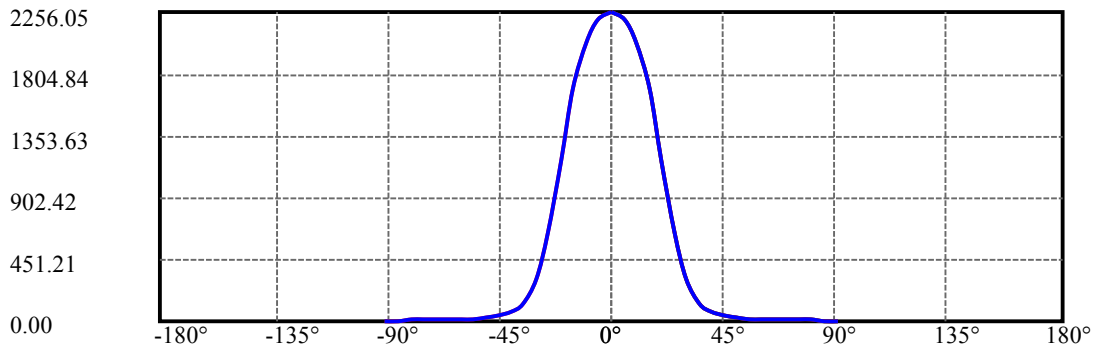
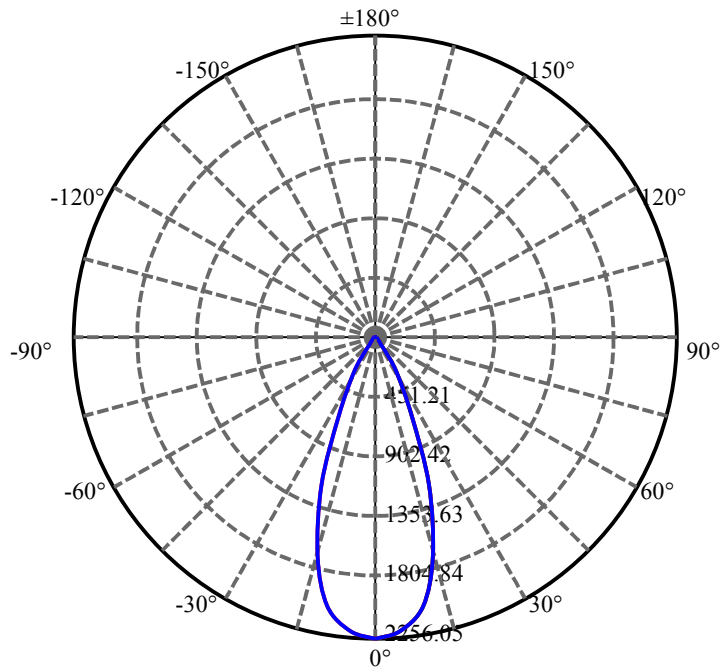
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2256.047	0.000	0	.000%	.000%
5.0	2205.211	53.333	53.333	4.233%	4.611%
10.0	2038.148	151.798	205.131	12.047%	17.734%
15.0	1688.836	221.082	426.214	17.546%	36.847%
20.0	1175.498	236.061	662.275	18.735%	57.255%
25.0	650.109	191.473	853.748	15.196%	73.808%
30.0	303.673	120.702	974.449	9.580%	84.243%
35.0	131.513	64.084	1038.534	5.086%	89.783%
40.0	66.157	32.980	1071.513	2.617%	92.634%
45.0	39.108	19.491	1091.004	1.547%	94.319%
50.0	25.980	13.152	1104.156	1.044%	95.456%
55.0	18.120	9.589	1113.745	.761%	96.285%
60.0	14.006	7.426	1121.17	.589%	96.927%
65.0	11.531	6.208	1127.379	.493%	97.464%
70.0	11.946	5.945	1133.323	.472%	97.978%
75.0	14.808	6.993	1140.316	.555%	98.582%
80.0	13.739	7.638	1147.955	.606%	99.243%
85.0	6.574	5.520	1153.474	.438%	99.720%
90.0	5.266	3.242	1156.716	.257%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	974.45	77.34%	84.24%
0-40	1071.51	85.04%	92.63%
0-60	1121.17	88.98%	96.93%
0-90	1153.47	91.55%	99.72%
0-120	1153.47	91.55%	99.72%
0-180	1156.72	91.80%	100.00%
60-90	39.73	3.15%	3.43%
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%
0-27.97	925.37	73.44%	80.00%

ZONAL LUMEN SUMMARY

0-10	205.13
10-20	457.14
20-30	312.17
30-40	97.06
40-50	32.64
50-60	17.01
60-70	12.15
70-80	14.63
80-90	5.52
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: —————

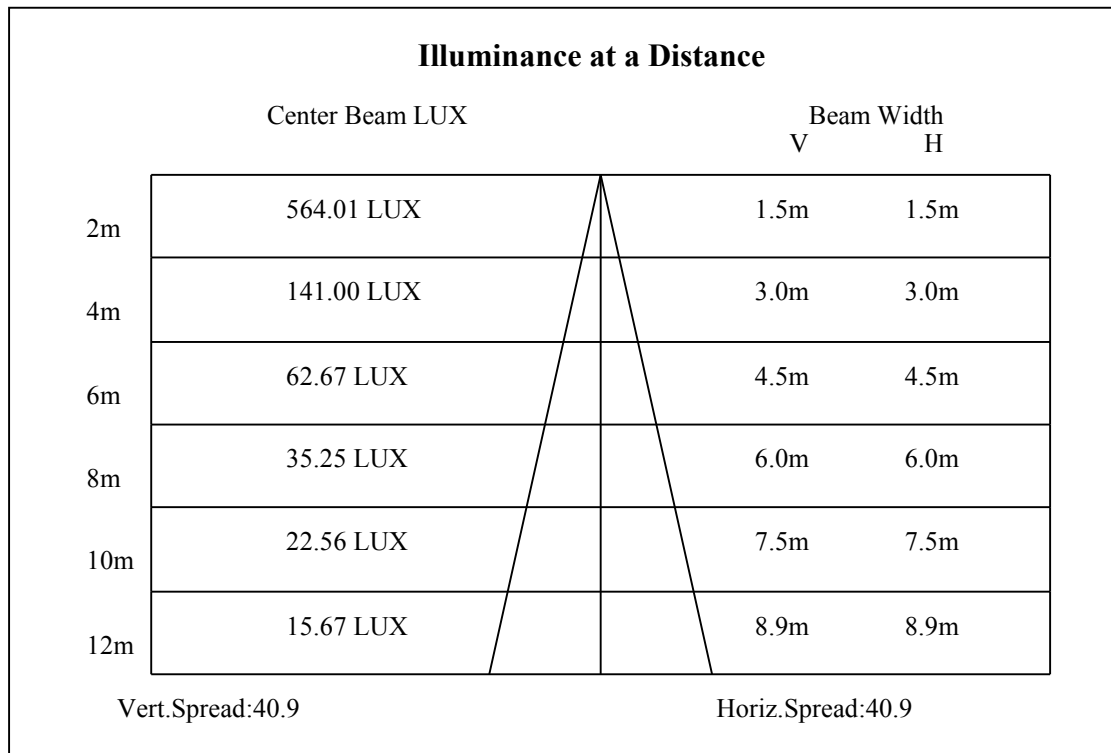
C90/C270: —————

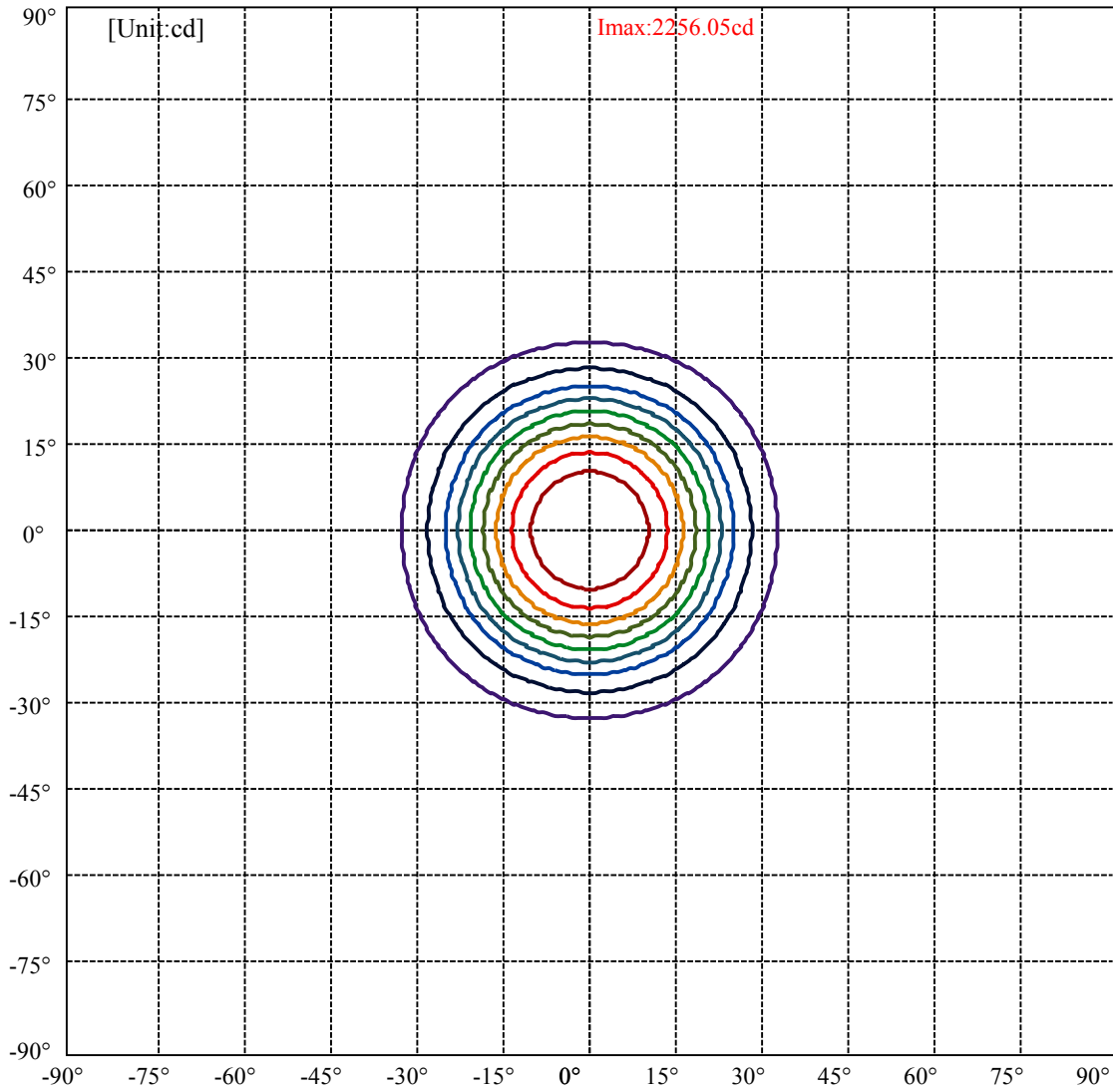
Field angle(10%Imax):C0/180Left:32.3 Right:32.3

:C90/270Left:32.3 Right:32.3

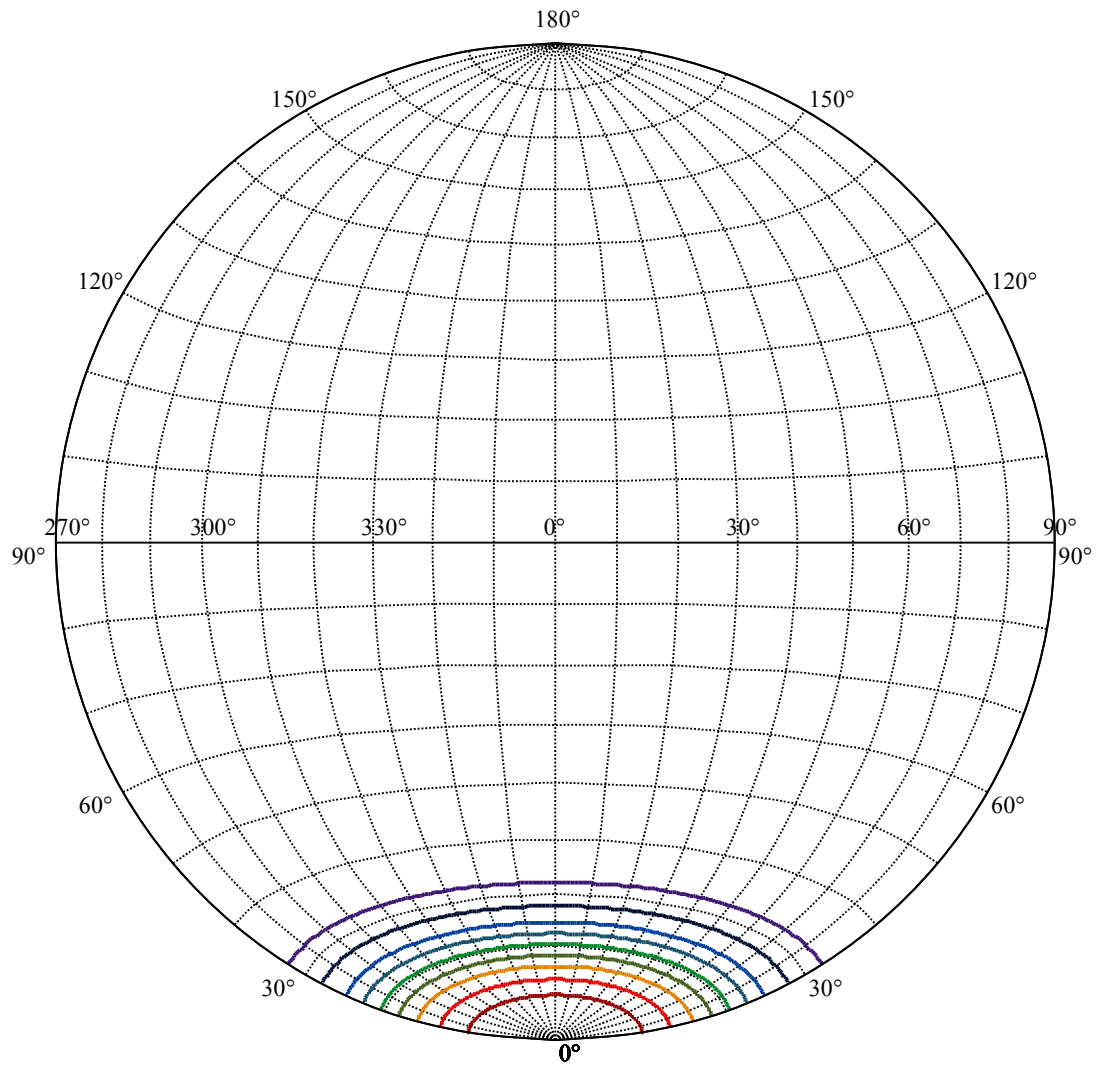
Beam Angle(50%Imax):C0/180Left:20.5 Right:20.5

:C90/270Left:20.5 Right:20.5





(10%Imax) 225.605	—
(20%Imax) 451.209	—
(30%Imax) 676.814	—
(40%Imax) 902.419	—
(50%Imax) 1128.02	—
(60%Imax) 1353.63	—
(70%Imax) 1579.23	—
(80%Imax) 1804.84	—
(90%Imax) 2030.44	—












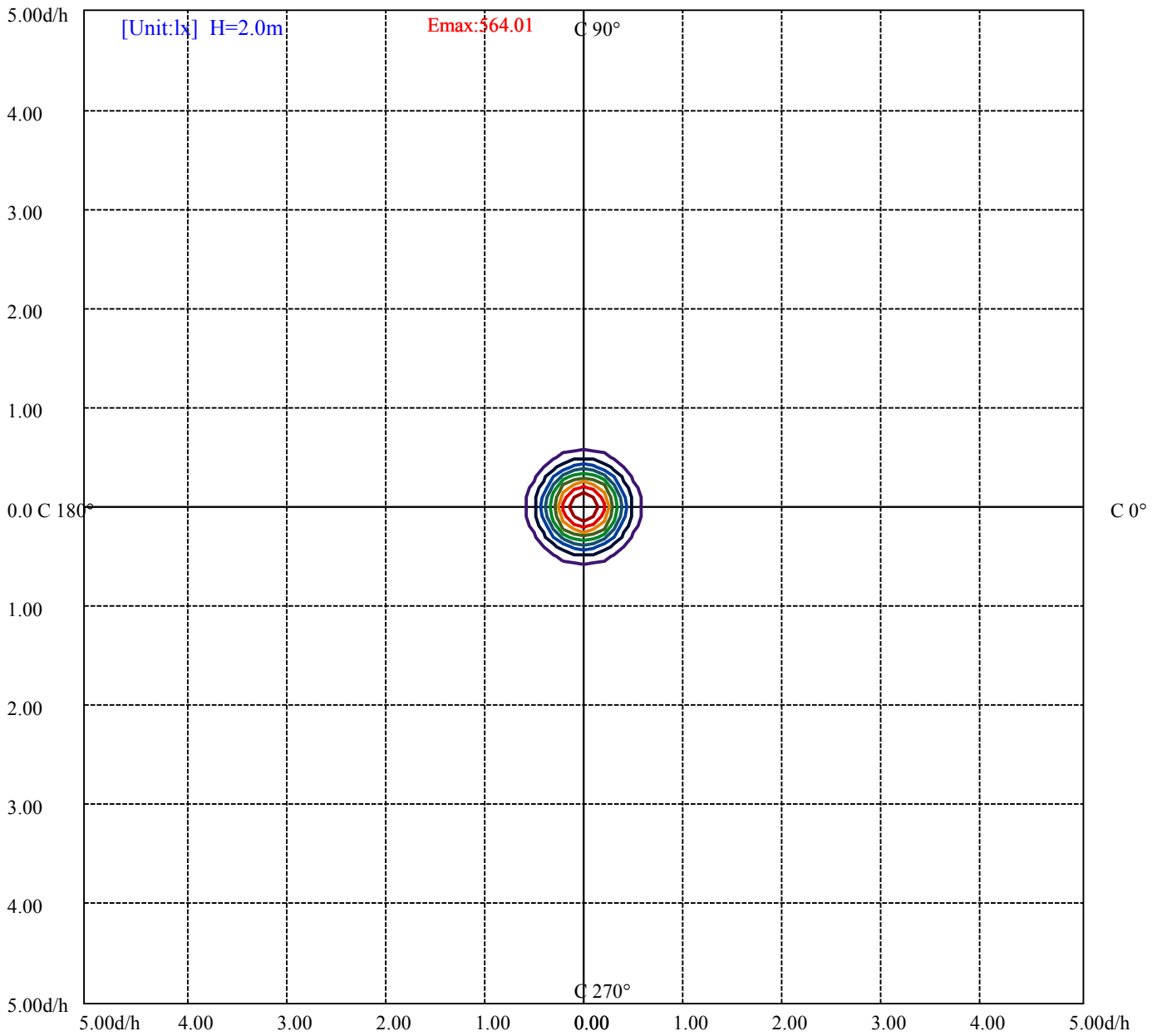
House

[Unit:cd]

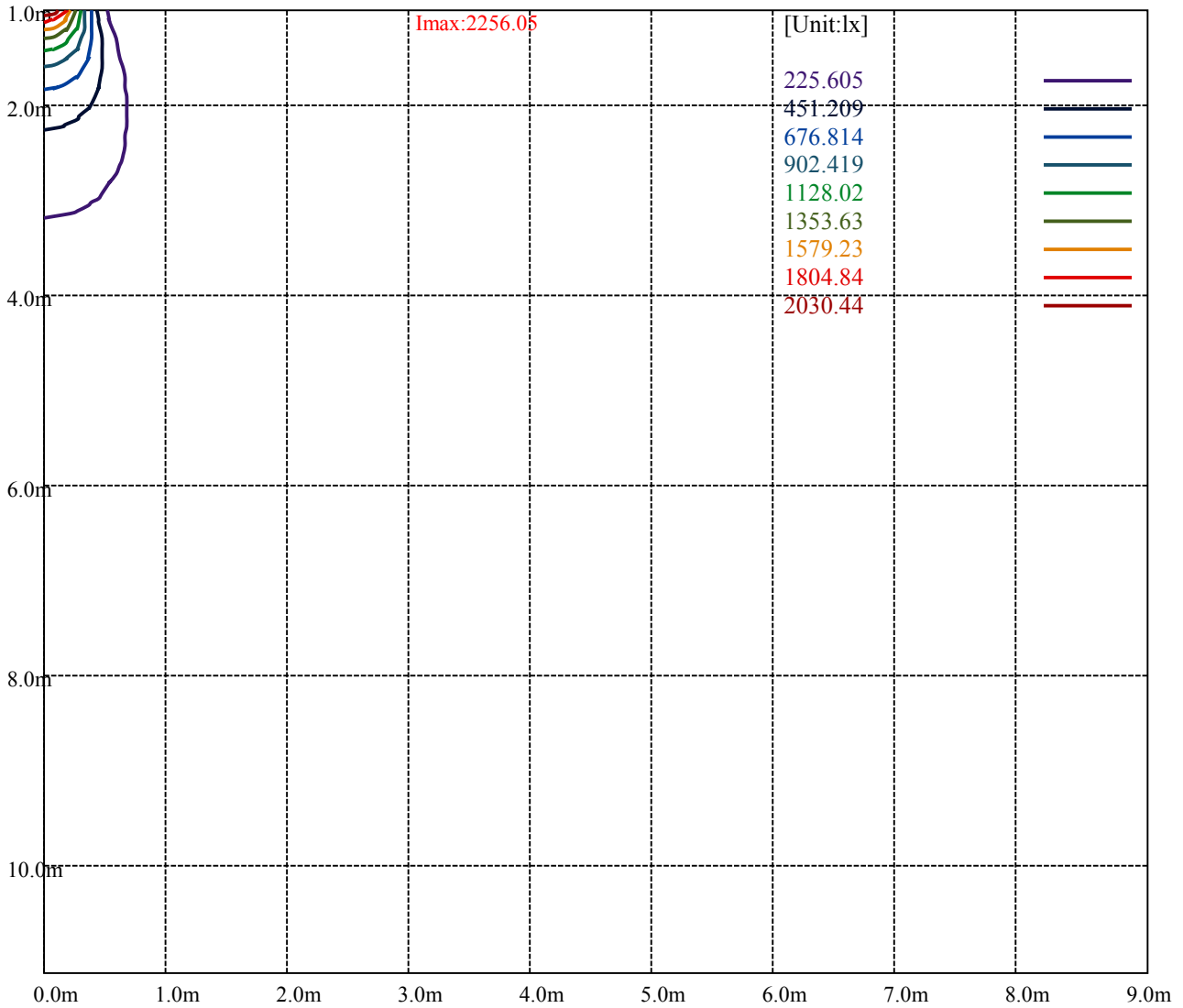
Road

**Imax:2256.05**

(10%Imax)	225.605	
(20%Imax)	451.209	
(30%Imax)	676.814	
(40%Imax)	902.419	
(50%Imax)	1128.02	
(60%Imax)	1353.63	
(70%Imax)	1579.23	
(80%Imax)	1804.84	
(90%Imax)	2030.44	







Luminance Table

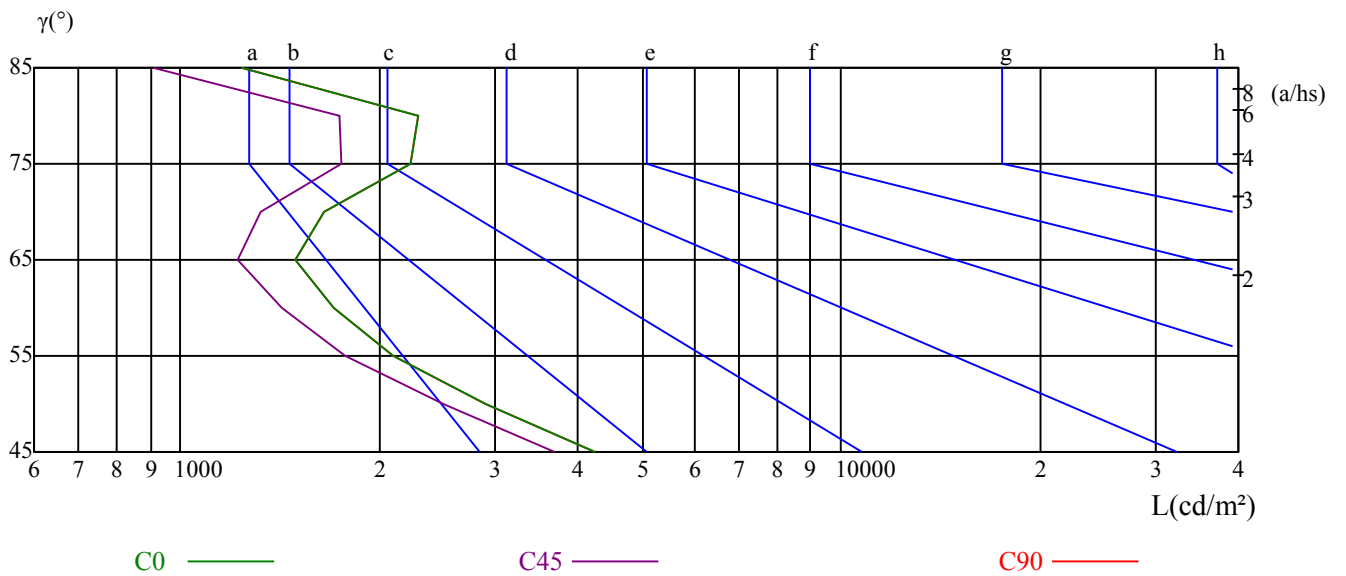
$\gamma$	45	50	55	60	65	70	75	80	85
C0	4234	2898	2101	1705	1489	1655	2232	2290	1236
C45	3695	2492	1779	1420	1217	1326	1747	1744	911
C90	4234	2898	2101	1705	1489	1655	2232	2290	1236

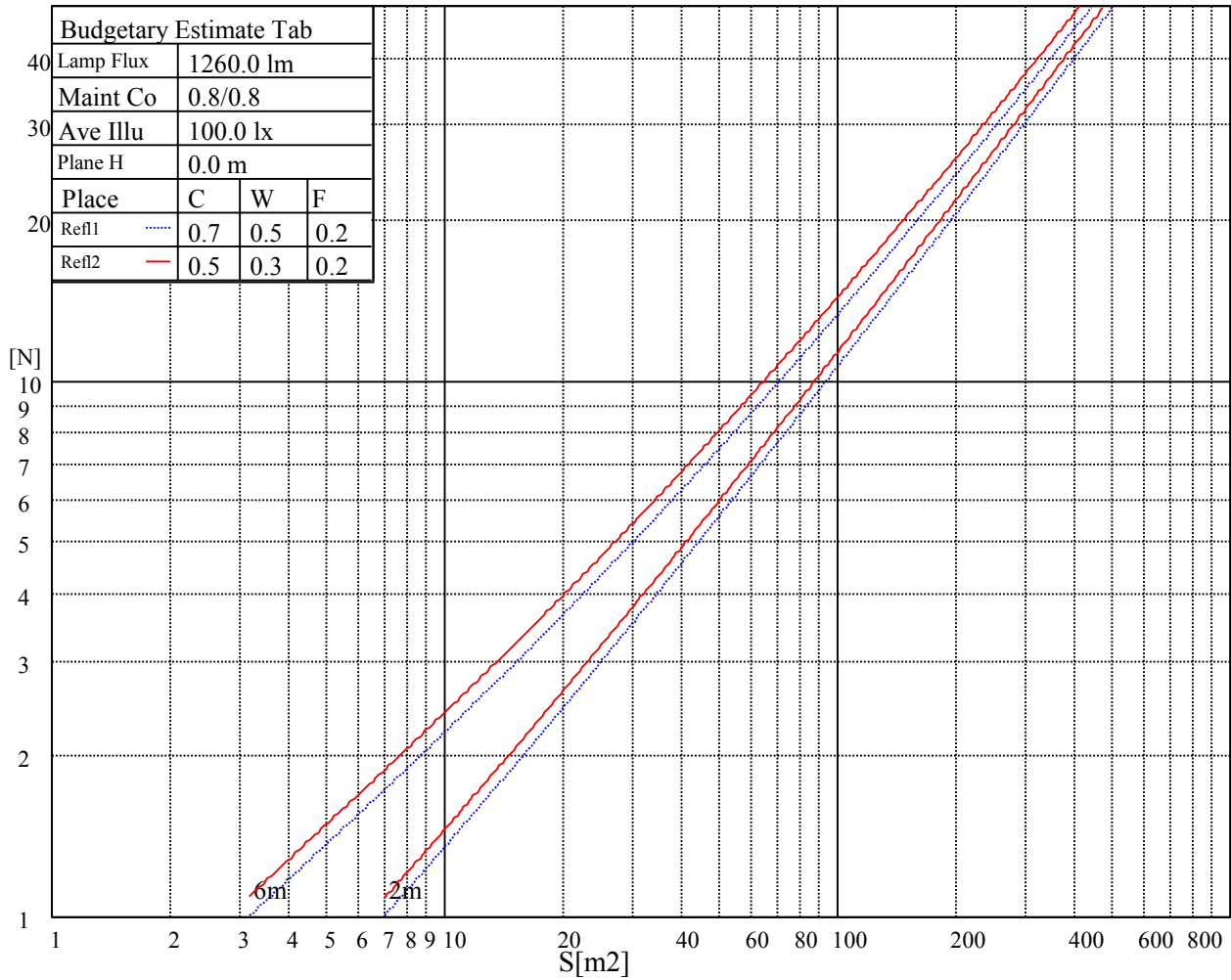
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3224	3224	3224	6760	6760	6760	8912	8912	8912

Glare Table

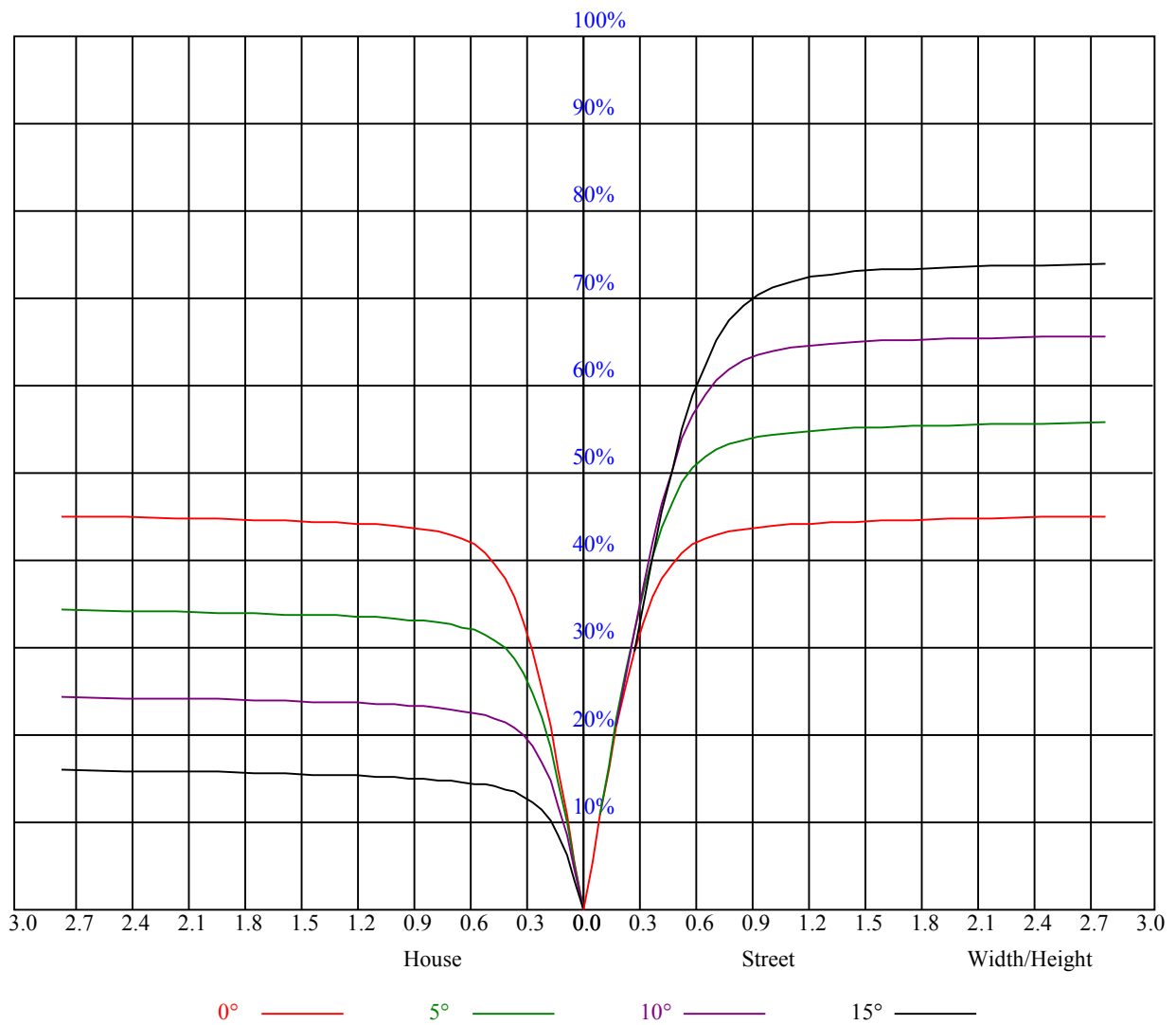
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.02	0.99	0.97	1.00	0.98	0.96	0.96	0.94	0.93	0.93	0.91	0.90	0.89	0.89	0.88	0.86
2	0.95	0.92	0.89	0.94	0.91	0.88	0.91	0.88	0.86	0.88	0.86	0.84	0.86	0.84	0.82	0.81
3	0.90	0.86	0.82	0.89	0.85	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	0.80	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	0.76	0.72	0.80	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.75	0.72	0.70	0.69
6	0.77	0.72	0.68	0.76	0.71	0.68	0.75	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.65
7	0.73	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.63	0.62
8	0.70	0.65	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.64	0.61	0.67	0.63	0.61	0.60
9	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.57
10	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.62	0.58	0.56	0.55



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	2250.00	2237.63	2114.44	1783.13	1234.13	660.38	313.31	128.87	64.35
45.0	2262.38	2216.25	2056.50	1688.06	1173.38	651.94	303.19	127.52	67.56
90.0	2253.94	2174.63	1976.63	1603.69	1106.94	614.53	282.21	128.59	65.03
135.0	2257.88	2199.38	2035.13	1754.44	1287.00	749.25	353.81	155.48	74.93
180.0	2250.00	2165.06	1991.25	1638.00	1121.23	642.99	297.84	126.68	65.59
225.0	2262.38	2201.06	2005.88	1662.19	1115.72	606.54	306.23	130.16	65.98
270.0	2253.94	2226.38	2069.44	1718.44	1248.75	689.63	315.00	146.42	69.13
315.0	2257.88	2221.31	2055.94	1662.75	1116.84	585.62	257.79	108.39	56.70
360.0	2250.00	2237.63	2114.44	1783.13	1234.13	660.38	313.31	128.87	64.35
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	39.38	26.04	18.17	14.06	11.48	10.01	9.00	8.44	6.30
45.0	40.05	26.78	18.90	14.40	11.70	10.07	8.61	7.43	6.24
90.0	38.36	26.33	18.45	14.23	11.76	9.96	8.38	7.14	6.08
135.0	42.41	27.39	18.34	13.95	11.59	16.71	31.89	38.53	8.33
180.0	38.25	25.26	17.38	13.84	11.36	9.84	9.34	8.55	6.36
225.0	40.11	26.44	18.45	14.29	11.70	10.18	8.55	7.54	6.64
270.0	40.56	27.51	18.96	14.40	11.48	10.01	8.44	7.20	6.13
315.0	33.75	22.11	16.31	12.88	11.19	18.79	34.26	25.09	6.53
360.0	39.38	26.04	18.17	14.06	11.48	10.01	9.00	8.44	6.30
C/γ(°)	90.0								
0.0	5.18								
45.0	5.29								
90.0	5.34								
135.0	5.29								
180.0	5.18								
225.0	5.40								
270.0	5.29								
315.0	5.18								
360.0	5.18								