
Nata

LumCAT: 2-1158-M

Luminaire:

Report No: NT2015011601

Voltage(V): 29.1000

Test No: GC2015011601

Current(A): 0.9000

LampCAT: XICATO XTM LES9

Power (W): 26.1900

Lamp flux(lm): 1446.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 66

Width(mm): 66

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1305.33

Efficiency(%): 90.27%

Lumens(lm)/Power(W): 49.84

Central intensity(cd): 16218.620

Maximum intensity(cd): 16218.620

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=11.3

[C90/270]Total=11.3

Field angle(10%Imax): [C0/180]Total=20.6

[C90/270]Total=20.6

Maximum s/h(1/2): C0_180=0.20 C90_270=0.20

Maximum s/h(1/4): C0_180=0.21 C90_270=0.21

Up flux rate of lamp(%): 3.32%

Down flux rate of lamp(%): 93.58%

Up flux rate of LUM(%): 10.12%

Down flux rate of LUM(%): 96.57%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 88.251%

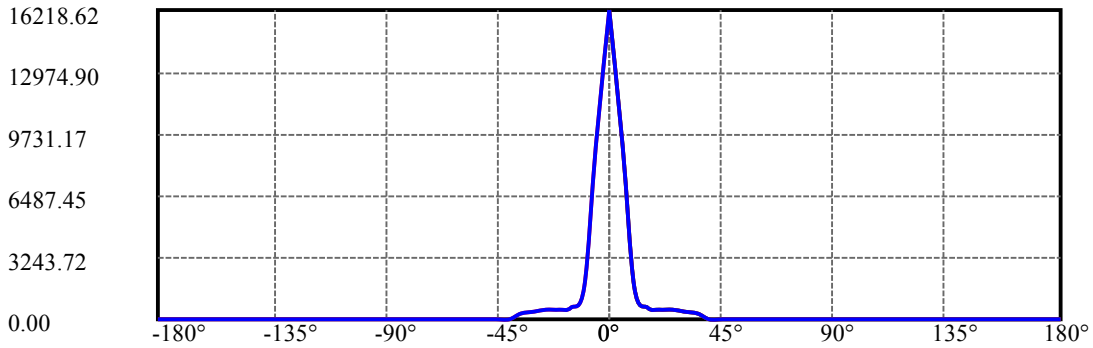
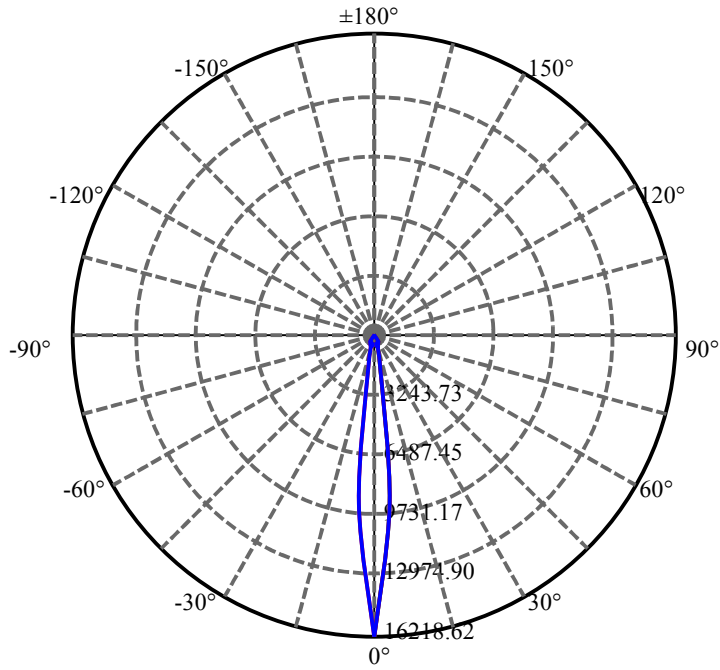
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	16218.622	96.991	96.991	6.708%	7.430%
5.0	9088.303	434.178	531.169	30.026%	40.692%
10.0	1693.248	161.169	692.338	11.146%	53.039%
15.0	578.982	82.139	774.477	5.680%	59.332%
20.0	496.728	93.124	867.6	6.440%	66.466%
25.0	468.403	108.507	976.107	7.504%	74.778%
30.0	441.973	121.131	1097.238	8.377%	84.058%
35.0	346.424	108.915	1206.153	7.532%	92.402%
40.0	47.712	16.811	1222.964	1.163%	93.690%
45.0	8.574	3.323	1226.287	.230%	93.944%
50.0	7.889	3.313	1229.6	.229%	94.198%
55.0	7.602	3.413	1233.013	.236%	94.460%
60.0	7.399	3.513	1236.526	.243%	94.729%
65.0	7.288	3.620	1240.146	.250%	95.006%
70.0	7.204	3.710	1243.857	.257%	95.290%
75.0	7.169	3.796	1247.652	.262%	95.581%
80.0	7.148	3.858	1251.511	.267%	95.877%
85.0	7.148	3.903	1255.413	.270%	96.176%
90.0	7.099	3.891	1259.305	.269%	96.474%
95.0	7.106	3.880	1263.185	.268%	96.771%
100.0	7.134	3.851	1267.035	.266%	97.066%
105.0	7.127	3.773	1270.809	.261%	97.355%
110.0	7.120	3.667	1274.476	.254%	97.636%
115.0	7.120	3.537	1278.013	.245%	97.907%
120.0	7.127	3.383	1281.396	.234%	98.166%
125.0	7.134	3.203	1284.599	.222%	98.411%
130.0	7.204	3.025	1287.624	.209%	98.643%
135.0	7.232	2.803	1290.427	.194%	98.858%
140.0	7.260	2.558	1292.985	.177%	99.054%
145.0	7.434	2.337	1295.322	.162%	99.233%
150.0	8.183	2.243	1297.565	.155%	99.405%
155.0	9.882	2.289	1299.854	.158%	99.580%
160.0	11.827	2.217	1302.071	.153%	99.750%
165.0	11.875	1.685	1303.756	.117%	99.879%
170.0	10.715	1.020	1304.776	.071%	99.957%
175.0	10.428	0.498	1305.274	.034%	99.995%
180.0	10.155	0.061	1305.334	.004%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1097.24	75.88%	84.06%
0-40	1222.96	84.58%	93.69%
0-60	1236.53	85.51%	94.73%
0-90	1259.30	87.09%	96.47%
0-120	1281.40	88.62%	98.17%
0-180	1305.33	90.27%	100.00%
60-90	26.29	1.82%	2.01%
90-120	25.98	1.80%	1.99%
90-130	32.21	2.23%	2.47%
90-150	42.15	2.92%	3.23%
90-180	49.86	3.45%	3.82%
0-27.81	1044.27	72.22%	80.00%

ZONAL LUMEN SUMMARY

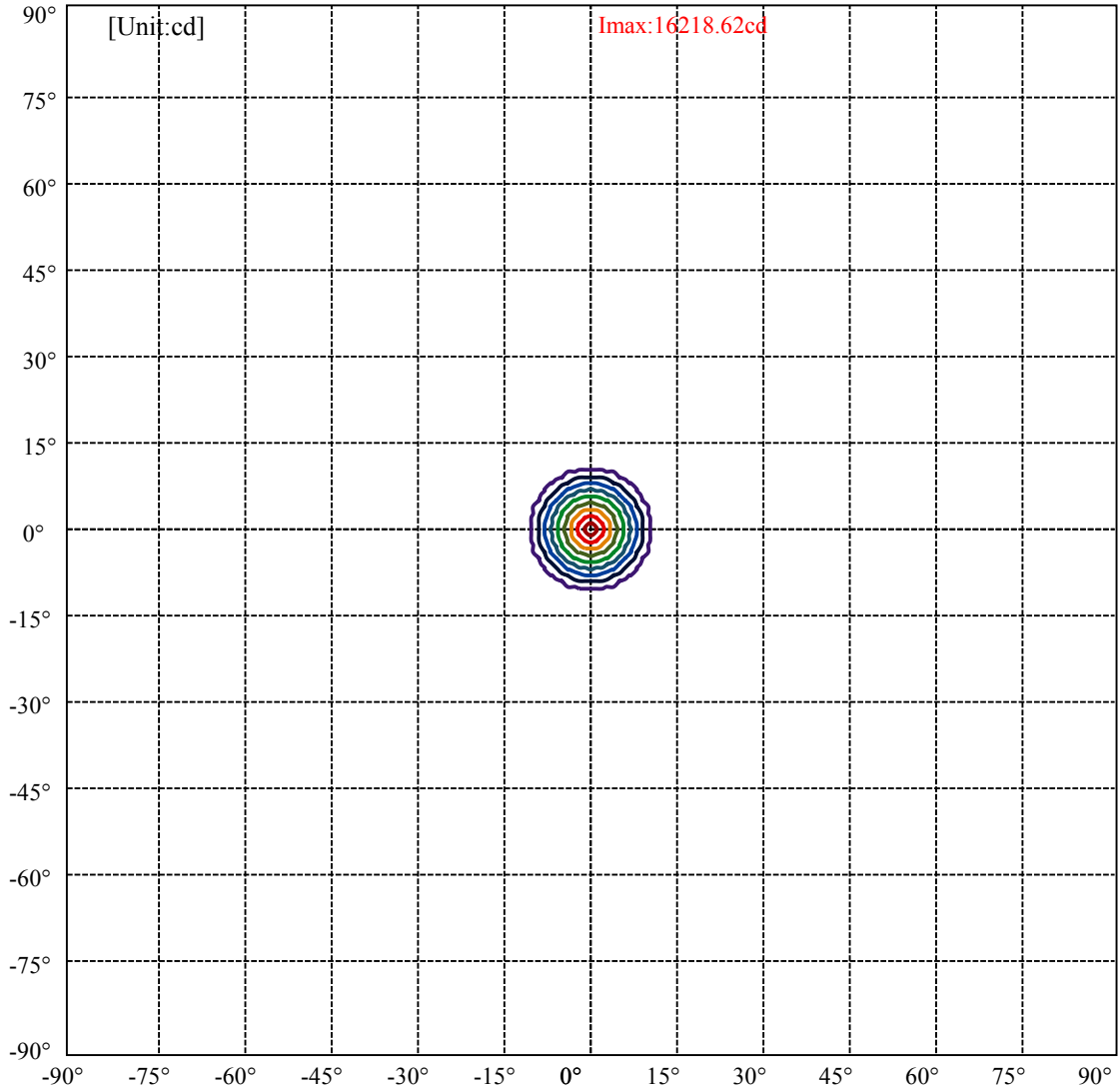
0-10	692.34
10-20	175.26
20-30	229.64
30-40	125.73
40-50	6.64
50-60	6.93
60-70	7.33
70-80	7.65
80-90	7.79
90-100	7.73
100-110	7.44
110-120	6.92
120-130	6.23
130-140	5.36
140-150	4.58
150-160	4.51
160-170	2.70
170-180	0.50



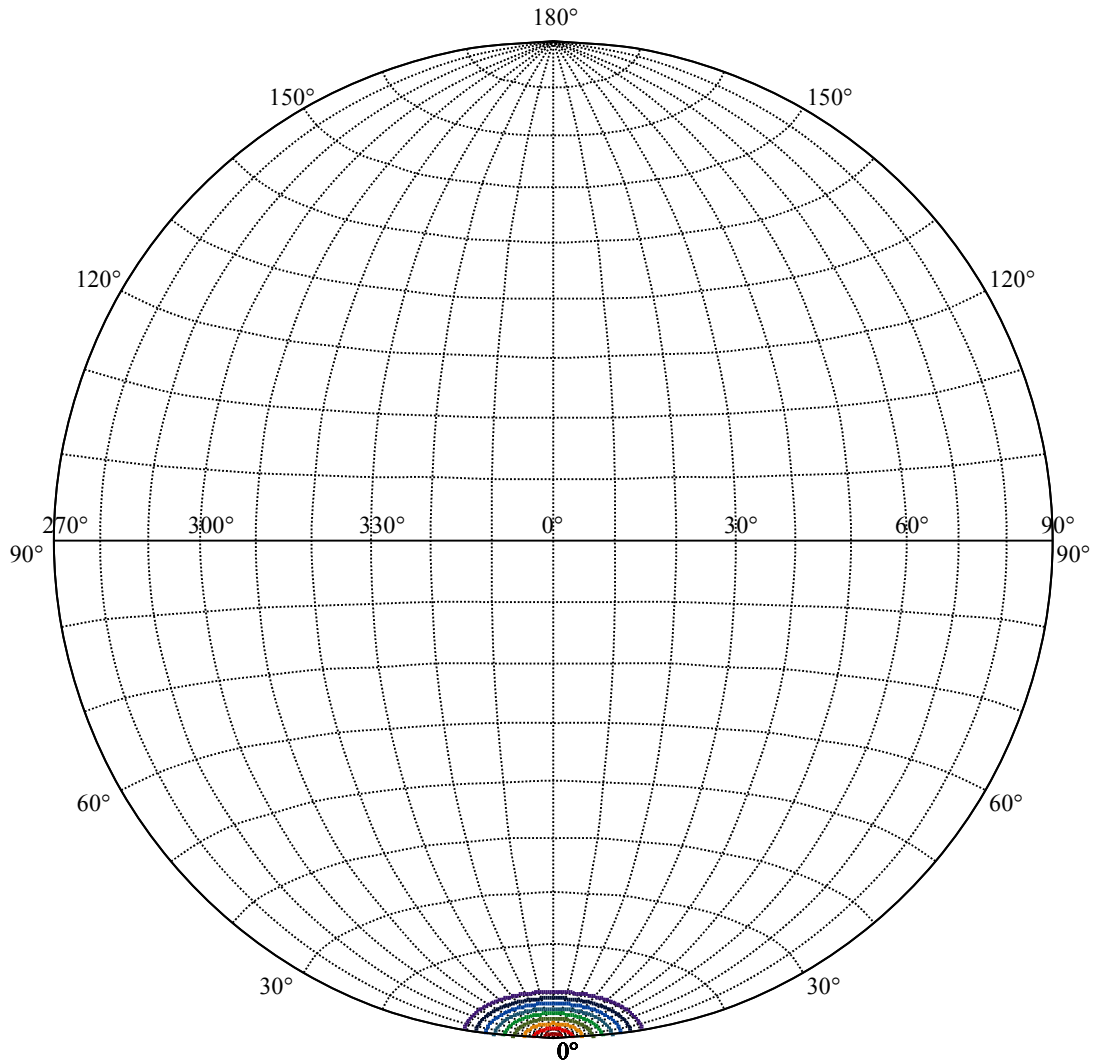
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:10.3 Right:10.3
:C90/270Left:10.3 Right:10.3

Beam Angle(50%Imax):C0/180Left:5.7 Right:5.7
:C90/270Left:5.7 Right:5.7



(10%I _{max}) 1621.86	—
(20%I _{max}) 3243.72	—
(30%I _{max}) 4865.59	—
(40%I _{max}) 6487.45	—
(50%I _{max}) 8109.31	—
(60%I _{max}) 9731.17	—
(70%I _{max}) 11353	—
(80%I _{max}) 12974.9	—
(90%I _{max}) 14596.8	—



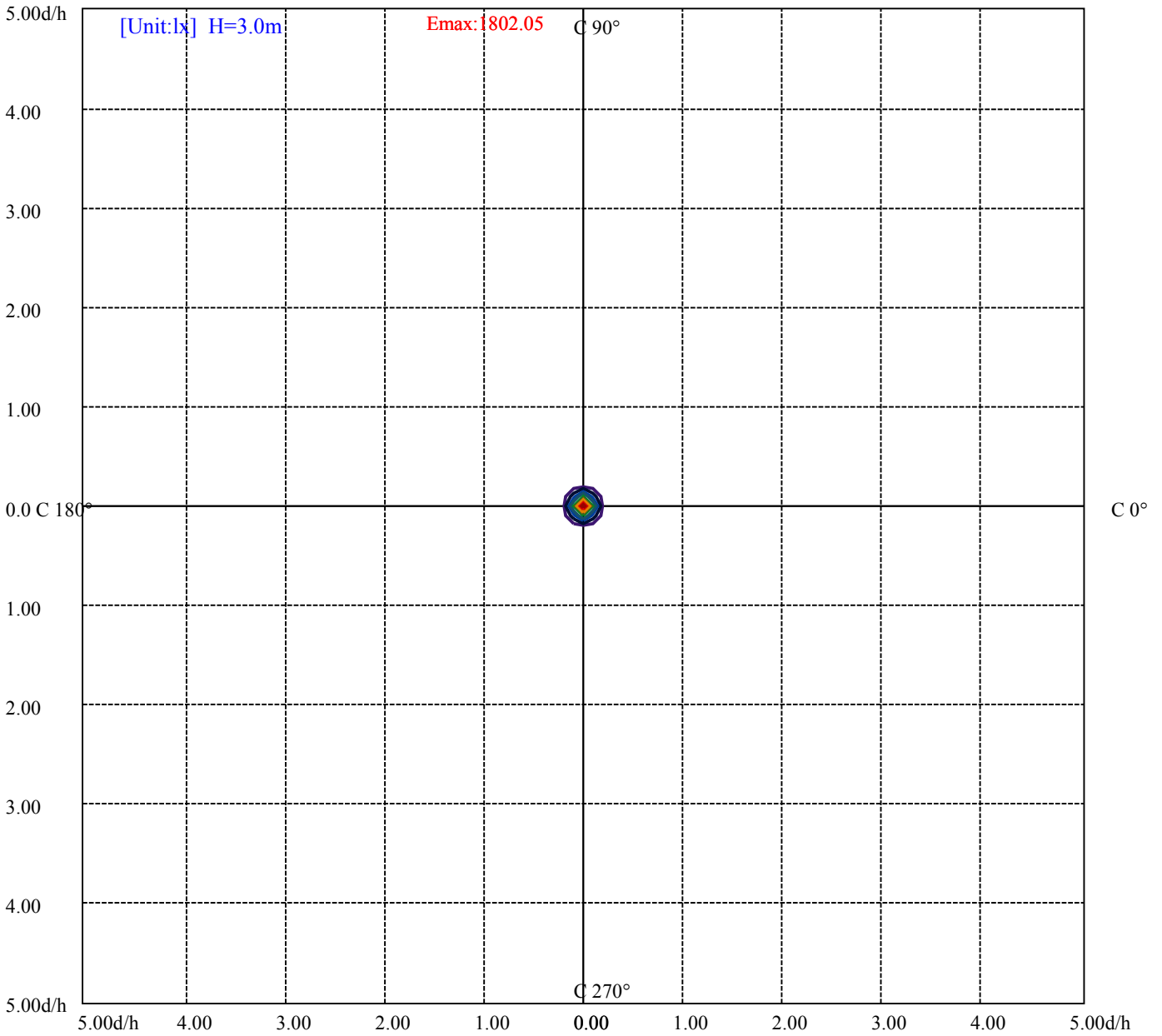
House

[Unit:cd]

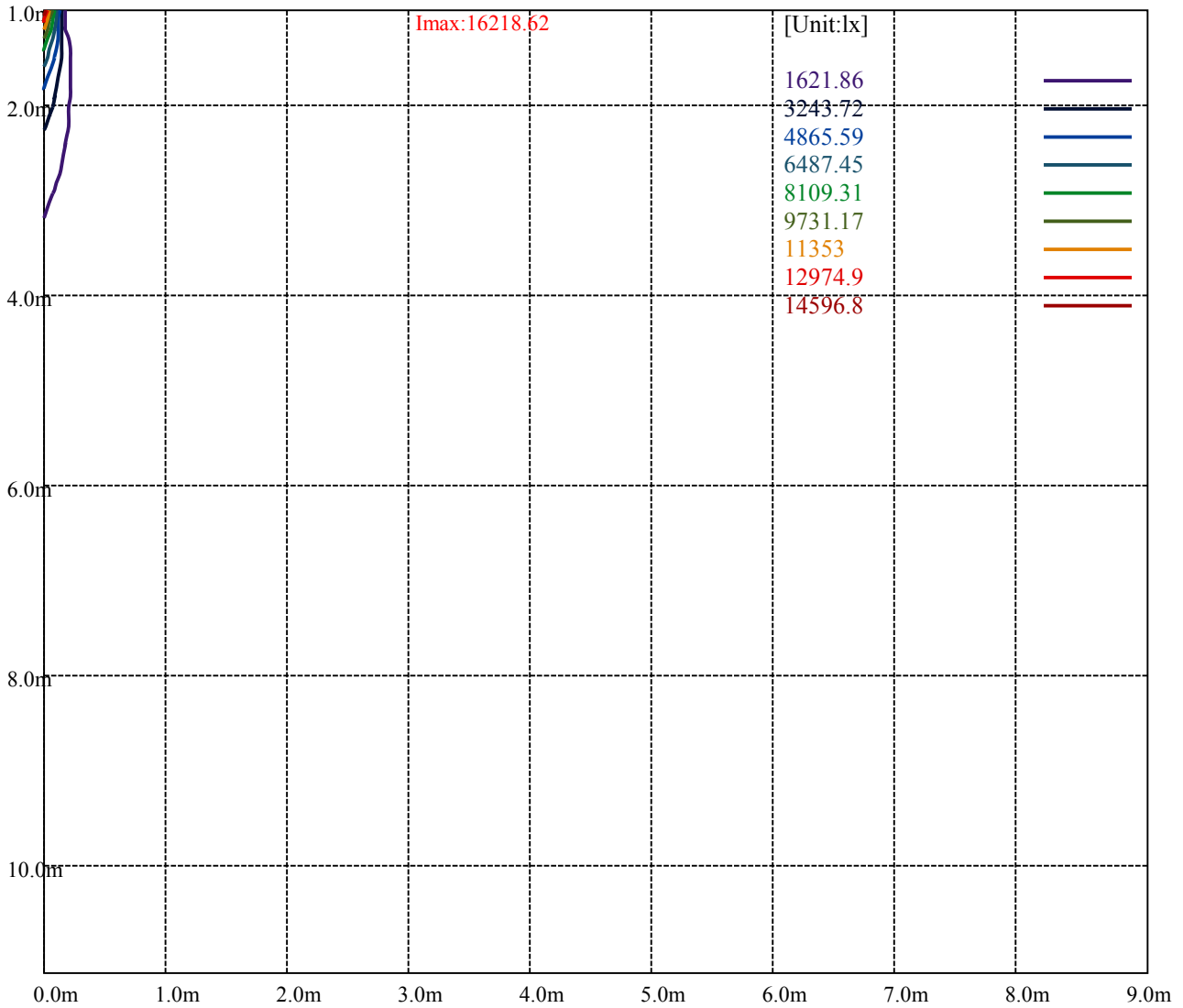
Road

Imax:16218.62

(10%Imax)	1621.86	—
(20%Imax)	3243.72	—
(30%Imax)	4865.59	—
(40%Imax)	6487.45	—
(50%Imax)	8109.31	—
(60%Imax)	9731.17	—
(70%Imax)	11353	—
(80%Imax)	12974.9	—
(90%Imax)	14596.8	—



(10%Emax) 180.2044	—
(20%Emax) 360.4089	—
(30%Emax) 540.6133	—
(40%Emax) 720.8177	—
(50%Emax) 901.0222	—
(60%Emax) 1081.227	—
(70%Emax) 1261.433	—
(80%Emax) 1441.633	—
(90%Emax) 1621.844	—



Luminance Table

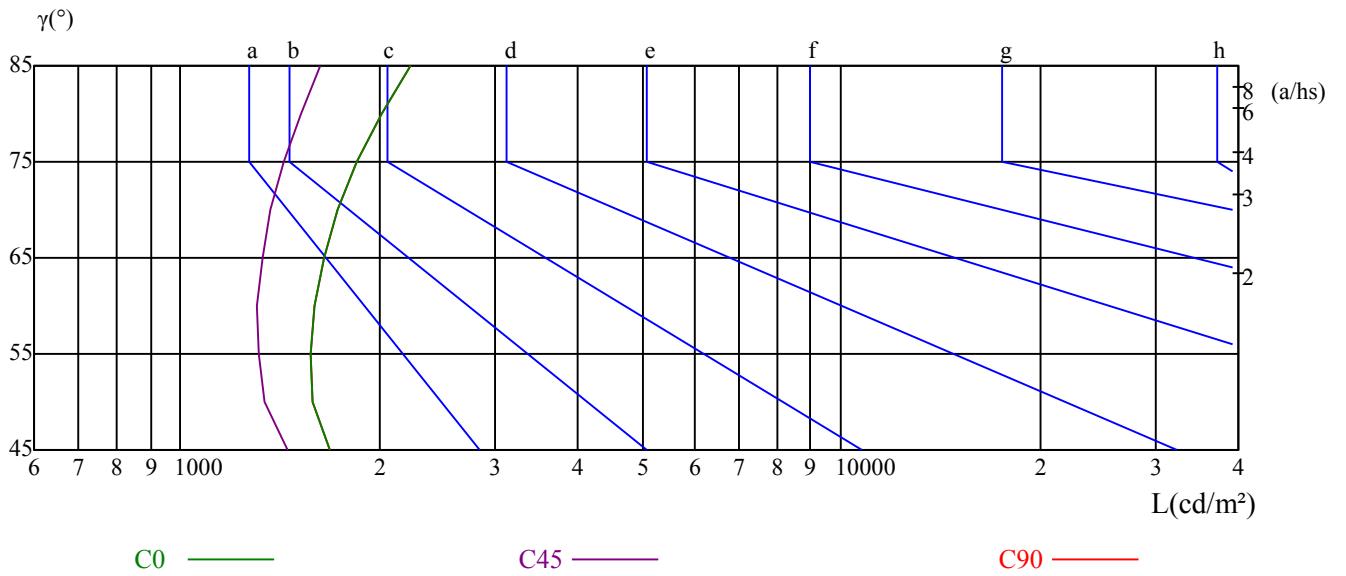
γ	45	50	55	60	65	70	75	80	85
C0	1686	1586	1576	1596	1651	1733	1853	2013	2229
C45	1449	1343	1314	1309	1330	1369	1433	1518	1633
C90	1686	1586	1576	1596	1651	1733	1853	2013	2229

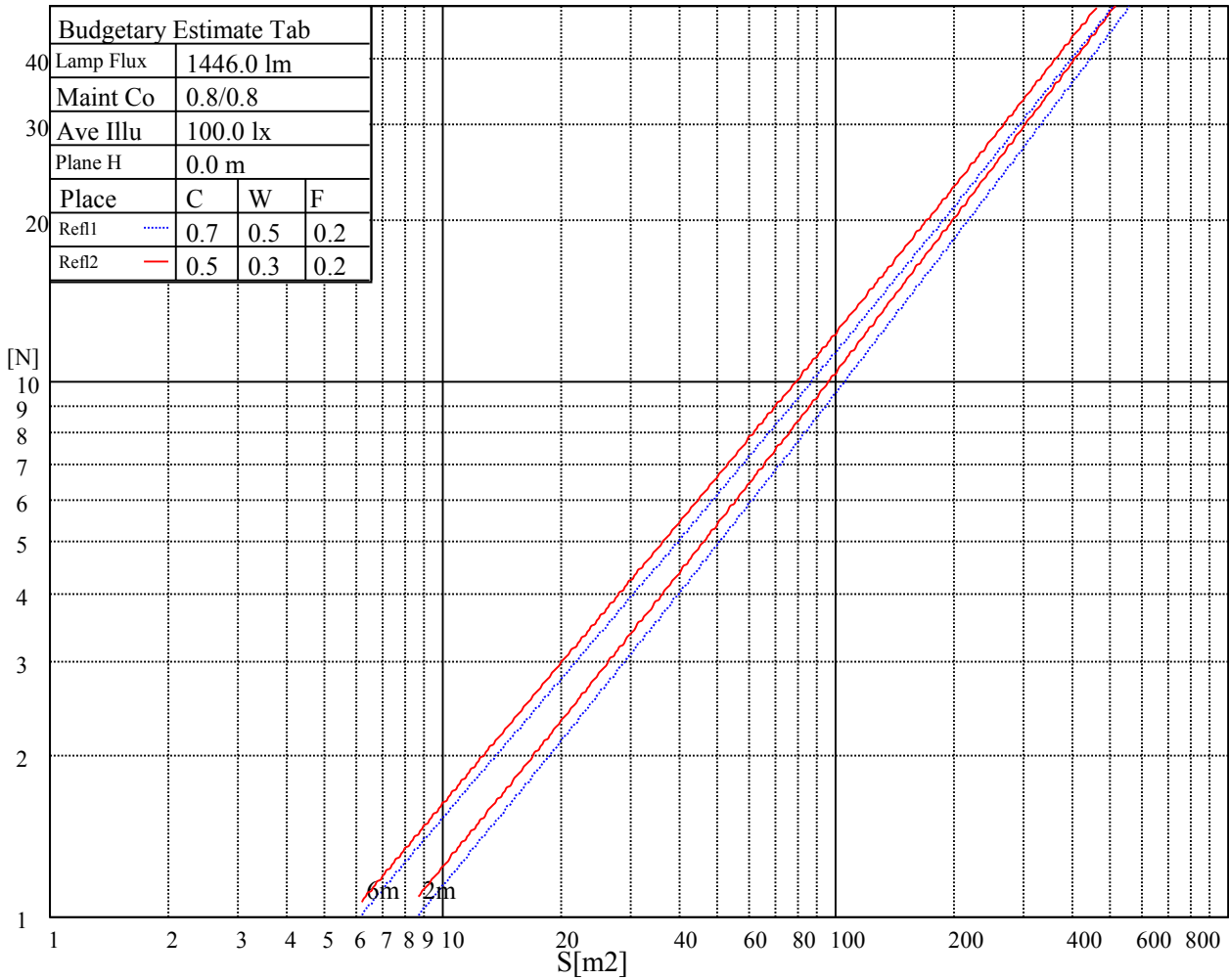
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3959	3959	3959	6358	6358	6358	18827	18827	18827

Glare Table

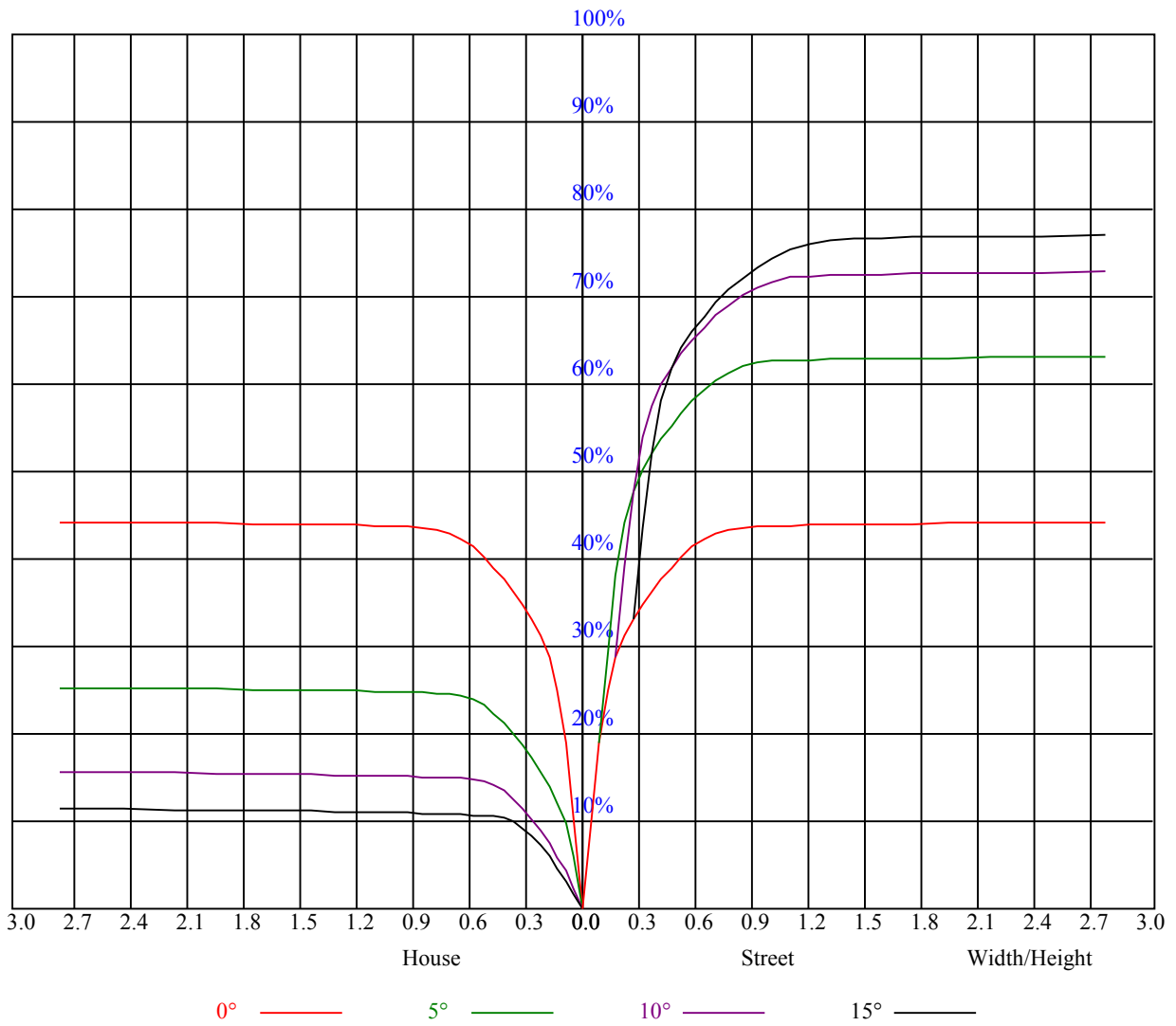
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.15	1.15	1.15	1.12	1.12	1.12	1.06	1.06	1.06	1.01	1.01	1.01	0.96	0.96	0.96	0.94
1	0.99	0.95	0.91	0.97	0.93	0.89	0.92	0.89	0.86	0.87	0.85	0.82	0.83	0.81	0.79	0.77
2	0.94	0.88	0.84	0.92	0.87	0.83	0.88	0.84	0.81	0.84	0.81	0.78	0.81	0.78	0.76	0.74
3	0.89	0.83	0.79	0.87	0.82	0.78	0.84	0.80	0.76	0.81	0.78	0.75	0.79	0.76	0.73	0.72
4	0.85	0.79	0.75	0.84	0.78	0.74	0.81	0.77	0.73	0.79	0.75	0.72	0.76	0.73	0.71	0.69
5	0.81	0.76	0.72	0.80	0.75	0.71	0.78	0.74	0.70	0.76	0.72	0.69	0.74	0.71	0.69	0.67
6	0.78	0.73	0.69	0.77	0.72	0.69	0.76	0.71	0.68	0.74	0.70	0.67	0.72	0.69	0.67	0.65
7	0.76	0.70	0.67	0.75	0.70	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.67	0.65	0.63
8	0.73	0.68	0.65	0.73	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
9	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.61	0.60
10	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



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	16270.38	9690.61	1796.57	563.98	494.04	462.71	435.29	319.48	36.03	
45.0	16186.45	11279.60	3043.70	592.51	505.79	475.58	450.40	370.39	64.34	
90.0	16387.87	10010.65	1083.65	572.54	494.10	467.80	442.01	337.38	43.81	
135.0	16029.79	11313.17	3032.51	630.56	506.35	475.02	452.64	410.68	96.79	
180.0	16270.38	8826.18	1072.35	579.98	495.78	471.27	445.59	380.24	51.64	
225.0	16186.45	6919.39	1108.55	561.85	496.78	469.82	440.67	331.56	27.53	
270.0	16387.87	8051.26	1378.06	588.60	496.84	466.63	439.21	346.89	37.77	
315.0	16029.79	6615.58	1030.61	541.82	484.14	458.40	429.98	274.77	23.78	
360.0	16270.38	9690.61	1796.57	563.98	494.04	462.71	435.29	319.48	36.03	
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	
0.0	8.45	7.89	7.61	7.39	7.27	7.16	7.16	7.11	7.16	
45.0	9.34	7.94	7.67	7.44	7.33	7.27	7.22	7.16	7.16	
90.0	8.34	7.83	7.61	7.44	7.27	7.22	7.22	7.16	7.16	
135.0	9.23	8.00	7.67	7.50	7.39	7.27	7.22	7.22	7.22	
180.0	8.28	7.89	7.61	7.39	7.33	7.22	7.16	7.16	7.11	
225.0	8.28	7.83	7.55	7.33	7.22	7.16	7.11	7.11	7.11	
270.0	8.39	7.94	7.61	7.39	7.27	7.16	7.16	7.16	7.16	
315.0	8.28	7.78	7.50	7.33	7.22	7.16	7.11	7.11	7.11	
360.0	8.45	7.89	7.61	7.39	7.27	7.16	7.16	7.11	7.16	
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0	
0.0	7.11	7.16	7.33	7.16	7.16	7.16	7.16	7.16	7.27	
45.0	7.11	7.11	7.11	7.11	7.11	7.11	7.16	7.11	7.16	
90.0	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.16	
135.0	7.11	7.11	7.11	7.16	7.11	7.11	7.11	7.16	7.16	
180.0	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.16	
225.0	7.05	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.22	
270.0	7.11	7.11	7.11	7.16	7.16	7.16	7.16	7.16	7.22	
315.0	7.11	7.05	7.11	7.11	7.11	7.11	7.11	7.16	7.27	
360.0	7.11	7.16	7.33	7.16	7.16	7.16	7.16	7.16	7.27	
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0	
0.0	7.33	7.39	7.61	8.45	10.52	12.81	12.81	11.41	10.85	
45.0	7.16	7.16	7.27	7.89	9.23	10.85	11.30	10.24	10.13	
90.0	7.16	7.16	7.33	8.00	9.34	11.02	11.30	10.35	10.24	
135.0	7.16	7.16	7.27	7.89	9.18	10.80	11.47	10.57	10.41	
180.0	7.16	7.16	7.33	8.11	9.62	11.30	11.58	10.74	10.52	
225.0	7.27	7.33	7.50	8.28	10.24	12.59	12.09	10.57	10.18	
270.0	7.33	7.39	7.50	8.28	10.24	12.42	12.31	10.91	10.41	
315.0	7.27	7.33	7.67	8.56	10.69	12.81	12.14	10.91	10.69	
360.0	7.33	7.39	7.61	8.45	10.52	12.81	12.81	11.41	10.85	
C/γ(°)	180.0									
0.0	10.41									
45.0	9.96									
90.0	10.07									
135.0	10.18									
180.0	10.41									
225.0	9.96									
270.0	10.07									
315.0	10.18									
360.0	10.41									