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Nata

LumCAT: 4-2173-E
Luminaire: LMOP009-3225DH+92.76.340.00
Report No: GC2016112509 Voltage(V): 217.7000
Test No: NT-0010 Current(A): 0.0730
LampCAT: CITIZEN CLC251 Power (W): 15.8000
Lamp flux(lm): 1738.0 PF: 0.9980
Number of Lamps: 1 Ballast type: DC
Length(mm): 100 Width(mm): 100
Phm Type: C Height(mm): 0

Photometric Results

Lumens(lm): 1632.17
Efficiency(%): 93.91%
Lumens(lm)/Power(W): 103.30
Central intensity(cd): 11884.890
Maximum intensity(cd): 11884.890
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=14.9
 [C90/270]Total=14.9
Field angle(10%Imax): [C0/180]Total=29.5
 [C90/270]Total=29.5
Maximum s/h(1/2): C0_180=0.26 C90_270=0.26
Maximum s/h(1/4): C0_180=0.25 C90_270=0.25
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.91%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.768%

Equipment: gms1980
Temperature(°C): 25.0

Date: 2016/11/25
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

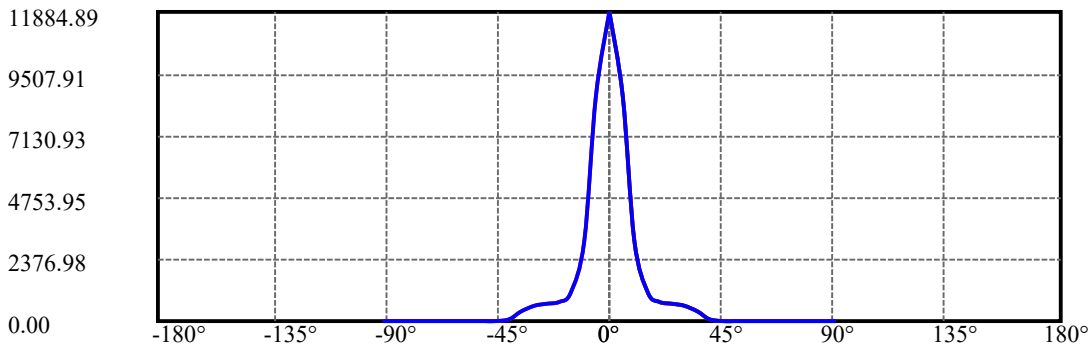
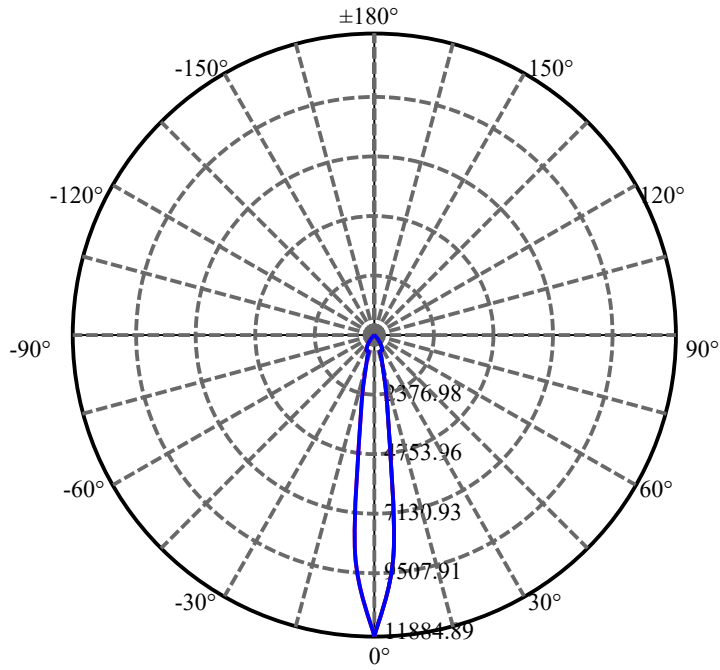
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11884.887	0.000	0	.000%	.000%
5.0	8628.233	245.229	245.229	14.110%	15.025%
10.0	3126.928	420.519	665.748	24.196%	40.789%
15.0	1080.255	249.567	915.315	14.359%	56.080%
20.0	745.298	150.451	1065.766	8.657%	65.297%
25.0	661.847	147.584	1213.35	8.492%	74.340%
30.0	592.799	158.776	1372.126	9.136%	84.068%
35.0	344.130	137.969	1510.096	7.938%	92.521%
40.0	94.621	73.202	1583.298	4.212%	97.006%
45.0	9.759	19.327	1602.625	1.112%	98.190%
50.0	7.020	3.390	1606.015	.195%	98.397%
55.0	6.717	2.987	1609.002	.172%	98.580%
60.0	6.545	3.065	1612.067	.176%	98.768%
65.0	6.442	3.157	1615.224	.182%	98.962%
70.0	6.387	3.248	1618.472	.187%	99.161%
75.0	6.572	3.387	1621.86	.195%	99.368%
80.0	6.366	3.462	1625.322	.199%	99.580%
85.0	6.393	3.467	1628.789	.199%	99.793%
90.0	5.960	3.382	1632.171	.195%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1372.13	78.95%	84.07%
0-40	1583.30	91.10%	97.01%
0-60	1612.07	92.75%	98.77%
0-90	1628.79	93.72%	99.79%
0-120	1628.79	93.72%	99.79%
0-180	1632.17	93.91%	100.00%
60-90	19.79	1.14%	1.21%
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%
0-27.91	1305.74	75.13%	80.00%

ZONAL LUMEN SUMMARY

0-10	665.75
10-20	400.02
20-30	306.36
30-40	211.17
40-50	22.72
50-60	6.05
60-70	6.41
70-80	6.85
80-90	3.47
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: —————

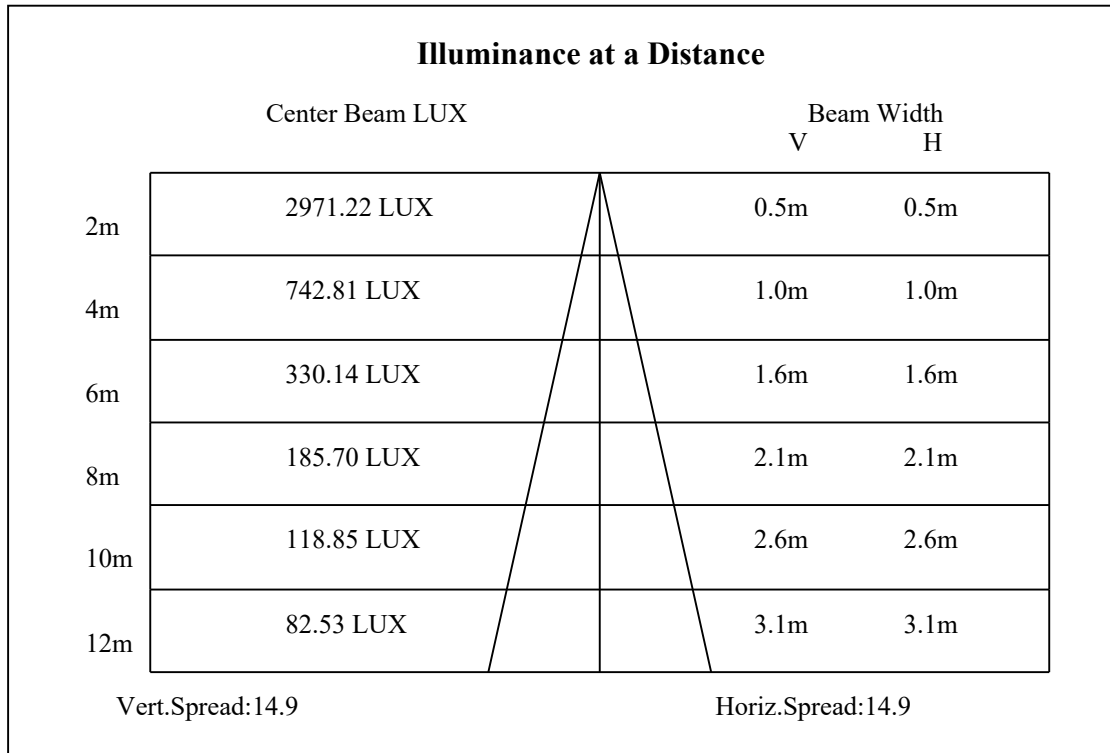
C90/C270: —————

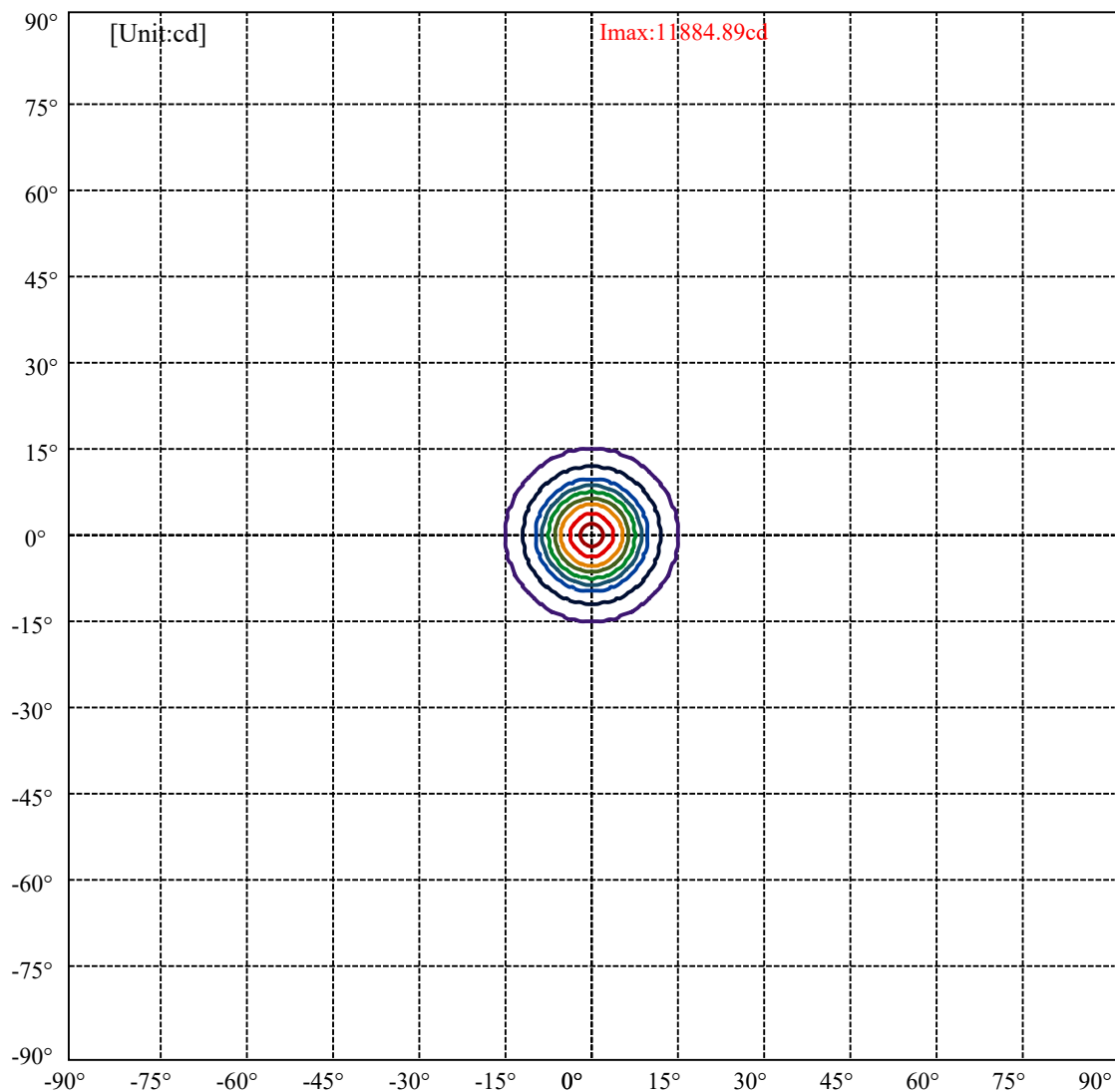
Field angle(10%Imax):C0/180Left:14.7 Right:14.7

:C90/270Left:14.7 Right:14.7

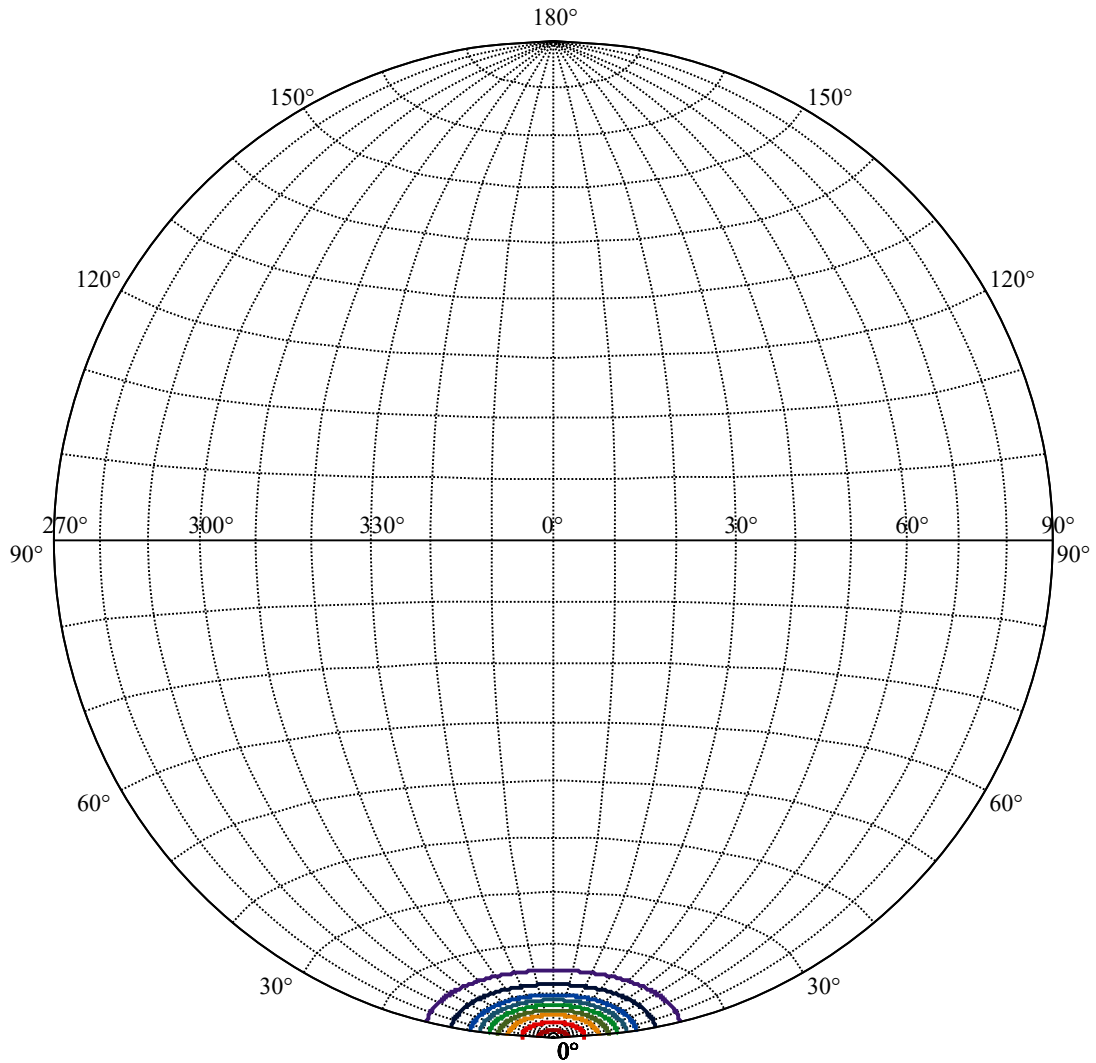
Beam Angle(50%Imax):C0/180Left:7.4 Right:7.4

:C90/270Left:7.4 Right:7.4





(10%I _{max}) 1188.49	—
(20%I _{max}) 2376.98	—
(30%I _{max}) 3565.47	—
(40%I _{max}) 4753.95	—
(50%I _{max}) 5942.44	—
(60%I _{max}) 7130.93	—
(70%I _{max}) 8319.42	—
(80%I _{max}) 9507.91	—
(90%I _{max}) 10696.4	—



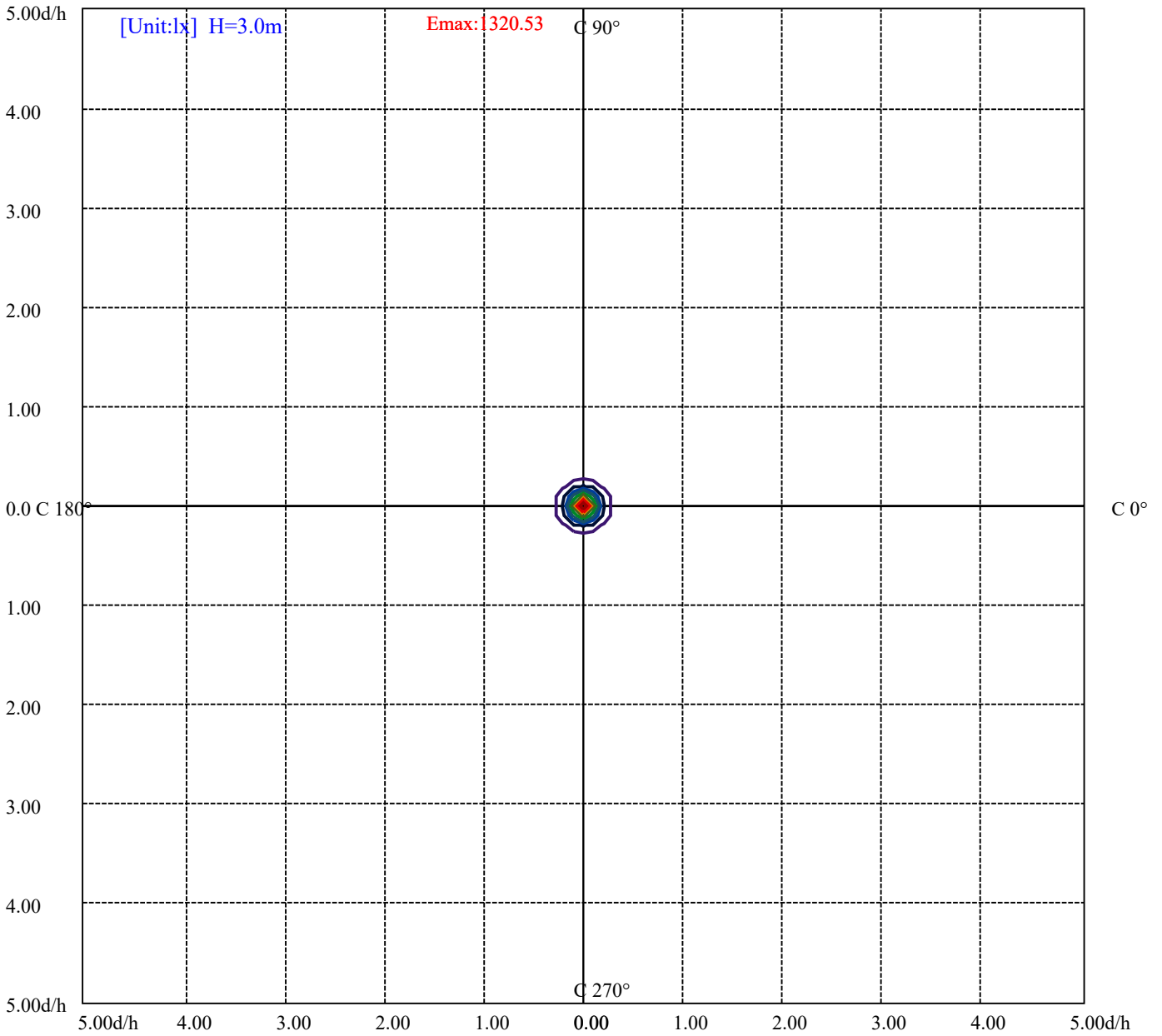
House

[Unit:cd]

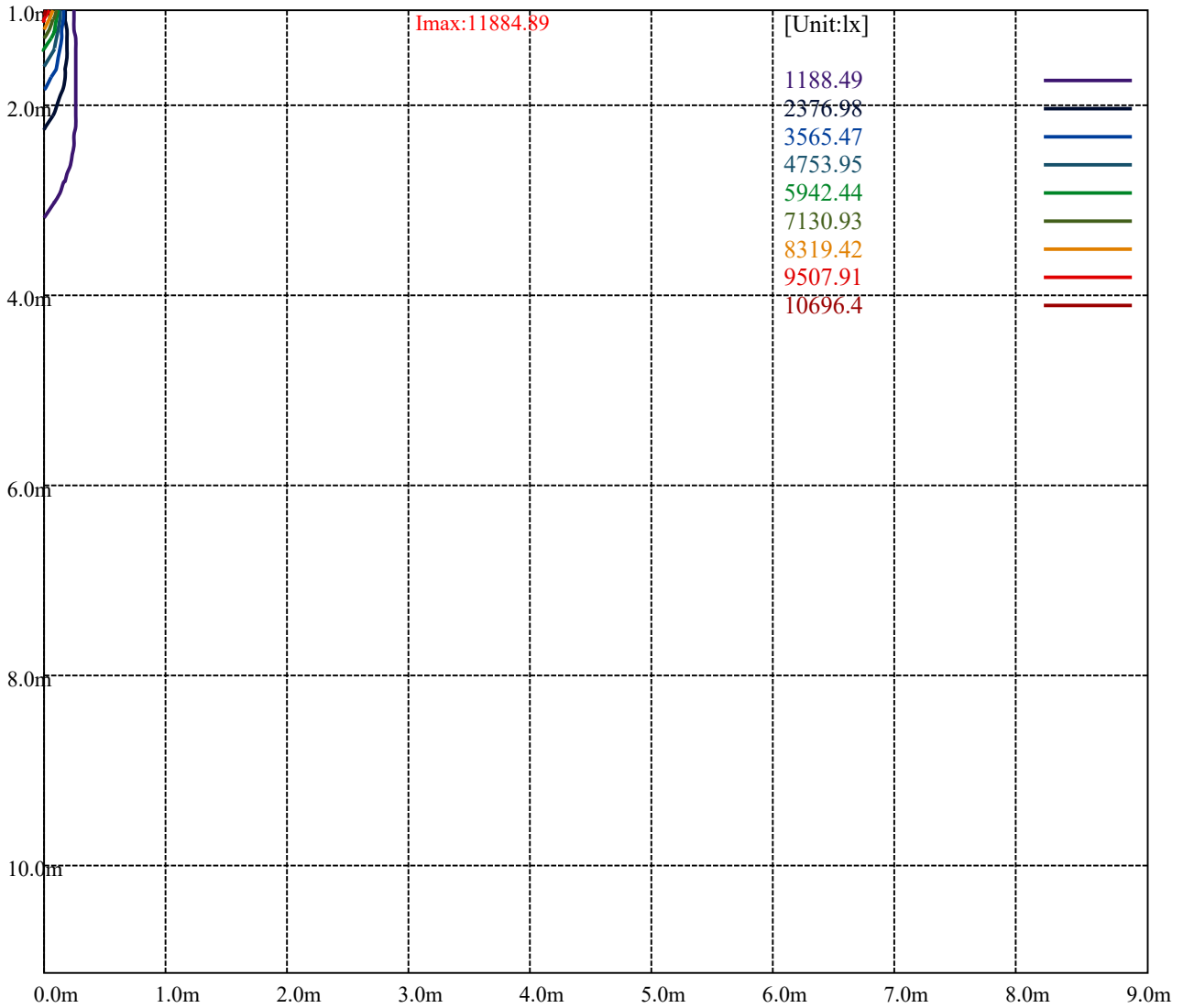
Road

Imax:11884.89

(10%Imax)	1188.49	—
(20%Imax)	2376.98	—
(30%Imax)	3565.47	—
(40%Imax)	4753.95	—
(50%Imax)	5942.44	—
(60%Imax)	7130.93	—
(70%Imax)	8319.42	—
(80%Imax)	9507.91	—
(90%Imax)	10696.4	—



- (10%Emax) 132.0533
- (20%Emax) 264.1067
- (30%Emax) 396.16
- (40%Emax) 528.2133
- (50%Emax) 660.2656
- (60%Emax) 792.3189
- (70%Emax) 924.3722
- (80%Emax) 1056.426
- (90%Emax) 1188.478



Luminance Table

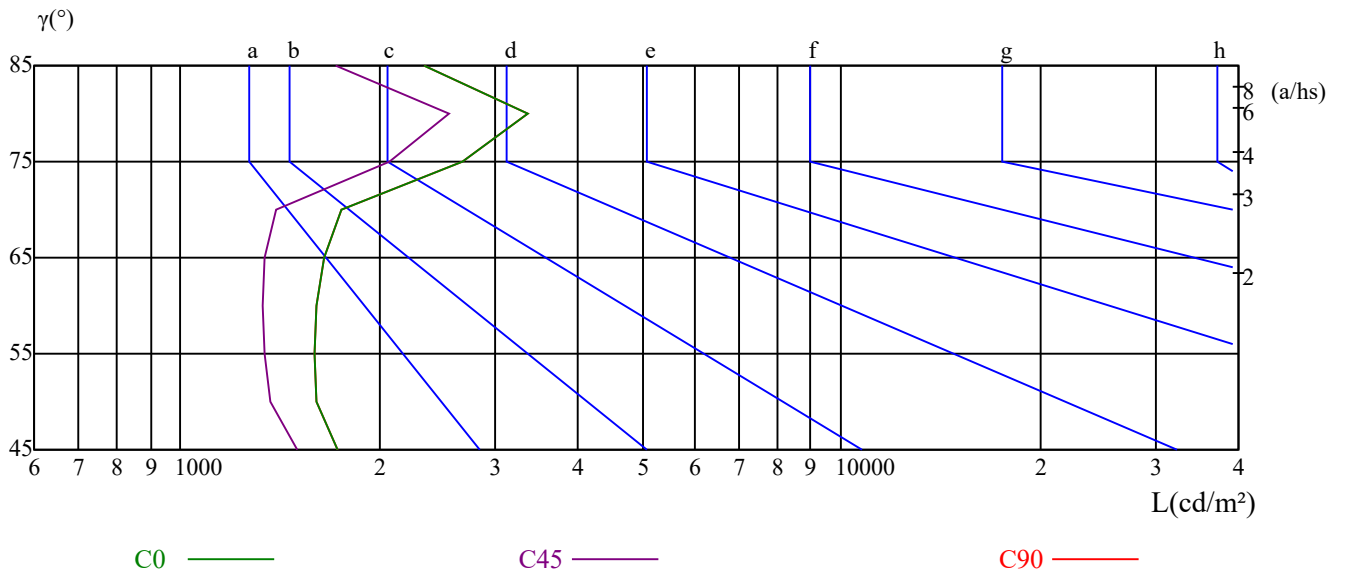
γ	45	50	55	60	65	70	75	80	85
C0	1734	1605	1591	1606	1655	1753	2667	3353	2333
C45	1504	1371	1338	1329	1345	1396	2077	2543	1715
C90	1734	1605	1591	1606	1655	1753	2667	3353	2333

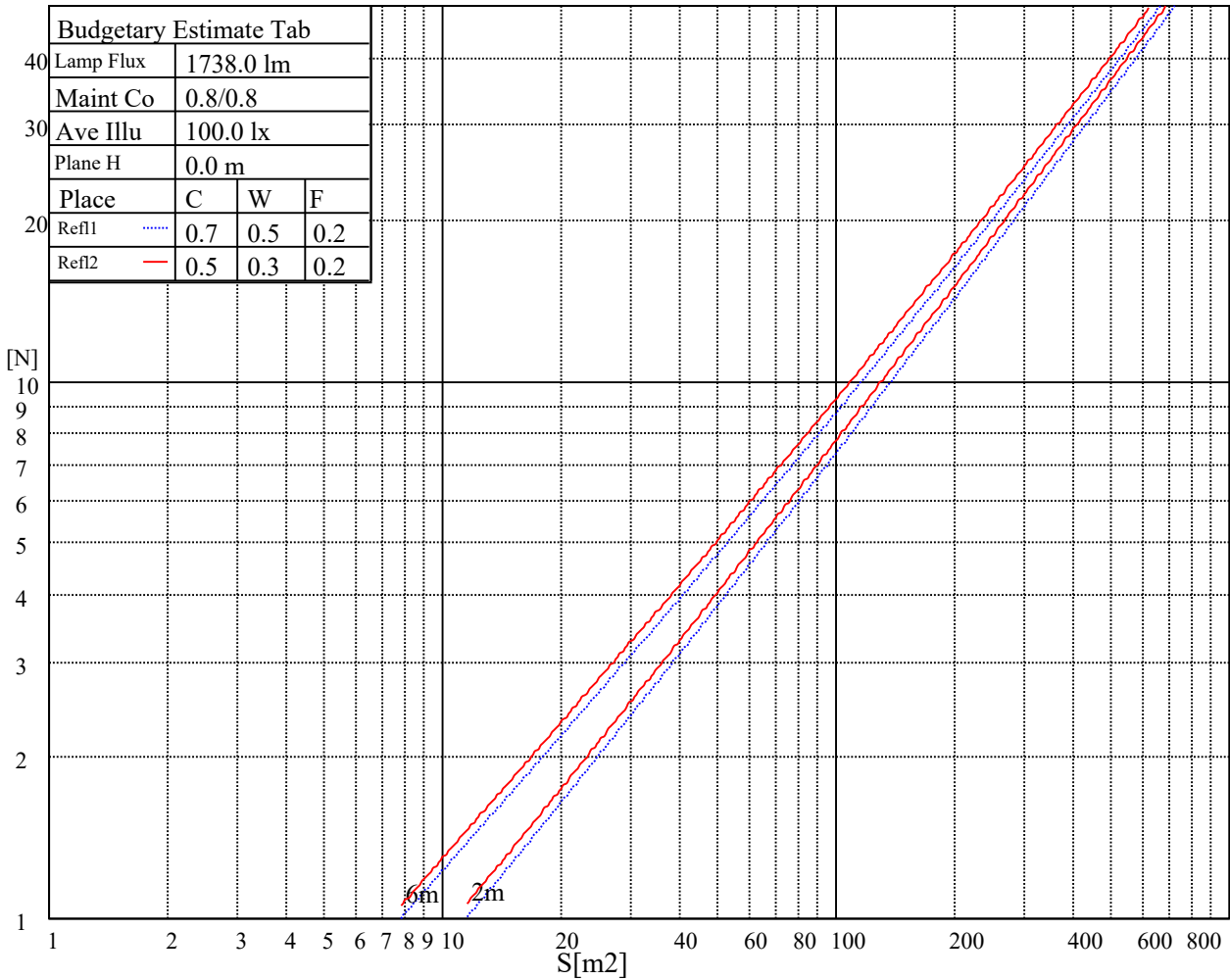
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3732	3732	3732	8494	8494	8494	17945	17945	17945

Glare Table

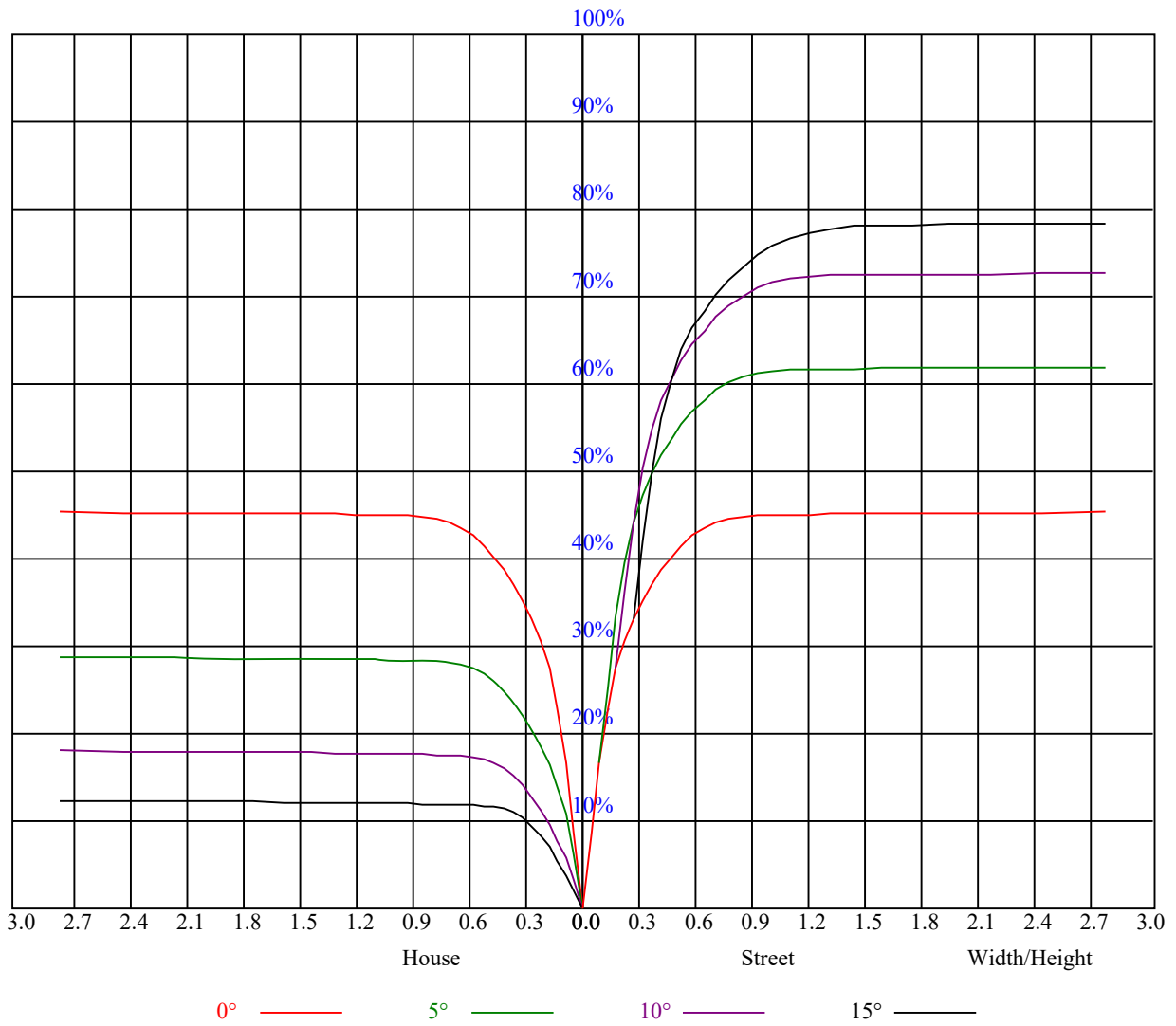
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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 RHOF=20 CU															
0	1.12	1.12	1.12	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.05	1.03	1.02	1.03	1.02	1.00	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90
2	1.00	0.97	0.94	0.98	0.96	0.93	0.95	0.93	0.91	0.93	0.91	0.89	0.90	0.89	0.87	0.86
3	0.95	0.91	0.89	0.94	0.91	0.88	0.92	0.89	0.86	0.89	0.87	0.85	0.87	0.85	0.84	0.83
4	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.84	0.82	0.85	0.82	0.81	0.79
5	0.87	0.83	0.80	0.86	0.83	0.80	0.85	0.82	0.79	0.83	0.81	0.78	0.82	0.80	0.78	0.77
6	0.84	0.80	0.77	0.83	0.79	0.76	0.82	0.79	0.76	0.81	0.78	0.75	0.80	0.77	0.75	0.74
7	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.77	0.75	0.72	0.71
8	0.78	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
9	0.76	0.72	0.69	0.75	0.71	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.67
10	0.74	0.69	0.67	0.73	0.69	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.65



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	10620.38	12206.00	5439.57	1461.75	802.17	697.01	628.19	510.37	279.69
45.0	10684.80	11627.91	4712.83	1459.55	806.03	686.00	628.19	508.72	286.29
90.0	13092.41	8736.90	2852.47	1068.48	752.18	666.51	604.90	398.06	64.75
135.0	13141.96	8049.25	2901.47	1046.62	744.36	669.49	611.13	367.78	38.21
180.0	10620.38	5325.06	1640.13	824.69	701.42	639.81	549.35	172.71	17.84
225.0	10684.80	5726.42	1640.68	815.05	699.05	631.77	540.93	153.50	15.36
270.0	13092.41	8065.76	2962.03	969.54	726.74	648.56	588.00	299.51	24.22
315.0	13141.96	9288.57	2866.24	996.36	730.43	655.61	591.69	342.40	30.61
360.0	10620.38	12206.00	5439.57	1461.75	802.17	697.01	628.19	510.37	279.69
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	13.60	7.27	6.88	6.61	6.50	6.39	6.39	6.39	6.39
45.0	19.32	7.27	6.83	6.55	6.33	6.22	6.17	6.17	6.17
90.0	7.49	6.77	6.44	6.33	6.17	6.11	6.06	6.06	6.06
135.0	7.32	6.72	6.44	6.28	6.22	6.11	6.11	6.11	6.06
180.0	7.16	6.72	6.50	6.39	6.39	6.33	6.33	6.33	6.33
225.0	7.38	6.88	6.66	6.50	6.44	6.50	6.39	6.33	6.33
270.0	7.98	7.38	7.10	6.99	6.88	6.83	8.53	6.88	7.05
315.0	7.82	7.16	6.88	6.72	6.61	6.61	6.61	6.66	6.77
360.0	13.60	7.27	6.88	6.61	6.50	6.39	6.39	6.39	6.39
C/γ(°)	90.0								
0.0	6.06								
45.0	5.95								
90.0	5.89								
135.0	5.95								
180.0	6.00								
225.0	5.95								
270.0	5.95								
315.0	5.95								
360.0	6.06								