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Nata

LumCAT: 2-2542-L	
Luminaire: 92.70.131.00	
Report No: 220915-B001	Voltage(V): 35.5100
Test No: 220915-C001	Current(A): 0.4790
LampCAT: CITIZEN CLU038	Power (W): 17.0090
Lamp flux(lm): 2261.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 43	Width(mm): 43
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1960.32
Efficiency(%): 86.70%
Lumens(lm)/Power(W): 115.25
Central intensity(cd): 3348.030
Maximum intensity(cd): 3348.030
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=44.7
 [C90/270]Total=44.7
Field angle(10%Imax): [C0/180]Total=69.9
 [C90/270]Total=69.9
Maximum s/h(1/2): C0_180=0.72 C90_270=0.72
Maximum s/h(1/4): C0_180=0.71 C90_270=0.71
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 86.70%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.807%

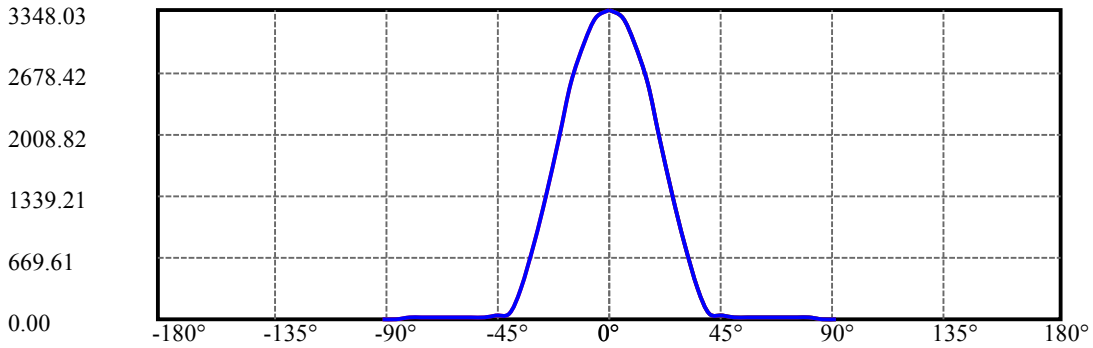
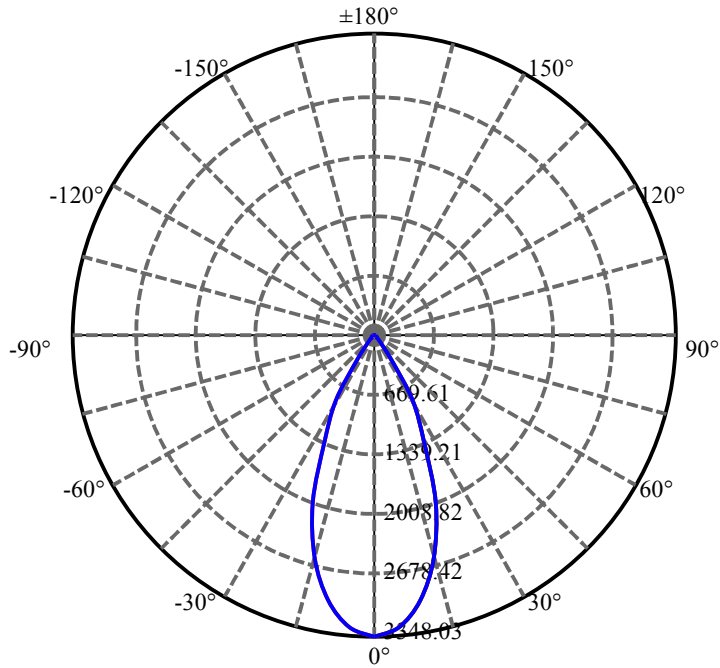
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3348.030	0.000	0	.000%	.000%
5.0	3258.400	78.978	78.978	3.493%	4.029%
10.0	2993.097	223.636	302.614	9.891%	15.437%
15.0	2553.764	329.036	631.65	14.553%	32.222%
20.0	1983.946	373.971	1005.621	16.540%	51.299%
25.0	1327.366	347.295	1352.916	15.361%	69.015%
30.0	833.635	273.476	1626.393	12.096%	82.966%
35.0	329.014	171.208	1797.601	7.572%	91.699%
40.0	66.087	65.920	1863.521	2.916%	95.062%
45.0	36.367	18.970	1882.491	.839%	96.030%
50.0	29.294	13.268	1895.759	.587%	96.707%
55.0	23.737	11.531	1907.289	.510%	97.295%
60.0	19.696	10.039	1917.329	.444%	97.807%
65.0	15.230	8.490	1925.819	.376%	98.240%
70.0	13.482	7.270	1933.089	.322%	98.611%
75.0	14.669	7.358	1940.447	.325%	98.986%
80.0	14.662	7.848	1948.296	.347%	99.387%
85.0	10.390	6.807	1955.103	.301%	99.734%
90.0	8.664	5.217	1960.32	.231%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1626.39	71.93%	82.97%
0-40	1863.52	82.42%	95.06%
0-60	1917.33	84.80%	97.81%
0-90	1955.10	86.47%	99.73%
0-120	1955.10	86.47%	99.73%
0-180	1960.32	86.70%	100.00%
60-90	47.81	2.11%	2.44%
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%
0-28.94	1568.26	69.36%	80.00%

ZONAL LUMEN SUMMARY

0-10	302.61
10-20	703.01
20-30	620.77
30-40	237.13
40-50	32.24
50-60	21.57
60-70	15.76
70-80	15.21
80-90	6.81
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: —————

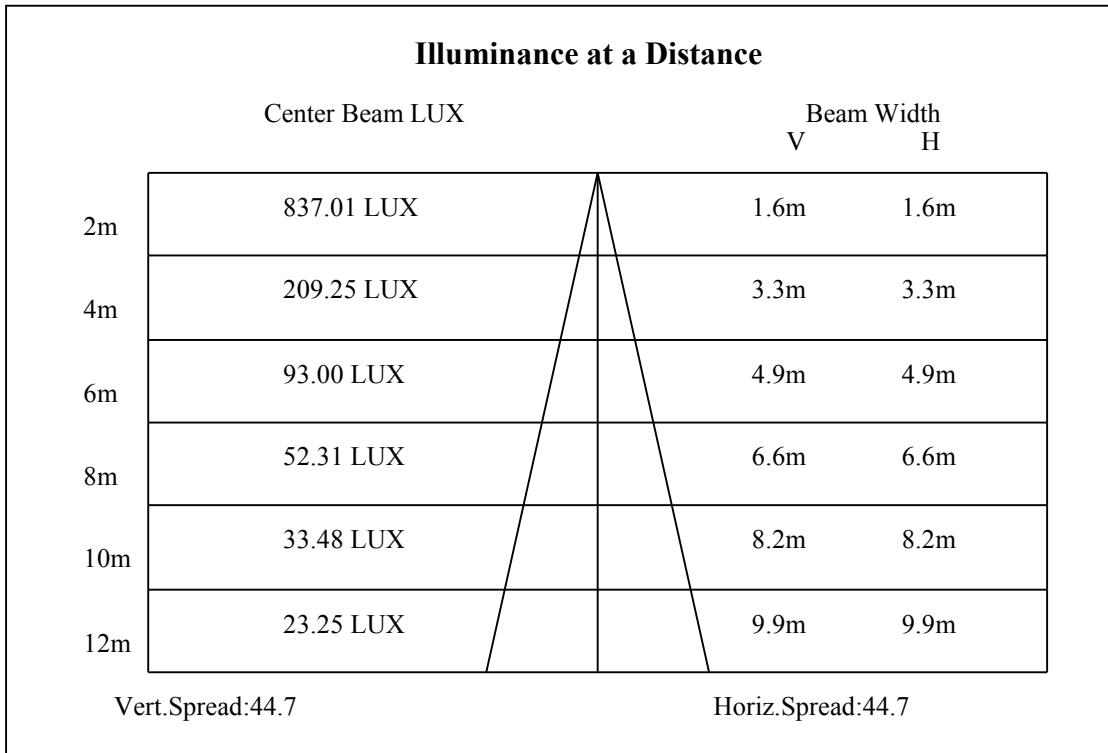
C90/C270: —————

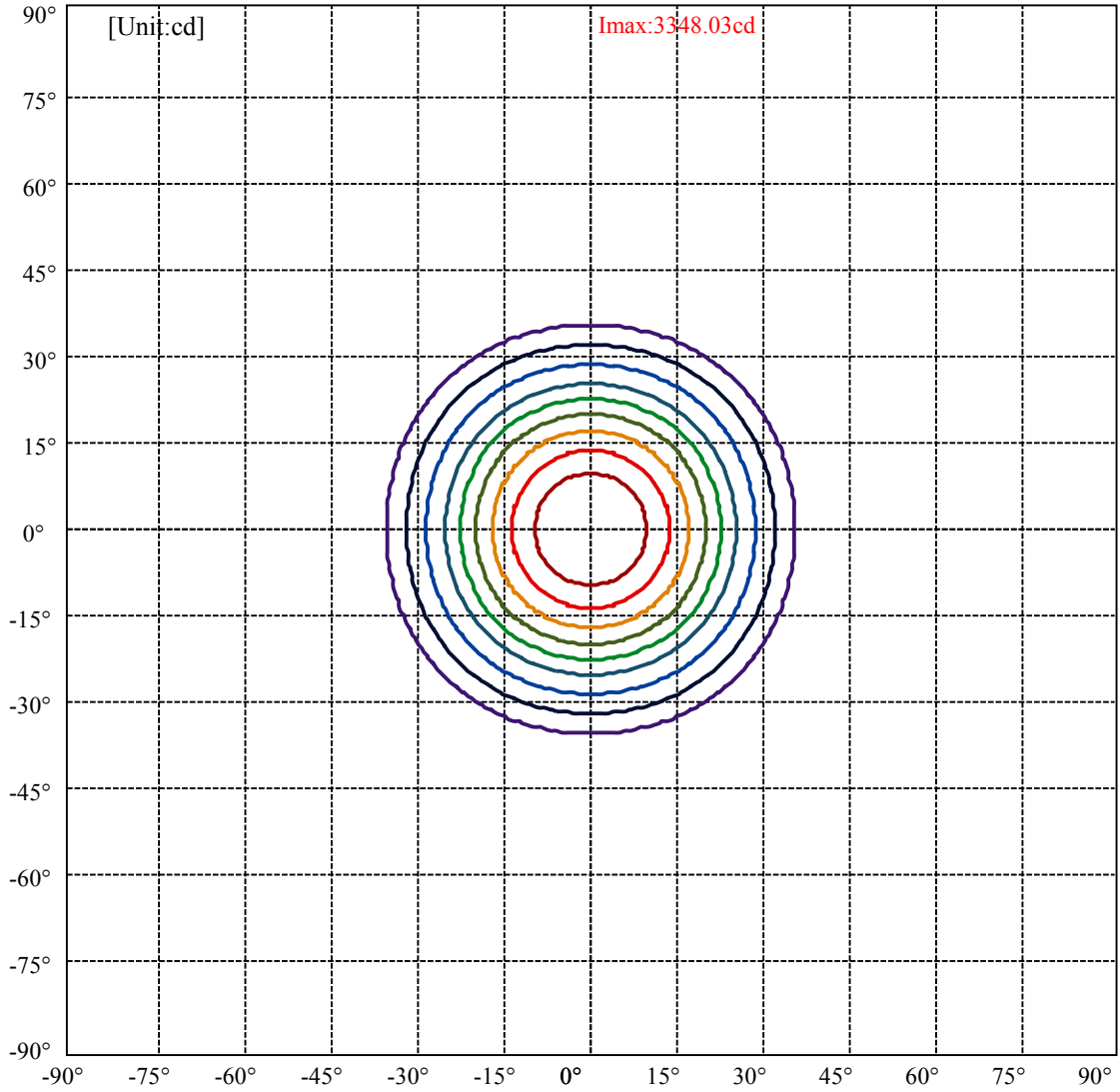
Field angle(10%Imax):C0/180Left:34.9 Right:34.9

:C90/270Left:34.9 Right:34.9

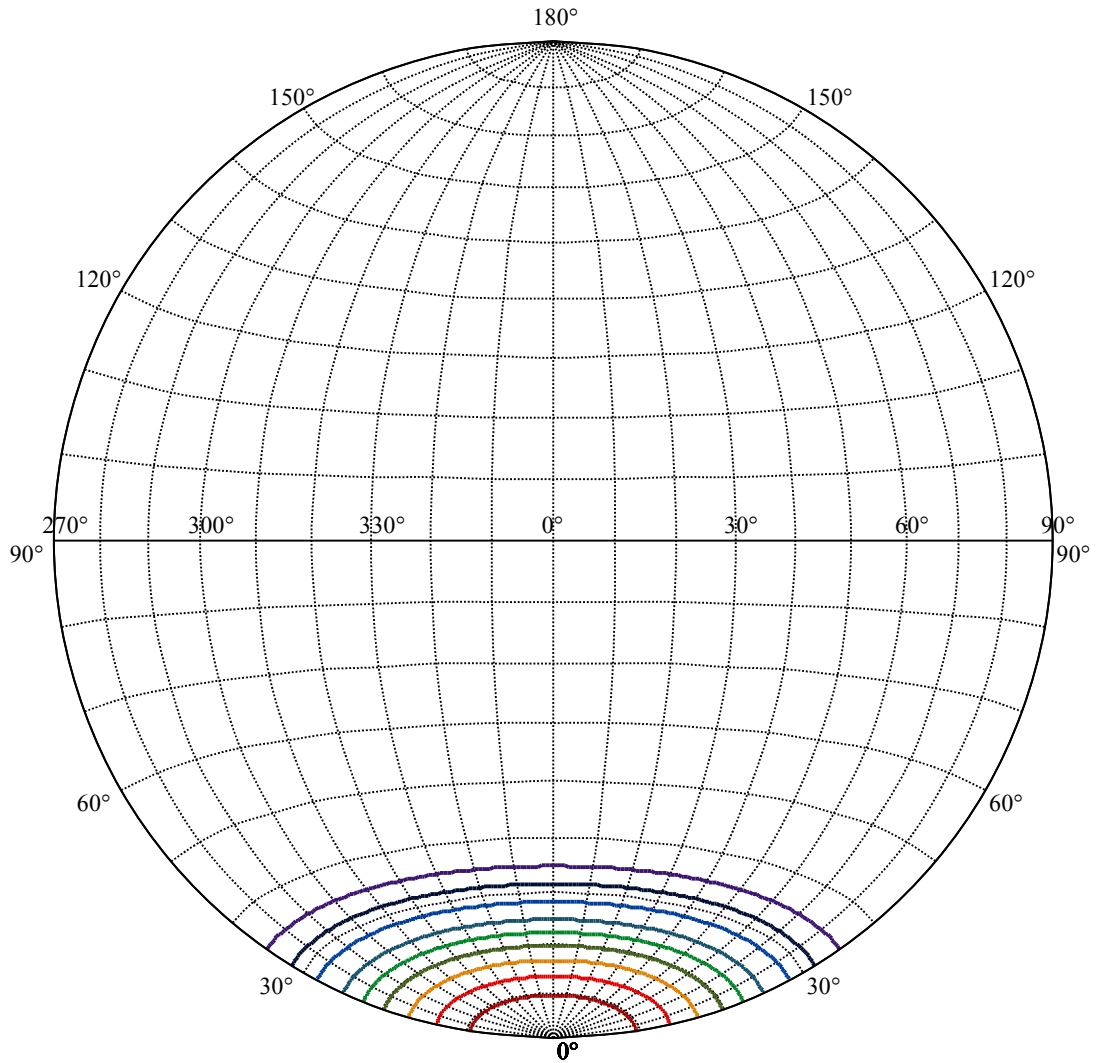
Beam Angle(50%Imax):C0/180Left:22.4 Right:22.4

:C90/270Left:22.4 Right:22.4





(10%Imax) 334.803	—
(20%Imax) 669.606	—
(30%Imax) 1004.41	—
(40%Imax) 1339.21	—
(50%Imax) 1674.01	—
(60%Imax) 2008.82	—
(70%Imax) 2343.62	—
(80%Imax) 2678.42	—
(90%Imax) 3013.23	—



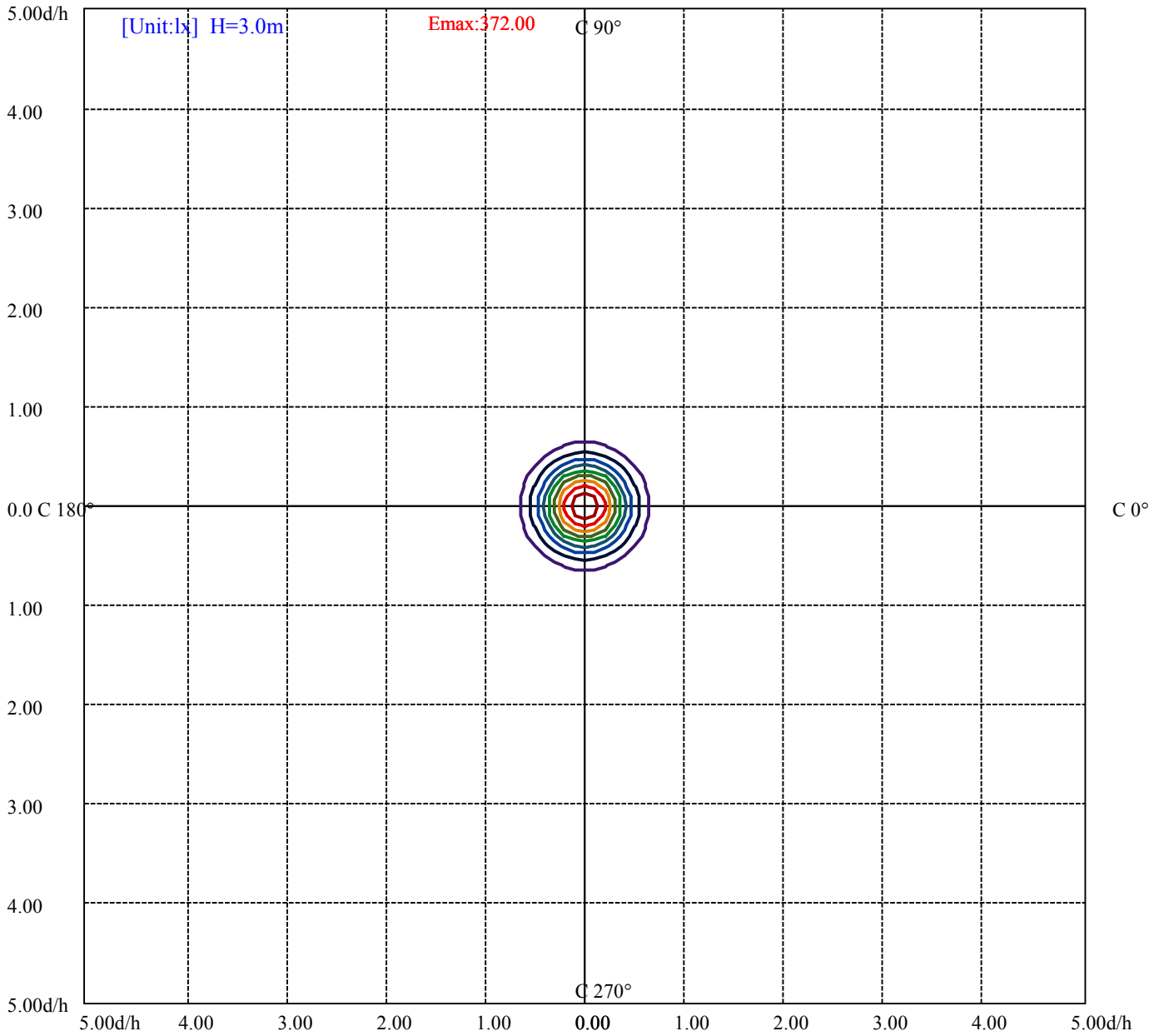
House

[Unit:cd]

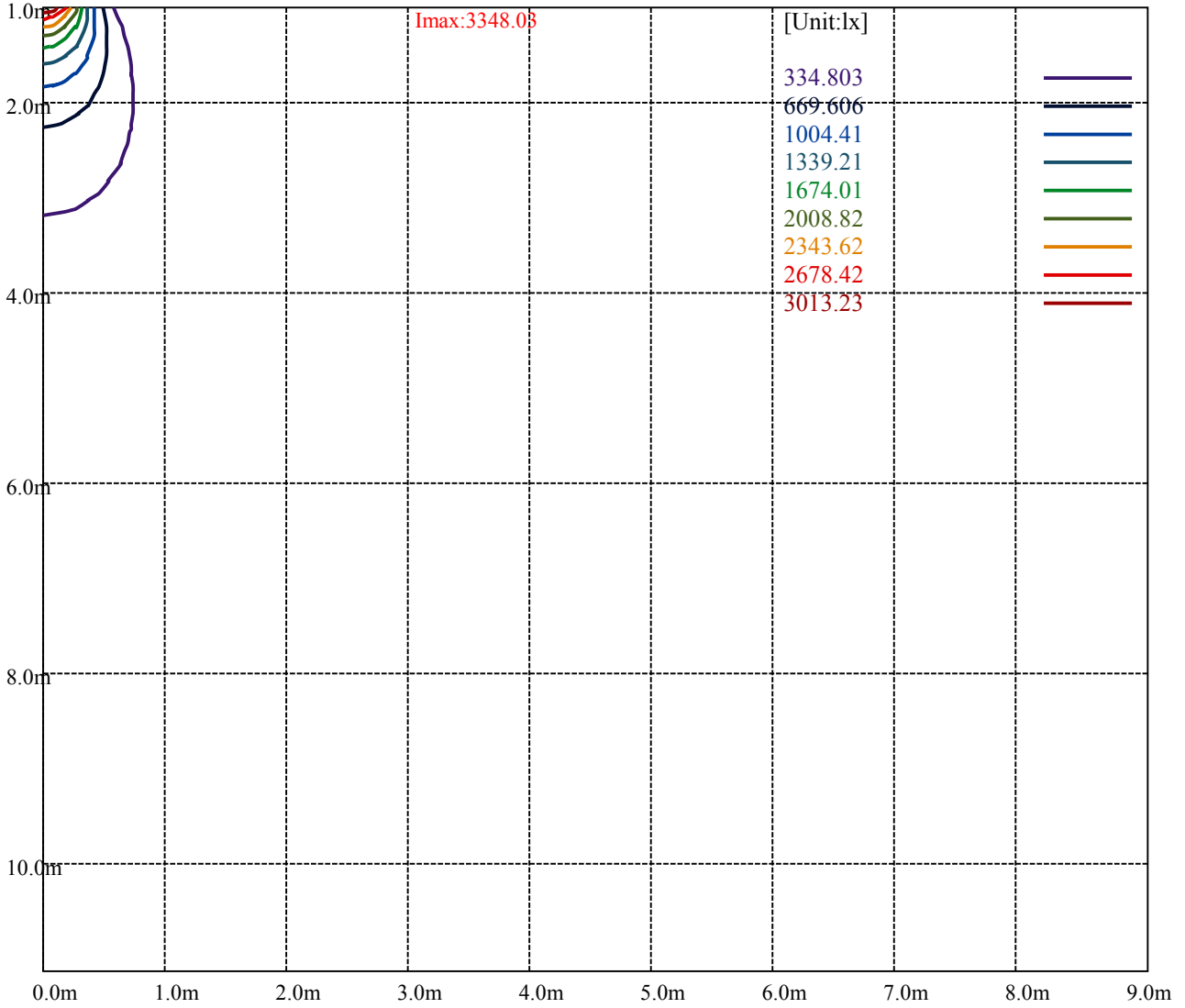
Road

Imax:3348.03

(10%Imax) 334.803	—
(20%Imax) 669.606	—
(30%Imax) 1004.41	—
(40%Imax) 1339.21	—
(50%Imax) 1674.01	—
(60%Imax) 2008.82	—
(70%Imax) 2343.62	—
(80%Imax) 2678.42	—
(90%Imax) 3013.23	—



- (10%E_{max}) 37.20033
- (20%E_{max}) 74.40055
- (30%E_{max}) 111.6011
- (40%E_{max}) 148.8011
- (50%E_{max}) 186.0011
- (60%E_{max}) 223.2022
- (70%E_{max}) 260.4022
- (80%E_{max}) 297.6022
- (90%E_{max}) 334.8022



Luminance Table

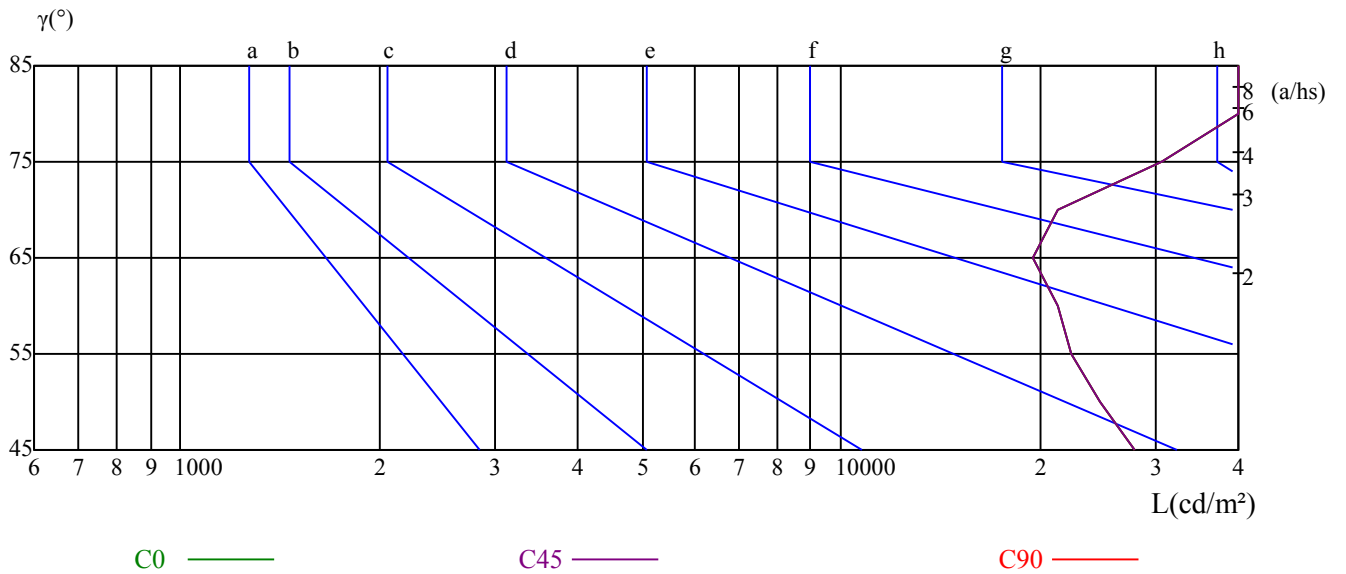
γ	45	50	55	60	65	70	75	80	85
C0	27816	24647	22382	21305	19490	21319	30653	45665	64471
C45	27816	24647	22382	21305	19490	21319	30653	45665	64471
C90	27816	24647	22382	21305	19490	21319	30653	45665	64471

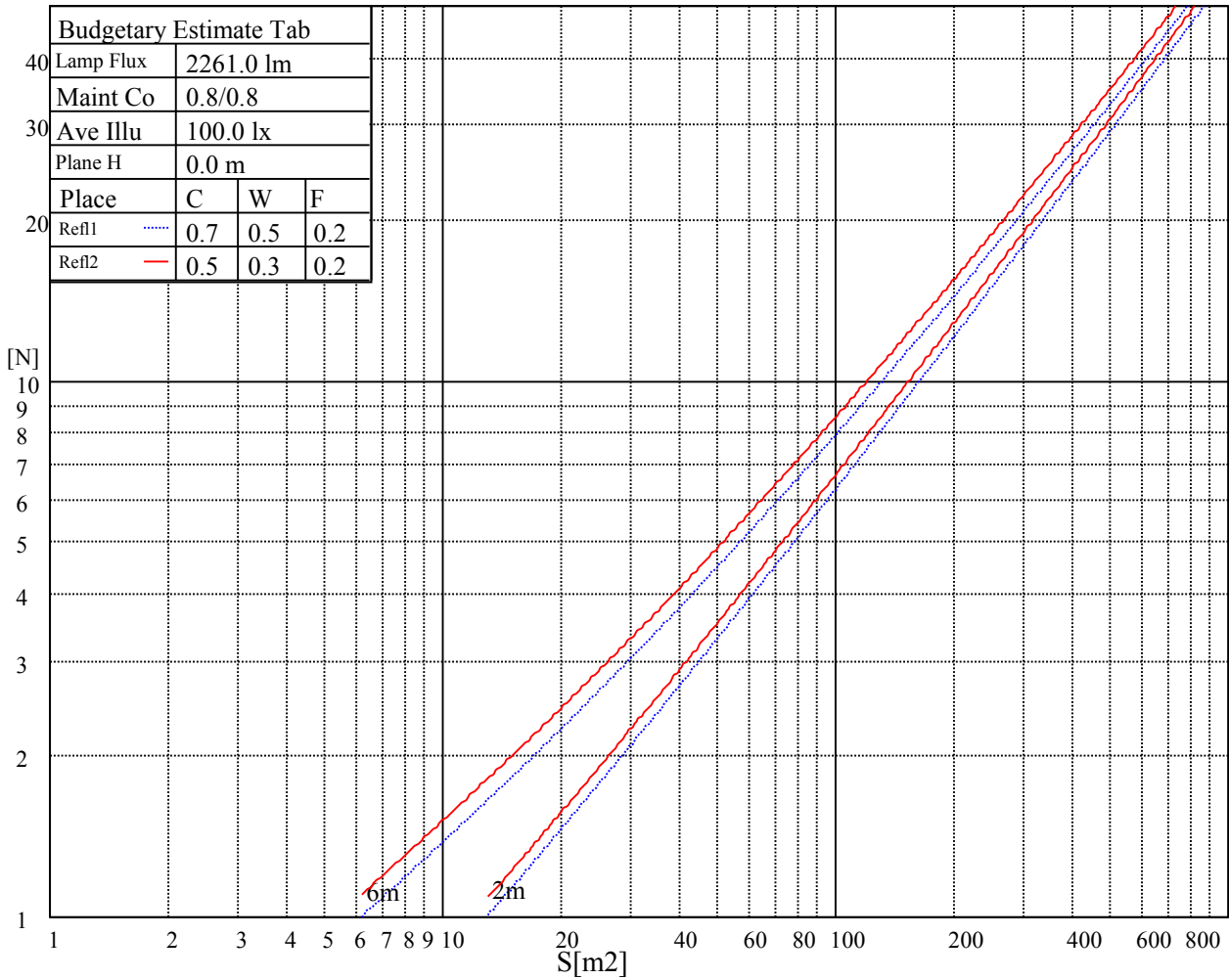
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
19490	19490	19490	30653	30653	30653	64471	64471	64471

Glare Table

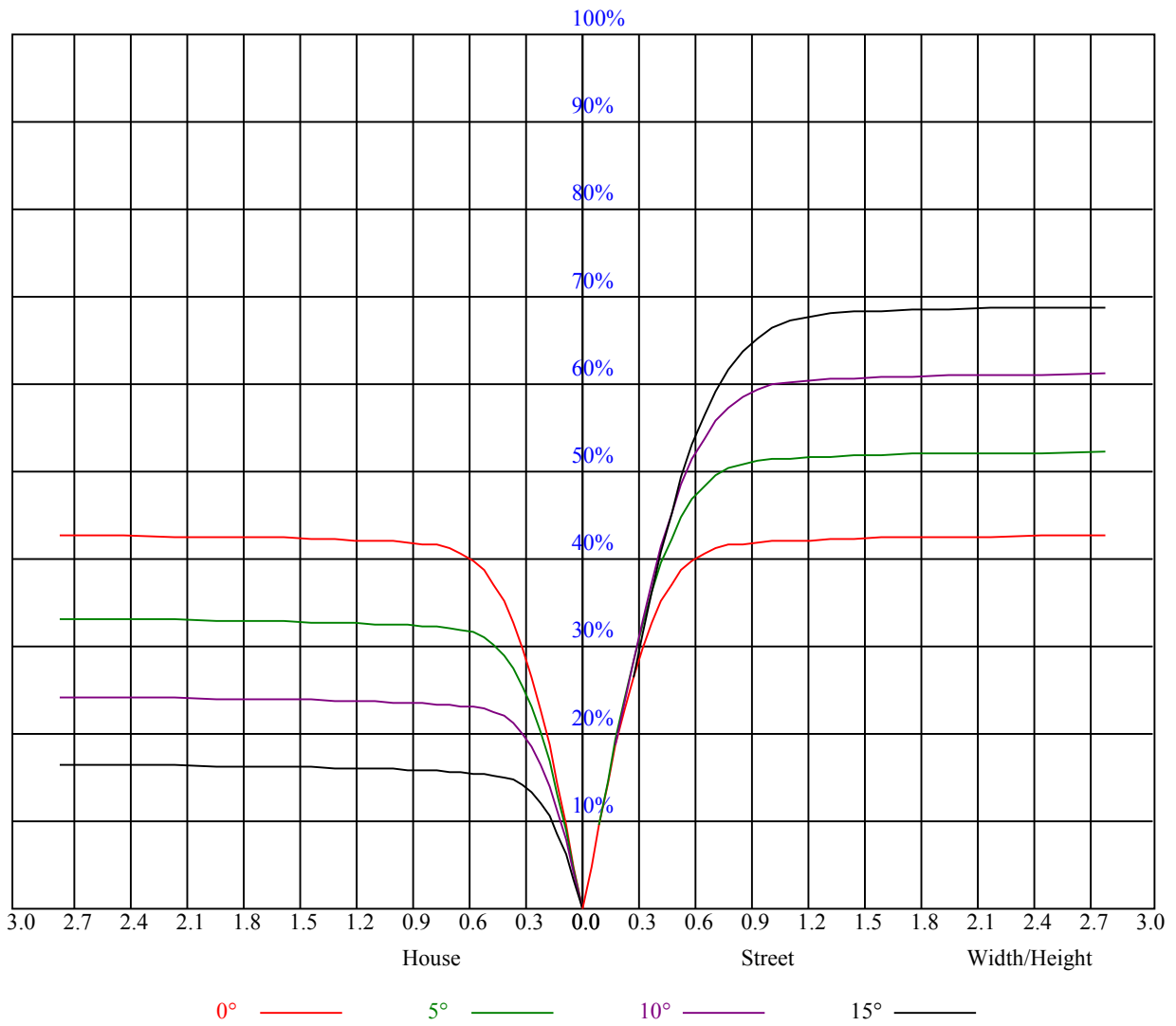
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.03	1.03	1.03	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.87
1	0.96	0.94	0.92	0.94	0.92	0.91	0.91	0.89	0.88	0.88	0.86	0.85	0.85	0.84	0.83	0.81
2	0.90	0.87	0.84	0.89	0.86	0.83	0.86	0.83	0.81	0.83	0.81	0.79	0.81	0.79	0.78	0.76
3	0.85	0.81	0.77	0.83	0.80	0.77	0.81	0.78	0.76	0.79	0.77	0.74	0.77	0.75	0.73	0.72
4	0.80	0.75	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.74	0.71	0.69	0.68
5	0.76	0.71	0.68	0.75	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.65	0.64
6	0.72	0.67	0.64	0.71	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.67	0.64	0.62	0.61
7	0.68	0.63	0.60	0.68	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.65	0.61	0.59	0.58
8	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.55
9	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.53	0.52
10	0.59	0.54	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.54	0.51	0.57	0.53	0.51	0.50



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	3336.00	3324.05	3122.09	2742.06	2220.42	1600.18	1043.88	488.18	113.89
45.0	3357.52	3272.07	3021.70	2587.30	2029.21	1395.83	843.71	371.07	60.89
90.0	3347.95	3226.06	2927.89	2457.64	1846.36	1182.33	711.78	218.34	50.61
135.0	3350.94	3236.22	2978.68	2512.61	1927.03	1335.48	784.56	318.48	53.66
180.0	3336.00	3172.88	2826.91	2353.07	1735.82	1149.53	633.98	182.66	47.98
225.0	3356.92	3264.30	2980.47	2515.60	1961.69	1160.94	784.20	297.99	59.99
270.0	3347.95	3294.77	3053.37	2657.81	2109.28	1477.09	982.34	403.93	74.93
315.0	3350.94	3276.85	3033.65	2604.03	2041.76	1317.55	884.64	351.47	66.74
360.0	3336.00	3324.05	3122.09	2742.06	2220.42	1600.18	1043.88	488.18	113.89
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	39.86	31.07	25.34	21.33	16.67	13.68	14.22	14.94	12.37
45.0	35.19	29.46	23.60	19.84	15.12	13.15	14.64	14.76	10.34
90.0	33.22	27.37	22.77	18.88	14.40	13.44	14.52	14.04	9.98
135.0	34.18	28.08	22.89	19.36	14.88	13.62	14.76	14.40	9.86
180.0	33.28	26.77	22.11	17.51	13.98	13.74	14.76	13.98	9.08
225.0	37.52	30.00	24.02	19.60	15.12	13.56	15.00	15.06	10.22
270.0	39.56	31.31	24.92	20.73	16.19	13.50	14.82	15.18	10.46
315.0	38.12	30.29	24.26	20.32	15.48	13.15	14.64	14.94	10.82
360.0	39.86	31.07	25.34	21.33	16.67	13.68	14.22	14.94	12.37
C/γ(°)	90.0								
0.0	8.66								
45.0	8.66								
90.0	8.84								
135.0	8.60								
180.0	8.60								
225.0	8.66								
270.0	8.60								
315.0	8.66								
360.0	8.66								