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Nata

LumCAT: 1702-A
Luminaire: 92.70.150.00+92.70.152.00
Report No: NT2017072109
Test No: GC2017072109
LampCAT: CITIZEN LCN-C01B
Lamp flux(lm): 1382.0
Number of Lamps: 1
Length(mm): 46
Phm Type: C

Voltage(V): 23.5000
Current(A): 0.5000
Power (W): 11.7500
PF: 0.0000
Ballast type: DC
Width(mm): 46
Height(mm): 0

Photometric Results

Lumens(lm): 1202.01
Efficiency(%): 86.98%
Lumens(lm)/Power(W): 102.30
Central intensity(cd): 2872.040
Maximum intensity(cd): 2872.040
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=27.0
 [C90/270]Total=27.0
Field angle(10%Imax): [C0/180]Total=76.9
 [C90/270]Total=76.9
Maximum s/h(1/2): C0_180=0.45 C90_270=0.45
Maximum s/h(1/4): C0_180=0.50 C90_270=0.50
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 88.14%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.230%

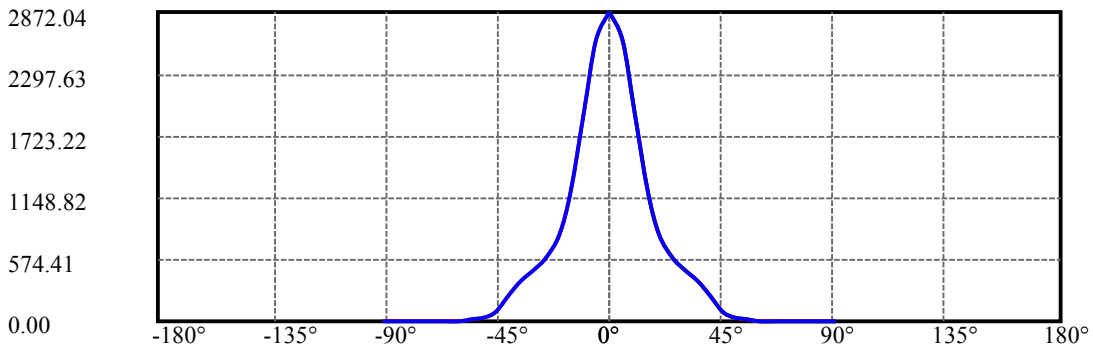
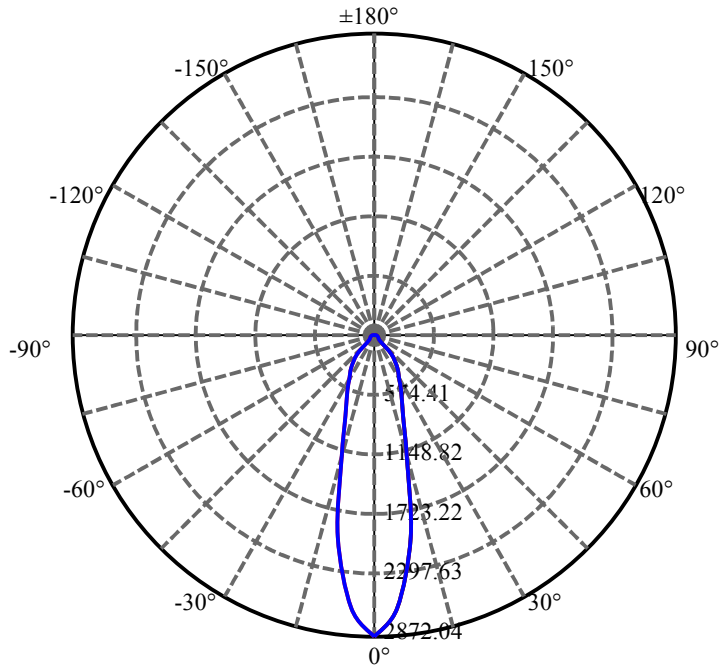
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2872.040	17.175	17.175	1.243%	1.429%
5.0	2611.326	124.752	141.927	9.027%	11.807%
10.0	1959.075	186.471	328.398	13.493%	27.321%
15.0	1208.196	171.405	499.803	12.403%	41.580%
20.0	808.799	151.629	651.431	10.972%	54.195%
25.0	589.281	136.509	787.94	9.878%	65.552%
30.0	479.800	131.498	919.438	9.515%	76.492%
35.0	373.241	117.347	1036.785	8.491%	86.254%
40.0	248.457	87.540	1124.325	6.334%	93.537%
45.0	89.196	34.571	1158.897	2.502%	96.413%
50.0	36.994	15.534	1174.43	1.124%	97.705%
55.0	14.775	6.634	1181.065	.480%	98.257%
60.0	6.817	3.236	1184.301	.234%	98.526%
65.0	6.150	3.055	1187.356	.221%	98.781%
70.0	6.052	3.117	1190.473	.226%	99.040%
75.0	6.080	3.219	1193.692	.233%	99.308%
80.0	6.595	3.560	1197.252	.258%	99.604%
85.0	6.456	3.525	1200.777	.255%	99.897%
90.0	4.508	1.235	1202.013	.089%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	919.44	66.53%	76.49%
0-40	1124.33	81.35%	93.54%
0-60	1184.30	85.69%	98.53%
0-90	1200.78	86.89%	99.90%
0-120	1200.78	86.89%	99.90%
0-180	1202.01	86.98%	100.00%
60-90	19.71	1.43%	1.64%
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%
0-31.80	961.61	69.58%	80.00%

ZONAL LUMEN SUMMARY

0-10	328.40
10-20	323.03
20-30	268.01
30-40	204.89
40-50	50.11
50-60	9.87
60-70	6.17
70-80	6.78
80-90	3.53
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



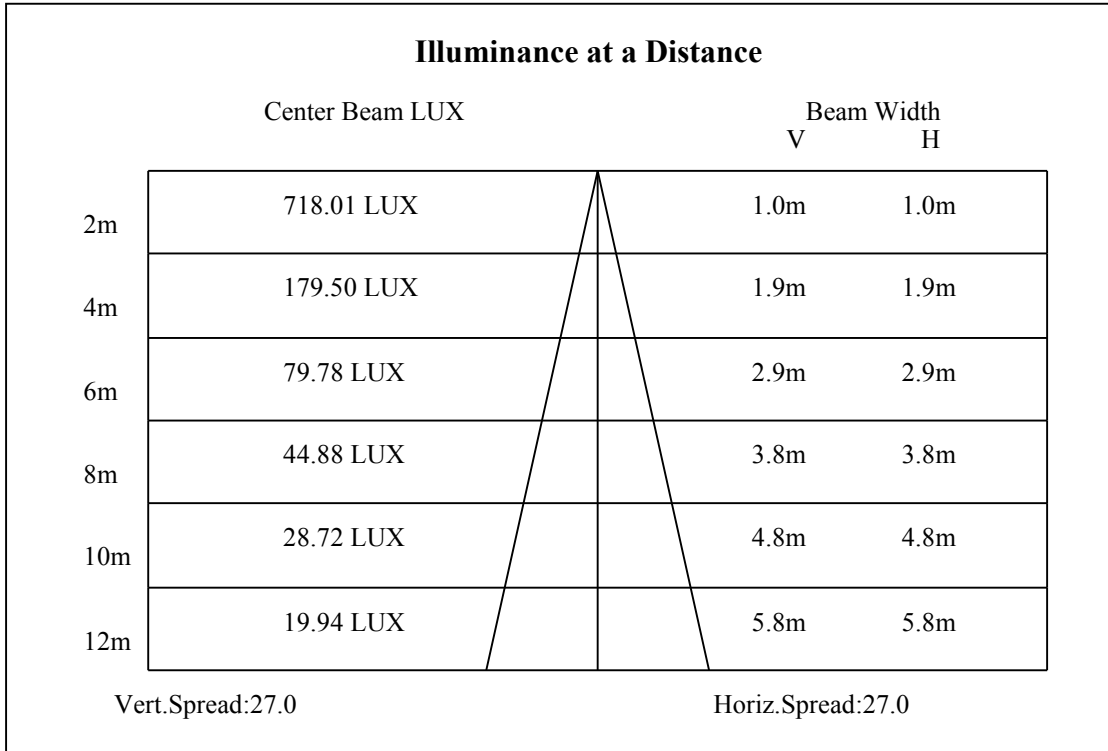
C0(Max): ———

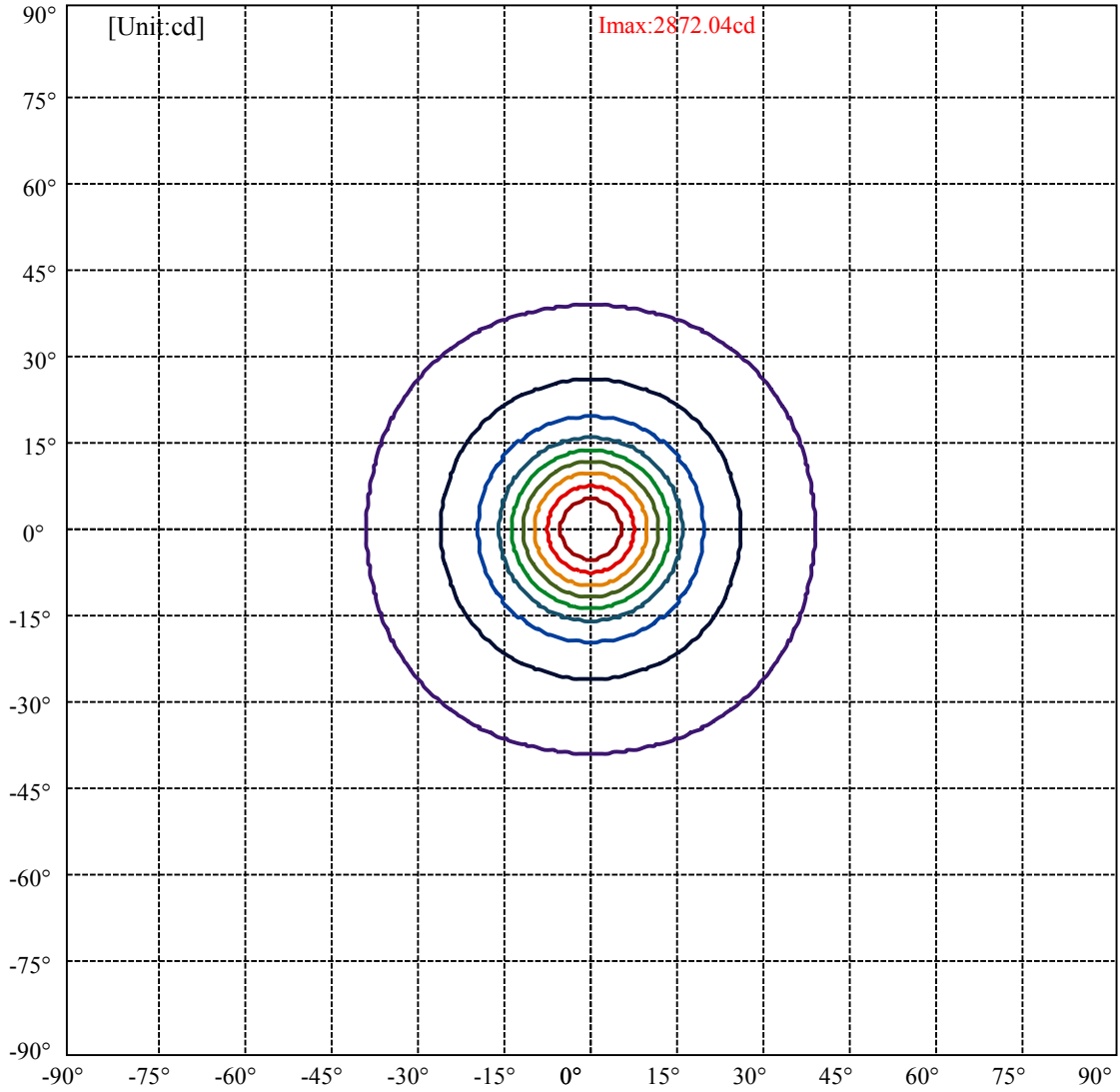
C0/C180: ———

C90/C270: ———

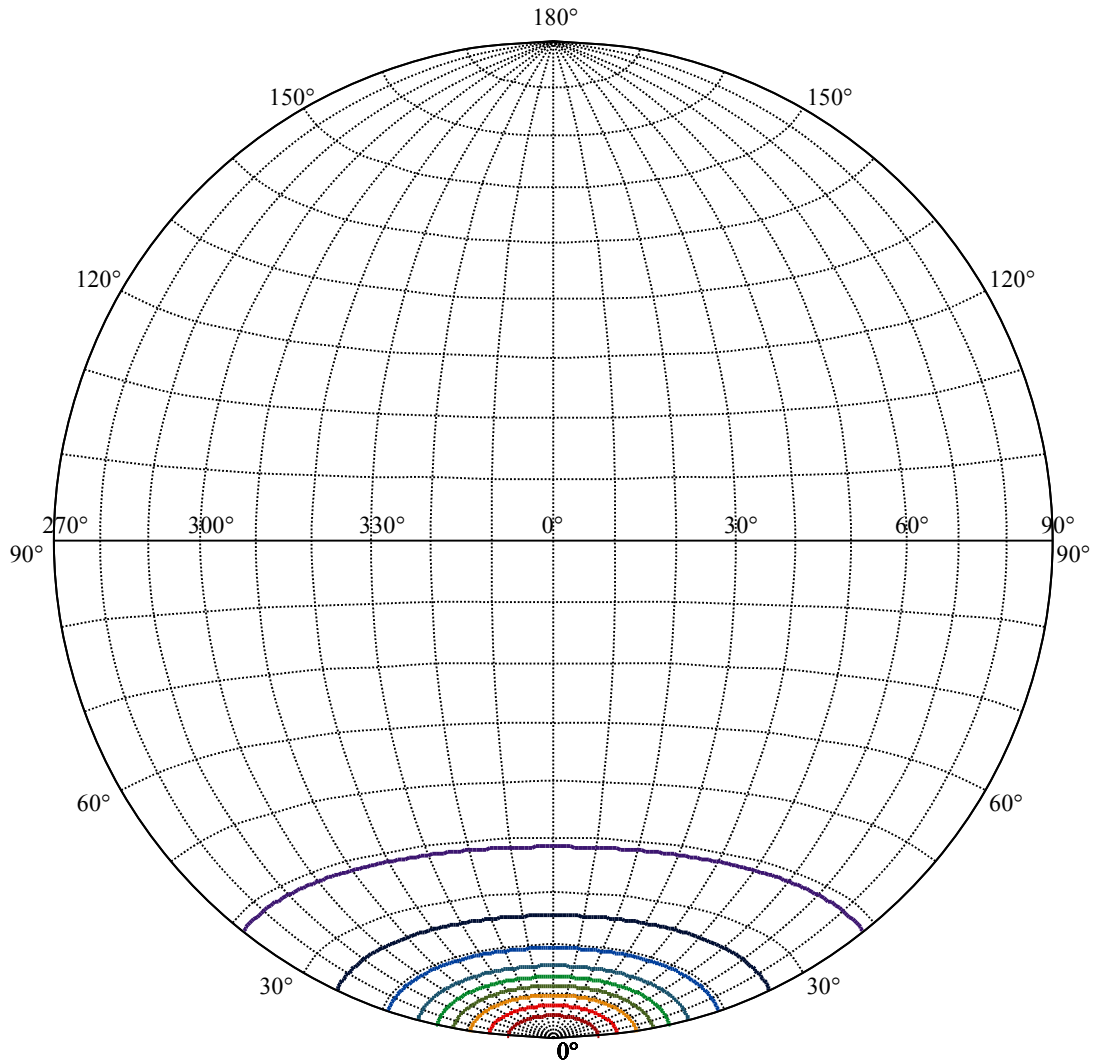
Field angle(10%Imax):C0/180Left:38.4 Right:38.4
:C90/270Left:38.4 Right:38.4

Beam Angle(50%Imax):C0/180Left:13.5 Right:13.5
:C90/270Left:13.5 Right:13.5





(10%Imax) 287.204	—
(20%Imax) 574.408	—
(30%Imax) 861.612	—
(40%Imax) 1148.82	—
(50%Imax) 1436.02	—
(60%Imax) 1723.22	—
(70%Imax) 2010.43	—
(80%Imax) 2297.63	—
(90%Imax) 2584.84	—



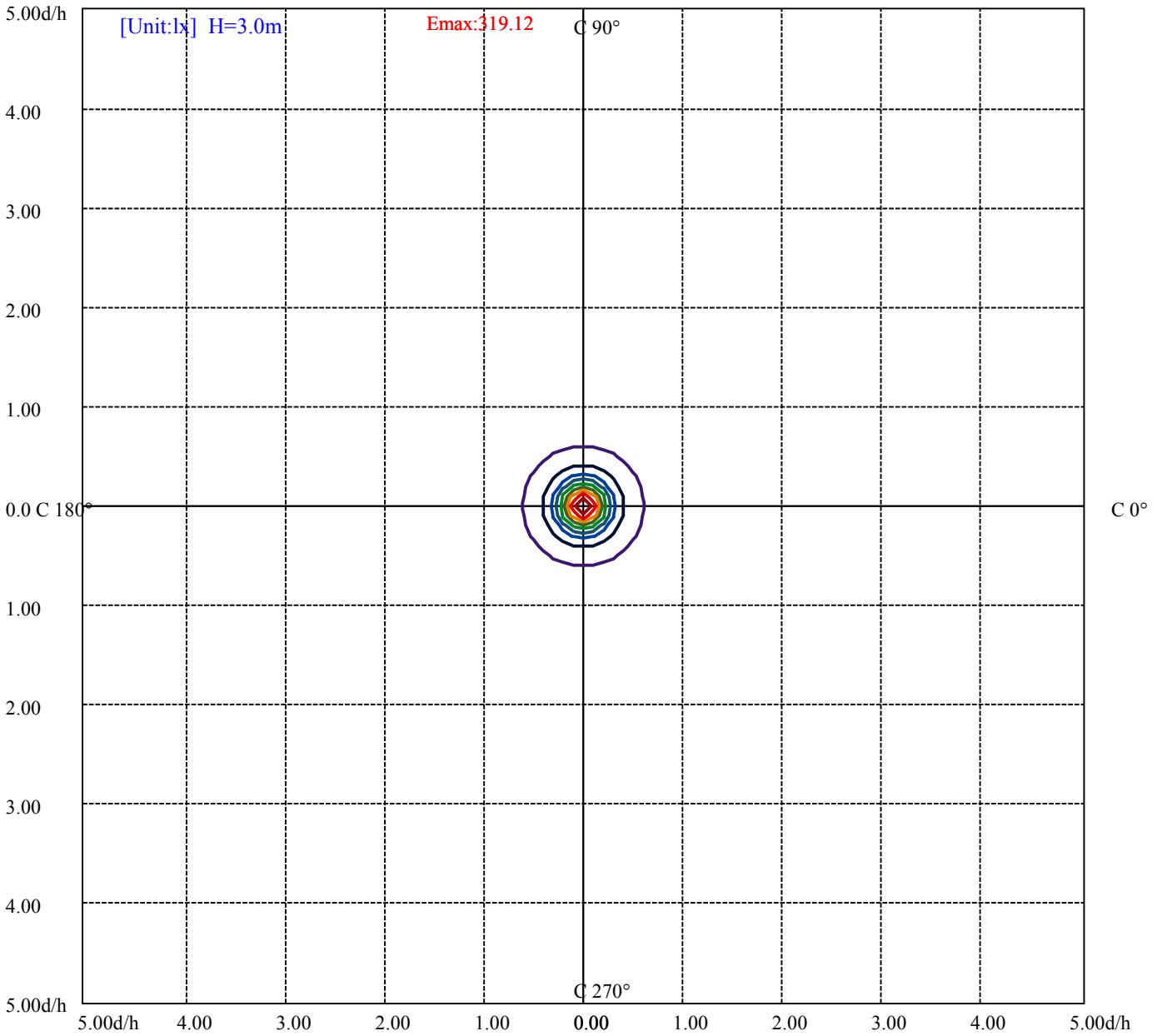
House

[Unit:cd]

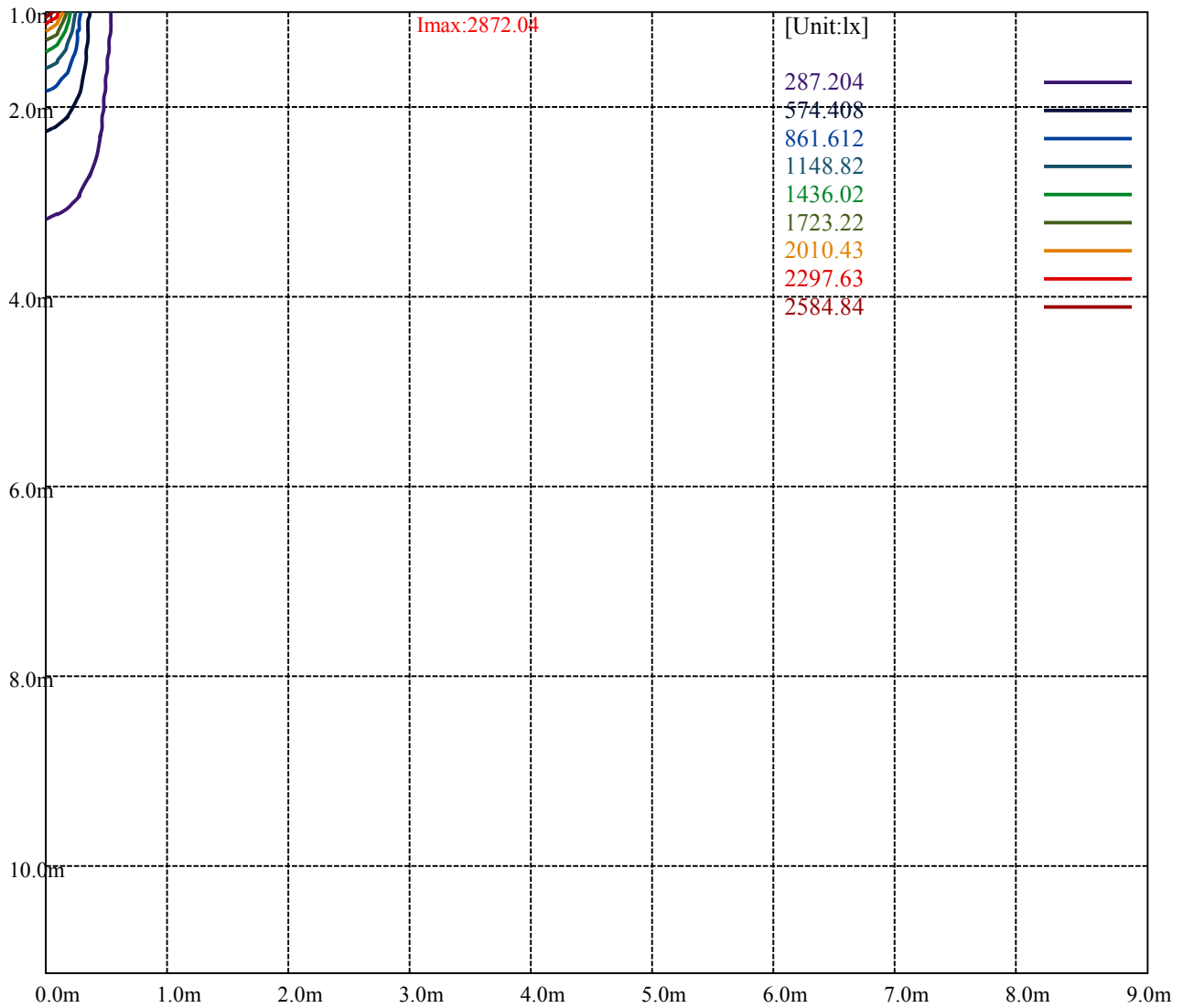
Road

Imax:2872.04

(10%Imax)	287.204	—
(20%Imax)	574.408	—
(30%Imax)	861.612	—
(40%Imax)	1148.82	—
(50%Imax)	1436.02	—
(60%Imax)	1723.22	—
(70%Imax)	2010.43	—
(80%Imax)	2297.63	—
(90%Imax)	2584.84	—



(10%Emax) 31.91145	—
(20%Emax) 63.82289	—
(30%Emax) 95.73444	—
(40%Emax) 127.6456	—
(50%Emax) 159.5578	—
(60%Emax) 191.4689	—
(70%Emax) 223.38	—
(80%Emax) 255.2922	—
(90%Emax) 287.2033	—



Luminance Table

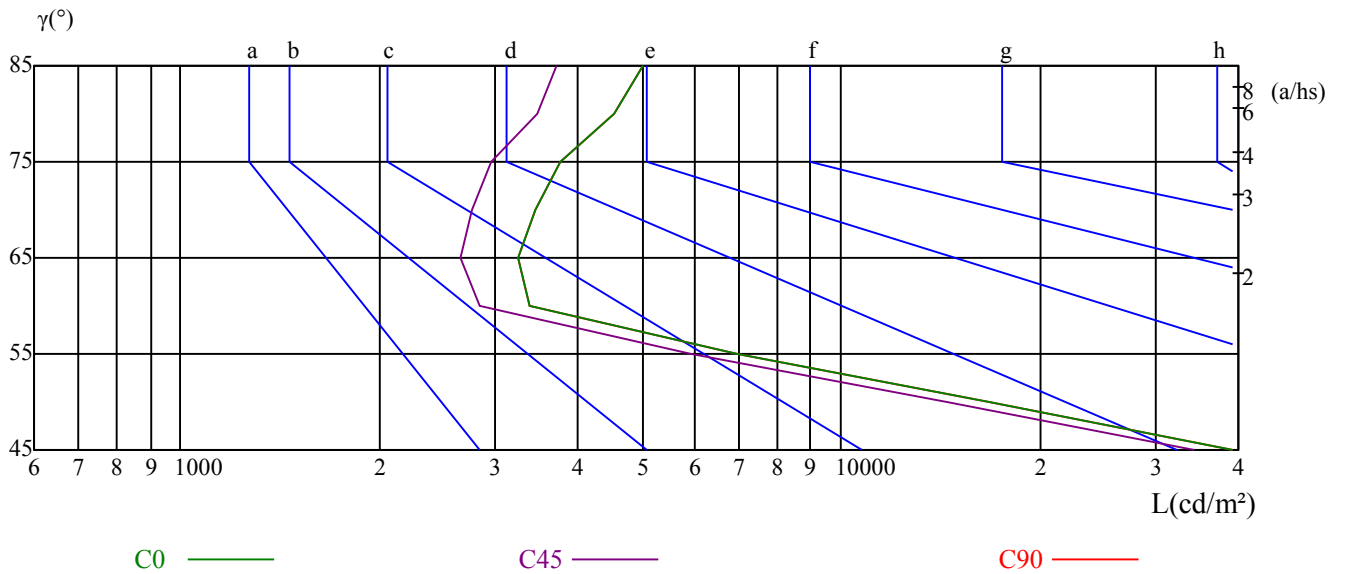
γ	45	50	55	60	65	70	75	80	85
C0	39174	16771	6976	3385	3245	3436	3767	4533	5027
C45	34303	14473	5928	2829	2663	2762	2958	3462	3711
C90	39174	16771	6976	3385	3245	3436	3767	4533	5027

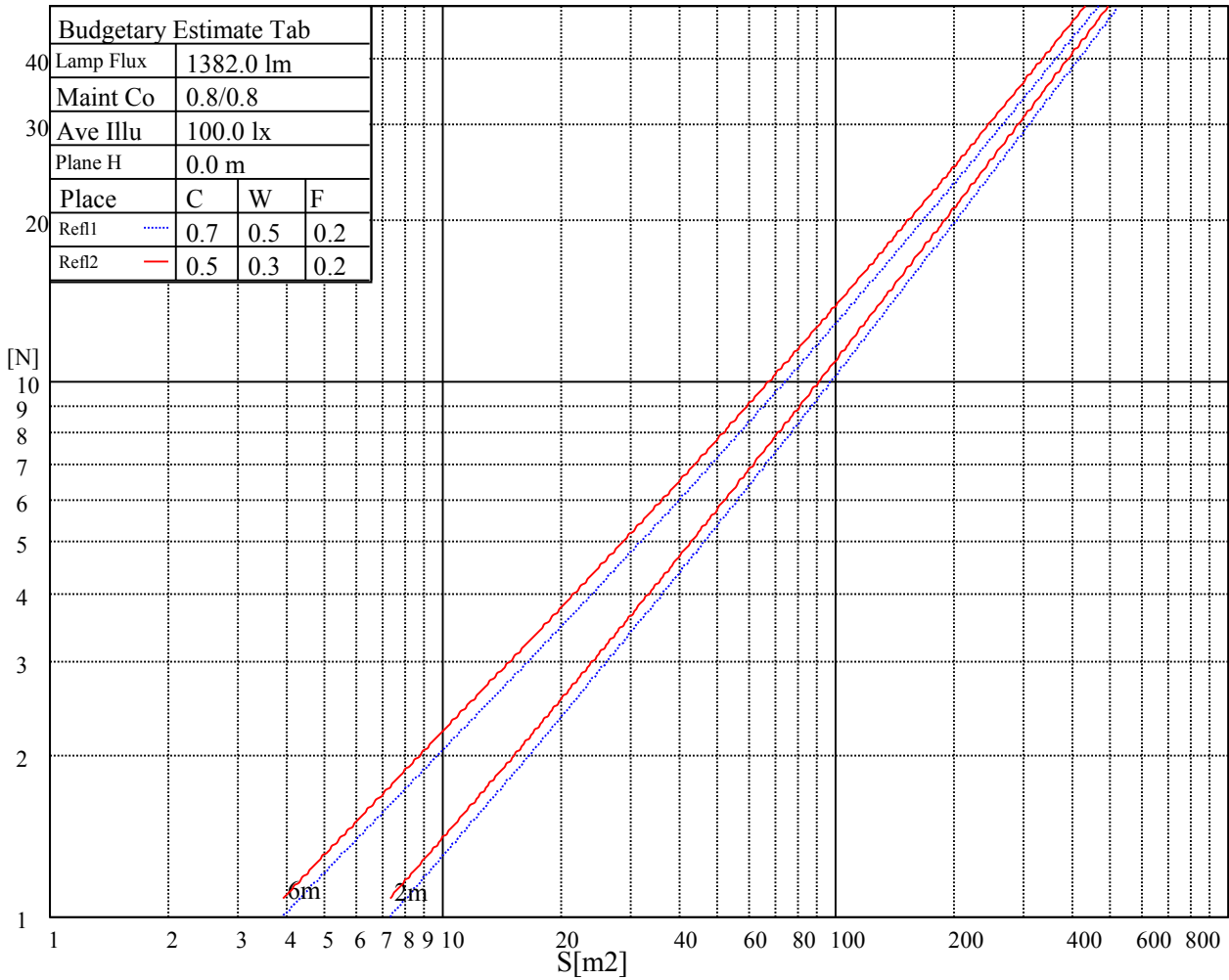
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6877	6877	6877	11102	11102	11102	35005	35005	35005

Glare Table

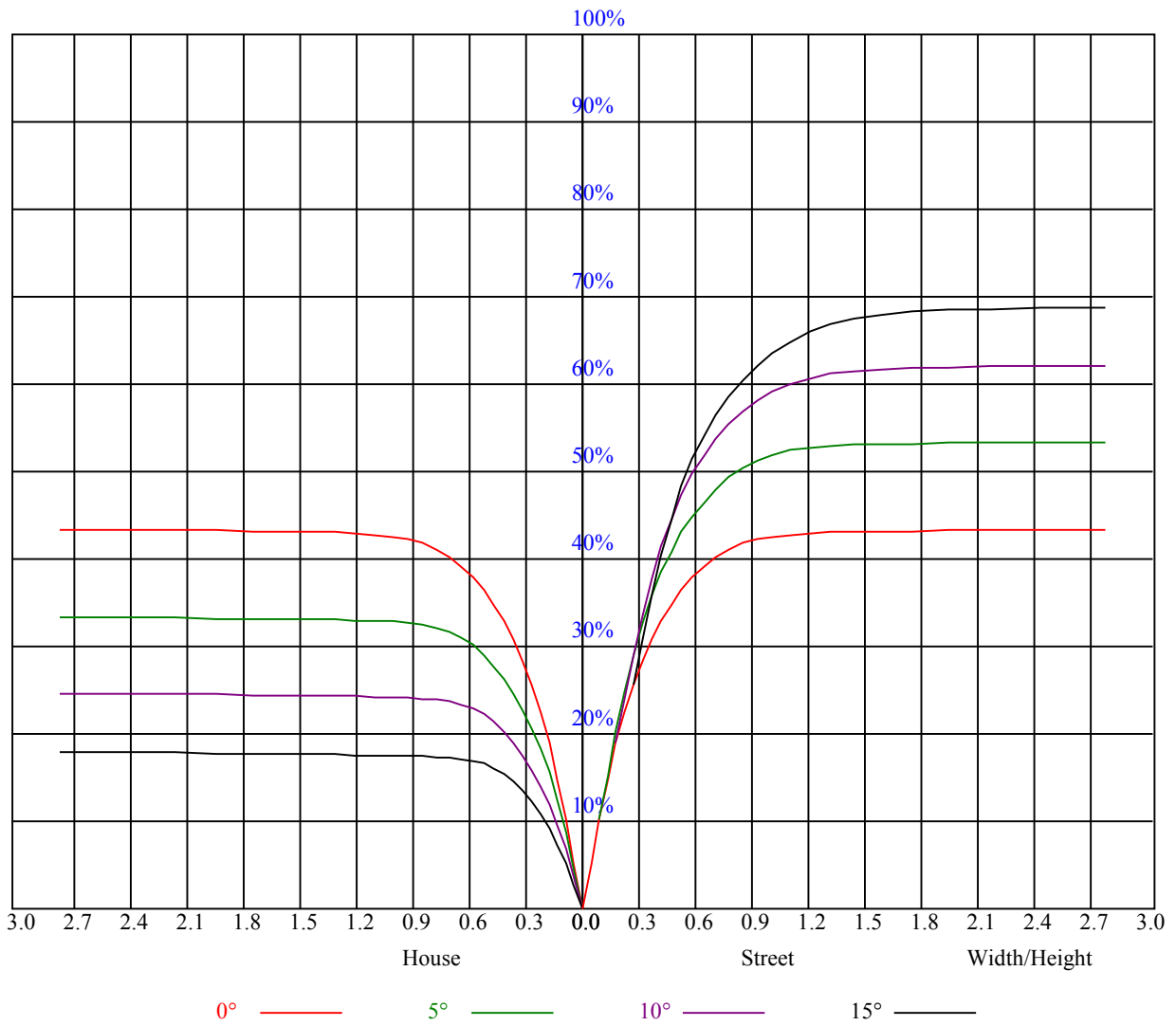
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.05	1.05	1.05	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.97	0.94	0.92	0.95	0.92	0.90	0.91	0.89	0.88	0.88	0.86	0.85	0.85	0.84	0.82	0.81
2	0.91	0.87	0.84	0.89	0.86	0.83	0.86	0.83	0.81	0.84	0.81	0.79	0.81	0.79	0.78	0.76
3	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.78	0.76	0.80	0.77	0.75	0.78	0.75	0.73	0.72
4	0.81	0.76	0.72	0.80	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.70	0.74	0.72	0.70	0.68
5	0.76	0.72	0.68	0.76	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.71	0.68	0.66	0.65
6	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.62
7	0.69	0.64	0.61	0.69	0.64	0.61	0.68	0.63	0.61	0.67	0.63	0.60	0.66	0.62	0.60	0.59
8	0.66	0.61	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.63	0.60	0.57	0.56
9	0.63	0.59	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.57	0.55	0.54
10	0.61	0.56	0.53	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.52



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	2851.03	2593.36	1953.93	1237.75	812.07	587.51	474.15	369.08	237.02
45.0	2876.07	2612.45	1962.28	1208.03	805.84	589.13	482.44	372.64	251.04
90.0	2887.21	2627.03	1957.82	1178.98	811.46	591.35	480.16	378.60	254.72
135.0	2873.85	2612.45	1962.28	1208.03	805.84	589.13	482.44	372.64	251.04
180.0	2851.03	2593.36	1953.93	1237.75	812.07	587.51	474.15	369.08	237.02
225.0	2876.07	2612.45	1962.28	1208.03	805.84	589.13	482.44	372.64	251.04
270.0	2887.21	2627.03	1957.82	1178.98	811.46	591.35	480.16	378.60	254.72
315.0	2873.85	2612.45	1962.28	1208.03	805.84	589.13	482.44	372.64	251.04
360.0	2851.03	2593.36	1953.93	1237.75	812.07	587.51	474.15	369.08	237.02
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	90.55	36.34	15.30	7.23	6.46	6.40	6.62	8.07	6.85
45.0	88.10	36.73	14.64	6.73	6.12	6.01	5.95	6.23	6.34
90.0	90.04	38.18	14.53	6.57	5.90	5.79	5.79	5.84	6.29
135.0	88.10	36.73	14.64	6.73	6.12	6.01	5.95	6.23	6.34
180.0	90.55	36.34	15.30	7.23	6.46	6.40	6.62	8.07	6.85
225.0	88.10	36.73	14.64	6.73	6.12	6.01	5.95	6.23	6.34
270.0	90.04	38.18	14.53	6.57	5.90	5.79	5.79	5.84	6.29
315.0	88.10	36.73	14.64	6.73	6.12	6.01	5.95	6.23	6.34
360.0	90.55	36.34	15.30	7.23	6.46	6.40	6.62	8.07	6.85
C/γ(°)	90.0								
0.0	4.51								
45.0	4.51								
90.0	4.51								
135.0	4.51								
180.0	4.51								
225.0	4.51								
270.0	4.51								
315.0	4.51								
360.0	4.51								