
Nata

LumCAT: 3-2115-N
Luminaire: 92.70.135.00
Report No: NT2018041208
Test No: nata-0100
LampCAT: LUMILEDS LUXEON COB 1205
Lamp flux(lm): 2300.0
Number of Lamps: 1
Length(mm): 81
Phm Type: C

Voltage(V): 37.5000
Current(A): 0.6000
Power (W): 22.5000
PF: 0.0000
Ballast type: DC
Width(mm): 81
Height(mm): 0

Photometric Results

Lumens(lm): 1995.61
Efficiency(%): 86.77%
Lumens(lm)/Power(W): 88.69
Central intensity(cd): 14988.420
Maximum intensity(cd): 14988.420
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=15.2
 [C90/270]Total=15.2
Field angle(10%Imax): [C0/180]Total=37.7
 [C90/270]Total=37.7
Maximum s/h(1/2): C0_180=0.26 C90_270=0.26
Maximum s/h(1/4): C0_180=0.29 C90_270=0.29
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.58%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 94.567%

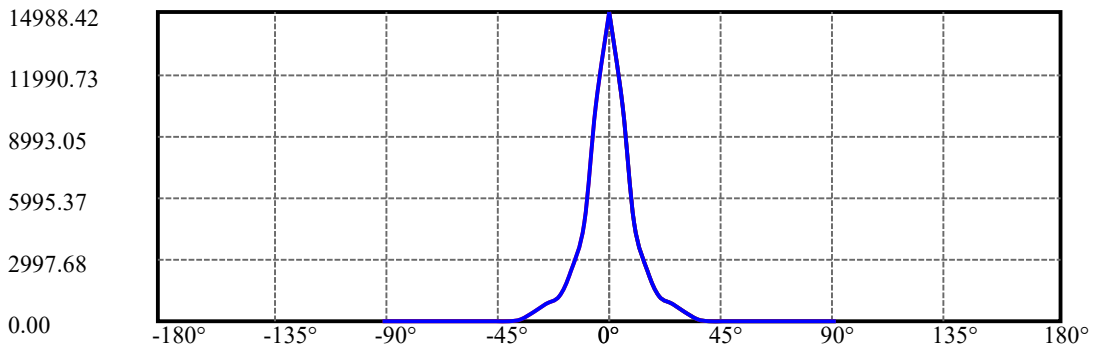
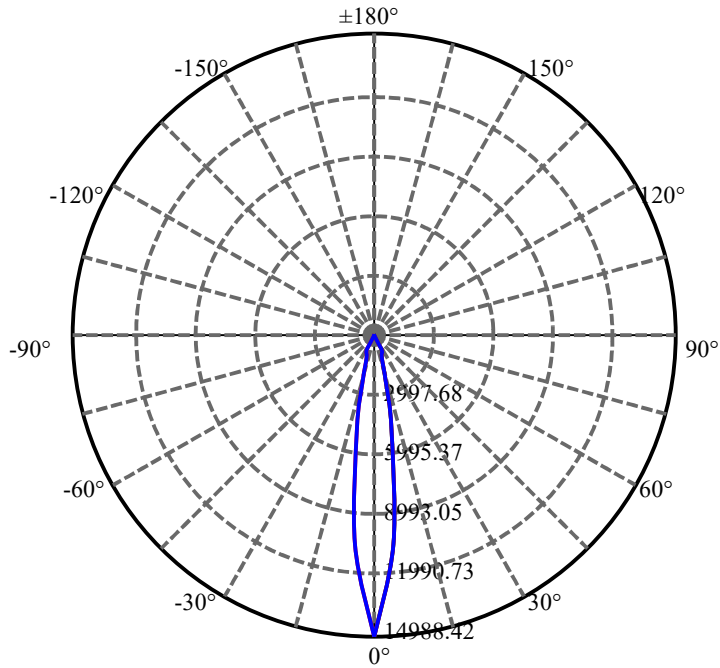
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	14988.417	89.634	89.634	3.897%	4.492%
5.0	10455.279	499.483	589.117	21.717%	29.521%
10.0	4757.079	452.793	1041.911	19.687%	52.210%
15.0	2392.063	339.358	1381.269	14.755%	69.215%
20.0	1230.442	230.676	1611.945	10.029%	80.775%
25.0	828.193	191.853	1803.798	8.341%	90.388%
30.0	470.484	128.945	1932.743	5.606%	96.850%
35.0	48.890	15.371	1948.114	.668%	97.620%
40.0	13.984	4.927	1953.041	.214%	97.867%
45.0	10.791	4.183	1957.223	.182%	98.076%
50.0	9.855	4.138	1961.362	.180%	98.284%
55.0	9.470	4.252	1965.614	.185%	98.497%
60.0	9.573	4.544	1970.158	.198%	98.725%
65.0	9.649	4.793	1974.951	.208%	98.965%
70.0	9.009	4.640	1979.591	.202%	99.197%
75.0	8.720	4.617	1984.208	.201%	99.429%
80.0	8.541	4.610	1988.818	.200%	99.660%
85.0	8.334	4.551	1993.369	.198%	99.888%
90.0	8.176	2.241	1995.61	.097%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1932.74	84.03%	96.85%
0-40	1953.04	84.91%	97.87%
0-60	1970.16	85.66%	98.72%
0-90	1993.37	86.67%	99.89%
0-120	1993.37	86.67%	99.89%
0-180	1995.61	86.77%	100.00%
60-90	27.76	1.21%	1.39%
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%
0-19.66	1596.49	69.41%	80.00%

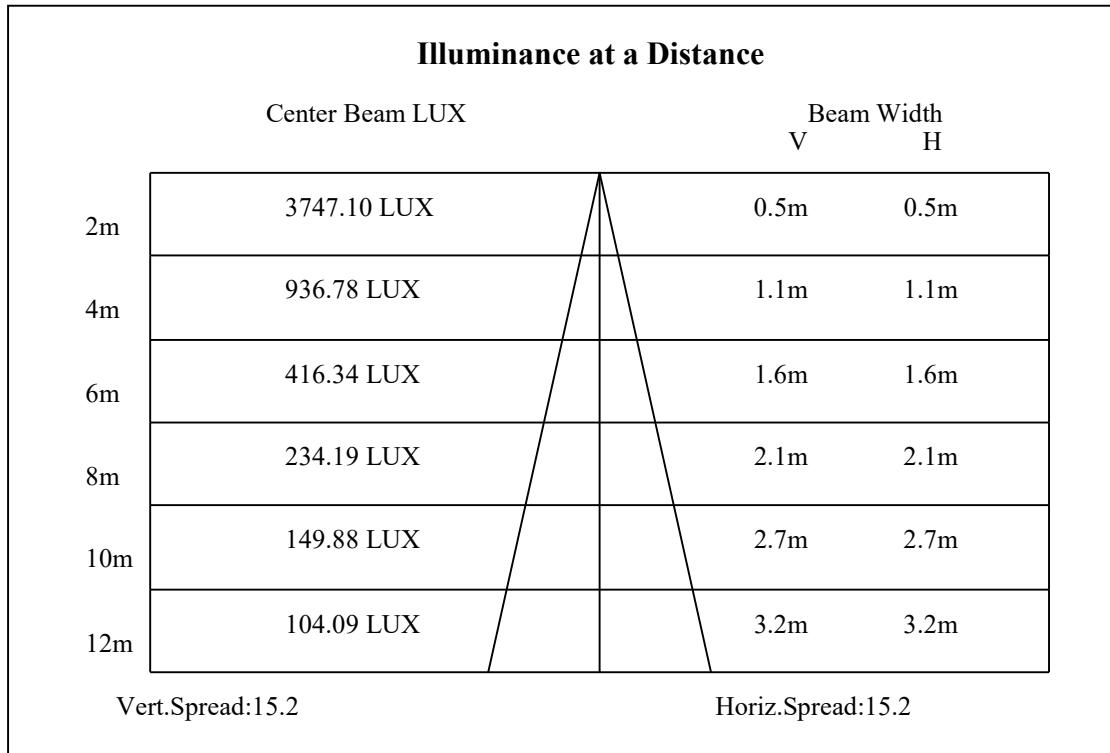
ZONAL LUMEN SUMMARY

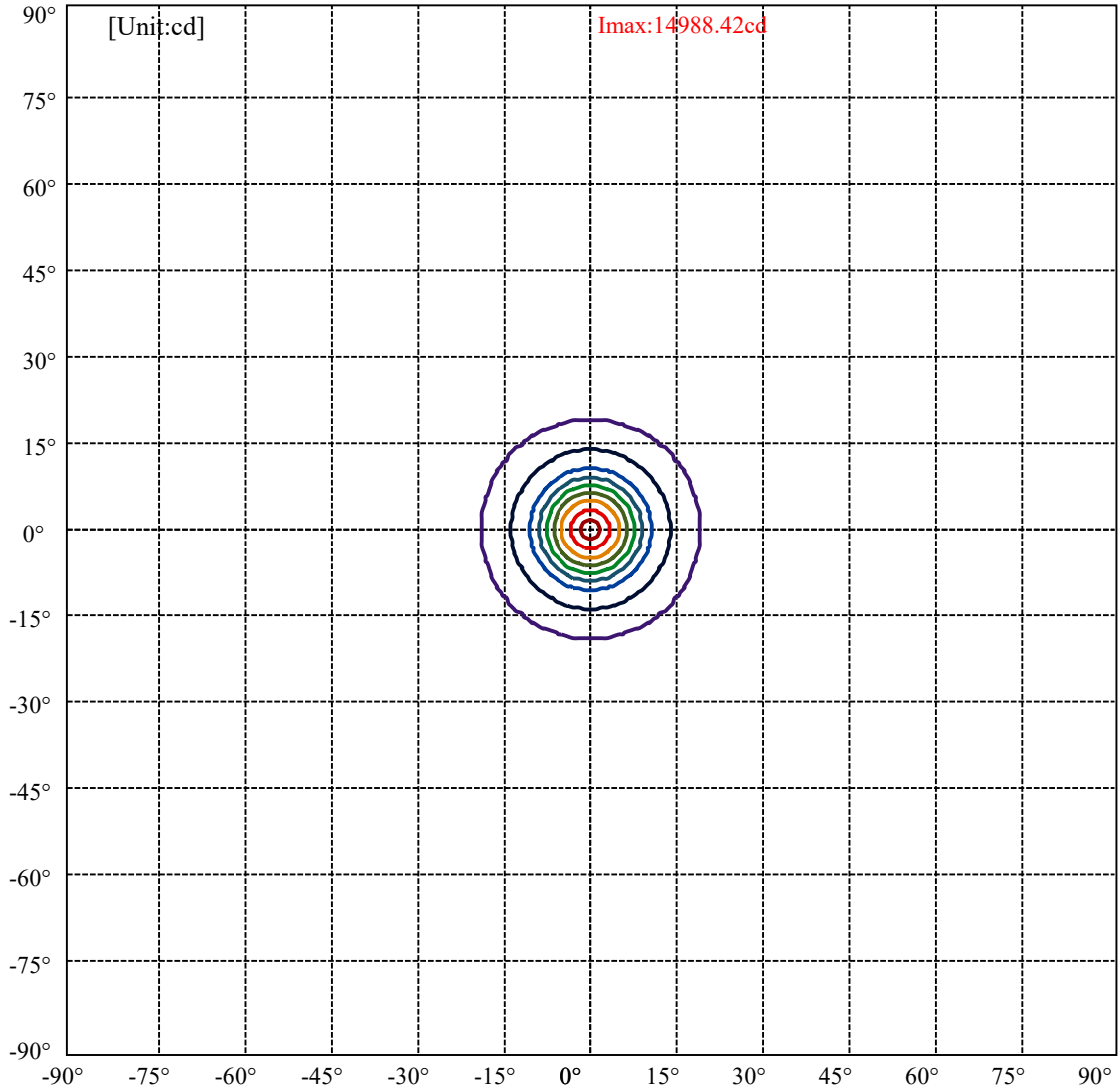
0-10	1041.91
10-20	570.03
20-30	320.80
30-40	20.30
40-50	8.32
50-60	8.80
60-70	9.43
70-80	9.23
80-90	4.55
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



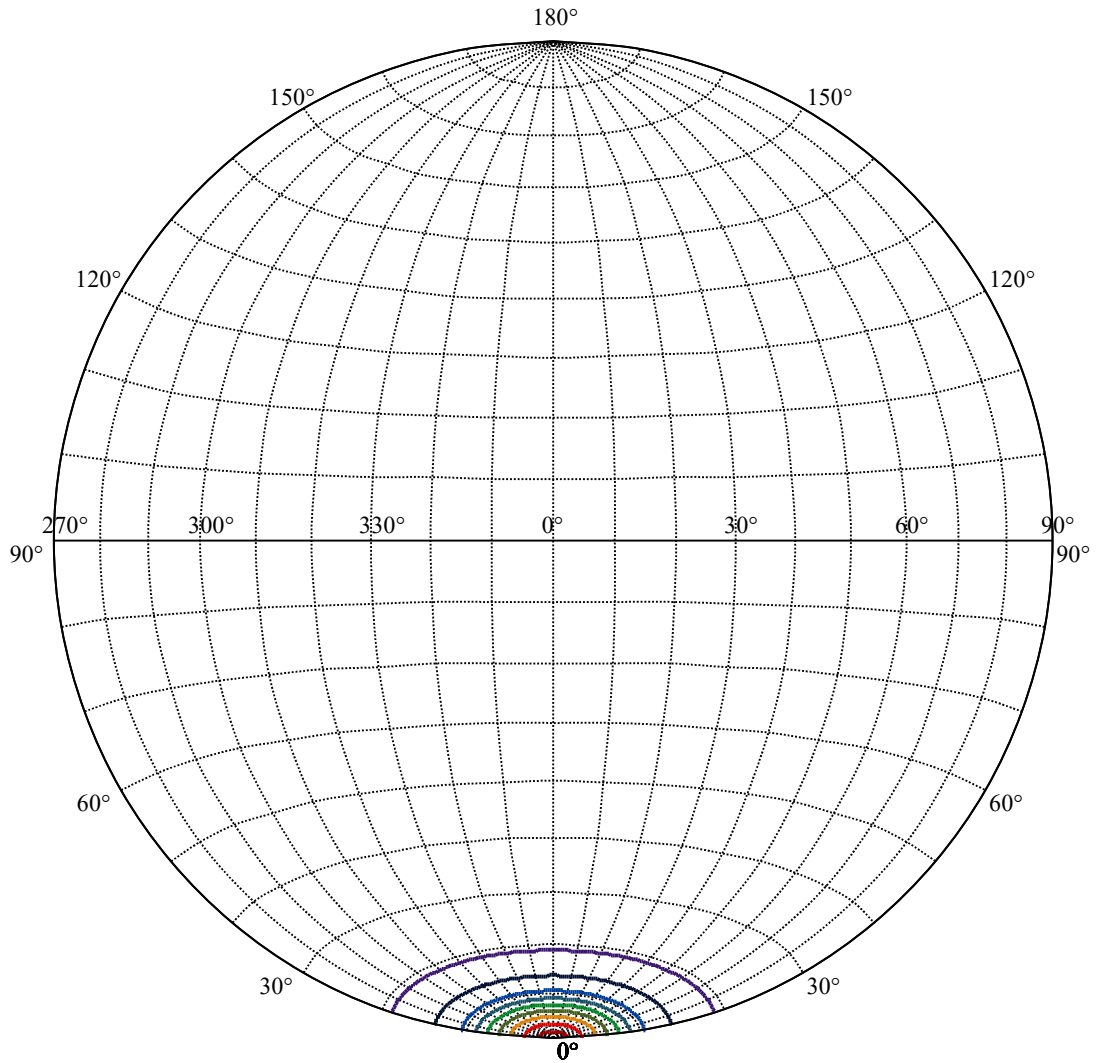
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:18.8 Right:18.8
:C90/270Left:18.8 Right:18.8
Beam Angle(50%Imax):C0/180Left:7.6 Right:7.6
:C90/270Left:7.6 Right:7.6





(10%Imax) 1498.84	—
(20%Imax) 2997.68	—
(30%Imax) 4496.52	—
(40%Imax) 5995.37	—
(50%Imax) 7494.21	—
(60%Imax) 8993.05	—
(70%Imax) 10491.9	—
(80%Imax) 11990.7	—
(90%Imax) 13489.6	—



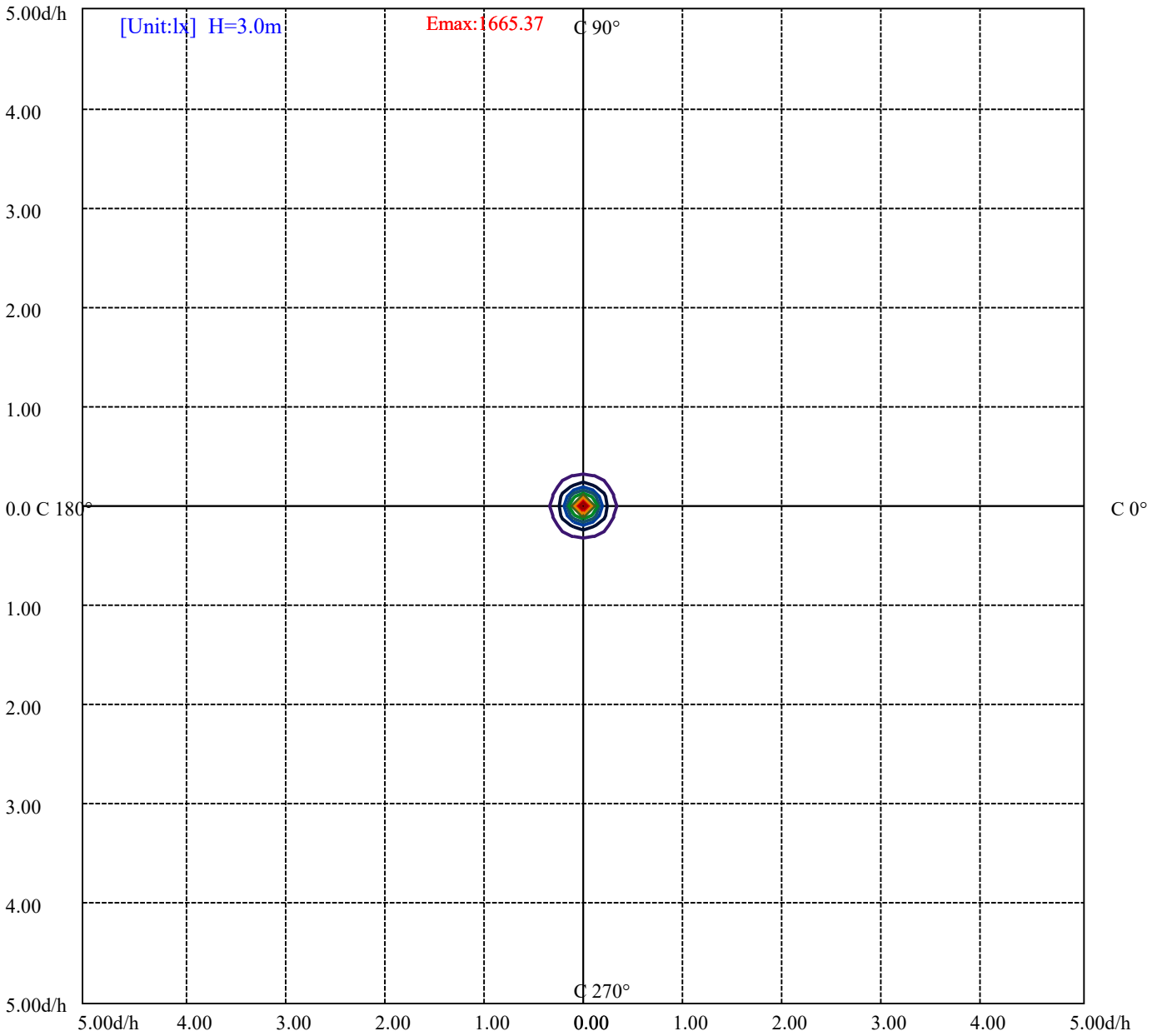
House

[Unit:cd]

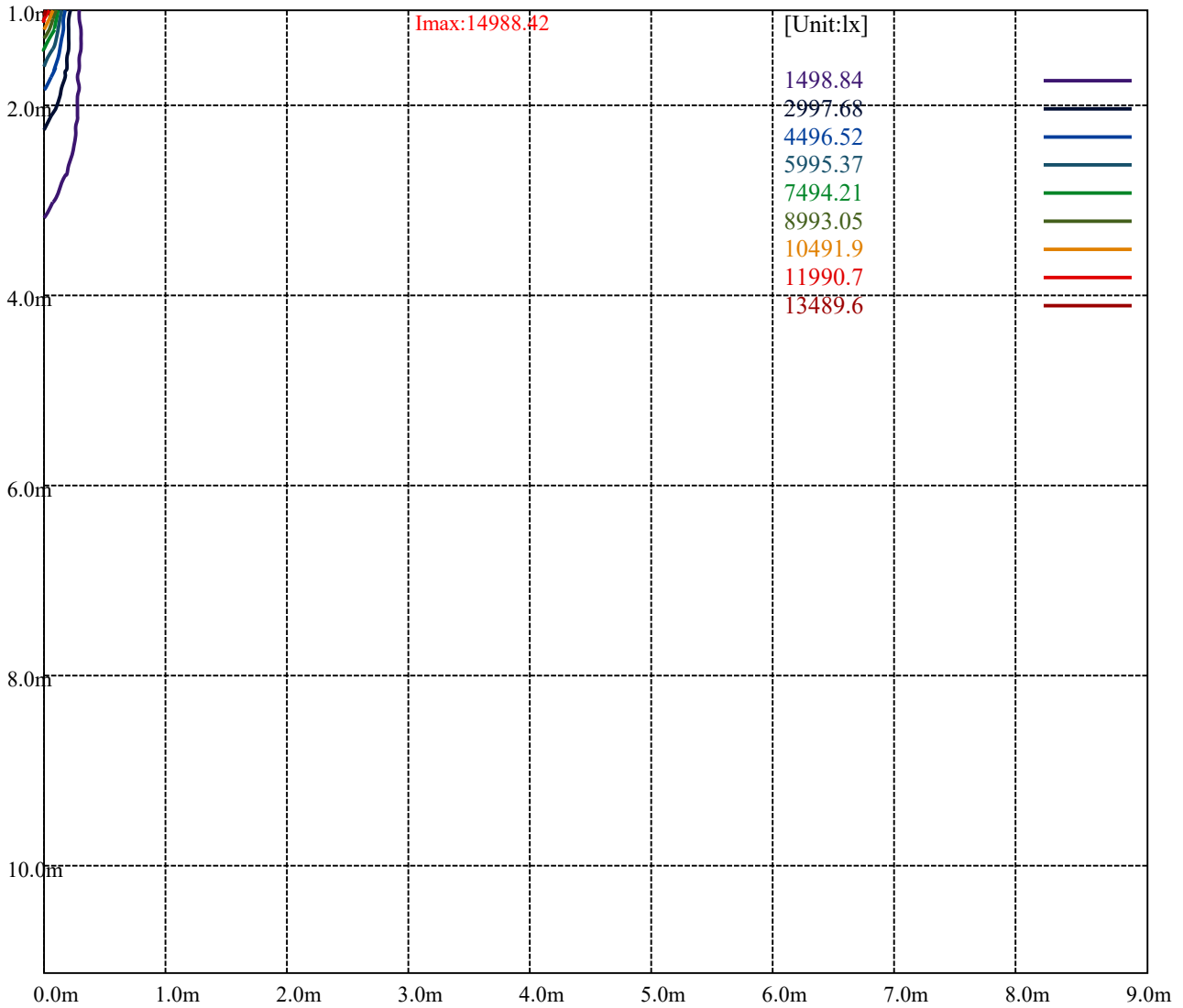
Road

Imax:14988.42

(10%Imax) 1498.84	—
(20%Imax) 2997.68	—
(30%Imax) 4496.52	—
(40%Imax) 5995.37	—
(50%Imax) 7494.21	—
(60%Imax) 8993.05	—
(70%Imax) 10491.9	—
(80%Imax) 11990.7	—
(90%Imax) 13489.6	—



(10%Emax) 166.5367	—
(20%Emax) 333.0733	—
(30%Emax) 499.6089	—
(40%Emax) 666.1456	—
(50%Emax) 832.6823	—
(60%Emax) 999.2189	—
(70%Emax) 1165.755	—
(80%Emax) 1332.289	—
(90%Emax) 1498.833	—



Luminance Table

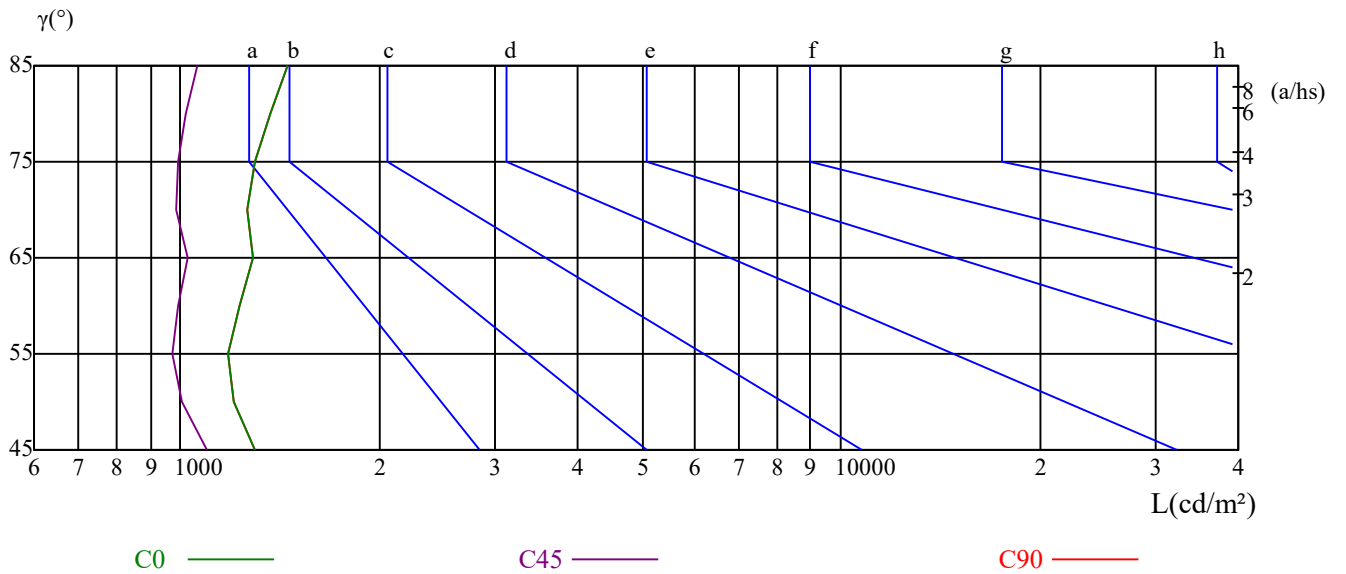
γ	45	50	55	60	65	70	75	80	85
C0	1299	1204	1182	1232	1291	1266	1300	1368	1453
C45	1099	1002	969	994	1025	986	993	1022	1058
C90	1299	1204	1182	1232	1291	1266	1300	1368	1453

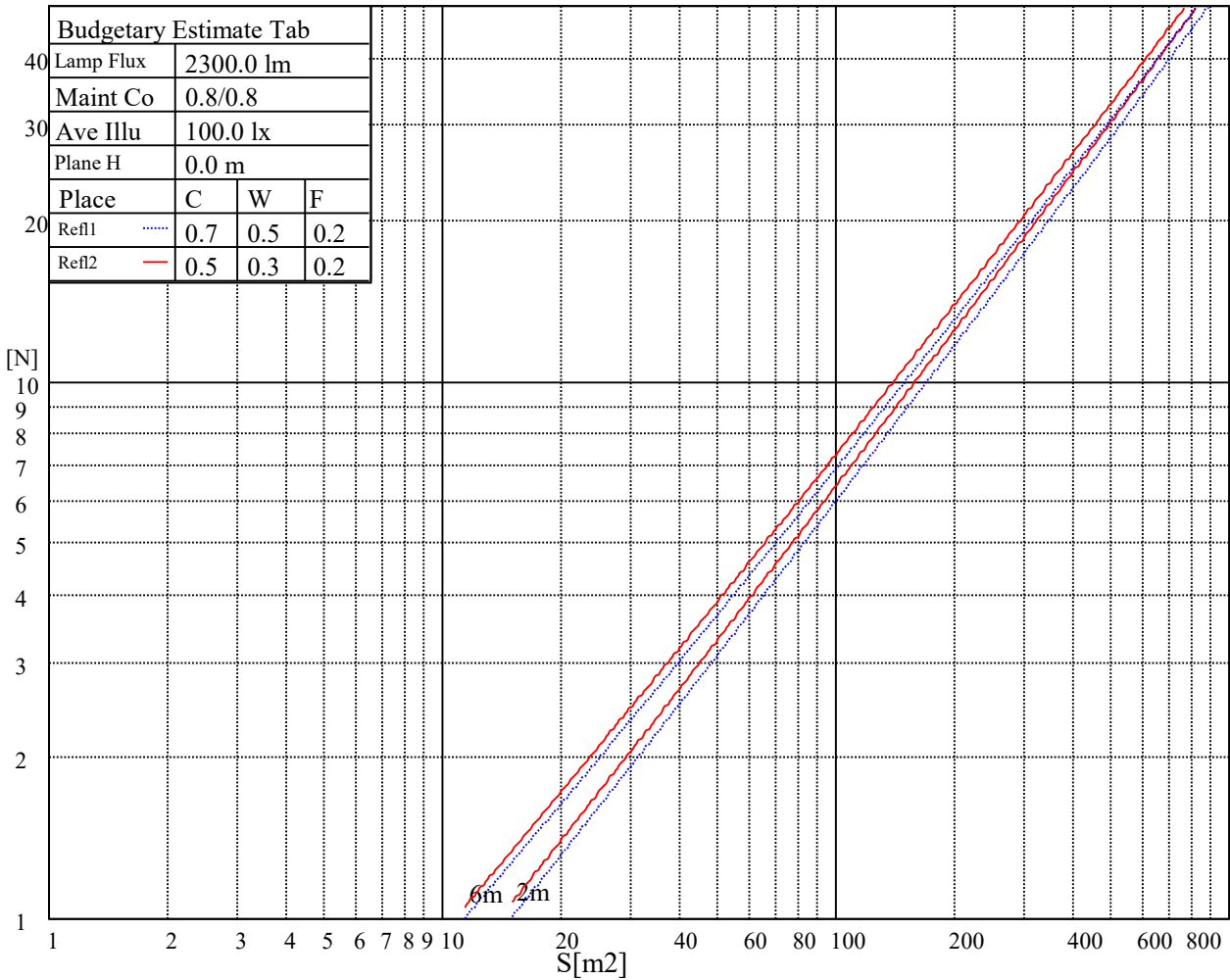
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3480	3480	3480	5135	5135	5135	14575	14575	14575

Glare Table

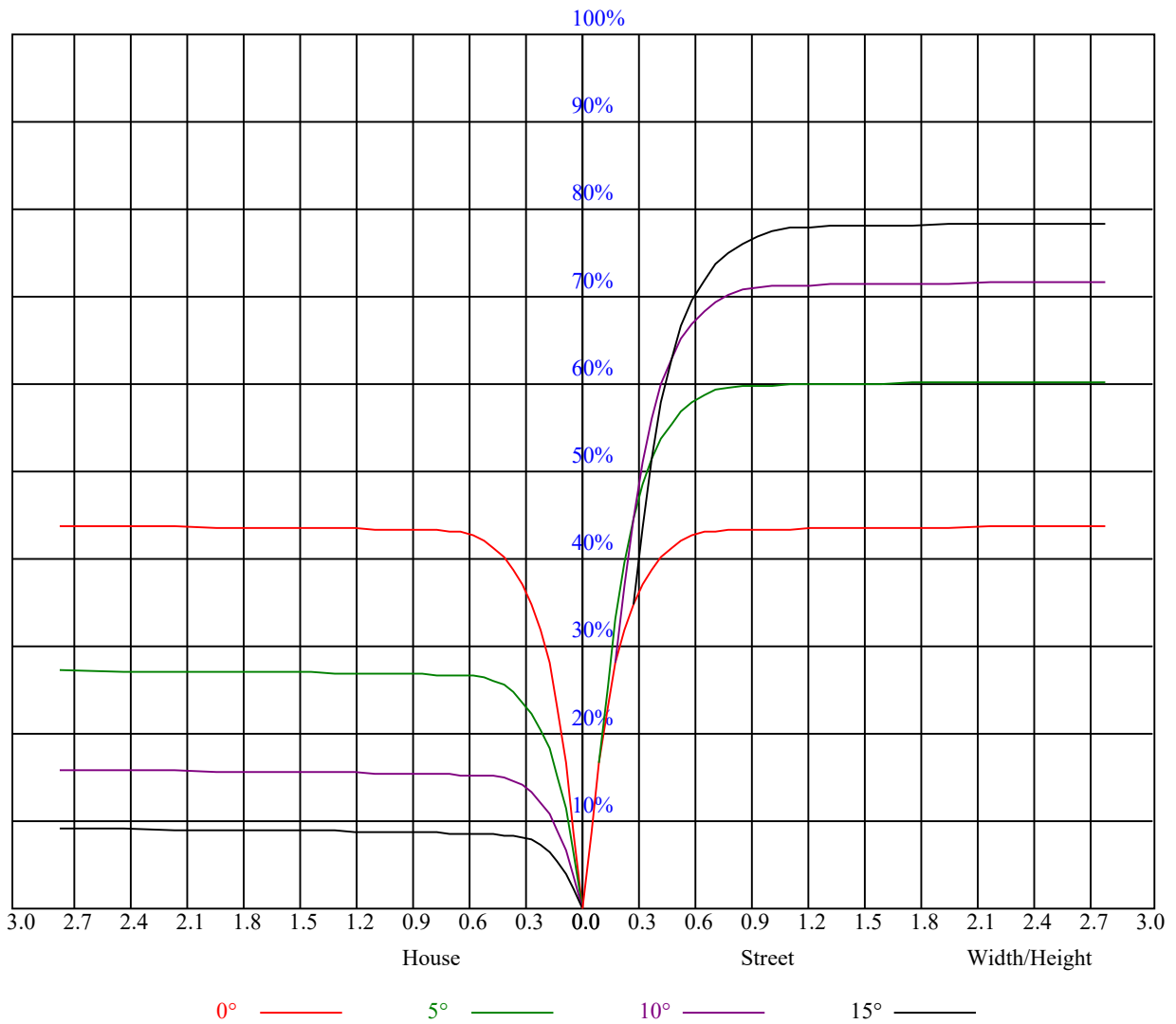
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.91
1	0.97	0.94	0.91	0.95	0.92	0.90	0.91	0.89	0.87	0.88	0.86	0.84	0.85	0.83	0.82	0.80
2	0.93	0.89	0.86	0.91	0.88	0.85	0.88	0.85	0.83	0.85	0.83	0.81	0.83	0.81	0.79	0.78
3	0.89	0.85	0.81	0.88	0.84	0.81	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
4	0.86	0.81	0.78	0.85	0.81	0.78	0.83	0.79	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
5	0.83	0.79	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.72
6	0.80	0.76	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.70
7	0.78	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.71	0.75	0.72	0.70	0.75	0.72	0.70	0.69
8	0.76	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
9	0.74	0.70	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.72	0.69	0.67	0.66
10	0.72	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.71	0.68	0.66	0.70	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	14975.34	11969.26	5544.18	2813.38	1495.33	904.58	578.64	155.15	15.58
45.0	14925.79	12084.88	5610.25	2868.44	1435.87	911.73	590.76	70.97	16.19
90.0	15101.97	10586.24	4566.38	2224.83	1096.72	785.49	438.63	35.73	15.58
135.0	14942.31	11385.66	5643.28	2879.45	1345.03	871.54	563.78	39.81	11.23
180.0	14975.34	9486.22	4105.01	2027.73	1086.15	776.74	398.11	18.17	10.57
225.0	14925.79	8804.07	4013.61	1928.63	1084.61	769.96	347.96	17.67	10.74
270.0	15118.49	9976.22	4399.01	2366.32	1212.34	797.22	429.99	26.98	14.87
315.0	14942.31	9349.68	4174.93	2027.73	1087.47	808.28	416.01	26.65	17.12
360.0	14975.34	11969.26	5544.18	2813.38	1495.33	904.58	578.64	155.15	15.58
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	10.74	9.80	9.36	9.41	9.19	8.86	8.59	8.42	8.31
45.0	11.89	10.30	9.86	9.63	9.58	8.97	8.70	8.48	8.37
90.0	11.56	10.52	9.91	10.13	10.13	9.14	8.92	8.75	8.37
135.0	9.86	9.19	9.14	9.25	9.74	9.25	8.75	8.59	8.37
180.0	9.47	9.03	8.86	8.97	9.03	8.86	8.59	8.42	8.31
225.0	9.58	9.14	9.14	9.30	9.97	8.97	8.75	8.53	8.37
270.0	11.78	10.74	9.91	10.63	10.52	9.25	8.97	8.75	8.31
315.0	11.45	10.13	9.58	9.25	9.03	8.75	8.48	8.37	8.26
360.0	10.74	9.80	9.36	9.41	9.19	8.86	8.59	8.42	8.31
C/γ(°)	90.0								
0.0	8.26								
45.0	8.31								
90.0	8.15								
135.0	8.09								
180.0	8.09								
225.0	8.20								
270.0	8.15								
315.0	8.15								
360.0	8.26								