
Nata

LumCAT: 2-1793-N
Luminaire: 92.70.135.00
Report No: NT2018041204
Test No: nata-0100
LampCAT: LUMILEDS LUXEON COB 1205
Lamp flux(lm): 2300.0
Number of Lamps: 1
Length(mm): 69
Phm Type: C

Voltage(V): 37.5000
Current(A): 0.6000
Power (W): 22.5000
PF: 0.0000
Ballast type: DC
Width(mm): 69
Height(mm): 0

Photometric Results

Lumens(lm): 1984.24
Efficiency(%): 86.27%
Lumens(lm)/Power(W): 88.19
Central intensity(cd): 11297.990
Maximum intensity(cd): 11297.990
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=18.8
 [C90/270]Total=18.8
Field angle(10%Imax): [C0/180]Total=42.7
 [C90/270]Total=42.7
Maximum s/h(1/2): C0_180=0.32 C90_270=0.32
Maximum s/h(1/4): C0_180=0.35 C90_270=0.35
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.13%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.544%

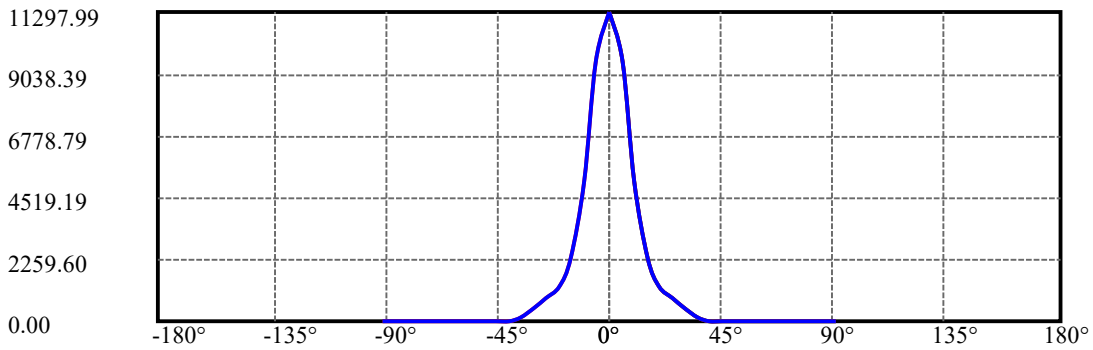
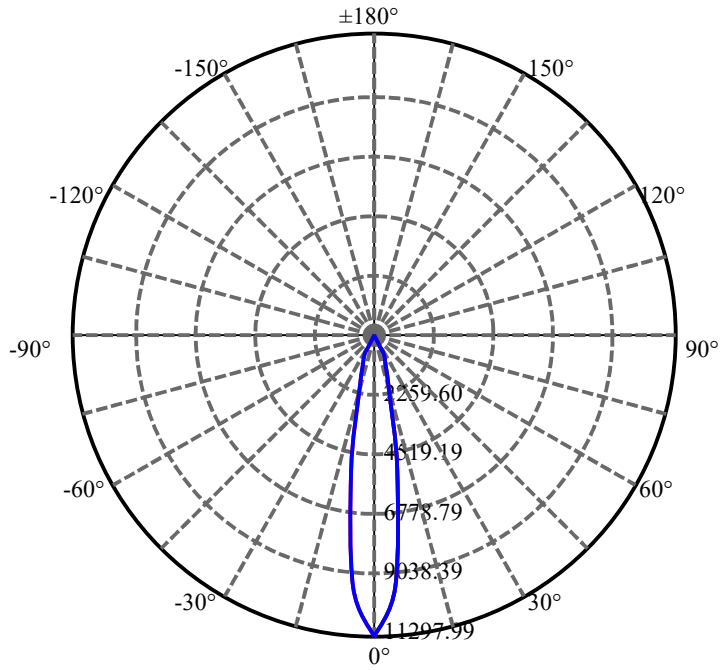
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11297.986	67.564	67.564	2.938%	3.405%
5.0	9466.053	452.225	519.789	19.662%	26.196%
10.0	5127.609	488.062	1007.851	21.220%	50.793%
15.0	2339.484	331.899	1339.749	14.430%	67.519%
20.0	1246.153	233.621	1573.371	10.157%	79.293%
25.0	814.566	188.697	1762.067	8.204%	88.803%
30.0	469.645	128.715	1890.782	5.596%	95.290%
35.0	143.491	45.113	1935.896	1.961%	97.563%
40.0	15.643	5.512	1941.407	.240%	97.841%
45.0	11.156	4.324	1945.731	.188%	98.059%
50.0	9.945	4.176	1949.907	.182%	98.270%
55.0	9.449	4.243	1954.15	.184%	98.483%
60.0	9.318	4.423	1958.573	.192%	98.706%
65.0	9.298	4.619	1963.192	.201%	98.939%
70.0	9.077	4.676	1967.867	.203%	99.175%
75.0	8.857	4.690	1972.557	.204%	99.411%
80.0	8.919	4.815	1977.372	.209%	99.654%
85.0	8.575	4.682	1982.054	.204%	99.890%
90.0	7.990	2.190	1984.244	.095%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1890.78	82.21%	95.29%
0-40	1941.41	84.41%	97.84%
0-60	1958.57	85.16%	98.71%
0-90	1982.05	86.18%	99.89%
0-120	1982.05	86.18%	99.89%
0-180	1984.24	86.27%	100.00%
60-90	27.90	1.21%	1.41%
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%
0-20.37	1587.40	69.02%	80.00%

ZONAL LUMEN SUMMARY

0-10	1007.85
10-20	565.52
20-30	317.41
30-40	50.62
40-50	8.50
50-60	8.67
60-70	9.29
70-80	9.50
80-90	4.68
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



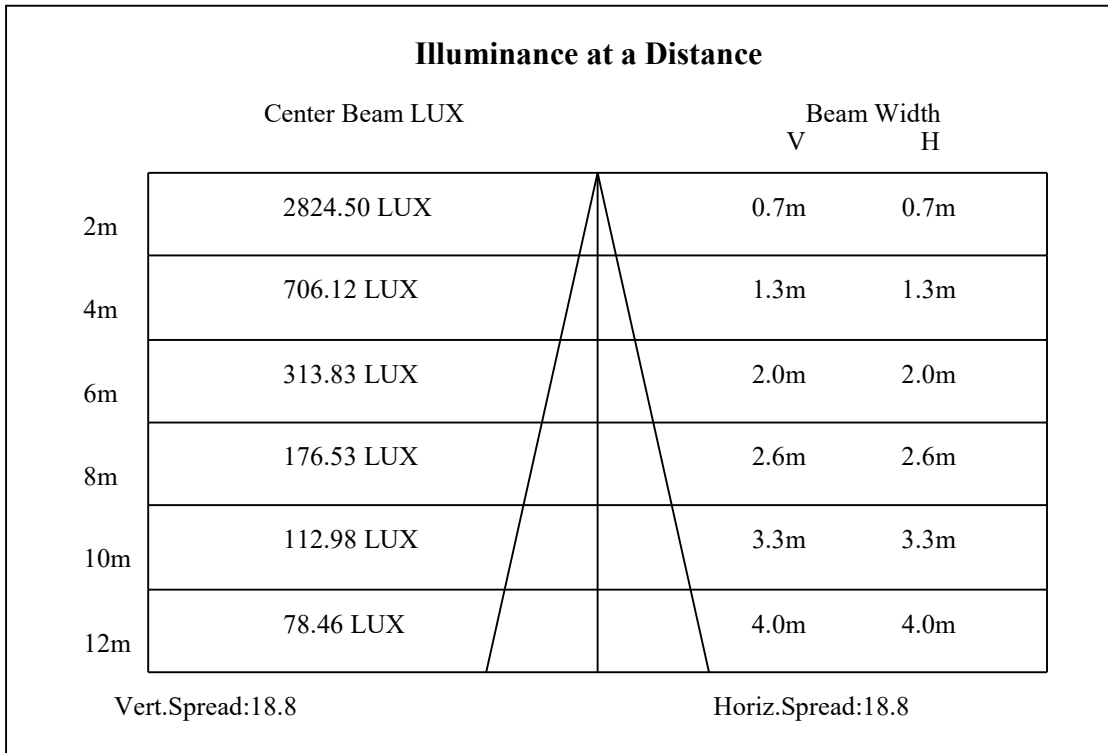
C0(Max): —————

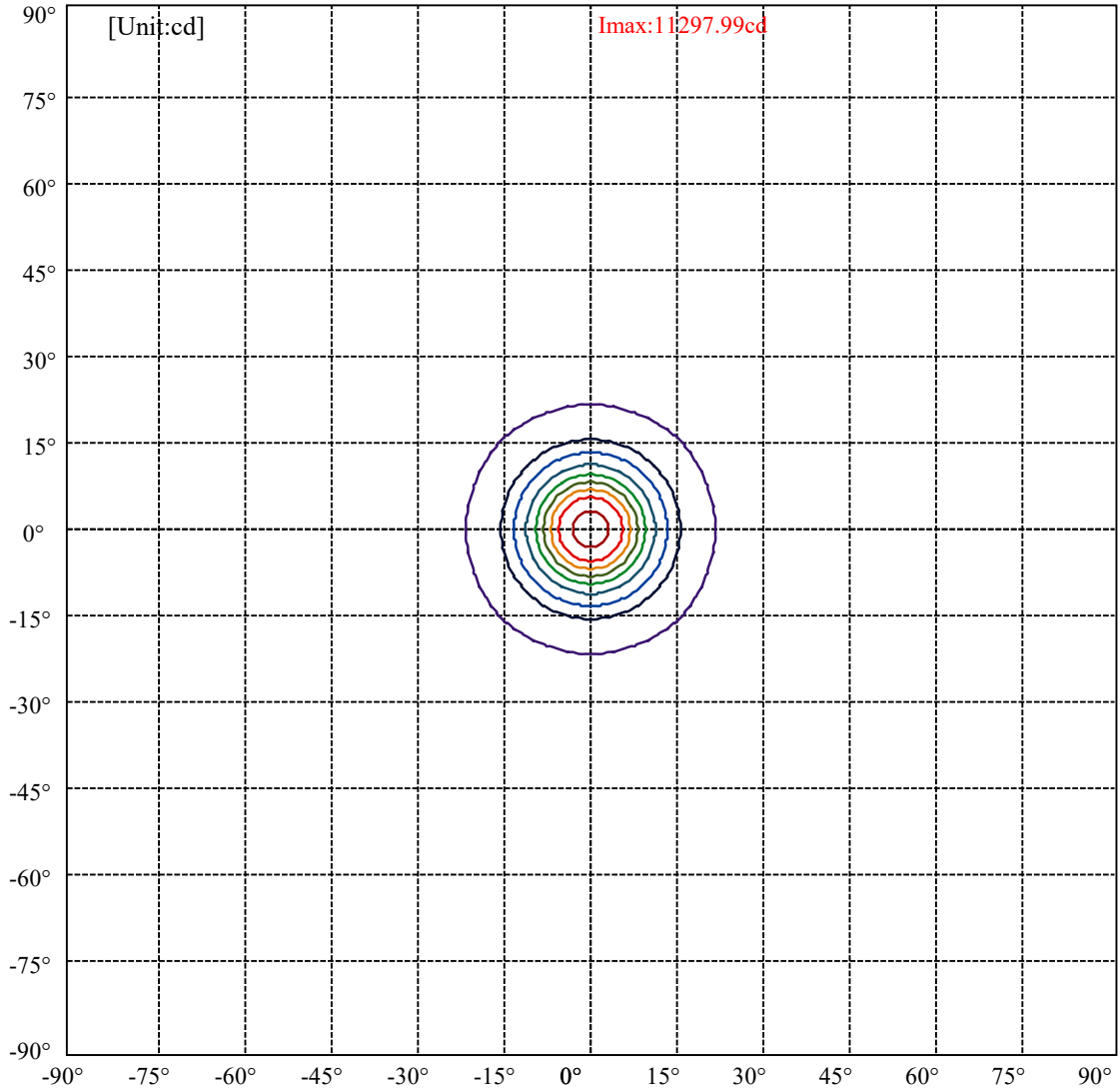
C0/C180: —————

C90/C270: —————

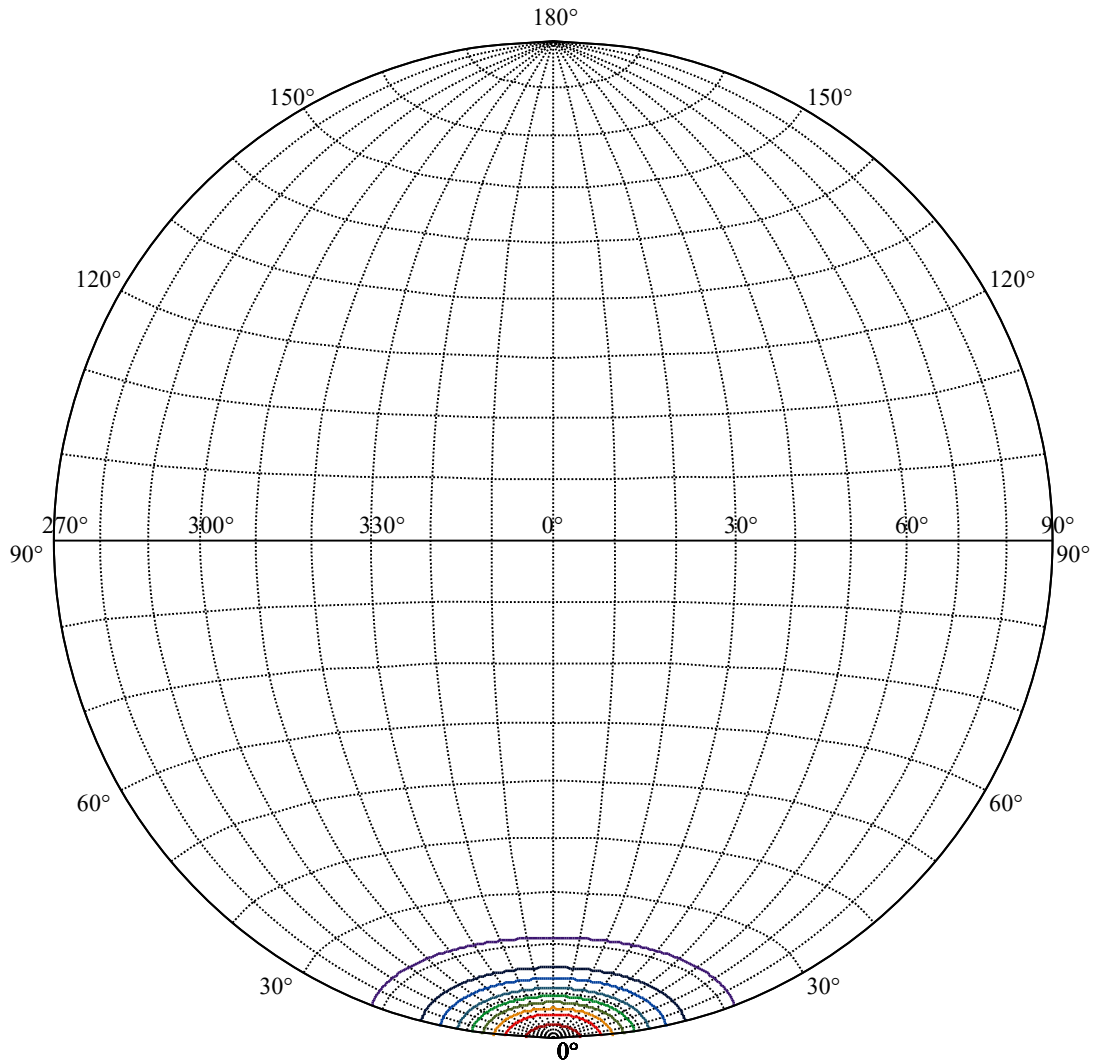
Field angle(10%Imax):C0/180Left:21.3 Right:21.3
:C90/270Left:21.3 Right:21.3

Beam Angle(50%Imax):C0/180Left:9.4 Right:9.4
:C90/270Left:9.4 Right:9.4





(10%Imax) 1129.8	—
(20%Imax) 2259.6	—
(30%Imax) 3389.4	—
(40%Imax) 4519.19	—
(50%Imax) 5648.99	—
(60%Imax) 6778.79	—
(70%Imax) 7908.59	—
(80%Imax) 9038.39	—
(90%Imax) 10168.2	—



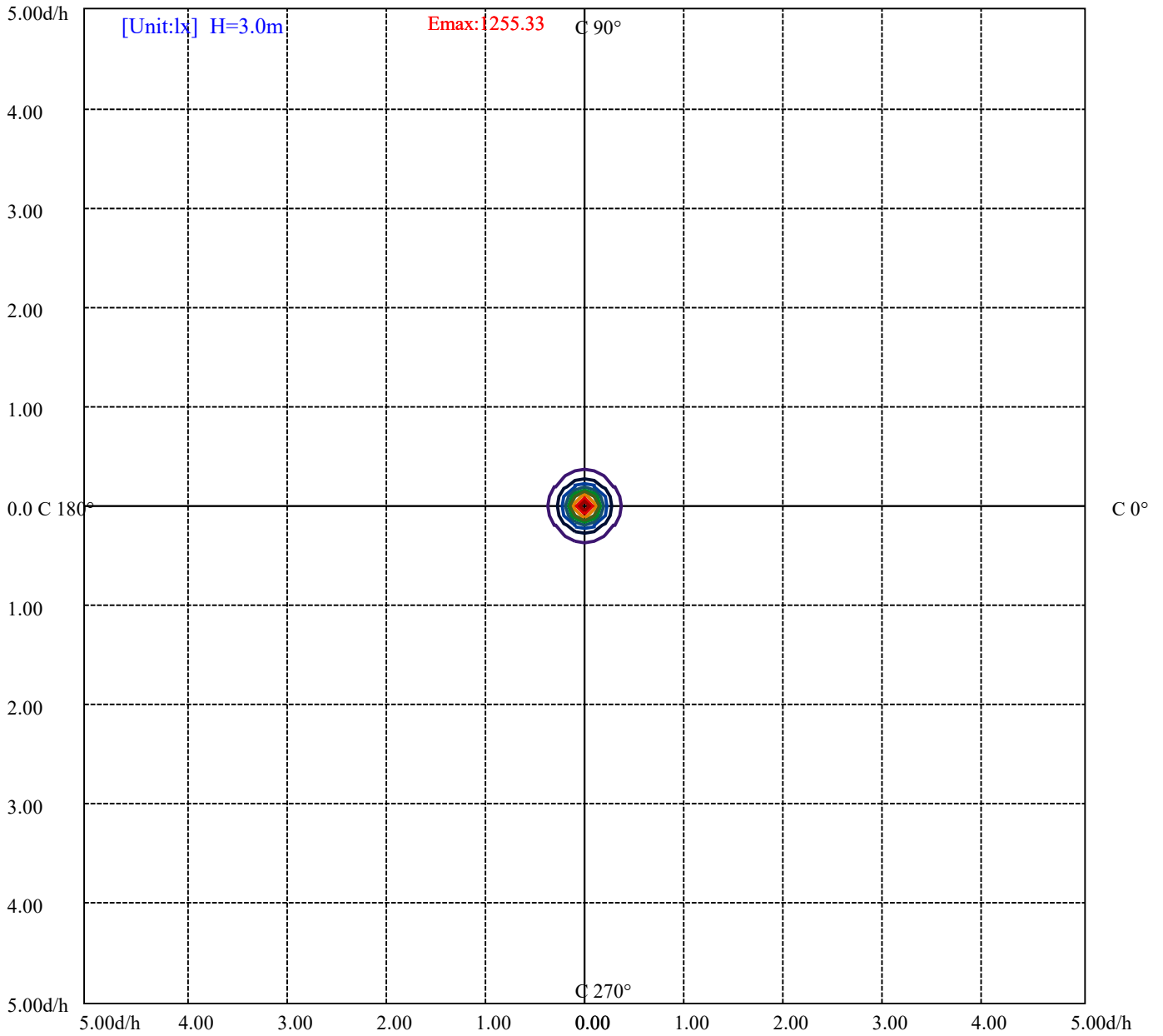
House

[Unit:cd]

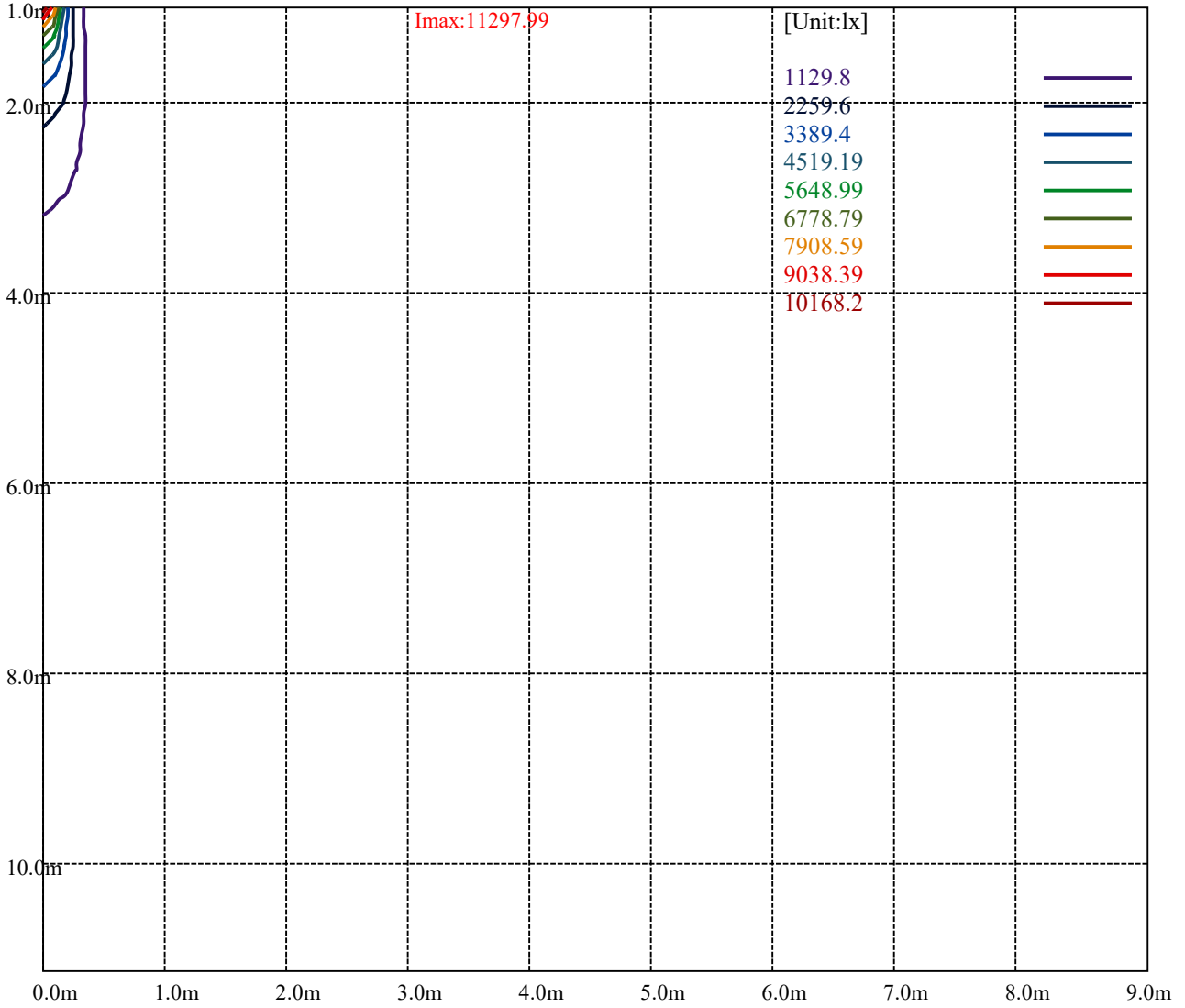
Road

Imax:11297.99

(10%Imax) 1129.8	—
(20%Imax) 2259.6	—
(30%Imax) 3389.4	—
(40%Imax) 4519.19	—
(50%Imax) 5648.99	—
(60%Imax) 6778.79	—
(70%Imax) 7908.59	—
(80%Imax) 9038.39	—
(90%Imax) 10168.2	—



(10%Emax) 125.5322	—
(20%Emax) 251.0656	—
(30%Emax) 376.5978	—
(40%Emax) 502.13	—
(50%Emax) 627.6633	—
(60%Emax) 753.1956	—
(70%Emax) 878.7278	—
(80%Emax) 1004.26	—
(90%Emax) 1129.789	—



Luminance Table

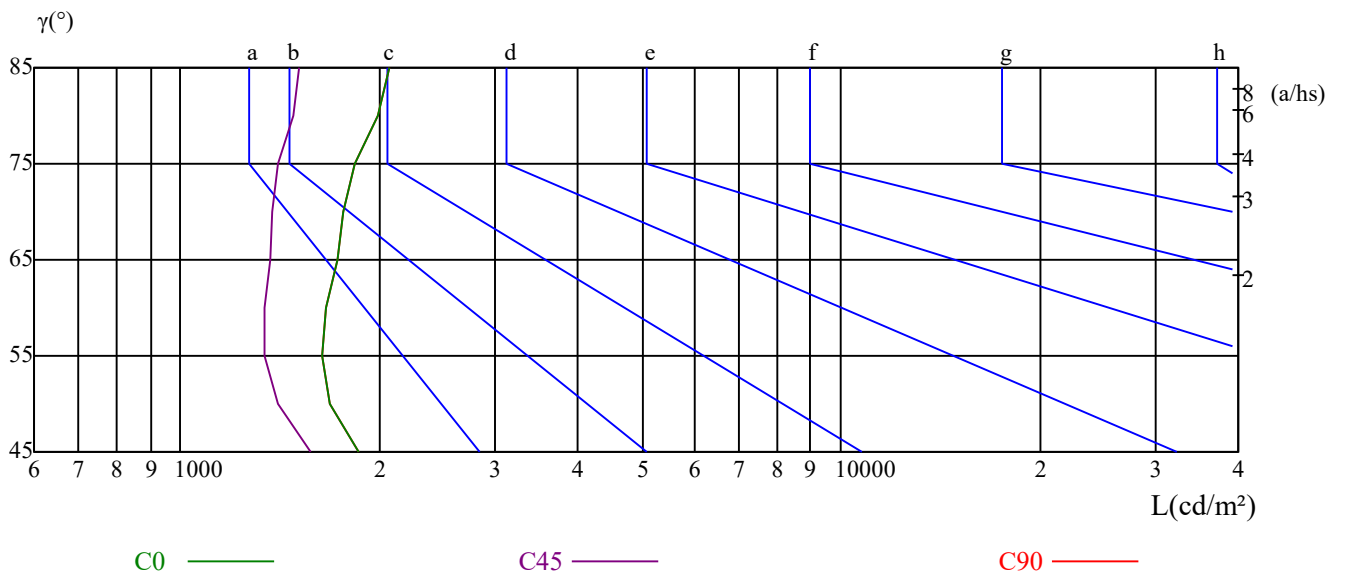
γ	45	50	55	60	65	70	75	80	85
C0	1859	1681	1634	1662	1725	1770	1833	1984	2078
C45	1573	1401	1341	1342	1370	1380	1401	1483	1514
C90	1859	1681	1634	1662	1725	1770	1833	1984	2078

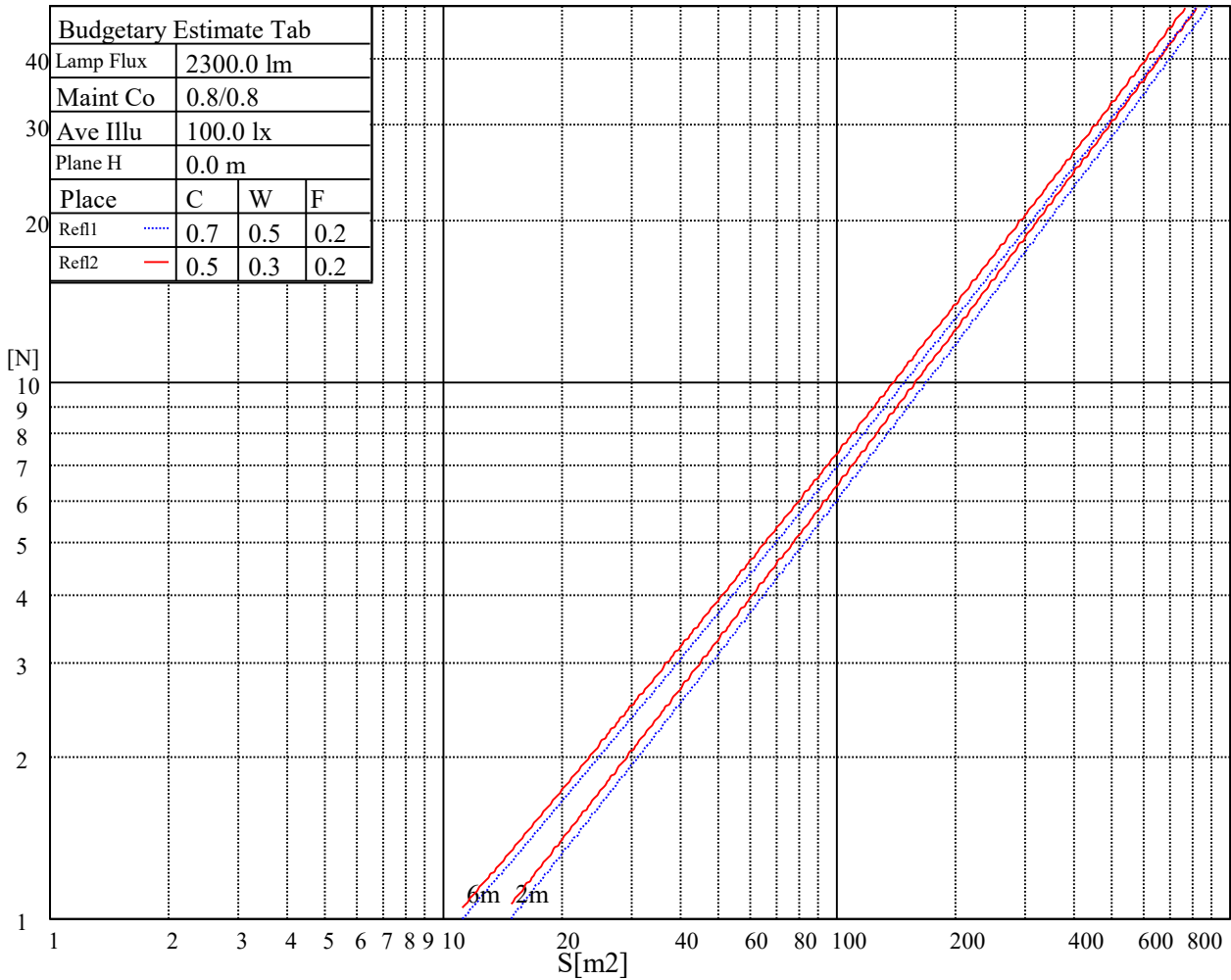
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4621	4621	4621	7188	7188	7188	20665	20665	20665

Glare Table

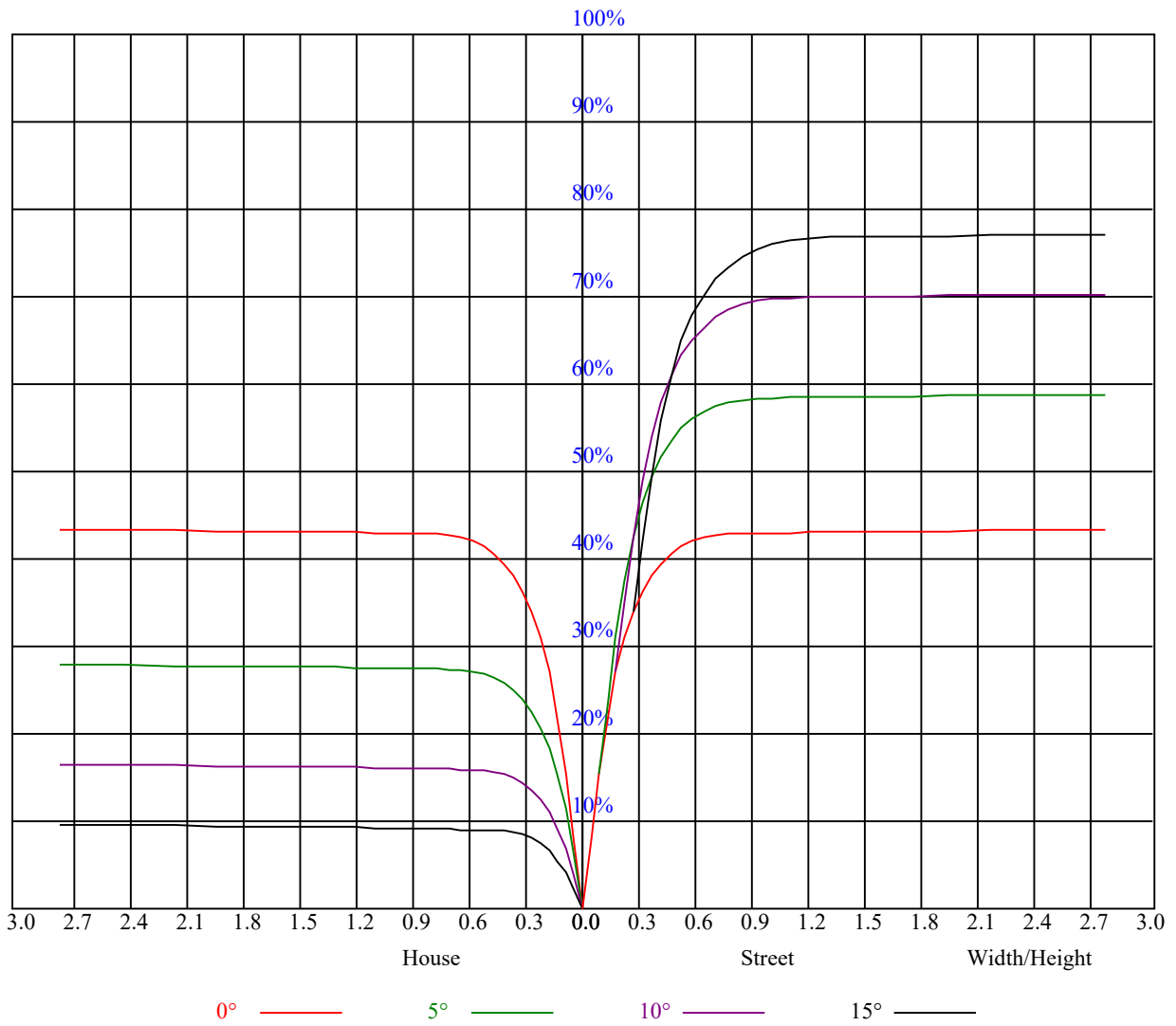
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.97	0.94	0.92	0.95	0.92	0.90	0.91	0.89	0.87	0.88	0.86	0.85	0.85	0.83	0.82	0.81
2	0.92	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	0.80	0.78
3	0.88	0.85	0.81	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.80	0.78	0.81	0.79	0.77	0.76
4	0.85	0.81	0.78	0.84	0.80	0.78	0.82	0.79	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
5	0.82	0.78	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.77	0.75	0.73	0.72
6	0.80	0.76	0.73	0.79	0.75	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	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.74	0.72	0.70	0.69
8	0.75	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.73	0.70	0.68	0.67
9	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.66
10	0.72	0.68	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.70	0.67	0.65	0.64



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	10988.16	10785.55	6540.70	2884.96	1433.12	911.73	634.25	301.16	17.84
45.0	10859.32	12646.46	7961.16	3490.58	1715.56	983.86	739.96	281.34	20.59
90.0	12574.88	10855.47	6997.12	2840.36	1457.34	871.54	650.66	193.36	20.92
135.0	10769.58	10780.04	5968.11	2967.54	1426.51	891.91	616.08	291.80	15.86
180.0	10988.16	7936.38	3650.79	1759.05	1028.62	755.76	328.03	18.83	11.23
225.0	10859.32	7075.85	2994.52	1508.55	938.33	652.20	200.90	16.13	11.29
270.0	12574.88	7509.69	3413.50	1624.71	957.98	710.78	279.14	21.97	13.43
315.0	10769.58	8138.99	3494.98	1640.13	1011.77	738.75	308.15	23.34	13.98
360.0	10988.16	10785.55	6540.70	2884.96	1433.12	911.73	634.25	301.16	17.84
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	11.12	9.58	8.81	8.64	8.64	8.53	8.42	8.26	8.04
45.0	12.22	10.35	9.36	9.08	8.97	8.86	8.75	8.59	8.37
90.0	13.32	10.79	9.80	9.47	9.25	9.03	8.86	8.81	8.59
135.0	10.85	9.86	9.52	9.47	9.86	9.47	9.14	8.92	8.75
180.0	10.08	9.58	9.41	9.47	9.58	9.41	9.03	10.30	8.86
225.0	10.24	9.80	9.80	9.80	9.86	9.41	8.92	8.64	8.81
270.0	10.74	10.02	9.74	9.69	9.47	9.30	9.19	9.58	9.03
315.0	10.68	9.58	9.14	8.92	8.75	8.59	8.53	8.26	8.15
360.0	11.12	9.58	8.81	8.64	8.64	8.53	8.42	8.26	8.04
C/ γ (°)	90.0								
0.0	7.98								
45.0	8.26								
90.0	8.04								
135.0	7.87								
180.0	7.82								
225.0	8.20								
270.0	7.93								
315.0	7.82								
360.0	7.98								