



NATA LIGHTING CO.,LTD
www.nata.cn
Email:info@nata.cn
Tel:+86 0750-377 0000(10 lines) Fax:+86 0750-377 1111
Address:380JinOu Road,Gaoxin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 2-1091-E	
Luminaire: 92.76.263.00	
Report No: NT2014071106	Voltage(V): 33.2000
Test No: GC2014071106	Current(A): 0.5000
LampCAT: Vero13	Power (W): 16.6000
Lamp flux(lm): 1635.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1474.84
Efficiency(%): 90.20%
Lumens(lm)/Power(W): 88.85
Central intensity(cd): 6664.439
Maximum intensity(cd): 6664.439
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=20.0
 [C90/270]Total=20.0
Field angle(10%Imax): [C0/180]Total=43.8
 [C90/270]Total=43.8
Maximum s/h(1/2): C0_180=0.34 C90_270=0.34
Maximum s/h(1/4): C0_180=0.35 C90_270=0.35
Up flux rate of lamp(%): 2.62%
Down flux rate of lamp(%): 87.59%
Up flux rate of LUM(%): 2.90%
Down flux rate of LUM(%): 97.10%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.678%

Equipment: GMS1980
Temperature(°C): 23.0

Date: 2014-7-18
Humidity(%): 73.0%

Operator: NT07
Distance(m): 7.48

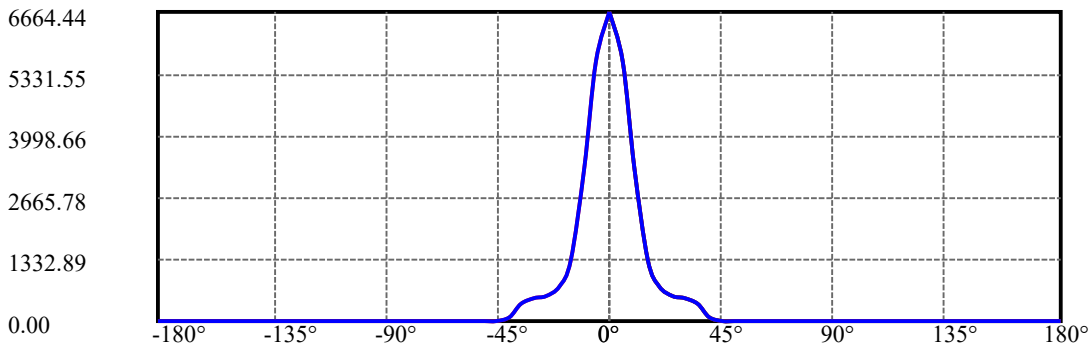
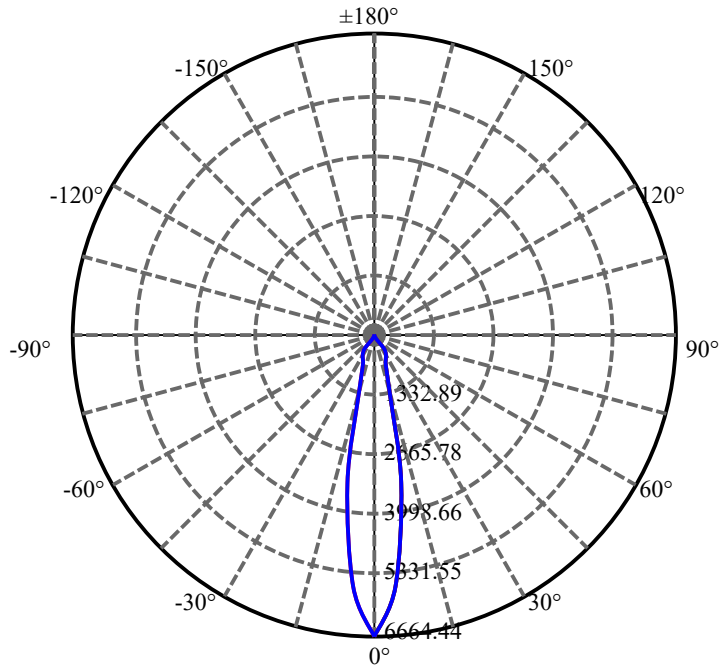
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6664.439	0.000	0	.000%	.000%
5.0	5586.647	146.458	146.458	8.958%	9.930%
10.0	3327.044	318.871	465.329	19.503%	31.551%
15.0	1321.101	275.725	741.054	16.864%	50.246%
20.0	732.661	169.259	910.313	10.352%	61.723%
25.0	557.546	135.319	1045.632	8.276%	70.898%
30.0	489.477	132.502	1178.133	8.104%	79.882%
35.0	369.678	126.517	1304.65	7.738%	88.460%
40.0	89.833	76.666	1381.316	4.689%	93.658%
45.0	12.244	18.900	1400.216	1.156%	94.940%
50.0	8.285	4.148	1404.365	.254%	95.221%
55.0	7.418	3.414	1407.779	.209%	95.453%
60.0	6.919	3.314	1411.093	.203%	95.677%
65.0	6.611	3.289	1414.382	.201%	95.901%
70.0	6.448	3.307	1417.689	.202%	96.125%
75.0	6.397	3.358	1421.047	.205%	96.352%
80.0	6.686	3.501	1424.547	.214%	96.590%
85.0	7.376	3.821	1428.368	.234%	96.849%
90.0	6.141	3.701	1432.069	.226%	97.100%
95.0	6.145	3.364	1435.433	.206%	97.328%
100.0	6.145	3.340	1438.773	.204%	97.554%
105.0	6.145	3.289	1442.061	.201%	97.777%
110.0	6.136	3.210	1445.272	.196%	97.995%
115.0	6.141	3.108	1448.38	.190%	98.206%
120.0	6.136	2.984	1451.364	.183%	98.408%
125.0	6.155	2.841	1454.205	.174%	98.601%
130.0	6.201	2.687	1456.892	.164%	98.783%
135.0	6.229	2.512	1459.404	.154%	98.953%
140.0	6.294	2.319	1461.722	.142%	99.110%
145.0	6.747	2.176	1463.898	.133%	99.258%
150.0	7.950	2.164	1466.062	.132%	99.405%
155.0	9.647	2.227	1468.289	.136%	99.556%
160.0	11.032	2.169	1470.458	.133%	99.703%
165.0	11.717	1.875	1472.333	.115%	99.830%
170.0	11.815	1.396	1473.729	.085%	99.924%
175.0	11.624	0.838	1474.567	.051%	99.981%
180.0	11.461	0.276	1474.843	.017%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1178.13	72.06%	79.88%
0-40	1381.32	84.48%	93.66%
0-60	1411.09	86.31%	95.68%
0-90	1432.07	87.59%	97.10%
0-120	1451.36	88.77%	98.41%
0-180	1474.84	90.20%	100.00%
60-90	24.29	1.49%	1.65%
90-120	23.00	1.41%	1.56%
90-130	28.52	1.74%	1.93%
90-150	37.69	2.31%	2.56%
90-180	46.20	2.83%	3.13%
0-30.07	1179.88	72.16%	80.00%

ZONAL LUMEN SUMMARY

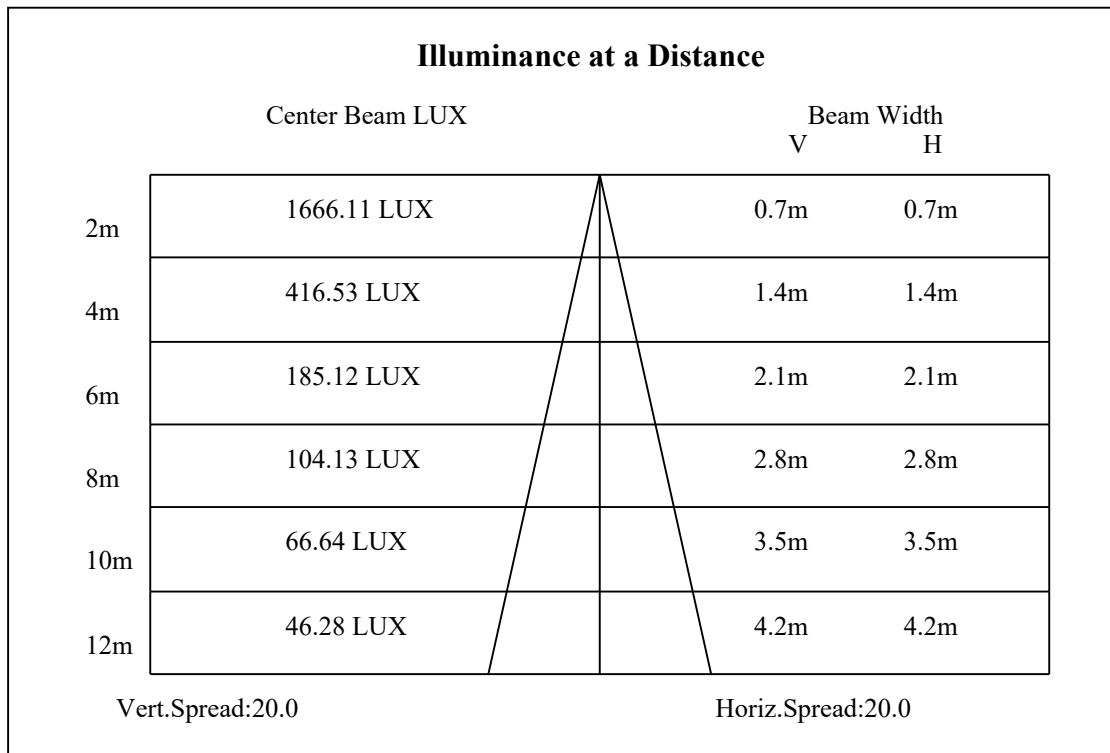
0-10	465.33
10-20	444.98
20-30	267.82
30-40	203.18
40-50	23.05
50-60	6.73
60-70	6.60
70-80	6.86
80-90	7.52
90-100	6.70
100-110	6.50
110-120	6.09
120-130	5.53
130-140	4.83
140-150	4.34
150-160	4.40
160-170	3.27
170-180	0.84

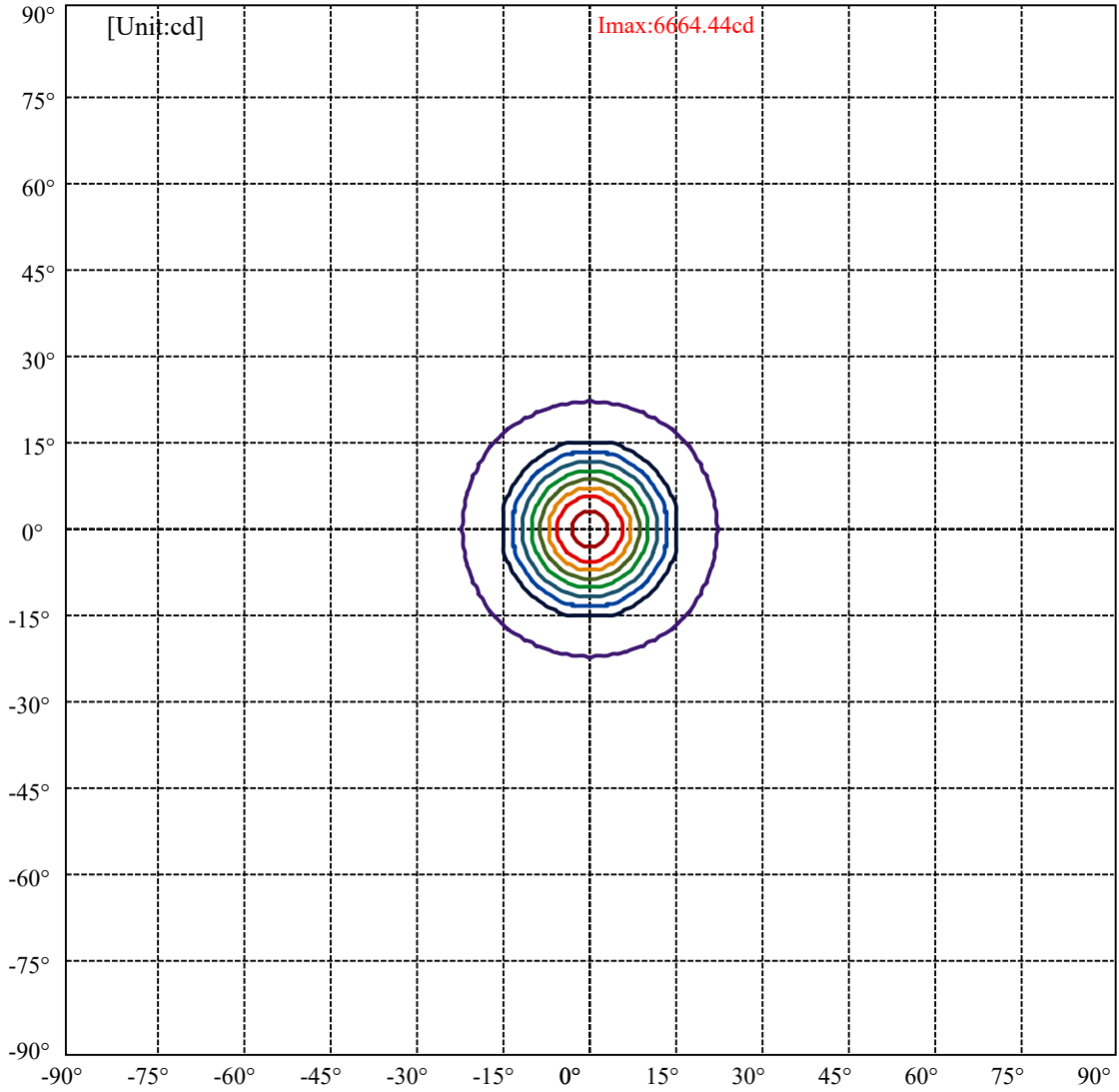


C0(Max): —————
 C0/C180: —————
 C90/C270: —————

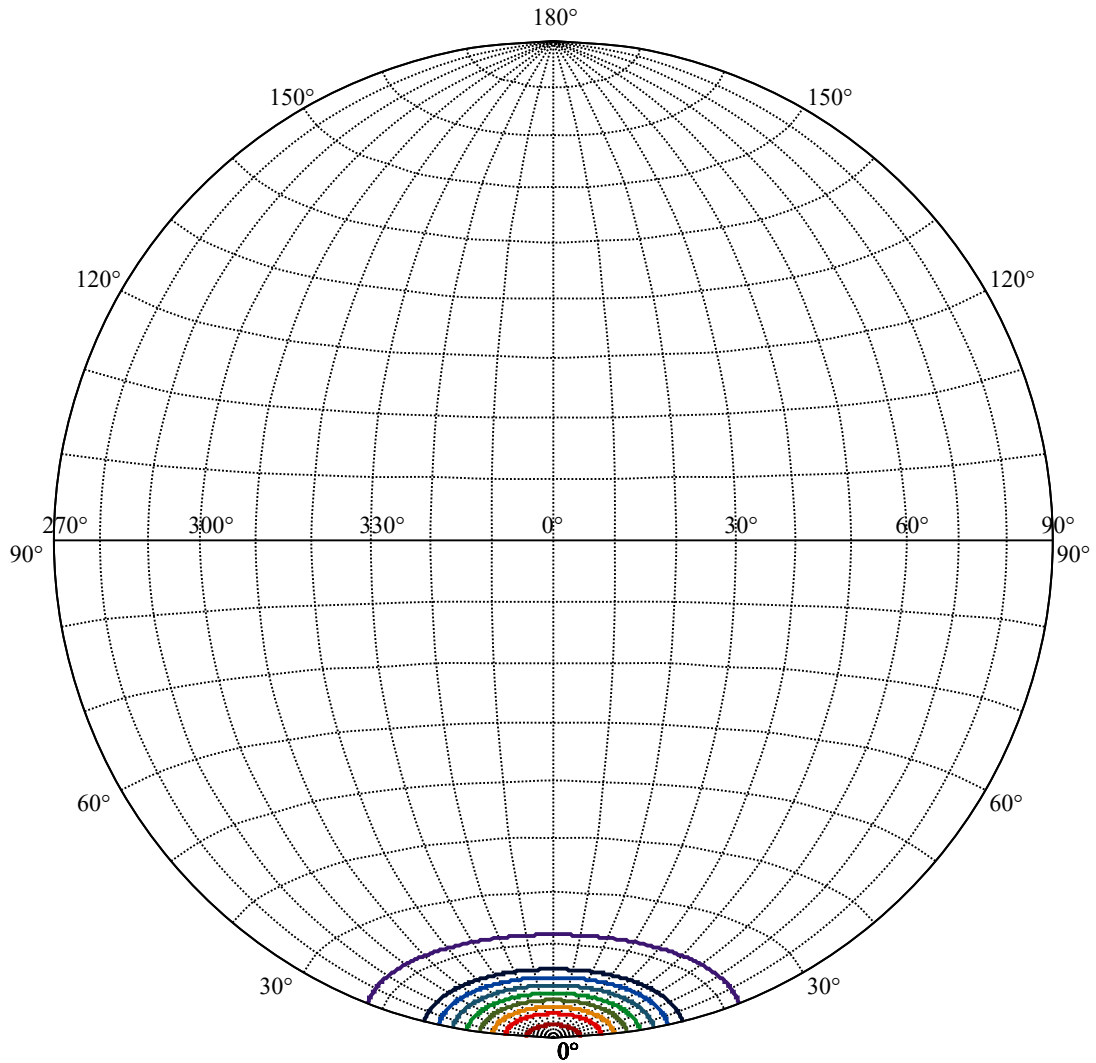
Field angle(10%Imax):C0/180Left:21.9 Right:21.9
 :C90/270Left:21.9 Right:21.9

Beam Angle(50%Imax):C0/180Left:10.0 Right:10.0
 :C90/270Left:10.0 Right:10.0





(10%Imax) 666.444	—
(20%Imax) 1332.89	—
(30%Imax) 1999.33	—
(40%Imax) 2665.78	—
(50%Imax) 3332.22	—
(60%Imax) 3998.66	—
(70%Imax) 4665.11	—
(80%Imax) 5331.55	—
(90%Imax) 5998	—



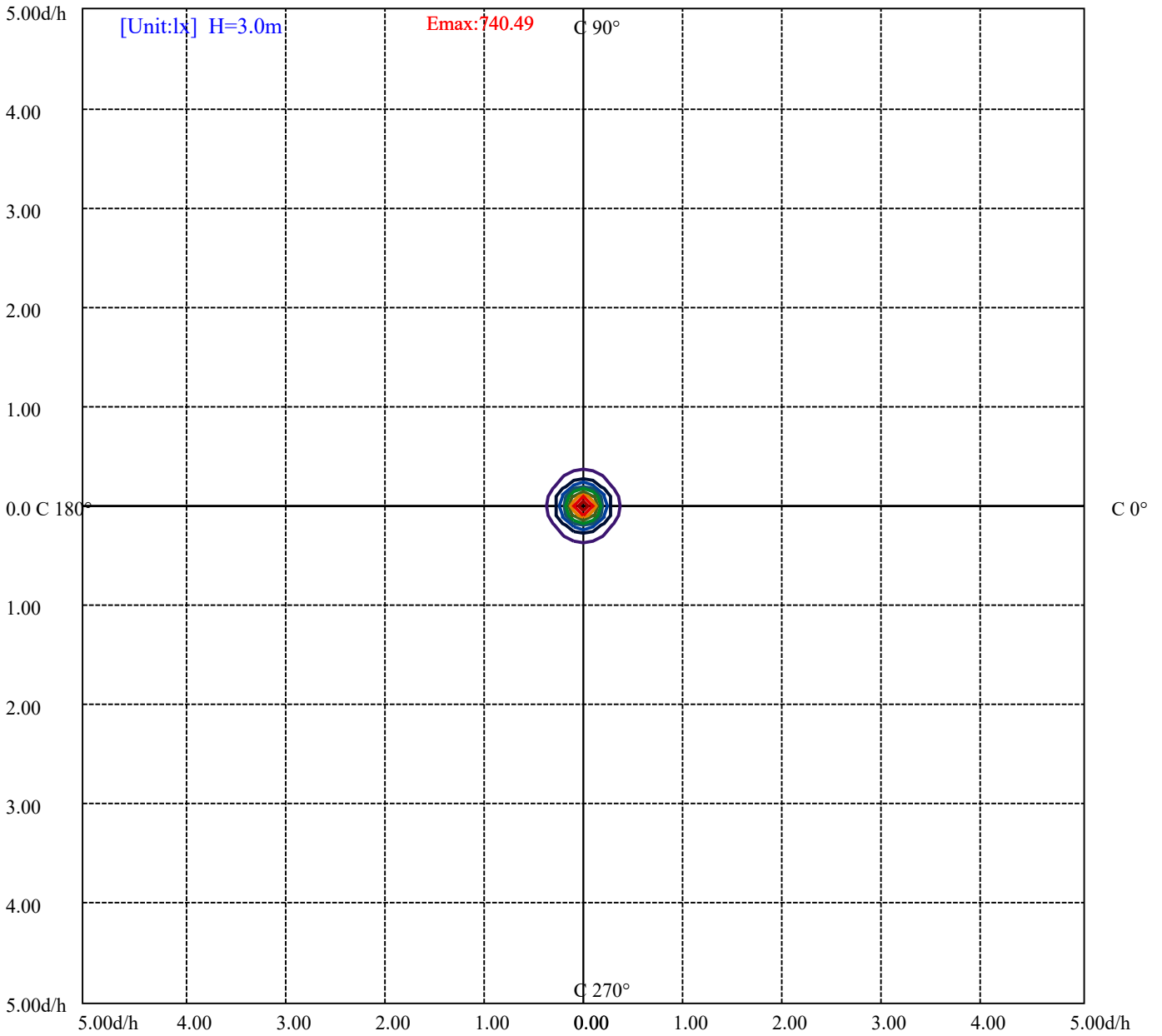
House

[Unit:cd]

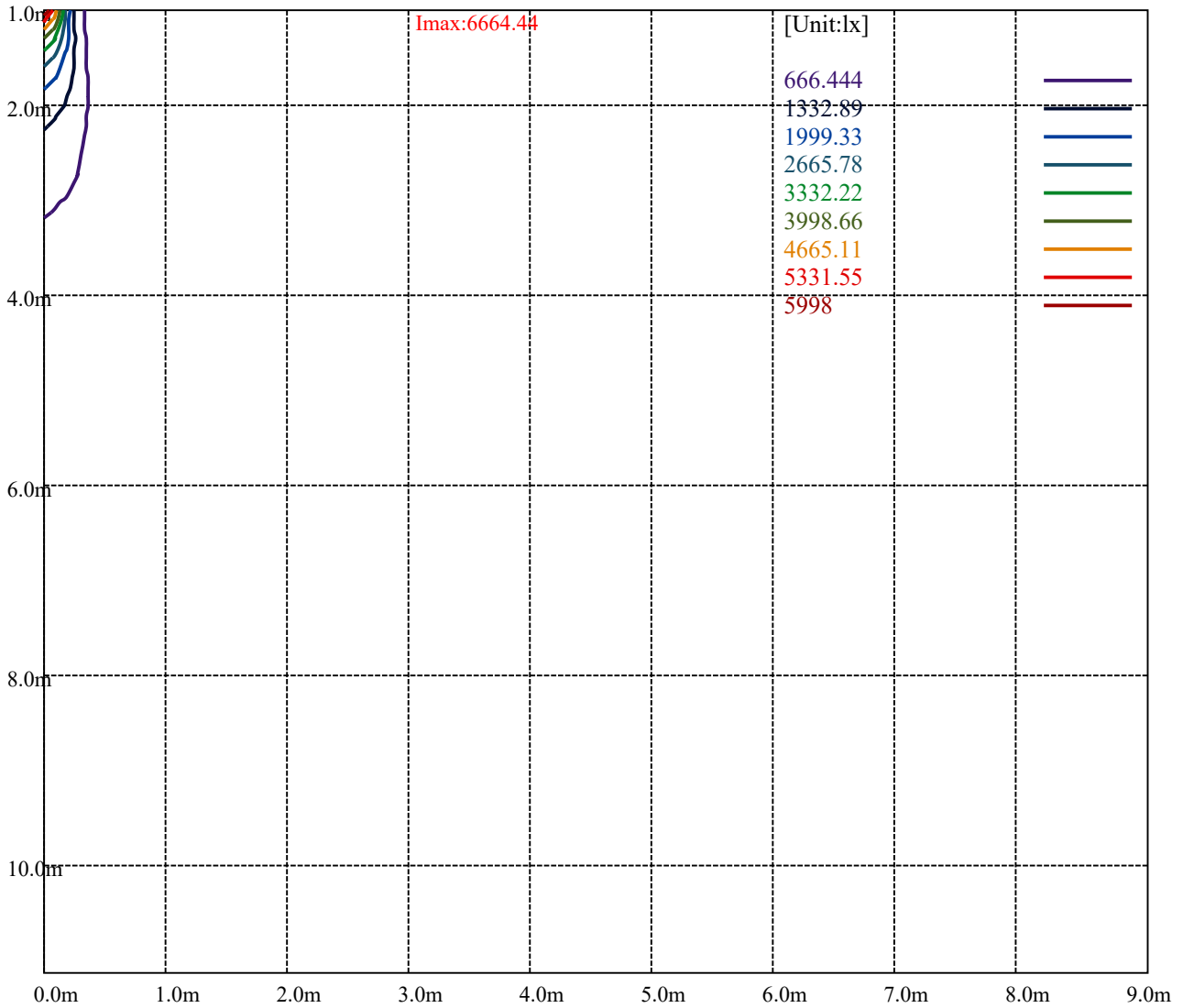
Road

Imax:6664.44

(10%Imax)	666.444	—
(20%Imax)	1332.89	—
(30%Imax)	1999.33	—
(40%Imax)	2665.78	—
(50%Imax)	3332.22	—
(60%Imax)	3998.66	—
(70%Imax)	4665.11	—
(80%Imax)	5331.55	—
(90%Imax)	5998	—



(10%Emax) 74.049	—
(20%Emax) 148.0978	—
(30%Emax) 222.1467	—
(40%Emax) 296.1956	—
(50%Emax) 370.2444	—
(60%Emax) 444.2933	—
(70%Emax) 518.3422	—
(80%Emax) 592.3922	—
(90%Emax) 666.4412	—



Luminance Table

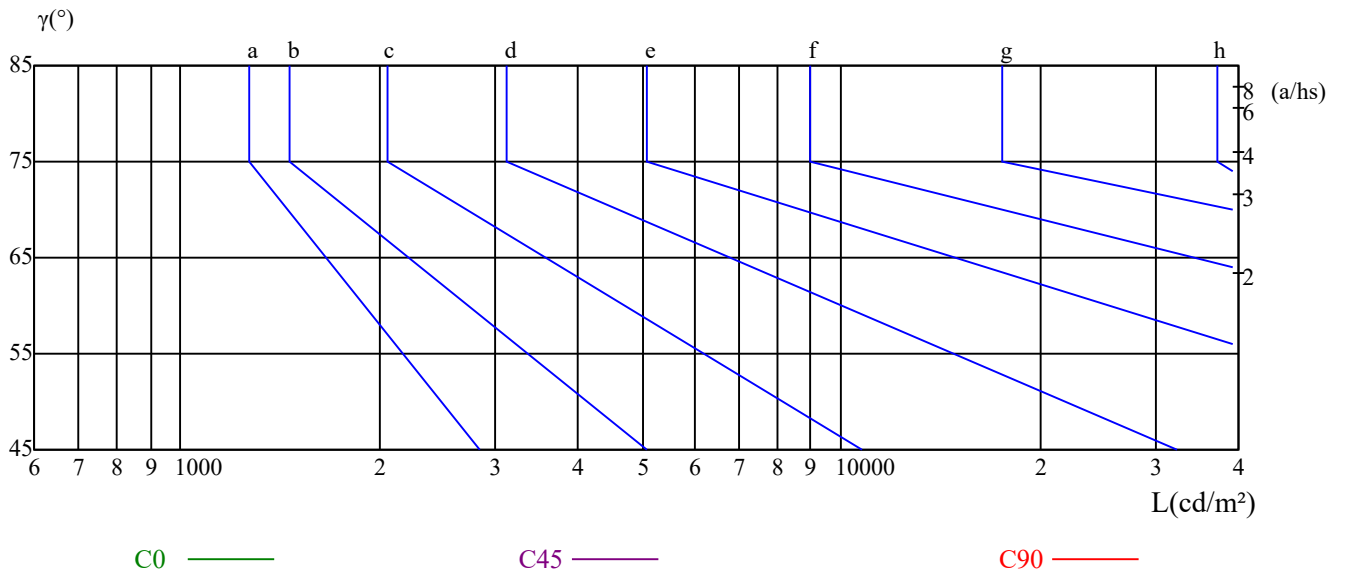
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

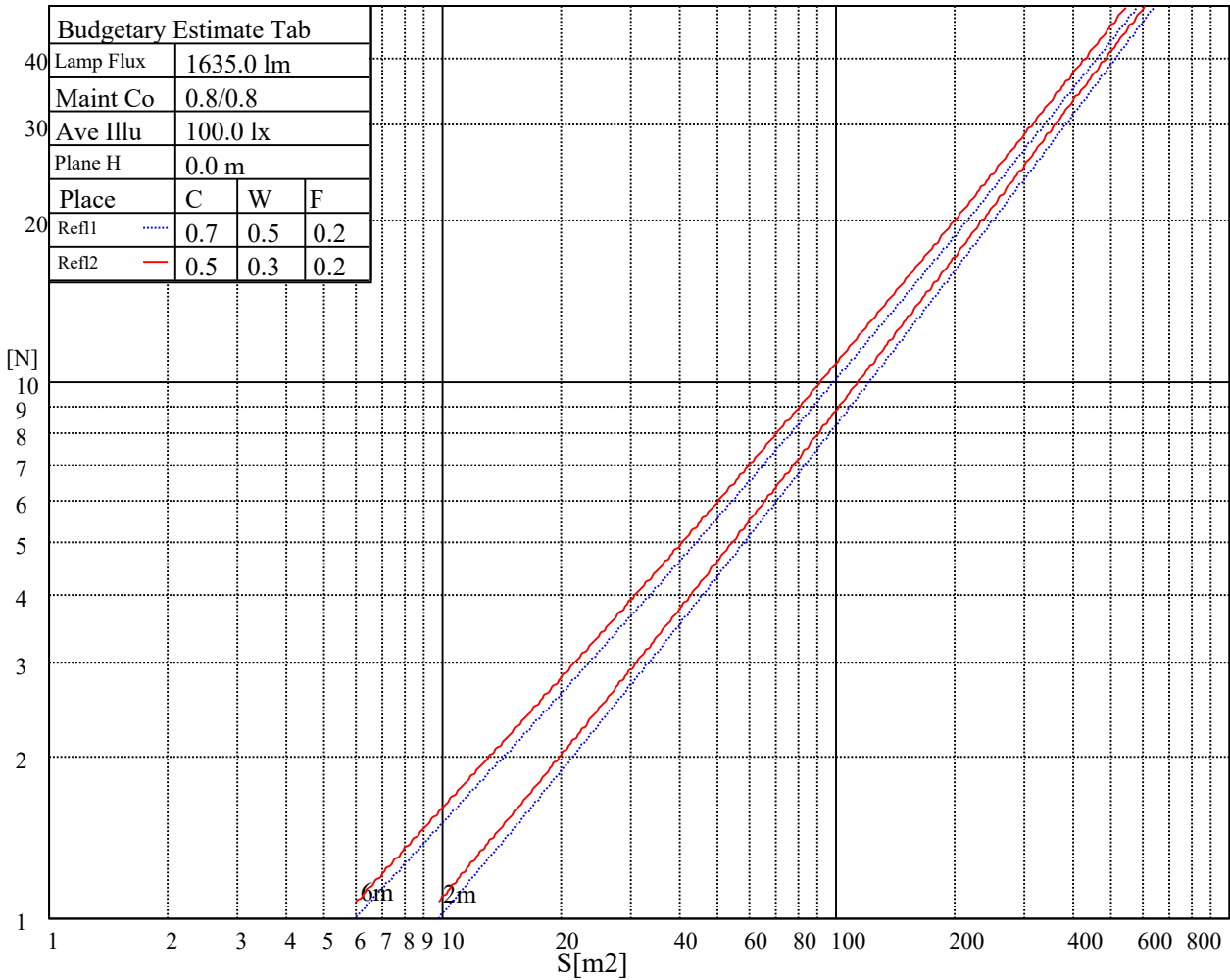
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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	1.07	1.07	1.07	1.04	1.04	1.04	0.99	0.99	0.99	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	1.00	0.98	0.96	0.98	0.96	0.94	0.94	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.83
2	0.94	0.91	0.89	0.93	0.90	0.87	0.89	0.87	0.85	0.86	0.85	0.83	0.84	0.82	0.81	0.79
3	0.89	0.86	0.83	0.88	0.85	0.82	0.85	0.83	0.80	0.83	0.81	0.79	0.81	0.79	0.77	0.76
4	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.72
5	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.75	0.73	0.71	0.69
6	0.78	0.73	0.70	0.77	0.73	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
7	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.64
8	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.62
9	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.60
10	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58

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	6595.99	5866.96	3814.70	1619.20	758.13	561.18	489.01	391.09	116.49
30.0	6722.44	5874.79	3608.24	1551.50	741.90	556.15	496.28	386.62	102.84
60.0	6707.33	5451.81	3101.33	1077.60	670.12	539.08	485.09	335.53	56.68
90.0	6677.68	5677.29	3419.69	1402.12	730.71	553.91	491.24	374.87	97.52
120.0	6616.69	5200.59	2887.04	1086.44	670.90	543.45	480.78	325.46	47.89
150.0	6666.49	5466.35	3329.61	1398.20	741.34	558.94	492.36	369.83	85.38
180.0	6595.99	5179.33	2752.20	1106.25	690.54	541.77	474.91	335.42	54.94
210.0	6722.44	5489.85	3072.80	1092.04	724.78	565.83	490.80	363.68	71.34
240.0	6707.33	5743.87	3653.00	1595.15	800.65	580.77	507.47	412.35	130.25
270.0	6677.68	5594.48	3218.83	1075.09	742.46	563.59	487.94	358.64	99.31
300.0	6616.69	5868.64	3697.76	1759.08	803.45	576.29	496.84	415.15	134.84
330.0	6666.49	5625.81	3369.33	1090.53	716.95	549.60	481.01	367.48	80.51
360.0	6595.99	5866.96	3814.70	1619.20	758.13	561.18	489.01	391.09	116.49
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	12.53	8.34	7.44	6.94	6.55	6.38	6.27	6.21	6.21
30.0	12.76	8.50	7.61	7.05	6.66	6.49	6.38	6.38	6.38
60.0	13.15	8.45	7.55	6.94	6.66	6.43	6.32	6.77	7.11
90.0	13.32	8.67	7.67	7.11	6.71	6.49	6.43	6.60	8.22
120.0	11.69	7.94	7.22	6.77	6.55	6.38	6.38	6.99	8.62
150.0	11.47	7.94	7.22	6.83	6.60	6.43	6.49	7.44	9.62
180.0	9.96	7.72	7.05	6.66	6.49	6.38	6.49	7.16	6.83
210.0	11.41	7.94	7.22	6.83	6.55	6.43	6.38	6.43	6.32
240.0	12.64	8.56	7.55	7.05	6.71	6.55	6.43	6.60	6.77
270.0	12.64	8.50	7.55	7.05	6.71	6.55	6.55	6.88	8.39
300.0	13.09	8.67	7.61	6.99	6.66	6.49	6.43	6.55	7.39
330.0	12.25	8.17	7.33	6.83	6.49	6.38	6.21	6.21	6.66
360.0	12.53	8.34	7.44	6.94	6.55	6.38	6.27	6.21	6.21
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	6.15	6.15	6.15	6.15	6.10	6.15	6.15	6.15	6.21
30.0	6.21	6.21	6.15	6.21	6.15	6.15	6.21	6.21	6.27
60.0	6.15	6.15	6.21	6.15	6.15	6.15	6.15	6.15	6.21
90.0	6.15	6.15	6.15	6.15	6.15	6.15	6.10	6.15	6.15
120.0	6.10	6.15	6.10	6.10	6.10	6.10	6.04	6.10	6.15
150.0	6.10	6.15	6.10	6.15	6.10	6.10	6.10	6.15	6.15
180.0	6.10	6.04	6.10	6.10	6.10	6.10	6.04	6.10	6.10
210.0	6.15	6.21	6.15	6.15	6.21	6.21	6.21	6.21	6.27
240.0	6.21	6.15	6.21	6.15	6.21	6.15	6.21	6.21	6.27
270.0	6.10	6.10	6.15	6.15	6.10	6.15	6.15	6.15	6.21
300.0	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.21
330.0	6.10	6.10	6.10	6.10	6.10	6.10	6.10	6.10	6.21
360.0	6.15	6.15	6.15	6.15	6.10	6.15	6.15	6.15	6.21
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	6.27	6.32	6.66	7.78	9.51	11.13	11.97	12.09	11.75
30.0	6.21	6.27	6.77	7.83	9.51	10.74	11.58	11.75	11.69
60.0	6.21	6.27	6.83	8.11	9.62	10.91	11.58	11.64	11.64
90.0	6.15	6.21	6.66	7.72	9.29	10.63	11.30	11.47	11.47
120.0	6.15	6.21	6.77	8.00	9.40	10.69	11.30	11.41	11.36
150.0	6.15	6.21	6.60	7.67	9.23	10.46	11.19	11.36	11.30
180.0	6.15	6.21	6.66	7.83	9.40	10.57	11.19	11.30	11.25
210.0	6.32	6.43	6.94	8.39	10.18	11.75	12.31	12.31	11.97
240.0	6.27	6.38	6.77	7.94	9.90	11.36	12.09	12.20	11.86
270.0	6.32	6.38	6.83	8.17	10.02	11.53	12.03	12.09	11.75
300.0	6.32	6.32	6.71	7.83	9.79	11.25	11.97	12.09	11.75
330.0	6.21	6.32	6.77	8.11	9.90	11.36	12.09	12.09	11.69
360.0	6.27	6.32	6.66	7.78	9.51	11.13	11.97	12.09	11.75

Intensity data(cd)

C/γ(°)	180.0
0.0	11.30
30.0	11.64
60.0	11.58
90.0	11.47
120.0	11.41
150.0	11.36
180.0	11.30
210.0	11.64
240.0	11.58
270.0	11.47
300.0	11.41
330.0	11.36
360.0	11.30