



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: 2-1033-E	
Luminaire: 92.76.233.00	
Report No: 2017010015	Voltage(V): 218.4000
Test No: 2017010703	Current(A): 0.0760
LampCAT: PL-CORE-AC-2000-840-G2	Power (W): 16.5000
Lamp flux(lm): 1733.0	PF: 0.9970
Number of Lamps: 1	Ballast type: AC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1532.84
Efficiency(%): 88.45%
Lumens(lm)/Power(W): 93.42
Central intensity(cd): 1686.928
Maximum intensity(cd): 1692.984
Angle of maximum intensity: C=90.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=62.1
 [C90/270]Total=62.3
Field angle(10%Imax): [C0/180]Total=82.6
 [C90/270]Total=82.6
Maximum s/h(1/2): C0_180=0.95 C90_270=0.95
Maximum s/h(1/4): C0_180=0.92 C90_270=0.92
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 88.95%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.109%

Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/1/7
Humidity(%): 60.0%

Operator: NT03
Distance(m): 7.42

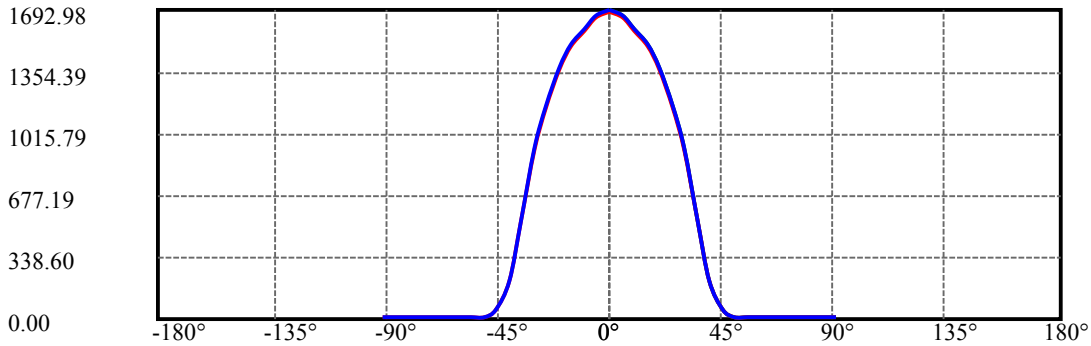
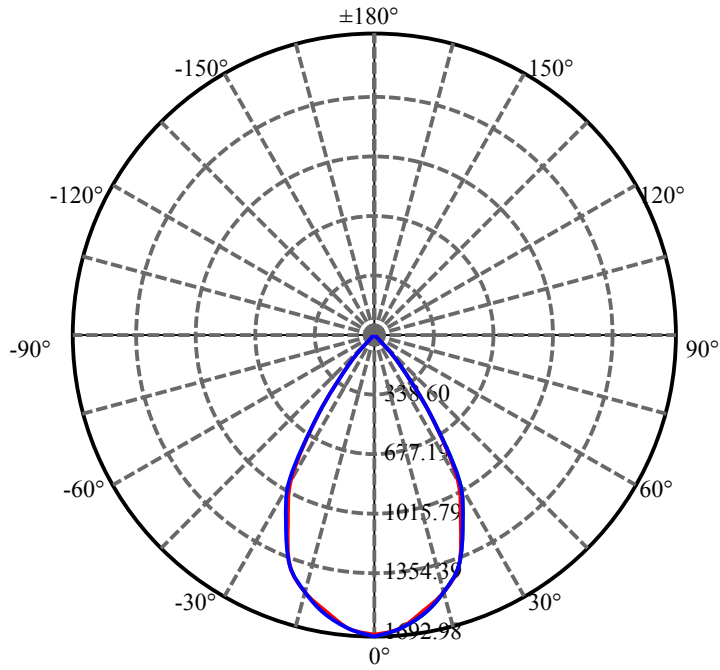
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1689.819	10.105	10.105	.583%	.659%
5.0	1656.647	79.144	89.249	4.567%	5.822%
10.0	1584.248	150.794	240.043	8.701%	15.660%
15.0	1494.988	212.092	452.134	12.238%	29.497%
20.0	1375.447	257.860	709.995	14.879%	46.319%
25.0	1164.491	269.758	979.752	15.566%	63.918%
30.0	930.722	255.082	1234.834	14.719%	80.559%
35.0	541.872	170.364	1405.198	9.831%	91.673%
40.0	210.942	74.322	1479.52	4.289%	96.522%
45.0	48.112	18.648	1498.168	1.076%	97.738%
50.0	14.845	6.233	1504.401	.360%	98.145%
55.0	9.277	4.165	1508.567	.240%	98.417%
60.0	7.942	3.770	1512.337	.218%	98.663%
65.0	7.598	3.774	1516.111	.218%	98.909%
70.0	7.336	3.779	1519.89	.218%	99.155%
75.0	7.082	3.749	1523.639	.216%	99.400%
80.0	6.910	3.730	1527.369	.215%	99.643%
85.0	6.779	3.702	1531.071	.214%	99.885%
90.0	6.442	1.765	1532.836	.102%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1234.83	71.25%	80.56%
0-40	1479.52	85.37%	96.52%
0-60	1512.34	87.27%	98.66%
0-90	1531.07	88.35%	99.88%
0-120	1531.07	88.35%	99.88%
0-180	1532.84	88.45%	100.00%
60-90	22.50	1.30%	1.47%
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%
0-29.83	1226.27	70.76%	80.00%

ZONAL LUMEN SUMMARY

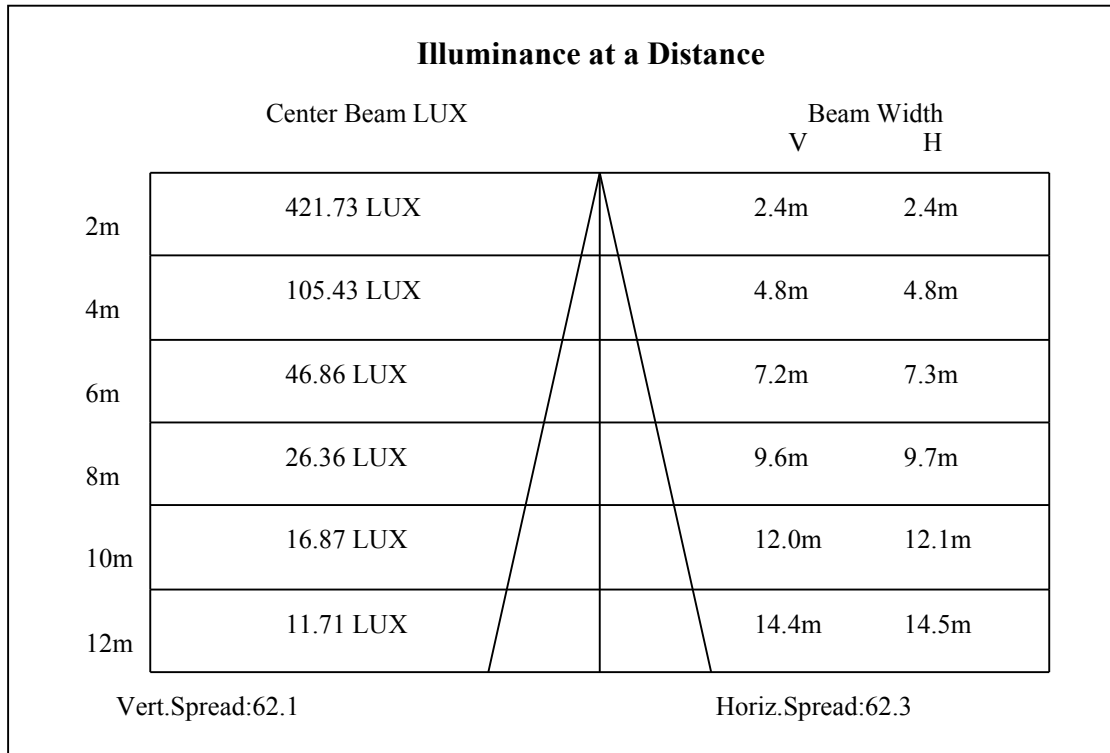
0-10	240.04
10-20	469.95
20-30	524.84
30-40	244.69
40-50	24.88
50-60	7.94
60-70	7.55
70-80	7.48
80-90	3.70
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

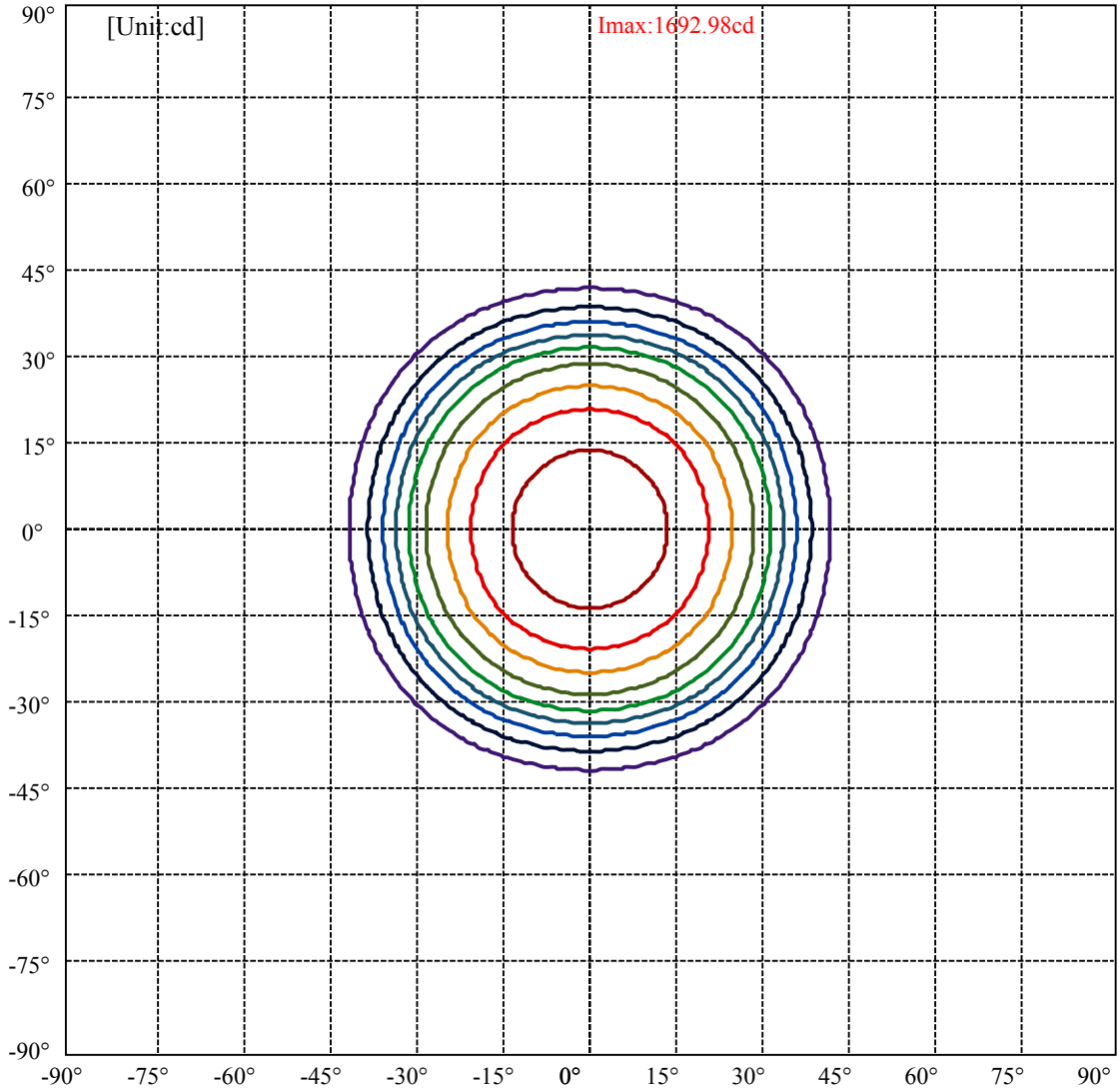


C90(Max): ———
C0/C180: ———
C90/C270: ———

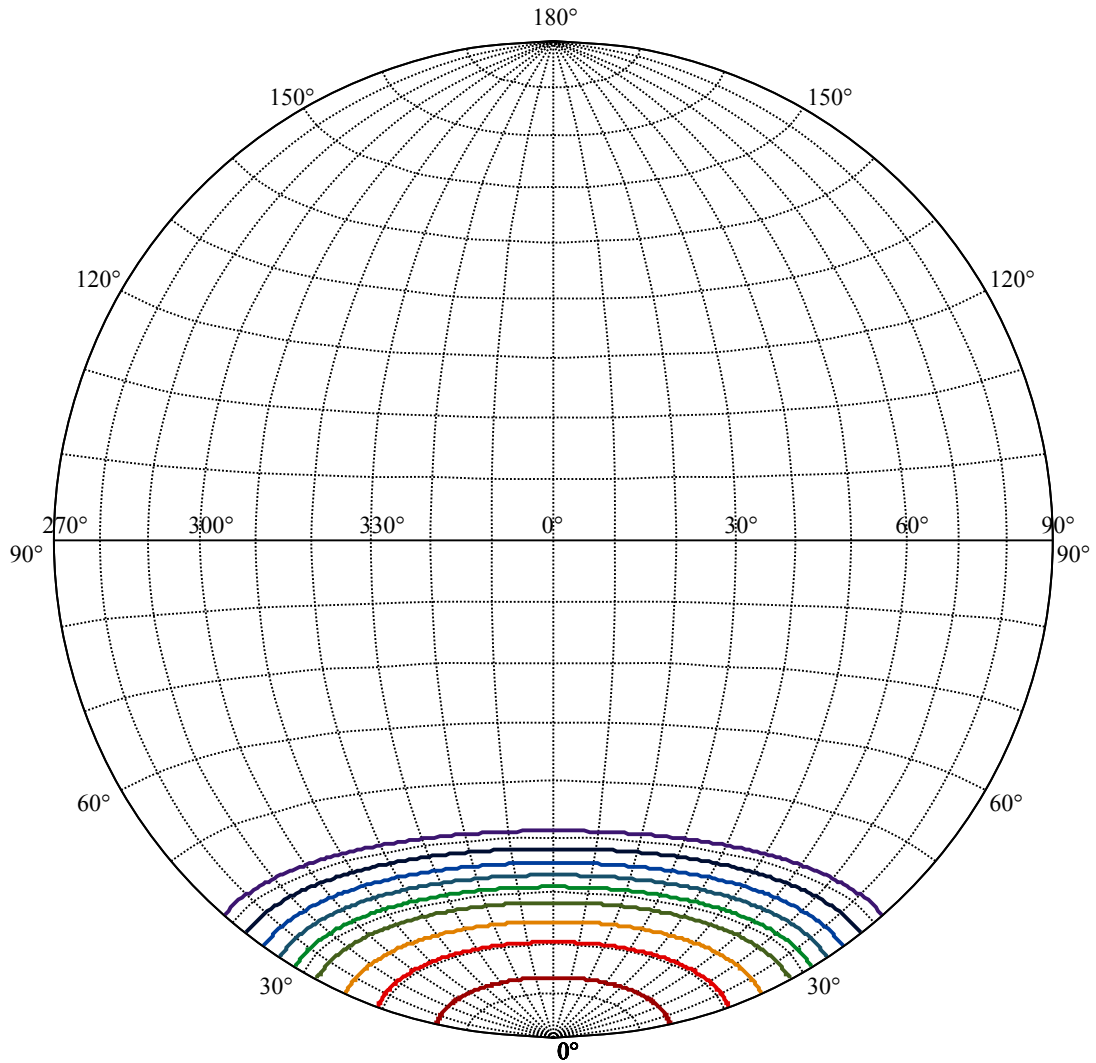
Field angle(10%Imax):C0/180Left:41.3 Right:41.3
:C90/270Left:41.3 Right:41.3

Beam Angle(50%Imax):C0/180Left:31.1 Right:31.1
:C90/270Left:31.2 Right:31.2





(10%Imax) 169.298	—
(20%Imax) 338.597	—
(30%Imax) 507.895	—
(40%Imax) 677.194	—
(50%Imax) 846.492	—
(60%Imax) 1015.79	—
(70%Imax) 1185.09	—
(80%Imax) 1354.39	—
(90%Imax) 1523.69	—



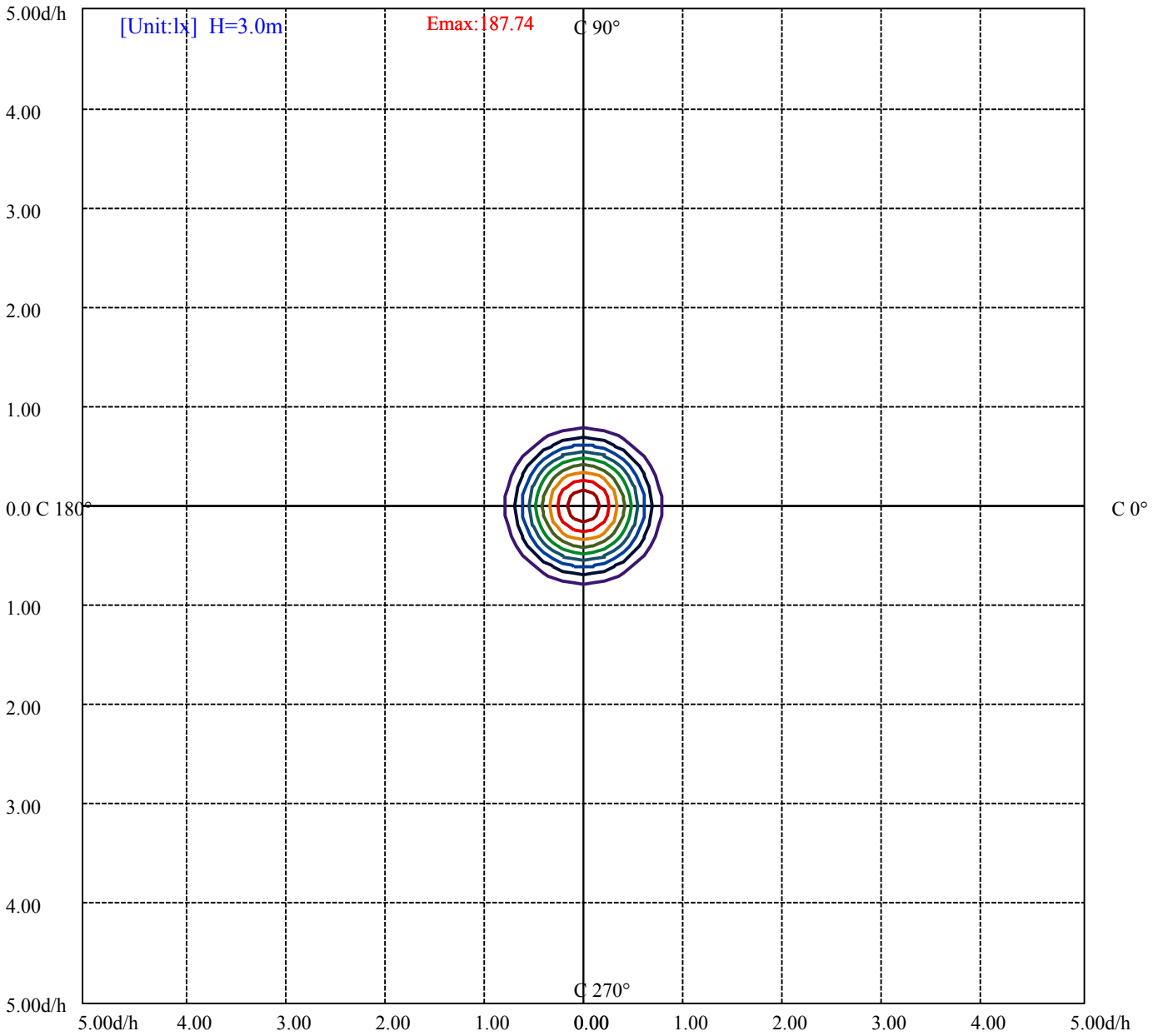
House

[Unit:cd]

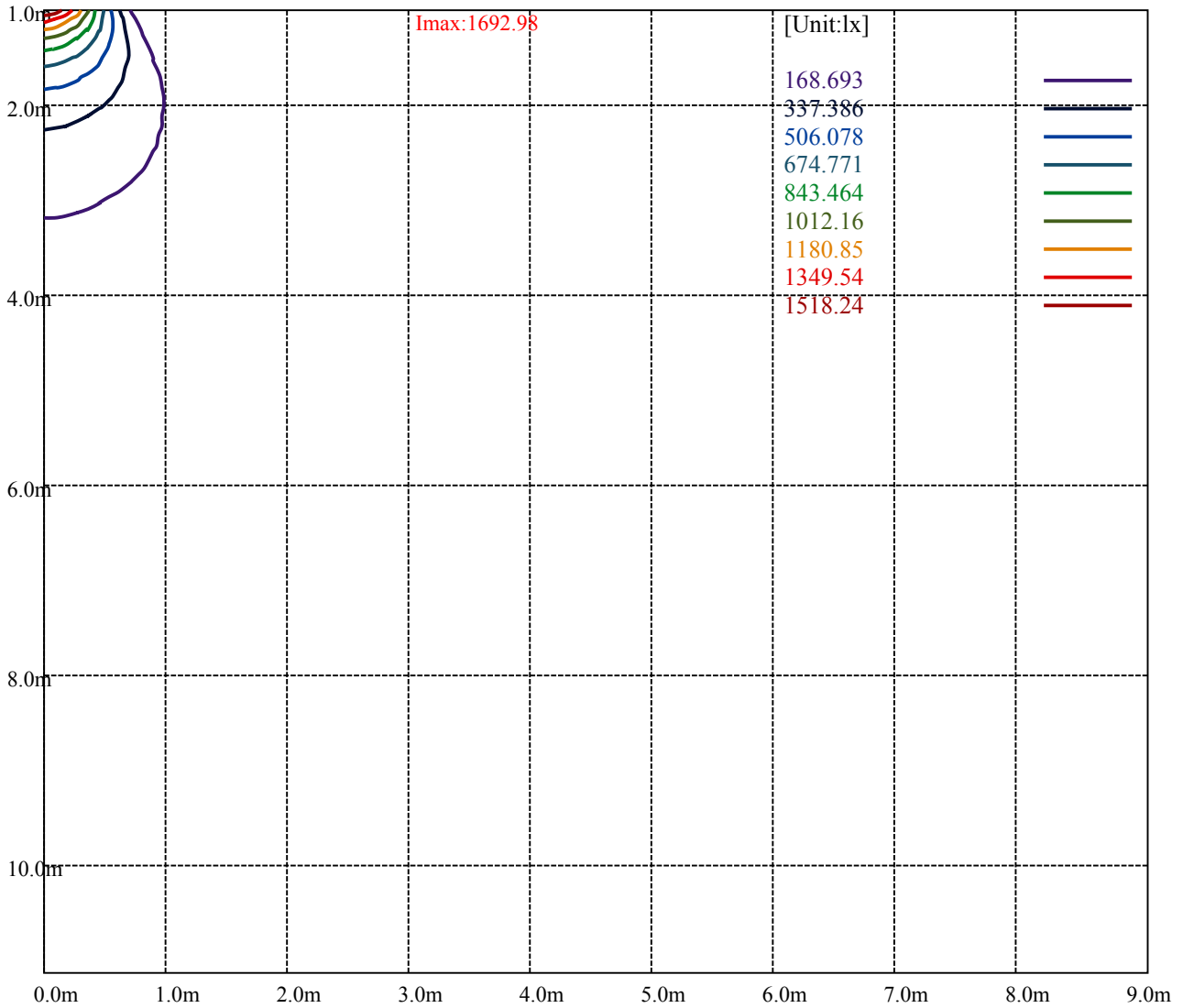
Road

Imax:1692.98

(10%Imax) 169.298	—
(20%Imax) 338.597	—
(30%Imax) 507.895	—
(40%Imax) 677.194	—
(50%Imax) 846.492	—
(60%Imax) 1015.79	—
(70%Imax) 1185.09	—
(80%Imax) 1354.39	—
(90%Imax) 1523.69	—



- (10%Emax) 18.77422
- (20%Emax) 37.54845
- (30%Emax) 56.32267
- (40%Emax) 75.09689
- (50%Emax) 93.87112
- (60%Emax) 112.6456
- (70%Emax) 131.42
- (80%Emax) 150.1933
- (90%Emax) 168.9678



Luminance Table

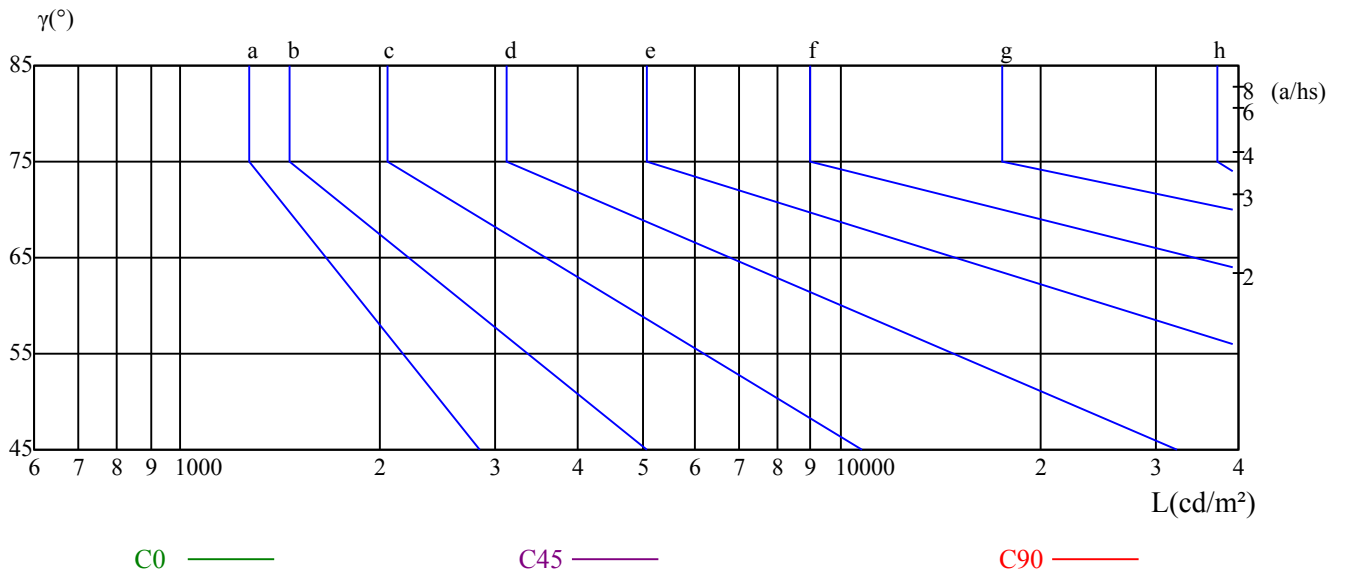
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

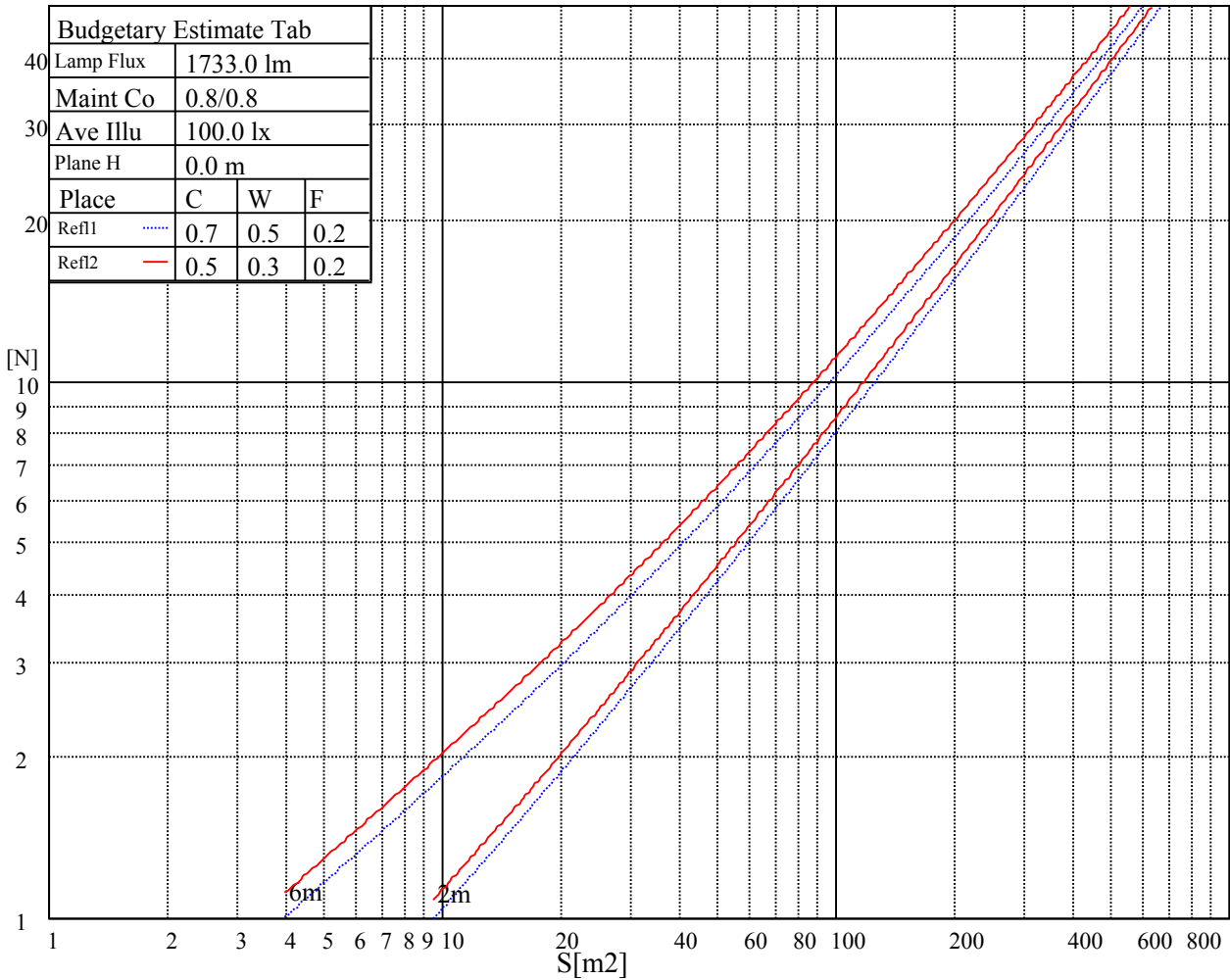
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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 RHOF=20 CU															
0	1.06	1.06	1.06	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.98	0.96	0.94	0.96	0.94	0.92	0.93	0.91	0.89	0.89	0.88	0.87	0.86	0.85	0.84	0.83
2	0.92	0.88	0.85	0.90	0.87	0.84	0.87	0.85	0.82	0.85	0.83	0.81	0.82	0.81	0.79	0.77
3	0.86	0.82	0.78	0.85	0.81	0.78	0.83	0.79	0.77	0.80	0.78	0.75	0.78	0.76	0.74	0.73
4	0.81	0.76	0.73	0.80	0.76	0.72	0.78	0.74	0.72	0.76	0.73	0.71	0.75	0.72	0.70	0.69
5	0.77	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	0.72	0.67	0.64	0.72	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.62	0.61
7	0.69	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58
8	0.65	0.60	0.57	0.65	0.60	0.57	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.55
9	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.56	0.53	0.60	0.56	0.53	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	0.53	0.51	0.57	0.53	0.50	0.49

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	1686.93	1673.16	1622.51	1550.94	1430.37	1236.02	1005.33	650.77	279.14
45.0	1689.68	1684.73	1641.23	1564.15	1447.98	1264.09	1041.67	680.50	294.00
90.0	1692.98	1662.15	1595.53	1521.76	1397.33	1162.24	972.30	597.86	224.80
135.0	1689.68	1663.25	1577.92	1483.77	1381.92	1217.85	987.71	623.79	292.90
180.0	1686.93	1632.42	1536.62	1436.42	1313.10	1084.78	848.42	425.70	140.83
225.0	1689.68	1627.47	1542.68	1436.42	1304.29	1093.20	817.53	402.52	120.13
270.0	1692.98	1655.55	1574.61	1476.06	1360.44	1172.70	905.13	482.29	200.19
315.0	1689.68	1654.44	1582.87	1490.38	1368.15	1085.05	867.69	471.56	135.55
360.0	1686.93	1673.16	1622.51	1550.94	1430.37	1236.02	1005.33	650.77	279.14

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	57.86	15.09	9.52	7.87	7.49	7.27	6.99	6.83	6.72
45.0	58.91	15.91	9.47	7.82	7.43	7.27	6.99	6.83	6.66
90.0	58.41	16.46	9.63	7.82	7.43	7.16	6.99	6.77	6.72
135.0	58.97	19.21	10.41	8.09	7.60	7.32	7.16	6.94	6.83
180.0	40.25	13.93	9.08	8.09	7.98	7.60	7.16	6.99	6.83
225.0	37.71	12.99	8.64	7.98	7.93	7.49	7.16	6.99	6.83
270.0	37.88	12.94	8.86	8.20	7.43	7.32	7.16	7.05	6.88
315.0	34.91	12.22	8.59	7.65	7.49	7.27	7.05	6.88	6.77
360.0	57.86	15.09	9.52	7.87	7.49	7.27	6.99	6.83	6.72

C/γ(°)	90.0
0.0	6.44
45.0	6.44
90.0	6.39
135.0	6.50
180.0	6.44
225.0	6.44
270.0	6.44
315.0	6.44
360.0	6.44