



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 2-1121-A4
Luminaire: 99.02.73.172+92.76.365.00
Report No: NATA0100
Test No: GC2018082804
LampCAT: BRIDGELUX V13B
Lamp flux(lm): 2575.0
Number of Lamps: 1
Length(mm): 71
Phm Type: C

Voltage(V): 34.0000
Current(A): 0.5000
Power (W): 17.0000
PF: 0.0000
Ballast type: DC
Width(mm): 71
Height(mm): 0

Photometric Results

Lumens(lm): 2368.63
Efficiency(%): 91.99%
Lumens(lm)/Power(W): 141.99
Central intensity(cd): 7949.043
Maximum intensity(cd): 7949.043
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=26.3
 [C90/270]Total=26.3
Field angle(10%Imax): [C0/180]Total=61.2
 [C90/270]Total=61.2
Maximum s/h(1/2): C0_180=0.45 C90_270=0.45
Maximum s/h(1/4): C0_180=0.43 C90_270=0.43
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.74%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.865%

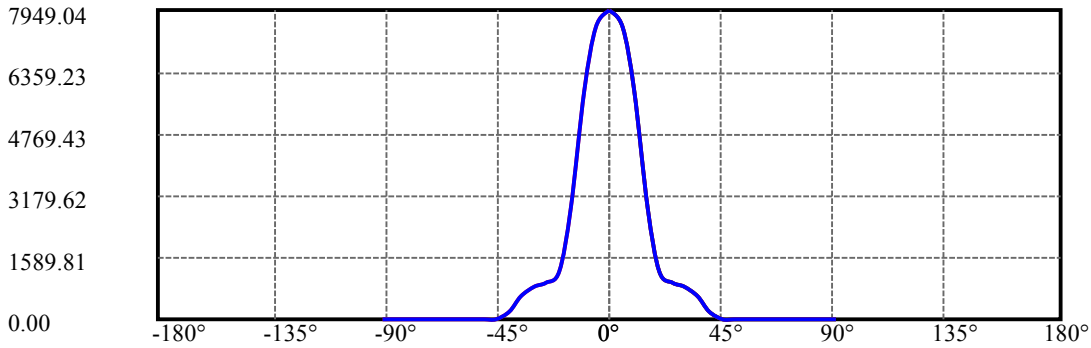
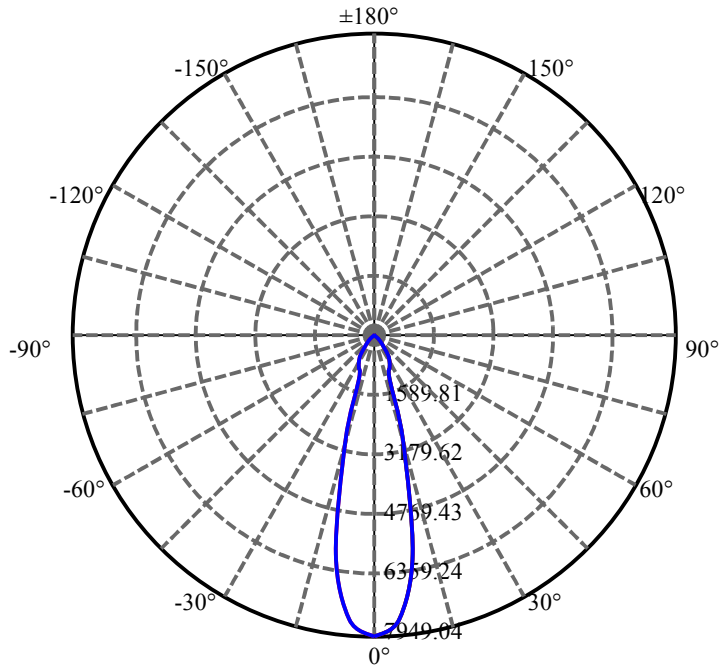
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7949.043	47.537	47.537	1.846%	2.007%
5.0	7510.450	358.799	406.336	13.934%	17.155%
10.0	5860.823	557.851	964.187	21.664%	40.707%
15.0	2870.572	407.243	1371.43	15.815%	57.900%
20.0	1243.910	233.201	1604.631	9.056%	67.745%
25.0	943.990	218.678	1823.309	8.492%	76.977%
30.0	821.524	225.154	2048.463	8.744%	86.483%
35.0	597.472	187.844	2236.308	7.295%	94.414%
40.0	219.923	77.487	2313.794	3.009%	97.685%
45.0	22.029	8.538	2322.333	.332%	98.046%
50.0	12.608	5.294	2327.627	.206%	98.269%
55.0	11.734	5.269	2332.896	.205%	98.491%
60.0	11.238	5.335	2338.23	.207%	98.717%
65.0	10.887	5.409	2343.639	.210%	98.945%
70.0	10.640	5.480	2349.119	.213%	99.176%
75.0	10.454	5.535	2354.654	.215%	99.410%
80.0	10.337	5.580	2360.234	.217%	99.646%
85.0	10.261	5.603	2365.837	.218%	99.882%
90.0	10.179	2.790	2368.627	.108%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2048.46	79.55%	86.48%
0-40	2313.79	89.86%	97.69%
0-60	2338.23	90.81%	98.72%
0-90	2365.84	91.88%	99.88%
0-120	2365.84	91.88%	99.88%
0-180	2368.63	91.99%	100.00%
60-90	32.94	1.28%	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%
0-26.59	1894.90	73.59%	80.00%

ZONAL LUMEN SUMMARY

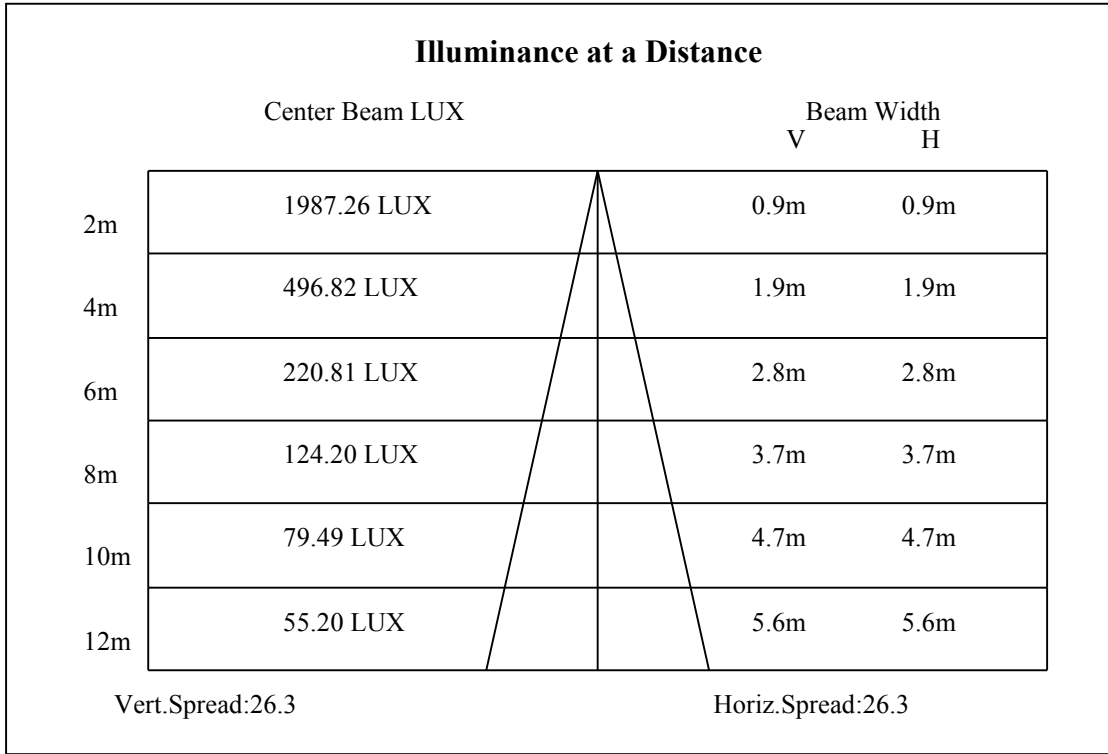
0-10	964.19
10-20	640.44
20-30	443.83
30-40	265.33
40-50	13.83
50-60	10.60
60-70	10.89
70-80	11.11
80-90	5.60
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

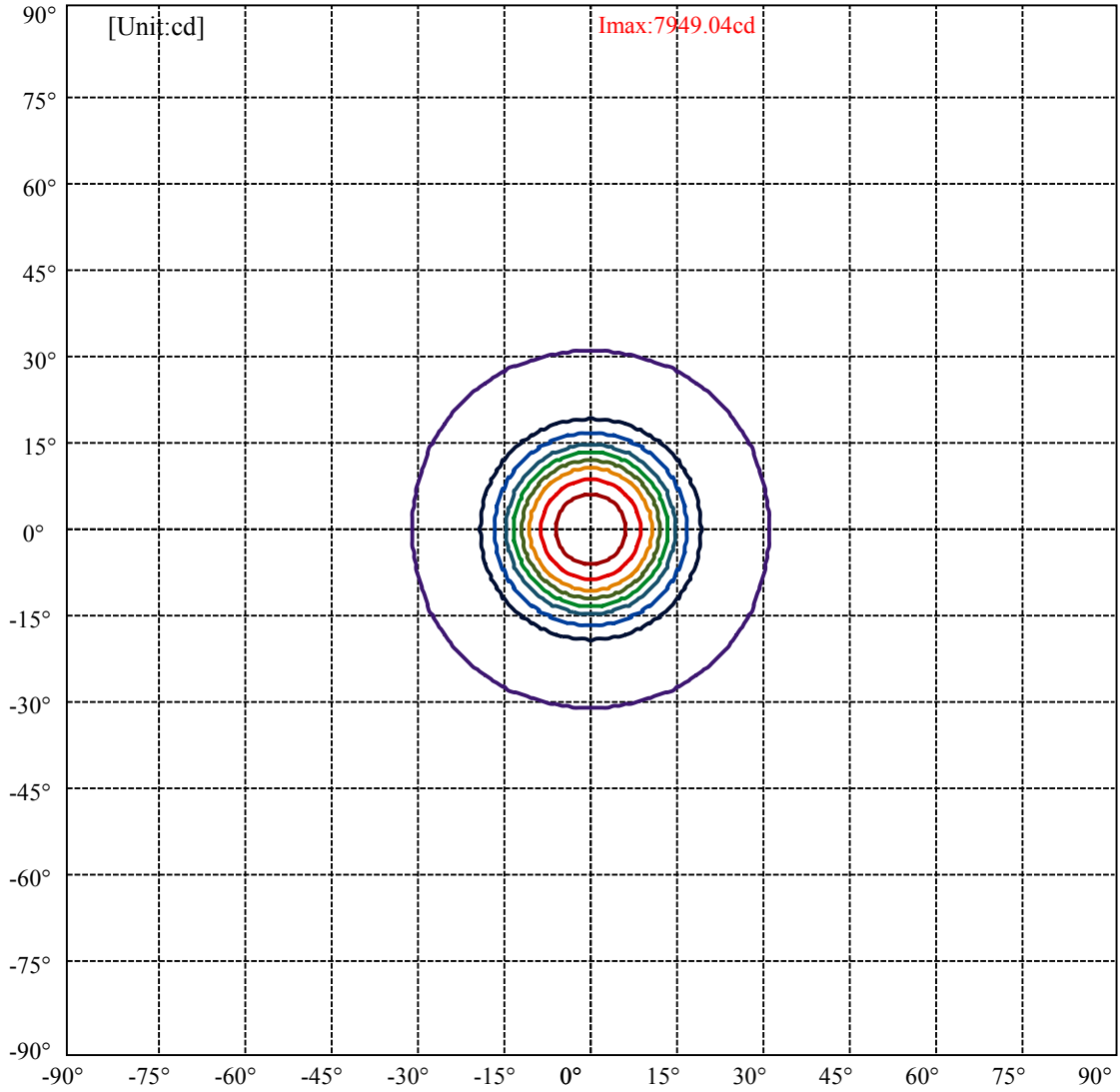


C0(Max): ———
C0/C180: ———
C90/C270: ———

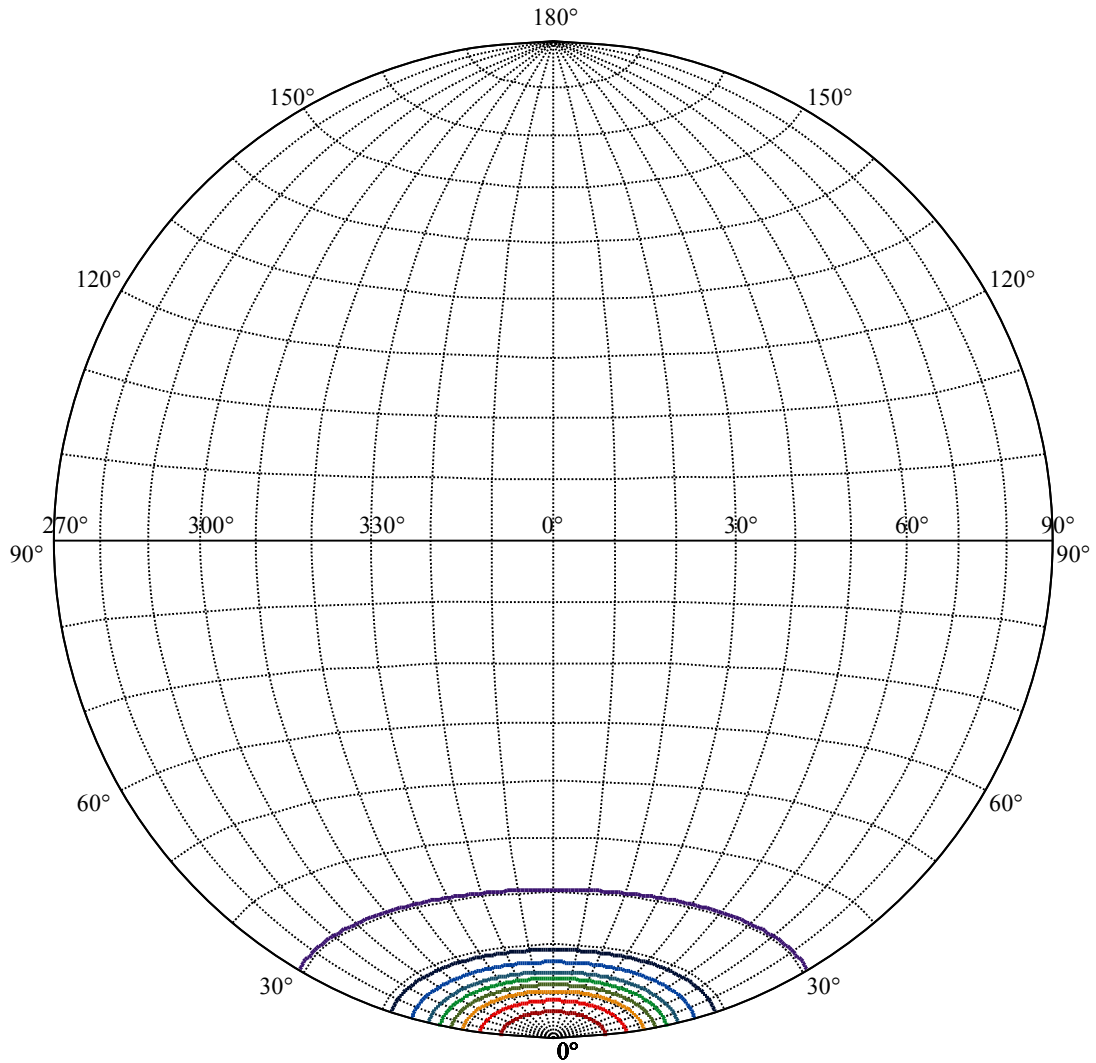
Field angle(10%Imax):C0/180Left:30.6 Right:30.6
:C90/270Left:30.6 Right:30.6

Beam Angle(50%Imax):C0/180Left:13.2 Right:13.2
:C90/270Left:13.2 Right:13.2





(10%Imax) 794.904	—
(20%Imax) 1589.81	—
(30%Imax) 2384.71	—
(40%Imax) 3179.62	—
(50%Imax) 3974.52	—
(60%Imax) 4769.43	—
(70%Imax) 5564.33	—
(80%Imax) 6359.23	—
(90%Imax) 7154.14	—



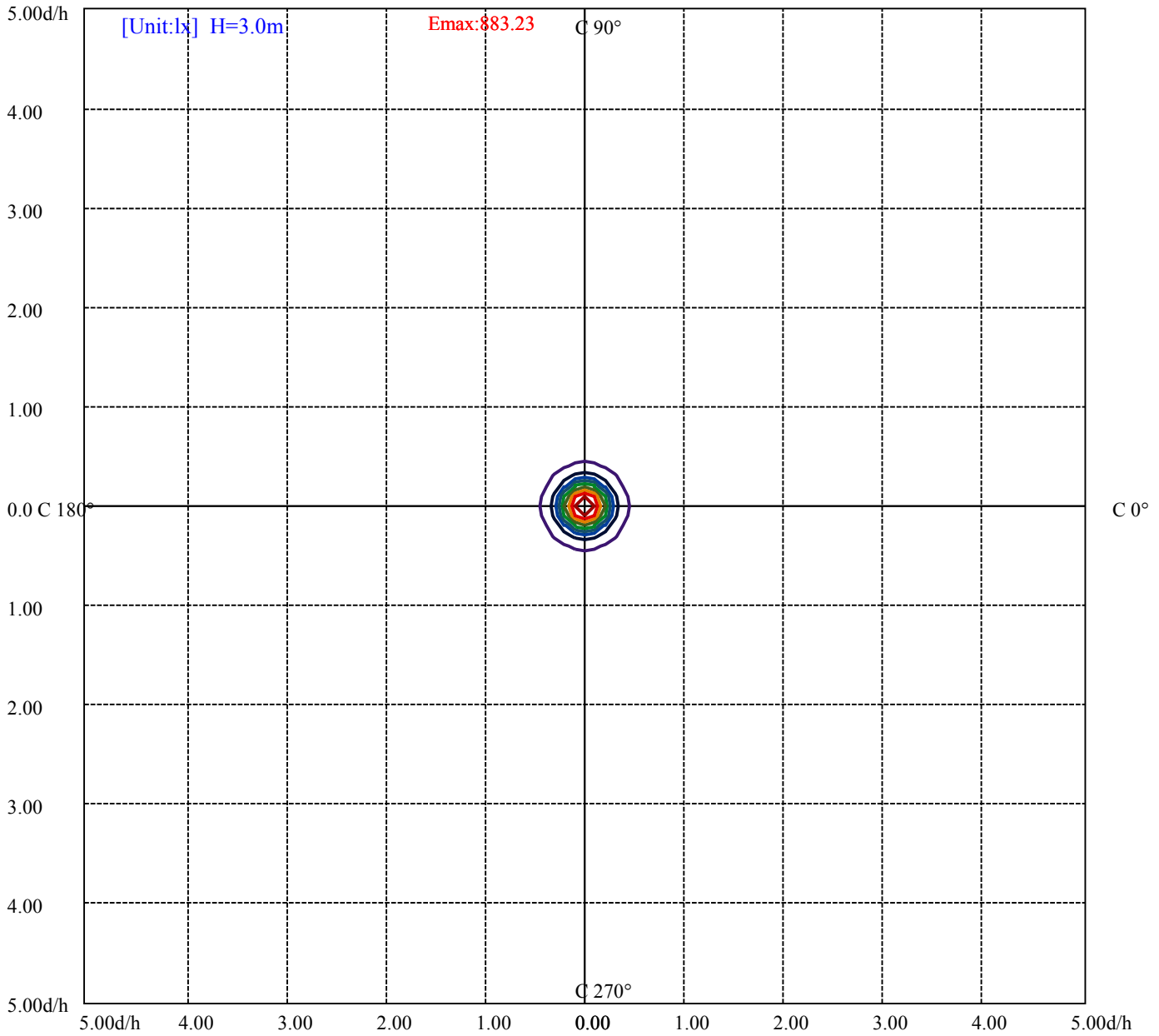
House

[Unit:cd]

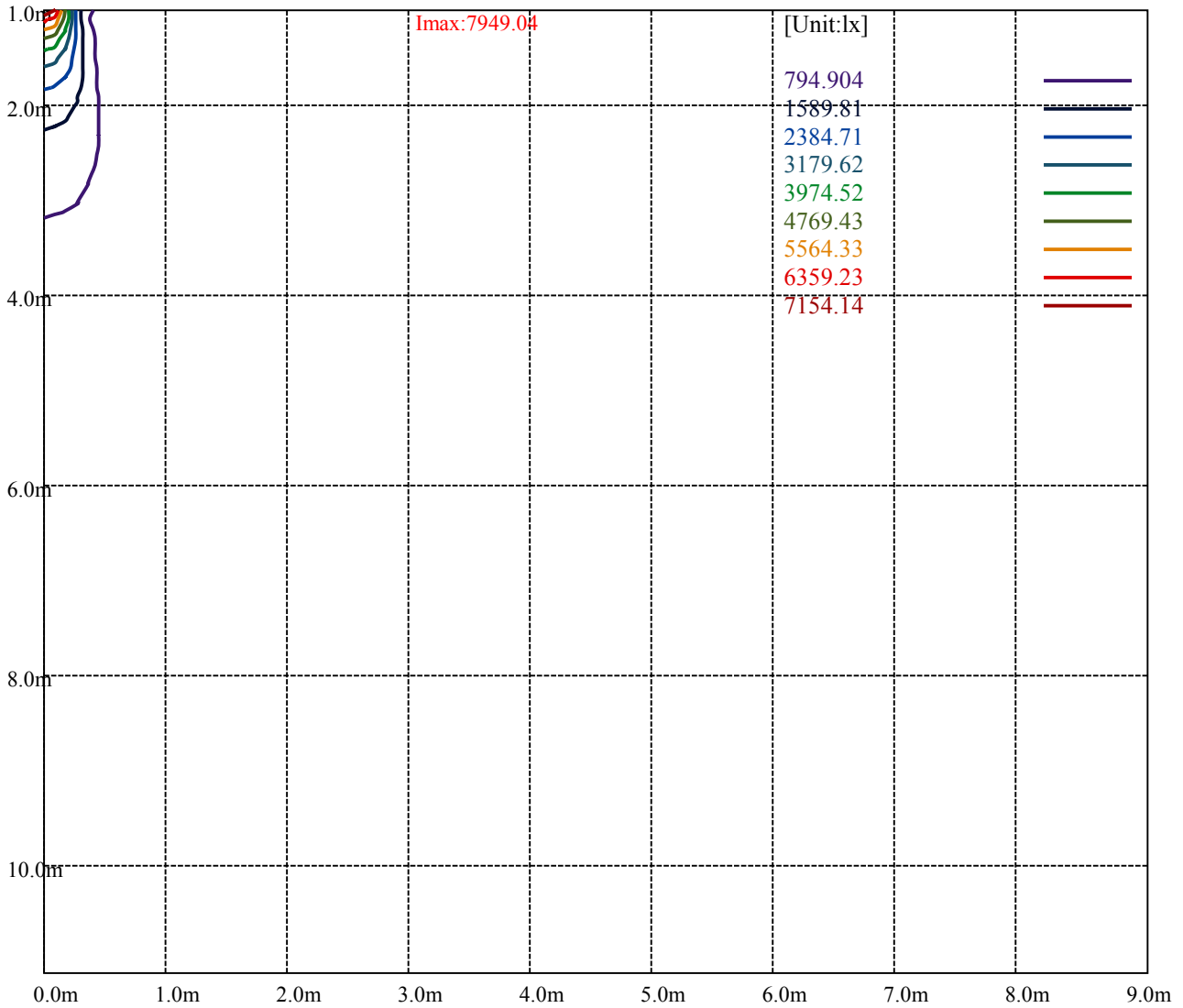
Road

Imax:7949.04

(10%Imax) 794.904	—
(20%Imax) 1589.81	—
(30%Imax) 2384.71	—
(40%Imax) 3179.62	—
(50%Imax) 3974.52	—
(60%Imax) 4769.43	—
(70%Imax) 5564.33	—
(80%Imax) 6359.23	—
(90%Imax) 7154.14	—



- (10%Emax) 88.32256
- (20%Emax) 176.6456
- (30%Emax) 264.9678
- (40%Emax) 353.29
- (50%Emax) 441.6133
- (60%Emax) 529.9355
- (70%Emax) 618.2578
- (80%Emax) 706.58
- (90%Emax) 794.9033



Luminance Table

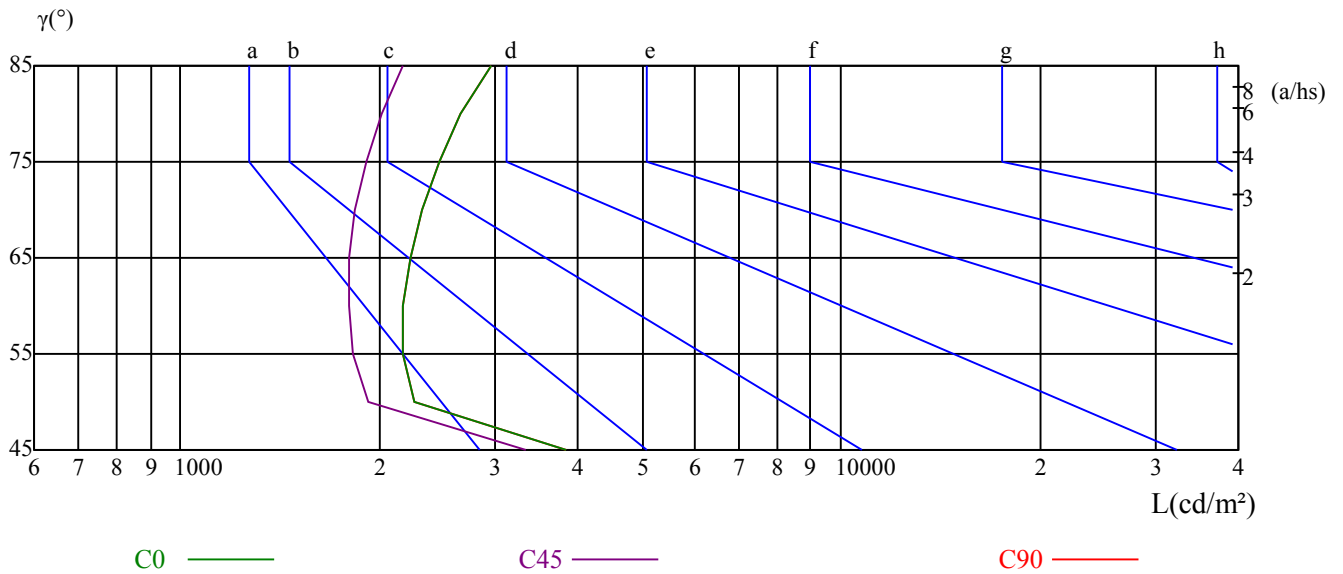
γ	45	50	55	60	65	70	75	80	85
C0	3849	2260	2176	2176	2223	2316	2458	2663	2948
C45	3329	1926	1825	1795	1802	1840	1909	2016	2165
C90	3849	2260	2176	2176	2223	2316	2458	2663	2948

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5110	5110	5110	8012	8012	8012	23355	23355	23355

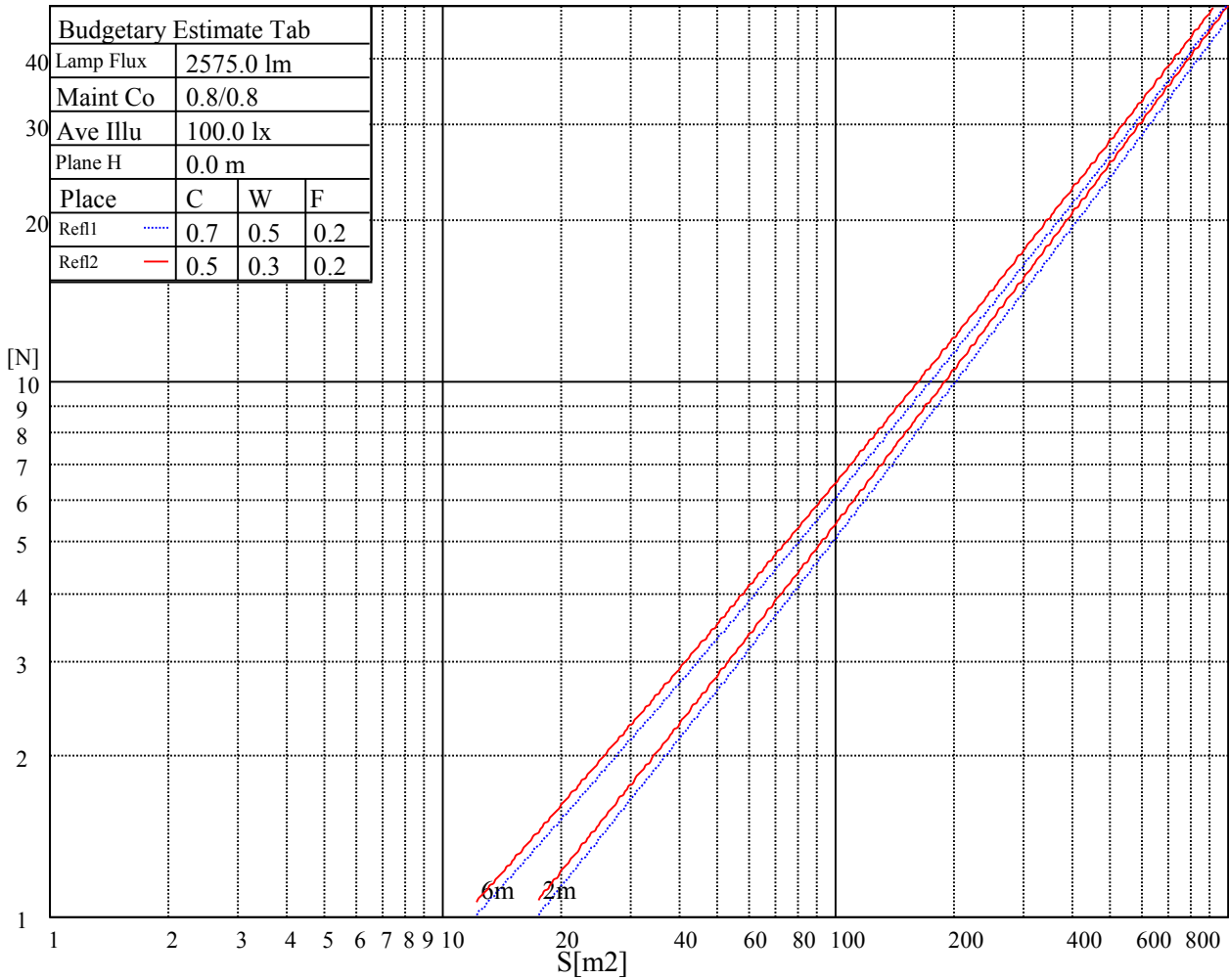
Glare Table

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

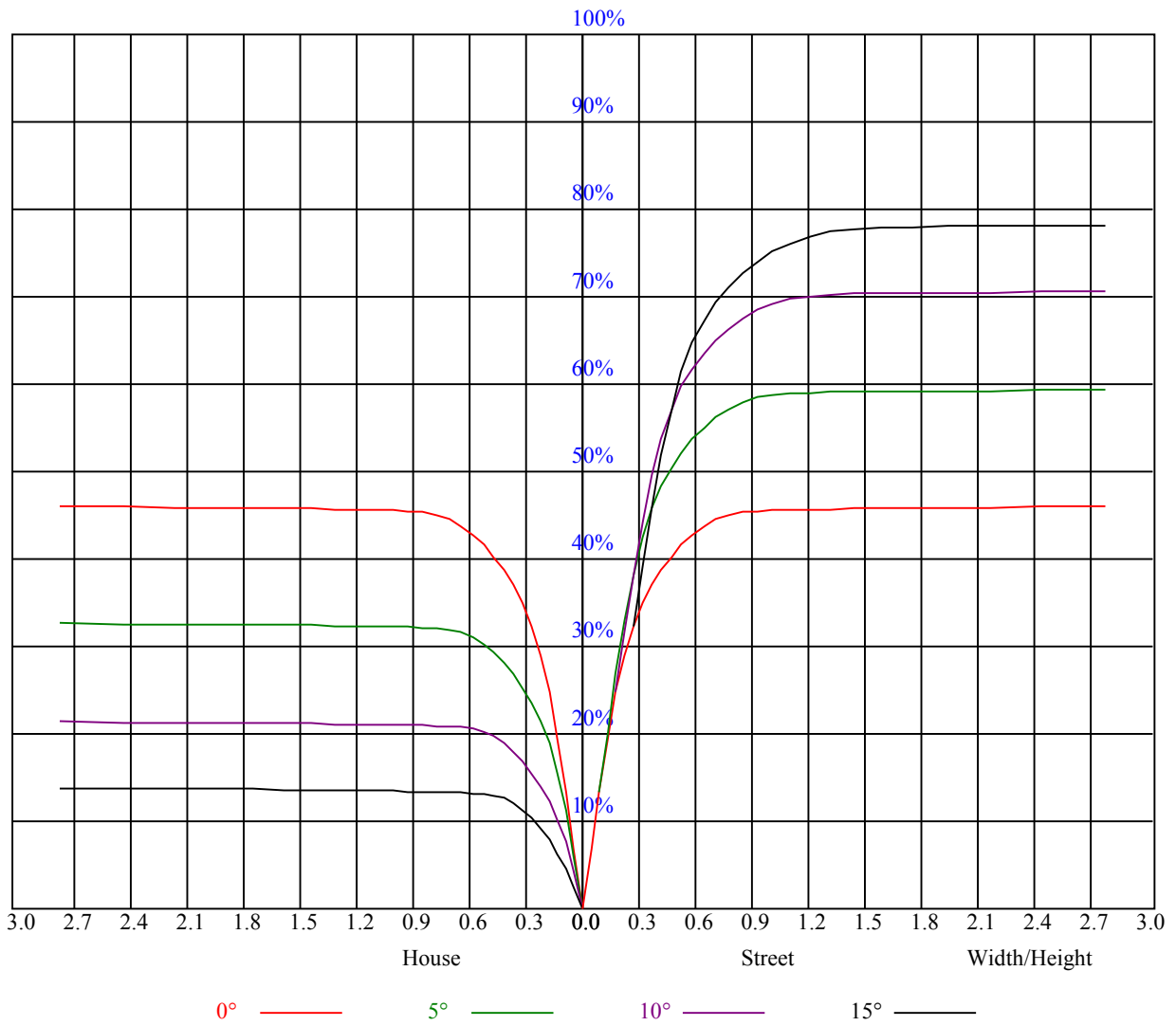
Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	0.92	1.84	1.29	2.15	2.47	0.87	1.78	1.23	2.09	2.41
	3H	3.19	4.00	3.58	4.34	4.71	3.16	3.97	3.54	4.30	4.67
	4H	4.43	5.18	4.84	5.53	5.92	4.40	5.15	4.81	5.50	5.89
	6H	5.74	6.43	6.16	6.80	7.20	5.71	6.40	6.13	6.77	7.17
	8H	6.40	7.04	6.83	7.43	7.84	6.37	7.01	6.80	7.40	7.81
	12H	7.41	8.02	7.84	8.40	8.84	7.38	7.99	7.81	8.37	8.81
4H	2H	1.42	2.16	1.82	2.52	2.91	1.37	2.12	1.78	2.47	2.86
	3H	3.98	4.59	4.39	5.00	5.41	3.95	4.57	4.37	4.98	5.38
	4H	5.38	5.93	5.82	6.36	6.81	5.36	5.91	5.80	6.34	6.79
	6H	6.80	7.26	7.27	7.72	8.19	6.77	7.24	7.25	7.69	8.17
	8H	7.57	8.00	8.04	8.45	8.93	7.54	7.98	8.02	8.43	8.91
	12H	8.57	8.95	9.07	9.44	9.92	8.55	8.92	9.04	9.41	9.89
8H	4H	5.82	6.25	6.30	6.71	7.18	5.80	6.24	6.28	6.69	7.17
	6H	7.47	7.82	7.98	8.32	8.81	7.45	7.80	7.96	8.30	8.79
	8H	8.40	8.70	8.93	9.23	9.72	8.37	8.68	8.91	9.20	9.70
	12H	9.54	9.80	10.06	10.30	10.88	9.51	9.77	10.03	10.27	10.85
12H	4H	5.91	6.28	6.40	6.77	7.25	5.89	6.27	6.39	6.76	7.24
	6H	7.85	7.95	8.18	8.42	8.97	7.83	7.93	8.16	8.40	8.95
	8H	8.66	8.92	9.19	9.42	10.01	8.64	8.90	9.17	9.40	9.98
Variation with the observer position at spacings:											
S = 1.0H		4.9/-8.6					4.9/-8.6				
S = 1.5H		7.4/-6.8					7.4/-6.8				
S = 2.0H		9.1/-5.6					9.1/-5.6				
Standard tables:		BK1					BK1				
Uncorrected UGR		-1.6					-1.6				



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	1.12	1.12	1.12	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.03	1.00	0.98	1.01	0.98	0.96	0.97	0.95	0.93	0.93	0.92	0.91	0.90	0.89	0.88	0.86
2	0.97	0.94	0.91	0.96	0.93	0.90	0.93	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.83
3	0.93	0.89	0.85	0.91	0.88	0.85	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.79
4	0.89	0.84	0.81	0.88	0.84	0.80	0.86	0.82	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.76
5	0.85	0.81	0.77	0.84	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.74
6	0.82	0.77	0.74	0.81	0.77	0.74	0.80	0.76	0.73	0.79	0.75	0.73	0.77	0.75	0.72	0.71
7	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
8	0.76	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.67
9	0.74	0.70	0.67	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.65
10	0.72	0.67	0.65	0.71	0.67	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63



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	7954.55	7488.77	5820.56	2903.12	1294.38	965.69	845.67	642.51	290.70
45.0	7957.30	7444.73	5717.06	2659.22	1251.98	937.61	820.34	606.17	292.35
90.0	7933.08	7408.39	5441.22	2424.68	1086.65	914.49	804.10	494.52	104.22
135.0	7951.25	7603.29	6205.96	3119.50	1370.35	956.33	829.15	635.35	300.06
180.0	7954.55	7530.06	5717.06	2624.54	1095.95	921.31	808.72	554.69	169.63
225.0	7957.30	7518.50	5824.97	2751.17	1093.64	936.78	812.91	613.49	186.59
270.0	7933.08	7616.50	6384.89	3686.03	1548.74	983.31	840.16	672.24	283.54
315.0	7951.25	7473.36	5774.87	2796.31	1209.59	936.40	811.15	560.80	132.30
360.0	7954.55	7488.77	5820.56	2903.12	1294.38	965.69	845.67	642.51	290.70

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	21.09	12.55	11.67	11.18	10.79	10.57	10.41	10.30	10.24
45.0	19.16	12.28	11.62	11.18	10.79	10.57	10.35	10.30	10.19
90.0	17.78	12.33	11.62	11.12	10.85	10.57	10.46	10.35	10.19
135.0	23.12	12.72	11.78	11.23	10.96	10.74	10.52	10.41	10.24
180.0	22.79	12.50	11.67	11.23	10.90	10.63	10.46	10.35	10.24
225.0	23.78	12.66	11.73	11.29	10.90	10.68	10.46	10.30	10.24
270.0	29.90	13.16	12.06	11.45	11.01	10.74	10.52	10.41	10.35
315.0	18.61	12.66	11.73	11.23	10.90	10.63	10.46	10.30	10.41
360.0	21.09	12.55	11.67	11.18	10.79	10.57	10.41	10.30	10.24

C/γ(°)	90.0
0.0	10.19
45.0	10.24
90.0	10.19
135.0	10.13
180.0	10.13
225.0	10.19
270.0	10.19
315.0	10.19
360.0	10.19