



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: 1451-E	
Luminaire: 92.70.051.00	
Report No: NATA0100	Voltage(V): 35.5000
Test No: GC2019010312	Current(A): 0.2600
LampCAT: BRIDGELUX V8E G7	Power (W): 9.2300
Lamp flux(lm): 1392.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 44	Width(mm): 44
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1253.57
Efficiency(%): 90.05%
Lumens(lm)/Power(W): 137.27
Central intensity(cd): 2452.078
Maximum intensity(cd): 2452.078
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=35.9
 [C90/270]Total=35.9
Field angle(10%Imax): [C0/180]Total=76.7
 [C90/270]Total=76.7
Maximum s/h(1/2): C0_180=0.58 C90_270=0.58
Maximum s/h(1/4): C0_180=0.62 C90_270=0.62
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.02%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.195%

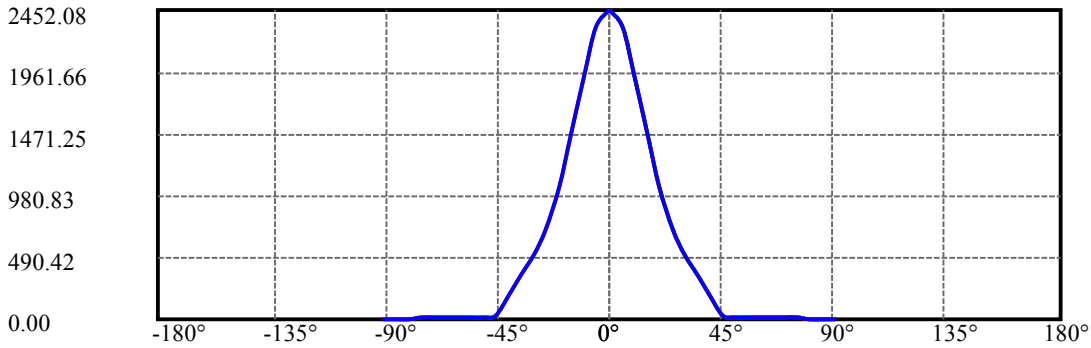
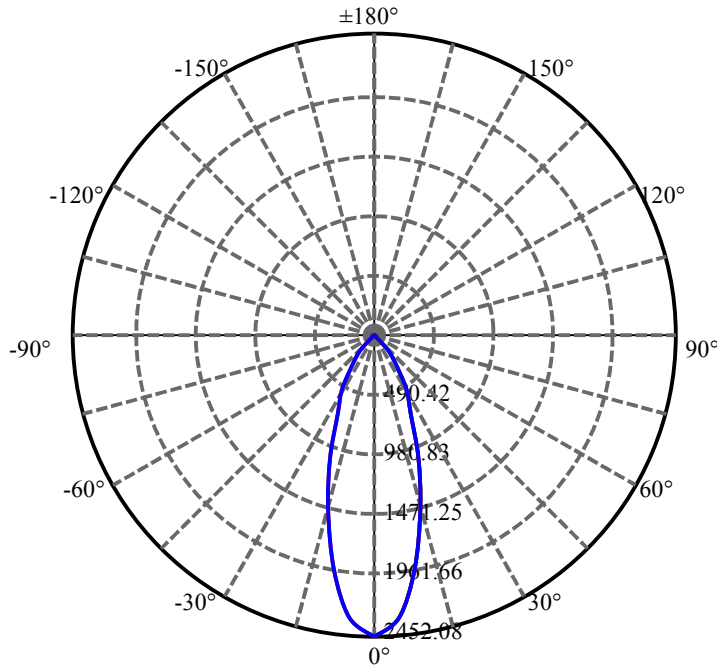
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2452.078	14.664	14.664	1.053%	1.170%
5.0	2309.063	110.312	124.976	7.925%	9.970%
10.0	1927.477	183.463	308.439	13.180%	24.605%
15.0	1466.367	208.031	516.47	14.945%	41.200%
20.0	1056.016	197.976	714.445	14.222%	56.993%
25.0	712.055	164.950	879.395	11.850%	70.151%
30.0	524.440	143.733	1023.127	10.326%	81.617%
35.0	352.905	110.953	1134.08	7.971%	90.468%
40.0	193.233	68.083	1202.163	4.891%	95.900%
45.0	35.733	13.850	1216.013	.995%	97.004%
50.0	14.175	5.952	1221.965	.428%	97.479%
55.0	10.905	4.897	1226.862	.352%	97.870%
60.0	9.759	4.633	1231.495	.333%	98.239%
65.0	8.951	4.447	1235.941	.319%	98.594%
70.0	8.381	4.317	1240.258	.310%	98.938%
75.0	7.826	4.143	1244.402	.298%	99.269%
80.0	6.778	3.659	1248.061	.263%	99.561%
85.0	6.778	3.701	1251.762	.266%	99.856%
90.0	6.581	1.804	1253.565	.130%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1023.13	73.50%	81.62%
0-40	1202.16	86.36%	95.90%
0-60	1231.49	88.47%	98.24%
0-90	1251.76	89.93%	99.86%
0-120	1251.76	89.93%	99.86%
0-180	1253.57	90.05%	100.00%
60-90	24.90	1.79%	1.99%
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%
0-29.29	1002.85	72.04%	80.00%

ZONAL LUMEN SUMMARY

0-10	308.44
10-20	406.01
20-30	308.68
30-40	179.04
40-50	19.80
50-60	9.53
60-70	8.76
70-80	7.80
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



C0(Max): —————

C0/C180: —————

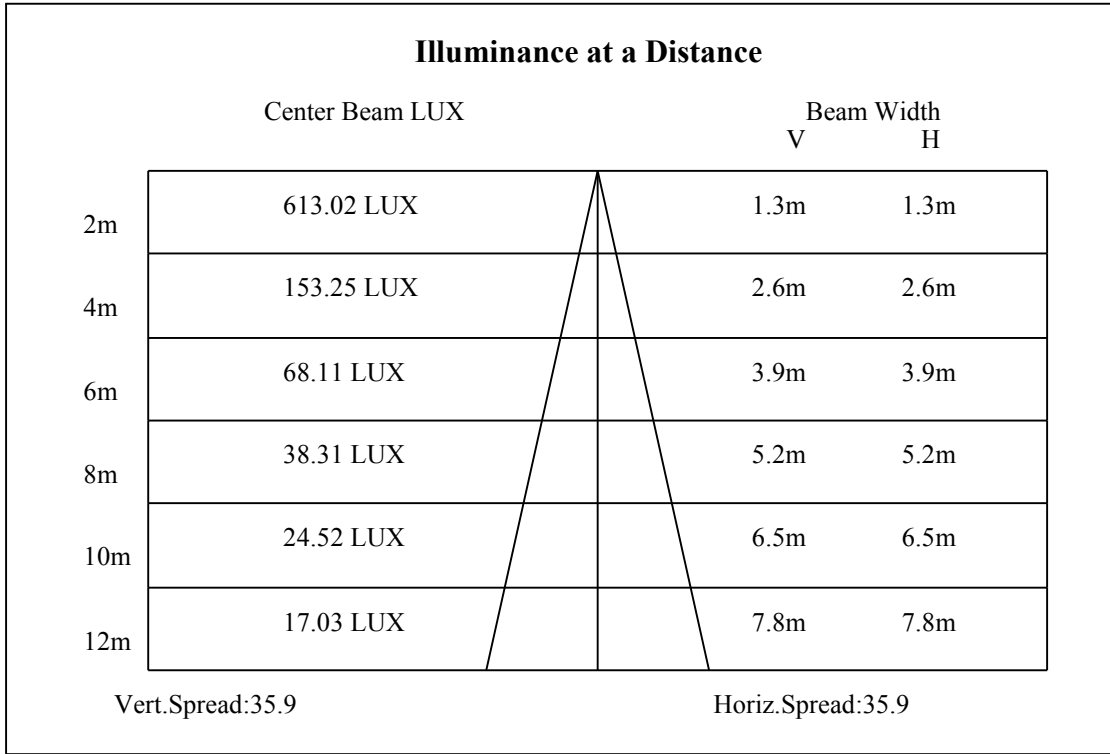
C90/C270: —————

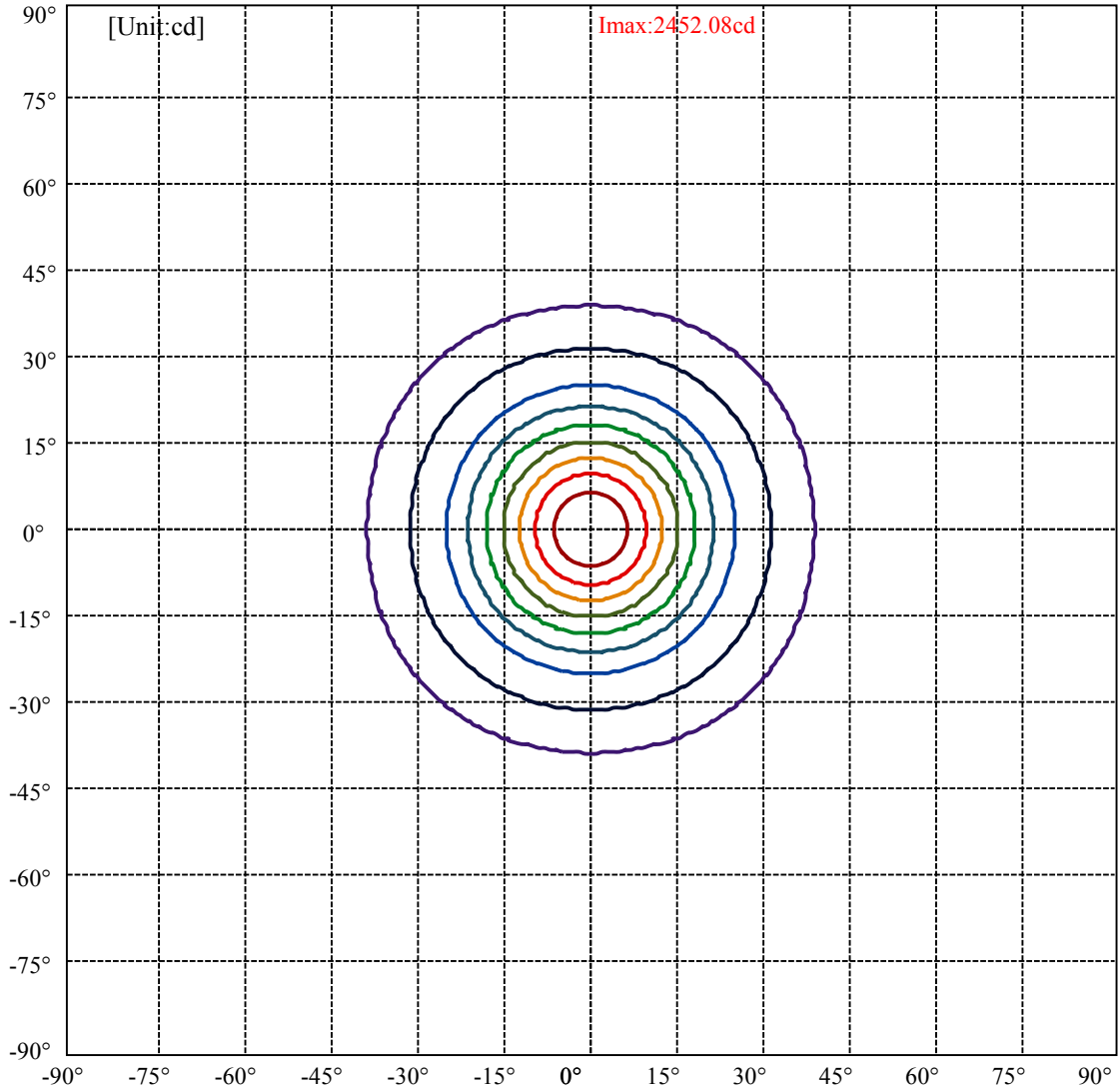
Field angle(10%Imax):C0/180Left:38.4 Right:38.4

:C90/270Left:38.4 Right:38.4

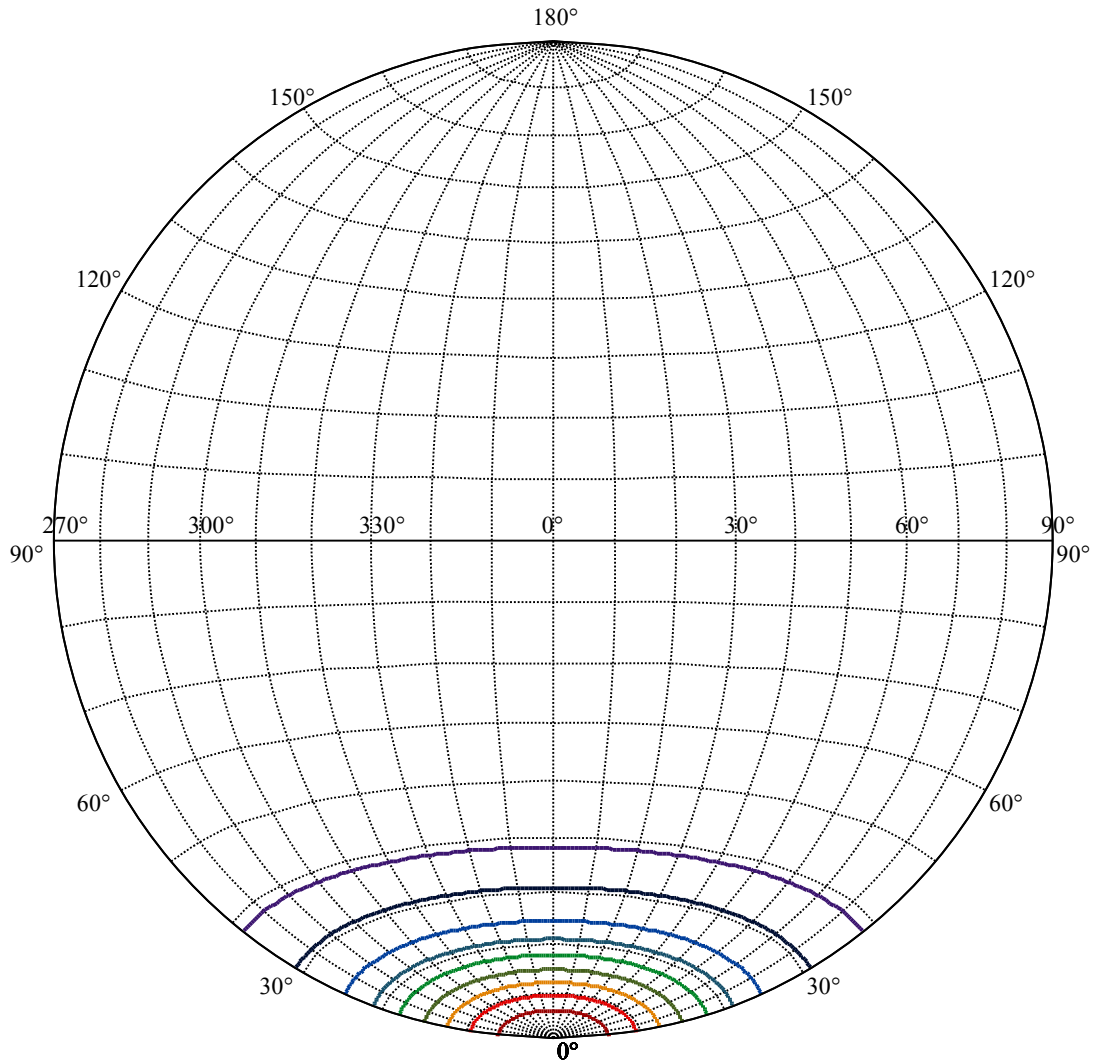
Beam Angle(50%Imax):C0/180Left:17.9 Right:17.9

:C90/270Left:17.9 Right:17.9





(10%Imax) 245.208	—
(20%Imax) 490.416	—
(30%Imax) 735.623	—
(40%Imax) 980.831	—
(50%Imax) 1226.04	—
(60%Imax) 1471.25	—
(70%Imax) 1716.45	—
(80%Imax) 1961.66	—
(90%Imax) 2206.87	—



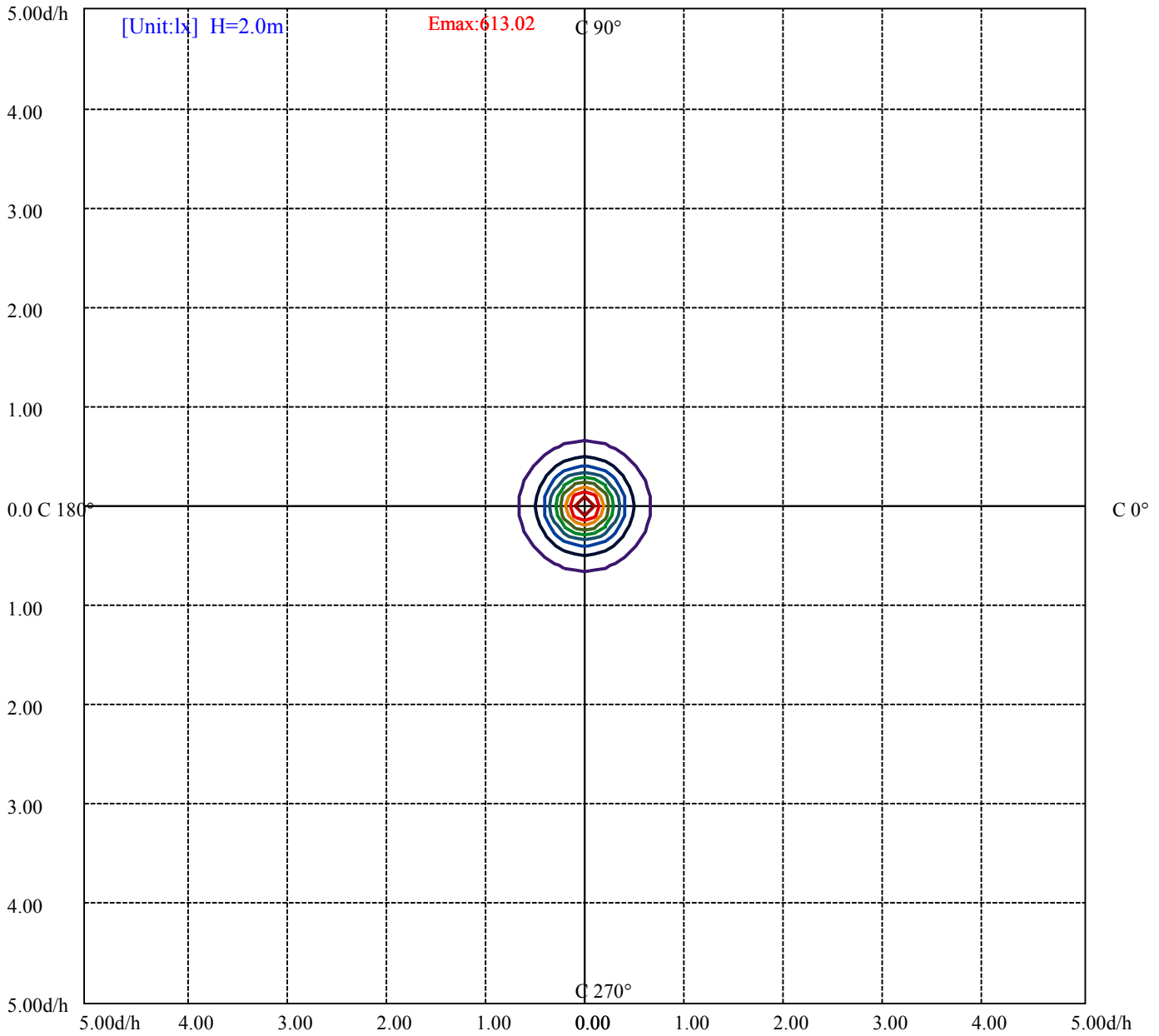
House

[Unit:cd]

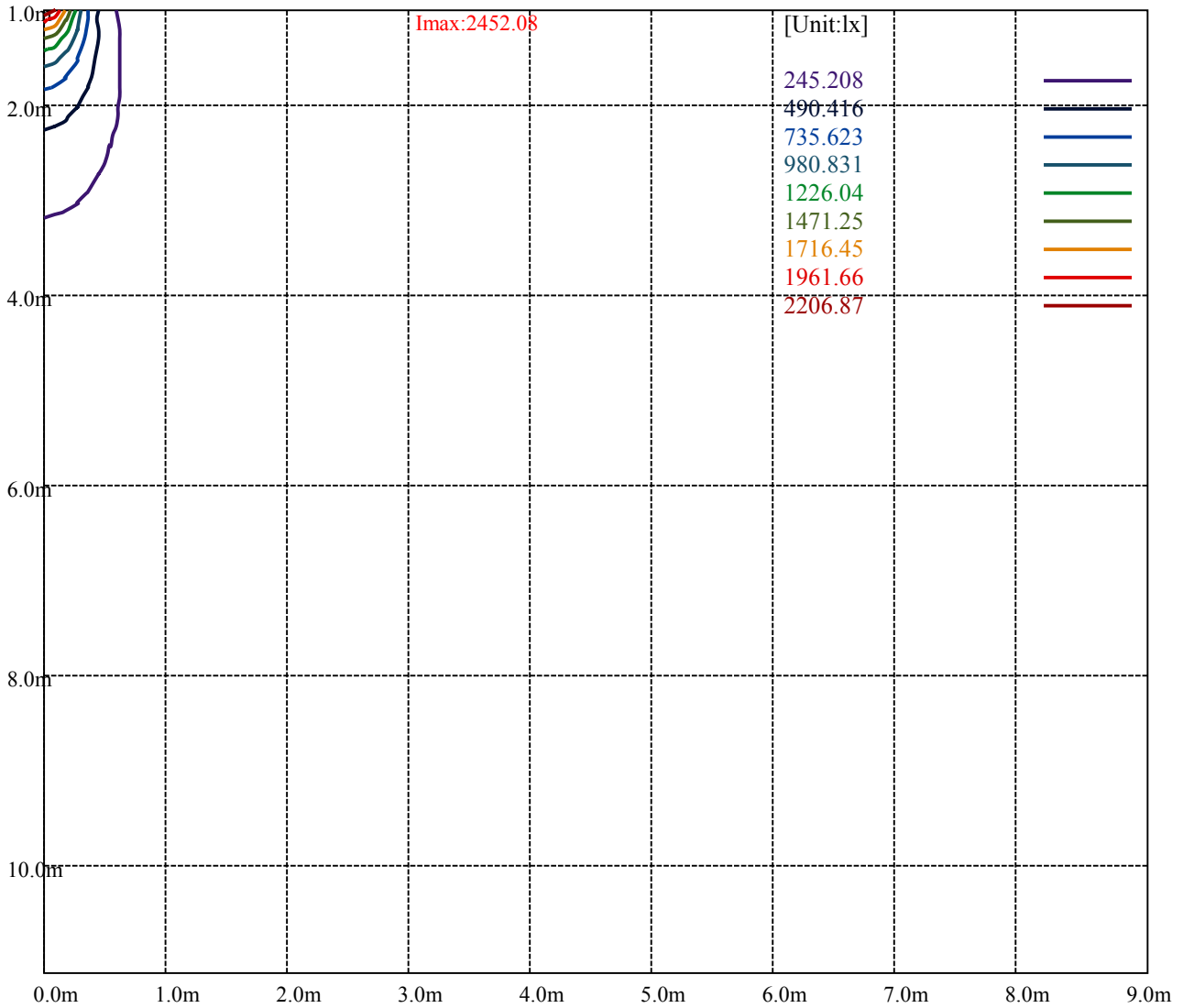
Road

Imax:2452.08

(10%Imax)	245.208	—
(20%Imax)	490.416	—
(30%Imax)	735.623	—
(40%Imax)	980.831	—
(50%Imax)	1226.04	—
(60%Imax)	1471.25	—
(70%Imax)	1716.45	—
(80%Imax)	1961.66	—
(90%Imax)	2206.87	—



- (10%Emax) 61.30175
- (20%Emax) 122.6038
- (30%Emax) 183.9055
- (40%Emax) 245.2072
- (50%Emax) 306.51
- (60%Emax) 367.81
- (70%Emax) 429.1125
- (80%Emax) 490.415
- (90%Emax) 551.7175



Luminance Table

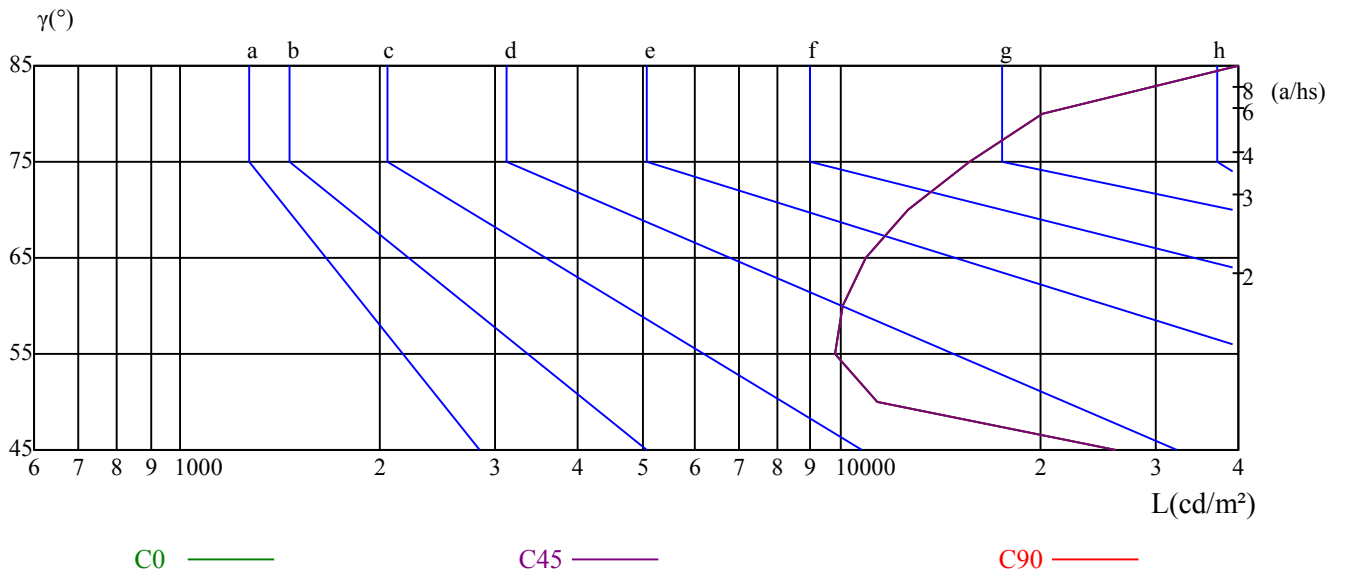
γ	45	50	55	60	65	70	75	80	85
C0	26102	11391	9821	10082	10940	12658	15618	20162	40171
C45	26102	11391	9821	10082	10940	12658	15618	20162	40171
C90	26102	11391	9821	10082	10940	12658	15618	20162	40171

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10940	10940	10940	15618	15618	15618	40171	40171	40171

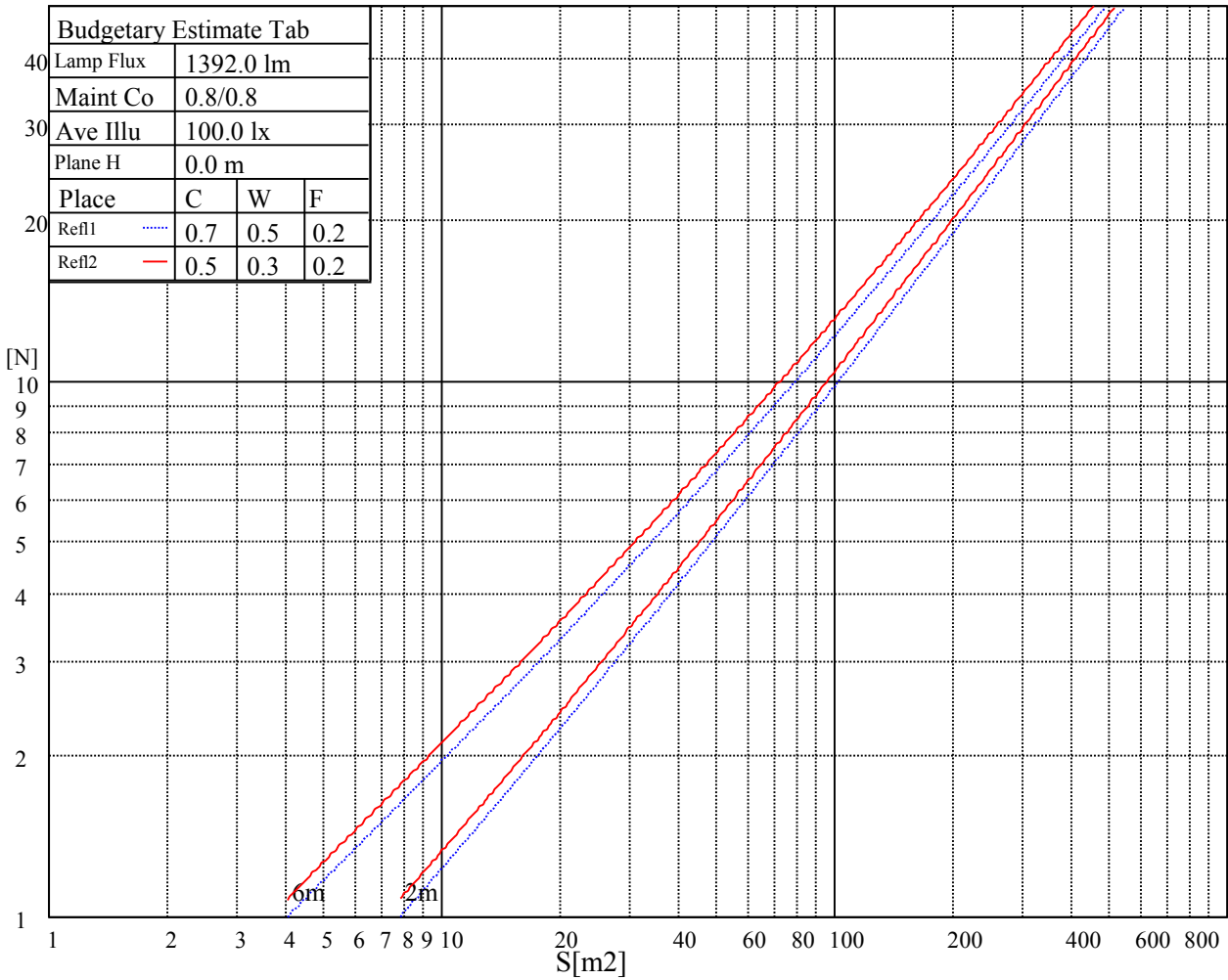
Glare Table

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

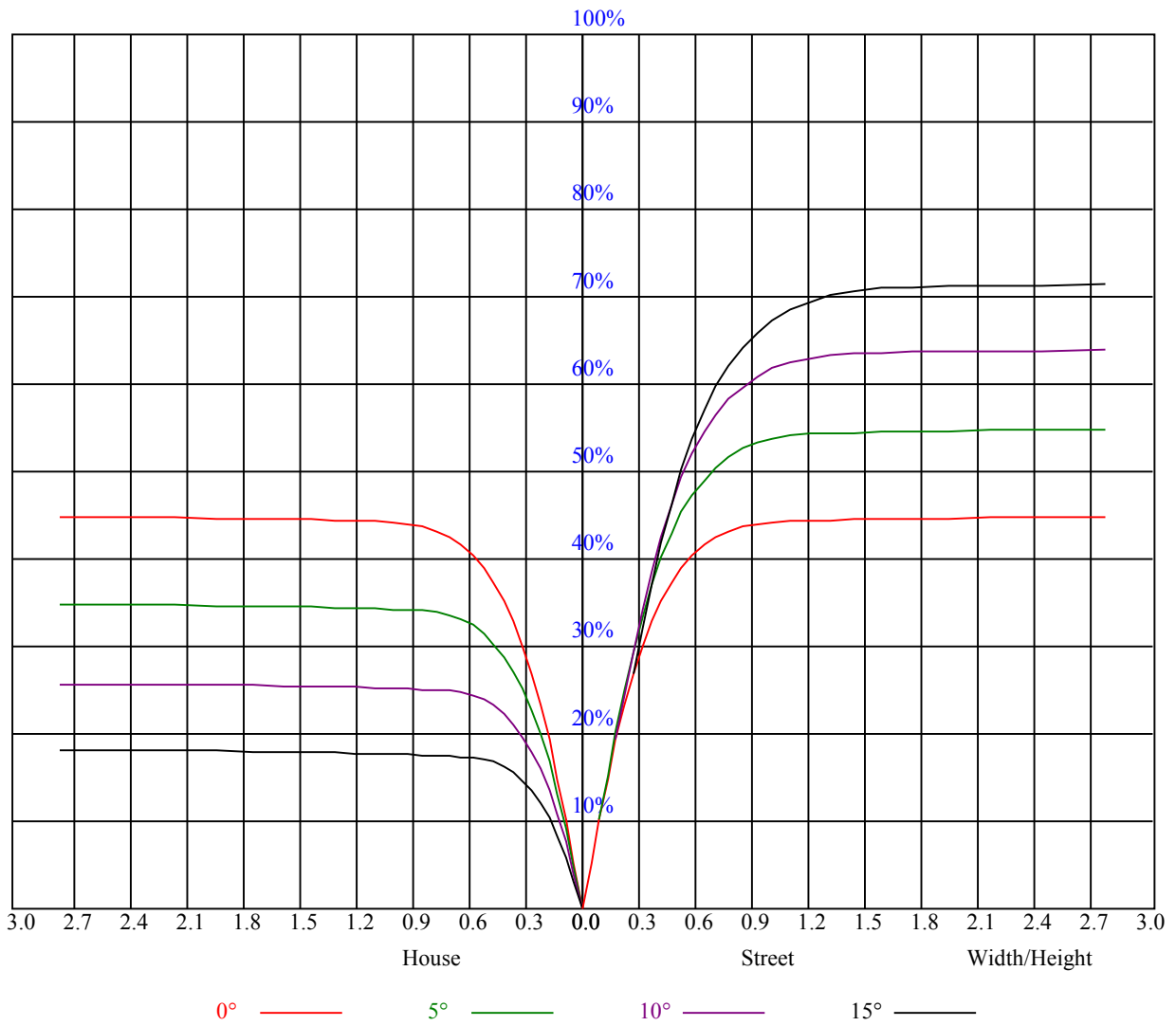
Luminance Limiting Curve



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	10.10	11.05	10.47	11.37	11.68	9.49	10.44	9.85	10.75	11.07
	3H	12.81	13.65	13.19	13.98	14.35	12.23	13.07	12.61	13.40	13.77
	4H	14.22	15.00	14.63	15.35	15.74	13.75	14.53	14.16	14.89	15.28
	6H	15.60	16.32	16.02	16.69	17.09	15.54	16.26	15.96	16.63	17.03
	8H	16.34	17.01	16.77	17.40	17.81	16.69	17.36	17.13	17.75	18.16
	12H	17.59	18.23	18.03	18.62	19.05	18.72	19.36	19.15	19.74	20.17
4H	2H	10.80	11.58	11.20	11.93	12.32	10.35	11.13	10.76	11.48	11.87
	3H	13.79	14.43	14.20	14.84	15.24	13.36	14.00	13.77	14.41	14.81
	4H	15.38	15.95	15.82	16.38	16.83	15.04	15.62	15.48	16.04	16.49
	6H	16.83	17.32	17.31	17.78	18.25	17.12	17.61	17.59	18.06	18.53
	8H	17.69	18.15	18.17	18.60	19.08	18.30	18.76	18.78	19.21	19.68
	12H	18.94	19.33	19.43	19.82	20.30	20.17	20.57	20.67	21.06	21.54
8H	4H	15.93	16.39	16.41	16.84	17.31	15.67	16.12	16.14	16.57	17.05
	6H	17.65	18.01	18.16	18.51	19.00	17.92	18.28	18.43	18.78	19.27
	8H	18.69	19.02	19.23	19.54	20.04	19.29	19.61	19.82	20.13	20.63
	12H	20.18	20.46	20.70	20.96	21.54	21.33	21.61	21.85	22.11	22.69
12H	4H	16.06	16.45	16.55	16.94	17.42	15.79	16.19	16.29	16.68	17.16
	6H	18.13	18.21	18.42	18.68	19.23	18.37	18.45	18.66	18.92	19.47
	8H	19.06	19.34	19.58	19.83	20.42	19.62	19.89	20.14	20.39	20.97
Variation with the observer position at spacings:											
S = 1.0H	4.2/-6.2					4.2/-6.2					
S = 1.5H	6.3/-4.8					6.3/-4.8					
S = 2.0H	7.7/-3.9					7.7/-3.9					
Standard tables:	BK3					BK3					
Uncorrected UGR	4.9					4.9					



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	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.00	0.98	0.95	0.98	0.96	0.94	0.94	0.93	0.91	0.91	0.90	0.88	0.88	0.87	0.86	0.84
2	0.94	0.90	0.87	0.92	0.89	0.86	0.90	0.87	0.84	0.87	0.85	0.83	0.84	0.83	0.81	0.79
3	0.89	0.84	0.81	0.87	0.84	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.75
4	0.84	0.79	0.76	0.83	0.79	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.71
5	0.80	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.69	0.68
6	0.76	0.71	0.68	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.68	0.66	0.65
7	0.72	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
8	0.69	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.59
9	0.66	0.62	0.59	0.66	0.62	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.60	0.58	0.57
10	0.64	0.59	0.56	0.63	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.55



NATA 1451-E

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	2449.69	2351.25	1978.31	1563.19	1118.81	756.56	569.81	381.38	198.51
45.0	2454.19	2313.00	1984.50	1480.50	1068.19	717.75	538.31	358.88	183.60
90.0	2448.56	2251.69	1818.56	1374.75	964.63	640.91	483.92	304.37	145.07
135.0	2455.88	2302.88	1916.44	1443.38	1050.19	686.81	498.94	369.00	195.75
180.0	2449.69	2256.75	1857.38	1401.75	1014.30	696.60	521.94	339.30	177.69
225.0	2454.19	2302.31	1914.19	1443.38	1023.19	692.83	492.53	329.51	172.86
270.0	2448.56	2374.31	2028.94	1561.50	1138.50	784.69	559.13	385.31	290.25
315.0	2455.88	2320.31	1921.50	1462.50	1070.33	720.28	530.94	355.50	182.14
360.0	2449.69	2351.25	1978.31	1563.19	1118.81	756.56	569.81	381.38	198.51
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	41.12	14.46	10.52	9.28	8.66	8.10	6.86	6.19	6.64
45.0	38.70	16.43	14.23	13.22	12.21	11.19	10.01	7.09	6.58
90.0	27.06	13.67	12.38	11.25	10.13	8.89	7.54	6.53	6.08
135.0	40.44	20.25	11.81	8.61	6.86	6.08	5.79	5.74	5.85
180.0	28.46	11.03	9.11	8.33	7.82	7.71	8.44	9.23	11.36
225.0	32.68	11.48	8.04	7.09	6.30	5.85	5.68	5.63	5.79
270.0	49.11	14.06	10.29	9.51	8.89	8.55	8.33	6.69	5.74
315.0	28.29	12.04	10.86	10.80	10.74	10.69	9.96	7.14	6.19
360.0	41.12	14.46	10.52	9.28	8.66	8.10	6.86	6.19	6.64
C/γ(°)	90.0								
0.0	5.23								
45.0	5.12								
90.0	5.12								
135.0	5.29								
180.0	16.14								
225.0	5.40								
270.0	5.18								
315.0	5.18								
360.0	5.23								