



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: 1406-N	
Luminaire: 92.70.051.00	
Report No: NATA0100	Voltage(V): 35.5000
Test No: GC2019010406	Current(A): 0.2600
LampCAT: BRIDGELUX V8E G7	Power (W): 9.2300
Lamp flux(lm): 1393.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 39	Width(mm): 39
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1199.23
Efficiency(%): 86.09%
Lumens(lm)/Power(W): 130.91
Central intensity(cd): 1707.609
Maximum intensity(cd): 1707.609
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=38.0
 [C90/270]Total=38.0
Field angle(10%Imax): [C0/180]Total=89.9
 [C90/270]Total=89.9
Maximum s/h(1/2): C0_180=0.61 C90_270=0.61
Maximum s/h(1/4): C0_180=0.67 C90_270=0.67
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 86.74%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.148%

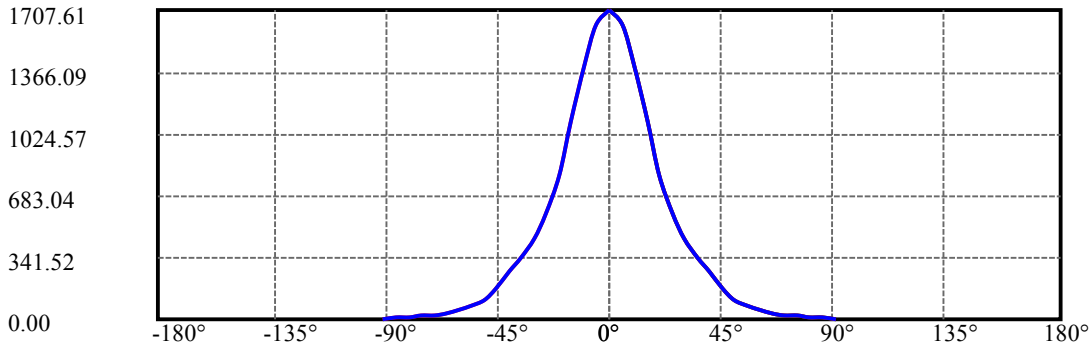
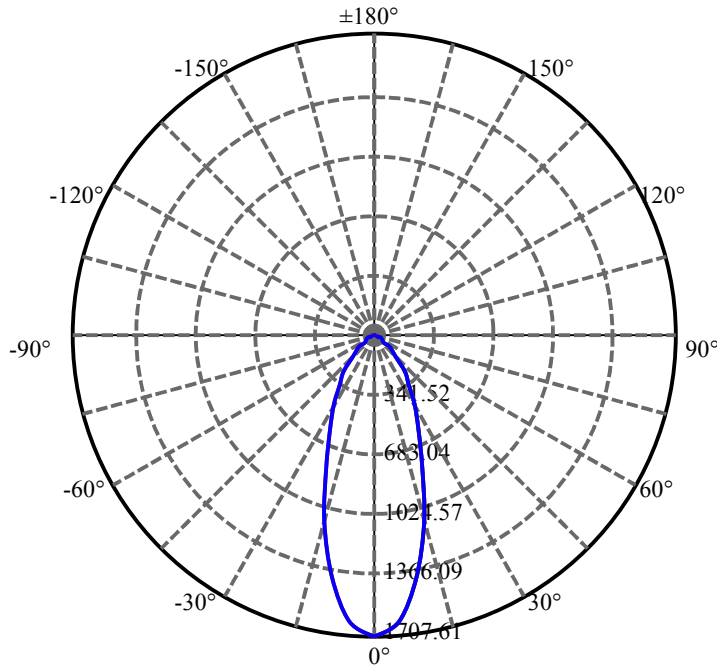
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1707.609	10.212	10.212	.733%	.852%
5.0	1623.305	77.551	87.763	5.567%	7.318%
10.0	1396.828	132.954	220.717	9.544%	18.405%
15.0	1090.076	154.647	375.364	11.102%	31.300%
20.0	796.500	149.323	524.687	10.720%	43.752%
25.0	583.130	135.084	659.771	9.697%	55.016%
30.0	448.123	122.816	782.587	8.817%	65.257%
35.0	343.610	108.031	890.618	7.755%	74.266%
40.0	266.463	93.885	984.502	6.740%	82.094%
45.0	169.847	65.831	1050.334	4.726%	87.584%
50.0	107.873	45.296	1095.629	3.252%	91.361%
55.0	69.082	31.018	1126.648	2.227%	93.947%
60.0	48.523	23.034	1149.682	1.654%	95.868%
65.0	33.912	16.847	1166.528	1.209%	97.273%
70.0	24.300	12.516	1179.045	.899%	98.317%
75.0	16.875	8.935	1187.979	.641%	99.062%
80.0	11.257	6.077	1194.056	.436%	99.568%
85.0	6.961	3.801	1197.857	.273%	99.885%
90.0	5.020	1.376	1199.233	.099%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	782.59	56.18%	65.26%
0-40	984.50	70.67%	82.09%
0-60	1149.68	82.53%	95.87%
0-90	1197.86	85.99%	99.89%
0-120	1197.86	85.99%	99.89%
0-180	1199.23	86.09%	100.00%
60-90	71.21	5.11%	5.94%
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%
0-38.66	959.39	68.87%	80.00%

ZONAL LUMEN SUMMARY

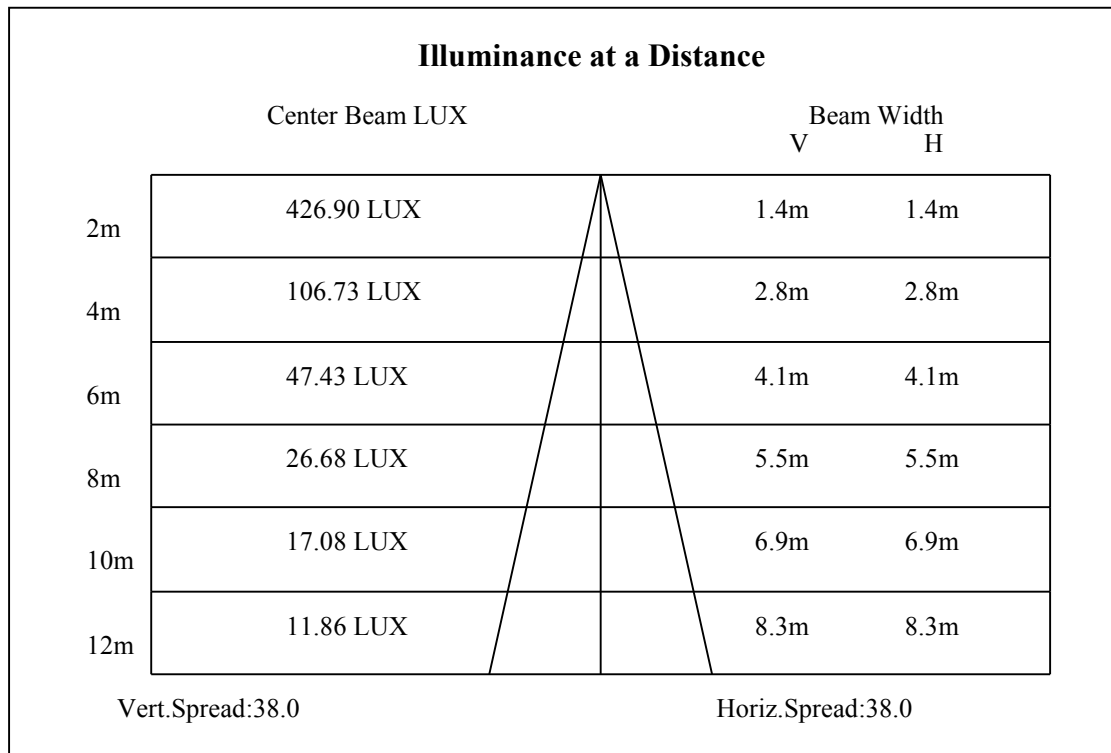
0-10	220.72
10-20	303.97
20-30	257.90
30-40	201.92
40-50	111.13
50-60	54.05
60-70	29.36
70-80	15.01
80-90	3.80
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

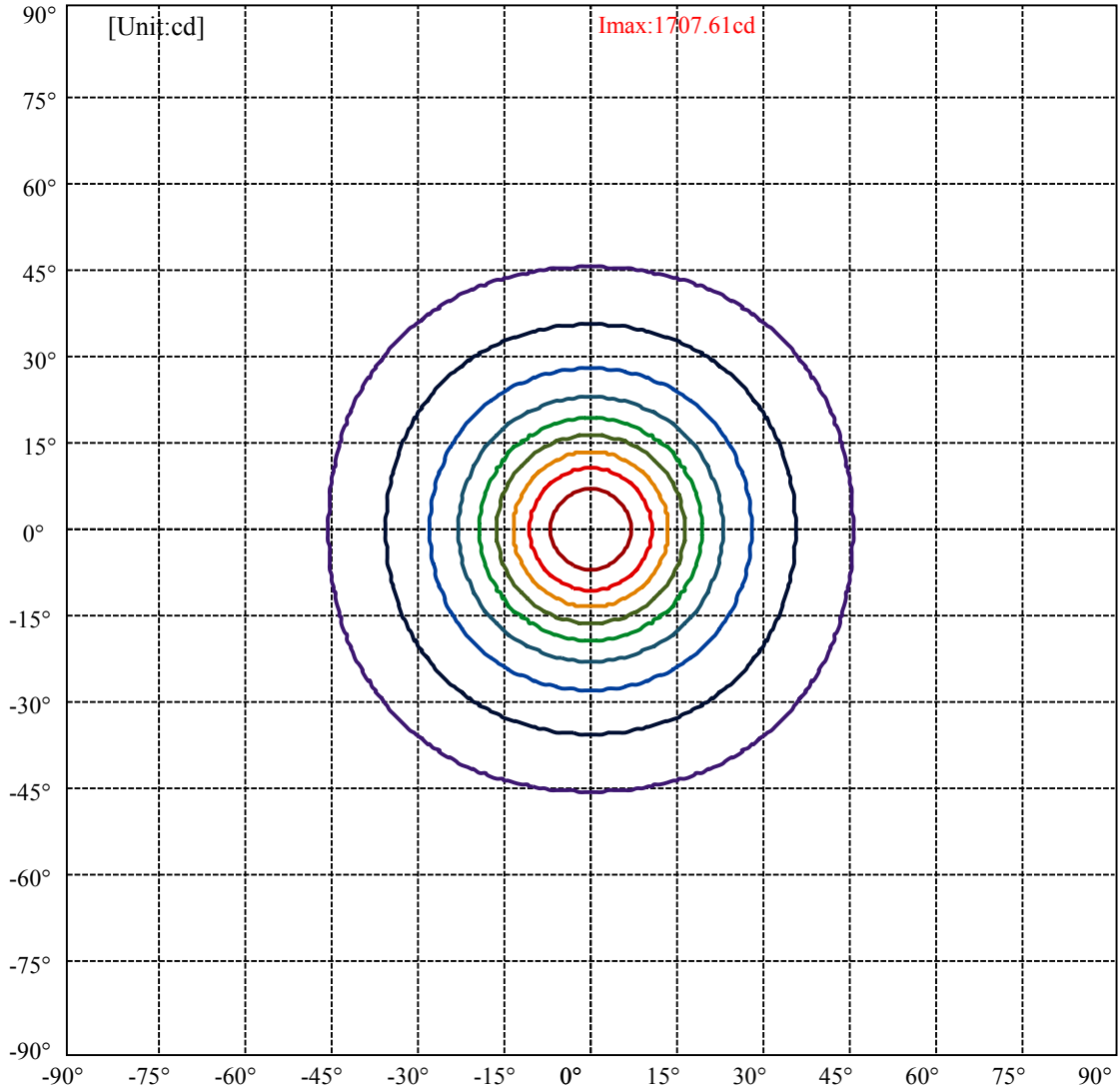


C0(Max): —————
C0/C180: —————
C90/C270: —————

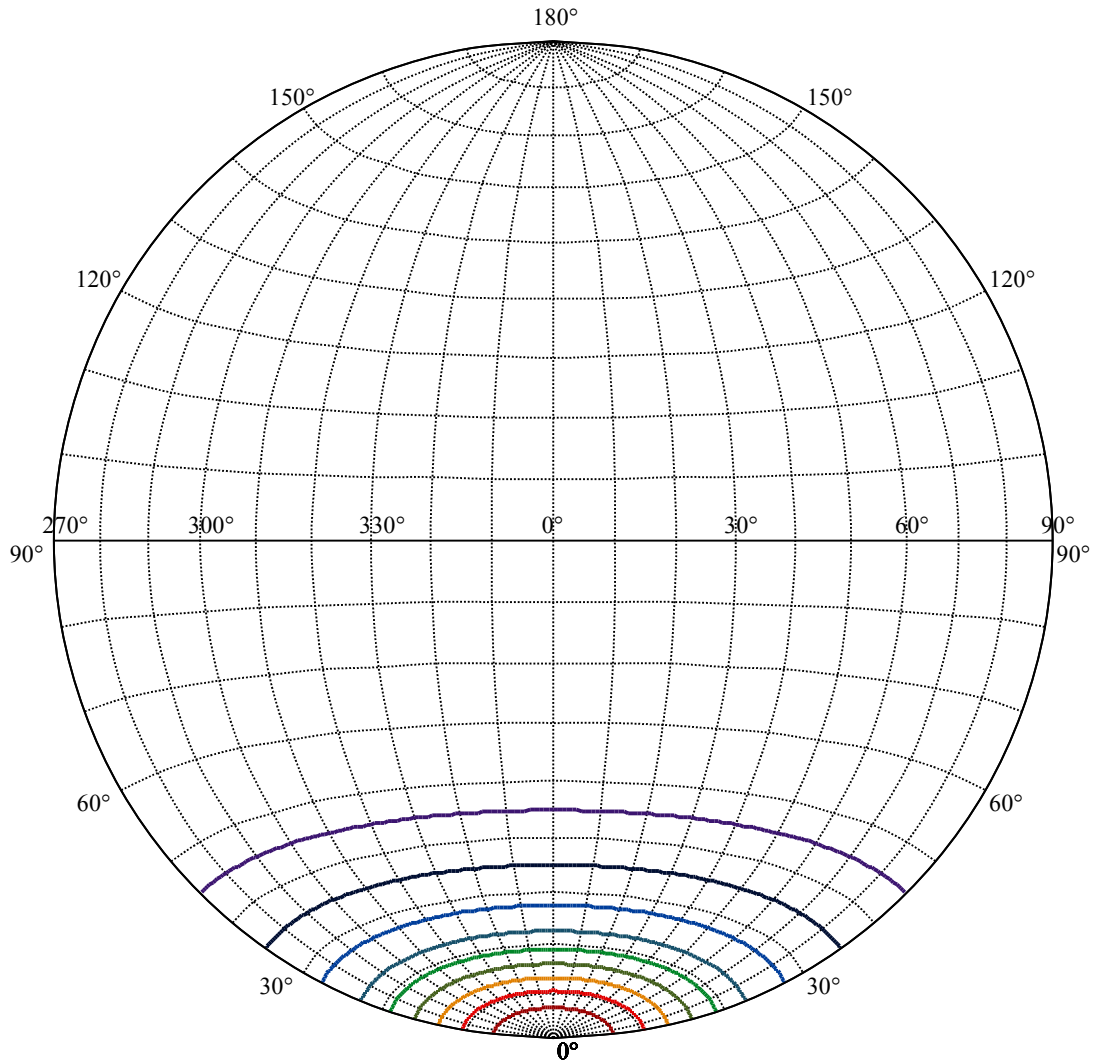
Field angle(10%Imax):C0/180Left:45.0 Right:45.0
:C90/270Left:45.0 Right:45.0

Beam Angle(50%Imax):C0/180Left:19.0 Right:19.0
:C90/270Left:19.0 Right:19.0





(10%Imax) 170.761	—
(20%Imax) 341.522	—
(30%Imax) 512.283	—
(40%Imax) 683.044	—
(50%Imax) 853.805	—
(60%Imax) 1024.57	—
(70%Imax) 1195.33	—
(80%Imax) 1366.09	—
(90%Imax) 1536.85	—



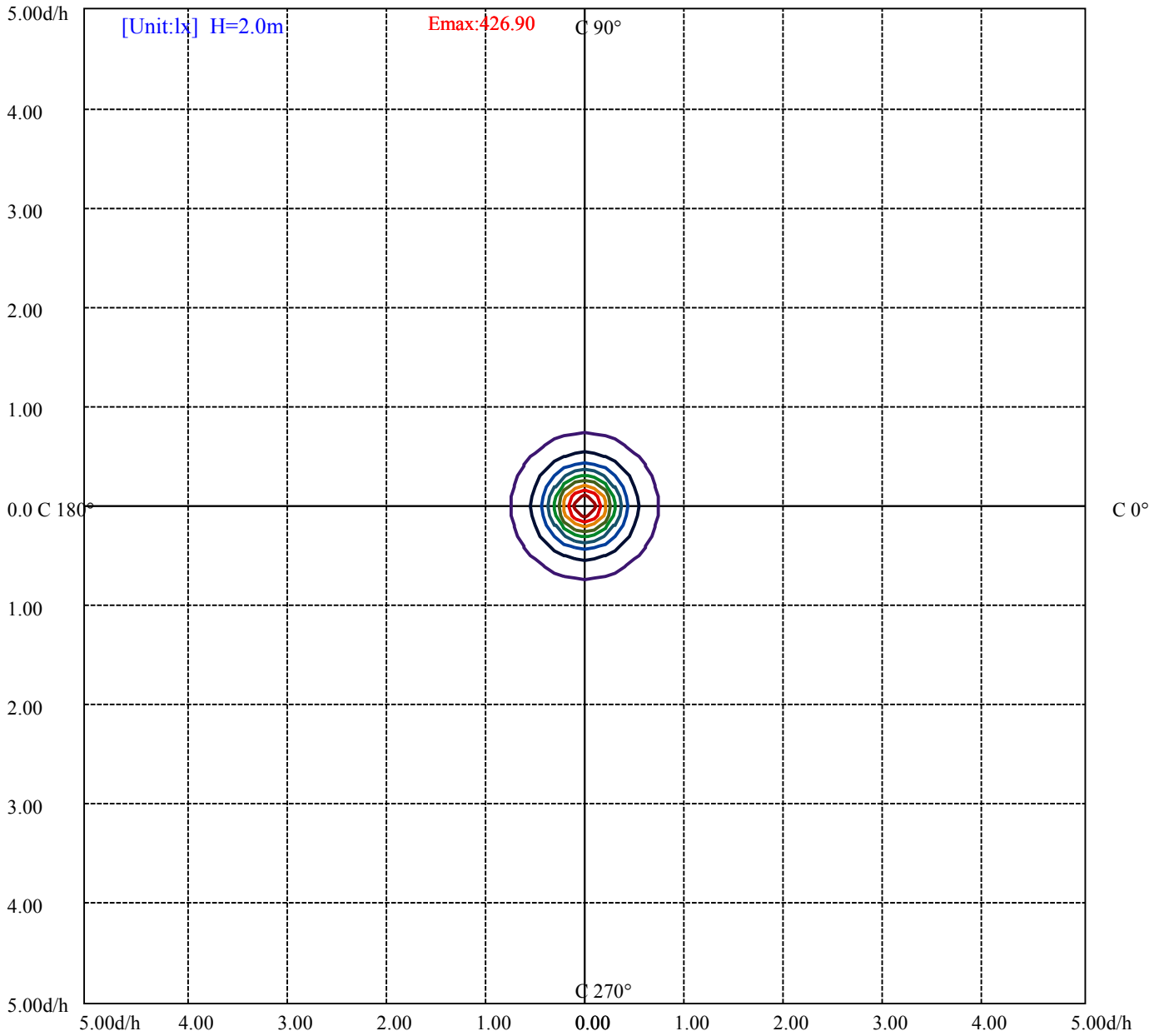
House

[Unit:cd]

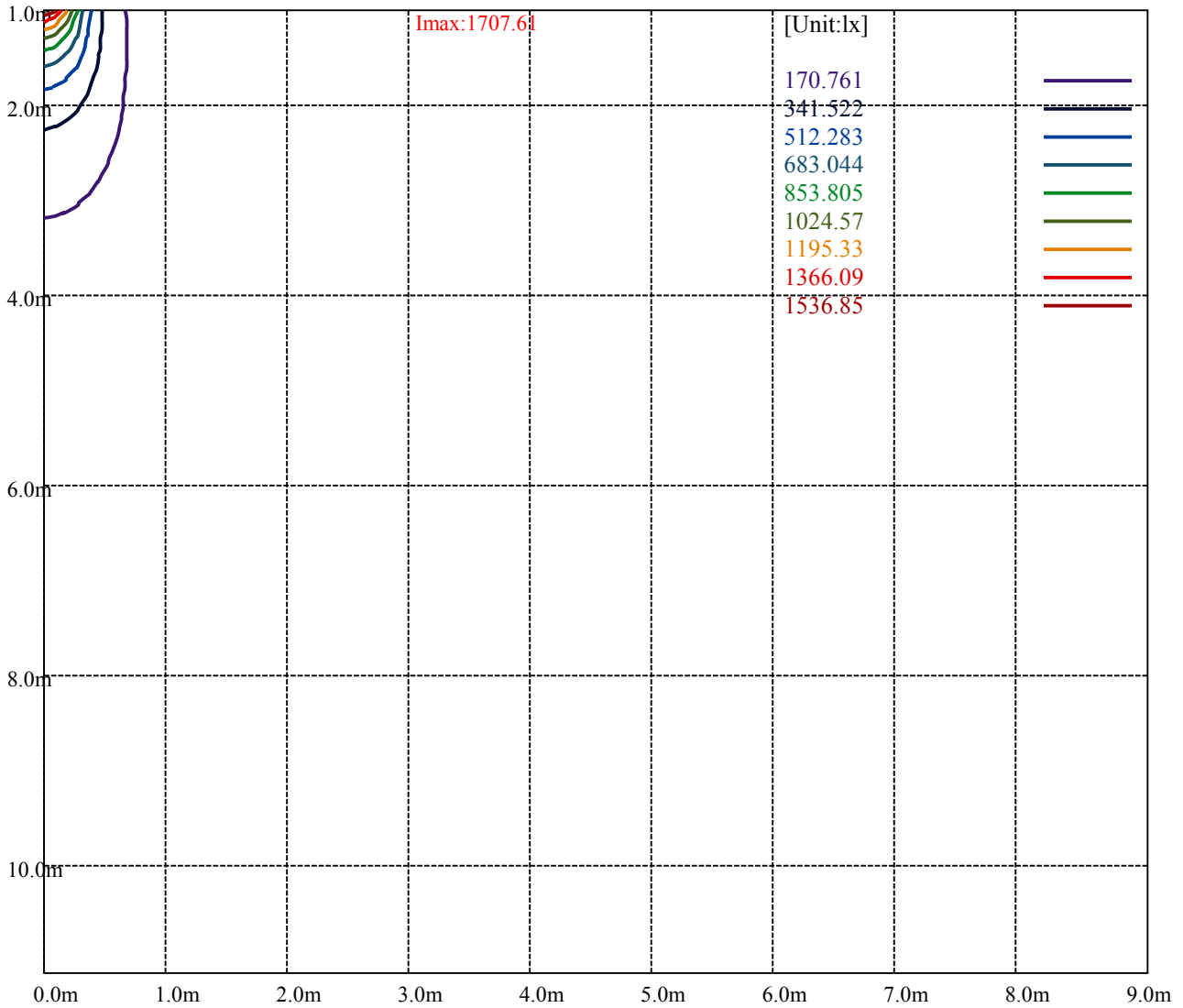
Road

Imax:1707.61

(10%Imax)	170.761	—
(20%Imax)	341.522	—
(30%Imax)	512.283	—
(40%Imax)	683.044	—
(50%Imax)	853.805	—
(60%Imax)	1024.57	—
(70%Imax)	1195.33	—
(80%Imax)	1366.09	—
(90%Imax)	1536.85	—



(10%Emax) 42.69025	—
(20%Emax) 85.38025	—
(30%Emax) 128.0705	—
(40%Emax) 170.7608	—
(50%Emax) 213.4507	—
(60%Emax) 256.14	—
(70%Emax) 298.83	—
(80%Emax) 341.5225	—
(90%Emax) 384.2125	—



Luminance Table

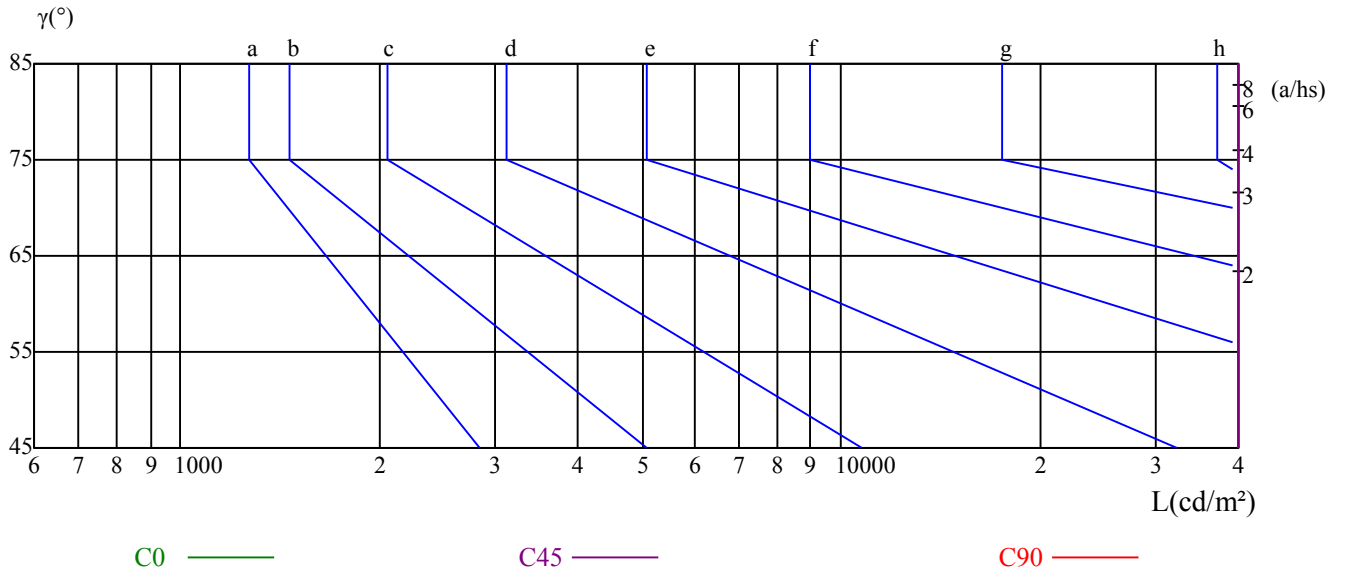
γ	45	50	55	60	65	70	75	80	85
C0	157922	110336	79185	63804	52756	46712	42867	42621	52510
C45	157922	110336	79185	63804	52756	46712	42867	42621	52510
C90	157922	110336	79185	63804	52756	46712	42867	42621	52510

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
52756	52756	52756	42867	42867	42867	52510	52510	52510

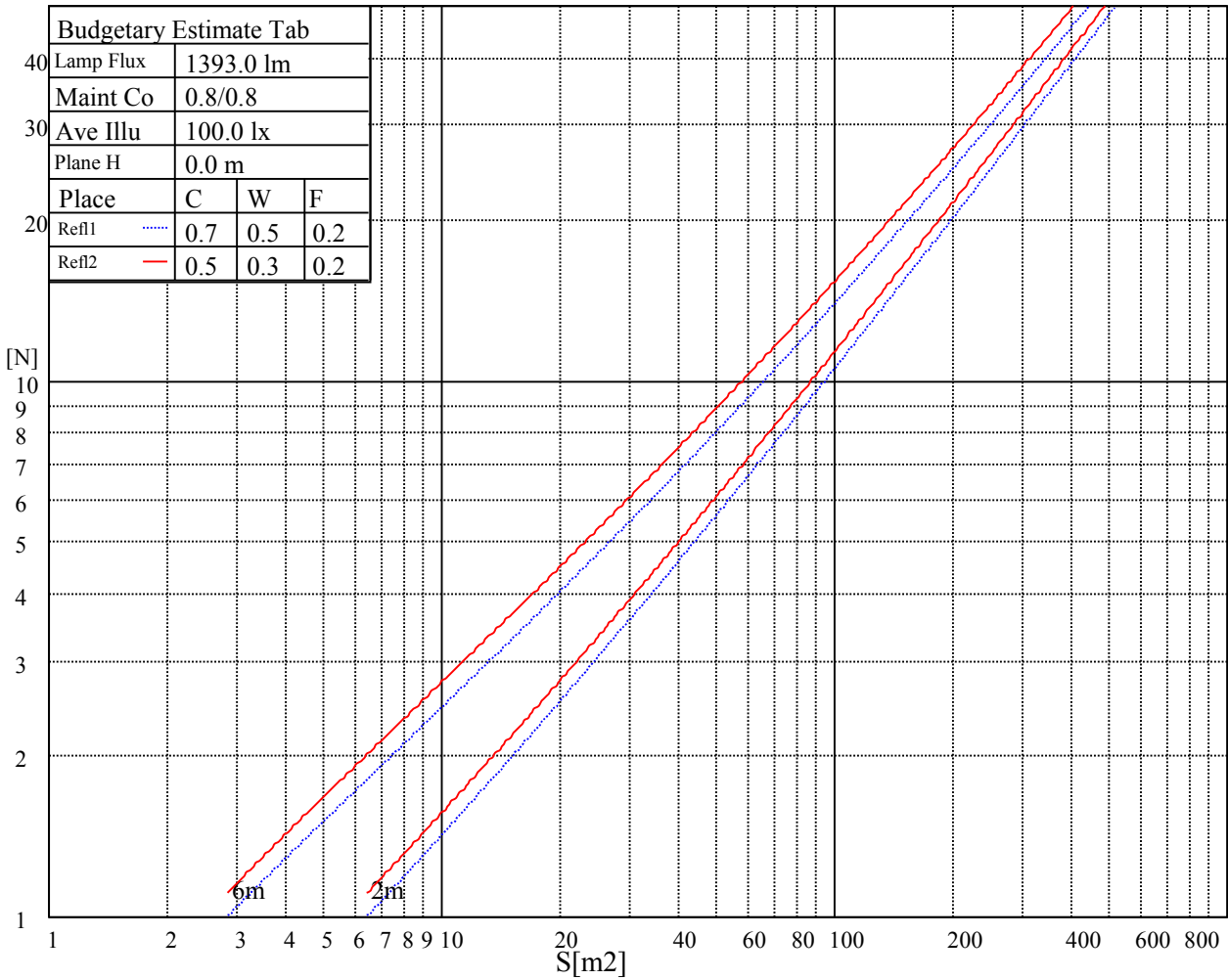
Glare Table

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

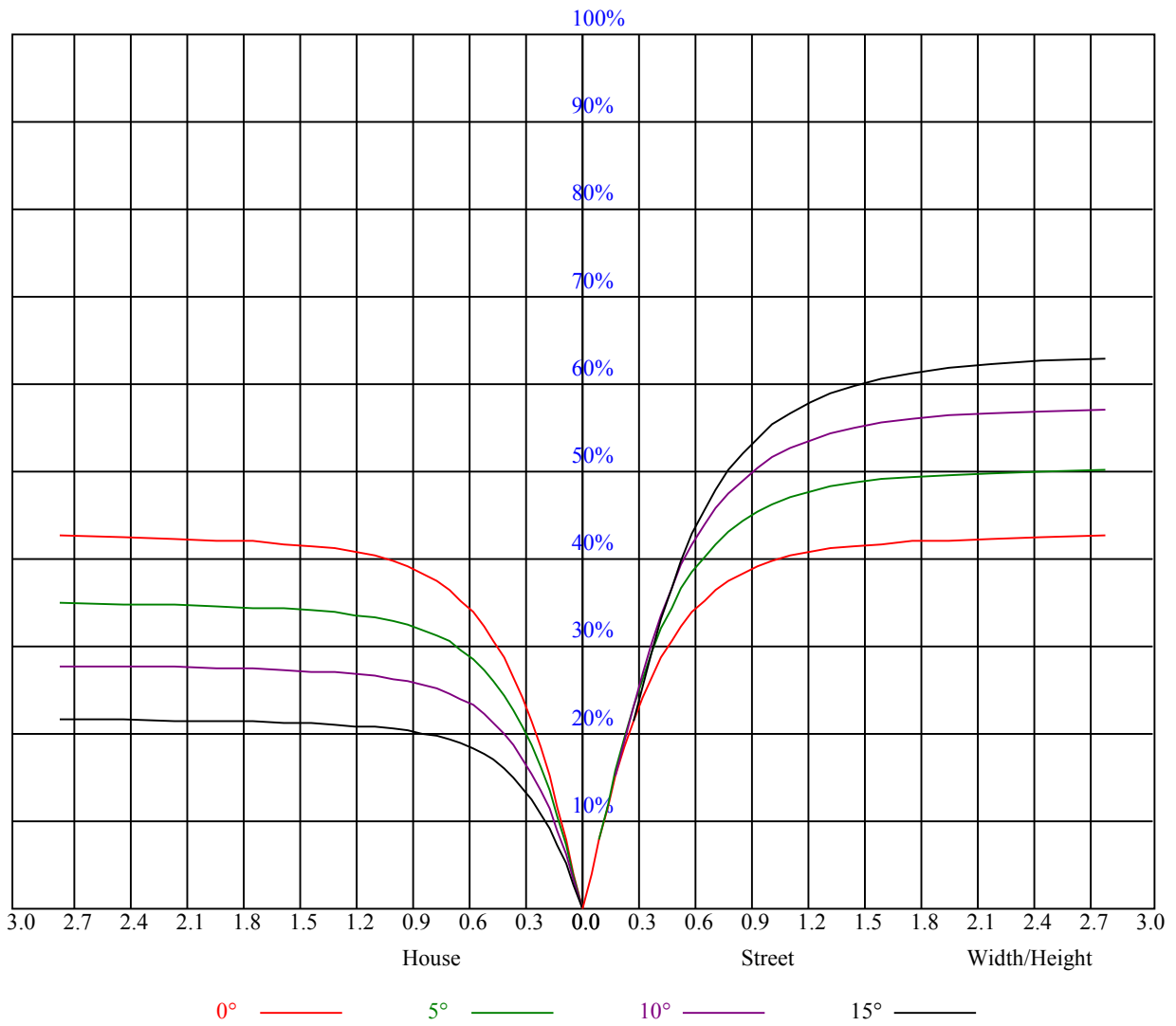
Luminance Limiting Curve



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	22.64	23.82	23.00	24.13	24.44	22.78	23.96	23.14	24.27	24.59
	3H	23.67	24.72	24.06	25.05	25.42	23.82	24.86	24.20	25.19	25.56
	4H	24.08	25.05	24.48	25.40	25.79	24.23	25.20	24.63	25.55	25.94
	6H	24.42	25.32	24.84	25.69	26.08	24.58	25.48	25.00	25.85	26.24
	8H	24.57	25.41	25.01	25.81	26.21	24.74	25.58	25.17	25.97	26.38
	12H	24.83	25.63	25.26	26.01	26.45	25.01	25.81	25.44	26.20	26.63
4H	2H	22.92	23.89	23.33	24.25	24.63	23.04	24.01	23.45	24.37	24.75
	3H	24.18	24.97	24.59	25.38	25.79	24.30	25.10	24.72	25.50	25.91
	4H	24.71	25.42	25.14	25.84	26.28	24.83	25.54	25.27	25.97	26.41
	6H	25.12	25.73	25.58	26.18	26.65	25.26	25.87	25.72	26.32	26.79
	8H	25.33	25.90	25.80	26.35	26.82	25.48	26.05	25.95	26.50	26.97
	12H	25.63	26.13	26.12	26.62	27.09	25.80	26.30	26.29	26.78	27.26
8H	4H	24.88	25.45	25.35	25.90	26.37	24.99	25.56	25.46	26.01	26.48
	6H	25.44	25.90	25.94	26.40	26.88	25.56	26.02	26.07	26.52	27.01
	8H	25.75	26.17	26.28	26.69	27.18	25.89	26.30	26.42	26.82	27.32
	12H	26.56	26.93	27.08	27.42	28.00	26.71	27.07	27.23	27.57	28.14
12H	4H	24.88	25.38	25.37	25.87	26.34	24.99	25.49	25.48	25.98	26.45
	6H	25.95	25.90	26.02	26.37	26.92	26.07	26.02	26.14	26.49	27.04
	8H	25.87	26.24	26.39	26.73	27.31	26.00	26.37	26.52	26.86	27.44
Variation with the observer position at spacings:											
S = 1.0H	1.0/-1.8					1.0/-1.8					
S = 1.5H	2.1/-2.3					2.1/-2.3					
S = 2.0H	3.9/-2.4					3.9/-2.4					
Standard tables:	BK2					BK2					
Uncorrected UGR	9.6					9.6					



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	1.03	1.03	1.03	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.89	0.89	0.89	0.87
1	0.94	0.92	0.90	0.93	0.90	0.88	0.89	0.87	0.85	0.86	0.84	0.83	0.83	0.81	0.80	0.79
2	0.87	0.83	0.80	0.86	0.82	0.79	0.83	0.80	0.77	0.80	0.78	0.76	0.78	0.76	0.74	0.73
3	0.81	0.76	0.72	0.80	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.73	0.71	0.68	0.67
4	0.75	0.70	0.66	0.74	0.70	0.66	0.73	0.68	0.65	0.71	0.67	0.64	0.69	0.66	0.64	0.62
5	0.71	0.65	0.61	0.70	0.65	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.65	0.62	0.59	0.58
6	0.66	0.61	0.57	0.66	0.61	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.54
7	0.63	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.52	0.51
8	0.59	0.54	0.50	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.52	0.49	0.48
9	0.56	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.53	0.50	0.47	0.46
10	0.53	0.48	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.52	0.48	0.45	0.51	0.47	0.45	0.43



NATA 1406-N

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	1709.44	1638.56	1443.94	1143.00	853.88	629.44	480.38	367.31	285.75
45.0	1704.38	1622.25	1404.56	1108.69	815.63	599.06	458.44	349.31	287.44
90.0	1707.19	1581.19	1343.25	1020.66	740.81	545.96	417.26	315.84	223.71
135.0	1709.44	1627.88	1403.44	1098.00	808.31	587.81	459.56	352.69	285.75
180.0	1709.44	1612.69	1343.81	1050.41	768.83	563.51	442.58	339.81	248.57
225.0	1704.38	1625.63	1385.44	1070.83	766.01	561.77	433.24	336.38	254.48
270.0	1707.19	1656.00	1451.25	1149.19	823.50	591.75	443.25	342.00	286.31
315.0	1709.44	1622.25	1398.94	1079.83	795.04	585.73	450.28	345.54	259.71
360.0	1709.44	1638.56	1443.94	1143.00	853.88	629.44	480.38	367.31	285.75
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	179.38	112.89	73.41	50.68	35.44	25.65	18.23	12.54	7.76
45.0	172.24	107.49	67.39	47.14	32.63	23.63	16.37	11.08	6.92
90.0	152.16	97.48	61.71	43.82	30.77	21.99	15.13	9.79	6.19
135.0	171.84	109.41	69.24	48.94	34.26	24.47	16.76	11.25	6.64
180.0	165.32	105.30	67.11	47.59	33.24	23.74	16.03	10.41	6.47
225.0	168.02	106.37	69.92	48.32	33.92	24.19	16.82	10.97	6.81
270.0	177.53	114.36	73.18	51.86	36.23	25.93	18.06	12.15	7.26
315.0	172.29	109.69	70.71	49.84	34.82	24.81	17.61	11.87	7.65
360.0	179.38	112.89	73.41	50.68	35.44	25.65	18.23	12.54	7.76
C/ γ (°)	90.0								
0.0	5.40								
45.0	5.06								
90.0	4.84								
135.0	4.89								
180.0	4.73								
225.0	4.95								
270.0	5.06								
315.0	5.23								
360.0	5.40								