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Nata

LumCAT: 3-1941-M	
Luminaire: BJB 47.319.2030	
Report No: NATA0100	Voltage(V): 48.9000
Test No: GC2018092714	Current(A): 0.4500
LampCAT: BRIDGELUX V22B	Power (W): 22.0000
Lamp flux(lm): 3395.3	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 80	Width(mm): 80
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2947.29
Efficiency(%): 86.80%
Lumens(lm)/Power(W): 133.97
Central intensity(cd): 3545.156
Maximum intensity(cd): 3545.156
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=58.1
 [C90/270]Total=58.1
Field angle(10%Imax): [C0/180]Total=76.7
 [C90/270]Total=76.7
Maximum s/h(1/2): C0_180=0.95 C90_270=0.95
Maximum s/h(1/4): C0_180=0.86 C90_270=0.86
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 87.35%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.833%

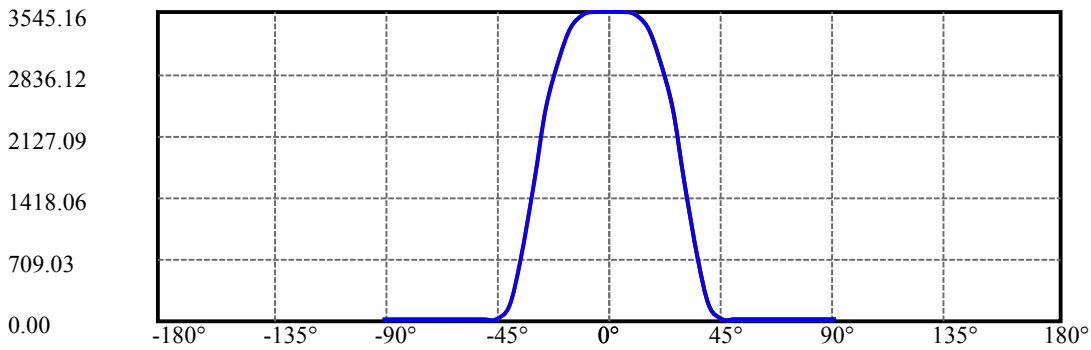
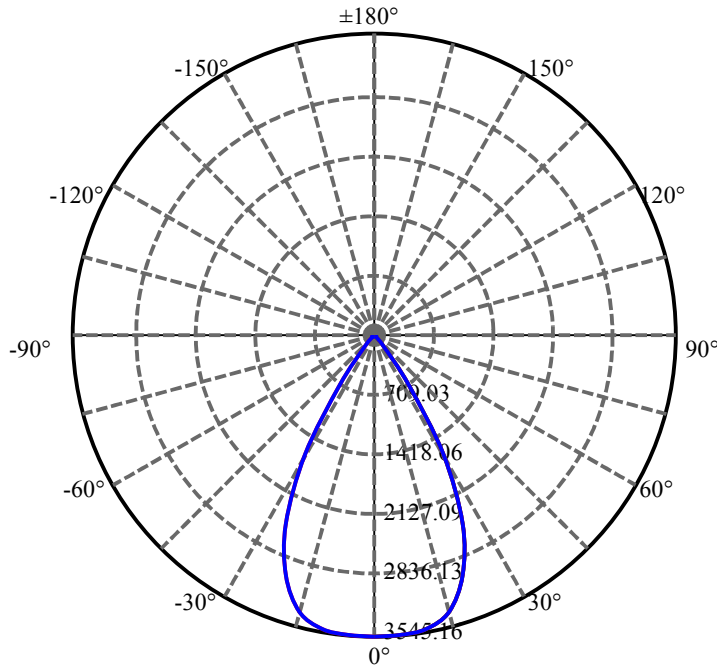
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3545.156	21.201	21.201	.624%	.719%
5.0	3542.273	169.226	190.427	4.984%	6.461%
10.0	3516.680	334.728	525.155	9.859%	17.818%
15.0	3363.680	477.200	1002.355	14.055%	34.009%
20.0	3009.094	564.127	1566.482	16.615%	53.150%
25.0	2452.289	568.080	2134.562	16.731%	72.425%
30.0	1618.066	443.461	2578.023	13.061%	87.471%
35.0	719.416	226.184	2804.207	6.662%	95.145%
40.0	177.047	62.380	2866.587	1.837%	97.262%
45.0	31.472	12.198	2878.785	.359%	97.676%
50.0	18.668	7.839	2886.624	.231%	97.942%
55.0	16.488	7.403	2894.027	.218%	98.193%
60.0	15.553	7.383	2901.41	.217%	98.443%
65.0	15.715	7.807	2909.217	.230%	98.708%
70.0	16.706	8.605	2917.822	.253%	99.000%
75.0	17.740	9.393	2927.214	.277%	99.319%
80.0	15.645	8.445	2935.66	.249%	99.605%
85.0	14.667	8.009	2943.669	.236%	99.877%
90.0	13.219	3.623	2947.291	.107%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2578.02	75.93%	87.47%
0-40	2866.59	84.43%	97.26%
0-60	2901.41	85.45%	98.44%
0-90	2943.67	86.70%	99.88%
0-120	2943.67	86.70%	99.88%
0-180	2947.29	86.80%	100.00%
60-90	49.64	1.46%	1.68%
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%
0-27.52	2357.83	69.44%	80.00%

ZONAL LUMEN SUMMARY

0-10	525.16
10-20	1041.33
20-30	1011.54
30-40	288.56
40-50	20.04
50-60	14.79
60-70	16.41
70-80	17.84
80-90	8.01
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: ———

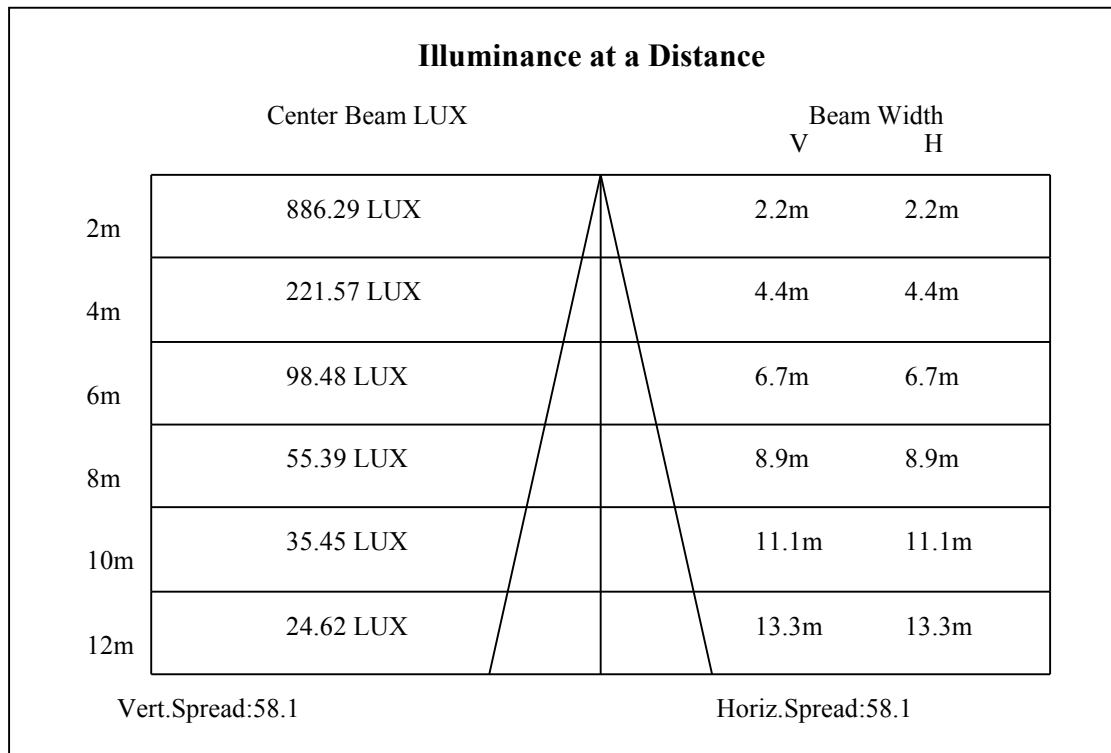
C90/C270: ———

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

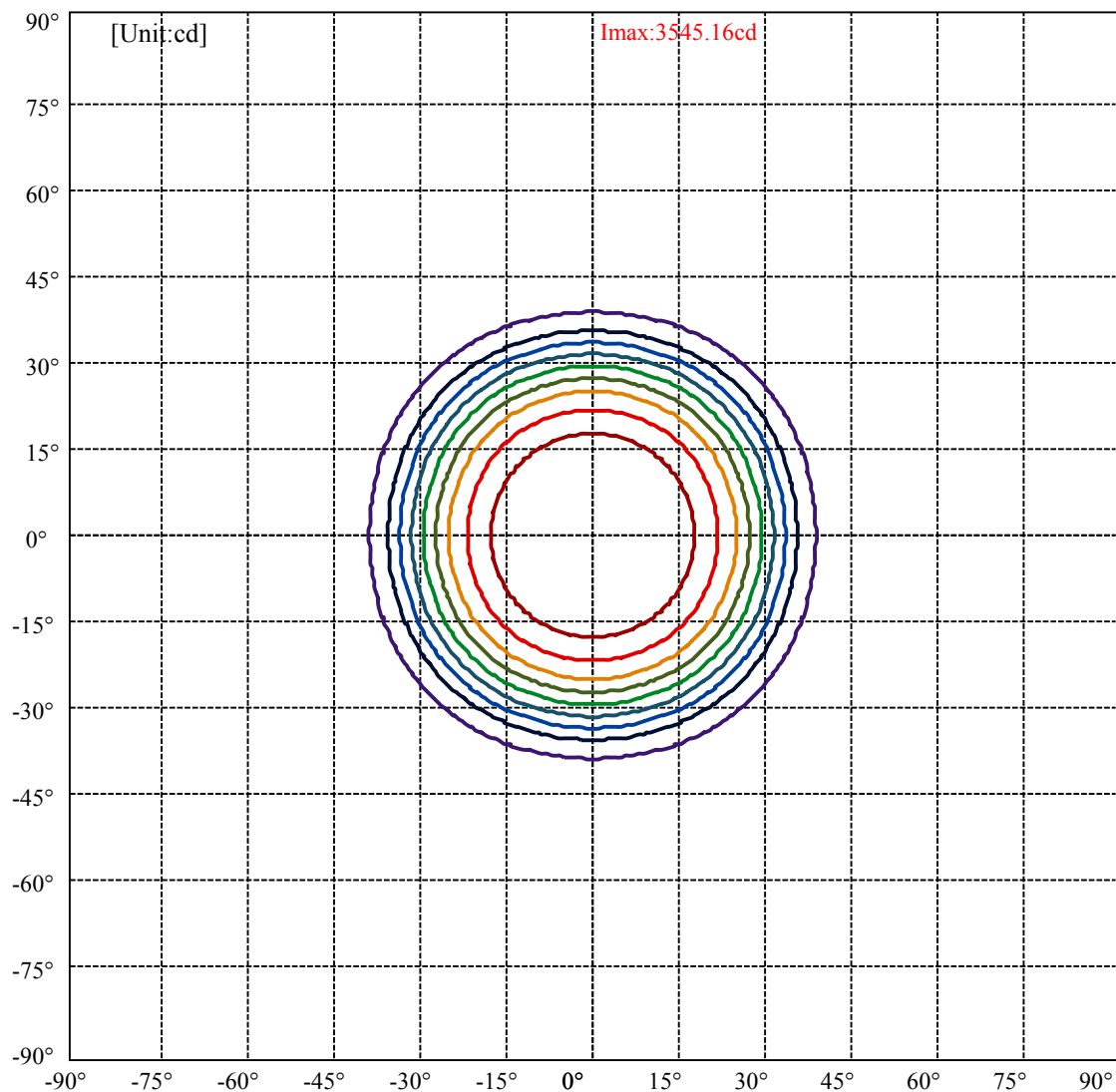
:C90/270Left:38.4 Right:38.4

Beam Angle(50%Imax):C0/180Left:29.1 Right:29.1

:C90/270Left:29.1 Right:29.1



ISO-Intensity(V-H)

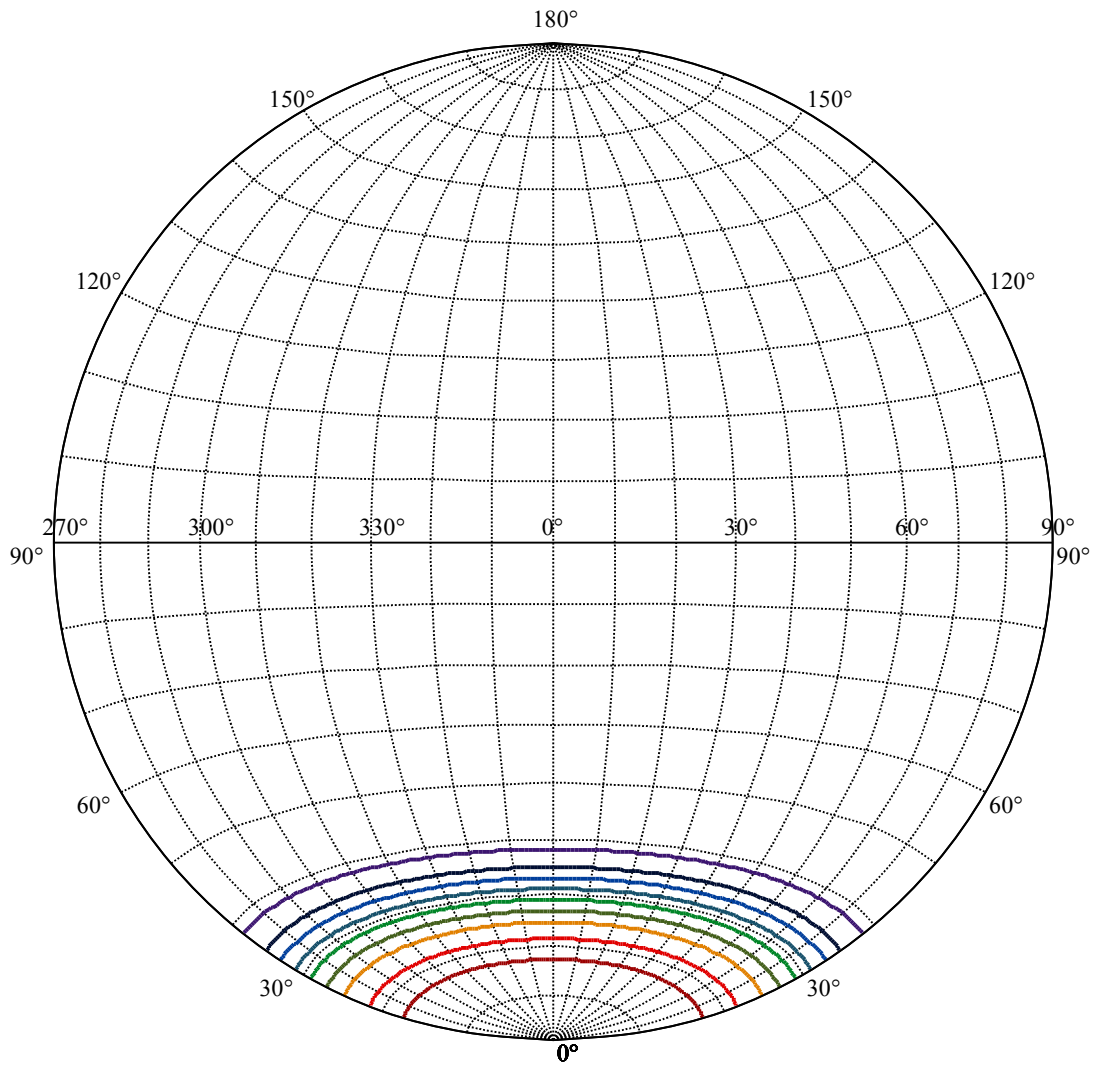


(10%Imax) 354.516	—
(20%Imax) 709.031	—
(30%Imax) 1063.55	—
(40%Imax) 1418.06	—
(50%Imax) 1772.58	—
(60%Imax) 2127.09	—
(70%Imax) 2481.61	—
(80%Imax) 2836.12	—
(90%Imax) 3190.64	—

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/9/27
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.50



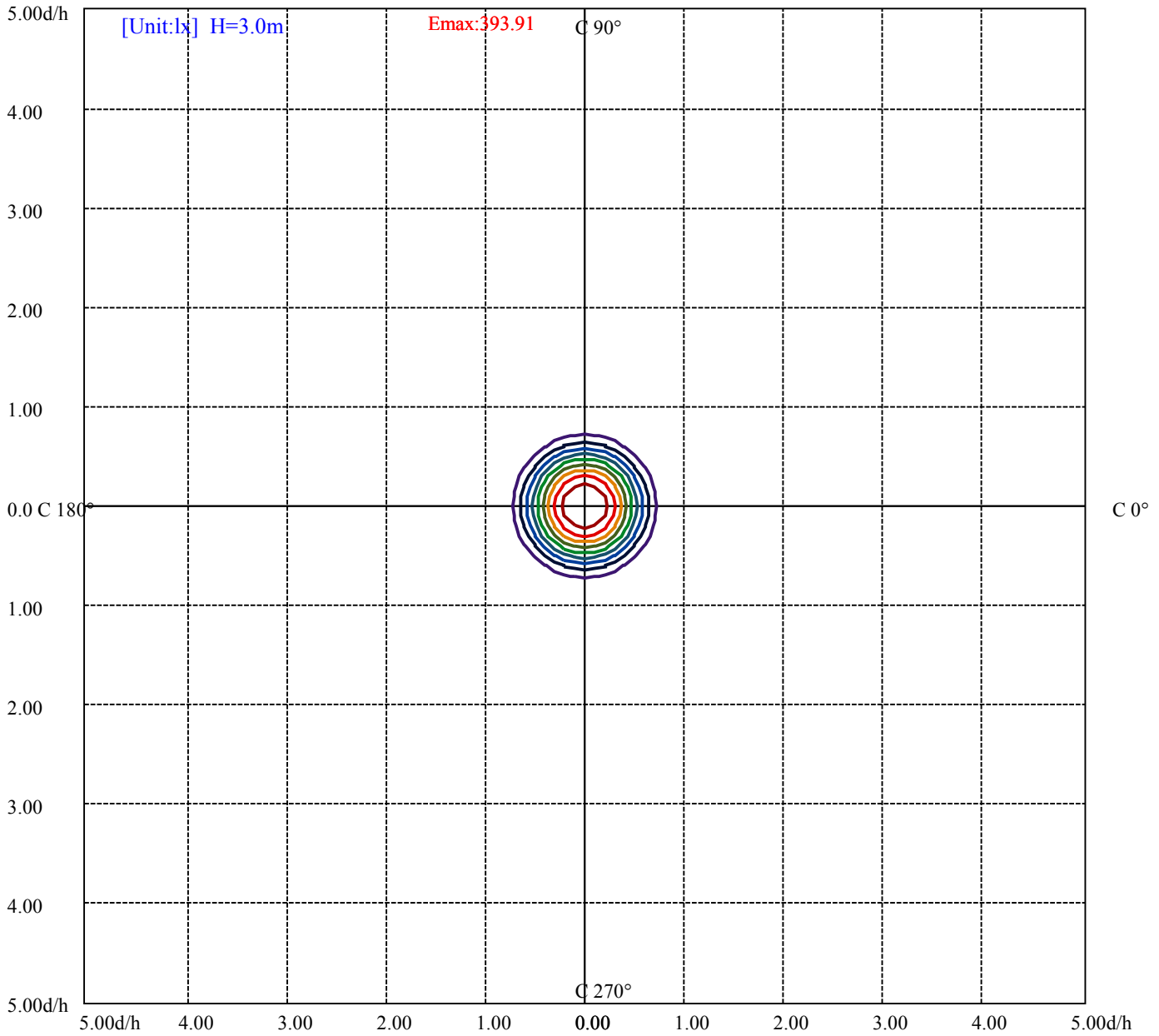
House

[Unit:cd]

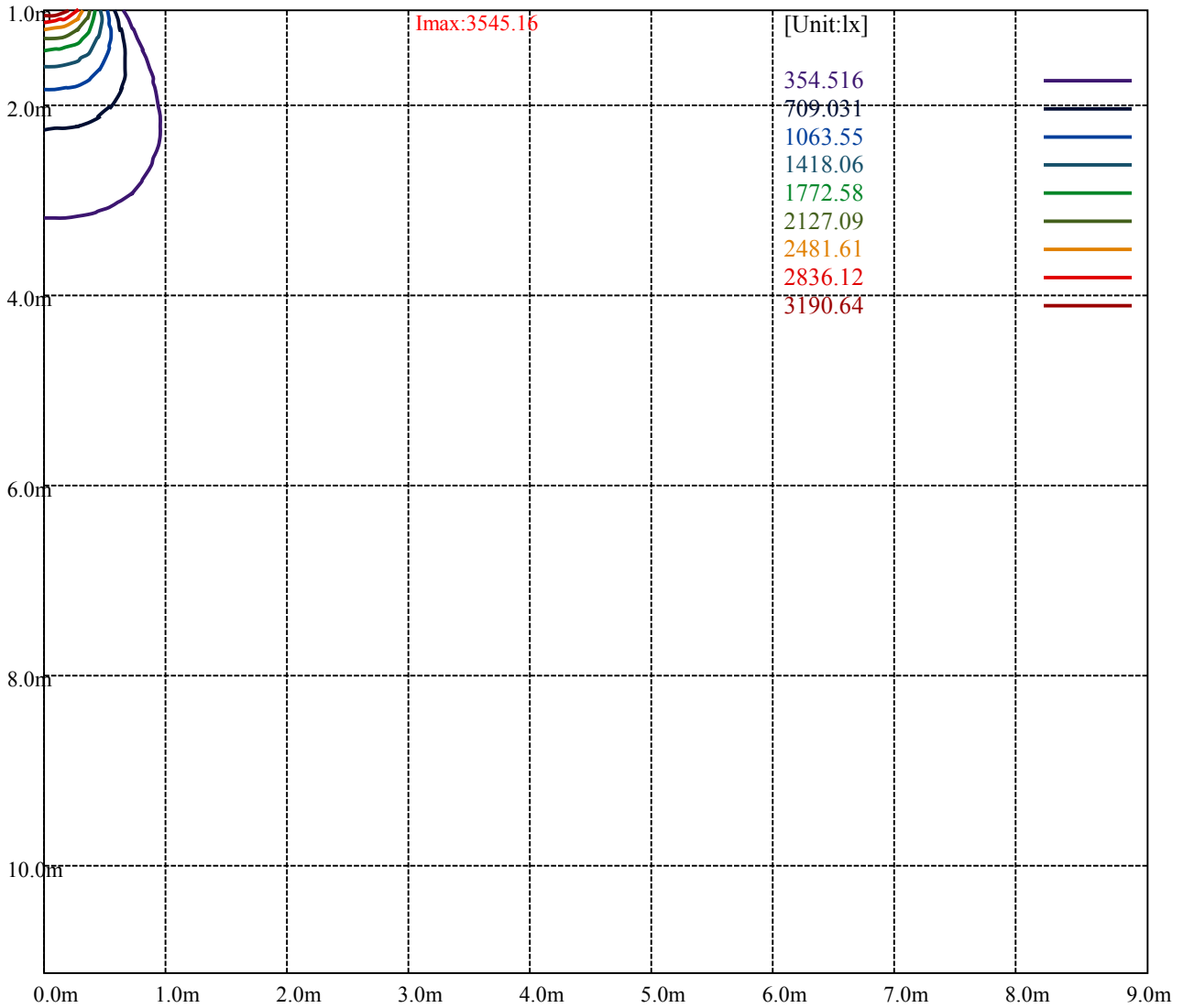
Road

Imax:3545.16

(10%Imax) 354.516	—
(20%Imax) 709.031	—
(30%Imax) 1063.55	—
(40%Imax) 1418.06	—
(50%Imax) 1772.58	—
(60%Imax) 2127.09	—
(70%Imax) 2481.61	—
(80%Imax) 2836.12	—
(90%Imax) 3190.64	—



(10%Emax) 39.39067	—
(20%Emax) 78.78122	—
(30%Emax) 118.1722	—
(40%Emax) 157.5622	—
(50%Emax) 196.9533	—
(60%Emax) 236.3433	—
(70%Emax) 275.7345	—
(80%Emax) 315.1245	—
(90%Emax) 354.5155	—



Luminance Table

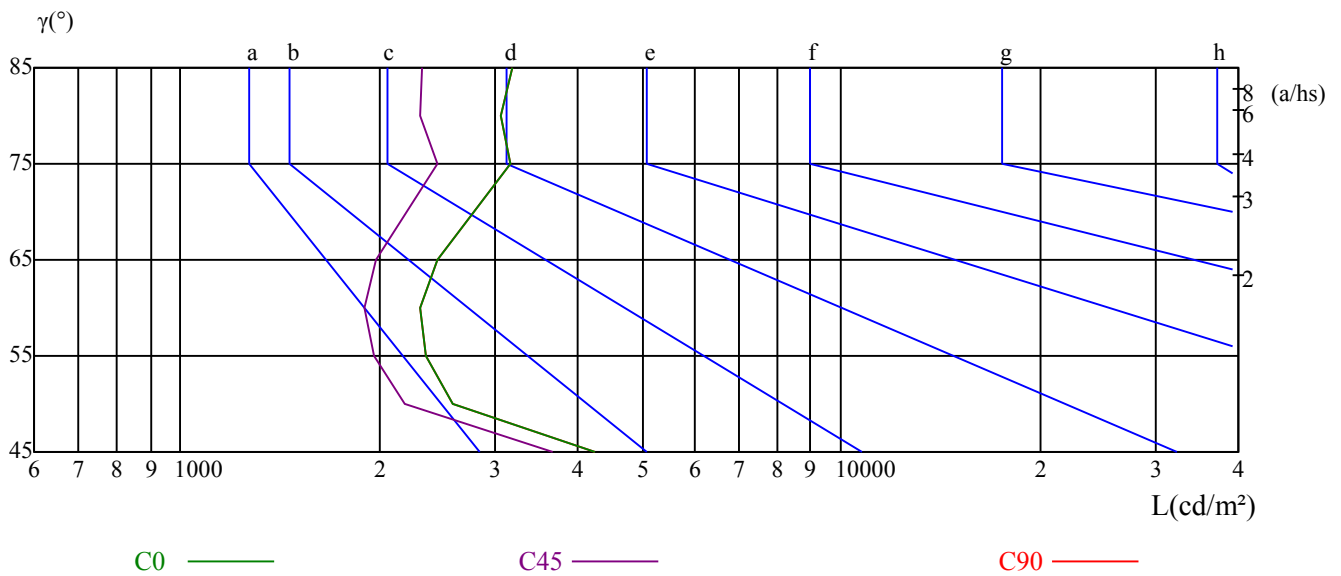
γ	45	50	55	60	65	70	75	80	85
C0	4247	2579	2351	2310	2454	2774	3169	3050	3173
C45	3657	2188	1964	1897	1981	2195	2454	2303	2326
C90	4247	2579	2351	2310	2454	2774	3169	3050	3173

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5810	5810	5810	10710	10710	10710	26295	26295	26295

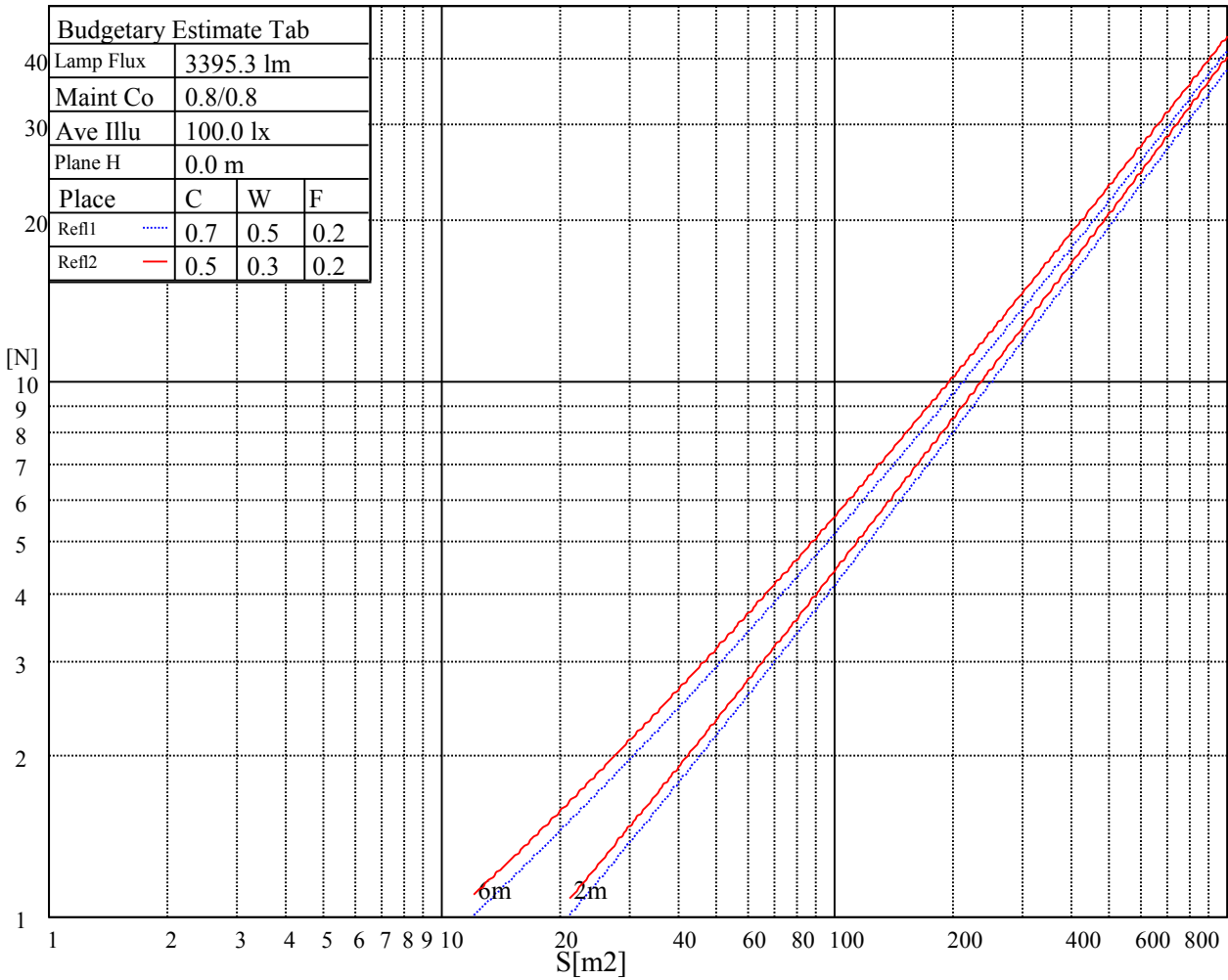
Glare Table

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

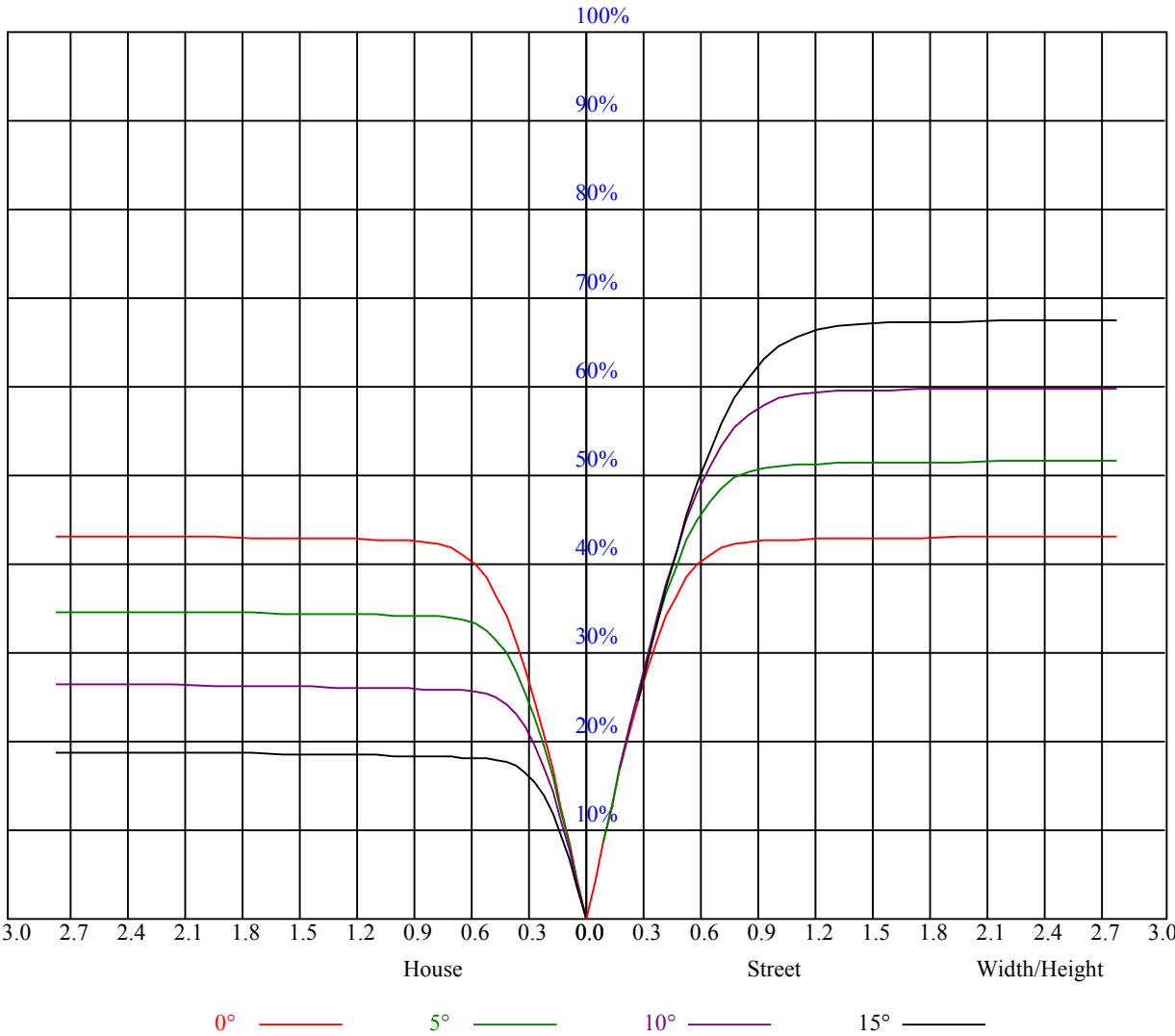
Luminance Limiting Curve



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	0.71	1.64	1.08	1.95	2.26	0.86	1.79	1.23	2.10	2.41
	3H	2.98	3.80	3.36	4.13	4.50	3.75	4.57	4.14	4.91	5.28
	4H	4.25	5.00	4.65	5.36	5.75	5.53	6.28	5.94	6.64	7.03
	6H	5.57	6.26	5.99	6.64	7.03	6.88	7.57	7.30	7.95	8.34
	8H	6.24	6.88	6.67	7.28	7.69	7.42	8.07	7.85	8.46	8.87
	12H	7.28	7.90	7.71	8.28	8.71	8.21	8.83	8.64	9.21	9.64
4H	2H	1.27	2.03	1.68	2.38	2.77	1.39	2.14	1.80	2.50	2.89
	3H	3.92	4.55	4.34	4.96	5.36	4.60	5.23	5.02	5.64	6.04
	4H	5.40	5.96	5.84	6.38	6.83	6.53	7.09	6.97	7.51	7.96
	6H	6.74	7.21	7.21	7.67	8.14	7.85	8.33	8.32	8.78	9.26
	8H	7.50	7.95	7.98	8.40	8.87	8.50	8.94	8.97	9.39	9.87
	12H	8.52	8.90	9.01	9.39	9.87	9.30	9.68	9.79	10.17	10.65
8H	4H	6.01	6.46	6.49	6.91	7.38	6.94	7.38	7.41	7.83	8.31
	6H	7.57	7.92	8.08	8.42	8.91	8.46	8.81	8.97	9.32	9.80
	8H	8.46	8.77	8.99	9.29	9.79	9.24	9.55	9.78	10.08	10.57
	12H	9.57	9.83	10.09	10.33	10.91	10.17	10.44	10.70	10.94	11.52
12H	4H	6.12	6.50	6.62	6.99	7.47	6.99	7.37	7.48	7.86	8.34
	6H	7.98	8.07	8.30	8.54	9.09	8.80	8.90	9.12	9.37	9.92
	8H	8.75	9.01	9.27	9.51	10.09	9.46	9.72	9.98	10.22	10.80
Variation with the observer position at spacings:											
S = 1.0H	5.9/-8.2					5.9/-8.2					
S = 1.5H	8.3/-6.3					8.3/-6.3					
S = 2.0H	10.0/-5.2					10.0/-5.2					
Standard tables:	BK1					BK1					
Uncorrected UGR	-0.7					-0.7					



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	1.04	1.04	1.04	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.87
1	0.96	0.94	0.92	0.95	0.93	0.91	0.91	0.89	0.88	0.88	0.87	0.85	0.85	0.84	0.83	0.81
2	0.91	0.87	0.84	0.89	0.86	0.83	0.86	0.84	0.82	0.84	0.82	0.80	0.81	0.80	0.78	0.77
3	0.85	0.81	0.78	0.84	0.81	0.78	0.82	0.79	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.73
4	0.81	0.76	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.71	0.75	0.72	0.70	0.69
5	0.77	0.72	0.69	0.76	0.72	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.65
6	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.62
7	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
8	0.66	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.56
9	0.63	0.59	0.56	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.57	0.55	0.54
10	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.52



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	3541.50	3534.19	3484.13	3305.81	2905.31	2293.31	1511.44	537.19	78.64
45.0	3546.56	3544.31	3521.25	3338.44	2967.19	2368.69	1549.69	603.56	96.13
90.0	3546.00	3543.75	3513.94	3335.63	2946.38	2349.00	1364.63	586.18	93.15
135.0	3546.56	3552.75	3546.00	3449.81	3156.75	2620.69	1914.75	1009.13	313.31
180.0	3541.50	3555.56	3543.75	3434.06	3103.88	2624.63	1897.88	860.51	256.56
225.0	3546.56	3547.69	3533.06	3402.56	3063.38	2553.19	1798.88	815.74	195.24
270.0	3546.00	3531.94	3513.94	3378.38	3042.00	2545.31	1799.44	830.81	303.75
315.0	3546.56	3528.00	3477.38	3264.75	2887.88	2263.50	1107.84	512.21	79.59
360.0	3541.50	3534.19	3484.13	3305.81	2905.31	2293.31	1511.44	537.19	78.64
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	24.58	18.17	16.71	15.92	18.68	22.50	25.43	16.99	14.96
45.0	25.88	17.83	16.09	15.30	14.74	14.40	14.79	14.29	14.74
90.0	25.54	17.55	15.86	15.02	14.51	14.12	14.01	14.34	14.57
135.0	38.08	19.63	16.76	15.75	15.41	17.27	20.48	18.62	14.34
180.0	39.60	19.46	16.82	15.64	14.79	15.24	16.31	16.37	14.01
225.0	36.17	19.07	16.43	15.41	14.51	13.78	13.89	14.57	14.46
270.0	37.24	19.29	16.48	15.36	14.63	14.29	14.06	14.40	14.91
315.0	24.69	18.34	16.76	16.03	18.45	22.05	22.95	15.58	15.36
360.0	24.58	18.17	16.71	15.92	18.68	22.50	25.43	16.99	14.96
C/ γ (°)	90.0								
0.0	13.05								
45.0	13.28								
90.0	13.33								
135.0	13.16								
180.0	13.05								
225.0	13.28								
270.0	13.39								
315.0	13.22								
360.0	13.05								