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Nata

LumCAT: 4-2221-A	
Luminaire: BJB47.319.2030	
Report No: NT2017092003	Voltage(V): 50.8000
Test No: GC2017092003	Current(A): 0.8000
LampCAT: bridgelux V22B	Power (W): 40.6400
Lamp flux(lm): 5885.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 100	Width(mm): 100
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 5279.13
Efficiency(%): 89.70%
Lumens(lm)/Power(W): 129.90
Central intensity(cd): 11331.980
Maximum intensity(cd): 11331.980
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=38.6
 [C90/270]Total=38.6
Field angle(10%Imax): [C0/180]Total=68.1
 [C90/270]Total=68.1
Maximum s/h(1/2): C0_180=0.64 C90_270=0.64
Maximum s/h(1/4): C0_180=0.61 C90_270=0.61
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.77%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.541%

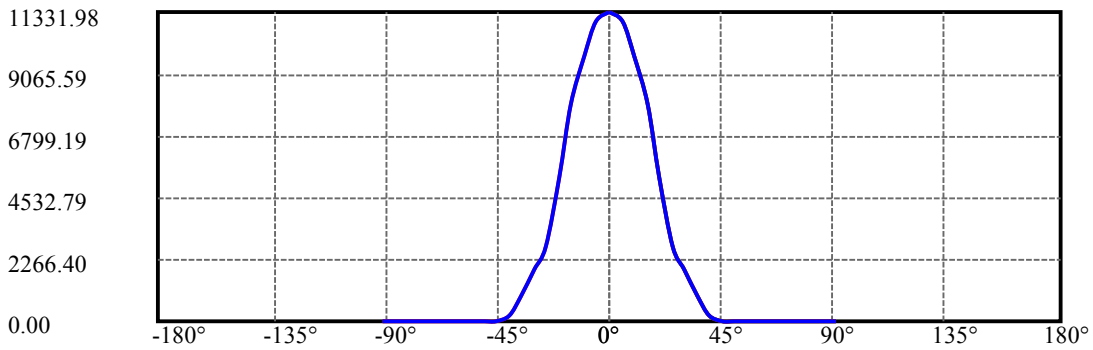
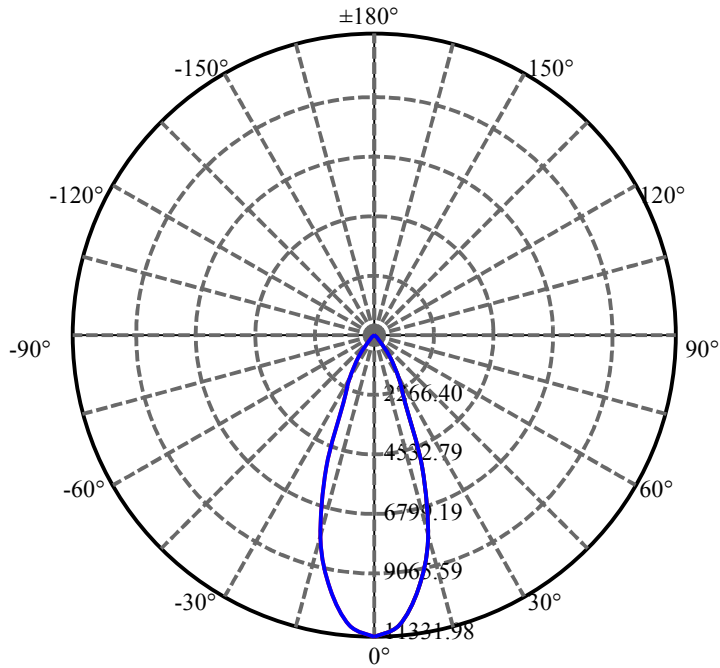
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11331.984	67.768	67.768	1.152%	1.284%
5.0	10967.510	523.954	591.722	8.903%	11.209%
10.0	9710.573	924.282	1516.004	15.706%	28.717%
15.0	7944.914	1127.132	2643.136	19.153%	50.068%
20.0	5281.079	990.065	3633.201	16.824%	68.822%
25.0	2753.233	637.794	4270.995	10.838%	80.903%
30.0	1906.397	522.484	4793.479	8.878%	90.800%
35.0	946.702	297.642	5091.121	5.058%	96.439%
40.0	204.101	71.912	5163.033	1.222%	97.801%
45.0	33.695	13.060	5176.093	.222%	98.048%
50.0	26.819	11.261	5187.354	.191%	98.261%
55.0	25.519	11.458	5198.812	.195%	98.478%
60.0	24.713	11.731	5210.544	.199%	98.701%
65.0	24.170	12.007	5222.551	.204%	98.928%
70.0	23.908	12.315	5234.865	.209%	99.161%
75.0	23.681	12.538	5247.404	.213%	99.399%
80.0	23.550	12.713	5260.116	.216%	99.640%
85.0	23.323	12.736	5272.852	.216%	99.881%
90.0	22.924	6.283	5279.135	.107%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	4793.48	81.45%	90.80%
0-40	5163.03	87.73%	97.80%
0-60	5210.54	88.54%	98.70%
0-90	5272.85	89.60%	99.88%
0-120	5272.85	89.60%	99.88%
0-180	5279.13	89.70%	100.00%
60-90	74.04	1.26%	1.40%
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%
0-24.63	4223.31	71.76%	80.00%

ZONAL LUMEN SUMMARY

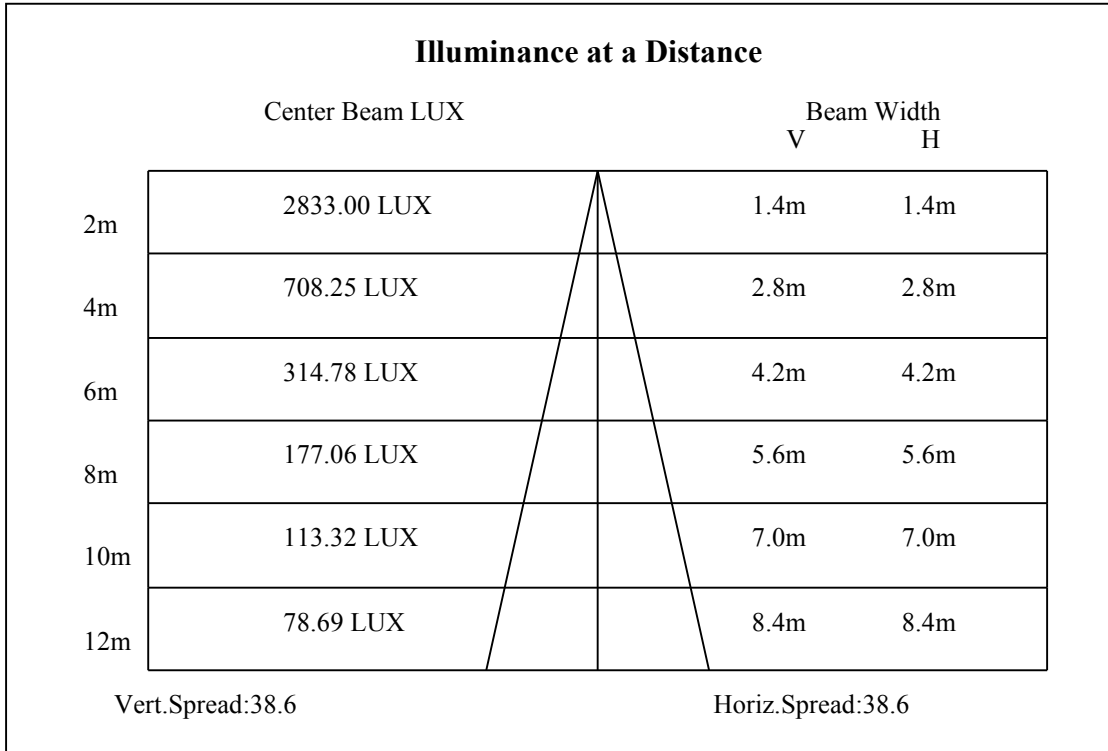
0-10	1516.00
10-20	2117.20
20-30	1160.28
30-40	369.55
40-50	24.32
50-60	23.19
60-70	24.32
70-80	25.25
80-90	12.74
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

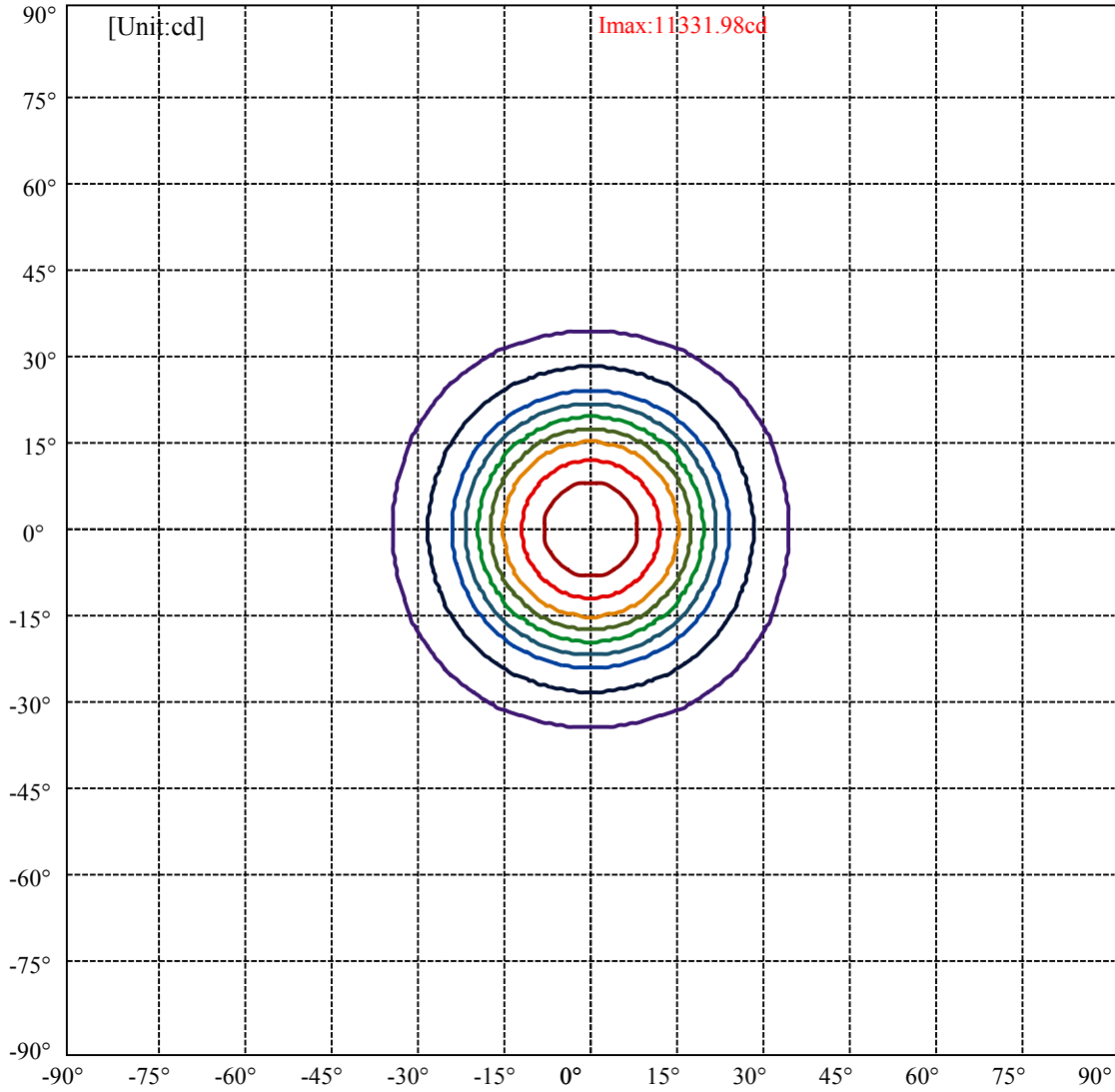


C0(Max): —————
C0/C180: —————
C90/C270: —————

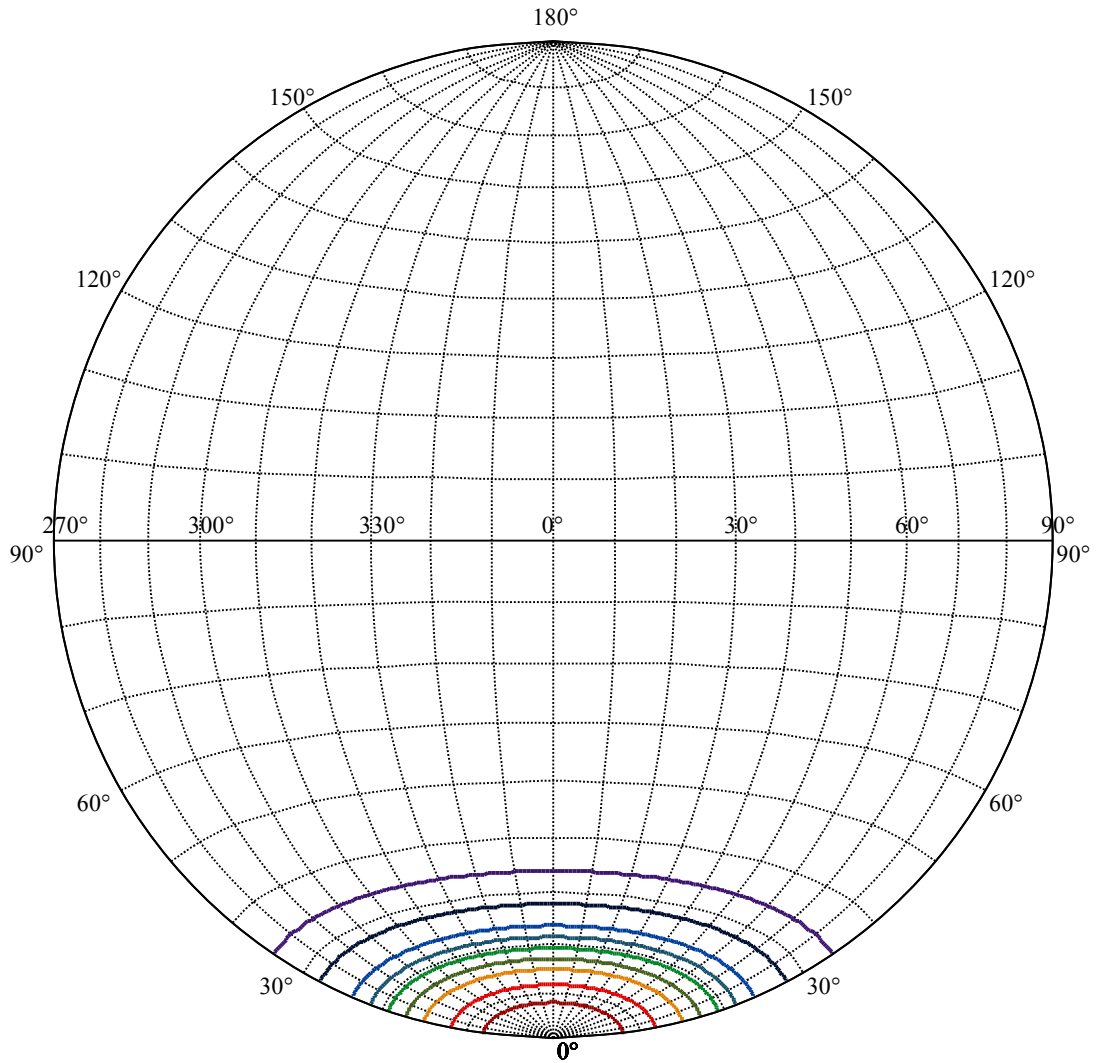
Field angle(10%Imax):C0/180Left:34.0 Right:34.0
:C90/270Left:34.0 Right:34.0

Beam Angle(50%Imax):C0/180Left:19.3 Right:19.3
:C90/270Left:19.3 Right:19.3





(10%Imax) 1133.2	—
(20%Imax) 2266.4	—
(30%Imax) 3399.6	—
(40%Imax) 4532.79	—
(50%Imax) 5665.99	—
(60%Imax) 6799.19	—
(70%Imax) 7932.39	—
(80%Imax) 9065.59	—
(90%Imax) 10198.8	—



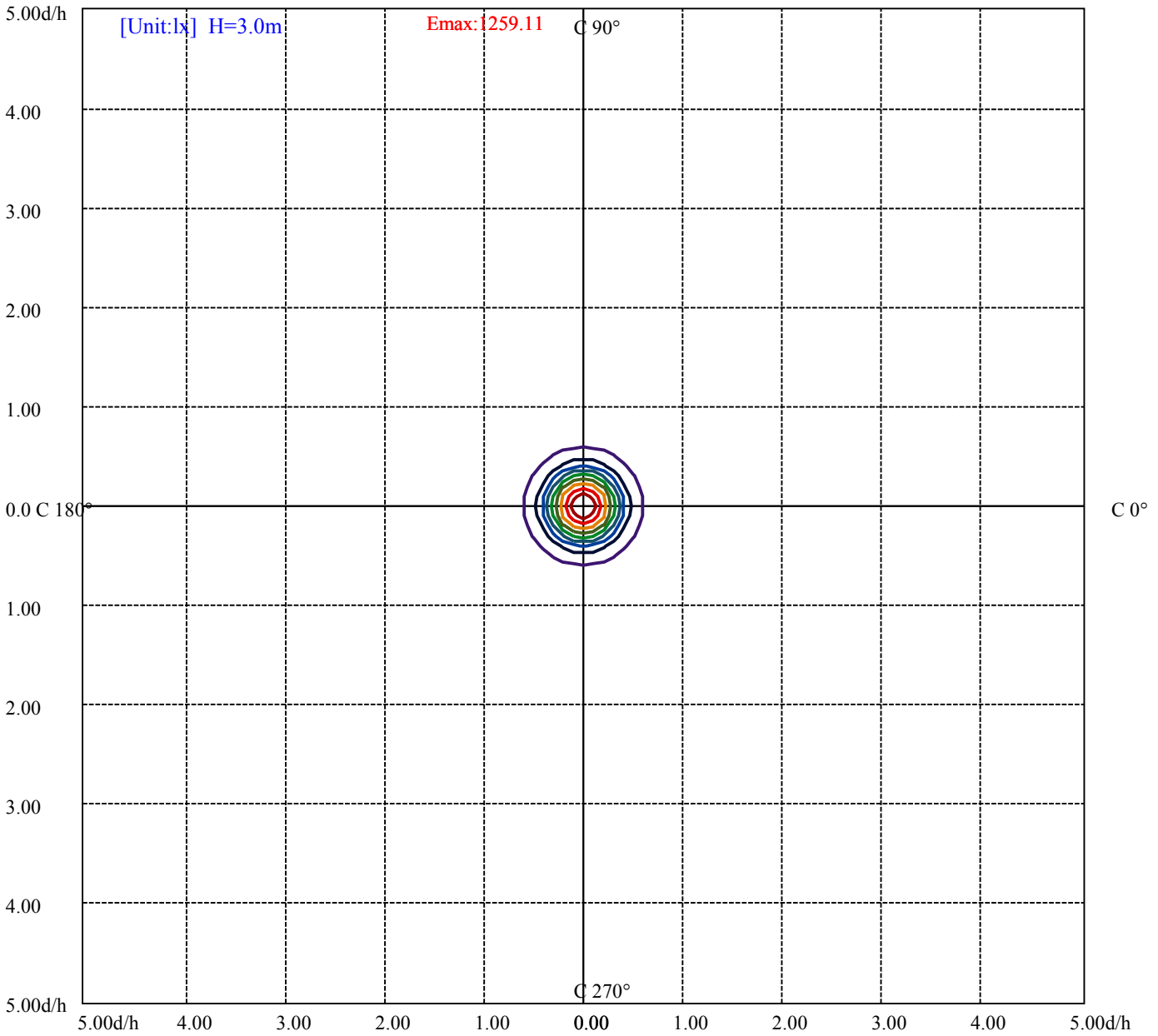
House

[Unit:cd]

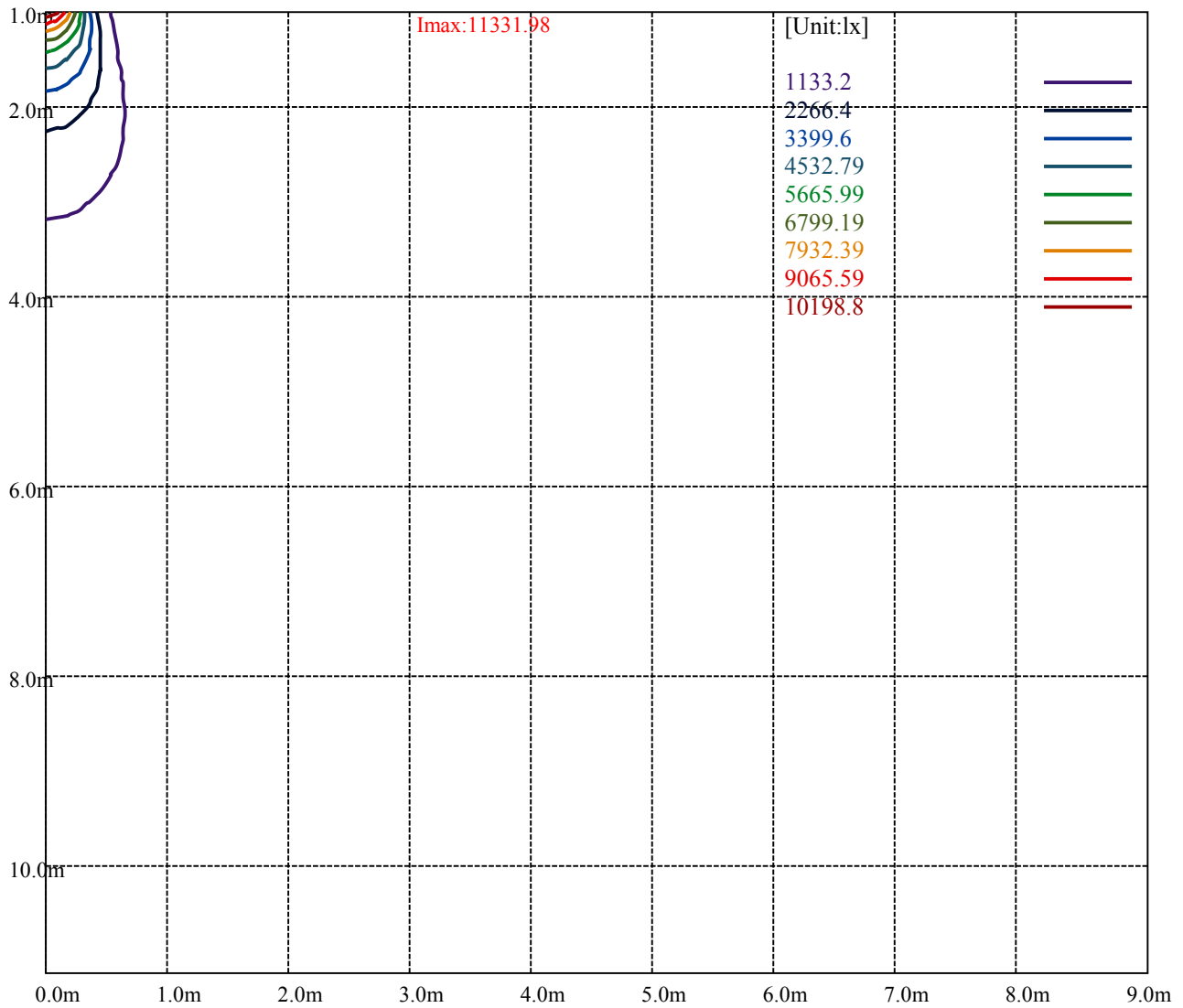
Road

Imax:11331.98

(10%Imax)	1133.2	—
(20%Imax)	2266.4	—
(30%Imax)	3399.6	—
(40%Imax)	4532.79	—
(50%Imax)	5665.99	—
(60%Imax)	6799.19	—
(70%Imax)	7932.39	—
(80%Imax)	9065.59	—
(90%Imax)	10198.8	—



(10%Emax) 125.9111	—
(20%Emax) 251.8211	—
(30%Emax) 377.7322	—
(40%Emax) 503.6433	—
(50%Emax) 629.5544	—
(60%Emax) 755.4645	—
(70%Emax) 881.3755	—
(80%Emax) 1007.287	—
(90%Emax) 1133.2	—



Luminance Table

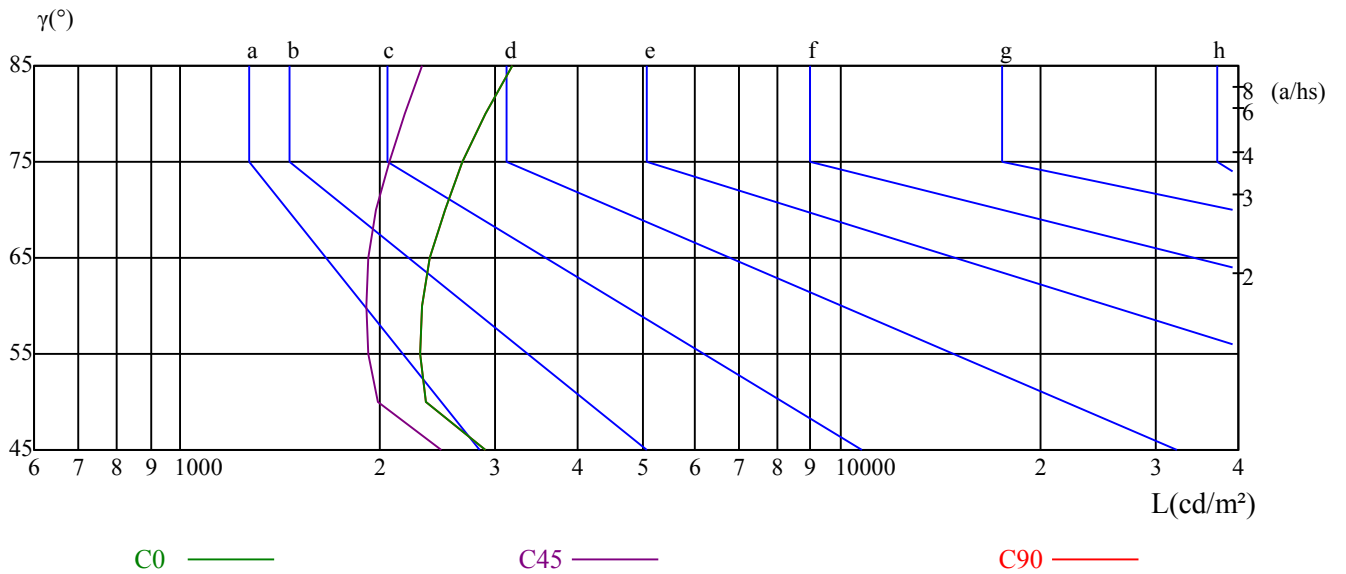
γ	45	50	55	60	65	70	75	80	85
C0	2888	2351	2307	2325	2389	2509	2671	2894	3175
C45	2483	1991	1924	1907	1925	1983	2065	2183	2326
C90	2888	2351	2307	2325	2389	2509	2671	2894	3175

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5719	5719	5719	9150	9150	9150	26760	26760	26760

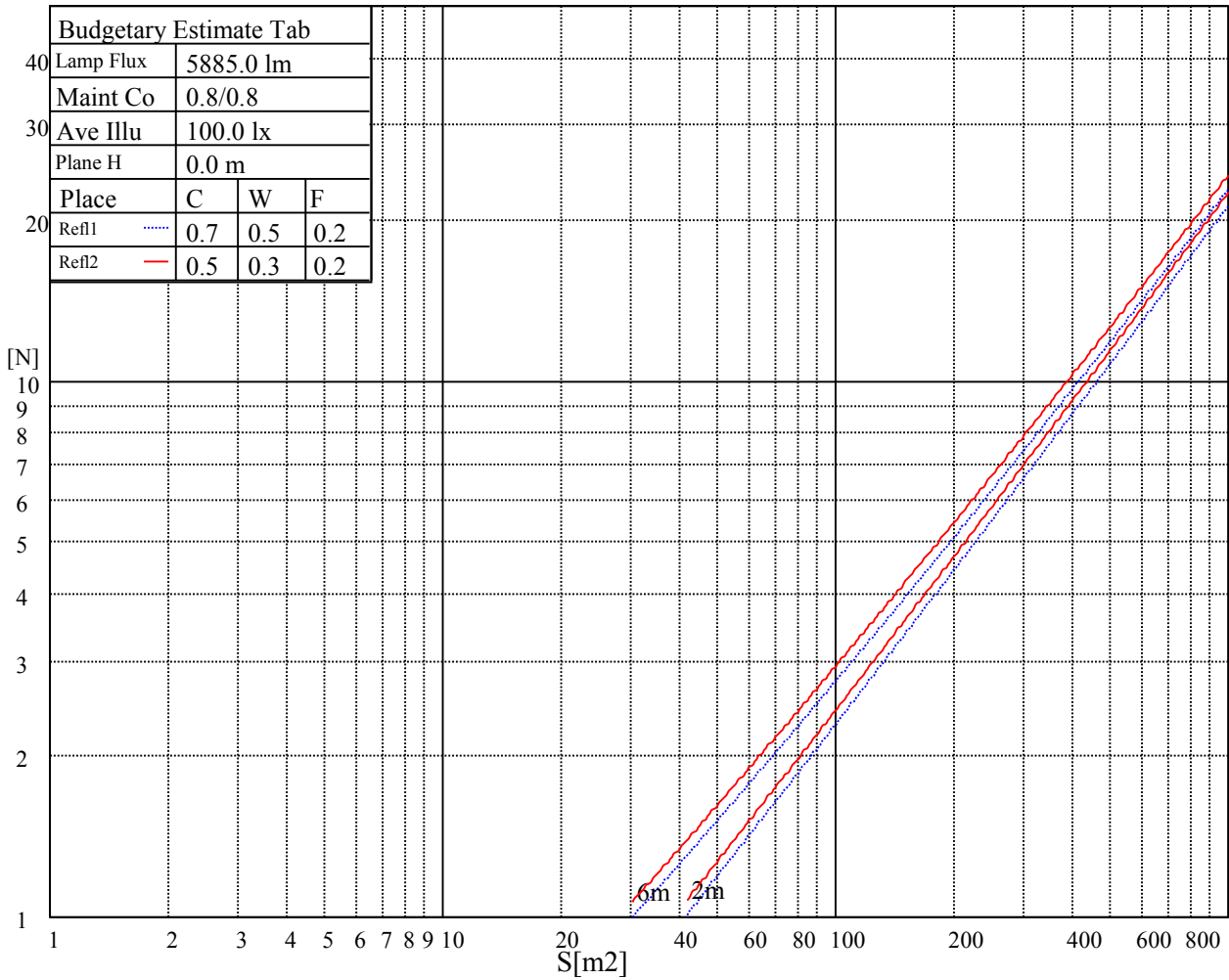
Glare Table

Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
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

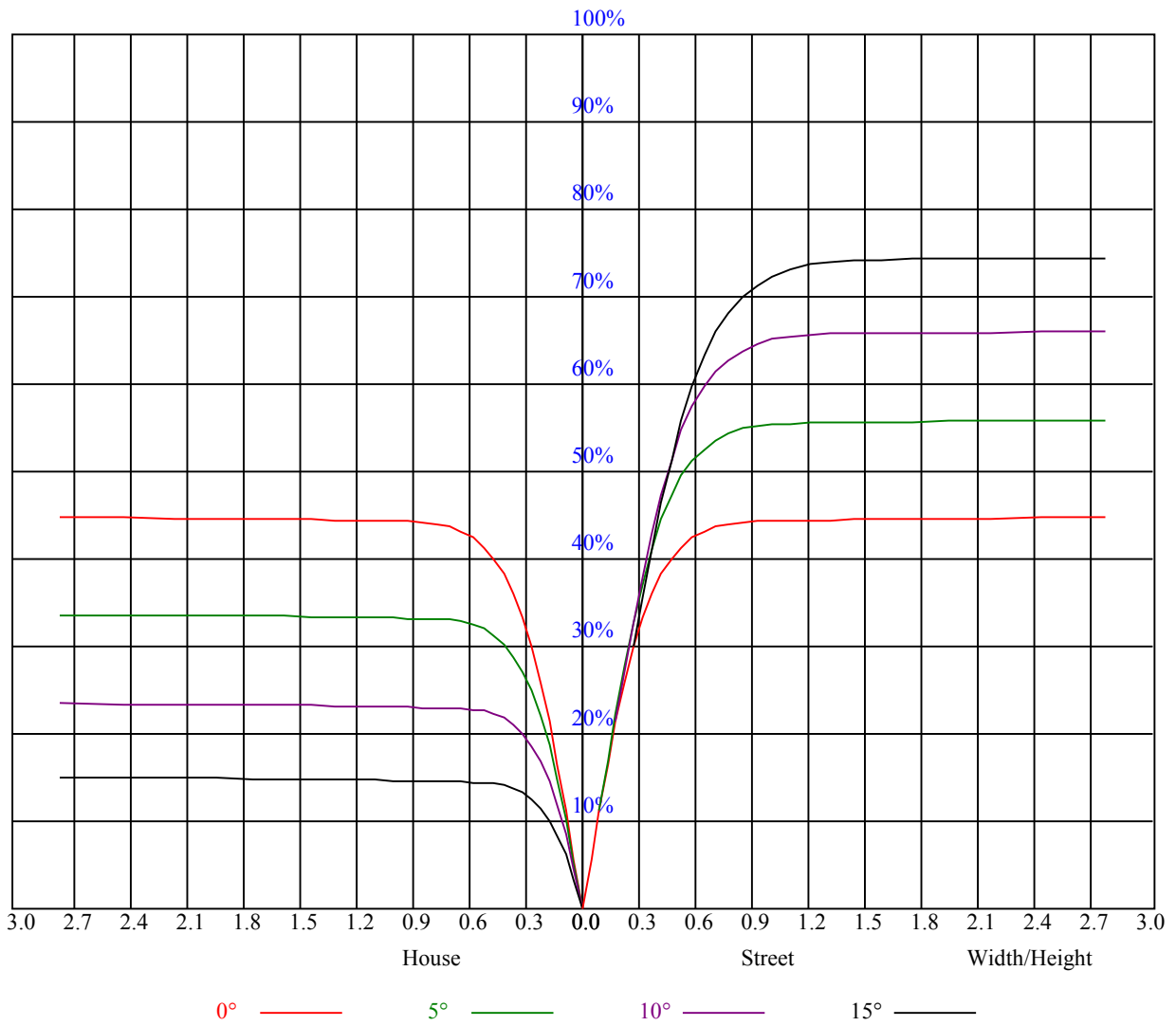
Luminance Limiting Curve



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	-1.69	-0.77	-1.32	-0.46	-0.15	-1.72	-0.81	-1.36	-0.50	-0.18
	3H	0.65	1.46	1.04	1.79	2.16	0.60	1.41	0.99	1.74	2.11
	4H	1.92	2.67	2.33	3.02	3.42	1.88	2.62	2.28	2.98	3.37
	6H	3.26	3.94	3.68	4.32	4.72	3.21	3.89	3.63	4.27	4.66
	8H	3.92	4.56	4.36	4.96	5.37	3.87	4.51	4.31	4.90	5.31
	12H	4.94	5.56	5.38	5.94	6.37	4.89	5.50	5.33	5.89	6.32
4H	2H	-1.19	-0.44	-0.78	-0.09	0.31	-1.21	-0.47	-0.80	-0.11	0.28
	3H	1.45	2.06	1.87	2.47	2.88	1.41	2.02	1.82	2.43	2.84
	4H	2.89	3.44	3.33	3.87	4.32	2.85	3.40	3.29	3.83	4.27
	6H	4.32	4.79	4.79	5.24	5.71	4.27	4.74	4.74	5.19	5.67
	8H	5.10	5.53	5.57	5.98	6.46	5.05	5.48	5.52	5.93	6.41
	12H	6.11	6.49	6.60	6.98	7.45	6.06	6.43	6.55	6.92	7.40
8H	4H	3.34	3.77	3.81	4.22	4.70	3.30	3.74	3.78	4.19	4.67
	6H	5.00	5.35	5.51	5.85	6.34	4.96	5.30	5.47	5.81	6.30
	8H	5.93	6.24	6.47	6.76	7.26	5.89	6.19	6.42	6.72	7.21
	12H	7.08	7.34	7.60	7.84	8.42	7.03	7.29	7.56	7.79	8.37
12H	4H	3.43	3.80	3.92	4.29	4.77	3.40	3.77	3.89	4.26	4.74
	6H	5.38	5.48	5.71	5.95	6.50	5.34	5.44	5.67	5.92	6.46
	8H	6.20	6.46	6.72	6.96	7.54	6.16	6.42	6.68	6.92	7.50
Variation with the observer position at spacings:											
S = 1.0H	5.7/-7.3					5.7/-7.3					
S = 1.5H	8.0/-5.7					8.0/-5.7					
S = 2.0H	9.5/-4.5					9.5/-4.5					
Standard tables:	BK2					BK2					
Uncorrected UGR	-2.4					-2.4					



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



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	11336.11	10879.14	9645.88	7922.62	5263.39	2785.85	1920.37	955.23	294.00
45.0	11341.62	11000.27	9822.06	8087.79	5637.78	2879.45	1943.49	1053.23	314.37
90.0	11330.61	10954.02	9695.98	7827.92	5045.37	2669.68	1835.03	814.94	127.90
135.0	11319.60	11137.91	9998.24	8313.52	5758.90	3039.11	2012.31	1090.12	306.66
180.0	11336.11	10969.44	9732.87	7925.92	5372.40	2750.07	1900.00	977.69	147.00
225.0	11341.62	10910.53	9581.47	7767.36	4971.04	2590.95	1879.63	869.01	91.61
270.0	11330.61	11016.79	9833.07	8131.83	5461.59	2807.88	1976.52	1033.41	286.84
315.0	11319.60	10871.99	9375.00	7582.37	4738.15	2502.86	1783.83	779.98	64.42
360.0	11336.11	10879.14	9645.88	7922.62	5263.39	2785.85	1920.37	955.23	294.00
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	35.79	26.76	25.33	24.50	23.89	23.62	23.45	23.23	23.07
45.0	34.80	27.25	25.88	24.94	24.22	23.89	23.45	23.29	23.23
90.0	32.76	26.65	25.55	24.78	24.45	24.39	24.06	23.84	23.78
135.0	34.36	26.92	25.66	25.00	24.61	24.61	24.45	24.39	23.89
180.0	32.32	26.76	25.49	24.72	24.11	23.84	23.62	23.56	23.40
225.0	31.16	26.92	25.55	24.67	24.00	23.62	23.29	23.12	23.01
270.0	35.24	26.92	25.55	24.67	24.11	23.67	23.45	23.34	23.07
315.0	33.14	26.37	25.16	24.45	23.95	23.62	23.67	23.62	23.12
360.0	35.79	26.76	25.33	24.50	23.89	23.62	23.45	23.23	23.07
C/γ(°)	90.0								
0.0	22.85								
45.0	22.96								
90.0	22.96								
135.0	22.96								
180.0	22.85								
225.0	22.90								
270.0	22.96								
315.0	22.96								
360.0	22.85								