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Nata

LumCAT: 3-1546-A3
Luminaire: 99.02.73.172+92.76.365.00
Report No: NATA0100
Test No: GC2018082809
LampCAT: BRIDGELUX V13B
Lamp flux(lm): 2575.0
Number of Lamps: 1
Length(mm): 84
Phm Type: C

Voltage(V): 34.0000
Current(A): 0.5000
Power (W): 17.0000
PF: 0.0000
Ballast type: DC
Width(mm): 84
Height(mm): 0

Photometric Results

Lumens(lm): 2364.88
Efficiency(%): 91.84%
Lumens(lm)/Power(W): 142.08
Central intensity(cd): 8823.063
Maximum intensity(cd): 8823.063
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=25.0
 [C90/270]Total=25.0
Field angle(10%Imax): [C0/180]Total=55.7
 [C90/270]Total=55.7
Maximum s/h(1/2): C0_180=0.43 C90_270=0.43
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(%): 93.80%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.644%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/8/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

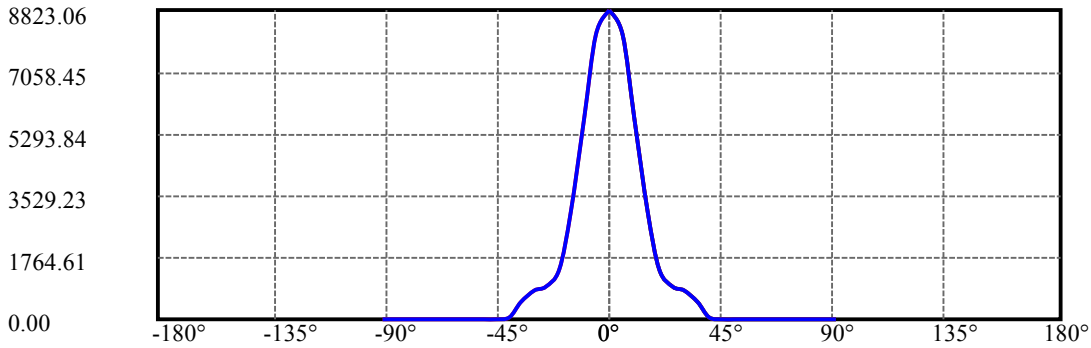
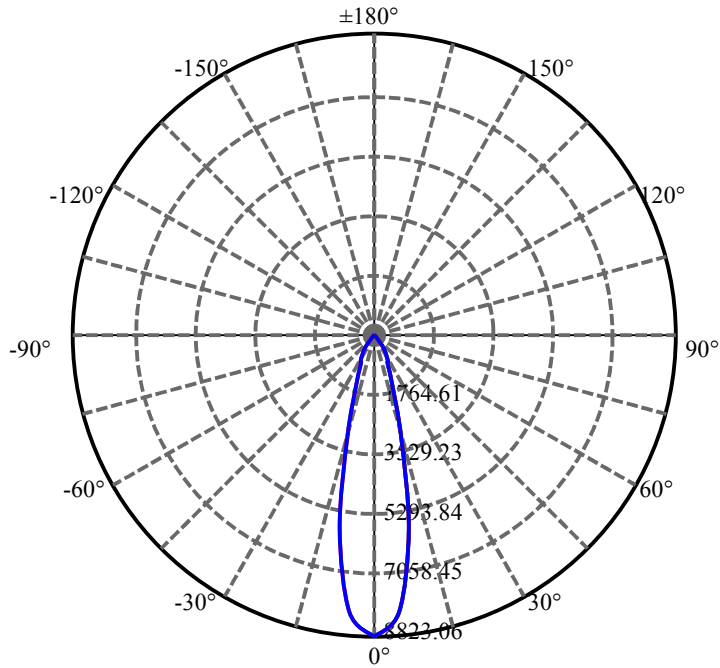
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8823.063	52.764	52.764	2.049%	2.231%
5.0	8102.237	387.071	439.834	15.032%	18.599%
10.0	5780.716	550.226	990.061	21.368%	41.865%
15.0	3058.865	433.956	1424.017	16.853%	60.215%
20.0	1430.888	268.254	1692.271	10.418%	71.559%
25.0	956.584	221.595	1913.867	8.606%	80.929%
30.0	825.949	226.367	2140.234	8.791%	90.501%
35.0	485.515	152.645	2292.879	5.928%	96.956%
40.0	58.704	20.683	2313.562	.803%	97.830%
45.0	14.170	5.492	2319.055	.213%	98.062%
50.0	11.865	4.982	2324.037	.193%	98.273%
55.0	11.321	5.083	2329.12	.197%	98.488%
60.0	10.977	5.211	2334.33	.202%	98.708%
65.0	10.764	5.347	2339.678	.208%	98.935%
70.0	10.612	5.466	2345.144	.212%	99.166%
75.0	10.516	5.568	2350.711	.216%	99.401%
80.0	10.433	5.632	2356.343	.219%	99.639%
85.0	10.454	5.708	2362.052	.222%	99.881%
90.0	10.302	2.824	2364.875	.110%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2140.23	83.12%	90.50%
0-40	2313.56	89.85%	97.83%
0-60	2334.33	90.65%	98.71%
0-90	2362.05	91.73%	99.88%
0-120	2362.05	91.73%	99.88%
0-180	2364.88	91.84%	100.00%
60-90	32.93	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%
0-24.50	1891.90	73.47%	80.00%

ZONAL LUMEN SUMMARY

0-10	990.06
10-20	702.21
20-30	447.96
30-40	173.33
40-50	10.47
50-60	10.29
60-70	10.81
70-80	11.20
80-90	5.71
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: ———

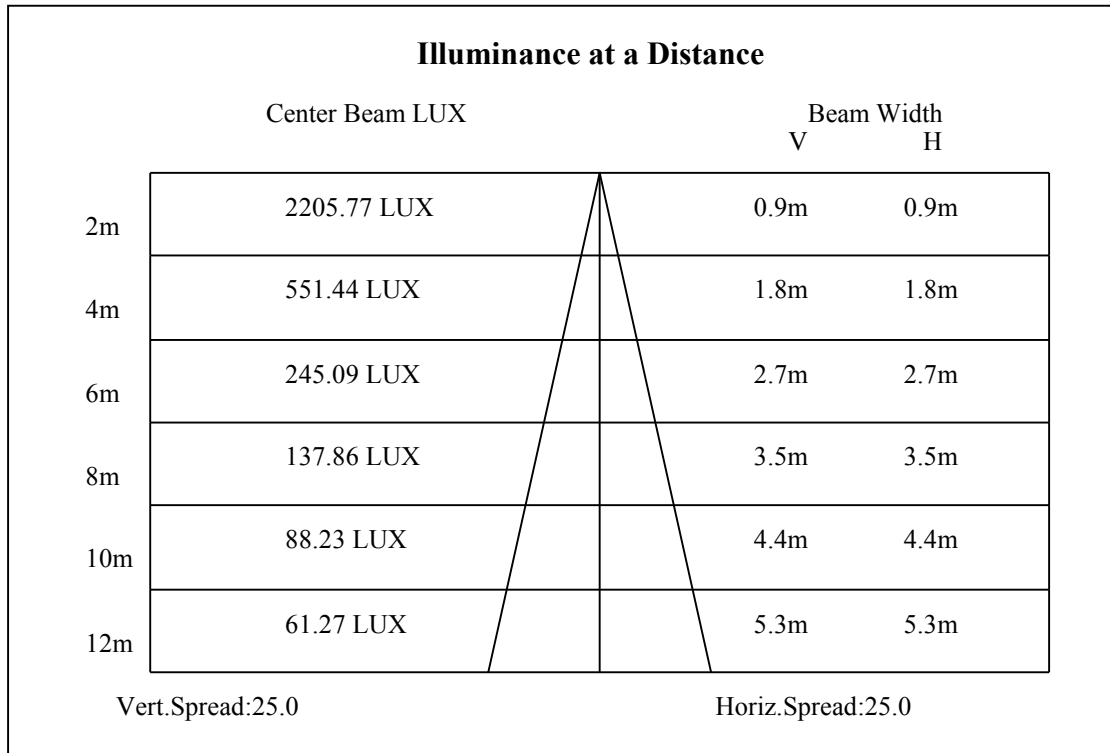
C90/C270: ———

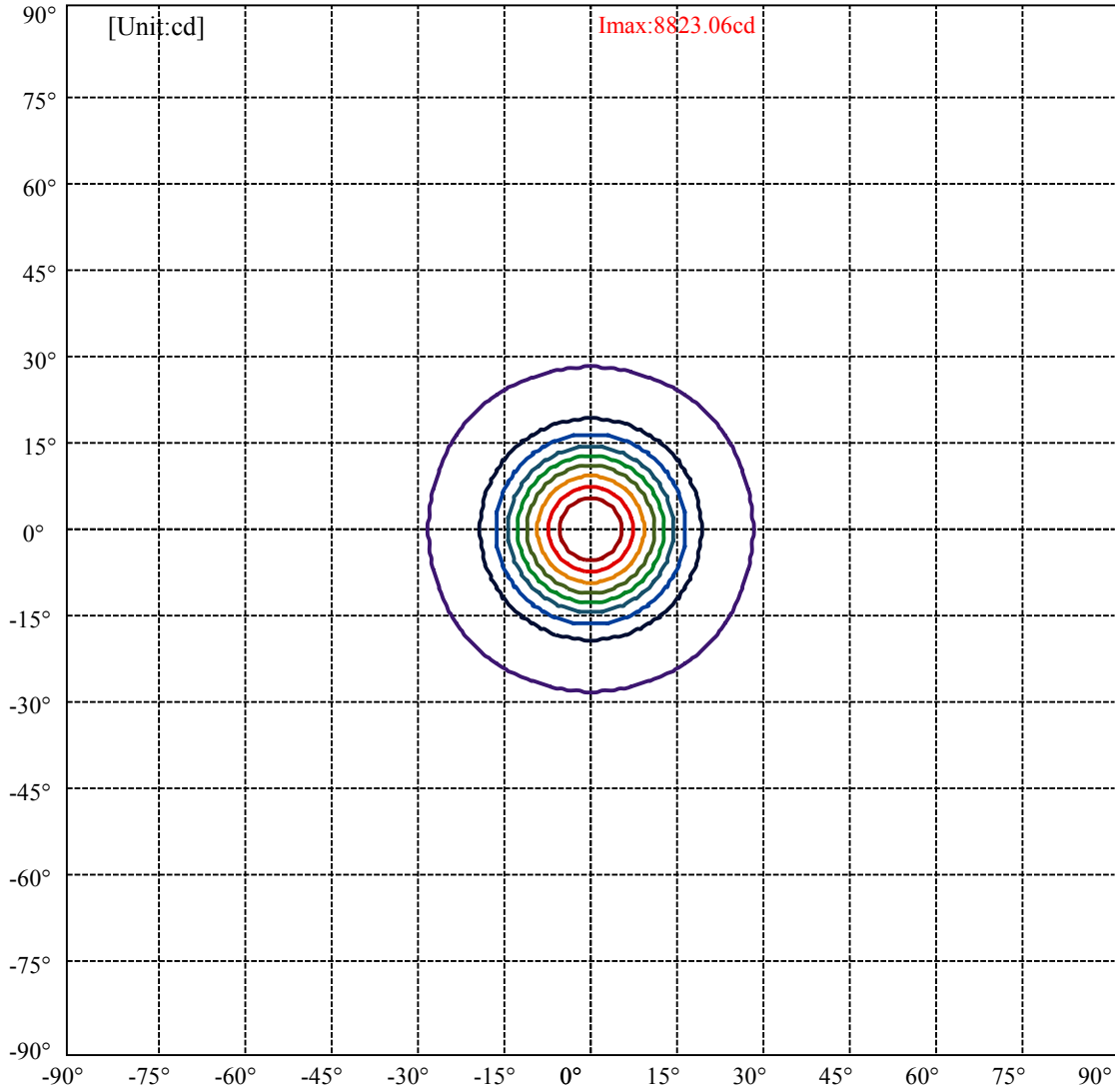
Field angle(10%Imax):C0/180Left:27.8 Right:27.8

:C90/270Left:27.8 Right:27.8

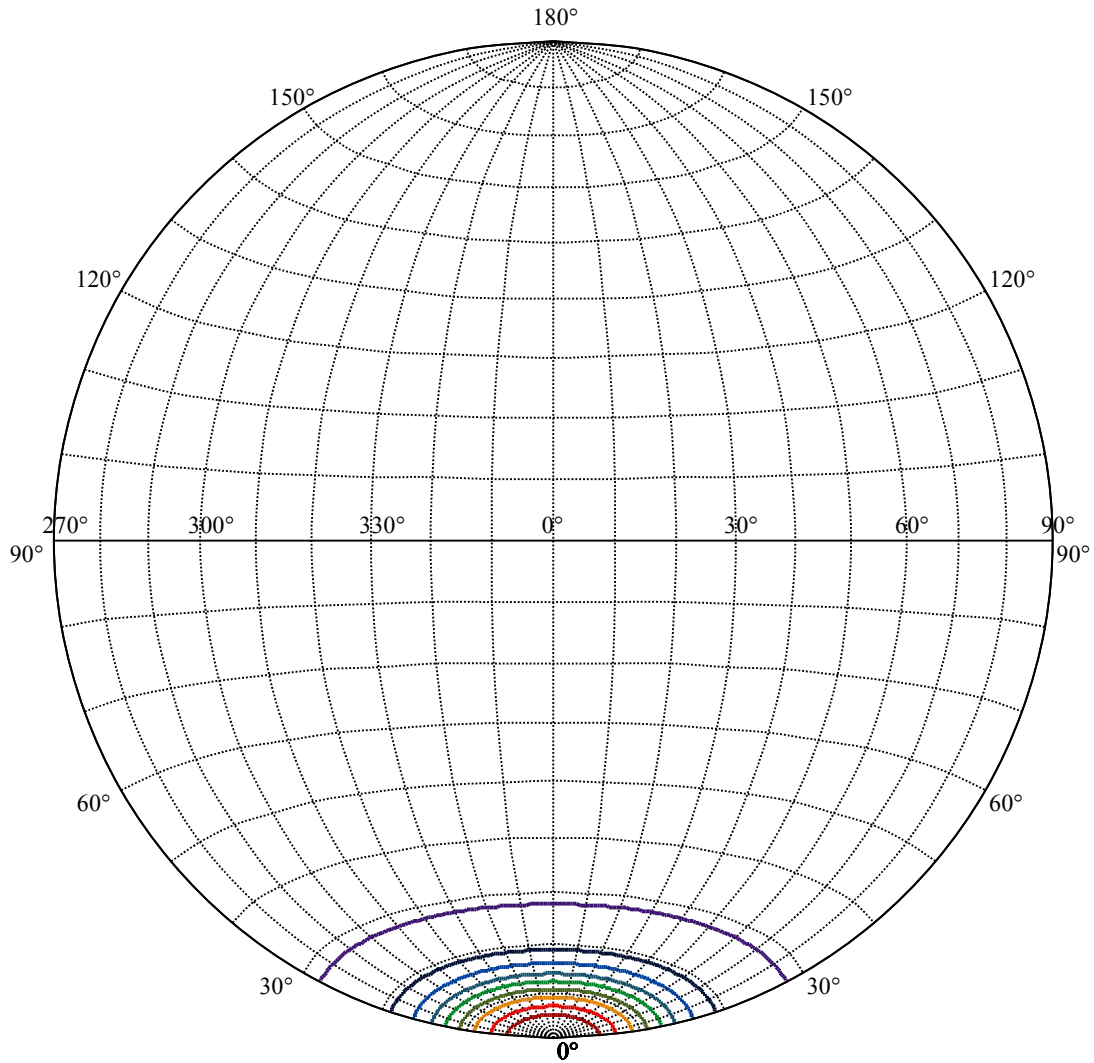
Beam Angle(50%Imax):C0/180Left:12.5 Right:12.5

:C90/270Left:12.5 Right:12.5





(10%Imax) 882.306	—
(20%Imax) 1764.61	—
(30%Imax) 2646.92	—
(40%Imax) 3529.23	—
(50%Imax) 4411.53	—
(60%Imax) 5293.84	—
(70%Imax) 6176.14	—
(80%Imax) 7058.45	—
(90%Imax) 7940.76	—



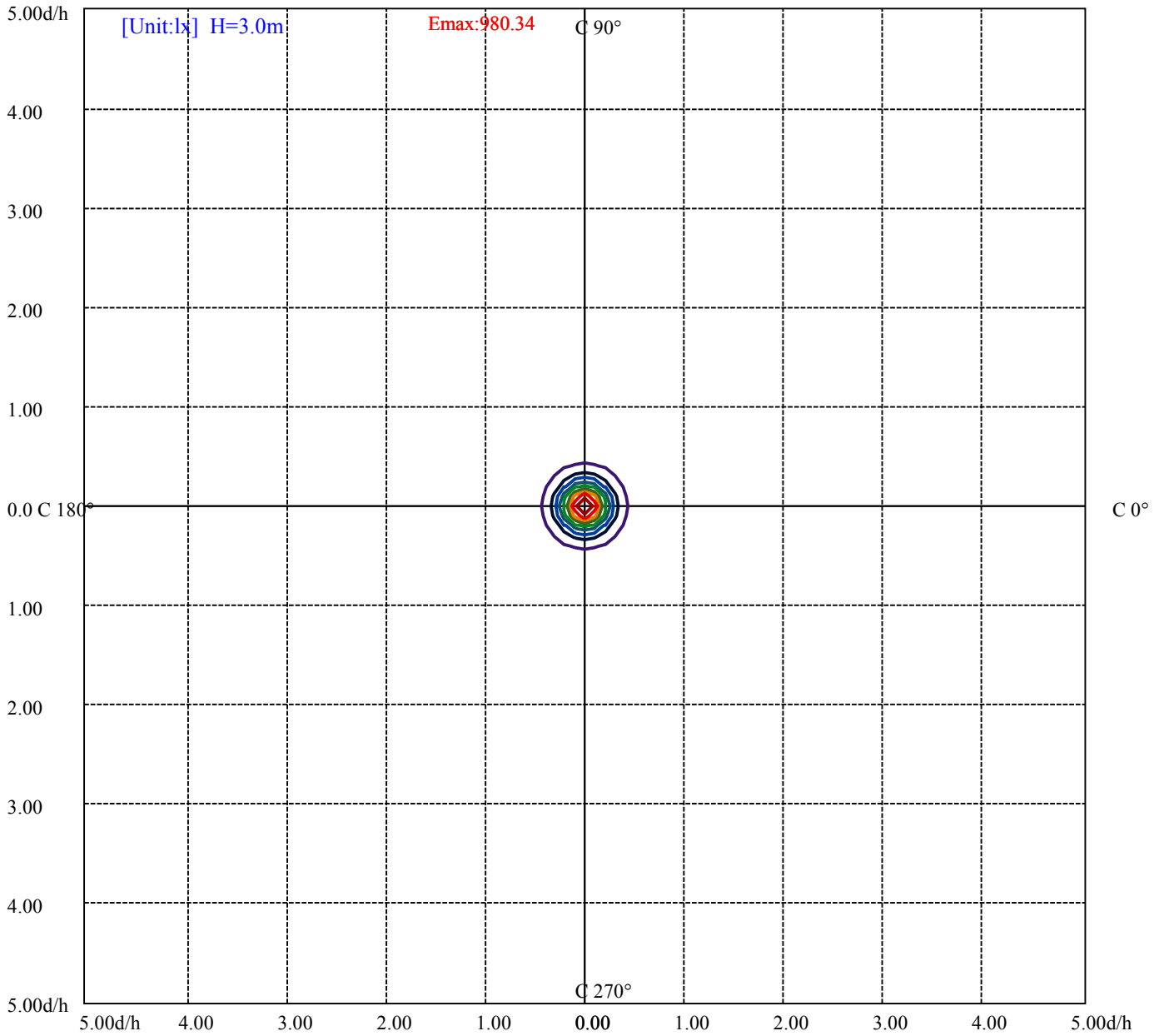
House

[Unit:cd]

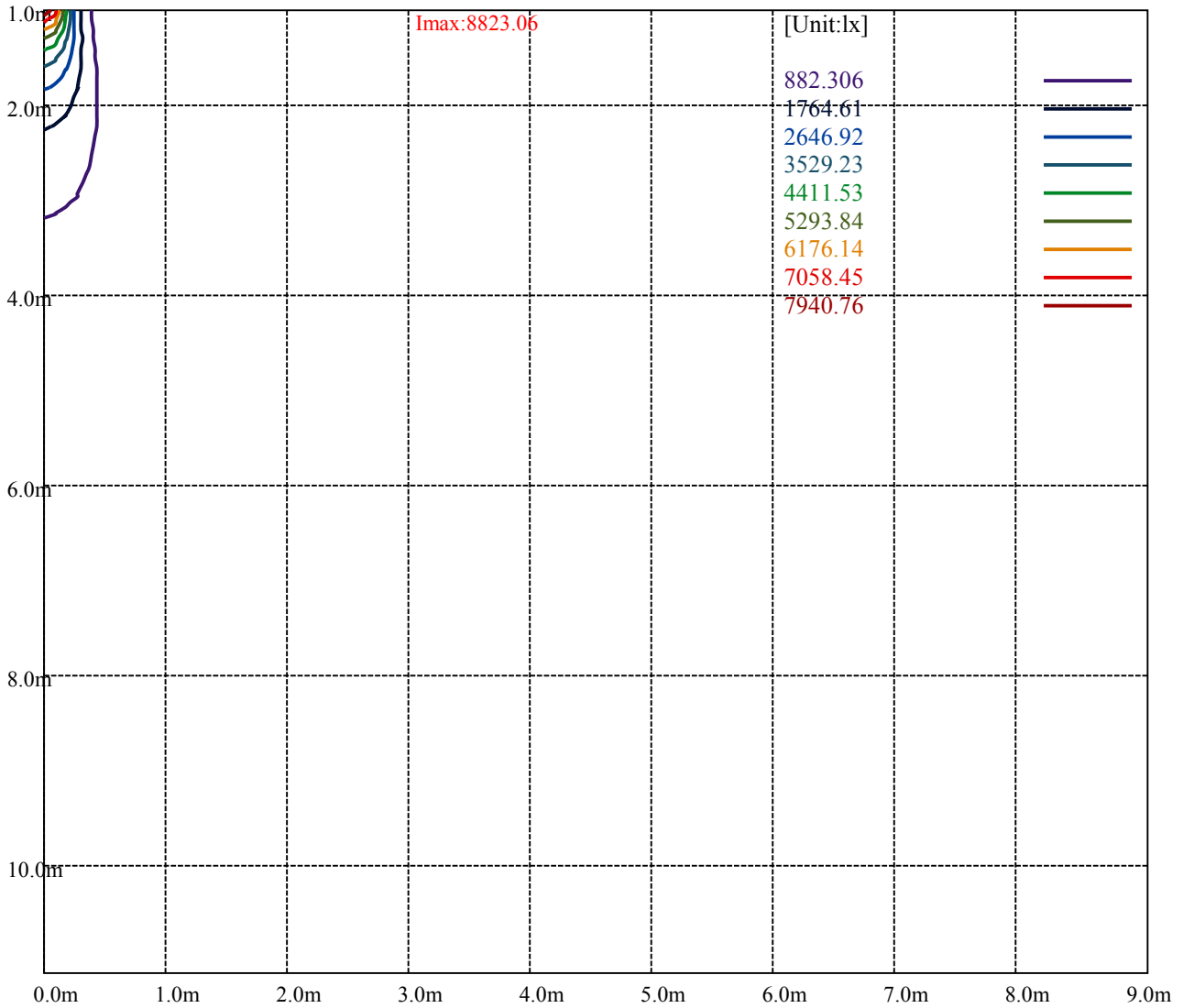
Road

Imax:8823.06

(10%Imax) 882.306	—
(20%Imax) 1764.61	—
(30%Imax) 2646.92	—
(40%Imax) 3529.23	—
(50%Imax) 4411.53	—
(60%Imax) 5293.84	—
(70%Imax) 6176.14	—
(80%Imax) 7058.45	—
(90%Imax) 7940.76	—



(10%Emax) 98.03378	—
(20%Emax) 196.0678	—
(30%Emax) 294.1011	—
(40%Emax) 392.1356	—
(50%Emax) 490.1689	—
(60%Emax) 588.2034	—
(70%Emax) 686.2366	—
(80%Emax) 784.27	—
(90%Emax) 882.3044	—



Luminance Table

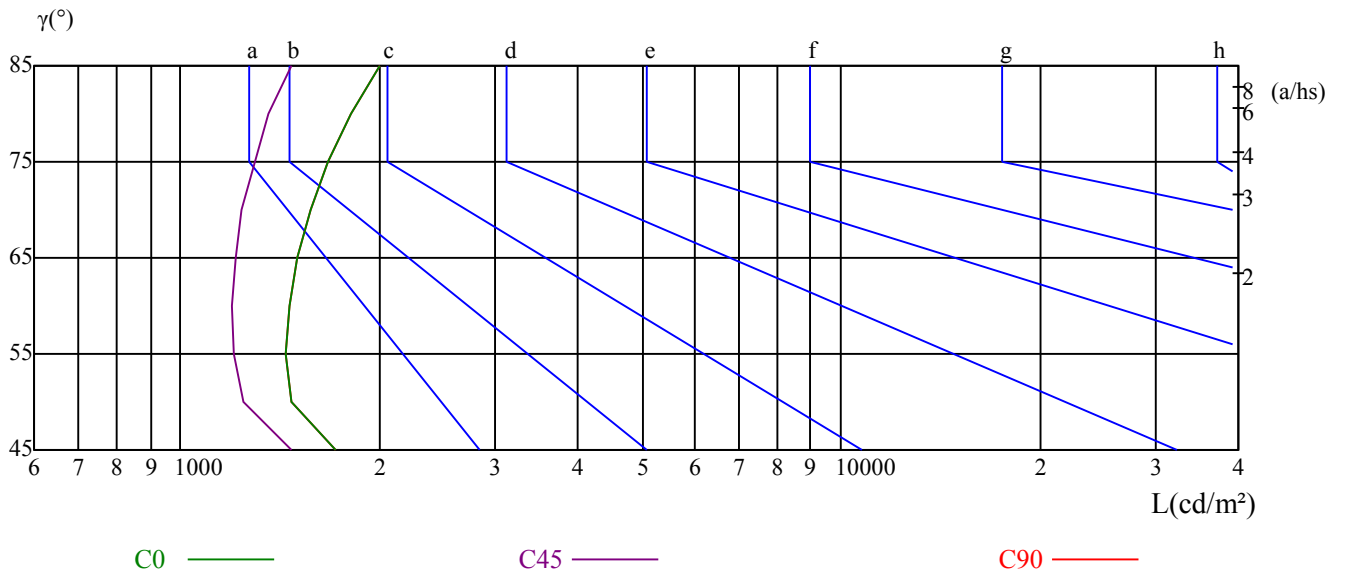
γ	45	50	55	60	65	70	75	80	85
C0	1716	1469	1446	1458	1501	1571	1672	1807	2004
C45	1475	1244	1204	1195	1209	1241	1292	1362	1467
C90	1716	1469	1446	1458	1501	1571	1672	1807	2004

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3610	3610	3610	5758	5758	5758	16999	16999	16999

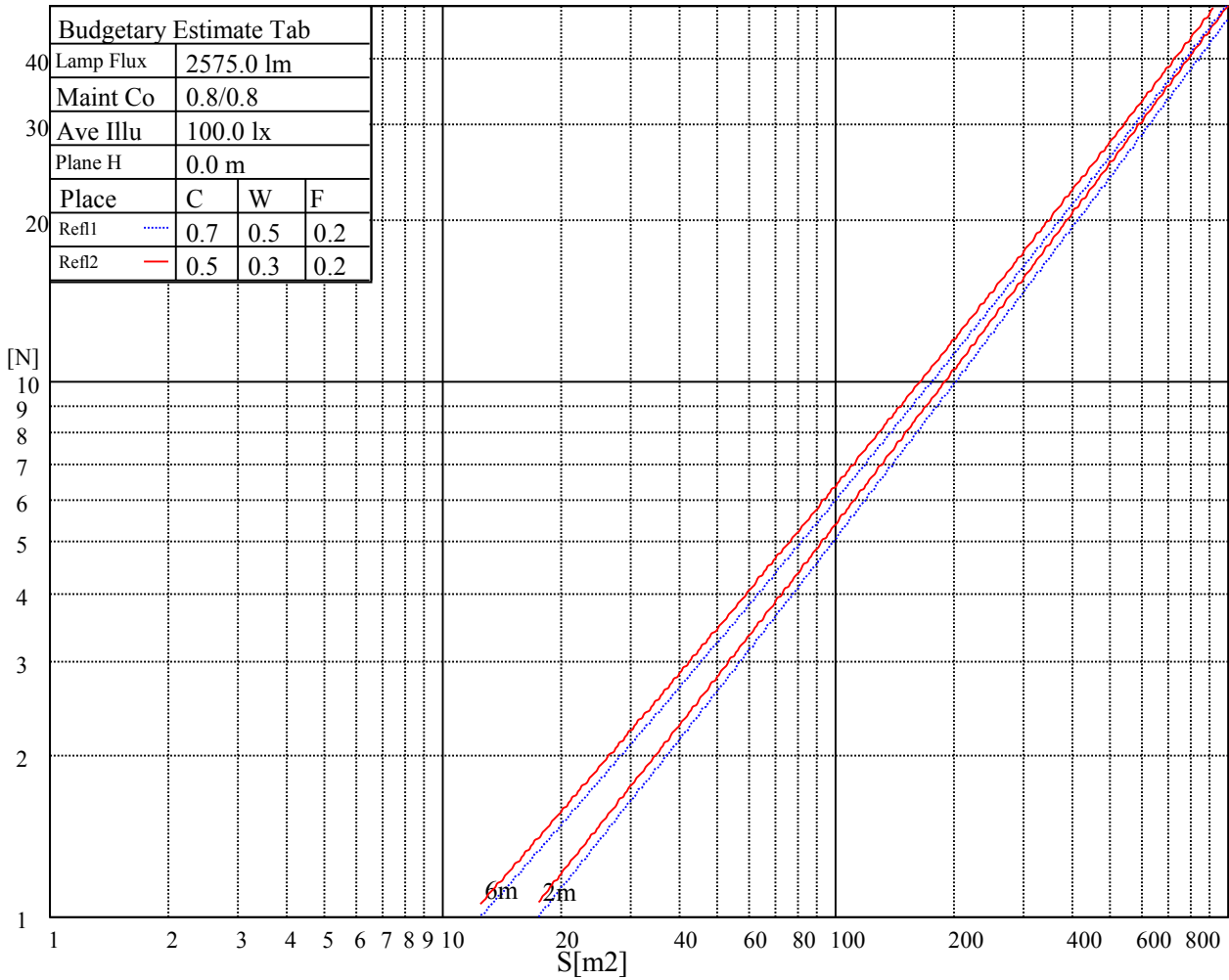
Glare Table

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

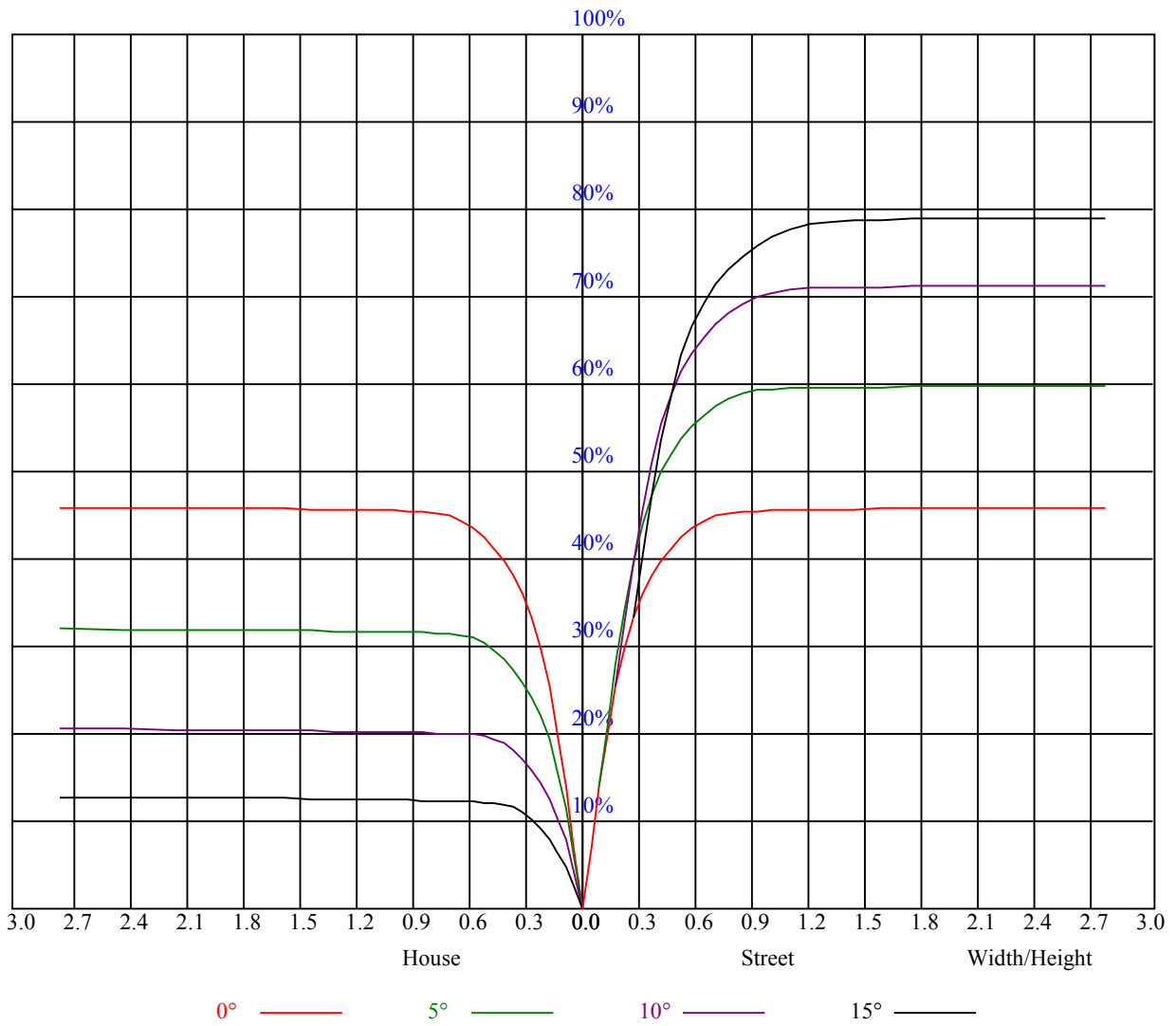
Luminance Limiting Curve



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	-0.57	0.34	-0.21	0.65	0.97	-0.56	0.35	-0.20	0.66	0.98
	3H	1.77	2.58	2.16	2.91	3.28	1.77	2.57	2.15	2.91	3.28
	4H	3.04	3.79	3.45	4.14	4.53	3.03	3.78	3.44	4.13	4.52
	6H	4.37	5.05	4.79	5.43	5.83	4.36	5.04	4.78	5.42	5.82
	8H	5.04	5.68	5.48	6.07	6.48	5.02	5.66	5.46	6.05	6.47
	12H	6.07	6.68	6.51	7.07	7.50	6.05	6.66	6.48	7.04	7.47
4H	2H	-0.06	0.68	0.35	1.04	1.43	-0.05	0.69	0.36	1.05	1.44
	3H	2.57	3.18	2.99	3.59	4.00	2.57	3.18	2.98	3.59	3.99
	4H	4.02	4.56	4.46	4.99	5.44	4.00	4.55	4.44	4.97	5.42
	6H	5.44	5.91	5.91	6.36	6.84	5.43	5.90	5.90	6.35	6.82
	8H	6.22	6.65	6.70	7.11	7.58	6.20	6.64	6.68	7.09	7.57
	12H	7.24	7.62	7.74	8.11	8.58	7.22	7.59	7.71	8.08	8.56
8H	4H	4.46	4.89	4.94	5.35	5.82	4.45	4.88	4.93	5.33	5.81
	6H	6.12	6.46	6.63	6.97	7.46	6.11	6.45	6.62	6.96	7.44
	8H	7.05	7.35	7.59	7.88	8.38	7.04	7.34	7.57	7.86	8.36
	12H	8.20	8.46	8.73	8.96	9.55	8.18	8.44	8.71	8.94	9.52
12H	4H	4.55	4.92	5.04	5.41	5.89	4.54	4.91	5.03	5.40	5.88
	6H	6.49	6.60	6.83	7.07	7.62	6.48	6.59	6.82	7.06	7.61
	8H	7.32	7.58	7.84	8.08	8.66	7.31	7.57	7.83	8.07	8.65
Variation with the observer position at spacings:											
S = 1.0H		5.6/-7.6					5.6/-7.6				
S = 1.5H		8.0/-5.9					8.0/-5.9				
S = 2.0H		9.6/-4.7					9.6/-4.7				
Standard tables:		BK2					BK2				
Uncorrected UGR		-3.8					-3.8				



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	0.90	0.90	0.89	0.88	0.86
2	0.98	0.94	0.91	0.96	0.93	0.90	0.93	0.90	0.88	0.90	0.88	0.86	0.88	0.86	0.84	0.83
3	0.93	0.89	0.86	0.92	0.88	0.85	0.89	0.86	0.84	0.87	0.85	0.82	0.85	0.83	0.81	0.80
4	0.89	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.82	0.79	0.83	0.80	0.78	0.77
5	0.86	0.81	0.78	0.85	0.81	0.78	0.83	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.75
6	0.83	0.78	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.76	0.73	0.72
7	0.80	0.76	0.72	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.70
8	0.77	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.68
9	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.68	0.72	0.69	0.67	0.66
10	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.71	0.68	0.66	0.65



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	8825.54	8351.51	6213.67	3367.80	1604.34	993.22	838.51	556.62	69.65
45.0	8811.78	8384.54	6310.56	3393.68	1735.38	992.12	837.41	587.45	153.55
90.0	8828.29	8143.94	5680.72	2933.96	1463.40	951.98	816.82	483.23	41.46
135.0	8826.64	8266.72	6359.01	3334.77	1601.04	979.45	836.86	536.80	55.61
180.0	8825.54	7909.95	5305.79	2780.90	1250.33	921.48	807.73	388.31	31.27
225.0	8811.78	7822.41	5211.09	2684.00	1084.39	915.04	812.91	398.88	33.69
270.0	8828.29	8066.31	5744.58	3253.28	1483.22	965.14	841.26	521.93	46.85
315.0	8826.64	7872.51	5420.30	2722.54	1225.00	934.25	816.10	410.89	37.55
360.0	8825.54	8351.51	6213.67	3367.80	1604.34	993.22	838.51	556.62	69.65

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	16.63	12.00	11.40	11.01	10.74	10.63	10.52	10.46	10.41
45.0	16.46	11.95	11.40	11.07	10.85	10.68	10.57	10.52	10.52
90.0	12.77	11.73	11.29	10.96	10.74	10.57	10.52	10.41	10.46
135.0	15.97	12.06	11.45	11.07	10.79	10.68	10.52	10.46	10.46
180.0	12.66	11.78	11.23	10.90	10.74	10.57	10.46	10.35	10.35
225.0	12.50	11.73	11.23	10.90	10.74	10.57	10.52	10.41	10.41
270.0	13.49	11.84	11.29	10.96	10.79	10.63	10.52	10.46	10.52
315.0	12.88	11.84	11.29	10.96	10.74	10.57	10.52	10.41	10.52
360.0	16.63	12.00	11.40	11.01	10.74	10.63	10.52	10.46	10.41

C/γ(°)	90.0
0.0	10.30
45.0	10.30
90.0	10.30
135.0	10.30
180.0	10.30
225.0	10.35
270.0	10.30
315.0	10.30
360.0	10.30