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## Nata

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LumCAT: 2-1568-M	
Luminaire: BJB47.319.2021	
Report No: NT2017050303	Voltage(V): 35.3000
Test No: GC2017050303	Current(A): 0.5000
LampCAT: bridgelux V13B	Power (W): 17.6500
Lamp flux(lm): 2274.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 2089.81  
Efficiency(%): 91.90%  
Lumens(lm)/Power(W): 118.40  
Central intensity(cd): 4131.983  
Maximum intensity(cd): 4131.983  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=38.7  
                                  [C90/270]Total=38.7  
Field angle(10%Imax): [C0/180]Total=73.1  
                                  [C90/270]Total=73.1  
Maximum s/h(1/2): C0\_180=0.64 C90\_270=0.64  
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(%): 92.90%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.801%

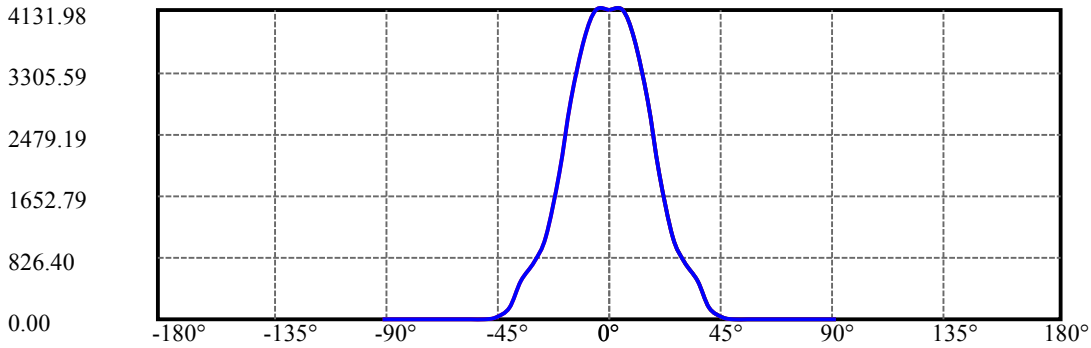
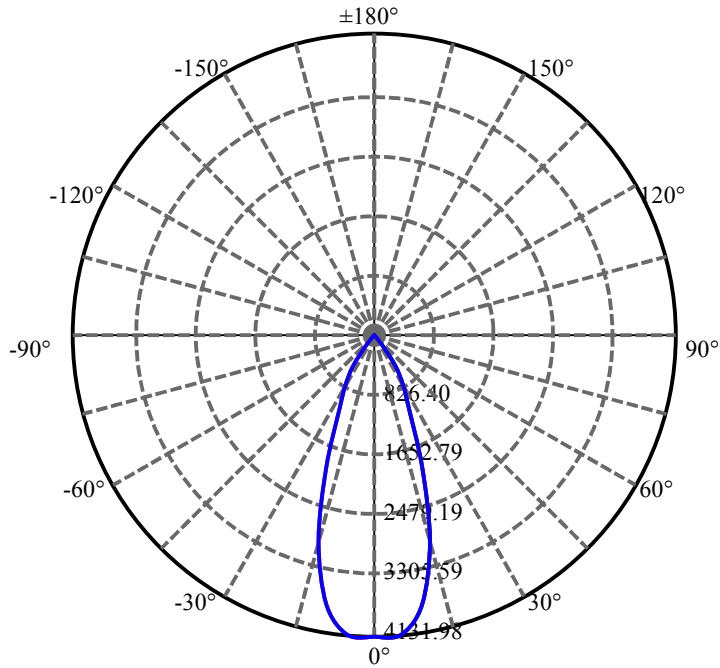
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4131.983	24.710	24.71	1.087%	1.182%
5.0	4123.243	196.981	221.691	8.662%	10.608%
10.0	3741.495	356.127	577.818	15.661%	27.649%
15.0	2921.912	414.527	992.345	18.229%	47.485%
20.0	1942.665	364.199	1356.544	16.016%	64.912%
25.0	1098.533	254.478	1611.023	11.191%	77.089%
30.0	778.580	213.384	1824.407	9.384%	87.300%
35.0	523.999	164.745	1989.152	7.245%	95.183%
40.0	164.770	58.054	2047.206	2.553%	97.961%
45.0	16.441	6.372	2053.579	.280%	98.266%
50.0	10.240	4.300	2057.879	.189%	98.472%
55.0	9.077	4.076	2061.954	.179%	98.667%
60.0	8.706	4.133	2066.087	.182%	98.865%
65.0	8.451	4.198	2070.285	.185%	99.066%
70.0	8.293	4.271	2074.557	.188%	99.270%
75.0	8.162	4.322	2078.879	.190%	99.477%
80.0	8.080	4.361	2083.24	.192%	99.685%
85.0	8.024	4.382	2087.622	.193%	99.895%
90.0	7.997	2.192	2089.813	.096%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1824.41	80.23%	87.30%
0-40	2047.21	90.03%	97.96%
0-60	2066.09	90.86%	98.86%
0-90	2087.62	91.80%	99.90%
0-120	2087.62	91.80%	99.90%
0-180	2089.81	91.90%	100.00%
60-90	25.67	1.13%	1.23%
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%
0-26.43	1671.85	73.52%	80.00%

## ZONAL LUMEN SUMMARY

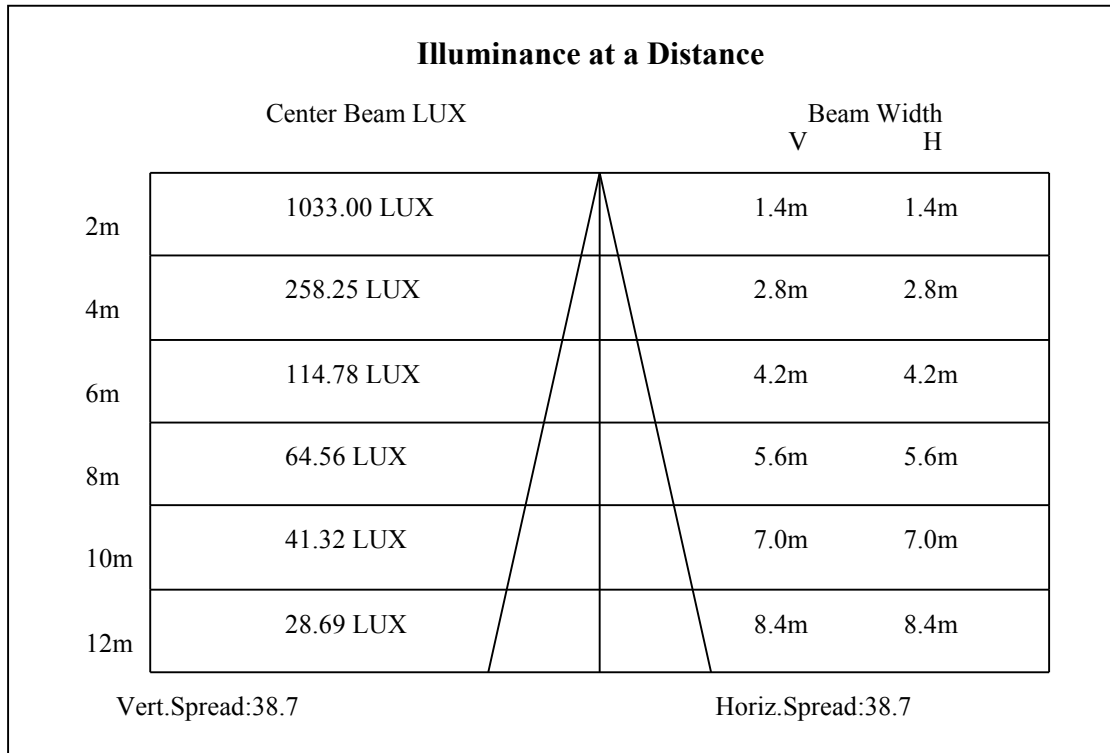
0-10	577.82
10-20	778.73
20-30	467.86
30-40	222.80
40-50	10.67
50-60	8.21
60-70	8.47
70-80	8.68
80-90	4.38
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

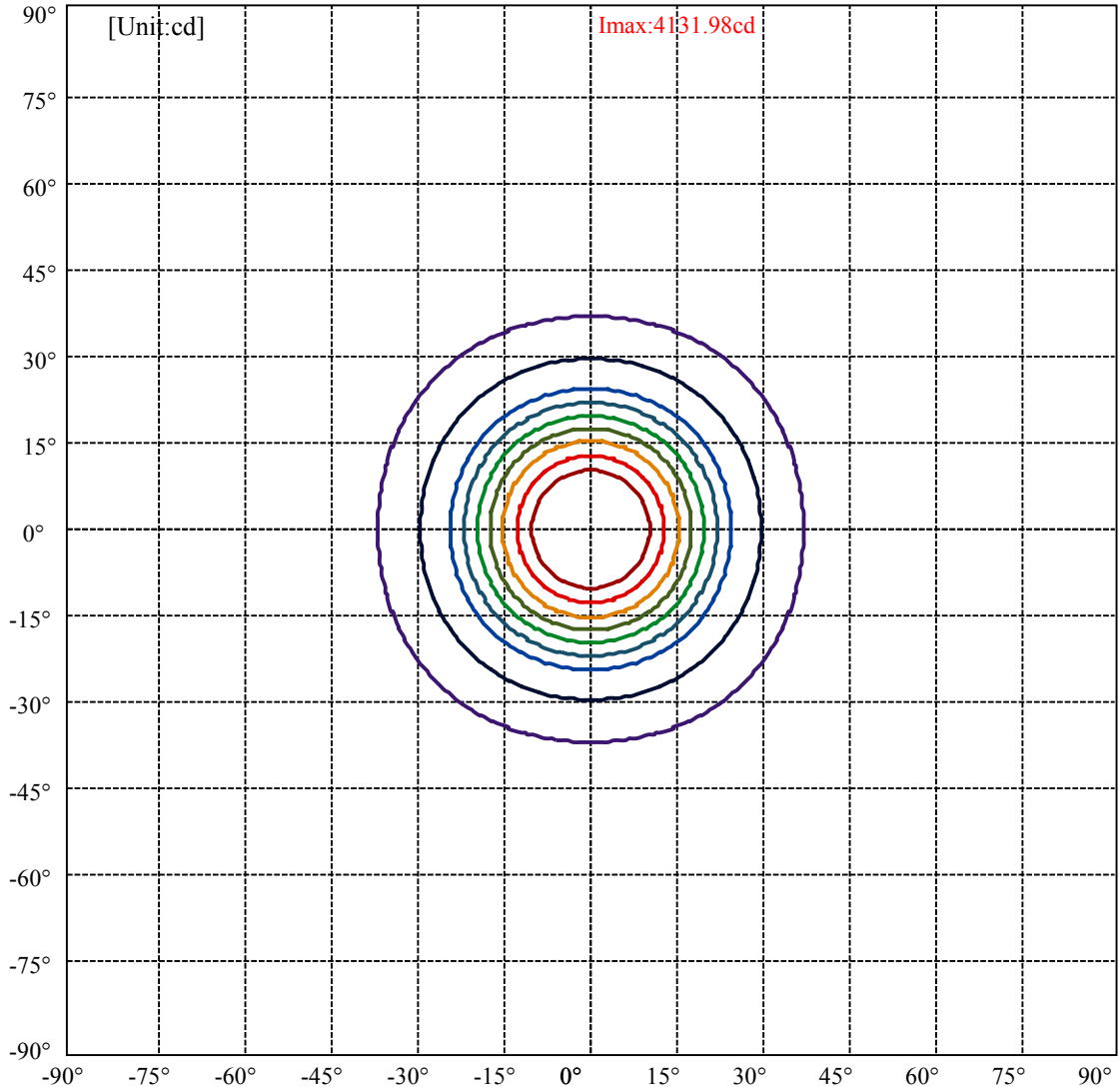


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

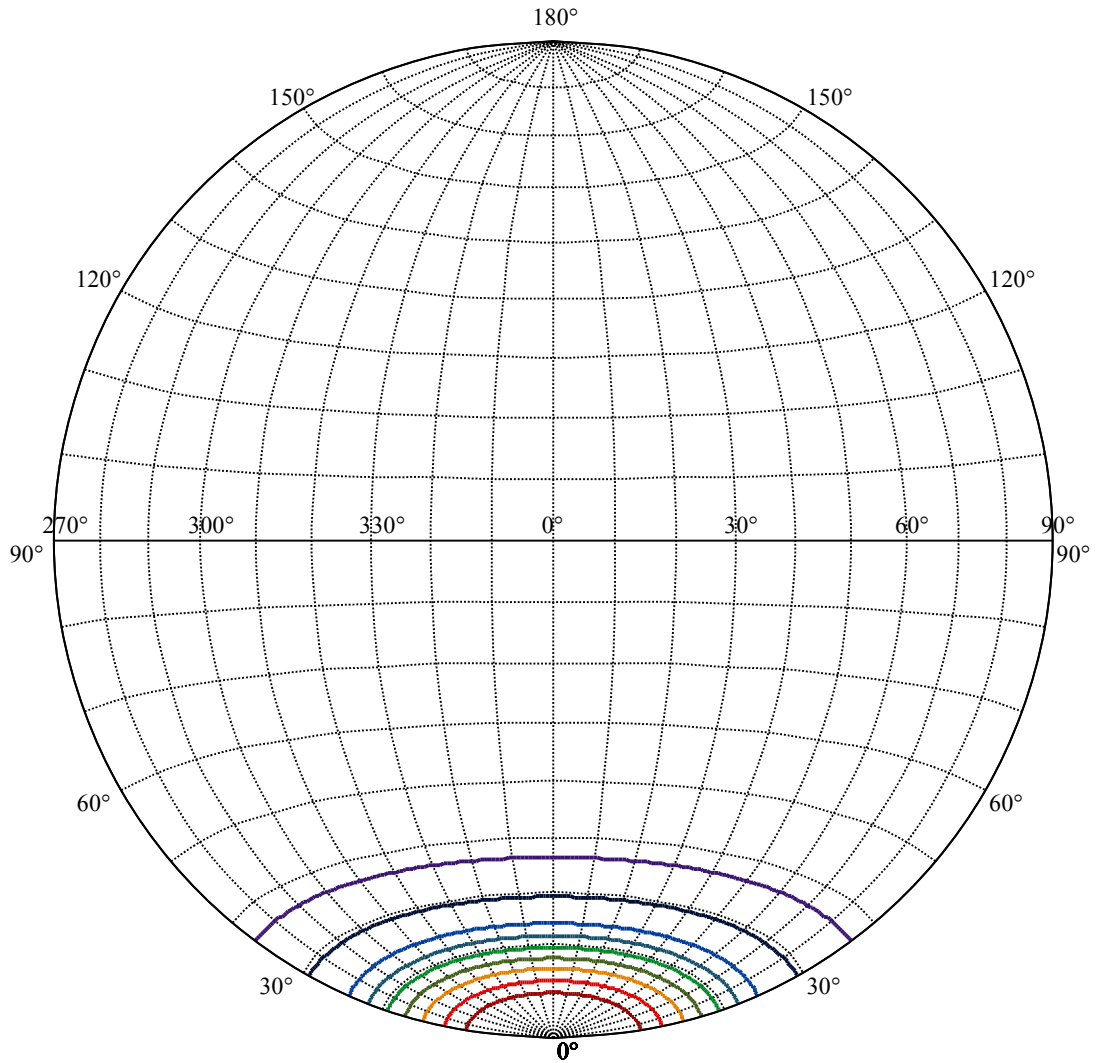
Field angle(10%Imax):C0/180Left:36.5 Right:36.5  
:C90/270Left:36.5 Right:36.5

Beam Angle(50%Imax):C0/180Left:19.4 Right:19.4  
:C90/270Left:19.4 Right:19.4





(10%Imax) 413.198	—
(20%Imax) 826.397	—
(30%Imax) 1239.59	—
(40%Imax) 1652.79	—
(50%Imax) 2065.99	—
(60%Imax) 2479.19	—
(70%Imax) 2892.39	—
(80%Imax) 3305.59	—
(90%Imax) 3718.78	—



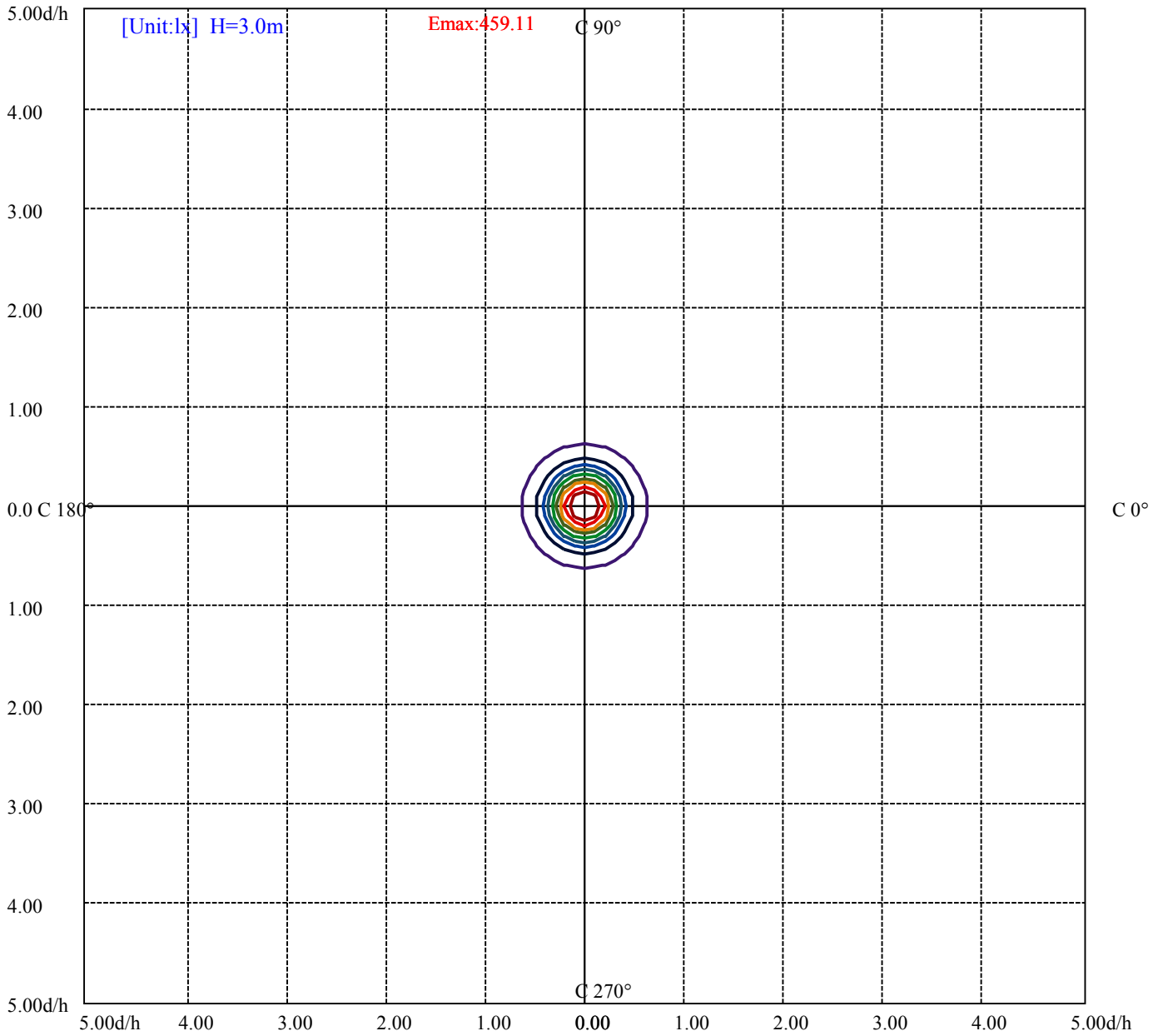
House

[Unit:cd]

Road

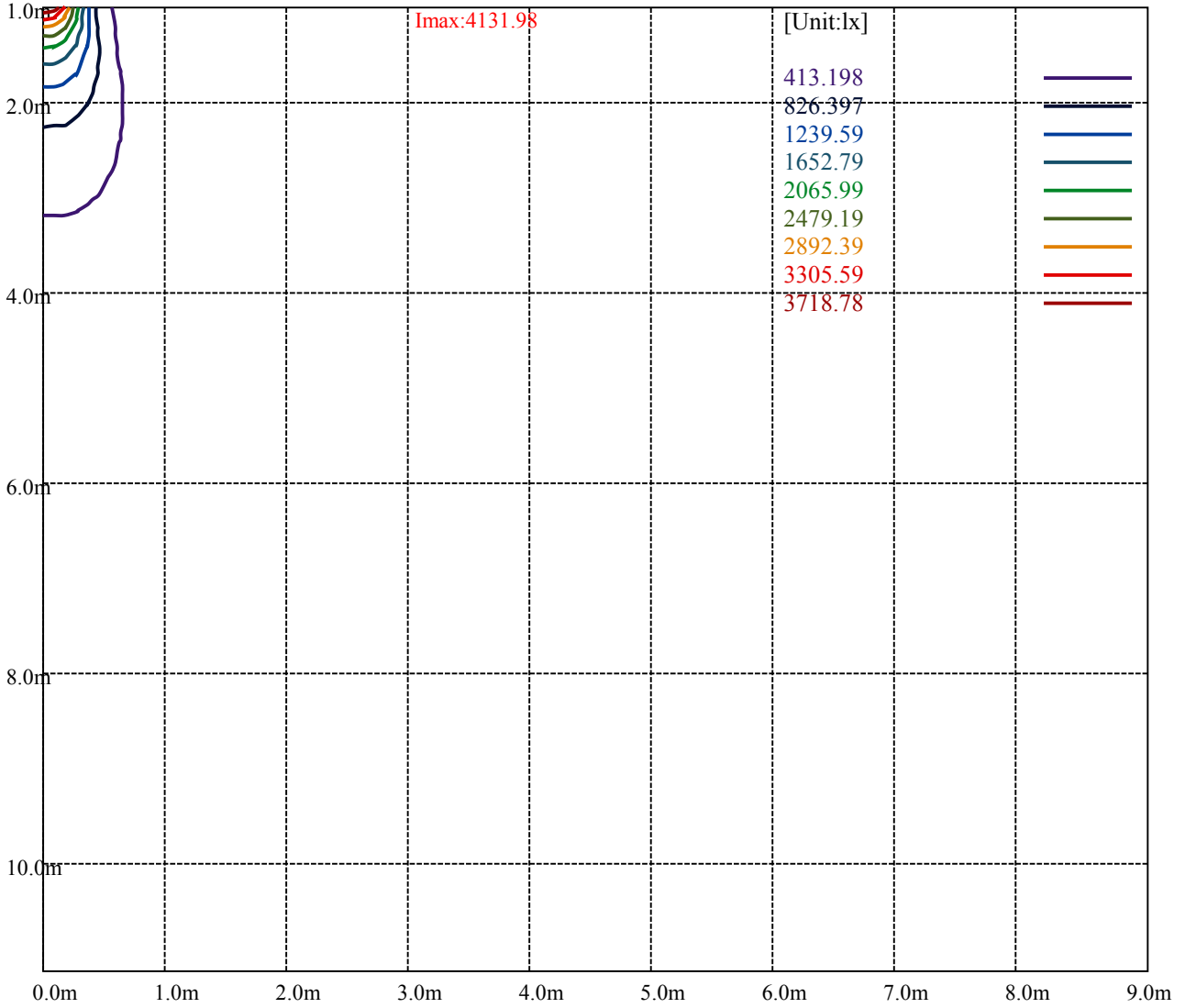
**Imax:4131.98**

(10%Imax) 413.198	—
(20%Imax) 826.397	—
(30%Imax) 1239.59	—
(40%Imax) 1652.79	—
(50%Imax) 2065.99	—
(60%Imax) 2479.19	—
(70%Imax) 2892.39	—
(80%Imax) 3305.59	—
(90%Imax) 3718.78	—



(10%Emax) 45.91089	—
(20%Emax) 91.82178	—
(30%Emax) 137.7322	—
(40%Emax) 183.6433	—
(50%Emax) 229.5544	—
(60%Emax) 275.4655	—
(70%Emax) 321.3766	—
(80%Emax) 367.2878	—
(90%Emax) 413.1978	—





Luminance Table

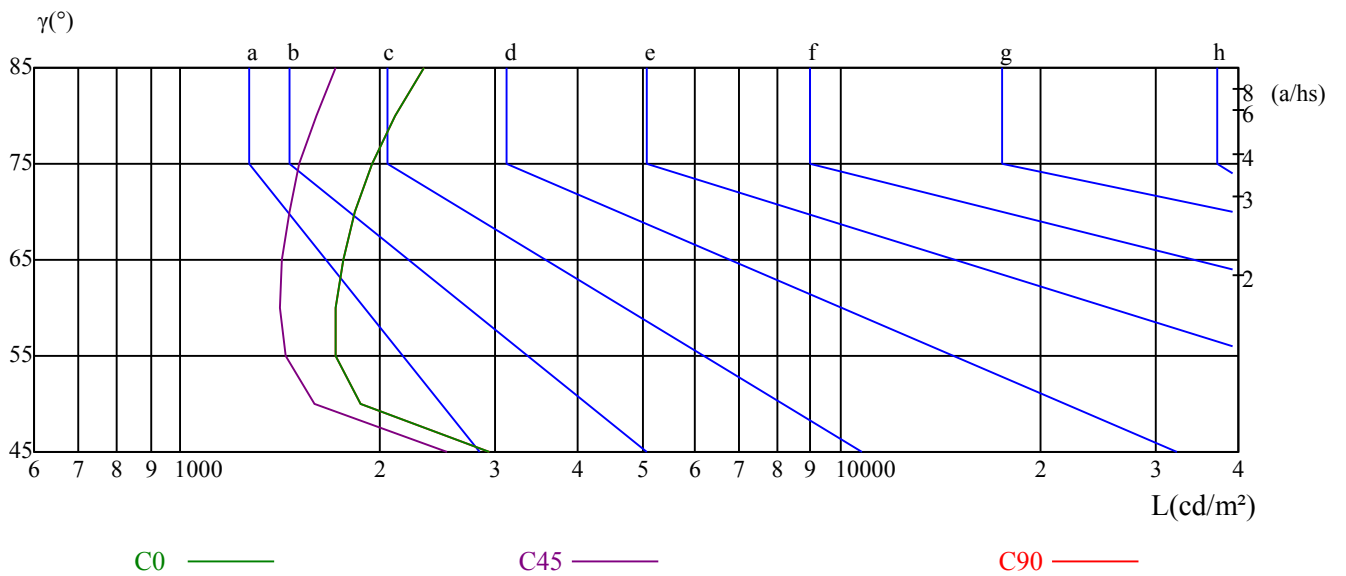
$\gamma$	45	50	55	60	65	70	75	80	85
C0	2939	1877	1720	1722	1761	1841	1955	2118	2342
C45	2539	1597	1441	1419	1425	1461	1517	1602	1719
C90	2939	1877	1720	1722	1761	1841	1955	2118	2342

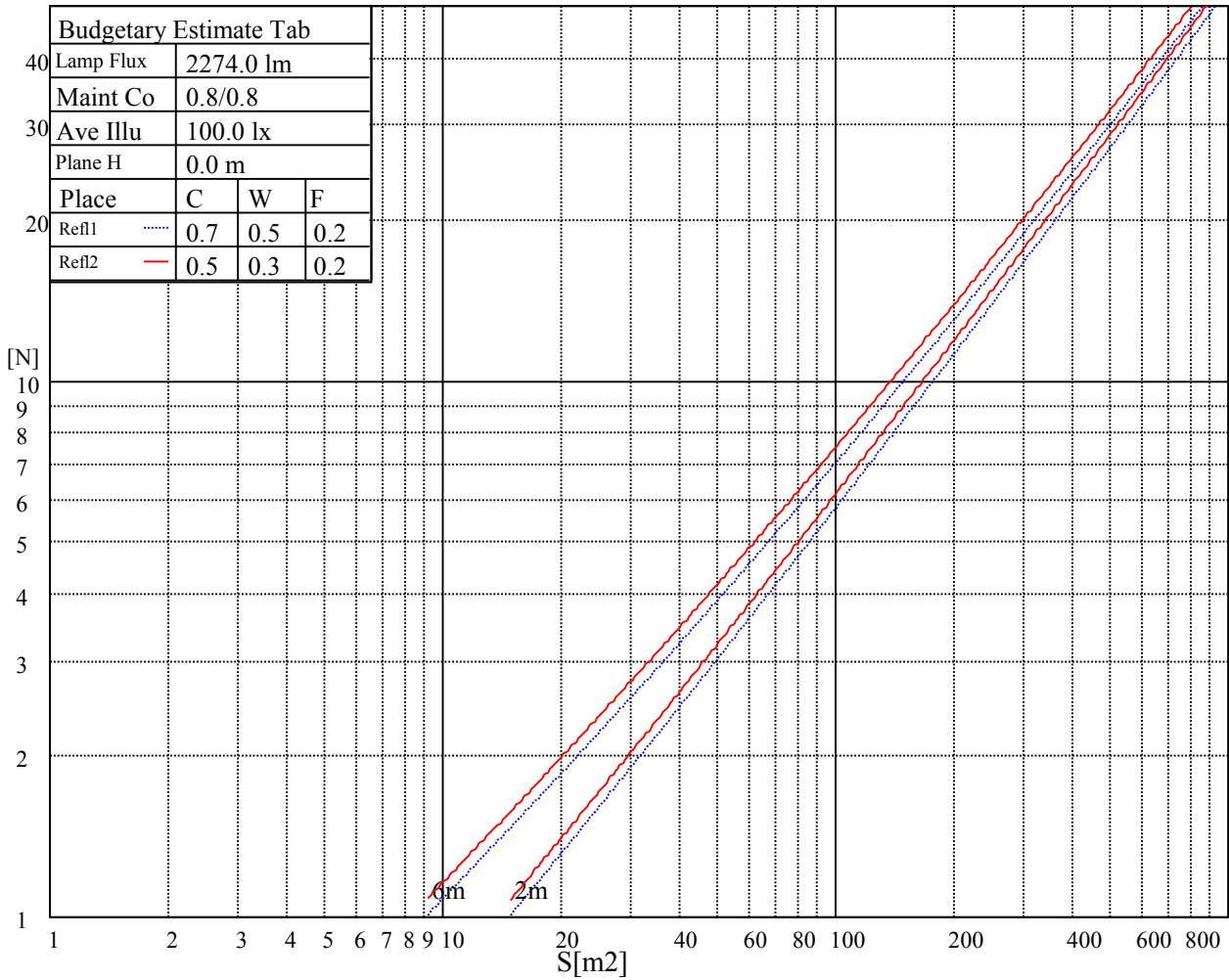
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4081	4081	4081	6436	6436	6436	18790	18790	18790

Glare Table

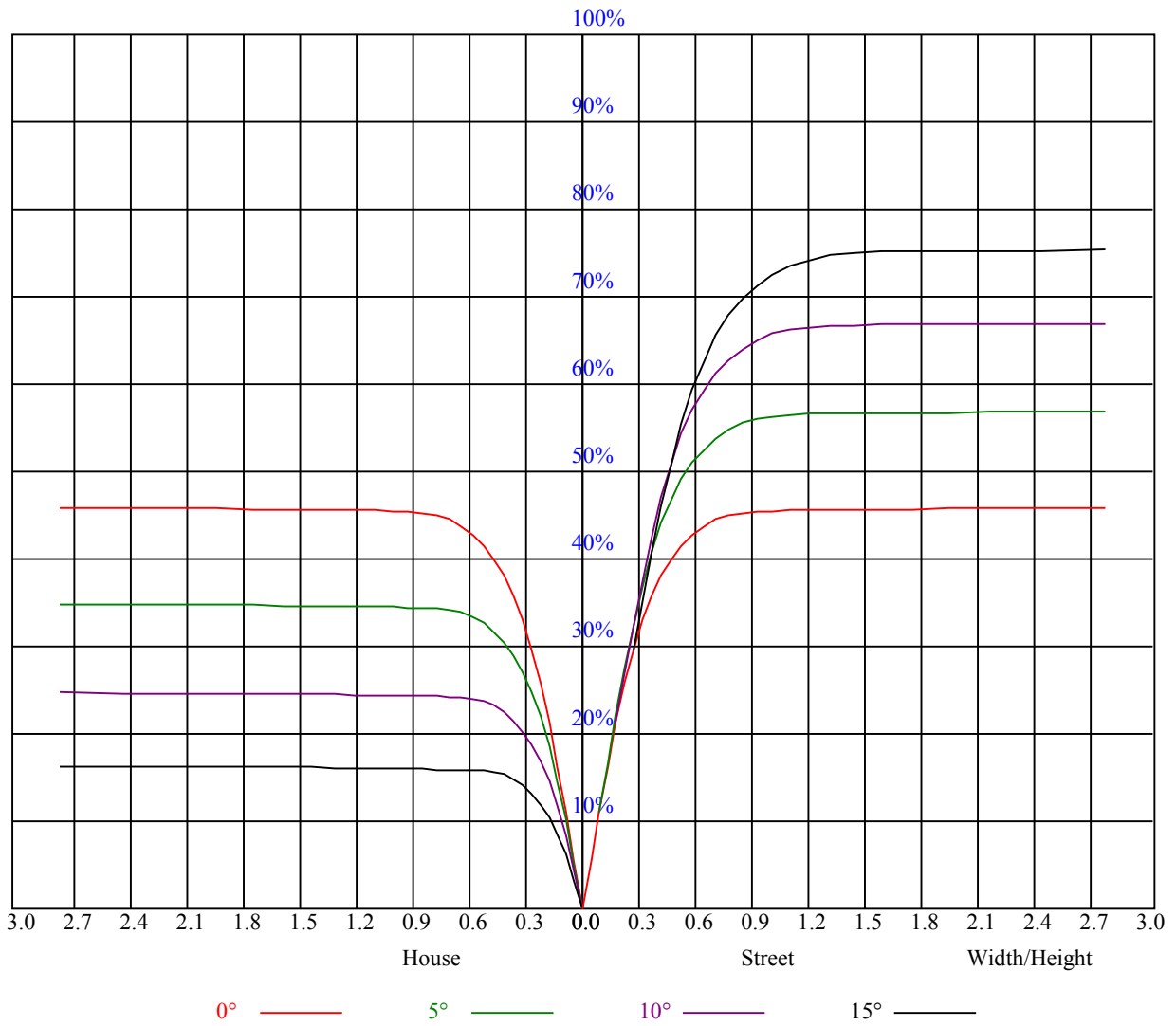
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	1.11	1.11	1.11	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.03	1.00	0.98	1.01	0.98	0.97	0.97	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86
2	0.97	0.93	0.91	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.87	0.85	0.84	0.82
3	0.92	0.88	0.85	0.91	0.87	0.84	0.88	0.85	0.83	0.86	0.83	0.81	0.84	0.82	0.80	0.79
4	0.87	0.83	0.80	0.86	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.79	0.77	0.75
5	0.84	0.79	0.76	0.83	0.78	0.75	0.81	0.77	0.75	0.80	0.76	0.74	0.78	0.76	0.73	0.72
6	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.69
7	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.67
8	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.71	0.67	0.65	0.64
9	0.71	0.66	0.63	0.71	0.66	0.63	0.70	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	0.67	0.63	0.61	0.66	0.63	0.61	0.60



Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	4131.43	4064.81	3618.86	2818.34	1909.36	1109.94	768.59	520.28	193.91
45.0	4146.85	4124.27	3909.00	3244.47	2375.13	1467.25	912.28	656.27	282.99
90.0	4130.33	4149.60	3873.22	3072.15	2108.11	1045.74	810.87	595.77	219.56
135.0	4119.32	4196.95	4003.15	3239.52	2129.03	1229.96	813.73	638.10	280.24
180.0	4131.43	4208.51	3893.04	3018.19	1979.28	1079.44	765.12	548.86	162.86
225.0	4146.85	4128.68	3550.04	2649.86	1702.34	948.46	709.57	355.11	40.41
270.0	4130.33	4100.05	3667.86	2759.98	1747.49	989.36	732.80	457.52	73.56
315.0	4119.32	4013.06	3416.80	2572.79	1590.58	918.12	715.68	420.08	64.64
360.0	4131.43	4064.81	3618.86	2818.34	1909.36	1109.94	768.59	520.28	193.91
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	16.13	10.02	9.14	8.75	8.53	8.26	8.15	8.04	7.98
45.0	19.55	11.12	9.30	8.81	8.59	8.37	8.26	8.15	8.09
90.0	18.44	10.52	8.97	8.70	8.42	8.26	8.20	8.09	8.09
135.0	18.61	11.18	9.19	8.75	8.48	8.31	8.15	8.09	8.04
180.0	16.90	10.30	9.14	8.75	8.37	8.37	8.15	8.04	7.98
225.0	13.32	9.47	9.03	8.64	8.42	8.26	8.15	8.09	7.98
270.0	14.65	9.63	8.97	8.64	8.42	8.31	8.15	8.09	8.04
315.0	13.93	9.69	8.86	8.59	8.37	8.20	8.09	8.04	7.98
360.0	16.13	10.02	9.14	8.75	8.53	8.26	8.15	8.04	7.98
C/ $\gamma$ (°)	90.0								
0.0	7.93								
45.0	8.15								
90.0	7.98								
135.0	7.98								
180.0	7.98								
225.0	8.04								
270.0	8.04								
315.0	7.87								
360.0	7.93								