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## Nata

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LumCAT: 2-1426-E  
Luminaire: H42135AC  
Report No: NT2016042901  
Test No: GC2016042901  
LampCAT: CBAC-83-30135  
Lamp flux(lm): 688.6  
Number of Lamps: 1  
Length(mm): 69  
Phm Type: C

Voltage(V): 219.9000  
Current(A): 0.0540  
Power (W): 10.7000  
PF: 0.8940  
Ballast type: DC  
Width(mm): 69  
Height(mm): 0

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## Photometric Results

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Lumens(lm): 634.28  
Efficiency(%): 92.11%  
Lumens(lm)/Power(W): 59.28  
Central intensity(cd): 923.144  
Maximum intensity(cd): 923.144  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=46.9  
                                  [C90/270]Total=46.9  
Field angle(10%Imax): [C0/180]Total=78.3  
                                  [C90/270]Total=78.3  
Maximum s/h(1/2): C0\_180=0.74 C90\_270=0.74  
Maximum s/h(1/4): C0\_180=0.79 C90\_270=0.79  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 92.11%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.860%

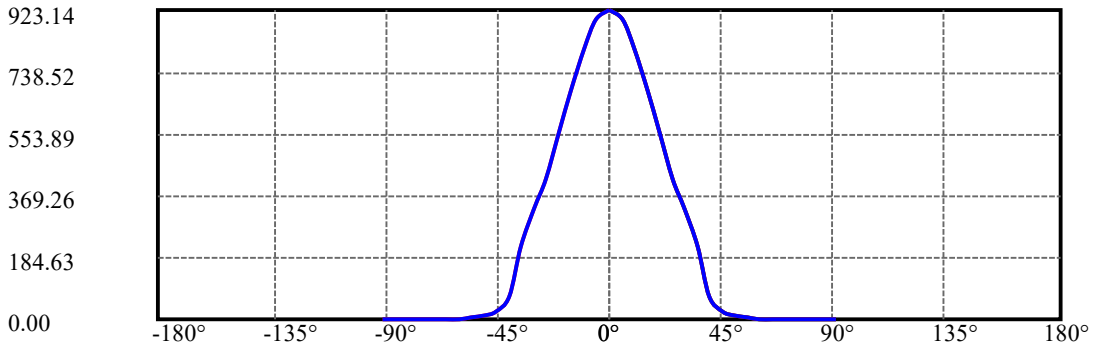
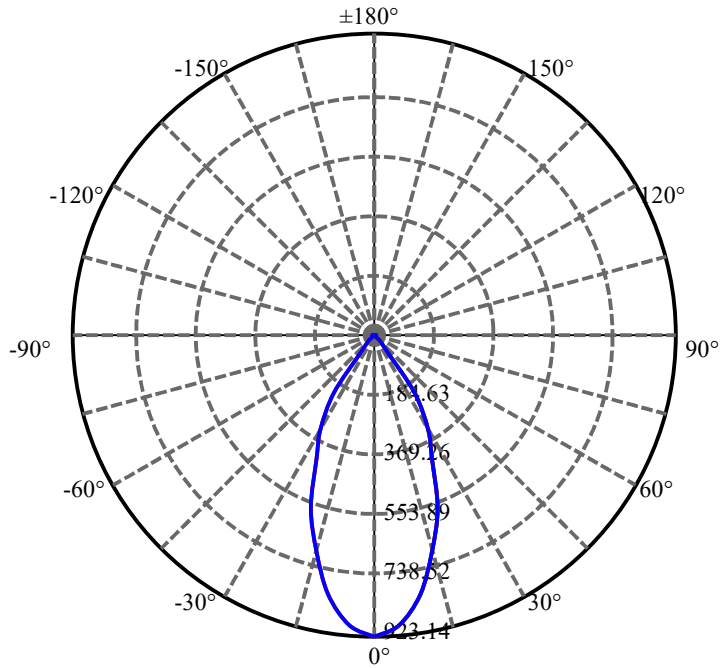
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	923.144	0.000	0	.000%	.000%
5.0	894.054	21.724	21.724	3.155%	3.425%
10.0	807.223	60.860	82.584	8.838%	13.020%
15.0	685.122	88.525	171.109	12.856%	26.977%
20.0	564.342	102.973	274.082	14.954%	43.212%
25.0	416.089	102.829	376.911	14.933%	59.424%
30.0	331.653	94.627	471.539	13.742%	74.343%
35.0	215.243	80.534	552.073	11.695%	87.040%
40.0	67.651	47.199	599.272	6.854%	94.481%
45.0	22.635	16.717	615.989	2.428%	97.117%
50.0	9.573	6.508	622.497	.945%	98.143%
55.0	4.219	2.999	625.496	.435%	98.616%
60.0	2.498	1.553	627.048	.225%	98.860%
65.0	2.361	1.181	628.229	.172%	99.047%
70.0	2.299	1.180	629.409	.171%	99.233%
75.0	2.278	1.196	630.605	.174%	99.421%
80.0	2.257	1.214	631.819	.176%	99.613%
85.0	2.257	1.227	633.046	.178%	99.806%
90.0	2.237	1.230	634.276	.179%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	471.54	68.48%	74.34%
0-40	599.27	87.03%	94.48%
0-60	627.05	91.06%	98.86%
0-90	633.05	91.93%	99.81%
0-120	633.05	91.93%	99.81%
0-180	634.28	92.11%	100.00%
60-90	7.55	1.10%	1.19%
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%
0-32.23	507.42	73.69%	80.00%

ZONAL LUMEN SUMMARY

0-10	82.58
10-20	191.50
20-30	197.46
30-40	127.73
40-50	23.23
50-60	4.55
60-70	2.36
70-80	2.41
80-90	1.23
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



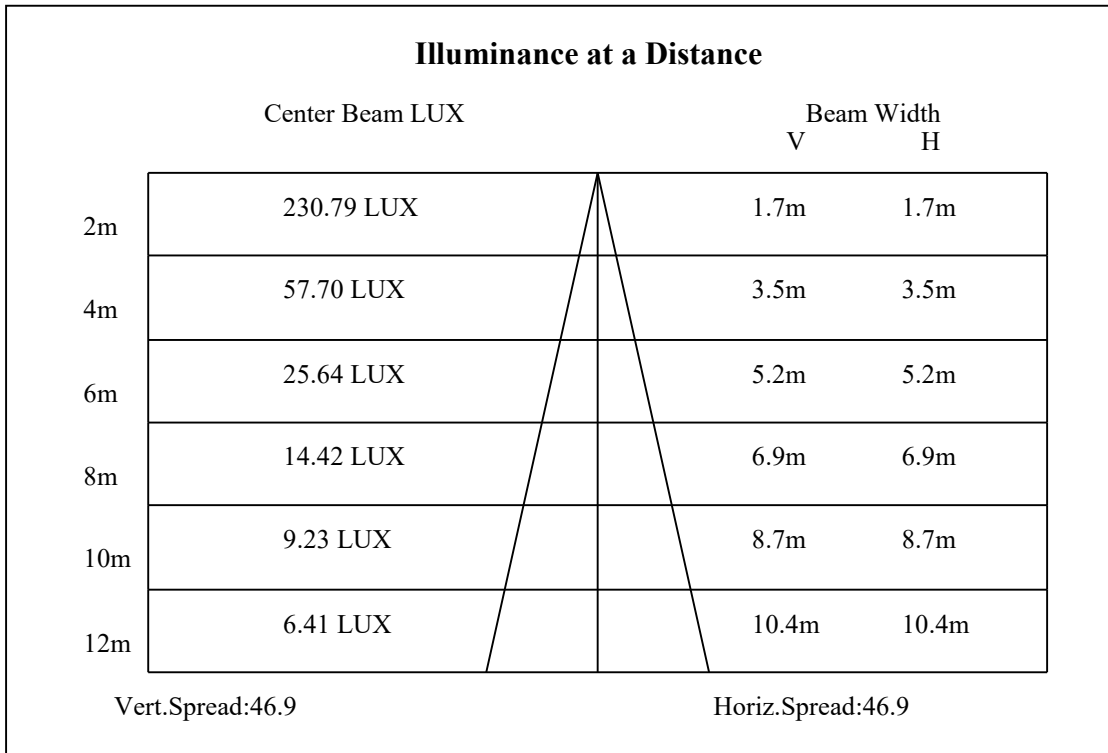
C0(Max): —————

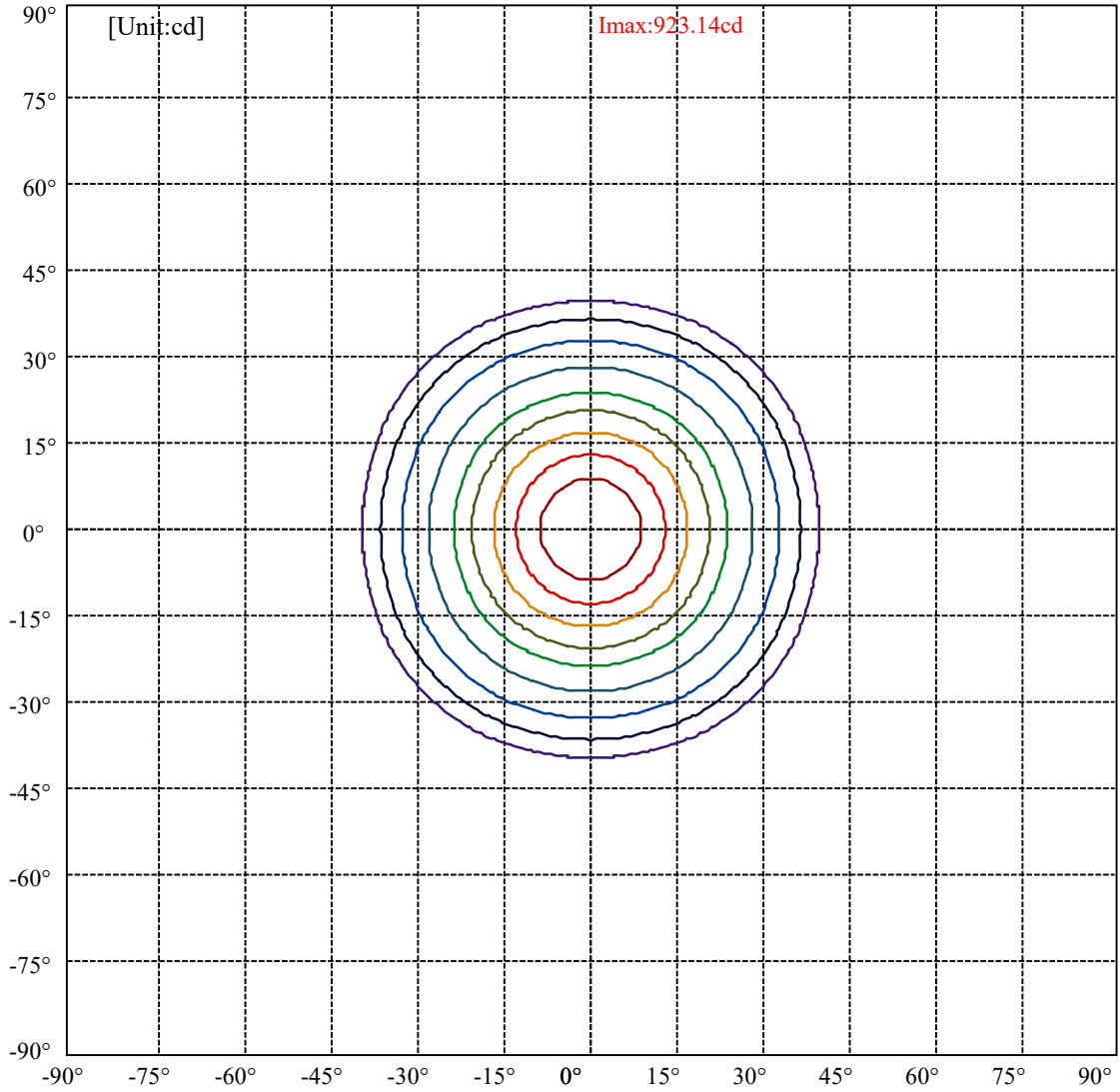
C0/C180: —————

C90/C270: —————

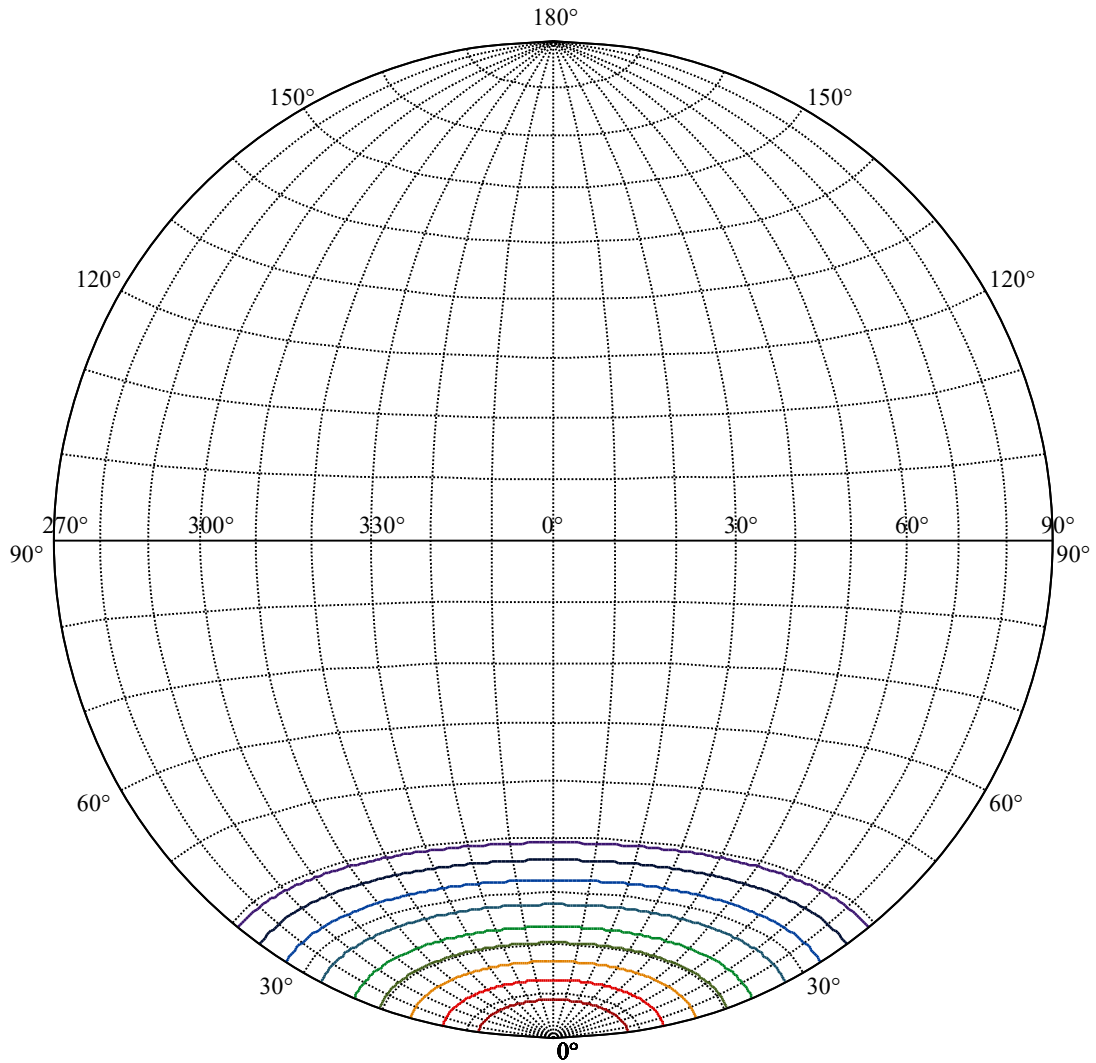
Field angle(10%Imax):C0/180Left:39.2 Right:39.2  
:C90/270Left:39.2 Right:39.2

Beam Angle(50%Imax):C0/180Left:23.5 Right:23.5  
:C90/270Left:23.5 Right:23.5





(10%Imax) 92.3144	—
(20%Imax) 184.629	—
(30%Imax) 276.943	—
(40%Imax) 369.258	—
(50%Imax) 461.572	—
(60%Imax) 553.887	—
(70%Imax) 646.201	—
(80%Imax) 738.516	—
(90%Imax) 830.83	—



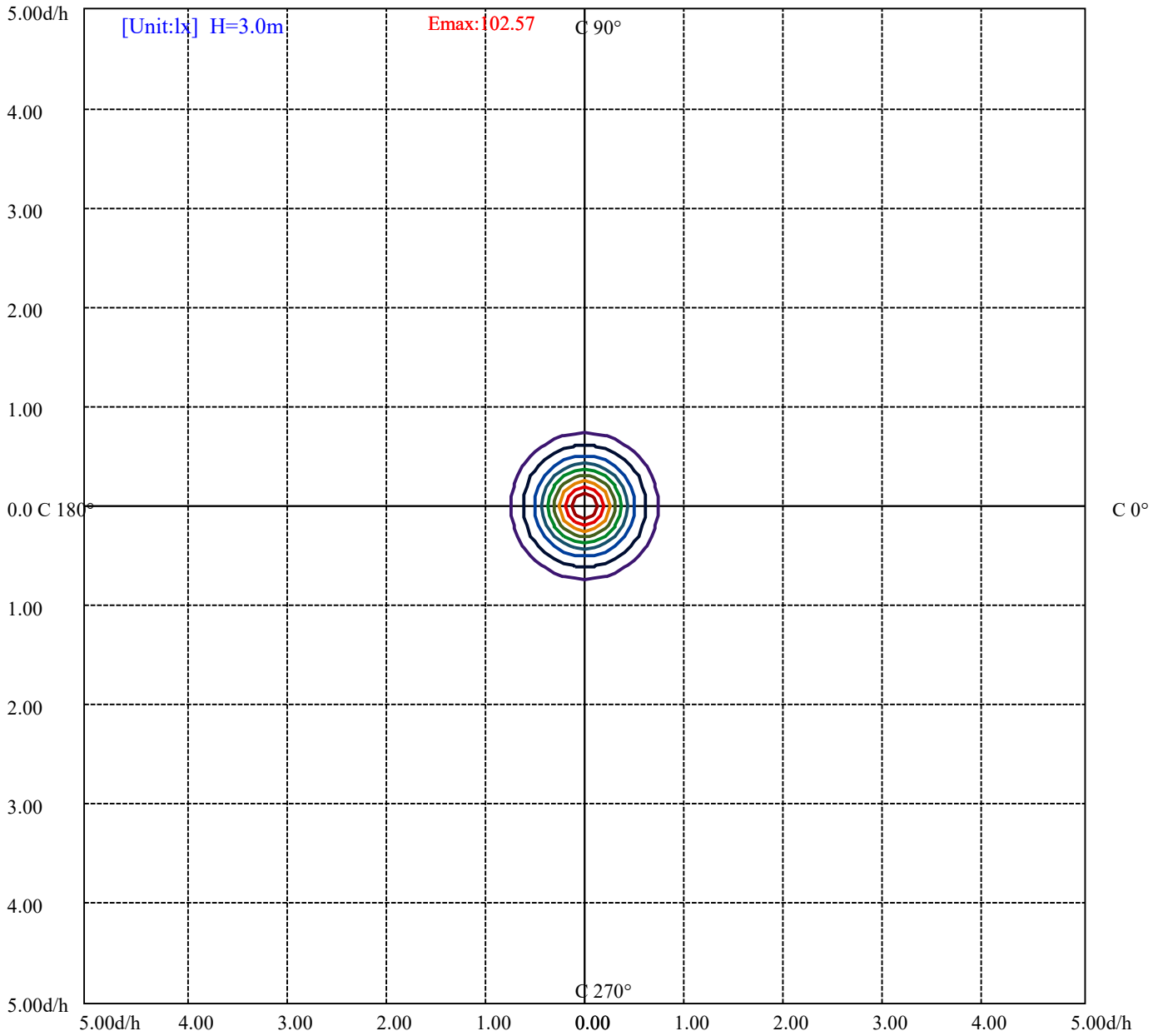
House

[Unit:cd]

Road

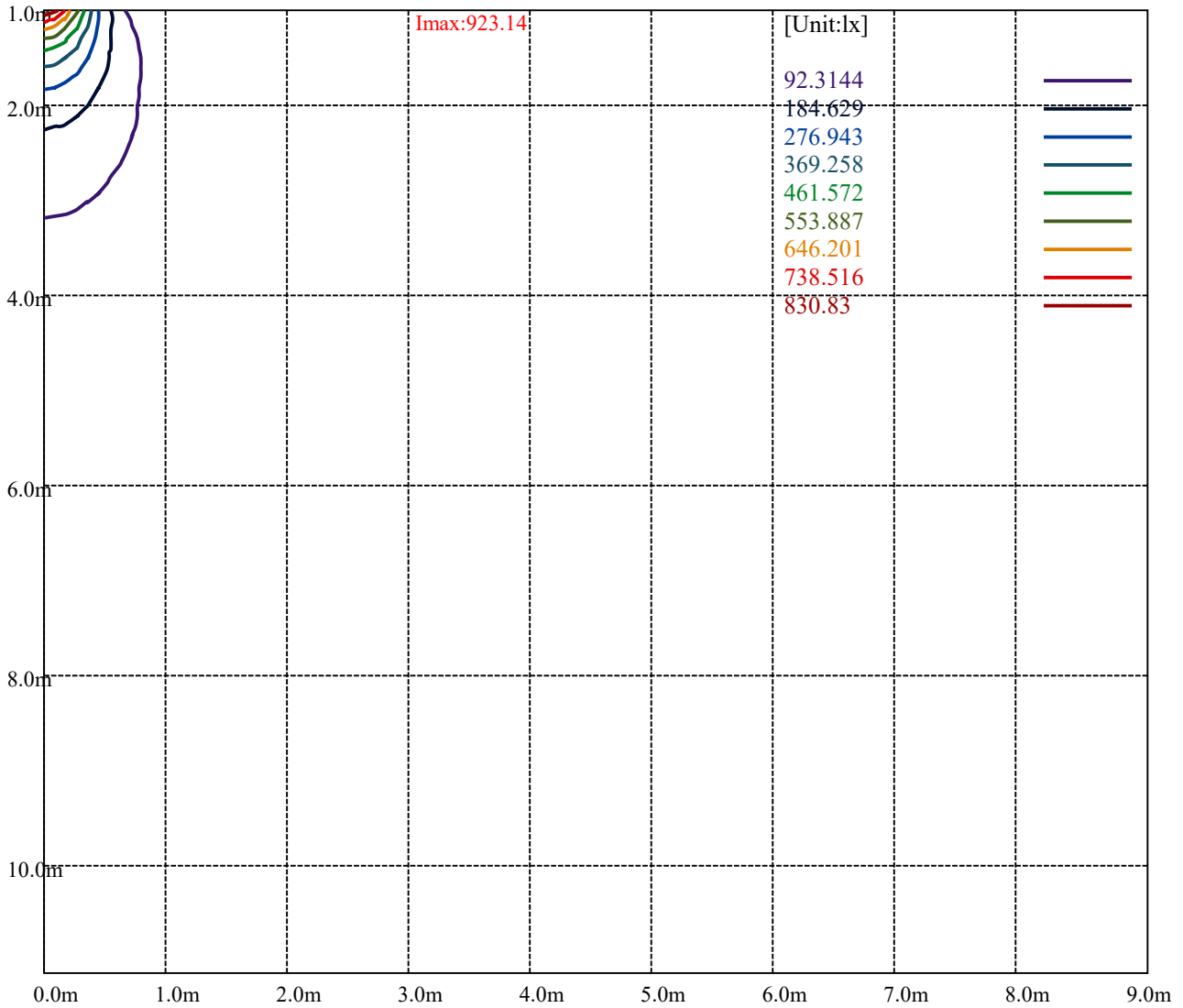
**Imax:923.14**

(10%Imax) 92.3144	—
(20%Imax) 184.629	—
(30%Imax) 276.943	—
(40%Imax) 369.258	—
(50%Imax) 461.572	—
(60%Imax) 553.887	—
(70%Imax) 646.201	—
(80%Imax) 738.516	—
(90%Imax) 830.83	—



- (10%Emax) 10.25716
- (20%Emax) 20.51433
- (30%Emax) 30.77144
- (40%Emax) 41.02855
- (50%Emax) 51.28578
- (60%Emax) 61.54289
- (70%Emax) 71.80011
- (80%Emax) 82.05722
- (90%Emax) 92.31433





Luminance Table

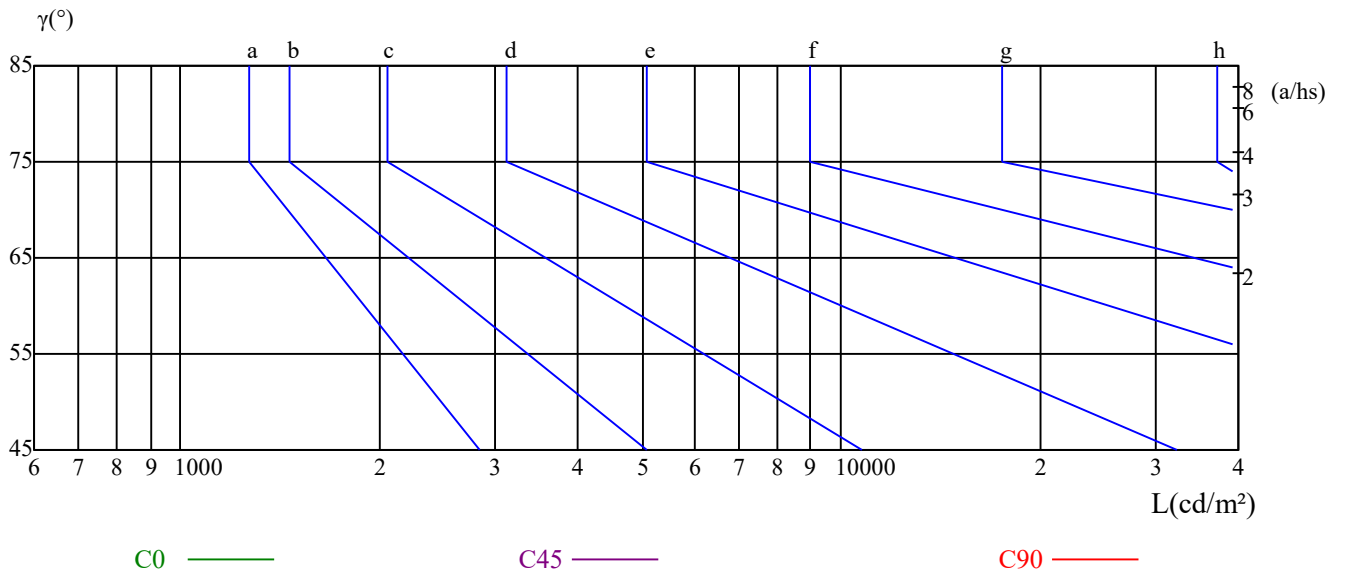
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

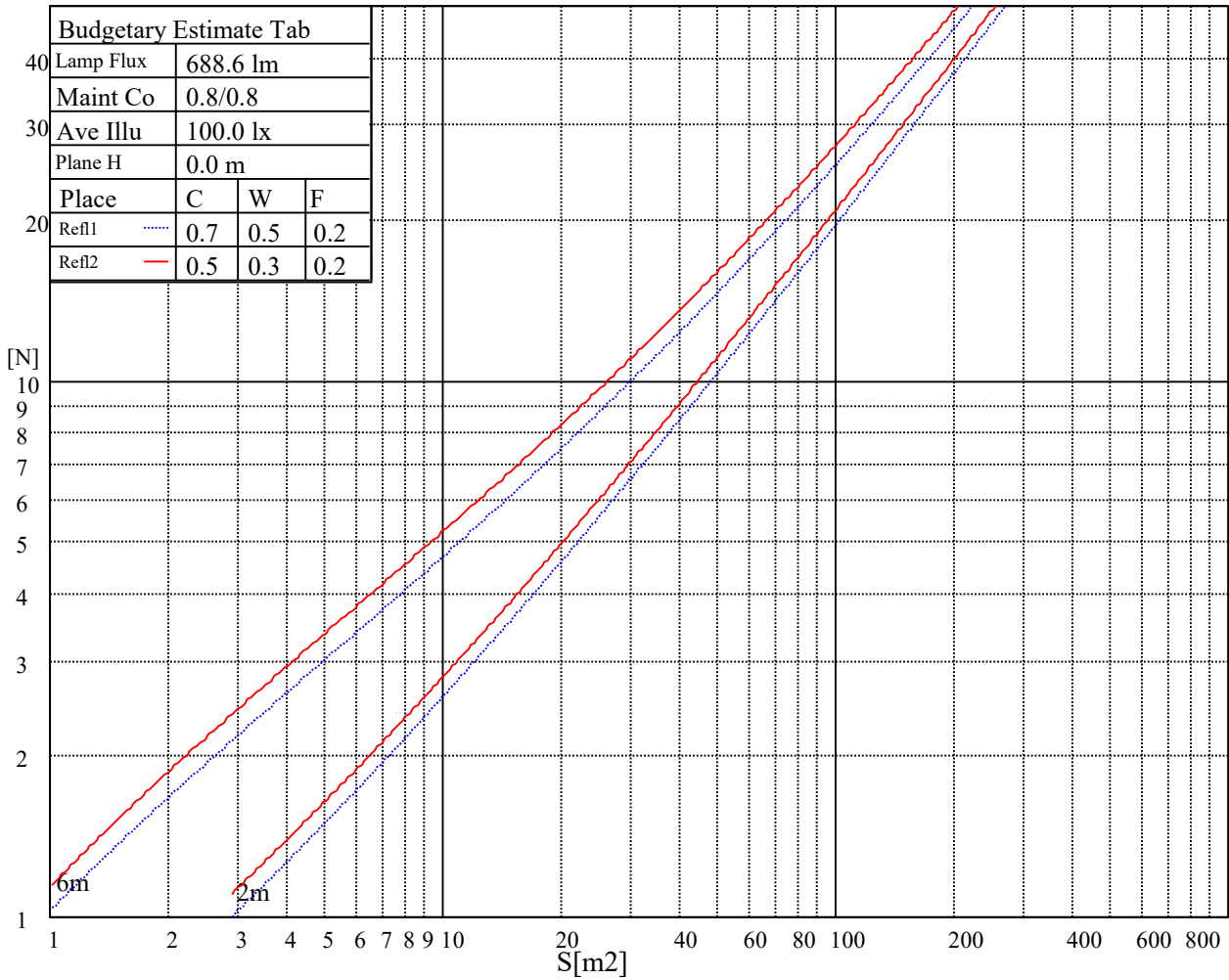
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

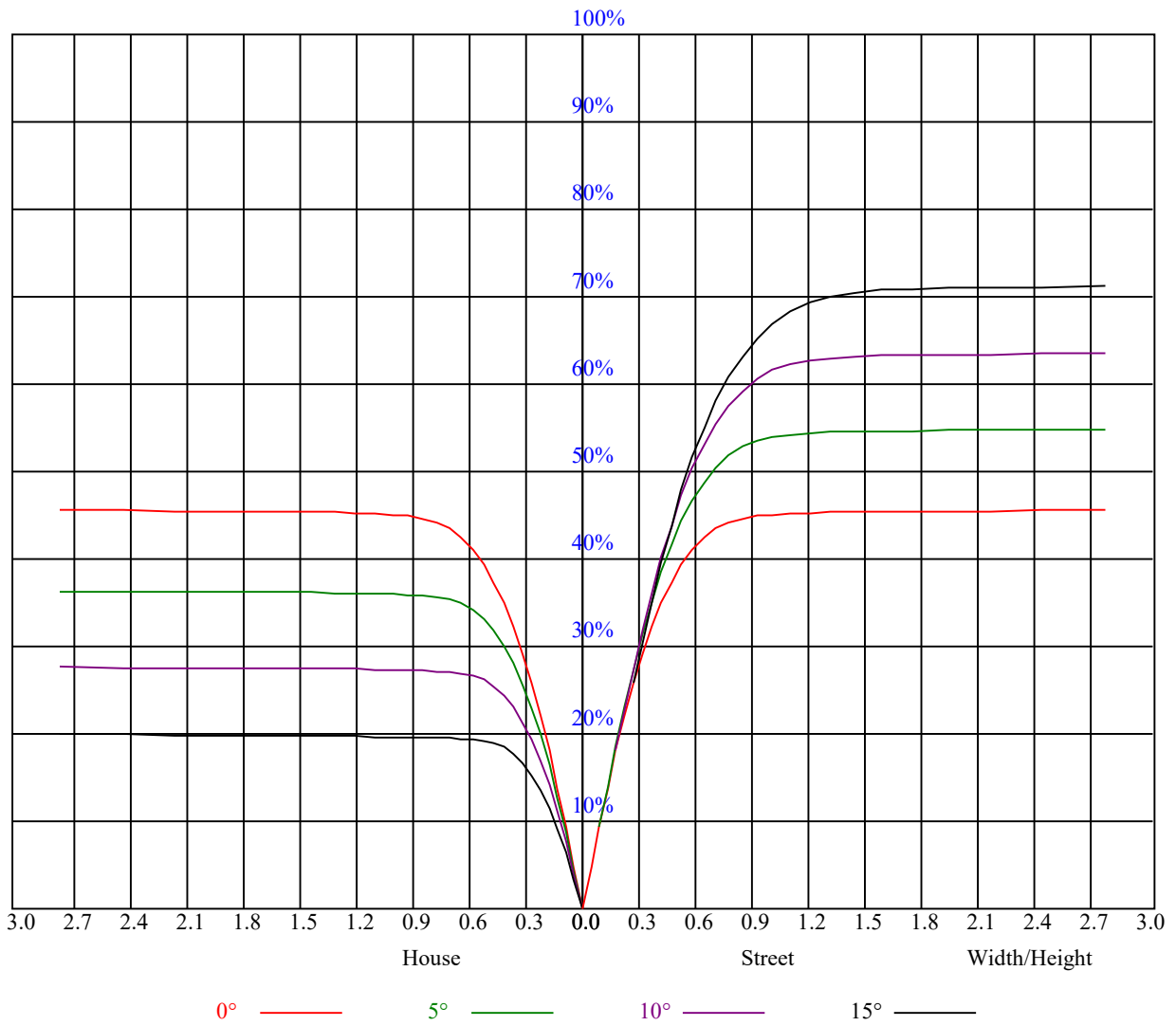
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.10	1.10	1.10	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.02	1.00	0.98	1.00	0.98	0.96	0.96	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.88	0.86
2	0.95	0.92	0.89	0.94	0.90	0.88	0.91	0.88	0.86	0.88	0.86	0.84	0.85	0.84	0.82	0.81
3	0.89	0.85	0.81	0.88	0.84	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.75
4	0.84	0.79	0.75	0.83	0.78	0.74	0.81	0.77	0.74	0.79	0.75	0.73	0.77	0.74	0.72	0.71
5	0.79	0.73	0.70	0.78	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.67	0.66
6	0.74	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.69	0.66	0.63	0.62
7	0.70	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.58
8	0.66	0.61	0.57	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.55
9	0.63	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.56	0.53	0.60	0.56	0.53	0.52
10	0.60	0.54	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.50	0.49



Intensity data(cd)

<b>C/γ(°)</b>	<b>0.0</b>	<b>5.0</b>	<b>10.0</b>	<b>15.0</b>	<b>20.0</b>	<b>25.0</b>	<b>30.0</b>	<b>35.0</b>	<b>40.0</b>
<b>0.0</b>	924.73	905.02	825.24	709.68	589.54	435.88	337.06	247.86	85.34
<b>45.0</b>	923.19	889.99	802.34	680.33	555.13	409.95	325.71	207.29	63.37
<b>90.0</b>	920.82	874.08	758.57	643.39	520.34	385.12	316.68	152.95	44.10
<b>135.0</b>	923.85	894.67	801.24	671.52	557.45	406.32	326.70	190.05	56.76
<b>180.0</b>	924.73	887.51	793.64	664.15	544.34	391.18	313.38	194.02	53.68
<b>225.0</b>	923.19	895.38	812.14	692.44	570.27	413.20	333.92	221.77	66.29
<b>270.0</b>	920.82	907.00	842.97	720.25	598.90	462.09	358.86	272.47	101.69
<b>315.0</b>	923.85	898.80	821.66	699.22	578.75	424.98	340.91	235.53	69.98
<b>360.0</b>	924.73	905.02	825.24	709.68	589.54	435.88	337.06	247.86	85.34
<b>C/γ(°)</b>	<b>45.0</b>	<b>50.0</b>	<b>55.0</b>	<b>60.0</b>	<b>65.0</b>	<b>70.0</b>	<b>75.0</b>	<b>80.0</b>	<b>85.0</b>
<b>0.0</b>	25.16	11.34	5.23	2.53	2.42	2.31	2.37	2.26	2.26
<b>45.0</b>	22.63	9.63	4.24	2.53	2.42	2.31	2.20	2.26	2.26
<b>90.0</b>	17.95	7.32	3.08	2.42	2.31	2.26	2.31	2.31	2.31
<b>135.0</b>	20.70	8.20	3.74	2.59	2.37	2.37	2.31	2.26	2.20
<b>180.0</b>	18.88	8.42	3.47	2.42	2.31	2.31	2.26	2.20	2.26
<b>225.0</b>	23.01	9.47	4.13	2.48	2.31	2.26	2.20	2.26	2.26
<b>270.0</b>	28.52	11.95	5.29	2.53	2.42	2.26	2.31	2.26	2.26
<b>315.0</b>	24.22	10.24	4.57	2.48	2.31	2.31	2.26	2.26	2.26
<b>360.0</b>	25.16	11.34	5.23	2.53	2.42	2.31	2.37	2.26	2.26
<b>C/γ(°)</b>	<b>90.0</b>								
<b>0.0</b>	2.26								
<b>45.0</b>	2.31								
<b>90.0</b>	2.20								
<b>135.0</b>	2.15								
<b>180.0</b>	2.26								
<b>225.0</b>	2.20								
<b>270.0</b>	2.26								
<b>315.0</b>	2.26								
<b>360.0</b>	2.26								