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## Nata

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LumCAT: 2-1567-M	
Luminaire: BJB47.319.2021	
Report No: NT2017070309	Voltage(V): 34.5600
Test No: GC2017070309	Current(A): 0.5000
LampCAT: SAWx15	Power (W): 17.2800
Lamp flux(lm): 2402.0	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): 2178.11  
Efficiency(%): 90.68%  
Lumens(lm)/Power(W): 126.05  
Central intensity(cd): 6430.431  
Maximum intensity(cd): 6430.431  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=27.6  
                                  [C90/270]Total=27.6  
Field angle(10%Imax): [C0/180]Total=66.6  
                                  [C90/270]Total=66.6  
Maximum s/h(1/2): C0\_180=0.47 C90\_270=0.47  
Maximum s/h(1/4): C0\_180=0.47 C90\_270=0.47  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 92.19%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.189%

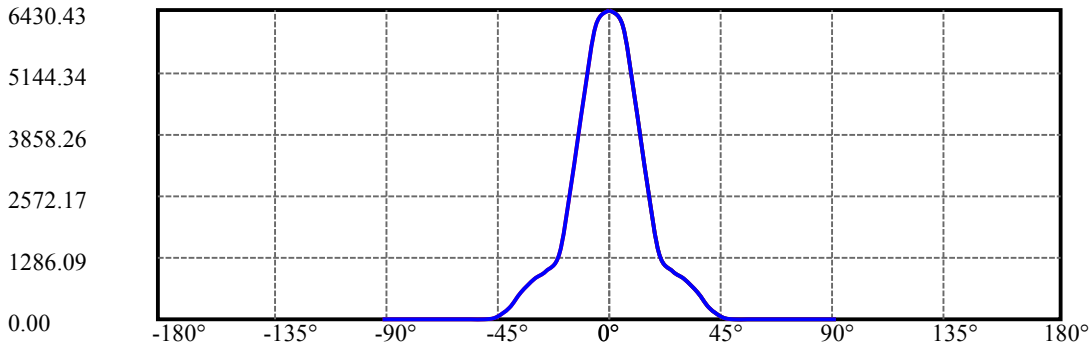
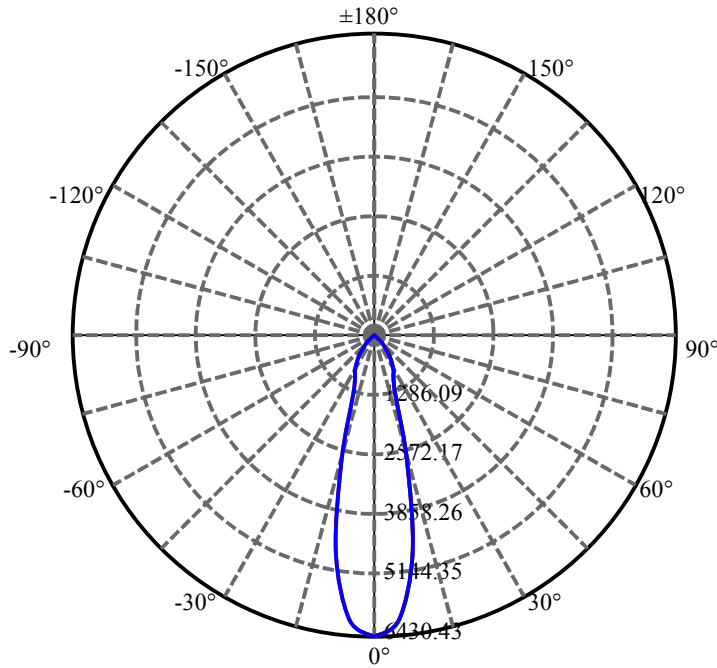
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6430.431	38.455	38.455	1.601%	1.766%
5.0	6094.685	291.163	329.619	12.122%	15.133%
10.0	4681.747	445.623	775.242	18.552%	35.592%
15.0	2755.478	390.915	1166.157	16.275%	53.540%
20.0	1368.362	256.532	1422.689	10.680%	65.318%
25.0	983.865	227.915	1650.604	9.489%	75.782%
30.0	827.985	226.925	1877.529	9.447%	86.200%
35.0	548.947	172.588	2050.117	7.185%	94.124%
40.0	223.219	78.648	2128.765	3.274%	97.735%
45.0	21.593	8.369	2137.134	.348%	98.119%
50.0	13.078	5.491	2142.626	.229%	98.371%
55.0	10.852	4.873	2147.498	.203%	98.595%
60.0	9.962	4.729	2152.227	.197%	98.812%
65.0	9.461	4.700	2156.927	.196%	99.028%
70.0	9.071	4.672	2161.599	.195%	99.242%
75.0	8.849	4.685	2166.284	.195%	99.457%
80.0	8.737	4.716	2171.001	.196%	99.674%
85.0	8.682	4.741	2175.742	.197%	99.891%
90.0	8.626	2.364	2178.106	.098%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1877.53	78.17%	86.20%
0-40	2128.76	88.62%	97.73%
0-60	2152.23	89.60%	98.81%
0-90	2175.74	90.58%	99.89%
0-120	2175.74	90.58%	99.89%
0-180	2178.11	90.68%	100.00%
60-90	28.24	1.18%	1.30%
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%
0-27.02	1742.48	72.54%	80.00%

## ZONAL LUMEN SUMMARY

0-10	775.24
10-20	647.45
20-30	454.84
30-40	251.24
40-50	13.86
50-60	9.60
60-70	9.37
70-80	9.40
80-90	4.74
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: —————

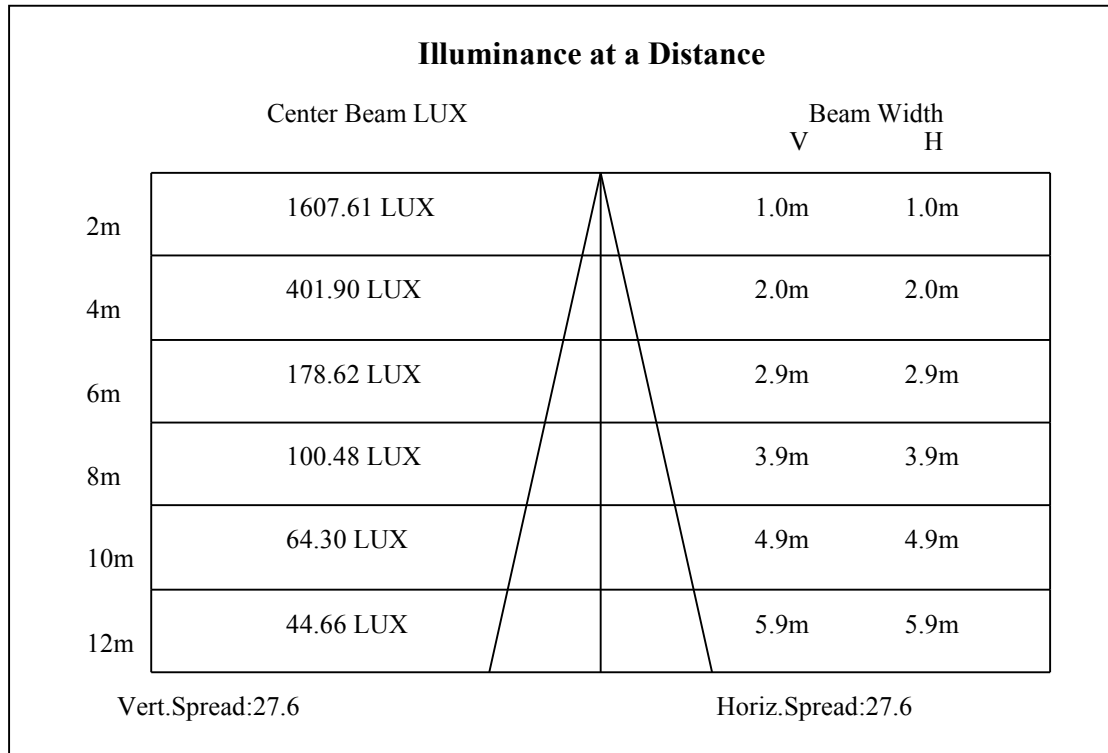
C90/C270: —————

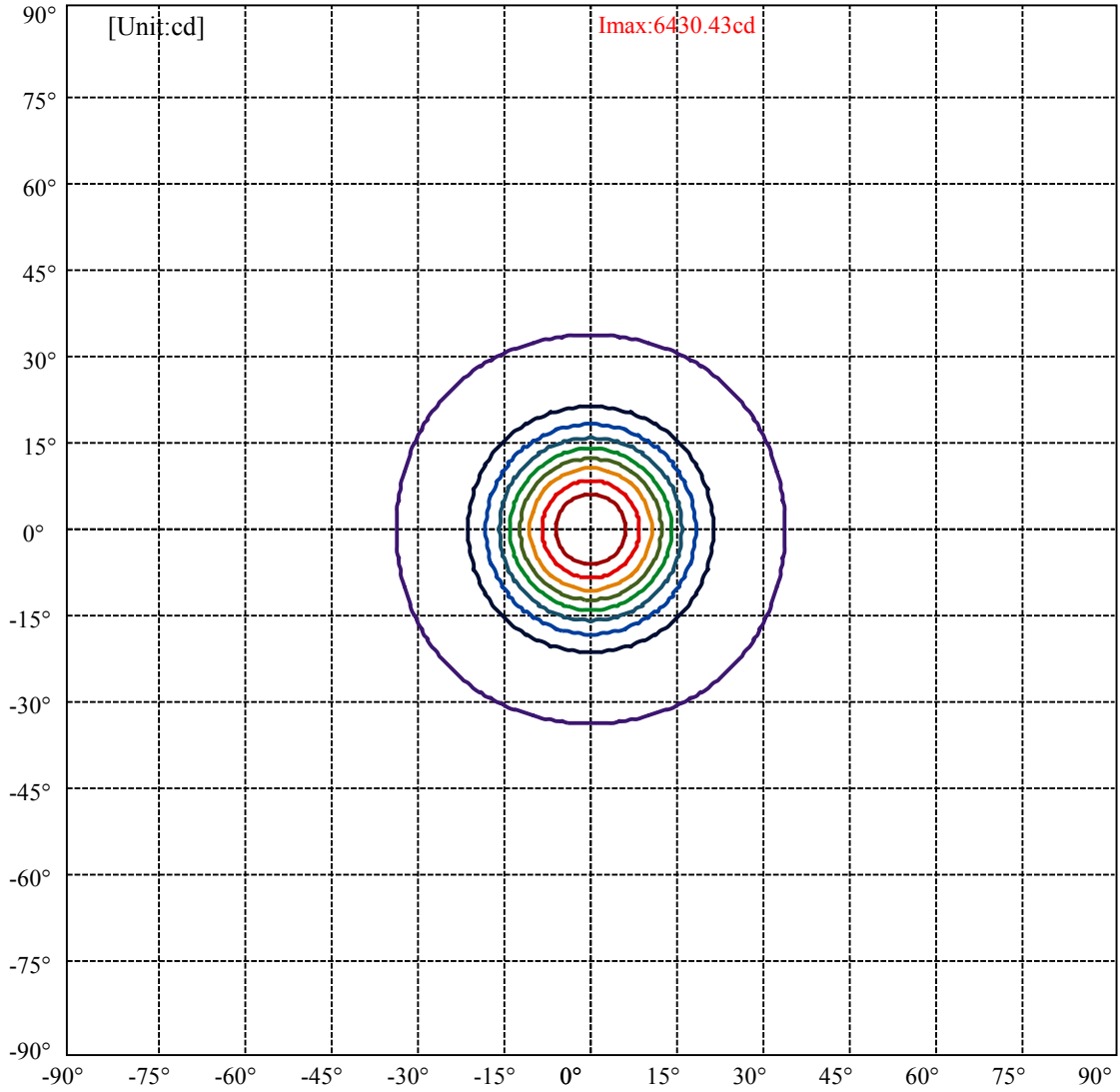
Field angle(10%Imax):C0/180Left:33.3 Right:33.3

:C90/270Left:33.3 Right:33.3

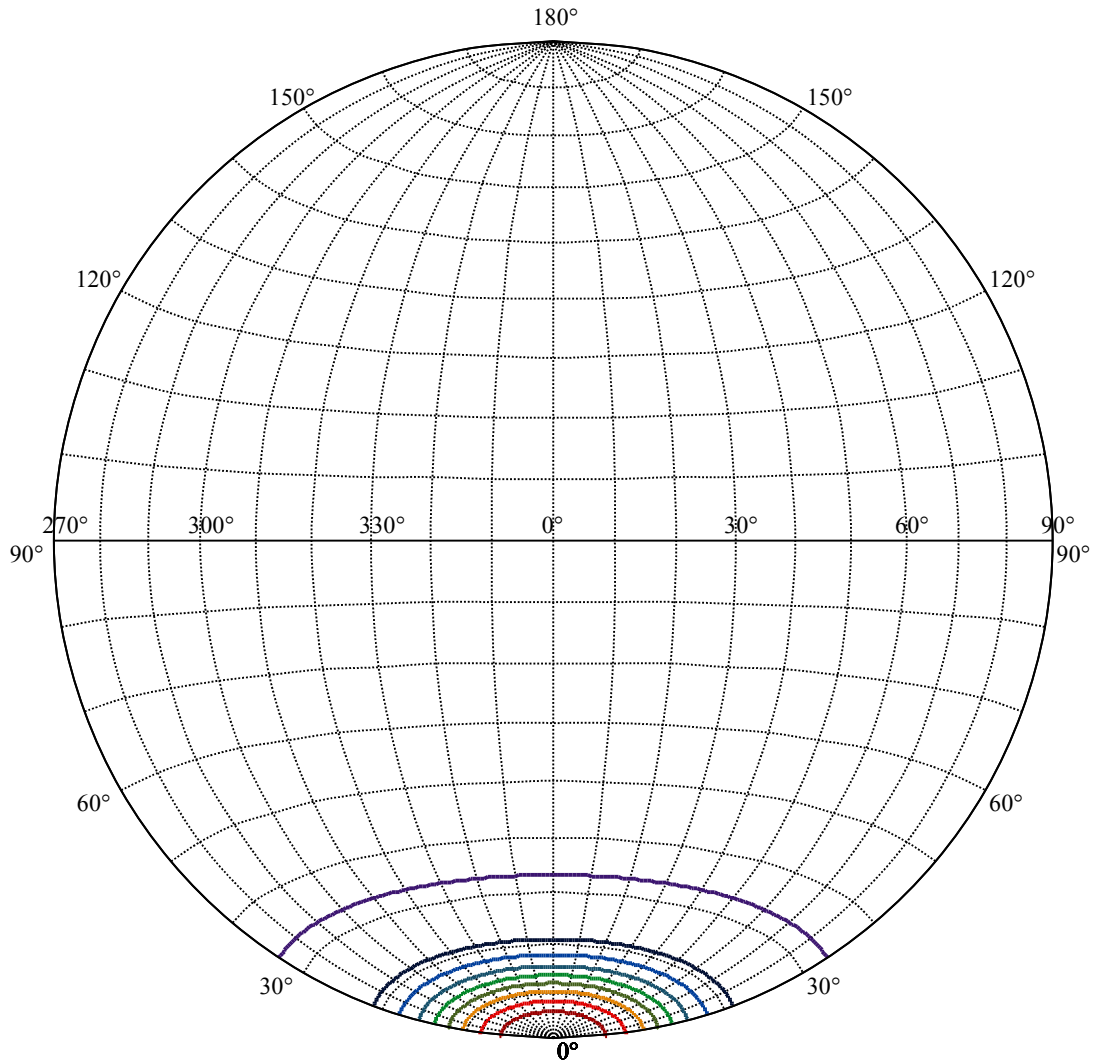
Beam Angle(50%Imax):C0/180Left:13.8 Right:13.8

:C90/270Left:13.8 Right:13.8





(10%I <sub>max</sub> ) 643.043	—
(20%I <sub>max</sub> ) 1286.09	—
(30%I <sub>max</sub> ) 1929.13	—
(40%I <sub>max</sub> ) 2572.17	—
(50%I <sub>max</sub> ) 3215.22	—
(60%I <sub>max</sub> ) 3858.26	—
(70%I <sub>max</sub> ) 4501.3	—
(80%I <sub>max</sub> ) 5144.34	—
(90%I <sub>max</sub> ) 5787.39	—



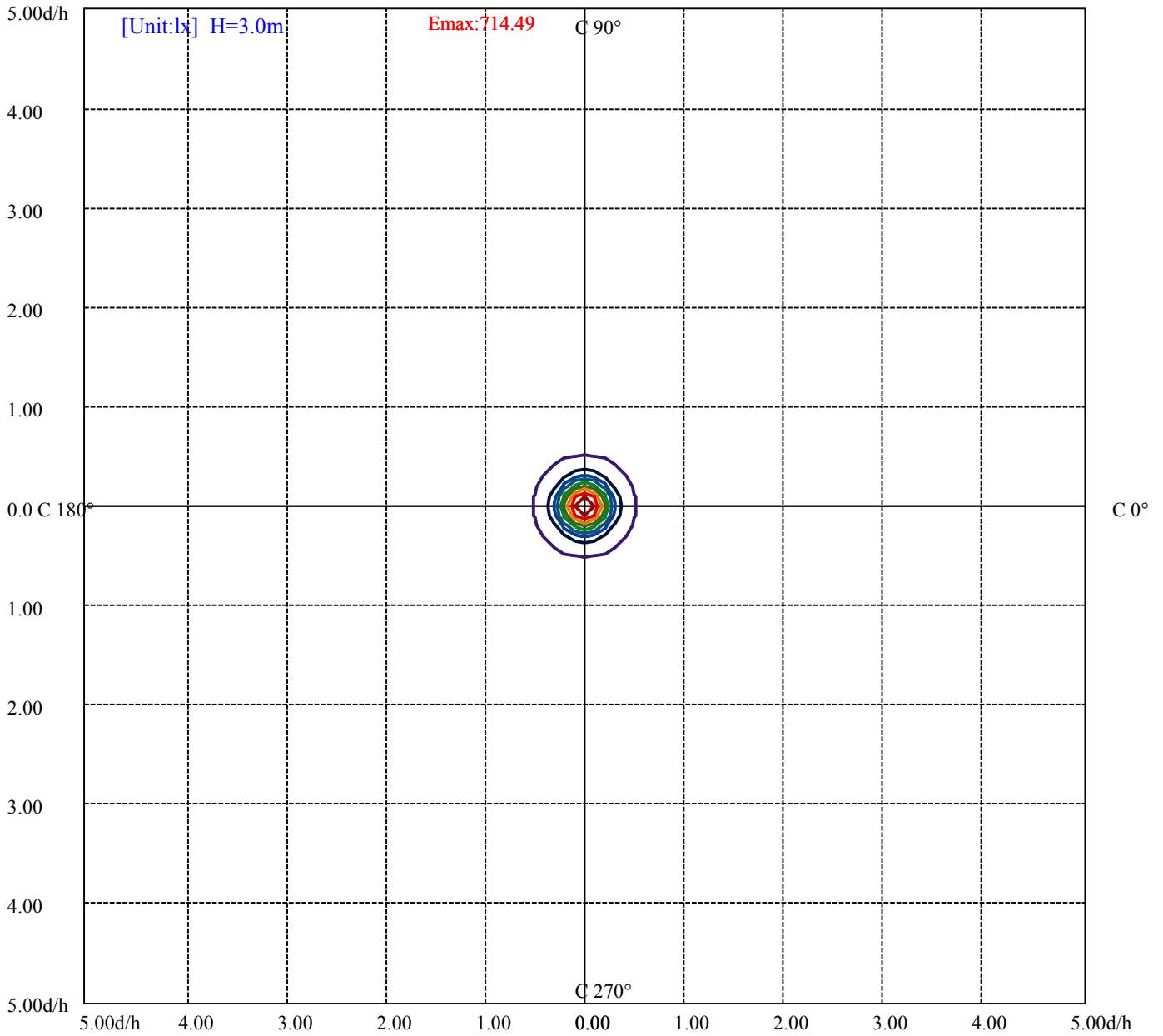
House

[Unit:cd]

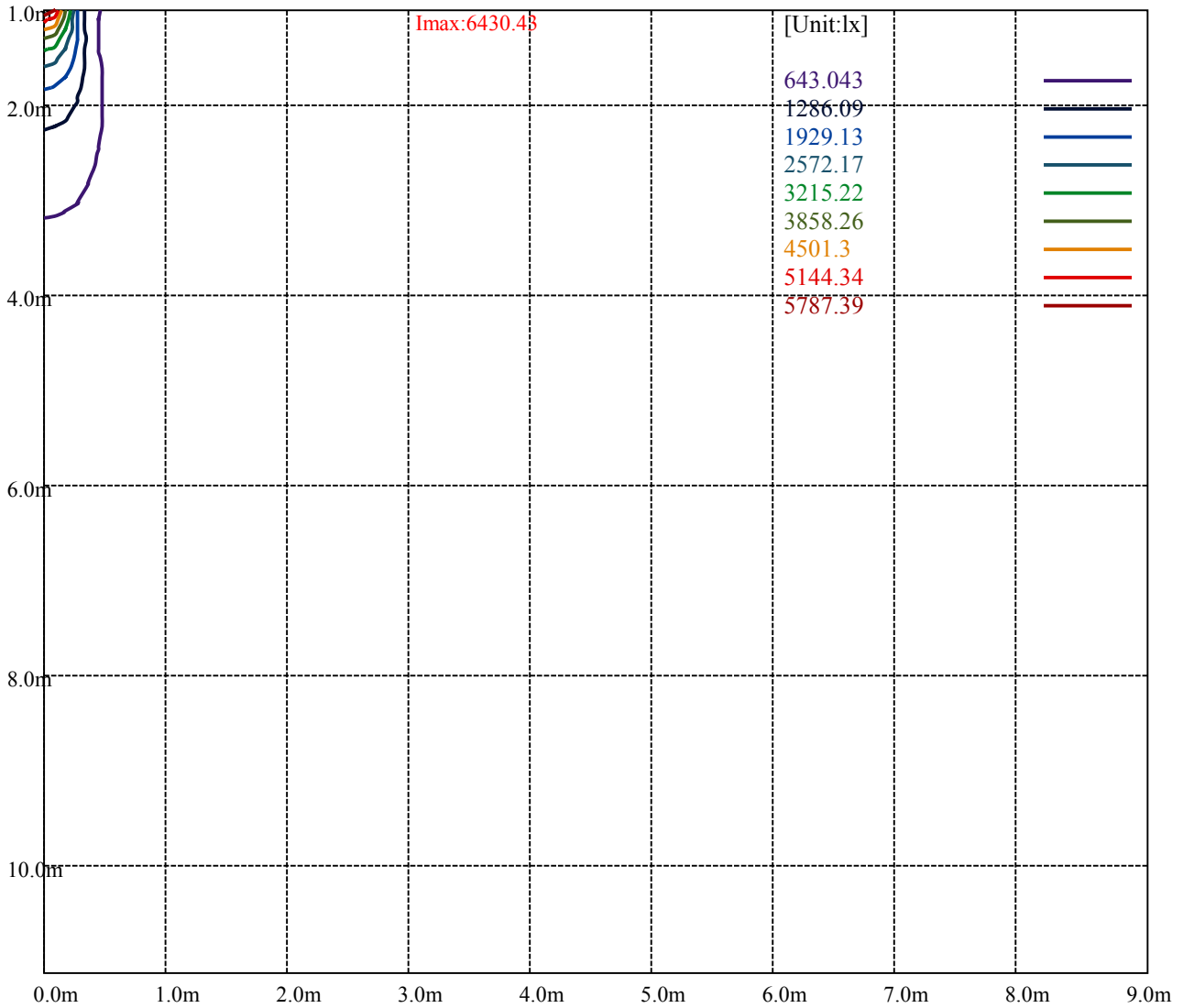
Road

**Imax:6430.43**

(10%Imax) 643.043	—
(20%Imax) 1286.09	—
(30%Imax) 1929.13	—
(40%Imax) 2572.17	—
(50%Imax) 3215.22	—
(60%Imax) 3858.26	—
(70%Imax) 4501.3	—
(80%Imax) 5144.34	—
(90%Imax) 5787.39	—







Luminance Table

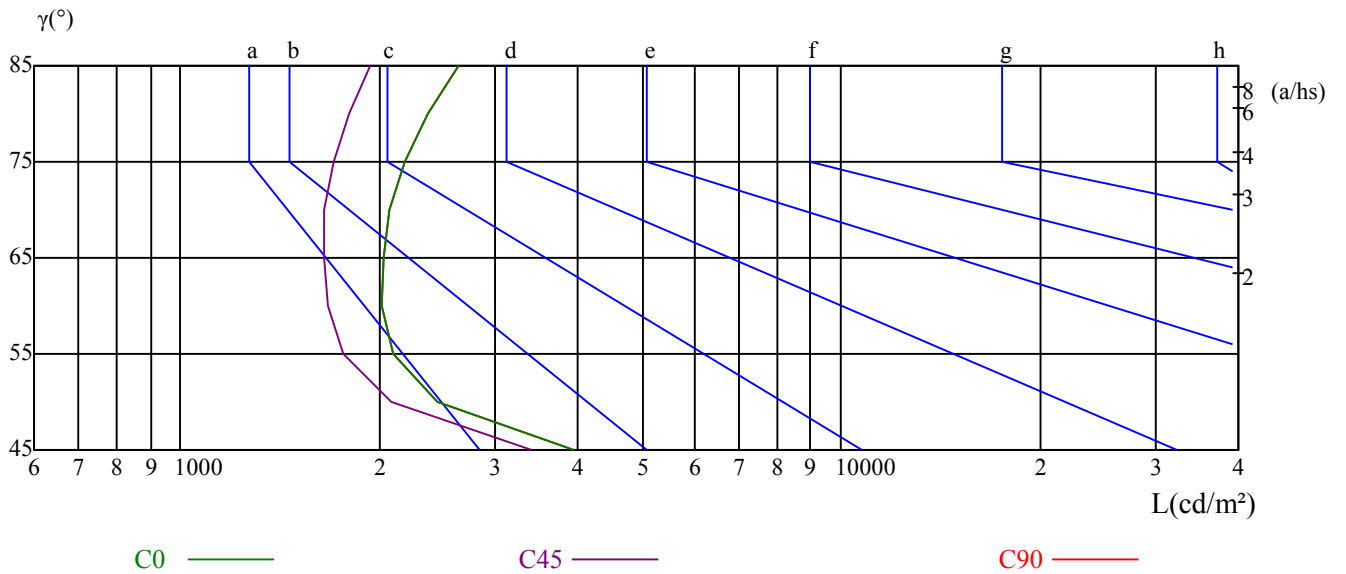
$\gamma$	45	50	55	60	65	70	75	80	85
C0	3930	2445	2103	2018	2025	2074	2190	2376	2642
C45	3409	2090	1769	1670	1646	1652	1705	1802	1942
C90	3930	2445	2103	2018	2025	2074	2190	2376	2642

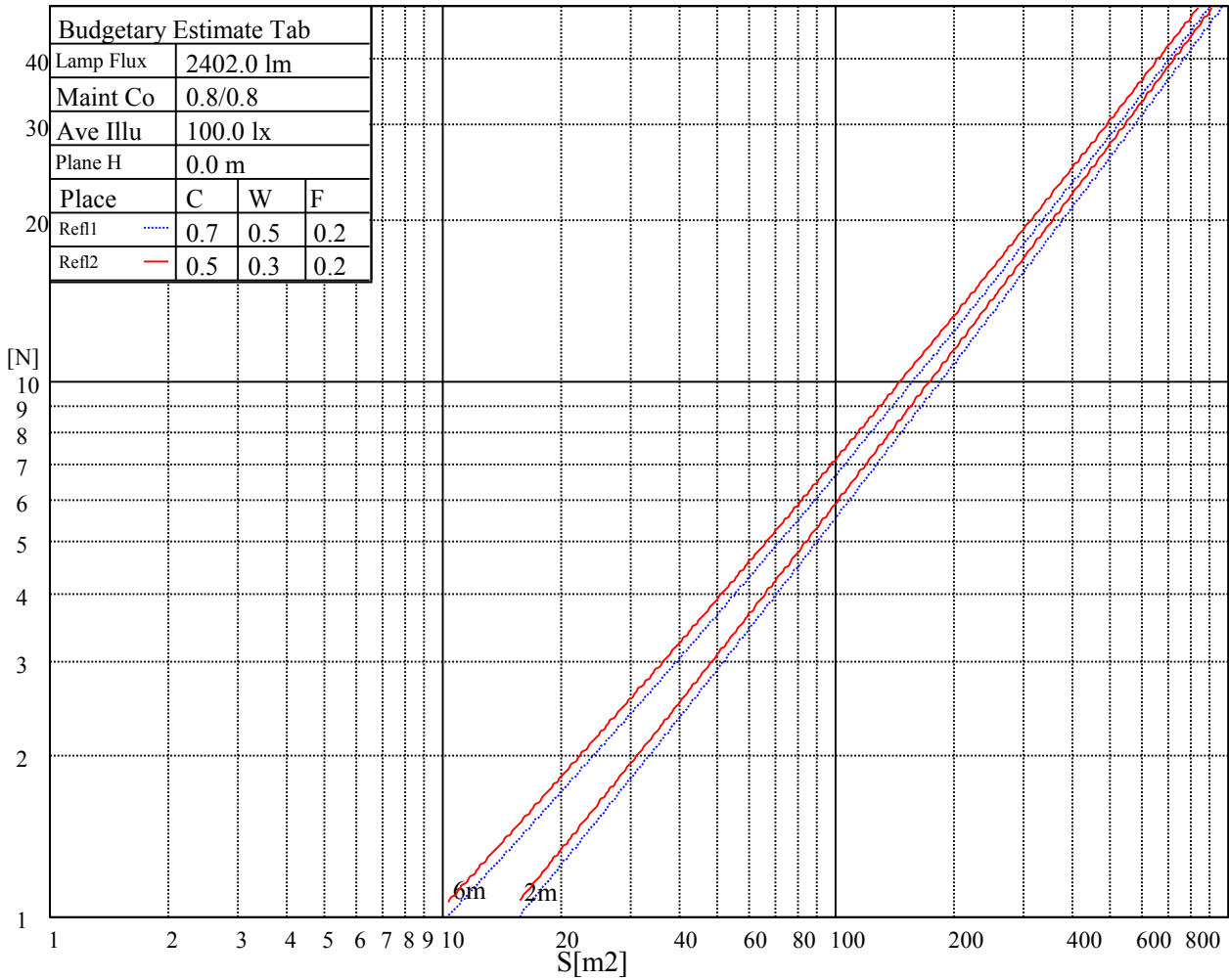
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4569	4569	4569	6977	6977	6977	20329	20329	20329

Glare Table

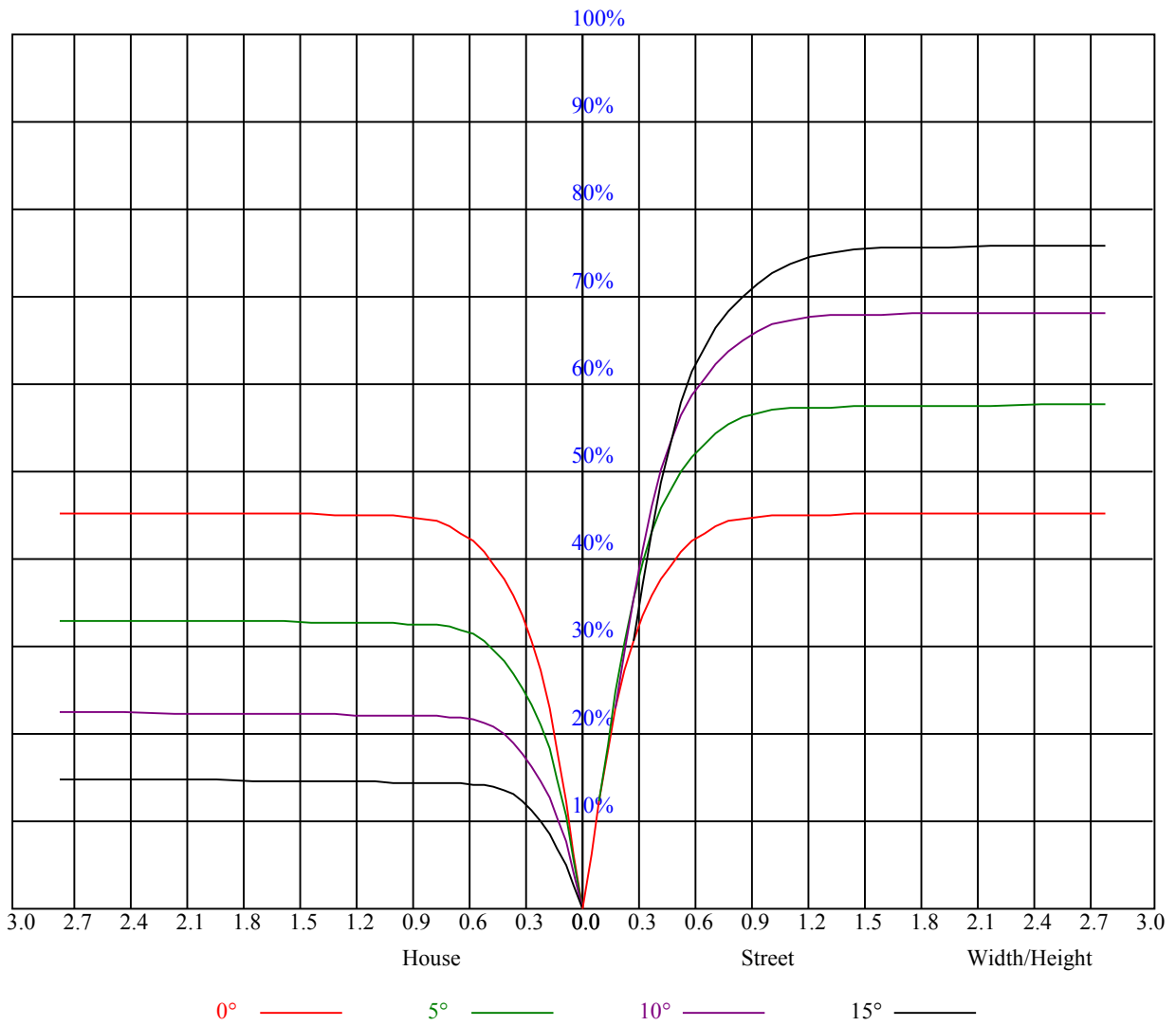
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.01	0.99	0.97	0.99	0.97	0.95	0.96	0.94	0.92	0.92	0.91	0.89	0.89	0.88	0.87	0.85
2	0.96	0.92	0.89	0.94	0.91	0.88	0.91	0.89	0.86	0.89	0.86	0.85	0.86	0.84	0.83	0.81
3	0.91	0.87	0.84	0.90	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.80	0.83	0.81	0.79	0.78
4	0.87	0.82	0.79	0.86	0.82	0.79	0.84	0.80	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.75
5	0.83	0.79	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.75	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	0.75	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	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.64
9	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.69	0.66	0.63	0.62
10	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.67	0.64	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	6430.43	6094.68	4681.75	2755.48	1368.36	983.86	827.98	548.95	223.22
45.0	6430.43	6094.68	4681.75	2755.48	1368.36	983.86	827.98	548.95	223.22
90.0	6430.43	6094.68	4681.75	2755.48	1368.36	983.86	827.98	548.95	223.22
135.0	6430.43	6094.68	4681.75	2755.48	1368.36	983.86	827.98	548.95	223.22
180.0	6430.43	6094.68	4681.75	2755.48	1368.36	983.86	827.98	548.95	223.22
225.0	6430.43	6094.68	4681.75	2755.48	1368.36	983.86	827.98	548.95	223.22
270.0	6430.43	6094.68	4681.75	2755.48	1368.36	983.86	827.98	548.95	223.22
315.0	6430.43	6094.68	4681.75	2755.48	1368.36	983.86	827.98	548.95	223.22
360.0	6430.43	6094.68	4681.75	2755.48	1368.36	983.86	827.98	548.95	223.22

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	21.59	13.08	10.85	9.96	9.46	9.07	8.85	8.74	8.68
45.0	21.59	13.08	10.85	9.96	9.46	9.07	8.85	8.74	8.68
90.0	21.59	13.08	10.85	9.96	9.46	9.07	8.85	8.74	8.68
135.0	21.59	13.08	10.85	9.96	9.46	9.07	8.85	8.74	8.68
180.0	21.59	13.08	10.85	9.96	9.46	9.07	8.85	8.74	8.68
225.0	21.59	13.08	10.85	9.96	9.46	9.07	8.85	8.74	8.68
270.0	21.59	13.08	10.85	9.96	9.46	9.07	8.85	8.74	8.68
315.0	21.59	13.08	10.85	9.96	9.46	9.07	8.85	8.74	8.68
360.0	21.59	13.08	10.85	9.96	9.46	9.07	8.85	8.74	8.68

C/γ(°)	90.0
0.0	8.63
45.0	8.63
90.0	8.63
135.0	8.63
180.0	8.63
225.0	8.63
270.0	8.63
315.0	8.63
360.0	8.63