
Nata

LumCAT: 2-1795-N	
Luminaire: 92.70.131.00	
Report No: NT2018041007	Voltage(V): 34.0000
Test No: nata-0100	Current(A): 0.3000
LampCAT: BRIDGELUX V13B	Power (W): 10.2000
Lamp flux(lm): 1608.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 69	Width(mm): 69
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1314.64
Efficiency(%): 81.76%
Lumens(lm)/Power(W): 130.49
Central intensity(cd): 2937.672
Maximum intensity(cd): 2937.672
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=38.7
[C90/270]Total=38.7
Field angle(10%Imax): [C0/180]Total=62.7
[C90/270]Total=62.7
Maximum s/h(1/2): C0_180=0.64 C90_270=0.64
Maximum s/h(1/4): C0_180=0.63 C90_270=0.63
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 82.77%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.324%

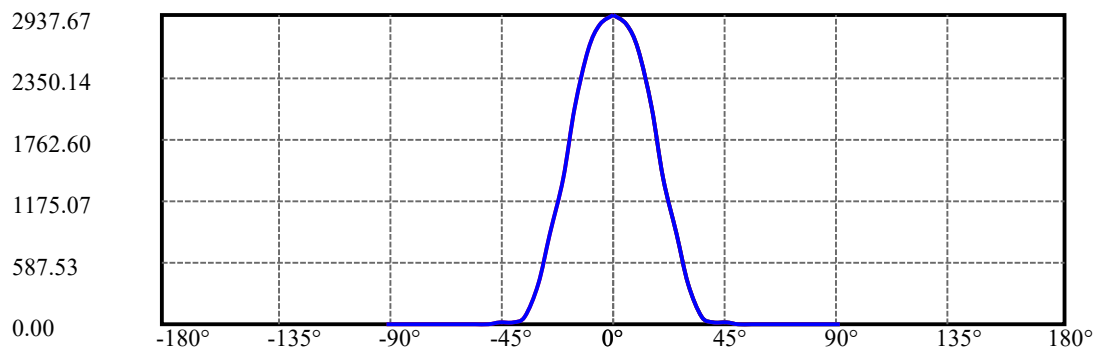
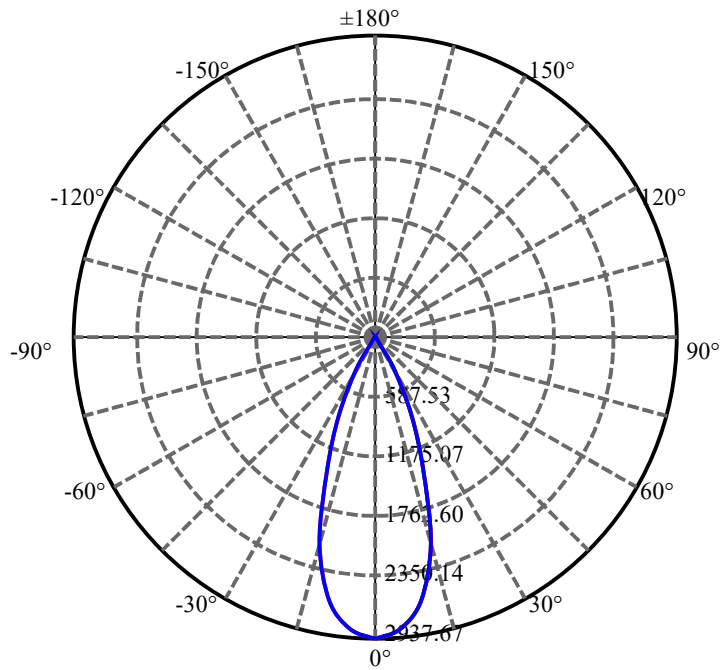
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2937.672	17.568	17.568	1.093%	1.336%
5.0	2850.407	136.173	153.741	8.468%	11.695%
10.0	2600.176	247.493	401.234	15.391%	30.521%
15.0	2065.028	292.962	694.196	18.219%	52.805%
20.0	1380.739	258.853	953.049	16.098%	72.495%
25.0	851.819	197.326	1150.375	12.272%	87.505%
30.0	376.187	103.101	1253.476	6.412%	95.348%
35.0	67.272	21.150	1274.626	1.315%	96.957%
40.0	17.322	6.103	1280.73	.380%	97.421%
45.0	10.089	3.910	1284.64	.243%	97.718%
50.0	8.665	3.638	1288.278	.226%	97.995%
55.0	7.866	3.532	1291.81	.220%	98.264%
60.0	7.426	3.525	1295.335	.219%	98.532%
65.0	7.102	3.528	1298.863	.219%	98.800%
70.0	6.875	3.541	1302.405	.220%	99.070%
75.0	6.855	3.629	1306.034	.226%	99.346%
80.0	6.689	3.611	1309.645	.225%	99.620%
85.0	6.249	3.412	1313.057	.212%	99.880%
90.0	5.760	1.579	1314.636	.098%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1253.48	77.95%	95.35%
0-40	1280.73	79.65%	97.42%
0-60	1295.34	80.56%	98.53%
0-90	1313.06	81.66%	99.88%
0-120	1313.06	81.66%	99.88%
0-180	1314.64	81.76%	100.00%
60-90	21.25	1.32%	1.62%
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%
0-22.50	1051.71	65.40%	80.00%

ZONAL LUMEN SUMMARY

0-10	401.23
10-20	551.81
20-30	300.43
30-40	27.25
40-50	7.55
50-60	7.06
60-70	7.07
70-80	7.24
80-90	3.41
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: —————

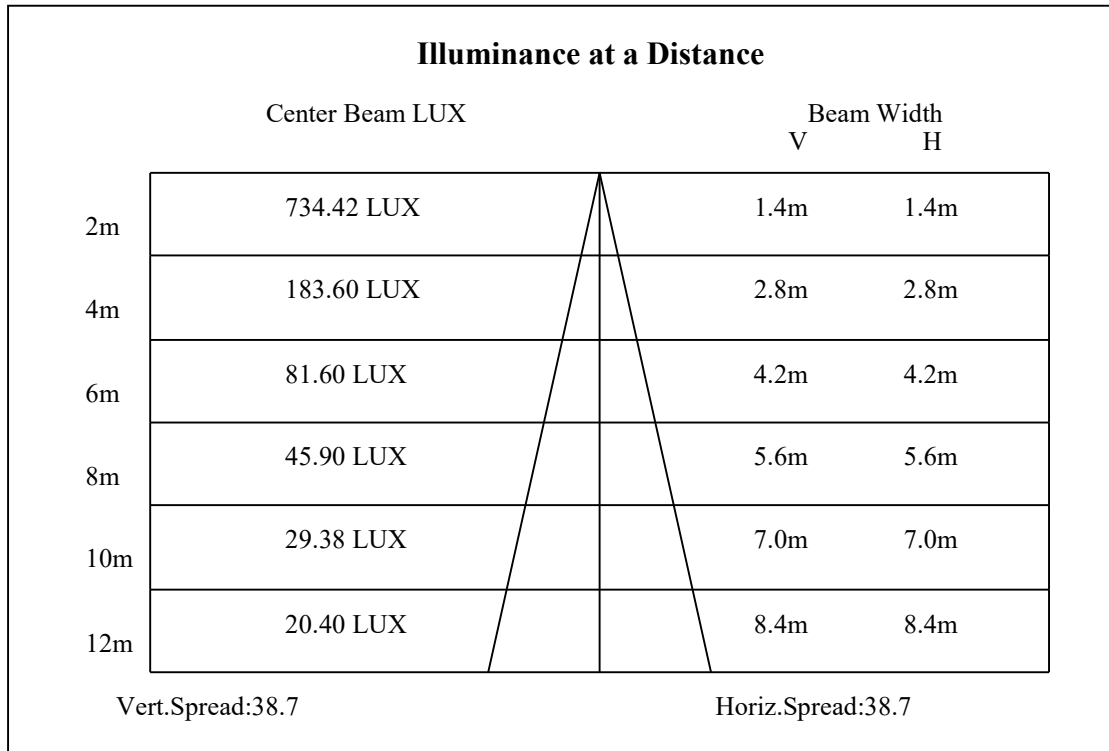
C90/C270: —————

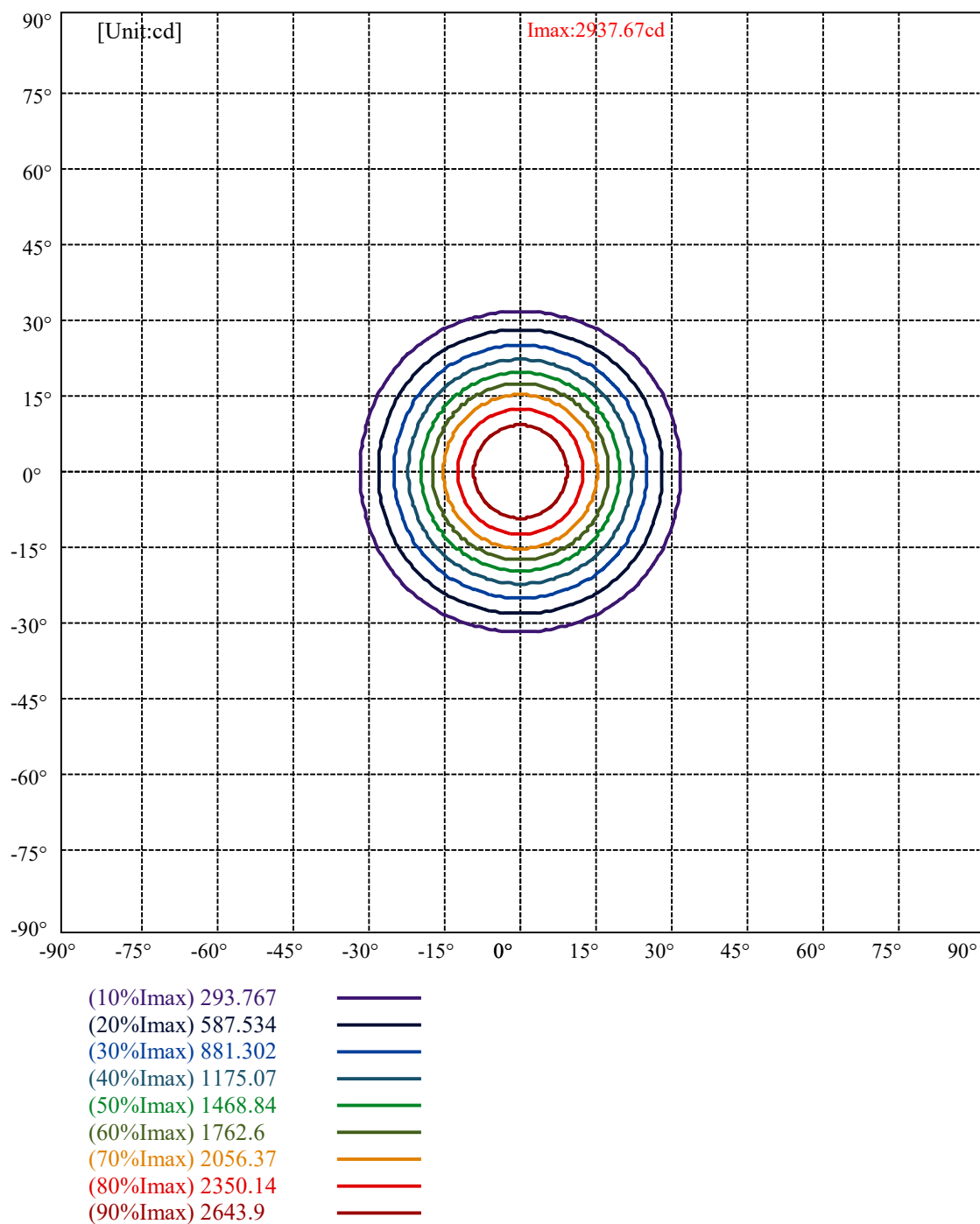
Field angle(10%Imax):C0/180Left:31.3 Right:31.3

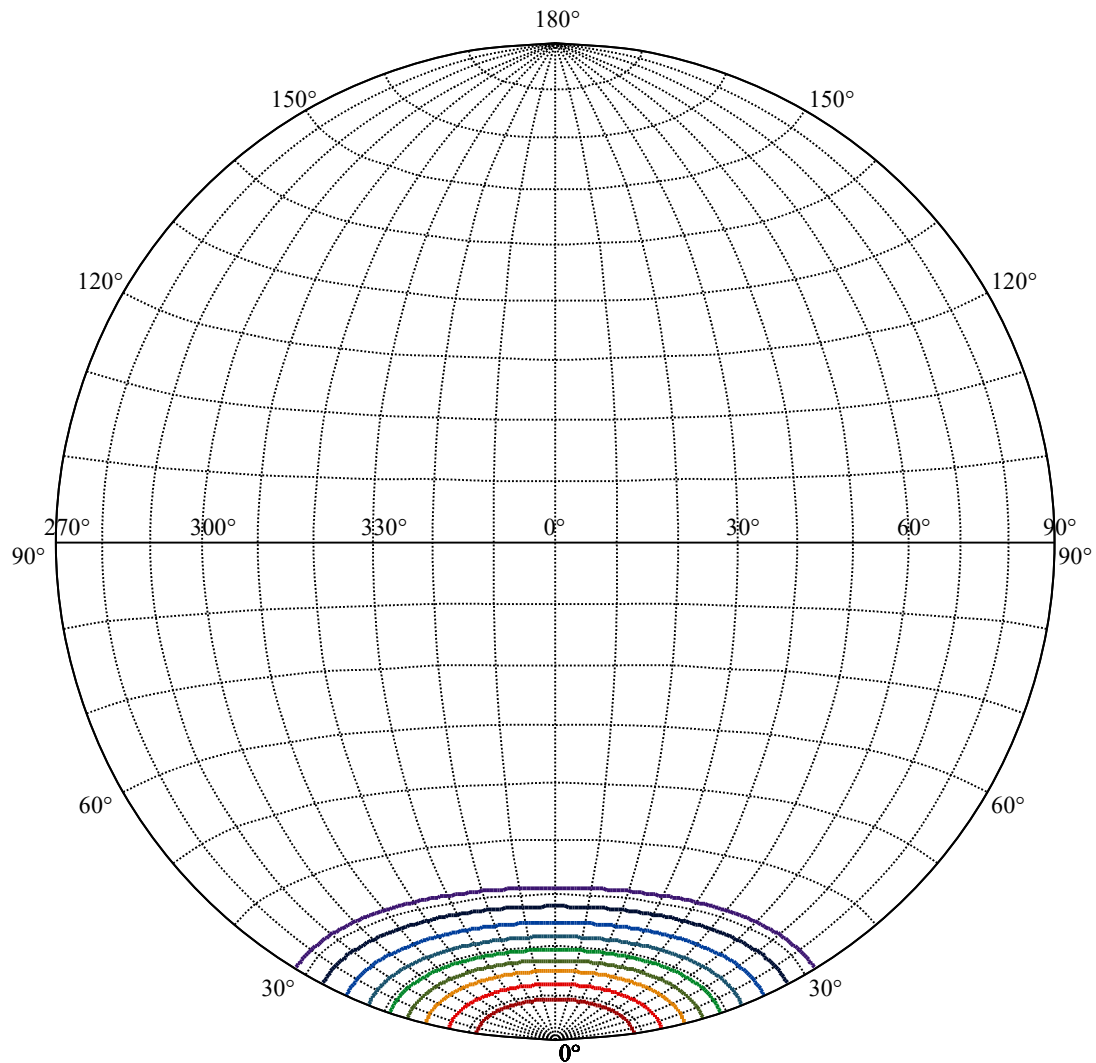
:C90/270Left:31.3 Right:31.3

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

:C90/270Left:19.4 Right:19.4







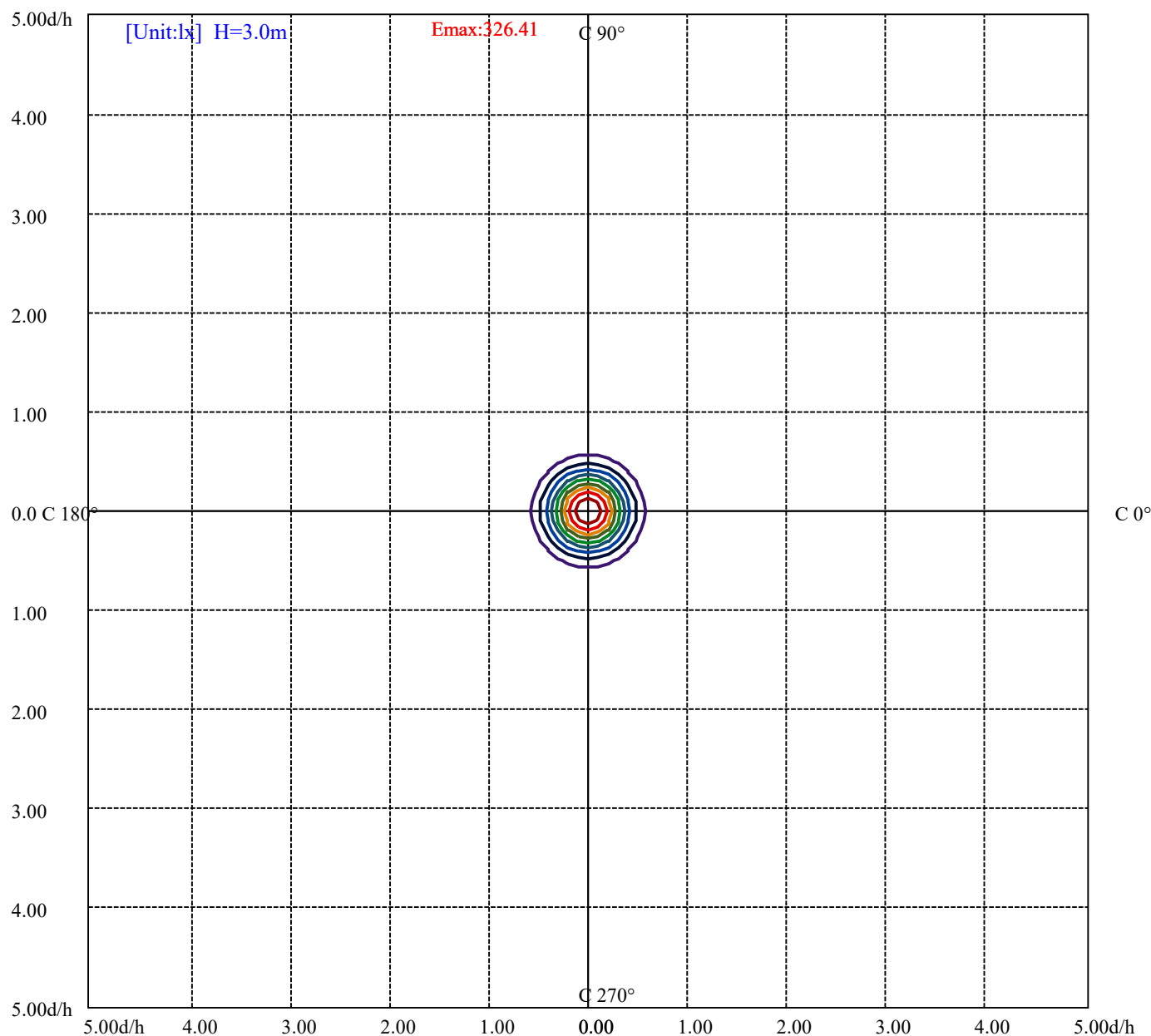
House

[Unit:cd]

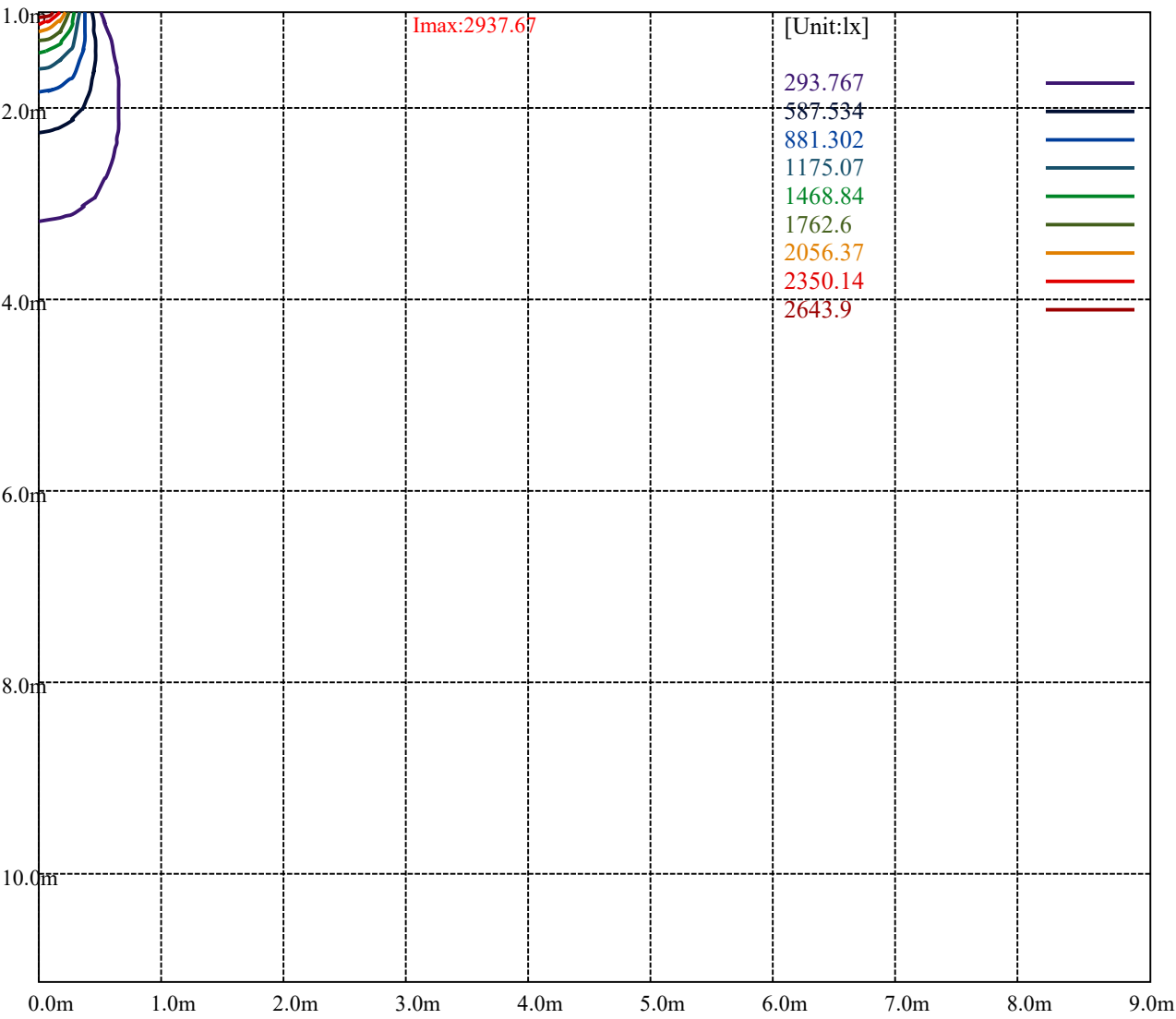
Road

Imax:2937.67

(10%Imax)	293.767	—
(20%Imax)	587.534	—
(30%Imax)	881.302	—
(40%Imax)	1175.07	—
(50%Imax)	1468.84	—
(60%Imax)	1762.6	—
(70%Imax)	2056.37	—
(80%Imax)	2350.14	—
(90%Imax)	2643.9	—



(10%Emax)	32.64078	—
(20%Emax)	65.28156	—
(30%Emax)	97.92233	—
(40%Emax)	130.5633	—
(50%Emax)	163.2033	—
(60%Emax)	195.8444	—
(70%Emax)	228.4856	—
(80%Emax)	261.1266	—
(90%Emax)	293.7667	—



Luminance Table

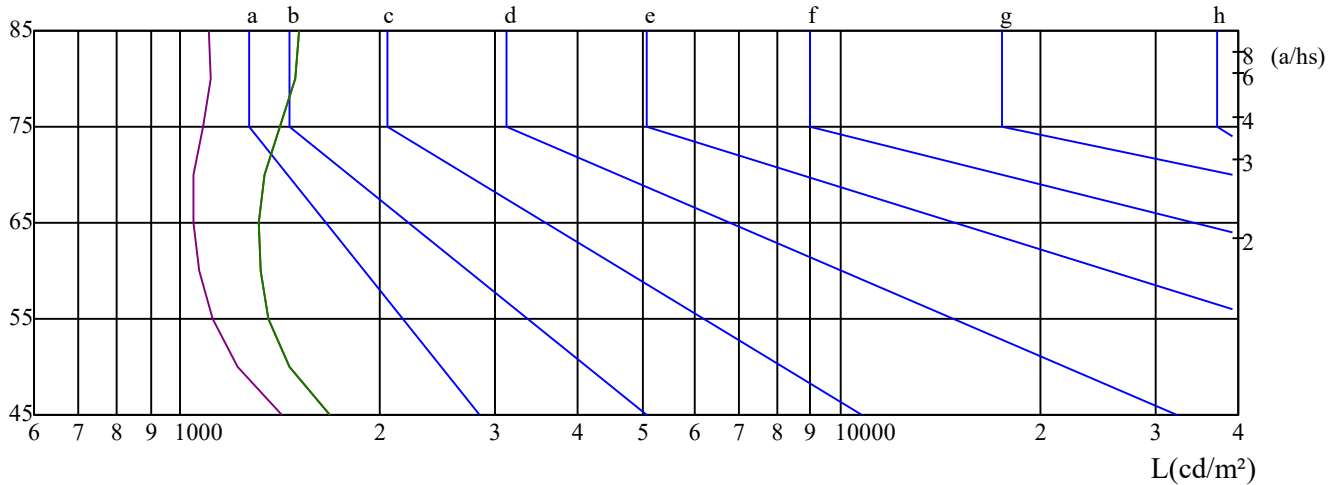
γ	45	50	55	60	65	70	75	80	85
C0	1681	1465	1360	1324	1318	1340	1419	1488	1514
C45	1422	1221	1116	1069	1046	1045	1084	1112	1103
C90	1681	1465	1360	1324	1318	1340	1419	1488	1514

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3530	3530	3530	5563	5563	5563	15059	15059	15059

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

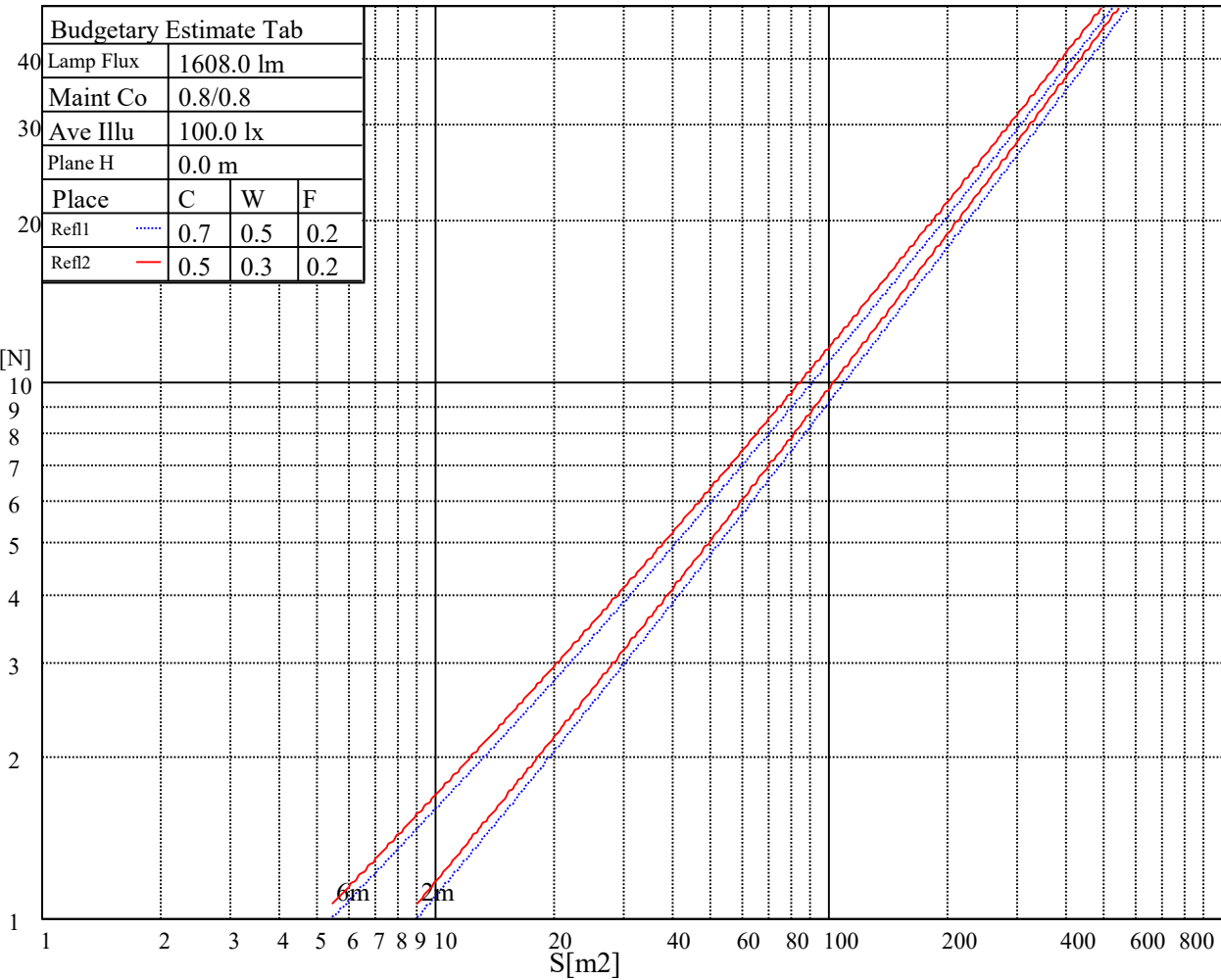
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

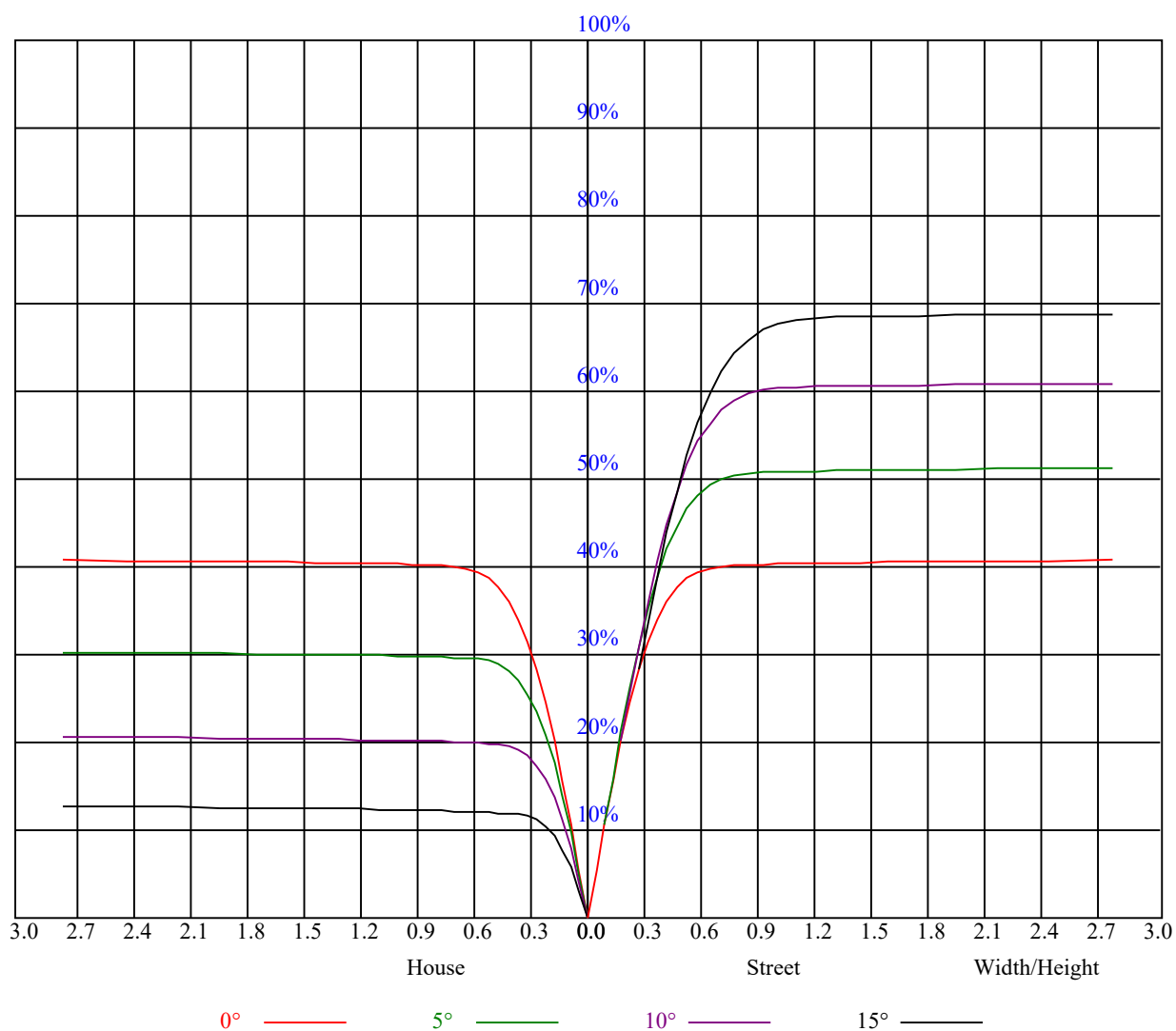
C0 ———

C45 ———

C90 ———



RHOC	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	0.99	0.99	0.99	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.83
1	0.91	0.89	0.87	0.90	0.88	0.86	0.86	0.85	0.83	0.83	0.82	0.81	0.80	0.79	0.79	0.77
2	0.87	0.84	0.81	0.85	0.83	0.80	0.83	0.80	0.79	0.80	0.78	0.77	0.78	0.77	0.75	0.74
3	0.83	0.79	0.76	0.82	0.78	0.76	0.79	0.77	0.75	0.77	0.75	0.73	0.76	0.74	0.72	0.71
4	0.79	0.75	0.72	0.78	0.75	0.72	0.76	0.73	0.71	0.75	0.72	0.70	0.73	0.71	0.70	0.68
5	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.72	0.70	0.68	0.71	0.69	0.67	0.66
6	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.69	0.67	0.65	0.64
7	0.70	0.66	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.67	0.65	0.63	0.62
8	0.68	0.64	0.61	0.67	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.65	0.63	0.61	0.60
9	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.58
10	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.56



Nata 2-1795-N

Intensity data(cd)										Appendix Page: 14 Total:14	
C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	2942.21	2833.75	2608.02	2097.65	1444.68	934.86	410.72	71.02	19.71		
45.0	2931.20	2883.30	2663.08	2193.45	1552.59	938.71	456.97	95.74	22.30		
90.0	2942.21	2897.07	2665.28	2153.81	1512.95	917.13	419.75	80.44	18.66		
135.0	2935.06	2923.49	2736.30	2289.80	1623.61	1010.84	505.97	101.19	20.81		
180.0	2942.21	2861.28	2622.34	2050.85	1386.32	799.69	339.15	49.28	14.48		
225.0	2931.20	2812.28	2510.02	1928.08	1072.44	714.08	291.25	45.48	13.76		
270.0	2942.21	2807.88	2530.94	1956.15	1358.79	785.10	321.53	53.07	15.09		
315.0	2935.06	2784.20	2465.43	1850.45	1094.52	714.14	264.16	41.95	13.76		
360.0	2942.21	2833.75	2608.02	2097.65	1444.68	934.86	410.72	71.02	19.71		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	10.13	8.59	7.82	7.38	6.99	6.77	6.66	6.61	6.50		
45.0	11.01	9.25	8.42	7.93	7.71	7.49	7.21	7.21	6.44		
90.0	10.08	8.70	7.82	7.32	6.94	6.72	6.50	6.28	6.11		
135.0	10.52	8.53	7.54	7.05	6.66	6.39	6.22	6.17	6.06		
180.0	9.63	8.20	7.32	6.77	6.39	6.11	6.00	5.95	5.89		
225.0	9.97	8.97	8.48	8.37	8.20	8.15	9.14	8.42	6.44		
270.0	9.80	8.59	7.76	7.27	6.94	6.61	6.44	6.28	6.06		
315.0	9.58	8.48	7.76	7.32	6.99	6.77	6.66	6.61	6.50		
360.0	10.13	8.59	7.82	7.38	6.99	6.77	6.66	6.61	6.50		
C/ γ (°)	90.0										
0.0	5.67										
45.0	5.84										
90.0	5.78										
135.0	5.84										
180.0	5.67										
225.0	5.84										
270.0	5.78										
315.0	5.67										
360.0	5.67										