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## Nata

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LumCAT: 2-1790-A  
Luminaire: 92.76.375.00  
Report No: NT2017091201  
Test No: GC2017091201  
LampCAT: BRIDGELUX VERO SE 18B  
Lamp flux(lm): 3422.0  
Number of Lamps: 1  
Length(mm): 70  
Phm Type: C

Voltage(V): 35.3000  
Current(A): 0.9000  
Power (W): 31.7700  
PF: 0.0000  
Ballast type: DC  
Width(mm): 70  
Height(mm): 0

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## Photometric Results

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Lumens(lm): 3043.53  
Efficiency(%): 88.94%  
Lumens(lm)/Power(W): 95.80  
Central intensity(cd): 3314.395  
Maximum intensity(cd): 3314.395  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=61.8  
                                  [C90/270]Total=61.8  
Field angle(10%Imax): [C0/180]Total=82.2  
                                  [C90/270]Total=82.2  
Maximum s/h(1/2): C0\_180=0.98 C90\_270=0.98  
Maximum s/h(1/4): C0\_180=0.91 C90\_270=0.91  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 88.94%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.535%

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Equipment: GMS1980  
Temperature(°C): 25.0

Date: 2017/9/12  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.42

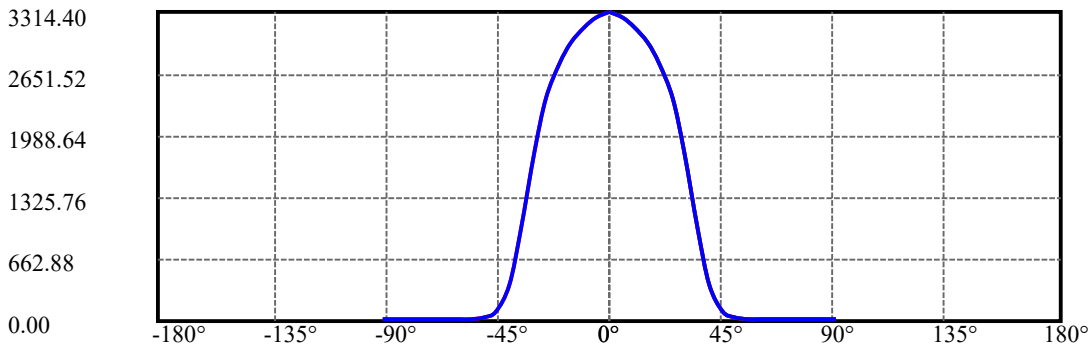
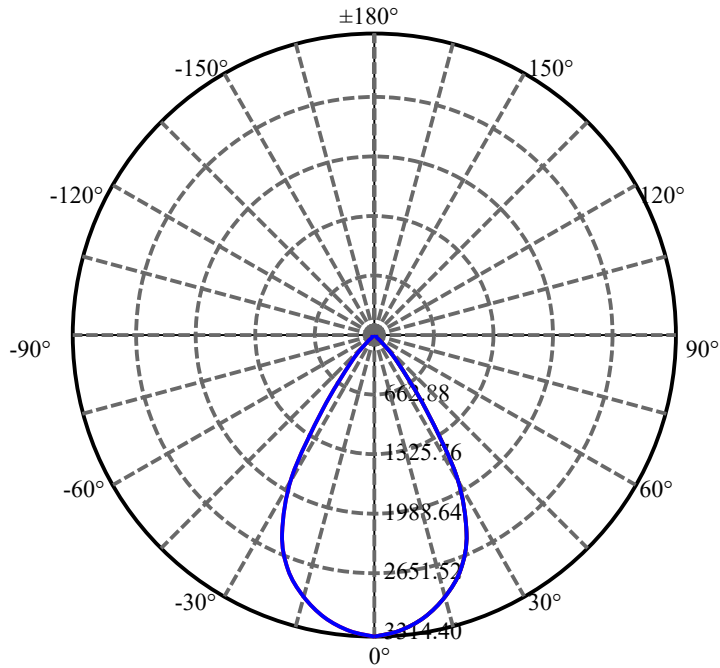
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3314.395	0.000	0	.000%	.000%
5.0	3262.849	78.629	78.629	2.298%	2.583%
10.0	3155.833	229.616	308.246	6.710%	10.128%
15.0	2979.377	363.937	672.182	10.635%	22.086%
20.0	2748.760	472.079	1144.261	13.795%	37.597%
25.0	2395.642	539.553	1683.814	15.767%	55.324%
30.0	1801.858	531.197	2215.011	15.523%	72.778%
35.0	997.443	412.217	2627.228	12.046%	86.322%
40.0	394.252	232.194	2859.421	6.785%	93.951%
45.0	104.518	92.351	2951.773	2.699%	96.985%
50.0	35.202	28.232	2980.005	.825%	97.913%
55.0	18.038	11.576	2991.581	.338%	98.293%
60.0	13.771	7.353	2998.934	.215%	98.535%
65.0	13.523	6.635	3005.569	.194%	98.753%
70.0	13.530	6.850	3012.419	.200%	98.978%
75.0	14.790	7.402	3019.821	.216%	99.221%
80.0	16.434	8.355	3028.176	.244%	99.496%
85.0	13.709	8.191	3036.367	.239%	99.765%
90.0	12.450	7.162	3043.529	.209%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2215.01	64.73%	72.78%
0-40	2859.42	83.56%	93.95%
0-60	2998.93	87.64%	98.53%
0-90	3036.37	88.73%	99.76%
0-120	3036.37	88.73%	99.76%
0-180	3043.53	88.94%	100.00%
60-90	44.79	1.31%	1.47%
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%
0-32.67	2434.82	71.15%	80.00%

ZONAL LUMEN SUMMARY

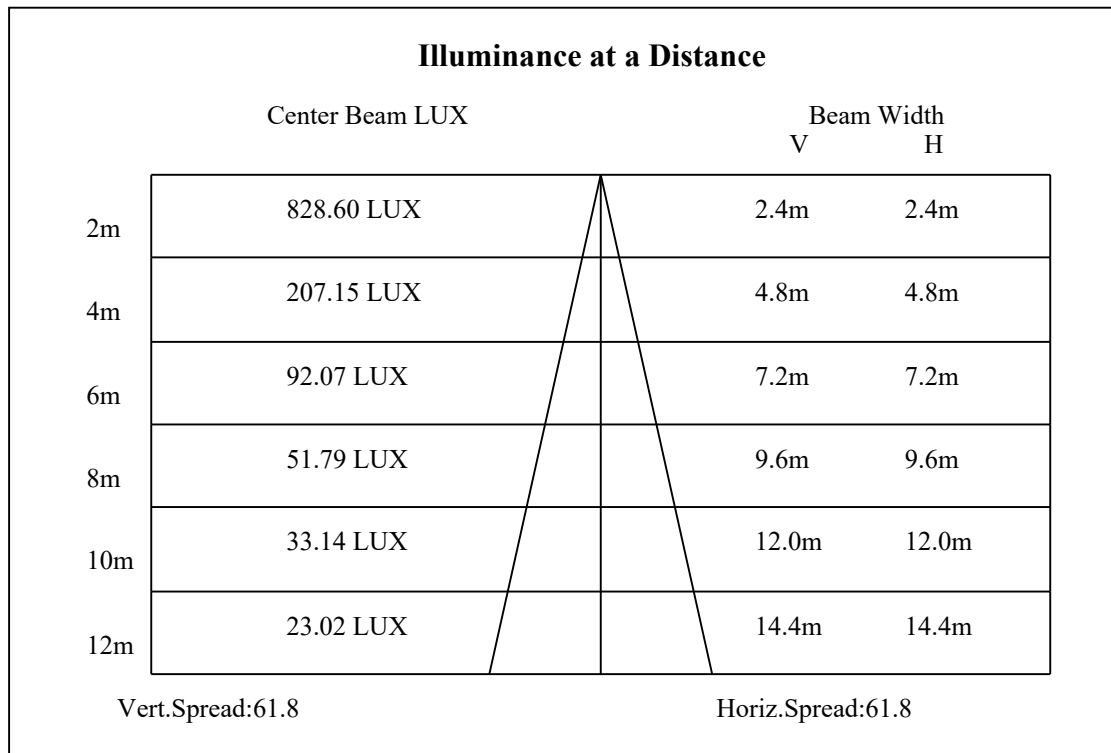
0-10	308.25
10-20	836.02
20-30	1070.75
30-40	644.41
40-50	120.58
50-60	18.93
60-70	13.49
70-80	15.76
80-90	8.19
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

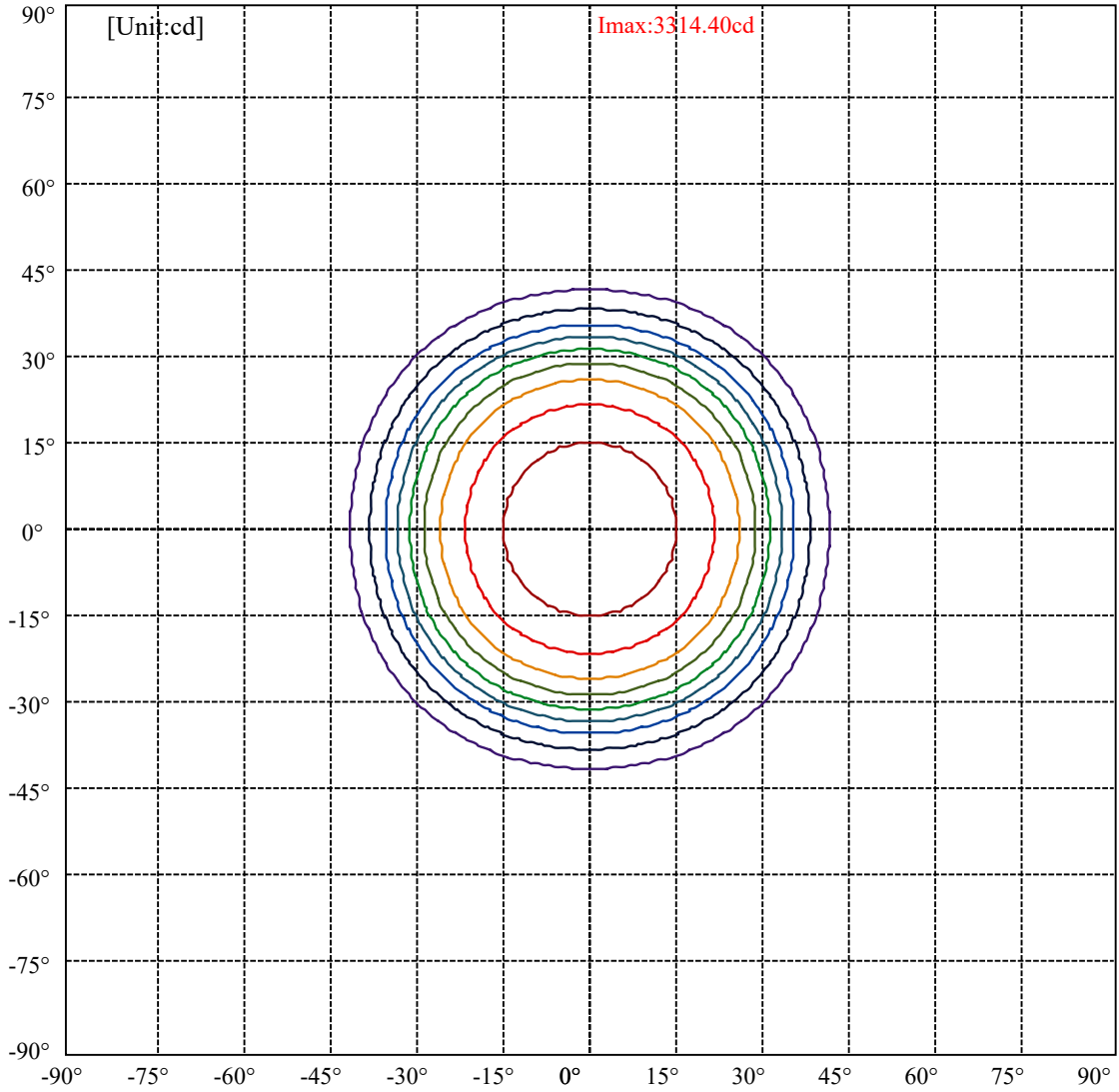


C0(Max): —————  
 C0/C180: —————  
 C90/C270: —————

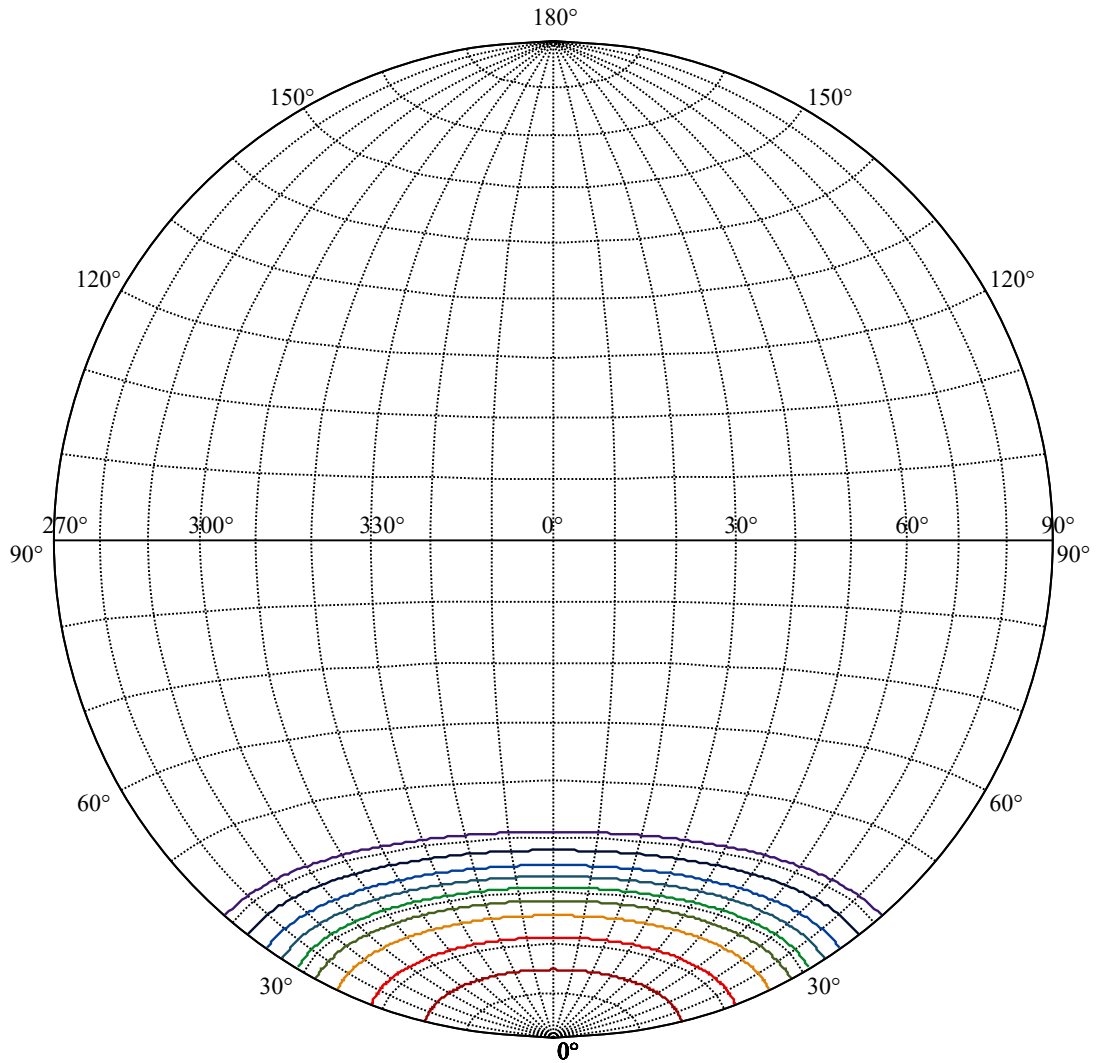
Field angle(10%Imax):C0/180Left:41.1 Right:41.1  
 :C90/270Left:41.1 Right:41.1

Beam Angle(50%Imax):C0/180Left:30.9 Right:30.9  
 :C90/270Left:30.9 Right:30.9





(10%Imax) 331.44	—
(20%Imax) 662.879	—
(30%Imax) 994.318	—
(40%Imax) 1325.76	—
(50%Imax) 1657.2	—
(60%Imax) 1988.64	—
(70%Imax) 2320.08	—
(80%Imax) 2651.52	—
(90%Imax) 2982.96	—



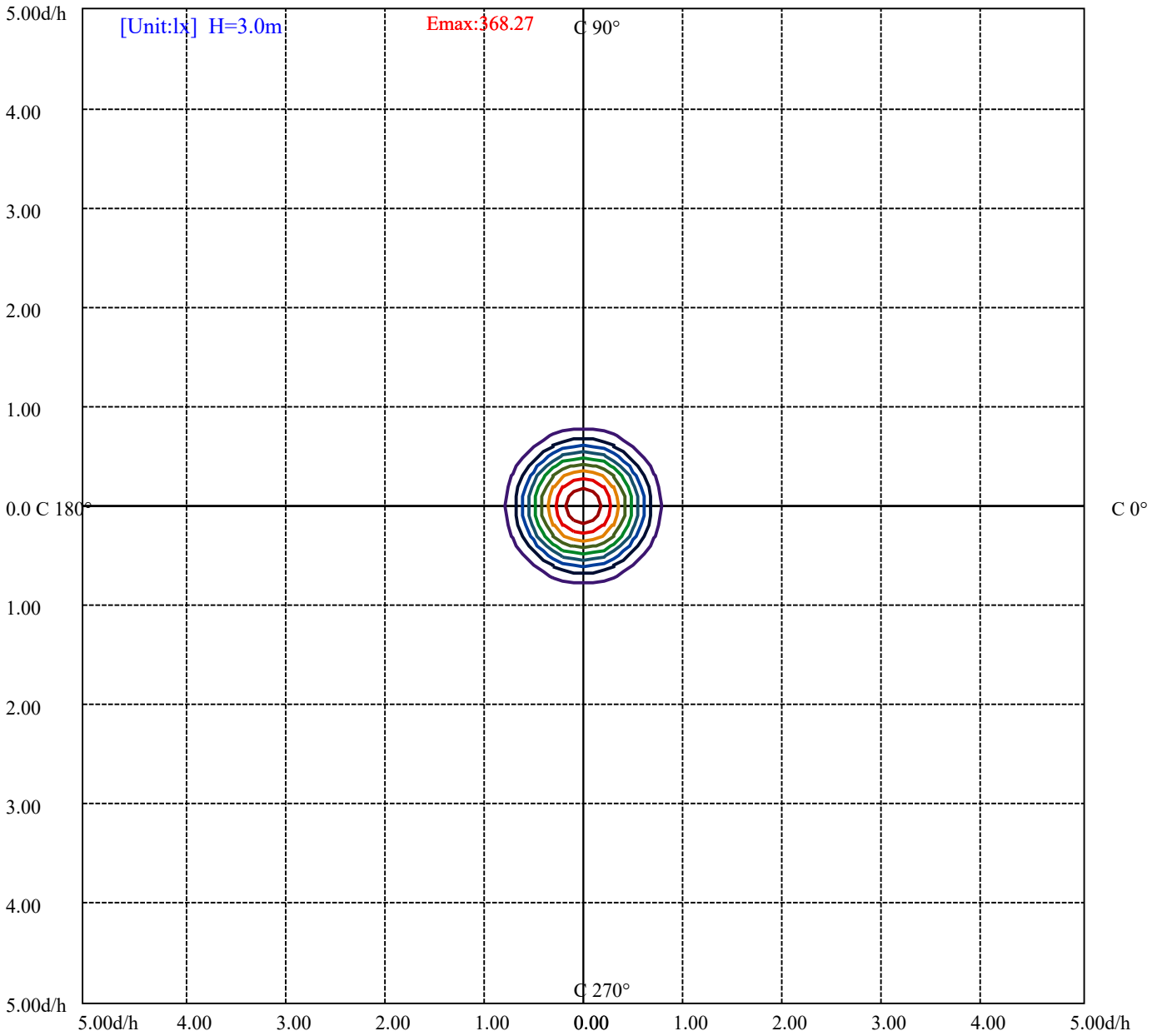
House

[Unit:cd]

Road

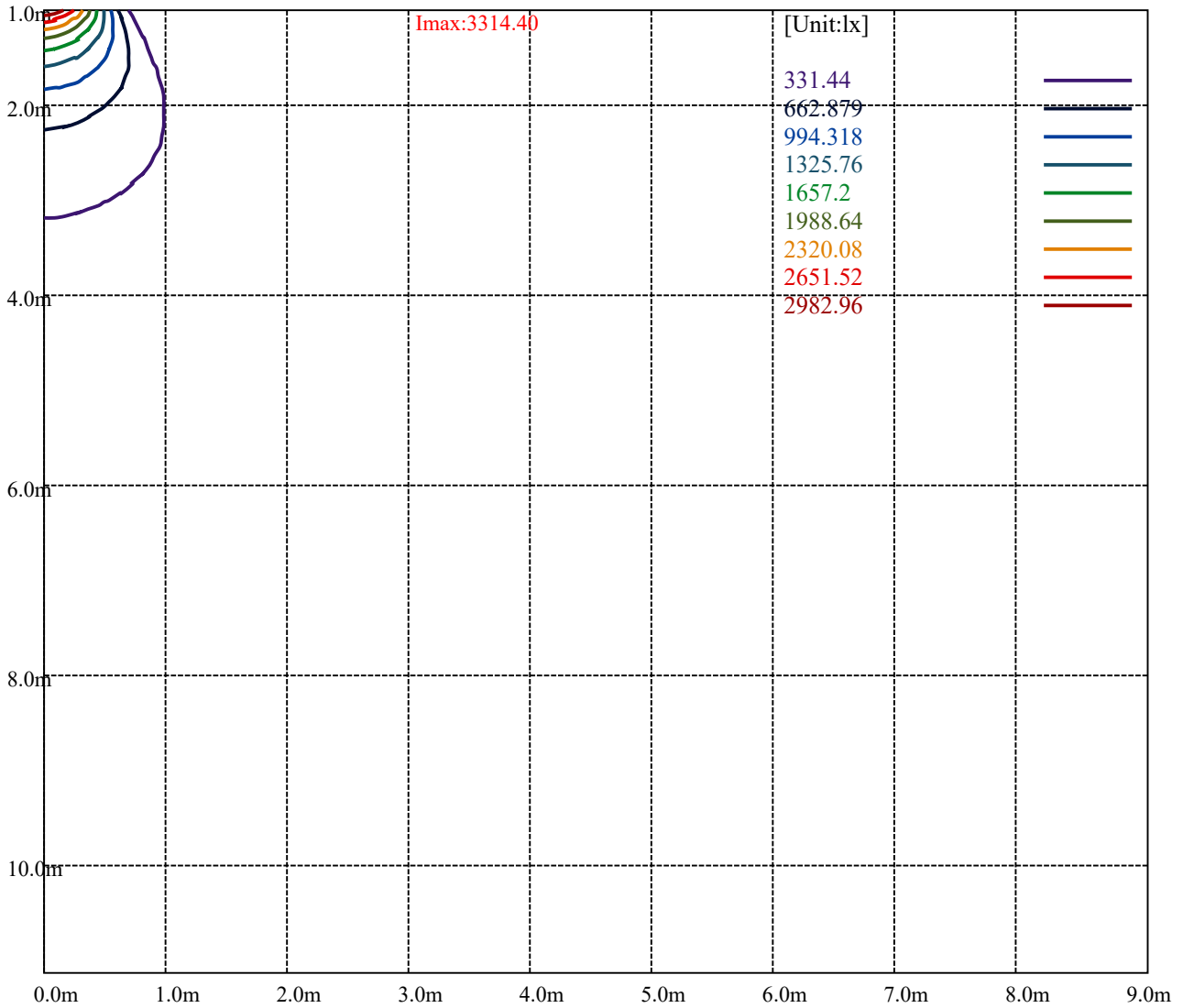
**Imax:3314.40**

(10%Imax) 331.44	—
(20%Imax) 662.879	—
(30%Imax) 994.318	—
(40%Imax) 1325.76	—
(50%Imax) 1657.2	—
(60%Imax) 1988.64	—
(70%Imax) 2320.08	—
(80%Imax) 2651.52	—
(90%Imax) 2982.96	—



- (10%Emax) 36.82655
- (20%Emax) 73.65323
- (30%Emax) 110.4798
- (40%Emax) 147.3067
- (50%Emax) 184.1333
- (60%Emax) 220.96
- (70%Emax) 257.7867
- (80%Emax) 294.6122
- (90%Emax) 331.4389





Luminance Table

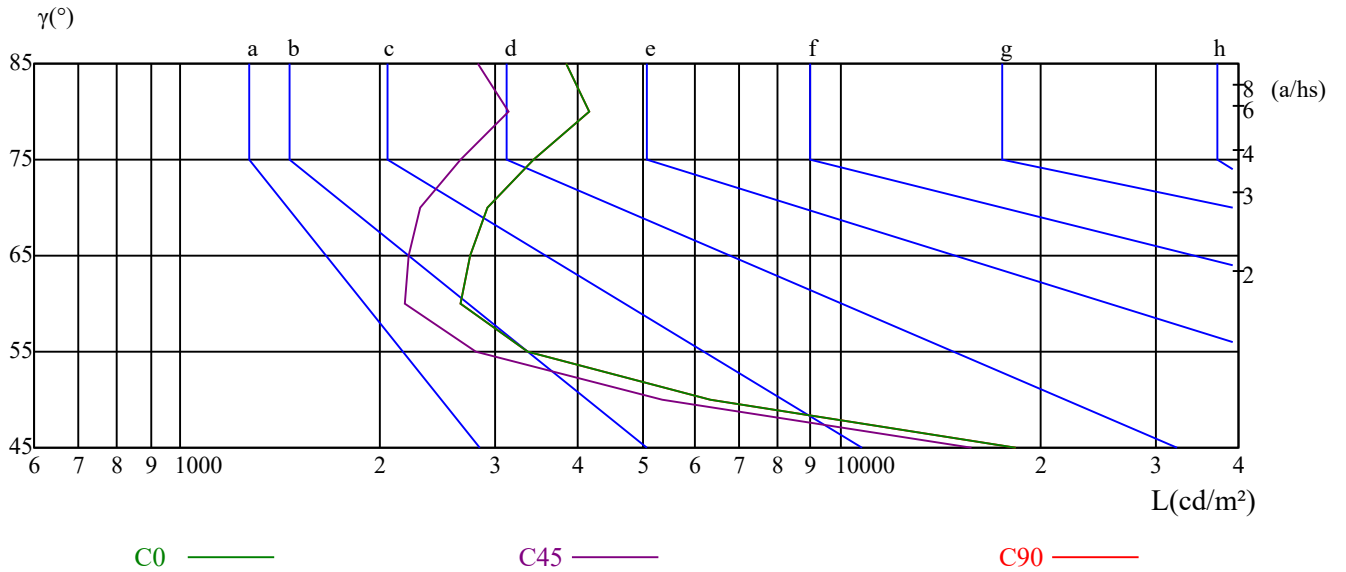
$\gamma$	45	50	55	60	65	70	75	80	85
C0	18362	6328	3346	2660	2745	2919	3431	4157	3845
C45	15801	5364	2792	2183	2214	2308	2655	3138	2818
C90	18362	6328	3346	2660	2745	2919	3431	4157	3845

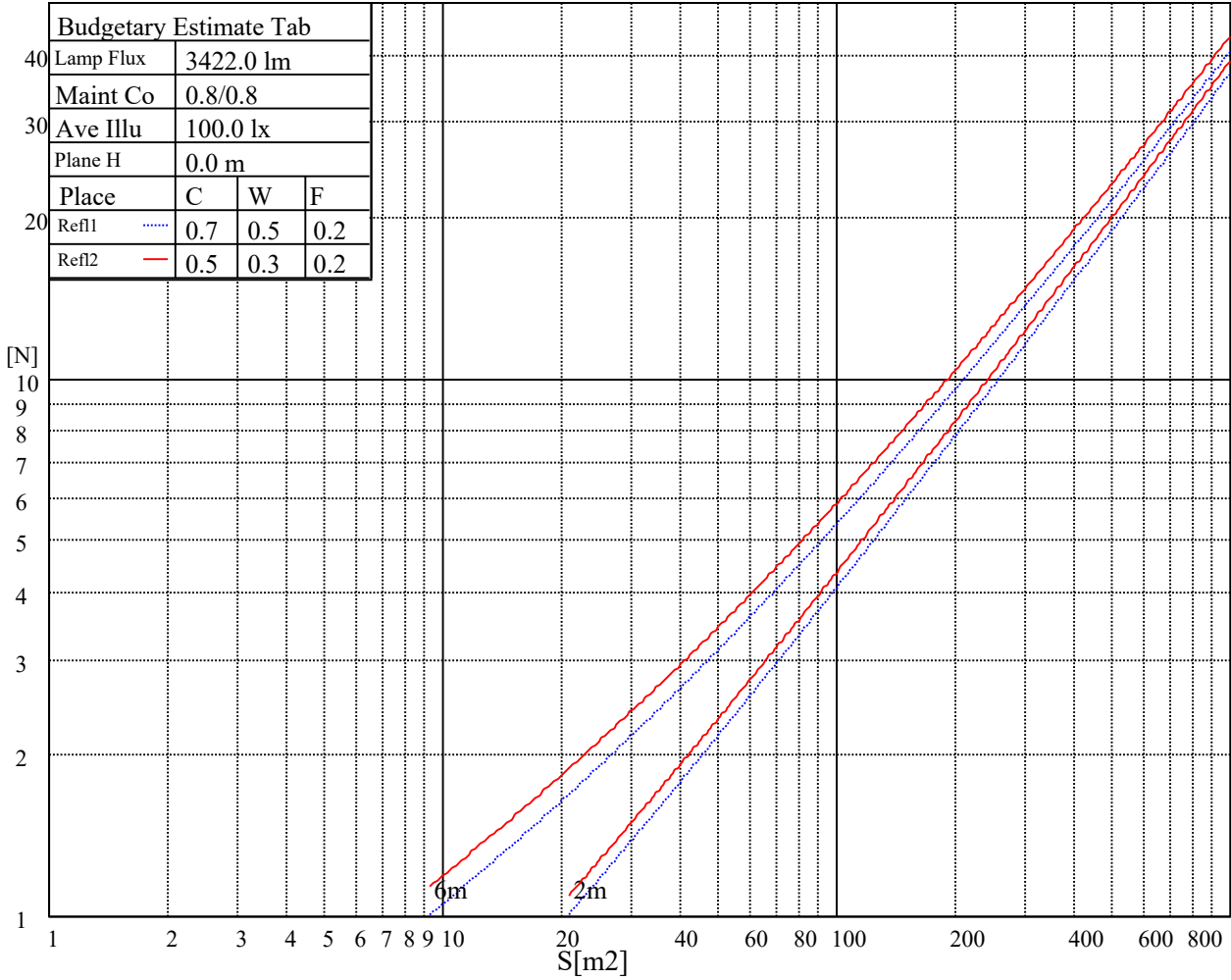
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6530	6530	6530	11662	11662	11662	32101	32101	32101

Glare Table

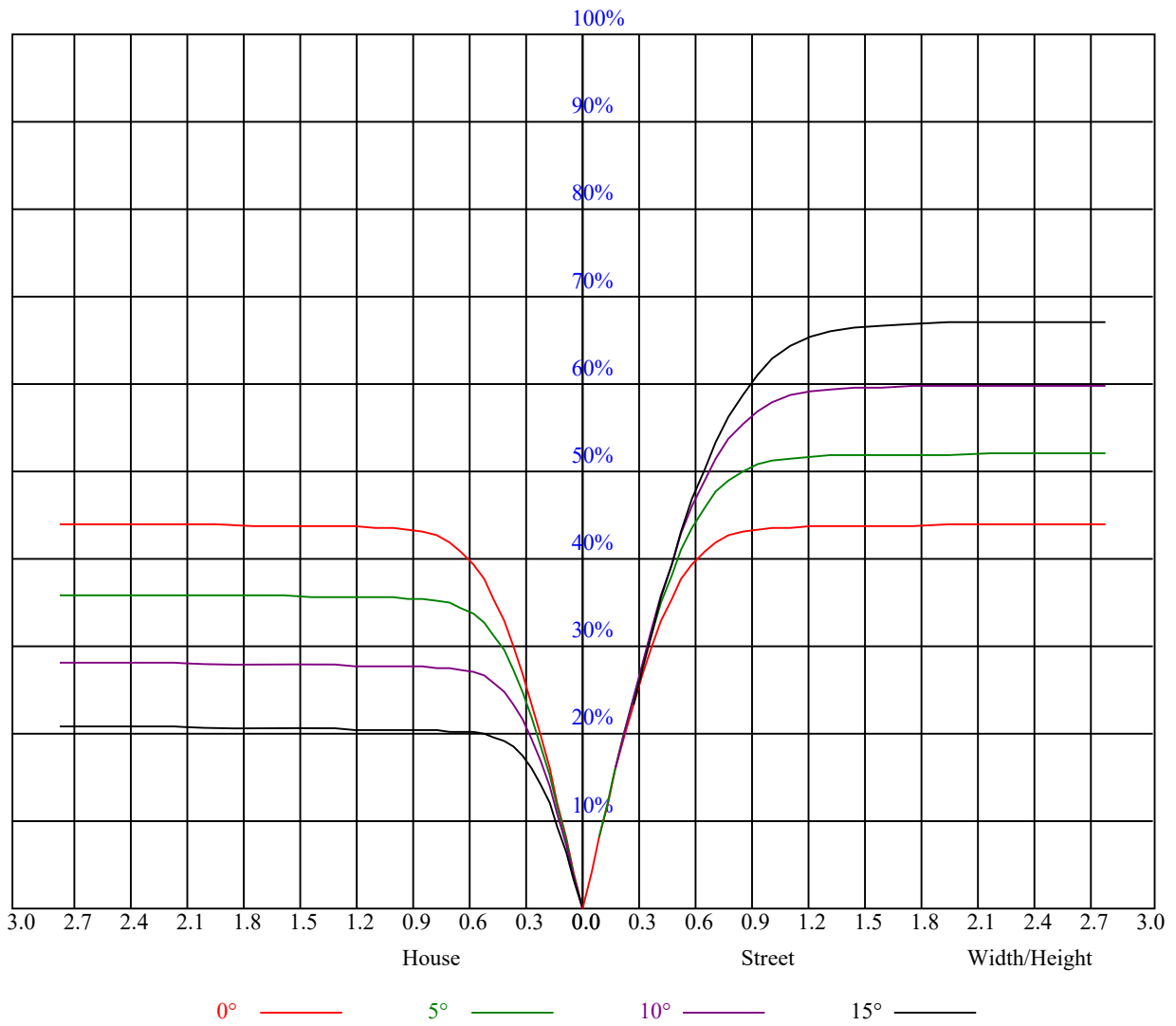
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.06	1.06	1.06	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.98	0.96	0.94	0.96	0.94	0.92	0.93	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.83
2	0.91	0.88	0.85	0.90	0.87	0.84	0.87	0.84	0.82	0.84	0.82	0.80	0.82	0.80	0.78	0.77
3	0.85	0.81	0.77	0.84	0.80	0.77	0.82	0.78	0.75	0.80	0.77	0.74	0.78	0.75	0.73	0.72
4	0.80	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.69	0.73	0.71	0.68	0.67
5	0.75	0.70	0.66	0.74	0.69	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.69	0.66	0.64	0.62
6	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
7	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.55
8	0.62	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.52	0.51
9	0.59	0.53	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.57	0.52	0.49	0.56	0.52	0.49	0.48
10	0.56	0.50	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.54	0.50	0.47	0.53	0.49	0.46	0.45



Nata 2-1790-A

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	3314.95	3289.07	3198.78	3042.97	2846.42	2565.63	2100.40	1333.47	619.38
45.0	3318.25	3247.78	3133.26	2959.83	2726.94	2366.32	1732.07	896.32	315.47
90.0	3301.73	3231.81	3107.38	2904.78	2646.01	2192.35	1467.25	713.97	179.59
135.0	3322.65	3249.43	3144.82	2943.87	2684.00	2261.72	1622.51	796.12	297.86
180.0	3314.95	3248.33	3124.45	2921.29	2639.95	2224.28	1512.40	716.56	171.06
225.0	3318.25	3264.84	3161.34	2995.62	2783.65	2451.66	1874.67	1068.70	419.09
270.0	3301.73	3294.57	3202.08	3053.98	2854.67	2568.38	2092.14	1364.30	624.89
315.0	3322.65	3276.96	3174.55	3012.69	2808.43	2534.80	2013.41	1090.12	526.67
360.0	3314.95	3289.07	3198.78	3042.97	2846.42	2565.63	2100.40	1333.47	619.38

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	141.16	46.63	22.19	14.37	13.82	13.93	14.42	14.70	13.38
45.0	90.02	29.73	15.97	13.38	13.05	12.94	17.12	15.47	13.54
90.0	53.18	23.29	14.48	13.38	13.38	13.60	14.65	14.42	13.60
135.0	77.79	26.70	15.03	13.65	13.60	13.76	14.81	17.12	14.04
180.0	62.71	25.22	14.20	13.21	12.99	12.99	15.42	18.83	13.43
225.0	98.22	36.28	17.84	13.32	13.10	12.88	12.83	12.94	13.10
270.0	184.11	50.65	23.62	14.15	13.43	13.27	13.21	17.29	12.88
315.0	128.94	43.11	20.98	14.70	14.81	14.87	15.86	20.70	15.69
360.0	141.16	46.63	22.19	14.37	13.82	13.93	14.42	14.70	13.38

C/γ(°)	90.0
0.0	12.39
45.0	12.50
90.0	12.50
135.0	12.44
180.0	12.39
225.0	12.44
270.0	12.50
315.0	12.44
360.0	12.39