
Nata

Client:

LumCAT: 1547-E

Luminaire:

Report No: nata-0100

Voltage(V): 29.3000

Test No:

Current(A): 0.9000

LampCAT: xicato LES 9MM

Power (W): 36.3700

Lamp flux(lm): 1300.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 21

Width(mm): 21

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1189.52, Efficiency(%): 91.50% , Luminous Efficacy(lm/W): 32.71

Central intensity(cd): 938.856, Maximum intensity(cd): 938.856

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=72.2

[C90/270]Total=72.2

Field angle(10%Imax): [C0/180]Total=101.4

[C90/270]Total=101.4

Maximum s/h(1/2): C0_180=1.04 C90_270=1.04

Maximum s/h(1/4): C0_180=1.06 C90_270=1.06

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.85%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.505%

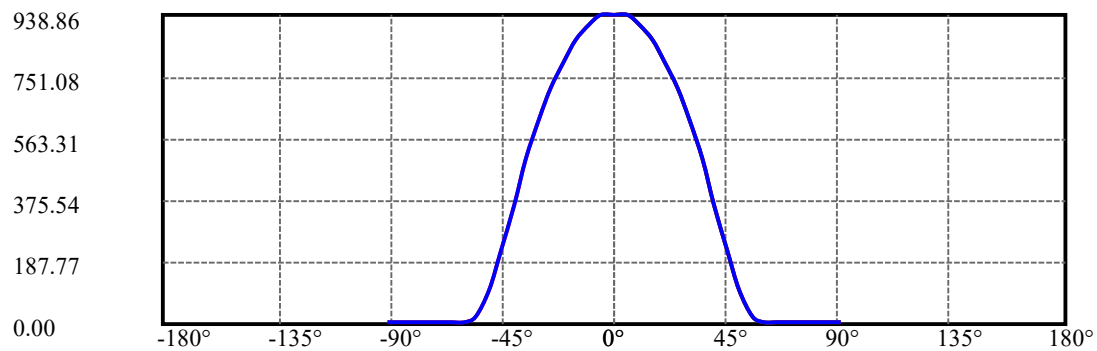
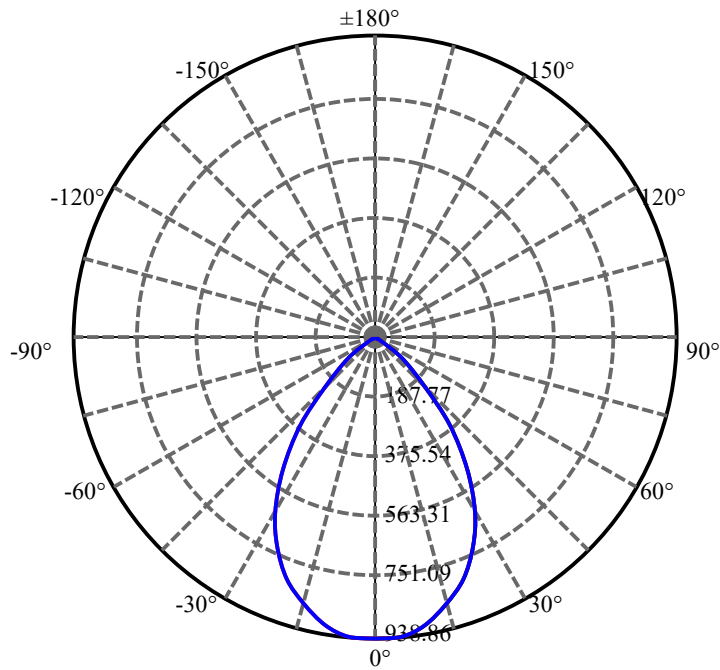
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	938.856	5.615	5.615	.432%	.472%
5.0	937.053	44.766	50.381	3.444%	4.235%
10.0	911.817	86.789	137.17	6.676%	11.532%
15.0	860.373	122.060	259.23	9.389%	21.793%
20.0	798.796	149.754	408.983	11.520%	34.382%
25.0	717.443	166.198	575.181	12.784%	48.354%
30.0	626.638	171.742	746.923	13.211%	62.792%
35.0	500.993	157.511	904.435	12.116%	76.034%
40.0	362.058	127.566	1032.001	9.813%	86.758%
45.0	222.830	86.367	1118.368	6.644%	94.019%
50.0	105.536	44.314	1162.682	3.409%	97.744%
55.0	22.941	10.301	1172.983	.792%	98.610%
60.0	6.658	3.161	1176.144	.243%	98.876%
65.0	5.406	2.686	1178.829	.207%	99.102%
70.0	4.965	2.558	1181.387	.197%	99.317%
75.0	4.642	2.458	1183.845	.189%	99.523%
80.0	4.370	2.359	1186.204	.181%	99.722%
85.0	4.105	2.242	1188.445	.172%	99.910%
90.0	3.906	1.070	1189.516	.082%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	746.92	57.46%	62.79%
0-40	1032.00	79.38%	86.76%
0-60	1176.14	90.47%	98.88%
0-90	1188.45	91.42%	99.91%
0-120	1188.45	91.42%	99.91%
0-180	1189.52	91.50%	100.00%
60-90	15.46	1.19%	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%
0-36.85	951.61	73.20%	80.00%

ZONAL LUMEN SUMMARY

0-10	137.17
10-20	271.81
20-30	337.94
30-40	285.08
40-50	130.68
50-60	13.46
60-70	5.24
70-80	4.82
80-90	2.24
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:

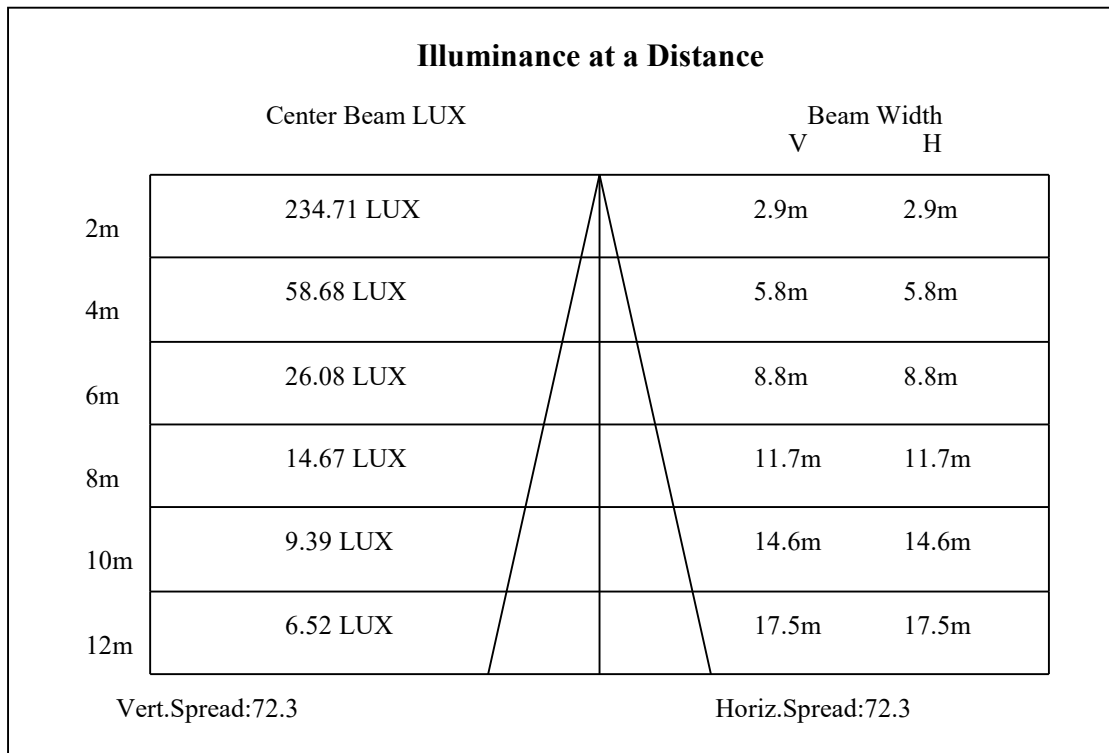
C90/C270:

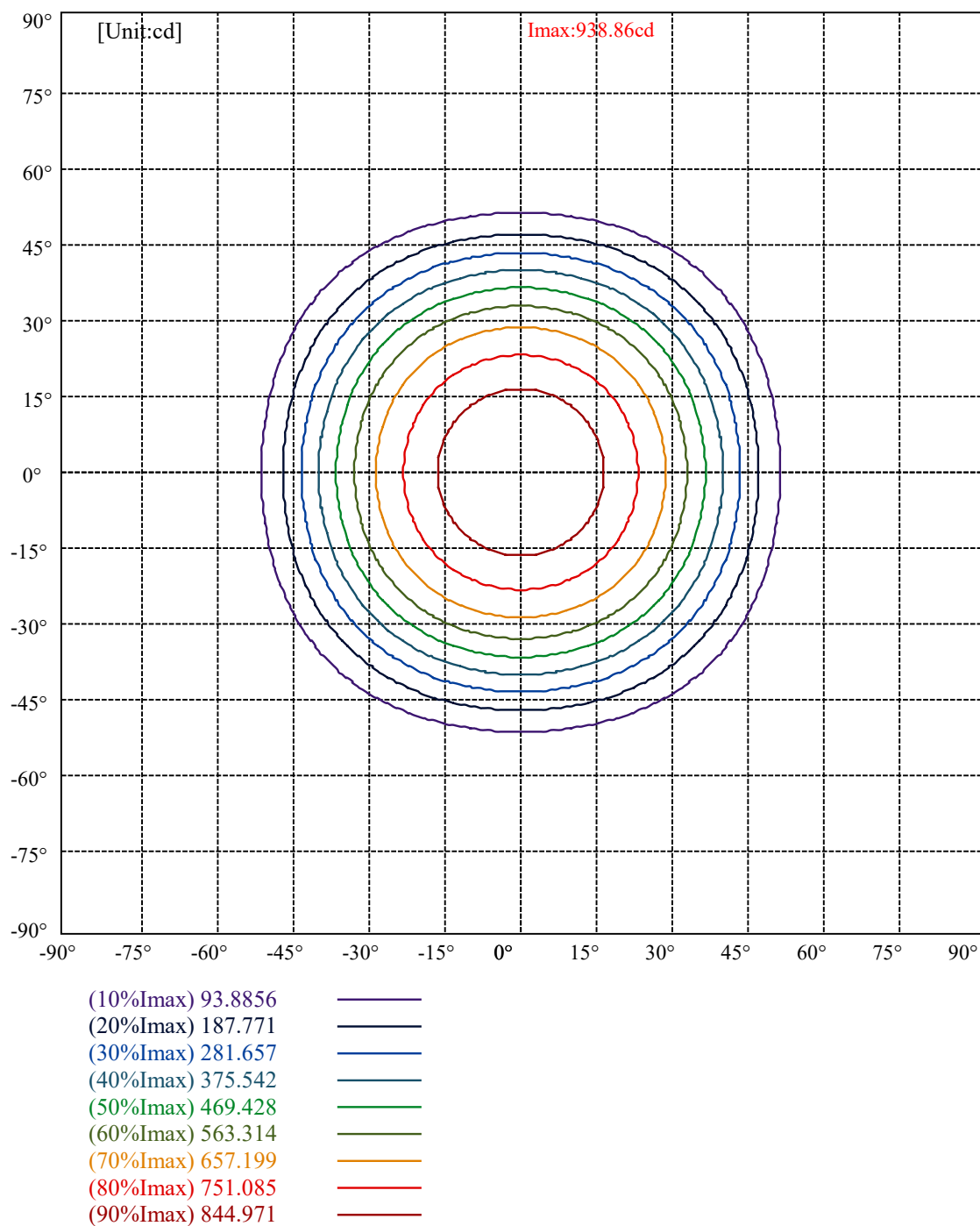
Field angle(10%Imax):C0/180Left:50.7 Right:50.7

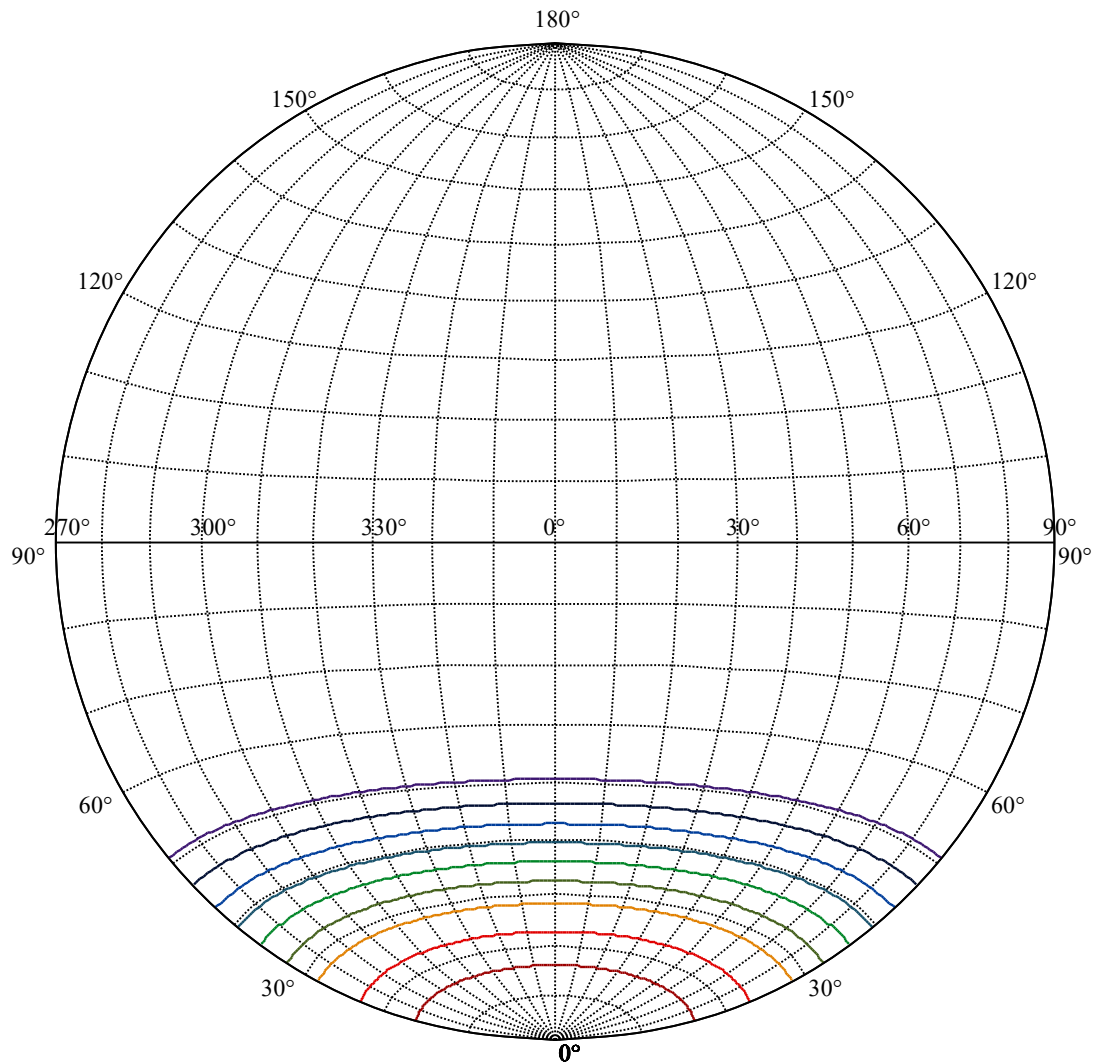
:C90/270Left:50.7 Right:50.7

Beam Angle(50%Imax):C0/180Left:36.1 Right:36.1

:C90/270Left:36.1 Right:36.1







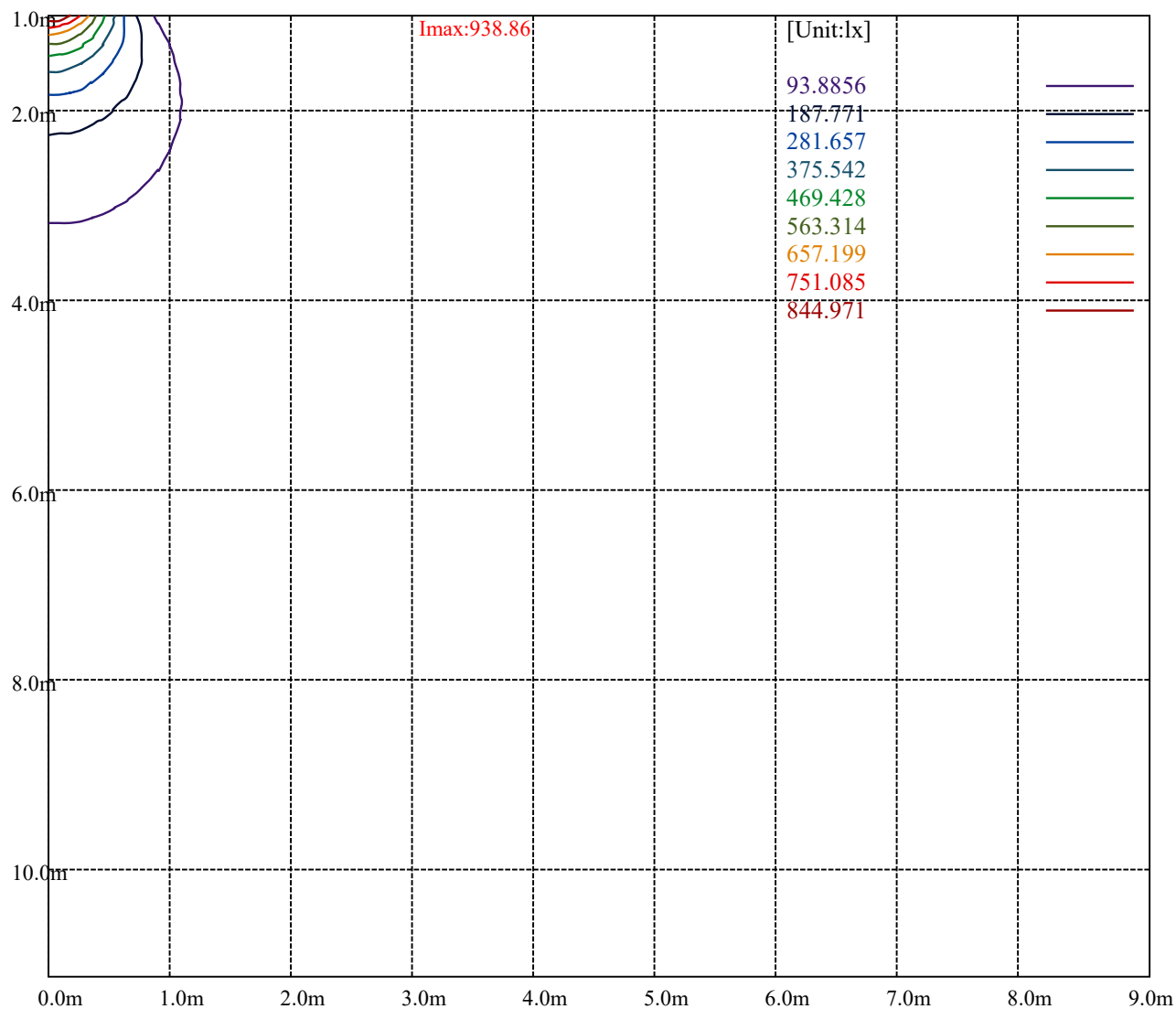
House

[Unit:cd]

Road

Imax:938.86
 (10%Imax) 93.8856
 (20%Imax) 187.771
 (30%Imax) 281.657
 (40%Imax) 375.542
 (50%Imax) 469.428
 (60%Imax) 563.314
 (70%Imax) 657.199
 (80%Imax) 751.085
 (90%Imax) 844.971





Luminance Table

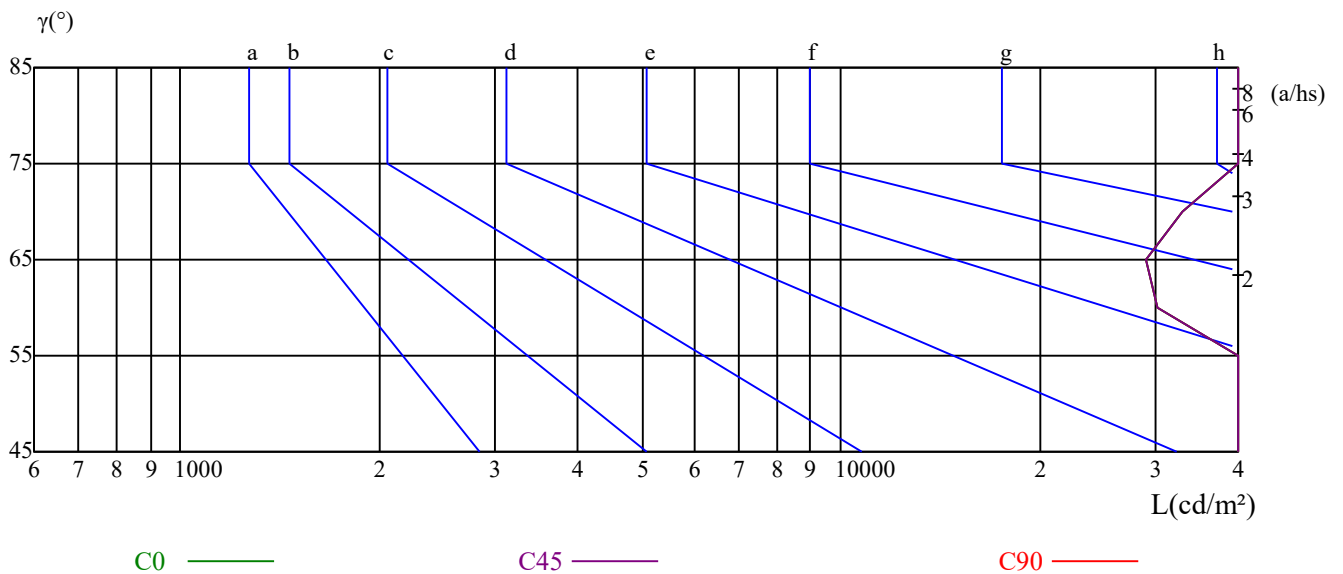
γ	45	50	55	60	65	70	75	80	85
C0	714580	372302	90696	30197	29005	32920	40669	57067	106806
C45	714580	372302	90696	30197	29005	32920	40669	57067	106806
C90	714580	372302	90696	30197	29005	32920	40669	57067	106806

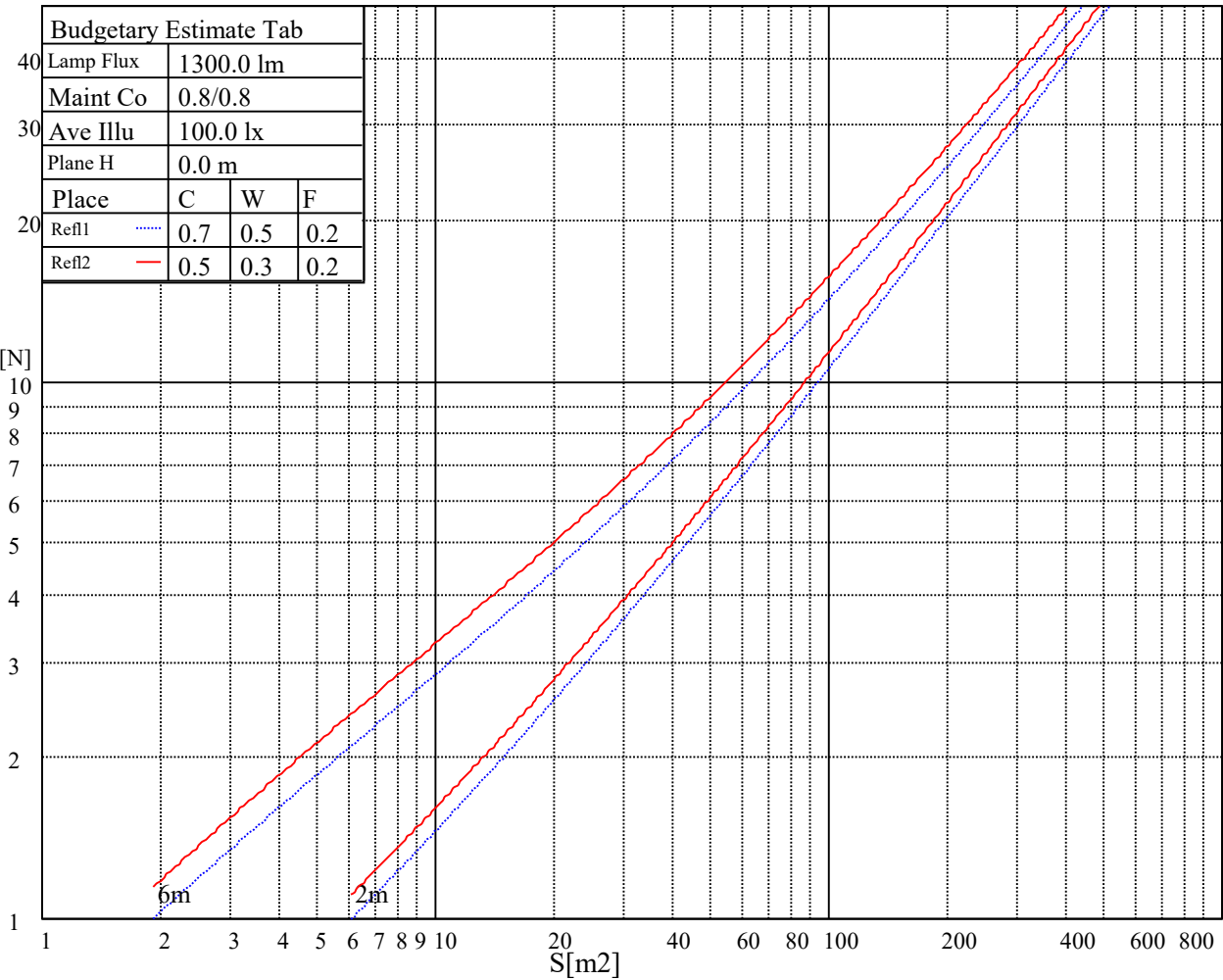
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
29005	29005	29005	40669	40669	40669	106806	106806	106806

Glare Table

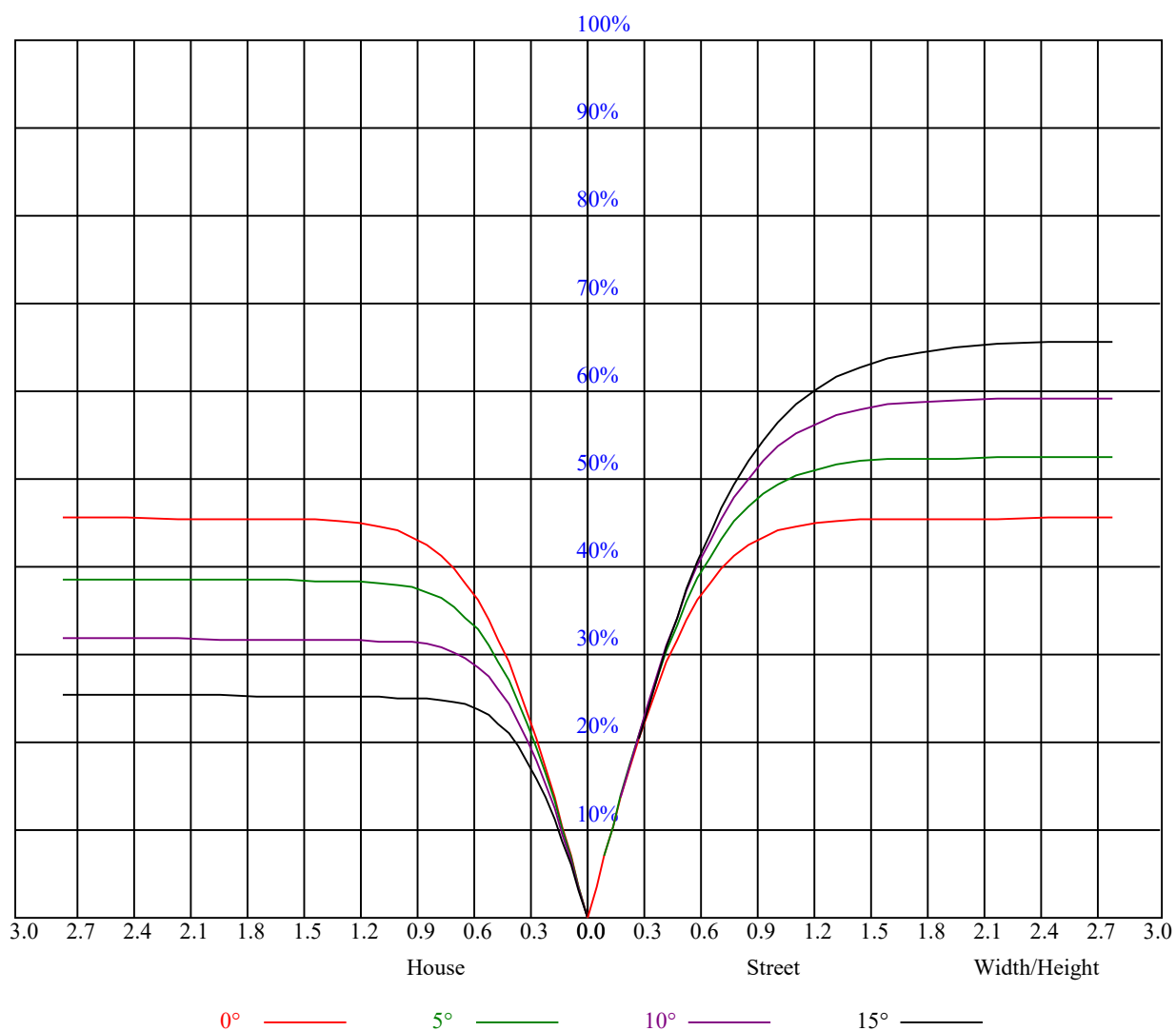
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

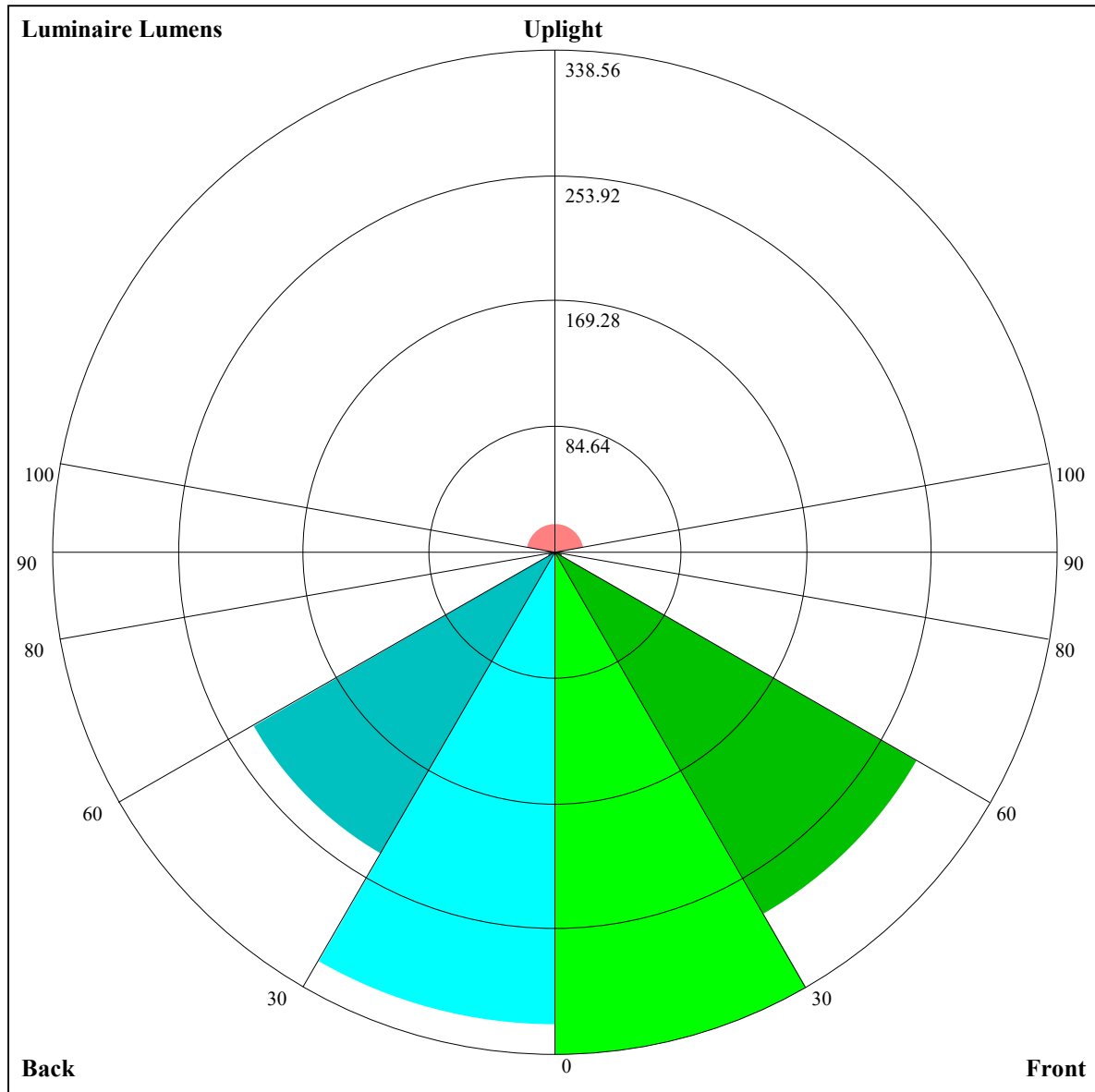
Luminance Limiting Curve





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	1.09	1.09	1.09	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	0.98	0.96	0.99	0.96	0.94	0.95	0.93	0.91	0.92	0.90	0.89	0.88	0.87	0.86	0.84
2	0.93	0.89	0.86	0.92	0.88	0.85	0.89	0.86	0.83	0.86	0.83	0.81	0.83	0.81	0.79	0.78
3	0.86	0.82	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.80	0.77	0.75	0.78	0.76	0.73	0.72
4	0.80	0.75	0.71	0.79	0.74	0.70	0.77	0.73	0.69	0.75	0.72	0.69	0.74	0.70	0.68	0.66
5	0.75	0.69	0.65	0.74	0.69	0.65	0.72	0.68	0.64	0.71	0.67	0.63	0.69	0.66	0.63	0.61
6	0.70	0.64	0.60	0.69	0.64	0.60	0.68	0.63	0.59	0.66	0.62	0.59	0.65	0.61	0.58	0.57
7	0.65	0.60	0.55	0.65	0.59	0.55	0.64	0.59	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.53
8	0.61	0.56	0.52	0.61	0.55	0.51	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.49
9	0.58	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.46
10	0.54	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.43





Luminaire Lumens:

FL=338.56,FM=281.64,FH=5.46,FVH=2.27

BL=319.08,BM=235.25,BH=5.03,BVH=2.23

UL=4.26,UH=20.28

BUG Rating:B1-U2-G0

Nata 1547-E

Intensity data(cd)										Appendix Page: 15 Total:15	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	939.81	952.42	947.96	914.16	855.08	775.63	686.00	570.16	428.39		
22.5	937.00	948.18	945.87	907.27	849.85	773.43	677.36	559.26	427.95		
45.0	937.56	945.81	930.07	888.56	828.21	744.14	654.07	533.88	390.85		
67.5	938.49	937.89	922.69	881.45	821.55	746.73	655.23	539.44	400.48		
90.0	938.05	934.20	902.87	848.75	784.94	707.92	617.18	493.80	362.88		
112.5	940.64	935.96	904.14	850.46	786.43	704.61	619.44	500.85	362.33		
135.0	937.78	928.53	889.44	826.73	762.97	678.96	588.94	453.44	321.69		
157.5	941.52	928.64	889.60	832.01	766.33	690.24	599.40	470.79	330.56		
180.0	939.81	919.00	876.94	814.56	746.29	668.33	573.85	432.30	293.40		
202.5	937.00	922.47	878.37	818.25	755.37	674.72	587.89	445.02	301.65		
225.0	937.56	929.02	894.23	835.15	775.25	698.23	608.81	474.70	344.98		
247.5	938.49	931.99	899.02	837.24	770.79	681.93	593.45	457.63	308.21		
270.0	938.05	939.15	914.10	857.78	797.33	711.71	621.86	502.89	359.46		
292.5	940.64	942.95	918.18	863.39	805.03	717.33	623.18	494.52	360.34		
315.0	937.78	946.58	935.08	893.90	835.10	753.45	663.04	547.43	403.78		
337.5	941.52	950.05	940.53	896.32	840.22	751.74	656.49	539.77	395.97		
360.0	939.81	952.42	947.96	914.16	855.08	775.63	686.00	570.16	428.39		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	292.79	154.16	45.64	9.36	5.84	5.23	4.79	4.51	4.18		
22.5	275.72	149.48	50.38	8.59	5.73	5.29	4.84	4.51	4.18		
45.0	250.56	126.19	28.74	7.16	5.73	5.23	4.79	4.46	4.13		
67.5	259.81	135.22	34.52	8.75	5.78	5.29	4.90	4.51	4.18		
90.0	219.18	101.63	16.79	6.50	5.62	5.07	4.73	4.40	4.13		
112.5	225.79	110.17	23.51	6.44	5.56	5.07	4.68	4.35	4.07		
135.0	184.44	77.24	12.99	5.73	5.12	4.79	4.51	4.24	4.02		
157.5	190.94	83.58	14.81	5.62	5.07	4.73	4.46	4.24	4.07		
180.0	166.71	63.59	9.80	5.40	4.90	4.57	4.40	4.18	4.02		
202.5	166.66	67.06	9.36	5.51	4.96	4.62	4.40	4.18	3.96		
225.0	196.94	84.79	12.33	5.78	5.12	4.79	4.51	4.35	4.07		
247.5	184.93	75.04	9.91	5.78	5.18	4.79	4.57	4.29	4.07		
270.0	230.69	104.17	19.05	6.22	5.45	5.01	4.68	4.46	4.13		
292.5	215.49	94.97	17.34	6.17	5.40	4.96	4.68	4.40	4.13		
315.0	256.45	134.34	32.70	7.21	5.56	5.07	4.68	4.46	4.18		
337.5	248.19	126.96	29.18	6.33	5.51	4.96	4.62	4.35	4.13		
360.0	292.79	154.16	45.64	9.36	5.84	5.23	4.79	4.51	4.18		
C/γ(°)	90.0										
0.0	3.91										
22.5	3.91										
45.0	3.91										
67.5	3.91										
90.0	3.91										
112.5	3.91										
135.0	3.91										
157.5	3.91										
180.0	3.91										
202.5	3.85										
225.0	3.91										
247.5	3.91										
270.0	3.91										
292.5	3.91										
315.0	3.91										
337.5	3.91										
360.0	3.91										