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Nata

LumCAT: 1687-M	
Luminaire: 92.70.124.00	
Report No: NATA0100	Voltage(V): 36.1000
Test No: GC2018073005	Current(A): 0.3000
LampCAT: BRIDGELUX V6HD	Power (W): 10.8300
Lamp flux(lm): 1112.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 46	Width(mm): 46
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1021.89
Efficiency(%): 91.90%
Lumens(lm)/Power(W): 94.36
Central intensity(cd): 3588.370
Maximum intensity(cd): 3588.370
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=21.4
 [C90/270]Total=21.4
Field angle(10%Imax): [C0/180]Total=61.7
 [C90/270]Total=61.7
Maximum s/h(1/2): C0_180=0.36 C90_270=0.36
Maximum s/h(1/4): C0_180=0.37 C90_270=0.37
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 π solid angle : 98.419%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3588.370	3.434	3.434	.309%	.336%
2.0	3485.896	26.681	30.115	2.399%	2.947%
4.0	3220.731	49.272	79.387	4.431%	7.769%
6.0	2849.238	65.317	144.704	5.874%	14.160%
8.0	2422.000	73.926	218.63	6.648%	21.395%
10.0	1951.061	74.303	292.933	6.682%	28.666%
12.0	1509.578	68.833	361.766	6.190%	35.402%
14.0	1080.186	57.311	419.078	5.154%	41.010%
16.0	767.404	46.390	465.468	4.172%	45.550%
18.0	577.445	39.134	504.602	3.519%	49.379%
20.0	482.349	36.181	540.783	3.254%	52.920%
22.0	440.135	36.160	576.943	3.252%	56.458%
24.0	415.497	37.063	614.006	3.333%	60.085%
26.0	394.981	37.974	651.98	3.415%	63.801%
28.0	377.081	38.825	690.805	3.491%	67.601%
30.0	363.496	39.860	730.665	3.585%	71.501%
32.0	352.657	40.985	771.65	3.686%	75.512%
34.0	342.045	41.948	813.598	3.772%	79.617%
36.0	331.625	42.750	856.347	3.844%	83.800%
38.0	317.868	42.919	899.267	3.860%	88.000%
40.0	286.245	40.353	939.619	3.629%	91.949%
42.0	213.213	31.289	970.908	2.814%	95.011%
44.0	122.810	18.710	989.618	1.683%	96.842%
46.0	51.829	8.177	997.795	.735%	97.642%
48.0	19.882	3.240	1001.035	.291%	97.959%
50.0	12.993	2.183	1003.218	.196%	98.173%
52.0	9.497	1.641	1004.859	.148%	98.333%
54.0	6.999	1.242	1006.101	.112%	98.455%
56.0	5.568	1.012	1007.113	.091%	98.554%
58.0	4.989	0.928	1008.041	.083%	98.645%
60.0	4.824	0.916	1008.958	.082%	98.734%
62.0	4.680	0.906	1009.864	.081%	98.823%
64.0	4.556	0.898	1010.762	.081%	98.911%
66.0	4.473	0.896	1011.658	.081%	98.999%
68.0	4.370	0.889	1012.547	.080%	99.086%
70.0	4.294	0.885	1013.432	.080%	99.172%
72.0	4.260	0.889	1014.32	.080%	99.259%
74.0	4.226	0.891	1015.211	.080%	99.346%

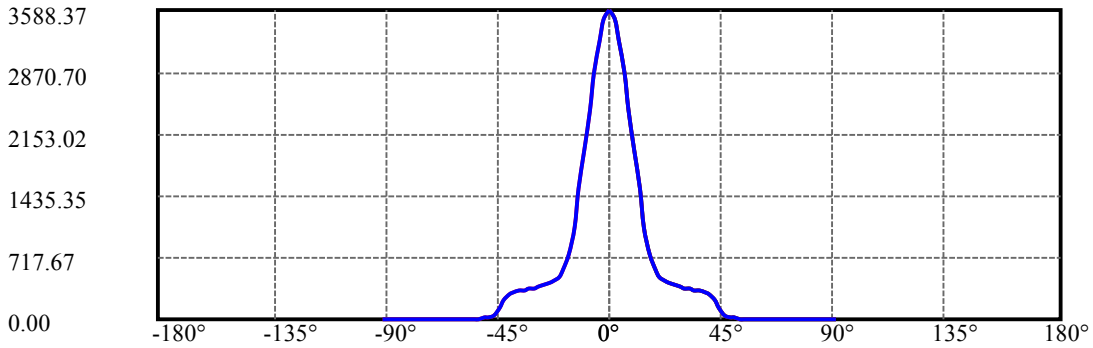
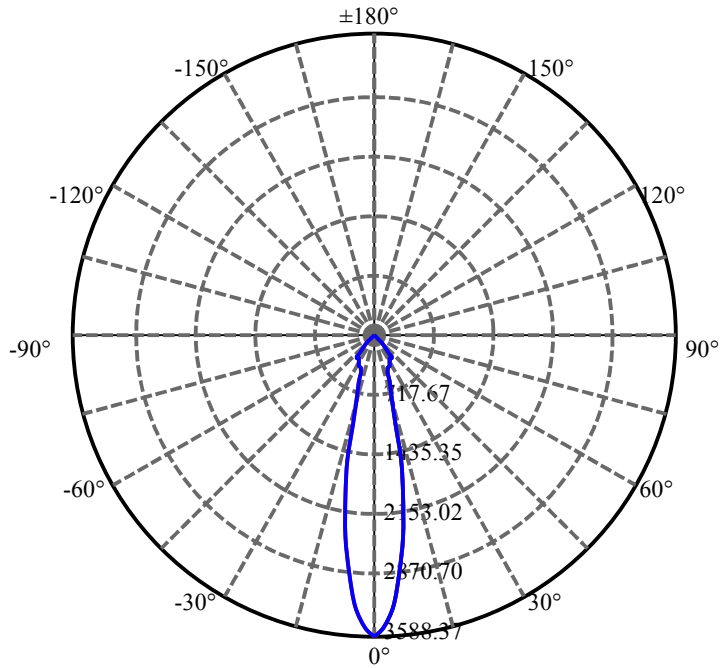
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.191	0.892	1016.103	.080%	99.434%
78.0	4.157	0.892	1016.995	.080%	99.521%
80.0	4.136	0.893	1017.888	.080%	99.608%
82.0	4.095	0.889	1018.777	.080%	99.695%
84.0	4.095	0.893	1019.671	.080%	99.783%
86.0	4.067	0.890	1020.56	.080%	99.870%
88.0	4.054	0.888	1021.449	.080%	99.957%
90.0	4.033	0.442	1021.891	.040%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	730.66	65.71%	71.50%
0-40	939.62	84.50%	91.95%
0-60	1008.96	90.73%	98.73%
0-90	1021.45	91.86%	99.96%
0-120	1021.45	91.86%	99.96%
0-180	1021.89	91.90%	100.00%
60-90	13.41	1.21%	1.31%
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%
0-34.18	817.51	73.52%	80.00%

ZONAL LUMEN SUMMARY

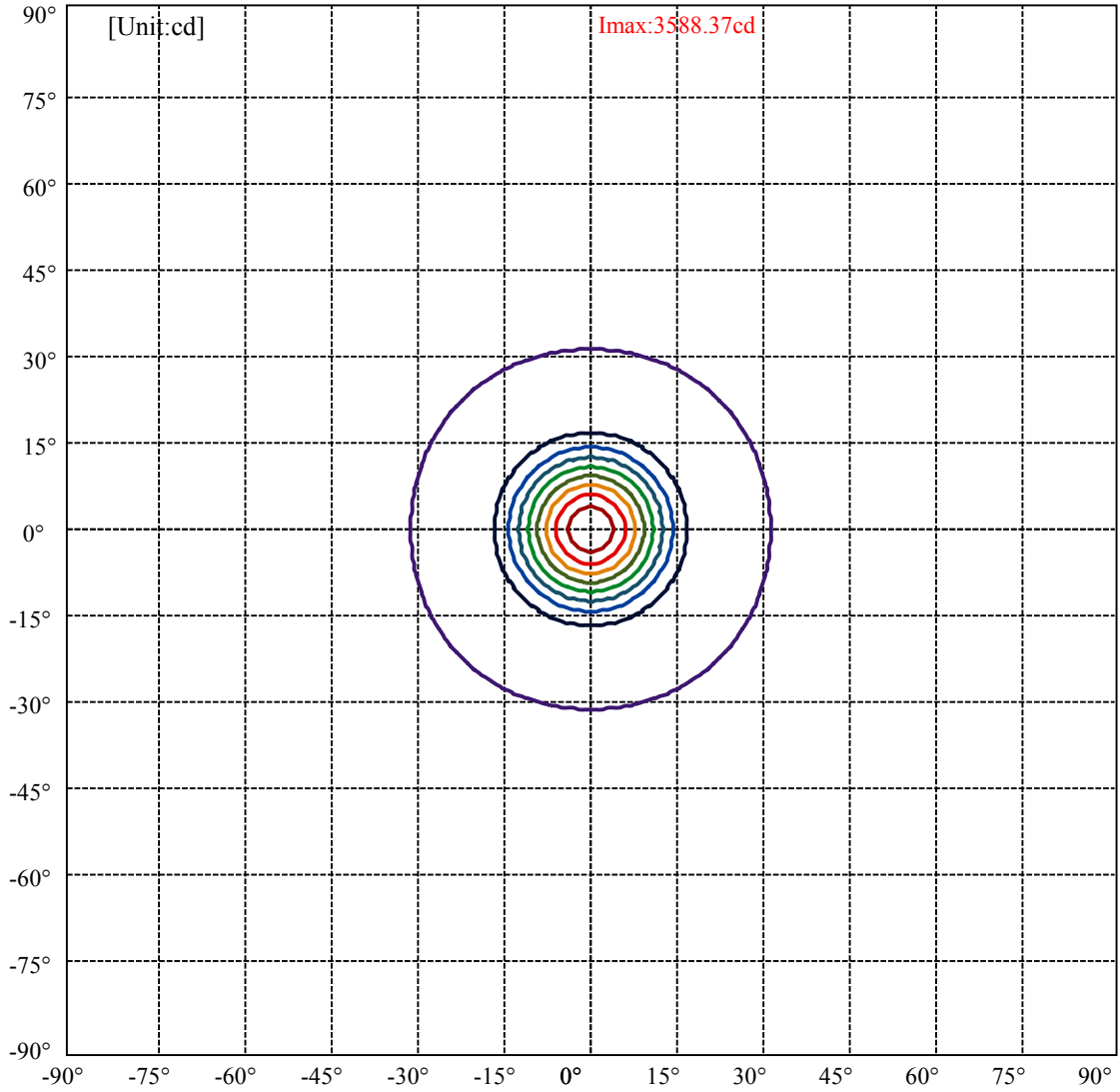
0-10	292.93
10-20	247.85
20-30	189.88
30-40	208.95
40-50	63.60
50-60	5.74
60-70	4.47
70-80	4.46
80-90	3.56
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



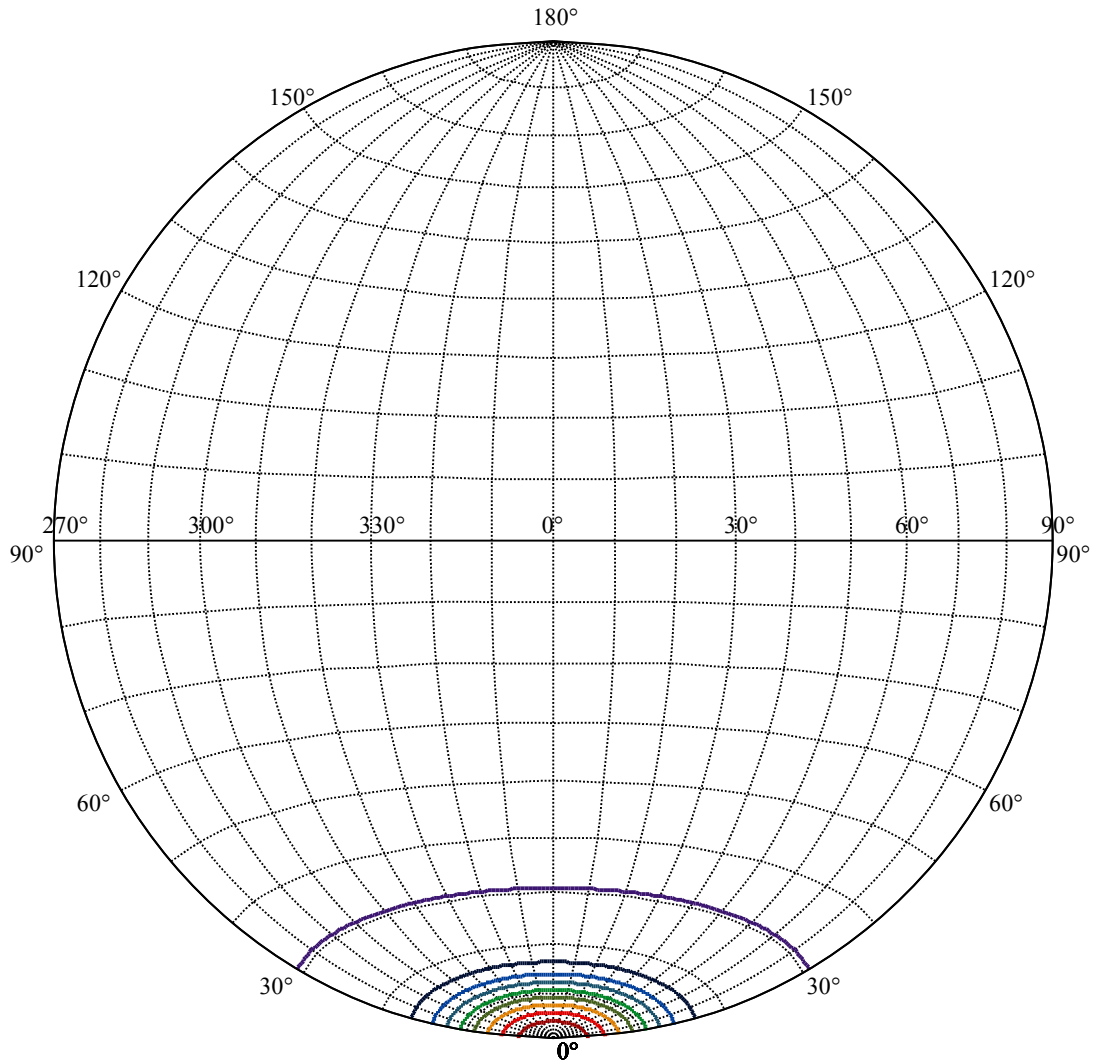
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:30.9 Right:30.9
:C90/270Left:30.9 Right:30.9

Beam Angle(50%Imax):C0/180Left:10.7 Right:10.7
:C90/270Left:10.7 Right:10.7



(10%Imax) 358.837	—
(20%Imax) 717.674	—
(30%Imax) 1076.51	—
(40%Imax) 1435.35	—
(50%Imax) 1794.18	—
(60%Imax) 2153.02	—
(70%Imax) 2511.86	—
(80%Imax) 2870.7	—
(90%Imax) 3229.53	—



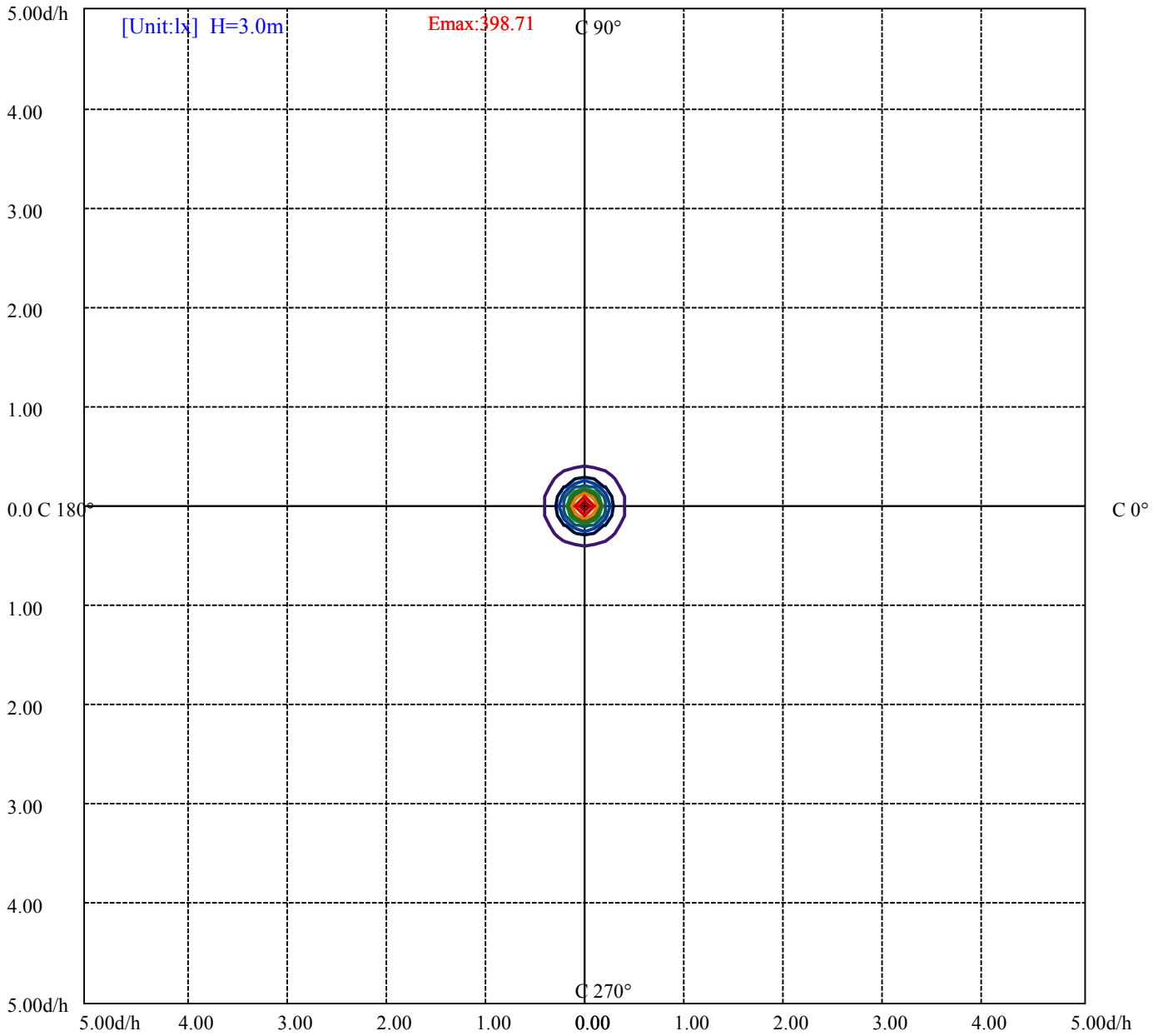
House

[Unit:cd]

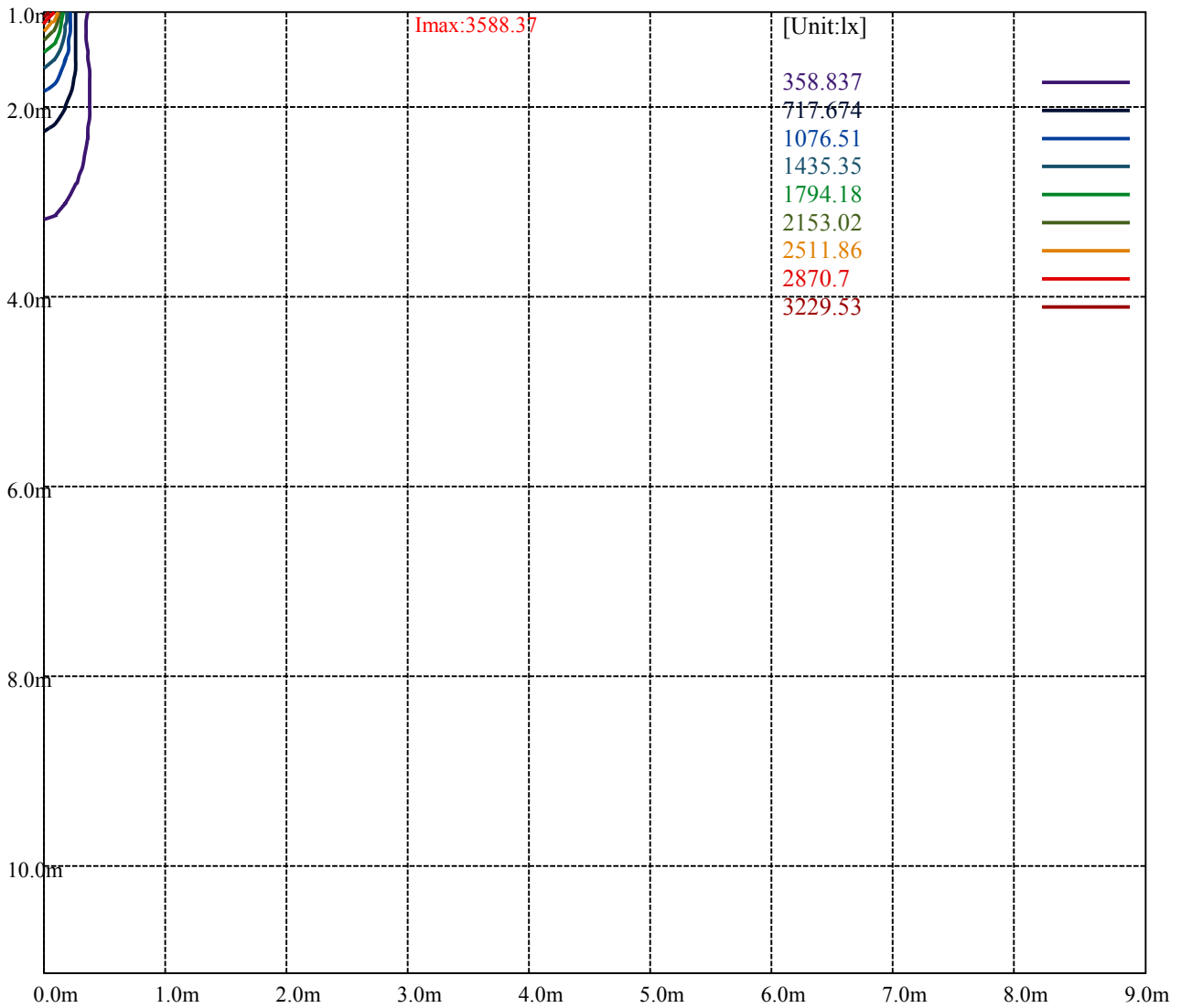
Road

I_{max}:3588.37

(10%I _{max})	358.837	—
(20%I _{max})	717.674	—
(30%I _{max})	1076.51	—
(40%I _{max})	1435.35	—
(50%I _{max})	1794.18	—
(60%I _{max})	2153.02	—
(70%I _{max})	2511.86	—
(80%I _{max})	2870.7	—
(90%I _{max})	3229.53	—



(10%Emax) 39.87067	—
(20%Emax) 79.74133	—
(30%Emax) 119.6122	—
(40%Emax) 159.4822	—
(50%Emax) 199.3533	—
(60%Emax) 239.2244	—
(70%Emax) 279.0945	—
(80%Emax) 318.9655	—
(90%Emax) 358.8367	—



Luminance Table

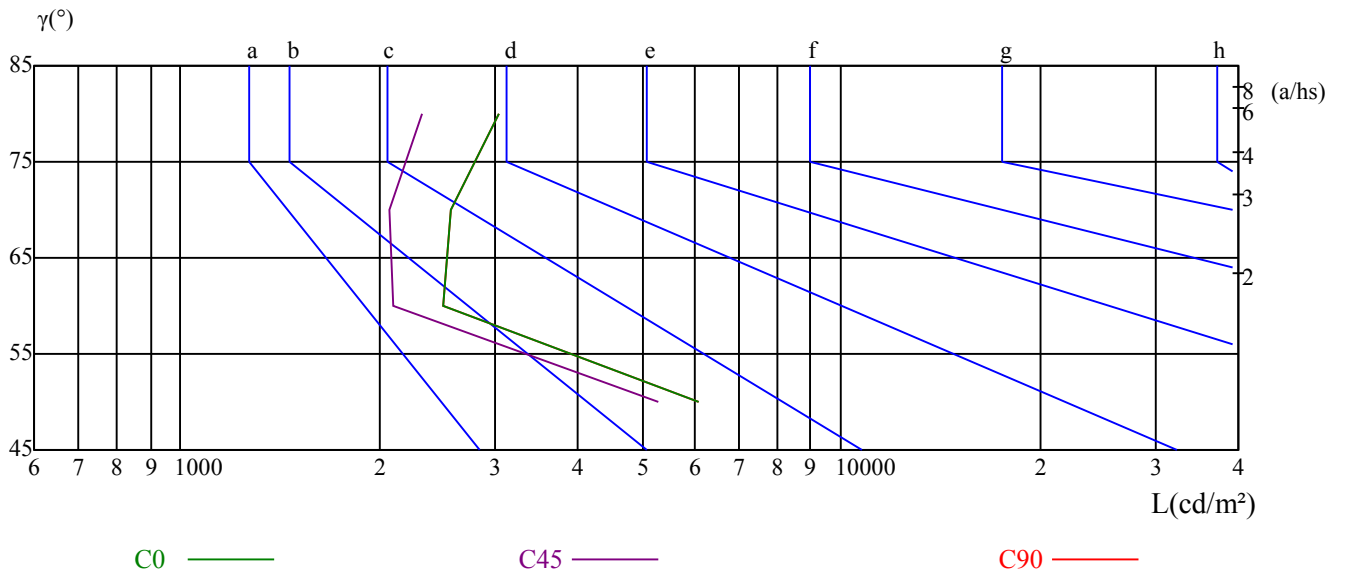
γ	45	50	55	60	65	70	75	80	85
C0	0	6085	0	2494	0	2564	0	3032	0
C45	0	5289	0	2100	0	2076	0	2328	0
C90	0	6085	0	2494	0	2564	0	3032	0

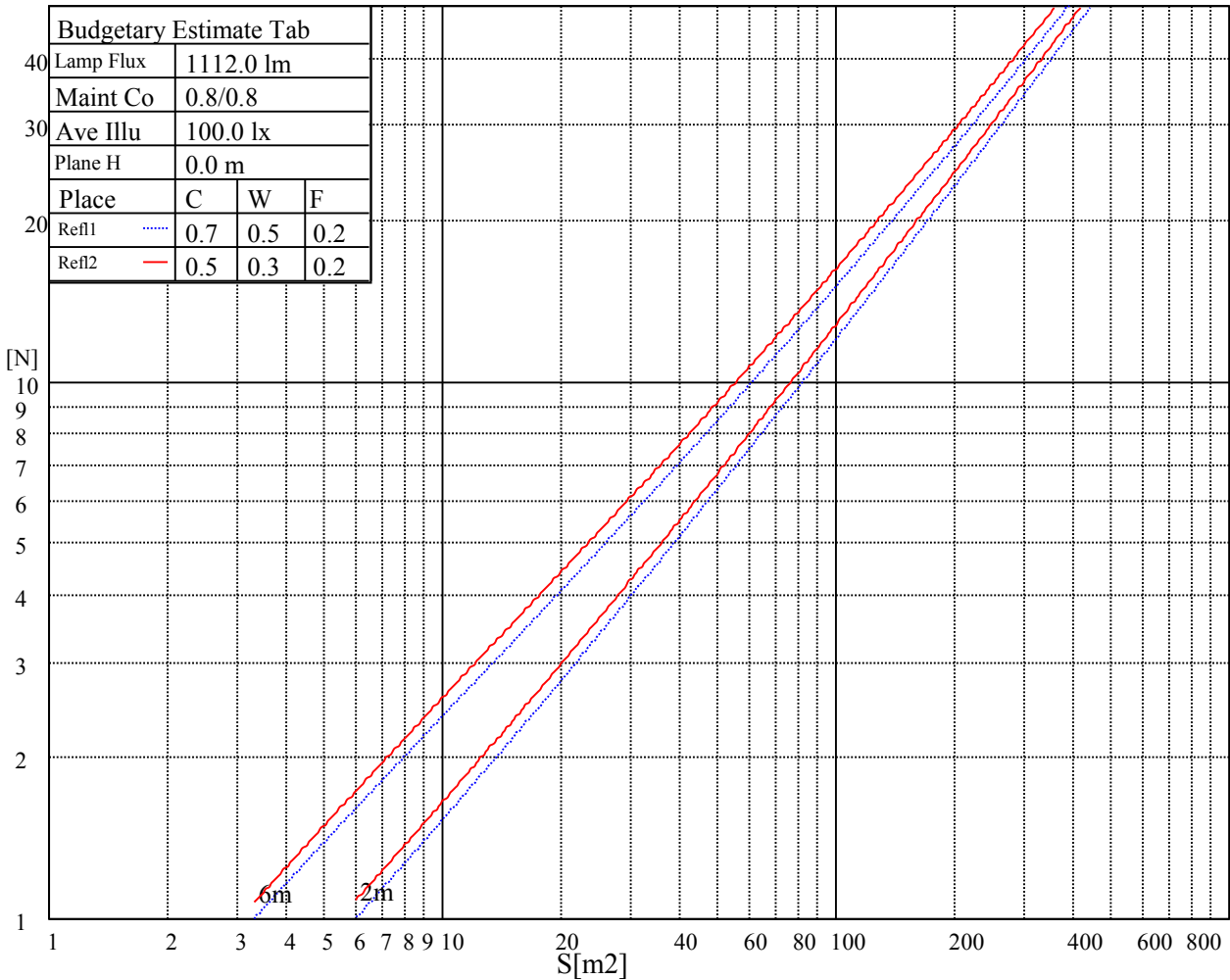
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4802	4802	4802	7603	7603	7603	22316	22316	22316

Glare Table

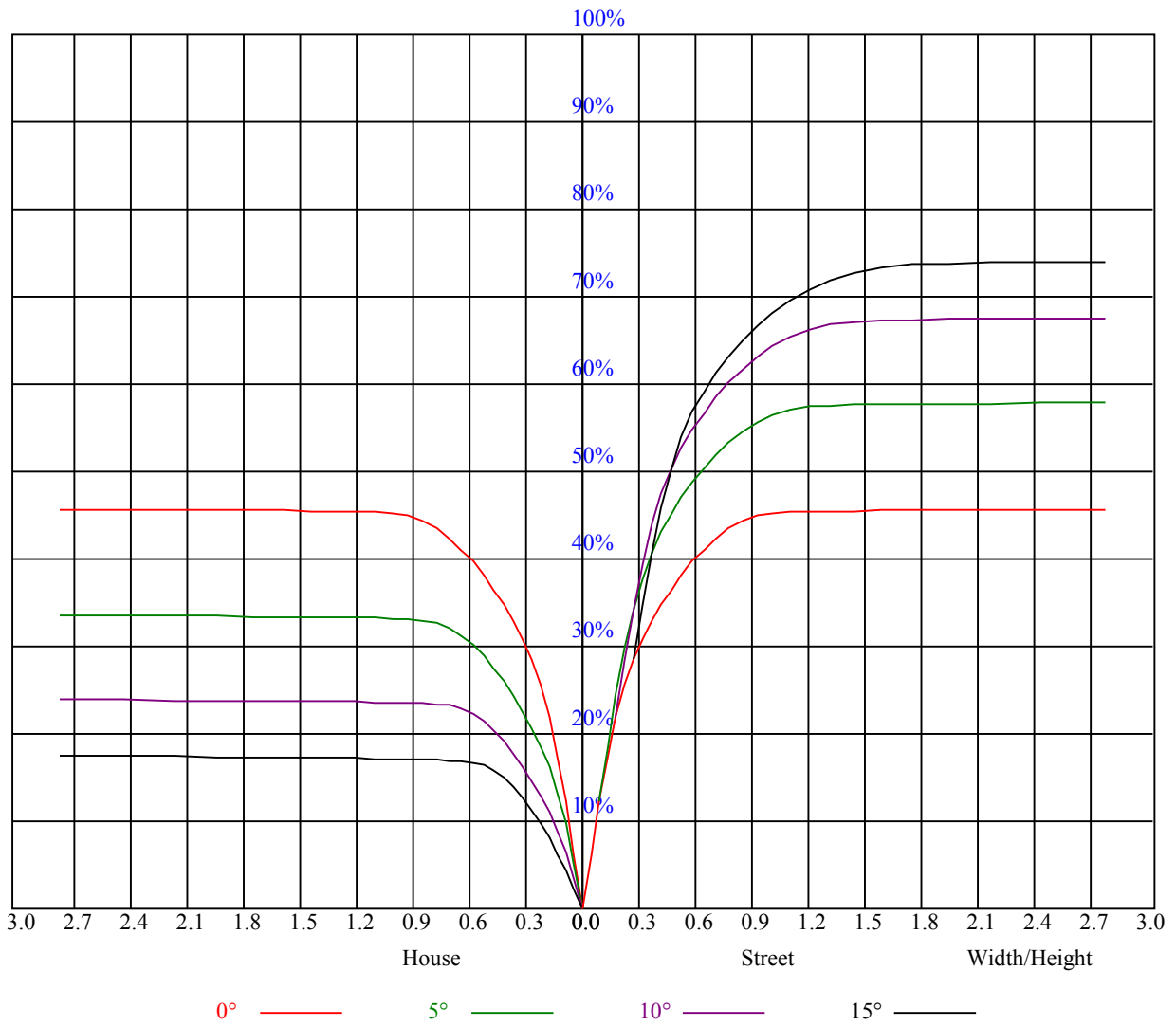
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300

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	0.91	0.90	0.89	0.88	0.86
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	0.90	0.86	0.83	0.89	0.85	0.82	0.87	0.83	0.81	0.84	0.82	0.79	0.82	0.80	0.78	0.77
4	0.85	0.80	0.77	0.84	0.80	0.76	0.82	0.79	0.76	0.80	0.77	0.75	0.79	0.76	0.74	0.73
5	0.81	0.76	0.72	0.80	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.75	0.72	0.70	0.69
6	0.77	0.72	0.68	0.76	0.71	0.68	0.75	0.71	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.65
7	0.73	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.63	0.62
8	0.70	0.65	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.64	0.61	0.67	0.63	0.61	0.60
9	0.67	0.62	0.59	0.66	0.62	0.59	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.57
10	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.55



Intensity data(cd)

C/γ(°)	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0
0.0	3621.06	3492.23	3229.61	2795.21	2379.54	1923.67	1457.34	1020.75	737.76
45.0	3588.58	3298.98	2926.25	2506.17	2038.74	1541.58	1135.26	791.71	582.50
90.0	3542.33	3260.44	2877.25	2489.10	1998.55	1505.79	1091.77	780.81	584.31
135.0	3608.40	3434.97	3150.33	2748.42	2352.01	1867.51	1403.39	998.17	692.06
180.0	3621.06	3528.01	3264.29	2904.23	2454.96	1993.04	1519.01	1083.45	757.19
225.0	3588.58	3668.41	3520.31	3204.83	2820.54	2360.82	1902.75	1422.11	991.84
270.0	3528.56	3659.60	3528.56	3220.25	2837.06	2391.10	1984.23	1449.08	1005.33
315.0	3608.40	3544.53	3269.25	2925.70	2494.61	2024.97	1582.87	1095.40	788.24
360.0	3621.06	3492.23	3229.61	2795.21	2379.54	1923.67	1457.34	1020.75	737.76
C/γ(°)	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0	34.0
0.0	552.77	474.04	442.65	420.08	399.71	383.74	371.08	360.07	350.71
45.0	493.31	450.36	423.93	402.46	385.95	369.43	359.52	349.61	337.50
90.0	486.64	444.64	417.55	398.06	379.72	363.37	353.79	344.05	333.48
135.0	532.40	461.92	429.99	405.77	385.95	367.23	355.11	345.20	334.74
180.0	552.49	471.61	437.26	413.53	393.27	375.59	358.86	348.29	338.76
225.0	679.95	523.75	452.34	421.68	399.71	381.16	363.98	352.58	342.07
270.0	736.10	543.41	470.73	439.90	414.02	393.65	376.59	363.37	351.81
315.0	585.91	489.07	446.62	422.50	401.53	382.48	369.04	358.09	347.30
360.0	552.77	474.04	442.65	420.08	399.71	383.74	371.08	360.07	350.71
C/γ(°)	36.0	38.0	40.0	42.0	44.0	46.0	48.0	50.0	52.0
0.0	338.05	327.04	302.81	210.98	117.71	38.04	16.57	13.16	9.19
45.0	328.14	307.77	253.81	132.52	46.47	16.24	13.27	9.30	6.55
90.0	323.73	303.09	222.04	129.66	41.46	15.75	12.99	9.08	6.50
135.0	324.83	313.27	280.24	191.71	93.87	25.05	14.48	11.45	7.82
180.0	327.48	317.01	296.48	216.98	124.98	43.44	15.53	12.99	9.03
225.0	332.05	321.25	309.86	283.32	200.19	103.78	29.40	16.13	12.66
270.0	342.45	328.14	317.12	295.10	214.66	114.30	38.59	16.74	13.27
315.0	336.28	325.38	307.60	245.44	143.15	58.03	18.22	15.09	10.96
360.0	338.05	327.04	302.81	210.98	117.71	38.04	16.57	13.16	9.19
C/γ(°)	54.0	56.0	58.0	60.0	62.0	64.0	66.0	68.0	70.0
0.0	6.88	5.18	4.96	4.79	4.68	4.51	4.46	4.40	4.29
45.0	5.56	5.18	5.01	4.90	4.68	4.62	4.62	4.46	4.40
90.0	5.34	5.12	4.96	4.84	4.73	4.62	4.51	4.40	4.35
135.0	6.22	5.01	4.79	4.62	4.57	4.40	4.35	4.24	4.18
180.0	6.50	5.29	5.01	4.84	4.68	4.57	4.51	4.40	4.29
225.0	8.26	6.50	5.07	4.84	4.68	4.57	4.40	4.35	4.24
270.0	9.08	6.99	5.07	4.90	4.73	4.57	4.46	4.35	4.29
315.0	8.15	5.29	5.07	4.84	4.68	4.57	4.46	4.35	4.29
360.0	6.88	5.18	4.96	4.79	4.68	4.51	4.46	4.40	4.29
C/γ(°)	72.0	74.0	76.0	78.0	80.0	82.0	84.0	86.0	88.0
0.0	4.35	4.24	4.24	4.18	4.18	4.13	4.13	4.13	4.13
45.0	4.40	4.35	4.29	4.24	4.18	4.18	4.13	4.13	4.07
90.0	4.29	4.29	4.24	4.18	4.18	4.13	4.18	4.13	4.07
135.0	4.13	4.13	4.07	4.07	4.07	4.02	4.02	3.96	3.96
180.0	4.29	4.24	4.18	4.13	4.13	4.07	4.07	4.02	4.02
225.0	4.18	4.18	4.13	4.13	4.07	4.07	4.02	4.02	3.96
270.0	4.18	4.13	4.18	4.18	4.13	4.07	4.07	4.07	4.07
315.0	4.24	4.24	4.18	4.13	4.13	4.07	4.13	4.07	4.13
360.0	4.35	4.24	4.24	4.18	4.18	4.13	4.13	4.13	4.13

Intensity data(cd)

C/ γ (°)	90.0
0.0	4.07
45.0	4.07
90.0	4.13
135.0	3.96
180.0	3.96
225.0	3.96
270.0	4.07
315.0	4.02
360.0	4.07