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Nata

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LumCAT: 1679-S  
Luminaire: 92.70.044.00  
Report No: NT2017121104  
Test No: nata-0100  
LampCAT: LUMIEDS 1202S  
Lamp flux(lm): 1251.0  
Number of Lamps: 1  
Length(mm): 22  
Phm Type: C

Voltage(V): 38.3000  
Current(A): 0.3000  
Power (W): 11.4900  
PF: 0.0000  
Ballast type: DC  
Width(mm): 22  
Height(mm): 0

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Photometric Results

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Lumens(lm): 1130.02  
Efficiency(%): 90.33%  
Lumens(lm)/Power(W): 98.35  
Central intensity(cd): 1185.089  
Maximum intensity(cd): 1185.089  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=62.1  
                                  [C90/270]Total=62.1  
Field angle(10%Imax): [C0/180]Total=88.0  
                                  [C90/270]Total=88.0  
Maximum s/h(1/2): C0\_180=0.92 C90\_270=0.92  
Maximum s/h(1/4): C0\_180=0.93 C90\_270=0.93  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 90.81%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.175%

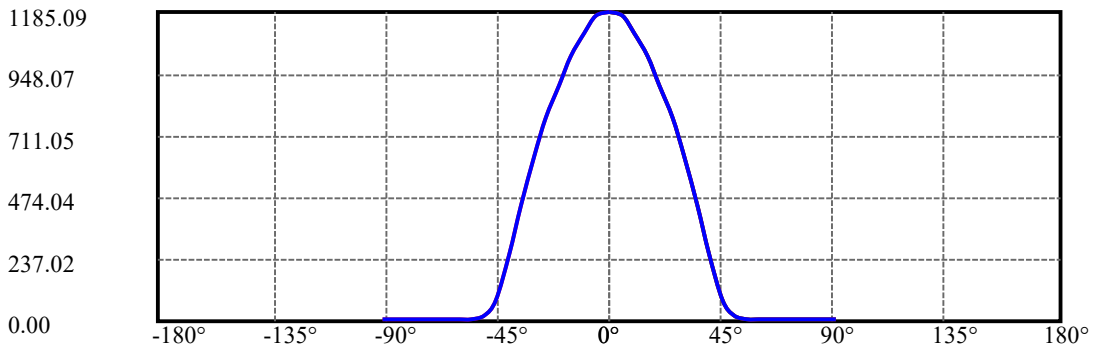
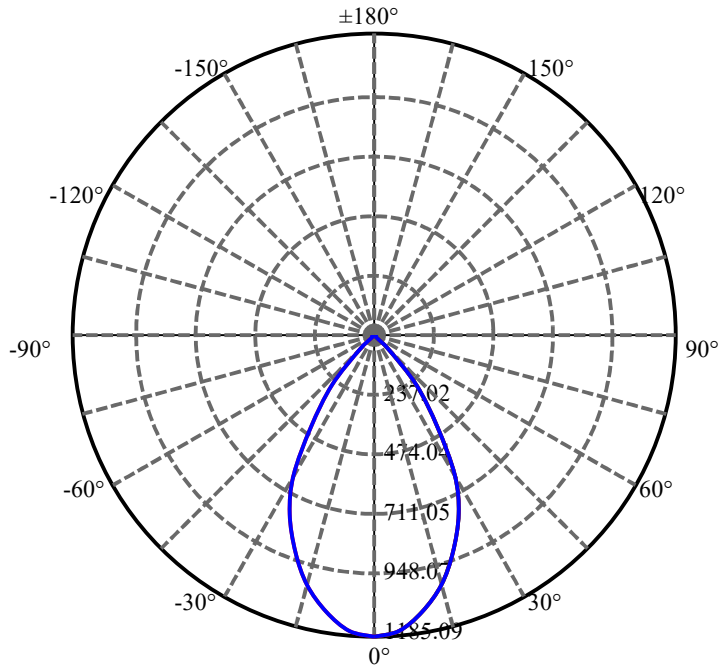
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1185.089	7.087	7.087	.567%	.627%
5.0	1167.471	55.774	62.861	4.458%	5.563%
10.0	1104.576	105.137	167.998	8.404%	14.867%
15.0	1013.740	143.818	311.816	11.496%	27.594%
20.0	907.522	170.137	481.952	13.600%	42.650%
25.0	776.997	179.994	661.946	14.388%	58.578%
30.0	633.933	173.741	835.687	13.888%	73.953%
35.0	440.369	138.451	974.139	11.067%	86.205%
40.0	260.410	91.752	1065.89	7.334%	94.325%
45.0	82.041	31.798	1097.689	2.542%	97.139%
50.0	23.915	10.042	1107.731	.803%	98.027%
55.0	10.020	4.499	1112.23	.360%	98.426%
60.0	6.476	3.074	1115.304	.246%	98.698%
65.0	5.513	2.739	1118.042	.219%	98.940%
70.0	5.237	2.698	1120.74	.216%	99.179%
75.0	5.065	2.682	1123.422	.214%	99.416%
80.0	4.948	2.671	1126.093	.214%	99.652%
85.0	4.824	2.634	1128.727	.211%	99.885%
90.0	4.721	1.294	1130.021	.103%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	835.69	66.80%	73.95%
0-40	1065.89	85.20%	94.32%
0-60	1115.30	89.15%	98.70%
0-90	1128.73	90.23%	99.89%
0-120	1128.73	90.23%	99.89%
0-180	1130.02	90.33%	100.00%
60-90	16.50	1.32%	1.46%
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%
0-32.47	904.02	72.26%	80.00%

ZONAL LUMEN SUMMARY

0-10	168.00
10-20	313.95
20-30	353.73
30-40	230.20
40-50	41.84
50-60	7.57
60-70	5.44
70-80	5.35
80-90	2.63
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: —————

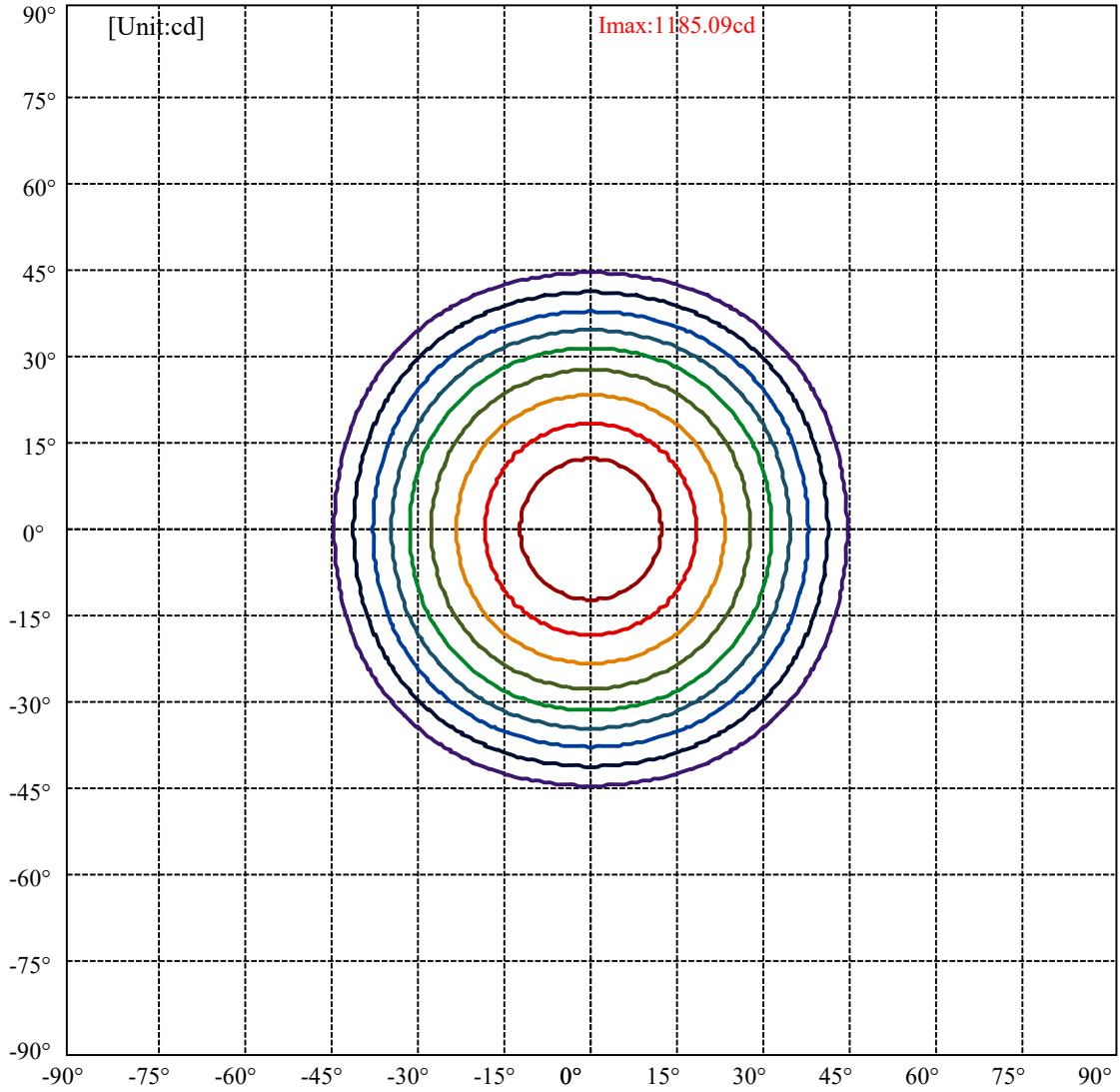
Field angle(10%Imax):C0/180Left:44.0 Right:44.0

:C90/270Left:44.0 Right:44.0

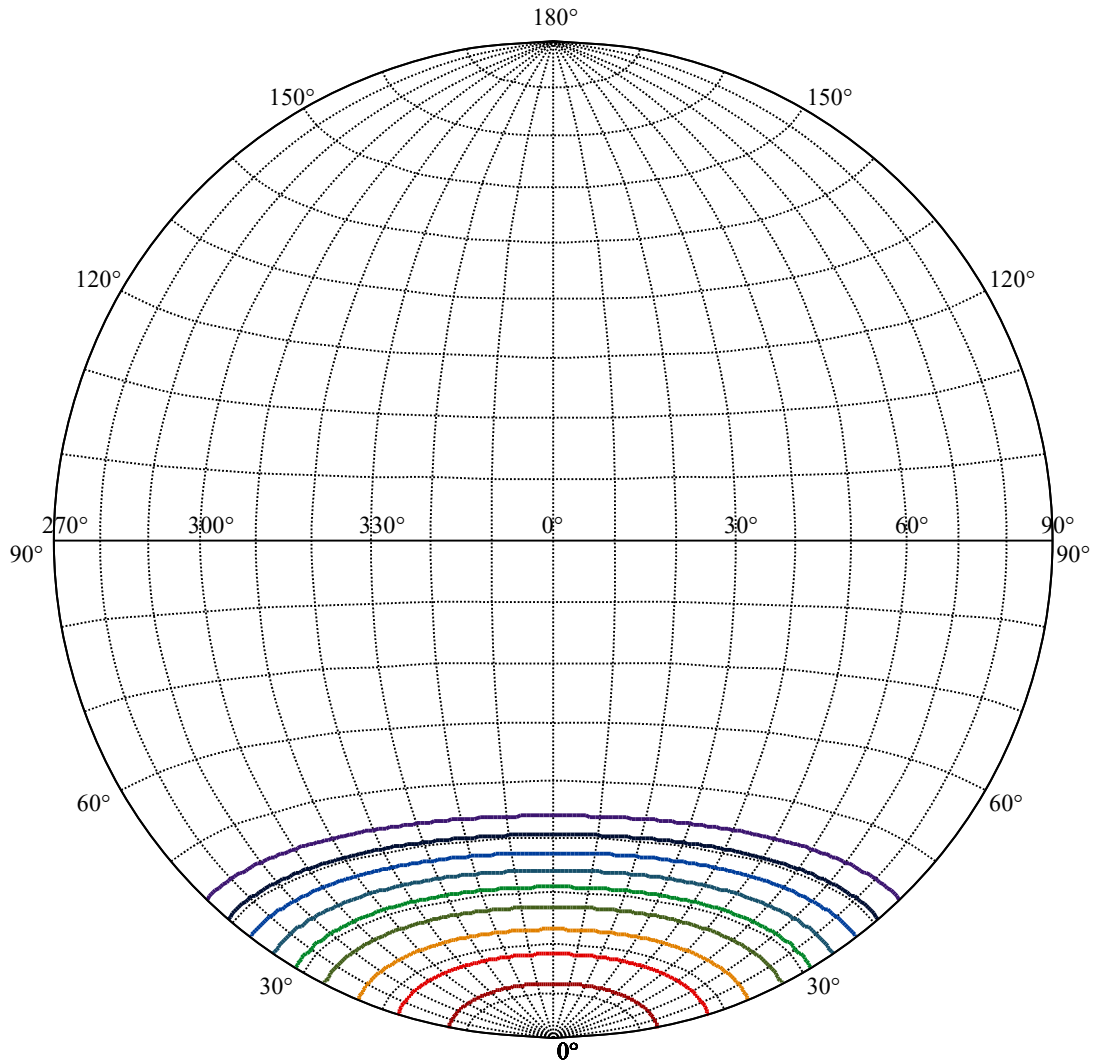
Beam Angle(50%Imax):C0/180Left:31.1 Right:31.1

:C90/270Left:31.1 Right:31.1





(10%Imax) 118.509	—
(20%Imax) 237.018	—
(30%Imax) 355.527	—
(40%Imax) 474.036	—
(50%Imax) 592.544	—
(60%Imax) 711.053	—
(70%Imax) 829.562	—
(80%Imax) 948.071	—
(90%Imax) 1066.58	—



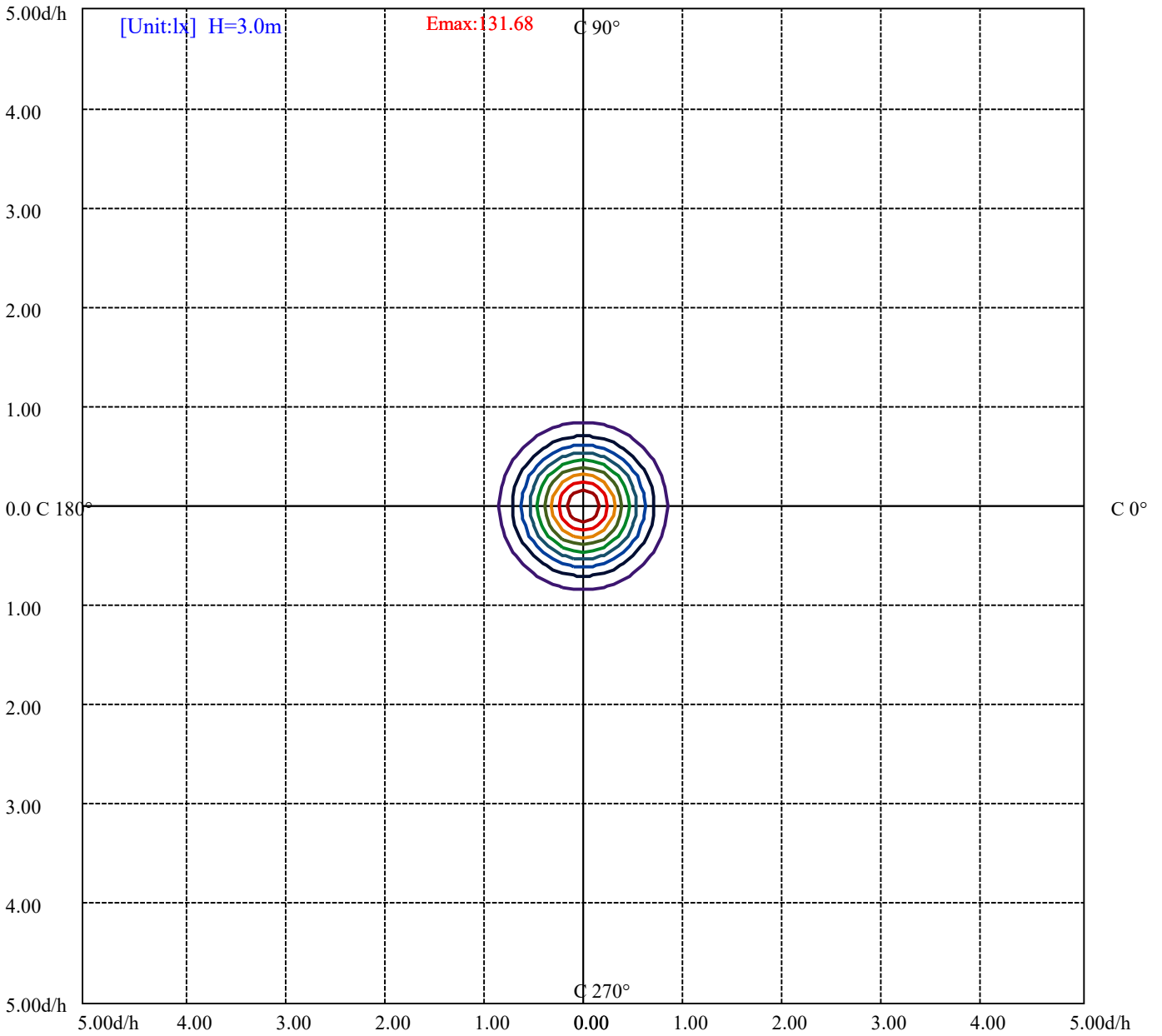
House

[Unit:cd]

Road

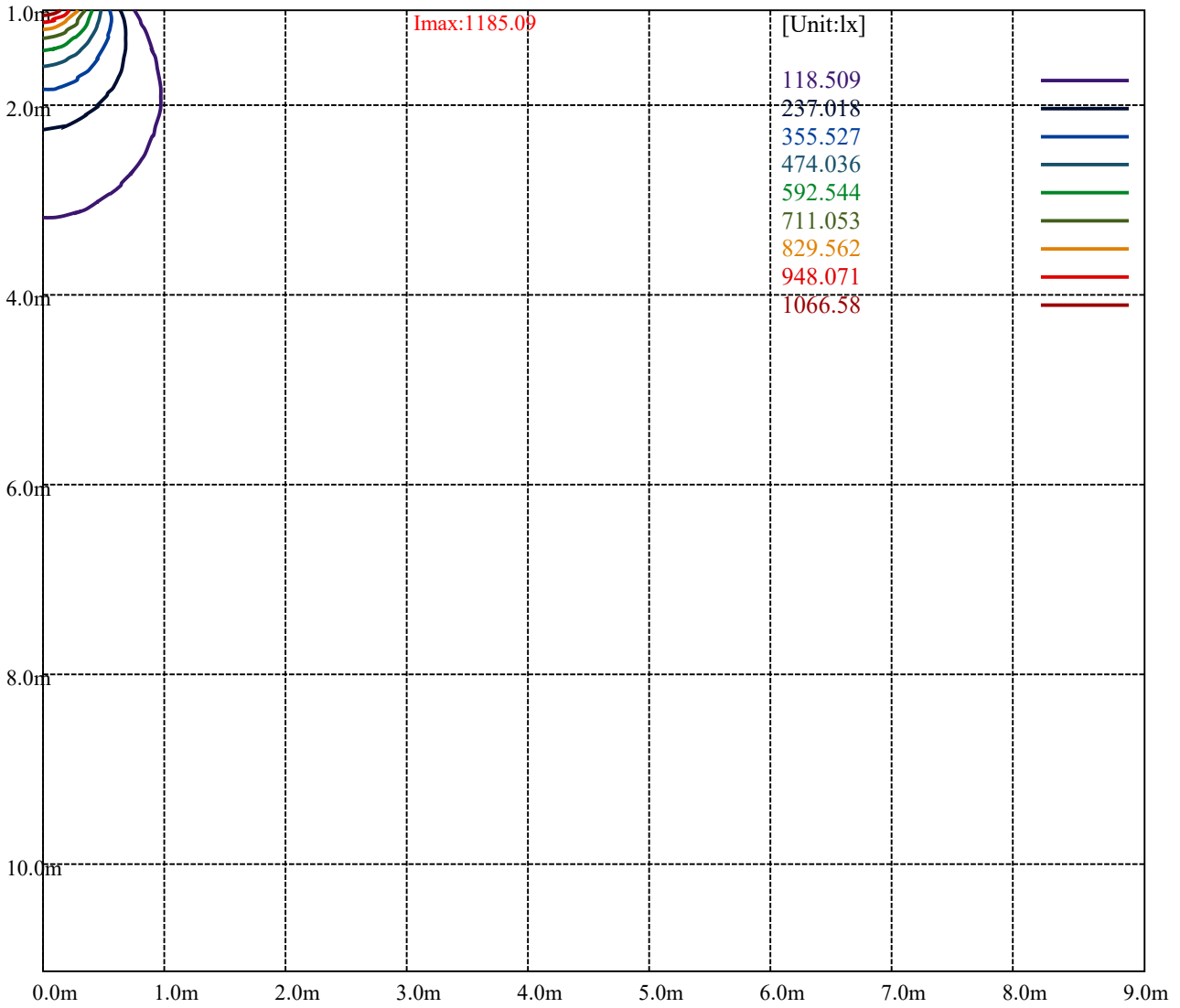
I<sub>max</sub>:1185.09

(10%I <sub>max</sub> )	118.509	—
(20%I <sub>max</sub> )	237.018	—
(30%I <sub>max</sub> )	355.527	—
(40%I <sub>max</sub> )	474.036	—
(50%I <sub>max</sub> )	592.544	—
(60%I <sub>max</sub> )	711.053	—
(70%I <sub>max</sub> )	829.562	—
(80%I <sub>max</sub> )	948.071	—
(90%I <sub>max</sub> )	1066.58	—



(10%Emax) 13.16767	—
(20%Emax) 26.33533	—
(30%Emax) 39.503	—
(40%Emax) 52.67056	—
(50%Emax) 65.83823	—
(60%Emax) 79.00589	—
(70%Emax) 92.17355	—
(80%Emax) 105.3412	—
(90%Emax) 118.5089	—





Luminance Table

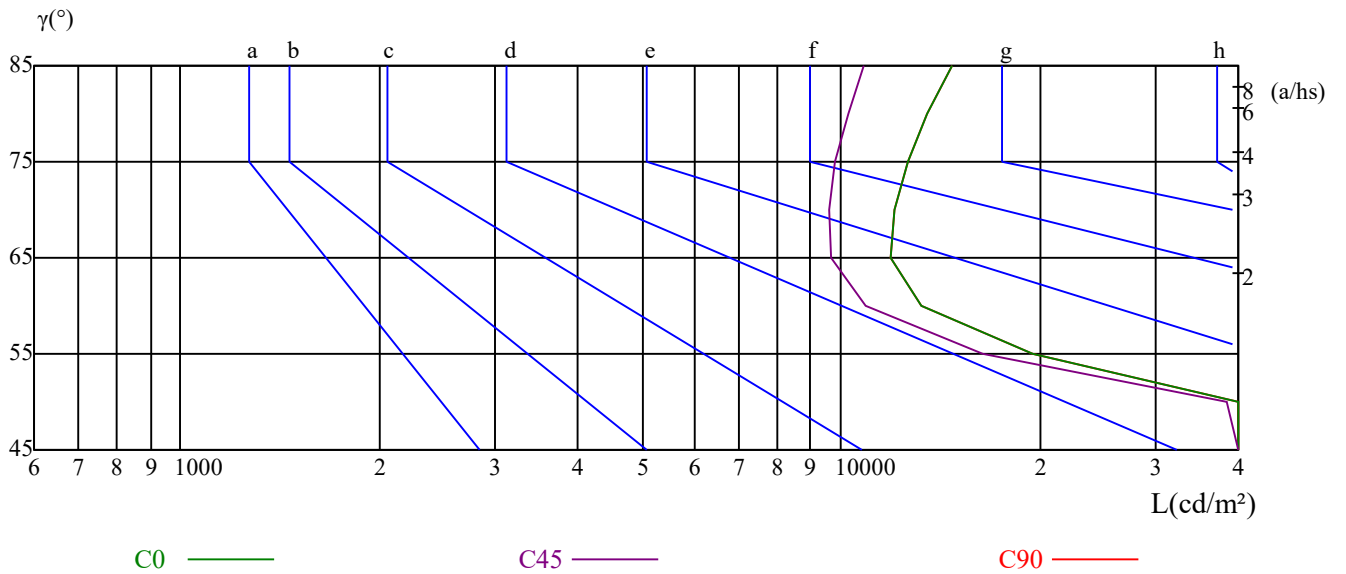
$\gamma$	45	50	55	60	65	70	75	80	85
C0	150680	45106	19575	13225	11887	12059	12615	13531	14749
C45	130589	38514	16456	10934	9652	9599	9817	10258	10839
C90	150680	45106	19575	13225	11887	12059	12615	13531	14749

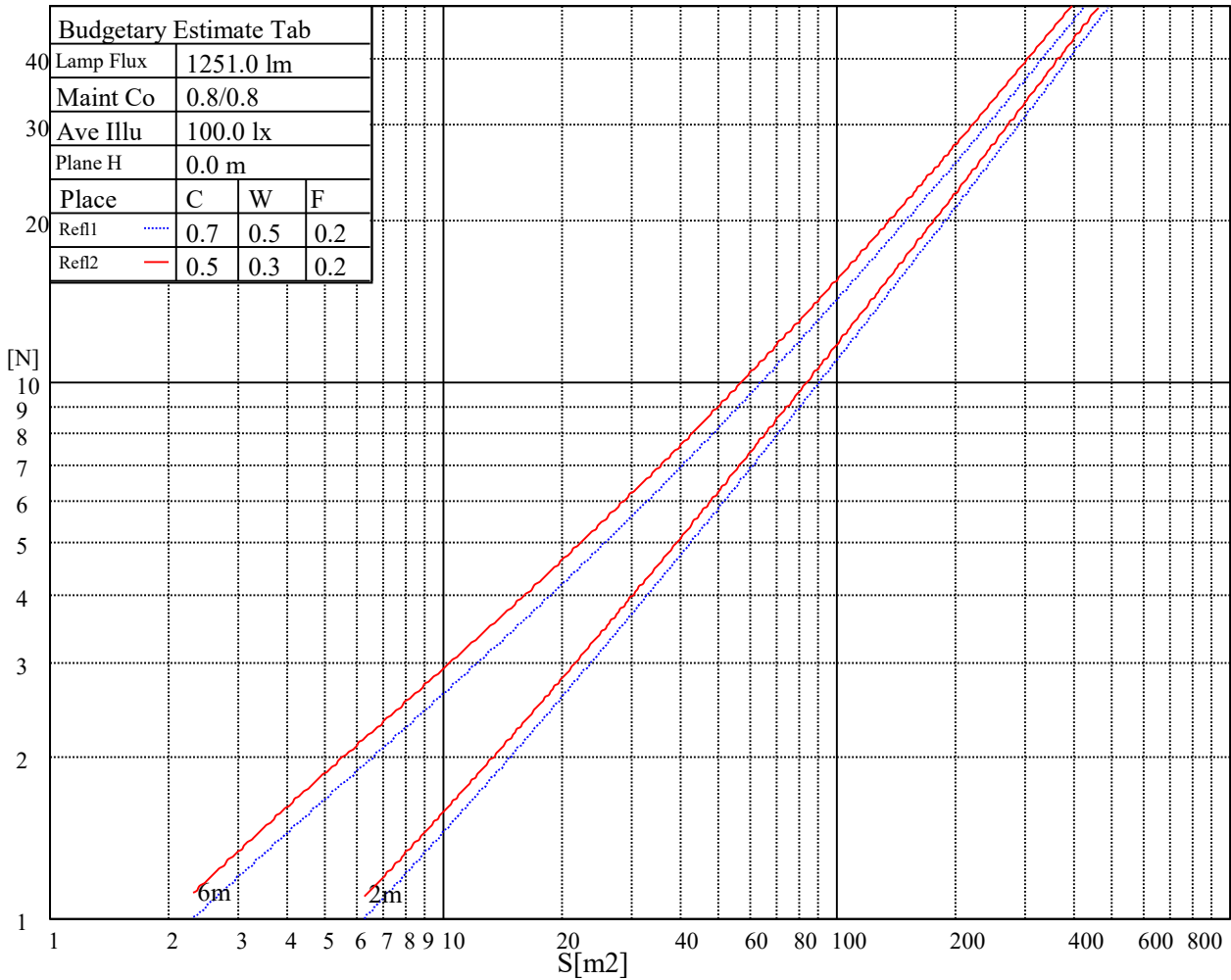
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
26950	26950	26950	40435	40435	40435	114365	114365	114365

Glare Table

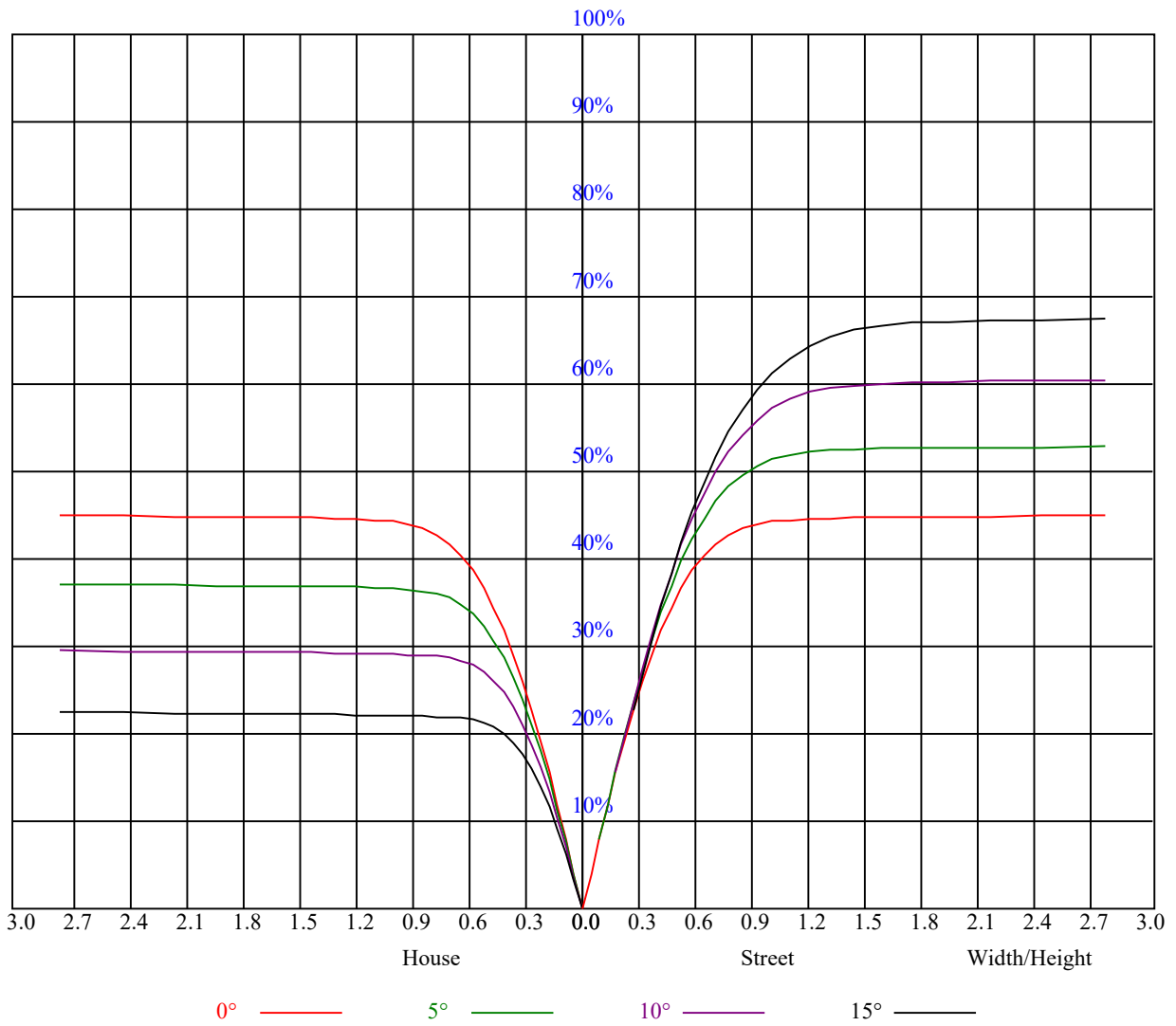
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.00	0.97	0.95	0.98	0.96	0.94	0.94	0.92	0.91	0.91	0.89	0.88	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	0.84	0.82	0.83	0.82	0.80	0.78
3	0.87	0.83	0.79	0.86	0.82	0.78	0.84	0.80	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.73
4	0.82	0.77	0.73	0.81	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.69
5	0.77	0.72	0.68	0.76	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.66	0.64
6	0.72	0.67	0.63	0.72	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.64	0.62	0.61
7	0.68	0.63	0.59	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.58	0.57
8	0.65	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.54
9	0.61	0.56	0.53	0.61	0.56	0.53	0.60	0.56	0.52	0.59	0.55	0.52	0.58	0.55	0.52	0.51
10	0.58	0.53	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.52	0.49	0.56	0.52	0.49	0.48



Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1185.36	1163.89	1118.20	1016.89	924.40	815.94	688.21	547.26	344.10
45.0	1182.61	1162.79	1096.17	1005.33	897.42	772.99	649.11	452.56	287.94
90.0	1187.57	1177.66	1097.71	1022.95	912.72	771.12	616.08	404.50	218.13
135.0	1184.81	1185.91	1140.77	1056.53	949.72	803.27	637.55	414.57	287.39
180.0	1185.36	1166.65	1096.17	1009.35	901.49	737.81	558.22	348.07	156.47
225.0	1182.61	1167.20	1098.27	1010.73	911.02	783.73	639.26	431.64	242.19
270.0	1187.57	1164.44	1111.04	1014.14	897.97	777.95	650.77	473.49	282.44
315.0	1184.81	1151.23	1078.28	974.00	865.43	753.17	632.27	450.86	264.60
360.0	1185.36	1163.89	1118.20	1016.89	924.40	815.94	688.21	547.26	344.10

C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	150.03	47.18	18.39	9.19	6.11	5.45	5.12	5.01	4.79
45.0	81.87	25.66	10.63	6.50	5.56	5.29	5.07	4.96	4.84
90.0	55.39	14.59	6.72	5.67	5.29	5.12	5.01	4.90	4.79
135.0	53.18	13.10	6.77	5.51	5.23	5.12	5.01	4.90	4.79
180.0	29.40	10.19	6.11	5.40	5.18	5.07	4.96	4.90	4.79
225.0	71.85	17.45	7.32	5.67	5.34	5.18	5.07	4.96	4.84
270.0	109.73	29.46	10.79	6.50	5.56	5.29	5.12	5.01	4.90
315.0	104.88	33.69	13.43	7.38	5.84	5.40	5.18	4.96	4.84
360.0	150.03	47.18	18.39	9.19	6.11	5.45	5.12	5.01	4.79

C/ $\gamma$ (°)	90.0
0.0	4.73
45.0	4.68
90.0	4.68
135.0	4.73
180.0	4.62
225.0	4.68
270.0	4.84
315.0	4.79
360.0	4.73