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Nata

LumCAT: 3-1917-E
Luminaire: 99.02.73.181+92.76.323.00
Report No: GC2017032009
Test No: NT-0010
LampCAT: LUMILEDS LUXEON CoB 1205
Lamp flux(lm): 2607.0
Number of Lamps: 1
Length(mm): 84
Phm Type: C

Voltage(V): 217.8000
Current(A): 0.1360
Power (W): 28.0000
PF: 0.9420
Ballast type: DC
Width(mm): 84
Height(mm): 0

Photometric Results

Lumens(lm): 2385.88
Efficiency(%): 91.52%
Lumens(lm)/Power(W): 85.21
Central intensity(cd): 7794.885
Maximum intensity(cd): 7794.885
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=26.4
 [C90/270]Total=26.4
Field angle(10%Imax): [C0/180]Total=62.5
 [C90/270]Total=62.5
Maximum s/h(1/2): C0_180=0.45 C90_270=0.45
Maximum s/h(1/4): C0_180=0.45 C90_270=0.45
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.52%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.725%

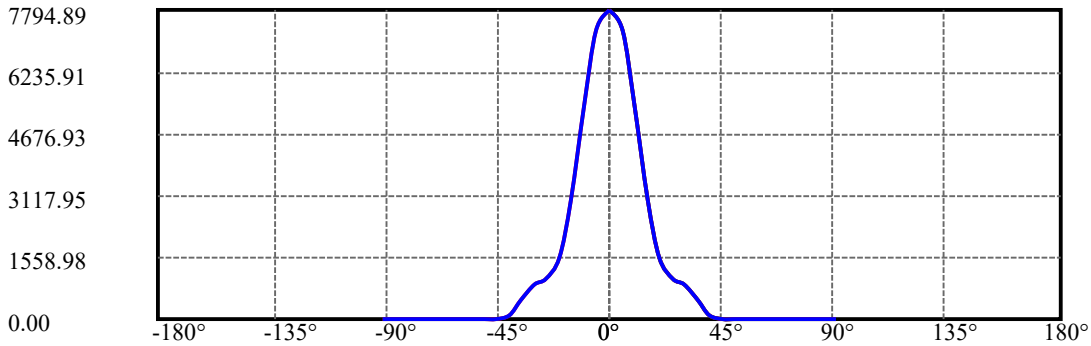
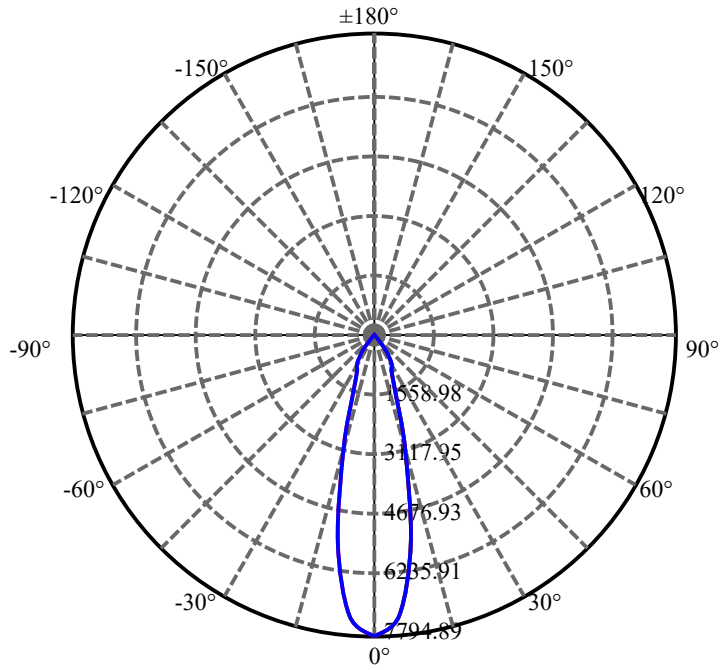
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7794.885	0.000	0	.000%	.000%
5.0	7259.943	179.976	179.976	6.904%	7.543%
10.0	5437.370	454.223	634.199	17.423%	26.581%
15.0	3024.179	501.933	1136.132	19.253%	47.619%
20.0	1566.410	378.329	1514.461	14.512%	63.476%
25.0	1033.264	272.658	1787.119	10.459%	74.904%
30.0	877.152	241.765	2028.884	9.274%	85.037%
35.0	479.149	199.725	2228.609	7.661%	93.408%
40.0	80.699	93.406	2322.015	3.583%	97.323%
45.0	15.725	17.854	2339.869	.685%	98.072%
50.0	11.961	5.594	2345.463	.215%	98.306%
55.0	11.073	5.008	2350.472	.192%	98.516%
60.0	10.516	4.990	2355.462	.191%	98.725%
65.0	10.110	5.014	2360.476	.192%	98.935%
70.0	9.834	5.050	2365.526	.194%	99.147%
75.0	9.642	5.091	2370.617	.195%	99.360%
80.0	9.422	5.101	2375.718	.196%	99.574%
85.0	9.311	5.090	2380.808	.195%	99.787%
90.0	9.208	5.071	2385.879	.195%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2028.88	77.82%	85.04%
0-40	2322.02	89.07%	97.32%
0-60	2355.46	90.35%	98.73%
0-90	2380.81	91.32%	99.79%
0-120	2380.81	91.32%	99.79%
0-180	2385.88	91.52%	100.00%
60-90	30.34	1.16%	1.27%
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%
0-27.51	1908.70	73.21%	80.00%

ZONAL LUMEN SUMMARY

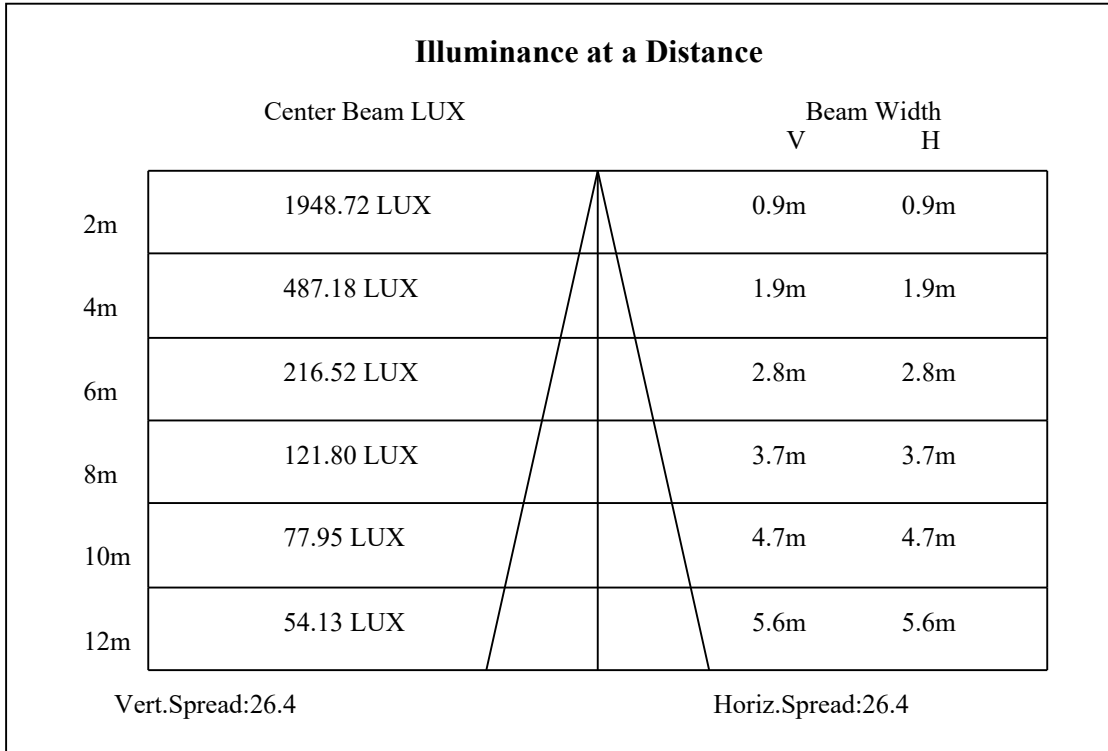
0-10	634.20
10-20	880.26
20-30	514.42
30-40	293.13
40-50	23.45
50-60	10.00
60-70	10.06
70-80	10.19
80-90	5.09
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

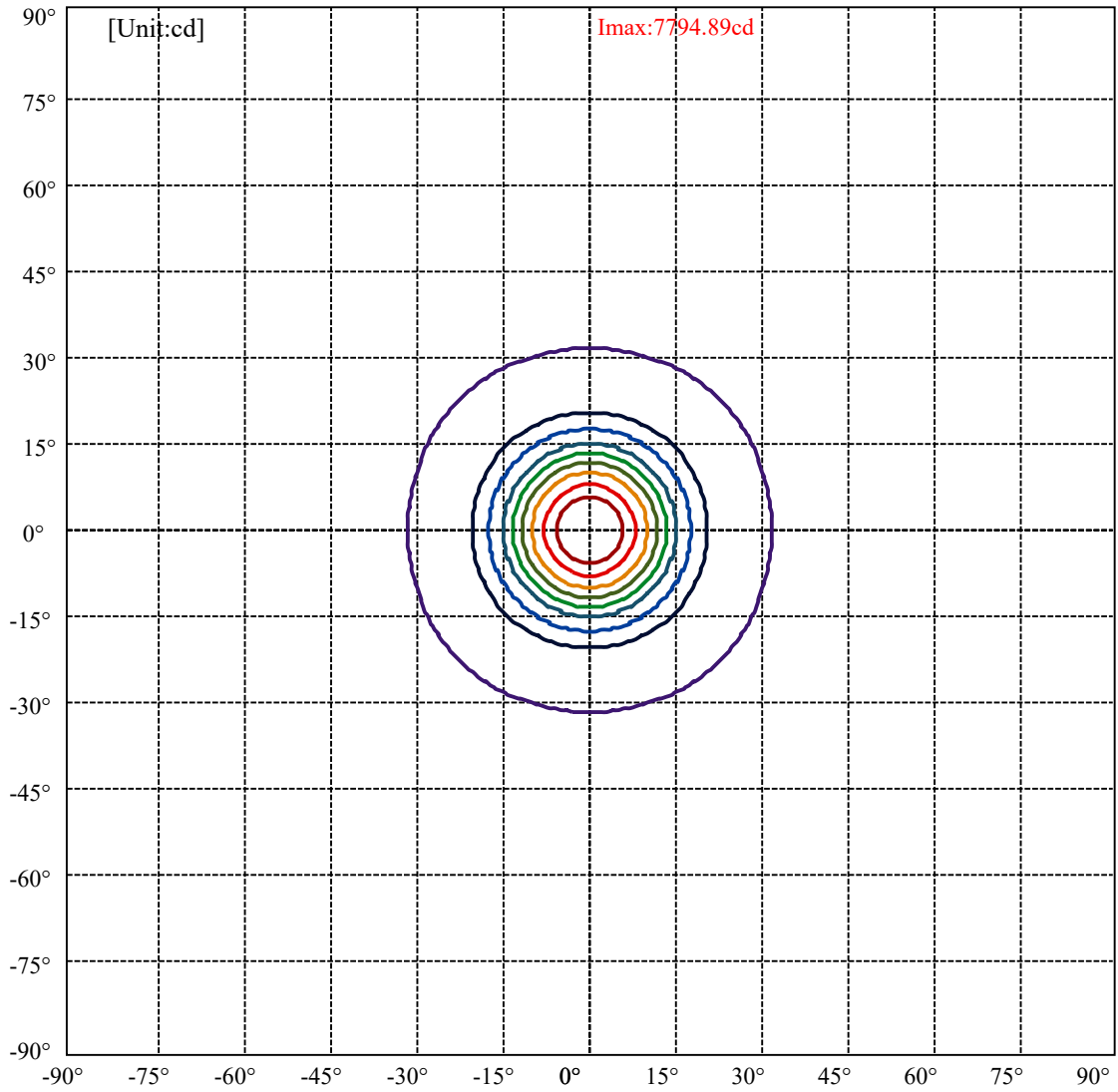


C0(Max): ———
C0/C180: ———
C90/C270: ———

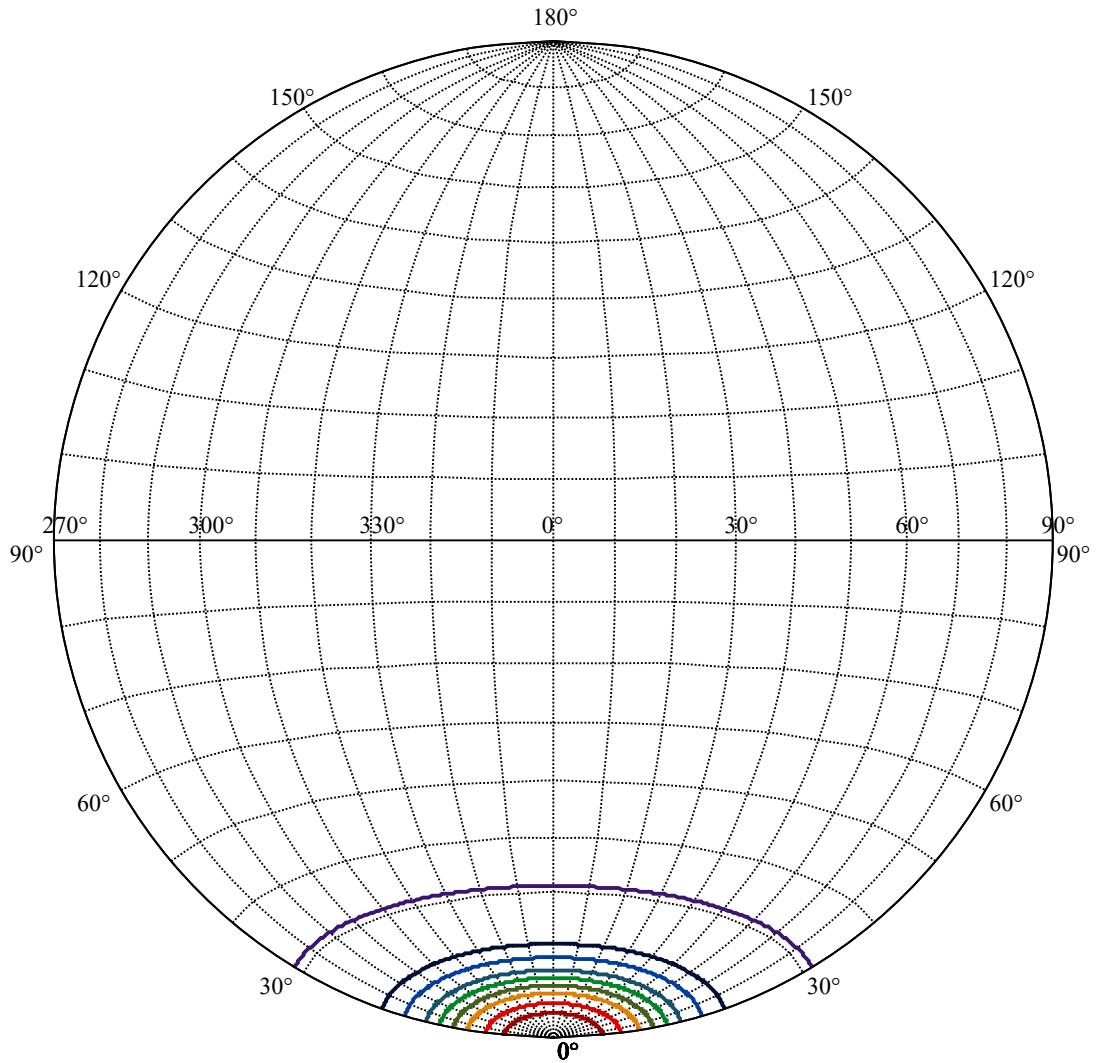
Field angle(10%Imax):C0/180Left:31.2 Right:31.2
:C90/270Left:31.2 Right:31.2

Beam Angle(50%Imax):C0/180Left:13.2 Right:13.2
:C90/270Left:13.2 Right:13.2





(10%Imax) 779.489	—
(20%Imax) 1558.98	—
(30%Imax) 2338.47	—
(40%Imax) 3117.95	—
(50%Imax) 3897.44	—
(60%Imax) 4676.93	—
(70%Imax) 5456.42	—
(80%Imax) 6235.91	—
(90%Imax) 7015.4	—



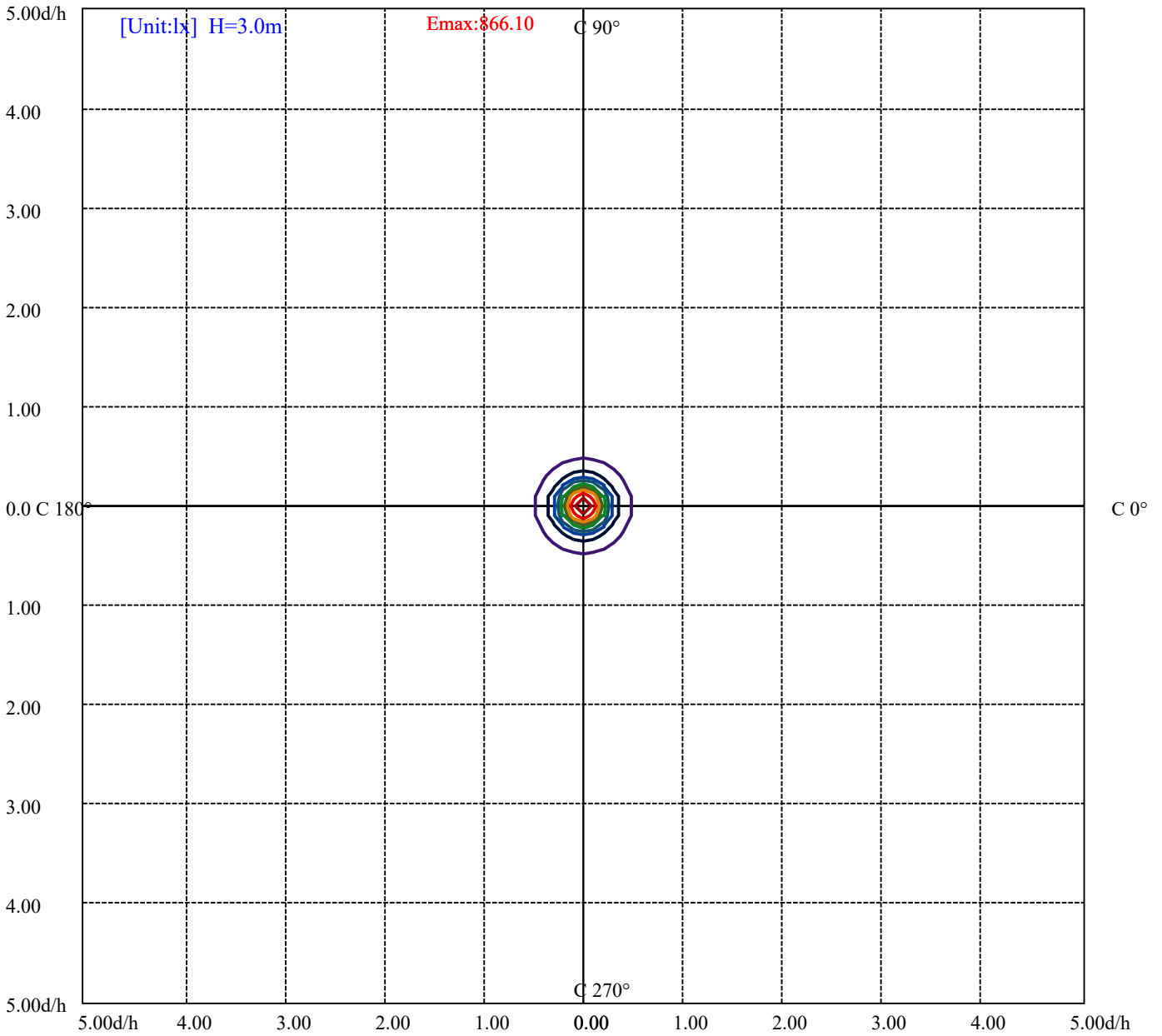
House

[Unit:cd]

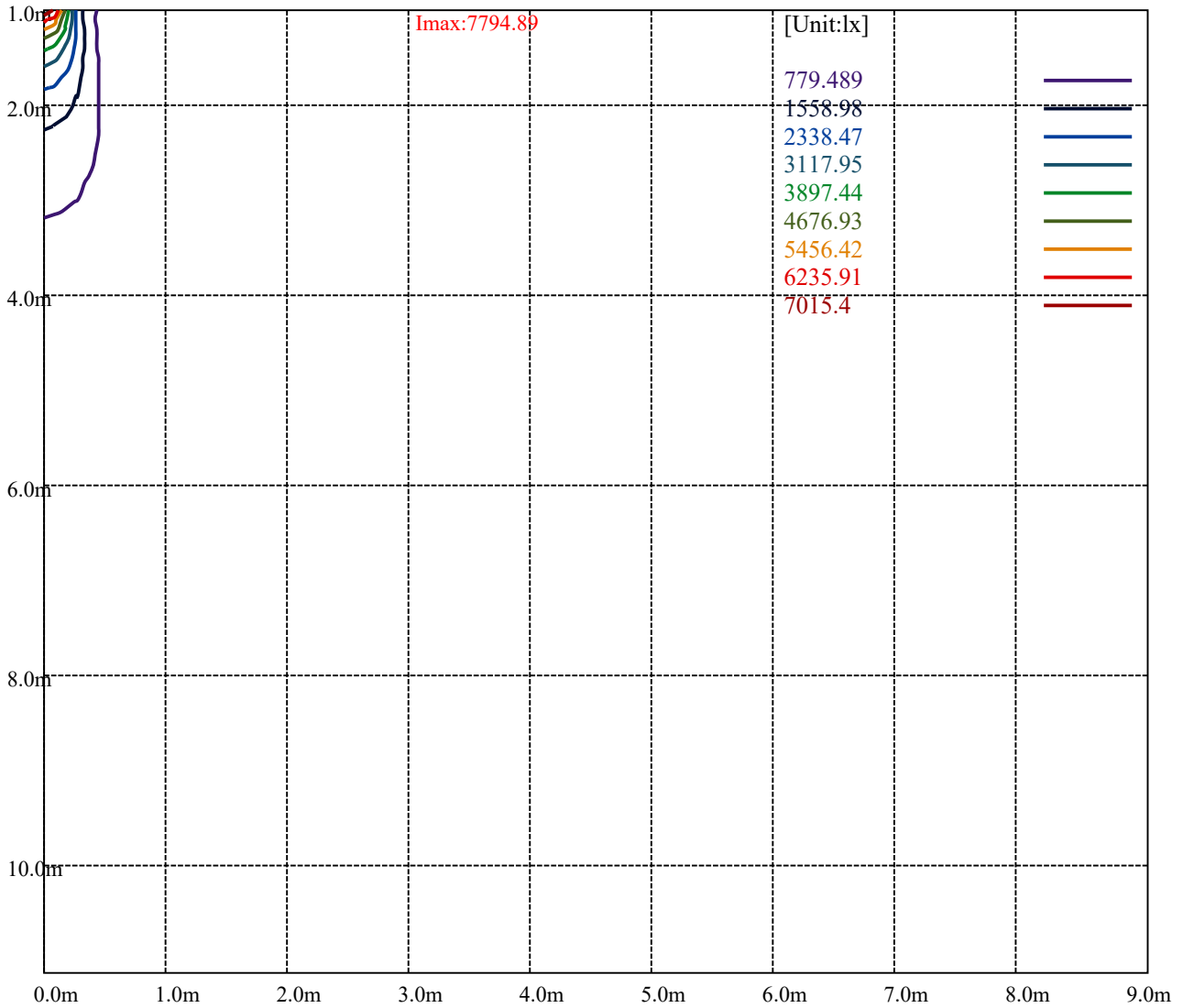
Road

Imax:7794.89

(10%Imax) 779.489	—
(20%Imax) 1558.98	—
(30%Imax) 2338.47	—
(40%Imax) 3117.95	—
(50%Imax) 3897.44	—
(60%Imax) 4676.93	—
(70%Imax) 5456.42	—
(80%Imax) 6235.91	—
(90%Imax) 7015.4	—



(10%Emax) 86.60966	—
(20%Emax) 173.2189	—
(30%Emax) 259.8289	—
(40%Emax) 346.4389	—
(50%Emax) 433.0478	—
(60%Emax) 519.6578	—
(70%Emax) 606.2678	—
(80%Emax) 692.8777	—
(90%Emax) 779.4866	—



Luminance Table

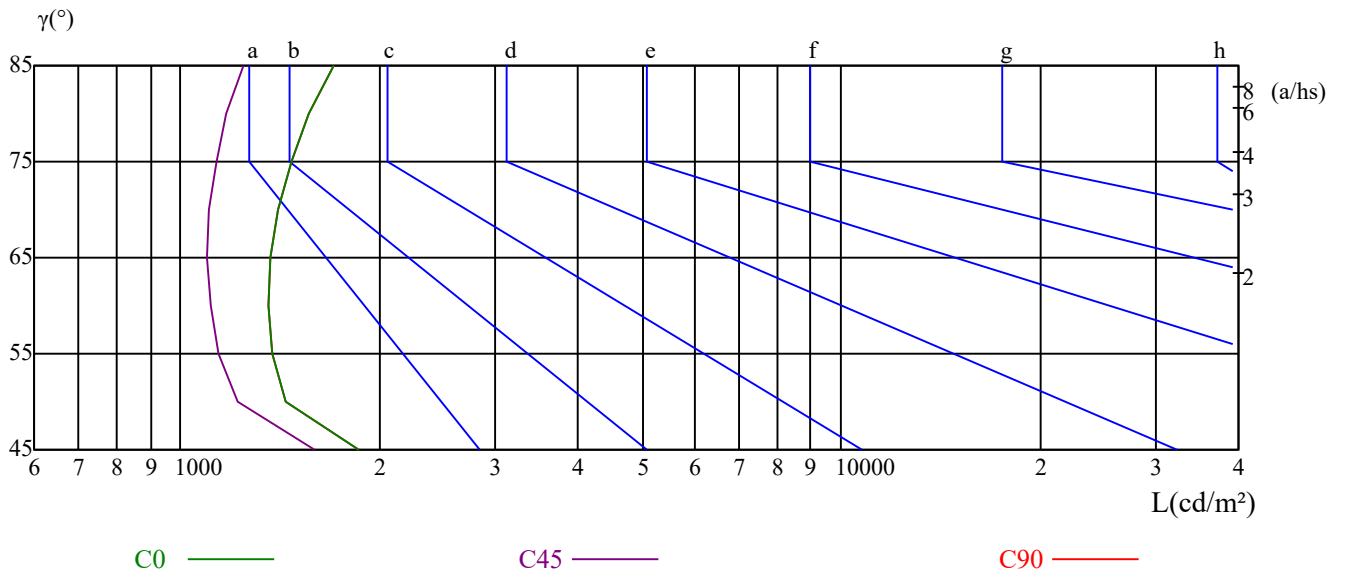
γ	45	50	55	60	65	70	75	80	85
C0	1864	1447	1378	1357	1367	1407	1476	1564	1703
C45	1595	1219	1143	1108	1096	1107	1137	1176	1245
C90	1864	1447	1378	1357	1367	1407	1476	1564	1703

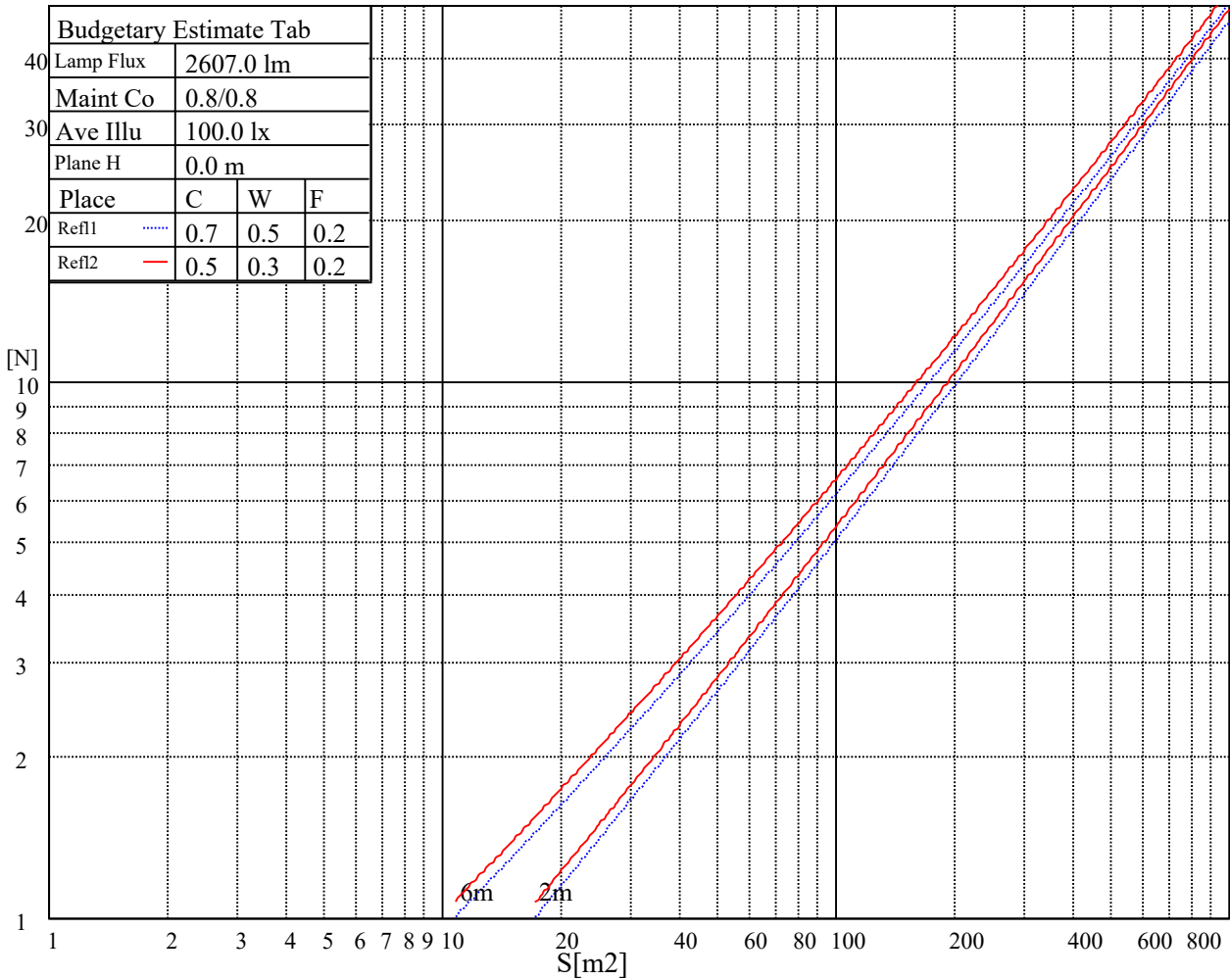
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3390	3390	3390	5280	5280	5280	15141	15141	15141

Glare Table

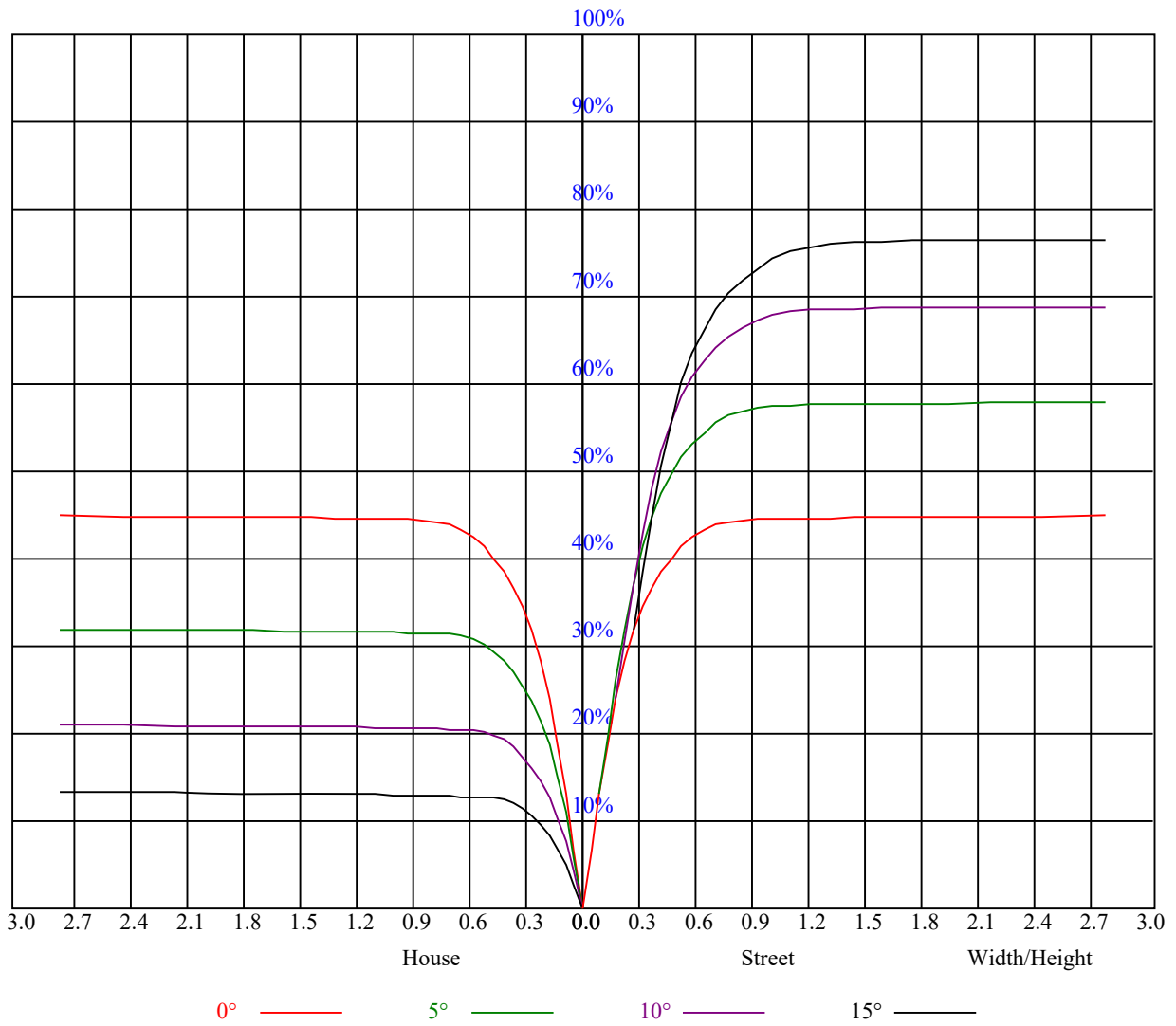
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.06	1.06	1.06	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.92
1	1.02	1.00	0.98	1.00	0.99	0.97	0.97	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.89	0.87
2	0.97	0.93	0.91	0.95	0.92	0.90	0.92	0.90	0.88	0.89	0.88	0.86	0.87	0.86	0.84	0.83
3	0.92	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.86	0.83	0.81	0.84	0.82	0.80	0.79
4	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.77	0.81	0.79	0.77	0.75
5	0.83	0.79	0.76	0.82	0.78	0.75	0.81	0.77	0.75	0.79	0.76	0.74	0.78	0.75	0.73	0.72
6	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.71	0.75	0.72	0.70	0.69
7	0.76	0.72	0.69	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
8	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.64
9	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61
10	0.68	0.64	0.61	0.68	0.63	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.66	0.63	0.60	0.59



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	7806.45	7130.35	5220.45	2778.15	1472.76	1002.58	868.24	415.68	38.43
45.0	7802.04	7397.38	5745.14	3198.23	1653.34	1046.62	883.10	512.02	71.46
90.0	7819.66	7554.29	5869.01	3299.53	1729.32	1065.23	896.04	567.96	84.95
135.0	7744.23	7774.51	6443.80	4052.70	2043.69	1141.87	939.81	706.92	294.55
180.0	7806.45	7381.96	5715.40	3237.32	1642.33	1053.12	904.85	544.62	58.58
225.0	7802.04	7118.24	5051.42	2767.69	1463.40	1009.79	878.31	428.17	36.17
270.0	7833.98	7085.76	5004.63	2633.90	1442.48	1000.37	868.24	414.57	33.80
315.0	7744.23	6637.05	4449.11	2225.93	1083.95	946.53	778.61	243.24	27.64
360.0	7806.45	7130.35	5220.45	2778.15	1472.76	1002.58	868.24	415.68	38.43
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	15.53	11.84	11.01	10.46	10.08	9.74	9.47	9.36	9.25
45.0	15.75	12.11	11.29	10.74	10.24	10.02	9.74	9.58	9.47
90.0	15.91	12.17	11.12	10.52	10.13	9.86	9.63	9.47	9.30
135.0	23.01	12.44	11.45	10.68	10.19	9.86	9.63	9.41	9.30
180.0	14.92	11.95	10.96	10.41	10.02	9.63	9.41	9.25	9.14
225.0	14.70	11.84	11.01	10.52	10.13	9.91	9.63	9.52	9.41
270.0	13.27	11.78	10.96	10.52	10.13	9.97	10.08	9.41	9.30
315.0	12.72	11.56	10.79	10.30	9.97	9.69	9.52	9.36	9.30
360.0	15.53	11.84	11.01	10.46	10.08	9.74	9.47	9.36	9.25
C/γ(°)	90.0								
0.0	9.08								
45.0	9.30								
90.0	9.25								
135.0	9.14								
180.0	9.08								
225.0	9.36								
270.0	9.30								
315.0	9.14								
360.0	9.08								