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Nata

LumCAT: 1-0915-S	
Luminaire: 92.70.064.00	
Report No: 220527-B006	Voltage(V):
Test No: 220527-C006	Current(A):
LampCAT: OSRAM OPTO SOLERIQ S9	Power (W): 12.0700
Lamp flux(lm): 1556.0	PF:
Number of Lamps: 1	Ballast type:
Length(mm): 43	Width(mm): 43
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1205.16
Efficiency(%): 77.45%
Lumens(lm)/Power(W): 99.85
Central intensity(cd): 1665.463
Maximum intensity(cd): 1665.463
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=53.0
 [C90/270]Total=53.0
Field angle(10%Imax): [C0/180]Total=72.6
 [C90/270]Total=72.6
Maximum s/h(1/2): C0_180=0.86 C90_270=0.86
Maximum s/h(1/4): C0_180=0.79 C90_270=0.79
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 77.45%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.036%

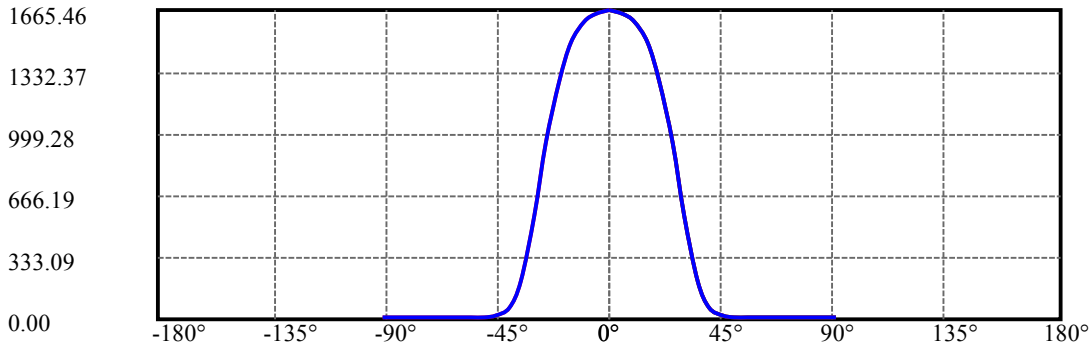
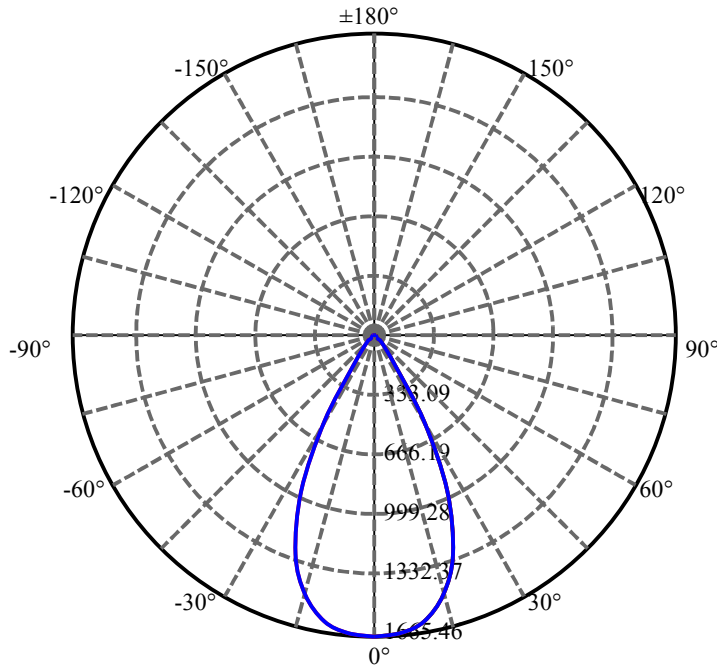
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1665.463	0.000	0	.000%	.000%
5.0	1649.404	39.628	39.628	2.547%	3.288%
10.0	1599.660	116.229	155.858	7.470%	12.933%
15.0	1486.951	183.096	338.953	11.767%	28.125%
20.0	1284.060	228.370	567.323	14.677%	47.075%
25.0	953.134	234.640	801.964	15.080%	66.544%
30.0	554.343	190.772	992.736	12.260%	82.374%
35.0	204.504	111.746	1104.482	7.182%	91.646%
40.0	60.306	44.182	1148.663	2.839%	95.312%
45.0	23.617	15.539	1164.202	.999%	96.601%
50.0	13.713	7.543	1171.745	.485%	97.227%
55.0	10.337	5.229	1176.975	.336%	97.661%
60.0	9.224	4.522	1181.496	.291%	98.036%
65.0	8.701	4.358	1185.854	.280%	98.398%
70.0	8.425	4.337	1190.191	.279%	98.758%
75.0	7.999	4.293	1194.484	.276%	99.114%
80.0	7.185	4.063	1198.547	.261%	99.451%
85.0	5.916	3.560	1202.107	.229%	99.747%
90.0	5.236	3.053	1205.16	.196%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	992.74	63.80%	82.37%
0-40	1148.66	73.82%	95.31%
0-60	1181.50	75.93%	98.04%
0-90	1202.11	77.26%	99.75%
0-120	1202.11	77.26%	99.75%
0-180	1205.16	77.45%	100.00%
60-90	25.13	1.62%	2.09%
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%
0-29.25	964.13	61.96%	80.00%

ZONAL LUMEN SUMMARY

0-10	155.86
10-20	411.47
20-30	425.41
30-40	155.93
40-50	23.08
50-60	9.75
60-70	8.69
70-80	8.36
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: —————

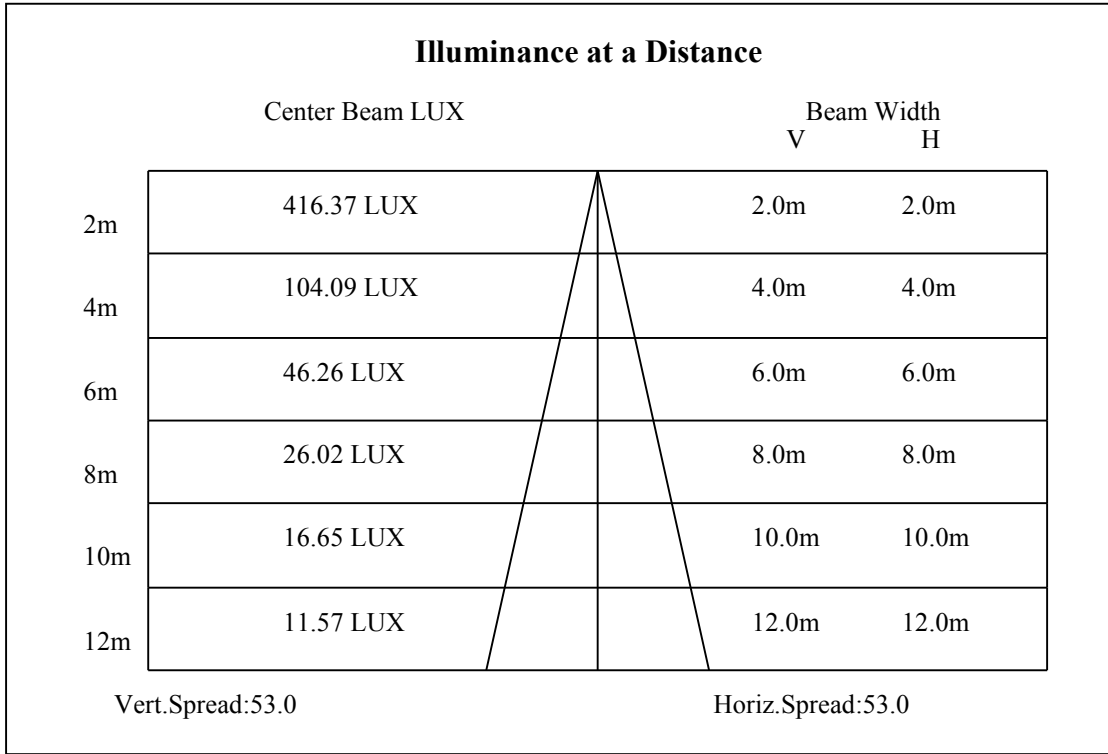
C90/C270: —————

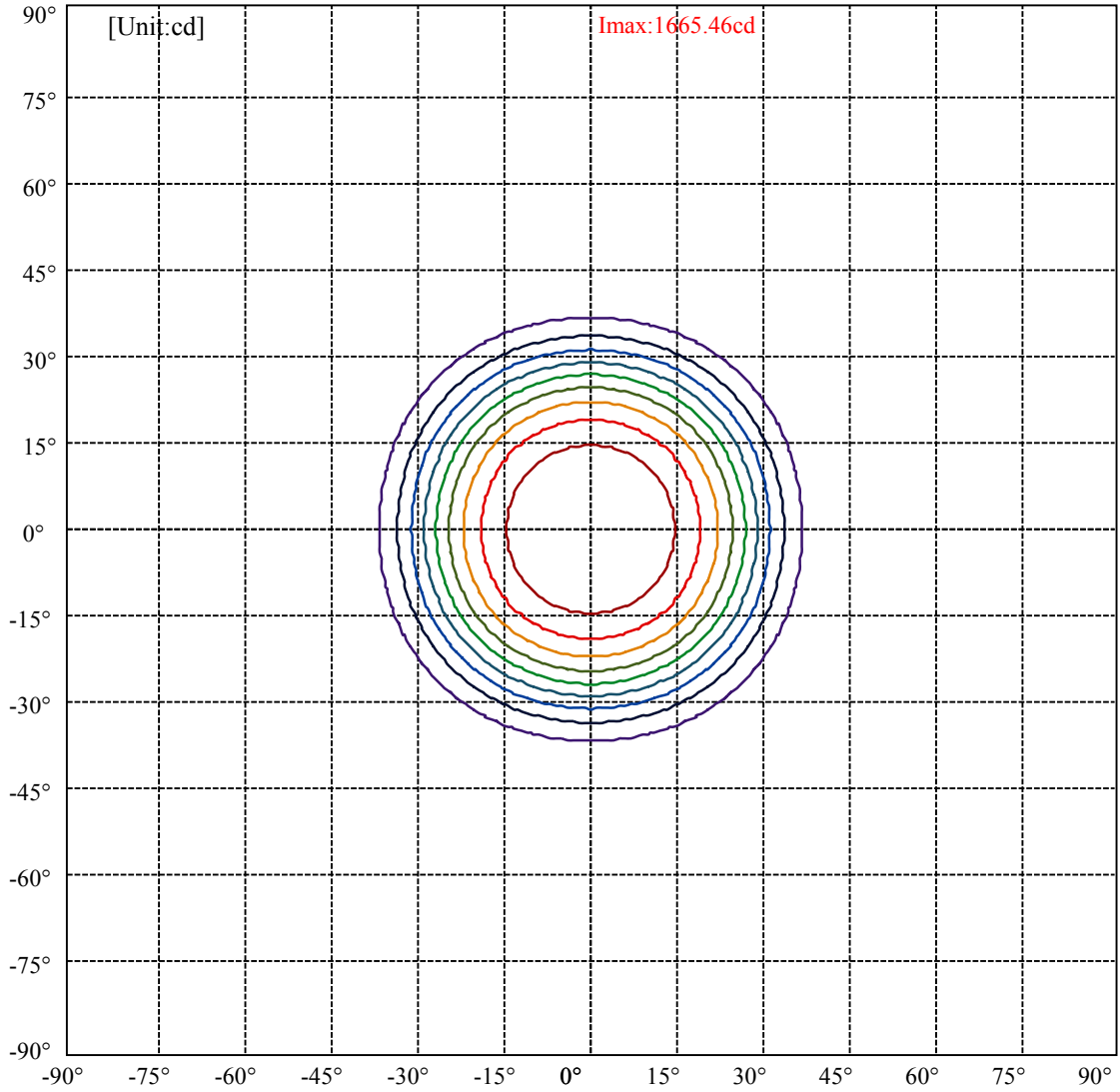
Field angle(10%Imax):C0/180Left:36.3 Right:36.3

:C90/270Left:36.3 Right:36.3

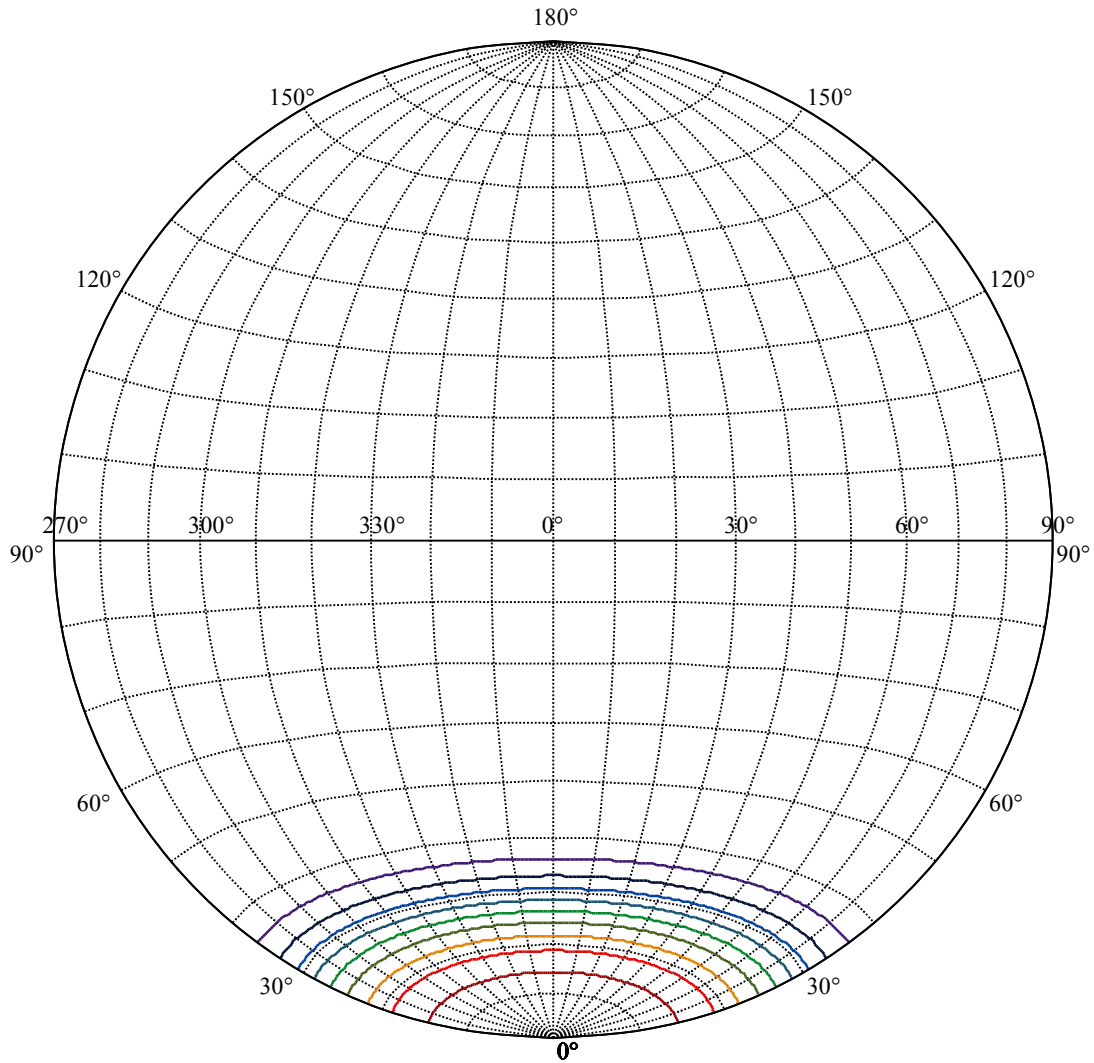
Beam Angle(50%Imax):C0/180Left:26.5 Right:26.5

:C90/270Left:26.5 Right:26.5





(10%Imax) 166.546	—
(20%Imax) 333.093	—
(30%Imax) 499.639	—
(40%Imax) 666.185	—
(50%Imax) 832.731	—
(60%Imax) 999.278	—
(70%Imax) 1165.82	—
(80%Imax) 1332.37	—
(90%Imax) 1498.92	—



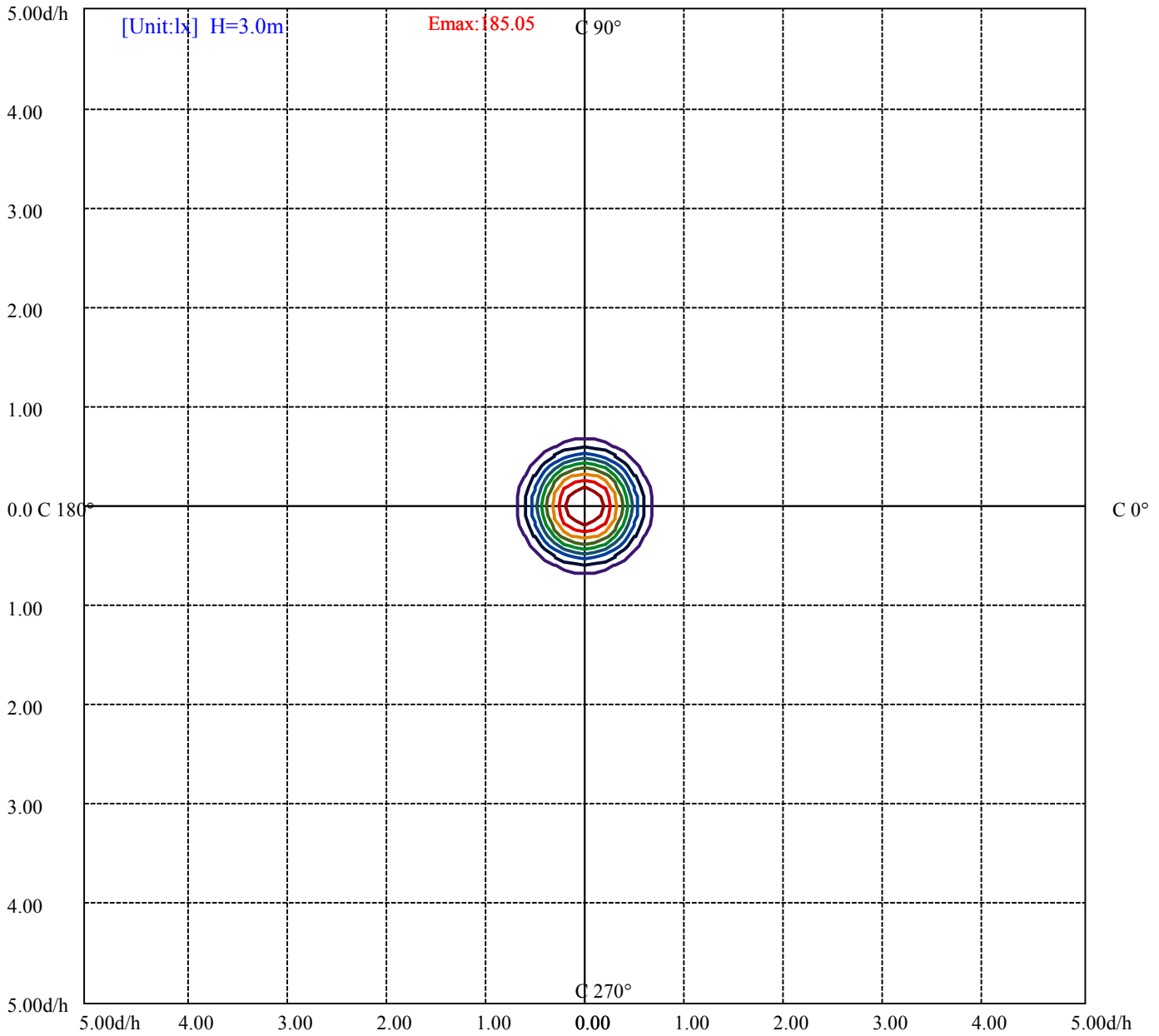
House

[Unit:cd]

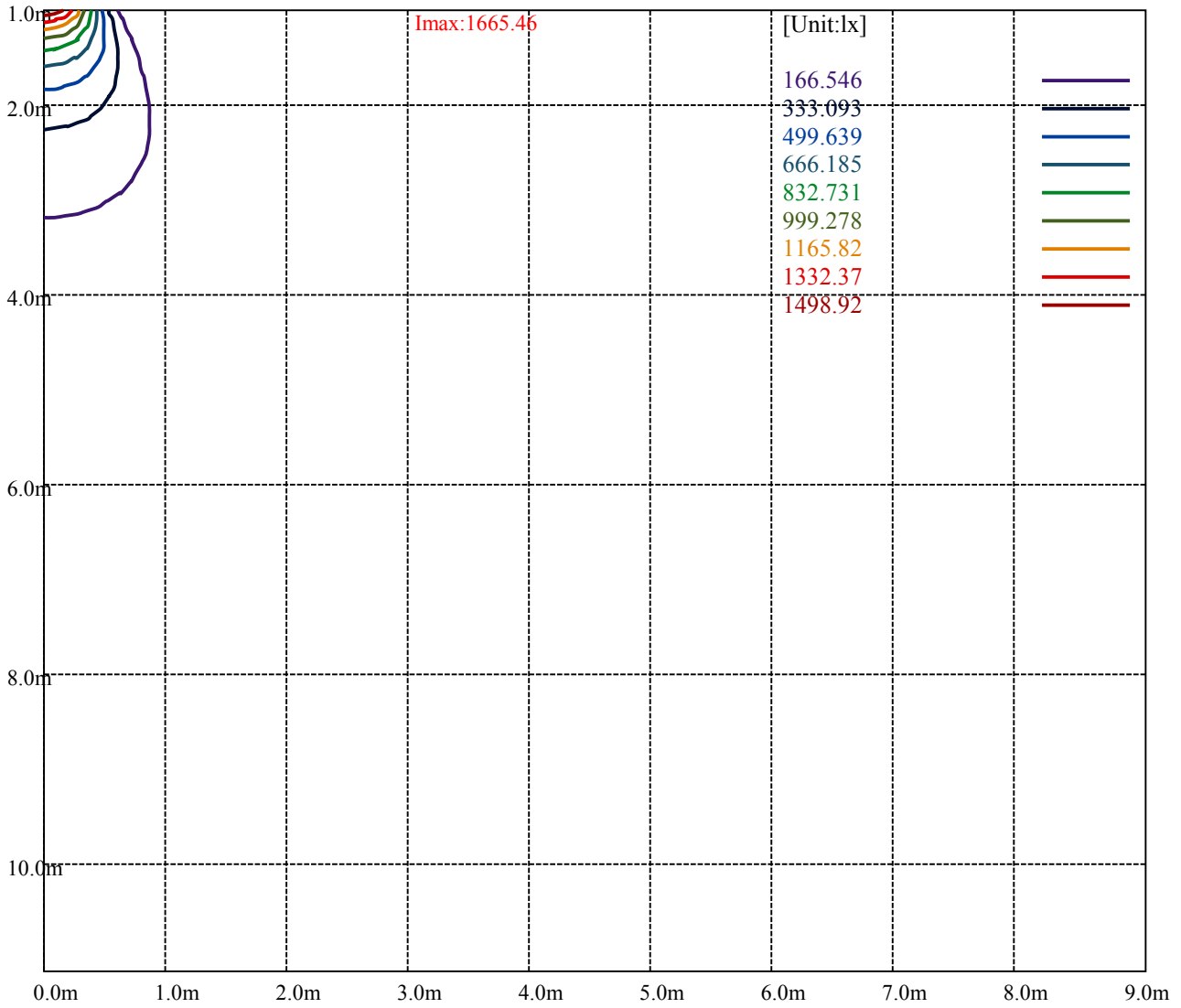
Road

Imax:1665.46

(10%Imax)	166.546	—
(20%Imax)	333.093	—
(30%Imax)	499.639	—
(40%Imax)	666.185	—
(50%Imax)	832.731	—
(60%Imax)	999.278	—
(70%Imax)	1165.82	—
(80%Imax)	1332.37	—
(90%Imax)	1498.92	—



(10%Emax) 18.50511	—
(20%Emax) 37.01022	—
(30%Emax) 55.51545	—
(40%Emax) 74.02055	—
(50%Emax) 92.52567	—
(60%Emax) 111.0308	—
(70%Emax) 129.5356	—
(80%Emax) 148.0411	—
(90%Emax) 166.5467	—



Luminance Table

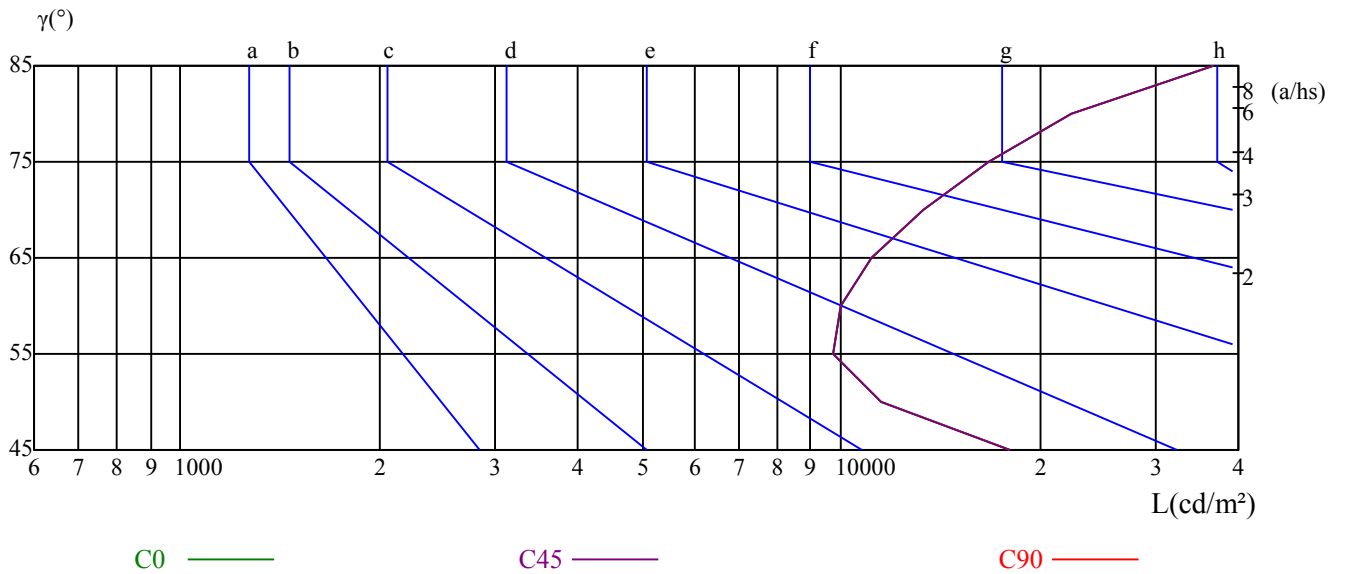
γ	45	50	55	60	65	70	75	80	85
C0	18064	11538	9747	9978	11135	13323	16716	22379	36709
C45	18064	11538	9747	9978	11135	13323	16716	22379	36709
C90	18064	11538	9747	9978	11135	13323	16716	22379	36709

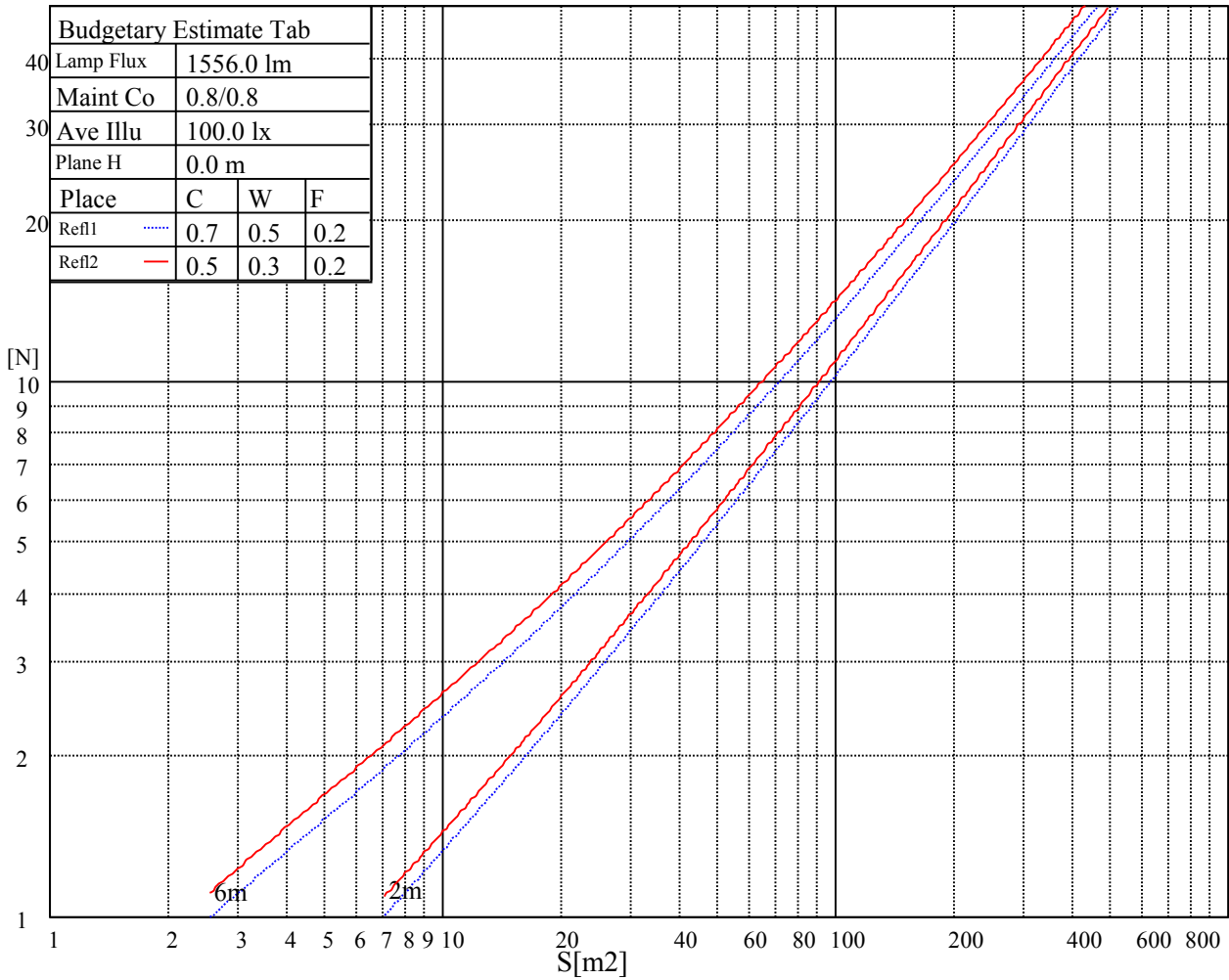
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
11135	11135	11135	16716	16716	16716	36709	36709	36709

Glare Table

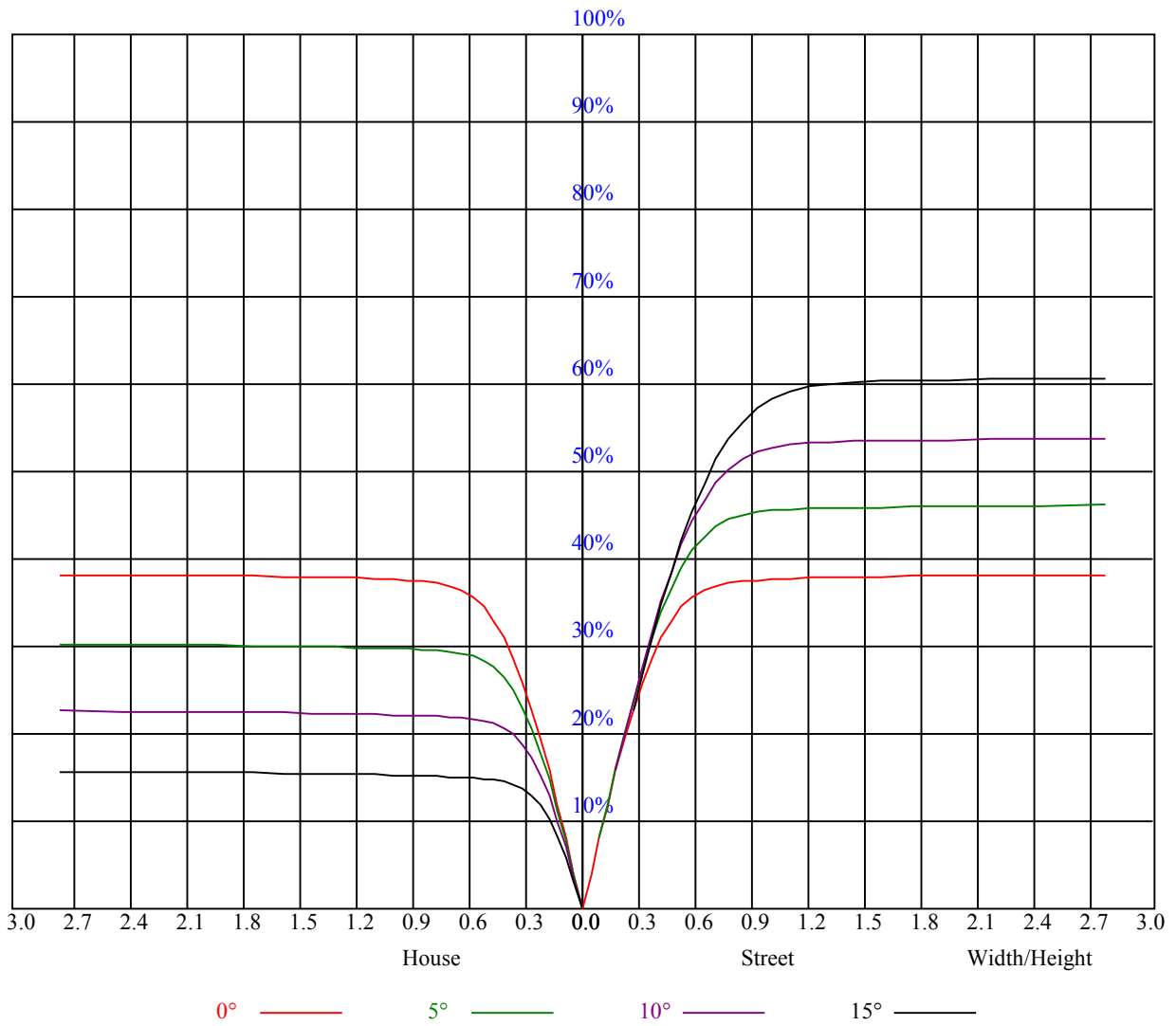
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.92	0.92	0.92	0.90	0.90	0.90	0.86	0.86	0.86	0.82	0.82	0.82	0.79	0.79	0.79	0.77
1	0.86	0.84	0.82	0.84	0.82	0.81	0.81	0.80	0.78	0.78	0.77	0.76	0.76	0.75	0.74	0.73
2	0.80	0.77	0.75	0.79	0.76	0.74	0.76	0.74	0.72	0.74	0.72	0.71	0.72	0.71	0.69	0.68
3	0.75	0.72	0.69	0.74	0.71	0.68	0.72	0.69	0.67	0.70	0.68	0.66	0.69	0.67	0.65	0.64
4	0.71	0.67	0.64	0.70	0.66	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.65	0.63	0.61	0.60
5	0.67	0.63	0.60	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.62	0.60	0.58	0.57
6	0.63	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.54
7	0.60	0.56	0.53	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.51
8	0.57	0.53	0.50	0.57	0.52	0.50	0.56	0.52	0.49	0.55	0.52	0.49	0.54	0.51	0.49	0.48
9	0.54	0.50	0.47	0.54	0.50	0.47	0.53	0.49	0.47	0.52	0.49	0.47	0.52	0.49	0.46	0.46
10	0.52	0.47	0.45	0.51	0.47	0.45	0.51	0.47	0.44	0.50	0.47	0.44	0.50	0.46	0.44	0.43



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	1671.29	1647.99	1600.18	1507.57	1365.95	1073.76	713.45	310.72	85.57
45.0	1661.73	1632.45	1577.48	1470.52	1276.32	935.13	518.06	159.12	49.06
90.0	1659.34	1621.10	1553.58	1422.72	1162.37	796.69	415.70	120.16	40.27
135.0	1669.50	1639.62	1584.65	1467.53	1251.82	890.92	473.24	145.62	46.73
180.0	1671.29	1655.75	1600.18	1465.74	1183.88	844.55	412.12	122.73	41.53
225.0	1661.73	1676.67	1643.21	1525.49	1350.42	1004.33	579.78	220.67	64.12
270.0	1659.34	1670.69	1643.80	1553.58	1411.36	1104.83	720.62	317.29	84.73
315.0	1669.50	1650.97	1594.21	1482.47	1270.35	974.87	601.77	239.73	70.45
360.0	1671.29	1647.99	1600.18	1507.57	1365.95	1073.76	713.45	310.72	85.57
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	30.18	16.73	11.41	9.68	8.66	8.19	7.59	7.11	6.45
45.0	21.63	13.92	11.00	10.10	9.56	9.26	8.66	7.77	5.62
90.0	18.52	12.19	10.28	9.56	9.56	9.32	8.60	6.39	5.32
135.0	20.02	12.31	10.28	10.04	9.98	10.10	9.92	8.66	5.44
180.0	18.17	11.47	9.26	8.37	8.13	8.07	7.71	6.99	5.38
225.0	24.20	13.68	10.04	8.78	8.01	7.53	7.29	6.93	6.39
270.0	29.46	15.06	10.22	8.49	7.71	7.35	6.99	6.75	6.39
315.0	26.77	14.34	10.22	8.78	8.01	7.59	7.23	6.87	6.33
360.0	30.18	16.73	11.41	9.68	8.66	8.19	7.59	7.11	6.45
C/γ(°)	90.0								
0.0	5.32								
45.0	5.14								
90.0	5.20								
135.0	5.14								
180.0	5.14								
225.0	5.32								
270.0	5.44								
315.0	5.20								
360.0	5.32								