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## Nata

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LumCAT: 8384-E  
Luminaire: TE 2213480-1+92.76.365.00  
Report No: GC201703307  
Test No: NT-0010  
LampCAT: LUMILEDS LUXEON CoB 1211  
Lamp flux(lm): 3586.0  
Number of Lamps: 1  
Length(mm): 200  
Phm Type: C

Voltage(V): 34.1000  
Current(A): 0.8000  
Power (W): 27.2800  
PF: 0.0000  
Ballast type: DC  
Width(mm): 200  
Height(mm): 0

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## Photometric Results

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Lumens(lm): 3371.86  
Efficiency(%): 94.03%  
Lumens(lm)/Power(W): 123.60  
Central intensity(cd): 2194.961  
Maximum intensity(cd): 2194.961  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=82.1  
                                  [C90/270]Total=82.1  
Field angle(10%Imax): [C0/180]Total=101.2  
                                  [C90/270]Total=101.2  
Maximum s/h(1/2): C0\_180=1.21 C90\_270=1.21  
Maximum s/h(1/4): C0\_180=1.17 C90\_270=1.17  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 94.03%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.788%

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Equipment: gms1980  
Temperature(°C): 25.0

Date: 2017/3/27  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.42

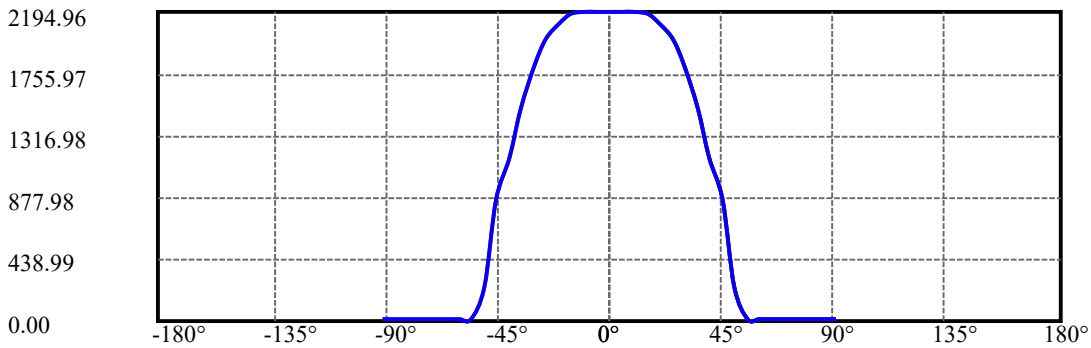
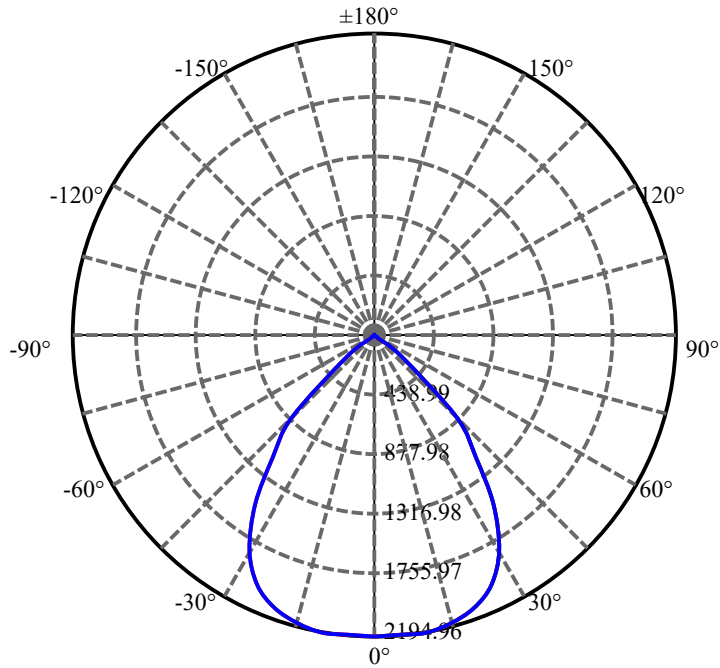
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2194.961	0.000	0	.000%	.000%
5.0	2192.483	52.451	52.451	1.463%	1.556%
10.0	2194.961	156.953	209.403	4.377%	6.210%
15.0	2178.238	259.415	468.819	7.234%	13.904%
20.0	2117.676	354.044	822.862	9.873%	24.404%
25.0	2003.640	432.250	1255.112	12.054%	37.223%
30.0	1811.562	482.817	1737.929	13.464%	51.542%
35.0	1507.307	488.727	2226.656	13.629%	66.036%
40.0	1160.190	445.052	2671.707	12.411%	79.235%
45.0	854.441	373.025	3044.733	10.402%	90.298%
50.0	248.180	222.801	3267.533	6.213%	96.906%
55.0	14.542	57.125	3324.658	1.593%	98.600%
60.0	12.918	6.347	3331.005	.177%	98.788%
65.0	12.594	6.202	3337.207	.173%	98.972%
70.0	15.732	7.172	3344.38	.200%	99.185%
75.0	13.840	7.730	3352.109	.216%	99.414%
80.0	12.470	7.040	3359.149	.196%	99.623%
85.0	11.603	6.541	3365.69	.182%	99.817%
90.0	10.942	6.173	3371.864	.172%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1737.93	48.46%	51.54%
0-40	2671.71	74.50%	79.24%
0-60	3331.01	92.89%	98.79%
0-90	3365.69	93.86%	99.82%
0-120	3365.69	93.86%	99.82%
0-180	3371.86	94.03%	100.00%
60-90	41.03	1.14%	1.22%
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%
0-40.35	2697.49	75.22%	80.00%

## ZONAL LUMEN SUMMARY

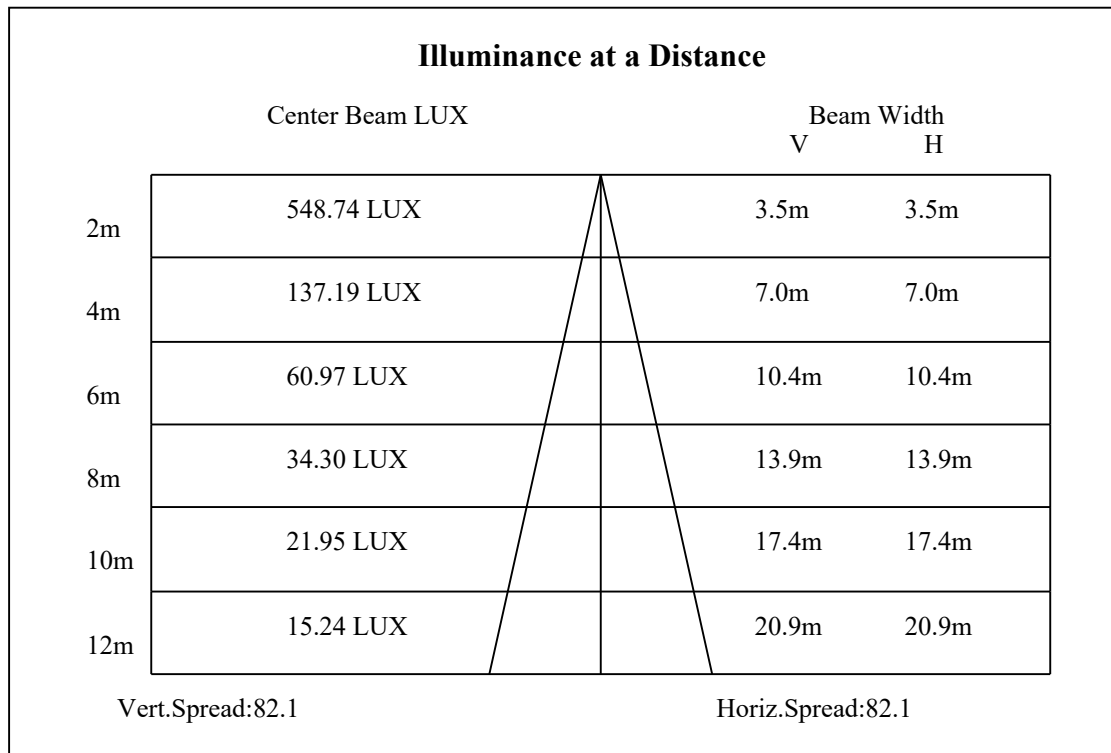
0-10	209.40
10-20	613.46
20-30	915.07
30-40	933.78
40-50	595.83
50-60	63.47
60-70	13.37
70-80	14.77
80-90	6.54
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

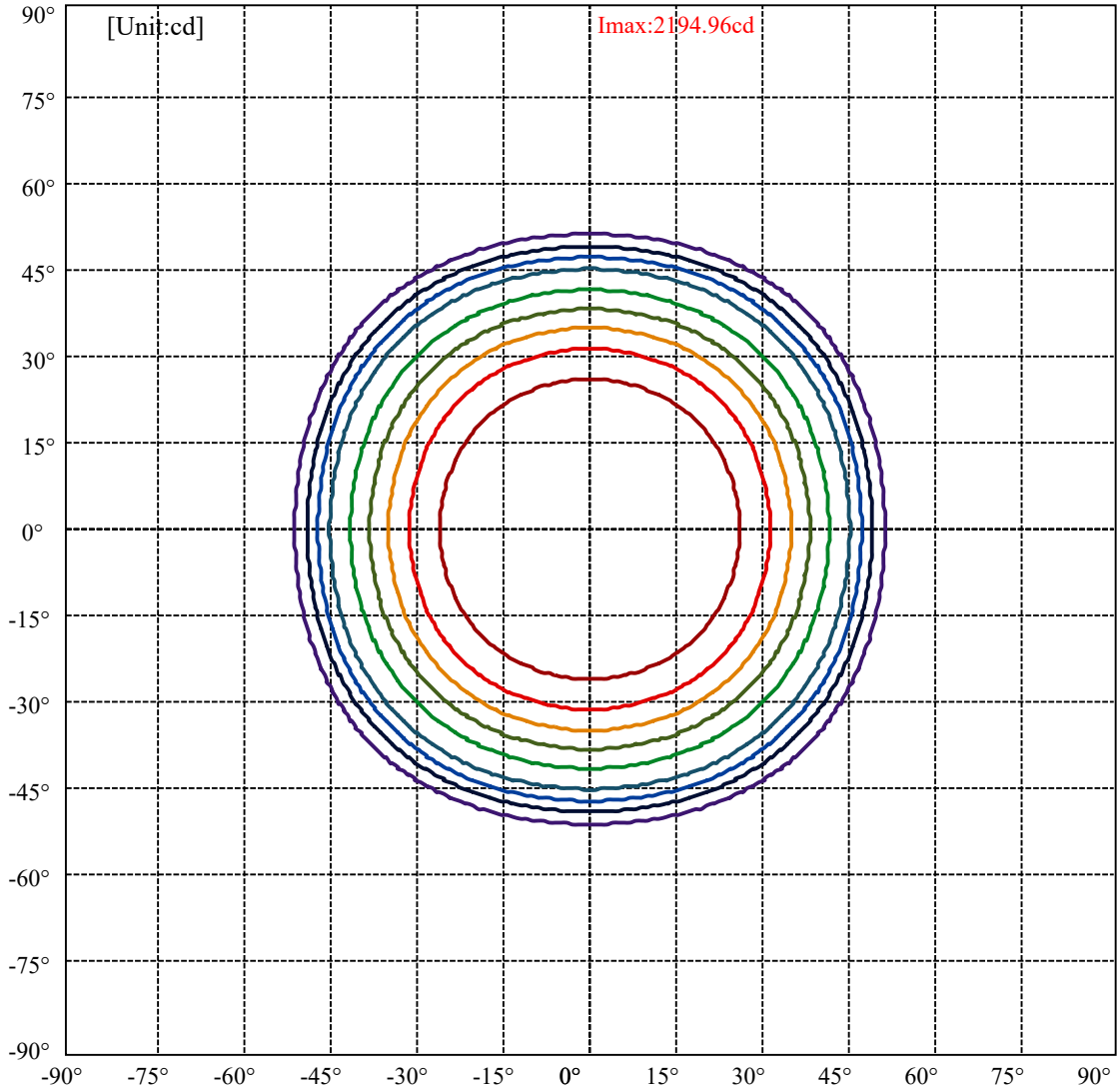


C0(Max): ———  
C0/C180: ———  
C90/C270: ———

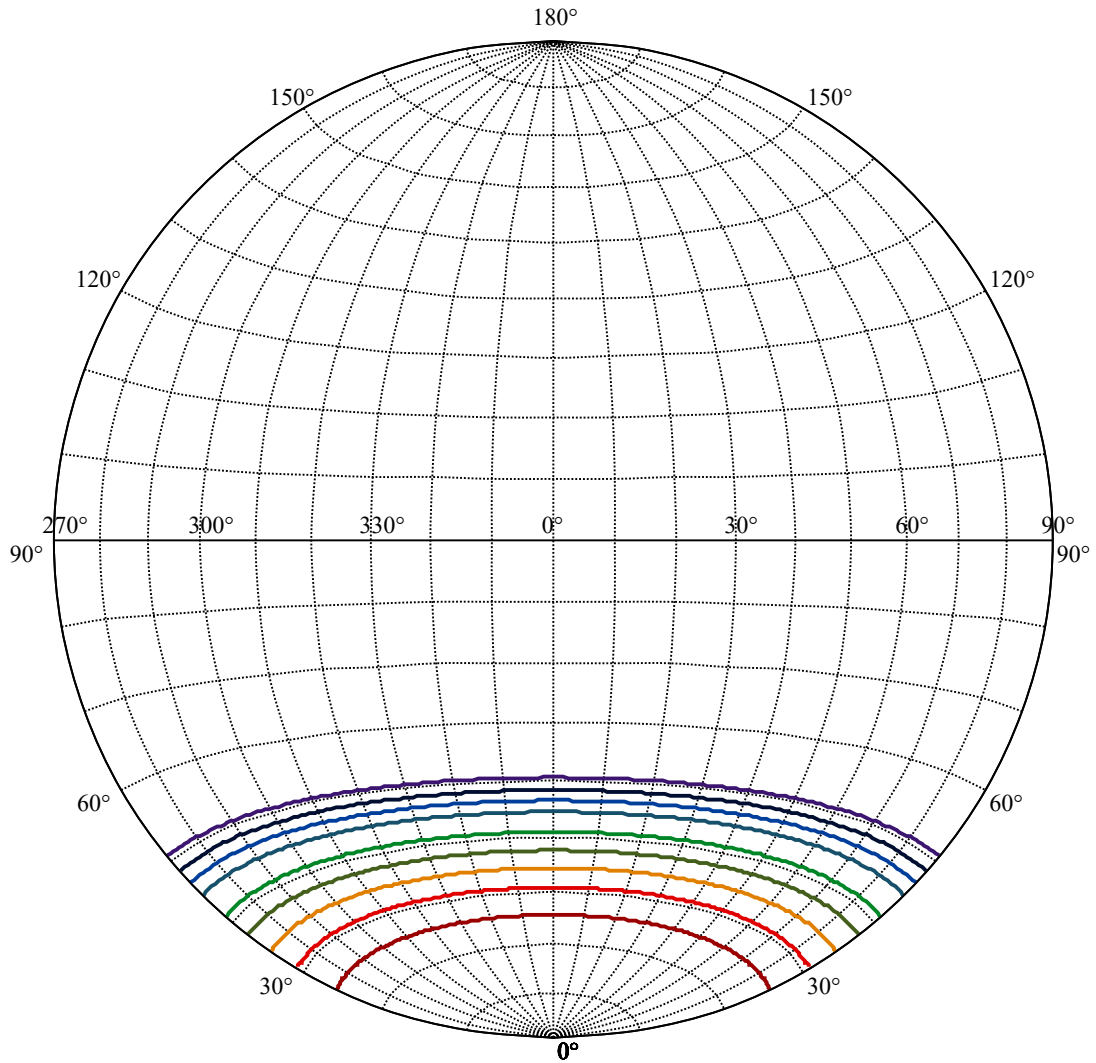
Field angle(10%Imax):C0/180Left:60.6 Right:40.6  
:C90/270Left:60.6 Right:40.6

Beam Angle(50%Imax):C0/180Left:51.0 Right:31.0  
:C90/270Left:51.0 Right:31.0





(10%Imax) 219.496	—
(20%Imax) 438.992	—
(30%Imax) 658.488	—
(40%Imax) 877.984	—
(50%Imax) 1097.48	—
(60%Imax) 1316.98	—
(70%Imax) 1536.47	—
(80%Imax) 1755.97	—
(90%Imax) 1975.46	—



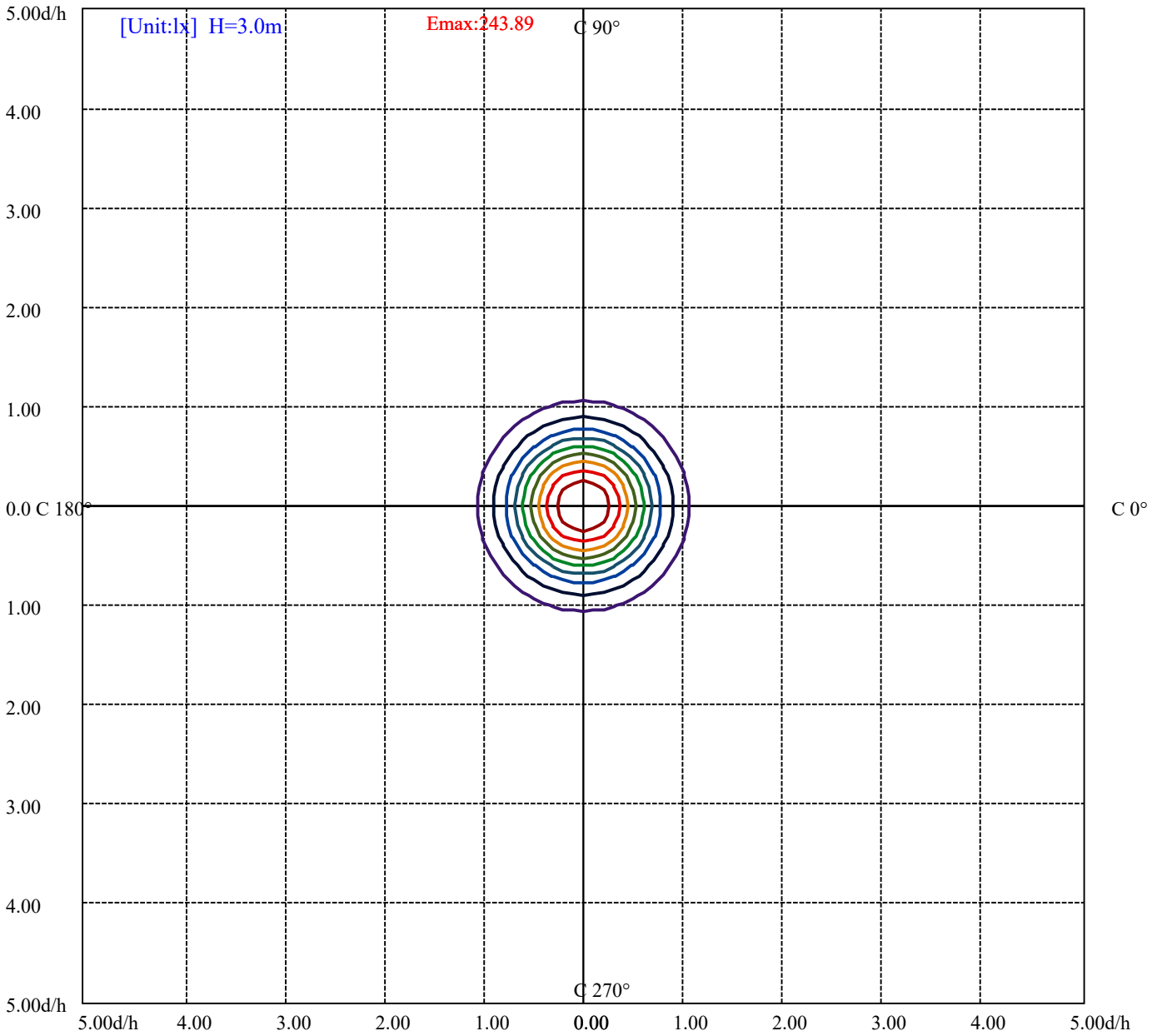
House

[Unit:cd]

Road

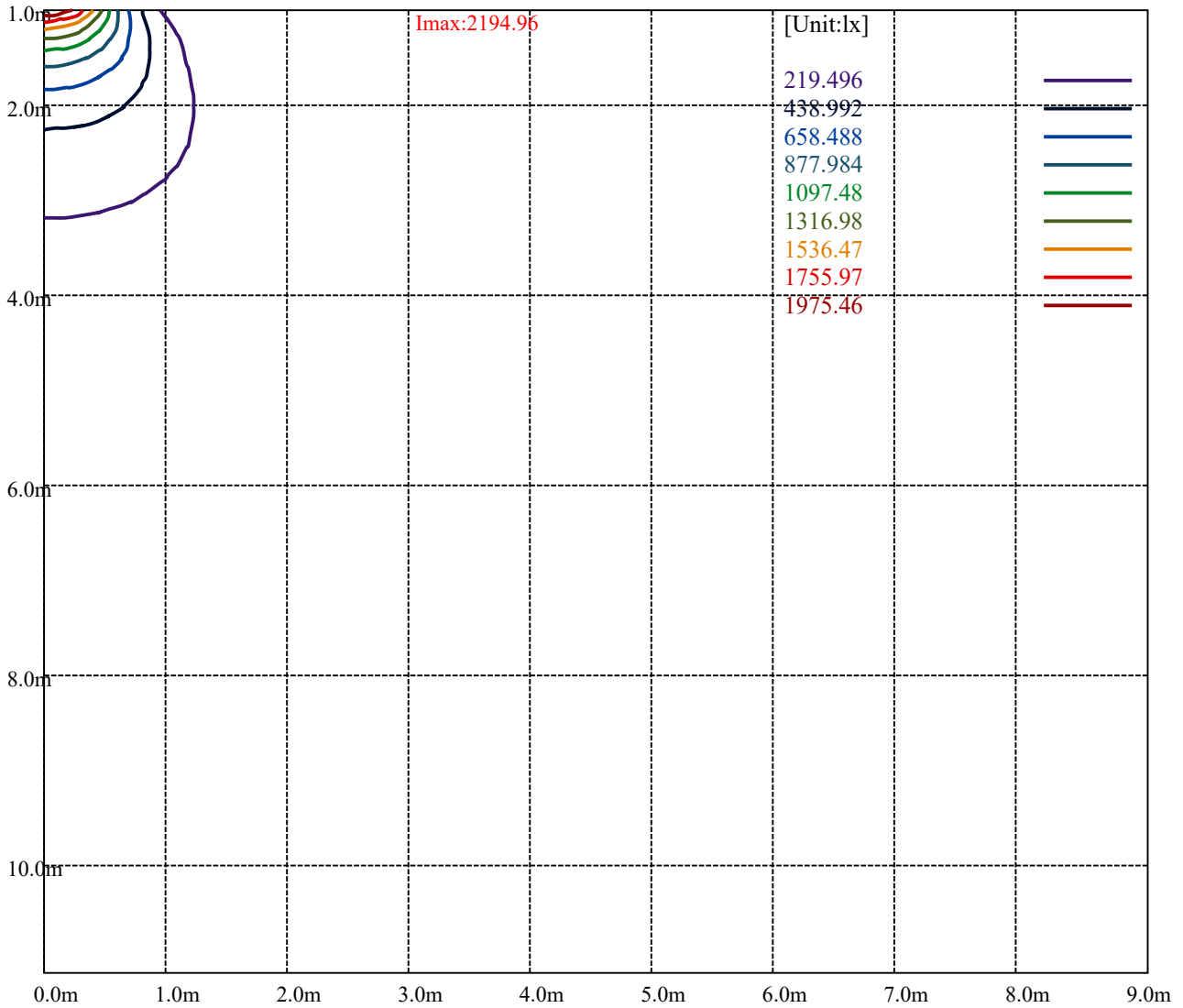
Imax:2194.96

(10%Imax)	219.496	—
(20%Imax)	438.992	—
(30%Imax)	658.488	—
(40%Imax)	877.984	—
(50%Imax)	1097.48	—
(60%Imax)	1316.98	—
(70%Imax)	1536.47	—
(80%Imax)	1755.97	—
(90%Imax)	1975.46	—



- (10%Emax) 24.38844
- (20%Emax) 48.77689
- (30%Emax) 73.16533
- (40%Emax) 97.55378
- (50%Emax) 121.9422
- (60%Emax) 146.3311
- (70%Emax) 170.7189
- (80%Emax) 195.1078
- (90%Emax) 219.4955





Luminance Table

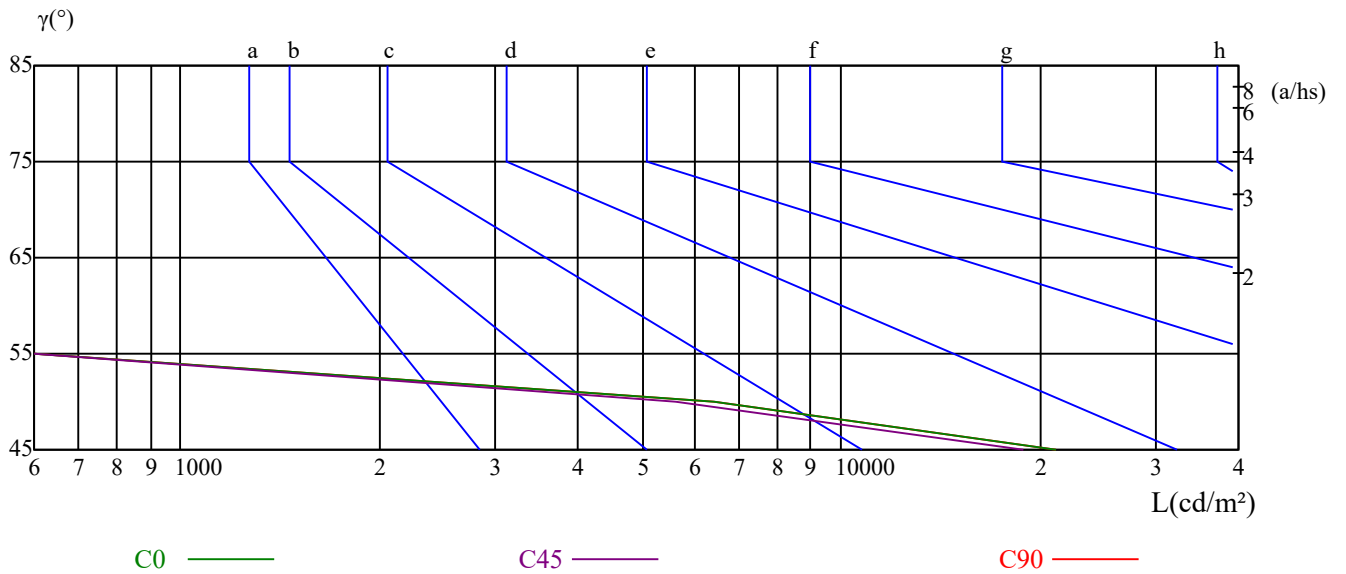
$\gamma$	45	50	55	60	65	70	75	80	85
C0	21199	6407	394	372	390	531	517	526	568
C45	18868	5624	341	316	325	434	412	407	423
C90	21199	6407	394	372	390	531	517	526	568

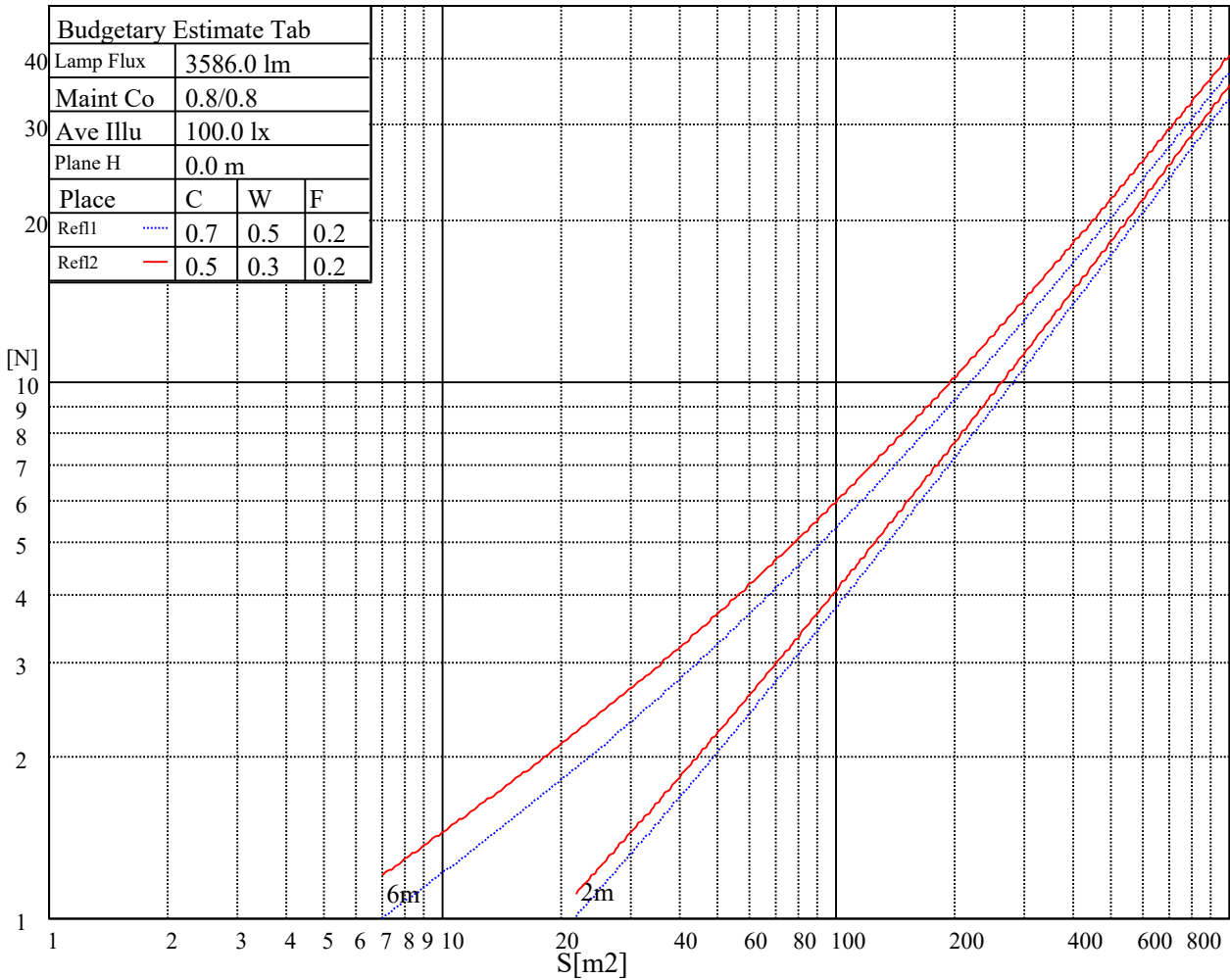
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
745	745	745	1337	1337	1337	3328	3328	3328

Glare Table

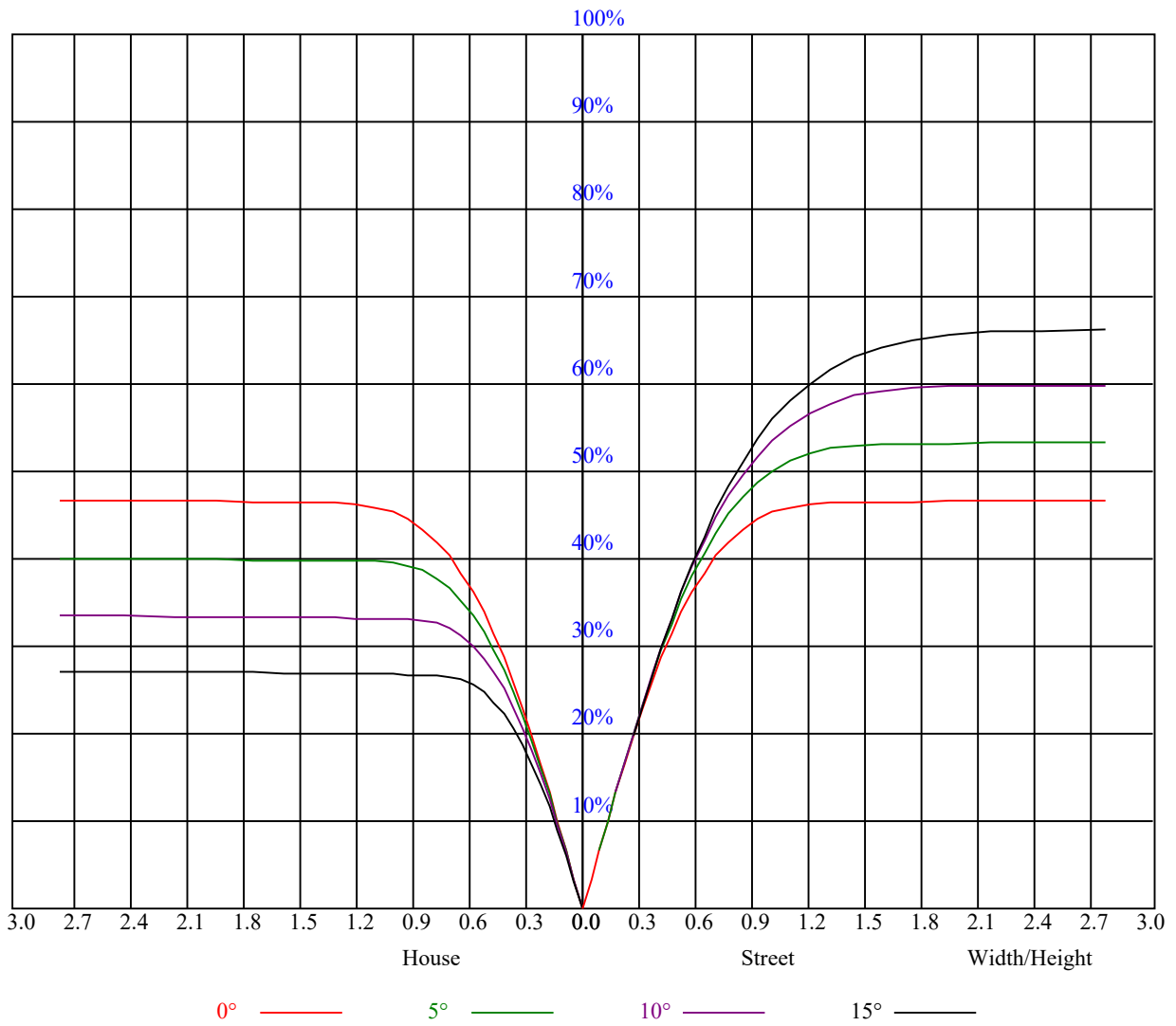
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.12	1.12	1.12	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.03	1.00	0.98	1.01	0.98	0.96	0.97	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.88	0.86
2	0.94	0.90	0.86	0.93	0.89	0.85	0.90	0.86	0.83	0.87	0.84	0.82	0.84	0.82	0.80	0.78
3	0.87	0.81	0.77	0.85	0.80	0.76	0.83	0.79	0.75	0.80	0.77	0.74	0.78	0.75	0.73	0.71
4	0.80	0.74	0.69	0.79	0.73	0.69	0.76	0.72	0.68	0.75	0.70	0.67	0.73	0.69	0.66	0.65
5	0.73	0.67	0.62	0.73	0.67	0.62	0.71	0.66	0.62	0.69	0.65	0.61	0.68	0.64	0.60	0.59
6	0.68	0.61	0.57	0.67	0.61	0.57	0.66	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.55	0.54
7	0.63	0.56	0.52	0.62	0.56	0.52	0.61	0.55	0.51	0.60	0.55	0.51	0.58	0.54	0.51	0.49
8	0.58	0.52	0.47	0.58	0.52	0.47	0.57	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.47	0.45
9	0.54	0.48	0.44	0.54	0.48	0.44	0.53	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.42
10	0.51	0.44	0.40	0.50	0.44	0.40	0.49	0.44	0.40	0.49	0.43	0.40	0.48	0.43	0.40	0.38



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	2192.90	2199.50	2211.07	2198.95	2136.19	2016.72	1808.60	1479.92	1163.89
45.0	2198.95	2198.40	2205.56	2184.09	2112.51	1983.13	1762.36	1449.08	1127.56
90.0	2194.00	2192.90	2201.15	2178.03	2100.40	1985.33	1765.11	1448.53	1094.58
135.0	2194.00	2186.29	2189.59	2185.74	2137.84	2043.69	1886.23	1601.04	1260.79
180.0	2192.90	2180.78	2173.63	2159.86	2109.76	2004.05	1817.96	1544.33	1090.17
225.0	2198.95	2190.14	2178.03	2158.21	2111.41	2009.01	1831.18	1554.24	1241.52
270.0	2194.00	2192.35	2192.35	2179.13	2125.18	2020.57	1853.75	1552.04	1218.40
315.0	2194.00	2199.50	2208.31	2181.89	2108.11	1966.61	1767.31	1429.26	1084.61
360.0	2192.90	2199.50	2211.07	2198.95	2136.19	2016.72	1808.60	1479.92	1163.89

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	840.71	298.41	14.48	12.83	12.33	16.79	12.55	12.06	11.67
45.0	774.64	312.17	13.71	12.39	12.22	13.54	12.33	11.67	11.29
90.0	813.57	106.48	13.65	12.22	11.89	12.00	11.67	11.40	11.12
135.0	973.40	367.23	14.76	12.94	12.17	12.50	12.44	12.11	11.62
180.0	857.94	241.04	14.59	13.05	12.77	17.34	13.32	12.39	11.73
225.0	929.74	308.15	15.53	13.54	13.54	17.84	14.53	12.50	11.84
270.0	905.68	313.82	15.53	13.54	13.54	20.76	19.10	15.09	11.89
315.0	739.85	38.15	14.09	12.83	12.28	15.09	14.76	12.55	11.67
360.0	840.71	298.41	14.48	12.83	12.33	16.79	12.55	12.06	11.67

C/γ(°)	90.0
0.0	11.07
45.0	10.85
90.0	10.90
135.0	10.96
180.0	11.07
225.0	10.96
270.0	10.85
315.0	10.90
360.0	11.07