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Nata

LumCAT: 2-1569-M	
Luminaire: BJB47.319.2131	
Report No: NT2017080813	Voltage(V): 38.5000
Test No: GC2017080813	Current(A): 0.5000
LampCAT: CREE CXA1816	Power (W): 19.2500
Lamp flux(lm): 2010.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1822.40
Efficiency(%): 90.67%
Lumens(lm)/Power(W): 95.17
Central intensity(cd): 1889.372
Maximum intensity(cd): 1903.285
Angle of maximum intensity: C=0.0 γ =10.0
Beam Angle(50%Imax): [C0/180]Total=63.0
[C90/270]Total=63.0
Field angle(10%Imax): [C0/180]Total=79.4
[C90/270]Total=79.4
Maximum s/h(1/2): C0_180=1.03 C90_270=1.03
Maximum s/h(1/4): C0_180=0.92 C90_270=0.92
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.14%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.201%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2017/8/8
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.46

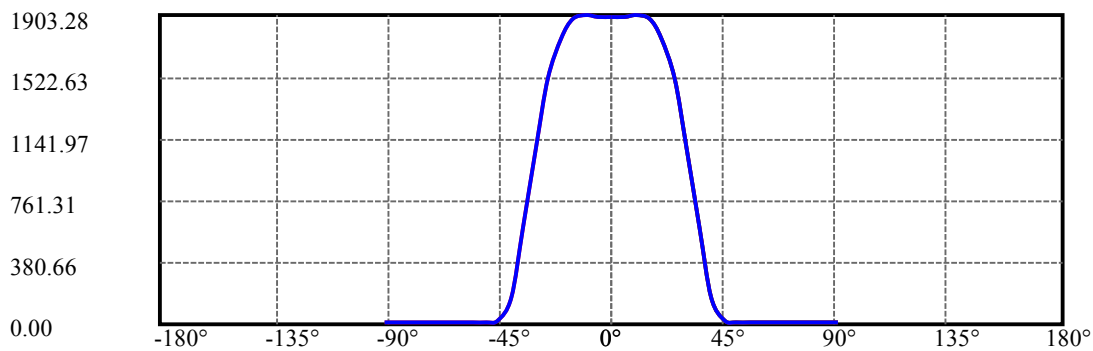
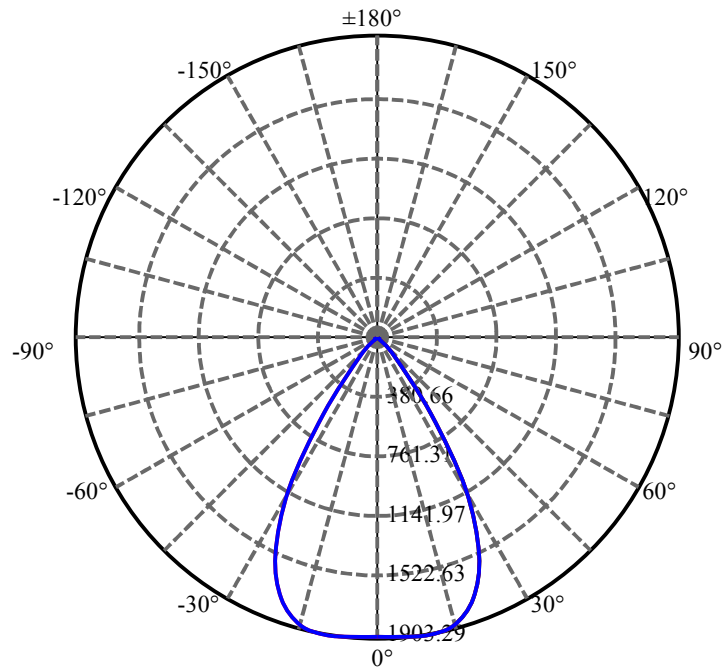
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1889.372	11.299	11.299	.562%	.620%
5.0	1894.311	90.498	101.796	4.502%	5.586%
10.0	1903.285	181.160	282.957	9.013%	15.527%
15.0	1880.189	266.739	549.696	13.271%	30.163%
20.0	1759.982	329.951	879.647	16.415%	48.269%
25.0	1507.463	349.208	1228.855	17.374%	67.431%
30.0	1104.218	302.632	1531.487	15.056%	84.037%
35.0	596.933	187.675	1719.162	9.337%	94.335%
40.0	165.647	58.363	1777.525	2.904%	97.538%
45.0	19.575	7.587	1785.112	.377%	97.954%
50.0	11.687	4.907	1790.02	.244%	98.223%
55.0	10.080	4.526	1794.546	.225%	98.472%
60.0	9.377	4.451	1798.997	.221%	98.716%
65.0	8.800	4.372	1803.369	.217%	98.956%
70.0	8.334	4.293	1807.661	.214%	99.191%
75.0	8.000	4.236	1811.897	.211%	99.424%
80.0	7.784	4.202	1816.099	.209%	99.654%
85.0	7.680	4.194	1820.293	.209%	99.885%
90.0	7.673	2.103	1822.396	.105%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1531.49	76.19%	84.04%
0-40	1777.53	88.43%	97.54%
0-60	1799.00	89.50%	98.72%
0-90	1820.29	90.56%	99.88%
0-120	1820.29	90.56%	99.88%
0-180	1822.40	90.67%	100.00%
60-90	25.75	1.28%	1.41%
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%
0-28.78	1457.92	72.53%	80.00%

ZONAL LUMEN SUMMARY

0-10	282.96
10-20	596.69
20-30	651.84
30-40	246.04
40-50	12.49
50-60	8.98
60-70	8.66
70-80	8.44
80-90	4.19
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:

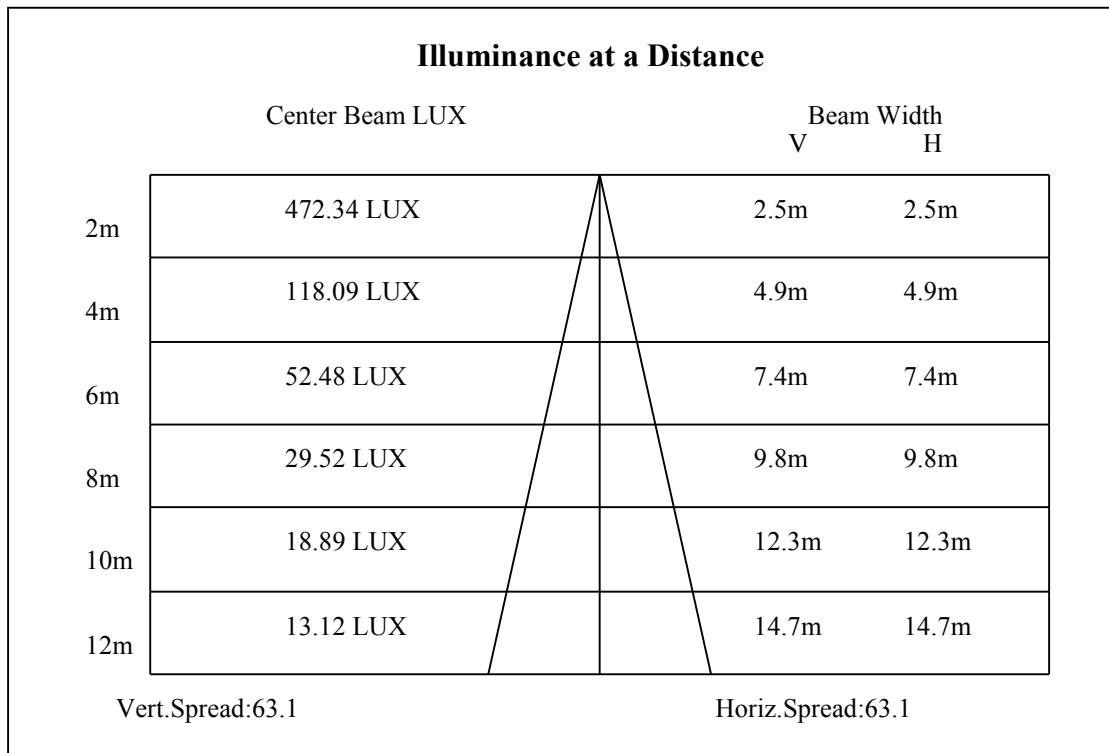
C90/C270:

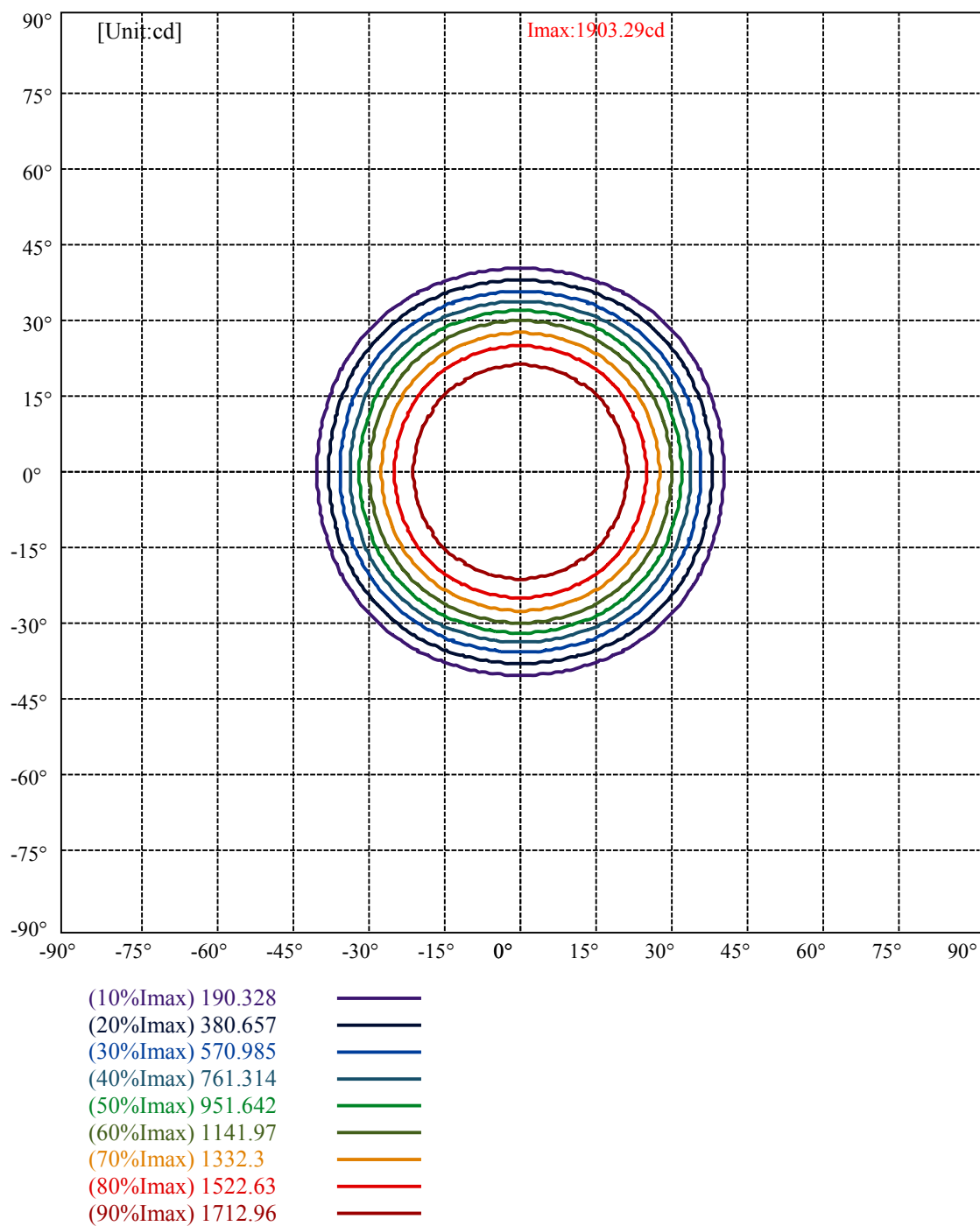
Field angle(10%Imax):C0/180Left:49.7 Right:29.7

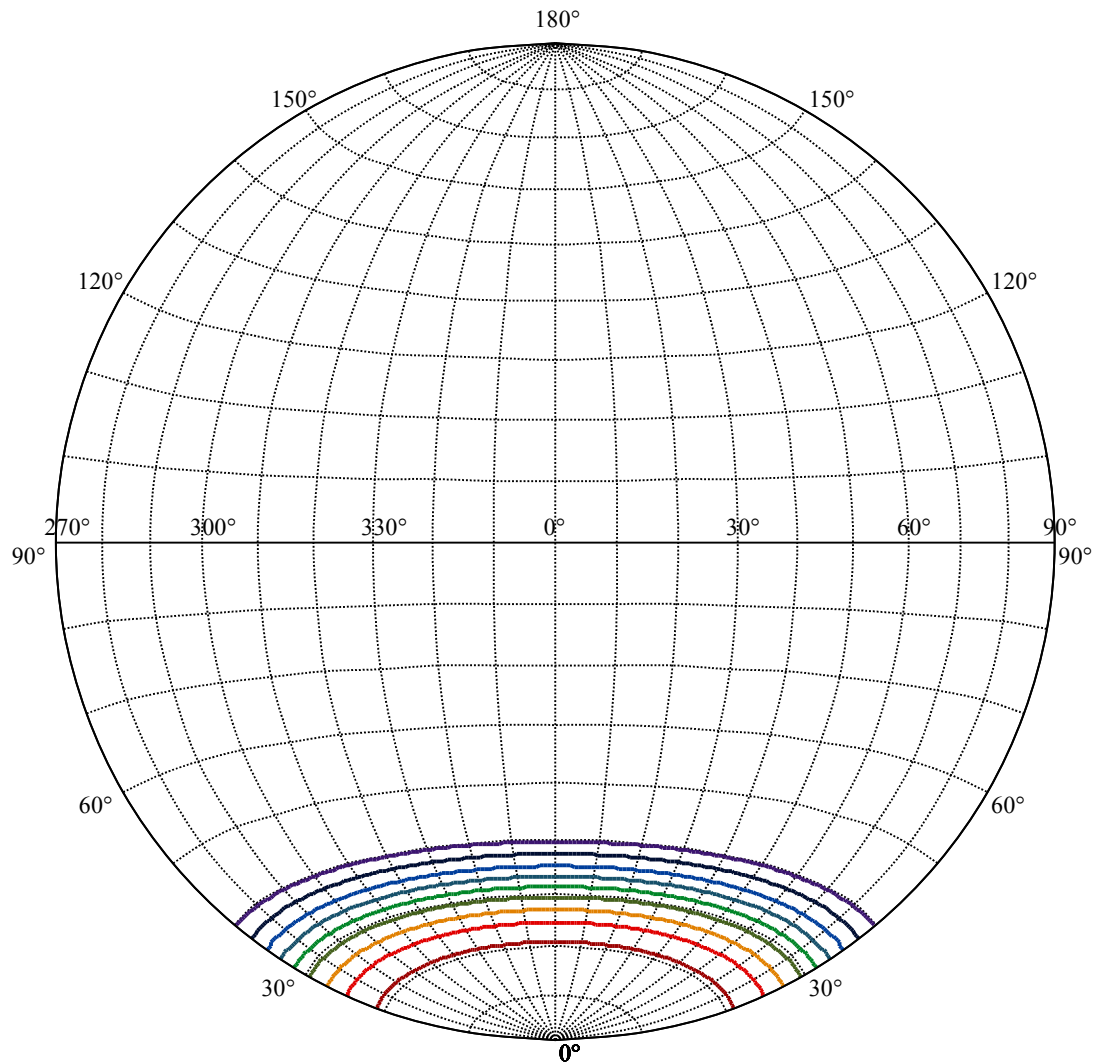
:C90/270Left:49.7 Right:29.7

Beam Angle(50%Imax):C0/180Left:41.5 Right:21.5

:C90/270Left:41.5 Right:21.5







House

[Unit:cd]

Road

Imax:1903.29

(10%Imax) 190.328

(20%Imax) 380.657

(30%Imax) 570.985

(40%Imax) 761.314

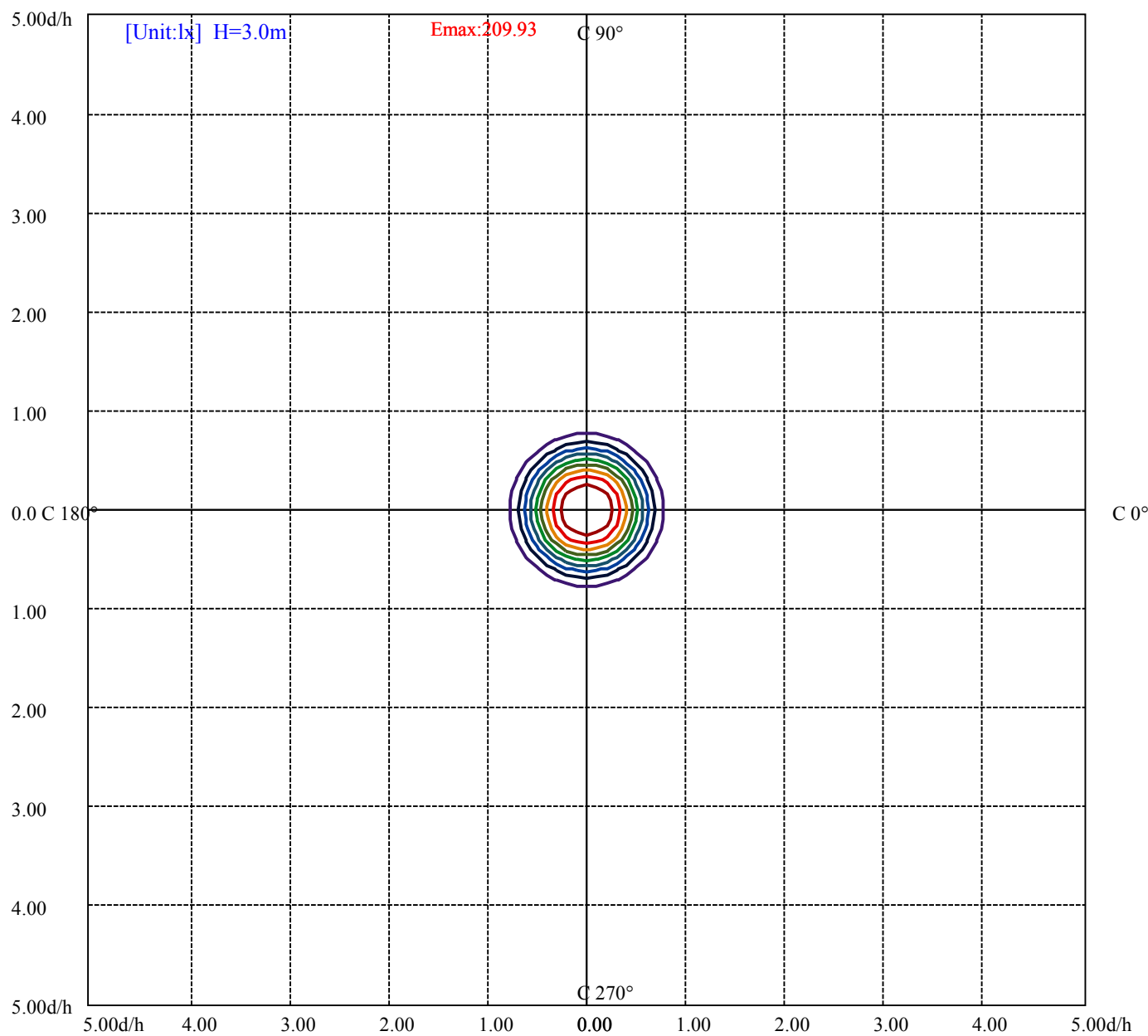
(50%Imax) 951.642

(60%Imax) 1141.97

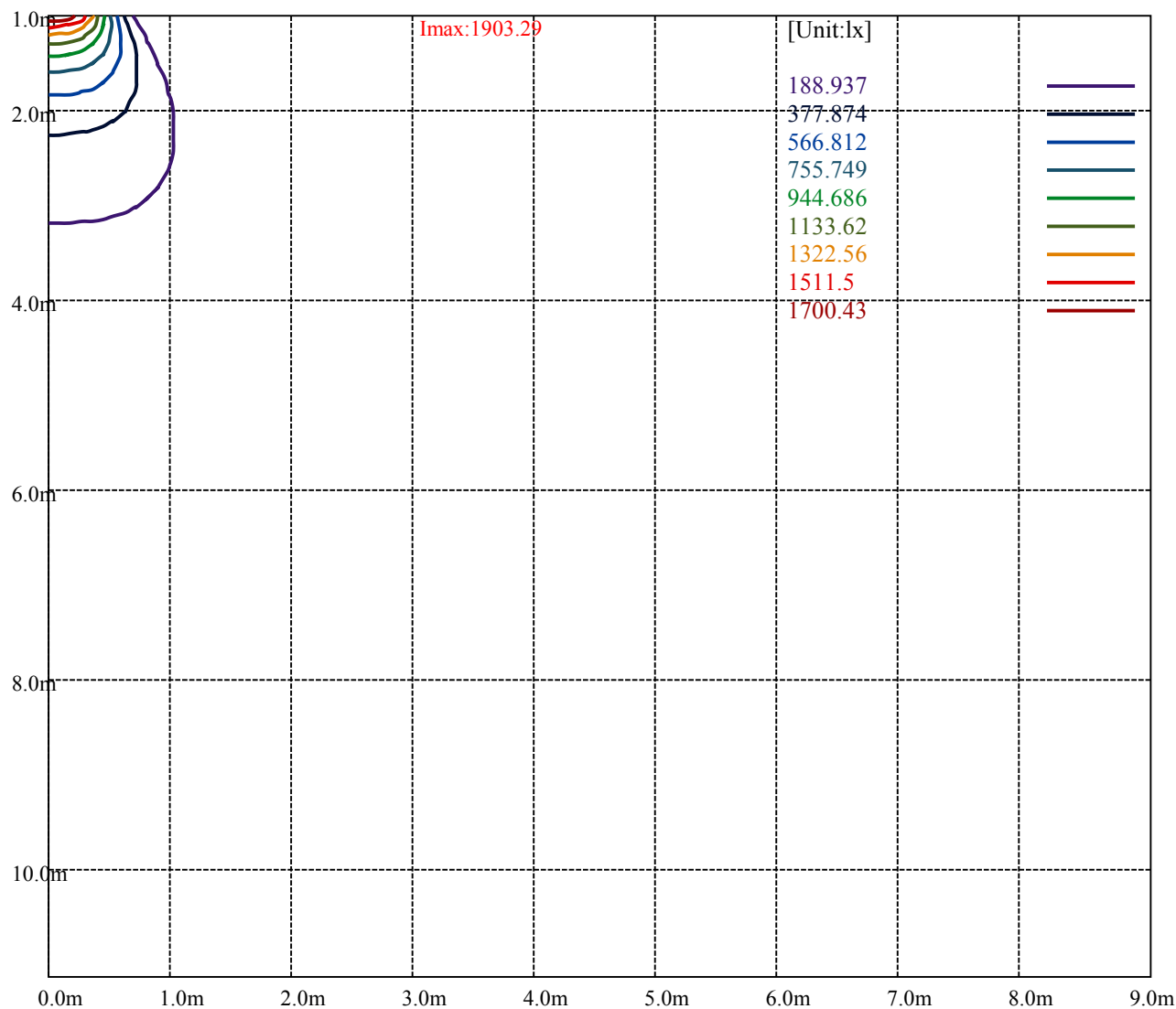
(70%Imax) 1332.3

(80%Imax) 1522.63

(90%Imax) 1712.96



(10%E _{max}) 20.993	—
(20%E _{max}) 41.986	—
(30%E _{max}) 62.97911	—
(40%E _{max}) 83.97211	—
(50%E _{max}) 104.9651	—
(60%E _{max}) 125.9578	—
(70%E _{max}) 146.9511	—
(80%E _{max}) 167.9444	—
(90%E _{max}) 188.9367	—



Luminance Table

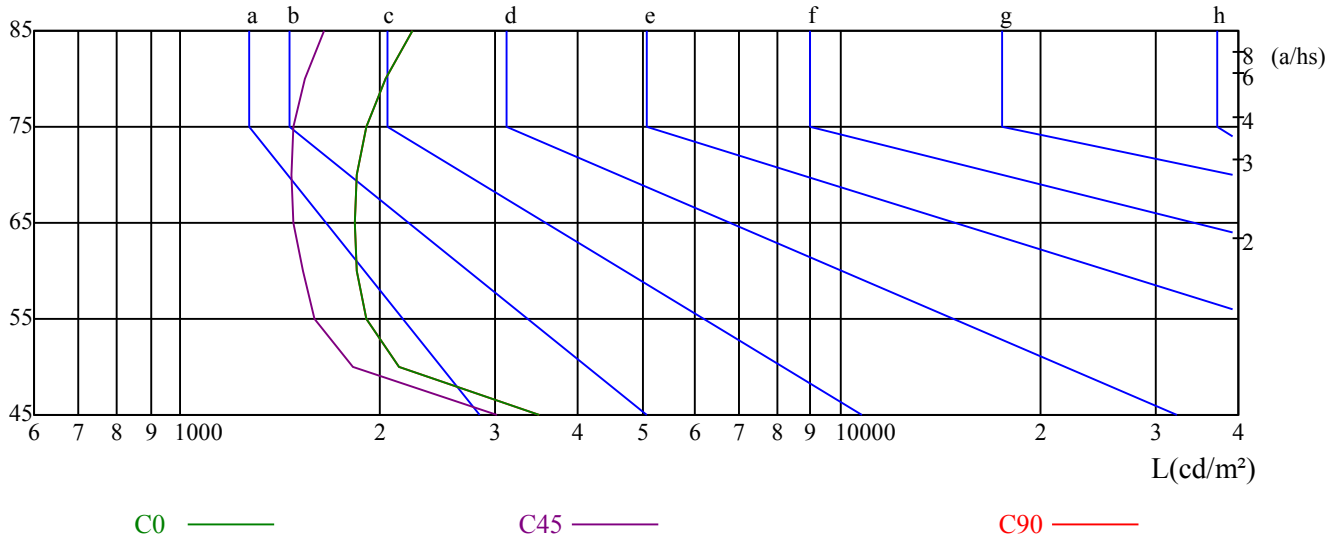
γ	45	50	55	60	65	70	75	80	85
C0	3500	2142	1910	1854	1834	1850	1916	2040	2242
C45	3023	1823	1601	1528	1484	1468	1487	1544	1645
C90	3500	2142	1910	1854	1834	1850	1916	2040	2242

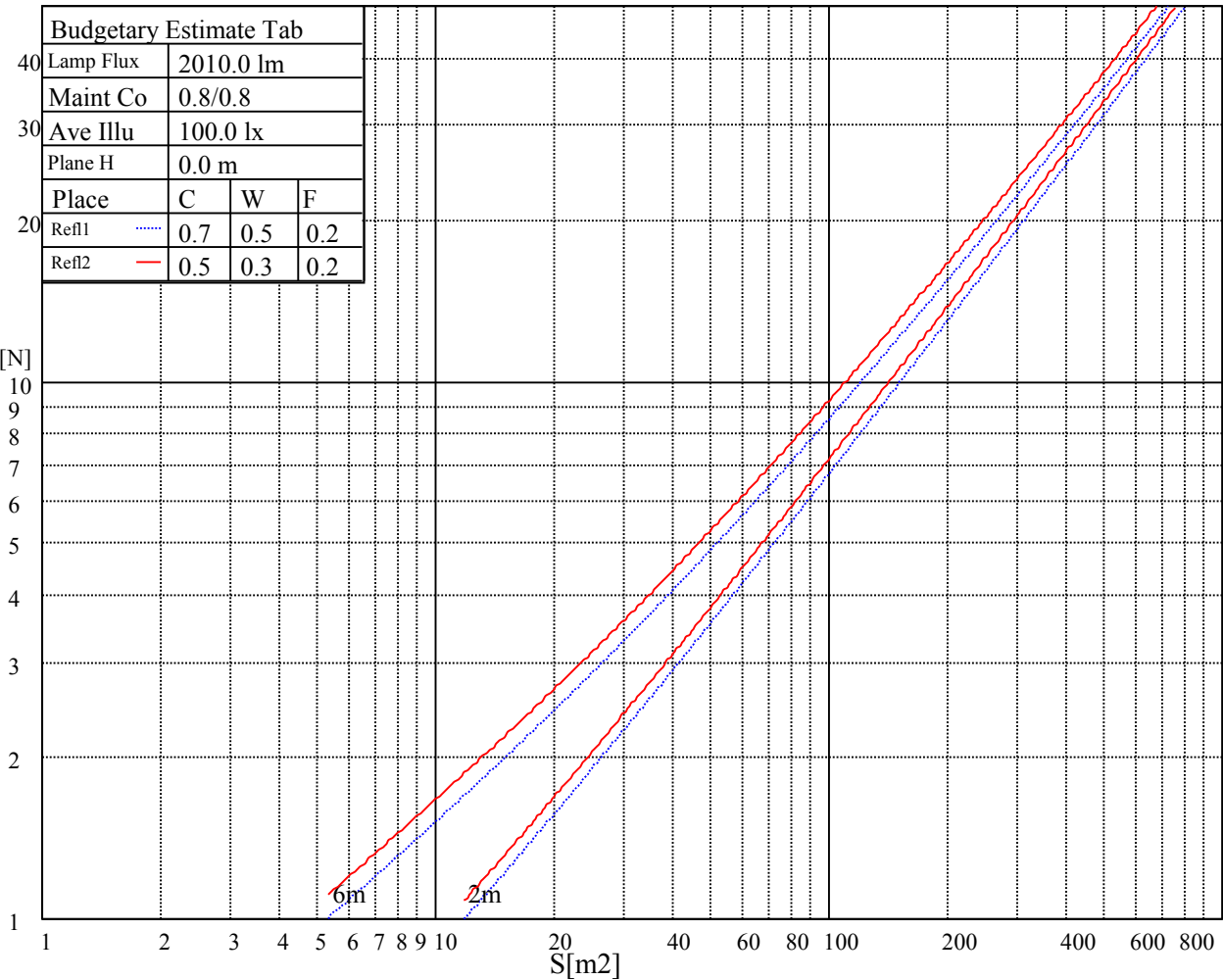
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4249	4249	4249	6308	6308	6308	17983	17983	17983

Glare Table

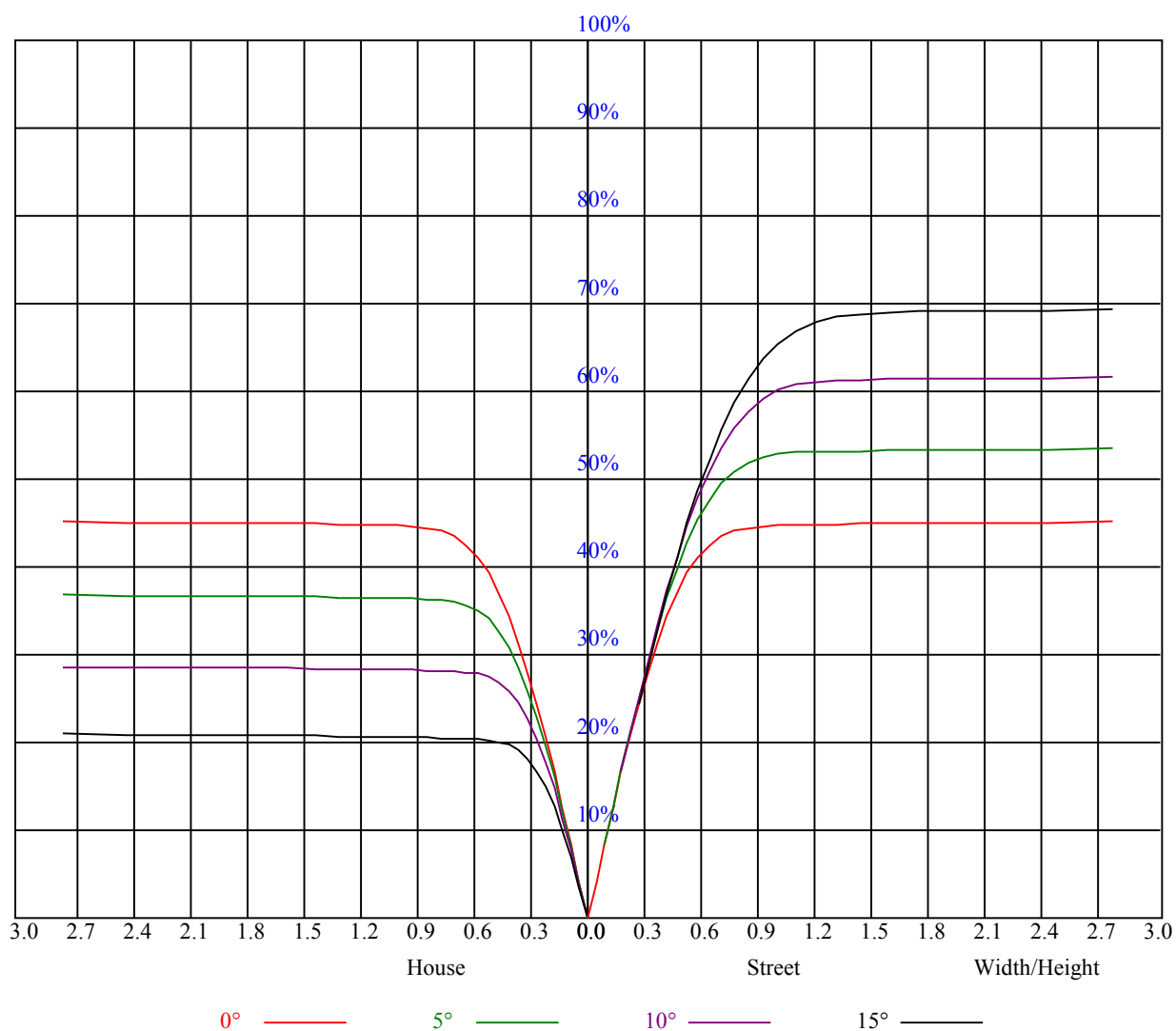
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

 $\gamma(^{\circ})$ 



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	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.01	0.98	0.96	0.99	0.97	0.95	0.95	0.93	0.92	0.92	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.91	0.88	0.93	0.90	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.81	0.80
3	0.89	0.84	0.81	0.87	0.84	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.75
4	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.72	0.71
5	0.79	0.74	0.71	0.78	0.74	0.70	0.77	0.73	0.70	0.75	0.72	0.69	0.74	0.71	0.68	0.67
6	0.75	0.70	0.66	0.74	0.70	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.70	0.67	0.65	0.64
7	0.71	0.66	0.63	0.71	0.66	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.61	0.60
8	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.57
9	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.62	0.58	0.55	0.54
10	0.61	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.52



Intensity data(cd)									
Appendix Page: 14 Total:14									
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1893.82	1900.50	1898.83	1903.28	1829.82	1643.95	1326.73	857.03	292.17
45.0	1883.81	1882.14	1881.02	1866.55	1745.79	1514.28	1135.85	573.21	281.60
90.0	1884.36	1878.80	1887.15	1833.16	1686.80	1387.39	961.05	406.59	40.12
135.0	1895.49	1893.27	1897.72	1854.87	1716.85	1444.16	1021.21	463.58	51.59
180.0	1893.82	1897.72	1903.28	1840.95	1687.91	1375.71	935.56	344.93	33.50
225.0	1883.81	1888.82	1916.64	1907.18	1764.16	1492.02	1098.40	592.08	110.19
270.0	1884.36	1903.28	1919.42	1921.09	1834.83	1607.77	1248.27	782.46	294.40
315.0	1895.49	1909.96	1922.21	1914.42	1813.69	1594.42	1106.69	755.58	221.60
360.0	1893.82	1900.50	1898.83	1903.28	1829.82	1643.95	1326.73	857.03	292.17
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	27.49	13.25	10.46	9.63	9.02	8.51	8.13	7.85	7.68
45.0	18.37	11.46	10.07	9.35	8.79	8.29	8.01	7.74	7.68
90.0	14.41	10.85	9.79	9.18	8.63	8.24	7.90	7.74	7.68
135.0	14.86	10.80	9.79	9.13	8.68	8.18	7.96	7.79	7.68
180.0	13.75	10.46	9.57	9.07	8.51	8.13	7.85	7.74	7.62
225.0	19.20	11.41	10.07	9.41	8.79	8.29	8.01	7.74	7.68
270.0	25.27	13.30	10.52	9.68	9.07	8.57	8.13	7.85	7.74
315.0	23.26	11.97	10.35	9.57	8.90	8.46	8.01	7.85	7.68
360.0	27.49	13.25	10.46	9.63	9.02	8.51	8.13	7.85	7.68
C/γ(°)	90.0								
0.0	7.68								
45.0	7.68								
90.0	7.68								
135.0	7.62								
180.0	7.68								
225.0	7.68								
270.0	7.68								
315.0	7.68								
360.0	7.68								