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Nata

LumCAT: 2-2214-L	
Luminaire: 92.70.135.00	
Report No: 200416-B018	Voltage(V): 35.3400
Test No: 200416-C018	Current(A): 0.6010
LampCAT: LUMILEDS LUXEON 1208	Power (W): 21.2400
Lamp flux(lm): 1904.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1792.51
Efficiency(%): 94.14%
Lumens(lm)/Power(W): 84.39
Central intensity(cd): 2035.969
Maximum intensity(cd): 2035.969
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=58.3
[C90/270]Total=58.3
Field angle(10%Imax): [C0/180]Total=83.4
[C90/270]Total=83.4
Maximum s/h(1/2): C0_180=0.91 C90_270=0.91
Maximum s/h(1/4): C0_180=0.87 C90_270=0.87
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 94.14%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.923%

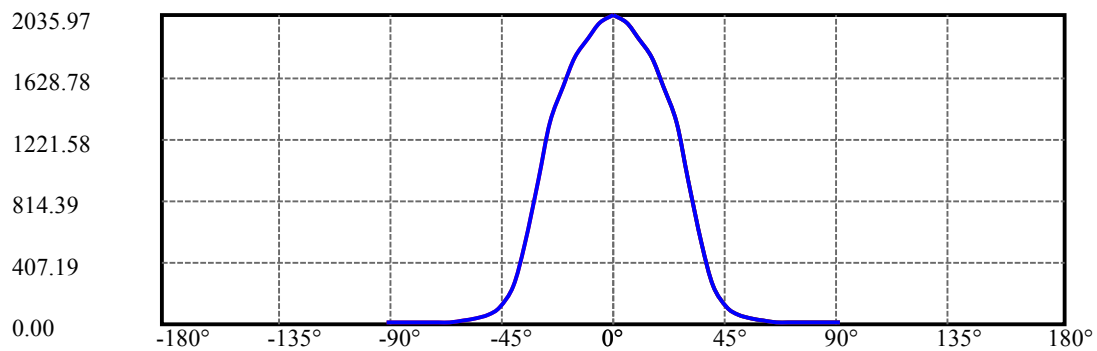
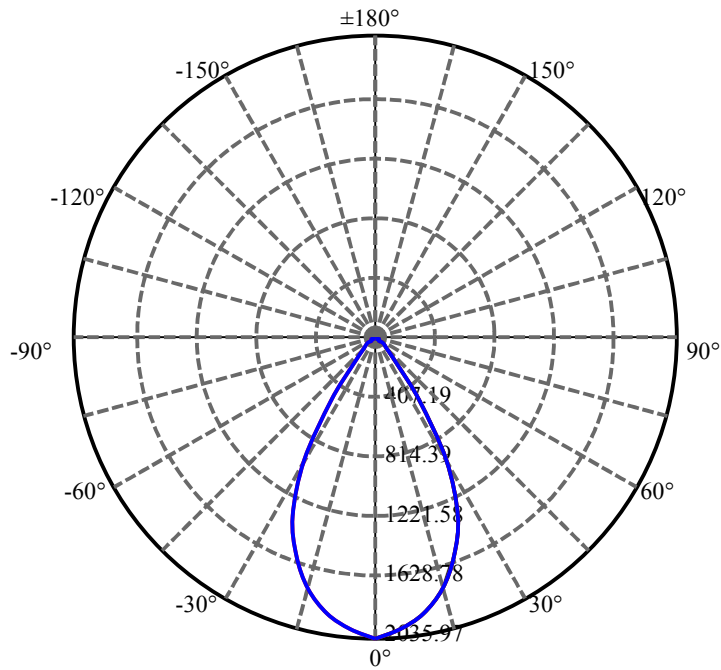
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2035.969	0.000	0	.000%	.000%
5.0	1983.375	48.050	48.05	2.524%	2.681%
10.0	1890.000	138.563	186.613	7.277%	10.411%
15.0	1755.352	216.240	402.853	11.357%	22.474%
20.0	1572.328	274.248	677.1	14.404%	37.774%
25.0	1326.129	303.995	981.095	15.966%	54.733%
30.0	953.986	288.550	1269.645	15.155%	70.831%
35.0	525.059	217.800	1487.445	11.439%	82.981%
40.0	250.095	129.328	1616.774	6.792%	90.196%
45.0	112.605	67.157	1683.93	3.527%	93.943%
50.0	62.979	35.479	1719.41	1.863%	95.922%
55.0	37.090	21.758	1741.168	1.143%	97.136%
60.0	23.963	14.112	1755.28	.741%	97.923%
65.0	16.144	9.750	1765.03	.512%	98.467%
70.0	12.410	7.230	1772.26	.380%	98.870%
75.0	10.364	5.953	1778.213	.313%	99.203%
80.0	9.345	5.273	1783.486	.277%	99.497%
85.0	8.149	4.753	1788.24	.250%	99.762%
90.0	7.439	4.268	1792.508	.224%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1269.65	66.68%	70.83%
0-40	1616.77	84.91%	90.20%
0-60	1755.28	92.19%	97.92%
0-90	1788.24	93.92%	99.76%
0-120	1788.24	93.92%	99.76%
0-180	1792.51	94.14%	100.00%
60-90	47.07	2.47%	2.63%
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%
0-33.77	1434.01	75.32%	80.00%

ZONAL LUMEN SUMMARY

0-10	186.61
10-20	490.49
20-30	592.55
30-40	347.13
40-50	102.64
50-60	35.87
60-70	16.98
70-80	11.23
80-90	4.75
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: —————

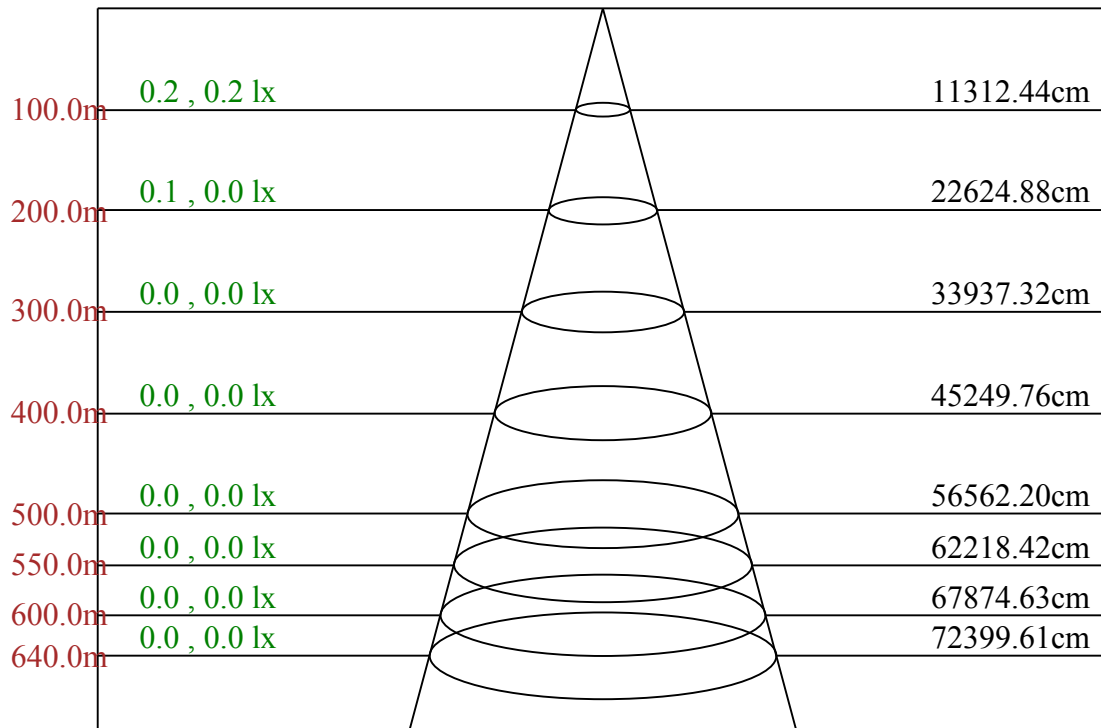
C90/C270: —————

Field angle(10%Imax):C0/180Left:41.7 Right:41.7

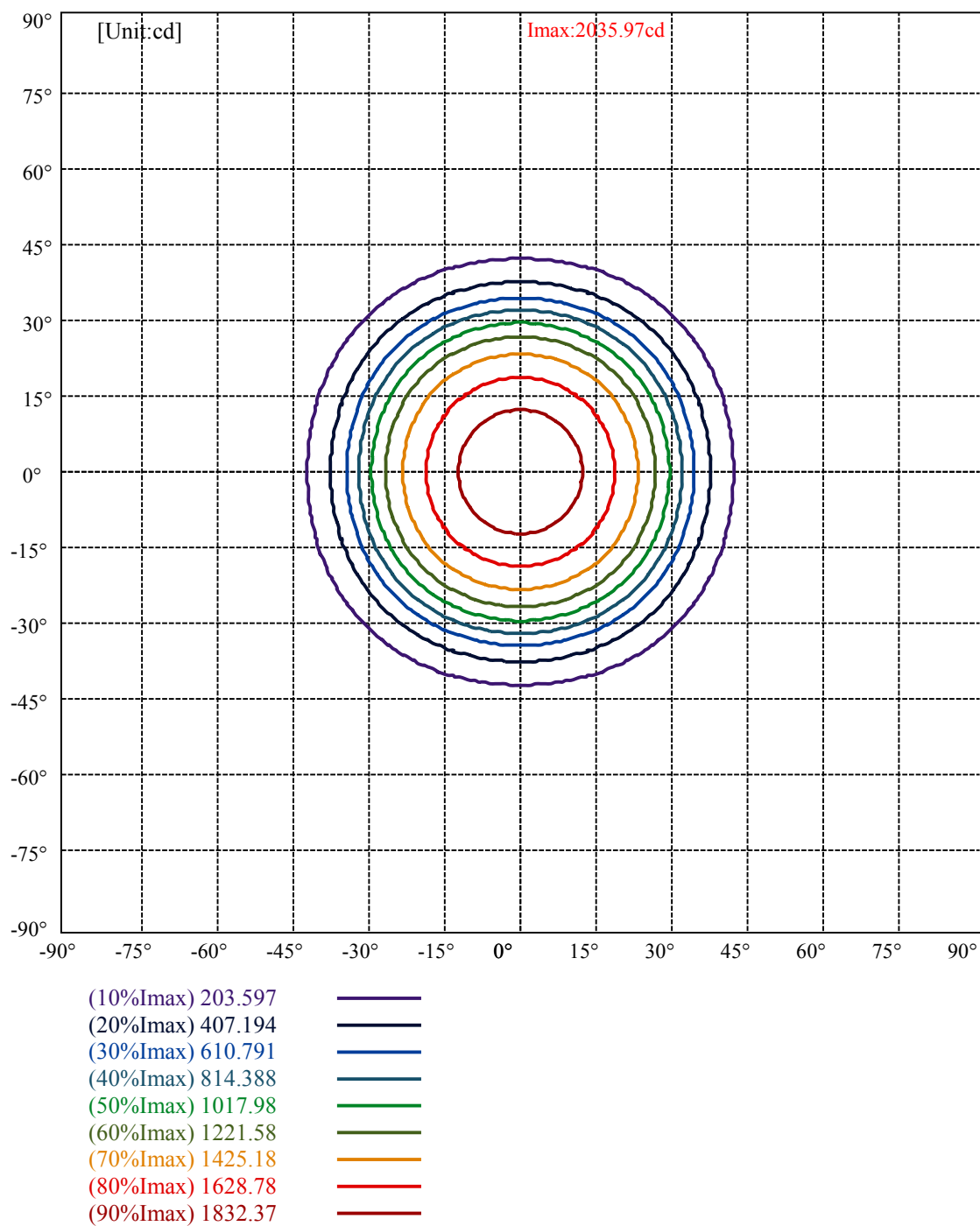
:C90/270Left:41.7 Right:41.7

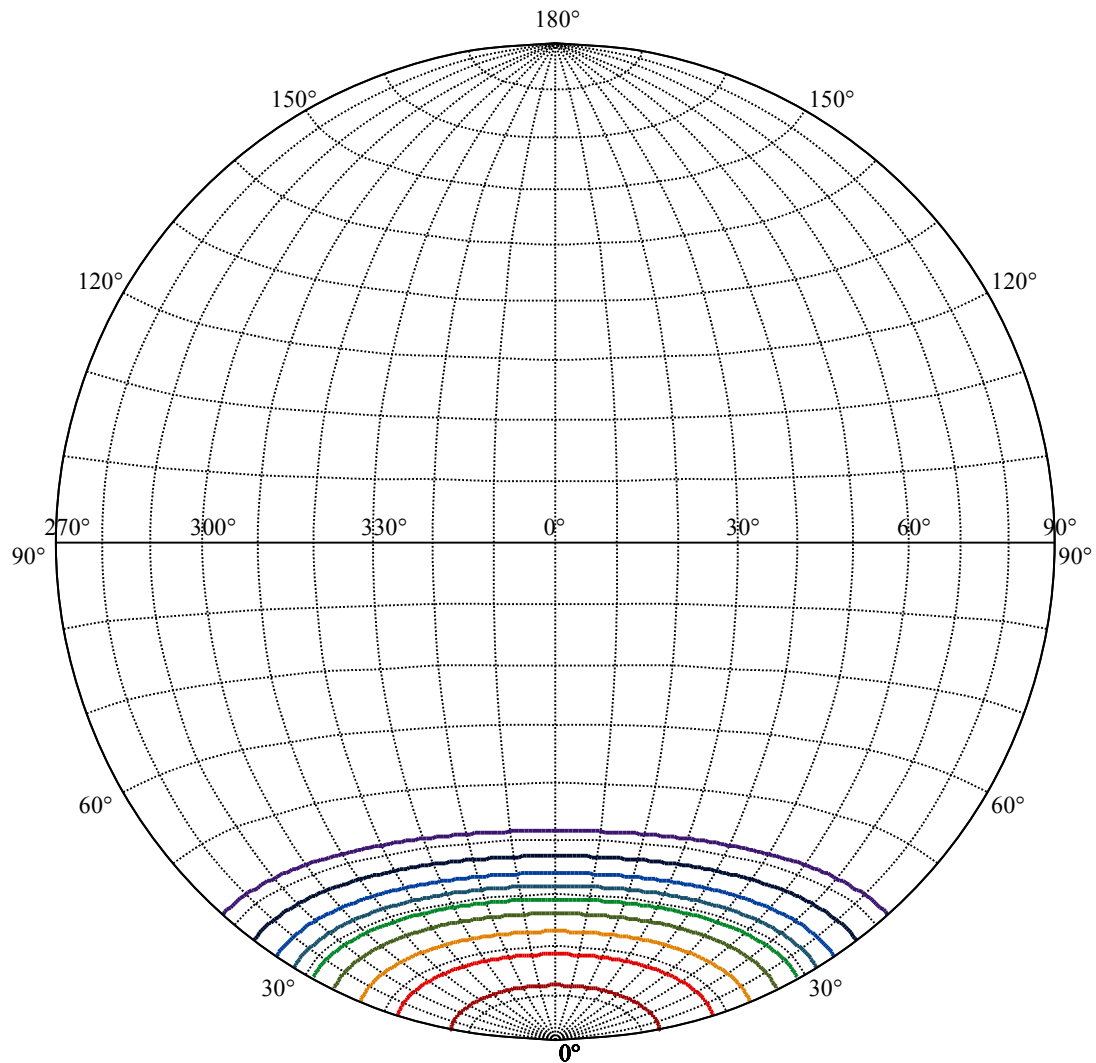
Beam Angle(50%Imax):C0/180Left:29.1 Right:29.1

:C90/270Left:29.1 Right:29.1



Max , Ave Beam angle of C0 plane 58.99





House

[Unit:cd]

Road

Imax:2035.97

(10%Imax) 203.597

(20%Imax) 407.194

(30%Imax) 610.791

(40%Imax) 814.388

(50%Imax) 1017.98

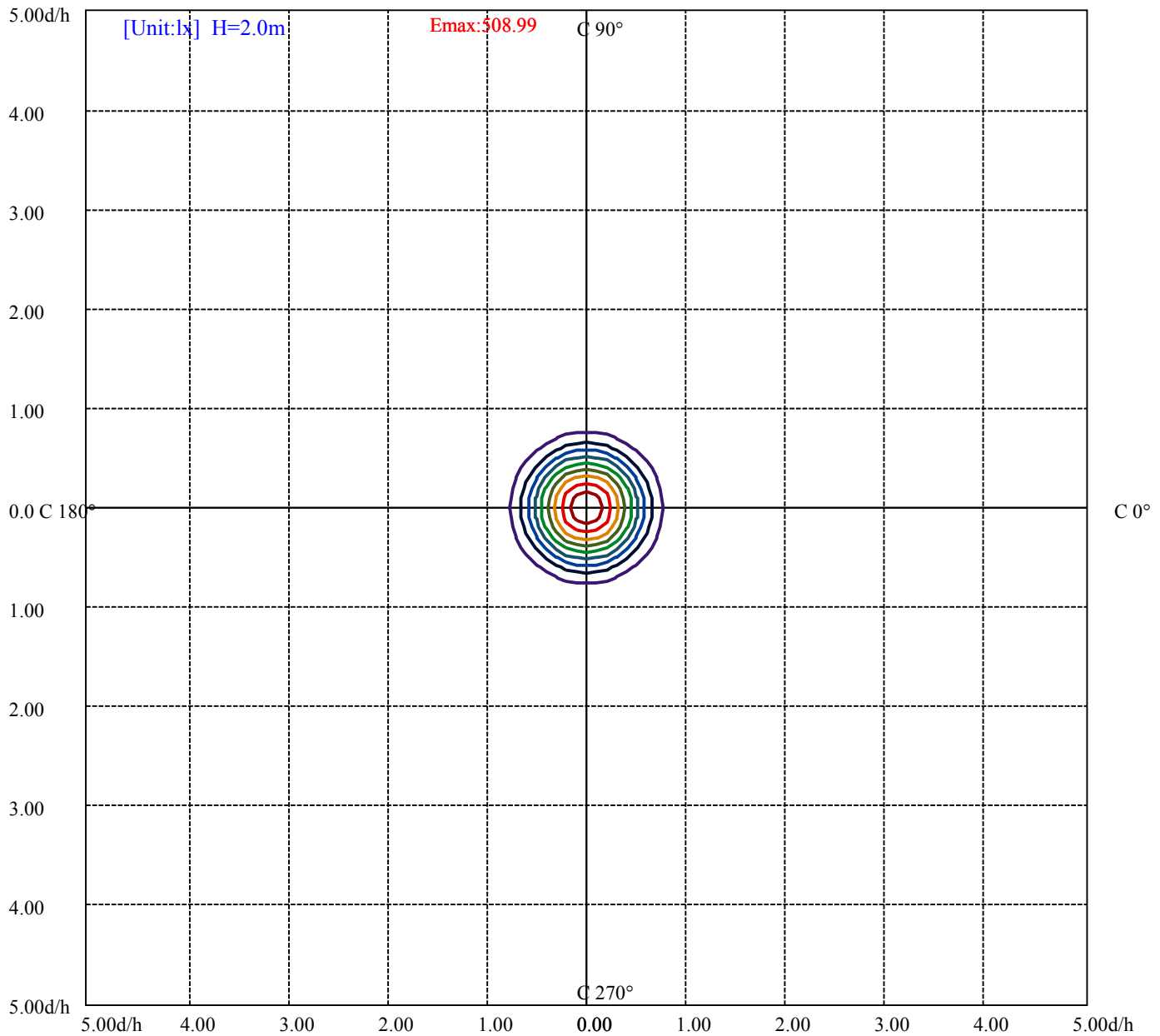
(60%Imax) 1221.58

(70%Imax) 1425.18

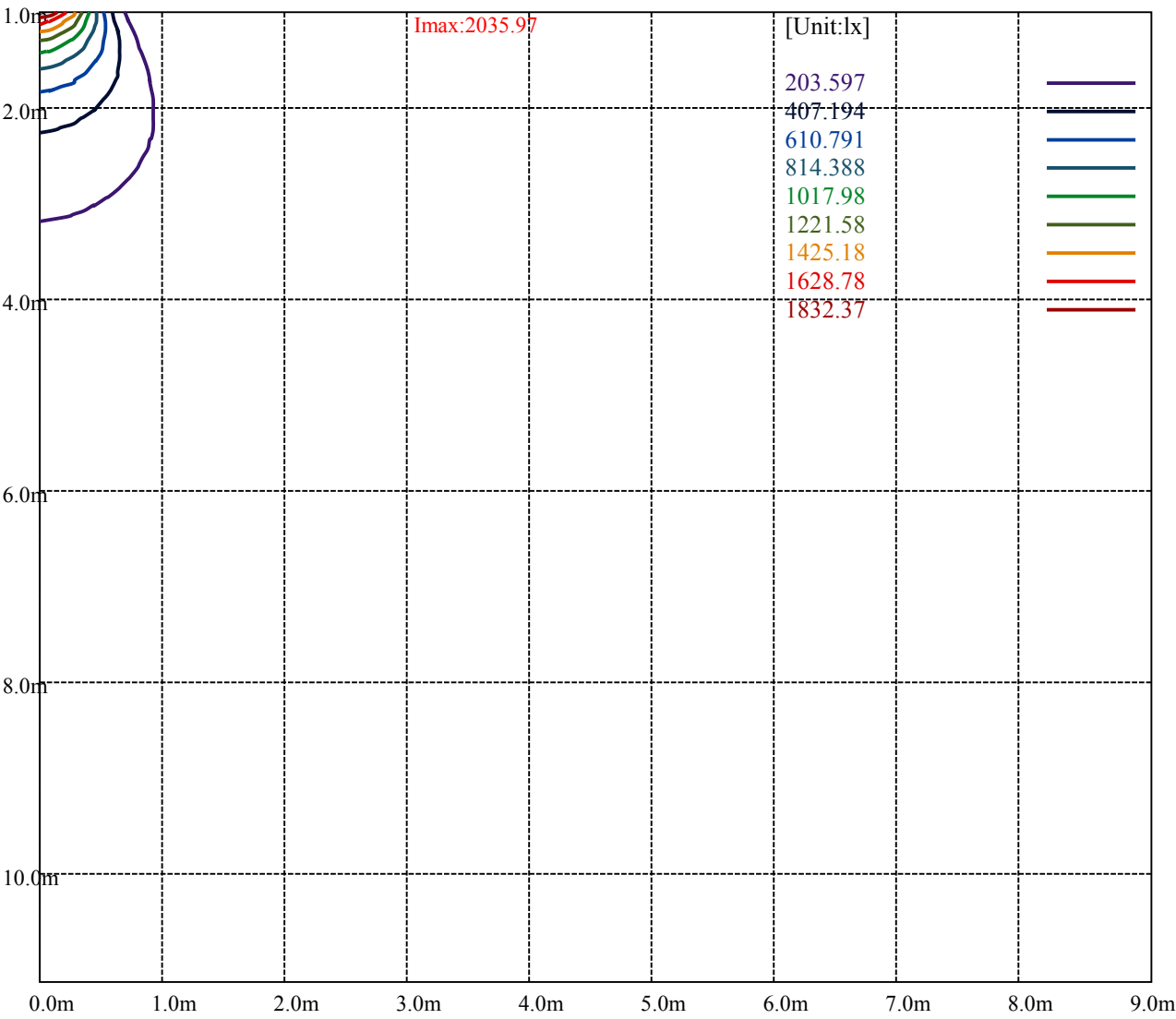
(80%Imax) 1628.78

(90%Imax) 1832.37





(10%Emax) 50.89925	—
(20%Emax) 101.7982	—
(30%Emax) 152.6975	—
(40%Emax) 203.5968	—
(50%Emax) 254.495	—
(60%Emax) 305.395	—
(70%Emax) 356.295	—
(80%Emax) 407.1925	—
(90%Emax) 458.0925	—



Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

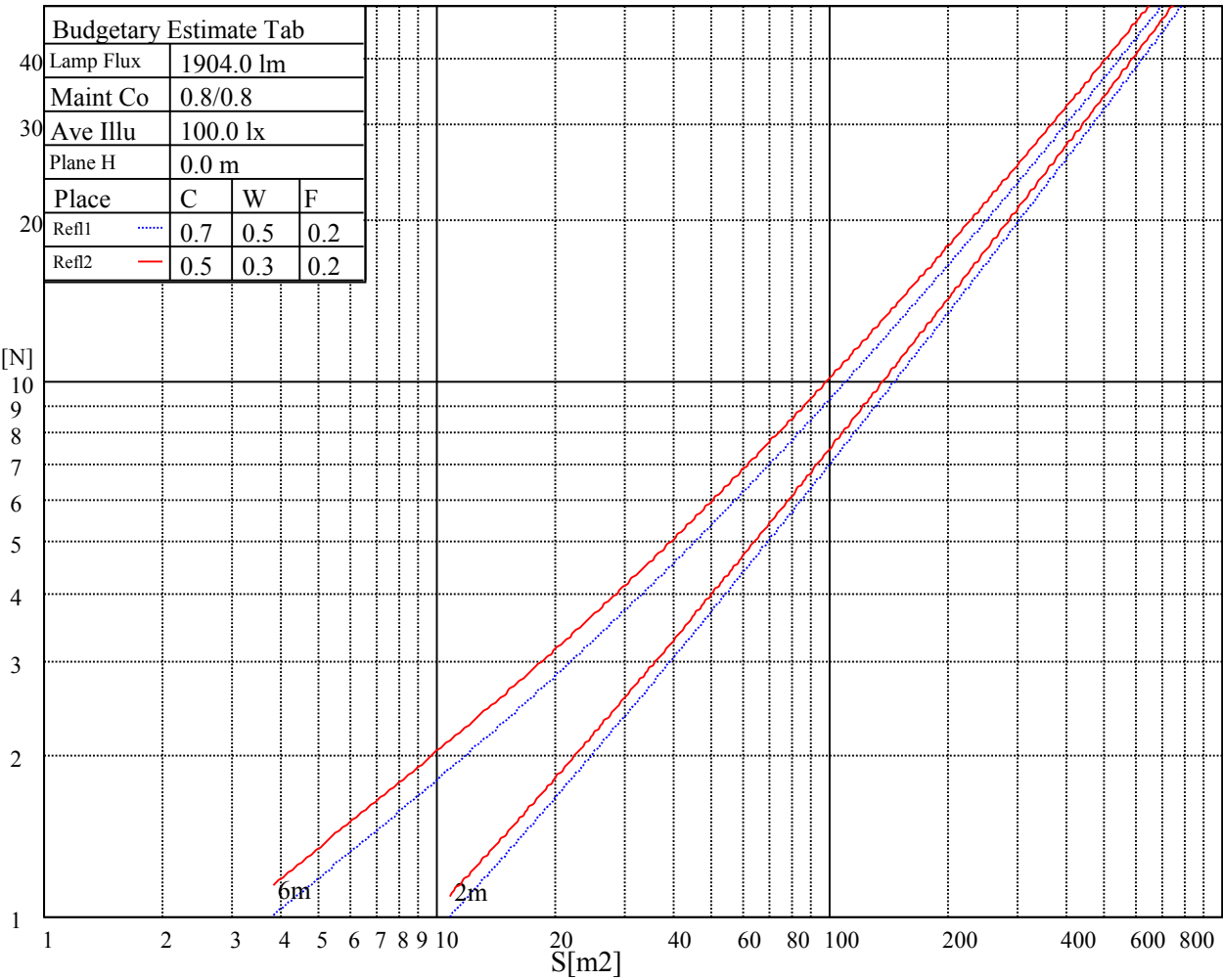
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

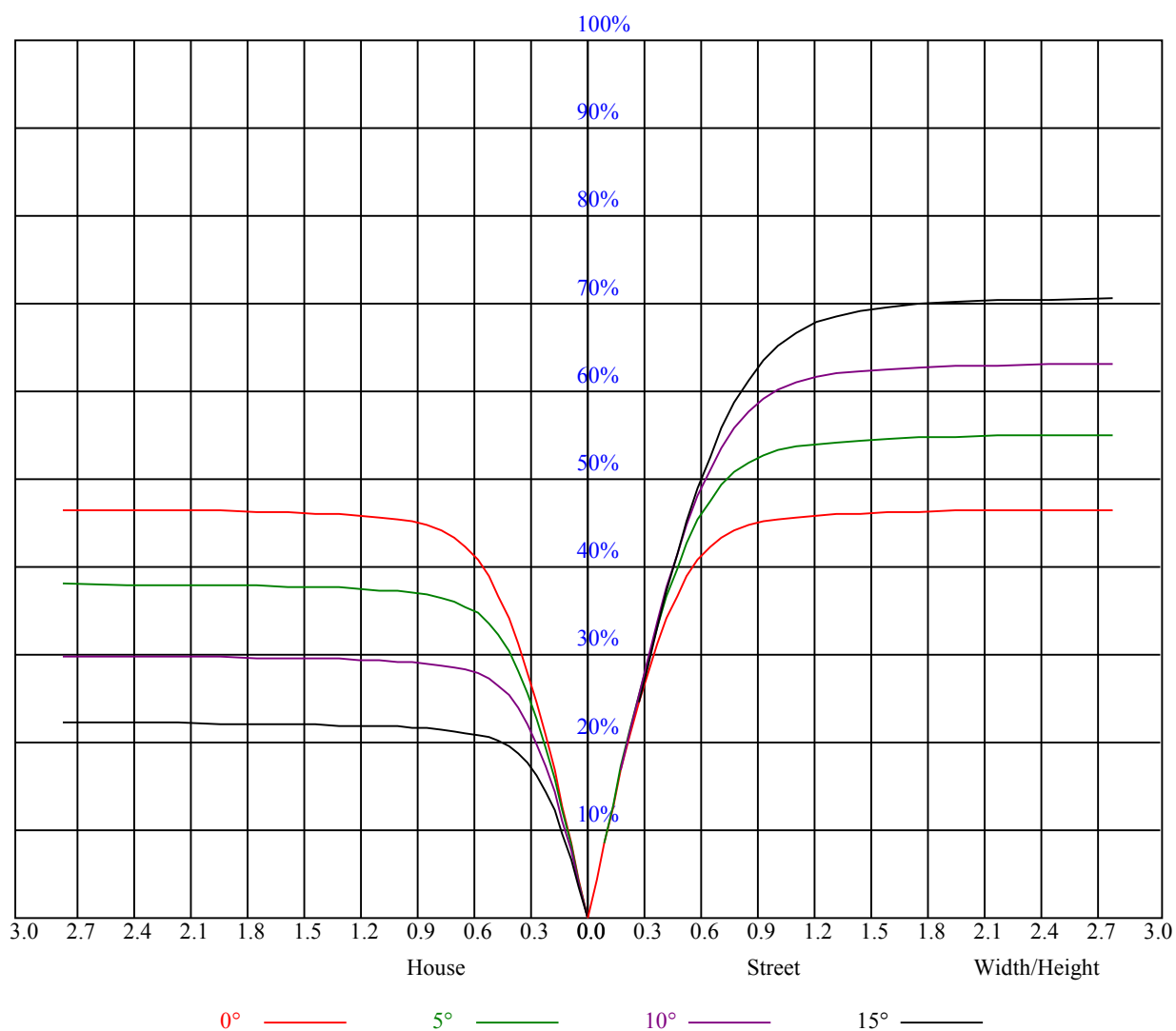
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOC	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	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.04	1.01	0.99	1.02	1.00	0.98	0.98	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.87
2	0.96	0.92	0.89	0.95	0.91	0.88	0.92	0.89	0.86	0.89	0.86	0.84	0.86	0.84	0.82	0.81
3	0.90	0.85	0.81	0.88	0.84	0.80	0.86	0.82	0.79	0.84	0.80	0.78	0.81	0.79	0.77	0.75
4	0.84	0.78	0.74	0.83	0.78	0.74	0.80	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.70
5	0.78	0.73	0.68	0.77	0.72	0.68	0.76	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.66	0.65
6	0.73	0.68	0.64	0.73	0.67	0.63	0.71	0.66	0.63	0.70	0.66	0.62	0.69	0.65	0.62	0.61
7	0.69	0.63	0.59	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.58	0.65	0.61	0.58	0.57
8	0.65	0.59	0.55	0.64	0.59	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.53
9	0.61	0.56	0.52	0.61	0.55	0.52	0.60	0.55	0.52	0.59	0.55	0.51	0.58	0.54	0.51	0.50
10	0.58	0.52	0.49	0.58	0.52	0.49	0.57	0.52	0.49	0.56	0.52	0.48	0.55	0.51	0.48	0.47



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	2031.19	2000.25	1911.94	1756.69	1573.88	1352.25	1001.25	576.00	297.56
45.0	2037.38	1981.13	1885.50	1717.88	1531.13	1315.69	946.13	518.63	284.63
90.0	2032.88	1950.75	1834.88	1666.13	1452.94	1102.78	808.59	381.66	168.98
135.0	2042.44	1990.13	1899.56	1775.25	1577.25	1338.19	924.75	506.25	297.56
180.0	2031.19	1982.25	1906.31	1769.63	1571.63	1323.56	926.04	500.34	219.71
225.0	2037.38	1974.38	1883.81	1779.19	1611.56	1378.69	1019.93	568.24	236.42
270.0	2032.88	1998.56	1901.81	1809.56	1655.44	1440.56	1054.13	643.50	286.88
315.0	2042.44	1989.56	1896.19	1768.50	1604.81	1357.31	951.08	505.86	209.03
360.0	2031.19	2000.25	1911.94	1756.69	1573.88	1352.25	1001.25	576.00	297.56

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	140.29	77.91	43.09	26.10	15.81	11.48	9.39	8.66	8.10
45.0	118.74	66.26	37.46	23.57	15.30	11.93	10.29	9.11	8.10
90.0	82.18	45.73	29.93	21.99	16.65	13.67	11.53	9.96	7.93
135.0	94.78	53.66	31.61	20.64	14.34	11.08	9.23	8.61	8.10
180.0	119.59	70.59	40.78	24.81	15.36	11.25	9.34	8.72	8.16
225.0	124.88	70.76	41.51	26.10	16.37	12.26	10.13	9.28	8.27
270.0	115.65	61.71	37.97	26.49	20.19	16.26	13.39	11.76	8.38
315.0	104.74	57.21	34.37	21.99	15.13	11.36	9.62	8.66	8.16
360.0	140.29	77.91	43.09	26.10	15.81	11.48	9.39	8.66	8.10

C/γ(°)	90.0
0.0	7.43
45.0	7.43
90.0	7.37
135.0	7.43
180.0	7.31
225.0	7.54
270.0	7.54
315.0	7.48
360.0	7.43