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Nata

LumCAT: 3-1940-M	
Luminaire: BJB47.319.2344	
Report No: NT2017070301	Voltage(V): 34.3300
Test No: GC2017070301	Current(A): 0.5000
LampCAT: Certaflux SLM 1208 L14 G1	Power (W): 17.1650
Lamp flux(lm): 2321.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 78	Width(mm): 78
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2106.90
Efficiency(%): 90.78%
Lumens(lm)/Power(W): 122.74
Central intensity(cd): 4968.203
Maximum intensity(cd): 4968.203
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=34.8
[C90/270]Total=34.8
Field angle(10%Imax): [C0/180]Total=66.5
[C90/270]Total=66.5
Maximum s/h(1/2): C0_180=0.57 C90_270=0.57
Maximum s/h(1/4): C0_180=0.59 C90_270=0.59
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.78%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.663%

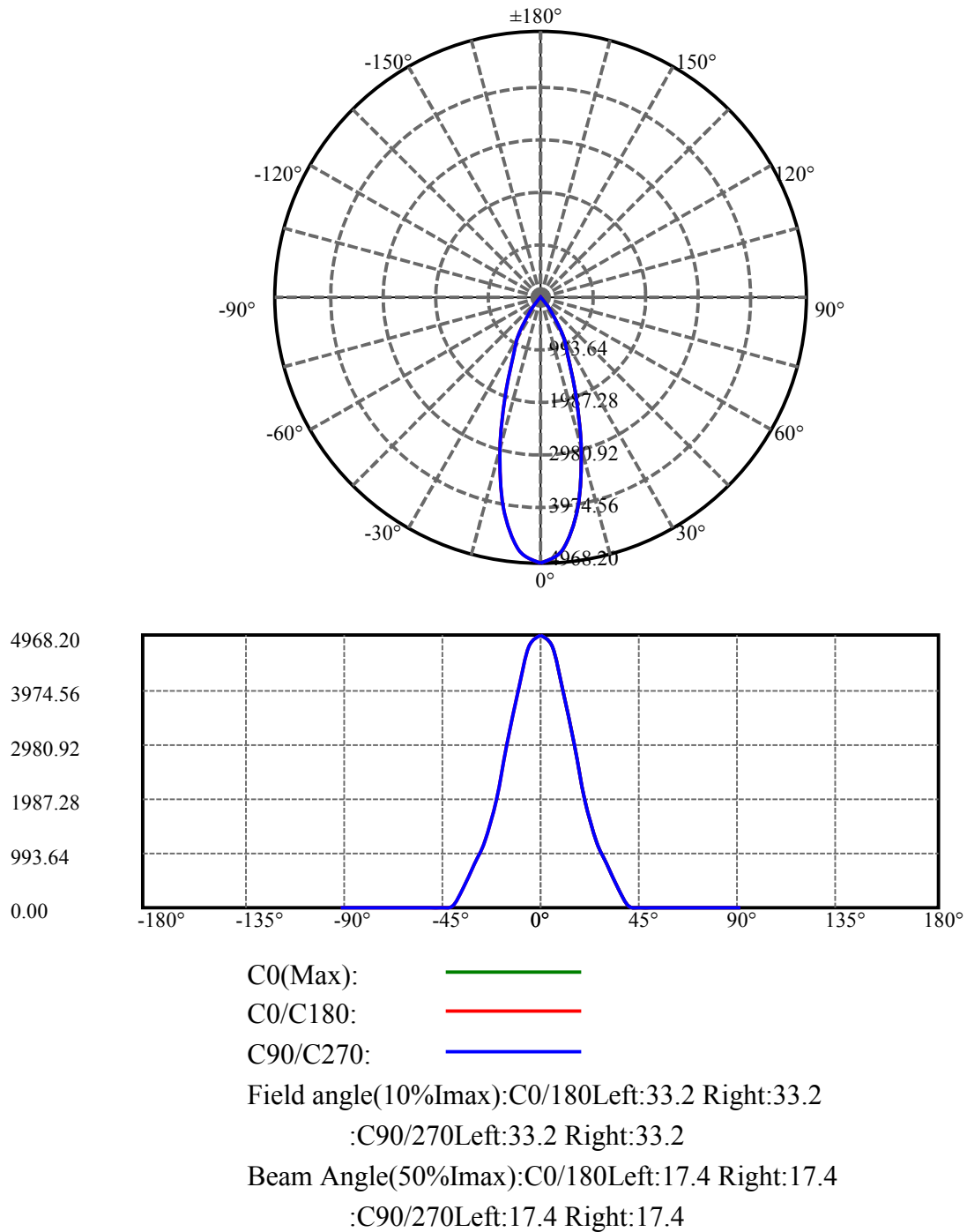
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4968.204	0.000	0	.000%	.000%
5.0	4742.629	116.090	116.09	5.002%	5.510%
10.0	3973.710	311.811	427.901	13.434%	20.310%
15.0	2959.969	411.301	839.202	17.721%	39.831%
20.0	1974.751	406.690	1245.893	17.522%	59.134%
25.0	1189.660	331.888	1577.781	14.299%	74.886%
30.0	813.427	253.492	1831.273	10.922%	86.918%
35.0	324.634	167.587	1998.861	7.220%	94.872%
40.0	25.725	58.455	2057.315	2.519%	97.647%
45.0	13.778	7.314	2064.63	.315%	97.994%
50.0	10.898	4.986	2069.616	.215%	98.230%
55.0	10.105	4.567	2074.183	.197%	98.447%
60.0	9.591	4.553	2078.736	.196%	98.663%
65.0	9.261	4.583	2083.319	.197%	98.881%
70.0	9.067	4.641	2087.959	.200%	99.101%
75.0	8.895	4.695	2092.654	.202%	99.324%
80.0	8.779	4.729	2097.383	.204%	99.548%
85.0	8.737	4.760	2102.143	.205%	99.774%
90.0	8.635	4.757	2106.9	.205%	100.000%

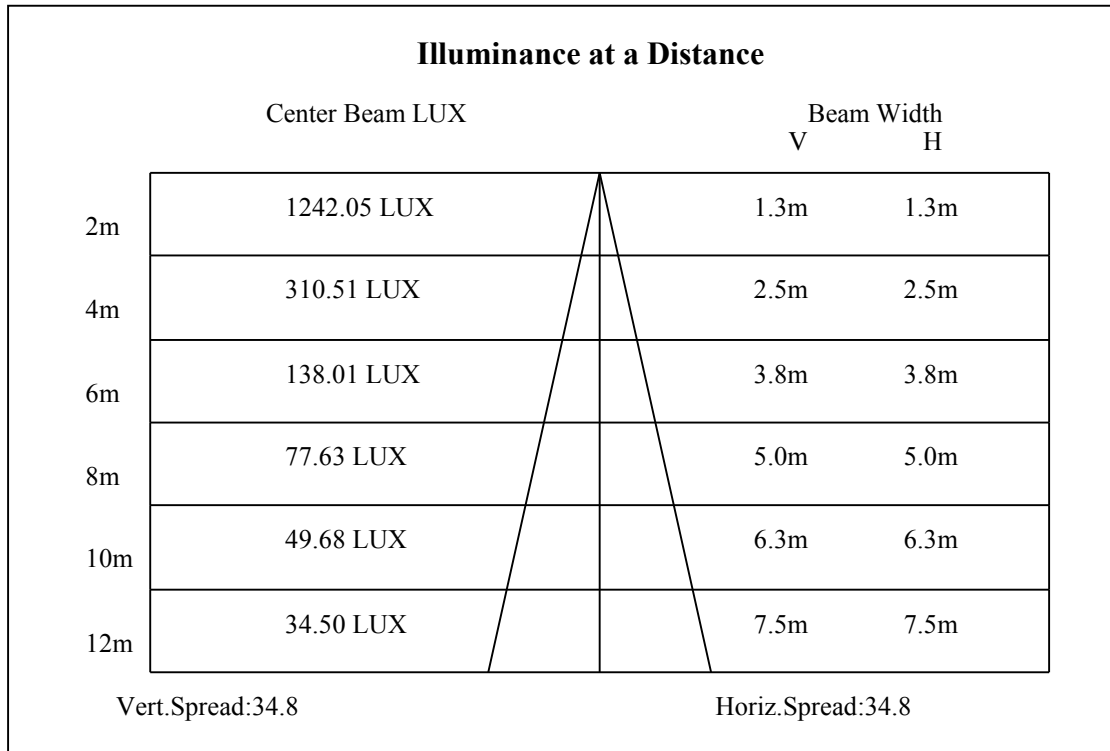
ZONAL LUMEN SUMMARY

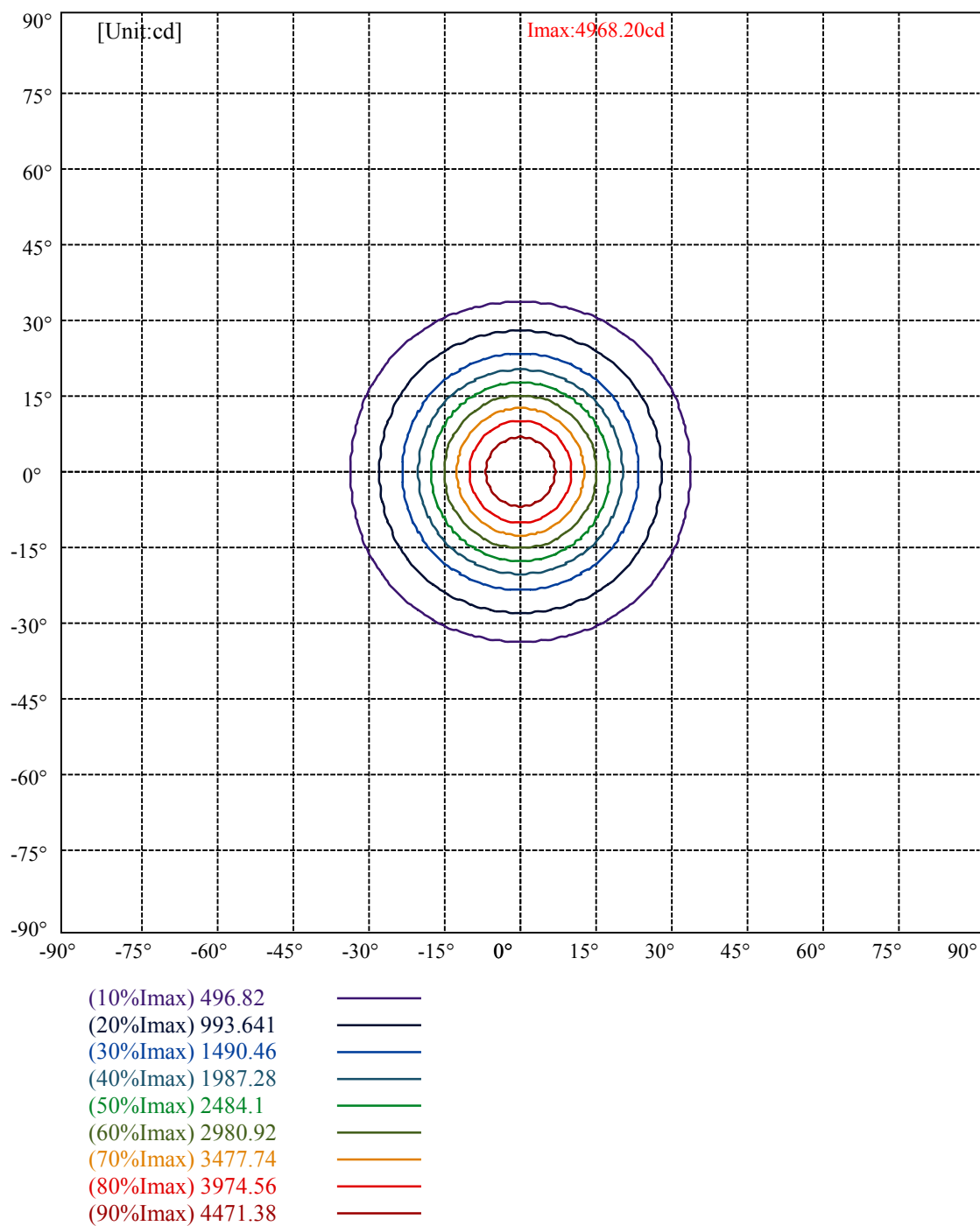
Zone	Lumens	%Lamp	%Fixt
0-30	1831.27	78.90%	86.92%
0-40	2057.32	88.64%	97.65%
0-60	2078.74	89.56%	98.66%
0-90	2102.14	90.57%	99.77%
0-120	2102.14	90.57%	99.77%
0-180	2106.90	90.78%	100.00%
60-90	27.96	1.20%	1.33%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.13	1685.52	72.62%	80.00%

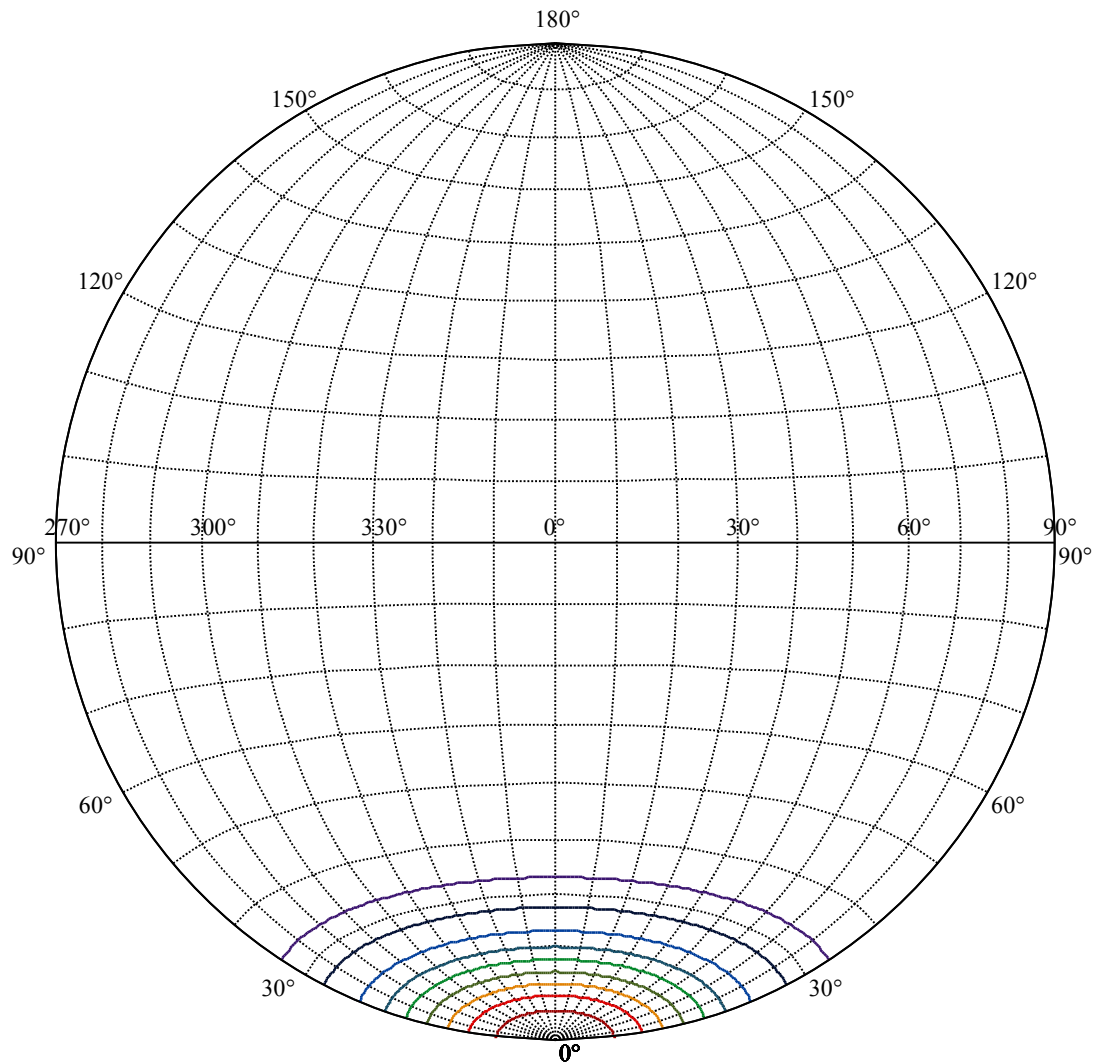
ZONAL LUMEN SUMMARY

0-10	427.90
10-20	817.99
20-30	585.38
30-40	226.04
40-50	12.30
50-60	9.12
60-70	9.22
70-80	9.42
80-90	4.76
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









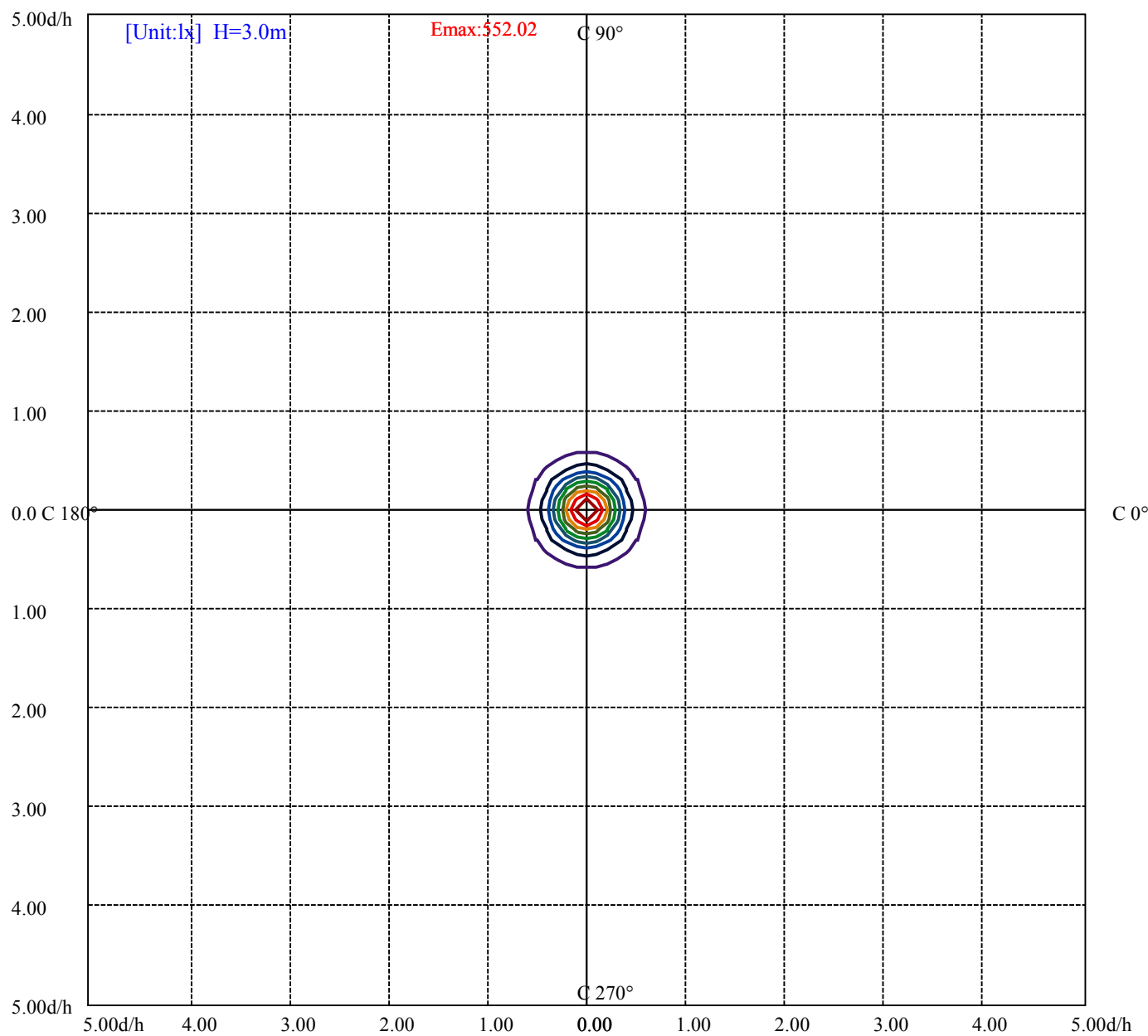
House

[Unit:cd]

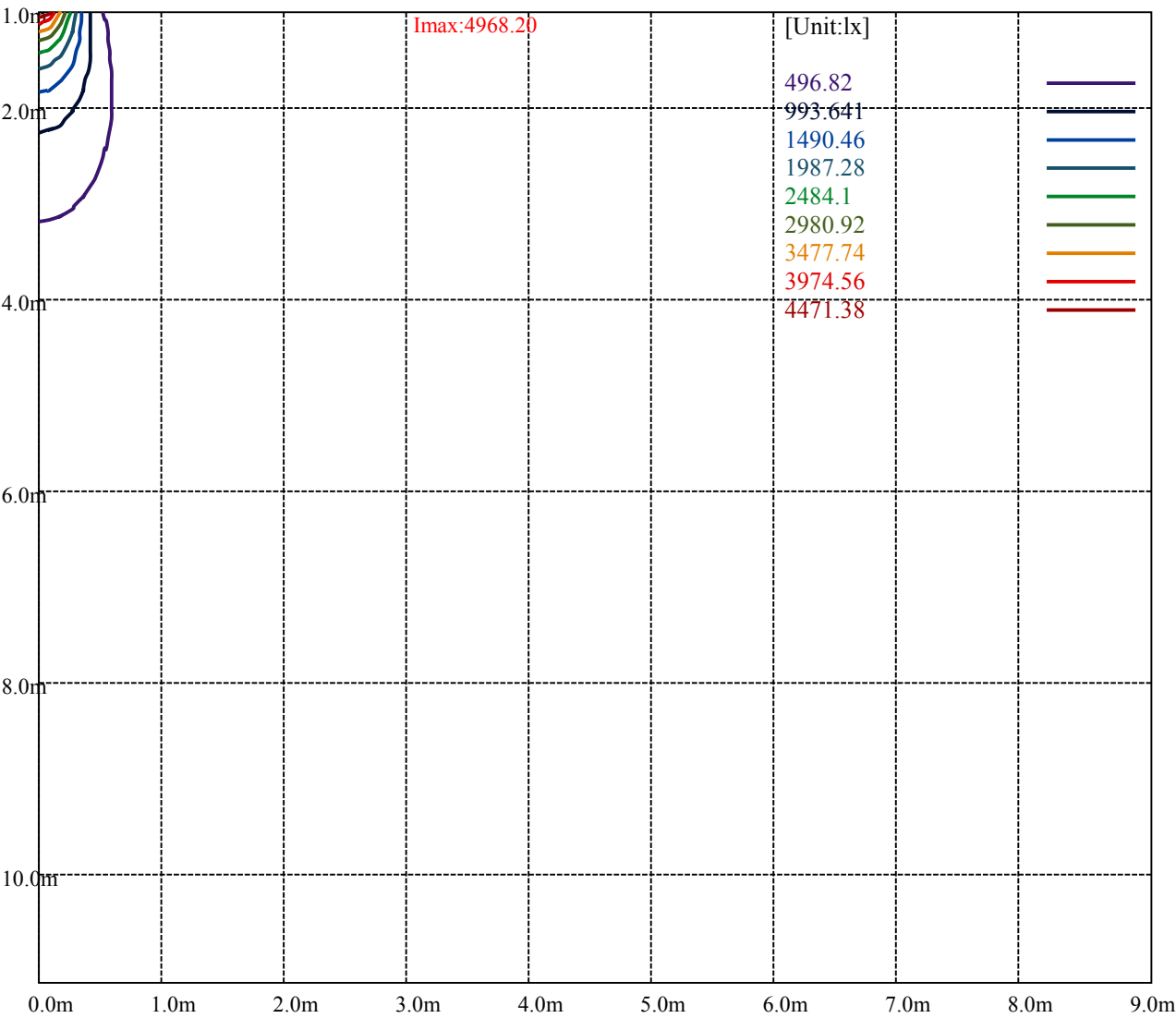
Road

Imax:4968.20

(10%Imax)	496.82	—
(20%Imax)	993.641	—
(30%Imax)	1490.46	—
(40%Imax)	1987.28	—
(50%Imax)	2484.1	—
(60%Imax)	2980.92	—
(70%Imax)	3477.74	—
(80%Imax)	3974.56	—
(90%Imax)	4471.38	—



(10%E _{max}) 55.20222	—
(20%E _{max}) 110.4043	—
(30%E _{max}) 165.6067	—
(40%E _{max}) 220.8089	—
(50%E _{max}) 276.0111	—
(60%E _{max}) 331.2133	—
(70%E _{max}) 386.4156	—
(80%E _{max}) 441.6178	—
(90%E _{max}) 496.82	—



Luminance Table

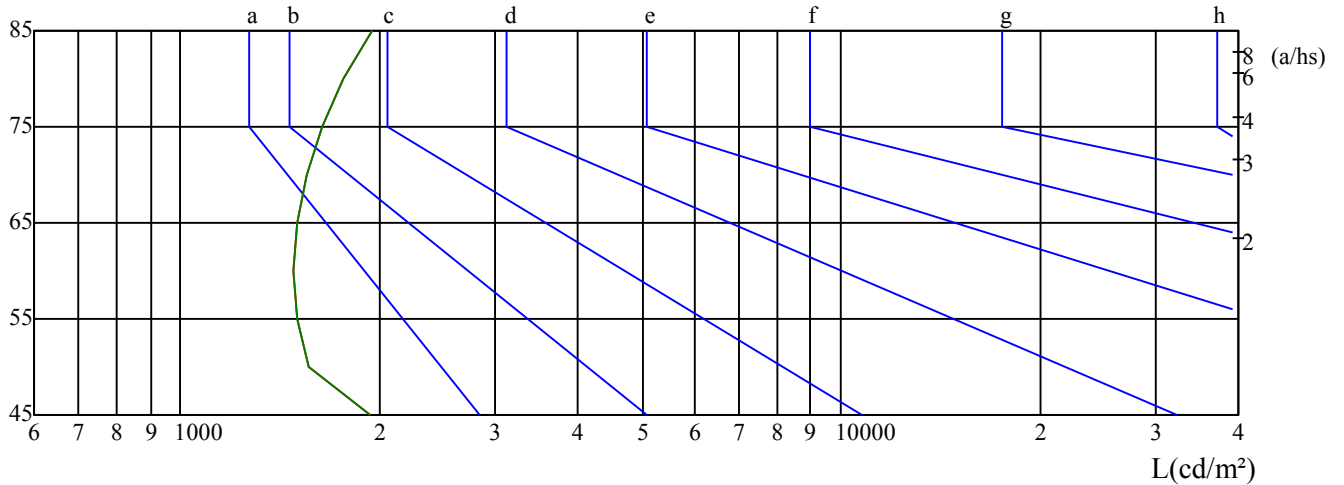
γ	45	50	55	60	65	70	75	80	85
C0	1937	1566	1497	1478	1499	1558	1642	1765	1945
C45	0	0	0	0	0	0	0	0	0
C90	1937	1566	1497	1478	1499	1558	1642	1765	1945

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3602	3602	0	5649	5649	0	16478	16478	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

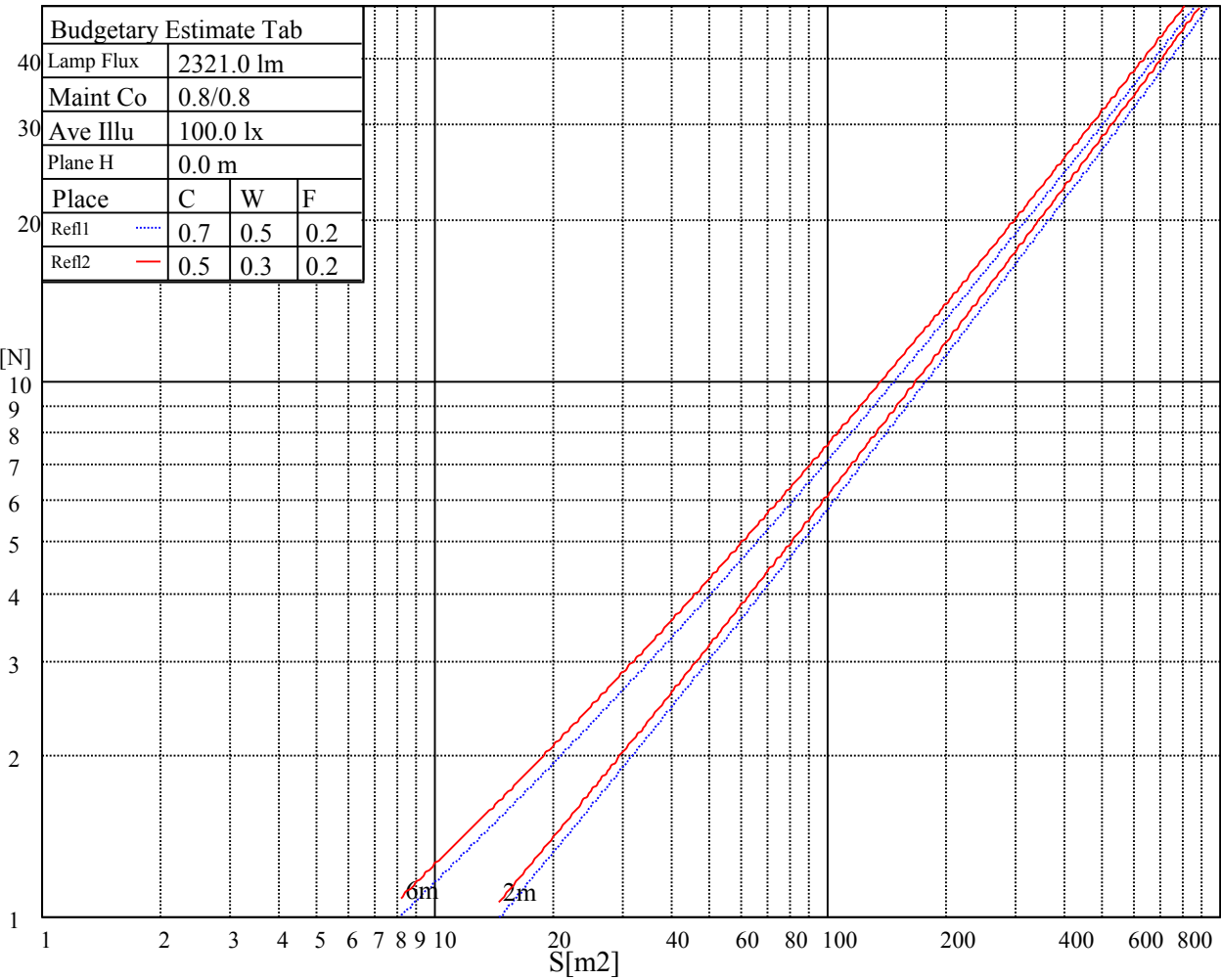
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

C0 ———

C45 ———

C90 ———



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	1.08	1.08	1.08	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	0.99	0.97	0.99	0.97	0.96	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.86
2	0.95	0.92	0.89	0.94	0.91	0.88	0.91	0.89	0.87	0.88	0.86	0.85	0.86	0.84	0.83	0.82
3	0.90	0.86	0.83	0.89	0.85	0.83	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.77
4	0.86	0.81	0.78	0.85	0.81	0.78	0.83	0.79	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
5	0.81	0.77	0.74	0.81	0.76	0.73	0.79	0.75	0.73	0.78	0.75	0.72	0.76	0.74	0.71	0.70
6	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
7	0.74	0.70	0.66	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.64
8	0.71	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61
9	0.68	0.64	0.61	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.59
10	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.56

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Intensity data(cd)										Appendix Page: 13 Total:13	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	4955.77	4743.19	3982.43	2986.82	1992.33	1226.00	816.97	338.92	22.71		
30.0	4966.91	4816.09	4045.87	3088.11	2006.24	1233.24	813.63	332.80	23.15		
60.0	4983.04	4717.03	3792.10	2805.95	1816.47	1082.31	734.32	242.86	22.54		
90.0	4976.37	4821.65	4069.80	3114.82	2025.72	1251.60	823.64	346.15	25.27		
120.0	4969.69	4688.09	3930.12	2871.07	1837.06	1096.95	772.44	274.58	22.93		
150.0	4957.44	4824.99	4122.11	3091.45	2124.22	1331.74	857.59	384.55	29.83		
180.0	4955.77	4737.06	3947.92	2909.47	1932.78	1100.12	819.75	317.27	24.54		
210.0	4966.91	4689.20	3915.09	2862.72	1971.18	1101.90	822.03	307.81	25.38		
240.0	4983.04	4764.33	4104.31	3071.41	2105.30	1391.29	889.87	412.38	38.84		
270.0	4976.37	4689.76	3905.07	2848.81	1961.16	1080.87	799.66	291.00	24.93		
300.0	4969.69	4782.14	4036.41	3050.26	2060.78	1293.90	848.13	381.77	26.55		
330.0	4957.44	4638.00	3833.28	2818.75	1863.77	1085.99	763.09	265.51	22.04		
360.0	4955.77	4743.19	3982.43	2986.82	1992.33	1226.00	816.97	338.92	22.71		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	14.02	10.74	9.96	9.52	9.18	9.07	8.85	8.79	8.68		
30.0	13.25	10.96	10.07	9.63	9.24	9.07	8.85	8.74	8.68		
60.0	12.80	10.85	10.02	9.57	9.24	9.07	8.85	8.74	8.68		
90.0	13.86	10.96	10.18	9.63	9.29	9.13	8.90	8.79	8.79		
120.0	12.91	10.69	10.02	9.52	9.24	9.02	8.96	8.74	8.85		
150.0	14.08	10.91	10.13	9.63	9.29	9.13	8.96	8.79	8.74		
180.0	13.80	10.85	10.07	9.52	9.24	9.02	8.85	8.74	8.68		
210.0	14.02	10.96	10.18	9.57	9.29	9.02	8.90	8.74	8.74		
240.0	15.30	11.35	10.46	9.79	9.35	9.18	8.90	8.85	8.74		
270.0	13.52	10.85	10.07	9.57	9.24	9.02	8.85	8.85	8.74		
300.0	14.86	10.96	10.13	9.68	9.29	9.13	8.96	8.85	8.79		
330.0	12.91	10.69	9.96	9.46	9.24	8.96	8.90	8.74	8.74		
360.0	14.02	10.74	9.96	9.52	9.18	9.07	8.85	8.79	8.68		
C/γ(°)	90.0										
0.0	8.63										
30.0	8.63										
60.0	8.63										
90.0	8.63										
120.0	8.63										
150.0	8.68										
180.0	8.63										
210.0	8.63										
240.0	8.68										
270.0	8.63										
300.0	8.63										
330.0	8.63										
360.0	8.63										