

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P893715

Luminaire Tested: 4MB-6SL-ASML-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893715
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-33)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-6SL-ASML-UNV-L840
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

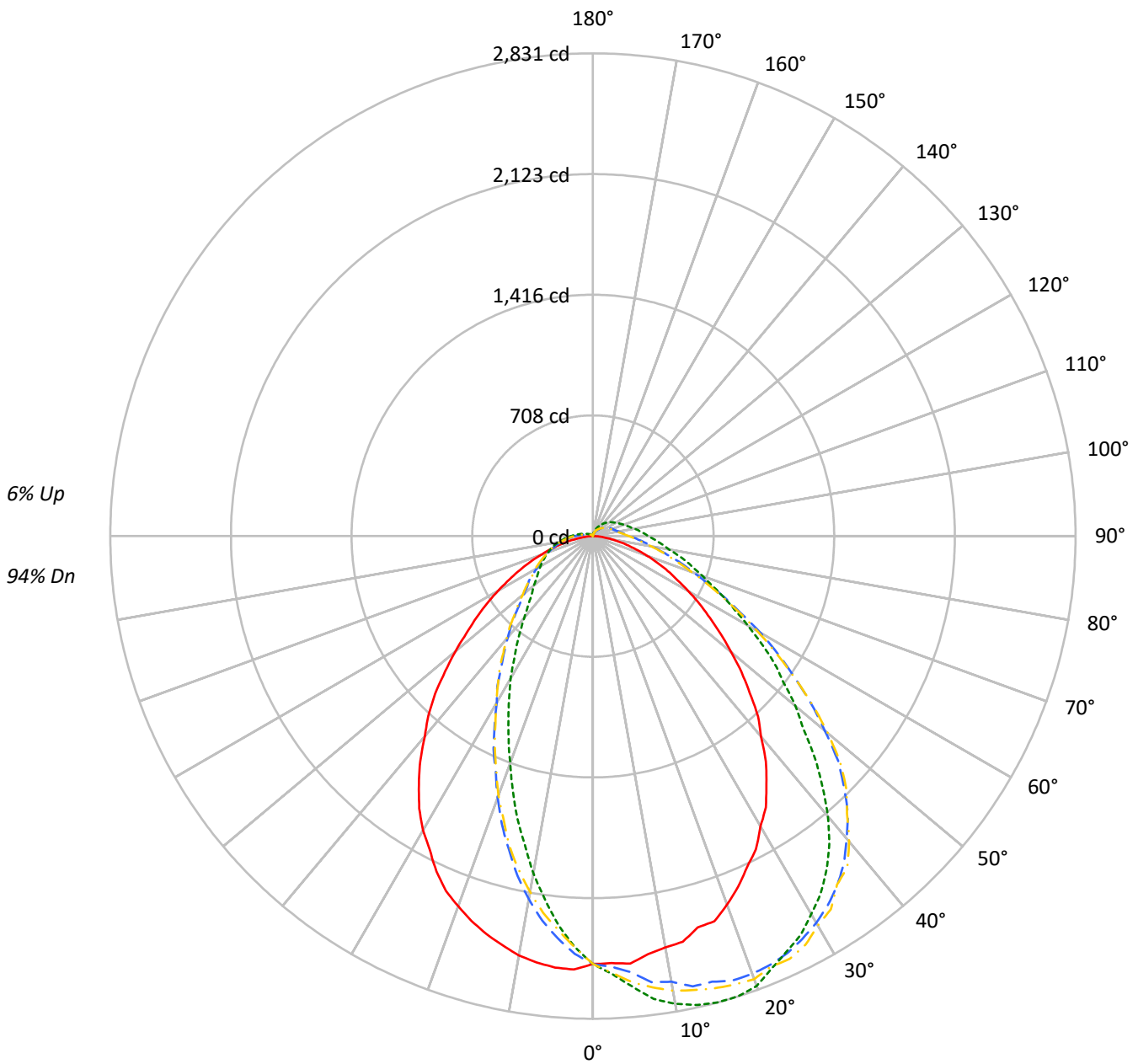
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6255.0 lumens
Efficiency: N/A
Efficacy: 140.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.07 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.12')
CIE Type: Direct

Input Watts (W): 44.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - · - 90°-270° - · - 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	97	97	97	94
1	107	103	98	94	104	100	96	92	95	91	88	90	87	85	85	83	81	85	83	81	79
2	98	90	83	78	95	88	82	76	83	78	74	79	75	71	75	72	69	75	72	69	66
3	90	80	72	65	87	78	70	64	74	68	63	70	65	61	67	63	59	67	63	59	57
4	83	71	63	56	80	69	61	55	66	59	54	63	57	53	60	55	51	60	55	51	49
5	76	64	55	49	74	62	54	48	60	53	47	57	51	46	55	49	45	55	49	45	43
6	71	58	49	43	68	56	48	42	54	47	42	52	46	41	50	44	40	50	44	40	38
7	66	53	44	38	64	51	43	38	49	42	37	48	41	36	46	40	36	46	40	36	34
8	61	48	40	34	59	47	39	34	45	38	33	44	37	33	42	37	32	42	37	32	30
9	57	44	36	31	56	43	36	31	42	35	30	40	34	30	39	33	29	39	33	29	28
10	54	41	33	28	52	40	33	28	39	32	28	38	31	27	36	31	27	36	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	25558	25558	25558	25558
5°	25653	26046	25896	22512
10°	25193	26601	25683	19186
15°	24839	26505	25259	16041
20°	24646	25981	24751	13123
25°	23707	24777	24035	10798
30°	22712	23679	23007	8921
35°	21593	22346	21653	7270
40°	19873	20442	19862	5960
45°	18176	18044	18268	5078
50°	16164	15749	16089	4588
55°	14244	13796	14145	4215
60°	12493	11766	12382	3984
65°	10945	10132	10686	3785
70°	9303	8879	8988	3618
75°	7583	8072	7378	3485
80°	5849	7264	5316	3245
85°	4024	7014	3250	3041

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 25284 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.8	3.8
10°-20°	655.4	10.5
20°-30°	942.7	15.1
30°-40°	1069.8	17.1
40°-50°	1022.4	16.3
50°-60°	830.8	13.3
60°-70°	579.7	9.3
70°-80°	359.1	5.7
80°-90°	206.0	3.3
90°-100°	123.1	2.0
100°-110°	80.8	1.3
110°-120°	56.6	0.9
120°-130°	41.0	0.7
130°-140°	27.3	0.4
140°-150°	15.4	0.2
150°-160°	6.9	0.1
160°-170°	2.0	0.0
170°-180°	0.2	0.0
0°-30°	1833.9	29.3
0°-40°	2903.7	46.4
0°-60°	4756.9	76.1
0°-90°	5901.7	94.4
90°-120°	260.6	4.2
90°-150°	344.3	5.5
90°-180°	353.0	5.6
0°-180°	6255.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2510	2510	2510	2510	2510	
5°	2516	2653	2540	2293	2516	237
15°	2376	2831	2416	1713	2376	675
25°	2141	2689	2170	1172	2141	987
35°	1775	2390	1780	777	1775	1106
45°	1302	1842	1308	518	1302	1004
55°	838	1299	832	397	838	754
65°	485	845	473	316	485	481
75°	215	565	210	244	215	232
85°	47	383	38	166	47	52
90°	2	324	0	127	2	3
95°	2	282	0	97	2	2
105°	2	217	0	53	2	2
115°	2	173	0	29	2	2
125°	2	140	0	19	2	1
135°	2	112	0	15	2	1
145°	2	79	0	10	2	1
155°	2	49	0	6	2	1
165°	2	23	0	2	2	1
175°	2	1	0	0	2	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2509.6	2509.6	2509.6	2509.6	2509.6	2509.6	2509.6	2509.6	2509.6	2509.6	2509.6
2.5°	2507.1	2526.0	2527.7	2586.9	2569.6	2591.8	2563.8	2568.8	2544.1	2537.6	2452.1
5°	2516.2	2556.5	2567.1	2669.0	2652.6	2664.1	2625.5	2597.5	2540.0	2505.5	2367.4
7.5°	2473.5	2579.5	2638.6	2710.9	2738.1	2747.1	2669.0	2617.3	2521.9	2437.3	2275.4
10°	2449.6	2595.9	2653.4	2761.9	2785.7	2768.5	2707.7	2622.2	2497.3	2360.9	2162.0
12.5°	2436.5	2604.9	2705.2	2816.1	2816.9	2798.9	2727.4	2635.3	2457.0	2278.7	2042.0
15°	2375.7	2603.3	2706.0	2818.6	2830.9	2819.4	2746.3	2626.3	2415.9	2176.8	1904.0
17.5°	2369.1	2599.2	2732.3	2850.6	2830.1	2821.9	2757.8	2622.2	2366.6	2073.3	1774.1
20°	2300.1	2590.1	2732.3	2814.5	2807.9	2811.2	2765.2	2616.4	2309.9	1961.5	1632.0
22.5°	2226.9	2579.5	2720.8	2783.3	2743.8	2803.8	2732.3	2600.8	2252.4	1844.8	1490.6
25°	2140.6	2562.2	2698.6	2738.9	2688.8	2735.6	2734.8	2577.0	2170.2	1719.1	1378.9
27.5°	2070.8	2535.1	2662.5	2723.3	2637.8	2678.1	2701.1	2548.2	2073.3	1595.0	1247.4
30°	1966.4	2500.6	2618.9	2627.9	2560.6	2611.5	2637.8	2512.1	1991.9	1454.5	1127.4
32.5°	1886.7	2461.1	2565.5	2553.2	2485.8	2553.2	2595.9	2475.9	1894.9	1331.2	1042.8
35°	1775.0	2413.5	2498.9	2434.0	2389.6	2445.5	2495.6	2437.3	1779.9	1199.7	934.3
37.5°	1666.5	2371.6	2419.2	2338.7	2277.9	2340.3	2450.4	2365.0	1664.0	1095.4	853.8
40°	1534.2	2275.4	2314.9	2205.6	2144.8	2236.8	2337.9	2302.5	1533.4	986.9	775.7
42.5°	1433.9	2203.9	2215.4	2065.9	1993.6	2091.3	2206.4	2213.8	1427.4	889.1	706.7
45°	1301.6	2103.7	2082.3	1918.0	1842.4	1930.3	2102.8	2122.6	1308.2	804.5	639.3
47.5°	1182.5	1991.9	1950.0	1757.7	1673.1	1777.4	1968.9	2020.7	1175.1	726.4	576.0
50°	1058.4	1867.0	1774.1	1608.2	1551.5	1603.2	1798.8	1884.3	1053.5	649.2	527.6
52.5°	945.0	1729.0	1613.9	1465.2	1408.5	1451.2	1620.5	1748.7	932.7	584.3	484.8
55°	838.2	1590.9	1442.2	1310.7	1299.2	1312.3	1439.7	1586.8	832.4	526.7	457.7
57.5°	742.9	1423.3	1287.7	1190.7	1170.2	1180.8	1268.8	1420.0	735.5	469.2	418.3
60°	646.7	1251.5	1134.8	1060.1	1048.5	1056.8	1113.5	1257.3	641.0	420.7	381.3
62.5°	559.6	1079.0	975.4	947.5	939.3	939.3	963.1	1094.6	552.2	371.4	353.4
65°	484.8	931.0	853.0	842.3	844.8	843.9	829.1	913.8	473.3	327.9	328.7
67.5°	409.2	774.1	730.5	743.7	753.5	749.4	718.2	760.1	399.4	288.4	306.5
70°	339.4	639.3	631.1	660.7	683.7	662.3	617.1	621.2	327.9	249.8	277.8
72.5°	273.6	516.9	554.7	595.8	618.0	594.1	531.7	513.6	263.8	214.5	251.5
75°	215.3	415.8	475.8	536.6	565.4	535.0	462.6	401.0	209.5	180.8	230.1
77.5°	164.3	329.5	406.8	477.4	505.4	479.1	402.7	313.1	153.7	152.0	207.1
80°	117.5	260.5	360.7	429.0	454.4	429.0	349.2	247.3	106.8	121.6	182.4
82.5°	77.2	201.3	313.9	390.3	418.3	387.0	303.2	190.6	68.2	98.6	164.3
85°	46.8	159.4	273.6	350.9	382.9	352.5	265.4	144.6	37.8	75.6	143.0
87.5°	20.5	123.3	244.1	323.8	352.5	324.6	236.7	113.4	15.6	59.2	122.4
90°	1.6	97.8	215.3	298.3	323.8	297.5	209.5	92.0	0.0	42.7	105.2
92.5°	1.6	83.8	197.2	276.1	304.9	275.3	189.0	75.6	0.0	31.2	88.7
95°	2.5	70.7	179.1	258.8	281.9	256.4	172.6	64.9	0.0	21.4	74.8
97.5°	2.5	64.1	164.3	241.6	267.1	239.9	157.8	58.3	0.0	15.6	60.8
100°	1.6	59.2	152.8	225.2	249.0	223.5	146.3	52.6	0.0	9.9	49.3
102.5°	1.6	55.1	143.0	211.2	230.1	208.7	136.4	49.3	0.0	8.2	40.3
105°	1.6	52.6	133.9	194.8	216.9	194.8	128.2	46.0	0.0	6.6	31.2
107.5°	1.6	49.3	127.4	185.7	203.8	184.1	121.6	43.6	0.0	6.6	25.5
110°	1.6	46.8	121.6	172.6	193.1	174.2	115.9	39.4	0.0	4.1	20.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	1.6	42.7	115.9	163.5	183.2	164.3	110.9	36.2	0.0	4.1	18.1
115°	1.6	38.6	110.9	157.8	172.6	156.1	106.0	32.0	0.0	3.3	16.4
117.5°	1.6	36.2	107.6	150.4	165.2	148.7	101.9	30.4	0.0	3.3	15.6
120°	1.6	34.5	102.7	143.0	154.5	141.3	97.0	28.8	0.0	3.3	14.8
122.5°	1.6	32.9	98.6	136.4	148.7	135.6	92.9	27.9	0.0	2.5	13.1
125°	1.6	31.2	92.9	129.0	140.5	127.4	85.5	27.1	0.0	1.6	11.5
127.5°	1.6	29.6	87.1	123.3	133.9	121.6	80.5	26.3	0.0	1.6	10.7
130°	1.6	28.8	79.7	115.9	126.5	114.2	74.8	26.3	0.0	1.6	9.9
132.5°	1.6	27.9	71.5	108.5	120.0	106.8	69.0	25.5	0.0	1.6	8.2
135°	1.6	27.1	63.3	101.1	111.8	99.4	64.1	24.7	0.0	1.6	7.4
137.5°	1.6	25.5	55.9	92.9	103.5	91.2	60.8	23.0	0.0	1.6	6.6
140°	1.6	23.8	50.1	86.3	95.3	83.8	55.9	21.4	0.0	0.8	4.9
142.5°	1.6	21.4	45.2	78.1	87.1	76.4	50.1	18.1	0.0	0.8	4.9
145°	1.6	18.9	41.1	68.2	78.9	68.2	46.8	16.4	0.0	0.8	4.1
147.5°	1.6	17.3	37.0	57.5	71.5	62.5	41.9	14.0	0.0	0.8	3.3
150°	1.6	15.6	32.0	48.5	63.3	55.1	38.6	12.3	0.0	0.0	2.5
152.5°	1.6	14.0	27.9	40.3	56.7	50.1	34.5	10.7	0.0	0.0	1.6
155°	2.5	13.1	23.8	35.3	49.3	43.6	28.8	9.0	0.0	0.0	1.6
157.5°	2.5	11.5	19.7	28.8	43.6	37.8	23.0	7.4	0.0	0.0	0.8
160°	2.5	10.7	16.4	22.2	36.2	31.2	18.9	5.8	0.0	0.0	0.8
162.5°	2.5	9.9	14.0	16.4	29.6	24.7	14.8	4.1	0.0	0.0	0.8
165°	2.5	8.2	12.3	11.5	23.0	18.9	11.5	2.5	0.0	0.0	0.0
167.5°	2.5	7.4	9.9	8.2	17.3	14.0	8.2	1.6	0.0	0.0	0.0
170°	2.5	5.8	8.2	5.8	4.9	9.0	4.9	0.8	0.0	0.0	0.0
172.5°	2.5	4.9	6.6	4.1	1.6	4.9	2.5	0.0	0.0	0.0	0.0
175°	2.5	4.1	4.1	2.5	0.8	1.6	0.0	0.0	0.0	0.0	0.0
177.5°	2.5	3.3	2.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2509.6	2509.6	2509.6	2509.6	2509.6	2509.6
2.5°	2440.6	2413.5	2388.8	2415.1	2434.0	2507.1
5°	2321.4	2292.7	2296.0	2319.8	2383.1	2516.2
7.5°	2198.2	2150.5	2162.0	2228.6	2322.3	2473.5
10°	2052.7	2009.2	2019.9	2120.1	2251.6	2449.6
12.5°	1922.9	1849.7	1912.2	2006.7	2169.4	2436.5
15°	1770.9	1713.3	1747.0	1886.7	2090.5	2375.7
17.5°	1606.5	1562.1	1602.4	1741.3	1993.6	2369.1
20°	1480.0	1418.3	1466.0	1618.8	1873.6	2300.1
22.5°	1337.8	1291.0	1341.1	1481.6	1751.1	2226.9
25°	1221.1	1171.8	1221.9	1361.6	1642.7	2140.6
27.5°	1107.7	1062.5	1107.7	1235.9	1535.0	2070.8
30°	1008.3	964.7	1010.7	1134.0	1409.3	1966.4
32.5°	915.4	859.5	918.7	1037.9	1298.4	1886.7
35°	819.3	777.4	821.7	954.0	1175.1	1775.0
37.5°	739.6	696.0	748.6	862.0	1070.7	1666.5
40°	664.0	625.3	667.3	788.1	982.0	1534.2
42.5°	604.8	566.2	608.9	720.7	892.4	1433.9
45°	547.3	518.5	553.0	646.7	802.0	1301.6
47.5°	505.4	480.7	509.5	592.5	726.4	1182.5
50°	469.2	452.0	472.5	538.2	648.4	1058.4
52.5°	437.2	419.9	443.7	496.3	586.7	945.0
55°	412.5	396.9	415.0	456.9	525.1	838.2
57.5°	385.4	375.5	389.5	415.0	476.6	742.9
60°	365.7	355.0	369.8	390.3	421.6	646.7
62.5°	343.5	337.7	346.8	363.2	379.6	559.6
65°	323.8	315.6	327.1	332.8	331.2	484.8
67.5°	302.4	299.9	306.5	307.3	295.0	409.2
70°	280.2	278.6	286.8	281.9	256.4	339.4
72.5°	262.1	262.1	267.1	257.2	223.5	273.6
75°	242.4	244.1	248.2	236.7	188.2	215.3
77.5°	224.3	226.0	226.8	211.2	157.8	164.3
80°	203.8	203.0	211.2	191.5	128.2	117.5
82.5°	185.7	182.4	187.4	167.6	103.5	77.2
85°	165.2	166.0	169.3	146.3	83.0	46.8
87.5°	148.7	148.7	152.0	129.0	62.5	20.5
90°	129.0	127.4	132.3	109.3	46.8	1.6
92.5°	112.6	112.6	115.9	93.7	34.5	1.6
95°	96.1	97.0	99.4	77.2	26.3	2.5
97.5°	82.2	83.0	86.3	65.7	18.9	2.5
100°	69.8	70.7	72.3	52.6	14.8	1.6
102.5°	58.3	60.8	60.8	43.6	11.5	1.6
105°	49.3	52.6	50.9	35.3	10.7	1.6
107.5°	41.1	44.4	44.4	28.8	10.7	1.6
110°	33.7	38.6	37.8	24.7	8.2	1.6



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	28.8	32.9	30.4	21.4	8.2	1.6
115°	24.7	28.8	27.1	19.7	7.4	1.6
117.5°	22.2	24.7	24.7	18.9	7.4	1.6
120°	20.5	23.0	22.2	18.1	7.4	1.6
122.5°	18.9	20.5	20.5	16.4	6.6	1.6
125°	18.1	18.9	19.7	14.8	6.6	1.6
127.5°	17.3	18.9	18.9	14.0	5.8	1.6
130°	15.6	17.3	17.3	13.1	5.8	1.6
132.5°	14.0	15.6	15.6	12.3	5.8	1.6
135°	13.1	14.8	14.8	11.5	5.8	1.6
137.5°	12.3	13.1	13.1	10.7	5.8	1.6
140°	10.7	12.3	12.3	9.9	5.8	1.6
142.5°	9.9	11.5	11.5	9.0	4.9	1.6
145°	9.0	9.9	10.7	8.2	4.9	1.6
147.5°	7.4	9.0	9.9	7.4	4.9	1.6
150°	5.8	8.2	8.2	7.4	4.9	1.6
152.5°	4.1	7.4	7.4	6.6	4.1	1.6
155°	3.3	5.8	6.6	5.8	4.1	2.5
157.5°	2.5	4.9	5.8	5.8	4.1	2.5
160°	1.6	4.1	4.9	4.9	3.3	2.5
162.5°	0.8	3.3	4.1	4.9	3.3	2.5
165°	0.0	2.5	3.3	4.1	3.3	2.5
167.5°	0.0	1.6	2.5	3.3	2.5	2.5
170°	0.0	0.8	1.6	2.5	2.5	2.5
172.5°	0.0	0.0	0.8	1.6	1.6	2.5
175°	0.0	0.0	0.0	0.8	1.6	2.5
177.5°	0.0	0.0	0.0	0.8	1.6	2.5
180°	0.8	0.8	0.8	0.8	0.8	0.8



TEST NUMBER: P893715
 CATALOG NUMBER: 4MB-6SL-ASML-UNV-L840

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	20.18	21.64	20.63	22.07	22.52	22.44	23.90	22.89	24.33	24.78
	3H	21.00	22.32	21.47	22.76	23.26	24.14	25.46	24.60	25.90	26.40
	4H	21.20	22.45	21.69	22.91	23.42	24.98	26.22	25.46	26.68	27.19
	6H	21.29	22.45	21.79	22.92	23.45	25.85	27.00	26.35	27.48	28.01
	8H	21.30	22.40	21.81	22.89	23.43	26.32	27.42	26.84	27.92	28.46
	12H	21.28	22.34	21.80	22.83	23.39	26.87	27.92	27.39	28.41	28.97
4H	2H	20.61	21.86	21.10	22.32	22.83	22.80	24.04	23.29	24.51	25.02
	3H	21.71	22.75	22.21	23.26	23.80	24.69	25.73	25.19	26.24	26.77
	4H	22.05	23.00	22.57	23.52	24.08	25.66	26.61	26.18	27.12	27.69
	6H	22.24	23.07	22.78	23.62	24.20	26.70	27.53	27.24	28.07	28.66
	8H	22.27	23.05	22.82	23.59	24.19	27.26	28.04	27.81	28.59	29.18
	12H	22.28	22.98	22.84	23.55	24.15	27.92	28.62	28.49	29.20	29.79
8H	4H	22.38	23.16	22.93	23.70	24.30	25.80	26.58	26.35	27.12	27.72
	6H	22.70	23.35	23.28	23.94	24.54	26.97	27.62	27.55	28.21	28.81
	8H	22.79	23.38	23.38	23.98	24.59	27.65	28.24	28.25	28.84	29.45
	12H	22.85	23.37	23.44	23.96	24.64	28.47	28.99	29.06	29.58	30.26
12H	4H	22.46	23.16	23.03	23.73	24.33	25.79	26.49	26.36	27.07	27.67
	6H	22.84	23.43	23.43	24.03	24.64	26.98	27.57	27.58	28.17	28.79
	8H	23.00	23.52	23.59	24.11	24.79	27.72	28.24	28.31	28.83	29.51