

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: P893718

Luminaire Tested: 4MB-6SL-ASML-UNV-L935

Issue Date: 11/11/2024

**Test Information**

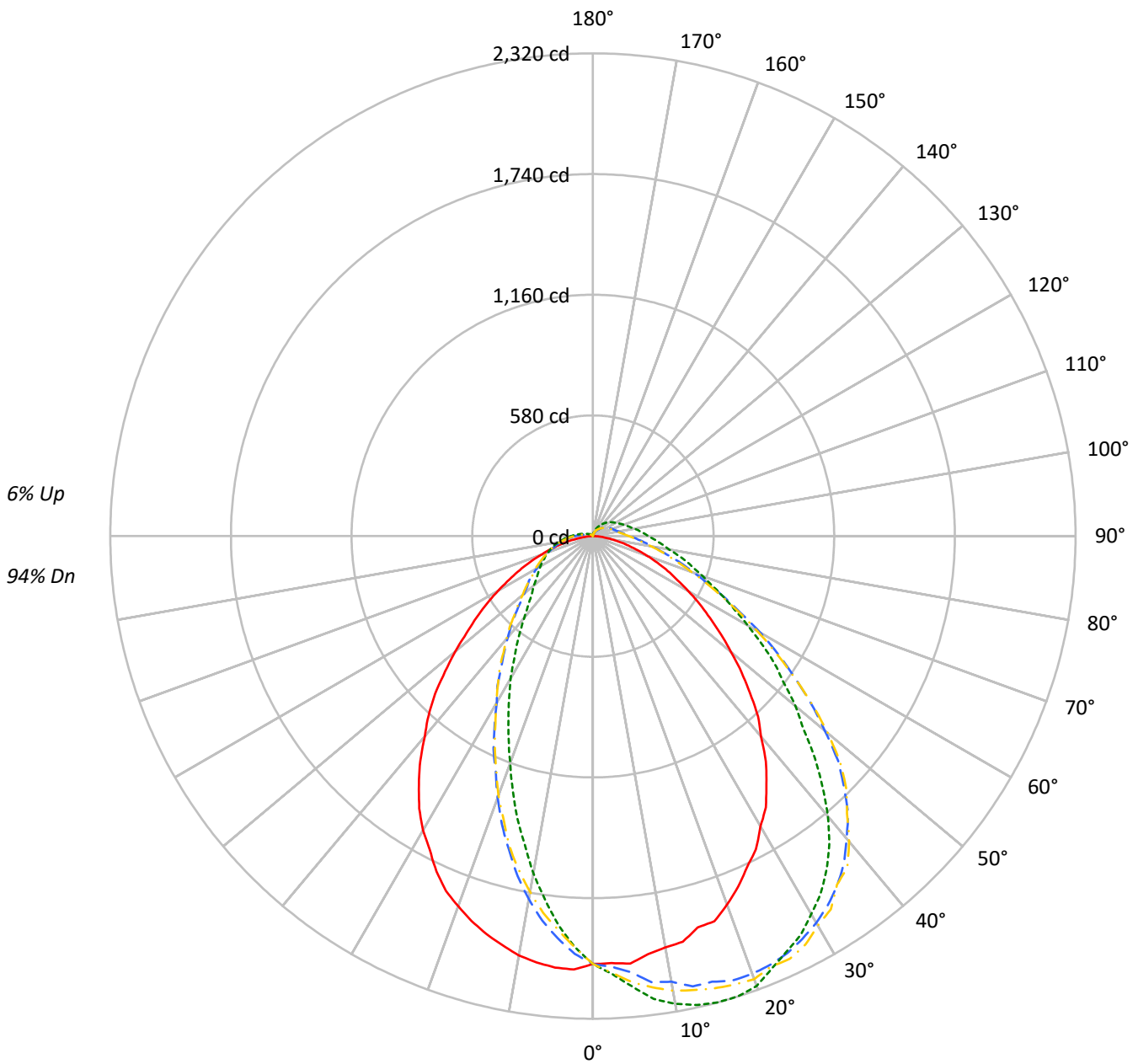
Test Method: LM-79-2019  
Report Number: P893718  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-33)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-6SL-ASML-UNV-L935  
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 90CRI, 3500K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5126.0 lumens  
Efficiency: N/A  
Efficacy: 115.5 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<sub>in</sub>): 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

TEST NUMBER: P893718  
CATALOG NUMBER: 4MB-6SL-ASML-UNV-L935

### 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	81	81	81	79
2	98	90	83	78	95	88	82	76	83	78	74	79	75	71	75	72	69	69	69	69	66
3	90	80	72	65	87	78	70	64	74	68	63	70	65	61	67	63	59	59	59	59	57
4	83	71	63	56	80	69	61	55	66	59	54	63	57	53	60	55	51	51	51	51	49
5	76	64	55	49	74	62	54	48	60	53	47	57	51	46	55	49	45	45	45	45	43
6	71	58	49	43	68	56	48	42	54	47	42	52	46	41	50	44	40	40	40	40	38
7	66	53	44	38	64	51	43	38	49	42	37	48	41	36	46	40	36	36	36	36	34
8	61	48	40	34	59	47	39	34	45	38	33	44	37	33	42	37	32	32	32	32	30
9	57	44	36	31	56	43	36	31	42	35	30	40	34	30	39	33	29	29	29	29	28
10	54	41	33	28	52	40	33	28	39	32	28	38	31	27	36	31	27	27	27	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	20945	20945	20945	20945
5°	21022	21344	21222	18449
10°	20646	21799	21047	15722
15°	20356	21721	20701	13146
20°	20197	21292	20284	10755
25°	19429	20304	19697	8849
30°	18613	19404	18855	7311
35°	17695	18313	17744	5958
40°	16286	16752	16277	4885
45°	14895	14787	14971	4161
50°	13247	12906	13184	3760
55°	11673	11306	11593	3454
60°	10238	9643	10147	3264
65°	8970	8303	8758	3102
70°	7623	7276	7365	2965
75°	6213	6614	6047	2855
80°	4794	5953	4356	2658
85°	3302	5748	2665	2491

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 157.5°  
 Vertical Angle: 45°  
 Luminance: 20721 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.2	3.8
10°-20°	537.1	10.5
20°-30°	772.6	15.1
30°-40°	876.7	17.1
40°-50°	837.9	16.3
50°-60°	680.8	13.3
60°-70°	475.0	9.3
70°-80°	294.3	5.7
80°-90°	168.8	3.3
90°-100°	100.9	2.0
100°-110°	66.2	1.3
110°-120°	46.4	0.9
120°-130°	33.6	0.7
130°-140°	22.4	0.4
140°-150°	12.6	0.2
150°-160°	5.6	0.1
160°-170°	1.6	0.0
170°-180°	0.1	0.0
0°-30°	1502.9	29.3
0°-40°	2379.6	46.4
0°-60°	3898.3	76.1
0°-90°	4836.5	94.4
90°-120°	213.6	4.2
90°-150°	282.2	5.5
90°-180°	290.0	5.7
0°-180°	5126.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2057	2057	2057	2057	2057	
5°	2062	2174	2082	1879	2062	194
15°	1947	2320	1980	1404	1947	553
25°	1754	2203	1778	960	1754	809
35°	1455	1958	1459	637	1455	907
45°	1067	1510	1072	425	1067	823
55°	687	1065	682	325	687	618
65°	397	692	388	259	397	394
75°	176	463	172	200	176	190
85°	38	314	31	136	38	43
90°	1	265	0	104	1	3
95°	2	231	0	80	2	1
105°	1	178	0	43	1	1
115°	1	141	0	24	1	1
125°	1	115	0	16	1	1
135°	1	92	0	12	1	1
145°	1	65	0	8	1	1
155°	2	40	0	5	2	1
165°	2	19	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°	2056.6	2056.6	2056.6	2056.6	2056.6	2056.6	2056.6	2056.6	2056.6	2056.6	2056.6
2.5°	2054.6	2070.1	2071.5	2119.9	2105.8	2124.0	2101.1	2105.1	2084.9	2079.5	2009.5
5°	2062.0	2095.0	2103.8	2187.3	2173.8	2183.2	2151.6	2128.7	2081.6	2053.3	1940.1
7.5°	2027.0	2113.9	2162.4	2221.6	2243.8	2251.3	2187.3	2144.9	2066.7	1997.4	1864.7
10°	2007.5	2127.3	2174.5	2263.4	2282.9	2268.8	2218.9	2148.9	2046.5	1934.7	1771.8
12.5°	1996.7	2134.8	2216.9	2307.8	2308.5	2293.7	2235.1	2159.7	2013.5	1867.4	1673.5
15°	1946.9	2133.4	2217.6	2309.8	2319.9	2310.5	2250.6	2152.3	1979.9	1783.9	1560.3
17.5°	1941.5	2130.0	2239.1	2336.1	2319.3	2312.5	2260.0	2148.9	1939.5	1699.0	1453.9
20°	1884.9	2122.6	2239.1	2306.5	2301.1	2303.8	2266.1	2144.2	1893.0	1607.5	1337.4
22.5°	1825.0	2113.9	2229.7	2280.9	2248.6	2297.7	2239.1	2131.4	1845.9	1511.8	1221.6
25°	1754.3	2099.7	2211.5	2244.5	2203.4	2241.8	2241.2	2111.9	1778.5	1408.8	1130.0
27.5°	1697.0	2077.5	2181.9	2231.7	2161.7	2194.7	2213.5	2088.3	1699.0	1307.1	1022.3
30°	1611.5	2049.2	2146.2	2153.6	2098.4	2140.1	2161.7	2058.7	1632.4	1192.0	923.9
32.5°	1546.2	2016.9	2102.4	2092.3	2037.1	2092.3	2127.3	2029.0	1552.9	1090.9	854.6
35°	1454.6	1977.8	2047.9	1994.7	1958.3	2004.1	2045.2	1997.4	1458.6	983.2	765.7
37.5°	1365.7	1943.5	1982.6	1916.6	1866.7	1917.9	2008.2	1938.1	1363.7	897.7	699.7
40°	1257.3	1864.7	1897.0	1807.5	1757.6	1833.1	1915.9	1886.9	1256.6	808.8	635.7
42.5°	1175.1	1806.1	1815.6	1693.0	1633.7	1713.9	1808.1	1814.2	1169.7	728.6	579.1
45°	1066.7	1724.0	1706.5	1571.8	1509.8	1581.9	1723.3	1739.5	1072.1	659.3	523.9
47.5°	969.1	1632.4	1598.0	1440.5	1371.1	1456.6	1613.5	1656.0	963.0	595.3	472.1
50°	867.4	1530.0	1453.9	1317.9	1271.4	1313.9	1474.1	1544.2	863.3	532.0	432.3
52.5°	774.4	1416.9	1322.6	1200.7	1154.2	1189.3	1328.0	1433.0	764.3	478.8	397.3
55°	686.9	1303.7	1181.9	1074.1	1064.7	1075.5	1179.8	1300.4	682.2	431.7	375.1
57.5°	608.8	1166.4	1055.3	975.8	959.0	967.7	1039.8	1163.7	602.7	384.5	342.8
60°	530.0	1025.6	930.0	868.7	859.3	866.0	912.5	1030.3	525.3	344.8	312.5
62.5°	458.6	884.2	799.4	776.5	769.7	769.7	789.3	897.0	452.5	304.4	289.6
65°	397.3	763.0	699.0	690.3	692.3	691.6	679.5	748.8	387.9	268.7	269.4
67.5°	335.4	634.4	598.7	609.4	617.5	614.2	588.6	622.9	327.3	236.4	251.2
70°	278.1	523.9	517.2	541.4	560.3	542.8	505.7	509.1	268.7	204.7	227.6
72.5°	224.3	423.6	454.6	488.2	506.4	486.9	435.7	420.9	216.2	175.8	206.1
75°	176.4	340.8	389.9	439.7	463.3	438.4	379.1	328.6	171.7	148.2	188.6
77.5°	134.7	270.0	333.3	391.3	414.2	392.6	330.0	256.6	125.9	124.6	169.7
80°	96.3	213.5	295.6	351.5	372.4	351.5	286.2	202.7	87.5	99.7	149.5
82.5°	63.3	165.0	257.2	319.9	342.8	317.2	248.5	156.2	55.9	80.8	134.7
85°	38.4	130.6	224.3	287.6	313.8	288.9	217.5	118.5	31.0	62.0	117.2
87.5°	16.8	101.0	200.0	265.3	288.9	266.0	193.9	92.9	12.8	48.5	100.3
90°	1.3	80.1	176.4	244.5	265.3	243.8	171.7	75.4	0.0	35.0	86.2
92.5°	1.3	68.7	161.6	226.3	249.8	225.6	154.9	62.0	0.0	25.6	72.7
95°	2.0	57.9	146.8	212.1	231.0	210.1	141.4	53.2	0.0	17.5	61.3
97.5°	2.0	52.5	134.7	198.0	218.9	196.6	129.3	47.8	0.0	12.8	49.8
100°	1.3	48.5	125.3	184.5	204.0	183.2	119.9	43.1	0.0	8.1	40.4
102.5°	1.3	45.1	117.2	173.1	188.6	171.0	111.8	40.4	0.0	6.7	33.0
105°	1.3	43.1	109.8	159.6	177.8	159.6	105.1	37.7	0.0	5.4	25.6
107.5°	1.3	40.4	104.4	152.2	167.0	150.8	99.7	35.7	0.0	5.4	20.9
110°	1.3	38.4	99.7	141.4	158.3	142.8	95.0	32.3	0.0	3.4	16.8



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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°	1.3	35.0	95.0	134.0	150.2	134.7	90.9	29.6	0.0	3.4	14.8
115°	1.3	31.7	90.9	129.3	141.4	128.0	86.9	26.3	0.0	2.7	13.5
117.5°	1.3	29.6	88.2	123.2	135.4	121.9	83.5	24.9	0.0	2.7	12.8
120°	1.3	28.3	84.2	117.2	126.6	115.8	79.5	23.6	0.0	2.7	12.1
122.5°	1.3	26.9	80.8	111.8	121.9	111.1	76.1	22.9	0.0	2.0	10.8
125°	1.3	25.6	76.1	105.7	115.2	104.4	70.0	22.2	0.0	1.3	9.4
127.5°	1.3	24.2	71.4	101.0	109.8	99.7	66.0	21.5	0.0	1.3	8.8
130°	1.3	23.6	65.3	95.0	103.7	93.6	61.3	21.5	0.0	1.3	8.1
132.5°	1.3	22.9	58.6	88.9	98.3	87.5	56.6	20.9	0.0	1.3	6.7
135°	1.3	22.2	51.9	82.8	91.6	81.5	52.5	20.2	0.0	1.3	6.1
137.5°	1.3	20.9	45.8	76.1	84.9	74.8	49.8	18.9	0.0	1.3	5.4
140°	1.3	19.5	41.1	70.7	78.1	68.7	45.8	17.5	0.0	0.7	4.0
142.5°	1.3	17.5	37.0	64.0	71.4	62.6	41.1	14.8	0.0	0.7	4.0
145°	1.3	15.5	33.7	55.9	64.6	55.9	38.4	13.5	0.0	0.7	3.4
147.5°	1.3	14.1	30.3	47.1	58.6	51.2	34.3	11.4	0.0	0.7	2.7
150°	1.3	12.8	26.3	39.7	51.9	45.1	31.7	10.1	0.0	0.0	2.0
152.5°	1.3	11.4	22.9	33.0	46.5	41.1	28.3	8.8	0.0	0.0	1.3
155°	2.0	10.8	19.5	29.0	40.4	35.7	23.6	7.4	0.0	0.0	1.3
157.5°	2.0	9.4	16.2	23.6	35.7	31.0	18.9	6.1	0.0	0.0	0.7
160°	2.0	8.8	13.5	18.2	29.6	25.6	15.5	4.7	0.0	0.0	0.7
162.5°	2.0	8.1	11.4	13.5	24.2	20.2	12.1	3.4	0.0	0.0	0.7
165°	2.0	6.7	10.1	9.4	18.9	15.5	9.4	2.0	0.0	0.0	0.0
167.5°	2.0	6.1	8.1	6.7	14.1	11.4	6.7	1.3	0.0	0.0	0.0
170°	2.0	4.7	6.7	4.7	4.0	7.4	4.0	0.7	0.0	0.0	0.0
172.5°	2.0	4.0	5.4	3.4	1.3	4.0	2.0	0.0	0.0	0.0	0.0
175°	2.0	3.4	3.4	2.0	0.7	1.3	0.0	0.0	0.0	0.0	0.0
177.5°	2.0	2.7	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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CATALOG NUMBER: 4MB-6SL-ASML-UNV-L935

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2056.6	2056.6	2056.6	2056.6	2056.6	2056.6
2.5°	2000.1	1977.8	1957.6	1979.2	1994.7	2054.6
5°	1902.4	1878.9	1881.5	1901.1	1952.9	2062.0
7.5°	1801.4	1762.4	1771.8	1826.3	1903.1	2027.0
10°	1682.2	1646.5	1655.3	1737.4	1845.2	2007.5
12.5°	1575.8	1515.9	1567.1	1644.5	1777.8	1996.7
15°	1451.2	1404.1	1431.7	1546.2	1713.2	1946.9
17.5°	1316.5	1280.2	1313.2	1427.0	1633.7	1941.5
20°	1212.8	1162.3	1201.4	1326.6	1535.4	1884.9
22.5°	1096.3	1057.9	1099.0	1214.2	1435.1	1825.0
25°	1000.7	960.3	1001.4	1115.9	1346.2	1754.3
27.5°	907.8	870.7	907.8	1012.8	1258.0	1697.0
30°	826.3	790.6	828.3	929.3	1154.9	1611.5
32.5°	750.2	704.4	752.9	850.5	1064.0	1546.2
35°	671.4	637.1	673.4	781.8	963.0	1454.6
37.5°	606.1	570.4	613.5	706.4	877.5	1365.7
40°	544.1	512.5	546.8	645.8	804.7	1257.3
42.5°	495.6	464.0	499.0	590.6	731.3	1175.1
45°	448.5	424.9	453.2	530.0	657.3	1066.7
47.5°	414.2	394.0	417.5	485.5	595.3	969.1
50°	384.5	370.4	387.2	441.1	531.3	867.4
52.5°	358.3	344.1	363.6	406.7	480.8	774.4
55°	338.1	325.3	340.1	374.4	430.3	686.9
57.5°	315.8	307.8	319.2	340.1	390.6	608.8
60°	299.7	290.9	303.0	319.9	345.5	530.0
62.5°	281.5	276.8	284.2	297.7	311.1	458.6
65°	265.3	258.6	268.0	272.7	271.4	397.3
67.5°	247.8	245.8	251.2	251.9	241.8	335.4
70°	229.6	228.3	235.0	231.0	210.1	278.1
72.5°	214.8	214.8	218.9	210.8	183.2	224.3
75°	198.7	200.0	203.4	193.9	154.2	176.4
77.5°	183.8	185.2	185.9	173.1	129.3	134.7
80°	167.0	166.3	173.1	156.9	105.1	96.3
82.5°	152.2	149.5	153.5	137.4	84.9	63.3
85°	135.4	136.0	138.7	119.9	68.0	38.4
87.5°	121.9	121.9	124.6	105.7	51.2	16.8
90°	105.7	104.4	108.4	89.6	38.4	1.3
92.5°	92.3	92.3	95.0	76.8	28.3	1.3
95°	78.8	79.5	81.5	63.3	21.5	2.0
97.5°	67.3	68.0	70.7	53.9	15.5	2.0
100°	57.2	57.9	59.3	43.1	12.1	1.3
102.5°	47.8	49.8	49.8	35.7	9.4	1.3
105°	40.4	43.1	41.8	29.0	8.8	1.3
107.5°	33.7	36.4	36.4	23.6	8.8	1.3
110°	27.6	31.7	31.0	20.2	6.7	1.3





TEST NUMBER: P893718  
 CATALOG NUMBER: 4MB-6SL-ASML-UNV-L935

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	23.6	26.9	24.9	17.5	6.7	1.3
115°	20.2	23.6	22.2	16.2	6.1	1.3
117.5°	18.2	20.2	20.2	15.5	6.1	1.3
120°	16.8	18.9	18.2	14.8	6.1	1.3
122.5°	15.5	16.8	16.8	13.5	5.4	1.3
125°	14.8	15.5	16.2	12.1	5.4	1.3
127.5°	14.1	15.5	15.5	11.4	4.7	1.3
130°	12.8	14.1	14.1	10.8	4.7	1.3
132.5°	11.4	12.8	12.8	10.1	4.7	1.3
135°	10.8	12.1	12.1	9.4	4.7	1.3
137.5°	10.1	10.8	10.8	8.8	4.7	1.3
140°	8.8	10.1	10.1	8.1	4.7	1.3
142.5°	8.1	9.4	9.4	7.4	4.0	1.3
145°	7.4	8.1	8.8	6.7	4.0	1.3
147.5°	6.1	7.4	8.1	6.1	4.0	1.3
150°	4.7	6.7	6.7	6.1	4.0	1.3
152.5°	3.4	6.1	6.1	5.4	3.4	1.3
155°	2.7	4.7	5.4	4.7	3.4	2.0
157.5°	2.0	4.0	4.7	4.7	3.4	2.0
160°	1.3	3.4	4.0	4.0	2.7	2.0
162.5°	0.7	2.7	3.4	4.0	2.7	2.0
165°	0.0	2.0	2.7	3.4	2.7	2.0
167.5°	0.0	1.3	2.0	2.7	2.0	2.0
170°	0.0	0.7	1.3	2.0	2.0	2.0
172.5°	0.0	0.0	0.7	1.3	1.3	2.0
175°	0.0	0.0	0.0	0.7	1.3	2.0
177.5°	0.0	0.0	0.0	0.7	1.3	2.0
180°	0.7	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P893718  
 CATALOG NUMBER: 4MB-6SL-ASML-UNV-L935

**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	19.49	20.95	19.94	21.38	21.83	21.74	23.20	22.20	23.64	24.09
	3H	20.31	21.63	20.77	22.07	22.57	23.45	24.76	23.91	25.21	25.70
	4H	20.51	21.75	21.00	22.22	22.73	24.28	25.53	24.77	25.99	26.50
	6H	20.60	21.75	21.10	22.23	22.76	25.16	26.31	25.66	26.79	27.31
	8H	20.60	21.70	21.12	22.20	22.74	25.63	26.73	26.15	27.23	27.76
	12H	20.59	21.65	21.11	22.14	22.70	26.17	27.23	26.69	27.72	28.28
4H	2H	19.92	21.16	20.41	21.63	22.14	22.11	23.35	22.60	23.81	24.33
	3H	21.02	22.06	21.52	22.57	23.10	23.99	25.04	24.50	25.54	26.08
	4H	21.36	22.31	21.88	22.82	23.39	24.97	25.91	25.49	26.43	27.00
	6H	21.55	22.38	22.09	22.92	23.51	26.01	26.84	26.55	27.38	27.97
	8H	21.58	22.36	22.13	22.90	23.50	26.57	27.35	27.12	27.89	28.49
	12H	21.58	22.29	22.15	22.86	23.46	27.23	27.93	27.80	28.50	29.10
8H	4H	21.69	22.47	22.24	23.01	23.61	25.11	25.89	25.66	26.43	27.03
	6H	22.01	22.66	22.59	23.25	23.85	26.28	26.93	26.86	27.52	28.12
	8H	22.10	22.69	22.69	23.29	23.90	26.96	27.55	27.55	28.15	28.76
	12H	22.15	22.68	22.75	23.26	23.95	27.78	28.30	28.37	28.89	29.57
12H	4H	21.76	22.47	22.33	23.04	23.64	25.10	25.80	25.67	26.38	26.98
	6H	22.15	22.74	22.74	23.34	23.95	26.29	26.88	26.89	27.48	28.10
	8H	22.30	22.83	22.90	23.41	24.10	27.03	27.55	27.62	28.14	28.82