

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: P893714

Luminaire Tested: 4MB-6SL-ASML-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893714
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-L835
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

Summary

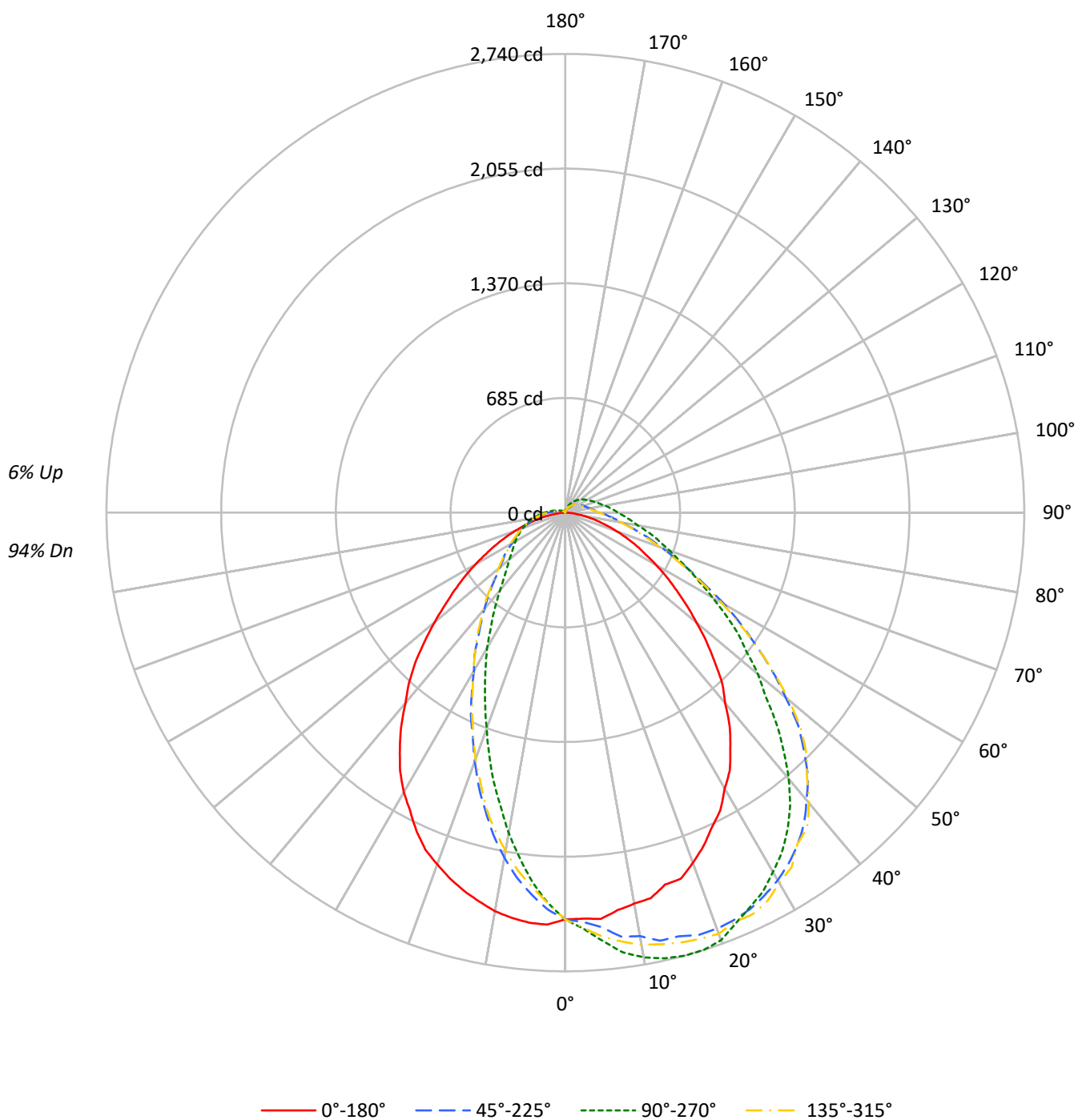
Lumens per Lamp: N/A
Luminaire Lumens: 6055.0 lumens
Efficiency: N/A
Efficacy: 136.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.07 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.12')
CIE Type: Direct

Input Watts (W): 44.4
Input Voltage (V): 120
Input Current (Ain): 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: P893714

CATALOG NUMBER: 4MB-6SL-ASML-UNV-L835

Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	24742	24742	24742	24742
5°	24832	25213	25068	21792
10°	24387	25750	24861	18572
15°	24044	25658	24452	15529
20°	23858	25150	23960	12704
25°	22949	23985	23266	10452
30°	21987	22921	22271	8636
35°	20902	21631	20960	7037
40°	19237	19788	19226	5770
45°	17595	17466	17684	4916
50°	15648	15245	15574	4441
55°	13788	13354	13693	4080
60°	12093	11390	11986	3856
65°	10595	9807	10345	3664
70°	9004	8594	8700	3502
75°	7340	7813	7143	3373
80°	5665	7032	5147	3141
85°	3895	6791	3147	2944

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°

Vertical Angle: 45°

Luminance: 24475 cd/sqm

TEST NUMBER: P893714

CATALOG NUMBER: 4MB-6SL-ASML-UNV-L835

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.3	3.8
10°-20°	634.4	10.5
20°-30°	912.6	15.1
30°-40°	1035.6	17.1
40°-50°	989.7	16.3
50°-60°	804.2	13.3
60°-70°	561.1	9.3
70°-80°	347.6	5.7
80°-90°	199.4	3.3
90°-100°	119.2	2.0
100°-110°	78.2	1.3
110°-120°	54.8	0.9
120°-130°	39.7	0.7
130°-140°	26.4	0.4
140°-150°	14.9	0.2
150°-160°	6.6	0.1
160°-170°	1.9	0.0
170°-180°	0.2	0.0
0°-30°	1775.3	29.3
0°-40°	2810.9	46.4
0°-60°	4604.8	76.0
0°-90°	5713.0	94.4
90°-120°	252.3	4.2
90°-150°	333.3	5.5
90°-180°	342.0	5.6
0°-180°	6055.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2429	2429	2429	2429	2429	
5°	2436	2568	2459	2219	2436	230
15°	2300	2740	2339	1659	2300	654
25°	2072	2603	2101	1134	2072	956
35°	1718	2313	1723	752	1718	1071
45°	1260	1783	1266	502	1260	972
55°	811	1258	806	384	811	730
65°	469	818	458	306	469	466
75°	208	547	203	236	208	225
85°	45	371	37	161	45	51
90°	2	313	0	123	2	3
95°	2	273	0	94	2	2
105°	2	210	0	51	2	2
115°	2	167	0	28	2	2
125°	2	136	0	18	2	1
135°	2	108	0	14	2	1
145°	2	76	0	10	2	1
155°	2	48	0	6	2	1
165°	2	22	0	2	2	1
175°	2	1	0	0	2	0
180°	1	1	1	1	1	

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CATALOG NUMBER: 4MB-6SL-ASML-UNV-L835

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2429.4	2429.4	2429.4	2429.4	2429.4	2429.4	2429.4	2429.4	2429.4	2429.4	2429.4
2.5°	2427.0	2445.3	2446.9	2504.1	2487.4	2508.9	2481.9	2486.6	2462.8	2456.4	2373.7
5°	2435.7	2474.7	2485.1	2583.7	2567.8	2578.9	2541.5	2514.5	2458.8	2425.4	2291.8
7.5°	2394.4	2497.0	2554.3	2624.3	2650.5	2659.3	2583.7	2533.6	2441.3	2359.4	2202.7
10°	2371.3	2512.9	2568.6	2673.6	2696.6	2679.9	2621.1	2538.3	2417.4	2285.4	2092.9
12.5°	2358.6	2521.6	2618.7	2726.1	2726.9	2709.4	2640.2	2551.1	2378.5	2205.8	1976.7
15°	2299.7	2520.1	2619.5	2728.5	2740.4	2729.3	2658.5	2542.3	2338.7	2107.2	1843.1
17.5°	2293.3	2516.1	2644.9	2759.5	2739.6	2731.6	2669.6	2538.3	2291.0	2007.0	1717.4
20°	2226.5	2507.3	2644.9	2724.5	2718.1	2721.3	2676.8	2532.8	2236.1	1898.8	1579.8
22.5°	2155.7	2497.0	2633.8	2694.3	2656.1	2714.1	2644.9	2517.7	2180.4	1785.8	1443.0
25°	2072.2	2480.3	2612.3	2651.3	2602.8	2648.1	2647.3	2494.6	2100.8	1664.1	1334.8
27.5°	2004.6	2454.0	2577.3	2636.2	2553.5	2592.4	2614.7	2466.8	2007.0	1544.0	1207.5
30°	1903.6	2420.6	2535.2	2543.9	2478.7	2528.0	2553.5	2431.8	1928.2	1408.0	1091.4
32.5°	1826.4	2382.4	2483.5	2471.5	2406.3	2471.5	2512.9	2396.8	1834.4	1288.7	1009.5
35°	1718.2	2336.3	2419.0	2356.2	2313.2	2367.3	2415.8	2359.4	1723.0	1161.4	904.5
37.5°	1613.2	2295.7	2341.9	2263.9	2205.0	2265.5	2372.1	2289.4	1610.8	1060.4	826.5
40°	1485.1	2202.7	2240.8	2135.0	2076.2	2165.3	2263.1	2228.9	1484.3	955.4	750.9
42.5°	1388.1	2133.5	2144.6	1999.8	1929.8	2024.5	2135.8	2143.0	1381.7	860.7	684.1
45°	1260.0	2036.4	2015.7	1856.6	1783.4	1868.6	2035.6	2054.7	1266.4	778.8	618.9
47.5°	1144.7	1928.2	1887.7	1701.5	1619.6	1720.6	1905.9	1956.1	1137.5	703.2	557.6
50°	1024.6	1807.3	1717.4	1556.7	1501.8	1552.0	1741.3	1824.0	1019.8	628.4	510.7
52.5°	914.8	1673.7	1562.3	1418.3	1363.4	1404.8	1568.7	1692.8	902.9	565.6	469.3
55°	811.4	1540.0	1396.1	1268.8	1257.6	1270.4	1393.7	1536.1	805.8	509.9	443.1
57.5°	719.1	1377.8	1246.5	1152.6	1132.8	1143.1	1228.2	1374.6	711.9	454.2	404.9
60°	626.0	1211.5	1098.5	1026.2	1015.0	1023.0	1077.9	1217.1	620.5	407.3	369.1
62.5°	541.7	1044.5	944.2	917.2	909.2	909.2	932.3	1059.6	534.6	359.6	342.1
65°	469.3	901.3	825.7	815.4	817.7	816.9	802.6	884.6	458.2	317.4	318.2
67.5°	396.1	749.3	707.2	719.9	729.4	725.5	695.2	735.8	386.6	279.2	296.7
70°	328.5	618.9	610.9	639.6	661.8	641.1	597.4	601.4	317.4	241.8	268.9
72.5°	264.9	500.4	536.9	576.7	598.2	575.1	514.7	497.2	255.3	207.6	243.4
75°	208.4	402.5	460.6	519.4	547.3	517.9	447.9	388.2	202.8	175.0	222.7
77.5°	159.1	319.0	393.8	462.2	489.2	463.8	389.8	303.1	148.8	147.2	200.5
80°	113.8	252.2	349.2	415.2	439.9	415.2	338.1	239.4	103.4	117.7	176.6
82.5°	74.8	194.9	303.9	377.8	404.9	374.7	293.5	184.5	66.0	95.5	159.1
85°	45.3	154.3	264.9	339.7	370.7	341.3	256.9	140.0	36.6	73.2	138.4
87.5°	19.9	119.3	236.3	313.4	341.3	314.2	229.1	109.8	15.1	57.3	118.5
90°	1.6	94.7	208.4	288.8	313.4	288.0	202.8	89.1	0.0	41.4	101.8
92.5°	1.6	81.1	190.9	267.3	295.1	266.5	183.0	73.2	0.0	30.2	85.9
95°	2.4	68.4	173.4	250.6	272.8	248.2	167.0	62.8	0.0	20.7	72.4
97.5°	2.4	62.0	159.1	233.9	258.5	232.3	152.7	56.5	0.0	15.1	58.9
100°	1.6	57.3	148.0	218.0	241.0	216.4	141.6	50.9	0.0	9.5	47.7
102.5°	1.6	53.3	138.4	204.4	222.7	202.0	132.0	47.7	0.0	8.0	39.0
105°	1.6	50.9	129.7	188.5	210.0	188.5	124.1	44.5	0.0	6.4	30.2
107.5°	1.6	47.7	123.3	179.8	197.3	178.2	117.7	42.2	0.0	6.4	24.7
110°	1.6	45.3	117.7	167.0	186.9	168.6	112.2	38.2	0.0	4.0	19.9

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CATALOG NUMBER: 4MB-6SL-ASML-UNV-L835

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	1.6	41.4	112.2	158.3	177.4	159.1	107.4	35.0	0.0	4.0	17.5
115°	1.6	37.4	107.4	152.7	167.0	151.1	102.6	31.0	0.0	3.2	15.9
117.5°	1.6	35.0	104.2	145.6	159.9	144.0	98.6	29.4	0.0	3.2	15.1
120°	1.6	33.4	99.4	138.4	149.5	136.8	93.9	27.8	0.0	3.2	14.3
122.5°	1.6	31.8	95.5	132.0	144.0	131.3	89.9	27.0	0.0	2.4	12.7
125°	1.6	30.2	89.9	124.9	136.0	123.3	82.7	26.3	0.0	1.6	11.1
127.5°	1.6	28.6	84.3	119.3	129.7	117.7	78.0	25.5	0.0	1.6	10.3
130°	1.6	27.8	77.2	112.2	122.5	110.6	72.4	25.5	0.0	1.6	9.5
132.5°	1.6	27.0	69.2	105.0	116.1	103.4	66.8	24.7	0.0	1.6	8.0
135°	1.6	26.3	61.3	97.8	108.2	96.3	62.0	23.9	0.0	1.6	7.2
137.5°	1.6	24.7	54.1	89.9	100.2	88.3	58.9	22.3	0.0	1.6	6.4
140°	1.6	23.1	48.5	83.5	92.3	81.1	54.1	20.7	0.0	0.8	4.8
142.5°	1.6	20.7	43.8	75.6	84.3	74.0	48.5	17.5	0.0	0.8	4.8
145°	1.6	18.3	39.8	66.0	76.4	66.0	45.3	15.9	0.0	0.8	4.0
147.5°	1.6	16.7	35.8	55.7	69.2	60.5	40.6	13.5	0.0	0.8	3.2
150°	1.6	15.1	31.0	46.9	61.3	53.3	37.4	11.9	0.0	0.0	2.4
152.5°	1.6	13.5	27.0	39.0	54.9	48.5	33.4	10.3	0.0	0.0	1.6
155°	2.4	12.7	23.1	34.2	47.7	42.2	27.8	8.8	0.0	0.0	1.6
157.5°	2.4	11.1	19.1	27.8	42.2	36.6	22.3	7.2	0.0	0.0	0.8
160°	2.4	10.3	15.9	21.5	35.0	30.2	18.3	5.6	0.0	0.0	0.8
162.5°	2.4	9.5	13.5	15.9	28.6	23.9	14.3	4.0	0.0	0.0	0.8
165°	2.4	8.0	11.9	11.1	22.3	18.3	11.1	2.4	0.0	0.0	0.0
167.5°	2.4	7.2	9.5	8.0	16.7	13.5	8.0	1.6	0.0	0.0	0.0
170°	2.4	5.6	8.0	5.6	4.8	8.8	4.8	0.8	0.0	0.0	0.0
172.5°	2.4	4.8	6.4	4.0	1.6	4.8	2.4	0.0	0.0	0.0	0.0
175°	2.4	4.0	4.0	2.4	0.8	1.6	0.0	0.0	0.0	0.0	0.0
177.5°	2.4	3.2	2.4	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°	2429.4	2429.4	2429.4	2429.4	2429.4	2429.4
2.5°	2362.5	2336.3	2312.4	2337.9	2356.2	2427.0
5°	2247.2	2219.4	2222.5	2245.6	2306.9	2435.7
7.5°	2127.9	2081.7	2092.9	2157.3	2248.0	2394.4
10°	1987.1	1944.9	1955.3	2052.3	2179.6	2371.3
12.5°	1861.4	1790.6	1851.1	1942.5	2100.0	2358.6
15°	1714.2	1658.6	1691.2	1826.4	2023.7	2299.7
17.5°	1555.1	1512.2	1551.2	1685.6	1929.8	2293.3
20°	1432.6	1373.0	1419.1	1567.1	1813.7	2226.5
22.5°	1295.0	1249.7	1298.2	1434.2	1695.1	2155.7
25°	1182.1	1134.3	1182.9	1318.1	1590.1	2072.2
27.5°	1072.3	1028.5	1072.3	1196.4	1485.9	2004.6
30°	976.0	933.9	978.4	1097.8	1364.2	1903.6
32.5°	886.2	832.1	889.3	1004.7	1256.8	1826.4
35°	793.1	752.5	795.5	923.5	1137.5	1718.2
37.5°	715.9	673.8	724.7	834.4	1036.5	1613.2
40°	642.7	605.4	645.9	762.9	950.6	1485.1
42.5°	585.5	548.1	589.4	697.6	863.9	1388.1
45°	529.8	501.9	535.4	626.0	776.4	1260.0
47.5°	489.2	465.4	493.2	573.5	703.2	1144.7
50°	454.2	437.5	457.4	521.0	627.6	1024.6
52.5°	423.2	406.5	429.6	480.5	568.0	914.8
55°	399.3	384.2	401.7	442.3	508.3	811.4
57.5°	373.1	363.5	377.1	401.7	461.4	719.1
60°	354.0	343.6	358.0	377.8	408.1	626.0
62.5°	332.5	326.9	335.7	351.6	367.5	541.7
65°	313.4	305.5	316.6	322.2	320.6	469.3
67.5°	292.7	290.3	296.7	297.5	285.6	396.1
70°	271.3	269.7	277.6	272.8	248.2	328.5
72.5°	253.8	253.8	258.5	249.0	216.4	264.9
75°	234.7	236.3	240.2	229.1	182.2	208.4
77.5°	217.2	218.8	219.6	204.4	152.7	159.1
80°	197.3	196.5	204.4	185.3	124.1	113.8
82.5°	179.8	176.6	181.4	162.3	100.2	74.8
85°	159.9	160.7	163.9	141.6	80.3	45.3
87.5°	144.0	144.0	147.2	124.9	60.5	19.9
90°	124.9	123.3	128.1	105.8	45.3	1.6
92.5°	109.0	109.0	112.2	90.7	33.4	1.6
95°	93.1	93.9	96.3	74.8	25.5	2.4
97.5°	79.5	80.3	83.5	63.6	18.3	2.4
100°	67.6	68.4	70.0	50.9	14.3	1.6
102.5°	56.5	58.9	58.9	42.2	11.1	1.6
105°	47.7	50.9	49.3	34.2	10.3	1.6
107.5°	39.8	43.0	43.0	27.8	10.3	1.6
110°	32.6	37.4	36.6	23.9	8.0	1.6



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	27.8	31.8	29.4	20.7	8.0	1.6
115°	23.9	27.8	26.3	19.1	7.2	1.6
117.5°	21.5	23.9	23.9	18.3	7.2	1.6
120°	19.9	22.3	21.5	17.5	7.2	1.6
122.5°	18.3	19.9	19.9	15.9	6.4	1.6
125°	17.5	18.3	19.1	14.3	6.4	1.6
127.5°	16.7	18.3	18.3	13.5	5.6	1.6
130°	15.1	16.7	16.7	12.7	5.6	1.6
132.5°	13.5	15.1	15.1	11.9	5.6	1.6
135°	12.7	14.3	14.3	11.1	5.6	1.6
137.5°	11.9	12.7	12.7	10.3	5.6	1.6
140°	10.3	11.9	11.9	9.5	5.6	1.6
142.5°	9.5	11.1	11.1	8.8	4.8	1.6
145°	8.8	9.5	10.3	8.0	4.8	1.6
147.5°	7.2	8.8	9.5	7.2	4.8	1.6
150°	5.6	8.0	8.0	7.2	4.8	1.6
152.5°	4.0	7.2	7.2	6.4	4.0	1.6
155°	3.2	5.6	6.4	5.6	4.0	2.4
157.5°	2.4	4.8	5.6	5.6	4.0	2.4
160°	1.6	4.0	4.8	4.8	3.2	2.4
162.5°	0.8	3.2	4.0	4.8	3.2	2.4
165°	0.0	2.4	3.2	4.0	3.2	2.4
167.5°	0.0	1.6	2.4	3.2	2.4	2.4
170°	0.0	0.8	1.6	2.4	2.4	2.4
172.5°	0.0	0.0	0.8	1.6	1.6	2.4
175°	0.0	0.0	0.0	0.8	1.6	2.4
177.5°	0.0	0.0	0.0	0.8	1.6	2.4
180°	0.8	0.8	0.8	0.8	0.8	0.8

TEST NUMBER: P893714

CATALOG NUMBER: 4MB-6SL-ASML-UNV-L835

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	20.07	21.53	20.52	21.96	22.41	22.32	23.78	22.78	24.21	24.67
	3H	20.89	22.20	21.35	22.65	23.15	24.02	25.34	24.49	25.79	26.28
	4H	21.09	22.33	21.58	22.79	23.31	24.86	26.11	25.35	26.57	27.08
	6H	21.18	22.33	21.68	22.81	23.34	25.74	26.89	26.24	27.37	27.89
	8H	21.18	22.28	21.70	22.78	23.32	26.21	27.31	26.72	27.81	28.34
	12H	21.17	22.22	21.69	22.72	23.28	26.75	27.81	27.27	28.30	28.86
4H	2H	20.50	21.74	20.99	22.20	22.72	22.69	23.93	23.18	24.39	24.90
	3H	21.60	22.64	22.10	23.15	23.68	24.57	25.62	25.07	26.12	26.66
	4H	21.94	22.89	22.46	23.40	23.97	25.54	26.49	26.07	27.01	27.58
	6H	22.13	22.96	22.67	23.50	24.09	26.59	27.42	27.13	27.96	28.54
	8H	22.16	22.94	22.70	23.48	24.07	27.15	27.93	27.70	28.47	29.07
	12H	22.16	22.86	22.73	23.44	24.04	27.81	28.51	28.37	29.08	29.68
8H	4H	22.27	23.05	22.81	23.59	24.18	25.69	26.47	26.23	27.01	27.60
	6H	22.59	23.24	23.17	23.83	24.43	26.86	27.51	27.44	28.10	28.70
	8H	22.68	23.27	23.27	23.87	24.48	27.54	28.13	28.13	28.73	29.34
	12H	22.73	23.26	23.33	23.84	24.53	28.35	28.88	28.95	29.46	30.15
12H	4H	22.34	23.05	22.91	23.62	24.22	25.68	26.38	26.25	26.95	27.55
	6H	22.72	23.31	23.32	23.91	24.53	26.87	27.46	27.47	28.06	28.67
	8H	22.88	23.41	23.48	23.99	24.68	27.61	28.13	28.20	28.72	29.40