

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: P894153

Luminaire Tested: 4MB-SC3-ASML-UNV-CC83-HI-3500K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894153
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-SC3-ASML-UNV-CC83-HI-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 80CRI, 3500K CCT, HI lumen setting
Light Source: -
Ballast/Driver: -

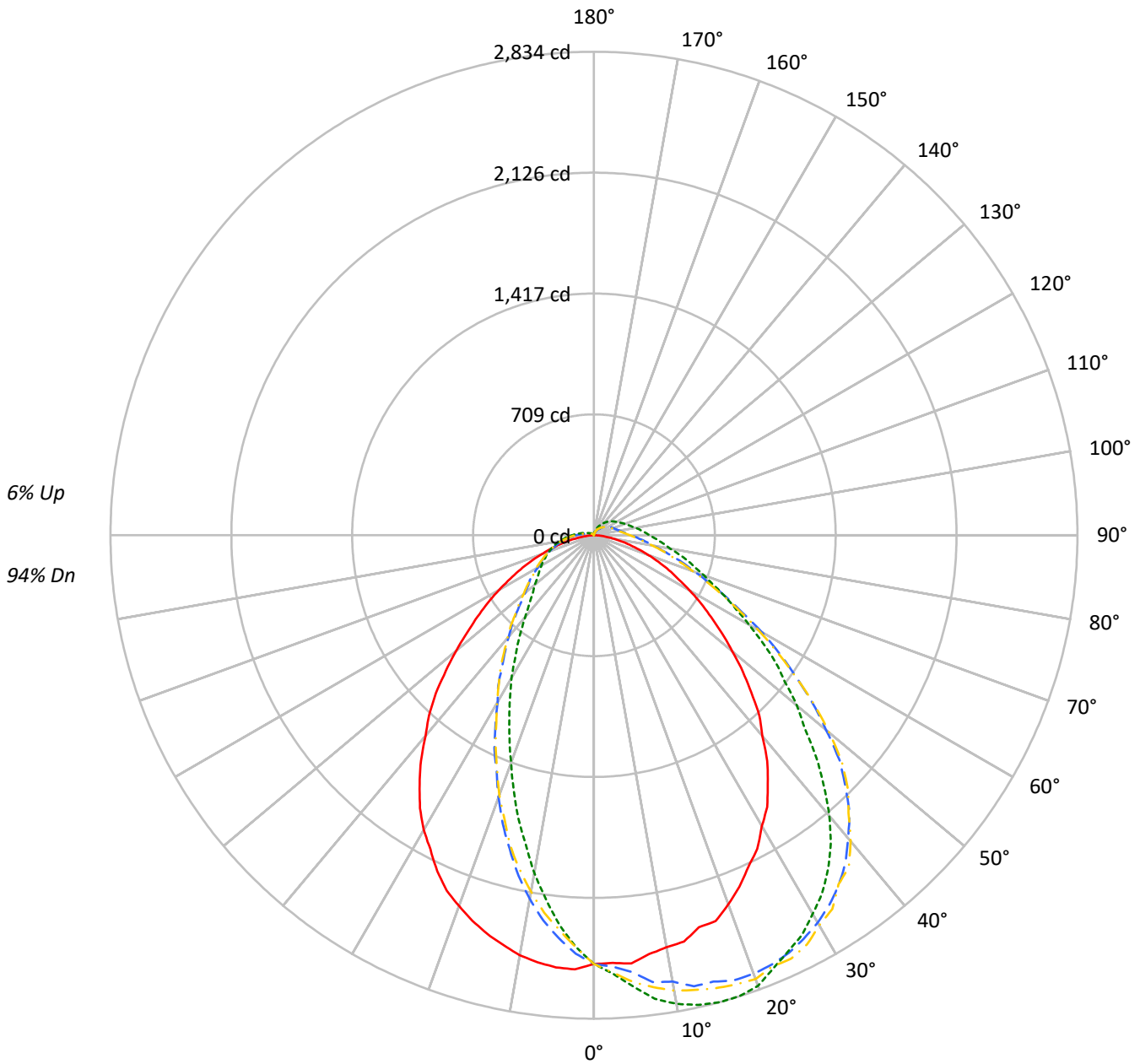
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6262.0 lumens
Efficiency: N/A
Efficacy: 123.5 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): 50.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.39961257980444
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°	25587	25587	25587	25587
5°	25681	26075	25925	22536
10°	25221	26630	25712	19207
15°	24866	26535	25288	16060
20°	24673	26010	24779	13138
25°	23733	24805	24062	10810
30°	22738	23704	23032	8931
35°	21617	22371	21677	7277
40°	19895	20465	19884	5966
45°	18196	18064	18289	5084
50°	16182	15766	16107	4593
55°	14259	13811	14162	4219
60°	12506	11779	12396	3988
65°	10959	10143	10699	3789
70°	9314	8889	8996	3622
75°	7590	8080	7389	3488
80°	5854	7272	5321	3248
85°	4032	7023	3250	3045

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 25311 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.1	3.8
10°-20°	656.1	10.5
20°-30°	943.8	15.1
30°-40°	1071.0	17.1
40°-50°	1023.6	16.3
50°-60°	831.7	13.3
60°-70°	580.3	9.3
70°-80°	359.5	5.7
80°-90°	206.2	3.3
90°-100°	123.3	2.0
100°-110°	80.9	1.3
110°-120°	56.7	0.9
120°-130°	41.1	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°	1836.0	29.3
0°-40°	2907.0	46.4
0°-60°	4762.2	76.1
0°-90°	5908.3	94.4
90°-120°	260.9	4.2
90°-150°	344.7	5.5
90°-180°	354.0	5.7
0°-180°	6262.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2512	2512	2512	2512	2512	
5°	2519	2656	2543	2295	2519	237
15°	2378	2834	2419	1715	2378	676
25°	2143	2692	2173	1173	2143	989
35°	1777	2392	1782	778	1777	1108
45°	1303	1844	1310	519	1303	1006
55°	839	1301	833	397	839	755
65°	485	846	474	316	485	482
75°	216	566	210	244	216	233
85°	47	383	38	166	47	53
90°	2	324	0	128	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	141	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°	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4
2.5°	2510.0	2528.9	2530.5	2589.8	2572.5	2594.7	2566.7	2571.7	2547.0	2540.4	2454.8
5°	2519.0	2559.3	2570.0	2672.0	2655.6	2667.1	2628.4	2600.4	2542.9	2508.3	2370.1
7.5°	2476.2	2582.3	2641.6	2714.0	2741.1	2750.2	2672.0	2620.2	2524.8	2440.0	2278.0
10°	2452.4	2598.8	2656.4	2765.0	2788.8	2771.6	2710.7	2625.1	2500.1	2363.5	2164.4
12.5°	2439.2	2607.8	2708.2	2819.3	2820.1	2802.0	2730.4	2638.3	2459.8	2281.3	2044.3
15°	2378.3	2606.2	2709.0	2821.7	2834.1	2822.6	2749.3	2629.2	2418.6	2179.2	1906.1
17.5°	2371.7	2602.1	2735.4	2853.8	2833.3	2825.0	2760.9	2625.1	2369.3	2075.6	1776.1
20°	2302.6	2593.0	2735.4	2817.6	2811.0	2814.3	2768.3	2619.4	2312.5	1963.7	1633.8
22.5°	2229.4	2582.3	2723.8	2786.4	2746.9	2806.9	2735.4	2603.7	2254.9	1846.9	1492.3
25°	2143.0	2565.1	2701.6	2741.9	2691.8	2738.7	2737.8	2579.9	2172.7	1721.0	1380.4
27.5°	2073.1	2537.9	2665.4	2726.3	2640.8	2681.1	2704.1	2551.1	2075.6	1596.8	1248.8
30°	1968.6	2503.4	2621.8	2630.9	2563.4	2614.4	2640.8	2514.9	1994.1	1456.1	1128.7
32.5°	1888.8	2463.9	2568.4	2556.0	2488.6	2556.0	2598.8	2478.7	1897.1	1332.7	1044.0
35°	1777.0	2416.2	2501.7	2436.7	2392.3	2448.3	2498.4	2440.0	1781.9	1201.1	935.4
37.5°	1668.4	2374.2	2421.9	2341.3	2280.4	2343.0	2453.2	2367.6	1665.9	1096.6	854.7
40°	1535.9	2278.0	2317.4	2208.0	2147.2	2239.3	2340.5	2305.1	1535.1	988.0	776.6
42.5°	1435.6	2206.4	2217.9	2068.2	1995.8	2093.7	2208.9	2216.3	1429.0	890.1	707.5
45°	1303.1	2106.0	2084.6	1920.1	1844.4	1932.4	2105.2	2124.9	1309.7	805.4	640.0
47.5°	1183.8	1994.1	1952.2	1759.7	1674.9	1779.4	1971.1	2022.9	1176.4	727.2	576.7
50°	1059.6	1869.1	1776.1	1610.0	1553.2	1605.0	1800.8	1886.4	1054.7	649.9	528.2
52.5°	946.1	1730.9	1615.7	1466.8	1410.0	1452.8	1622.3	1750.6	933.7	584.9	485.4
55°	839.1	1592.7	1443.8	1312.2	1300.6	1313.8	1441.3	1588.6	833.4	527.3	458.2
57.5°	743.7	1424.9	1289.1	1192.0	1171.5	1182.2	1270.2	1421.6	736.3	469.7	418.7
60°	647.4	1252.9	1136.1	1061.2	1049.7	1057.9	1114.7	1258.7	641.7	421.2	381.7
62.5°	560.2	1080.2	976.5	948.5	940.3	940.3	964.2	1095.8	552.8	371.8	353.7
65°	485.4	932.1	853.9	843.2	845.7	844.9	830.1	914.8	473.9	328.2	329.1
67.5°	409.7	775.0	731.3	744.5	754.4	750.3	719.0	761.0	399.8	288.8	306.9
70°	339.8	640.0	631.8	661.4	684.5	663.1	617.8	621.9	328.2	250.1	278.1
72.5°	273.9	517.5	555.3	596.4	618.6	594.8	532.3	514.2	264.1	214.7	251.7
75°	215.5	416.3	476.3	537.2	566.0	535.6	463.2	401.5	209.8	181.0	230.3
77.5°	164.5	329.9	407.2	478.0	505.9	479.6	403.1	313.4	153.8	152.2	207.3
80°	117.6	260.8	361.2	429.4	454.9	429.4	349.6	247.6	106.9	121.8	182.6
82.5°	77.3	201.6	314.3	390.8	418.7	387.5	303.6	190.9	68.3	98.7	164.5
85°	46.9	159.6	273.9	351.3	383.4	352.9	265.7	144.8	37.8	75.7	143.1
87.5°	20.6	123.4	244.3	324.1	352.9	325.0	236.9	113.5	15.6	59.2	122.6
90°	1.6	97.9	215.5	298.6	324.1	297.8	209.8	92.1	0.0	42.8	105.3
92.5°	1.6	83.9	197.4	276.4	305.2	275.6	189.2	75.7	0.0	31.3	88.8
95°	2.5	70.7	179.3	259.1	282.2	256.7	172.8	65.0	0.0	21.4	74.9
97.5°	2.5	64.2	164.5	241.9	267.4	240.2	158.0	58.4	0.0	15.6	60.9
100°	1.6	59.2	153.0	225.4	249.3	223.8	146.4	52.7	0.0	9.9	49.4
102.5°	1.6	55.1	143.1	211.4	230.3	209.0	136.6	49.4	0.0	8.2	40.3
105°	1.6	52.7	134.1	195.0	217.2	195.0	128.3	46.1	0.0	6.6	31.3
107.5°	1.6	49.4	127.5	185.9	204.0	184.3	121.8	43.6	0.0	6.6	25.5
110°	1.6	46.9	121.8	172.8	193.3	174.4	116.0	39.5	0.0	4.1	20.6



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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	42.8	116.0	163.7	183.5	164.5	111.1	36.2	0.0	4.1	18.1
115°	1.6	38.7	111.1	158.0	172.8	156.3	106.1	32.1	0.0	3.3	16.5
117.5°	1.6	36.2	107.8	150.5	165.4	148.9	102.0	30.4	0.0	3.3	15.6
120°	1.6	34.6	102.8	143.1	154.7	141.5	97.1	28.8	0.0	3.3	14.8
122.5°	1.6	32.9	98.7	136.6	148.9	135.7	93.0	28.0	0.0	2.5	13.2
125°	1.6	31.3	93.0	129.2	140.7	127.5	85.6	27.1	0.0	1.6	11.5
127.5°	1.6	29.6	87.2	123.4	134.1	121.8	80.6	26.3	0.0	1.6	10.7
130°	1.6	28.8	79.8	116.0	126.7	114.4	74.9	26.3	0.0	1.6	9.9
132.5°	1.6	28.0	71.6	108.6	120.1	106.9	69.1	25.5	0.0	1.6	8.2
135°	1.6	27.1	63.3	101.2	111.9	99.5	64.2	24.7	0.0	1.6	7.4
137.5°	1.6	25.5	55.9	93.0	103.7	91.3	60.9	23.0	0.0	1.6	6.6
140°	1.6	23.9	50.2	86.4	95.4	83.9	55.9	21.4	0.0	0.8	4.9
142.5°	1.6	21.4	45.2	78.2	87.2	76.5	50.2	18.1	0.0	0.8	4.9
145°	1.6	18.9	41.1	68.3	79.0	68.3	46.9	16.5	0.0	0.8	4.1
147.5°	1.6	17.3	37.0	57.6	71.6	62.5	42.0	14.0	0.0	0.8	3.3
150°	1.6	15.6	32.1	48.5	63.3	55.1	38.7	12.3	0.0	0.0	2.5
152.5°	1.6	14.0	28.0	40.3	56.8	50.2	34.6	10.7	0.0	0.0	1.6
155°	2.5	13.2	23.9	35.4	49.4	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	16.5	22.2	36.2	31.3	18.9	5.8	0.0	0.0	0.8
162.5°	2.5	9.9	14.0	16.5	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°	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4
2.5°	2443.3	2416.2	2391.5	2417.8	2436.7	2510.0
5°	2324.0	2295.2	2298.5	2322.4	2385.7	2519.0
7.5°	2200.6	2152.9	2164.4	2231.1	2324.9	2476.2
10°	2055.0	2011.4	2022.1	2122.5	2254.1	2452.4
12.5°	1925.0	1851.8	1914.3	2008.9	2171.8	2439.2
15°	1772.8	1715.3	1749.0	1888.8	2092.9	2378.3
17.5°	1608.3	1563.9	1604.2	1743.2	1995.8	2371.7
20°	1481.6	1419.9	1467.6	1620.7	1875.7	2302.6
22.5°	1339.3	1292.4	1342.6	1483.3	1753.1	2229.4
25°	1222.5	1173.1	1223.3	1363.2	1644.5	2143.0
27.5°	1109.0	1063.7	1109.0	1237.3	1536.7	2073.1
30°	1009.4	965.8	1011.9	1135.3	1410.9	1968.6
32.5°	916.4	860.5	919.7	1039.0	1299.8	1888.8
35°	820.2	778.2	822.7	955.1	1176.4	1777.0
37.5°	740.4	696.8	749.4	863.0	1071.9	1668.4
40°	664.7	626.0	668.0	788.9	983.1	1535.9
42.5°	605.5	566.8	609.6	721.5	893.4	1435.6
45°	547.9	519.1	553.7	647.4	802.9	1303.1
47.5°	505.9	481.3	510.1	593.1	727.2	1183.8
50°	469.7	452.5	473.0	538.8	649.1	1059.6
52.5°	437.7	420.4	444.2	496.9	587.4	946.1
55°	413.0	397.3	415.4	457.4	525.7	839.1
57.5°	385.8	376.0	389.9	415.4	477.1	743.7
60°	366.1	355.4	370.2	390.8	422.0	647.4
62.5°	343.9	338.1	347.2	363.6	380.1	560.2
65°	324.1	315.9	327.4	333.2	331.5	485.4
67.5°	302.7	300.3	306.9	307.7	295.3	409.7
70°	280.5	278.9	287.1	282.2	256.7	339.8
72.5°	262.4	262.4	267.4	257.5	223.8	273.9
75°	242.7	244.3	248.4	236.9	188.4	215.5
77.5°	224.6	226.2	227.1	211.4	158.0	164.5
80°	204.0	203.2	211.4	191.7	128.3	117.6
82.5°	185.9	182.6	187.6	167.8	103.7	77.3
85°	165.4	166.2	169.5	146.4	83.1	46.9
87.5°	148.9	148.9	152.2	129.2	62.5	20.6
90°	129.2	127.5	132.4	109.4	46.9	1.6
92.5°	112.7	112.7	116.0	93.8	34.6	1.6
95°	96.3	97.1	99.5	77.3	26.3	2.5
97.5°	82.3	83.1	86.4	65.8	18.9	2.5
100°	69.9	70.7	72.4	52.7	14.8	1.6
102.5°	58.4	60.9	60.9	43.6	11.5	1.6
105°	49.4	52.7	51.0	35.4	10.7	1.6
107.5°	41.1	44.4	44.4	28.8	10.7	1.6
110°	33.7	38.7	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°	20.6	23.0	22.2	18.1	7.4	1.6
122.5°	18.9	20.6	20.6	16.5	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	13.2	5.8	1.6
132.5°	14.0	15.6	15.6	12.3	5.8	1.6
135°	13.2	14.8	14.8	11.5	5.8	1.6
137.5°	12.3	13.2	13.2	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: P894153
 CATALOG NUMBER: 4MB-SC3-ASML-UNV-CC83-HI-3500K

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	20.64	22.07	22.53	22.44	23.90	22.89	24.33	24.79
	3H	21.00	22.32	21.47	22.76	23.26	24.14	25.46	24.61	25.90	26.40
	4H	21.21	22.45	21.70	22.91	23.42	24.98	26.22	25.47	26.68	27.20
	6H	21.30	22.45	21.80	22.93	23.45	25.85	27.01	26.36	27.48	28.01
	8H	21.30	22.40	21.81	22.90	23.43	26.33	27.43	26.84	27.93	28.46
	12H	21.29	22.34	21.81	22.83	23.40	26.87	27.92	27.39	28.41	28.98
4H	2H	20.62	21.86	21.11	22.32	22.83	22.81	24.05	23.29	24.51	25.02
	3H	21.71	22.76	22.22	23.27	23.80	24.69	25.73	25.19	26.24	26.77
	4H	22.05	23.00	22.57	23.52	24.09	25.66	26.61	26.18	27.13	27.70
	6H	22.25	23.08	22.79	23.62	24.20	26.70	27.53	27.25	28.08	28.66
	8H	22.27	23.05	22.82	23.60	24.19	27.27	28.05	27.81	28.59	29.18
	12H	22.28	22.98	22.85	23.56	24.15	27.92	28.63	28.49	29.20	29.80
8H	4H	22.38	23.16	22.93	23.71	24.30	25.80	26.58	26.35	27.13	27.72
	6H	22.70	23.36	23.28	23.95	24.55	26.98	27.63	27.56	28.22	28.82
	8H	22.79	23.38	23.39	23.98	24.60	27.65	28.24	28.25	28.84	29.46
	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	23.74	24.34	25.80	26.50	26.36	27.07	27.67
	6H	22.84	23.43	23.44	24.03	24.64	26.99	27.58	27.58	28.18	28.79
	8H	23.00	23.52	23.59	24.11	24.79	27.72	28.25	28.32	28.83	29.52