

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: P894155

Luminaire Tested: 4MB-SC3-ASML-UNV-CC83-HI-5000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894155
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-5000K
Description: Selectable 4FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 80CRI, 5000K CCT, HI lumen setting
Light Source: -
Ballast/Driver: -

Summary

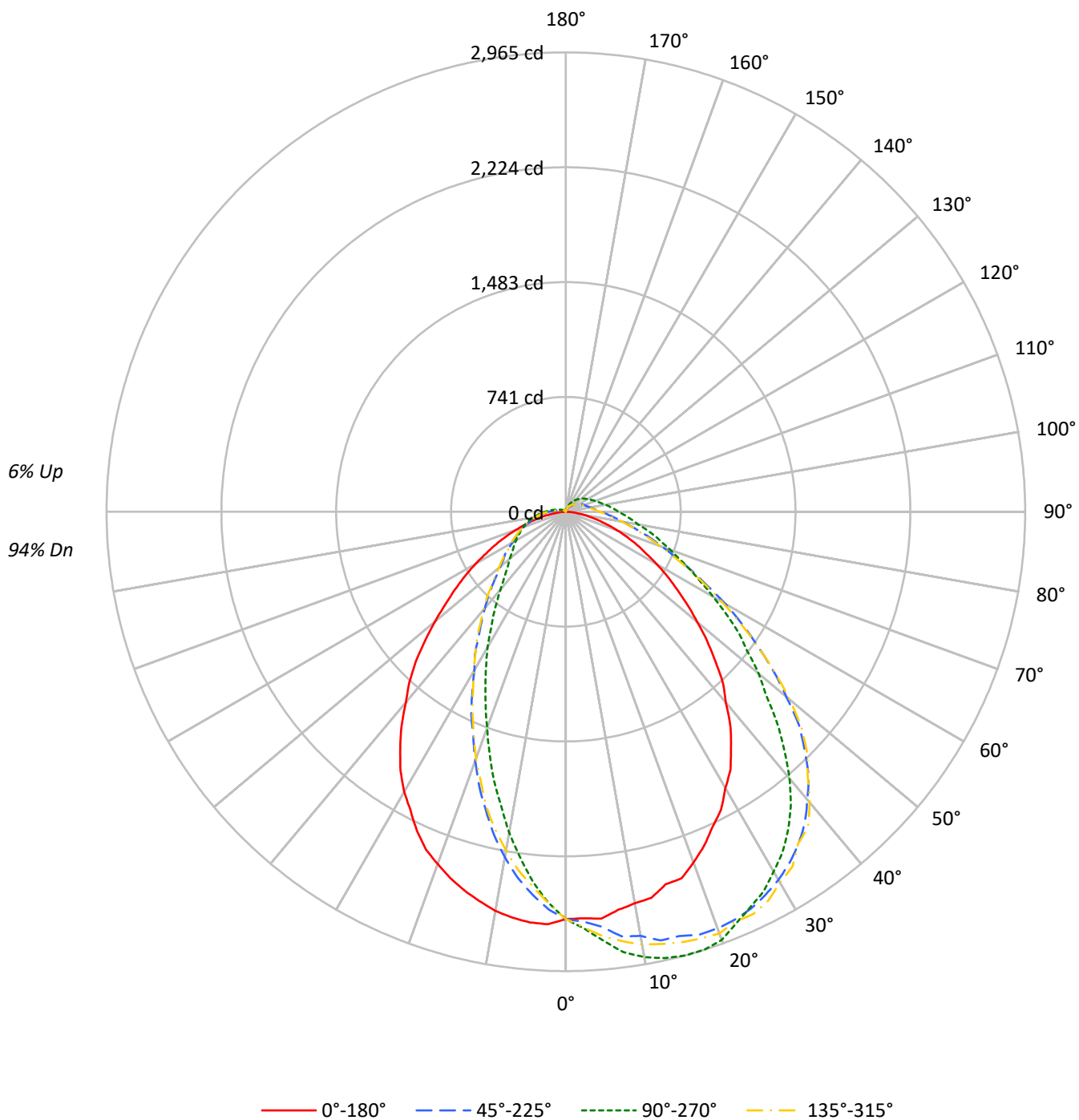
Lumens per Lamp: N/A
Luminaire Lumens: 6552.0 lumens
Efficiency: N/A
Efficacy: 129.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.07 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.12')
CIE Type: Direct

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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CATALOG NUMBER: 4MB-SC3-ASML-UNV-CC83-HI-5000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	26772	26772	26772	26772
5°	26871	27282	27125	23580
10°	26389	27864	26903	20097
15°	26018	27764	26459	16804
20°	25816	27215	25927	13747
25°	24833	25953	25176	11310
30°	23791	24802	24100	9344
35°	22618	23407	22680	7615
40°	20816	21412	20805	6243
45°	19040	18900	19135	5319
50°	16932	16496	16853	4805
55°	14920	14451	14818	4414
60°	13086	12325	12970	4173
65°	11467	10613	11194	3964
70°	9745	9301	9413	3789
75°	7942	8454	7731	3649
80°	6128	7609	5570	3399
85°	4222	7348	3405	3186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°

Vertical Angle: 45°

Luminance: 26485 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.0	3.8
10°-20°	686.5	10.5
20°-30°	987.5	15.1
30°-40°	1120.6	17.1
40°-50°	1071.0	16.3
50°-60°	870.2	13.3
60°-70°	607.2	9.3
70°-80°	376.2	5.7
80°-90°	215.8	3.3
90°-100°	129.0	2.0
100°-110°	84.7	1.3
110°-120°	59.3	0.9
120°-130°	43.0	0.7
130°-140°	28.6	0.4
140°-150°	16.1	0.2
150°-160°	7.2	0.1
160°-170°	2.1	0.0
170°-180°	0.2	0.0
0°-30°	1921.0	29.3
0°-40°	3041.6	46.4
0°-60°	4982.8	76.1
0°-90°	6181.9	94.4
90°-120°	273.0	4.2
90°-150°	360.7	5.5
90°-180°	370.0	5.6
0°-180°	6552.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2629	2629	2629	2629	2629	
5°	2636	2778	2661	2402	2636	248
15°	2488	2965	2531	1795	2488	707
25°	2242	2816	2273	1227	2242	1034
35°	1859	2503	1864	814	1859	1159
45°	1364	1930	1370	543	1364	1052
55°	878	1361	872	416	878	790
65°	508	885	496	330	508	504
75°	226	592	220	256	226	243
85°	49	401	40	174	49	55
90°	2	339	0	133	2	4
95°	3	295	0	102	3	2
105°	2	227	0	55	2	2
115°	2	181	0	30	2	2
125°	2	147	0	20	2	2
135°	2	117	0	16	2	1
145°	2	83	0	10	2	1
155°	3	52	0	6	3	1
165°	3	24	0	3	3	1
175°	3	1	0	0	3	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°	2628.8	2628.8	2628.8	2628.8	2628.8	2628.8	2628.8	2628.8	2628.8	2628.8	2628.8
2.5°	2626.2	2646.0	2647.7	2709.7	2691.6	2714.8	2685.6	2690.7	2664.9	2658.0	2568.5
5°	2635.7	2677.8	2689.0	2795.8	2778.5	2790.6	2750.1	2720.9	2660.6	2624.5	2479.9
7.5°	2590.9	2701.9	2763.9	2839.7	2868.1	2877.5	2795.8	2741.5	2641.7	2553.0	2383.5
10°	2565.9	2719.2	2779.4	2893.0	2918.0	2899.9	2836.2	2746.7	2615.9	2473.0	2264.7
12.5°	2552.2	2728.6	2833.6	2949.8	2950.7	2931.8	2856.9	2760.5	2573.7	2386.9	2139.0
15°	2488.5	2726.9	2834.5	2952.4	2965.3	2953.3	2876.7	2751.0	2530.6	2280.2	1994.4
17.5°	2481.6	2722.6	2862.0	2986.0	2964.5	2955.9	2888.7	2746.7	2479.0	2171.7	1858.4
20°	2409.3	2713.1	2862.0	2948.1	2941.2	2944.7	2896.5	2740.7	2419.6	2054.6	1709.5
22.5°	2332.7	2701.9	2850.0	2915.4	2874.1	2936.9	2862.0	2724.3	2359.4	1932.4	1561.4
25°	2242.3	2683.9	2826.7	2868.9	2816.4	2865.5	2864.6	2699.4	2273.3	1800.7	1444.4
27.5°	2169.1	2655.5	2788.9	2852.6	2763.1	2805.2	2829.3	2669.2	2171.7	1670.7	1306.6
30°	2059.8	2619.3	2743.3	2752.7	2682.1	2735.5	2763.1	2631.4	2086.5	1523.6	1181.0
32.5°	1976.3	2578.0	2687.3	2674.4	2603.8	2674.4	2719.2	2593.5	1984.9	1394.4	1092.3
35°	1859.3	2528.1	2617.6	2549.6	2503.1	2561.6	2614.1	2553.0	1864.4	1256.7	978.7
37.5°	1745.6	2484.2	2534.1	2449.7	2386.0	2451.5	2566.8	2477.3	1743.0	1147.4	894.3
40°	1607.0	2383.5	2424.8	2310.3	2246.6	2343.0	2448.9	2411.9	1606.2	1033.8	812.6
42.5°	1502.0	2308.6	2320.6	2164.0	2088.2	2190.6	2311.2	2318.9	1495.1	931.3	740.3
45°	1363.5	2203.6	2181.2	2009.0	1929.8	2021.9	2202.7	2223.4	1370.3	842.7	669.7
47.5°	1238.6	2086.5	2042.6	1841.2	1752.5	1861.8	2062.4	2116.6	1230.9	760.9	603.4
50°	1108.7	1955.7	1858.4	1684.5	1625.1	1679.4	1884.2	1973.7	1103.5	680.0	552.6
52.5°	989.9	1811.0	1690.5	1534.7	1475.3	1520.1	1697.4	1831.7	977.0	612.0	507.9
55°	878.0	1666.4	1510.6	1372.9	1360.9	1374.6	1508.1	1662.1	872.0	551.7	479.4
57.5°	778.1	1490.8	1348.8	1247.2	1225.7	1236.9	1329.0	1487.4	770.4	491.5	438.1
60°	677.4	1310.9	1188.7	1110.4	1098.3	1106.9	1166.3	1317.0	671.4	440.7	399.4
62.5°	586.2	1130.2	1021.7	992.5	983.9	983.9	1008.8	1146.5	578.4	389.1	370.1
65°	507.9	975.2	893.5	882.3	884.9	884.0	868.5	957.2	495.8	343.4	344.3
67.5°	428.7	810.8	765.2	779.0	789.3	785.0	752.3	796.2	418.3	302.1	321.1
70°	355.5	669.7	661.1	692.1	716.2	693.8	646.4	650.7	343.4	261.7	290.9
72.5°	286.6	541.4	581.0	624.1	647.3	622.3	556.9	538.0	276.3	224.7	263.4
75°	225.5	435.5	498.4	562.1	592.2	560.4	484.6	420.1	219.5	189.4	241.0
77.5°	172.2	345.2	426.1	500.1	529.4	501.8	421.8	328.0	161.0	159.2	216.9
80°	123.1	272.9	377.9	449.3	476.0	449.3	365.8	259.1	111.9	127.4	191.1
82.5°	80.9	210.9	328.8	408.9	438.1	405.4	317.6	199.7	71.4	103.3	172.2
85°	49.1	167.0	286.6	367.5	401.1	369.3	278.0	151.5	39.6	79.2	149.8
87.5°	21.5	129.1	255.6	339.1	369.3	340.0	247.9	118.8	16.4	62.0	128.3
90°	1.7	102.4	225.5	312.5	339.1	311.6	219.5	96.4	0.0	44.8	110.2
92.5°	1.7	87.8	206.6	289.2	319.3	288.4	198.0	79.2	0.0	32.7	93.0
95°	2.6	74.0	187.6	271.1	295.2	268.6	180.8	68.0	0.0	22.4	78.3
97.5°	2.6	67.1	172.2	253.1	279.7	251.3	165.3	61.1	0.0	16.4	63.7
100°	1.7	62.0	160.1	235.8	260.8	234.1	153.2	55.1	0.0	10.3	51.6
102.5°	1.7	57.7	149.8	221.2	241.0	218.6	142.9	51.6	0.0	8.6	42.2
105°	1.7	55.1	140.3	204.0	227.2	204.0	134.3	48.2	0.0	6.9	32.7
107.5°	1.7	51.6	133.4	194.5	213.5	192.8	127.4	45.6	0.0	6.9	26.7
110°	1.7	49.1	127.4	180.8	202.3	182.5	121.4	41.3	0.0	4.3	21.5

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CATALOG NUMBER: 4MB-SC3-ASML-UNV-CC83-HI-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	1.7	44.8	121.4	171.3	192.0	172.2	116.2	37.9	0.0	4.3	18.9
115°	1.7	40.5	116.2	165.3	180.8	163.5	111.0	33.6	0.0	3.4	17.2
117.5°	1.7	37.9	112.8	157.5	173.0	155.8	106.7	31.8	0.0	3.4	16.4
120°	1.7	36.2	107.6	149.8	161.8	148.1	101.6	30.1	0.0	3.4	15.5
122.5°	1.7	34.4	103.3	142.9	155.8	142.0	97.3	29.3	0.0	2.6	13.8
125°	1.7	32.7	97.3	135.1	147.2	133.4	89.5	28.4	0.0	1.7	12.1
127.5°	1.7	31.0	91.2	129.1	140.3	127.4	84.4	27.5	0.0	1.7	11.2
130°	1.7	30.1	83.5	121.4	132.6	119.6	78.3	27.5	0.0	1.7	10.3
132.5°	1.7	29.3	74.9	113.6	125.7	111.9	72.3	26.7	0.0	1.7	8.6
135°	1.7	28.4	66.3	105.9	117.1	104.2	67.1	25.8	0.0	1.7	7.7
137.5°	1.7	26.7	58.5	97.3	108.5	95.5	63.7	24.1	0.0	1.7	6.9
140°	1.7	25.0	52.5	90.4	99.8	87.8	58.5	22.4	0.0	0.9	5.2
142.5°	1.7	22.4	47.3	81.8	91.2	80.1	52.5	18.9	0.0	0.9	5.2
145°	1.7	19.8	43.0	71.4	82.6	71.4	49.1	17.2	0.0	0.9	4.3
147.5°	1.7	18.1	38.7	60.3	74.9	65.4	43.9	14.6	0.0	0.9	3.4
150°	1.7	16.4	33.6	50.8	66.3	57.7	40.5	12.9	0.0	0.0	2.6
152.5°	1.7	14.6	29.3	42.2	59.4	52.5	36.2	11.2	0.0	0.0	1.7
155°	2.6	13.8	25.0	37.0	51.6	45.6	30.1	9.5	0.0	0.0	1.7
157.5°	2.6	12.1	20.7	30.1	45.6	39.6	24.1	7.7	0.0	0.0	0.9
160°	2.6	11.2	17.2	23.2	37.9	32.7	19.8	6.0	0.0	0.0	0.9
162.5°	2.6	10.3	14.6	17.2	31.0	25.8	15.5	4.3	0.0	0.0	0.9
165°	2.6	8.6	12.9	12.1	24.1	19.8	12.1	2.6	0.0	0.0	0.0
167.5°	2.6	7.7	10.3	8.6	18.1	14.6	8.6	1.7	0.0	0.0	0.0
170°	2.6	6.0	8.6	6.0	5.2	9.5	5.2	0.9	0.0	0.0	0.0
172.5°	2.6	5.2	6.9	4.3	1.7	5.2	2.6	0.0	0.0	0.0	0.0
175°	2.6	4.3	4.3	2.6	0.9	1.7	0.0	0.0	0.0	0.0	0.0
177.5°	2.6	3.4	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

TEST NUMBER: P894155

CATALOG NUMBER: 4MB-SC3-ASML-UNV-CC83-HI-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2628.8	2628.8	2628.8	2628.8	2628.8	2628.8
2.5°	2556.5	2528.1	2502.2	2529.8	2549.6	2626.2
5°	2431.7	2401.5	2405.0	2429.9	2496.2	2635.7
7.5°	2302.5	2252.6	2264.7	2334.4	2432.5	2590.9
10°	2150.2	2104.6	2115.8	2220.8	2358.5	2565.9
12.5°	2014.2	1937.6	2003.0	2102.0	2272.4	2552.2
15°	1854.9	1794.7	1830.0	1976.3	2189.8	2488.5
17.5°	1682.8	1636.3	1678.5	1824.0	2088.2	2481.6
20°	1550.2	1485.7	1535.6	1695.7	1962.5	2409.3
22.5°	1401.3	1352.3	1404.8	1552.0	1834.3	2332.7
25°	1279.1	1227.4	1280.0	1426.3	1720.7	2242.3
27.5°	1160.3	1113.0	1160.3	1294.6	1607.9	2169.1
30°	1056.2	1010.5	1058.7	1187.9	1476.2	2059.8
32.5°	958.9	900.4	962.3	1087.1	1360.0	1976.3
35°	858.2	814.3	860.8	999.3	1230.9	1859.3
37.5°	774.7	729.1	784.2	902.9	1121.6	1745.6
40°	695.5	655.0	698.9	825.5	1028.6	1607.0
42.5°	633.5	593.1	637.8	754.9	934.8	1502.0
45°	573.3	543.1	579.3	677.4	840.1	1363.5
47.5°	529.4	503.5	533.7	620.6	760.9	1238.6
50°	491.5	473.4	494.9	563.8	679.1	1108.7
52.5°	457.9	439.9	464.8	519.9	614.6	989.9
55°	432.1	415.7	434.7	478.6	550.0	878.0
57.5°	403.7	393.4	408.0	434.7	499.2	778.1
60°	383.0	371.9	387.3	408.9	441.6	677.4
62.5°	359.8	353.8	363.2	380.5	397.7	586.2
65°	339.1	330.5	342.6	348.6	346.9	507.9
67.5°	316.8	314.2	321.1	321.9	309.0	428.7
70°	293.5	291.8	300.4	295.2	268.6	355.5
72.5°	274.6	274.6	279.7	269.4	234.1	286.6
75°	253.9	255.6	260.0	247.9	197.1	225.5
77.5°	235.0	236.7	237.6	221.2	165.3	172.2
80°	213.5	212.6	221.2	200.6	134.3	123.1
82.5°	194.5	191.1	196.3	175.6	108.5	80.9
85°	173.0	173.9	177.3	153.2	86.9	49.1
87.5°	155.8	155.8	159.2	135.1	65.4	21.5
90°	135.1	133.4	138.6	114.5	49.1	1.7
92.5°	117.9	117.9	121.4	98.1	36.2	1.7
95°	100.7	101.6	104.2	80.9	27.5	2.6
97.5°	86.1	86.9	90.4	68.9	19.8	2.6
100°	73.2	74.0	75.7	55.1	15.5	1.7
102.5°	61.1	63.7	63.7	45.6	12.1	1.7
105°	51.6	55.1	53.4	37.0	11.2	1.7
107.5°	43.0	46.5	46.5	30.1	11.2	1.7
110°	35.3	40.5	39.6	25.8	8.6	1.7



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	30.1	34.4	31.8	22.4	8.6	1.7
115°	25.8	30.1	28.4	20.7	7.7	1.7
117.5°	23.2	25.8	25.8	19.8	7.7	1.7
120°	21.5	24.1	23.2	18.9	7.7	1.7
122.5°	19.8	21.5	21.5	17.2	6.9	1.7
125°	18.9	19.8	20.7	15.5	6.9	1.7
127.5°	18.1	19.8	19.8	14.6	6.0	1.7
130°	16.4	18.1	18.1	13.8	6.0	1.7
132.5°	14.6	16.4	16.4	12.9	6.0	1.7
135°	13.8	15.5	15.5	12.1	6.0	1.7
137.5°	12.9	13.8	13.8	11.2	6.0	1.7
140°	11.2	12.9	12.9	10.3	6.0	1.7
142.5°	10.3	12.1	12.1	9.5	5.2	1.7
145°	9.5	10.3	11.2	8.6	5.2	1.7
147.5°	7.7	9.5	10.3	7.7	5.2	1.7
150°	6.0	8.6	8.6	7.7	5.2	1.7
152.5°	4.3	7.7	7.7	6.9	4.3	1.7
155°	3.4	6.0	6.9	6.0	4.3	2.6
157.5°	2.6	5.2	6.0	6.0	4.3	2.6
160°	1.7	4.3	5.2	5.2	3.4	2.6
162.5°	0.9	3.4	4.3	5.2	3.4	2.6
165°	0.0	2.6	3.4	4.3	3.4	2.6
167.5°	0.0	1.7	2.6	3.4	2.6	2.6
170°	0.0	0.9	1.7	2.6	2.6	2.6
172.5°	0.0	0.0	0.9	1.7	1.7	2.6
175°	0.0	0.0	0.0	0.9	1.7	2.6
177.5°	0.0	0.0	0.0	0.9	1.7	2.6
180°	0.9	0.9	0.9	0.9	0.9	0.9

TEST NUMBER: P894155

CATALOG NUMBER: 4MB-SC3-ASML-UNV-CC83-HI-5000K

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	20.34	21.80	20.79	22.23	22.68	22.60	24.06	23.05	24.49	24.94
	3H	21.16	22.48	21.63	22.92	23.42	24.30	25.62	24.77	26.06	26.56
	4H	21.36	22.61	21.85	23.07	23.58	25.14	26.38	25.62	26.84	27.35
	6H	21.45	22.61	21.96	23.08	23.61	26.01	27.16	26.51	27.64	28.17
	8H	21.46	22.56	21.97	23.06	23.59	26.48	27.58	27.00	28.08	28.62
	12H	21.44	22.50	21.96	22.99	23.55	27.03	28.08	27.55	28.57	29.13
4H	2H	20.77	22.02	21.26	22.48	22.99	22.96	24.21	23.45	24.67	25.18
	3H	21.87	22.92	22.37	23.42	23.96	24.85	25.89	25.35	26.40	26.93
	4H	22.21	23.16	22.73	23.68	24.24	25.82	26.77	26.34	27.29	27.85
	6H	22.40	23.23	22.95	23.78	24.36	26.86	27.69	27.40	28.23	28.82
	8H	22.43	23.21	22.98	23.75	24.35	27.42	28.20	27.97	28.75	29.34
	12H	22.44	23.14	23.01	23.71	24.31	28.08	28.78	28.65	29.36	29.96
8H	4H	22.54	23.32	23.09	23.86	24.46	25.96	26.74	26.51	27.28	27.88
	6H	22.86	23.51	23.44	24.10	24.70	27.13	27.79	27.71	28.37	28.98
	8H	22.95	23.54	23.55	24.14	24.75	27.81	28.40	28.41	29.00	29.61
	12H	23.01	23.53	23.60	24.12	24.80	28.63	29.15	29.22	29.74	30.42
12H	4H	22.62	23.32	23.19	23.89	24.49	25.95	26.66	26.52	27.23	27.83
	6H	23.00	23.59	23.59	24.19	24.80	27.14	27.73	27.74	28.33	28.95
	8H	23.16	23.68	23.75	24.27	24.95	27.88	28.41	28.48	28.99	29.68