

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P402114

Luminaire Tested: **LA1MR052D010 EA1M52309040MW1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P402114  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2005-766-2)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 6/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LA1MR052D010 EA1M52309040MW1MW  
Description: 1 INCH 30° OPTIC WITH MATTE WHITE BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

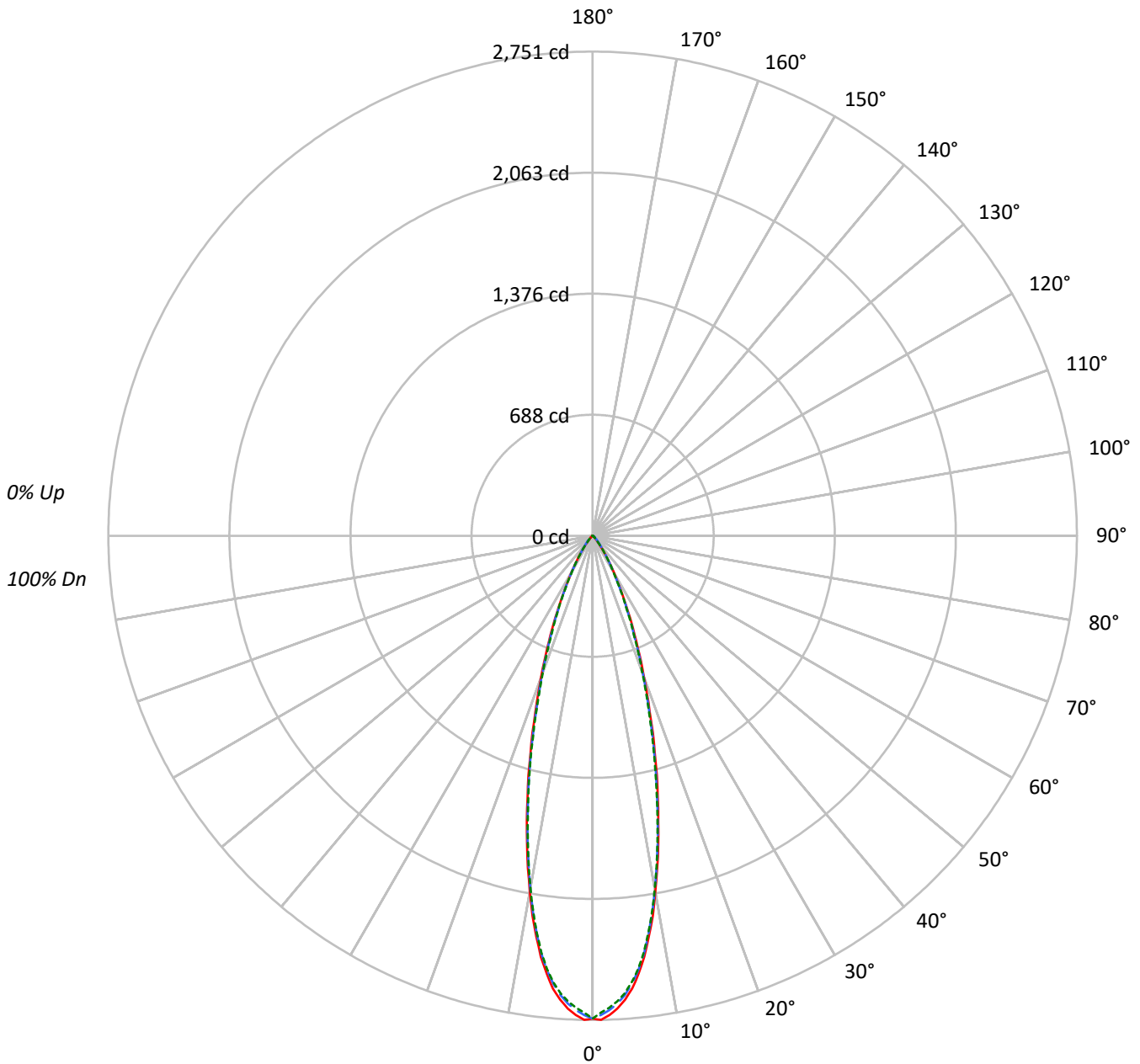
Lumens per Lamp: N/A  
Luminaire Lumens: 935.2 lumens  
Efficiency: N/A  
Efficacy: 77.3 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 12.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

TEST NUMBER: P402114

CATALOG NUMBER: LA1MR052D010 EA1M52309040MW1MW

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	114	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	95																			
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91																			
3	106	101	96	93	104	99	95	92	97	94	91	94	92	90	92	90	88	87																			
4	102	96	91	88	100	95	90	87	93	89	86	91	88	85	89	86	84	83																			
5	98	91	87	83	97	90	86	83	89	85	82	87	84	81	86	83	81	79																			
6	94	87	82	79	93	87	82	79	85	81	78	84	80	78	83	80	77	76																			
7	91	84	79	75	90	83	78	75	82	78	75	81	77	74	80	77	74	73																			
8	88	80	75	72	87	80	75	72	79	75	72	78	74	71	77	74	71	70																			
9	85	77	73	69	84	77	72	69	76	72	69	75	71	69	74	71	69	67																			
10	82	74	70	67	81	74	70	67	73	69	66	73	69	66	72	69	66	65																			

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

	0°	45°	90°
0°	850614	850614	850614
5°	803638	795453	792839
10°	646189	641309	640554
15°	452008	444338	442412
20°	281996	274903	271769
25°	163157	158266	156214
30°	86877	84299	82581
35°	41629	42991	42083
40°	17401	23714	17887
45°	8900	14687	9426
50°	5787	8633	6366
55°	3891	5837	4540
60°	2232	3720	2976
65°	880	2641	880
70°	0	1088	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P402114

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.9	24.4
10°-20°	380.3	40.7
20°-30°	218.8	23.4
30°-40°	76.1	8.1
40°-50°	21.6	2.3
50°-60°	8.3	0.9
60°-70°	2.3	0.2
70°-80°	0.0	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	826.9	88.4
0°-40°	903.1	96.6
0°-60°	932.9	99.8
0°-90°	935.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	935.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2744	2744	2744	2744	2744	
5°	2582	2567	2556	2561	2548	229
15°	1408	1402	1384	1381	1378	384
25°	477	471	463	460	457	224
35°	110	115	114	114	111	74
45°	20	24	34	24	22	18
55°	7	8	11	8	8	7
65°	1	2	4	2	1	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P402114

CATALOG NUMBER: LA1MR052D010 EA1M52309040MW1MW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2743.9	2743.9	2743.9	2743.9	2743.9
1°	2751.0	2737.9	2723.5	2723.5	2709.2
2°	2724.7	2712.8	2697.2	2698.4	2682.9
3°	2690.1	2678.1	2662.6	2665.0	2650.6
4°	2642.2	2626.7	2615.9	2619.5	2606.4
5°	2582.5	2566.9	2556.2	2560.9	2547.8
6°	2501.2	2490.4	2480.8	2486.8	2474.9
7°	2410.3	2398.3	2391.2	2396.0	2386.4
8°	2299.1	2290.7	2282.4	2287.2	2277.6
9°	2185.5	2172.4	2164.0	2167.6	2160.4
10°	2052.8	2046.8	2037.3	2040.9	2034.9
11°	1924.9	1924.9	1907.0	1901.0	1904.6
12°	1793.4	1792.2	1775.4	1768.3	1770.7
13°	1660.7	1659.5	1642.7	1636.8	1638.0
14°	1529.2	1530.4	1512.4	1507.6	1506.4
15°	1408.4	1402.4	1384.5	1380.9	1378.5
16°	1281.7	1280.5	1262.5	1257.8	1255.4
17°	1168.1	1162.1	1144.2	1139.4	1135.8
18°	1049.7	1050.9	1033.0	1029.4	1023.4
19°	949.3	946.9	930.2	926.6	920.6
20°	854.8	844.1	833.3	829.7	823.8
22.5°	644.4	638.4	624.1	620.5	619.3
25°	477.0	471.1	462.7	460.3	456.7
26°	417.3	418.5	407.7	405.3	402.9
27°	369.4	367.0	357.5	356.3	352.7
28°	318.0	320.4	309.7	308.5	306.1
29°	277.4	277.4	271.4	267.8	265.4
30°	242.7	241.5	235.5	233.1	230.7
32.5°	167.4	166.2	163.8	162.6	160.2
35°	110.0	114.8	113.6	113.6	111.2
37.5°	68.1	77.7	81.3	80.1	72.9
40°	43.0	50.2	58.6	53.8	44.2
42.5°	28.7	34.7	43.0	35.9	28.7
45°	20.3	23.9	33.5	23.9	21.5
47.5°	15.5	17.9	25.1	17.9	15.5
50°	12.0	14.3	17.9	14.3	13.2
52.5°	9.6	10.8	14.3	10.8	9.6
55°	7.2	8.4	10.8	8.4	8.4
57.5°	6.0	7.2	8.4	7.2	6.0
60°	3.6	4.8	6.0	4.8	4.8
62.5°	2.4	3.6	4.8	3.6	2.4
65°	1.2	2.4	3.6	2.4	1.2
67.5°	0.0	1.2	1.2	0.0	0.0



TEST NUMBER: P402114

CATALOG NUMBER: LA1MR052D010 EA1M52309040MW1MW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







70°	0.0	0.0	1.2	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)