

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: P402110

Luminaire Tested: **LA1MR052D010 EA1M52309035MW1MW**

Issue Date: 6/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P402110  
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 EA1M52309035MW1MW  
Description: 1 INCH 30° OPTIC WITH MATTE WHITE BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

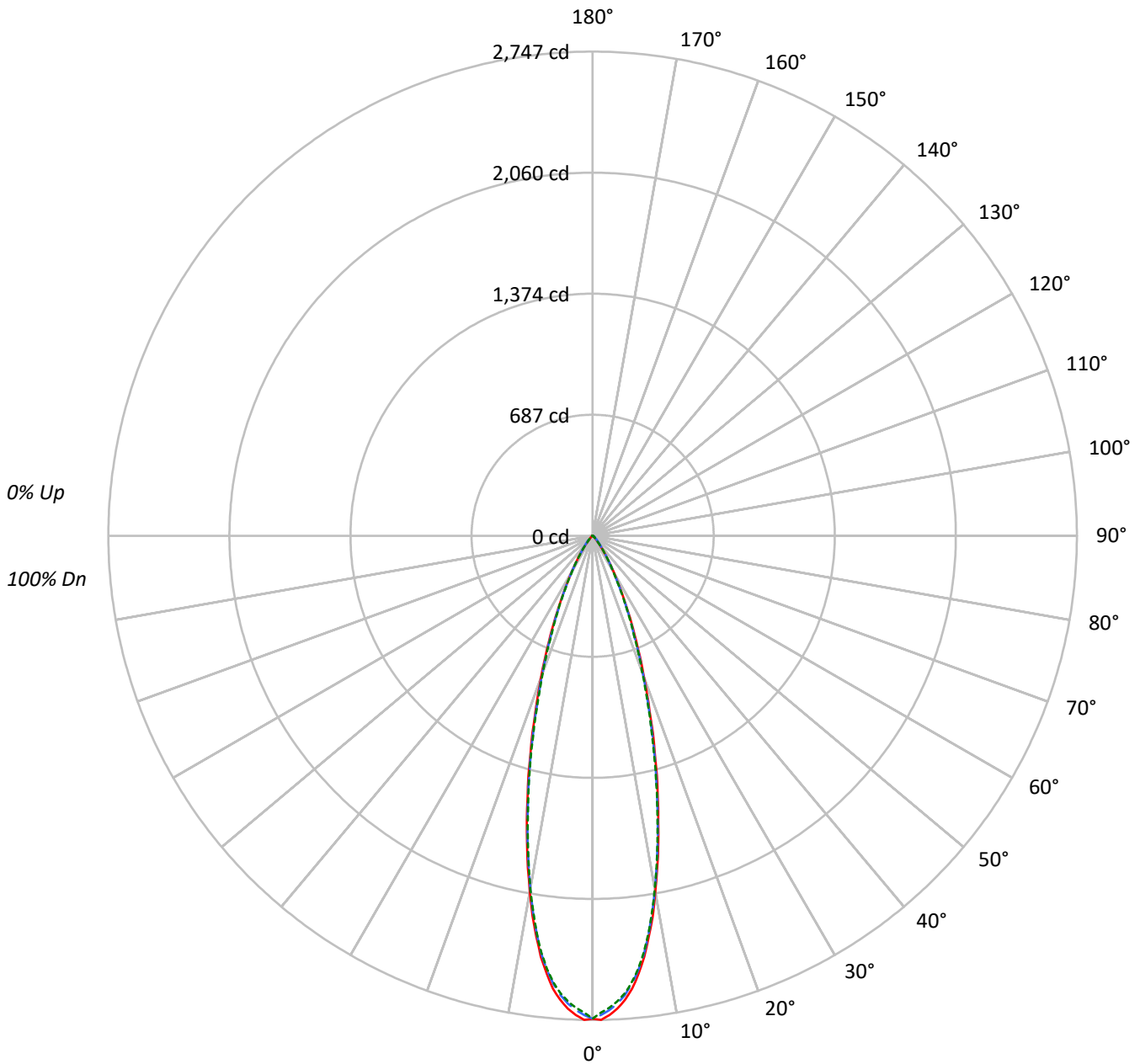
Lumens per Lamp: N/A  
Luminaire Lumens: 934.0 lumens  
Efficiency: N/A  
Efficacy: 77.2 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

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

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### 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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100				
1	114	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	95				95				
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91				91				
3	106	101	96	93	104	99	95	92	97	94	91	94	92	90	92	90	88	87				87				
4	102	96	91	88	100	95	90	87	93	89	86	91	88	85	89	86	84	83				83				
5	98	91	87	83	97	90	86	83	89	85	82	87	84	81	86	83	81	79				79				
6	94	87	82	79	93	87	82	79	85	81	78	84	80	78	83	80	77	76				76				
7	91	84	79	75	90	83	78	75	82	78	75	81	77	74	80	77	74	73				73				
8	88	80	76	72	87	80	75	72	79	75	72	78	74	71	77	74	71	70				70				
9	85	77	73	69	84	77	72	69	76	72	69	75	71	69	74	71	69	67				67				
10	82	74	70	67	81	74	70	67	73	69	66	73	69	66	72	69	66	65				65				

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

	0°	45°	90°
0°	849467	849467	849467
5°	802580	794395	791781
10°	645339	640460	639704
15°	451398	443760	441835
20°	281633	274540	271406
25°	162952	158061	156009
30°	86769	84192	82474
35°	41553	42915	42007
40°	17401	23674	17887
45°	8900	14643	9426
50°	5739	8633	6318
55°	3891	5783	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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.6	24.4
10°-20°	379.8	40.7
20°-30°	218.5	23.4
30°-40°	76.0	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°	825.9	88.4
0°-40°	901.9	96.6
0°-60°	931.7	99.8
0°-90°	934.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	934.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2740	2740	2740	2740	2740	
5°	2579	2564	2553	2558	2544	229
15°	1406	1401	1383	1379	1377	384
25°	476	470	462	460	456	223
35°	110	115	113	113	111	74
45°	20	24	33	24	22	17
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	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2740.2	2740.2	2740.2	2740.2	2740.2
1°	2747.4	2734.3	2719.9	2719.9	2705.6
2°	2721.1	2709.2	2693.7	2694.9	2679.4
3°	2686.5	2674.6	2659.1	2661.4	2647.1
4°	2638.8	2623.2	2612.5	2616.1	2602.9
5°	2579.1	2563.5	2552.8	2557.6	2544.4
6°	2497.9	2487.1	2477.6	2483.5	2471.6
7°	2407.1	2395.2	2388.0	2392.8	2383.2
8°	2296.1	2287.7	2279.4	2284.1	2274.6
9°	2182.6	2169.5	2161.2	2164.7	2157.6
10°	2050.1	2044.1	2034.6	2038.2	2032.2
11°	1922.4	1922.4	1904.4	1898.5	1902.1
12°	1791.0	1789.8	1773.1	1765.9	1768.3
13°	1658.5	1657.3	1640.6	1634.6	1635.8
14°	1527.1	1528.3	1510.4	1505.6	1504.4
15°	1406.5	1400.6	1382.7	1379.1	1376.7
16°	1280.0	1278.8	1260.9	1256.1	1253.7
17°	1166.5	1160.6	1142.7	1137.9	1134.3
18°	1048.3	1049.5	1031.6	1028.0	1022.1
19°	948.0	945.7	928.9	925.4	919.4
20°	853.7	843.0	832.2	828.6	822.7
22.5°	643.6	637.6	623.3	619.7	618.5
25°	476.4	470.4	462.1	459.7	456.1
26°	416.7	417.9	407.2	404.8	402.4
27°	368.9	366.6	357.0	355.8	352.2
28°	317.6	320.0	309.2	308.1	305.7
29°	277.0	277.0	271.0	267.5	265.1
30°	242.4	241.2	235.2	232.8	230.4
32.5°	167.2	166.0	163.6	162.4	160.0
35°	109.8	114.6	113.4	113.4	111.0
37.5°	68.1	77.6	81.2	80.0	72.8
40°	43.0	50.1	58.5	53.7	44.2
42.5°	28.7	34.6	43.0	35.8	28.7
45°	20.3	23.9	33.4	23.9	21.5
47.5°	15.5	17.9	25.1	17.9	15.5
50°	11.9	14.3	17.9	14.3	13.1
52.5°	9.6	10.7	14.3	10.7	9.6
55°	7.2	8.4	10.7	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



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**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)