

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: P402102

Luminaire Tested: **LA1MR052D010 EA1M52309027MW1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P402102  
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 EA1M52309027MW1MW  
Description: 1 INCH 30° OPTIC WITH MATTE WHITE BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

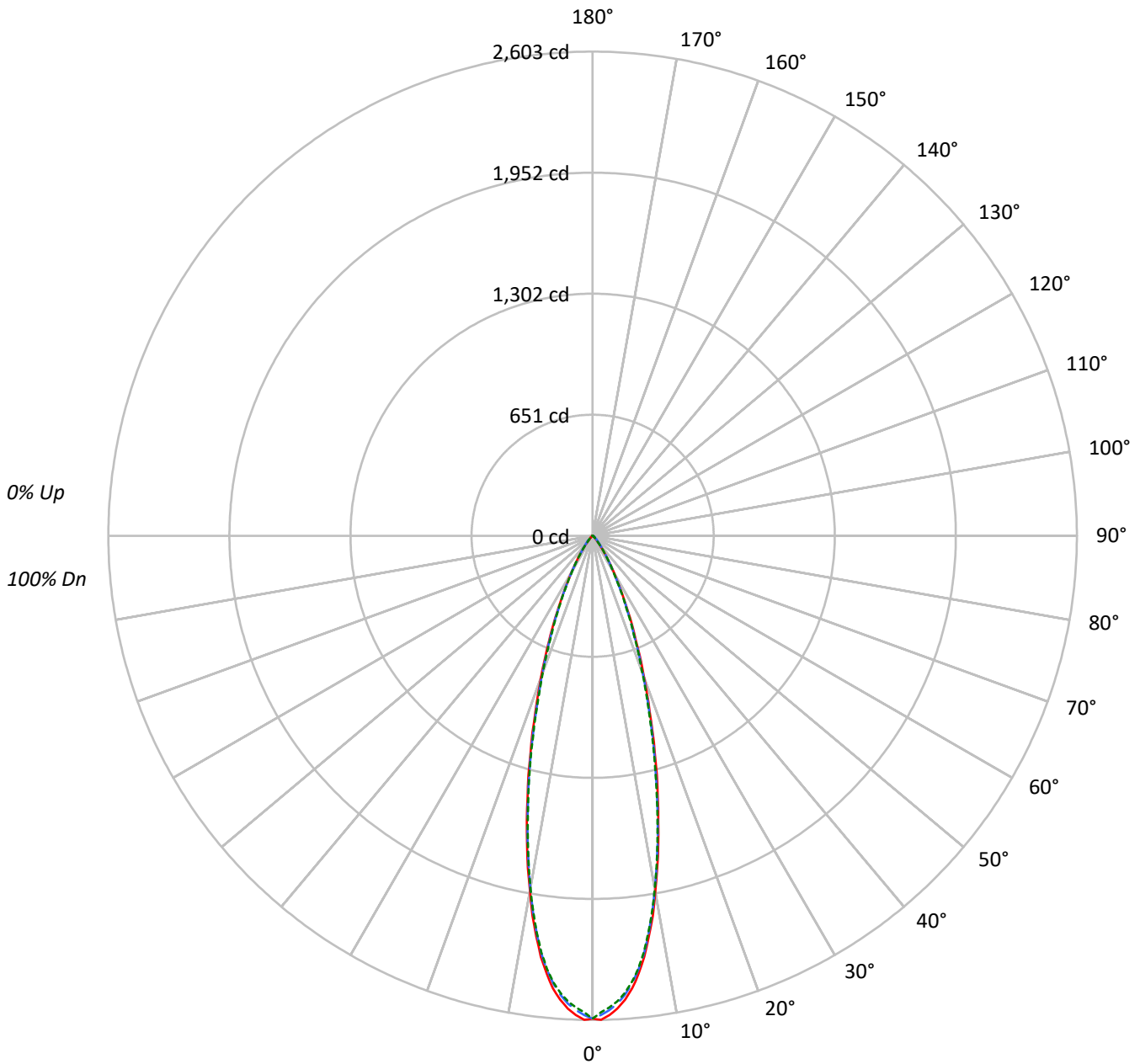
Lumens per Lamp: N/A  
Luminaire Lumens: 884.8 lumens  
Efficiency: N/A  
Efficacy: 73.1 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

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	72	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°	804734	804734	804734
5°	760289	752541	750082
10°	611342	606715	605991
15°	427617	420364	418567
20°	266788	260091	257089
25°	154367	149715	147799
30°	82187	79753	78142
35°	39396	40683	39812
40°	16470	22419	16956
45°	8417	13898	8944
50°	5450	8199	5980
55°	3675	5513	4270
60°	2108	3534	2790
65°	807	2494	807
70°	0	997	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	215.6	24.4
10°-20°	359.8	40.7
20°-30°	207.0	23.4
30°-40°	72.0	8.1
40°-50°	20.4	2.3
50°-60°	7.8	0.9
60°-70°	2.1	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°	782.3	88.4
0°-40°	854.4	96.6
0°-60°	882.6	99.8
0°-90°	884.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	884.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2596	2596	2596	2596	2596	
5°	2443	2428	2418	2423	2410	217
15°	1332	1327	1310	1306	1304	364
25°	451	446	438	436	432	212
35°	104	109	108	108	105	70
45°	19	23	32	23	20	17
55°	7	8	10	8	8	6
65°	1	2	3	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°	2595.9	2595.9	2595.9	2595.9	2595.9
1°	2602.7	2590.2	2576.6	2576.6	2563.1
2°	2577.8	2566.5	2551.8	2552.9	2538.2
3°	2545.0	2533.7	2518.9	2521.2	2507.6
4°	2499.7	2485.0	2474.8	2478.2	2465.8
5°	2443.2	2428.5	2418.3	2422.8	2410.4
6°	2366.3	2356.1	2347.0	2352.7	2341.4
7°	2280.3	2269.0	2262.2	2266.7	2257.7
8°	2175.1	2167.2	2159.3	2163.8	2154.7
9°	2067.6	2055.2	2047.3	2050.7	2043.9
10°	1942.1	1936.4	1927.4	1930.8	1925.1
11°	1821.1	1821.1	1804.1	1798.4	1801.8
12°	1696.6	1695.5	1679.7	1672.9	1675.2
13°	1571.1	1570.0	1554.1	1548.5	1549.6
14°	1446.7	1447.8	1430.8	1426.3	1425.2
15°	1332.4	1326.8	1309.8	1306.4	1304.2
16°	1212.5	1211.4	1194.4	1189.9	1187.7
17°	1105.1	1099.4	1082.5	1077.9	1074.5
18°	993.1	994.2	977.3	973.9	968.2
19°	898.1	895.8	880.0	876.6	870.9
20°	808.7	798.6	788.4	785.0	779.3
22.5°	609.7	604.0	590.4	587.0	585.9
25°	451.3	445.7	437.7	435.5	432.1
26°	394.8	395.9	385.7	383.4	381.2
27°	349.5	347.2	338.2	337.1	333.7
28°	300.9	303.1	293.0	291.8	289.6
29°	262.4	262.4	256.8	253.4	251.1
30°	229.6	228.5	222.8	220.6	218.3
32.5°	158.4	157.2	155.0	153.8	151.6
35°	104.1	108.6	107.5	107.5	105.2
37.5°	64.5	73.5	76.9	75.8	69.0
40°	40.7	47.5	55.4	50.9	41.9
42.5°	27.1	32.8	40.7	33.9	27.1
45°	19.2	22.6	31.7	22.6	20.4
47.5°	14.7	17.0	23.8	17.0	14.7
50°	11.3	13.6	17.0	13.6	12.4
52.5°	9.0	10.2	13.6	10.2	9.0
55°	6.8	7.9	10.2	7.9	7.9
57.5°	5.7	6.8	7.9	6.8	5.7
60°	3.4	4.5	5.7	4.5	4.5
62.5°	2.3	3.4	4.5	3.4	2.3
65°	1.1	2.3	3.4	2.3	1.1
67.5°	0.0	1.1	1.1	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	1.1	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)