

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: P402104

Luminaire Tested: **LA1MR052D010 EA1M52309027SC1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P402104  
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 EA1M52309027SC1MW  
Description: 1 INCH 30° OPTIC WITH SPECULAR CLEAR BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

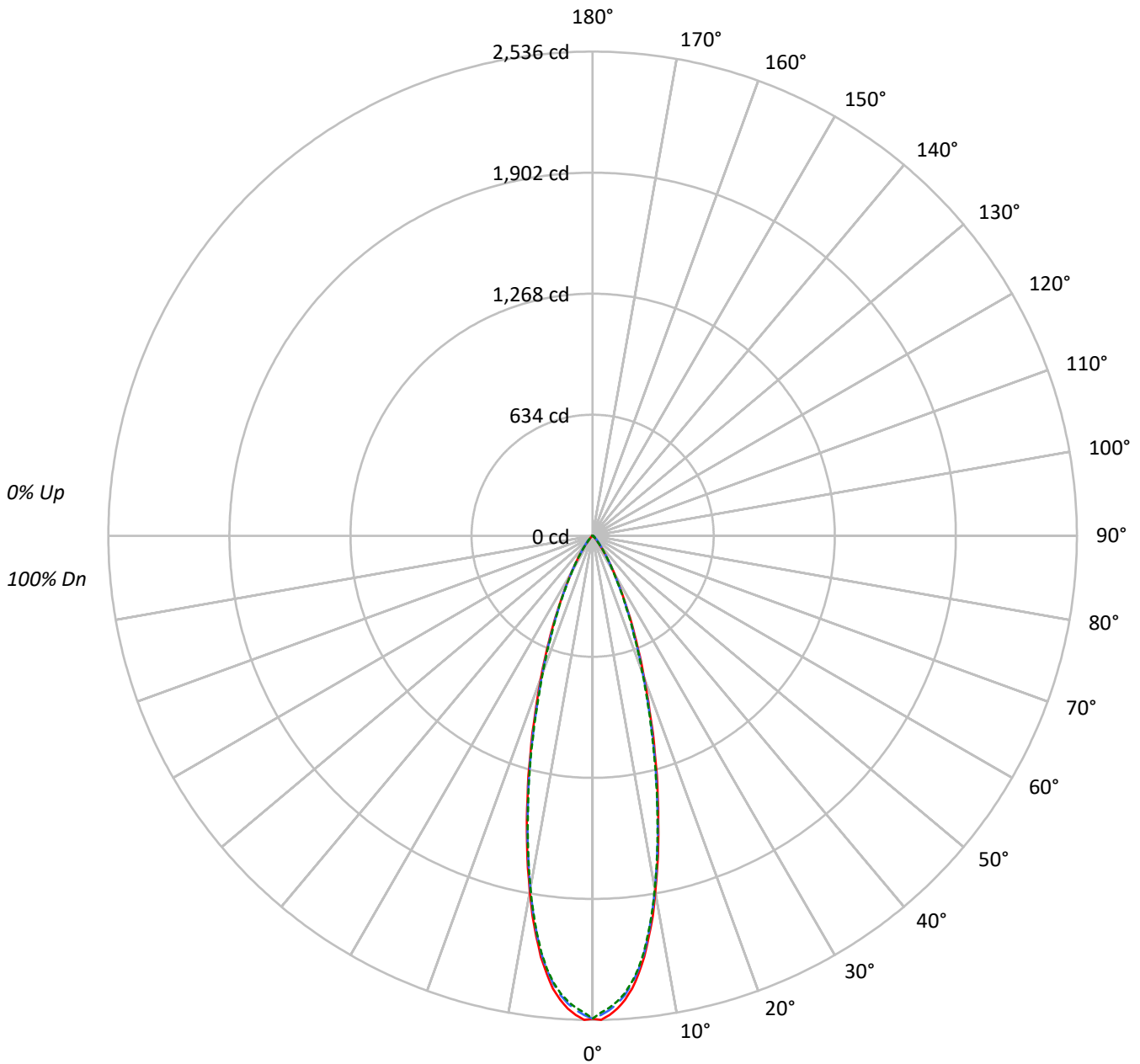
Lumens per Lamp: N/A  
Luminaire Lumens: 862.1 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

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

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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°	784180	784180	784180
5°	740871	733310	730913
10°	595729	591227	590535
15°	416705	409645	407879
20°	259992	253427	250524
25°	150433	145918	144003
30°	80111	77713	76138
35°	38374	39623	38790
40°	16066	21853	16511
45°	8198	13547	8680
50°	5305	7958	5836
55°	3567	5351	4162
60°	2046	3410	2728
65°	807	2421	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°	210.1	24.4
10°-20°	350.6	40.7
20°-30°	201.7	23.4
30°-40°	70.2	8.1
40°-50°	19.9	2.3
50°-60°	7.6	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°	762.4	88.4
0°-40°	832.5	96.6
0°-60°	860.0	99.8
0°-90°	862.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	862.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2530	2530	2530	2530	2530	
5°	2381	2366	2356	2361	2349	211
15°	1298	1293	1276	1273	1271	354
25°	440	434	427	424	421	206
35°	101	106	105	105	102	68
45°	19	22	31	22	20	16
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°	2529.6	2529.6	2529.6	2529.6	2529.6
1°	2536.2	2524.1	2510.9	2510.9	2497.6
2°	2512.0	2500.9	2486.6	2487.7	2473.4
3°	2480.0	2469.0	2454.6	2456.9	2443.6
4°	2435.9	2421.6	2411.7	2415.0	2402.8
5°	2380.8	2366.5	2356.5	2361.0	2348.8
6°	2305.8	2295.9	2287.1	2292.6	2281.6
7°	2222.1	2211.1	2204.4	2208.9	2200.0
8°	2119.6	2111.9	2104.1	2108.5	2099.7
9°	2014.9	2002.7	1995.0	1998.3	1991.7
10°	1892.5	1887.0	1878.2	1881.5	1876.0
11°	1774.6	1774.6	1758.0	1752.5	1755.8
12°	1653.3	1652.2	1636.8	1630.2	1632.4
13°	1531.0	1529.9	1514.5	1508.9	1510.0
14°	1409.7	1410.8	1394.3	1389.9	1388.8
15°	1298.4	1292.9	1276.4	1273.1	1270.9
16°	1181.6	1180.5	1163.9	1159.5	1157.3
17°	1076.9	1071.4	1054.8	1050.4	1047.1
18°	967.8	968.9	952.3	949.0	943.5
19°	875.2	873.0	857.5	854.2	848.7
20°	788.1	778.2	768.2	764.9	759.4
22.5°	594.1	588.6	575.4	572.1	571.0
25°	439.8	434.3	426.6	424.4	421.0
26°	384.7	385.8	375.9	373.7	371.4
27°	340.6	338.4	329.6	328.5	325.2
28°	293.2	295.4	285.5	284.4	282.2
29°	255.7	255.7	250.2	246.9	244.7
30°	223.8	222.6	217.1	214.9	212.7
32.5°	154.3	153.2	151.0	149.9	147.7
35°	101.4	105.8	104.7	104.7	102.5
37.5°	62.8	71.6	75.0	73.8	67.2
40°	39.7	46.3	54.0	49.6	40.8
42.5°	26.5	32.0	39.7	33.1	26.5
45°	18.7	22.0	30.9	22.0	19.8
47.5°	14.3	16.5	23.1	16.5	14.3
50°	11.0	13.2	16.5	13.2	12.1
52.5°	8.8	9.9	13.2	9.9	8.8
55°	6.6	7.7	9.9	7.7	7.7
57.5°	5.5	6.6	7.7	6.6	5.5
60°	3.3	4.4	5.5	4.4	4.4
62.5°	2.2	3.3	4.4	3.3	2.2
65°	1.1	2.2	3.3	2.2	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)