

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: P402005

Luminaire Tested: **LA1MR012D010 EA1M12309027MMS1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P402005  
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: LA1MR012D010 EA1M12309027MMS1MW  
Description: 1 INCH 30° OPTIC WITH MATTE METALIC SILVER BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

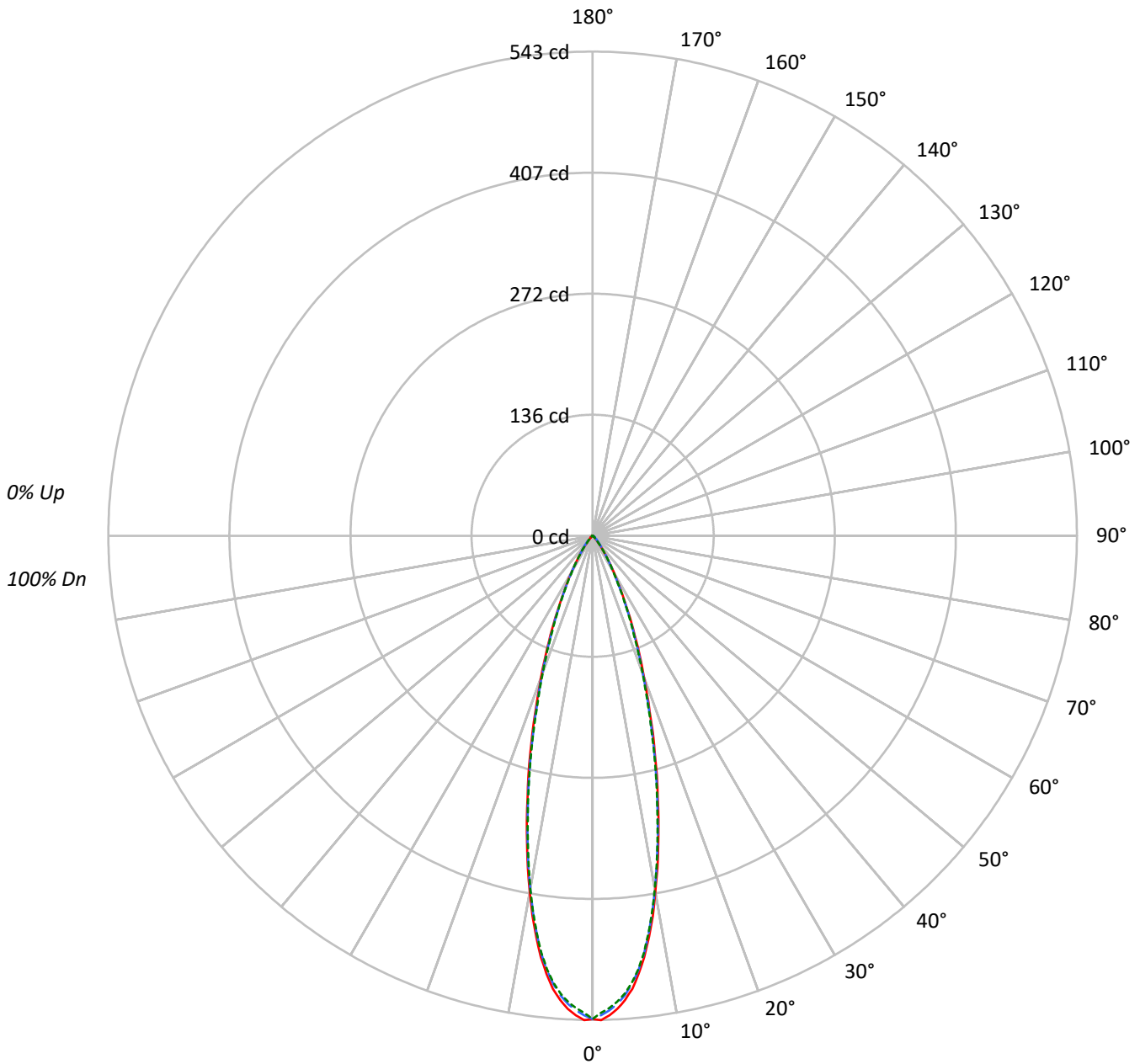
Lumens per Lamp: N/A  
Luminaire Lumens: 184.7 lumens  
Efficiency: N/A  
Efficacy: 51.3 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.6  
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°	168021	168021	168021
5°	158736	157118	156589
10°	127645	126669	126512
15°	89285	87776	87391
20°	55687	54301	53674
25°	32221	31263	30853
30°	17146	16645	16323
35°	8212	8477	8326
40°	3440	4694	3521
45°	1754	2893	1885
50°	1157	1688	1254
55°	757	1135	919
60°	434	744	558
65°	147	513	147
70°	0	181	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.0	24.4
10°-20°	75.1	40.7
20°-30°	43.2	23.4
30°-40°	15.0	8.1
40°-50°	4.3	2.3
50°-60°	1.6	0.9
60°-70°	0.4	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°	163.3	88.4
0°-40°	178.4	96.6
0°-60°	184.3	99.8
0°-90°	184.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	184.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	510	507	505	506	503	45
15°	278	277	274	273	272	76
25°	94	93	91	91	90	44
35°	22	23	22	22	22	15
45°	4	5	7	5	4	3
55°	1	2	2	2	2	1
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	542.0	542.0	542.0	542.0	542.0
1°	543.4	540.8	537.9	537.9	535.1
2°	538.2	535.8	532.7	533.0	529.9
3°	531.3	529.0	525.9	526.4	523.5
4°	521.9	518.8	516.7	517.4	514.8
5°	510.1	507.0	504.9	505.8	503.2
6°	494.0	491.9	490.0	491.2	488.8
7°	476.1	473.7	472.3	473.2	471.3
8°	454.1	452.5	450.8	451.7	449.9
9°	431.7	429.1	427.4	428.1	426.7
10°	405.5	404.3	402.4	403.1	401.9
11°	380.2	380.2	376.7	375.5	376.2
12°	354.2	354.0	350.7	349.3	349.7
13°	328.0	327.8	324.5	323.3	323.5
14°	302.0	302.3	298.7	297.8	297.5
15°	278.2	277.0	273.5	272.7	272.3
16°	253.1	252.9	249.4	248.4	248.0
17°	230.7	229.5	226.0	225.0	224.3
18°	207.3	207.6	204.0	203.3	202.1
19°	187.5	187.0	183.7	183.0	181.8
20°	168.8	166.7	164.6	163.9	162.7
22.5°	127.3	126.1	123.3	122.6	122.3
25°	94.2	93.0	91.4	90.9	90.2
26°	82.4	82.7	80.5	80.1	79.6
27°	73.0	72.5	70.6	70.4	69.7
28°	62.8	63.3	61.2	60.9	60.5
29°	54.8	54.8	53.6	52.9	52.4
30°	47.9	47.7	46.5	46.0	45.6
32.5°	33.1	32.8	32.4	32.1	31.6
35°	21.7	22.7	22.4	22.4	22.0
37.5°	13.5	15.3	16.1	15.8	14.4
40°	8.5	9.9	11.6	10.6	8.7
42.5°	5.7	6.8	8.5	7.1	5.7
45°	4.0	4.7	6.6	4.7	4.3
47.5°	3.1	3.5	5.0	3.5	3.1
50°	2.4	2.8	3.5	2.8	2.6
52.5°	1.9	2.1	2.8	2.1	1.9
55°	1.4	1.7	2.1	1.7	1.7
57.5°	1.2	1.4	1.7	1.4	1.2
60°	0.7	0.9	1.2	0.9	0.9
62.5°	0.5	0.7	0.9	0.7	0.5
65°	0.2	0.5	0.7	0.5	0.2
67.5°	0.0	0.2	0.2	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	0.2	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)