

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: P401969

Luminaire Tested: **LA1MR102D010 EA1M102309040MMS1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P401969  
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: LA1MR102D010 EA1M102309040MMS1MW  
Description: 1 INCH 30° OPTIC WITH MATTE METALIC SILVER BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

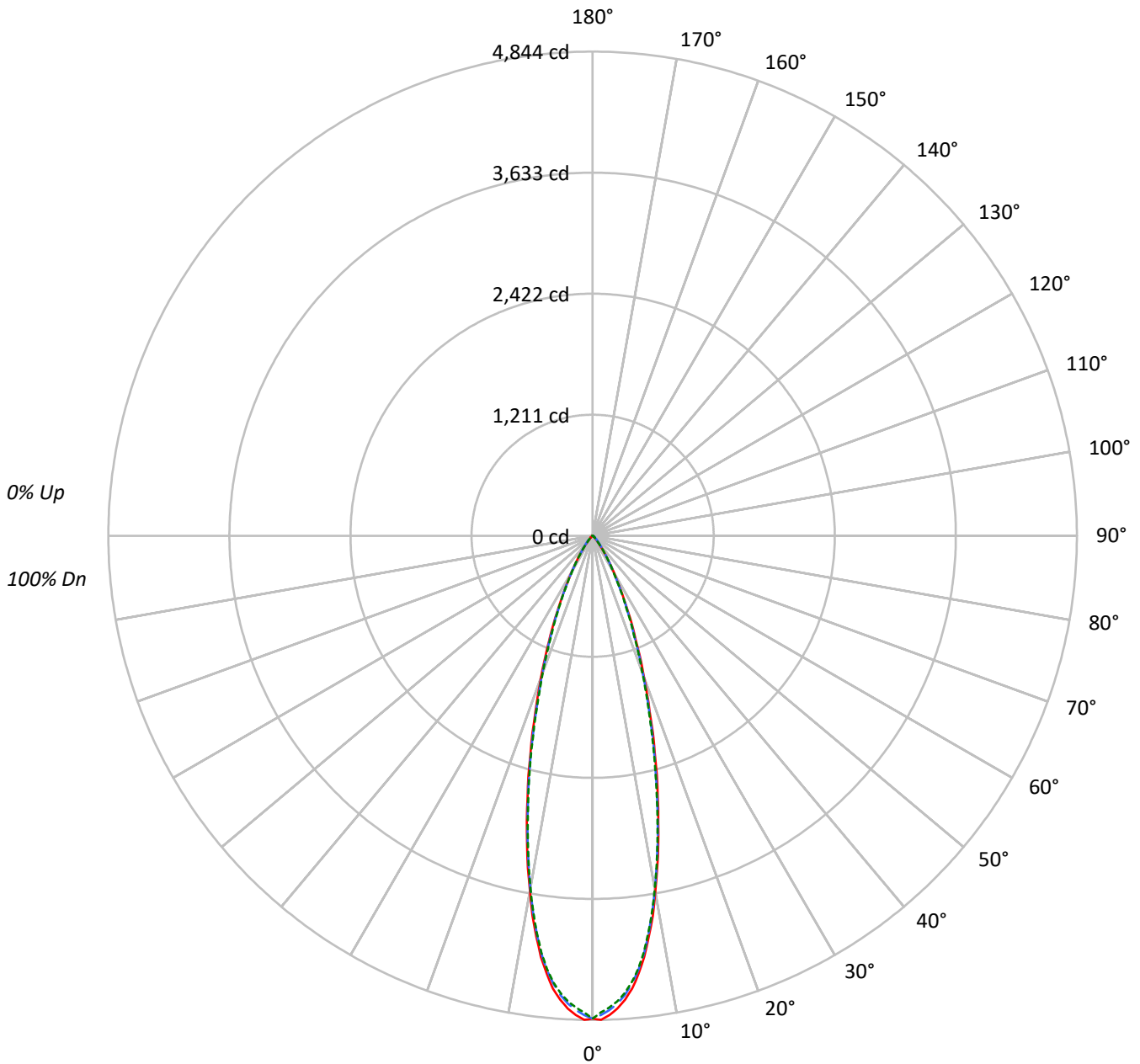
Lumens per Lamp: N/A  
Luminaire Lumens: 1646.6 lumens  
Efficiency: N/A  
Efficacy: 70.1 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.5  
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									
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	76	72	87	80	75	72	79	75	72	78	74	72	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°	1497649	1497649	1497649
5°	1414962	1400523	1395949
10°	1137755	1129130	1127808
15°	795861	782349	778947
20°	496528	484025	478483
25°	287287	278667	275042
30°	152956	148446	145439
35°	73304	75688	74099
40°	30675	41722	31524
45°	15695	25822	16616
50°	10176	15240	11189
55°	6810	10215	7945
60°	3906	6510	5208
65°	1540	4621	1540
70°	0	1903	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	401.2	24.4
10°-20°	669.6	40.7
20°-30°	385.2	23.4
30°-40°	134.0	8.1
40°-50°	38.0	2.3
50°-60°	14.5	0.9
60°-70°	3.9	0.2
70°-80°	0.1	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°	1456.0	88.4
0°-40°	1590.0	96.6
0°-60°	1642.6	99.8
0°-90°	1646.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1646.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4831	4831	4831	4831	4831	
5°	4547	4520	4501	4509	4486	404
15°	2480	2469	2438	2431	2427	677
25°	840	829	815	810	804	394
35°	194	202	200	200	196	131
45°	36	42	59	42	38	31
55°	13	15	19	15	15	12
65°	2	4	6	4	2	2
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°	4831.1	4831.1	4831.1	4831.1	4831.1
1°	4843.8	4820.6	4795.4	4795.4	4770.1
2°	4797.5	4776.4	4749.0	4751.1	4723.8
3°	4736.4	4715.4	4688.0	4692.2	4666.9
4°	4652.2	4624.8	4605.9	4612.2	4589.1
5°	4547.0	4519.6	4500.6	4509.1	4485.9
6°	4403.8	4384.9	4368.0	4378.5	4357.5
7°	4243.8	4222.8	4210.1	4218.6	4201.7
8°	4048.1	4033.3	4018.6	4027.0	4010.2
9°	3848.1	3824.9	3810.2	3816.5	3803.9
10°	3614.4	3603.9	3587.0	3593.4	3582.8
11°	3389.2	3389.2	3357.6	3347.1	3353.4
12°	3157.6	3155.5	3126.0	3113.4	3117.6
13°	2923.9	2921.8	2892.4	2881.8	2883.9
14°	2692.4	2694.5	2662.9	2654.5	2652.4
15°	2479.8	2469.2	2437.7	2431.4	2427.1
16°	2256.6	2254.5	2223.0	2214.5	2210.3
17°	2056.7	2046.1	2014.6	2006.1	1999.8
18°	1848.3	1850.4	1818.8	1812.5	1801.9
19°	1671.4	1667.2	1637.7	1631.4	1620.9
20°	1505.1	1486.2	1467.2	1460.9	1450.4
22.5°	1134.6	1124.1	1098.8	1092.5	1090.4
25°	839.9	829.4	814.7	810.5	804.1
26°	734.7	736.8	717.8	713.6	709.4
27°	650.5	646.3	629.4	627.3	621.0
28°	559.9	564.2	545.2	543.1	538.9
29°	488.4	488.4	477.9	471.5	467.3
30°	427.3	425.2	414.7	410.5	406.3
32.5°	294.7	292.6	288.4	286.3	282.1
35°	193.7	202.1	200.0	200.0	195.8
37.5°	120.0	136.8	143.1	141.0	128.4
40°	75.8	88.4	103.1	94.7	77.9
42.5°	50.5	61.0	75.8	63.2	50.5
45°	35.8	42.1	58.9	42.1	37.9
47.5°	27.4	31.6	44.2	31.6	27.4
50°	21.1	25.3	31.6	25.3	23.2
52.5°	16.8	18.9	25.3	18.9	16.8
55°	12.6	14.7	18.9	14.7	14.7
57.5°	10.5	12.6	14.7	12.6	10.5
60°	6.3	8.4	10.5	8.4	8.4
62.5°	4.2	6.3	8.4	6.3	4.2
65°	2.1	4.2	6.3	4.2	2.1
67.5°	0.0	2.1	2.1	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	2.1	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)