

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: P401965

Luminaire Tested: **LA1MR102D010 EA1M102309035MMS1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P401965  
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 EA1M102309035MMS1MW  
Description: 1 INCH 30° OPTIC WITH MATTE METALIC SILVER BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

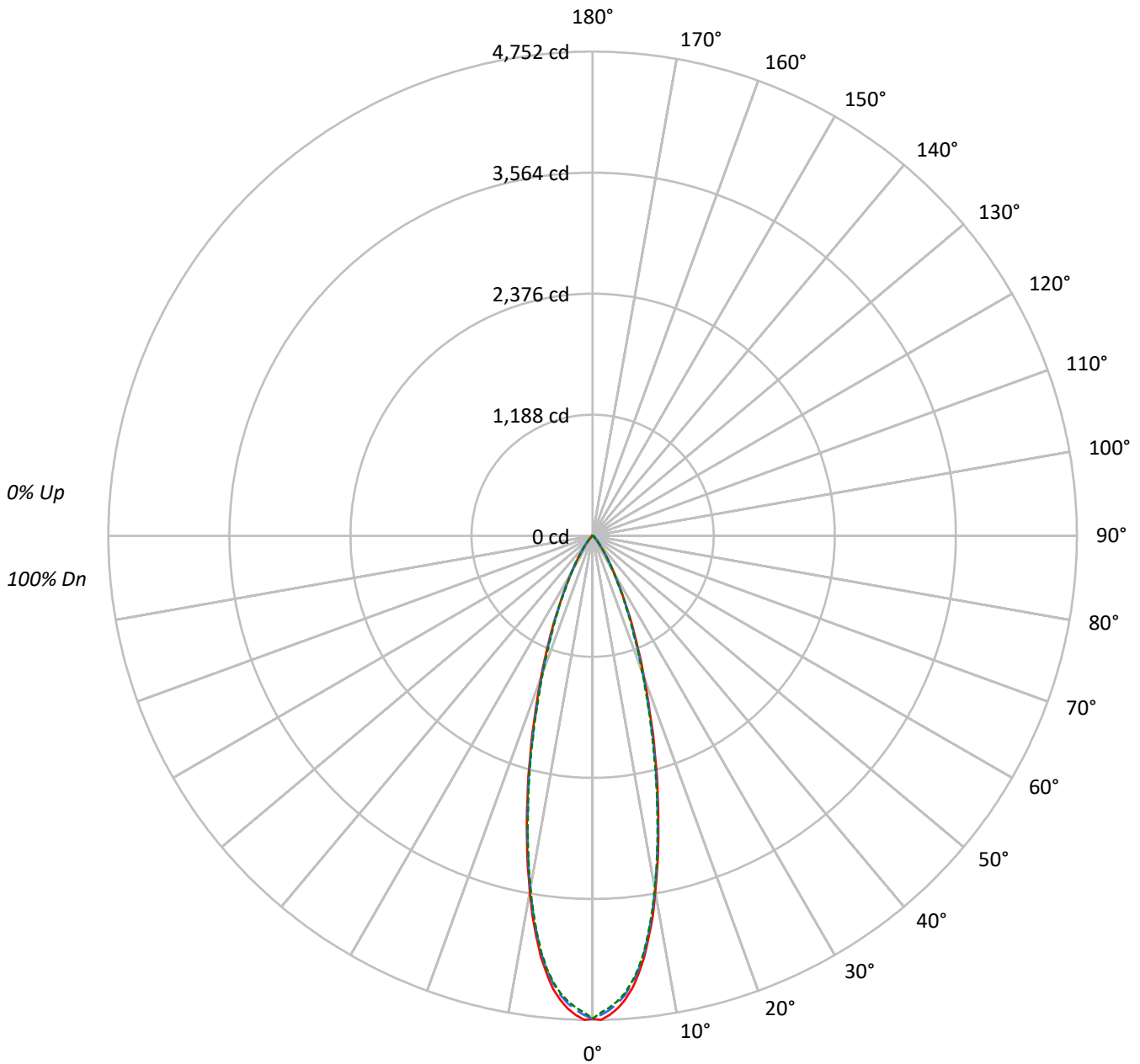
Lumens per Lamp: N/A  
Luminaire Lumens: 1615.5 lumens  
Efficiency: N/A  
Efficacy: 68.7 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

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					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°	1469346	1469346	1469346
5°	1388200	1374072	1369560
10°	1116256	1107788	1106497
15°	780809	767554	764248
20°	487159	474887	469443
25°	281848	273400	269843
30°	150092	145654	142683
35°	71904	74250	72699
40°	30108	40953	30917
45°	15388	25340	16309
50°	9983	14951	10948
55°	6702	10053	7837
60°	3844	6386	5146
65°	1540	4548	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°	393.6	24.4
10°-20°	656.9	40.7
20°-30°	377.9	23.4
30°-40°	131.5	8.1
40°-50°	37.3	2.3
50°-60°	14.3	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°	1428.5	88.4
0°-40°	1560.0	96.6
0°-60°	1611.6	99.8
0°-90°	1615.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1615.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4740	4740	4740	4740	4740	
5°	4461	4434	4416	4424	4401	396
15°	2433	2423	2392	2385	2381	664
25°	824	814	799	795	789	387
35°	190	198	196	196	192	128
45°	35	41	58	41	37	30
55°	12	14	19	14	14	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°	4739.8	4739.8	4739.8	4739.8	4739.8
1°	4752.2	4729.5	4704.7	4704.7	4679.9
2°	4706.8	4686.1	4659.3	4661.3	4634.5
3°	4646.9	4626.2	4599.4	4603.5	4578.7
4°	4564.3	4537.4	4518.8	4525.0	4502.3
5°	4461.0	4434.2	4415.6	4423.8	4401.1
6°	4320.6	4302.0	4285.5	4295.8	4275.1
7°	4163.6	4143.0	4130.6	4138.8	4122.3
8°	3971.5	3957.1	3942.6	3950.9	3934.4
9°	3775.3	3752.6	3738.2	3744.4	3732.0
10°	3546.1	3535.8	3519.2	3525.4	3515.1
11°	3325.1	3325.1	3294.1	3283.8	3290.0
12°	3097.9	3095.9	3066.9	3054.5	3058.7
13°	2868.7	2866.6	2837.7	2827.4	2829.4
14°	2641.5	2643.6	2612.6	2604.3	2602.3
15°	2432.9	2422.6	2391.6	2385.4	2381.3
16°	2214.0	2211.9	2180.9	2172.7	2168.5
17°	2017.8	2007.5	1976.5	1968.2	1962.0
18°	1813.3	1815.4	1784.4	1778.2	1767.9
19°	1639.8	1635.7	1606.8	1600.6	1590.3
20°	1476.7	1458.1	1439.5	1433.3	1423.0
22.5°	1113.2	1102.9	1078.1	1071.9	1069.8
25°	824.0	813.7	799.3	795.1	788.9
26°	720.8	722.8	704.3	700.1	696.0
27°	638.2	634.0	617.5	615.5	609.3
28°	549.4	553.5	534.9	532.8	528.7
29°	479.1	479.1	468.8	462.6	458.5
30°	419.3	417.2	406.9	402.7	398.6
32.5°	289.1	287.1	282.9	280.9	276.7
35°	190.0	198.3	196.2	196.2	192.1
37.5°	117.7	134.2	140.4	138.4	126.0
40°	74.4	86.7	101.2	92.9	76.4
42.5°	49.6	59.9	74.4	62.0	49.6
45°	35.1	41.3	57.8	41.3	37.2
47.5°	26.8	31.0	43.4	31.0	26.8
50°	20.7	24.8	31.0	24.8	22.7
52.5°	16.5	18.6	24.8	18.6	16.5
55°	12.4	14.5	18.6	14.5	14.5
57.5°	10.3	12.4	14.5	12.4	10.3
60°	6.2	8.3	10.3	8.3	8.3
62.5°	4.1	6.2	8.3	6.2	4.1
65°	2.1	4.1	6.2	4.1	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)