

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: P401968

Luminaire Tested: **LA1MR102D010 EA1M102309035SC1MW**

Issue Date: 6/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P401968  
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 EA1M102309035SC1MW  
Description: 1 INCH 30° OPTIC WITH SPECULAR CLEAR BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

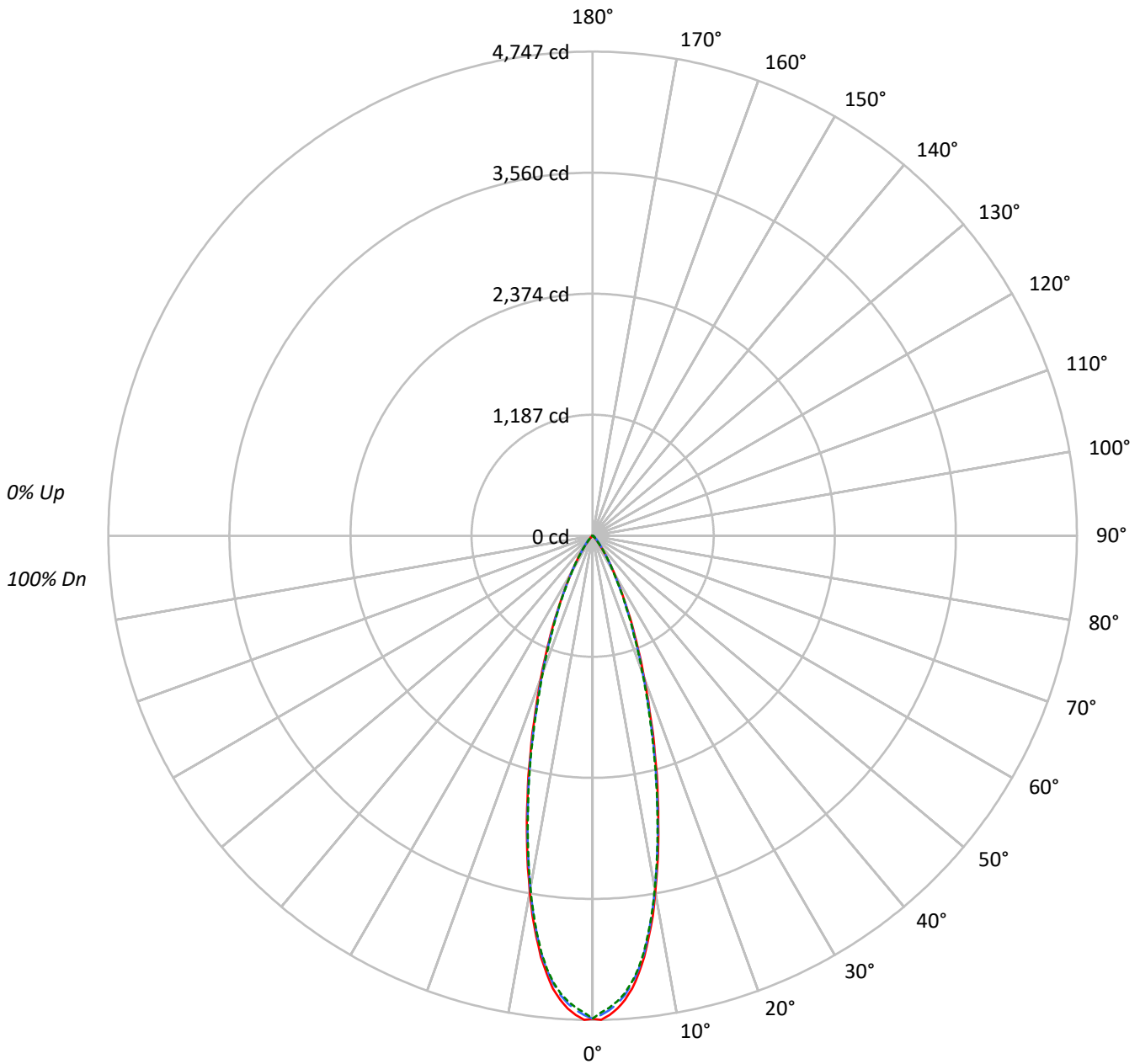
Lumens per Lamp: N/A  
Luminaire Lumens: 1613.8 lumens  
Efficiency: N/A  
Efficacy: 68.7 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P401968

CATALOG NUMBER: LA1MR102D010 EA1M102309035SC1MW

### 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								
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°	1467796	1467796	1467796
5°	1386738	1372610	1368129
10°	1115059	1106623	1105333
15°	779974	766752	763446
20°	486631	474392	468949
25°	281575	273092	269569
30°	149913	145475	142539
35°	71828	74175	72623
40°	30068	40913	30877
45°	15388	25340	16265
50°	9935	14902	10948
55°	6702	10053	7783
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°	393.2	24.4
10°-20°	656.2	40.7
20°-30°	377.5	23.4
30°-40°	131.4	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°	1427.0	88.4
0°-40°	1558.3	96.6
0°-60°	1609.8	99.8
0°-90°	1613.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1613.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4735	4735	4735	4735	4735	
5°	4456	4430	4411	4419	4396	396
15°	2430	2420	2389	2383	2379	663
25°	823	813	798	794	788	386
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



TEST NUMBER: P401968

CATALOG NUMBER: LA1MR102D010 EA1M102309035SC1MW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4734.8	4734.8	4734.8	4734.8	4734.8
1°	4747.2	4724.5	4699.7	4699.7	4675.0
2°	4701.8	4681.2	4654.4	4656.4	4629.6
3°	4642.0	4621.3	4594.5	4598.6	4573.9
4°	4559.5	4532.6	4514.1	4520.3	4497.6
5°	4456.3	4429.5	4410.9	4419.2	4396.5
6°	4316.0	4297.4	4280.9	4291.2	4270.6
7°	4159.2	4138.6	4126.2	4134.5	4117.9
8°	3967.3	3952.9	3938.5	3946.7	3930.2
9°	3771.3	3748.7	3734.2	3740.4	3728.0
10°	3542.3	3532.0	3515.5	3521.7	3511.4
11°	3321.6	3321.6	3290.6	3280.3	3286.5
12°	3094.6	3092.6	3063.7	3051.3	3055.5
13°	2865.6	2863.6	2834.7	2824.4	2826.4
14°	2638.7	2640.8	2609.8	2601.6	2599.5
15°	2430.3	2420.0	2389.1	2382.9	2378.8
16°	2211.6	2209.6	2178.6	2170.4	2166.3
17°	2015.6	2005.3	1974.4	1966.1	1959.9
18°	1811.4	1813.5	1782.5	1776.3	1766.0
19°	1638.1	1634.0	1605.1	1598.9	1588.6
20°	1475.1	1456.5	1438.0	1431.8	1421.5
22.5°	1112.0	1101.7	1076.9	1070.7	1068.7
25°	823.2	812.9	798.4	794.3	788.1
26°	720.0	722.1	703.5	699.4	695.3
27°	637.5	633.4	616.9	614.8	608.6
28°	548.8	552.9	534.3	532.3	528.2
29°	478.6	478.6	468.3	462.1	458.0
30°	418.8	416.7	406.4	402.3	398.2
32.5°	288.8	286.8	282.6	280.6	276.5
35°	189.8	198.1	196.0	196.0	191.9
37.5°	117.6	134.1	140.3	138.2	125.8
40°	74.3	86.7	101.1	92.8	76.3
42.5°	49.5	59.8	74.3	61.9	49.5
45°	35.1	41.3	57.8	41.3	37.1
47.5°	26.8	30.9	43.3	30.9	26.8
50°	20.6	24.8	30.9	24.8	22.7
52.5°	16.5	18.6	24.8	18.6	16.5
55°	12.4	14.4	18.6	14.4	14.4
57.5°	10.3	12.4	14.4	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



TEST NUMBER: P401968

CATALOG NUMBER: LA1MR102D010 EA1M102309035SC1MW

**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)