

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: P401957

Luminaire Tested: **LA1MR102D010 EA1M102309027MMS1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P401957  
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 EA1M102309027MMS1MW  
Description: 1 INCH 30° OPTIC WITH MATTE METALIC SILVER BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

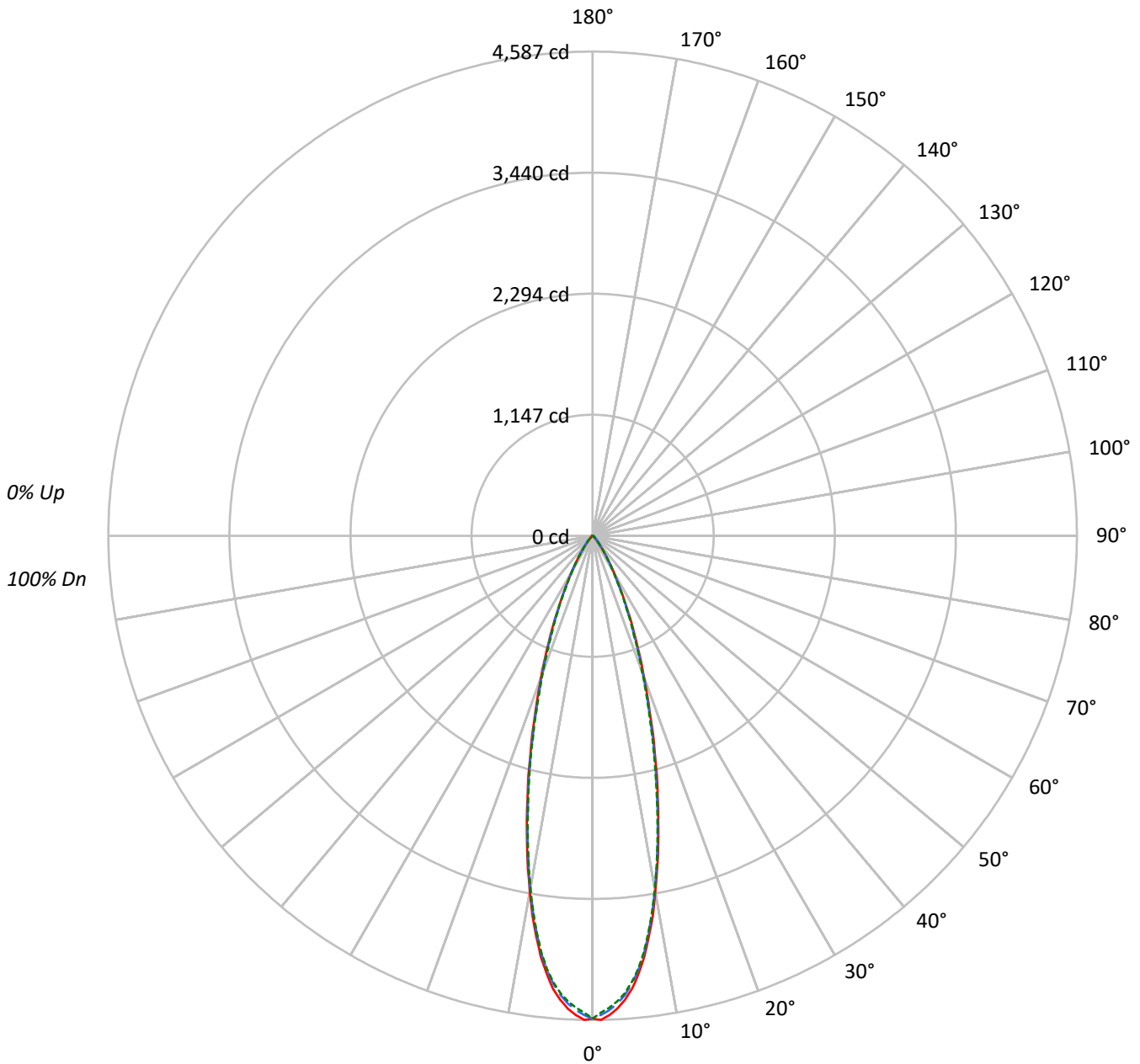
Lumens per Lamp: N/A  
Luminaire Lumens: 1559.4 lumens  
Efficiency: N/A  
Efficacy: 66.4 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

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°	1418289	1418289	1418289
5°	1339966	1326337	1321980
10°	1077474	1069321	1068062
15°	753689	740884	737675
20°	470235	458392	453113
25°	272066	263891	260470
30°	144866	140571	137707
35°	69406	71677	70163
40°	29056	39537	29865
45°	14862	24463	15739
50°	9597	14420	10562
55°	6486	9674	7567
60°	3720	6200	4960
65°	1467	4401	1467
70°	0	1813	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	379.9	24.4
10°-20°	634.1	40.7
20°-30°	364.8	23.4
30°-40°	126.9	8.1
40°-50°	36.0	2.3
50°-60°	13.8	0.9
60°-70°	3.8	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°	1378.8	88.4
0°-40°	1505.8	96.6
0°-60°	1555.6	99.8
0°-90°	1559.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1559.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4575	4575	4575	4575	4575	
5°	4306	4280	4262	4270	4248	382
15°	2348	2338	2308	2302	2298	641
25°	795	785	772	768	762	373
35°	183	191	189	189	185	124
45°	34	40	56	40	36	29
55°	12	14	18	14	14	11
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°	4575.1	4575.1	4575.1	4575.1	4575.1
1°	4587.1	4565.2	4541.2	4541.2	4517.3
2°	4543.2	4523.3	4497.4	4499.4	4473.5
3°	4485.4	4465.5	4439.6	4443.6	4419.6
4°	4405.7	4379.8	4361.8	4367.8	4345.9
5°	4306.0	4280.1	4262.2	4270.1	4248.2
6°	4170.4	4152.5	4136.6	4146.5	4126.6
7°	4018.9	3999.0	3987.0	3995.0	3979.1
8°	3833.5	3819.6	3805.6	3813.6	3797.7
9°	3644.2	3622.2	3608.3	3614.3	3602.3
10°	3422.9	3412.9	3397.0	3402.9	3393.0
11°	3209.6	3209.6	3179.7	3169.7	3175.7
12°	2990.3	2988.3	2960.4	2948.4	2952.4
13°	2769.0	2767.0	2739.1	2729.1	2731.1
14°	2549.7	2551.7	2521.8	2513.8	2511.8
15°	2348.4	2338.4	2308.5	2302.5	2298.5
16°	2137.1	2135.1	2105.2	2097.2	2093.2
17°	1947.7	1937.7	1907.8	1899.8	1893.8
18°	1750.3	1752.3	1722.4	1716.4	1706.5
19°	1582.9	1578.9	1551.0	1545.0	1535.0
20°	1425.4	1407.4	1389.5	1383.5	1373.5
22.5°	1074.5	1064.5	1040.6	1034.6	1032.6
25°	795.4	785.4	771.5	767.5	761.5
26°	695.7	697.7	679.8	675.8	671.8
27°	616.0	612.0	596.1	594.1	588.1
28°	530.3	534.3	516.3	514.3	510.3
29°	462.5	462.5	452.5	446.5	442.6
30°	404.7	402.7	392.7	388.7	384.7
32.5°	279.1	277.1	273.1	271.1	267.1
35°	183.4	191.4	189.4	189.4	185.4
37.5°	113.6	129.6	135.6	133.6	121.6
40°	71.8	83.7	97.7	89.7	73.8
42.5°	47.8	57.8	71.8	59.8	47.8
45°	33.9	39.9	55.8	39.9	35.9
47.5°	25.9	29.9	41.9	29.9	25.9
50°	19.9	23.9	29.9	23.9	21.9
52.5°	15.9	17.9	23.9	17.9	15.9
55°	12.0	14.0	17.9	14.0	14.0
57.5°	10.0	12.0	14.0	12.0	10.0
60°	6.0	8.0	10.0	8.0	8.0
62.5°	4.0	6.0	8.0	6.0	4.0
65°	2.0	4.0	6.0	4.0	2.0
67.5°	0.0	2.0	2.0	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	2.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)