

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: P402099

Luminaire Tested: **LA1MR022D010 EA1M22509040SB1MW**

Issue Date: 6/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P402099  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1912-604-8)  
Test Lab: INNOVATION CENTER (G3)  
Issue Date: 6/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LA1MR022D010 EA1M22509040SB1MW  
Description: 1 INCH 50° OPTIC WITH SPECULAR BLACK BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

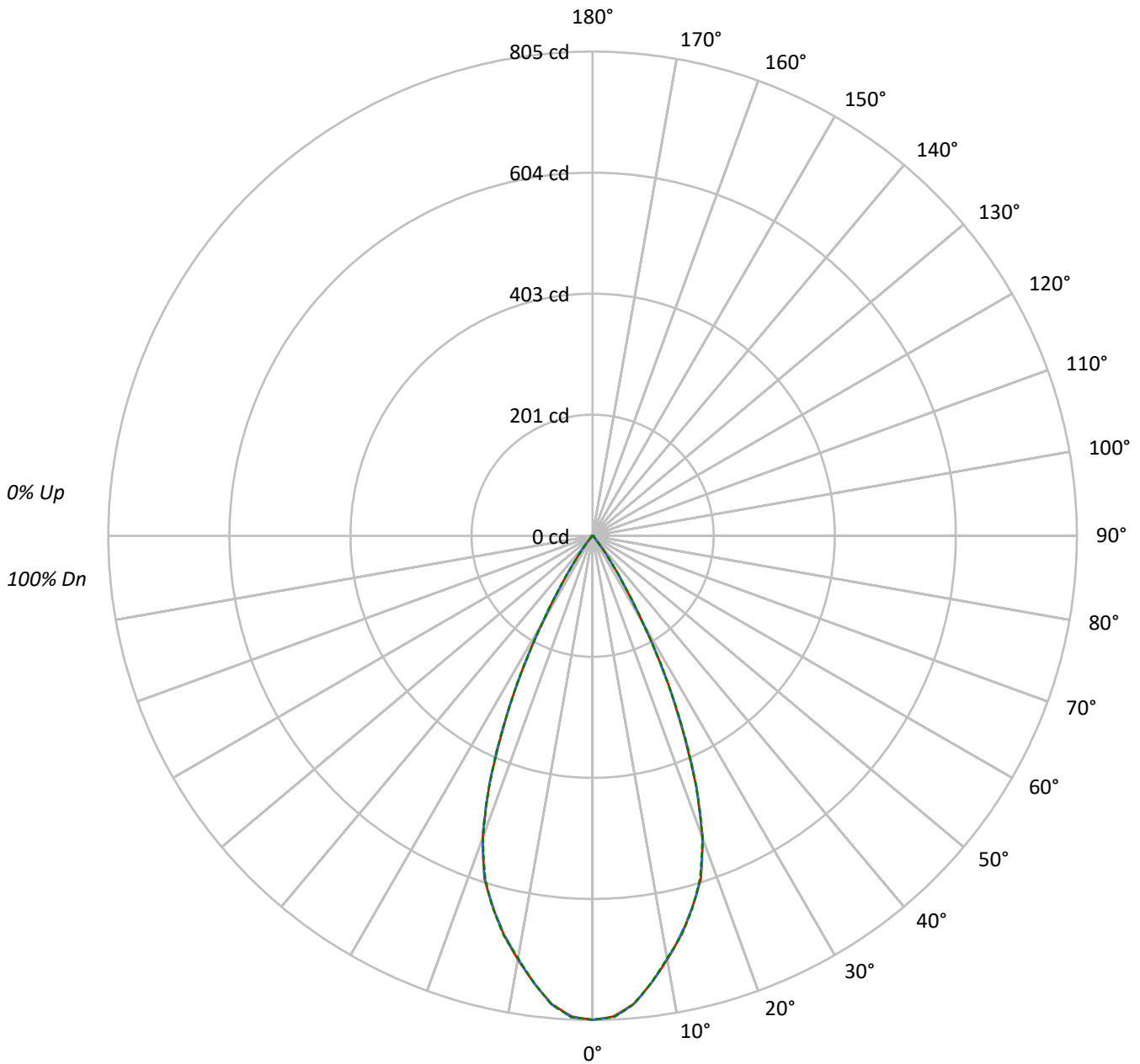
Lumens per Lamp: N/A  
Luminaire Lumens: 454.2 lumens  
Efficiency: N/A  
Efficacy: 79.7 lumens/watt  
Spacing Criteria (0/90/45): 0.77 / 0.77 / 0.71  
Luminous Opening: Rectangular (W 0.1' x L: 1.29' x H: 0')  
CIE Type: Direct

Input Watts (W): 5.7  
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	104	103	102	101	100	99	98	97	95																			
2	110	105	102	99	107	104	100	98	100	98	96	98	95	94	95	93	92	90																			
3	105	99	95	92	103	98	94	91	96	92	90	93	90	88	91	89	87	85																			
4	101	94	89	86	99	93	89	85	91	87	84	89	86	83	87	85	82	81																			
5	97	89	84	81	95	89	84	80	87	83	80	85	82	79	84	81	78	77																			
6	93	85	80	76	91	84	79	76	83	79	75	82	78	75	80	77	75	73																			
7	89	81	76	72	88	80	76	72	79	75	72	78	74	71	77	74	71	70																			
8	85	77	72	69	84	77	72	69	76	71	68	75	71	68	74	70	68	67																			
9	82	74	69	65	81	73	69	65	73	68	65	72	68	65	71	67	65	64																			
10	79	71	66	62	78	70	66	62	70	65	62	69	65	62	68	64	62	61																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	64376	64376	64376
5°	62743	62831	62791
10°	58099	58017	57920
15°	52956	53014	53089
20°	45428	45564	45385
25°	30789	31168	31115
30°	15251	15353	15297
35°	5098	5127	4815
40°	1159	1128	982
45°	453	509	419
50°	373	386	336
55°	335	335	293
60°	256	288	240
65°	170	189	133
70°	0	23	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.4	15.9
10°-20°	177.6	39.1
20°-30°	158.1	34.8
30°-40°	39.5	8.7
40°-50°	3.8	0.8
50°-60°	2.1	0.5
60°-70°	0.8	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°	408.1	89.9
0°-40°	447.6	98.5
0°-60°	453.4	99.8
0°-90°	454.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	454.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	781	784	782	782	782	72
15°	639	643	640	639	641	178
25°	349	353	353	356	352	158
35°	52	54	52	52	49	39
45°	4	4	4	4	4	4
55°	2	2	2	2	2	2
65°	1	1	1	1	1	1
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°	804.7	804.7	804.7	804.7	804.7
2.5°	800.1	803.6	801.1	801.3	801.4
5°	781.3	784.2	782.4	781.8	781.9
7.5°	749.7	752.2	749.4	750.4	749.2
10°	715.2	717.7	714.2	714.2	713.0
12.5°	680.1	682.8	678.5	678.0	680.9
15°	639.4	642.7	640.1	639.0	641.0
17.5°	598.2	597.8	596.3	595.6	594.8
20°	533.6	536.3	535.2	530.8	533.1
22.5°	448.6	448.7	450.2	450.9	449.0
25°	348.8	352.7	353.1	355.5	352.5
27.5°	258.5	259.2	255.2	255.5	258.3
30°	165.1	167.4	166.2	167.4	165.6
32.5°	95.3	97.2	96.5	97.4	97.5
35°	52.2	54.1	52.5	51.7	49.3
37.5°	25.9	25.9	26.5	24.4	23.2
40°	11.1	11.4	10.8	10.3	9.4
42.5°	5.6	5.6	5.9	5.1	4.9
45°	4.0	4.0	4.5	3.9	3.7
47.5°	3.4	3.4	3.7	3.3	3.1
50°	3.0	3.0	3.1	2.8	2.7
52.5°	2.7	2.7	2.8	2.5	2.4
55°	2.4	2.4	2.4	2.2	2.1
57.5°	1.9	2.1	2.1	1.9	1.8
60°	1.6	1.6	1.8	1.6	1.5
62.5°	1.3	1.3	1.3	1.3	1.2
65°	0.9	0.9	1.0	0.9	0.7
67.5°	0.1	0.3	0.7	0.0	0.0
70°	0.0	0.0	0.1	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
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°







(END OF REPORT)