

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: P402069

Luminaire Tested: **LA1MR022D010 EA1M22309027MMS1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P402069  
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: LA1MR022D010 EA1M22309027MMS1MW  
Description: 1 INCH 30° OPTIC WITH MATTE METALIC SILVER BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

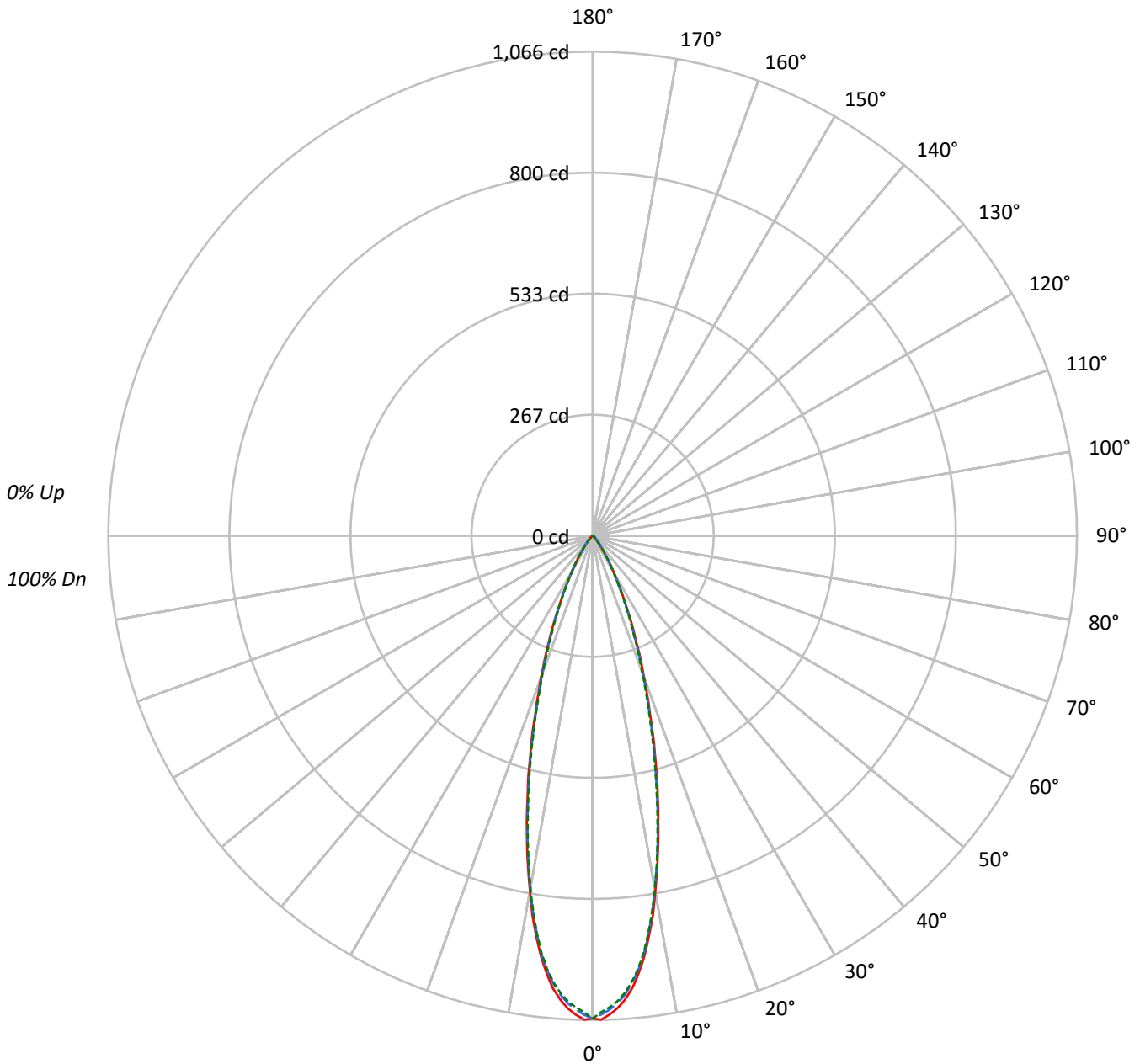
Lumens per Lamp: N/A  
Luminaire Lumens: 362.3 lumens  
Efficiency: N/A  
Efficacy: 63.6 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	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	75	72	87	80	75	72	79	75	72	78	74	71	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°	329501	329501	329501
5°	311310	308136	307109
10°	250316	248428	248113
15°	175103	172119	171381
20°	109229	106491	105270
25°	63211	61295	60508
30°	33648	32646	32002
35°	16122	16651	16311
40°	6758	9186	6920
45°	3463	5699	3639
50°	2218	3328	2460
55°	1513	2270	1730
60°	868	1426	1178
65°	367	1027	367
70°	0	453	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.3	24.4
10°-20°	147.3	40.7
20°-30°	84.8	23.4
30°-40°	29.5	8.1
40°-50°	8.4	2.3
50°-60°	3.2	0.9
60°-70°	0.9	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°	320.3	88.4
0°-40°	349.8	96.6
0°-60°	361.4	99.8
0°-90°	362.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	362.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1063	1063	1063	1063	1063	
5°	1000	994	990	992	987	89
15°	546	543	536	535	534	149
25°	185	182	179	178	177	87
35°	43	44	44	44	43	29
45°	8	9	13	9	8	7
55°	3	3	4	3	3	3
65°	0	1	1	1	0	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°	1062.9	1062.9	1062.9	1062.9	1062.9
1°	1065.7	1060.6	1055.0	1055.0	1049.5
2°	1055.5	1050.8	1044.8	1045.3	1039.3
3°	1042.0	1037.4	1031.4	1032.3	1026.8
4°	1023.5	1017.5	1013.3	1014.7	1009.6
5°	1000.4	994.3	990.2	992.0	986.9
6°	968.9	964.7	961.0	963.3	958.7
7°	933.7	929.0	926.3	928.1	924.4
8°	890.6	887.4	884.1	886.0	882.3
9°	846.6	841.5	838.3	839.7	836.9
10°	795.2	792.9	789.2	790.6	788.2
11°	745.6	745.6	738.7	736.4	737.8
12°	694.7	694.2	687.8	685.0	685.9
13°	643.3	642.8	636.3	634.0	634.5
14°	592.3	592.8	585.9	584.0	583.5
15°	545.6	543.3	536.3	534.9	534.0
16°	496.5	496.0	489.1	487.2	486.3
17°	452.5	450.2	443.2	441.4	440.0
18°	406.6	407.1	400.1	398.8	396.4
19°	367.7	366.8	360.3	358.9	356.6
20°	331.1	327.0	322.8	321.4	319.1
22.5°	249.6	247.3	241.8	240.4	239.9
25°	184.8	182.5	179.2	178.3	176.9
26°	161.6	162.1	157.9	157.0	156.1
27°	143.1	142.2	138.5	138.0	136.6
28°	123.2	124.1	120.0	119.5	118.6
29°	107.4	107.4	105.1	103.7	102.8
30°	94.0	93.6	91.2	90.3	89.4
32.5°	64.8	64.4	63.4	63.0	62.1
35°	42.6	44.5	44.0	44.0	43.1
37.5°	26.4	30.1	31.5	31.0	28.3
40°	16.7	19.5	22.7	20.8	17.1
42.5°	11.1	13.4	16.7	13.9	11.1
45°	7.9	9.3	13.0	9.3	8.3
47.5°	6.0	6.9	9.7	6.9	6.0
50°	4.6	5.6	6.9	5.6	5.1
52.5°	3.7	4.2	5.6	4.2	3.7
55°	2.8	3.2	4.2	3.2	3.2
57.5°	2.3	2.8	3.2	2.8	2.3
60°	1.4	1.9	2.3	1.9	1.9
62.5°	0.9	1.4	1.9	1.4	0.9
65°	0.5	0.9	1.4	0.9	0.5
67.5°	0.0	0.5	0.5	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	0.5	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)