

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: P402078

Luminaire Tested: **LA1MR022D010 EA1M22309035MW1MW**

Issue Date: 6/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P402078  
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 EA1M22309035MW1MW  
Description: 1 INCH 30° OPTIC WITH MATTE WHITE BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

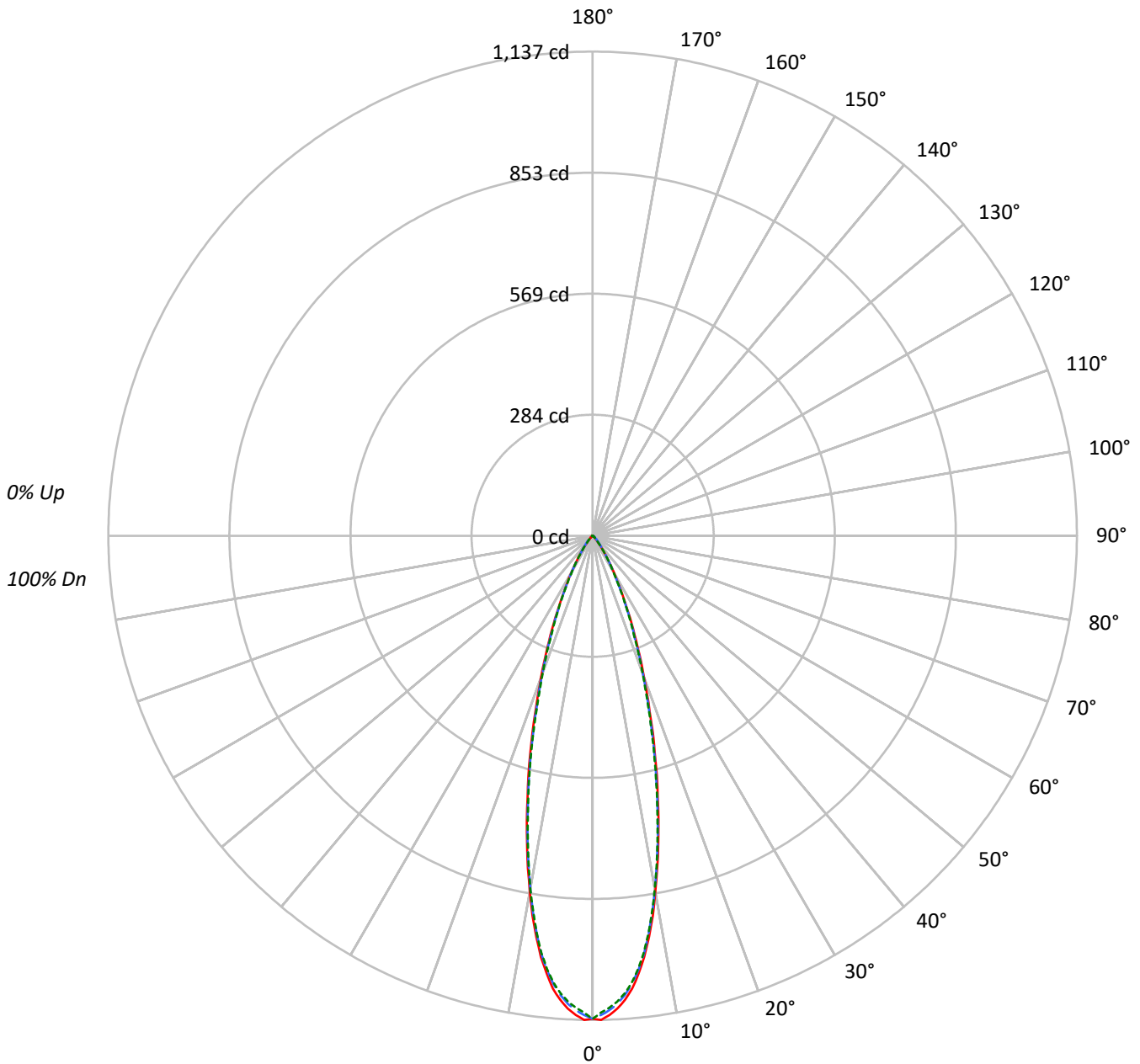
Lumens per Lamp: N/A  
Luminaire Lumens: 386.7 lumens  
Efficiency: N/A  
Efficacy: 67.8 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

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					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	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	75	72	87	80	75	72	79	75	72	78	74	71	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°	351666	351666	351666
5°	332222	328861	327772
10°	267157	265143	264828
15°	186882	183705	182902
20°	116586	113650	112363
25°	67452	65434	64579
30°	35903	34865	34149
35°	17219	17787	17408
40°	7203	9793	7406
45°	3683	6050	3902
50°	2363	3569	2604
55°	1621	2378	1892
60°	930	1550	1240
65°	367	1100	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°	94.2	24.4
10°-20°	157.2	40.7
20°-30°	90.4	23.4
30°-40°	31.5	8.1
40°-50°	8.9	2.3
50°-60°	3.4	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°	341.9	88.4
0°-40°	373.4	96.6
0°-60°	385.7	99.8
0°-90°	386.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	386.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1134	1134	1134	1134	1134	
5°	1068	1061	1057	1059	1053	95
15°	582	580	572	571	570	159
25°	197	195	191	190	189	93
35°	46	48	47	47	46	31
45°	8	10	14	10	9	7
55°	3	4	4	4	4	3
65°	0	1	2	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°	1134.4	1134.4	1134.4	1134.4	1134.4
1°	1137.3	1131.9	1126.0	1126.0	1120.0
2°	1126.5	1121.5	1115.1	1115.6	1109.2
3°	1112.1	1107.2	1100.8	1101.8	1095.8
4°	1092.4	1085.9	1081.5	1083.0	1077.5
5°	1067.6	1061.2	1056.8	1058.8	1053.3
6°	1034.0	1029.6	1025.6	1028.1	1023.2
7°	996.5	991.5	988.6	990.5	986.6
8°	950.5	947.0	943.6	945.6	941.6
9°	903.5	898.1	894.7	896.1	893.2
10°	848.7	846.2	842.3	843.7	841.3
11°	795.8	795.8	788.4	785.9	787.4
12°	741.4	740.9	734.0	731.0	732.0
13°	686.6	686.1	679.1	676.7	677.2
14°	632.2	632.7	625.3	623.3	622.8
15°	582.3	579.8	572.4	570.9	569.9
16°	529.9	529.4	522.0	520.0	519.0
17°	482.9	480.4	473.0	471.1	469.6
18°	434.0	434.5	427.1	425.6	423.1
19°	392.5	391.5	384.6	383.1	380.6
20°	353.4	349.0	344.5	343.0	340.6
22.5°	266.4	263.9	258.0	256.5	256.0
25°	197.2	194.7	191.3	190.3	188.8
26°	172.5	173.0	168.6	167.6	166.6
27°	152.7	151.7	147.8	147.3	145.8
28°	131.5	132.5	128.0	127.5	126.5
29°	114.7	114.7	112.2	110.7	109.7
30°	100.3	99.8	97.4	96.4	95.4
32.5°	69.2	68.7	67.7	67.2	66.2
35°	45.5	47.5	47.0	47.0	46.0
37.5°	28.2	32.1	33.6	33.1	30.2
40°	17.8	20.8	24.2	22.2	18.3
42.5°	11.9	14.3	17.8	14.8	11.9
45°	8.4	9.9	13.8	9.9	8.9
47.5°	6.4	7.4	10.4	7.4	6.4
50°	4.9	5.9	7.4	5.9	5.4
52.5°	4.0	4.4	5.9	4.4	4.0
55°	3.0	3.5	4.4	3.5	3.5
57.5°	2.5	3.0	3.5	3.0	2.5
60°	1.5	2.0	2.5	2.0	2.0
62.5°	1.0	1.5	2.0	1.5	1.0
65°	0.5	1.0	1.5	1.0	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)