

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: P402018

Luminaire Tested: **LA1MR012D010 EA1M12309040MW1MW**

Issue Date: 6/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P402018  
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: LA1MR012D010 EA1M12309040MW1MW  
Description: 1 INCH 30° OPTIC WITH MATTE WHITE BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

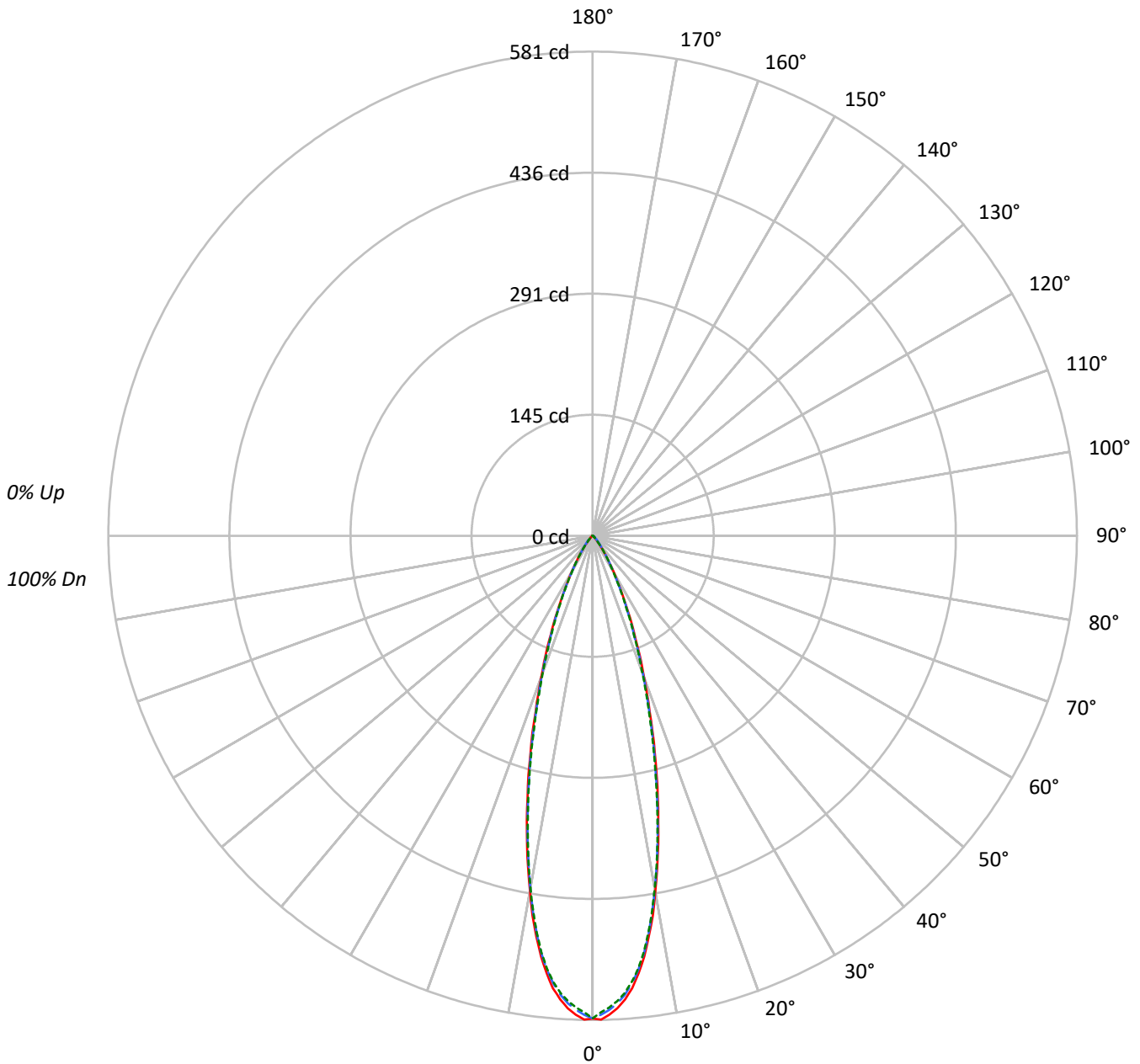
Lumens per Lamp: N/A  
Luminaire Lumens: 197.4 lumens  
Efficiency: N/A  
Efficacy: 54.8 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.6  
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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	114	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	95	95	95	95
2	110	106	103	100	108	104	101	99	101	99	97	98	96	94	96	94	93	91	91	91	91
3	106	101	96	93	104	99	95	92	97	94	91	94	92	90	92	90	88	87	87	87	87
4	102	96	91	88	100	95	90	87	93	89	86	91	88	85	89	86	84	83	83	83	83
5	98	91	87	83	97	90	86	83	89	85	82	87	84	81	86	83	81	79	79	79	79
6	94	87	82	79	93	87	82	79	85	81	78	84	80	78	83	80	77	76	76	76	76
7	91	84	79	75	90	83	78	75	82	78	75	81	77	74	80	77	74	73	73	73	73
8	88	80	75	72	87	80	75	72	79	75	72	78	74	71	77	74	71	70	70	70	70
9	85	77	72	69	84	77	72	69	76	72	69	75	71	69	74	71	69	67	67	67	67
10	82	74	70	67	81	74	70	67	73	69	66	73	69	66	72	69	66	65	65	65	65

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

	0°	45°	90°
0°	179553	179553	179553
5°	169627	167916	167356
10°	136396	135357	135200
15°	95415	93778	93393
20°	59513	58029	57369
25°	34444	33418	32974
30°	18328	17791	17433
35°	8780	9083	8893
40°	3683	5018	3764
45°	1885	3113	1973
50°	1206	1833	1350
55°	811	1243	973
60°	496	806	620
65°	220	587	220
70°	0	272	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.1	24.4
10°-20°	80.3	40.7
20°-30°	46.2	23.4
30°-40°	16.1	8.1
40°-50°	4.6	2.3
50°-60°	1.8	0.9
60°-70°	0.5	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°	174.5	88.4
0°-40°	190.6	96.5
0°-60°	196.9	99.7
0°-90°	197.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	197.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	579	579	579	579	579	
5°	545	542	540	541	538	48
15°	297	296	292	292	291	81
25°	101	99	98	97	96	47
35°	23	24	24	24	24	16
45°	4	5	7	5	4	4
55°	2	2	2	2	2	1
65°	0	0	1	0	0	0
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°	579.2	579.2	579.2	579.2	579.2
1°	580.7	577.9	574.9	574.9	571.9
2°	575.1	572.6	569.3	569.6	566.3
3°	567.8	565.3	562.0	562.5	559.5
4°	557.7	554.4	552.2	552.9	550.2
5°	545.1	541.8	539.6	540.6	537.8
6°	527.9	525.7	523.7	524.9	522.4
7°	508.8	506.2	504.7	505.7	503.7
8°	485.3	483.5	481.8	482.8	480.8
9°	461.3	458.5	456.8	457.5	456.0
10°	433.3	432.0	430.0	430.8	429.5
11°	406.3	406.3	402.5	401.3	402.0
12°	378.5	378.3	374.8	373.2	373.7
13°	350.5	350.3	346.7	345.5	345.7
14°	322.8	323.0	319.2	318.2	318.0
15°	297.3	296.0	292.2	291.5	291.0
16°	270.5	270.3	266.5	265.5	265.0
17°	246.6	245.3	241.5	240.5	239.7
18°	221.6	221.8	218.0	217.3	216.0
19°	200.4	199.9	196.3	195.6	194.3
20°	180.4	178.2	175.9	175.1	173.9
22.5°	136.0	134.8	131.7	131.0	130.7
25°	100.7	99.4	97.7	97.2	96.4
26°	88.1	88.3	86.1	85.6	85.0
27°	78.0	77.5	75.5	75.2	74.4
28°	67.1	67.6	65.4	65.1	64.6
29°	58.5	58.5	57.3	56.5	56.0
30°	51.2	51.0	49.7	49.2	48.7
32.5°	35.3	35.1	34.6	34.3	33.8
35°	23.2	24.2	24.0	24.0	23.5
37.5°	14.4	16.4	17.2	16.9	15.4
40°	9.1	10.6	12.4	11.4	9.3
42.5°	6.1	7.3	9.1	7.6	6.1
45°	4.3	5.0	7.1	5.0	4.5
47.5°	3.3	3.8	5.3	3.8	3.3
50°	2.5	3.0	3.8	3.0	2.8
52.5°	2.0	2.3	3.0	2.3	2.0
55°	1.5	1.8	2.3	1.8	1.8
57.5°	1.3	1.5	1.8	1.5	1.3
60°	0.8	1.0	1.3	1.0	1.0
62.5°	0.5	0.8	1.0	0.8	0.5
65°	0.3	0.5	0.8	0.5	0.3
67.5°	0.0	0.3	0.3	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	0.3	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)