

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: P402016

Luminaire Tested: **LA1MR012D010 EA1M12309035SC1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P402016  
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 EA1M12309035SC1MW  
Description: 1 INCH 30° OPTIC WITH SPECULAR CLEAR BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

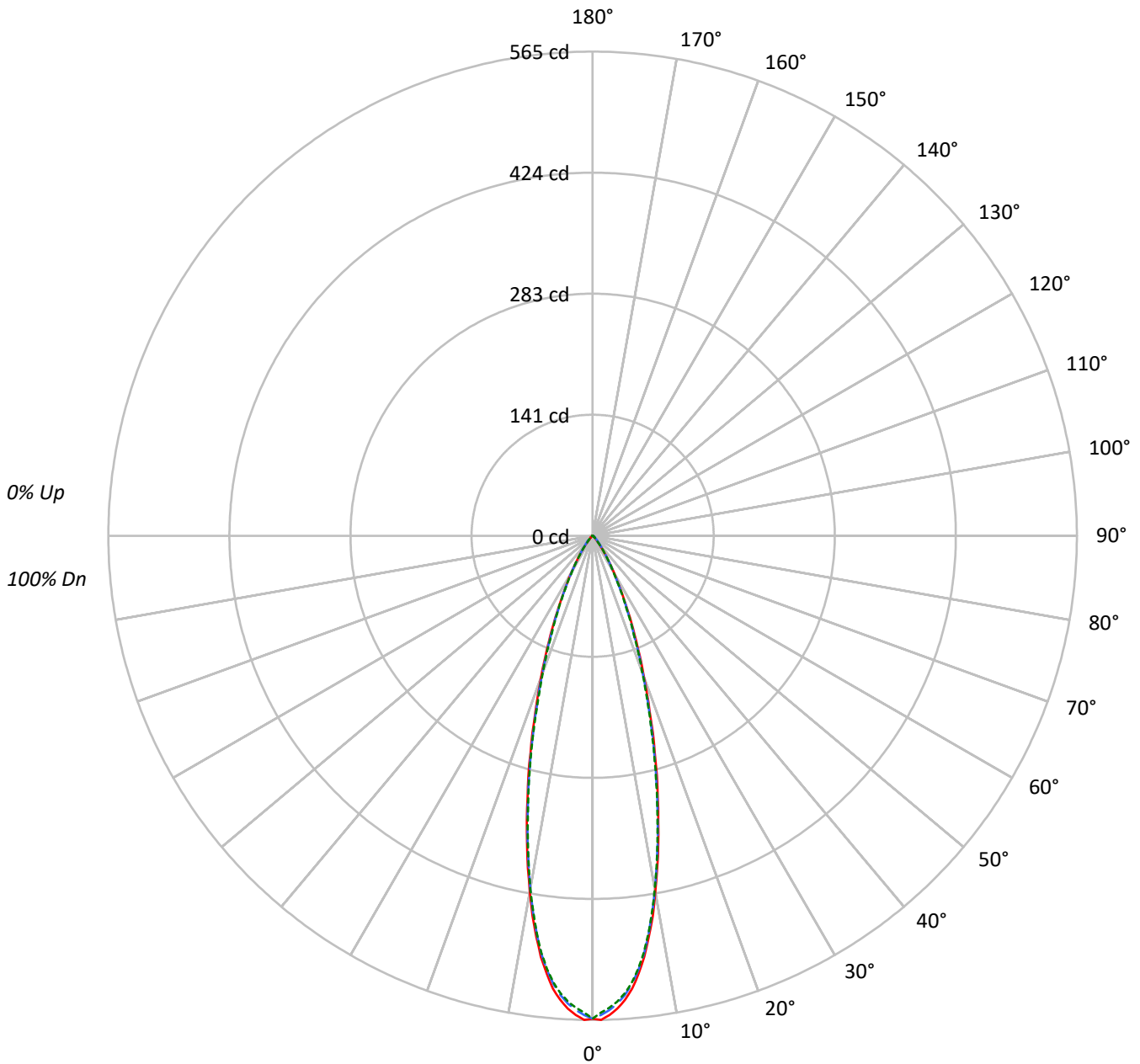
Lumens per Lamp: N/A  
Luminaire Lumens: 192.1 lumens  
Efficiency: N/A  
Efficacy: 53.4 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 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									
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°	174717	174717	174717
5°	165084	163404	162875
10°	132744	131737	131580
15°	92847	91275	90889
20°	57930	56478	55819
25°	33521	32495	32084
30°	17862	17325	16967
35°	8553	8818	8628
40°	3561	4856	3683
45°	1841	3025	1929
50°	1206	1784	1302
55°	811	1189	919
60°	434	744	620
65°	147	513	147
70°	0	181	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.8	24.4
10°-20°	78.1	40.7
20°-30°	44.9	23.4
30°-40°	15.6	8.1
40°-50°	4.4	2.3
50°-60°	1.7	0.9
60°-70°	0.4	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°	169.9	88.4
0°-40°	185.5	96.6
0°-60°	191.6	99.8
0°-90°	192.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	192.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	564	564	564	564	564	
5°	530	527	525	526	523	47
15°	289	288	284	284	283	79
25°	98	97	95	95	94	46
35°	23	24	23	23	23	15
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°	563.6	563.6	563.6	563.6	563.6
1°	565.1	562.4	559.5	559.5	556.5
2°	559.7	557.3	554.1	554.3	551.1
3°	552.6	550.1	546.9	547.4	544.5
4°	542.8	539.6	537.4	538.1	535.4
5°	530.5	527.3	525.1	526.1	523.4
6°	513.8	511.6	509.6	510.8	508.4
7°	495.1	492.7	491.2	492.2	490.2
8°	472.3	470.6	468.8	469.8	467.9
9°	448.9	446.2	444.5	445.3	443.8
10°	421.7	420.5	418.5	419.2	418.0
11°	395.4	395.4	391.7	390.5	391.2
12°	368.4	368.1	364.7	363.2	363.7
13°	341.1	340.9	337.4	336.2	336.5
14°	314.1	314.4	310.7	309.7	309.5
15°	289.3	288.1	284.4	283.7	283.2
16°	263.3	263.0	259.3	258.4	257.9
17°	239.9	238.7	235.0	234.1	233.3
18°	215.6	215.9	212.2	211.5	210.2
19°	195.0	194.5	191.1	190.3	189.1
20°	175.6	173.4	171.2	170.4	169.2
22.5°	132.4	131.1	128.2	127.5	127.2
25°	98.0	96.8	95.0	94.6	93.8
26°	85.7	86.0	83.7	83.3	82.8
27°	75.9	75.4	73.4	73.2	72.5
28°	65.3	65.8	63.6	63.4	62.9
29°	57.0	57.0	55.8	55.0	54.5
30°	49.9	49.6	48.4	47.9	47.4
32.5°	34.4	34.1	33.6	33.4	32.9
35°	22.6	23.6	23.3	23.3	22.8
37.5°	14.0	16.0	16.7	16.5	15.0
40°	8.8	10.3	12.0	11.1	9.1
42.5°	5.9	7.1	8.8	7.4	5.9
45°	4.2	4.9	6.9	4.9	4.4
47.5°	3.2	3.7	5.2	3.7	3.2
50°	2.5	2.9	3.7	2.9	2.7
52.5°	2.0	2.2	2.9	2.2	2.0
55°	1.5	1.7	2.2	1.7	1.7
57.5°	1.2	1.5	1.7	1.5	1.2
60°	0.7	1.0	1.2	1.0	1.0
62.5°	0.5	0.7	1.0	0.7	0.5
65°	0.2	0.5	0.7	0.5	0.2
67.5°	0.0	0.2	0.2	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	0.2	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)