

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: P402020

Luminaire Tested: **LA1MR012D010 EA1M12309040SC1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P402020  
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 EA1M12309040SC1MW  
Description: 1 INCH 30° OPTIC WITH SPECULAR CLEAR BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

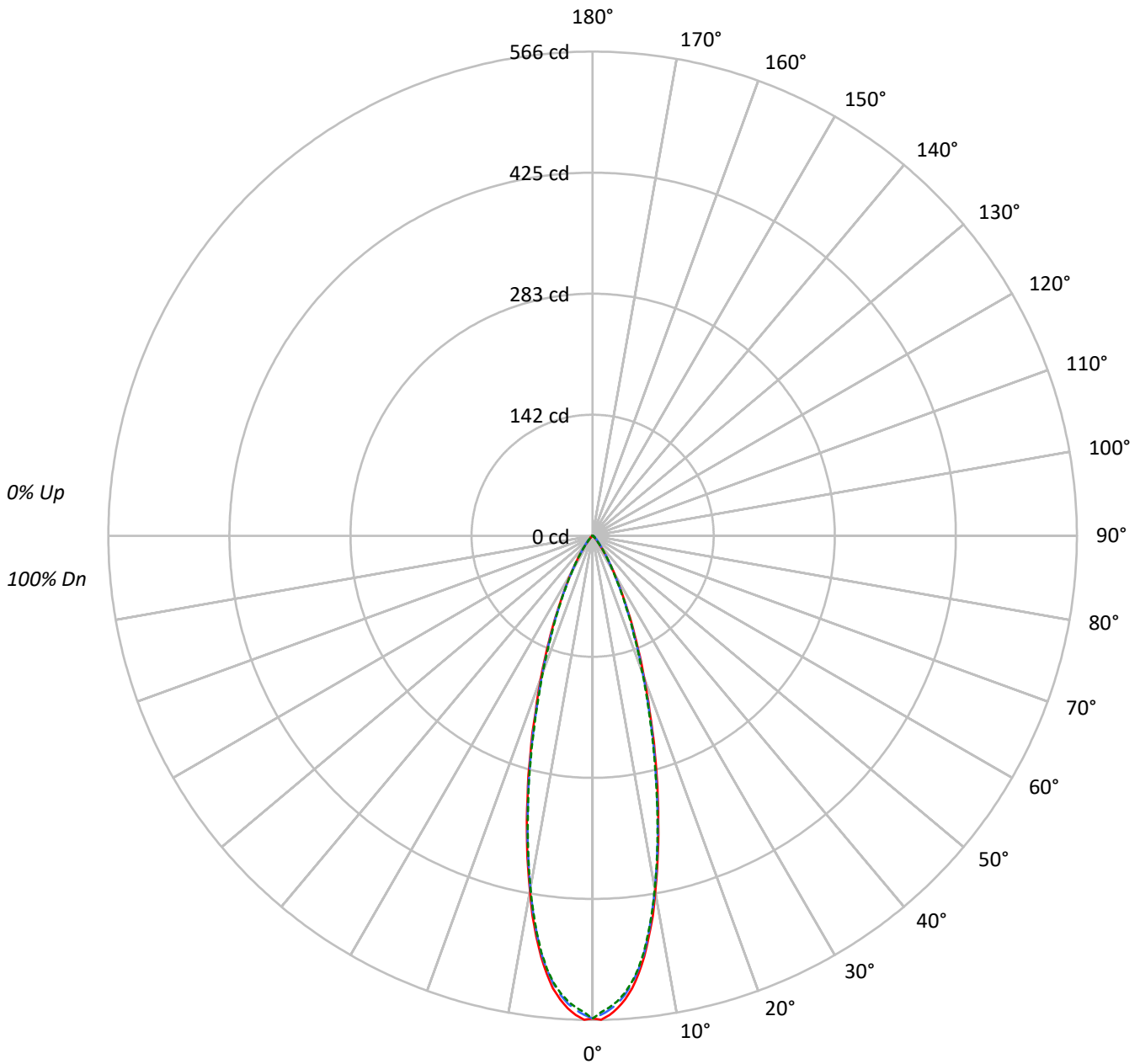
Lumens per Lamp: N/A  
Luminaire Lumens: 192.4 lumens  
Efficiency: N/A  
Efficacy: 53.4 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

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°	174965	174965	174965
5°	165302	163622	163093
10°	132902	131895	131769
15°	92976	91403	90986
20°	57996	56544	55885
25°	33555	32563	32118
30°	17862	17325	17003
35°	8553	8856	8666
40°	3602	4897	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°	46.9	24.4
10°-20°	78.2	40.7
20°-30°	45.0	23.4
30°-40°	15.7	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°	170.1	88.4
0°-40°	185.8	96.6
0°-60°	191.9	99.8
0°-90°	192.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	192.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	564	564	564	564	564	
5°	531	528	526	527	524	47
15°	290	288	285	284	284	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°	564.4	564.4	564.4	564.4	564.4
1°	565.9	563.2	560.2	560.2	557.3
2°	560.5	558.0	554.8	555.0	551.8
3°	553.3	550.9	547.7	548.2	545.2
4°	543.5	540.3	538.1	538.8	536.1
5°	531.2	528.0	525.8	526.8	524.1
6°	514.5	512.3	510.3	511.5	509.1
7°	495.8	493.3	491.8	492.8	490.9
8°	472.9	471.2	469.5	470.4	468.5
9°	449.5	446.8	445.1	445.9	444.4
10°	422.2	421.0	419.0	419.8	418.6
11°	395.9	395.9	392.2	391.0	391.8
12°	368.9	368.6	365.2	363.7	364.2
13°	341.6	341.3	337.9	336.7	336.9
14°	314.5	314.8	311.1	310.1	309.9
15°	289.7	288.5	284.8	284.0	283.5
16°	263.6	263.4	259.7	258.7	258.2
17°	240.3	239.0	235.3	234.4	233.6
18°	215.9	216.2	212.5	211.7	210.5
19°	195.3	194.8	191.3	190.6	189.4
20°	175.8	173.6	171.4	170.7	169.4
22.5°	132.6	131.3	128.4	127.6	127.4
25°	98.1	96.9	95.2	94.7	93.9
26°	85.8	86.1	83.9	83.4	82.9
27°	76.0	75.5	73.5	73.3	72.5
28°	65.4	65.9	63.7	63.4	63.0
29°	57.1	57.1	55.8	55.1	54.6
30°	49.9	49.7	48.4	48.0	47.5
32.5°	34.4	34.2	33.7	33.4	33.0
35°	22.6	23.6	23.4	23.4	22.9
37.5°	14.0	16.0	16.7	16.5	15.0
40°	8.9	10.3	12.1	11.1	9.1
42.5°	5.9	7.1	8.9	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	3.0	3.7	3.0	2.7
52.5°	2.0	2.2	3.0	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)