

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: P401959

Luminaire Tested: **LA1MR102D010 EA1M102309027SB1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P401959  
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: LA1MR102D010 EA1M102309027SB1MW  
Description: 1 INCH 30° OPTIC WITH SPECULAR BLACK BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

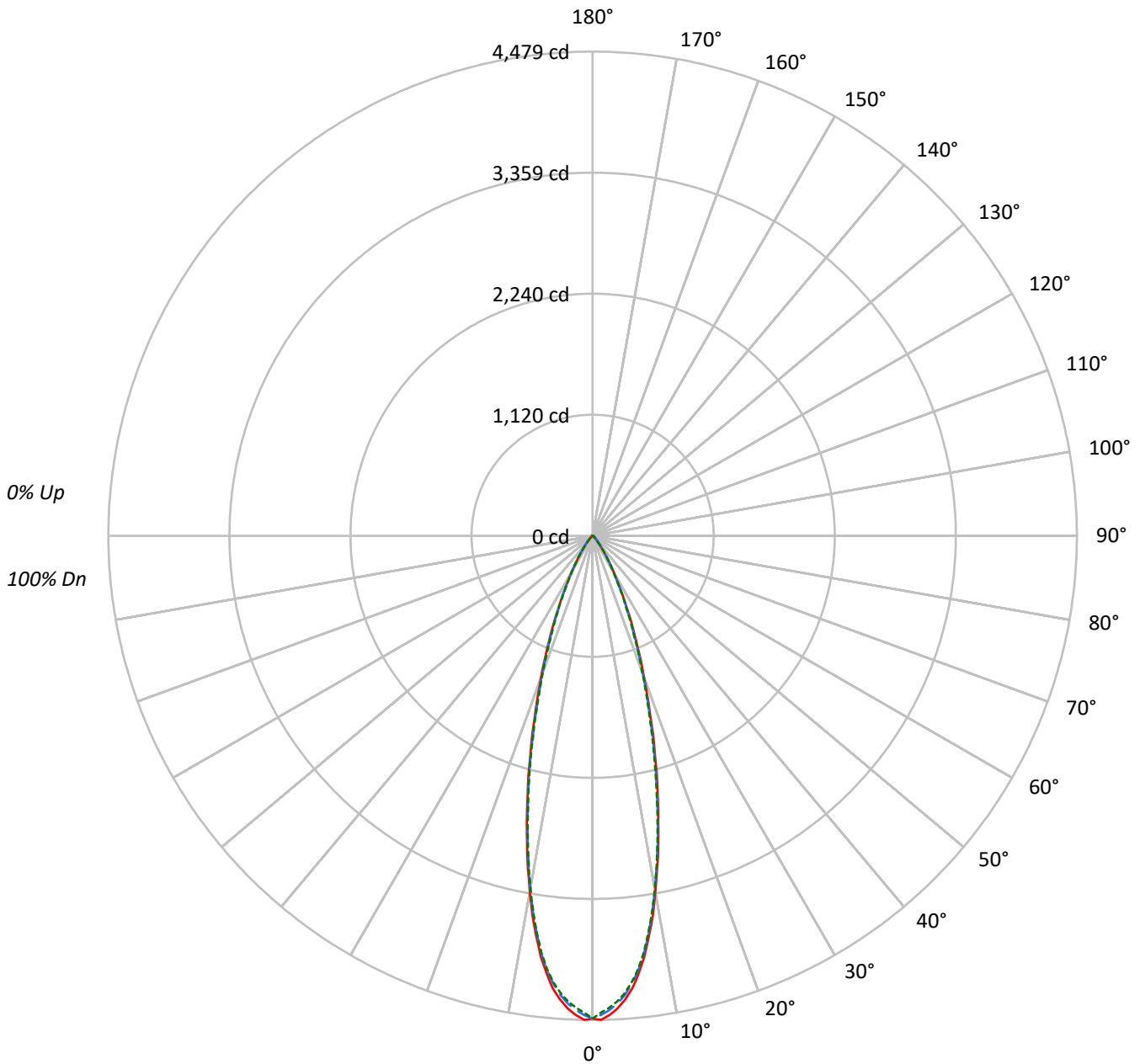
Lumens per Lamp: N/A  
Luminaire Lumens: 1522.6 lumens  
Efficiency: N/A  
Efficacy: 64.8 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.5  
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				
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	76	72	87	80	75	72	79	75	72	78	74	72	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°	1384871	1384871	1384871
5°	1308381	1295062	1290830
10°	1052071	1044107	1042879
15°	735910	723425	720312
20°	459151	447571	442458
25°	265670	257666	254348
30°	141430	137277	134485
35°	67779	69974	68498
40°	28368	38606	29137
45°	14511	23893	15344
50°	9404	14082	10321
55°	6324	9458	7350
60°	3596	6014	4836
65°	1394	4254	1394
70°	0	1722	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	371.0	24.4
10°-20°	619.2	40.7
20°-30°	356.2	23.4
30°-40°	123.9	8.1
40°-50°	35.1	2.3
50°-60°	13.5	0.9
60°-70°	3.6	0.2
70°-80°	0.1	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°	1346.4	88.4
0°-40°	1470.3	96.6
0°-60°	1518.9	99.8
0°-90°	1522.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1522.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4467	4467	4467	4467	4467	
5°	4204	4179	4162	4170	4148	373
15°	2293	2283	2254	2248	2244	626
25°	777	767	753	749	744	364
35°	179	187	185	185	181	121
45°	33	39	54	39	35	29
55°	12	14	18	14	14	11
65°	2	4	6	4	2	2
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°	4467.3	4467.3	4467.3	4467.3	4467.3
1°	4479.0	4457.6	4434.2	4434.2	4410.9
2°	4436.2	4416.7	4391.4	4393.3	4368.0
3°	4379.7	4360.3	4334.9	4338.8	4315.5
4°	4301.9	4276.6	4259.0	4264.9	4243.5
5°	4204.5	4179.2	4161.7	4169.5	4148.1
6°	4072.2	4054.6	4039.1	4048.8	4029.3
7°	3924.2	3904.8	3893.1	3900.9	3885.3
8°	3743.2	3729.6	3715.9	3723.7	3708.2
9°	3558.3	3536.9	3523.2	3529.1	3517.4
10°	3342.2	3332.5	3316.9	3322.7	3313.0
11°	3133.9	3133.9	3104.7	3095.0	3100.8
12°	2919.8	2917.9	2890.6	2878.9	2882.8
13°	2703.7	2701.8	2674.5	2664.8	2666.8
14°	2489.6	2491.6	2462.4	2454.6	2452.6
15°	2293.0	2283.3	2254.1	2248.3	2244.4
16°	2086.7	2084.7	2055.5	2047.8	2043.9
17°	1901.8	1892.0	1862.8	1855.1	1849.2
18°	1709.1	1711.0	1681.8	1676.0	1666.2
19°	1545.6	1541.7	1514.4	1508.6	1498.8
20°	1391.8	1374.3	1356.7	1350.9	1341.2
22.5°	1049.2	1039.5	1016.1	1010.3	1008.3
25°	776.7	766.9	753.3	749.4	743.6
26°	679.3	681.3	663.8	659.9	656.0
27°	601.5	597.6	582.0	580.1	574.2
28°	517.8	521.7	504.2	502.2	498.3
29°	451.6	451.6	441.9	436.0	432.1
30°	395.1	393.2	383.5	379.6	375.7
32.5°	272.5	270.6	266.7	264.7	260.8
35°	179.1	186.9	184.9	184.9	181.0
37.5°	111.0	126.5	132.4	130.4	118.7
40°	70.1	81.8	95.4	87.6	72.0
42.5°	46.7	56.4	70.1	58.4	46.7
45°	33.1	38.9	54.5	38.9	35.0
47.5°	25.3	29.2	40.9	29.2	25.3
50°	19.5	23.4	29.2	23.4	21.4
52.5°	15.6	17.5	23.4	17.5	15.6
55°	11.7	13.6	17.5	13.6	13.6
57.5°	9.7	11.7	13.6	11.7	9.7
60°	5.8	7.8	9.7	7.8	7.8
62.5°	3.9	5.8	7.8	5.8	3.9
65°	1.9	3.9	5.8	3.9	1.9
67.5°	0.0	1.9	1.9	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	1.9	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)