

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: P401971

Luminaire Tested: **LA1MR102D010 EA1M102309040SB1MW**

Issue Date: 6/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P401971  
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 EA1M102309040SB1MW  
Description: 1 INCH 30° OPTIC WITH SPECULAR BLACK BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

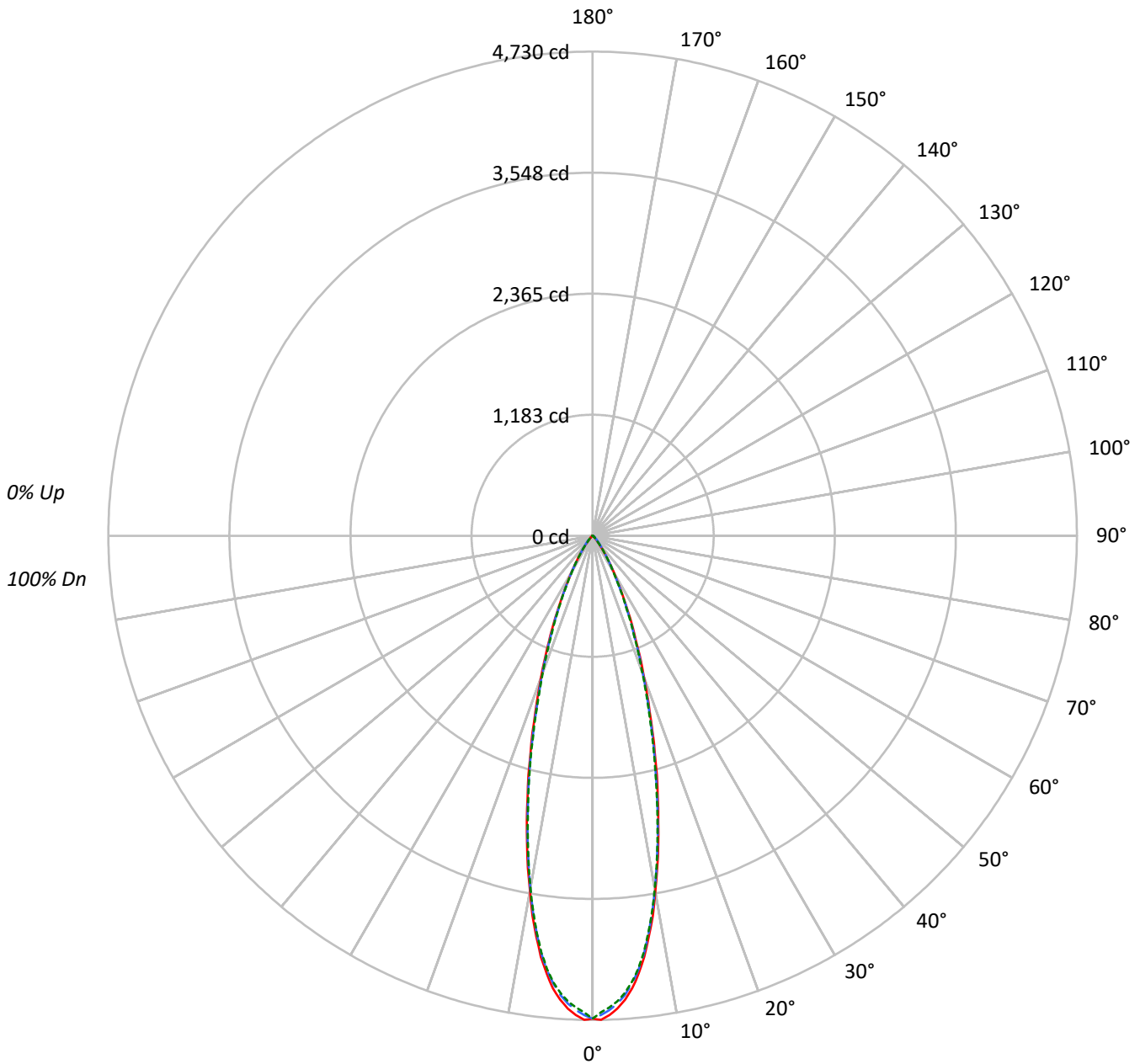
Lumens per Lamp: N/A  
Luminaire Lumens: 1607.8 lumens  
Efficiency: N/A  
Efficacy: 68.4 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	1462371	1462371	1462371
5°	1381603	1367538	1363056
10°	1110936	1102531	1101240
15°	777086	763895	760590
20°	484850	472643	467200
25°	280514	272100	268577
30°	149376	144938	142002
35°	71563	73910	72358
40°	29946	40751	30796
45°	15300	25252	16221
50°	9935	14854	10899
55°	6648	9999	7783
60°	3844	6386	5084
65°	1540	4548	1540
70°	0	1903	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	391.7	24.4
10°-20°	653.8	40.7
20°-30°	376.1	23.4
30°-40°	130.9	8.1
40°-50°	37.1	2.3
50°-60°	14.2	0.9
60°-70°	3.9	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°	1421.7	88.4
0°-40°	1552.6	96.6
0°-60°	1603.9	99.8
0°-90°	1607.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1607.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4717	4717	4717	4717	4717	
5°	4440	4413	4395	4403	4380	394
15°	2421	2411	2380	2374	2370	661
25°	820	810	796	791	785	385
35°	189	197	195	195	191	128
45°	35	41	58	41	37	30
55°	12	14	18	14	14	12
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°	4717.3	4717.3	4717.3	4717.3	4717.3
1°	4729.6	4707.0	4682.3	4682.3	4657.7
2°	4684.4	4663.8	4637.1	4639.2	4612.5
3°	4624.8	4604.2	4577.5	4581.6	4557.0
4°	4542.6	4515.8	4497.4	4503.5	4480.9
5°	4439.8	4413.1	4394.6	4402.8	4380.2
6°	4300.0	4281.5	4265.1	4275.4	4254.8
7°	4143.8	4123.3	4110.9	4119.1	4102.7
8°	3952.7	3938.3	3923.9	3932.1	3915.7
9°	3757.4	3734.8	3720.4	3726.6	3714.2
10°	3529.2	3519.0	3502.5	3508.7	3498.4
11°	3309.3	3309.3	3278.5	3268.2	3274.4
12°	3083.2	3081.1	3052.4	3040.0	3044.1
13°	2855.0	2853.0	2824.2	2813.9	2816.0
14°	2628.9	2631.0	2600.2	2591.9	2589.9
15°	2421.3	2411.1	2380.2	2374.1	2369.9
16°	2203.5	2201.4	2170.6	2162.3	2158.2
17°	2008.2	1997.9	1967.1	1958.9	1952.7
18°	1804.7	1806.8	1775.9	1769.8	1759.5
19°	1632.0	1627.9	1599.1	1593.0	1582.7
20°	1469.7	1451.2	1432.7	1426.5	1416.2
22.5°	1107.9	1097.6	1073.0	1066.8	1064.7
25°	820.1	809.9	795.5	791.4	785.2
26°	717.4	719.4	700.9	696.8	692.7
27°	635.1	631.0	614.6	612.5	606.4
28°	546.8	550.9	532.4	530.3	526.2
29°	476.9	476.9	466.6	460.4	456.3
30°	417.3	415.2	404.9	400.8	396.7
32.5°	287.8	285.7	281.6	279.5	275.4
35°	189.1	197.3	195.3	195.3	191.2
37.5°	117.2	133.6	139.8	137.7	125.4
40°	74.0	86.3	100.7	92.5	76.1
42.5°	49.3	59.6	74.0	61.7	49.3
45°	34.9	41.1	57.6	41.1	37.0
47.5°	26.7	30.8	43.2	30.8	26.7
50°	20.6	24.7	30.8	24.7	22.6
52.5°	16.4	18.5	24.7	18.5	16.4
55°	12.3	14.4	18.5	14.4	14.4
57.5°	10.3	12.3	14.4	12.3	10.3
60°	6.2	8.2	10.3	8.2	8.2
62.5°	4.1	6.2	8.2	6.2	4.1
65°	2.1	4.1	6.2	4.1	2.1
67.5°	0.0	2.1	2.1	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	2.1	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)