

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: P402051

Luminaire Tested: **LA1MR152D010 EA1M152309040SB1MW**

Issue Date: 6/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P402051  
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: LA1MR152D010 EA1M152309040SB1MW  
Description: 1 INCH 30° OPTIC WITH SPECULAR BLACK BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

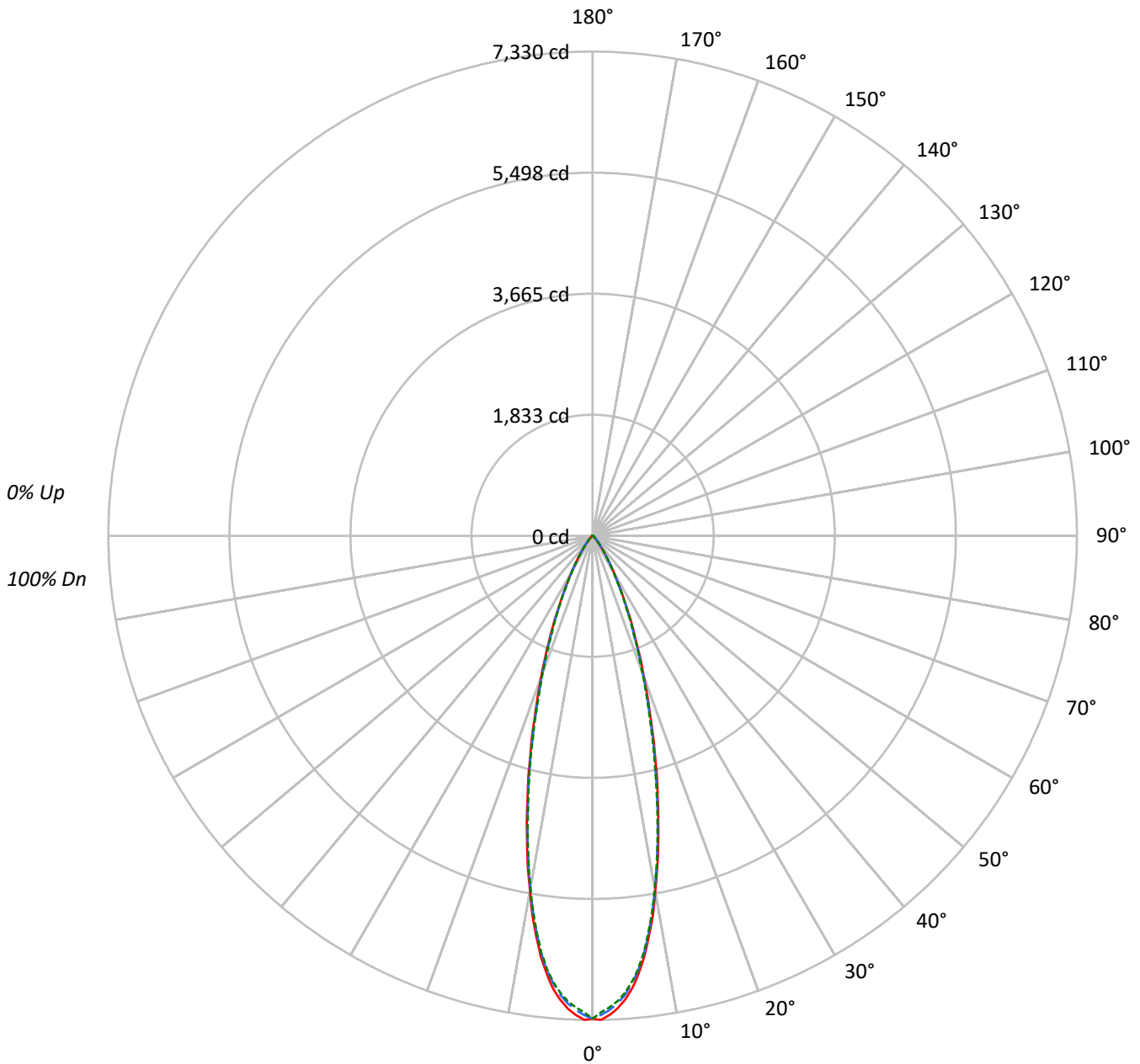
Lumens per Lamp: N/A  
Luminaire Lumens: 2491.6 lumens  
Efficiency: N/A  
Efficacy: 72.9 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 34.2  
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°	2266237	2266237	2266237
5°	2141052	2119269	2112330
10°	1721617	1708585	1706570
15°	1204253	1183810	1178707
20°	751340	732437	724025
25°	434744	421644	416205
30°	231456	224619	220073
35°	110921	114517	112095
40°	46417	63170	47712
45°	23762	39106	25121
50°	15385	23053	16880
55°	10323	15512	12053
60°	5952	9858	7874
65°	2347	7042	2347
70°	0	2900	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	607.1	24.4
10°-20°	1013.2	40.7
20°-30°	582.9	23.4
30°-40°	202.8	8.1
40°-50°	57.5	2.3
50°-60°	22.0	0.9
60°-70°	6.0	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°	2203.2	88.4
0°-40°	2406.0	96.6
0°-60°	2485.5	99.8
0°-90°	2491.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2491.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7310	7310	7310	7310	7310	
5°	6880	6839	6810	6823	6788	611
15°	3752	3736	3689	3679	3673	1024
25°	1271	1255	1233	1226	1217	596
35°	293	306	303	303	296	198
45°	54	64	89	64	57	47
55°	19	22	29	22	22	18
65°	3	6	10	6	3	4
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°	7310.4	7310.4	7310.4	7310.4	7310.4
1°	7329.5	7294.4	7256.2	7256.2	7218.0
2°	7259.4	7227.5	7186.1	7189.3	7147.9
3°	7167.0	7135.2	7093.8	7100.1	7061.9
4°	7039.6	6998.2	6969.5	6979.1	6944.0
5°	6880.3	6838.9	6810.3	6823.0	6788.0
6°	6663.7	6635.1	6609.6	6625.5	6593.7
7°	6421.6	6389.8	6370.7	6383.4	6357.9
8°	6125.4	6103.1	6080.8	6093.6	6068.1
9°	5822.8	5787.8	5765.5	5775.0	5755.9
10°	5469.2	5453.3	5427.8	5437.4	5421.4
11°	5128.4	5128.4	5080.6	5064.7	5074.2
12°	4778.0	4774.8	4730.2	4711.1	4717.5
13°	4424.4	4421.3	4376.7	4360.7	4363.9
14°	4074.1	4077.2	4029.5	4016.7	4013.5
15°	3752.3	3736.4	3688.6	3679.1	3672.7
16°	3414.7	3411.5	3363.7	3351.0	3344.6
17°	3112.1	3096.2	3048.4	3035.6	3026.1
18°	2796.7	2799.9	2752.1	2742.6	2726.7
19°	2529.2	2522.8	2478.2	2468.6	2452.7
20°	2277.5	2248.9	2220.2	2210.6	2194.7
22.5°	1716.9	1701.0	1662.7	1653.2	1650.0
25°	1271.0	1255.0	1232.7	1226.4	1216.8
26°	1111.7	1114.9	1086.2	1079.8	1073.5
27°	984.3	977.9	952.4	949.2	939.7
28°	847.3	853.7	825.0	821.8	815.4
29°	739.0	739.0	723.1	713.5	707.1
30°	646.6	643.4	627.5	621.1	614.8
32.5°	445.9	442.8	436.4	433.2	426.8
35°	293.1	305.8	302.6	302.6	296.2
37.5°	181.6	207.0	216.6	213.4	194.3
40°	114.7	133.8	156.1	143.3	117.9
42.5°	76.4	92.4	114.7	95.6	76.4
45°	54.2	63.7	89.2	63.7	57.3
47.5°	41.4	47.8	66.9	47.8	41.4
50°	31.9	38.2	47.8	38.2	35.0
52.5°	25.5	28.7	38.2	28.7	25.5
55°	19.1	22.3	28.7	22.3	22.3
57.5°	15.9	19.1	22.3	19.1	15.9
60°	9.6	12.7	15.9	12.7	12.7
62.5°	6.4	9.6	12.7	9.6	6.4
65°	3.2	6.4	9.6	6.4	3.2
67.5°	0.0	3.2	3.2	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	3.2	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)