

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: P402291

Luminaire Tested: **LD1MR052D010 ED1M52309040SB1MW**

Issue Date: 6/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P402291  
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: LD1MR052D010 ED1M52309040SB1MW  
Description: 1 INCH 30° OPTIC WITH SPECULAR BLACK BAFFLE  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

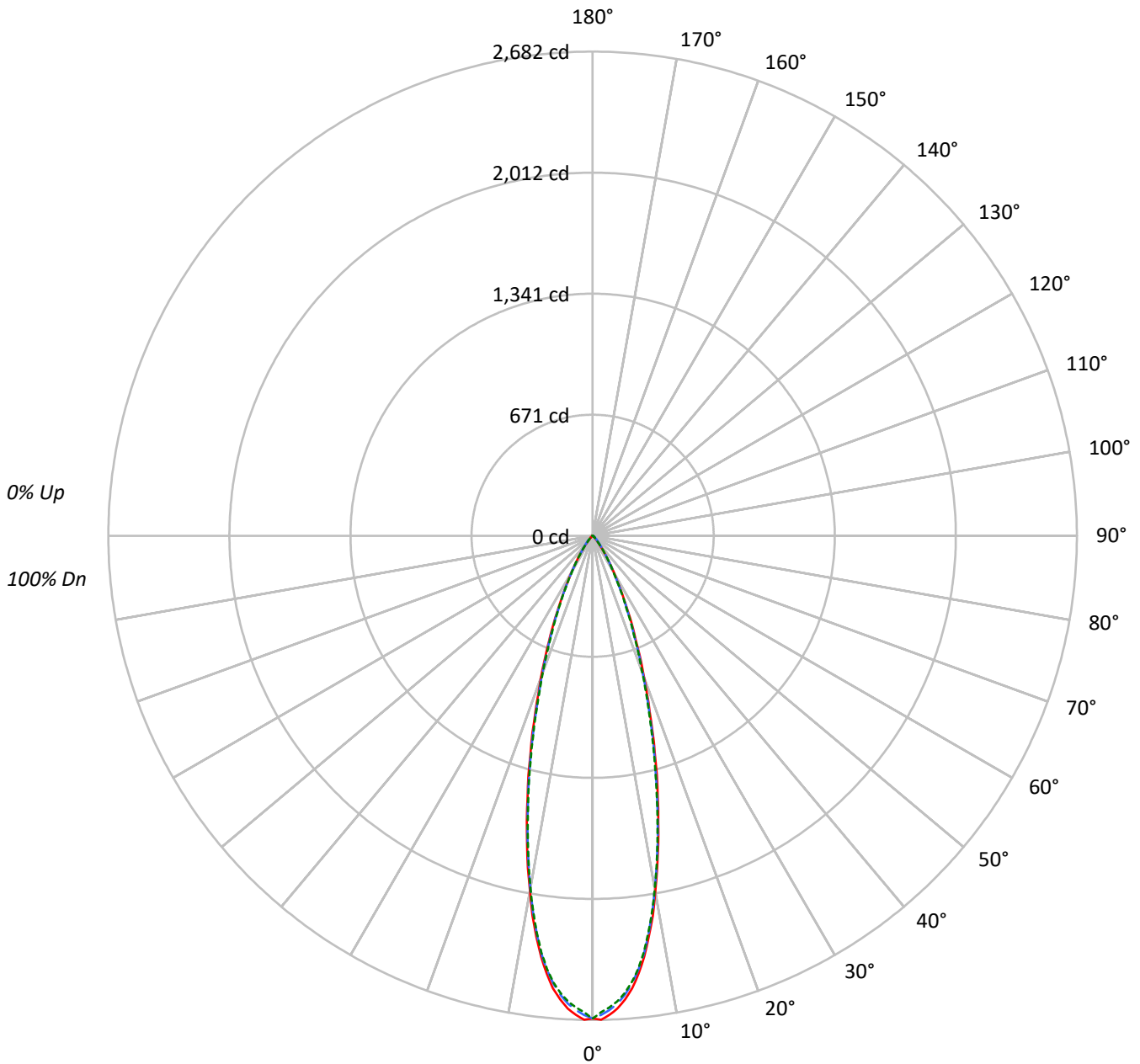
Lumens per Lamp: N/A  
Luminaire Lumens: 911.6 lumens  
Efficiency: N/A  
Efficacy: 75.3 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.5 / 0.52  
Luminous Opening: Rectangular (W 0.08' x L: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 12.1  
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

TEST NUMBER: P402291

CATALOG NUMBER: LD1MR052D010 ED1M52309040SB1MW

### Luminous Intensity Polar Plot





TEST NUMBER: P402291

CATALOG NUMBER: LD1MR052D010 ED1M52309040SB1MW

**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	75	72	87	80	75	72	79	75	72	78	74	71	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°	829100	829100	829100
5°	783286	775320	772768
10°	629851	625067	624343
15°	440583	433105	431212
20°	274870	267942	264874
25°	159053	154264	152280
30°	84693	82187	80505
35°	40569	41894	41023
40°	16996	23107	17442
45°	8680	14292	9207
50°	5643	8440	6173
55°	3783	5675	4432
60°	2170	3596	2914
65°	880	2567	880
70°	0	1088	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P402291

CATALOG NUMBER: LD1MR052D010 ED1M52309040SB1MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.1	24.4
10°-20°	370.7	40.7
20°-30°	213.3	23.4
30°-40°	74.2	8.1
40°-50°	21.0	2.3
50°-60°	8.1	0.9
60°-70°	2.2	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°	806.0	88.4
0°-40°	880.2	96.6
0°-60°	909.3	99.8
0°-90°	911.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	911.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2674	2674	2674	2674	2674	
5°	2517	2502	2492	2496	2483	224
15°	1373	1367	1350	1346	1344	375
25°	465	459	451	449	445	218
35°	107	112	111	111	108	72
45°	20	23	33	23	21	17
55°	7	8	10	8	8	7
65°	1	2	4	2	1	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P402291

CATALOG NUMBER: LD1MR052D010 ED1M52309040SB1MW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2674.5	2674.5	2674.5	2674.5	2674.5
1°	2681.5	2668.6	2654.7	2654.7	2640.7
2°	2655.8	2644.2	2629.0	2630.2	2615.0
3°	2622.0	2610.4	2595.2	2597.6	2583.6
4°	2575.4	2560.3	2549.8	2553.3	2540.4
5°	2517.1	2502.0	2491.5	2496.2	2483.3
6°	2437.9	2427.4	2418.1	2423.9	2412.3
7°	2349.3	2337.7	2330.7	2335.3	2326.0
8°	2241.0	2232.8	2224.6	2229.3	2220.0
9°	2130.2	2117.4	2109.3	2112.8	2105.8
10°	2000.9	1995.1	1985.7	1989.2	1983.4
11°	1876.2	1876.2	1858.7	1852.9	1856.4
12°	1748.0	1746.8	1730.5	1723.5	1725.9
13°	1618.7	1617.5	1601.2	1595.4	1596.5
14°	1490.5	1491.6	1474.2	1469.5	1468.3
15°	1372.8	1366.9	1349.5	1346.0	1343.6
16°	1249.2	1248.1	1230.6	1225.9	1223.6
17°	1138.5	1132.7	1115.2	1110.6	1107.1
18°	1023.2	1024.3	1006.9	1003.4	997.5
19°	925.3	923.0	906.6	903.1	897.3
20°	833.2	822.7	812.2	808.7	802.9
22.5°	628.1	622.3	608.3	604.8	603.6
25°	465.0	459.1	451.0	448.7	445.2
26°	406.7	407.9	397.4	395.1	392.7
27°	360.1	357.8	348.4	347.3	343.8
28°	310.0	312.3	301.8	300.7	298.3
29°	270.4	270.4	264.5	261.0	258.7
30°	236.6	235.4	229.6	227.2	224.9
32.5°	163.1	162.0	159.7	158.5	156.2
35°	107.2	111.9	110.7	110.7	108.4
37.5°	66.4	75.7	79.2	78.1	71.1
40°	42.0	48.9	57.1	52.4	43.1
42.5°	28.0	33.8	42.0	35.0	28.0
45°	19.8	23.3	32.6	23.3	21.0
47.5°	15.1	17.5	24.5	17.5	15.1
50°	11.7	14.0	17.5	14.0	12.8
52.5°	9.3	10.5	14.0	10.5	9.3
55°	7.0	8.2	10.5	8.2	8.2
57.5°	5.8	7.0	8.2	7.0	5.8
60°	3.5	4.7	5.8	4.7	4.7
62.5°	2.3	3.5	4.7	3.5	2.3
65°	1.2	2.3	3.5	2.3	1.2
67.5°	0.0	1.2	1.2	0.0	0.0



TEST NUMBER: P402291

CATALOG NUMBER: LD1MR052D010 ED1M52309040SB1MW

**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



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°    - - 45°-225°    - - - - 90°-270°







70°	0.0	0.0	1.2	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)