

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: P431883

Luminaire Tested: **LAMR4B412R359027DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431883  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-6)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B412R359027DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 35 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5214.9 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Spacing Criteria (0/90/45): 0.57 / 0.57 / 0.51  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

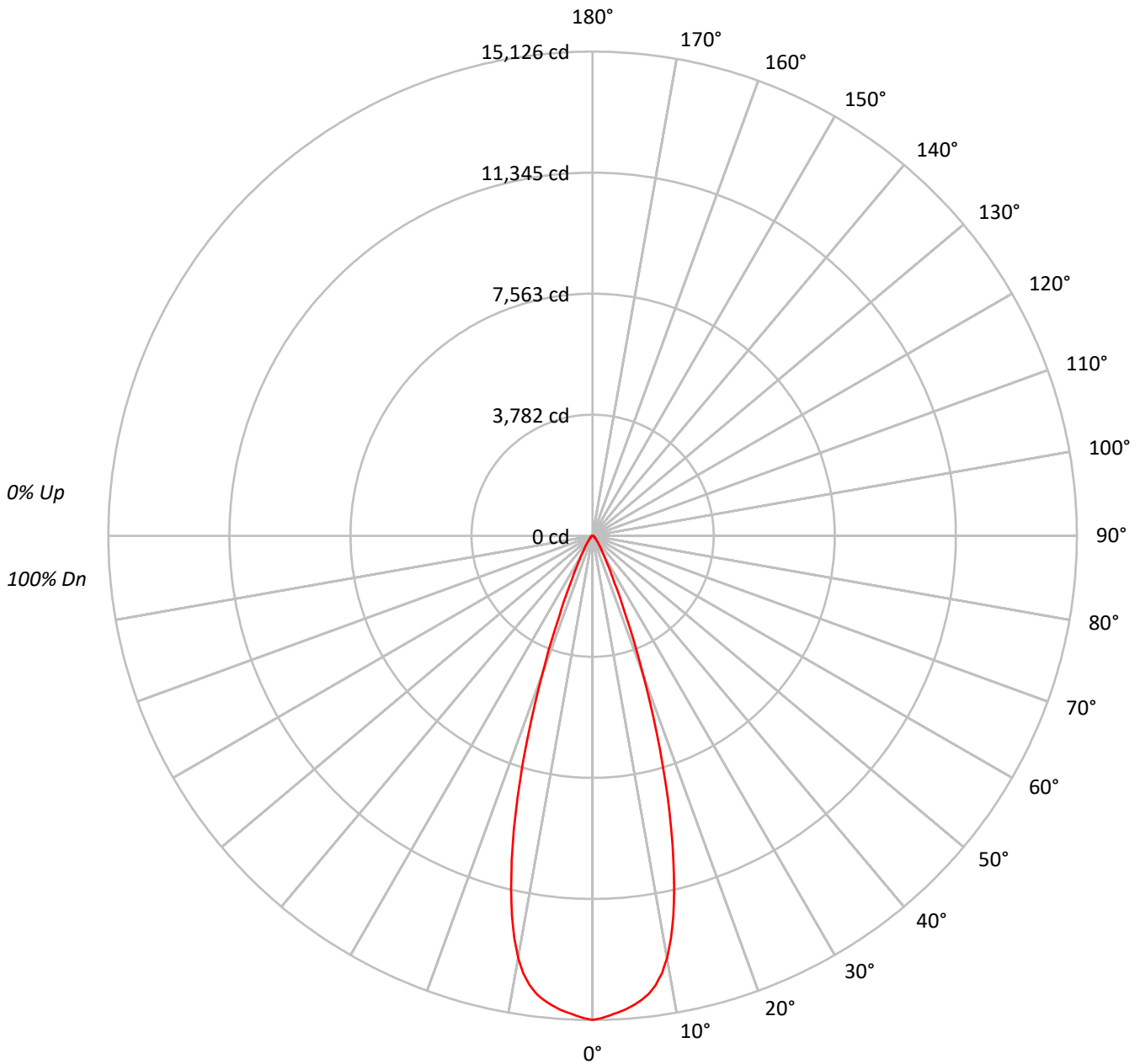
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100
1	114	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96	96	96	96
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91	91	91	91
3	106	101	97	94	104	100	96	93	97	94	92	95	92	90	93	91	89	87	87	87	87
4	102	96	92	89	101	95	91	88	93	90	87	91	88	86	90	87	85	84	84	84	84
5	99	92	88	84	97	91	87	84	90	86	83	88	85	83	87	84	82	81	81	81	81
6	96	89	84	81	94	88	84	80	87	83	80	85	82	79	84	81	79	78	78	78	78
7	92	85	81	77	91	85	80	77	84	80	77	82	79	76	81	78	76	75	75	75	75
8	90	82	78	74	88	82	77	74	81	77	74	80	76	74	79	76	73	72	72	72	72
9	87	79	75	72	86	79	75	72	78	74	71	77	74	71	77	73	71	70	70	70	70
10	84	77	72	69	83	76	72	69	76	72	69	75	71	69	74	71	69	68	68	68	68

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	7462711
5°	7290685
10°	6709268
15°	4849282
20°	2395564
25°	878799
30°	396287
35°	215746
40°	133707
45°	90567
50°	67699
55°	58062
60°	51213
65°	48449
70°	44863
75°	39650
80°	44324
85°	29437



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1367.9	26.2
10°-20°	2499.9	47.9
20°-30°	870.3	16.7
30°-40°	241.2	4.6
40°-50°	104.8	2.0
50°-60°	60.8	1.2
60°-70°	41.1	0.8
70°-80°	22.6	0.4
80°-90°	6.4	0.1
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°	4738.0	90.9
0°-40°	4979.3	95.5
0°-60°	5144.9	98.7
0°-90°	5214.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5214.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	15126	
5°	14721	###
15°	9494	2500
25°	1614	870
35°	358	241
45°	130	105
55°	68	61
65°	42	41
75°	21	23
85°	5	6
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	15125.7
1°	15073.7
2°	14995.9
3°	14918.0
4°	14829.8
5°	14720.8
6°	14585.8
7°	14419.7
8°	14165.4
9°	13838.4
10°	13392.0
11°	12821.0
12°	12130.6
13°	11320.9
14°	10433.3
15°	9493.8
16°	8492.0
17°	7485.0
18°	6472.8
19°	5496.9
20°	4562.6
22.5°	2719.9
25°	1614.3
26°	1344.4
27°	1121.2
28°	949.9
29°	809.7
30°	695.6
32.5°	493.1
35°	358.2
37.5°	269.9
40°	207.6
42.5°	160.9
45°	129.8
47.5°	109.0
50°	88.2
52.5°	77.9
55°	67.5
57.5°	57.1
60°	51.9
62.5°	46.7
65°	41.5
67.5°	36.3



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	20.8
77.5°	15.6
80°	15.6
82.5°	10.4
85°	5.2
87.5°	0.0
90°	0.0



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— 0°-180°







70°		31.1
72.5°		26.0



(END OF REPORT)