

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: P431894

Luminaire Tested: **LAMR4B412R359050DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431894  
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: LAMR4B412R359050DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 35 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5809.5 lumens  
Efficiency: N/A  
Efficacy: 107.4 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

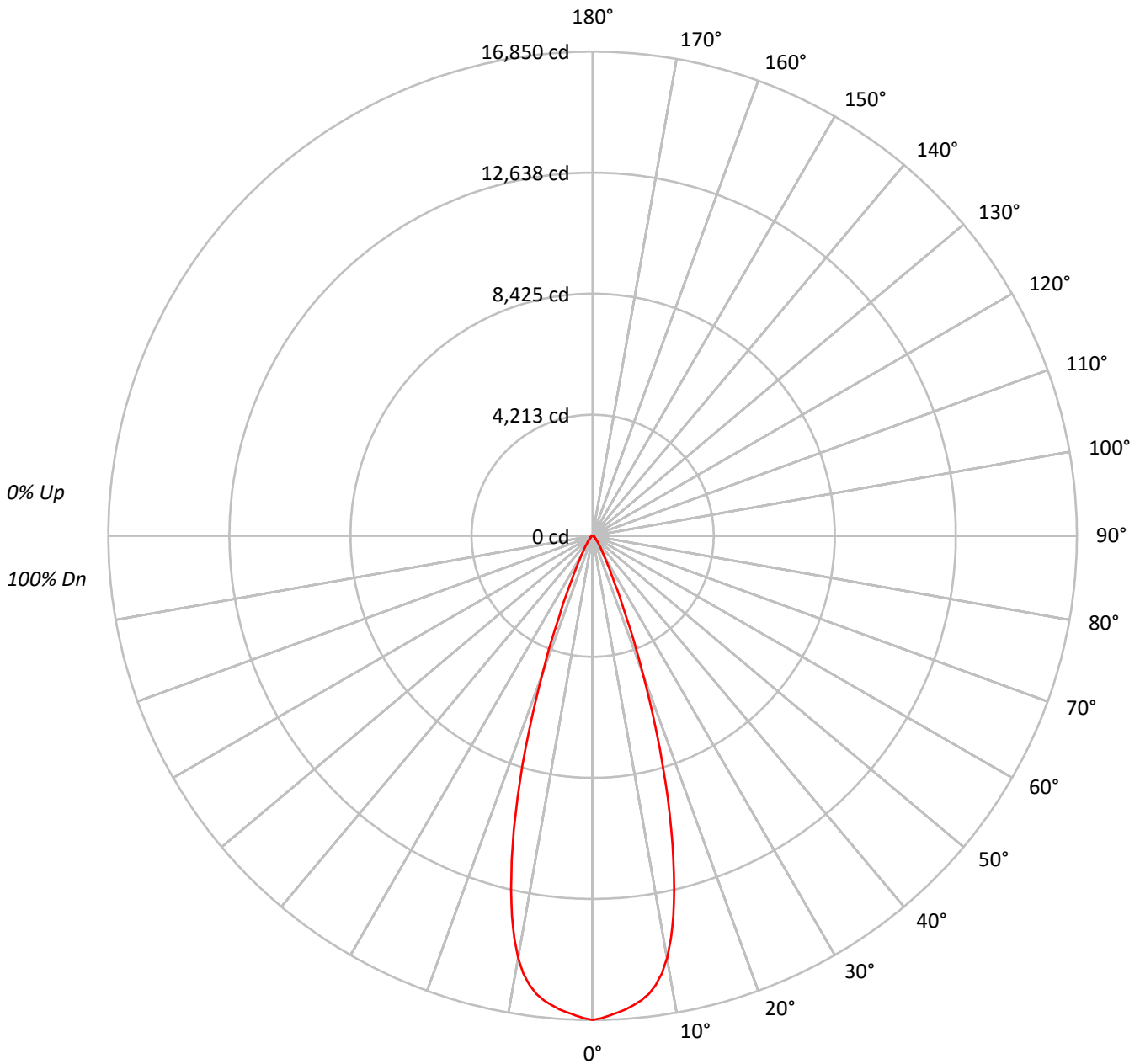
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8313643
5°	8121986
10°	7474281
15°	5402206
20°	2668744
25°	979020
30°	441465
35°	240320
40°	148971
45°	100894
50°	75451
55°	64686
60°	57035
65°	54052
70°	50056
75°	44035
80°	49154
85°	32833



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1523.8	26.2
10°-20°	2784.9	47.9
20°-30°	969.6	16.7
30°-40°	268.7	4.6
40°-50°	116.8	2.0
50°-60°	67.7	1.2
60°-70°	45.8	0.8
70°-80°	25.1	0.4
80°-90°	7.1	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°	5278.3	90.9
0°-40°	5547.0	95.5
0°-60°	5731.5	98.7
0°-90°	5809.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5809.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	16850	
5°	16399	###
15°	10576	2785
25°	1798	970
35°	399	269
45°	145	117
55°	75	68
65°	46	46
75°	23	25
85°	6	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	16850.4
1°	16792.5
2°	16705.8
3°	16619.1
4°	16520.8
5°	16399.3
6°	16249.0
7°	16063.9
8°	15780.6
9°	15416.3
10°	14919.0
11°	14282.9
12°	13513.8
13°	12611.7
14°	11622.9
15°	10576.3
16°	9460.3
17°	8338.4
18°	7210.8
19°	6123.7
20°	5082.9
22.5°	3030.1
25°	1798.4
26°	1497.7
27°	1249.0
28°	1058.2
29°	902.1
30°	774.9
32.5°	549.3
35°	399.0
37.5°	300.7
40°	231.3
42.5°	179.3
45°	144.6
47.5°	121.4
50°	98.3
52.5°	86.7
55°	75.2
57.5°	63.6
60°	57.8
62.5°	52.0
65°	46.3
67.5°	40.5



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	23.1
77.5°	17.3
80°	17.3
82.5°	11.6
85°	5.8
87.5°	0.0
90°	0.0



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— 0°-180°







70°		34.7
72.5°		28.9



(END OF REPORT)