

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: P431900

Luminaire Tested: **LAMR4B412R359730DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431900  
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: LAMR4B412R359730DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 35 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5229.9 lumens  
Efficiency: N/A  
Efficacy: 96.7 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

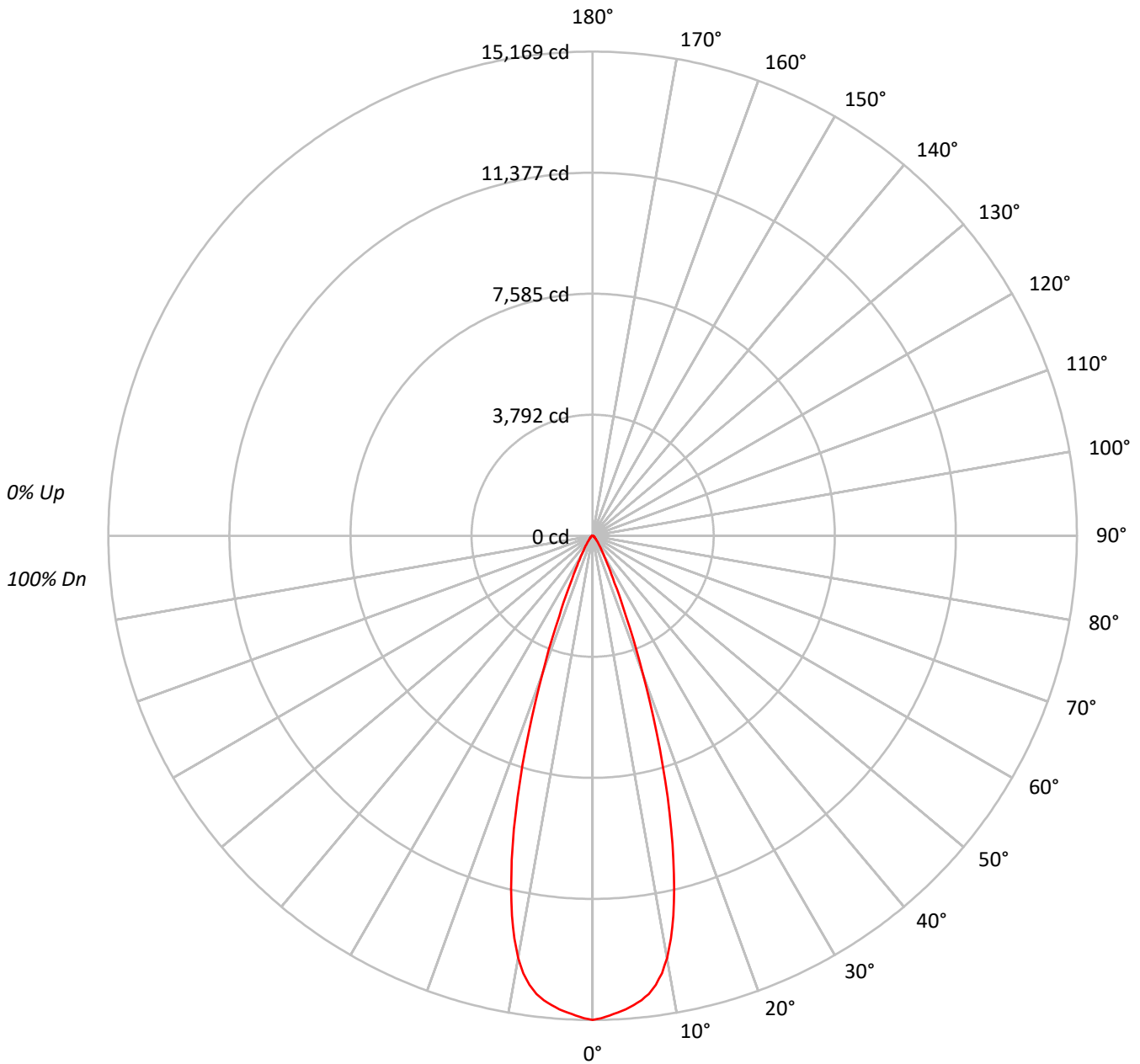
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7484272
5°	7311734
10°	6728656
15°	4863278
20°	2402494
25°	881358
30°	397427
35°	216348
40°	134094
45°	90777
50°	67929
55°	58234
60°	51410
65°	48565
70°	45007
75°	39650
80°	44324
85°	29437



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1371.8	26.2
10°-20°	2507.1	47.9
20°-30°	872.8	16.7
30°-40°	241.9	4.6
40°-50°	105.1	2.0
50°-60°	61.0	1.2
60°-70°	41.2	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°	4751.7	90.9
0°-40°	4993.6	95.5
0°-60°	5159.8	98.7
0°-90°	5229.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5229.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	15169	
5°	14763	###
15°	9521	2507
25°	1619	873
35°	359	242
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°	15169.4
1°	15117.3
2°	15039.2
3°	14961.1
4°	14872.6
5°	14763.3
6°	14628.0
7°	14461.4
8°	14206.3
9°	13878.4
10°	13430.7
11°	12858.0
12°	12165.7
13°	11353.6
14°	10463.4
15°	9521.2
16°	8516.5
17°	7506.6
18°	6491.5
19°	5512.8
20°	4575.8
22.5°	2727.8
25°	1619.0
26°	1348.3
27°	1124.4
28°	952.6
29°	812.1
30°	697.6
32.5°	494.5
35°	359.2
37.5°	270.7
40°	208.2
42.5°	161.4
45°	130.1
47.5°	109.3
50°	88.5
52.5°	78.1
55°	67.7
57.5°	57.3
60°	52.1
62.5°	46.9
65°	41.6
67.5°	36.4



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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°		31.2
72.5°		26.0



(END OF REPORT)