

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: P431890

Luminaire Tested: **LAMR4B412R359040DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431890  
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: LAMR4B412R359040DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 35 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5971.8 lumens  
Efficiency: N/A  
Efficacy: 110.4 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

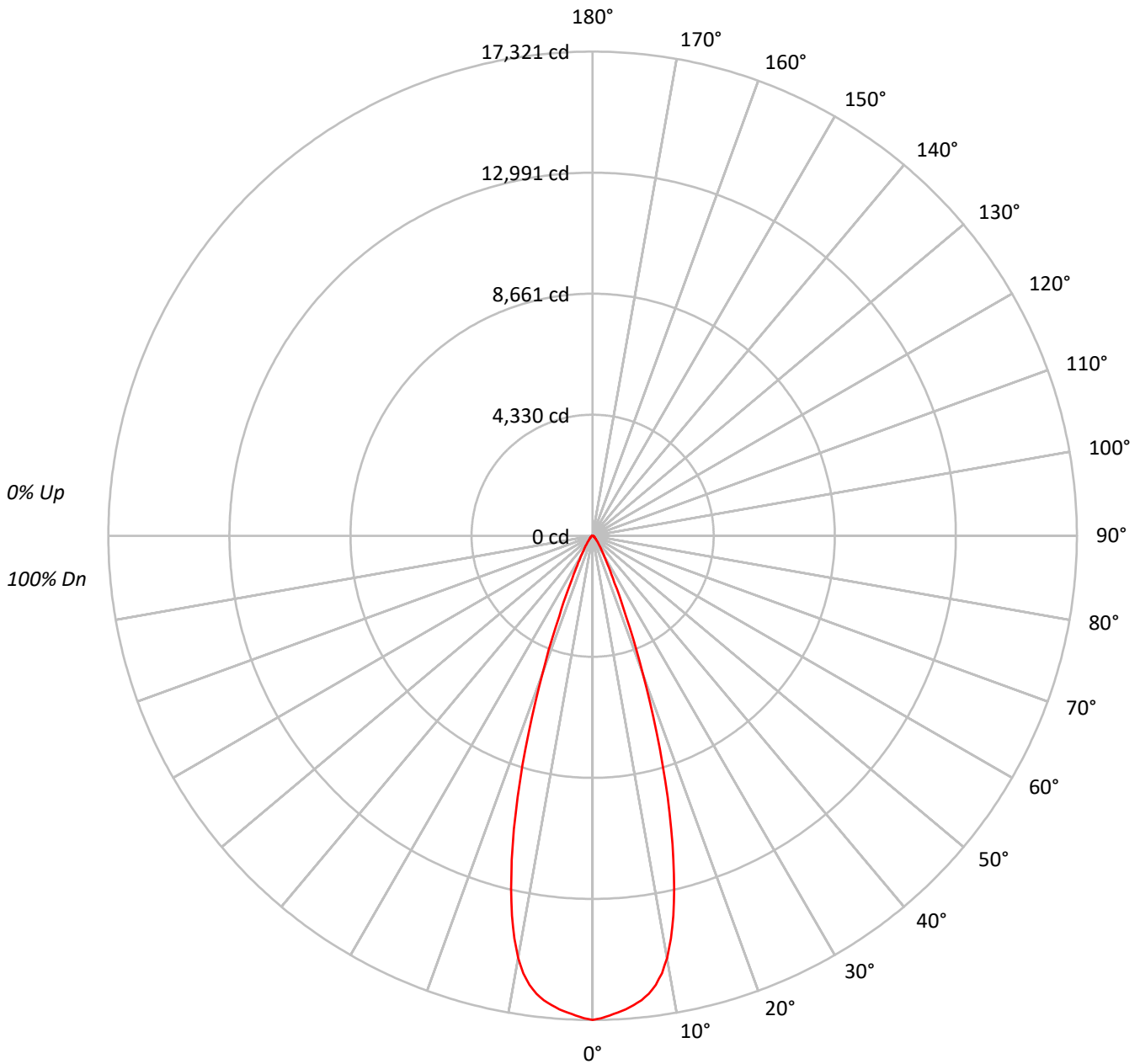
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8545827
5°	8348866
10°	7683043
15°	5553091
20°	2743248
25°	1006348
30°	453771
35°	247005
40°	153158
45°	103685
50°	77524
55°	66492
60°	58613
65°	55570
70°	51499
75°	45369
80°	50574
85°	33399



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1566.4	26.2
10°-20°	2862.7	47.9
20°-30°	996.6	16.7
30°-40°	276.2	4.6
40°-50°	120.0	2.0
50°-60°	69.6	1.2
60°-70°	47.1	0.8
70°-80°	25.9	0.4
80°-90°	7.3	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°	5425.7	90.9
0°-40°	5702.0	95.5
0°-60°	5891.6	98.7
0°-90°	5971.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5971.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	17321	
5°	16857	###
15°	10872	2863
25°	1849	997
35°	410	276
45°	149	120
55°	77	70
65°	48	47
75°	24	26
85°	6	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	17321.0
1°	17261.6
2°	17172.4
3°	17083.3
4°	16982.2
5°	16857.4
6°	16702.9
7°	16512.6
8°	16221.4
9°	15846.9
10°	15335.7
11°	14681.9
12°	13891.3
13°	12964.0
14°	11947.6
15°	10871.7
16°	9724.5
17°	8571.4
18°	7412.3
19°	6294.8
20°	5224.8
22.5°	3114.7
25°	1848.6
26°	1539.5
27°	1283.9
28°	1087.8
29°	927.3
30°	796.5
32.5°	564.7
35°	410.1
37.5°	309.1
40°	237.8
42.5°	184.3
45°	148.6
47.5°	124.8
50°	101.0
52.5°	89.2
55°	77.3
57.5°	65.4
60°	59.4
62.5°	53.5
65°	47.6
67.5°	41.6



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	23.8
77.5°	17.8
80°	17.8
82.5°	11.9
85°	5.9
87.5°	0.0
90°	0.0



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— 0°-180°







70°		35.7
72.5°		29.7



(END OF REPORT)