

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: P432031

Luminaire Tested: **LAMR4B412R659035DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P432031  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-22)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B412R659035DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 65 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5751.8 lumens  
Efficiency: N/A  
Efficacy: 106.3 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 0.98 / 0.97  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

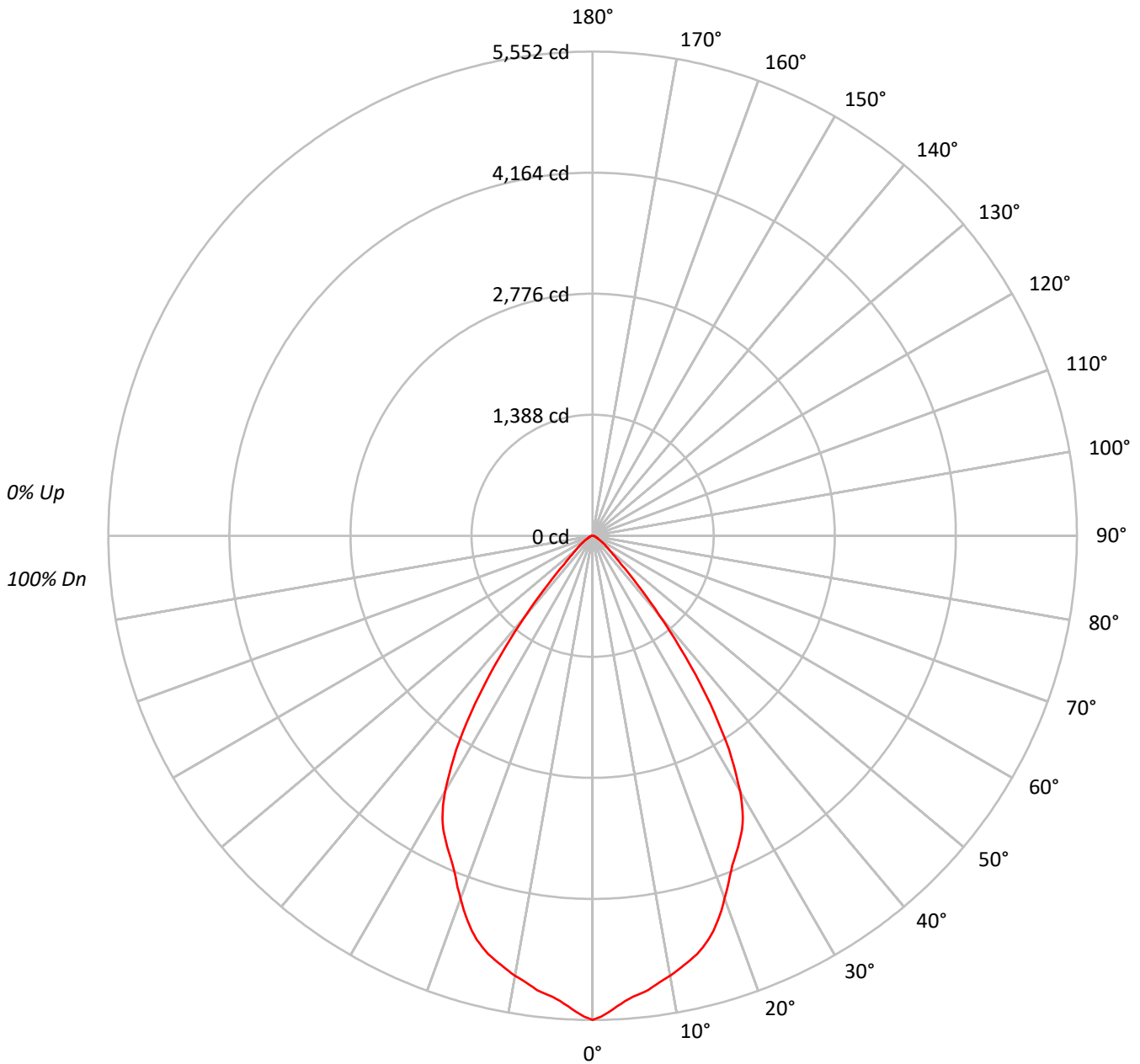
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20																	
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	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	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93																											
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85																											
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79																											
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	72																											
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	68	67																											
6	85	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62																											
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58																											
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54																											
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	51	50																											
10	69	59	53	49	68	58	53	49	58	52	48	57	52	48	56	51	48	47																											

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

	0°
0°	2739194
5°	2628565
10°	2566325
15°	2494670
20°	2323213
25°	2145853
30°	1926289
35°	1415176
40°	764307
45°	328707
50°	183064
55°	128253
60°	82394
65°	62691
70°	51643
75°	45560
80°	50859
85°	33965



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	501.6	8.7
10°-20°	1362.8	23.7
20°-30°	1806.6	31.4
30°-40°	1430.6	24.9
40°-50°	426.1	7.4
50°-60°	136.4	2.4
60°-70°	54.5	0.9
70°-80°	26.0	0.5
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°	3670.9	63.8
0°-40°	5101.6	88.7
0°-60°	5664.1	98.5
0°-90°	5751.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5751.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	5552	
5°	5307	502
15°	4884	1363
25°	3942	1807
35°	2350	1431
45°	471	426
55°	149	136
65°	54	54
75°	24	26
85°	6	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	5551.9
1°	5516.1
2°	5462.4
3°	5402.8
4°	5349.1
5°	5307.4
6°	5277.6
7°	5247.7
8°	5200.0
9°	5158.3
10°	5122.5
11°	5080.8
12°	5033.1
13°	4991.3
14°	4943.6
15°	4884.0
16°	4818.4
17°	4734.9
18°	4639.5
19°	4538.1
20°	4424.8
21°	4317.5
22°	4204.2
23°	4102.8
24°	4019.3
25°	3941.8
26°	3858.3
27°	3774.8
28°	3667.5
29°	3536.3
30°	3381.2
32.5°	2910.1
35°	2349.6
37.5°	1741.3
40°	1186.7
42.5°	751.4
45°	471.1
47.5°	316.1
50°	238.5
52.5°	190.8
55°	149.1
57.5°	113.3
60°	83.5



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	41.7
70°	35.8
72.5°	29.8
75°	23.9
77.5°	17.9
80°	17.9
82.5°	11.9
85°	6.0
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		65.6
65°		53.7



(END OF REPORT)