

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: P431856

Luminaire Tested: **LAMR4B412R309024DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431856  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-8)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B412R309024DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4921.3 lumens  
Efficiency: N/A  
Efficacy: 91.0 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.51 / 0.46  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

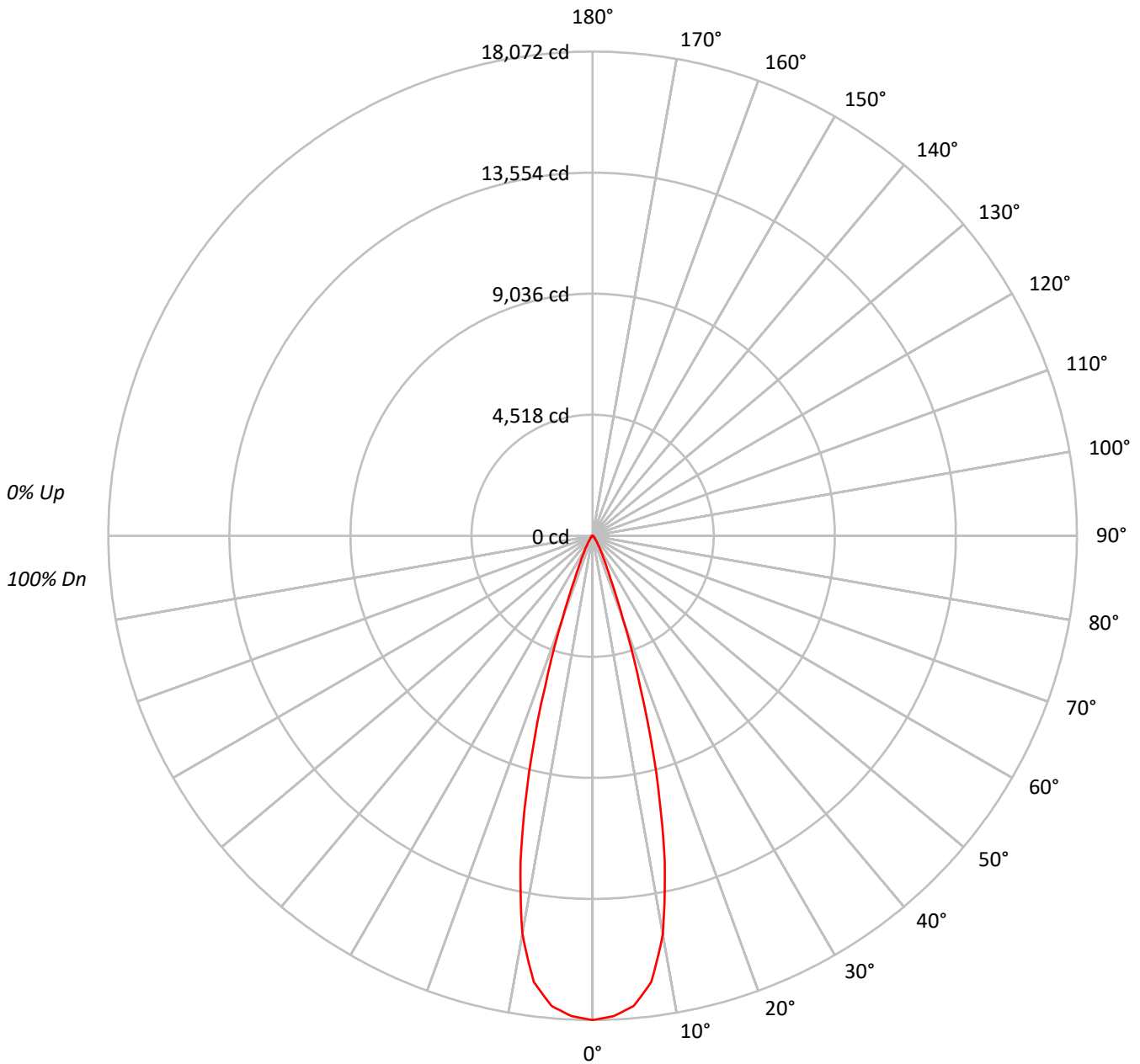
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	115	113	111	109	112	111	109	107	107	105	104	103	102	101	100	99	98	96	96																										
2	111	107	104	102	109	106	103	100	102	100	98	100	98	96	97	95	94	93	93																										
3	107	103	99	96	105	101	98	95	99	96	94	96	94	92	94	92	91	90	87																										
4	104	98	94	91	102	97	94	91	95	92	90	93	91	89	92	90	88	87	84																										
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85	84	81																										
6	98	91	87	84	97	91	87	84	89	86	83	88	85	83	87	84	82	81	79																										
7	95	88	84	81	94	88	84	81	87	83	81	86	83	80	85	82	80	79	77																										
8	92	86	81	79	91	85	81	78	84	81	78	83	80	78	83	80	78	77	74																										
9	90	83	79	76	89	83	79	76	82	78	76	81	78	76	80	78	75	74	72																										
10	88	81	77	74	87	80	77	74	80	76	74	79	76	74	78	76	73	72	70																										

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

	0°
0°	8916602
5°	8721800
10°	7562305
15°	4687108
20°	1717890
25°	574271
30°	281890
35°	140578
40°	87206
45°	55331
50°	39376
55°	32085
60°	27629
65°	21831
70°	26976
75°	26688
80°	26424
85°	26606



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1605.0	32.6
10°-20°	2423.1	49.2
20°-30°	590.8	12.0
30°-40°	161.8	3.3
40°-50°	65.1	1.3
50°-60°	34.9	0.7
60°-70°	20.8	0.4
70°-80°	16.0	0.3
80°-90°	3.8	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°	4618.9	93.9
0°-40°	4780.7	97.1
0°-60°	4880.6	99.2
0°-90°	4921.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4921.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	18072	
5°	17610	###
15°	9176	2423
25°	1055	591
35°	233	162
45°	79	65
55°	37	35
65°	19	21
75°	14	16
85°	5	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	18072.5
2.5°	17951.2
5°	17610.4
7.5°	16798.3
10°	15094.7
12.5°	12424.9
15°	9176.3
17.5°	5913.7
20°	3271.9
22.5°	1745.6
25°	1054.9
27.5°	714.1
30°	494.8
32.5°	336.1
35°	233.4
37.5°	172.7
40°	135.4
42.5°	102.7
45°	79.3
47.5°	65.3
50°	51.3
52.5°	46.7
55°	37.3
57.5°	32.7
60°	28.0
62.5°	23.3
65°	18.7
67.5°	18.7
70°	18.7
72.5°	18.7
75°	14.0
77.5°	14.0
80°	9.3
82.5°	4.7
85°	4.7
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)