

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: P431958

Luminaire Tested: **LAMR4B412R509030DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431958  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1911-585-8)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B412R509030DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 50 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5932.9 lumens  
Efficiency: N/A  
Efficacy: 109.7 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.82 / 0.74  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

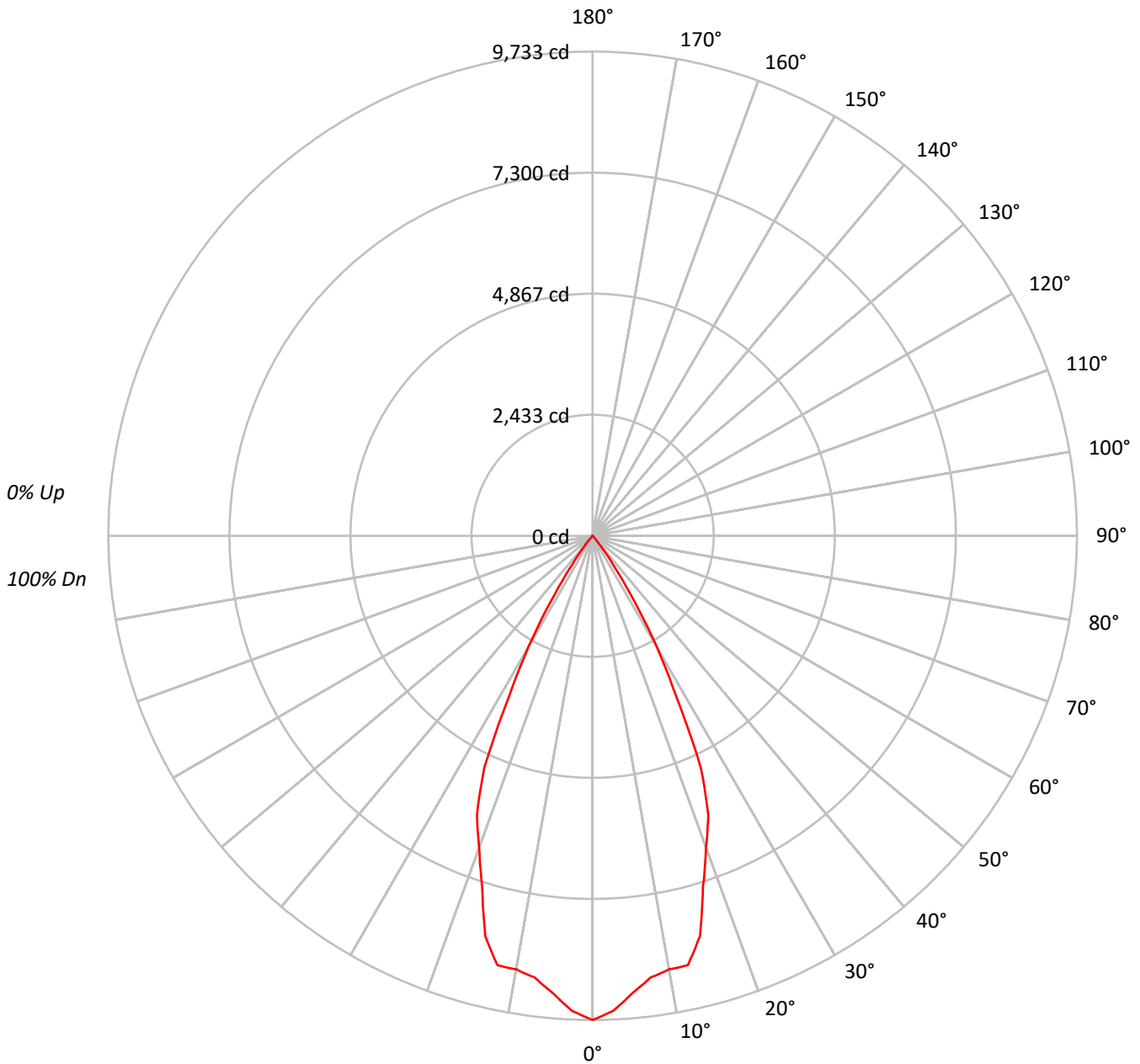
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95																			
2	110	105	102	99	107	104	100	98	100	98	96	97	95	93	95	93	92	90																			
3	105	99	95	92	103	98	94	91	95	92	89	93	90	88	91	89	87	85																			
4	101	94	89	86	99	93	89	85	91	87	84	89	86	83	87	84	82	81																			
5	96	89	84	80	95	88	84	80	87	83	79	85	81	79	84	80	78	77																			
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73																			
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69																			
8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66																			
9	82	73	68	65	81	73	68	65	72	68	64	71	67	64	70	67	64	63																			
10	79	70	65	62	78	70	65	62	69	64	61	68	64	61	68	64	61	60																			

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

	0°
0°	1568039
5°	1491795
10°	1447943
15°	1389285
20°	1142977
25°	915793
30°	477754
35°	154072
40°	26183
45°	0
50°	0
55°	0
60°	0
65°	0
70°	0
75°	0
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	868.6	14.6
10°-20°	2254.3	38.0
20°-30°	2193.1	37.0
30°-40°	603.7	10.2
40°-50°	13.2	0.2
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	5316.0	89.6
0°-40°	5919.7	99.8
0°-60°	5932.9	100.0
0°-90°	5932.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5932.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	9733	
5°	9225	869
15°	8330	2254
25°	5152	2193
35°	783	604
45°	0	13
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	9733.1
2.5°	9559.3
5°	9224.6
7.5°	8954.8
10°	8851.1
12.5°	8843.3
15°	8329.7
17.5°	7382.8
20°	6666.8
22.5°	6072.8
25°	5151.9
27.5°	3626.6
30°	2568.2
32.5°	1553.9
35°	783.4
37.5°	350.2
40°	124.5
42.5°	10.4
45°	0.0
47.5°	0.0
50°	0.0
52.5°	0.0
55°	0.0
57.5°	0.0
60°	0.0
62.5°	0.0
65°	0.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)