

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: P431951

Luminaire Tested: **LAMR4B412R509024DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431951  
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: LAMR4B412R509024DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 50 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5233.4 lumens  
Efficiency: N/A  
Efficacy: 96.7 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

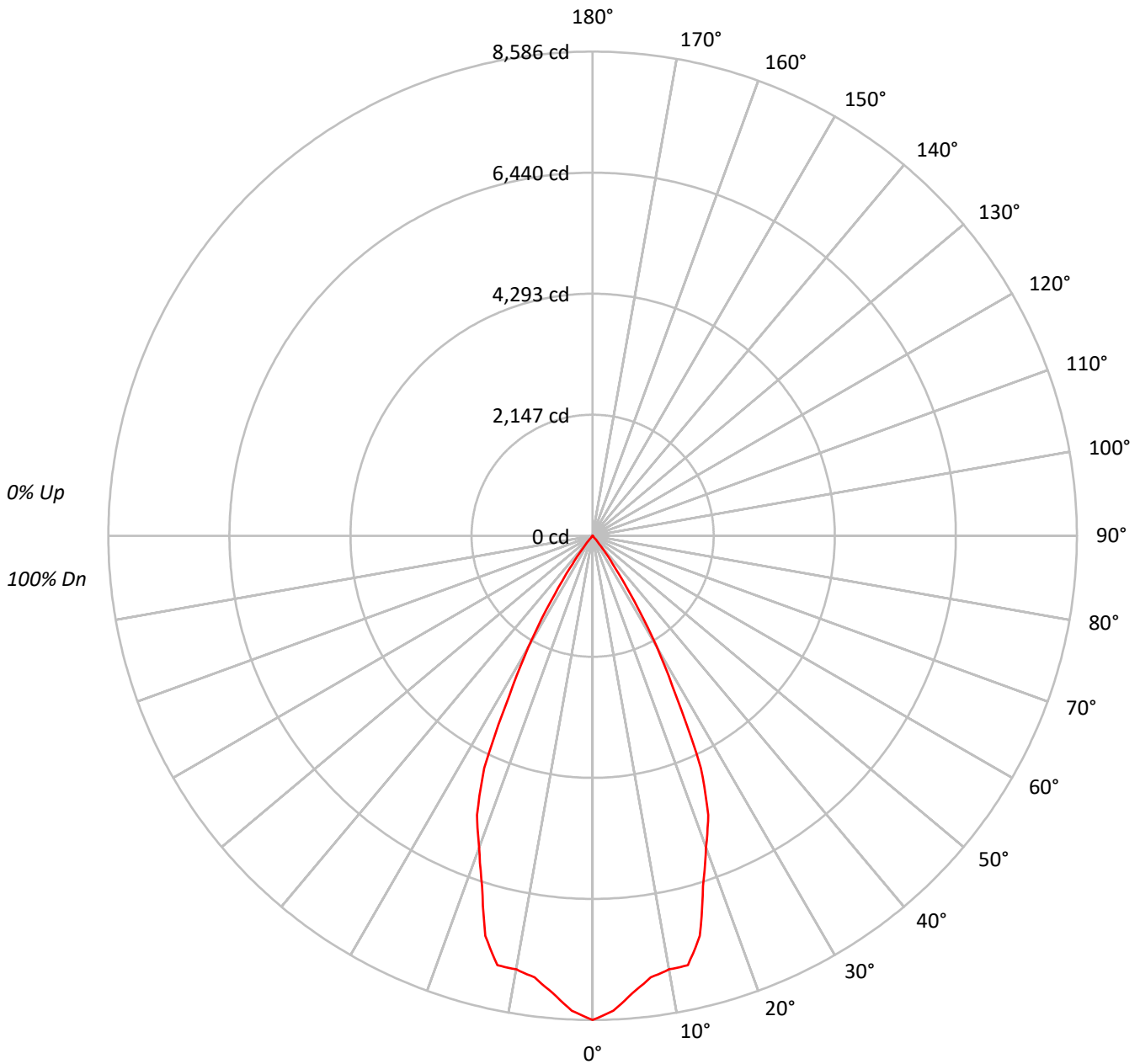
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	104	103	102	101	100	99	98	97	95	95	95	95
2	110	105	102	99	107	104	100	98	100	98	96	97	95	93	95	93	92	90	90	90	90
3	105	99	95	92	103	98	94	91	95	92	89	93	90	88	91	89	87	85	85	85	85
4	101	94	89	86	99	93	89	85	91	87	84	89	86	83	87	84	82	81	81	81	81
5	96	89	84	80	95	88	84	80	87	83	79	85	81	79	84	80	78	77	77	77	77
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73	73	73	73
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69	69	69	69
8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66	66	66	66
9	82	73	68	65	81	73	68	65	72	68	64	71	67	64	70	67	64	63	63	63	63
10	79	70	65	62	78	70	65	62	69	64	61	68	64	61	68	64	61	60	60	60	60

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

	0°
0°	1383173
5°	1315925
10°	1277238
15°	1225484
20°	1008222
25°	807823
30°	421425
35°	135920
40°	23092
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°	766.2	14.6
10°-20°	1988.5	38.0
20°-30°	1934.5	37.0
30°-40°	532.5	10.2
40°-50°	11.6	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°	4689.3	89.6
0°-40°	5221.8	99.8
0°-60°	5233.4	100.0
0°-90°	5233.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5233.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	8586	
5°	8137	766
15°	7348	1989
25°	4544	1935
35°	691	533
45°	0	12
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	8585.6
2.5°	8432.3
5°	8137.1
7.5°	7899.1
10°	7807.6
12.5°	7800.7
15°	7347.6
17.5°	6512.4
20°	5880.8
22.5°	5356.8
25°	4544.5
27.5°	3199.0
30°	2265.4
32.5°	1370.7
35°	691.1
37.5°	308.9
40°	109.8
42.5°	9.2
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)