

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: P431624

Luminaire Tested: **LAMR4B312R409035DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431624  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1911-585-7)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B312R409035DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 40 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4110.1 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Spacing Criteria (0/90/45): 0.7 / 0.7 / 0.6  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

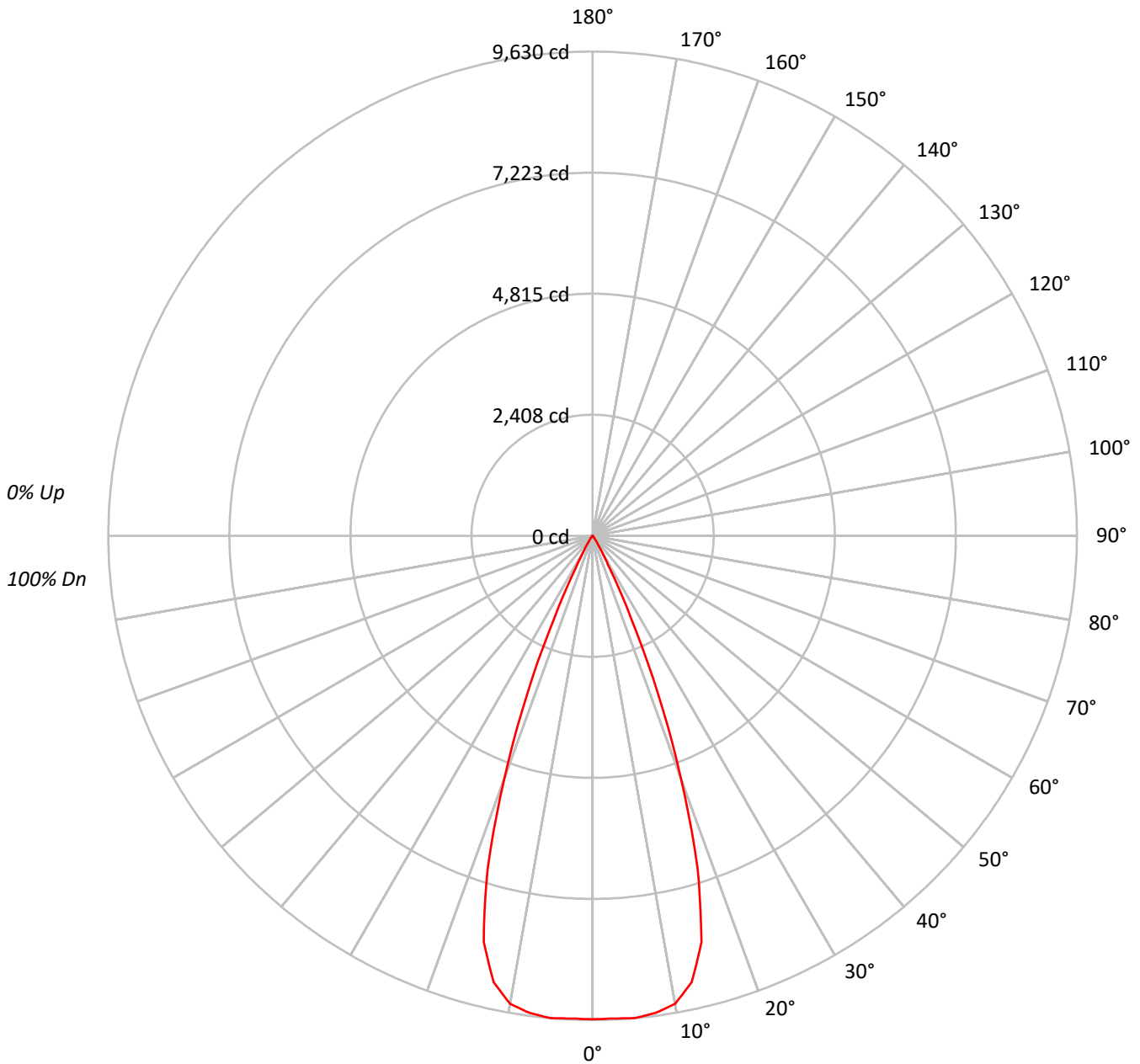
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	115	113	111	109	112	110	109	107	106	105	104	103	102	101	99	99	98	96			
2	111	107	104	101	109	105	102	100	102	100	98	99	97	96	97	95	94	92			
3	107	102	98	95	105	101	97	94	98	95	93	96	94	92	94	92	90	89			
4	103	98	93	90	102	97	93	90	95	91	89	93	90	88	91	89	87	86			
5	100	94	89	86	98	93	89	86	91	88	85	90	87	84	88	86	84	82			
6	97	90	85	82	95	89	85	82	88	84	82	87	83	81	85	83	80	79			
7	93	87	82	79	92	86	82	79	85	81	78	84	80	78	83	80	78	77			
8	91	83	79	76	90	83	79	76	82	78	75	81	78	75	80	77	75	74			
9	88	81	76	73	87	80	76	73	79	75	73	79	75	73	78	75	72	71			
10	85	78	73	71	84	77	73	70	77	73	70	76	73	70	75	72	70	69			

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

	0°
0°	1549464
5°	1557356
10°	1546293
15°	1395006
20°	880137
25°	316979
30°	66412
35°	20198
40°	4038
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°	913.2	22.2
10°-20°	2183.6	53.1
20°-30°	931.1	22.7
30°-40°	79.8	1.9
40°-50°	2.4	0.1
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°	4027.8	98.0
0°-40°	4107.7	99.9
0°-60°	4110.1	100.0
0°-90°	4110.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4110.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	9618	
5°	9630	913
15°	8364	2184
25°	1783	931
35°	103	80
45°	0	2
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	9617.8
2.5°	9609.1
5°	9630.0
7.5°	9572.5
10°	9452.3
12.5°	9093.6
15°	8364.0
17.5°	6939.5
20°	5133.7
22.5°	3380.1
25°	1783.2
27.5°	722.7
30°	357.0
32.5°	189.8
35°	102.7
37.5°	52.2
40°	19.2
42.5°	3.5
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)