

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: P431513

Luminaire Tested: **LAMR4B312R159727DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431513  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1911-585-6)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B312R159727DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 15 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 97CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3199.4 lumens  
Efficiency: N/A  
Efficacy: 78.2 lumens/watt  
Spacing Criteria (0/90/45): 0.3 / 0.3 / 0.29  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

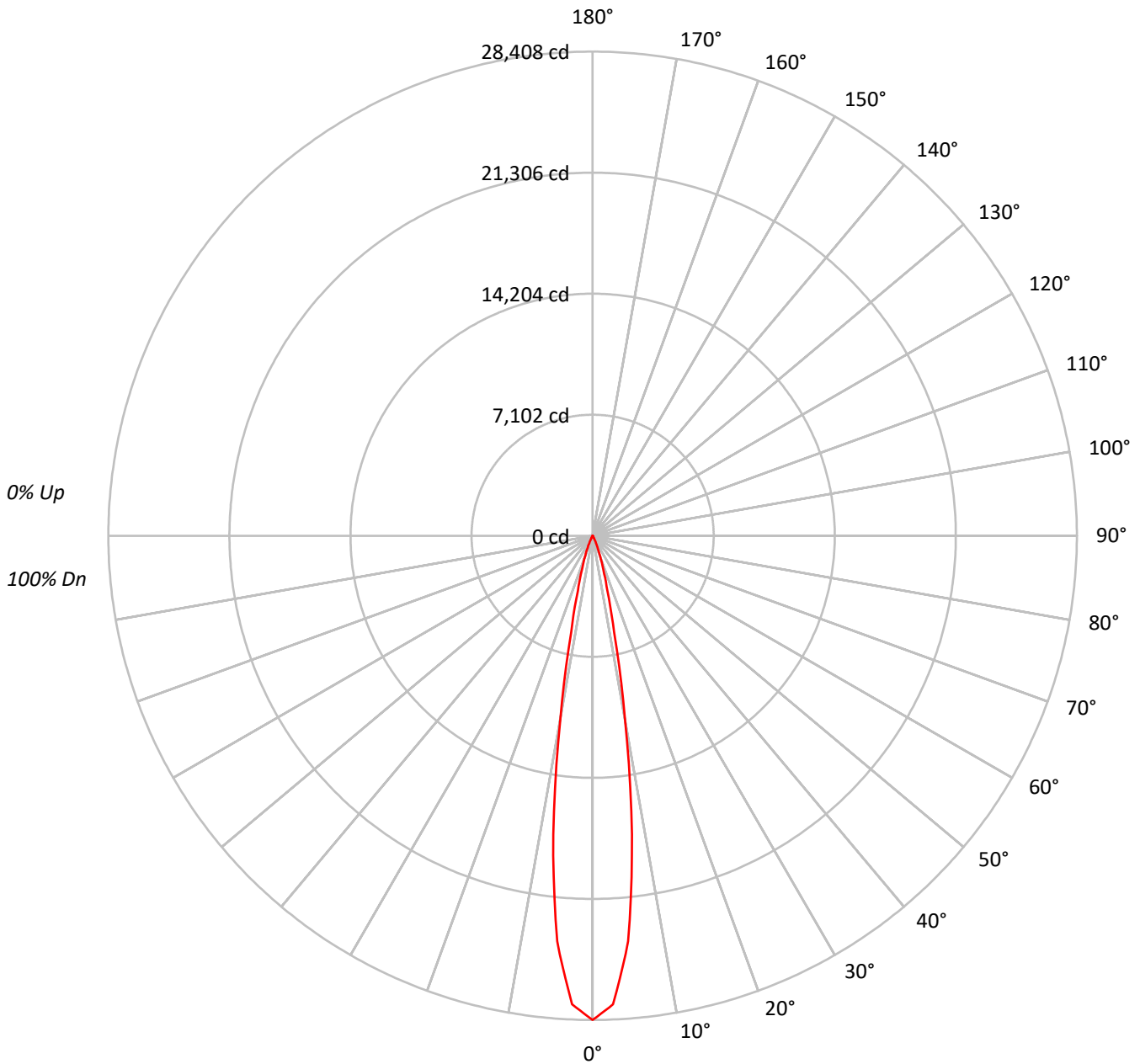
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20																	
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									100																		
1	116	114	112	111	113	112	110	109	108	107	106	104	103	103	101	100	100	98									98																		
2	113	110	107	105	111	108	106	104	105	103	102	102	101	100	100	99	98	96									96																		
3	110	106	103	101	108	105	102	100	103	100	98	100	99	97	98	97	96	94									94																		
4	108	103	100	97	106	102	99	97	100	98	96	98	96	95	97	95	94	93									93																		
5	105	101	97	95	104	100	97	94	98	96	94	97	95	93	95	94	92	91									91																		
6	103	98	95	92	102	98	94	92	96	94	92	95	93	91	94	92	91	90									90																		
7	101	96	93	90	100	96	92	90	95	92	90	94	91	89	93	91	89	88									88																		
8	99	94	91	89	99	94	91	89	93	90	88	92	90	88	91	89	88	87									87																		
9	98	92	89	87	97	92	89	87	91	89	87	91	88	87	90	88	86	86									86																		
10	96	91	88	86	95	91	88	86	90	87	85	89	87	85	89	87	85	84									84																		

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

	0°
0°	4576588
5°	3862469
10°	1774484
15°	553316
20°	225465
25°	73965
30°	22918
35°	4838
40°	1220
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°	1843.0	57.6
10°-20°	1098.4	34.3
20°-30°	232.7	7.3
30°-40°	24.5	0.8
40°-50°	0.8	0.0
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°	3174.1	99.2
0°-40°	3198.6	100.0
0°-60°	3199.4	100.0
0°-90°	3199.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3199.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	28408	
5°	23884	###
15°	3318	1098
25°	416	233
35°	25	24
45°	0	1
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	28407.7
2.5°	27510.2
5°	23883.8
7.5°	17680.9
10°	10847.2
12.5°	5788.3
15°	3317.5
17.5°	2083.6
20°	1315.1
22.5°	775.7
25°	416.1
27.5°	234.9
30°	123.2
32.5°	62.3
35°	24.6
37.5°	13.0
40°	5.8
42.5°	1.4
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)