

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: P431507

Luminaire Tested: **LAMR4B312R159040DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431507  
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: LAMR4B312R159040DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 15 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3847.7 lumens  
Efficiency: N/A  
Efficacy: 94.1 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

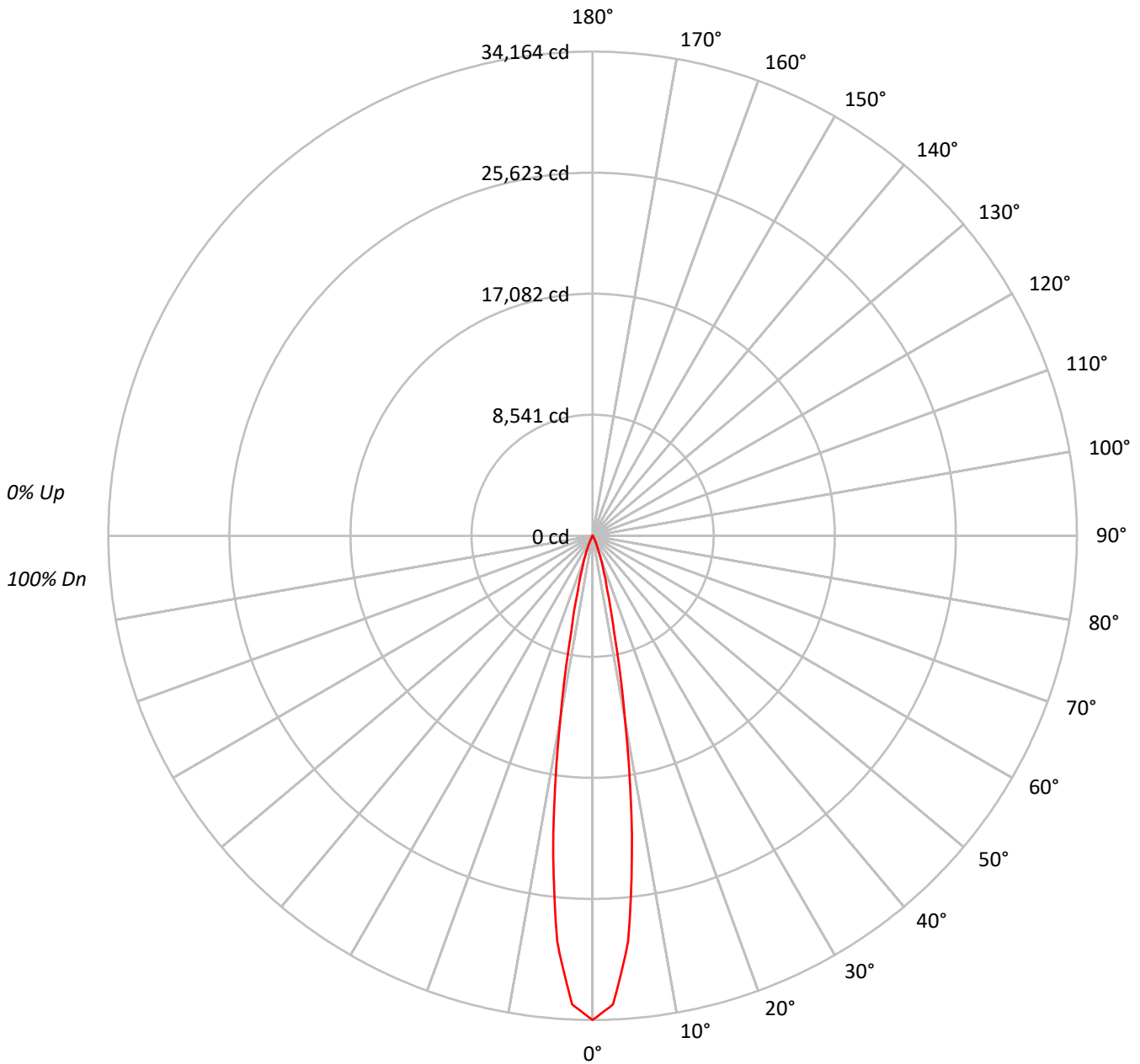
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

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

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

	0°
0°	5503870
5°	4645060
10°	2134020
15°	665430
20°	271154
25°	88968
30°	27569
35°	5821
40°	1472
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°	2216.4	57.6
10°-20°	1321.0	34.3
20°-30°	279.9	7.3
30°-40°	29.5	0.8
40°-50°	0.9	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°	3817.3	99.2
0°-40°	3846.7	100.0
0°-60°	3847.7	100.0
0°-90°	3847.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3847.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	34164	
5°	28723	###
15°	3990	1321
25°	500	280
35°	30	29
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°	34163.5
2.5°	33084.1
5°	28723.0
7.5°	21263.3
10°	13045.0
12.5°	6961.0
15°	3989.7
17.5°	2505.8
20°	1581.6
22.5°	932.9
25°	500.5
27.5°	282.5
30°	148.2
32.5°	75.0
35°	29.6
37.5°	15.7
40°	7.0
42.5°	1.7
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)