

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: P431822

Luminaire Tested: **LAMR4B412R209050DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431822  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-3)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B412R209050DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 20 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5881.5 lumens  
Efficiency: N/A  
Efficacy: 108.7 lumens/watt  
Spacing Criteria (0/90/45): 0.34 / 0.34 / 0.33  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

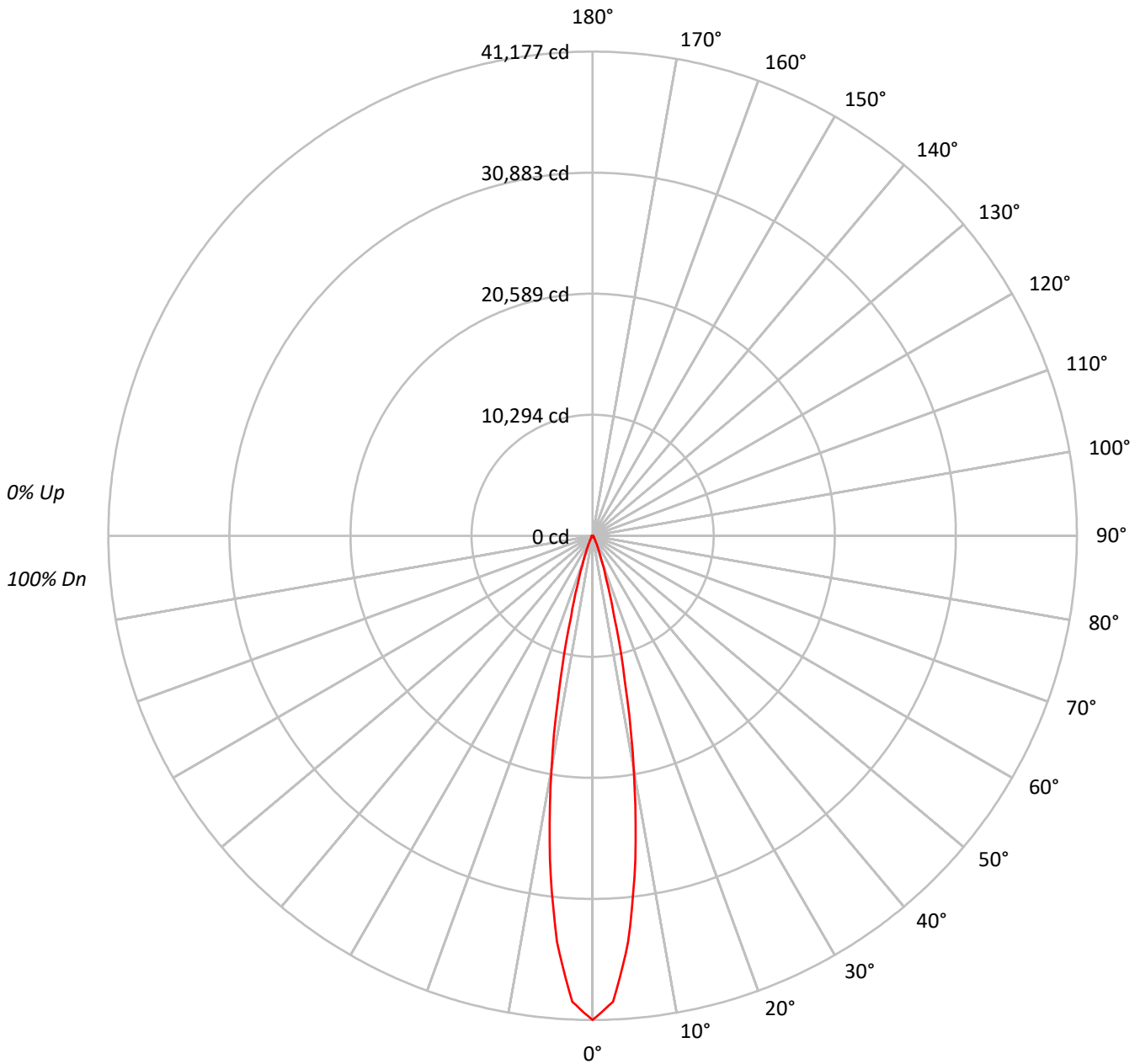
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97	97	97	97
2	112	108	105	103	110	106	104	102	103	101	100	101	99	97	98	97	95	94	94	94	94
3	108	104	100	98	107	103	100	97	100	98	95	98	96	94	96	94	93	91	91	91	91
4	105	100	97	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89	89
5	103	97	93	90	101	96	93	90	95	92	89	93	91	89	92	90	88	87	87	87	87
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	85	85	85
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	83	83	83
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	81	81	81
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	80	80	80
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	83	81	79	78	78	78	78

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

	0°
0°	20315988
5°	17172295
10°	10086396
15°	3611499
20°	1194947
25°	475628
30°	227370
35°	129917
40°	93775
45°	79054
50°	91110
55°	74234
60°	37299
65°	31521
70°	38949
75°	41175
80°	30686
85°	30569



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2839.1	48.3
10°-20°	2214.1	37.6
20°-30°	459.5	7.8
30°-40°	144.9	2.5
40°-50°	93.2	1.6
50°-60°	74.8	1.3
60°-70°	29.4	0.5
70°-80°	22.1	0.4
80°-90°	4.4	0.1
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°	5512.7	93.7
0°-40°	5657.6	96.2
0°-60°	5825.6	99.0
0°-90°	5881.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5881.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	41177	
5°	34673	###
15°	7070	2214
25°	874	460
35°	216	145
45°	113	93
55°	86	75
65°	27	29
75°	22	22
85°	5	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	41177.2
2.5°	39667.1
5°	34673.0
7.5°	27780.5
10°	20132.9
12.5°	12701.0
15°	7070.5
17.5°	3888.5
20°	2275.9
22.5°	1391.4
25°	873.7
27.5°	577.1
30°	399.1
32.5°	280.4
35°	215.7
37.5°	172.6
40°	145.6
42.5°	124.0
45°	113.3
47.5°	113.3
50°	118.7
52.5°	113.3
55°	86.3
57.5°	59.3
60°	37.8
62.5°	32.4
65°	27.0
67.5°	27.0
70°	27.0
72.5°	27.0
75°	21.6
77.5°	16.2
80°	10.8
82.5°	5.4
85°	5.4
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)