

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: P431816

Luminaire Tested: **LAMR4B412R209035DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431816  
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: LAMR4B412R209035DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 20 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5980.0 lumens  
Efficiency: N/A  
Efficacy: 110.5 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

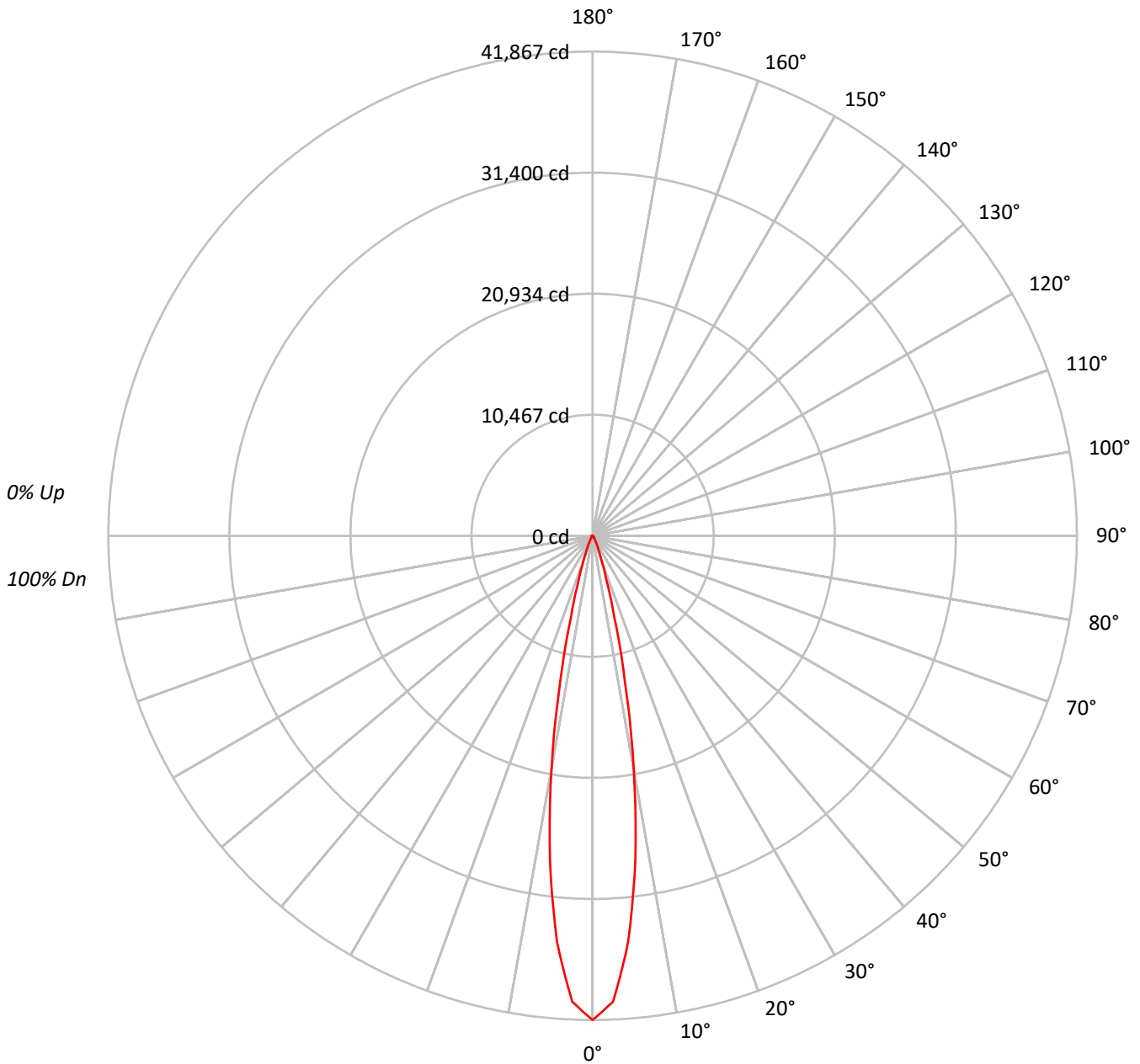
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	20656470
5°	17460093
10°	10255430
15°	3672027
20°	1215003
25°	483576
30°	231187
35°	132086
40°	95385
45°	80380
50°	92568
55°	75438
60°	37892
65°	31988
70°	39526
75°	41747
80°	31254
85°	31135



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2886.7	48.3
10°-20°	2251.2	37.6
20°-30°	467.2	7.8
30°-40°	147.3	2.5
40°-50°	94.8	1.6
50°-60°	76.1	1.3
60°-70°	29.9	0.5
70°-80°	22.4	0.4
80°-90°	4.5	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°	5605.1	93.7
0°-40°	5752.4	96.2
0°-60°	5923.3	99.1
0°-90°	5980.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5980.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	41867	
5°	35254	###
15°	7189	2251
25°	888	467
35°	219	147
45°	115	95
55°	88	76
65°	27	30
75°	22	22
85°	6	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	41867.3
2.5°	40331.9
5°	35254.1
7.5°	28246.1
10°	20470.3
12.5°	12913.9
15°	7189.0
17.5°	3953.7
20°	2314.1
22.5°	1414.8
25°	888.3
27.5°	586.7
30°	405.8
32.5°	285.1
35°	219.3
37.5°	175.5
40°	148.1
42.5°	126.1
45°	115.2
47.5°	115.2
50°	120.6
52.5°	115.2
55°	87.7
57.5°	60.3
60°	38.4
62.5°	32.9
65°	27.4
67.5°	27.4
70°	27.4
72.5°	27.4
75°	21.9
77.5°	16.5
80°	11.0
82.5°	5.5
85°	5.5
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)