

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: P431888

Luminaire Tested: **LAMR4B412R359035DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431888  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-6)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B412R359035DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 35 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5906.9 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Spacing Criteria (0/90/45): 0.57 / 0.57 / 0.51  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

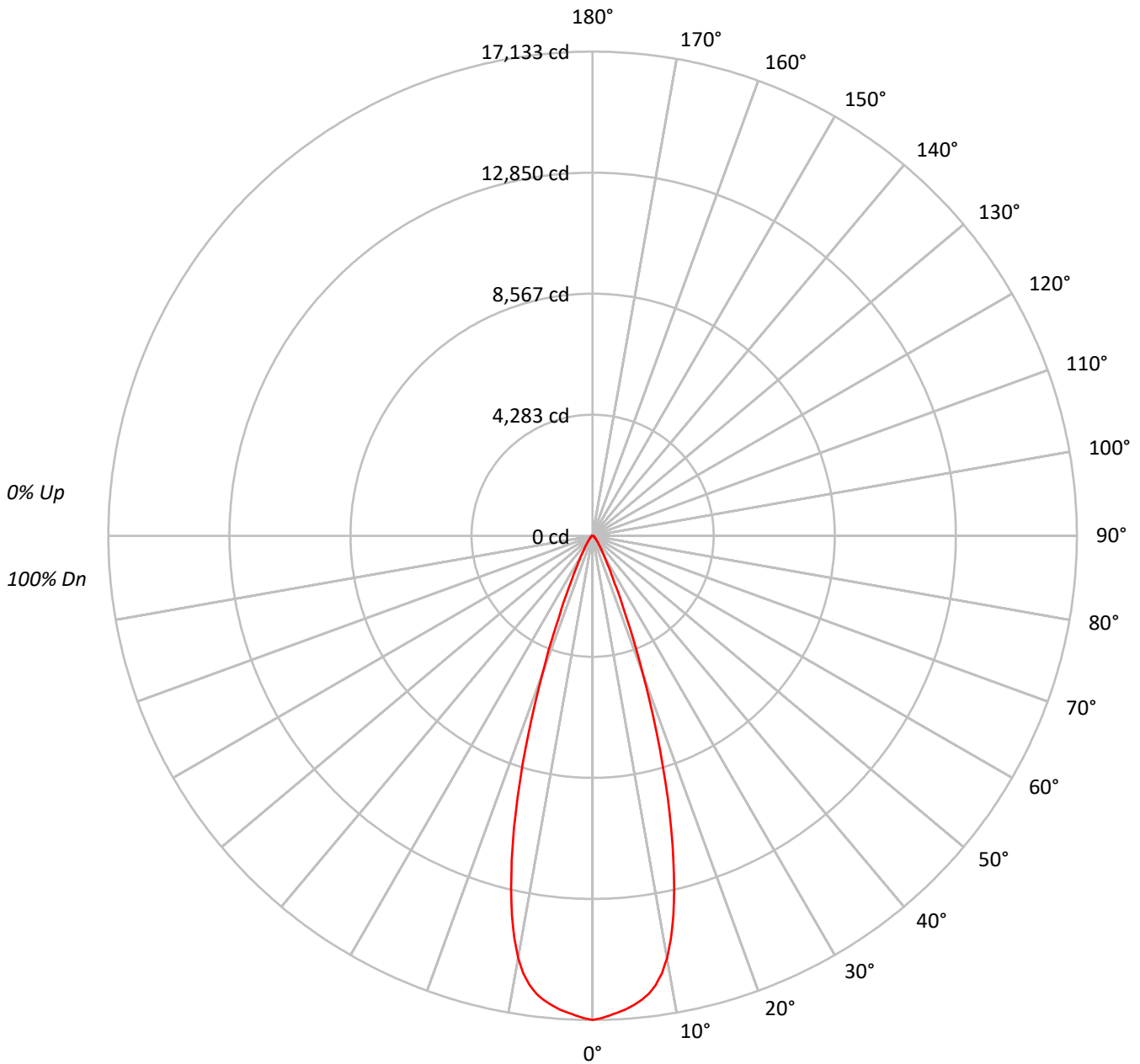
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P431888

CATALOG NUMBER: LAMR4B412R359035DE01021MMS

### Luminous Intensity Polar Plot



0% Up  
100% Dn



TEST NUMBER: P431888

CATALOG NUMBER: LAMR4B412R359035DE01021MMS

**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
1	114	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96			96
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91			91
3	106	101	97	94	104	100	96	93	97	94	92	95	92	90	93	91	89	87			87
4	102	96	92	89	101	95	91	88	93	90	87	91	88	86	90	87	85	84			84
5	99	92	88	84	97	91	87	84	90	86	83	88	85	83	87	84	82	81			81
6	96	89	84	81	94	88	84	80	87	83	80	85	82	79	84	81	79	78			78
7	92	85	81	77	91	85	80	77	84	80	77	82	79	76	81	78	76	75			75
8	90	82	78	74	88	82	77	74	81	77	74	80	76	74	79	76	73	72			72
9	87	79	75	72	86	79	75	72	78	74	71	77	74	71	77	73	71	70			70
10	84	77	72	69	83	76	72	69	76	72	69	75	71	69	74	71	69	68			68

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

	0°
0°	8452973
5°	8258134
10°	7599528
15°	5492717
20°	2713478
25°	995406
30°	448814
35°	244355
40°	151483
45°	102568
50°	76756
55°	65718
60°	58021
65°	54869
70°	50922
75°	44797
80°	50006
85°	33399



TEST NUMBER: P431888

CATALOG NUMBER: LAMR4B412R359035DE01021MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1549.4	26.2
10°-20°	2831.6	47.9
20°-30°	985.8	16.7
30°-40°	273.2	4.6
40°-50°	118.8	2.0
50°-60°	68.9	1.2
60°-70°	46.5	0.8
70°-80°	25.6	0.4
80°-90°	7.2	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°	5366.8	90.9
0°-40°	5640.0	95.5
0°-60°	5827.6	98.7
0°-90°	5906.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5906.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	17133	
5°	16674	###
15°	10754	2832
25°	1828	986
35°	406	273
45°	147	119
55°	76	69
65°	47	47
75°	24	26
85°	6	7
90°	0	



TEST NUMBER: P431888

CATALOG NUMBER: LAMR4B412R359035DE01021MMS

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	17132.8
1°	17074.0
2°	16985.8
3°	16897.6
4°	16797.6
5°	16674.2
6°	16521.3
7°	16333.2
8°	16045.1
9°	15674.7
10°	15169.0
11°	14522.3
12°	13740.3
13°	12823.1
14°	11817.7
15°	10753.5
16°	9618.8
17°	8478.2
18°	7331.7
19°	6226.4
20°	5168.1
22.5°	3080.8
25°	1828.5
26°	1522.8
27°	1270.0
28°	1075.9
29°	917.2
30°	787.8
32.5°	558.5
35°	405.7
37.5°	305.7
40°	235.2
42.5°	182.3
45°	147.0
47.5°	123.5
50°	100.0
52.5°	88.2
55°	76.4
57.5°	64.7
60°	58.8
62.5°	52.9
65°	47.0
67.5°	41.2



TEST NUMBER: P431888

CATALOG NUMBER: LAMR4B412R359035DE01021MMS

**CANDELA DISTRIBUTION (continued):**

	0°
75°	23.5
77.5°	17.6
80°	17.6
82.5°	11.8
85°	5.9
87.5°	0.0
90°	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







70°	35.3
72.5°	29.4



(END OF REPORT)