

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: P431930

Luminaire Tested: **LAMR4B412R459027DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431930  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-8)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B412R459027DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 45 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5267.1 lumens  
Efficiency: N/A  
Efficacy: 97.4 lumens/watt  
Spacing Criteria (0/90/45): 0.73 / 0.73 / 0.66  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

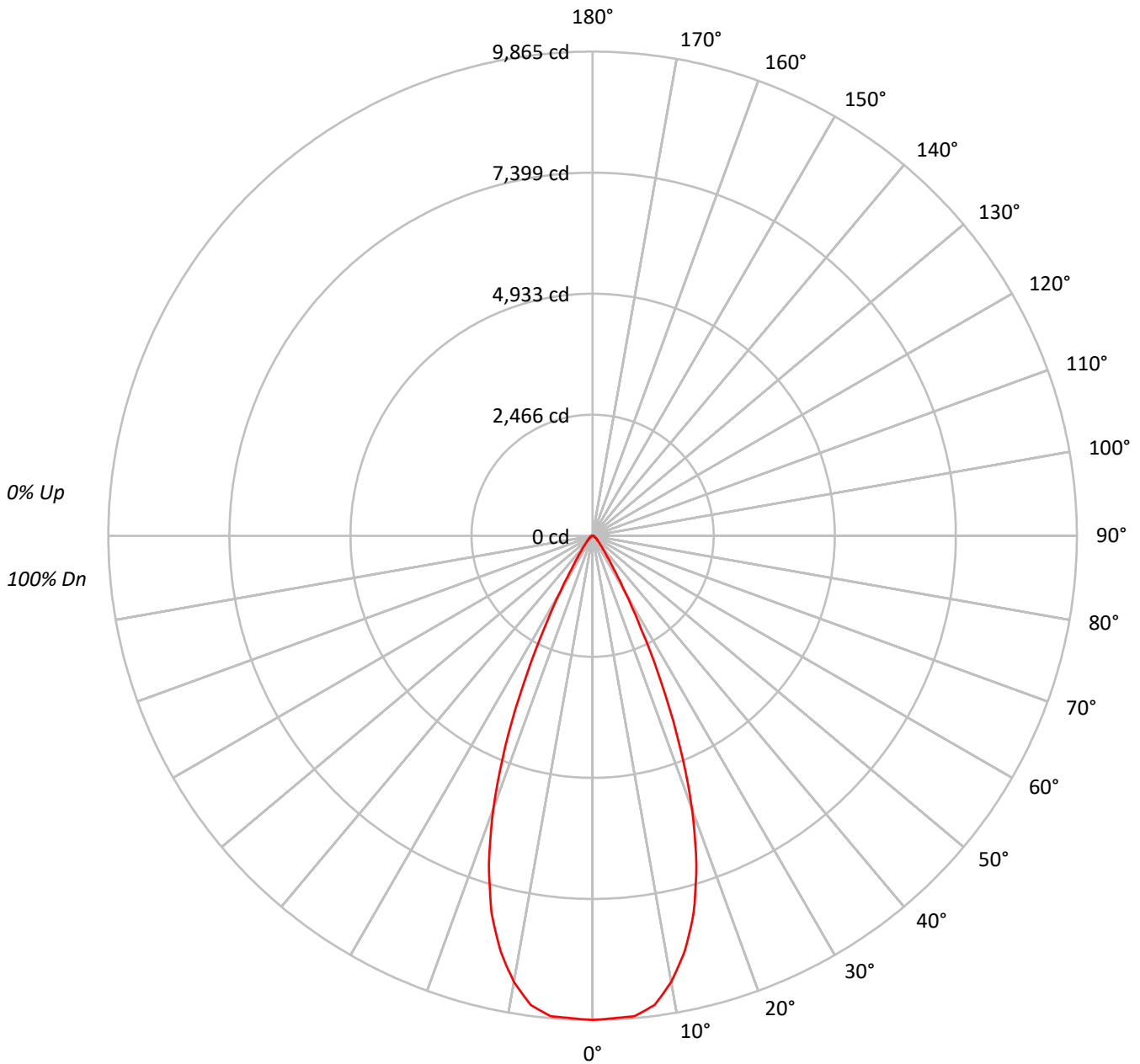
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	114	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95	95	95	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	89	89	89	89
3	105	99	94	91	103	98	93	90	95	92	89	93	90	87	90	88	86	85	85	85	85
4	100	94	89	85	99	93	88	85	90	87	84	89	85	83	87	84	82	80	80	80	80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76	76	76	76
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73	73	73	73
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69	69	69	69
8	85	77	72	68	84	77	72	68	76	71	68	75	71	68	74	70	67	66	66	66	66
9	82	74	69	65	81	73	68	65	72	68	65	72	68	65	71	67	65	63	63	63	63
10	79	71	66	62	78	70	66	62	70	65	62	69	65	62	68	65	62	61	61	61	61

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

	0°
0°	4867239
5°	4865574
10°	4624796
15°	4062470
20°	3107785
25°	1814269
30°	742554
35°	314042
40°	171191
45°	110592
50°	86351
55°	74750
60°	60488
65°	47748
70°	44286
75°	38888
80°	43471
85°	28871



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	919.3	17.5
10°-20°	2165.3	41.1
20°-30°	1525.6	29.0
30°-40°	375.5	7.1
40°-50°	131.1	2.5
50°-60°	77.6	1.5
60°-70°	42.9	0.8
70°-80°	23.6	0.4
80°-90°	6.2	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°	4610.2	87.5
0°-40°	4985.7	94.7
0°-60°	5194.4	98.6
0°-90°	5267.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5267.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	9865	
5°	9824	919
15°	7953	2165
25°	3333	1526
35°	521	376
45°	158	131
55°	87	78
65°	41	43
75°	20	24
85°	5	6
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	9865.1
2.5°	9839.6
5°	9824.2
7.5°	9645.3
10°	9231.3
12.5°	8669.0
15°	7953.4
17.5°	7028.3
20°	5919.1
22.5°	4646.3
25°	3332.7
27.5°	2151.9
30°	1303.4
32.5°	792.3
35°	521.4
37.5°	368.0
40°	265.8
42.5°	204.5
45°	158.5
47.5°	132.9
50°	112.5
52.5°	97.1
55°	86.9
57.5°	76.7
60°	61.3
62.5°	51.1
65°	40.9
67.5°	35.8
70°	30.7
72.5°	25.6
75°	20.4
77.5°	20.4
80°	15.3
82.5°	10.2
85°	5.1
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)