

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: P431936

Luminaire Tested: **LAMR4B412R459035DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431936  
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: LAMR4B412R459035DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 45 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5966.1 lumens  
Efficiency: N/A  
Efficacy: 110.3 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

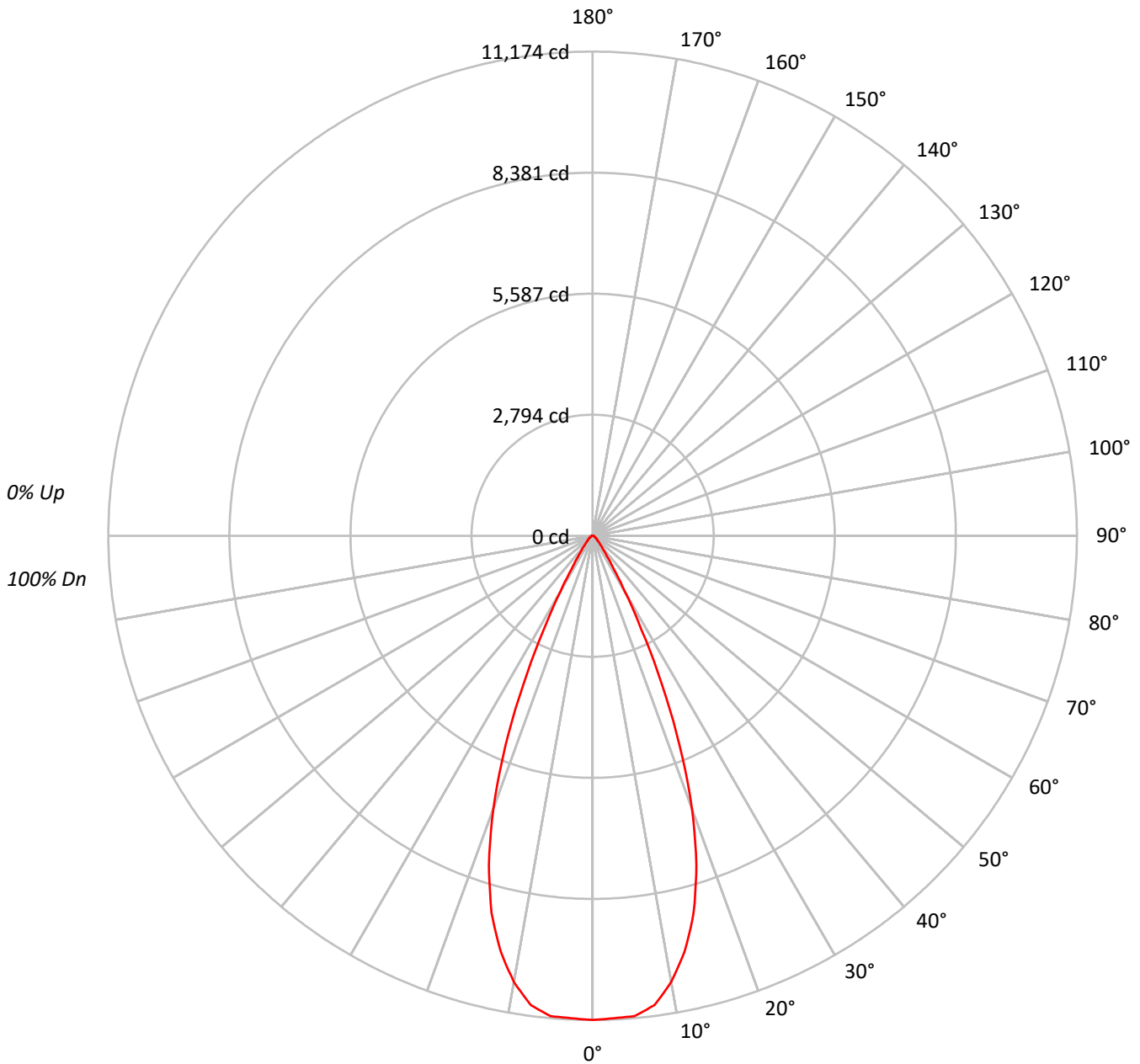
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	114	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95			
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	89			
3	105	99	94	91	103	98	93	90	95	92	89	93	90	87	90	88	86	85			
4	100	94	89	85	99	93	88	85	90	87	84	89	85	83	87	84	82	80			
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76			
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73			
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69			
8	85	77	72	68	84	77	72	68	76	71	68	75	71	68	74	70	67	66			
9	82	74	69	65	81	73	68	65	72	68	65	72	68	65	71	67	65	63			
10	79	71	66	62	78	70	66	62	70	65	62	69	65	62	68	65	62	61			

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

	0°
0°	5513122
5°	5511250
10°	5238509
15°	4601552
20°	3520154
25°	2054996
30°	841113
35°	355721
40°	193927
45°	125245
50°	97787
55°	84642
60°	68580
65°	54052
70°	50056
75°	44226
80°	49438
85°	32833



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1041.3	17.5
10°-20°	2452.6	41.1
20°-30°	1728.1	29.0
30°-40°	425.4	7.1
40°-50°	148.4	2.5
50°-60°	87.8	1.5
60°-70°	48.6	0.8
70°-80°	26.7	0.4
80°-90°	7.1	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°	5222.0	87.5
0°-40°	5647.4	94.7
0°-60°	5883.6	98.6
0°-90°	5966.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5966.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	11174	
5°	11128	###
15°	9009	2453
25°	3775	1728
35°	591	425
45°	180	148
55°	98	88
65°	46	49
75°	23	27
85°	6	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	11174.2
2.5°	11145.2
5°	11127.9
7.5°	10925.2
10°	10456.3
12.5°	9819.4
15°	9008.8
17.5°	7960.9
20°	6704.5
22.5°	5262.9
25°	3774.9
27.5°	2437.5
30°	1476.4
32.5°	897.4
35°	590.6
37.5°	416.9
40°	301.1
42.5°	231.6
45°	179.5
47.5°	150.5
50°	127.4
52.5°	110.0
55°	98.4
57.5°	86.8
60°	69.5
62.5°	57.9
65°	46.3
67.5°	40.5
70°	34.7
72.5°	28.9
75°	23.2
77.5°	23.2
80°	17.4
82.5°	11.6
85°	5.8
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)