

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: P430782

Luminaire Tested: **LAM4B412R459030DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430782  
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: LAM4B412R459030DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 45 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5521.2 lumens  
Efficiency: N/A  
Efficacy: 102.1 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

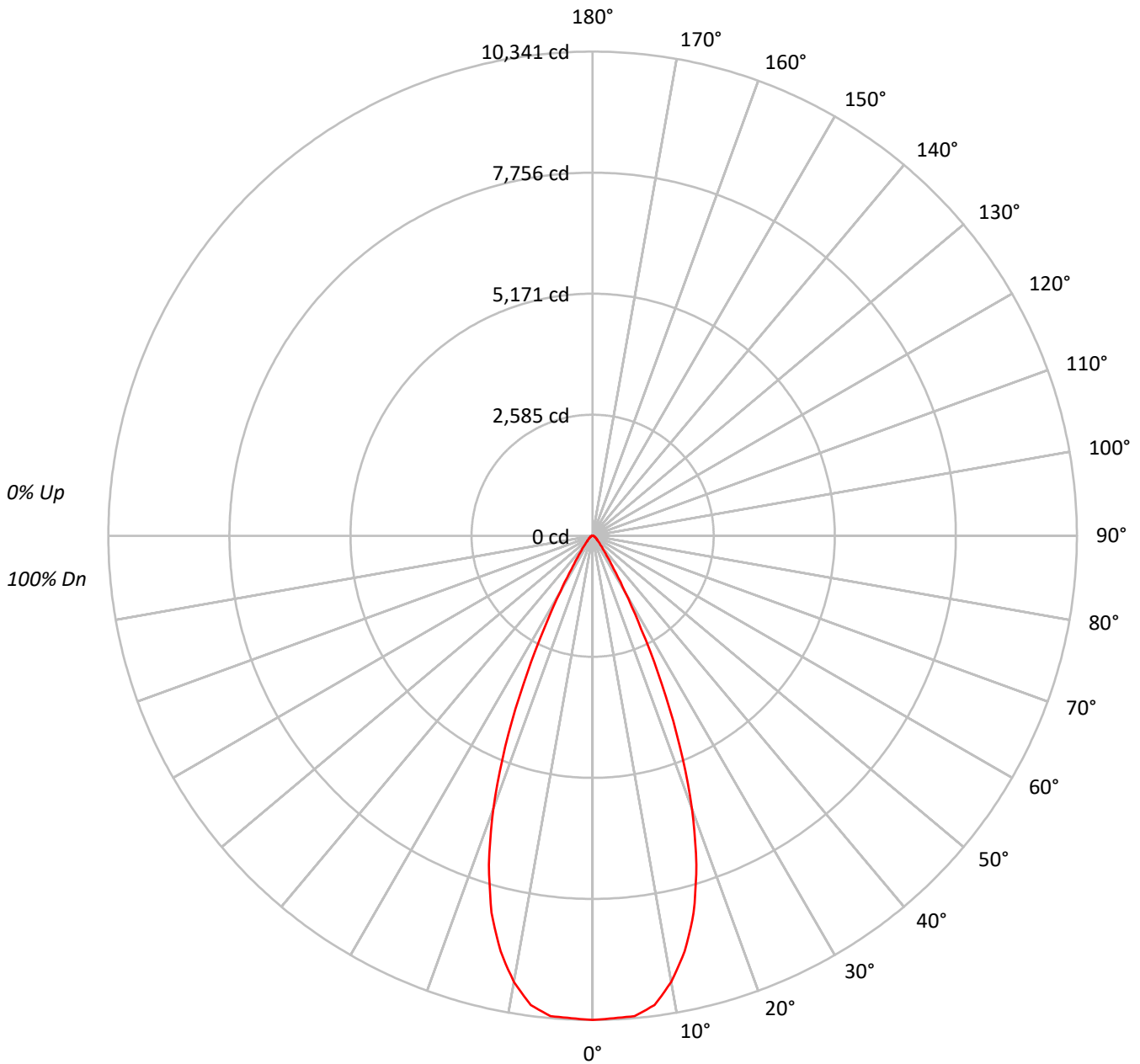
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
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°	5101989
5°	5100280
10°	4847837
15°	4258407
20°	3257685
25°	1901751
30°	778389
35°	329160
40°	179435
45°	115895
50°	90496
55°	78362
60°	63449
65°	50083
70°	46306
75°	40794
80°	45744
85°	30569



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	963.7	17.5
10°-20°	2269.7	41.1
20°-30°	1599.2	29.0
30°-40°	393.6	7.1
40°-50°	137.3	2.5
50°-60°	81.3	1.5
60°-70°	45.0	0.8
70°-80°	24.7	0.4
80°-90°	6.6	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°	4832.6	87.5
0°-40°	5226.2	94.7
0°-60°	5444.9	98.6
0°-90°	5521.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5521.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	10341	
5°	10298	964
15°	8337	2270
25°	3493	1599
35°	546	394
45°	166	137
55°	91	81
65°	43	45
75°	21	25
85°	5	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	10340.9
2.5°	10314.1
5°	10298.1
7.5°	10110.5
10°	9676.5
12.5°	9087.2
15°	8337.0
17.5°	7367.2
20°	6204.6
22.5°	4870.4
25°	3493.4
27.5°	2255.7
30°	1366.3
32.5°	830.5
35°	546.5
37.5°	385.8
40°	278.6
42.5°	214.3
45°	166.1
47.5°	139.3
50°	117.9
52.5°	101.8
55°	91.1
57.5°	80.4
60°	64.3
62.5°	53.6
65°	42.9
67.5°	37.5
70°	32.1
72.5°	26.8
75°	21.4
77.5°	21.4
80°	16.1
82.5°	10.7
85°	5.4
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)