

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: P430656

Luminaire Tested: **LAM4B412R209024DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430656  
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: LAM4B412R209024DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 20 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4881.7 lumens  
Efficiency: N/A  
Efficacy: 90.2 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

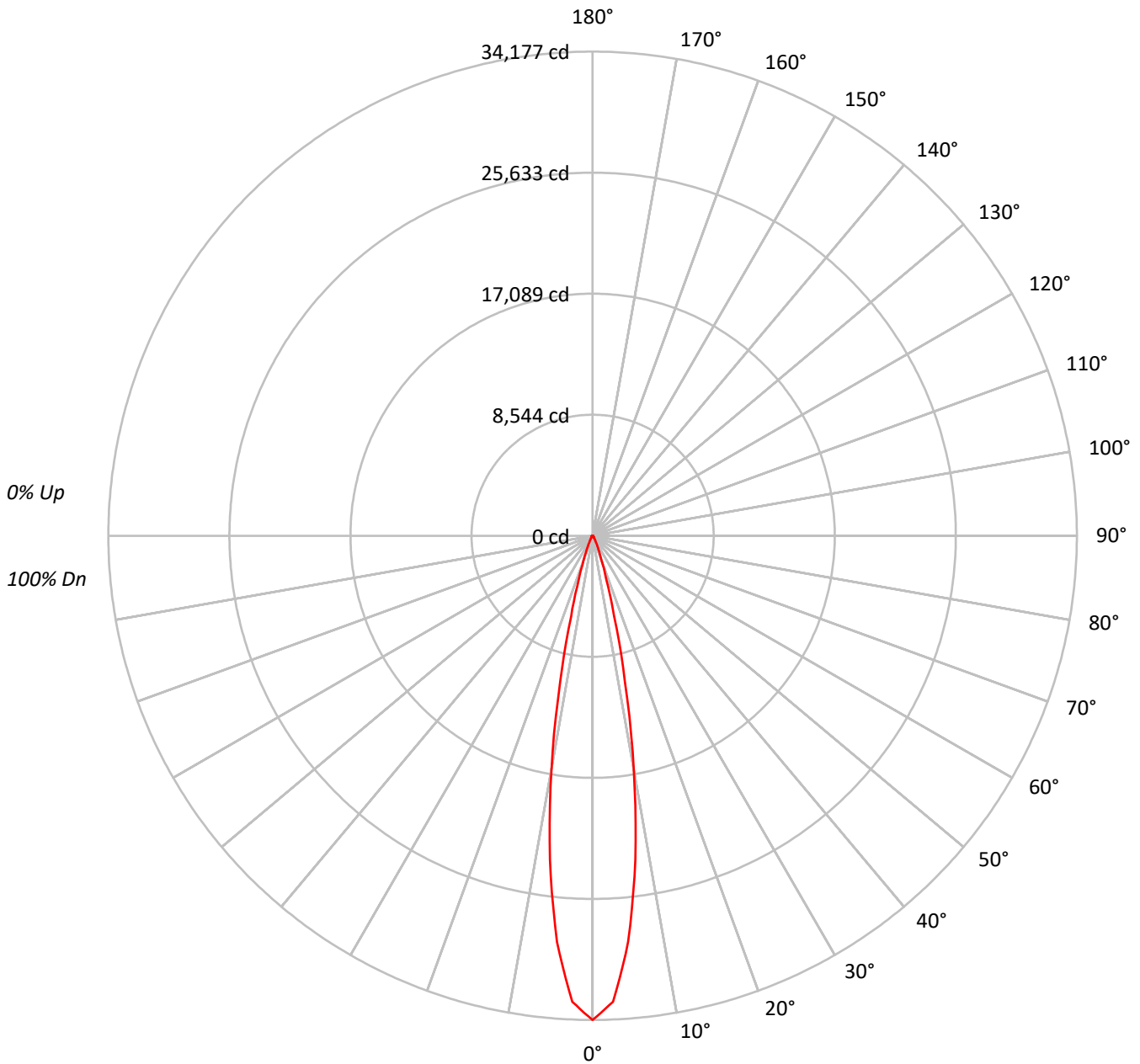
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97			97																
2	112	108	105	103	110	106	104	102	103	101	100	101	99	97	98	97	95			94																	
3	108	104	100	98	107	103	100	97	100	98	95	98	96	94	96	94	93			91																	
4	105	100	97	94	104	99	96	93	97	94	92	95	93	91	94	92	90			89																	
5	103	97	93	90	101	96	93	90	95	92	89	93	91	89	92	90	88			87																	
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86			85																	
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84			83																	
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82			81																	
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81			80																	
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	83	81	79			78																	

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

	0°
0°	16862430
5°	14253158
10°	8371805
15°	2997588
20°	991807
25°	394787
30°	188743
35°	107873
40°	77867
45°	65588
50°	75605
55°	61589
60°	30886
65°	26151
70°	32313
75°	34122
80°	25571
85°	25474



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2356.5	48.3
10°-20°	1837.7	37.6
20°-30°	381.4	7.8
30°-40°	120.3	2.5
40°-50°	77.4	1.6
50°-60°	62.1	1.3
60°-70°	24.4	0.5
70°-80°	18.3	0.4
80°-90°	3.7	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°	4575.6	93.7
0°-40°	4695.9	96.2
0°-60°	4835.3	99.1
0°-90°	4881.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4881.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	34177	
5°	28779	###
15°	5869	1838
25°	725	381
35°	179	120
45°	94	77
55°	72	62
65°	22	24
75°	18	18
85°	4	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	34177.4
2.5°	32924.0
5°	28778.9
7.5°	23058.0
10°	16710.5
12.5°	10542.0
15°	5868.6
17.5°	3227.5
20°	1889.0
22.5°	1154.9
25°	725.2
27.5°	479.0
30°	331.3
32.5°	232.8
35°	179.1
37.5°	143.2
40°	120.9
42.5°	103.0
45°	94.0
47.5°	94.0
50°	98.5
52.5°	94.0
55°	71.6
57.5°	49.2
60°	31.3
62.5°	26.9
65°	22.4
67.5°	22.4
70°	22.4
72.5°	22.4
75°	17.9
77.5°	13.4
80°	9.0
82.5°	4.5
85°	4.5
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)