

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: P430890

Luminaire Tested: **LAM4B412R659727DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430890  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-22)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B412R659727DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 65 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 97CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4835.3 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 0.98 / 0.97  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

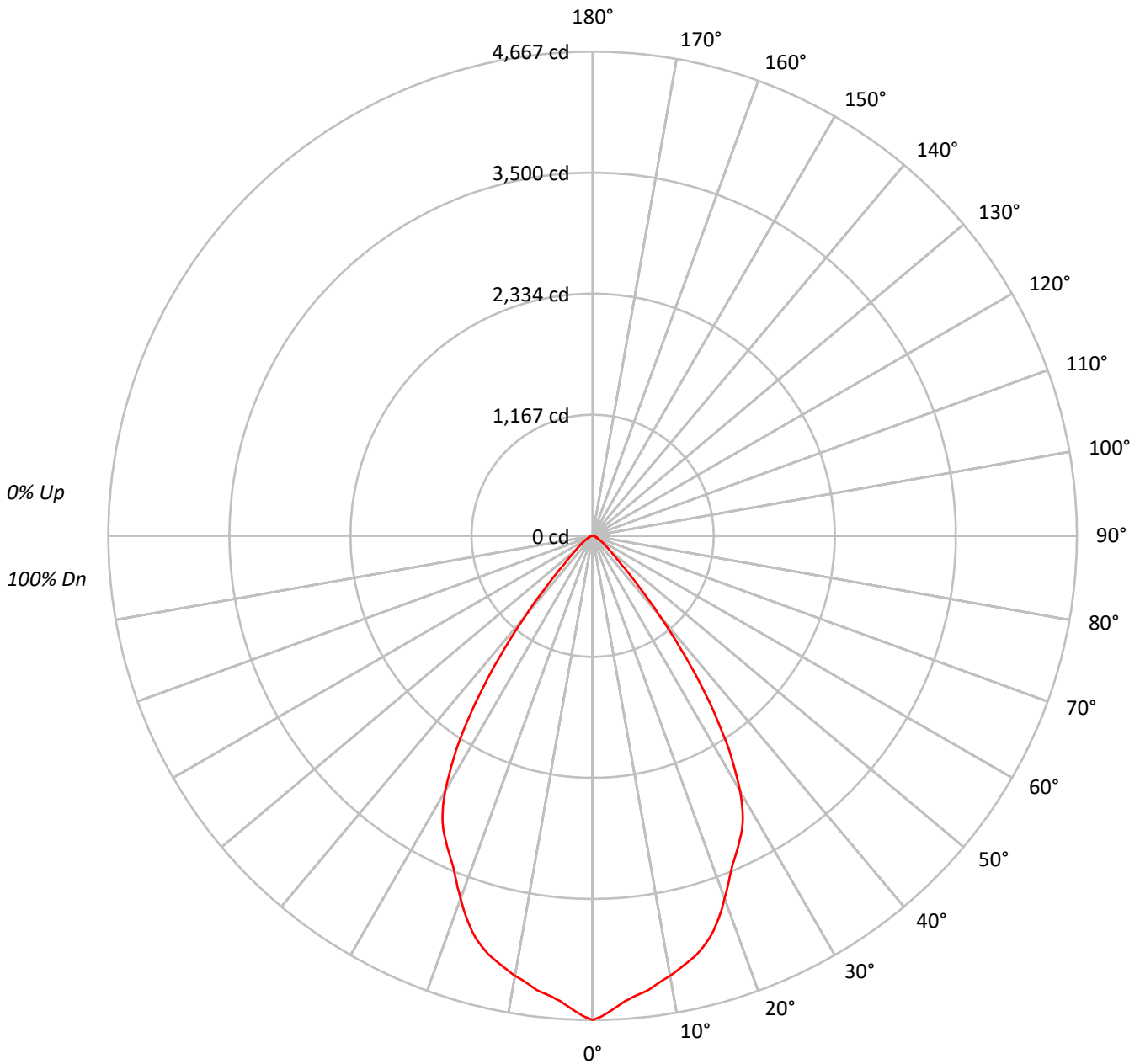
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93	93	93	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85	85	85	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79	79	79	79
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	72	72	72	72
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	68	67	67	67	67
6	85	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62	62	62	62
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58	58	58	58
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54	54	54	54
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	51	50	50	50	50
10	69	59	53	49	68	58	53	49	58	52	48	57	52	48	56	51	48	47	47	47	47

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

	0°
0°	2302701
5°	2209720
10°	2157416
15°	2097177
20°	1953057
25°	1803926
30°	1619388
35°	1189673
40°	642516
45°	276307
50°	153896
55°	107781
60°	69270
65°	52651
70°	43421
75°	38316
80°	42619
85°	28304



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	421.7	8.7
10°-20°	1145.6	23.7
20°-30°	1518.7	31.4
30°-40°	1202.7	24.9
40°-50°	358.2	7.4
50°-60°	114.7	2.4
60°-70°	45.8	0.9
70°-80°	21.8	0.5
80°-90°	6.1	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°	3086.0	63.8
0°-40°	4288.7	88.7
0°-60°	4761.6	98.5
0°-90°	4835.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4835.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4667	
5°	4462	422
15°	4106	1146
25°	3314	1519
35°	1975	1203
45°	396	358
55°	125	115
65°	45	46
75°	20	22
85°	5	6
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	4667.2
1°	4637.2
2°	4592.0
3°	4541.9
4°	4496.8
5°	4461.7
6°	4436.6
7°	4411.6
8°	4371.5
9°	4336.4
10°	4306.3
11°	4271.2
12°	4231.1
13°	4196.0
14°	4155.9
15°	4105.8
16°	4050.6
17°	3980.4
18°	3900.2
19°	3815.0
20°	3719.8
21°	3629.5
22°	3534.3
23°	3449.0
24°	3378.9
25°	3313.7
26°	3243.5
27°	3173.3
28°	3083.1
29°	2972.8
30°	2842.5
32.5°	2446.4
35°	1975.2
37.5°	1463.8
40°	997.6
42.5°	631.7
45°	396.0
47.5°	265.7
50°	200.5
52.5°	160.4
55°	125.3
57.5°	95.2
60°	70.2



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	35.1
70°	30.1
72.5°	25.1
75°	20.1
77.5°	15.0
80°	15.0
82.5°	10.0
85°	5.0
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		55.1
65°		45.1



(END OF REPORT)