

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: P430874

Luminaire Tested: **LAM4B412R659027DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430874  
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: LAM4B412R659027DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 65 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5078.0 lumens  
Efficiency: N/A  
Efficacy: 93.9 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

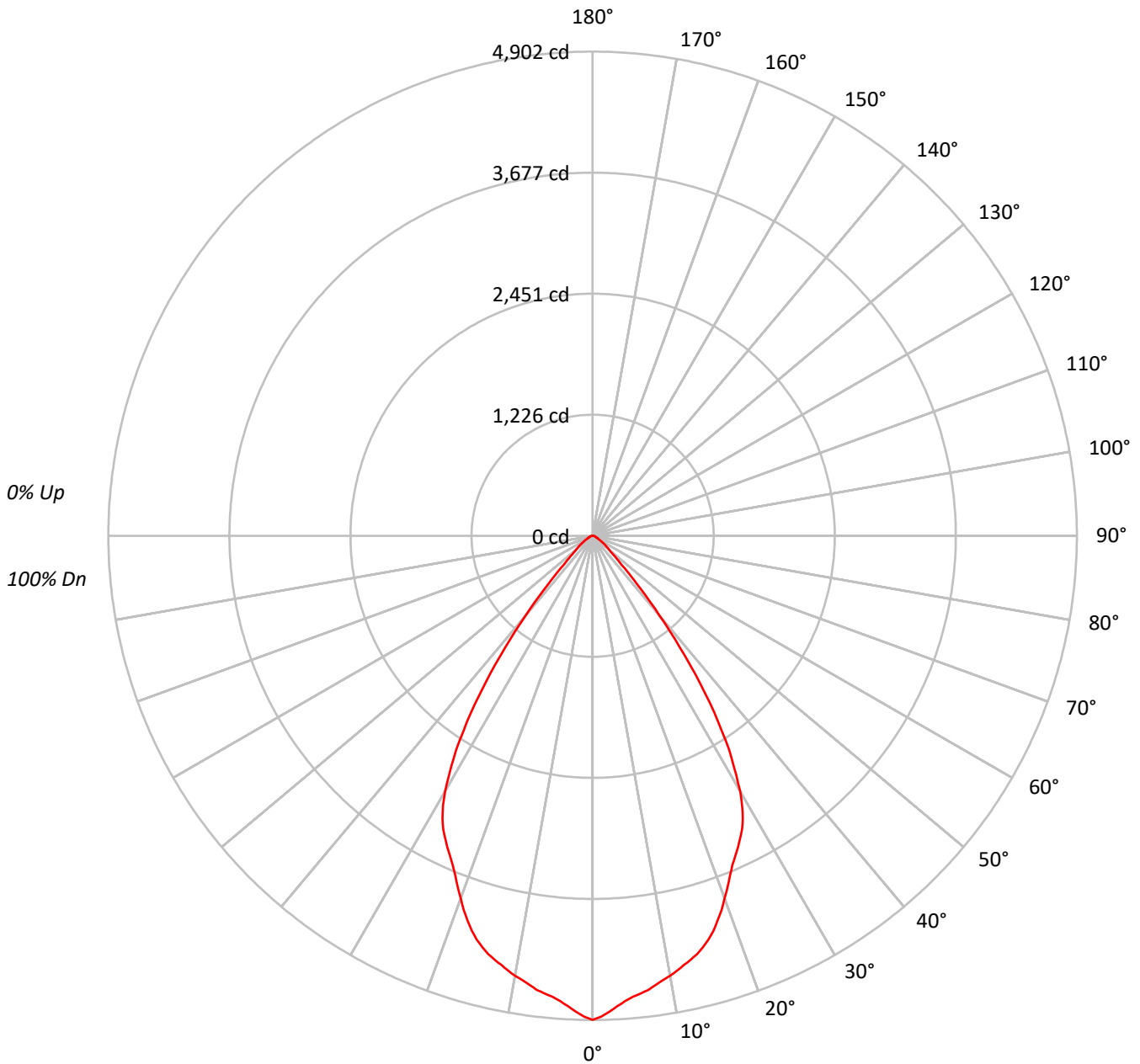
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93				93															
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85				85															
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79				79															
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	72				72															
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	68	67				67															
6	85	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62				62															
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58				58															
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54				54															
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	51	50				50															
10	69	59	53	49	68	58	53	49	58	52	48	57	52	48	56	51	48	47				47															

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

	0°
0°	2418300
5°	2320610
10°	2265680
15°	2202399
20°	2051030
25°	1894457
30°	1700628
35°	1249362
40°	674783
45°	290192
50°	161649
55°	113200
60°	72724
65°	55336
70°	45584
75°	40222
80°	44892
85°	30003



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	442.8	8.7
10°-20°	1203.1	23.7
20°-30°	1594.9	31.4
30°-40°	1263.0	24.9
40°-50°	376.2	7.4
50°-60°	120.4	2.4
60°-70°	48.1	0.9
70°-80°	22.9	0.5
80°-90°	6.4	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°	3240.9	63.8
0°-40°	4503.9	88.7
0°-60°	5000.5	98.5
0°-90°	5078.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5078.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4902	
5°	4686	443
15°	4312	1203
25°	3480	1595
35°	2074	1263
45°	416	376
55°	132	120
65°	47	48
75°	21	23
85°	5	6
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	4901.5
1°	4869.9
2°	4822.5
3°	4769.9
4°	4722.5
5°	4685.6
6°	4659.3
7°	4633.0
8°	4590.9
9°	4554.0
10°	4522.4
11°	4485.6
12°	4443.4
13°	4406.6
14°	4364.5
15°	4311.8
16°	4253.9
17°	4180.2
18°	4096.0
19°	4006.5
20°	3906.4
21°	3811.7
22°	3711.6
23°	3622.1
24°	3548.4
25°	3480.0
26°	3406.3
27°	3332.6
28°	3237.8
29°	3122.0
30°	2985.1
32.5°	2569.2
35°	2074.3
37.5°	1537.3
40°	1047.7
42.5°	663.4
45°	415.9
47.5°	279.0
50°	210.6
52.5°	168.5
55°	131.6
57.5°	100.0
60°	73.7



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	36.9
70°	31.6
72.5°	26.3
75°	21.1
77.5°	15.8
80°	15.8
82.5°	10.5
85°	5.3
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		57.9
65°		47.4



(END OF REPORT)