

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: P432023

Luminaire Tested: **LAMR4B412R659024DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P432023  
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: LAMR4B412R659024DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 65 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4695.3 lumens  
Efficiency: N/A  
Efficacy: 86.8 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

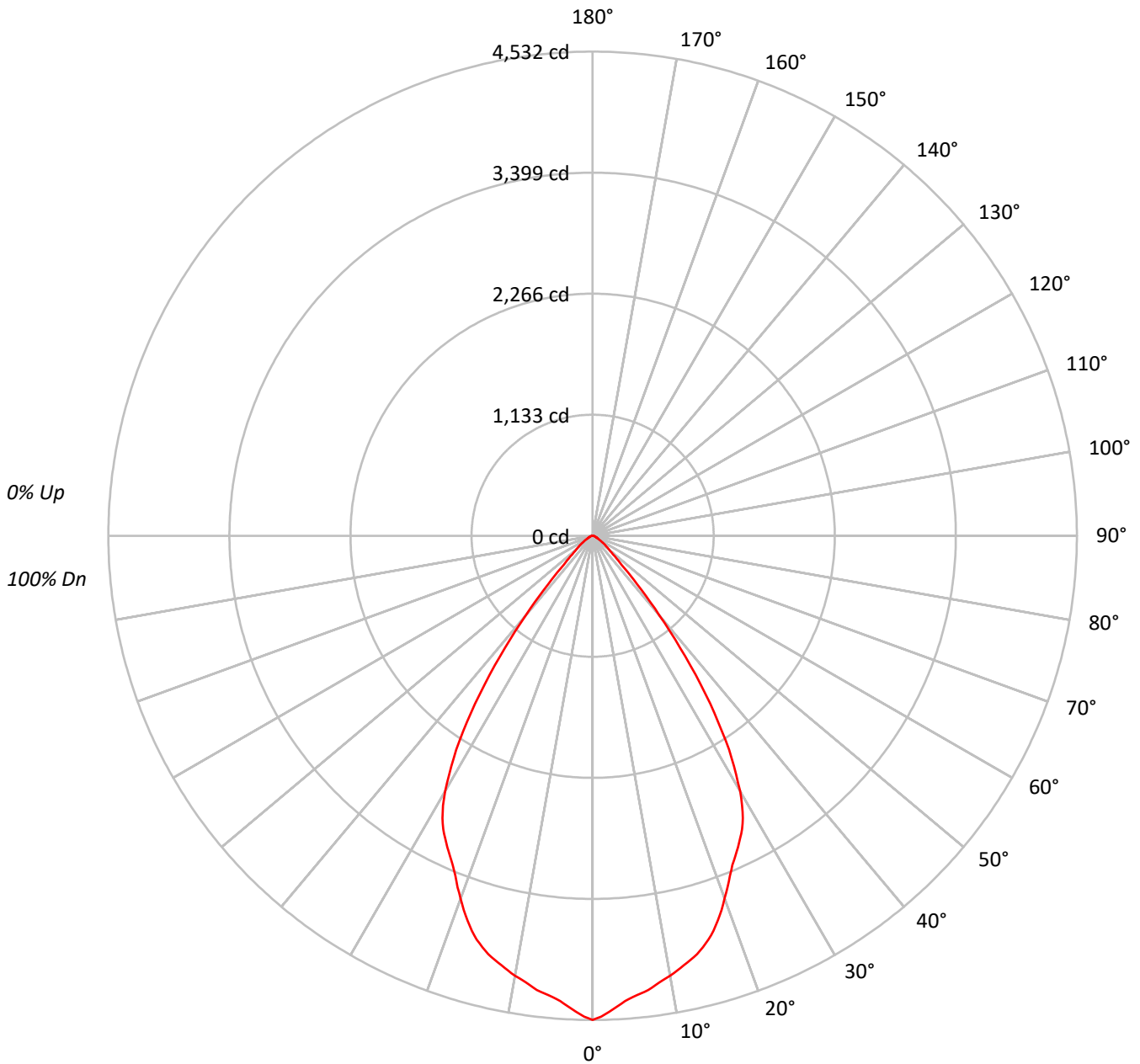
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2236045
5°	2145782
10°	2094943
15°	2036445
20°	1896510
25°	1751719
30°	1572501
35°	1155221
40°	623902
45°	268352
50°	149444
55°	104684
60°	67297
65°	51134
70°	42122
75°	37172
80°	41482
85°	27738



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	409.5	8.7
10°-20°	1112.5	23.7
20°-30°	1474.7	31.4
30°-40°	1167.9	24.9
40°-50°	347.9	7.4
50°-60°	111.4	2.4
60°-70°	44.4	0.9
70°-80°	21.2	0.5
80°-90°	6.0	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°	2996.7	63.8
0°-40°	4164.5	88.7
0°-60°	4623.8	98.5
0°-90°	4695.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4695.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4532	
5°	4333	409
15°	3987	1112
25°	3218	1475
35°	1918	1168
45°	385	348
55°	122	111
65°	44	44
75°	20	21
85°	5	6
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	4532.1
1°	4502.9
2°	4459.1
3°	4410.4
4°	4366.6
5°	4332.6
6°	4308.2
7°	4283.9
8°	4244.9
9°	4210.9
10°	4181.6
11°	4147.6
12°	4108.6
13°	4074.5
14°	4035.6
15°	3986.9
16°	3933.4
17°	3865.2
18°	3787.3
19°	3704.6
20°	3612.1
21°	3524.5
22°	3432.0
23°	3349.2
24°	3281.1
25°	3217.8
26°	3149.6
27°	3081.5
28°	2993.8
29°	2886.7
30°	2760.2
32.5°	2375.6
35°	1918.0
37.5°	1421.5
40°	968.7
42.5°	613.4
45°	384.6
47.5°	258.0
50°	194.7
52.5°	155.8
55°	121.7
57.5°	92.5
60°	68.2



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	34.1
70°	29.2
72.5°	24.3
75°	19.5
77.5°	14.6
80°	14.6
82.5°	9.7
85°	4.9
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		53.5
65°		43.8



(END OF REPORT)