

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: P430886

Luminaire Tested: **LAM4B412R659050DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430886  
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: LAM4B412R659050DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 65 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5657.0 lumens  
Efficiency: N/A  
Efficacy: 104.6 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

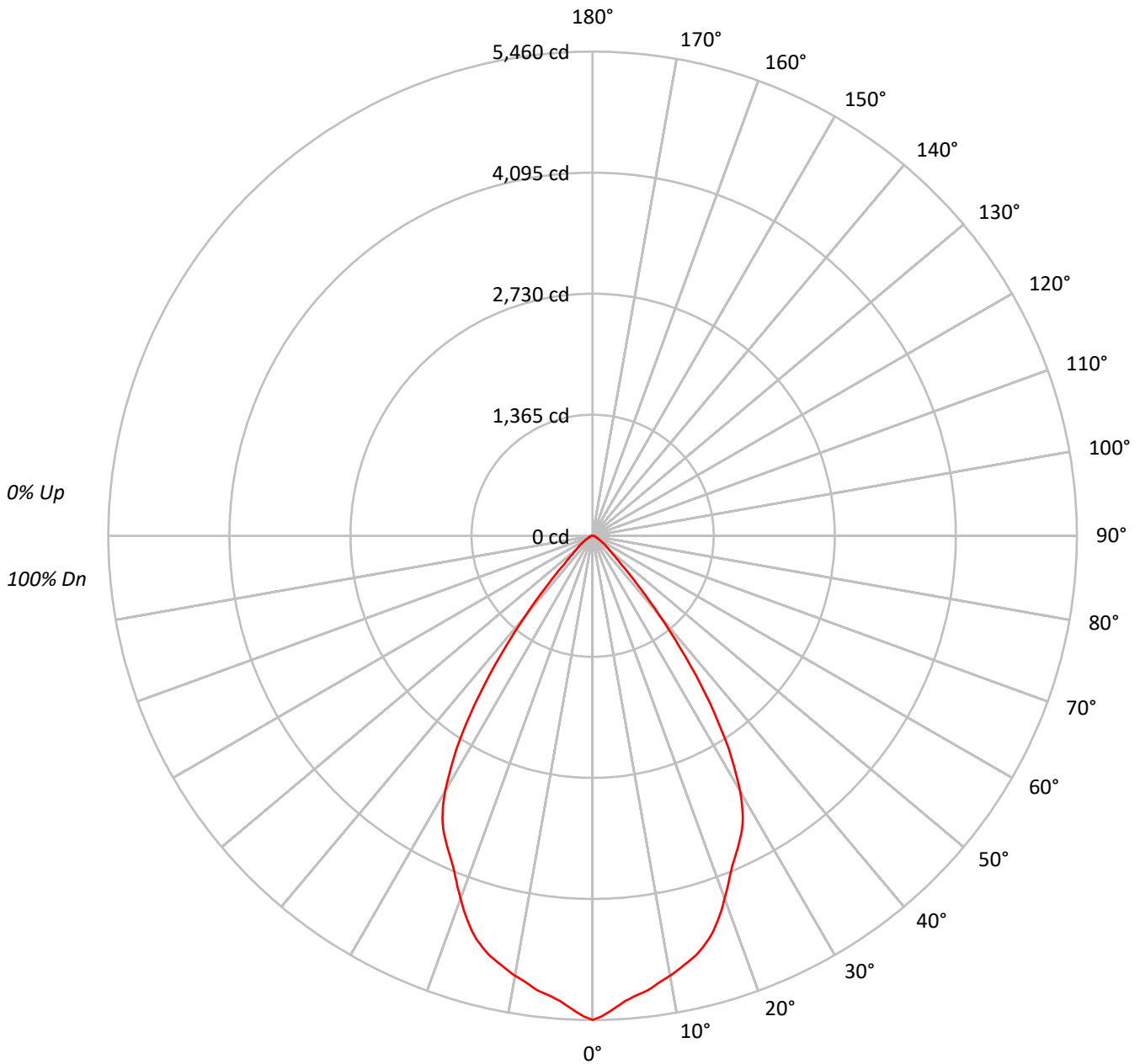
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P430886

CATALOG NUMBER: LAM4B412R659050DE01021MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P430886

CATALOG NUMBER: LAM4B412R659050DE01021MMS

**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°	2694050
5°	2585229
10°	2524041
15°	2453551
20°	2284937
25°	2110468
30°	1894556
35°	1391807
40°	751684
45°	323265
50°	180070
55°	126103
60°	81013
65°	61641
70°	50778
75°	44797
80°	50006
85°	33399



TEST NUMBER: P430886

CATALOG NUMBER: LAM4B412R659050DE01021MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	493.3	8.7
10°-20°	1340.3	23.7
20°-30°	1776.8	31.4
30°-40°	1407.0	24.9
40°-50°	419.1	7.4
50°-60°	134.2	2.4
60°-70°	53.6	0.9
70°-80°	25.5	0.5
80°-90°	7.2	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°	3610.4	63.8
0°-40°	5017.5	88.7
0°-60°	5570.7	98.5
0°-90°	5657.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5657.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	5460	
5°	5220	493
15°	4804	1340
25°	3877	1777
35°	2311	1407
45°	463	419
55°	147	134
65°	53	54
75°	24	26
85°	6	7
90°	0	



TEST NUMBER: P430886

CATALOG NUMBER: LAM4B412R659050DE01021MMS

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	5460.4
1°	5425.2
2°	5372.4
3°	5313.7
4°	5260.9
5°	5219.9
6°	5190.6
7°	5161.2
8°	5114.3
9°	5073.3
10°	5038.1
11°	4997.0
12°	4950.1
13°	4909.0
14°	4862.1
15°	4803.5
16°	4739.0
17°	4656.8
18°	4563.0
19°	4463.3
20°	4351.9
21°	4246.3
22°	4134.9
23°	4035.2
24°	3953.0
25°	3876.8
26°	3794.7
27°	3712.6
28°	3607.0
29°	3478.0
30°	3325.5
32.5°	2862.1
35°	2310.8
37.5°	1712.6
40°	1167.1
42.5°	739.0
45°	463.3
47.5°	310.8
50°	234.6
52.5°	187.7
55°	146.6
57.5°	111.4
60°	82.1



TEST NUMBER: P430886

CATALOG NUMBER: LAM4B412R659050DE01021MMS

**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	41.1
70°	35.2
72.5°	29.3
75°	23.5
77.5°	17.6
80°	17.6
82.5°	11.7
85°	5.9
87.5°	0.0
90°	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







62.5°		64.5
65°		52.8



(END OF REPORT)