

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: P430877

Luminaire Tested: **LAM4B412R659030DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430877  
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: LAM4B412R659030DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 65 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5322.9 lumens  
Efficiency: N/A  
Efficacy: 98.4 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

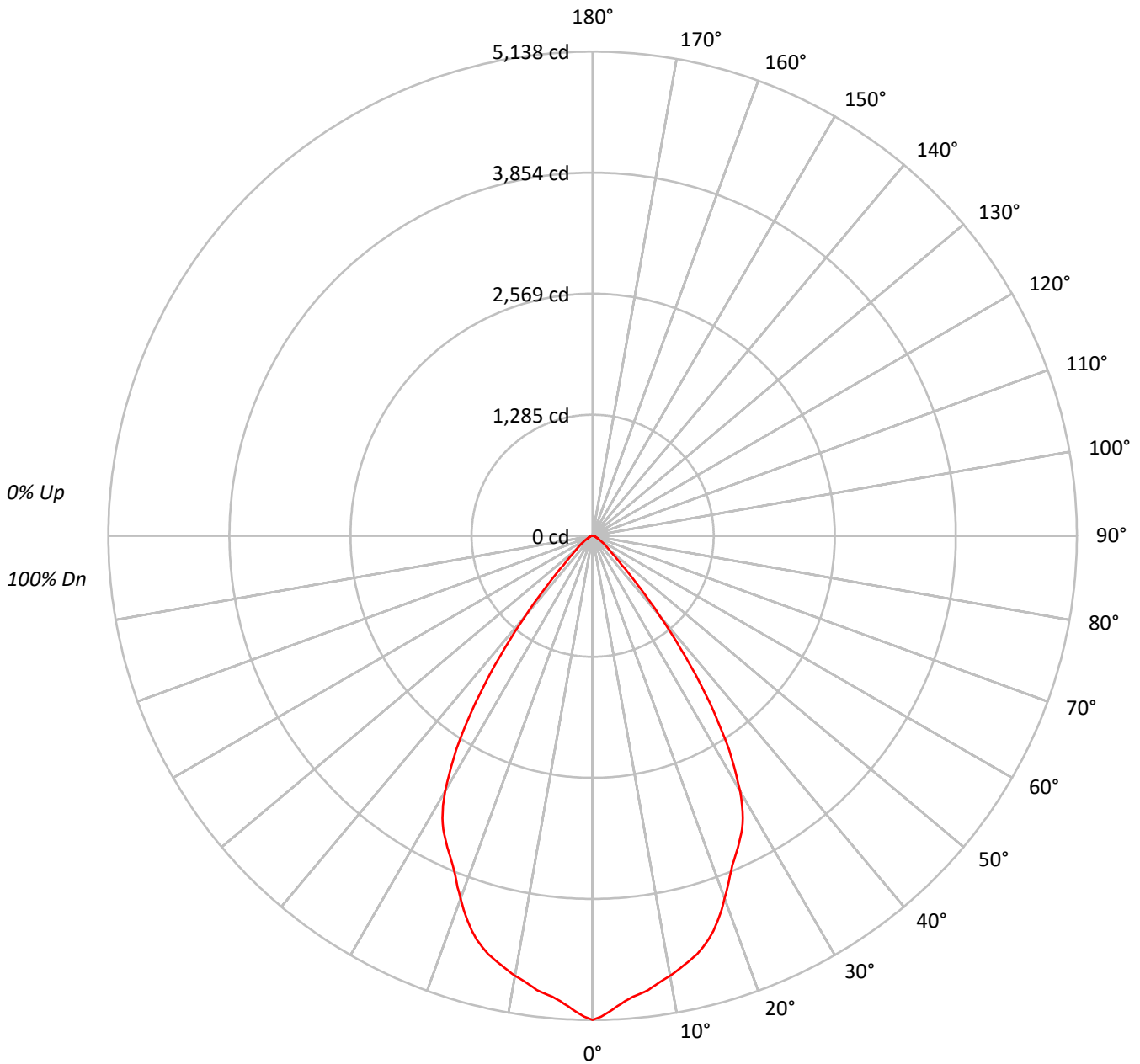
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	81	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°	2534935
5°	2432540
10°	2374947
15°	2308642
20°	2150001
25°	1985804
30°	1782666
35°	1309652
40°	707308
45°	304216
50°	169401
55°	118705
60°	76276
65°	58022
70°	47748
75°	42129
80°	47165
85°	31135



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	464.2	8.7
10°-20°	1261.2	23.7
20°-30°	1671.8	31.4
30°-40°	1324.0	24.9
40°-50°	394.4	7.4
50°-60°	126.3	2.4
60°-70°	50.4	0.9
70°-80°	24.0	0.5
80°-90°	6.7	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°	3397.2	63.8
0°-40°	4721.1	88.7
0°-60°	5241.8	98.5
0°-90°	5322.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5322.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	5138	
5°	4912	464
15°	4520	1261
25°	3648	1672
35°	2174	1324
45°	436	394
55°	138	126
65°	50	50
75°	22	24
85°	6	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	5137.9
1°	5104.8
2°	5055.1
3°	4999.9
4°	4950.2
5°	4911.6
6°	4884.0
7°	4856.4
8°	4812.3
9°	4773.6
10°	4740.5
11°	4701.9
12°	4657.8
13°	4619.1
14°	4575.0
15°	4519.8
16°	4459.1
17°	4381.8
18°	4293.5
19°	4199.7
20°	4094.9
21°	3995.5
22°	3890.7
23°	3796.8
24°	3719.6
25°	3647.8
26°	3570.6
27°	3493.3
28°	3394.0
29°	3272.6
30°	3129.1
32.5°	2693.1
35°	2174.4
37.5°	1611.5
40°	1098.2
42.5°	695.4
45°	436.0
47.5°	292.5
50°	220.7
52.5°	176.6
55°	138.0
57.5°	104.9
60°	77.3



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	38.6
70°	33.1
72.5°	27.6
75°	22.1
77.5°	16.6
80°	16.6
82.5°	11.0
85°	5.5
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		60.7
65°		49.7



(END OF REPORT)