

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: P430583

Luminaire Tested: **LAM4B312R659024DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430583  
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: LAM4B312R659024DE01021MMS  
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: 3013.6 lumens  
Efficiency: N/A  
Efficacy: 73.7 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

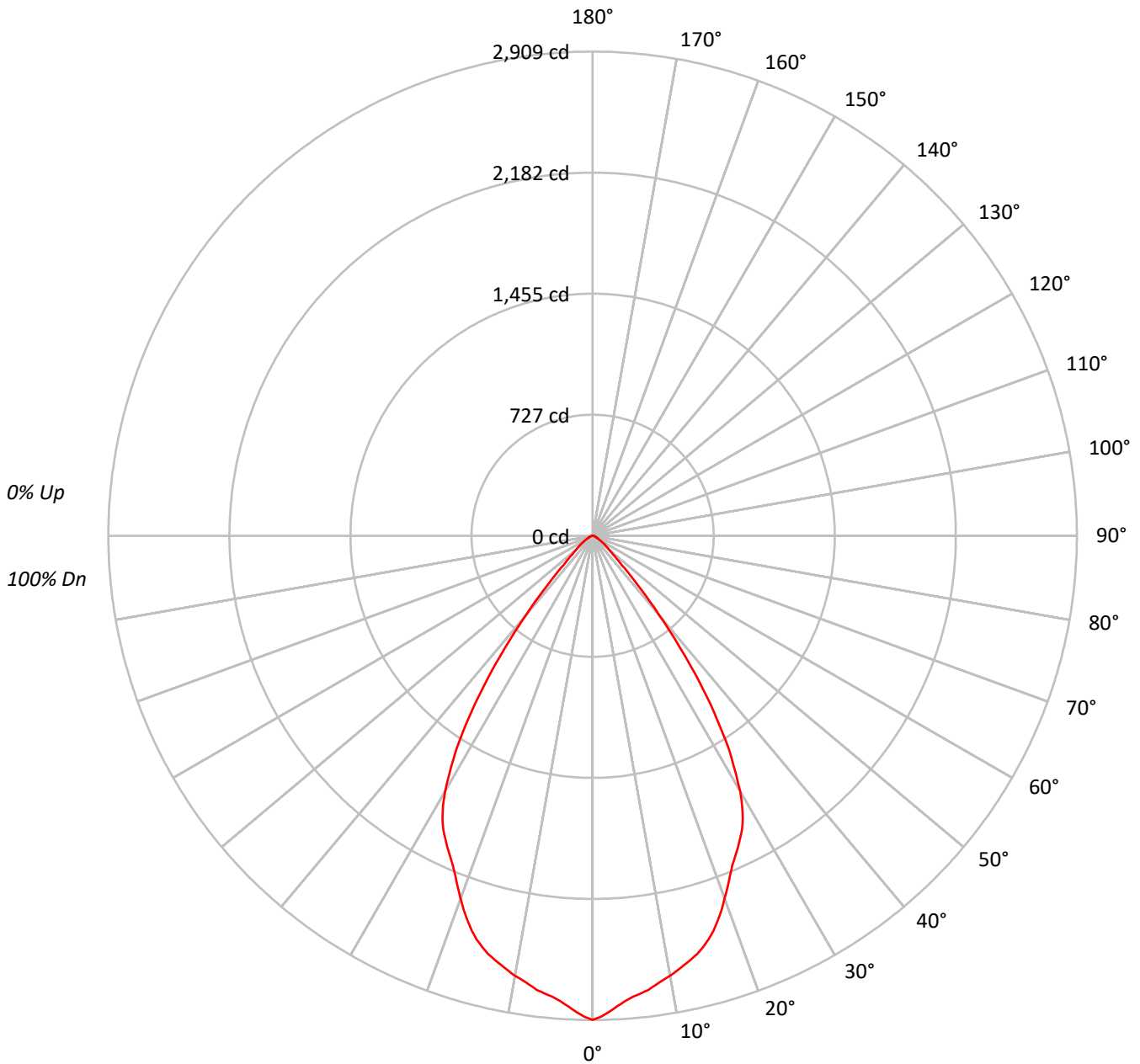
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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																			
1	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93																			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85																			
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79																			
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	72																			
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	68	67																			
6	85	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62																			
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58																			
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54																			
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	51	50																			
10	69	59	53	49	68	58	53	49	58	52	48	57	52	48	56	51	48	47																			

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

	0°
0°	1435192
5°	1377231
10°	1344609
15°	1307045
20°	1217261
25°	1124316
30°	1009290
35°	741438
40°	400477
45°	172203
50°	95945
55°	67180
60°	43121
65°	32805
70°	26976
75°	23828
80°	26708
85°	17549



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.8	8.7
10°-20°	714.0	23.7
20°-30°	946.5	31.4
30°-40°	749.6	24.9
40°-50°	223.3	7.4
50°-60°	71.5	2.4
60°-70°	28.5	0.9
70°-80°	13.6	0.5
80°-90°	3.8	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°	1923.4	63.8
0°-40°	2672.9	88.7
0°-60°	2967.7	98.5
0°-90°	3013.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3013.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2909	
5°	2781	263
15°	2559	714
25°	2065	947
35°	1231	750
45°	247	223
55°	78	71
65°	28	29
75°	12	14
85°	3	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2908.9
1°	2890.1
2°	2862.0
3°	2830.8
4°	2802.7
5°	2780.8
6°	2765.2
7°	2749.5
8°	2724.5
9°	2702.7
10°	2683.9
11°	2662.0
12°	2637.1
13°	2615.2
14°	2590.2
15°	2558.9
16°	2524.6
17°	2480.8
18°	2430.8
19°	2377.7
20°	2318.4
21°	2262.1
22°	2202.8
23°	2149.6
24°	2105.9
25°	2065.3
26°	2021.5
27°	1977.8
28°	1921.5
29°	1852.8
30°	1771.6
32.5°	1524.7
35°	1231.0
37.5°	912.3
40°	621.8
42.5°	393.7
45°	246.8
47.5°	165.6
50°	125.0
52.5°	100.0
55°	78.1
57.5°	59.4
60°	43.7



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	21.9
70°	18.7
72.5°	15.6
75°	12.5
77.5°	9.4
80°	9.4
82.5°	6.2
85°	3.1
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		34.4
65°		28.1



(END OF REPORT)