

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: P431744

Luminaire Tested: **LAMR4B312R659035DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431744  
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: LAMR4B312R659035DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 65 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3691.7 lumens  
Efficiency: N/A  
Efficacy: 90.3 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

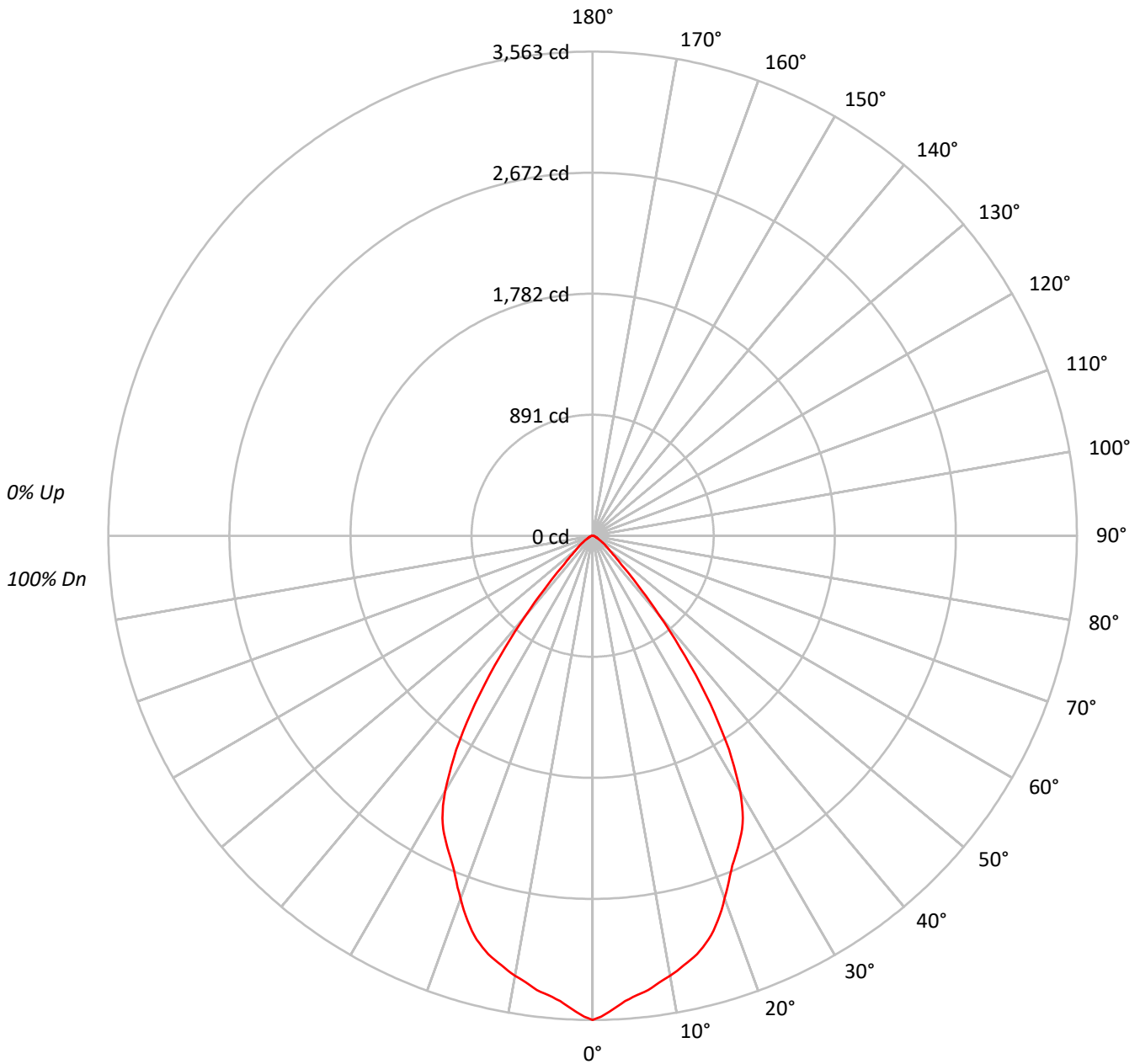
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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
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°	1758109
5°	1687117
10°	1647157
15°	1601155
20°	1491124
25°	1377292
30°	1236375
35°	908276
40°	490581
45°	210998
50°	117514
55°	82319
60°	52890
65°	40160
70°	33179
75°	29166
80°	32674
85°	21511



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	321.9	8.7
10°-20°	874.7	23.7
20°-30°	1159.5	31.4
30°-40°	918.2	24.9
40°-50°	273.5	7.4
50°-60°	87.6	2.4
60°-70°	34.9	0.9
70°-80°	16.7	0.5
80°-90°	4.7	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°	2356.1	63.8
0°-40°	3274.3	88.7
0°-60°	3635.4	98.5
0°-90°	3691.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3691.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3563	
5°	3406	322
15°	3135	875
25°	2530	1160
35°	1508	918
45°	302	274
55°	96	88
65°	34	35
75°	15	17
85°	4	5
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3563.4
1°	3540.4
2°	3506.0
3°	3467.7
4°	3433.2
5°	3406.5
6°	3387.3
7°	3368.2
8°	3337.6
9°	3310.8
10°	3287.8
11°	3261.0
12°	3230.4
13°	3203.6
14°	3173.0
15°	3134.7
16°	3092.6
17°	3039.0
18°	2977.8
19°	2912.7
20°	2840.0
21°	2771.1
22°	2698.4
23°	2633.3
24°	2579.7
25°	2530.0
26°	2476.4
27°	2422.8
28°	2353.9
29°	2269.7
30°	2170.2
32.5°	1867.8
35°	1508.0
37.5°	1117.6
40°	761.7
42.5°	482.3
45°	302.4
47.5°	202.9
50°	153.1
52.5°	122.5
55°	95.7
57.5°	72.7
60°	53.6



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	26.8
70°	23.0
72.5°	19.1
75°	15.3
77.5°	11.5
80°	11.5
82.5°	7.7
85°	3.8
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		42.1
65°		34.4



(END OF REPORT)