

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: P431642

Luminaire Tested: **LAMR4B312R459027DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431642  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-8)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B312R459027DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 45 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3380.6 lumens  
Efficiency: N/A  
Efficacy: 82.7 lumens/watt  
Spacing Criteria (0/90/45): 0.73 / 0.73 / 0.66  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

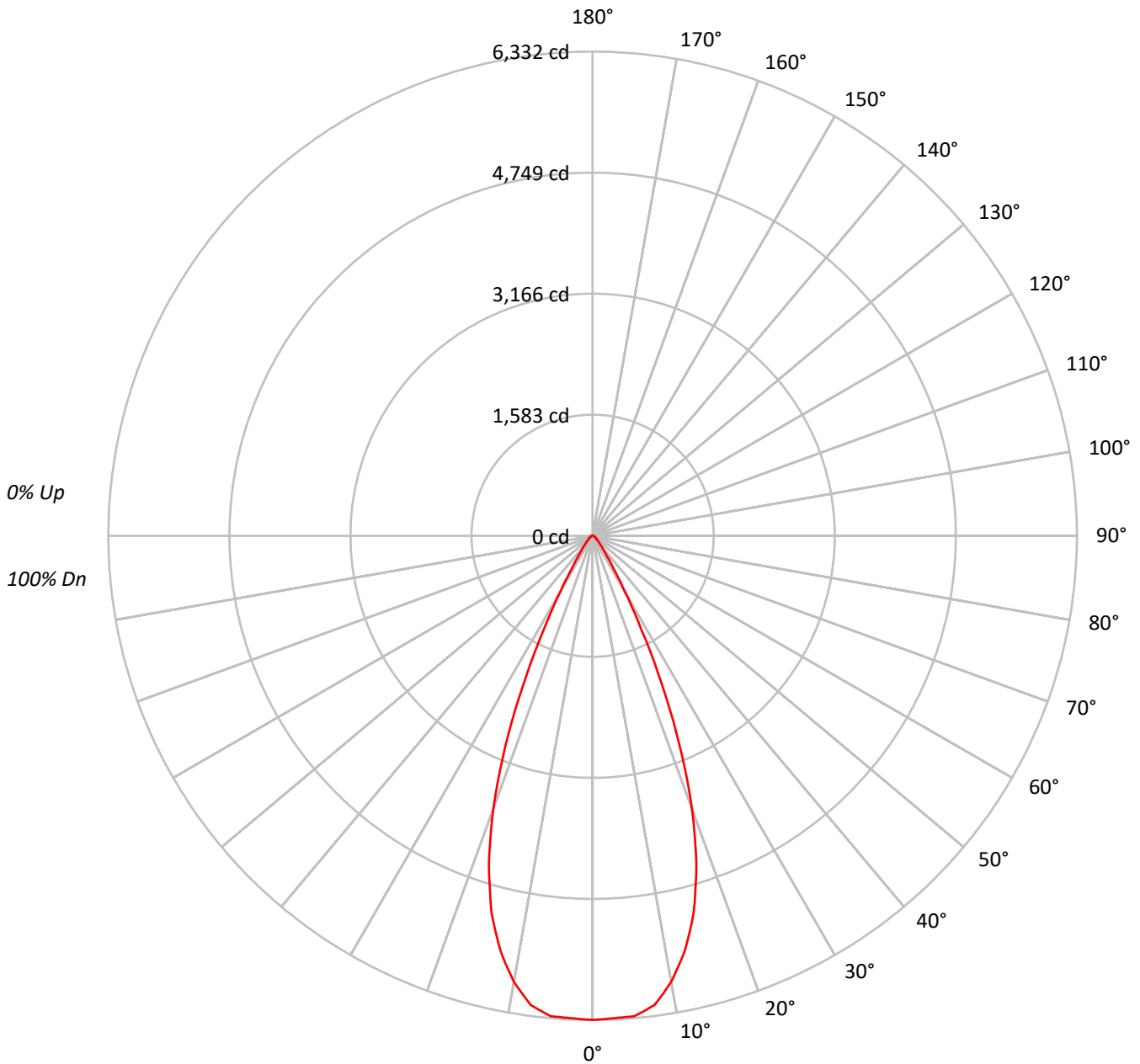
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	114	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95																											
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	89																											
3	105	99	94	91	103	98	93	90	95	92	89	93	90	87	90	88	86	85																											
4	100	94	89	85	99	93	88	85	90	87	84	89	85	83	87	84	82	80																											
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76																											
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73																											
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69																											
8	85	77	72	68	84	77	72	68	76	71	68	75	71	68	74	70	67	66																											
9	82	74	69	65	81	73	68	65	72	68	65	72	68	65	71	67	65	63																											
10	79	71	66	62	78	70	66	62	70	65	62	69	65	62	68	65	62	61																											

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

	0°
0°	3123981
5°	3122888
10°	2968370
15°	2607451
20°	1994693
25°	1164438
30°	476616
35°	201531
40°	109877
45°	70961
50°	55418
55°	47998
60°	38878
65°	30587
70°	28418
75°	24972
80°	27844
85°	18681



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	590.1	17.5
10°-20°	1389.8	41.1
20°-30°	979.2	29.0
30°-40°	241.0	7.1
40°-50°	84.1	2.5
50°-60°	49.8	1.5
60°-70°	27.6	0.8
70°-80°	15.1	0.4
80°-90°	4.0	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°	2959.0	87.5
0°-40°	3200.0	94.7
0°-60°	3333.9	98.6
0°-90°	3380.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3380.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	6332	
5°	6306	590
15°	5105	1390
25°	2139	979
35°	335	241
45°	102	84
55°	56	50
65°	26	28
75°	13	15
85°	3	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	6331.8
2.5°	6315.4
5°	6305.5
7.5°	6190.7
10°	5925.0
12.5°	5564.1
15°	5104.8
17.5°	4511.0
20°	3799.1
22.5°	2982.2
25°	2139.0
27.5°	1381.2
30°	836.6
32.5°	508.5
35°	334.6
37.5°	236.2
40°	170.6
42.5°	131.2
45°	101.7
47.5°	85.3
50°	72.2
52.5°	62.3
55°	55.8
57.5°	49.2
60°	39.4
62.5°	32.8
65°	26.2
67.5°	23.0
70°	19.7
72.5°	16.4
75°	13.1
77.5°	13.1
80°	9.8
82.5°	6.6
85°	3.3
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)