

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: P431644

Luminaire Tested: **LAMR4B312R459030DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431644  
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: LAMR4B312R459030DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 45 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3543.7 lumens  
Efficiency: N/A  
Efficacy: 86.6 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

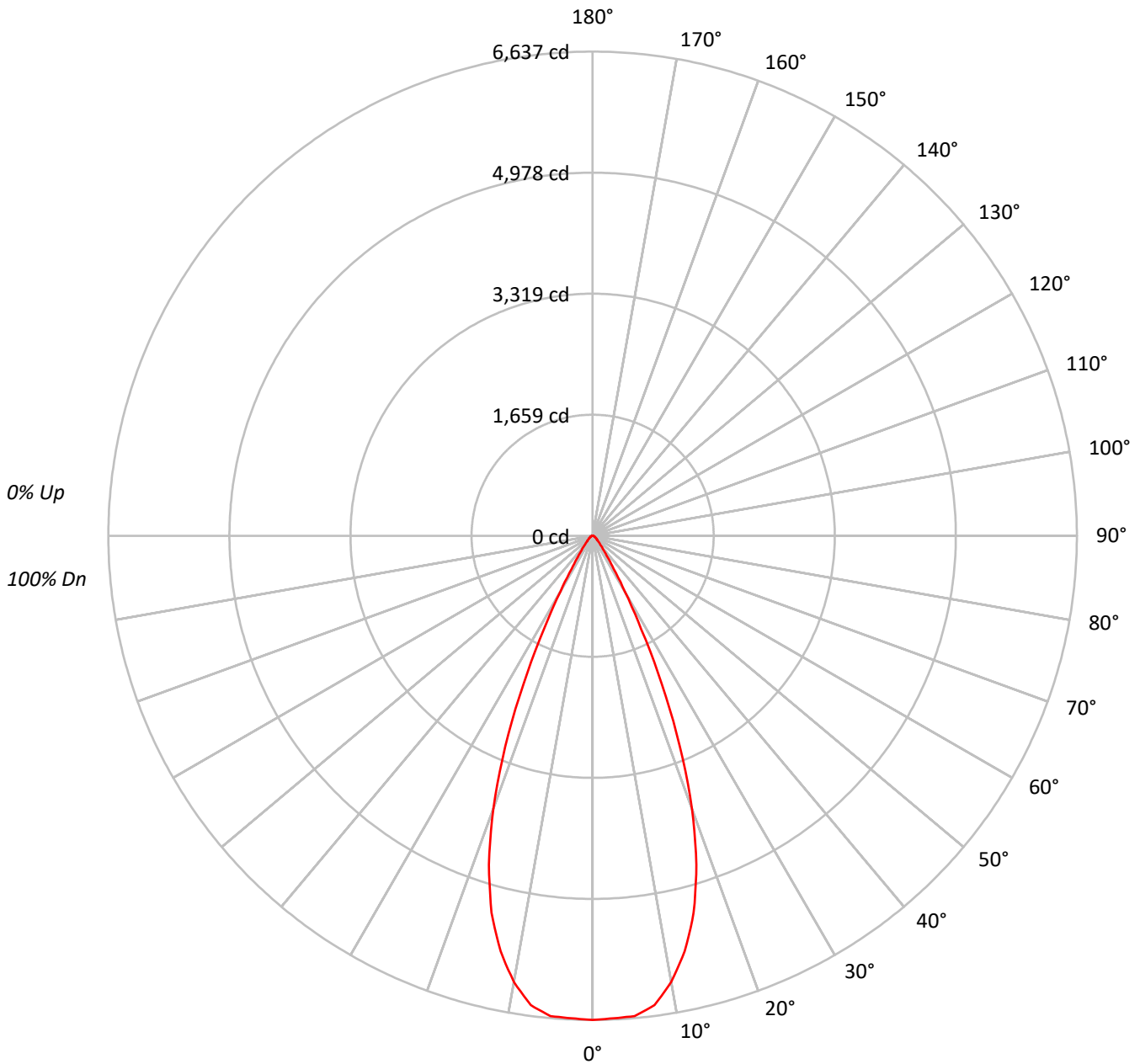
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	114	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95	95	95	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	89	89	89	89
3	105	99	94	91	103	98	93	90	95	92	89	93	90	87	90	88	86	85	85	85	85
4	100	94	89	85	99	93	88	85	90	87	84	89	85	83	87	84	82	80	80	80	80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76	76	76	76
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73	73	73	73
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69	69	69	69
8	85	77	72	68	84	77	72	68	76	71	68	75	71	68	74	70	67	66	66	66	66
9	82	74	69	65	81	73	68	65	72	68	65	72	68	65	71	67	65	63	63	63	63
10	79	71	66	62	78	70	66	62	70	65	62	69	65	62	68	65	62	61	61	61	61

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

	0°
0°	3274659
5°	3273548
10°	3111503
15°	2733206
20°	2090881
25°	1220618
30°	499575
35°	211289
40°	115158
45°	74380
50°	58104
55°	50321
60°	40753
65°	32104
70°	29716
75°	26307
80°	29265
85°	19247



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	618.5	17.5
10°-20°	1456.8	41.1
20°-30°	1026.4	29.0
30°-40°	252.6	7.1
40°-50°	88.2	2.5
50°-60°	52.2	1.5
60°-70°	28.9	0.8
70°-80°	15.9	0.4
80°-90°	4.2	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°	3101.7	87.5
0°-40°	3354.4	94.7
0°-60°	3494.7	98.6
0°-90°	3543.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3543.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	6637	
5°	6610	619
15°	5351	1457
25°	2242	1026
35°	351	253
45°	107	88
55°	58	52
65°	28	29
75°	14	16
85°	3	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	6637.2
2.5°	6620.0
5°	6609.7
7.5°	6489.3
10°	6210.7
12.5°	5832.5
15°	5351.0
17.5°	4728.6
20°	3982.3
22.5°	3126.0
25°	2242.2
27.5°	1447.8
30°	876.9
32.5°	533.0
35°	350.8
37.5°	247.6
40°	178.8
42.5°	137.6
45°	106.6
47.5°	89.4
50°	75.7
52.5°	65.3
55°	58.5
57.5°	51.6
60°	41.3
62.5°	34.4
65°	27.5
67.5°	24.1
70°	20.6
72.5°	17.2
75°	13.8
77.5°	13.8
80°	10.3
82.5°	6.9
85°	3.4
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)