

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: P431716

Luminaire Tested: **LAMR4B312R609030DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431716  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2009-969-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B312R609030DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 60 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3342.3 lumens  
Efficiency: N/A  
Efficacy: 81.7 lumens/watt  
Spacing Criteria (0/90/45): 0.96 / 0.96 / 0.89  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

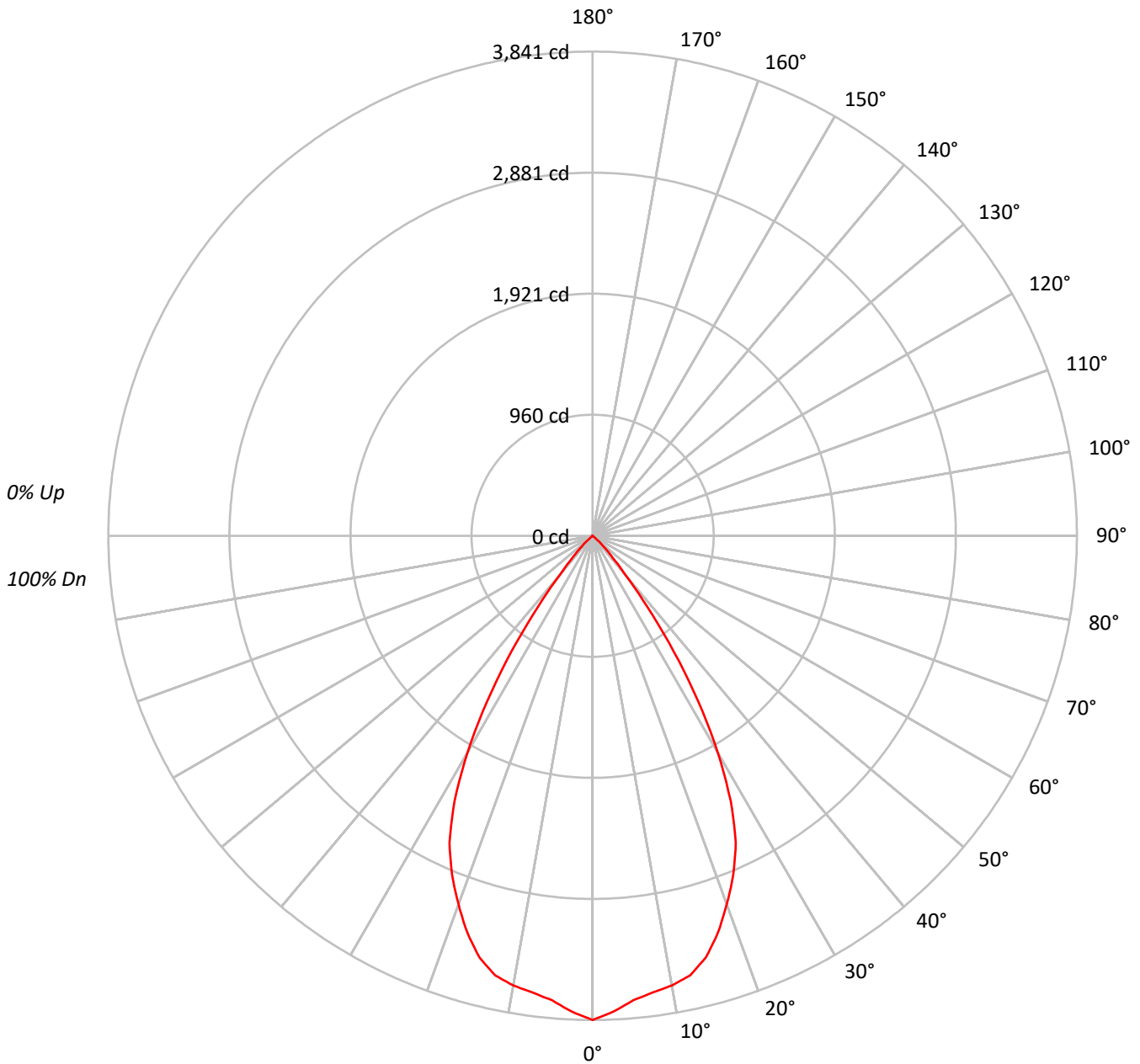
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94	94	94	94
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88	88	88	88
3	103	97	92	88	101	96	91	88	93	89	86	91	87	85	88	86	84	82	82	82	82
4	98	91	85	81	96	90	85	81	88	83	80	86	82	79	84	81	78	77	77	77	77
5	93	85	80	75	92	84	79	75	83	78	74	81	77	74	79	76	73	72	72	72	72
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	69	67	67	67	67
7	84	75	70	66	83	75	69	65	74	69	65	72	68	65	71	67	64	63	63	63	63
8	80	71	65	61	79	71	65	61	70	65	61	69	64	61	68	64	60	59	59	59	59
9	77	67	62	58	76	67	61	58	66	61	57	65	60	57	64	60	57	56	56	56	56
10	73	64	58	54	72	63	58	54	62	58	54	62	57	54	61	57	54	53	53	53	53

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

	0°
0°	1895268
5°	1831735
10°	1814639
15°	1769663
20°	1633148
25°	1462488
30°	1131720
35°	677955
40°	260458
45°	95172
50°	3761
55°	2753
60°	3158
65°	1868
70°	2308
75°	3050
80°	4546
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	351.2	10.5
10°-20°	963.8	28.8
20°-30°	1202.4	36.0
30°-40°	700.4	21.0
40°-50°	116.9	3.5
50°-60°	3.1	0.1
60°-70°	2.2	0.1
70°-80°	1.7	0.1
80°-90°	0.7	0.0
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°	2517.4	75.3
0°-40°	3217.8	96.3
0°-60°	3337.8	99.9
0°-90°	3342.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3342.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3841	
5°	3698	351
15°	3465	964
25°	2686	1202
35°	1126	700
45°	136	117
55°	3	3
65°	2	2
75°	2	2
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3841.4
2.5°	3778.0
5°	3698.5
7.5°	3653.0
10°	3622.1
12.5°	3571.8
15°	3464.6
17.5°	3303.8
20°	3110.5
22.5°	2913.9
25°	2686.5
27.5°	2371.4
30°	1986.5
32.5°	1556.0
35°	1125.6
37.5°	709.8
40°	404.4
42.5°	237.1
45°	136.4
47.5°	47.1
50°	4.9
52.5°	3.2
55°	3.2
57.5°	3.2
60°	3.2
62.5°	3.2
65°	1.6
67.5°	1.6
70°	1.6
72.5°	1.6
75°	1.6
77.5°	1.6
80°	1.6
82.5°	1.6
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)