

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: P431722

Luminaire Tested: **LAMR4B312R609040DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431722  
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: LAMR4B312R609040DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 60 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3651.5 lumens  
Efficiency: N/A  
Efficacy: 89.3 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

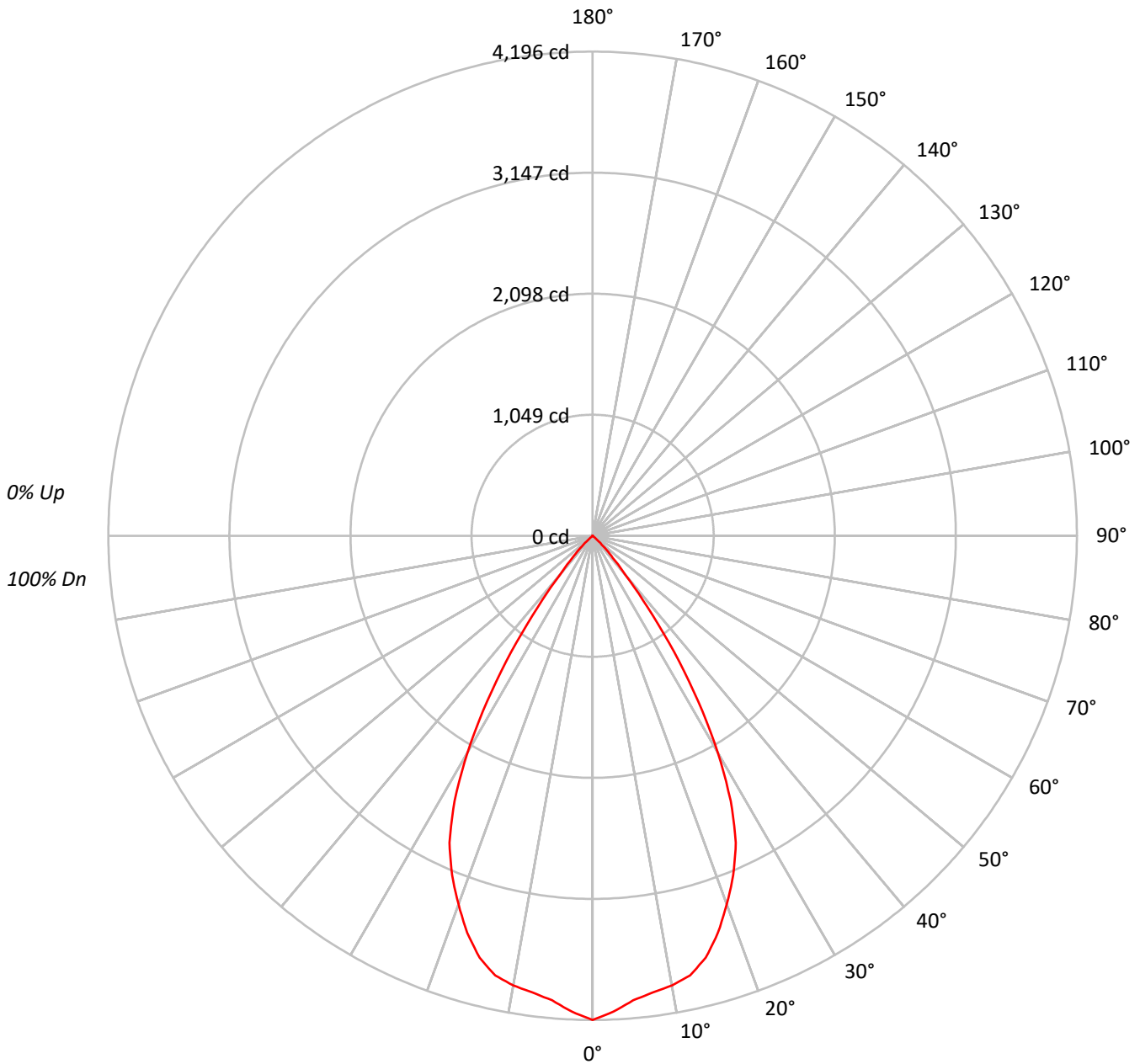
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
1	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94			94
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88			88
3	103	97	92	88	101	96	91	88	93	89	86	91	87	85	88	86	84	82			82
4	98	91	85	81	96	90	85	81	88	83	80	86	82	79	84	81	78	77			77
5	93	85	80	75	92	84	79	75	83	78	74	81	77	74	79	76	73	72			72
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	69	67			67
7	84	75	70	66	83	75	69	65	74	69	65	72	68	65	71	67	64	63			63
8	80	71	65	61	79	71	65	61	70	65	61	69	64	61	68	64	60	59			59
9	77	67	62	58	76	67	61	58	66	61	57	65	60	57	64	60	57	56			56
10	73	64	58	54	72	63	58	54	62	58	54	62	57	54	61	57	54	53			53

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

	0°
0°	2070467
5°	2001065
10°	1982420
15°	1933267
20°	1784098
25°	1597713
30°	1236318
35°	740655
40°	284546
45°	104034
50°	4068
55°	3011
60°	3454
65°	2101
70°	2597
75°	3431
80°	5114
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	383.7	10.5
10°-20°	1052.9	28.8
20°-30°	1313.5	36.0
30°-40°	765.2	21.0
40°-50°	127.7	3.5
50°-60°	3.3	0.1
60°-70°	2.4	0.1
70°-80°	1.9	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°	2750.1	75.3
0°-40°	3515.3	96.3
0°-60°	3646.4	99.9
0°-90°	3651.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3651.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4196	
5°	4040	384
15°	3785	1053
25°	2935	1314
35°	1230	765
45°	149	128
55°	4	3
65°	2	2
75°	2	2
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	4196.5
2.5°	4127.3
5°	4040.4
7.5°	3990.7
10°	3957.0
12.5°	3902.0
15°	3784.9
17.5°	3609.2
20°	3398.0
22.5°	3183.3
25°	2934.9
27.5°	2590.7
30°	2170.1
32.5°	1699.9
35°	1229.7
37.5°	775.4
40°	441.8
42.5°	259.1
45°	149.1
47.5°	51.5
50°	5.3
52.5°	3.5
55°	3.5
57.5°	3.5
60°	3.5
62.5°	3.5
65°	1.8
67.5°	1.8
70°	1.8
72.5°	1.8
75°	1.8
77.5°	1.8
80°	1.8
82.5°	1.8
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)