

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: P431529

Luminaire Tested: **LAMR4B312R209035DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431529  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-3)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B312R209035DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 20 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

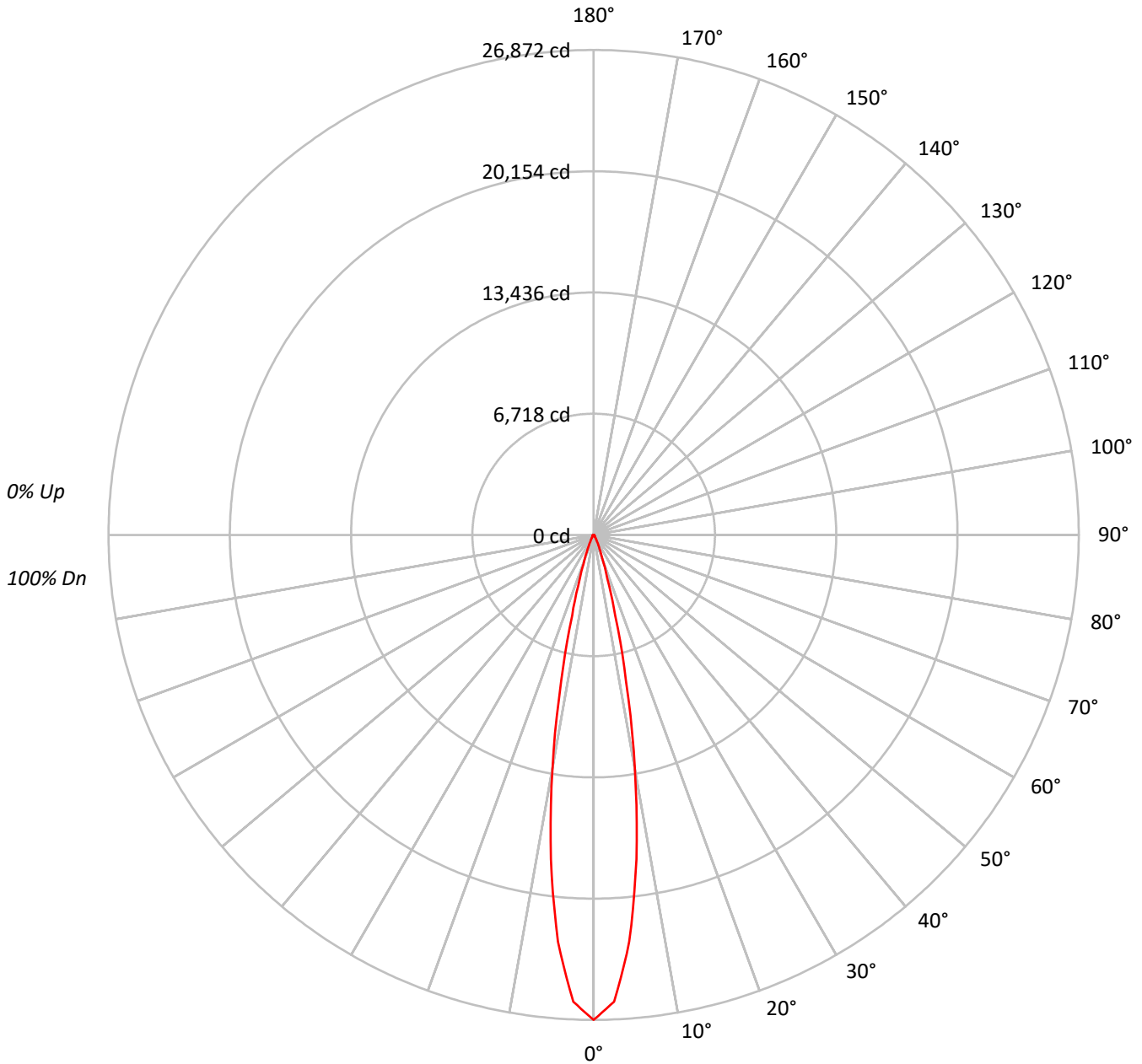
Lumens per Lamp: N/A  
Luminaire Lumens: 3838.1 lumens  
Efficiency: N/A  
Efficacy: 93.8 lumens/watt  
Spacing Criteria (0/90/45): 0.34 / 0.34 / 0.33  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P431529  
CATALOG NUMBER: LAMR4B312R209035DE01021MW

### Luminous Intensity Polar Plot





TEST NUMBER: P431529

CATALOG NUMBER: LAMR4B312R209035DE01021MW

**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	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97	97	97
2	112	108	105	103	110	106	104	102	103	101	100	101	99	97	98	97	95	94	94	94	94
3	108	104	100	98	107	103	100	97	100	98	96	98	96	94	96	94	93	91	91	91	91
4	105	100	97	94	104	99	96	93	97	94	92	96	93	91	94	92	90	89	89	89	89
5	103	97	93	90	101	96	93	90	95	92	89	93	91	89	92	90	88	87	87	87	87
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	85	85	85
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	83	83	83
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	81	81	81
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	80	80	80
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	83	81	79	78	78	78	78

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

	0°
0°	13258046
5°	11206491
10°	6582267
15°	2356809
20°	779847
25°	310408
30°	148351
35°	84805
40°	61186
45°	51563
50°	59409
55°	48428
60°	24274
65°	20547
70°	25389
75°	26878
80°	19889
85°	19813



TEST NUMBER: P431529

CATALOG NUMBER: LAMR4B312R209035DE01021MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1852.8	48.3
10°-20°	1444.9	37.6
20°-30°	299.9	7.8
30°-40°	94.5	2.5
40°-50°	60.8	1.6
50°-60°	48.8	1.3
60°-70°	19.2	0.5
70°-80°	14.4	0.4
80°-90°	2.9	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°	3597.6	93.7
0°-40°	3692.1	96.2
0°-60°	3801.7	99.1
0°-90°	3838.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3838.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	26872	
5°	22627	###
15°	4614	1445
25°	570	300
35°	141	95
45°	74	61
55°	56	49
65°	18	19
75°	14	14
85°	4	3
90°	0	



TEST NUMBER: P431529

CATALOG NUMBER: LAMR4B312R209035DE01021MW

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	26871.9
2.5°	25886.4
5°	22627.3
7.5°	18129.3
10°	13138.5
12.5°	8288.6
15°	4614.1
17.5°	2537.6
20°	1485.3
22.5°	908.0
25°	570.2
27.5°	376.6
30°	260.4
32.5°	183.0
35°	140.8
37.5°	112.6
40°	95.0
42.5°	80.9
45°	73.9
47.5°	73.9
50°	77.4
52.5°	73.9
55°	56.3
57.5°	38.7
60°	24.6
62.5°	21.1
65°	17.6
67.5°	17.6
70°	17.6
72.5°	17.6
75°	14.1
77.5°	10.6
80°	7.0
82.5°	3.5
85°	3.5
87.5°	0.0
90°	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







(END OF REPORT)