

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: P431538

Luminaire Tested: **LAMR4B312R209727DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431538  
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: LAMR4B312R209727DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 20 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 97CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3226.6 lumens  
Efficiency: N/A  
Efficacy: 78.9 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

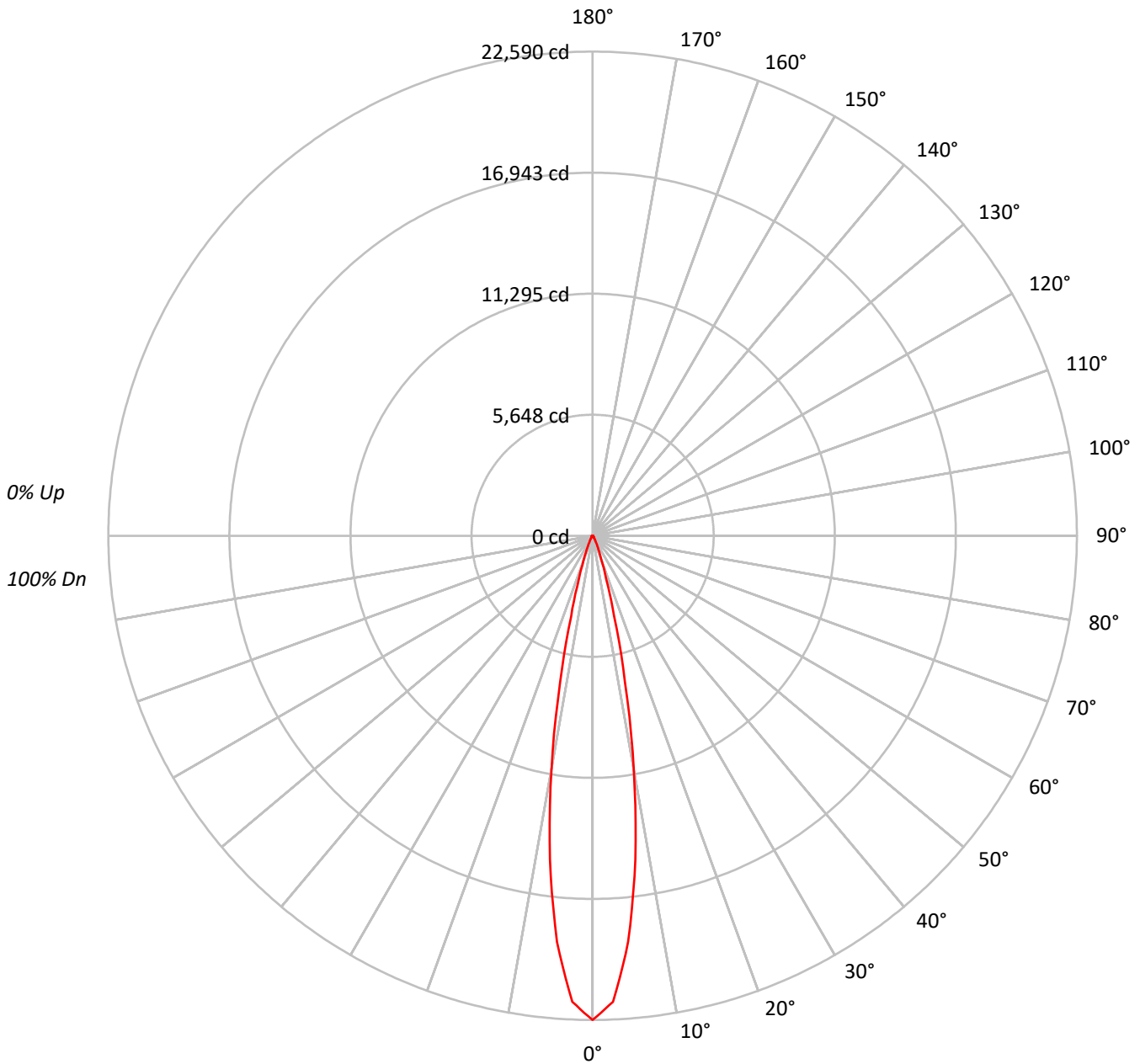
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100	100	100	100	100	100	100	100	100	100	100															
1	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97	97	97	97	97	97	97	97	97	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	94	94	94	94	94	94	94	94	94															
3	108	104	100	98	107	103	100	97	100	98	95	98	96	94	96	94	93	91	91	91	91	91	91	91	91	91	91	91	91	91															
4	105	100	97	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89	89	89	89	89	89	89	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	87	87	87	87	87	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	85	85	85	85	85	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	83	83	83	83	83	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	81	81	81	81	81	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	80	80	80	80	80	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	78	78	78	78	78	78	78	78	78															

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

	0°
0°	11145493
5°	9420816
10°	5533443
15°	1981280
20°	655569
25°	260923
30°	124709
35°	71313
40°	51460
45°	43330
50°	49968
55°	40687
60°	20426
65°	17278
70°	21350
75°	22494
80°	16763
85°	16983



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1557.6	48.3
10°-20°	1214.7	37.6
20°-30°	252.1	7.8
30°-40°	79.5	2.5
40°-50°	51.1	1.6
50°-60°	41.0	1.3
60°-70°	16.1	0.5
70°-80°	12.1	0.4
80°-90°	2.4	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°	3024.3	93.7
0°-40°	3103.8	96.2
0°-60°	3196.0	99.1
0°-90°	3226.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3226.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	22590	
5°	19022	###
15°	3879	1215
25°	479	252
35°	118	79
45°	62	51
55°	47	41
65°	15	16
75°	12	12
85°	3	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	22590.1
2.5°	21761.6
5°	19021.8
7.5°	15240.5
10°	11045.0
12.5°	6967.9
15°	3878.9
17.5°	2133.3
20°	1248.6
22.5°	763.4
25°	479.3
27.5°	316.6
30°	218.9
32.5°	153.9
35°	118.4
37.5°	94.7
40°	79.9
42.5°	68.1
45°	62.1
47.5°	62.1
50°	65.1
52.5°	62.1
55°	47.3
57.5°	32.5
60°	20.7
62.5°	17.8
65°	14.8
67.5°	14.8
70°	14.8
72.5°	14.8
75°	11.8
77.5°	8.9
80°	5.9
82.5°	3.0
85°	3.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)