

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: P431589

Luminaire Tested: **LAMR4B312R309730DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431589  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-8)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B312R309730DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3425.8 lumens  
Efficiency: N/A  
Efficacy: 83.8 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.51 / 0.46  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

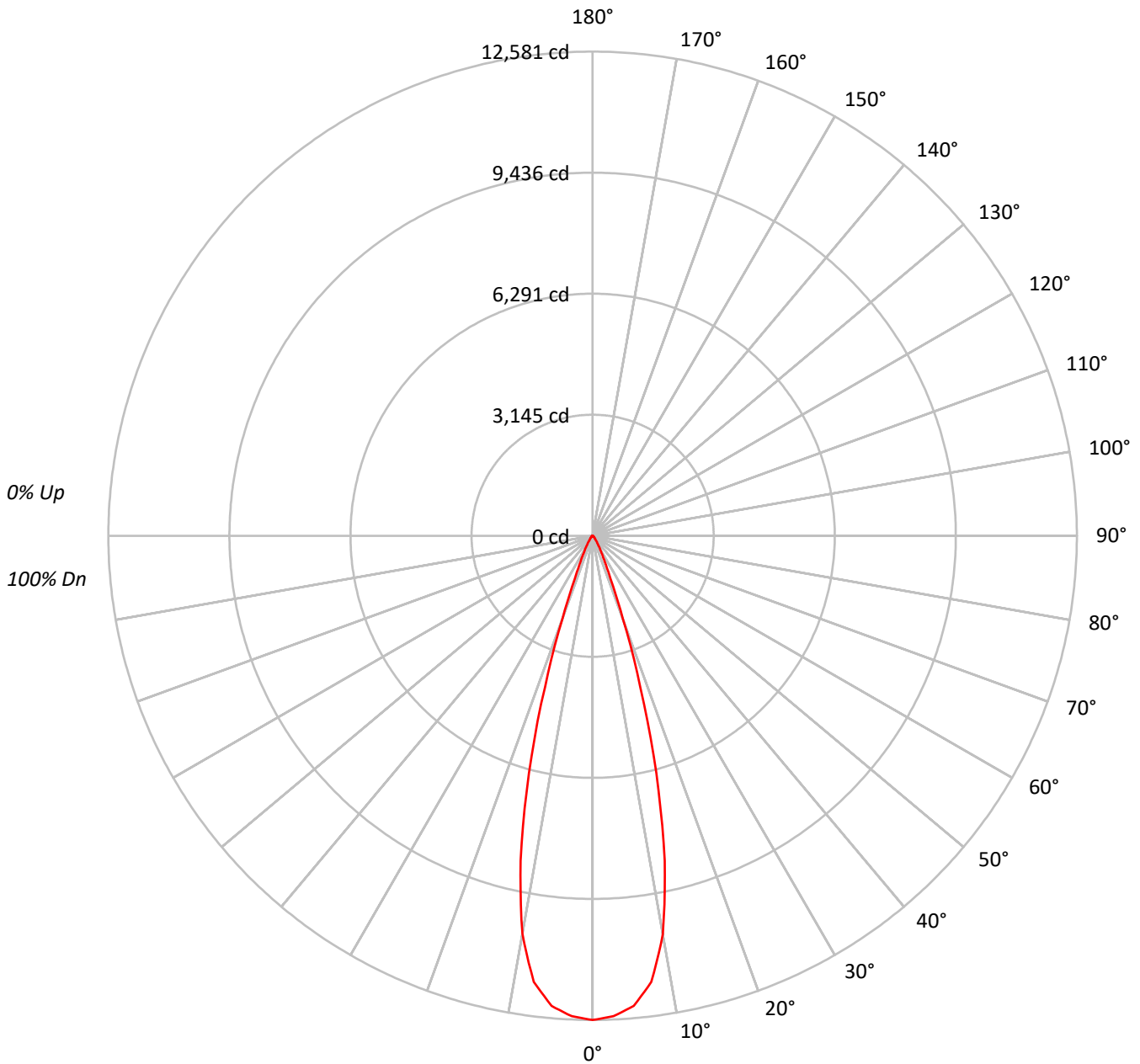
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100															
1	115	113	111	109	112	111	109	107	107	105	104	103	102	101	100	99	98	96				96															
2	111	107	104	102	109	106	103	100	102	100	98	100	98	96	97	95	94				93																
3	107	103	99	96	105	101	98	95	99	96	94	96	94	92	94	92	91				90																
4	104	98	94	91	102	97	94	91	95	92	90	93	91	89	92	90	88				87																
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85				84																
6	98	91	87	84	97	91	87	84	89	86	83	88	85	83	87	84	82				81																
7	95	88	84	81	94	88	84	81	87	83	81	86	83	80	85	82	80				79																
8	92	86	81	79	91	85	81	78	84	81	78	83	80	78	83	80	78				77																
9	90	83	79	76	89	83	79	76	82	78	76	81	78	76	80	78	75				74																
10	88	81	77	74	87	80	77	74	80	76	74	79	76	74	78	76	73				72																

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

	0°
0°	6207257
5°	6071642
10°	5264411
15°	3262889
20°	1195892
25°	399741
30°	196207
35°	97875
40°	60671
45°	38515
50°	27402
55°	22365
60°	19242
65°	15177
70°	18753
75°	18491
80°	18468
85°	18115



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1117.3	32.6
10°-20°	1686.8	49.2
20°-30°	411.3	12.0
30°-40°	112.6	3.3
40°-50°	45.3	1.3
50°-60°	24.3	0.7
60°-70°	14.5	0.4
70°-80°	11.1	0.3
80°-90°	2.6	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°	3215.4	93.9
0°-40°	3328.0	97.1
0°-60°	3397.6	99.2
0°-90°	3425.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3425.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	12581	
5°	12259	###
15°	6388	1687
25°	734	411
35°	162	113
45°	55	45
55°	26	24
65°	13	14
75°	10	11
85°	3	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	12581.1
2.5°	12496.6
5°	12259.4
7.5°	11694.0
10°	10508.0
12.5°	8649.5
15°	6388.0
17.5°	4116.8
20°	2277.7
22.5°	1215.2
25°	734.3
27.5°	497.1
30°	344.4
32.5°	233.9
35°	162.5
37.5°	120.2
40°	94.2
42.5°	71.5
45°	55.2
47.5°	45.5
50°	35.7
52.5°	32.5
55°	26.0
57.5°	22.7
60°	19.5
62.5°	16.2
65°	13.0
67.5°	13.0
70°	13.0
72.5°	13.0
75°	9.7
77.5°	9.7
80°	6.5
82.5°	3.2
85°	3.2
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)