

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: P431580

Luminaire Tested: **LAMR4B312R309040DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431580  
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: LAMR4B312R309040DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3911.8 lumens  
Efficiency: N/A  
Efficacy: 95.6 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

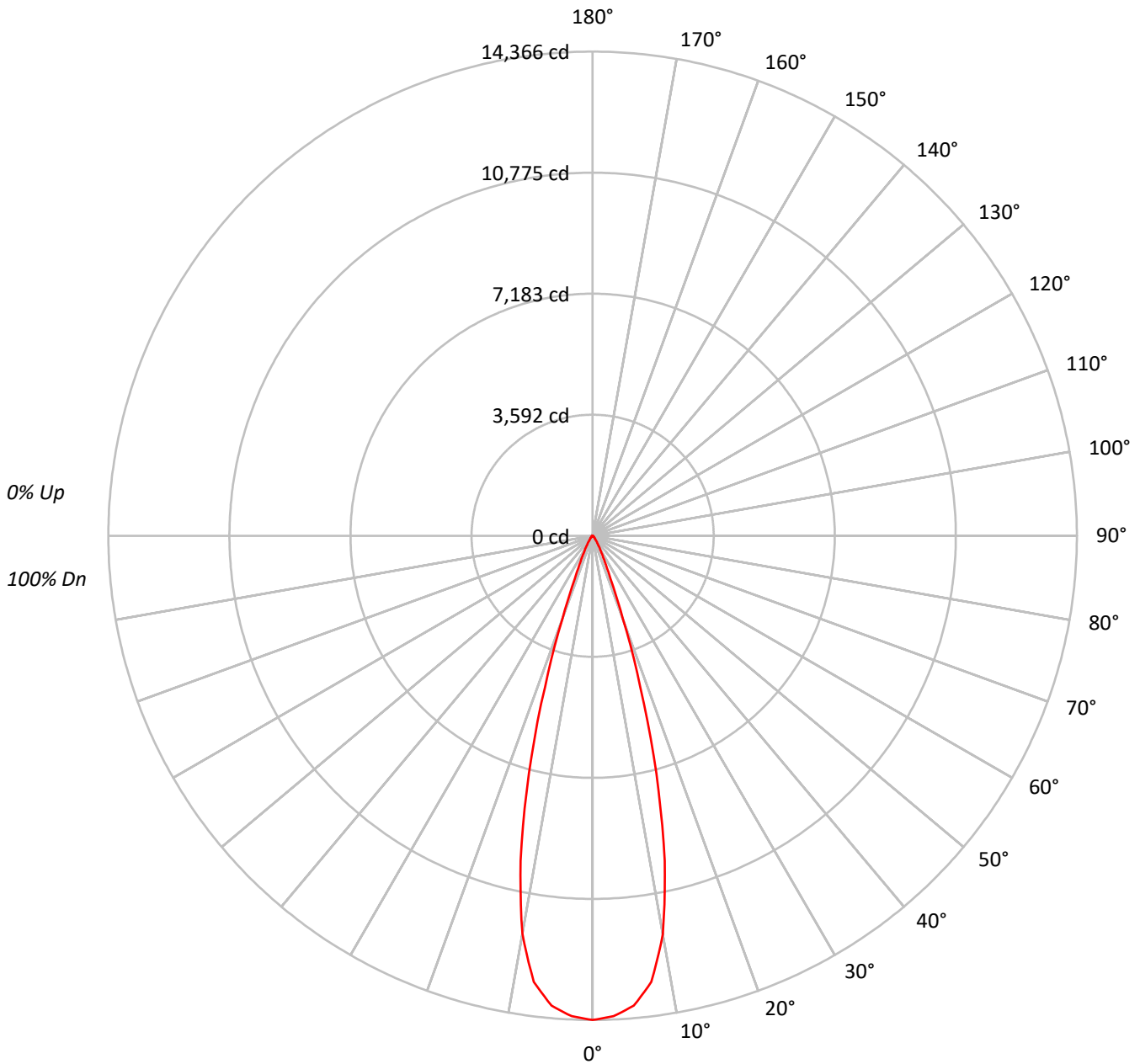
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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																											
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	96	96	96	97	95	94	93																											
3	107	103	99	96	105	101	98	95	99	96	94	92	92	92	94	92	91	90																											
4	104	98	94	91	102	97	94	91	95	92	90	89	89	89	92	90	88	87																											
5	101	95	91	87	99	94	90	87	92	89	86	86	86	86	89	87	85	84																											
6	98	91	87	84	97	91	87	84	89	86	83	83	83	83	87	84	82	81																											
7	95	88	84	81	94	88	84	81	87	83	81	80	80	80	85	82	80	79																											
8	92	86	81	79	91	85	81	78	84	81	78	78	78	78	83	80	78	77																											
9	90	83	79	76	89	83	79	76	82	78	76	76	76	76	80	78	75	74																											
10	88	81	77	74	87	80	77	74	80	76	74	74	74	74	78	76	73	72																											

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

	0°
0°	7087693
5°	6932857
10°	6011137
15°	3725710
20°	1365533
25°	456466
30°	224065
35°	111728
40°	69301
45°	44028
50°	31317
55°	25547
60°	22005
65°	17278
70°	21350
75°	21160
80°	21025
85°	20945



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1275.8	32.6
10°-20°	1926.1	49.2
20°-30°	469.6	12.0
30°-40°	128.6	3.3
40°-50°	51.8	1.3
50°-60°	27.7	0.7
60°-70°	16.5	0.4
70°-80°	12.7	0.3
80°-90°	3.0	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°	3671.5	93.9
0°-40°	3800.1	97.1
0°-60°	3879.5	99.2
0°-90°	3911.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3911.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	14366	
5°	13998	###
15°	7294	1926
25°	838	470
35°	186	129
45°	63	52
55°	30	28
65°	15	17
75°	11	13
85°	4	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	14365.6
2.5°	14269.1
5°	13998.3
7.5°	13352.7
10°	11998.5
12.5°	9876.4
15°	7294.1
17.5°	4700.7
20°	2600.8
22.5°	1387.6
25°	838.5
27.5°	567.6
30°	393.3
32.5°	267.1
35°	185.5
37.5°	137.3
40°	107.6
42.5°	81.6
45°	63.1
47.5°	51.9
50°	40.8
52.5°	37.1
55°	29.7
57.5°	26.0
60°	22.3
62.5°	18.6
65°	14.8
67.5°	14.8
70°	14.8
72.5°	14.8
75°	11.1
77.5°	11.1
80°	7.4
82.5°	3.7
85°	3.7
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)