

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: P431076

Luminaire Tested: **LAMR4B112R459040DE010x1MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431076  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-8)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B112R459040DE010x1MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 45 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1295.9 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 0.73 / 0.73 / 0.66  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

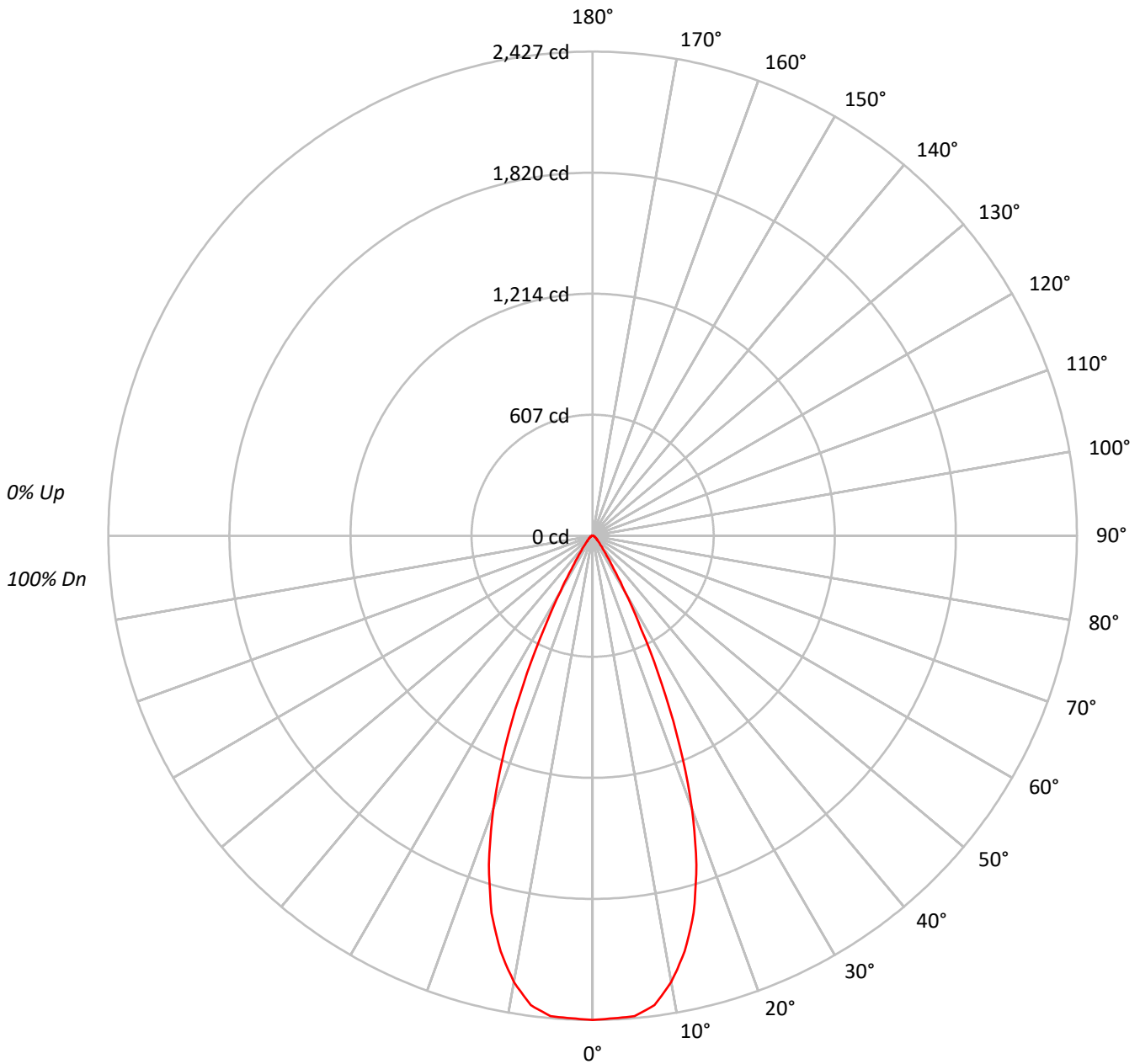
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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																			
1	114	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95																			
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	89																			
3	105	99	94	91	103	98	93	90	95	92	89	93	90	87	90	88	86	85																			
4	100	94	89	85	99	93	88	85	90	87	84	89	85	83	87	84	82	80																			
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76																			
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73																			
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69																			
8	85	77	72	68	84	77	72	68	76	71	68	75	71	68	74	70	67	66																			
9	82	74	69	65	81	73	68	65	72	68	65	72	68	65	71	67	65	63																			
10	79	71	66	62	78	70	66	62	70	65	62	69	65	62	68	65	62	61																			

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

	0°
0°	1197531
5°	1197103
10°	1137850
15°	999502
20°	764621
25°	446395
30°	182705
35°	77276
40°	42122
45°	27212
50°	21261
55°	18408
60°	14900
65°	11791
70°	10819
75°	9531
80°	10797
85°	7359



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	226.2	17.5
10°-20°	532.7	41.1
20°-30°	375.4	29.0
30°-40°	92.4	7.1
40°-50°	32.2	2.5
50°-60°	19.1	1.5
60°-70°	10.6	0.8
70°-80°	5.8	0.4
80°-90°	1.5	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°	1134.3	87.5
0°-40°	1226.7	94.7
0°-60°	1278.0	98.6
0°-90°	1295.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1295.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2427	
5°	2417	226
15°	1957	533
25°	820	375
35°	128	92
45°	39	32
55°	21	19
65°	10	11
75°	5	6
85°	1	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2427.2
2.5°	2420.9
5°	2417.1
7.5°	2373.1
10°	2271.2
12.5°	2132.9
15°	1956.8
17.5°	1729.2
20°	1456.3
22.5°	1143.2
25°	820.0
27.5°	529.5
30°	320.7
32.5°	194.9
35°	128.3
37.5°	90.5
40°	65.4
42.5°	50.3
45°	39.0
47.5°	32.7
50°	27.7
52.5°	23.9
55°	21.4
57.5°	18.9
60°	15.1
62.5°	12.6
65°	10.1
67.5°	8.8
70°	7.5
72.5°	6.3
75°	5.0
77.5°	5.0
80°	3.8
82.5°	2.5
85°	1.3
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)