

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: P431567

Luminaire Tested: **LAMR4B312R309024DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431567  
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: LAMR4B312R309024DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3158.7 lumens  
Efficiency: N/A  
Efficacy: 77.2 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

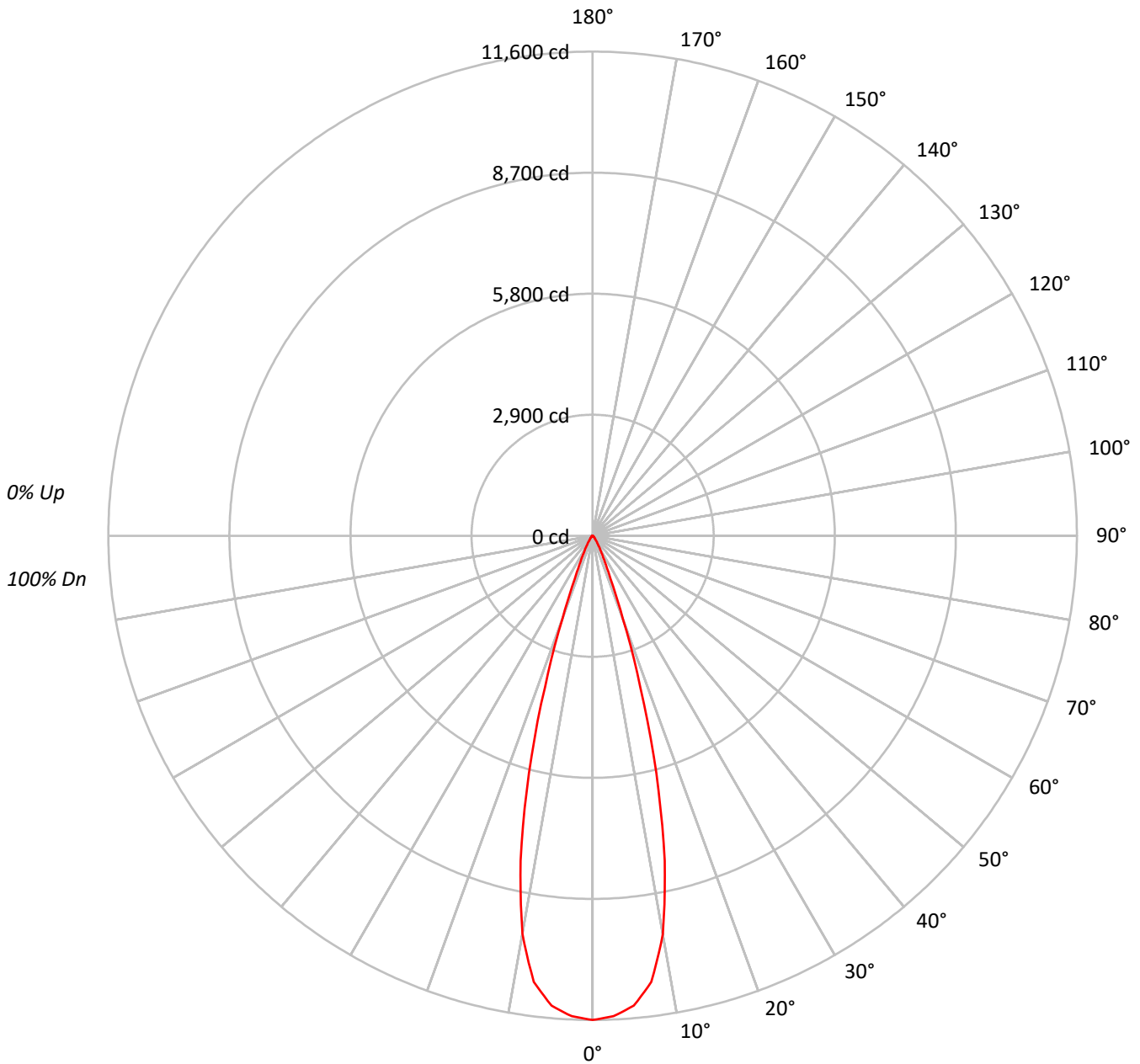
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°
0°	5723005
5°	5597971
10°	4853748
15°	3008365
20°	1102591
25°	368548
30°	180882
35°	90225
40°	55969
45°	35515
50°	25330
55°	20644
60°	17762
65°	14009
70°	17311
75°	17156
80°	17048
85°	16983



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1030.1	32.6
10°-20°	1555.2	49.2
20°-30°	379.2	12.0
30°-40°	103.8	3.3
40°-50°	41.8	1.3
50°-60°	22.4	0.7
60°-70°	13.4	0.4
70°-80°	10.3	0.3
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°	2964.5	93.9
0°-40°	3068.4	97.1
0°-60°	3132.6	99.2
0°-90°	3158.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3158.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	11600	
5°	11303	###
15°	5890	1555
25°	677	379
35°	150	104
45°	51	42
55°	24	22
65°	12	13
75°	9	10
85°	3	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	11599.6
2.5°	11521.7
5°	11303.0
7.5°	10781.7
10°	9688.3
12.5°	7974.7
15°	5889.7
17.5°	3795.6
20°	2100.0
22.5°	1120.4
25°	677.0
27.5°	458.4
30°	317.5
32.5°	215.7
35°	149.8
37.5°	110.8
40°	86.9
42.5°	65.9
45°	50.9
47.5°	41.9
50°	33.0
52.5°	30.0
55°	24.0
57.5°	21.0
60°	18.0
62.5°	15.0
65°	12.0
67.5°	12.0
70°	12.0
72.5°	12.0
75°	9.0
77.5°	9.0
80°	6.0
82.5°	3.0
85°	3.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)