

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: P430440

Luminaire Tested: **LAM4B312R359024DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430440  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-6)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B312R359024DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 35 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3094.9 lumens  
Efficiency: N/A  
Efficacy: 75.7 lumens/watt  
Spacing Criteria (0/90/45): 0.57 / 0.57 / 0.51  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

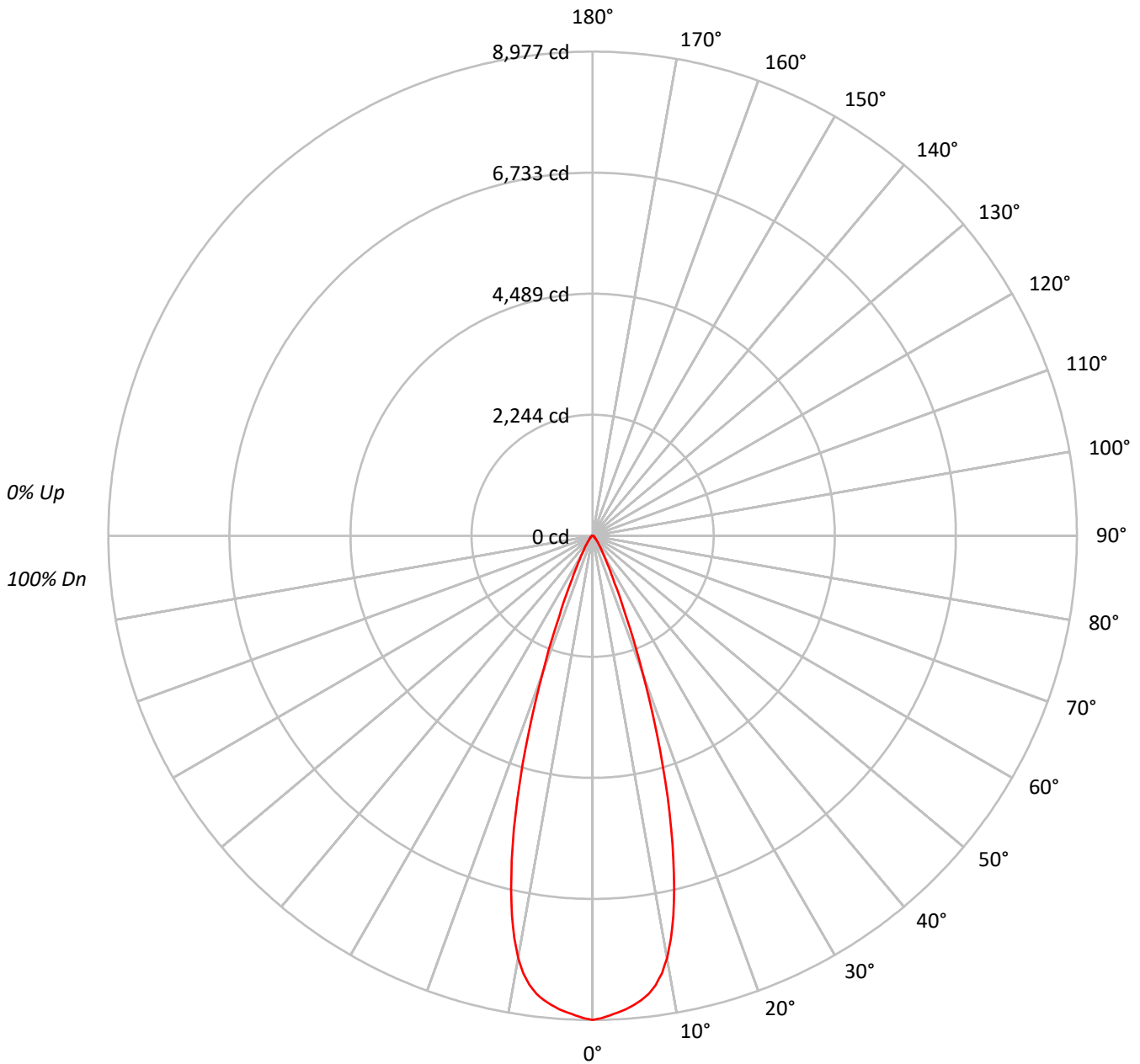
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P430440

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									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	114	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96																											
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91																											
3	106	101	97	94	104	100	96	93	97	94	92	95	92	90	93	91	89	87																											
4	102	96	92	89	101	95	91	88	93	90	87	91	88	86	90	87	85	84																											
5	99	92	88	84	97	91	87	84	90	86	83	88	85	83	87	84	82	81																											
6	96	89	84	81	94	88	84	80	87	83	80	85	82	79	84	81	79	78																											
7	92	85	81	77	91	85	80	77	84	80	77	82	79	76	81	78	76	75																											
8	90	82	78	74	88	82	77	74	81	77	74	80	76	74	79	76	73	72																											
9	87	79	75	72	86	79	75	72	78	74	71	77	74	71	77	73	71	70																											
10	84	77	72	69	83	76	72	69	76	72	69	75	71	69	74	71	69	68																											

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

	0°
0°	4428871
5°	4326826
10°	3981774
15°	2877911
20°	1421713
25°	521520
30°	235174
35°	128050
40°	79348
45°	53726
50°	40220
55°	34407
60°	30392
65°	28719
70°	26687
75°	23447
80°	26140
85°	17549



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	811.8	26.2
10°-20°	1483.6	47.9
20°-30°	516.5	16.7
30°-40°	143.2	4.6
40°-50°	62.2	2.0
50°-60°	36.1	1.2
60°-70°	24.4	0.8
70°-80°	13.4	0.4
80°-90°	3.8	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°	2811.9	90.9
0°-40°	2955.1	95.5
0°-60°	3053.3	98.7
0°-90°	3094.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3094.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	8977	
5°	8736	812
15°	5634	1484
25°	958	517
35°	213	143
45°	77	62
55°	40	36
65°	25	24
75°	12	13
85°	3	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	8976.6
1°	8945.8
2°	8899.6
3°	8853.4
4°	8801.1
5°	8736.4
6°	8656.3
7°	8557.7
8°	8406.7
9°	8212.7
10°	7947.8
11°	7608.9
12°	7199.2
13°	6718.6
14°	6191.9
15°	5634.3
16°	5039.7
17°	4442.1
18°	3841.4
19°	3262.3
20°	2707.8
22.5°	1614.2
25°	958.0
26°	797.9
27°	665.4
28°	563.7
29°	480.6
30°	412.8
32.5°	292.6
35°	212.6
37.5°	160.2
40°	123.2
42.5°	95.5
45°	77.0
47.5°	64.7
50°	52.4
52.5°	46.2
55°	40.0
57.5°	33.9
60°	30.8
62.5°	27.7
65°	24.6
67.5°	21.6



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	12.3
77.5°	9.2
80°	9.2
82.5°	6.2
85°	3.1
87.5°	0.0
90°	0.0



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— 0°-180°







70°	18.5
72.5°	15.4



(END OF REPORT)