

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: P430389

Luminaire Tested: **LAM4B312R209730DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430389  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-3)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B312R209730DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 20 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3398.3 lumens  
Efficiency: N/A  
Efficacy: 83.1 lumens/watt  
Spacing Criteria (0/90/45): 0.34 / 0.34 / 0.33  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

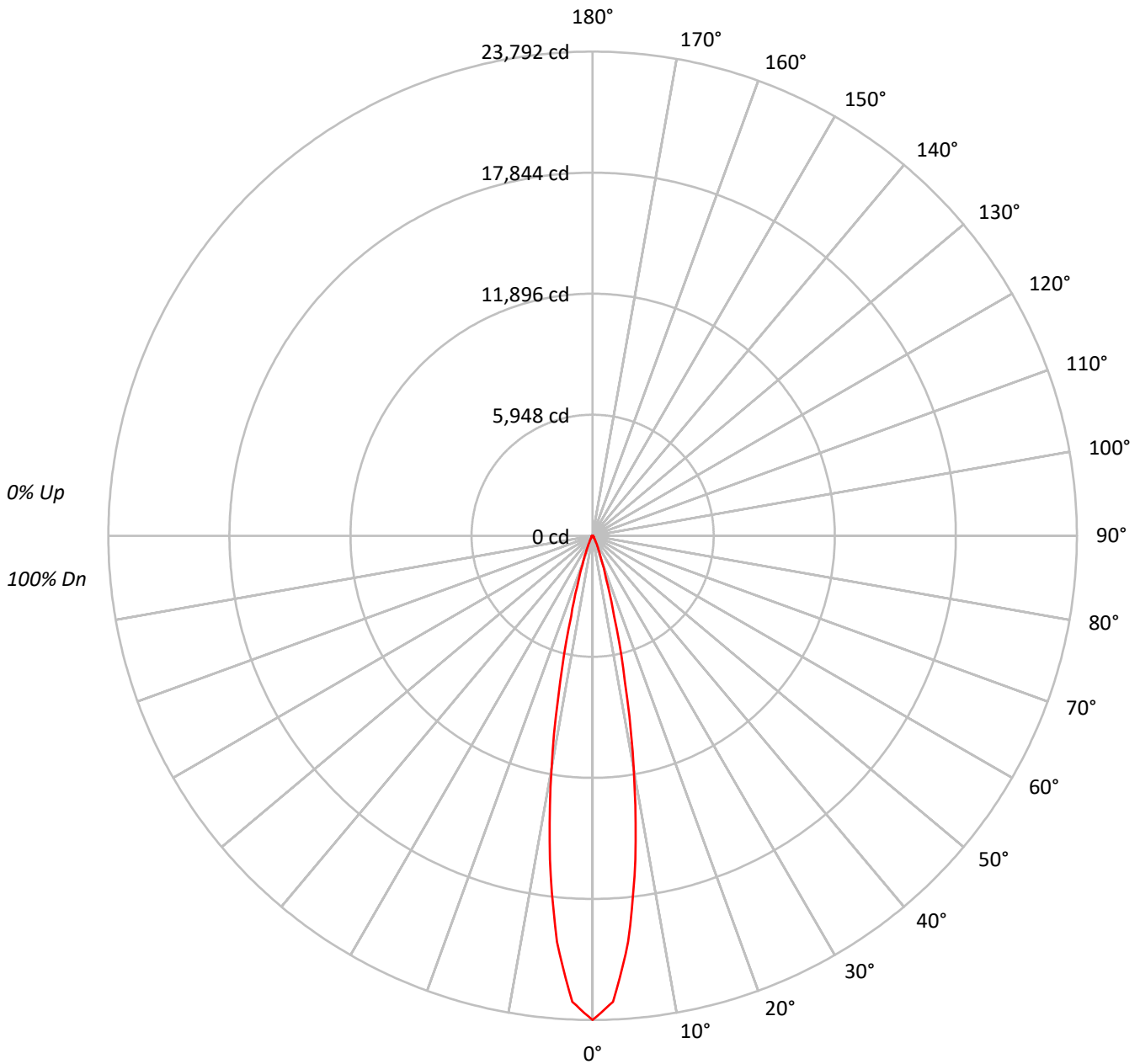
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				20				
RC	80				70				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	100	100
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97	97	97
2	112	108	105	103	110	106	104	102	103	101	100	101	99	97	98	97	95	94	94	94	94
3	108	104	100	98	107	103	100	97	100	98	96	98	96	94	96	94	93	91	91	91	91
4	105	100	97	94	104	99	96	93	97	94	92	96	93	91	94	92	90	89	89	89	89
5	103	97	93	90	101	96	93	90	95	92	89	93	91	89	92	90	88	87	87	87	87
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	85	85	85
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	83	83	83
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	81	81	81
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	80	80	80
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	83	81	79	78	78	78	78

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

	0°
0°	11738684
5°	9922222
10°	5827975
15°	2086757
20°	690432
25°	274805
30°	131374
35°	75047
40°	54166
45°	45632
50°	52655
55°	42923
60°	21511
65°	18212
70°	22504
75°	23828
80°	17616
85°	17549



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1640.5	48.3
10°-20°	1279.3	37.6
20°-30°	265.5	7.8
30°-40°	83.7	2.5
40°-50°	53.8	1.6
50°-60°	43.2	1.3
60°-70°	17.0	0.5
70°-80°	12.7	0.4
80°-90°	2.5	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°	3185.3	93.7
0°-40°	3269.0	96.2
0°-60°	3366.0	99.1
0°-90°	3398.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3398.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	23792	
5°	20034	###
15°	4085	1279
25°	505	266
35°	125	84
45°	65	54
55°	50	43
65°	16	17
75°	12	13
85°	3	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	23792.4
2.5°	22919.8
5°	20034.2
7.5°	16051.7
10°	11632.9
12.5°	7338.7
15°	4085.4
17.5°	2246.8
20°	1315.0
22.5°	804.0
25°	504.8
27.5°	333.4
30°	230.6
32.5°	162.0
35°	124.6
37.5°	99.7
40°	84.1
42.5°	71.7
45°	65.4
47.5°	65.4
50°	68.6
52.5°	65.4
55°	49.9
57.5°	34.3
60°	21.8
62.5°	18.7
65°	15.6
67.5°	15.6
70°	15.6
72.5°	15.6
75°	12.5
77.5°	9.3
80°	6.2
82.5°	3.1
85°	3.1
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)