

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: P431581

Luminaire Tested: **LAMR4B312R309050DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431581  
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: LAMR4B312R309050DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3805.5 lumens  
Efficiency: N/A  
Efficacy: 93.0 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

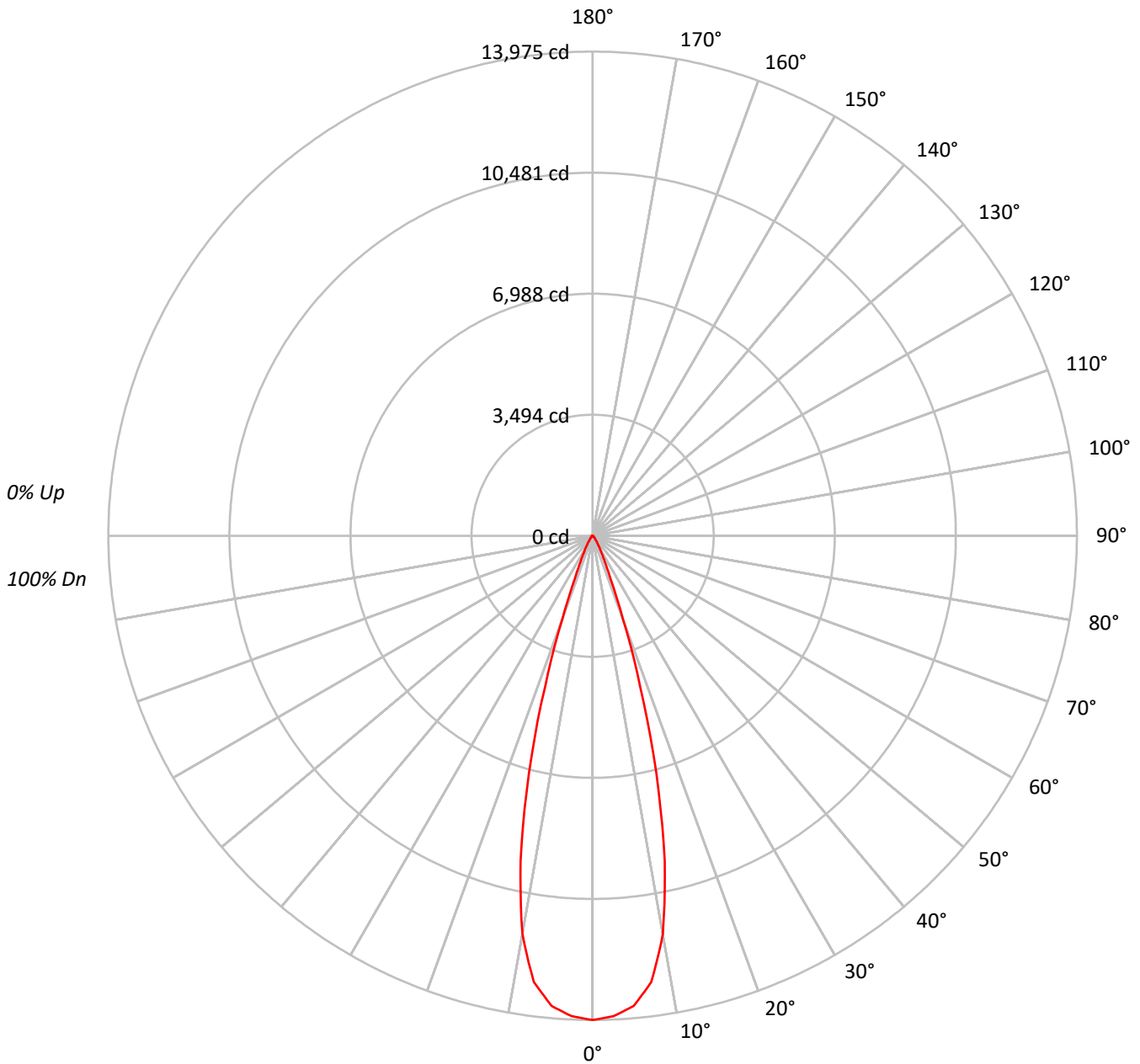
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	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°	6895078
5°	6744458
10°	5847814
15°	3624473
20°	1328413
25°	444054
30°	217969
35°	108716
40°	67433
45°	42841
50°	30472
55°	24859
60°	21413
65°	16811
70°	20773
75°	20588
80°	20457
85°	20379



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1241.1	32.6
10°-20°	1873.8	49.2
20°-30°	456.9	12.0
30°-40°	125.1	3.3
40°-50°	50.4	1.3
50°-60°	27.0	0.7
60°-70°	16.0	0.4
70°-80°	12.3	0.3
80°-90°	2.9	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°	3571.7	93.9
0°-40°	3696.8	97.1
0°-60°	3774.2	99.2
0°-90°	3805.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3805.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	13975	
5°	13618	###
15°	7096	1874
25°	816	457
35°	180	125
45°	61	50
55°	29	27
65°	14	16
75°	11	12
85°	4	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	13975.2
2.5°	13881.4
5°	13617.9
7.5°	12989.9
10°	11672.5
12.5°	9608.0
15°	7095.9
17.5°	4573.0
20°	2530.1
22.5°	1349.9
25°	815.7
27.5°	552.2
30°	382.6
32.5°	259.9
35°	180.5
37.5°	133.5
40°	104.7
42.5°	79.4
45°	61.4
47.5°	50.5
50°	39.7
52.5°	36.1
55°	28.9
57.5°	25.3
60°	21.7
62.5°	18.0
65°	14.4
67.5°	14.4
70°	14.4
72.5°	14.4
75°	10.8
77.5°	10.8
80°	7.2
82.5°	3.6
85°	3.6
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)