

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: P432010

Luminaire Tested: **LAMR4B412R609040DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P432010  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2009-969-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B412R609040DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 60 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5689.1 lumens  
Efficiency: N/A  
Efficacy: 105.2 lumens/watt  
Spacing Criteria (0/90/45): 0.96 / 0.96 / 0.89  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

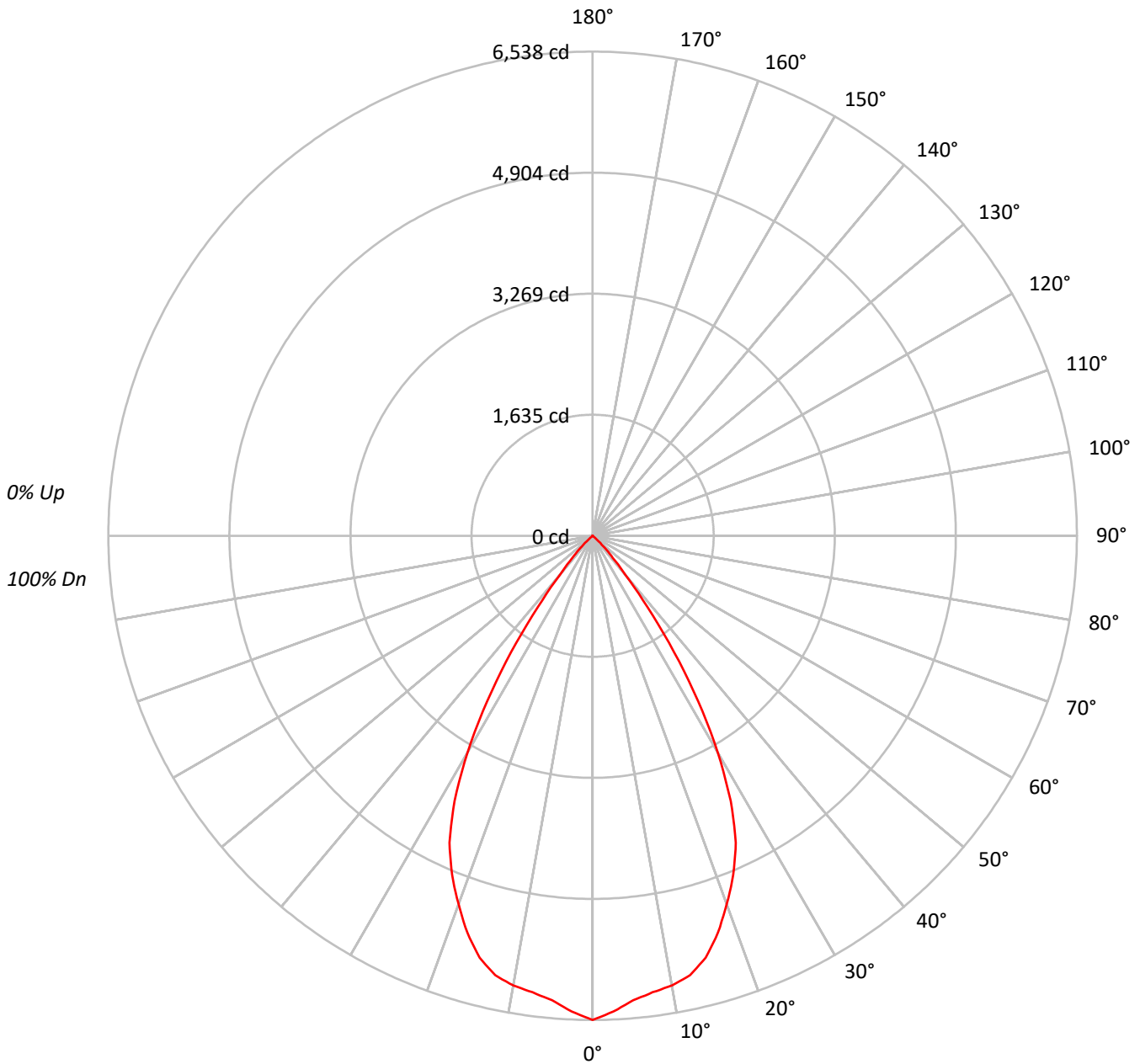
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94																			
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88																			
3	103	97	92	88	101	96	91	88	93	89	86	91	87	85	88	86	84	82																			
4	98	91	85	81	96	90	85	81	88	83	80	86	82	79	84	81	78	77																			
5	93	85	80	75	92	84	79	75	83	78	74	81	77	74	79	76	73	72																			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	69	67																			
7	84	75	70	66	83	75	69	65	74	69	65	72	68	65	71	67	64	63																			
8	80	71	65	61	79	71	65	61	70	65	61	69	64	61	68	64	60	59																			
9	77	67	62	58	76	67	61	58	66	61	57	65	60	57	64	60	57	56																			
10	73	64	58	54	72	63	58	54	62	58	54	62	57	54	61	57	54	53																			

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

	0°
0°	3225913
5°	3117738
10°	3088658
15°	3012094
20°	2779738
25°	2489305
30°	1926232
35°	1153957
40°	443372
45°	162016
50°	6371
55°	4731
60°	5427
65°	3269
70°	4039
75°	5338
80°	7956
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	597.8	10.5
10°-20°	1640.5	28.8
20°-30°	2046.6	36.0
30°-40°	1192.2	21.0
40°-50°	199.0	3.5
50°-60°	5.2	0.1
60°-70°	3.8	0.1
70°-80°	3.0	0.1
80°-90°	1.1	0.0
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°	4284.8	75.3
0°-40°	5477.0	96.3
0°-60°	5681.3	99.9
0°-90°	5689.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5689.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	6538	
5°	6295	598
15°	5897	1640
25°	4573	2047
35°	1916	1192
45°	232	199
55°	6	5
65°	3	4
75°	3	3
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	6538.4
2.5°	6430.5
5°	6295.1
7.5°	6217.7
10°	6165.1
12.5°	6079.4
15°	5897.0
17.5°	5623.3
20°	5294.3
22.5°	4959.7
25°	4572.7
27.5°	4036.4
30°	3381.1
32.5°	2648.5
35°	1915.9
37.5°	1208.1
40°	688.4
42.5°	403.6
45°	232.2
47.5°	80.2
50°	8.3
52.5°	5.5
55°	5.5
57.5°	5.5
60°	5.5
62.5°	5.5
65°	2.8
67.5°	2.8
70°	2.8
72.5°	2.8
75°	2.8
77.5°	2.8
80°	2.8
82.5°	2.8
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)