

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: P431870

Luminaire Tested: **LAMR4B412R309050DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431870  
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: LAMR4B412R309050DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

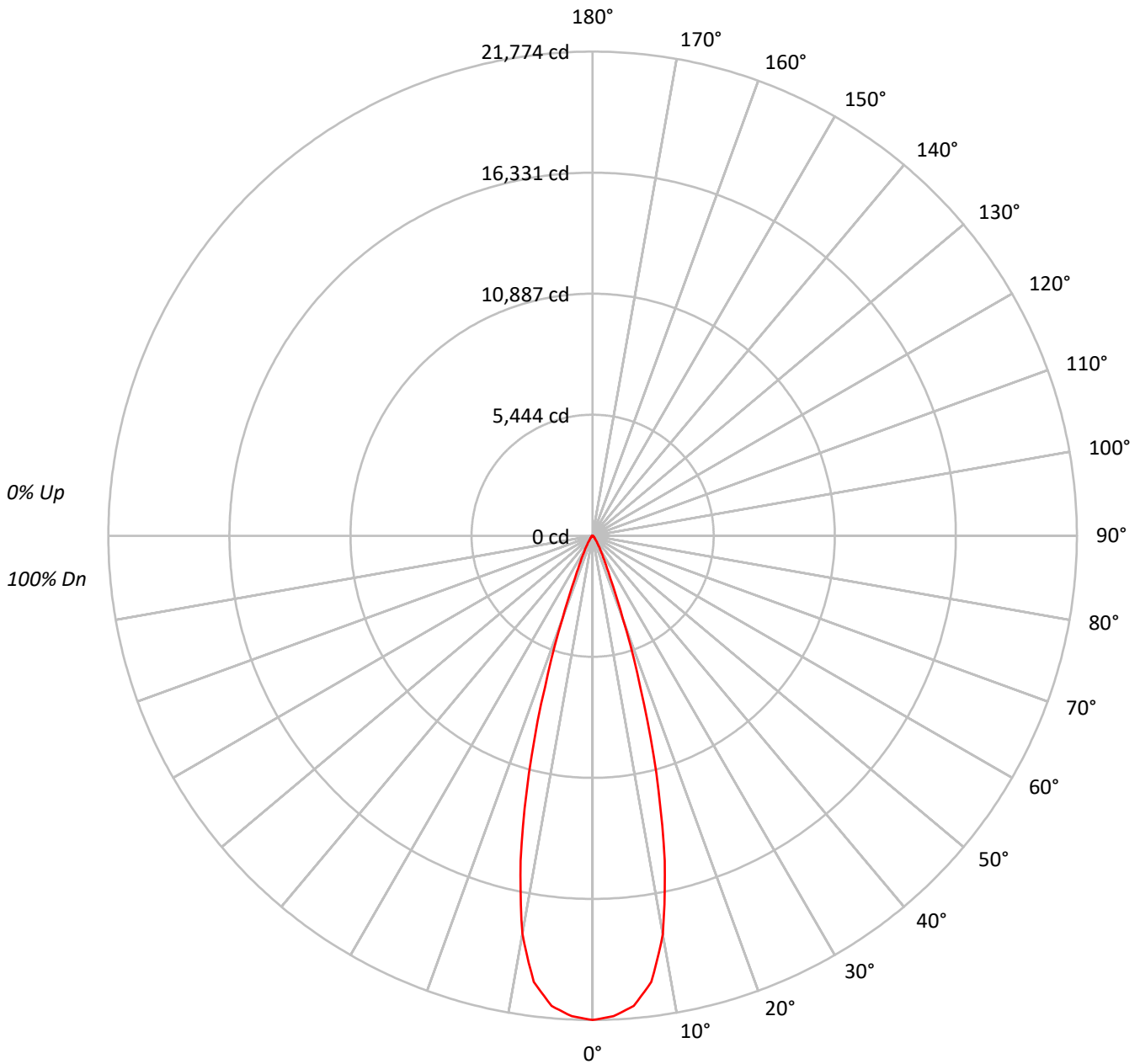
Lumens per Lamp: N/A  
Luminaire Lumens: 5929.2 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.51 / 0.46  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 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									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	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	96	96	96	96	96	96	96																		
2	111	107	104	102	109	106	103	100	102	100	98	96	94	92	90	88	86	84	82	80	78	76	74	72	70	68	66	64																		
3	107	103	99	96	105	101	98	95	99	96	94	92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60																		
4	104	98	94	91	102	97	94	91	95	92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56																		
5	101	95	91	87	99	94	90	87	92	89	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52																		
6	98	91	87	84	97	91	87	84	89	86	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49																		
7	95	88	84	81	94	88	84	81	87	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47																		
8	92	86	81	79	91	85	81	78	84	81	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44																		
9	90	83	79	76	89	83	79	76	82	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42																		
10	88	81	77	74	87	80	77	74	80	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40																		

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

	0°
0°	10742797
5°	10508119
10°	9111118
15°	5647076
20°	2069722
25°	691858
30°	339602
35°	169368
40°	105046
45°	66704
50°	47512
55°	38708
60°	33254
65°	26267
70°	32457
75°	32216
80°	31822
85°	31701



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1933.7	32.6
10°-20°	2919.4	49.2
20°-30°	711.8	12.0
30°-40°	194.9	3.3
40°-50°	78.5	1.3
50°-60°	42.0	0.7
60°-70°	25.0	0.4
70°-80°	19.3	0.3
80°-90°	4.6	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°	5564.9	93.9
0°-40°	5759.8	97.1
0°-60°	5880.2	99.2
0°-90°	5929.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5929.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	21774	
5°	21217	###
15°	11056	2919
25°	1271	712
35°	281	195
45°	96	78
55°	45	42
65°	22	25
75°	17	19
85°	6	5
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	21773.9
2.5°	21627.7
5°	21217.2
7.5°	20238.7
10°	18186.2
12.5°	14969.6
15°	11055.7
17.5°	7124.9
20°	3942.0
22.5°	2103.2
25°	1270.9
27.5°	860.4
30°	596.1
32.5°	404.9
35°	281.2
37.5°	208.1
40°	163.1
42.5°	123.7
45°	95.6
47.5°	78.7
50°	61.9
52.5°	56.2
55°	45.0
57.5°	39.4
60°	33.7
62.5°	28.1
65°	22.5
67.5°	22.5
70°	22.5
72.5°	22.5
75°	16.9
77.5°	16.9
80°	11.2
82.5°	5.6
85°	5.6
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)