

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: P430704

Luminaire Tested: **LAM4B412R309024DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430704  
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: LAM4B412R309024DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4921.3 lumens  
Efficiency: N/A  
Efficacy: 91.0 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

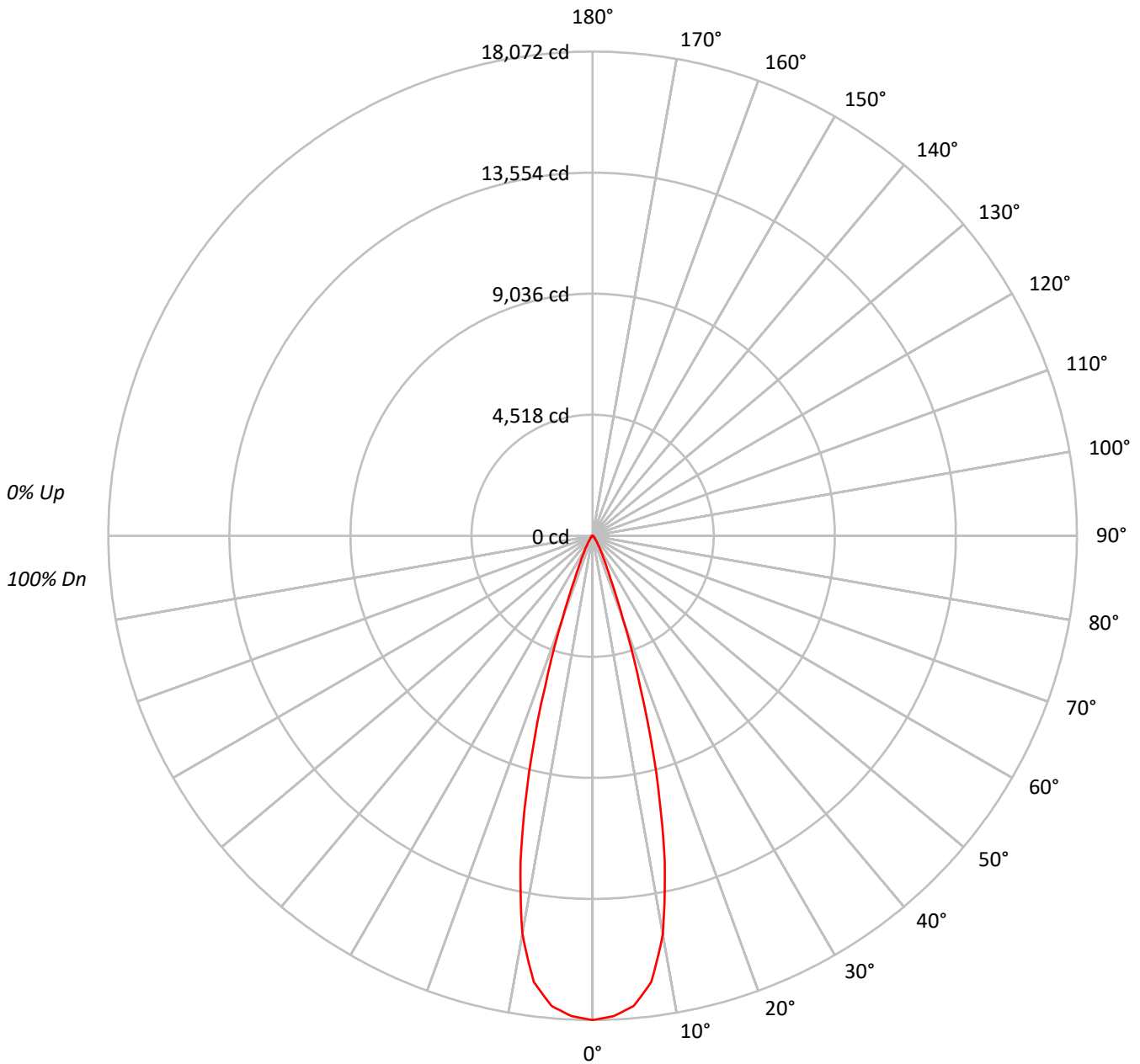
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	95	94	93	92	91	90	89	88	87	85	84	81																													
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	62	60	58	56	54	52	50																									
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	58	56	54	52	50	48	46	44	42	40																						
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	54	52	50	48	46	44	42	40	38	36	34	32	30																			
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	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20																
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	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1								
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	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1									
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	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0										
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	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0											
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	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0												

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

	0°
0°	8916602
5°	8721800
10°	7562305
15°	4687108
20°	1717890
25°	574271
30°	281890
35°	140578
40°	87206
45°	55331
50°	39376
55°	32085
60°	27629
65°	21831
70°	26976
75°	26688
80°	26424
85°	26606



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1605.0	32.6
10°-20°	2423.1	49.2
20°-30°	590.8	12.0
30°-40°	161.8	3.3
40°-50°	65.1	1.3
50°-60°	34.9	0.7
60°-70°	20.8	0.4
70°-80°	16.0	0.3
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°	4618.9	93.9
0°-40°	4780.7	97.1
0°-60°	4880.6	99.2
0°-90°	4921.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4921.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	18072	
5°	17610	###
15°	9176	2423
25°	1055	591
35°	233	162
45°	79	65
55°	37	35
65°	19	21
75°	14	16
85°	5	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	18072.5
2.5°	17951.2
5°	17610.4
7.5°	16798.3
10°	15094.7
12.5°	12424.9
15°	9176.3
17.5°	5913.7
20°	3271.9
22.5°	1745.6
25°	1054.9
27.5°	714.1
30°	494.8
32.5°	336.1
35°	233.4
37.5°	172.7
40°	135.4
42.5°	102.7
45°	79.3
47.5°	65.3
50°	51.3
52.5°	46.7
55°	37.3
57.5°	32.7
60°	28.0
62.5°	23.3
65°	18.7
67.5°	18.7
70°	18.7
72.5°	18.7
75°	14.0
77.5°	14.0
80°	9.3
82.5°	4.7
85°	4.7
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)