

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: P430667

Luminaire Tested: **LAM4B412R209040DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430667  
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: LAM4B412R209040DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 20 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6045.7 lumens  
Efficiency: N/A  
Efficacy: 111.8 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

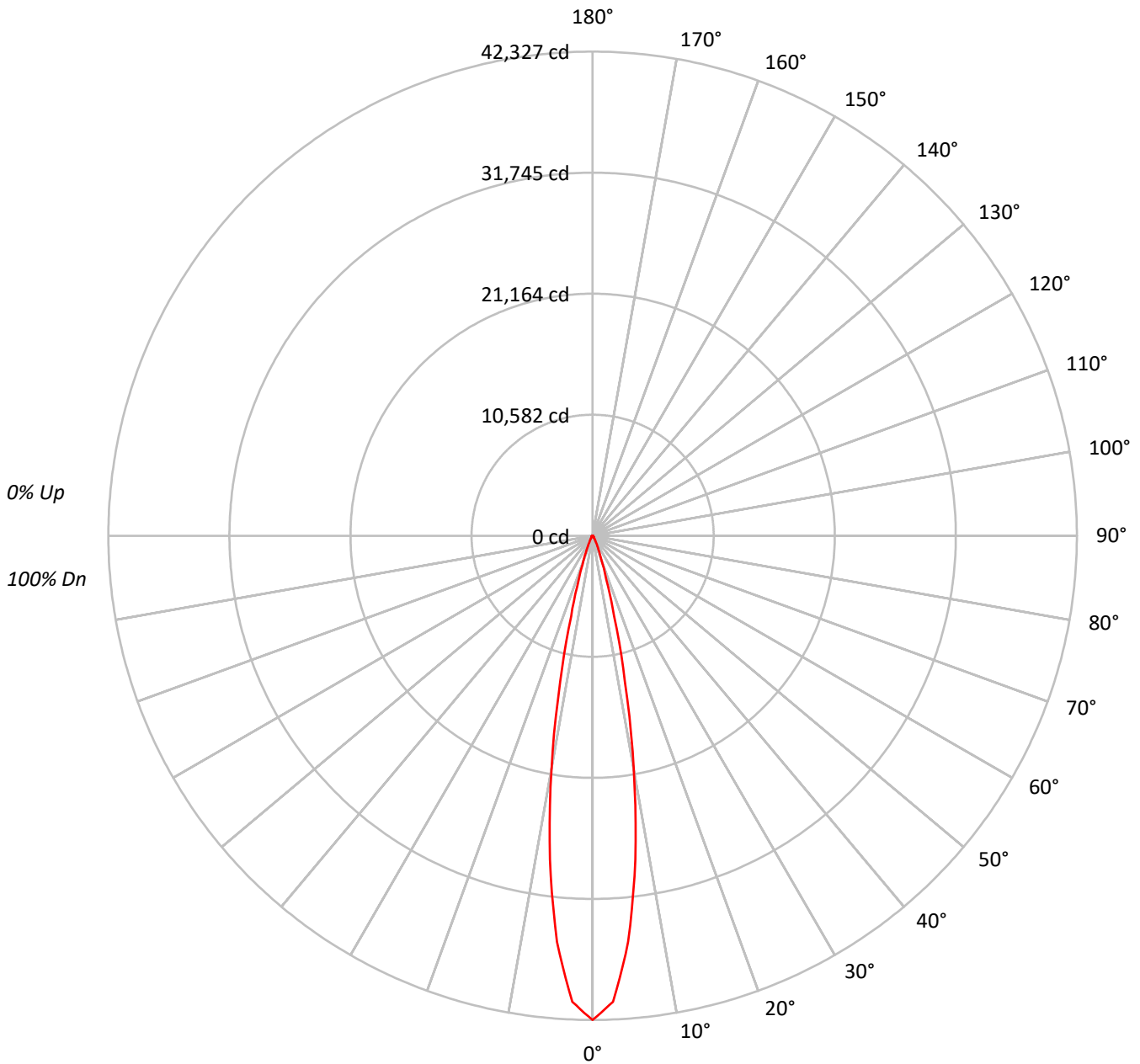
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°
0°	20883474
5°	17651958
10°	10368103
15°	3712379
20°	1228339
25°	488911
30°	233693
35°	133591
40°	96416
45°	81217
50°	93643
55°	76298
60°	38286
65°	32338
70°	39959
75°	42319
80°	31538
85°	31135



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2918.4	48.3
10°-20°	2275.9	37.6
20°-30°	472.4	7.8
30°-40°	148.9	2.5
40°-50°	95.8	1.6
50°-60°	76.9	1.3
60°-70°	30.2	0.5
70°-80°	22.6	0.4
80°-90°	4.5	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°	5666.7	93.7
0°-40°	5815.7	96.2
0°-60°	5988.3	99.1
0°-90°	6045.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6045.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	42327	
5°	35642	###
15°	7268	2276
25°	898	472
35°	222	149
45°	116	96
55°	89	77
65°	28	30
75°	22	23
85°	6	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	42327.4
2.5°	40775.1
5°	35641.5
7.5°	28556.5
10°	20695.2
12.5°	13055.8
15°	7268.0
17.5°	3997.1
20°	2339.5
22.5°	1430.3
25°	898.1
27.5°	593.2
30°	410.2
32.5°	288.3
35°	221.8
37.5°	177.4
40°	149.7
42.5°	127.5
45°	116.4
47.5°	116.4
50°	122.0
52.5°	116.4
55°	88.7
57.5°	61.0
60°	38.8
62.5°	33.3
65°	27.7
67.5°	27.7
70°	27.7
72.5°	27.7
75°	22.2
77.5°	16.6
80°	11.1
82.5°	5.5
85°	5.5
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)