

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: P430416

Luminaire Tested: **LAM4B312R309024DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430416  
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: LAM4B312R309024DE01021MW  
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: 3158.7 lumens  
Efficiency: N/A  
Efficacy: 77.2 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

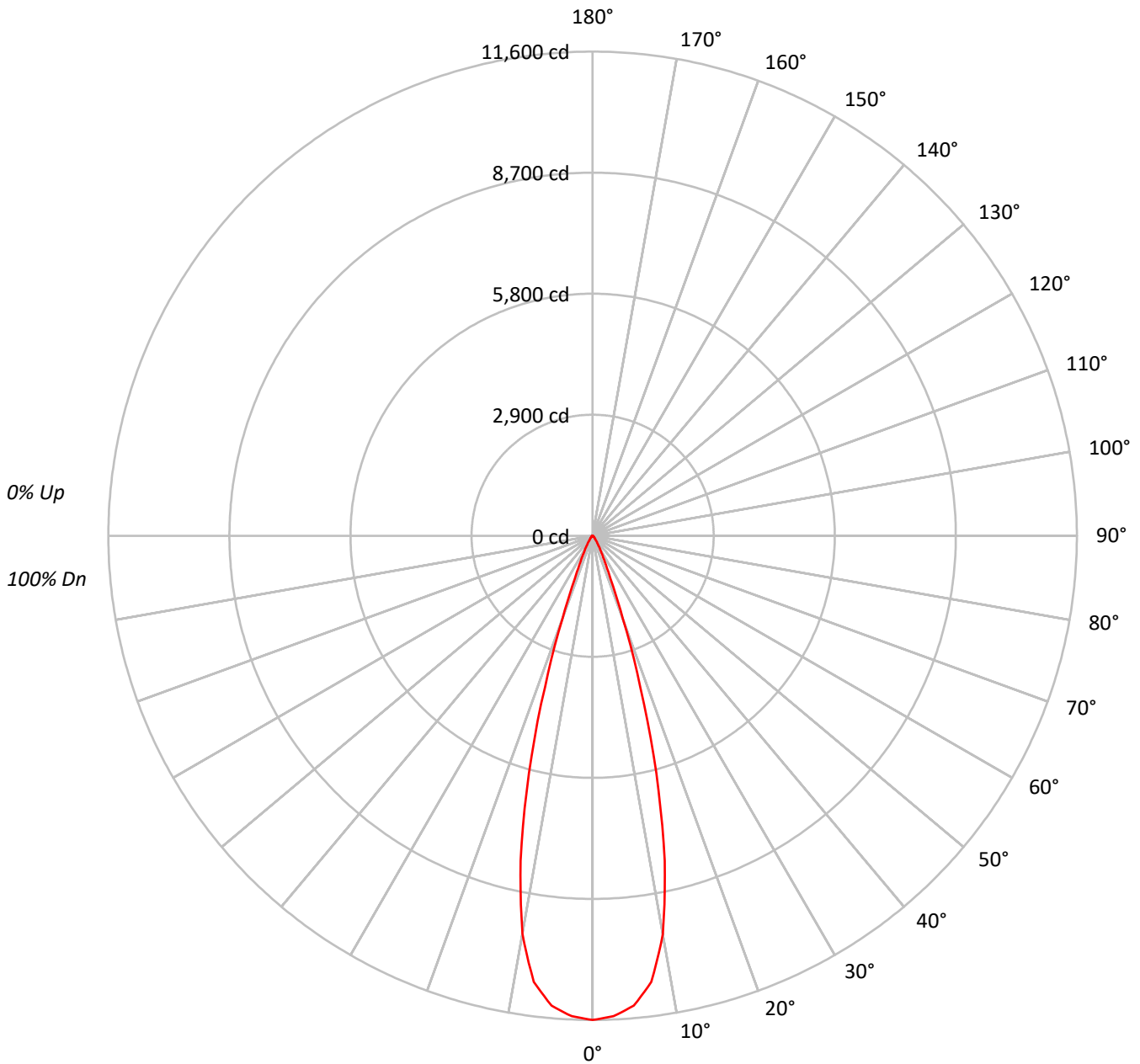
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°
0°	5723005
5°	5597971
10°	4853748
15°	3008365
20°	1102591
25°	368548
30°	180882
35°	90225
40°	55969
45°	35515
50°	25330
55°	20644
60°	17762
65°	14009
70°	17311
75°	17156
80°	17048
85°	16983



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1030.1	32.6
10°-20°	1555.2	49.2
20°-30°	379.2	12.0
30°-40°	103.8	3.3
40°-50°	41.8	1.3
50°-60°	22.4	0.7
60°-70°	13.4	0.4
70°-80°	10.3	0.3
80°-90°	2.4	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°	2964.5	93.9
0°-40°	3068.4	97.1
0°-60°	3132.6	99.2
0°-90°	3158.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3158.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	11600	
5°	11303	###
15°	5890	1555
25°	677	379
35°	150	104
45°	51	42
55°	24	22
65°	12	13
75°	9	10
85°	3	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	11599.6
2.5°	11521.7
5°	11303.0
7.5°	10781.7
10°	9688.3
12.5°	7974.7
15°	5889.7
17.5°	3795.6
20°	2100.0
22.5°	1120.4
25°	677.0
27.5°	458.4
30°	317.5
32.5°	215.7
35°	149.8
37.5°	110.8
40°	86.9
42.5°	65.9
45°	50.9
47.5°	41.9
50°	33.0
52.5°	30.0
55°	24.0
57.5°	21.0
60°	18.0
62.5°	15.0
65°	12.0
67.5°	12.0
70°	12.0
72.5°	12.0
75°	9.0
77.5°	9.0
80°	6.0
82.5°	3.0
85°	3.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)