

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: P430594

Luminaire Tested: **LAM4B312R659040DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430594  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-22)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B312R659040DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 65 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

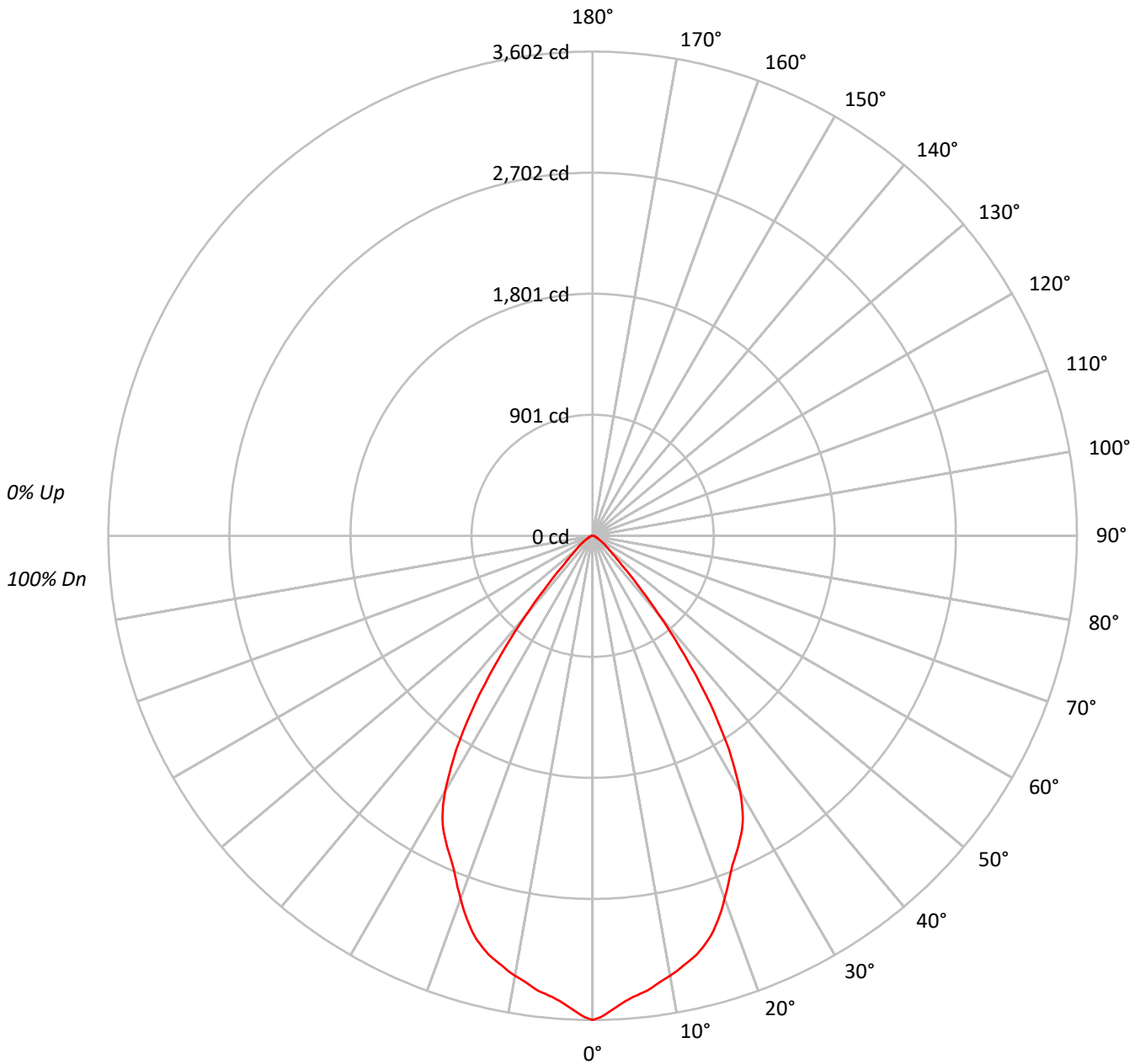
Lumens per Lamp: N/A  
Luminaire Lumens: 3732.2 lumens  
Efficiency: N/A  
Efficacy: 91.3 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 0.98 / 0.97  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

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									
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	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93																			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85																			
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79																			
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	72																			
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	68	67																			
6	85	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62																			
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58																			
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54																			
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	51	50																			
10	69	59	53	49	68	58	53	49	58	52	48	57	52	48	56	51	48	47																			

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

	0°
0°	1777400
5°	1705640
10°	1665243
15°	1618777
20°	1507505
25°	1392426
30°	1249934
35°	918275
40°	495927
45°	213300
50°	118819
55°	83180
60°	53482
65°	40627
70°	33467
75°	29547
80°	32959
85°	22077



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	325.5	8.7
10°-20°	884.3	23.7
20°-30°	1172.2	31.4
30°-40°	928.3	24.9
40°-50°	276.5	7.4
50°-60°	88.5	2.4
60°-70°	35.3	0.9
70°-80°	16.8	0.5
80°-90°	4.7	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°	2382.0	63.8
0°-40°	3310.3	88.7
0°-60°	3675.3	98.5
0°-90°	3732.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3732.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3602	
5°	3444	325
15°	3169	884
25°	2558	1172
35°	1525	928
45°	306	277
55°	97	89
65°	35	35
75°	16	17
85°	4	5
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3602.5
1°	3579.3
2°	3544.5
3°	3505.8
4°	3471.0
5°	3443.9
6°	3424.5
7°	3405.2
8°	3374.2
9°	3347.2
10°	3323.9
11°	3296.8
12°	3265.9
13°	3238.8
14°	3207.8
15°	3169.2
16°	3126.6
17°	3072.4
18°	3010.5
19°	2944.7
20°	2871.2
21°	2801.5
22°	2728.0
23°	2662.2
24°	2608.1
25°	2557.8
26°	2503.6
27°	2449.4
28°	2379.8
29°	2294.6
30°	2194.0
32.5°	1888.3
35°	1524.6
37.5°	1129.9
40°	770.0
42.5°	487.6
45°	305.7
47.5°	205.1
50°	154.8
52.5°	123.8
55°	96.7
57.5°	73.5
60°	54.2



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	27.1
70°	23.2
72.5°	19.3
75°	15.5
77.5°	11.6
80°	11.6
82.5°	7.7
85°	3.9
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		42.6
65°		34.8



(END OF REPORT)