

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: P431504

Luminaire Tested: **LAMR4B312R159035DE01021MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431504  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1911-585-6)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B312R159035DE01021MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 15 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3805.8 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Spacing Criteria (0/90/45): 0.3 / 0.3 / 0.29  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

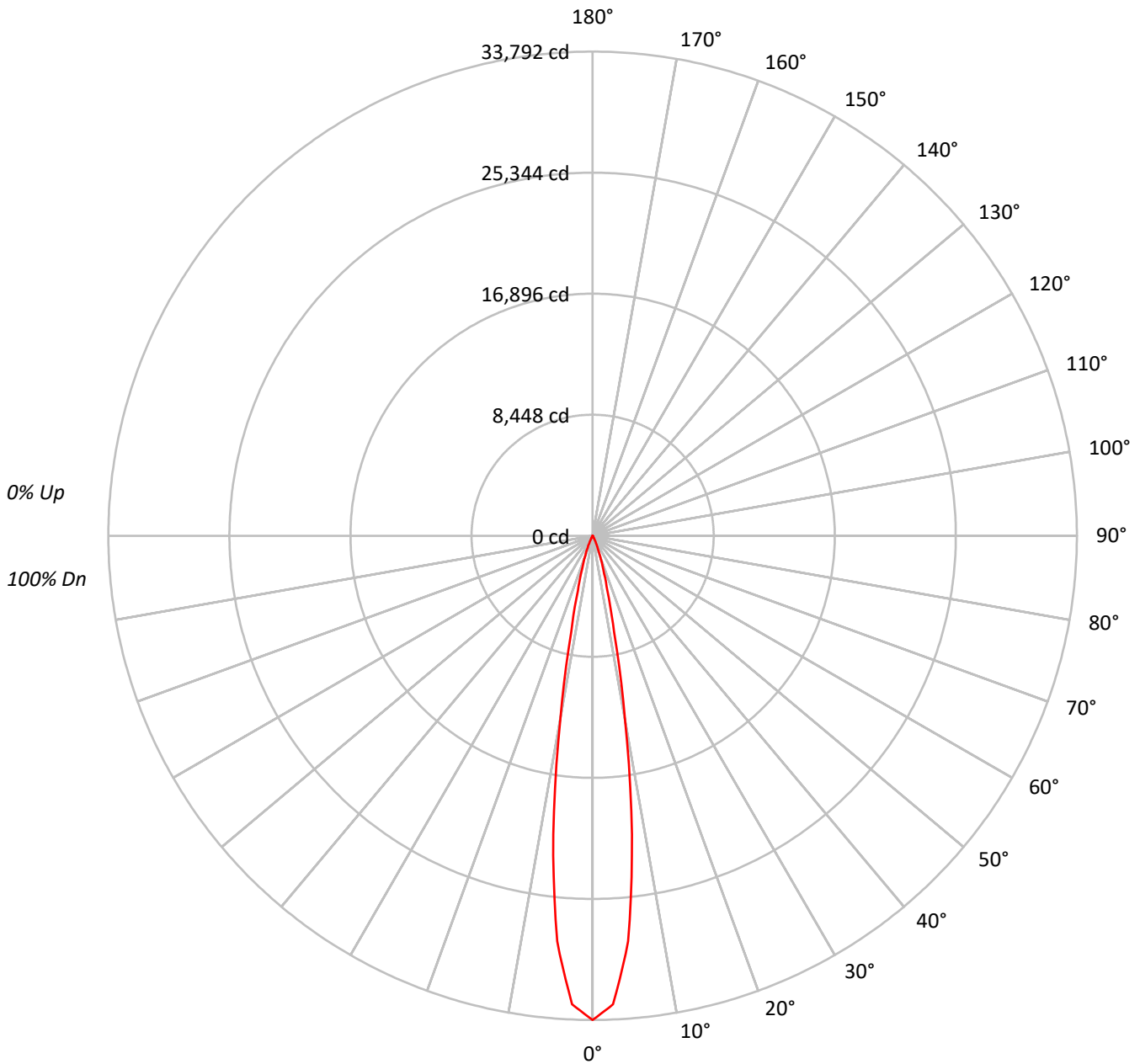
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P431504

CATALOG NUMBER: LAMR4B312R159035DE01021MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P431504

CATALOG NUMBER: LAMR4B312R159035DE01021MMS

**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	116	114	112	111	113	112	110	109	108	107	106	104	103	103	101	100	100	98									98																		
2	113	110	107	105	111	108	106	104	105	103	102	102	101	100	100	99	98	96									96																		
3	110	106	103	101	108	105	102	100	103	100	98	100	99	97	98	97	96	94									94																		
4	108	103	100	97	106	102	99	97	100	98	96	98	96	95	97	95	94	93									93																		
5	105	101	97	95	104	100	97	94	98	96	94	97	95	93	95	94	92	91									91																		
6	103	98	95	92	102	98	94	92	96	94	92	95	93	91	94	92	91	90									90																		
7	101	96	93	90	100	96	92	90	95	92	90	94	91	89	93	91	89	88									88																		
8	99	94	91	89	99	94	91	89	93	90	88	92	90	88	91	89	88	87									87																		
9	98	92	89	87	97	92	89	87	91	89	87	91	88	87	90	88	86	86									86																		
10	96	91	88	86	95	91	88	86	90	87	85	89	87	85	89	87	85	84									84																		

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

	0°
0°	5444052
5°	4594572
10°	2110823
15°	658191
20°	268206
25°	87990
30°	27272
35°	5762
40°	1451
45°	0
50°	0
55°	0
60°	0
65°	0
70°	0
75°	0
80°	0
85°	0



TEST NUMBER: P431504

CATALOG NUMBER: LAMR4B312R159035DE01021MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2192.3	57.6
10°-20°	1306.6	34.3
20°-30°	276.9	7.3
30°-40°	29.1	0.8
40°-50°	0.9	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	3775.8	99.2
0°-40°	3804.9	100.0
0°-60°	3805.8	100.0
0°-90°	3805.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3805.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	33792	
5°	28411	###
15°	3946	1307
25°	495	277
35°	29	29
45°	0	1
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P431504

CATALOG NUMBER: LAMR4B312R159035DE01021MMS

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	33792.2
2.5°	32724.5
5°	28410.8
7.5°	21032.2
10°	12903.2
12.5°	6885.4
15°	3946.3
17.5°	2478.5
20°	1564.4
22.5°	922.8
25°	495.0
27.5°	279.4
30°	146.6
32.5°	74.2
35°	29.3
37.5°	15.5
40°	6.9
42.5°	1.7
45°	0.0
47.5°	0.0
50°	0.0
52.5°	0.0
55°	0.0
57.5°	0.0
60°	0.0
62.5°	0.0
65°	0.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







(END OF REPORT)