

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: STREETWORKS

Report Number: P230970

Luminaire Tested: **ARCH-M-AF48-160-D-U-5WQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230970  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29597)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-160-D-U-5WQ  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19481.1 lumens  
Efficiency: N/A  
Efficacy: 121.0 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B5 - U0 - G3

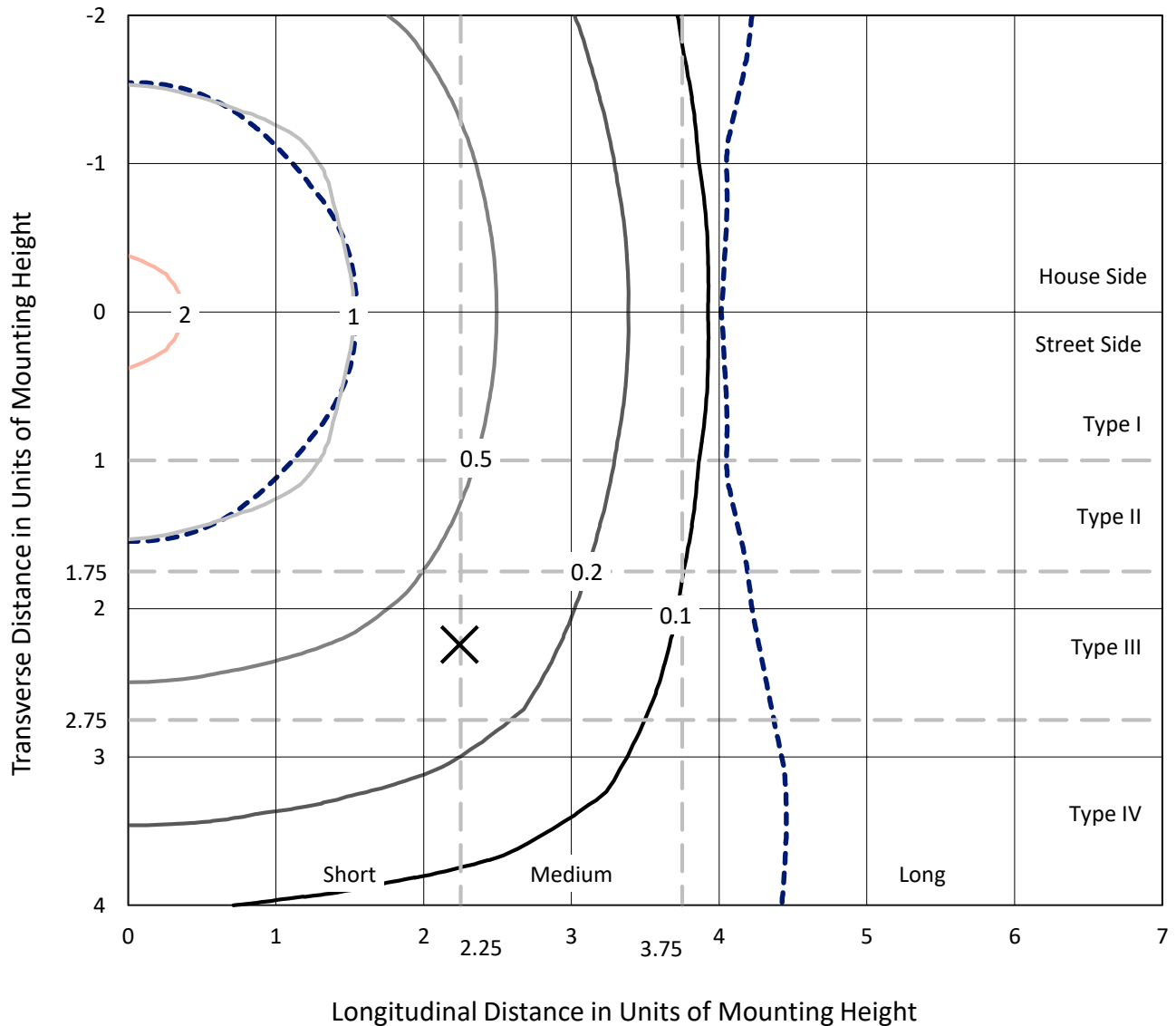
Input Watts (W): 161  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

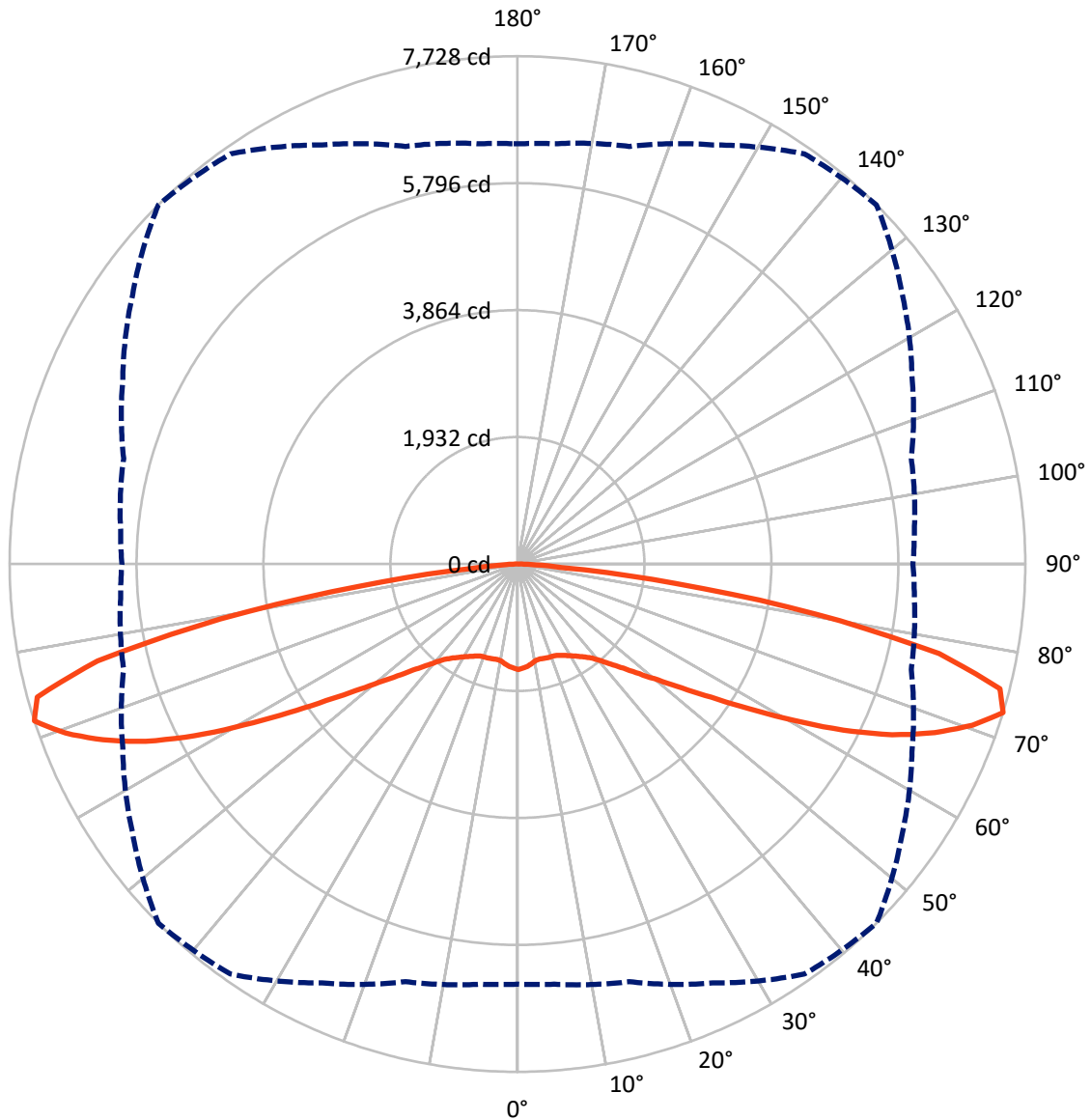
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc  
 Type V - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9740.5	0.0	9740.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9740.5	0.0	9740.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	19481.1	0.0	19481.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.8	0.8
10°-20°	426.3	2.2
20°-30°	713.4	3.7
30°-40°	1096.1	5.6
40°-50°	1814.8	9.3
50°-60°	3226.5	16.6
60°-70°	5644.6	29.0
70°-80°	5742.9	29.5
80°-90°	668.7	3.4
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°-90°	19481.1	100.0
0°-180°	19481.1	100.0



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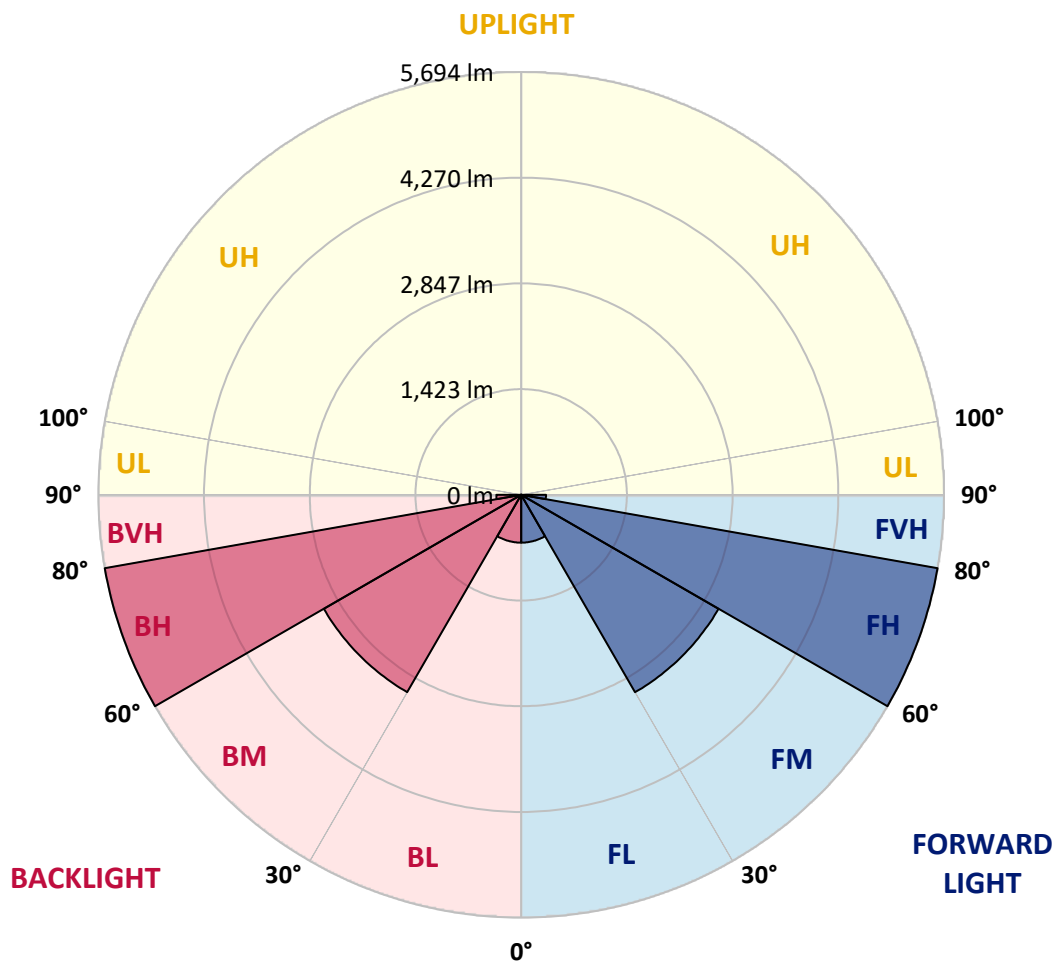
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	643.7	3.3			
FM	(30°-60°)	3068.7	15.8			
FH	(60°-80°)	5693.8	29.2			G3/7500
FVH	(80°-90°)	334.4	1.7			G3/500
BL	(0°-30°)	643.7	3.3	B2/1000		
BM	(30°-60°)	3068.7	15.8	B3/5000		
BH	(60°-80°)	5693.8	29.2	B5		G3/7500
BVH	(80°-90°)	334.4	1.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1605.7	1605.7	1605.7	1605.7	1605.7	1605.7	1605.7	1605.7	1605.7	1605.7	1605.7
2.5°	1590.9	1594.6	1587.1	1587.1	1587.1	1583.4	1587.1	1583.4	1587.1	1590.9	1590.9
5°	1576.1	1576.1	1568.6	1568.6	1568.6	1564.9	1568.6	1568.6	1572.3	1576.1	1576.1
7.5°	1542.6	1542.6	1538.9	1535.2	1531.6	1531.6	1535.2	1535.2	1538.9	1542.6	1542.6
10°	1524.1	1520.4	1512.9	1501.9	1498.1	1494.4	1501.9	1509.3	1520.4	1531.6	1527.8
12.5°	1516.7	1512.9	1498.1	1487.1	1479.6	1483.3	1490.7	1498.1	1516.7	1527.8	1524.1
15°	1524.1	1516.7	1498.1	1479.6	1483.3	1490.7	1498.1	1498.1	1520.4	1531.6	1531.6
17.5°	1524.1	1520.4	1498.1	1483.3	1487.1	1498.1	1501.9	1498.1	1516.7	1535.2	1535.2
20°	1527.8	1527.8	1498.1	1487.1	1490.7	1501.9	1505.6	1501.9	1516.7	1538.9	1538.9
22.5°	1535.2	1531.6	1501.9	1494.4	1501.9	1509.3	1512.9	1509.3	1524.1	1542.6	1546.4
25°	1550.1	1542.6	1516.7	1512.9	1527.8	1538.9	1538.9	1531.6	1538.9	1557.4	1557.4
27.5°	1568.6	1564.9	1535.2	1535.2	1553.8	1576.1	1564.9	1550.1	1557.4	1576.1	1576.1
30°	1601.9	1598.3	1568.6	1568.6	1594.6	1620.6	1594.6	1576.1	1587.1	1605.7	1609.4
32.5°	1650.2	1650.2	1624.2	1616.8	1661.3	1672.4	1661.3	1624.2	1631.6	1657.6	1657.6
35°	1731.8	1724.4	1698.4	1694.7	1739.2	1735.4	1731.8	1698.4	1705.8	1735.4	1735.4
37.5°	1839.3	1835.6	1813.4	1802.2	1824.4	1809.6	1817.1	1802.2	1820.8	1843.1	1846.7
40°	1976.5	1972.9	1954.2	1939.4	1946.9	1924.6	1932.0	1939.4	1958.0	1972.9	1976.5
42.5°	2147.1	2147.1	2128.6	2102.6	2091.5	2080.4	2080.4	2095.2	2113.7	2132.2	2132.2
45°	2358.5	2358.5	2336.2	2310.2	2276.9	2258.4	2265.7	2280.6	2302.9	2325.1	2332.5
47.5°	2606.9	2606.9	2577.2	2551.3	2517.9	2495.7	2495.7	2503.1	2536.5	2555.0	2566.2
50°	2885.0	2874.0	2844.3	2818.3	2799.8	2770.0	2773.8	2770.0	2799.8	2825.7	2833.2
52.5°	3174.3	3170.6	3141.0	3133.5	3144.7	3129.8	3129.8	3092.7	3103.8	3118.7	3115.0
55°	3534.0	3522.8	3497.0	3511.8	3556.3	3578.5	3571.1	3511.8	3478.3	3485.8	3482.1
57.5°	3927.1	3916.0	3908.6	3953.1	4053.1	4145.9	4127.3	3990.1	3927.1	3930.8	3934.5
60°	4327.6	4327.6	4349.8	4461.1	4676.2	4828.2	4772.6	4542.6	4431.4	4409.1	4401.8
62.5°	4739.2	4750.4	4798.6	4983.9	5314.0	5566.2	5425.2	5098.9	4932.1	4887.6	4872.7
65°	5217.6	5228.7	5299.2	5529.0	5966.7	6267.0	6026.0	5718.2	5484.6	5391.9	5377.0
67.5°	5911.0	5918.5	5974.0	6196.5	6608.2	6849.3	6600.8	6326.3	6074.2	5966.7	5959.2
70°	6534.0	6541.5	6589.6	6882.6	7260.8	7346.1	7071.8	6723.1	6459.8	6374.5	6359.7
72.5°	6393.1	6419.0	6578.5	7034.6	7616.9	7728.1	7149.6	6626.8	6204.0	6063.0	6018.5
75°	5362.2	5403.0	5655.2	6341.2	7268.3	7583.4	6689.8	5729.3	5098.9	4828.2	4757.7
77.5°	3129.8	3281.8	3715.7	4594.6	5918.5	6560.0	5510.5	4194.1	3133.5	2688.5	2540.2
80°	856.6	938.3	1253.4	2113.7	3712.0	4594.6	3515.5	1924.6	1038.3	778.8	723.1
82.5°	270.7	359.7	456.1	608.1	1457.4	2421.5	1305.3	567.3	445.0	367.1	326.3
85°	144.6	155.8	255.8	296.7	437.6	678.6	404.2	296.7	267.0	196.5	185.5
87.5°	74.2	77.8	144.6	144.6	192.8	159.5	174.3	159.5	152.0	96.5	85.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)