

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: LUMARK

Report Number: P270650

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270650
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-5WQ-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

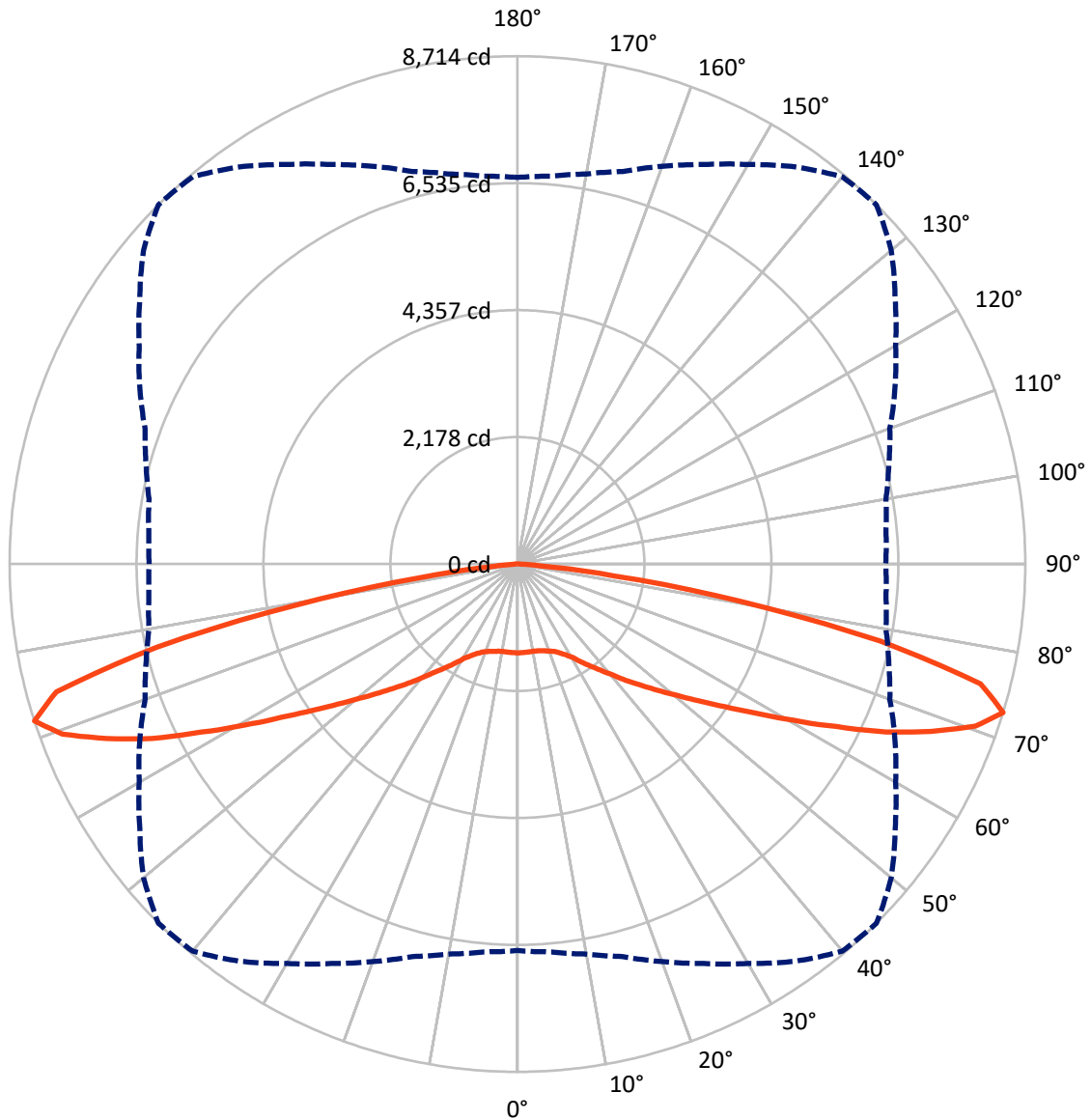
Lumens per Lamp: N/A
Luminaire Lumens: 21452.2 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 193
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



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

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CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10726.1	0.0	10726.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10726.1	0.0	10726.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	21452.2	0.0	21452.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.6	0.7
10°-20°	440.5	2.1
20°-30°	795.3	3.7
30°-40°	1356.6	6.3
40°-50°	2309.6	10.8
50°-60°	3717.0	17.3
60°-70°	6181.5	28.8
70°-80°	5979.8	27.9
80°-90°	526.3	2.5
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°	21452.2	100.0
0°-180°	21452.2	100.0



REPORT NUMBER: P270650

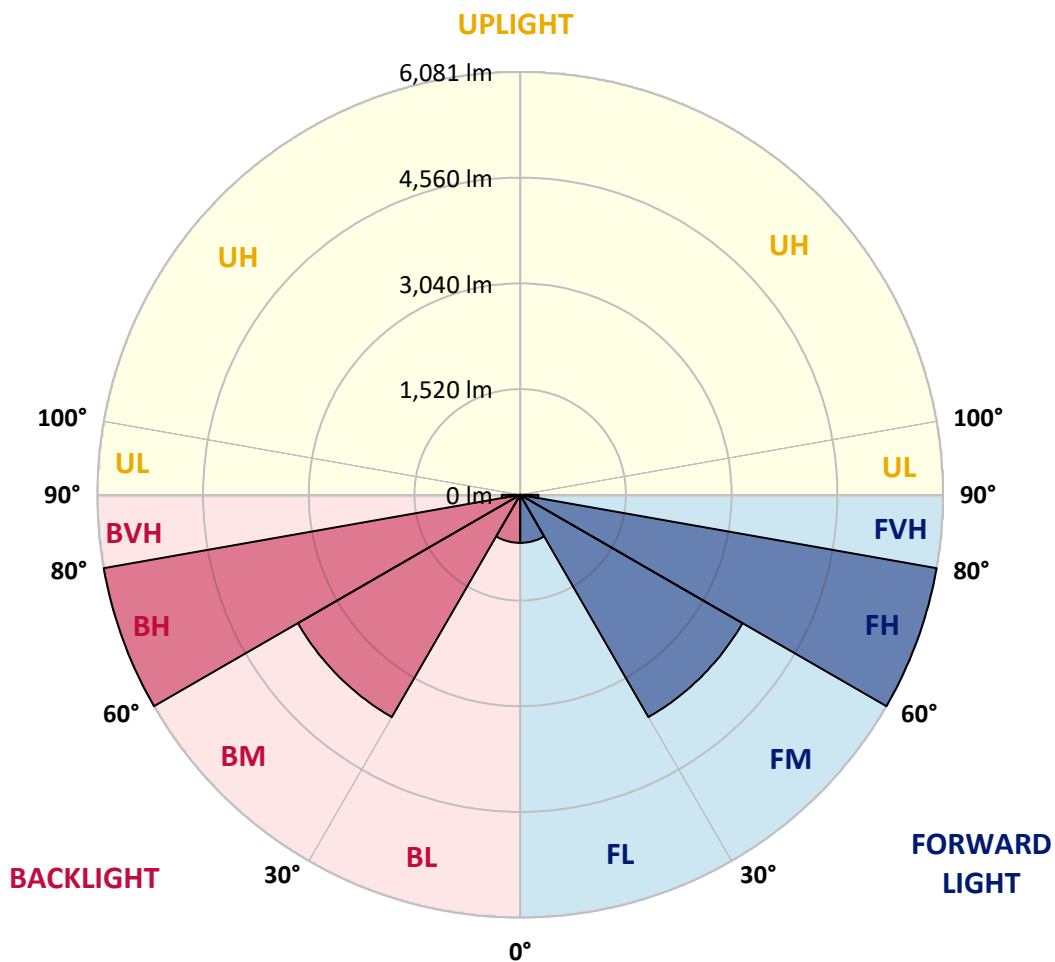
CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	690.7	3.2			
FM (30°-60°)	3691.6	17.2			
FH (60°-80°)	6080.6	28.3			G3/7500
FVH (80°-90°)	263.2	1.2			G3/500
BL (0°-30°)	690.7	3.2	B2/1000		
BM (30°-60°)	3691.6	17.2	B3/5000		
BH (60°-80°)	6080.6	28.3	B5		G3/7500
BVH (80°-90°)	263.2	1.2			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





REPORT NUMBER: P270650

CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1525.1	1525.1	1525.1	1525.1	1525.1	1525.1	1525.1	1525.1	1525.1	1525.1	1525.1
2.5°	1537.0	1537.0	1538.3	1537.0	1534.3	1533.0	1529.1	1526.4	1523.7	1522.4	1519.8
5°	1538.3	1538.3	1539.7	1538.3	1535.7	1533.0	1530.4	1526.4	1523.7	1521.1	1519.8
7.5°	1543.6	1544.8	1546.3	1544.8	1539.7	1537.0	1533.0	1529.1	1523.7	1521.1	1518.5
10°	1554.2	1554.2	1554.2	1552.8	1548.9	1543.6	1538.3	1534.3	1527.7	1521.1	1517.1
12.5°	1562.1	1563.4	1563.4	1560.7	1555.4	1548.9	1543.6	1539.7	1534.3	1529.1	1525.1
15°	1573.9	1573.9	1572.7	1567.4	1559.4	1554.2	1551.6	1550.1	1548.9	1546.3	1542.3
17.5°	1597.7	1596.4	1592.4	1584.5	1575.3	1571.3	1568.7	1568.7	1568.7	1567.4	1564.7
20°	1632.0	1632.0	1626.8	1613.5	1605.6	1601.7	1597.7	1597.7	1597.7	1593.8	1589.8
22.5°	1687.5	1688.9	1680.9	1665.1	1654.5	1646.6	1641.4	1637.3	1633.4	1630.8	1624.1
25°	1762.7	1761.4	1752.2	1732.4	1724.4	1716.5	1706.1	1699.5	1694.2	1690.2	1682.3
27.5°	1842.1	1840.6	1830.0	1813.0	1807.7	1795.8	1787.8	1778.6	1771.9	1765.3	1757.4
30°	1943.7	1937.0	1929.1	1915.9	1913.3	1904.0	1893.4	1880.3	1869.7	1859.1	1849.9
32.5°	2034.8	2034.8	2023.0	2016.2	2021.5	2017.7	2018.9	2011.0	2004.4	2000.4	1991.3
35°	2161.5	2161.5	2156.2	2148.3	2149.6	2140.4	2139.1	2140.4	2145.7	2145.7	2135.1
37.5°	2330.6	2333.2	2316.0	2313.3	2306.8	2293.6	2286.9	2289.6	2301.5	2308.1	2293.6
40°	2540.4	2545.7	2540.4	2523.2	2515.4	2492.9	2479.9	2479.9	2489.1	2495.6	2490.3
42.5°	2747.8	2757.1	2747.8	2734.6	2728.1	2710.8	2704.3	2709.5	2721.3	2729.3	2721.3
45°	2978.9	2985.4	2973.6	2957.8	2949.9	2940.6	2936.6	2940.6	2953.7	2961.7	2959.0
47.5°	3206.1	3215.3	3200.8	3194.2	3194.2	3184.9	3195.5	3206.1	3217.9	3236.4	3228.5
50°	3427.8	3439.7	3430.4	3431.7	3442.3	3459.6	3479.3	3500.4	3521.5	3541.4	3544.1
52.5°	3625.9	3644.3	3645.7	3669.4	3702.5	3728.9	3784.3	3830.6	3880.8	3897.8	3890.0
55°	3834.5	3859.6	3892.6	3929.5	3982.4	4036.5	4130.2	4213.5	4279.4	4320.5	4313.8
57.5°	4132.9	4158.1	4192.4	4253.0	4332.3	4406.2	4534.4	4663.7	4764.2	4826.1	4795.8
60°	4519.8	4546.2	4591.1	4655.8	4758.9	4859.2	5034.8	5220.9	5376.7	5448.1	5392.6
62.5°	5032.1	5057.3	5086.4	5172.1	5287.0	5416.4	5637.0	5876.0	6074.0	6142.6	6064.7
65°	5762.4	5792.7	5802.0	5872.0	5984.1	6104.3	6342.0	6611.3	6837.2	6949.4	6793.6
67.5°	6584.9	6596.9	6633.9	6715.6	6830.5	6938.9	7126.3	7381.3	7597.8	7659.8	7493.4
70°	7067.0	7090.7	7155.4	7268.9	7406.3	7576.7	7781.3	8055.9	8301.5	8330.6	8119.3
72.5°	6631.2	6680.1	6794.9	6971.8	7259.7	7562.1	7914.6	8320.0	8672.5	8713.5	8374.2
75°	5318.7	5374.1	5511.6	5705.6	6046.2	6495.1	7004.9	7613.6	8141.8	8209.2	7760.2
77.5°	2835.0	2903.6	3103.0	3364.4	3850.3	4444.5	5058.5	5753.0	6202.1	6353.9	6030.4
80°	714.3	751.3	847.7	1000.9	1329.8	1808.9	2338.5	3085.9	3643.0	3879.4	3643.0
82.5°	277.2	305.1	331.5	349.9	381.6	447.6	617.9	1007.4	1357.3	1671.7	1447.2
85°	107.0	113.5	163.8	186.2	186.2	204.6	235.0	277.2	343.3	375.0	314.2
87.5°	42.3	46.3	56.8	87.1	89.8	79.2	84.5	95.1	72.7	60.7	68.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P270650

CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7027-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1525.1	1525.1	1525.1	1525.1	1525.1	1525.1	1525.1	1525.1
2.5°	1518.5	1517.1	1514.5	1515.9	1514.5	1514.5	1514.5	1514.5
5°	1517.1	1517.1	1514.5	1514.5	1514.5	1515.9	1514.5	1514.5
7.5°	1515.9	1514.5	1511.8	1510.6	1510.6	1509.2	1509.2	1509.2
10°	1513.3	1510.6	1508.0	1506.5	1506.5	1503.9	1503.9	1503.9
12.5°	1519.8	1515.9	1513.3	1511.8	1511.8	1511.8	1513.3	1513.3
15°	1538.3	1530.4	1526.4	1525.1	1526.4	1529.1	1530.4	1531.7
17.5°	1558.1	1550.1	1543.6	1541.0	1542.3	1546.3	1550.1	1552.8
20°	1583.3	1576.5	1568.7	1566.0	1566.0	1571.3	1573.9	1578.0
22.5°	1618.8	1613.5	1607.0	1602.9	1600.4	1607.0	1610.9	1613.5
25°	1675.6	1670.4	1665.1	1661.1	1659.8	1666.4	1669.1	1670.4
27.5°	1750.8	1745.5	1742.9	1741.6	1737.7	1740.3	1744.2	1742.9
30°	1848.6	1852.6	1848.6	1848.6	1842.1	1844.6	1842.1	1839.4
32.5°	1979.3	1975.4	1963.4	1955.5	1946.3	1946.3	1942.3	1938.5
35°	2110.1	2096.9	2090.3	2094.2	2090.3	2093.0	2086.3	2079.7
37.5°	2264.5	2256.6	2255.3	2267.2	2264.5	2267.2	2267.2	2257.9
40°	2469.3	2464.0	2473.2	2492.9	2500.9	2499.5	2502.1	2490.3
42.5°	2704.3	2694.9	2699.0	2716.1	2725.4	2728.1	2726.6	2716.1
45°	2939.3	2941.9	2941.9	2960.5	2969.6	2974.9	2965.7	2961.7
47.5°	3204.7	3208.7	3199.5	3211.4	3214.0	3223.2	3215.3	3208.7
50°	3511.0	3496.6	3475.4	3479.3	3479.3	3476.7	3467.5	3459.6
52.5°	3853.0	3820.0	3780.3	3767.2	3752.7	3738.1	3719.6	3705.1
55°	4242.5	4185.7	4114.4	4081.4	4053.7	4020.8	3978.5	3964.0
57.5°	4694.2	4596.4	4501.3	4441.8	4370.7	4327.0	4272.9	4270.3
60°	5230.2	5098.2	4930.4	4842.0	4770.7	4719.2	4678.3	4662.5
62.5°	5849.6	5622.4	5441.5	5346.4	5263.2	5231.5	5180.0	5186.6
65°	6484.7	6253.6	6077.9	6001.3	5923.5	5902.4	5854.8	5872.0
67.5°	7172.5	6982.4	6789.6	6718.3	6647.0	6625.9	6577.0	6591.6
70°	7789.3	7547.6	7328.4	7188.3	7067.0	6969.2	6907.2	6882.1
72.5°	7912.0	7493.4	7148.8	6798.9	6596.9	6419.8	6347.3	6319.5
75°	7109.1	6459.5	5968.2	5557.6	5330.5	5073.1	5045.3	5007.1
77.5°	5530.0	4790.5	4196.3	3668.1	3363.2	3048.8	2940.6	2858.8
80°	3298.4	2535.2	1964.9	1377.2	1123.7	904.6	850.3	793.6
82.5°	1180.5	756.6	509.7	397.4	355.2	327.4	306.3	278.7
85°	285.2	240.3	227.1	206.0	203.3	173.0	122.8	109.7
87.5°	91.1	83.3	84.5	80.6	84.5	63.4	51.6	46.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)