

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: P270571

Luminaire Tested: **NAV-AF-05-D-UNV-5WQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270571
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-05-D-UNV-5WQ-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

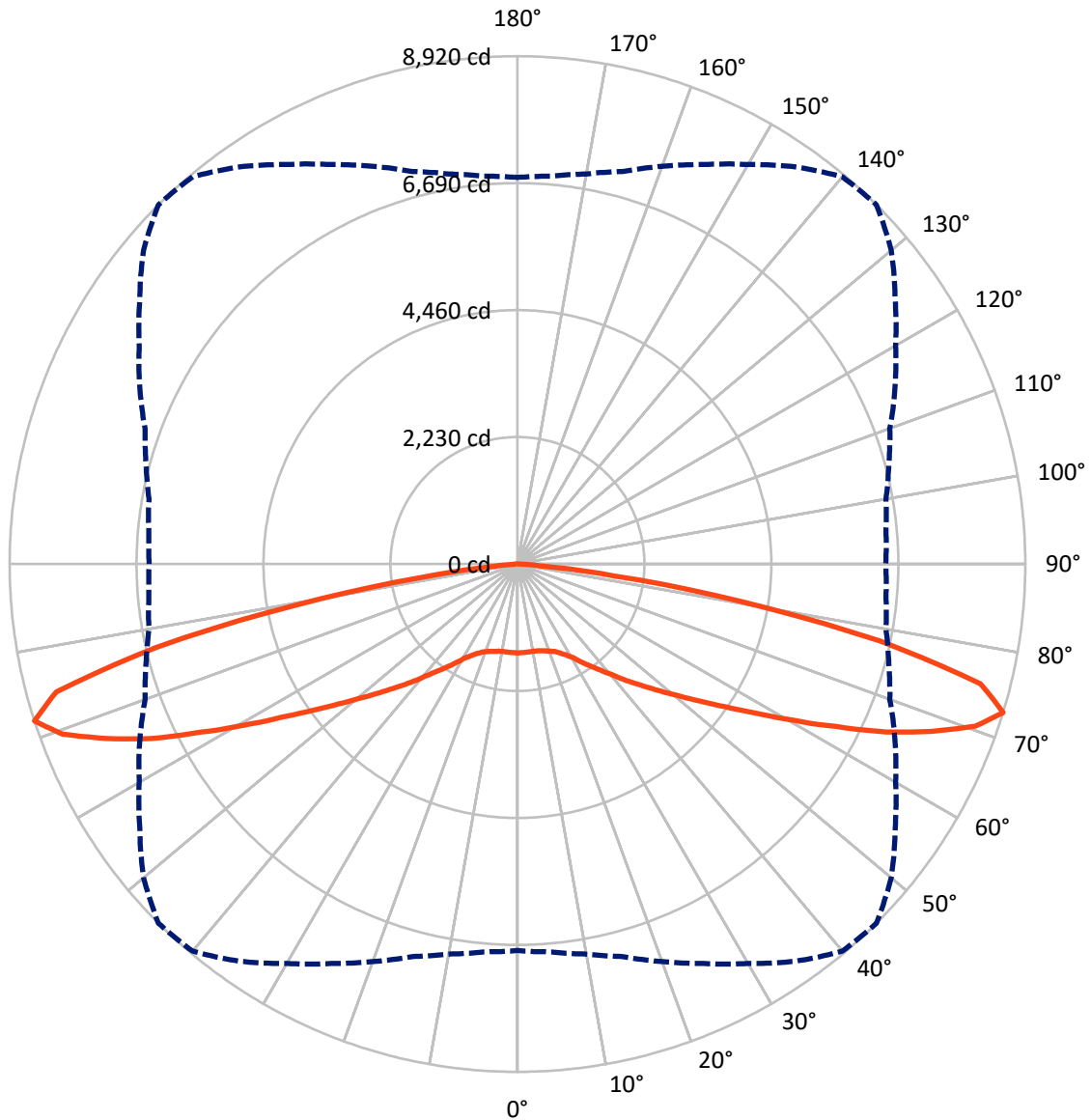
Lumens per Lamp: N/A
Luminaire Lumens: 21959.7 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 210
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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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10979.8	0.0	10979.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10979.8	0.0	10979.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	21959.7	0.0	21959.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	0.7
10°-20°	451.0	2.1
20°-30°	814.1	3.7
30°-40°	1388.7	6.3
40°-50°	2364.3	10.8
50°-60°	3804.9	17.3
60°-70°	6327.7	28.8
70°-80°	6121.3	27.9
80°-90°	538.8	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°	21959.7	100.0
0°-180°	21959.7	100.0



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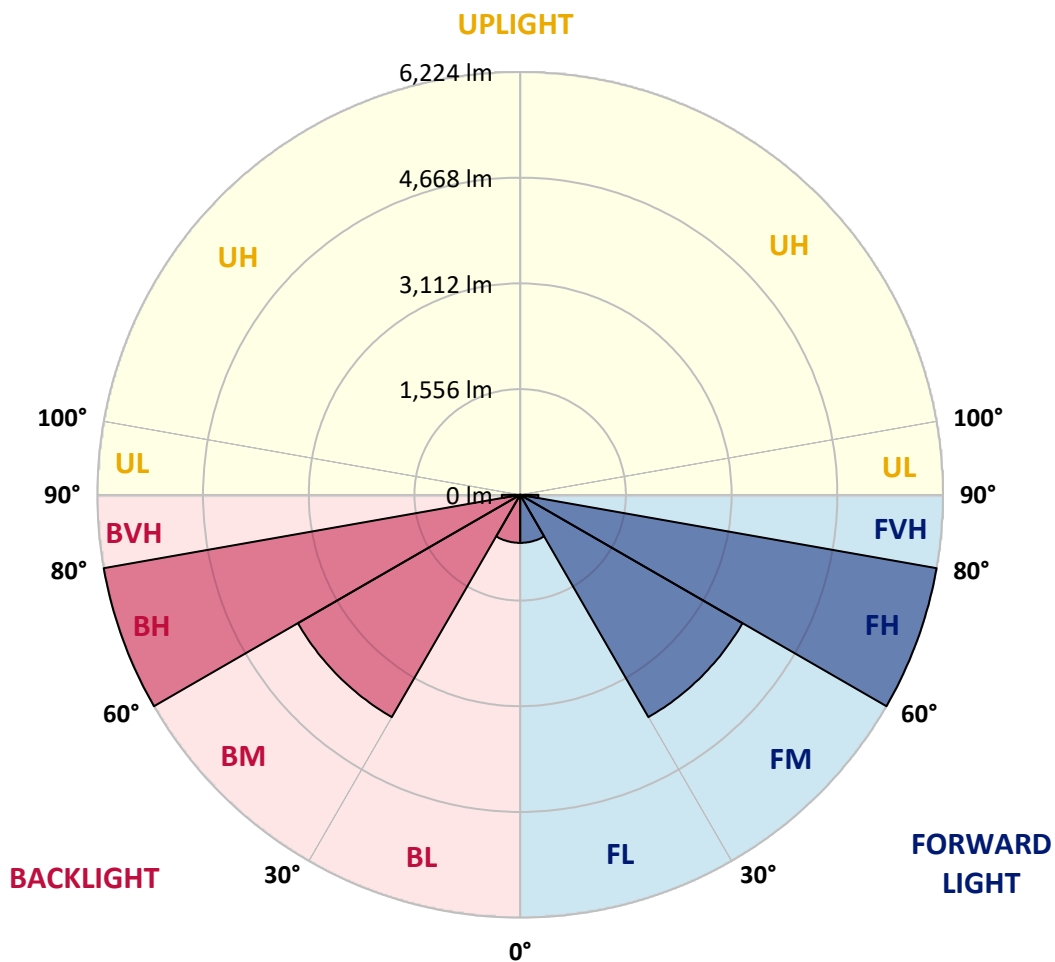
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	707.1	3.2			
FM (30°-60°)	3778.9	17.2			
FH (60°-80°)	6224.5	28.3			G3/7500
FVH (80°-90°)	269.4	1.2			G3/500
BL (0°-30°)	707.1	3.2	B2/1000		
BM (30°-60°)	3778.9	17.2	B3/5000		
BH (60°-80°)	6224.5	28.3	B5		G3/7500
BVH (80°-90°)	269.4	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1561.2	1561.2	1561.2	1561.2	1561.2	1561.2	1561.2	1561.2	1561.2	1561.2	1561.2
2.5°	1573.3	1573.3	1574.6	1573.3	1570.6	1569.2	1565.2	1562.5	1559.7	1558.5	1555.8
5°	1574.6	1574.6	1576.0	1574.6	1571.9	1569.2	1566.6	1562.5	1559.7	1557.1	1555.8
7.5°	1580.1	1581.5	1582.9	1581.5	1576.0	1573.3	1569.2	1565.2	1559.7	1557.1	1554.3
10°	1590.9	1590.9	1590.9	1589.6	1585.5	1580.1	1574.6	1570.6	1563.9	1557.1	1553.1
12.5°	1599.1	1600.4	1600.4	1597.6	1592.2	1585.5	1580.1	1576.0	1570.6	1565.2	1561.2
15°	1611.2	1611.2	1609.9	1604.5	1596.3	1590.9	1588.3	1586.9	1585.5	1582.9	1578.7
17.5°	1635.5	1634.1	1630.2	1622.0	1612.5	1608.4	1605.8	1605.8	1605.8	1604.5	1601.7
20°	1670.7	1670.7	1665.3	1651.8	1643.5	1639.5	1635.5	1635.5	1635.5	1631.4	1627.4
22.5°	1727.4	1728.8	1720.7	1704.4	1693.7	1685.5	1680.1	1676.1	1672.0	1669.3	1662.6
25°	1804.4	1803.1	1793.6	1773.3	1765.3	1757.2	1746.3	1739.6	1734.2	1730.1	1722.1
27.5°	1885.5	1884.3	1873.3	1855.8	1850.4	1838.2	1830.1	1820.7	1813.9	1807.2	1799.0
30°	1989.7	1982.9	1974.7	1961.3	1958.6	1949.1	1938.4	1924.8	1914.0	1903.1	1893.6
32.5°	2082.9	2082.9	2070.8	2063.9	2069.3	2065.4	2066.7	2058.6	2051.8	2047.7	2038.3
35°	2212.6	2212.6	2207.2	2199.1	2200.5	2191.1	2189.7	2191.1	2196.4	2196.4	2185.7
37.5°	2385.7	2388.4	2370.7	2368.1	2361.4	2347.8	2341.1	2343.8	2356.0	2362.7	2347.8
40°	2600.7	2606.1	2600.7	2583.0	2574.9	2551.9	2538.4	2538.4	2548.0	2554.6	2549.2
42.5°	2812.9	2822.2	2812.9	2799.3	2792.6	2775.0	2768.1	2773.5	2785.7	2793.9	2785.7
45°	3049.3	3056.2	3043.9	3027.6	3019.7	3010.1	3006.1	3010.1	3023.7	3031.8	3029.1
47.5°	3281.9	3291.3	3276.4	3269.7	3269.7	3260.2	3271.0	3281.9	3293.9	3312.9	3304.9
50°	3508.9	3521.0	3511.7	3512.9	3523.8	3541.4	3561.6	3583.2	3604.9	3625.2	3627.9
52.5°	3711.6	3730.7	3731.9	3756.3	3790.0	3817.1	3873.9	3921.2	3972.6	3990.1	3981.9
55°	3925.2	3950.8	3984.7	4022.5	4076.6	4132.1	4228.1	4313.1	4380.8	4422.6	4415.9
57.5°	4230.7	4256.3	4291.6	4353.6	4434.8	4510.5	4641.6	4774.0	4876.8	4940.3	4909.2
60°	4626.7	4653.8	4699.8	4766.0	4871.4	4974.2	5153.8	5344.5	5503.9	5576.9	5520.2
62.5°	5151.2	5176.8	5206.5	5294.4	5412.1	5544.5	5770.3	6015.0	6217.7	6288.0	6208.1
65°	5898.6	5929.7	5939.2	6010.7	6125.7	6248.7	6492.1	6767.8	6999.0	7113.8	6954.3
67.5°	6740.7	6752.9	6790.7	6874.5	6992.1	7103.0	7294.9	7555.7	7777.4	7840.9	7670.6
70°	7234.1	7258.5	7324.6	7440.9	7581.4	7755.8	7965.4	8246.5	8497.8	8527.6	8311.4
72.5°	6788.0	6838.1	6955.7	7136.8	7431.4	7741.0	8101.9	8516.8	8877.7	8919.6	8572.3
75°	5444.4	5501.3	5641.9	5840.5	6189.2	6648.9	7170.6	7793.6	8334.4	8403.3	7943.7
77.5°	2902.1	2972.3	3176.3	3444.0	3941.5	4549.6	5178.2	5889.2	6348.7	6504.2	6173.1
80°	731.2	769.0	867.8	1024.5	1361.1	1851.8	2393.9	3158.8	3729.3	3971.1	3729.3
82.5°	283.9	312.3	339.3	358.2	390.7	458.2	632.5	1031.3	1389.5	1711.2	1481.5
85°	109.6	116.2	167.7	190.6	190.6	209.6	240.6	283.9	351.4	383.8	321.8
87.5°	43.3	47.3	58.1	89.2	91.8	81.0	86.4	97.3	74.3	62.2	70.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1561.2	1561.2	1561.2	1561.2	1561.2	1561.2	1561.2	1561.2
2.5°	1554.3	1553.1	1550.4	1551.7	1550.4	1550.4	1550.4	1550.4
5°	1553.1	1553.1	1550.4	1550.4	1550.4	1551.7	1550.4	1550.4
7.5°	1551.7	1550.4	1547.7	1546.3	1546.3	1544.9	1544.9	1544.9
10°	1548.9	1546.3	1543.6	1542.2	1542.2	1539.5	1539.5	1539.5
12.5°	1555.8	1551.7	1548.9	1547.7	1547.7	1547.7	1548.9	1548.9
15°	1574.6	1566.6	1562.5	1561.2	1562.5	1565.2	1566.6	1567.9
17.5°	1595.0	1586.9	1580.1	1577.3	1578.7	1582.9	1586.9	1589.6
20°	1620.6	1613.8	1605.8	1603.0	1603.0	1608.4	1611.2	1615.2
22.5°	1657.2	1651.8	1644.9	1640.9	1638.1	1644.9	1649.0	1651.8
25°	1715.3	1709.8	1704.4	1700.4	1699.1	1705.8	1708.4	1709.8
27.5°	1792.3	1786.9	1784.3	1782.9	1778.7	1781.5	1785.6	1784.3
30°	1892.3	1896.4	1892.3	1892.3	1885.5	1888.2	1885.5	1882.8
32.5°	2026.1	2022.1	2009.9	2001.9	1992.4	1992.4	1988.3	1984.3
35°	2160.0	2146.4	2139.7	2143.7	2139.7	2142.4	2135.6	2128.9
37.5°	2318.0	2310.0	2308.6	2320.9	2318.0	2320.9	2320.9	2311.2
40°	2527.7	2522.3	2531.7	2551.9	2560.0	2558.7	2561.3	2549.2
42.5°	2768.1	2758.8	2762.7	2780.3	2789.9	2792.6	2791.2	2780.3
45°	3008.9	3011.5	3011.5	3030.4	3039.9	3045.3	3035.8	3031.8
47.5°	3280.5	3284.6	3275.1	3287.3	3290.0	3299.5	3291.3	3284.6
50°	3594.1	3579.1	3557.6	3561.6	3561.6	3558.9	3549.5	3541.4
52.5°	3944.2	3910.3	3869.8	3856.2	3841.4	3826.5	3807.6	3792.7
55°	4342.9	4284.7	4211.8	4177.9	4149.6	4115.9	4072.6	4057.6
57.5°	4805.2	4705.1	4607.8	4547.0	4474.0	4429.5	4373.9	4371.2
60°	5353.9	5218.8	5047.0	4956.6	4883.5	4830.8	4789.0	4772.8
62.5°	5987.8	5755.4	5570.2	5472.8	5387.8	5355.2	5302.5	5309.3
65°	6637.9	6401.4	6221.8	6143.2	6063.6	6041.9	5993.2	6010.7
67.5°	7342.2	7147.5	6950.2	6877.2	6804.2	6782.7	6732.5	6747.4
70°	7973.4	7726.1	7501.7	7358.5	7234.1	7134.1	7070.5	7044.9
72.5°	8099.2	7670.6	7318.0	6959.7	6752.9	6571.8	6497.4	6469.1
75°	7277.3	6612.3	6109.6	5689.1	5456.7	5193.1	5164.6	5125.5
77.5°	5660.8	4903.8	4295.5	3754.9	3442.7	3121.0	3010.1	2926.4
80°	3376.5	2595.3	2011.2	1409.8	1150.3	926.0	870.5	812.3
82.5°	1208.4	774.5	521.7	406.8	363.6	335.2	313.6	285.2
85°	291.9	246.0	232.5	210.8	208.1	177.1	125.8	112.2
87.5°	93.2	85.2	86.4	82.5	86.4	64.9	52.7	47.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)