

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: P196451

Luminaire Tested: **NAV-AF-05-D-UNV-5WQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196451
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-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 3000K, 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: 24445.7 lumens
Efficiency: N/A
Efficacy: 116.4 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

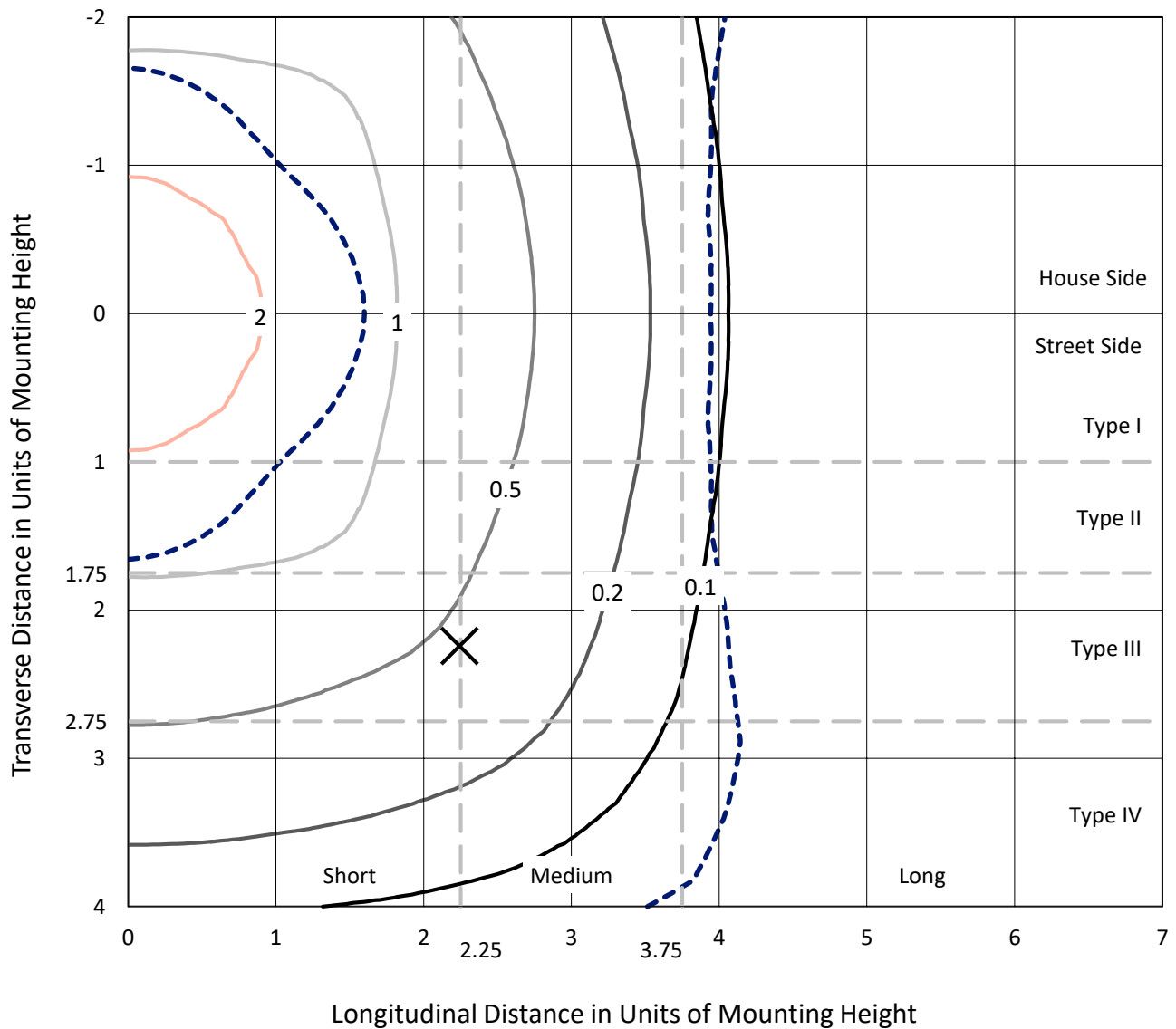
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

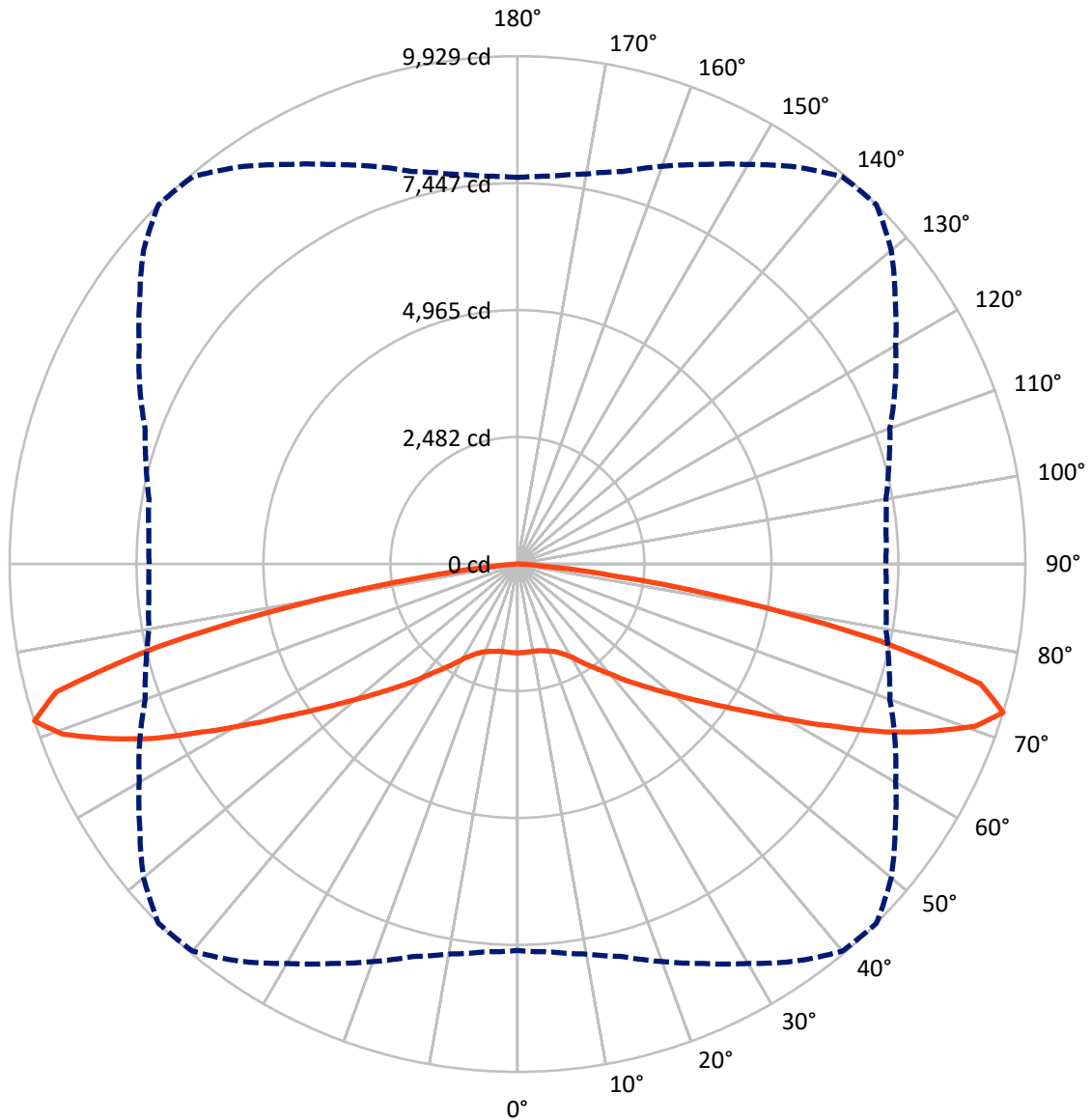
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type V - Short - Semi-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
House Side	Lumens	12222.8	0.0	12222.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12222.8	0.0	12222.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	24445.7	0.0	24445.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.9	0.7
10°-20°	502.0	2.1
20°-30°	906.3	3.7
30°-40°	1545.9	6.3
40°-50°	2631.9	10.8
50°-60°	4235.7	17.3
60°-70°	7044.0	28.8
70°-80°	6814.3	27.9
80°-90°	599.7	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°	24445.7	100.0
0°-180°	24445.7	100.0



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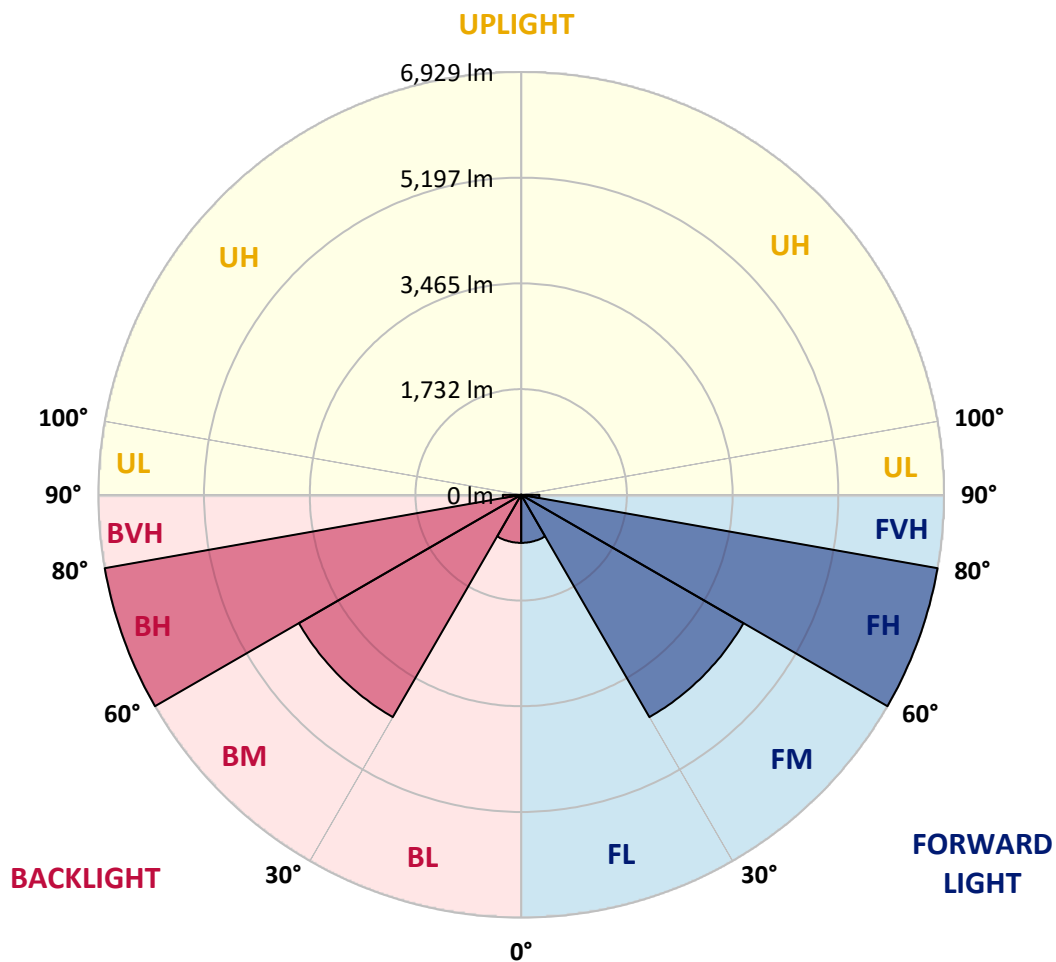
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	787.1	3.2			
FM (30°-60°)	4206.7	17.2			
FH (60°-80°)	6929.1	28.3			G3/7500
FVH (80°-90°)	299.9	1.2			G3/500
BL (0°-30°)	787.1	3.2	B2/1000		
BM (30°-60°)	4206.7	17.2	B3/5000		
BH (60°-80°)	6929.1	28.3	B5		G3/7500
BVH (80°-90°)	299.9	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°	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9
2.5°	1751.4	1751.4	1752.9	1751.4	1748.4	1746.9	1742.4	1739.4	1736.3	1734.9	1731.9
5°	1752.9	1752.9	1754.4	1752.9	1749.9	1746.9	1743.9	1739.4	1736.3	1733.4	1731.9
7.5°	1759.0	1760.5	1762.1	1760.5	1754.4	1751.4	1746.9	1742.4	1736.3	1733.4	1730.3
10°	1771.0	1771.0	1771.0	1769.5	1765.0	1759.0	1752.9	1748.4	1740.9	1733.4	1728.9
12.5°	1780.1	1781.6	1781.6	1778.5	1772.5	1765.0	1759.0	1754.4	1748.4	1742.4	1737.9
15°	1793.6	1793.6	1792.1	1786.1	1777.0	1771.0	1768.1	1766.5	1765.0	1762.1	1757.4
17.5°	1820.7	1819.1	1814.7	1805.6	1795.1	1790.5	1787.6	1787.6	1787.6	1786.1	1783.0
20°	1859.8	1859.8	1853.8	1838.8	1829.6	1825.1	1820.7	1820.7	1820.7	1816.1	1811.6
22.5°	1923.0	1924.5	1915.5	1897.4	1885.4	1876.3	1870.3	1865.8	1861.3	1858.3	1850.8
25°	2008.7	2007.2	1996.7	1974.1	1965.1	1956.1	1944.0	1936.5	1930.5	1926.0	1917.0
27.5°	2099.0	2097.6	2085.4	2065.9	2059.9	2046.3	2037.3	2026.8	2019.3	2011.8	2002.7
30°	2214.9	2207.4	2198.3	2183.3	2180.3	2169.8	2157.8	2142.7	2130.7	2118.5	2108.0
32.5°	2318.7	2318.7	2305.2	2297.6	2303.6	2299.2	2300.7	2291.6	2284.1	2279.5	2269.1
35°	2463.1	2463.1	2457.1	2448.1	2449.6	2439.1	2437.6	2439.1	2445.1	2445.1	2433.1
37.5°	2655.8	2658.8	2639.1	2636.2	2628.7	2613.6	2606.1	2609.1	2622.7	2630.2	2613.6
40°	2895.1	2901.1	2895.1	2875.4	2866.4	2840.8	2825.8	2825.8	2836.4	2843.8	2837.8
42.5°	3131.3	3141.7	3131.3	3116.2	3108.7	3089.1	3081.5	3087.5	3101.1	3110.2	3101.1
45°	3394.5	3402.2	3388.5	3370.4	3361.5	3350.9	3346.4	3350.9	3366.0	3375.0	3372.0
47.5°	3653.4	3663.9	3647.3	3639.9	3639.9	3629.3	3641.3	3653.4	3666.8	3687.9	3679.0
50°	3906.1	3919.6	3909.2	3910.6	3922.7	3942.3	3964.8	3988.9	4013.0	4035.6	4038.6
52.5°	4131.8	4153.0	4154.4	4181.5	4219.1	4249.2	4312.4	4365.1	4422.3	4441.8	4432.7
55°	4369.6	4398.1	4435.8	4477.9	4538.1	4599.9	4706.7	4801.4	4876.7	4923.3	4915.8
57.5°	4709.6	4738.2	4777.4	4846.5	4936.9	5021.1	5167.1	5314.5	5428.9	5499.6	5465.0
60°	5150.5	5180.6	5231.8	5305.5	5422.9	5537.3	5737.3	5949.5	6127.0	6208.3	6145.1
62.5°	5734.4	5762.9	5795.9	5893.8	6024.8	6172.2	6423.5	6695.9	6921.6	6999.8	6910.9
65°	6566.4	6601.0	6611.6	6691.2	6819.2	6956.1	7227.0	7534.0	7791.3	7919.1	7741.6
67.5°	7503.8	7517.4	7559.5	7652.8	7783.7	7907.1	8120.7	8411.1	8657.9	8728.6	8539.0
70°	8053.1	8080.2	8153.8	8283.3	8439.7	8633.8	8867.1	9180.1	9459.8	9493.0	9252.3
72.5°	7556.5	7612.2	7743.1	7944.7	8272.7	8617.3	9019.1	9481.0	9882.7	9929.4	9542.7
75°	6060.8	6124.1	6280.6	6501.7	6889.9	7401.6	7982.4	8675.9	9277.9	9354.6	8843.0
77.5°	3230.6	3308.8	3535.9	3833.9	4387.7	5064.7	5764.4	6555.9	7067.4	7240.5	6871.9
80°	814.0	856.1	966.0	1140.5	1515.2	2061.4	2664.9	3516.4	4151.5	4420.7	4151.5
82.5°	316.0	347.6	377.7	398.7	434.9	510.1	704.1	1148.1	1546.8	1904.9	1649.2
85°	122.0	129.4	186.7	212.2	212.2	233.3	267.8	316.0	391.2	427.3	358.2
87.5°	48.2	52.7	64.7	99.3	102.2	90.2	96.2	108.3	82.7	69.2	78.2
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°	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9
2.5°	1730.3	1728.9	1725.9	1727.4	1725.9	1725.9	1725.9	1725.9
5°	1728.9	1728.9	1725.9	1725.9	1725.9	1727.4	1725.9	1725.9
7.5°	1727.4	1725.9	1722.9	1721.4	1721.4	1719.8	1719.8	1719.8
10°	1724.3	1721.4	1718.3	1716.8	1716.8	1713.8	1713.8	1713.8
12.5°	1731.9	1727.4	1724.3	1722.9	1722.9	1722.9	1724.3	1724.3
15°	1752.9	1743.9	1739.4	1737.9	1739.4	1742.4	1743.9	1745.4
17.5°	1775.6	1766.5	1759.0	1755.9	1757.4	1762.1	1766.5	1769.5
20°	1804.1	1796.5	1787.6	1784.5	1784.5	1790.5	1793.6	1798.1
22.5°	1844.8	1838.8	1831.1	1826.7	1823.6	1831.1	1835.7	1838.8
25°	1909.5	1903.4	1897.4	1892.9	1891.4	1898.9	1901.8	1903.4
27.5°	1995.2	1989.2	1986.3	1984.7	1980.1	1983.2	1987.7	1986.3
30°	2106.5	2111.1	2106.5	2106.5	2099.0	2102.0	2099.0	2096.0
32.5°	2255.5	2251.0	2237.4	2228.5	2217.9	2217.9	2213.4	2208.9
35°	2404.5	2389.4	2381.9	2386.4	2381.9	2384.9	2377.4	2369.9
37.5°	2580.4	2571.5	2570.0	2583.6	2580.4	2583.6	2583.6	2572.9
40°	2813.8	2807.8	2818.3	2840.8	2849.8	2848.4	2851.3	2837.8
42.5°	3081.5	3071.1	3075.5	3095.1	3105.7	3108.7	3107.2	3095.1
45°	3349.5	3352.4	3352.4	3373.5	3384.0	3390.0	3379.5	3375.0
47.5°	3651.9	3656.4	3645.9	3659.4	3662.4	3673.0	3663.9	3656.4
50°	4001.0	3984.3	3960.3	3964.8	3964.8	3961.8	3951.3	3942.3
52.5°	4390.7	4353.0	4307.9	4292.8	4276.3	4259.7	4238.7	4222.1
55°	4834.5	4769.8	4688.6	4650.9	4619.4	4581.8	4533.6	4517.0
57.5°	5349.2	5237.8	5129.4	5061.8	4980.5	4930.9	4869.1	4866.1
60°	5960.0	5809.6	5618.4	5517.7	5436.4	5377.7	5331.1	5313.1
62.5°	6665.7	6407.0	6200.8	6092.4	5997.7	5961.5	5902.8	5910.4
65°	7389.4	7126.1	6926.1	6838.7	6750.0	6725.9	6671.7	6691.2
67.5°	8173.4	7956.7	7737.0	7655.8	7574.5	7550.5	7494.7	7511.3
70°	8876.1	8600.8	8351.0	8191.5	8053.1	7941.7	7870.9	7842.4
72.5°	9016.1	8539.0	8146.4	7747.6	7517.4	7315.8	7233.0	7201.4
75°	8101.1	7360.9	6801.2	6333.2	6074.4	5781.0	5749.3	5705.7
77.5°	6301.6	5458.9	4781.8	4180.0	3832.4	3474.3	3350.9	3257.7
80°	3758.7	2889.1	2238.9	1569.4	1280.5	1030.8	969.0	904.3
82.5°	1345.2	862.2	580.8	452.9	404.8	373.1	349.1	317.5
85°	325.0	273.8	258.8	234.7	231.7	197.1	140.0	124.9
87.5°	103.8	94.8	96.2	91.8	96.2	72.2	58.7	52.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)