

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: P196932

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196932
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-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 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: 24708 lumens
Efficiency: N/A
Efficacy: 99.2 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

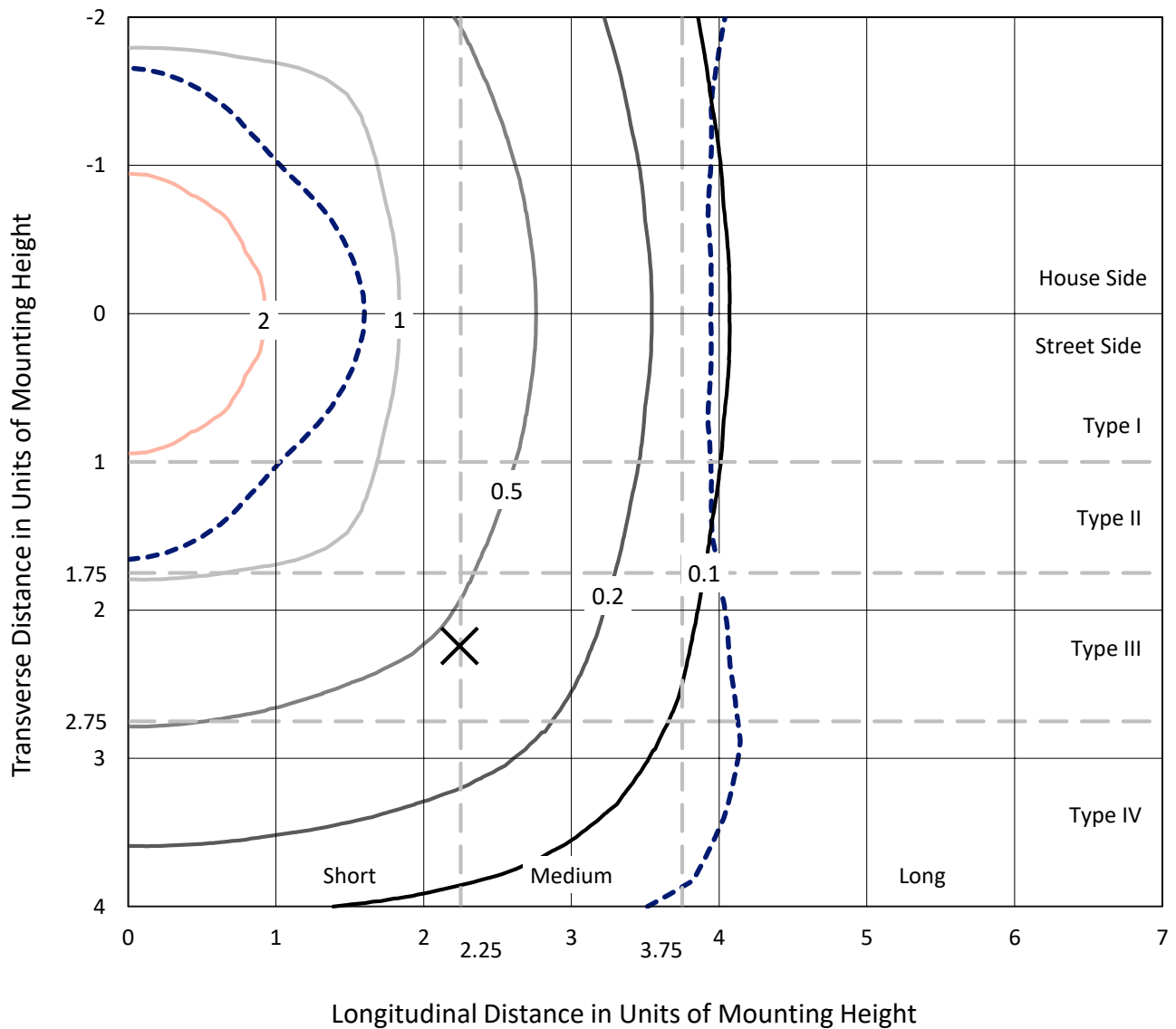
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

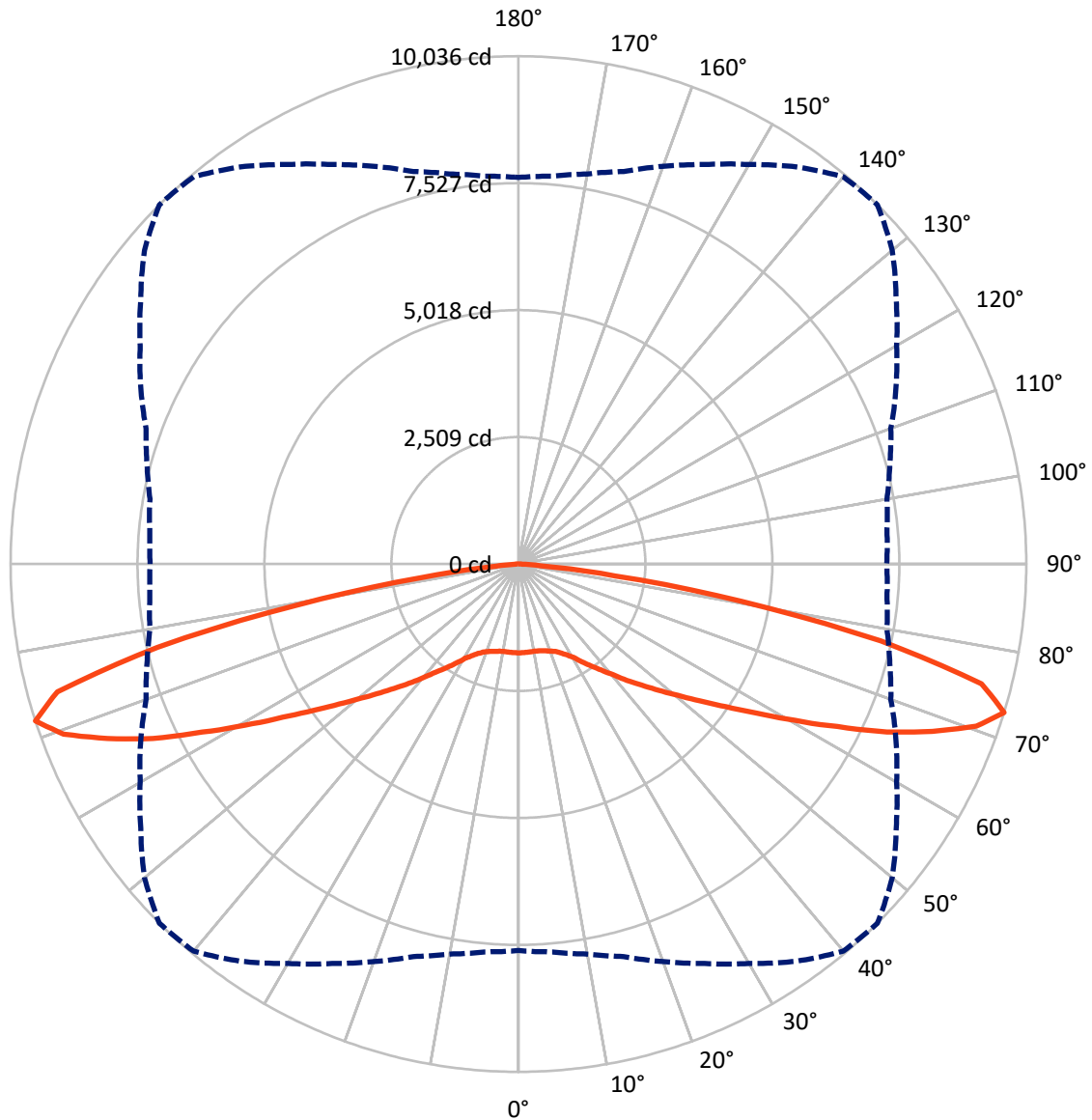
× Max cd
 - - - 1/2 Max cd



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	12354.0	0.0	12354.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12354.0	0.0	12354.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	24708.0	0.0	24708.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.7	0.7
10°-20°	507.4	2.1
20°-30°	916.0	3.7
30°-40°	1562.5	6.3
40°-50°	2660.2	10.8
50°-60°	4281.1	17.3
60°-70°	7119.6	28.8
70°-80°	6887.4	27.9
80°-90°	606.2	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°	24708.0	100.0
0°-180°	24708.0	100.0



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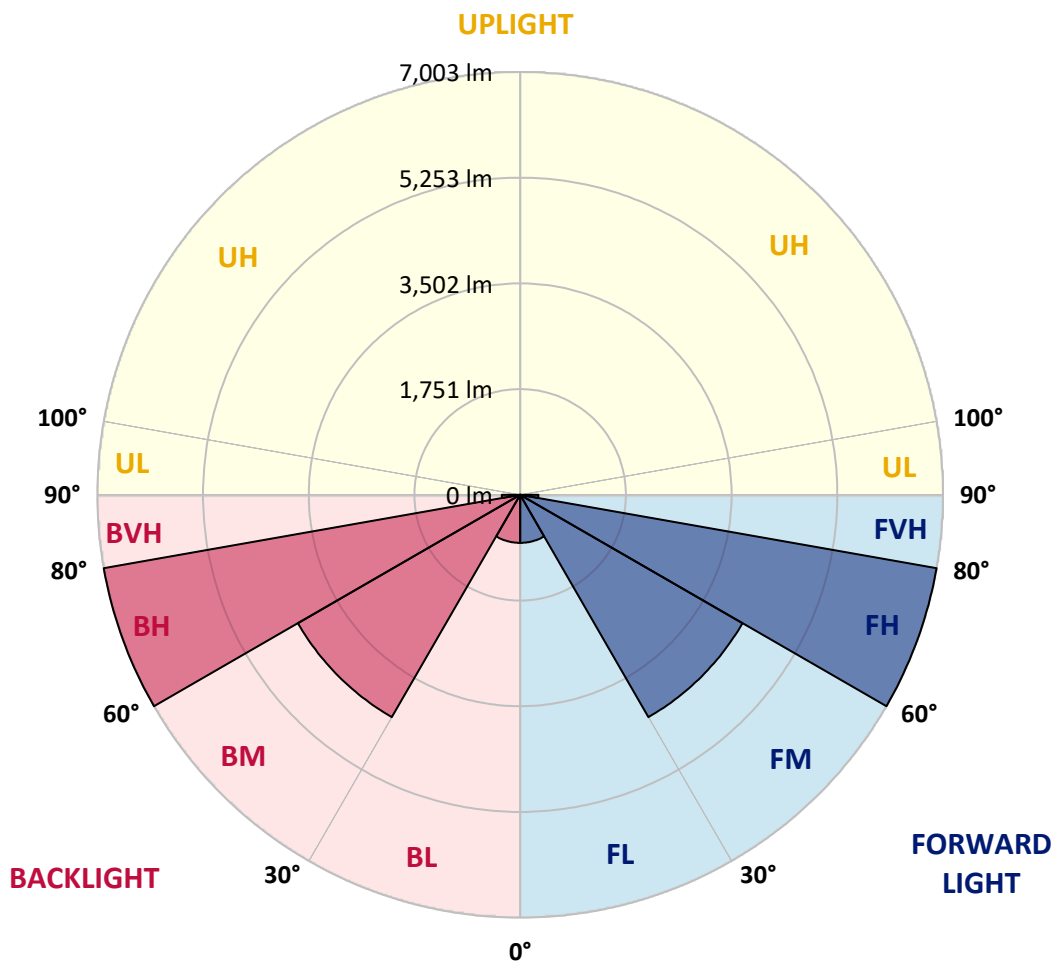
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	795.5	3.2			
FM	(30°-60°)	4251.9	17.2			
FH	(60°-80°)	7003.5	28.3			G3/7500
FVH	(80°-90°)	303.1	1.2			G3/500
BL	(0°-30°)	795.5	3.2	B2/1000		
BM	(30°-60°)	4251.9	17.2	B3/5000		
BH	(60°-80°)	7003.5	28.3	B5		G3/7500
BVH	(80°-90°)	303.1	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°	1756.6	1756.6	1756.6	1756.6	1756.6	1756.6	1756.6	1756.6	1756.6	1756.6	1756.6
2.5°	1770.2	1770.2	1771.8	1770.2	1767.2	1765.7	1761.1	1758.1	1755.0	1753.5	1750.5
5°	1771.8	1771.8	1773.3	1771.8	1768.7	1765.7	1762.6	1758.1	1755.0	1752.0	1750.5
7.5°	1777.8	1779.4	1780.9	1779.4	1773.3	1770.2	1765.7	1761.1	1755.0	1752.0	1748.9
10°	1790.0	1790.0	1790.0	1788.5	1783.9	1777.8	1771.8	1767.2	1759.6	1752.0	1747.4
12.5°	1799.1	1800.7	1800.7	1797.6	1791.5	1783.9	1777.8	1773.3	1767.2	1761.1	1756.6
15°	1812.8	1812.8	1811.3	1805.2	1796.1	1790.0	1787.0	1785.4	1783.9	1780.9	1776.3
17.5°	1840.2	1838.7	1834.1	1825.0	1814.3	1809.8	1806.7	1806.7	1806.7	1805.2	1802.2
20°	1879.7	1879.7	1873.7	1858.4	1849.3	1844.8	1840.2	1840.2	1840.2	1835.6	1831.1
22.5°	1943.6	1945.1	1936.0	1917.8	1905.6	1896.5	1890.4	1885.8	1881.3	1878.2	1870.6
25°	2030.3	2028.8	2018.1	1995.3	1986.2	1977.1	1964.9	1957.3	1951.2	1946.7	1937.5
27.5°	2121.6	2120.0	2107.9	2088.1	2082.0	2068.3	2059.2	2048.6	2040.9	2033.3	2024.2
30°	2238.7	2231.1	2221.9	2206.7	2203.7	2193.0	2180.9	2165.7	2153.5	2141.3	2130.7
32.5°	2343.6	2343.6	2329.9	2322.3	2328.4	2323.8	2325.3	2316.2	2308.6	2304.1	2293.4
35°	2489.6	2489.6	2483.5	2474.4	2475.9	2465.3	2463.7	2465.3	2471.3	2471.3	2459.2
37.5°	2684.3	2687.3	2667.5	2664.5	2656.9	2641.7	2634.1	2637.1	2650.8	2658.4	2641.7
40°	2926.1	2932.2	2926.1	2906.3	2897.2	2871.3	2856.1	2856.1	2866.8	2874.4	2868.3
42.5°	3164.8	3175.5	3164.8	3149.6	3142.0	3122.3	3114.7	3120.7	3134.4	3143.5	3134.4
45°	3431.0	3438.6	3424.9	3406.6	3397.5	3386.9	3382.3	3386.9	3402.1	3411.2	3408.2
47.5°	3692.6	3703.2	3686.5	3678.9	3678.9	3668.2	3680.4	3692.6	3706.3	3727.5	3718.4
50°	3948.1	3961.8	3951.1	3952.6	3964.8	3984.6	4007.4	4031.7	4056.0	4078.9	4081.9
52.5°	4176.2	4197.5	4199.0	4226.4	4264.4	4294.8	4358.7	4411.9	4469.7	4489.5	4480.4
55°	4416.5	4445.4	4483.4	4526.0	4586.8	4649.2	4757.1	4853.0	4929.0	4976.1	4968.5
57.5°	4760.2	4789.1	4828.6	4898.6	4989.8	5075.0	5222.5	5371.6	5487.1	5558.6	5523.6
60°	5205.8	5236.2	5287.9	5362.4	5481.1	5596.6	5798.9	6013.3	6192.8	6274.9	6211.1
62.5°	5795.9	5824.8	5858.2	5957.1	6089.4	6238.4	6492.4	6767.7	6995.8	7074.9	6985.2
65°	6636.9	6671.9	6682.5	6763.1	6892.4	7030.8	7304.5	7614.8	7874.8	8004.1	7824.6
67.5°	7584.4	7598.0	7640.6	7734.9	7867.2	7991.9	8207.9	8501.4	8750.8	8822.3	8630.7
70°	8139.5	8166.8	8241.4	8372.1	8530.3	8726.5	8962.2	9278.6	9561.4	9594.9	9351.6
72.5°	7637.6	7693.9	7826.2	8030.0	8361.5	8709.8	9115.8	9582.7	9988.8	10035.9	9645.1
75°	6125.9	6189.8	6347.9	6571.5	6963.9	7480.9	8068.0	8769.1	9377.4	9455.0	8937.9
77.5°	3265.2	3344.3	3573.9	3875.1	4434.7	5119.1	5826.3	6626.2	7143.3	7318.2	6945.6
80°	822.8	865.3	976.4	1152.8	1531.5	2083.5	2693.4	3554.2	4196.0	4468.2	4196.0
82.5°	319.4	351.3	381.7	403.0	439.5	515.6	711.7	1160.4	1563.4	1925.4	1666.8
85°	123.2	130.8	188.6	214.4	214.4	235.7	270.7	319.4	395.4	431.9	362.0
87.5°	48.7	53.2	65.4	100.4	103.4	91.2	97.3	109.5	83.6	70.0	79.1
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°	1756.6	1756.6	1756.6	1756.6	1756.6	1756.6	1756.6	1756.6
2.5°	1748.9	1747.4	1744.4	1745.9	1744.4	1744.4	1744.4	1744.4
5°	1747.4	1747.4	1744.4	1744.4	1744.4	1745.9	1744.4	1744.4
7.5°	1745.9	1744.4	1741.3	1739.8	1739.8	1738.3	1738.3	1738.3
10°	1742.9	1739.8	1736.8	1735.3	1735.3	1732.2	1732.2	1732.2
12.5°	1750.5	1745.9	1742.9	1741.3	1741.3	1741.3	1742.9	1742.9
15°	1771.8	1762.6	1758.1	1756.6	1758.1	1761.1	1762.6	1764.2
17.5°	1794.6	1785.4	1777.8	1774.8	1776.3	1780.9	1785.4	1788.5
20°	1823.5	1815.9	1806.7	1803.7	1803.7	1809.8	1812.8	1817.4
22.5°	1864.5	1858.4	1850.8	1846.3	1843.2	1850.8	1855.4	1858.4
25°	1929.9	1923.8	1917.8	1913.2	1911.7	1919.3	1922.3	1923.8
27.5°	2016.6	2010.5	2007.5	2006.0	2001.4	2004.4	2009.0	2007.5
30°	2129.2	2133.7	2129.2	2129.2	2121.6	2124.6	2121.6	2118.5
32.5°	2279.7	2275.2	2261.5	2252.3	2241.7	2241.7	2237.1	2232.6
35°	2430.3	2415.1	2407.5	2412.0	2407.5	2410.5	2402.9	2395.3
37.5°	2608.2	2599.1	2597.6	2611.3	2608.2	2611.3	2611.3	2600.6
40°	2843.9	2837.9	2848.5	2871.3	2880.4	2878.9	2882.0	2868.3
42.5°	3114.7	3104.0	3108.6	3128.3	3139.0	3142.0	3140.5	3128.3
45°	3385.4	3388.4	3388.4	3409.7	3420.3	3426.4	3415.8	3411.2
47.5°	3691.0	3695.6	3685.0	3698.6	3701.7	3712.3	3703.2	3695.6
50°	4043.9	4027.1	4002.8	4007.4	4007.4	4004.3	3993.7	3984.6
52.5°	4437.8	4399.7	4354.1	4338.9	4322.2	4305.5	4284.2	4267.4
55°	4886.4	4821.0	4738.9	4700.9	4668.9	4630.9	4582.2	4565.5
57.5°	5406.5	5294.0	5184.5	5116.1	5033.9	4983.7	4921.4	4918.3
60°	6024.0	5871.9	5678.8	5576.9	5494.7	5435.4	5388.3	5370.0
62.5°	6737.3	6475.7	6267.3	6157.8	6062.0	6025.5	5966.2	5973.8
65°	7468.8	7202.6	7000.4	6912.2	6822.4	6798.1	6743.3	6763.1
67.5°	8261.1	8042.1	7820.1	7738.0	7655.8	7631.5	7575.2	7592.0
70°	8971.3	8693.0	8440.6	8279.4	8139.5	8026.9	7955.4	7926.5
72.5°	9112.8	8630.7	8233.7	7830.7	7598.0	7394.3	7310.6	7278.7
75°	8188.1	7439.9	6874.1	6401.2	6139.6	5843.0	5811.1	5767.0
77.5°	6369.2	5517.6	4833.2	4224.9	3873.5	3511.6	3386.9	3292.6
80°	3799.0	2920.0	2263.0	1586.2	1294.2	1041.8	979.4	914.0
82.5°	1359.6	871.4	587.0	457.8	409.1	377.2	352.8	320.9
85°	328.5	276.8	261.6	237.2	234.2	199.2	141.4	126.2
87.5°	104.9	95.8	97.3	92.8	97.3	73.0	59.3	53.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)