

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: P196446

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196446  
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-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 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: 23880.8 lumens  
Efficiency: N/A  
Efficacy: 123.7 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

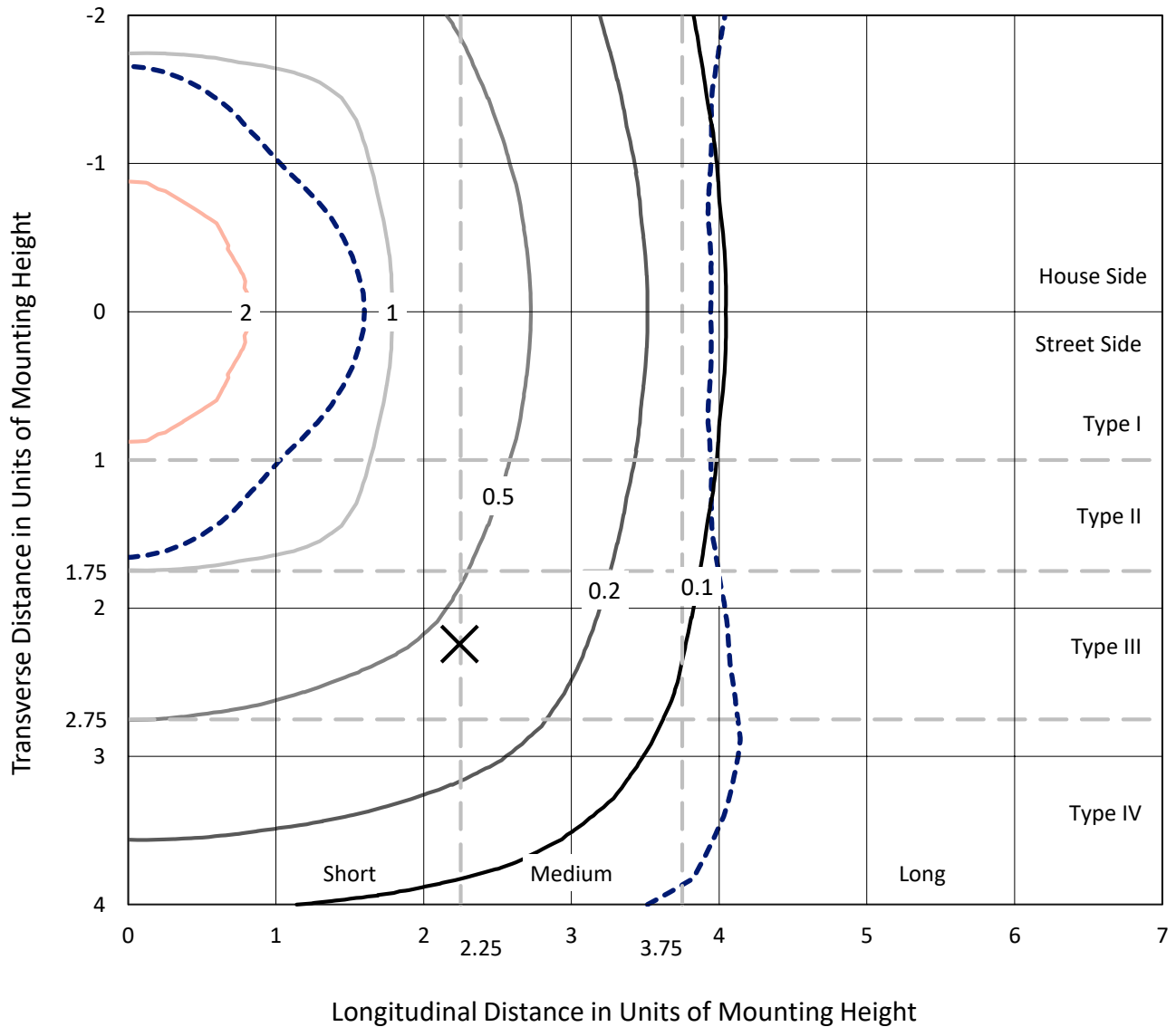
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P196446  
 CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7030-600

### Iso-Footcandle Lines of Horizontal Illumination

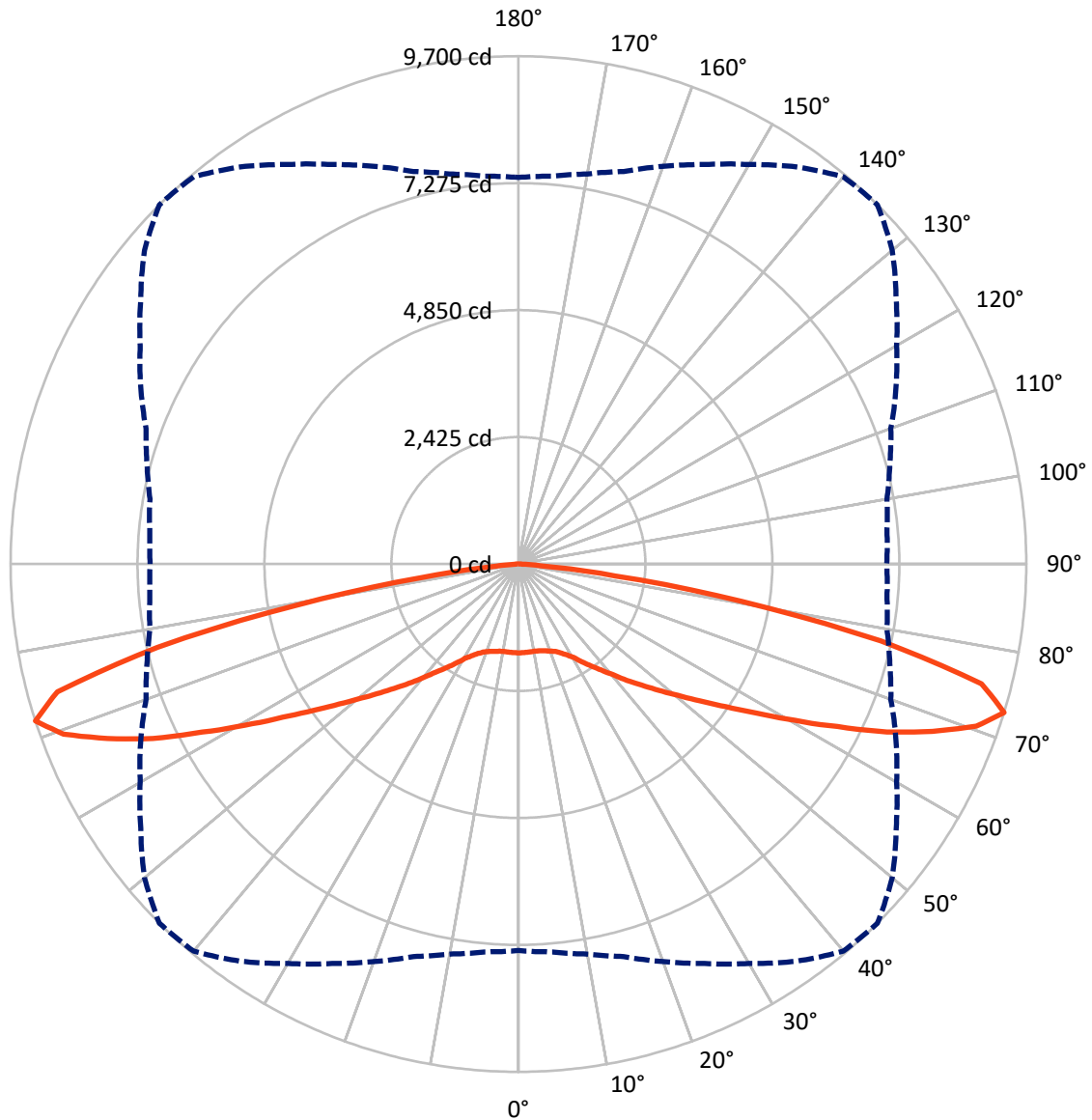
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P196446  
CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7030-600

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P196446

CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7030-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11940.4	0.0	11940.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	11940.4	0.0	11940.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	23880.8	0.0	23880.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.0	0.7
10°-20°	490.4	2.1
20°-30°	885.4	3.7
30°-40°	1510.2	6.3
40°-50°	2571.1	10.8
50°-60°	4137.8	17.3
60°-70°	6881.2	28.8
70°-80°	6656.8	27.9
80°-90°	585.9	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°	23880.8	100.0
0°-180°	23880.8	100.0



REPORT NUMBER: P196446

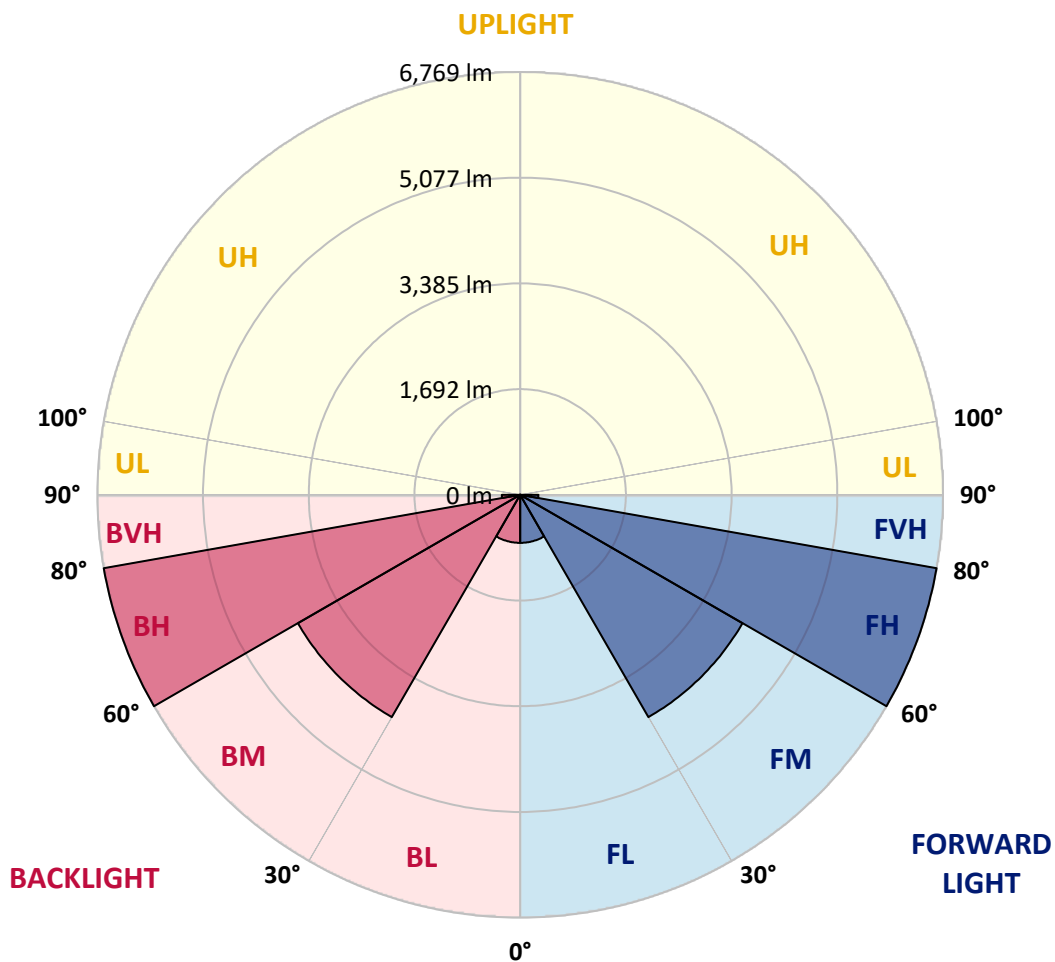
CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7030-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	768.9	3.2			
FM	(30°-60°)	4109.5	17.2			
FH	(60°-80°)	6769.0	28.3			G3/7500
FVH	(80°-90°)	292.9	1.2			G3/500
BL	(0°-30°)	768.9	3.2	B2/1000		
BM	(30°-60°)	4109.5	17.2	B3/5000		
BH	(60°-80°)	6769.0	28.3	B5		G3/7500
BVH	(80°-90°)	292.9	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





REPORT NUMBER: P196446

CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7030-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1697.8	1697.8	1697.8	1697.8	1697.8	1697.8	1697.8	1697.8	1697.8	1697.8	1697.8
2.5°	1711.0	1711.0	1712.4	1711.0	1708.0	1706.5	1702.2	1699.2	1696.2	1694.8	1691.9
5°	1712.4	1712.4	1714.0	1712.4	1709.5	1706.5	1703.6	1699.2	1696.2	1693.3	1691.9
7.5°	1718.3	1719.7	1721.3	1719.7	1714.0	1711.0	1706.5	1702.2	1696.2	1693.3	1690.4
10°	1730.1	1730.1	1730.1	1728.6	1724.2	1718.3	1712.4	1708.0	1700.7	1693.3	1688.9
12.5°	1738.9	1740.4	1740.4	1737.4	1731.5	1724.2	1718.3	1714.0	1708.0	1702.2	1697.8
15°	1752.1	1752.1	1750.7	1744.8	1735.9	1730.1	1727.2	1725.6	1724.2	1721.3	1716.9
17.5°	1778.6	1777.1	1772.7	1763.9	1753.6	1749.2	1746.3	1746.3	1746.3	1744.8	1741.8
20°	1816.8	1816.8	1811.0	1796.2	1787.4	1783.0	1778.6	1778.6	1778.6	1774.2	1769.8
22.5°	1878.5	1880.1	1871.2	1853.6	1841.8	1833.0	1827.2	1822.7	1818.3	1815.4	1808.0
25°	1962.3	1960.8	1950.6	1928.5	1919.6	1910.8	1899.2	1891.9	1886.0	1881.5	1872.7
27.5°	2050.6	2049.0	2037.2	2018.2	2012.3	1999.1	1990.2	1980.0	1972.5	1965.2	1956.4
30°	2163.7	2156.3	2147.5	2132.8	2129.9	2119.6	2107.8	2093.2	2081.4	2069.6	2059.3
32.5°	2265.2	2265.2	2252.0	2244.5	2250.4	2246.1	2247.5	2238.7	2231.3	2226.9	2216.7
35°	2406.2	2406.2	2400.3	2391.5	2393.0	2382.7	2381.3	2382.7	2388.6	2388.6	2376.8
37.5°	2594.4	2597.3	2578.2	2575.2	2567.9	2553.3	2545.8	2548.8	2562.0	2569.4	2553.3
40°	2828.0	2833.9	2828.0	2808.9	2800.2	2775.1	2760.6	2760.6	2770.9	2778.1	2772.2
42.5°	3058.9	3069.2	3058.9	3044.2	3036.9	3017.7	3010.4	3016.2	3029.4	3038.3	3029.4
45°	3316.1	3323.4	3310.2	3292.6	3283.8	3273.5	3269.0	3273.5	3288.1	3297.0	3294.0
47.5°	3569.0	3579.3	3563.1	3555.8	3555.8	3545.5	3557.2	3569.0	3582.2	3602.8	3594.0
50°	3815.9	3829.1	3818.8	3820.2	3832.0	3851.2	3873.2	3896.7	3920.2	3942.3	3945.3
52.5°	4036.4	4056.9	4058.4	4084.8	4121.6	4151.0	4212.7	4264.2	4320.1	4339.1	4330.4
55°	4268.6	4296.5	4333.3	4374.4	4433.2	4493.5	4597.8	4690.5	4763.9	4809.6	4802.2
57.5°	4600.8	4628.8	4667.0	4734.5	4822.8	4905.0	5047.7	5191.7	5303.5	5372.5	5338.7
60°	5031.5	5060.9	5110.8	5182.9	5297.6	5409.3	5604.8	5812.0	5985.4	6064.9	6003.1
62.5°	5601.8	5629.8	5662.2	5757.6	5885.5	6029.6	6275.1	6541.2	6761.6	6838.0	6751.3
65°	6414.7	6448.5	6458.8	6536.7	6661.6	6795.4	7060.0	7359.8	7611.2	7736.1	7562.7
67.5°	7330.4	7343.7	7384.9	7475.9	7603.8	7724.4	7933.1	8216.9	8457.9	8526.9	8341.7
70°	7867.0	7893.4	7965.4	8091.8	8244.7	8434.4	8662.2	8967.9	9241.3	9273.7	9038.5
72.5°	7381.9	7436.3	7564.1	7761.1	8081.6	8418.2	8810.6	9261.9	9654.3	9699.9	9322.2
75°	5920.8	5982.5	6135.5	6351.5	6730.7	7230.4	7797.9	8475.5	9063.5	9138.5	8638.7
77.5°	3155.9	3232.3	3454.3	3745.3	4286.2	4947.7	5631.2	6404.3	6904.2	7073.2	6713.1
80°	795.2	836.4	943.7	1114.2	1480.3	2013.7	2603.2	3435.2	4055.4	4318.6	4055.4
82.5°	308.6	339.6	369.0	389.5	424.8	498.3	687.9	1121.5	1511.0	1860.9	1611.0
85°	119.1	126.4	182.3	207.3	207.3	227.8	261.6	308.6	382.2	417.5	349.8
87.5°	47.1	51.5	63.2	97.0	100.0	88.2	94.1	105.9	80.9	67.6	76.5
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: P196446

CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-7030-600

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1697.8	1697.8	1697.8	1697.8	1697.8	1697.8	1697.8	1697.8
2.5°	1690.4	1688.9	1686.0	1687.5	1686.0	1686.0	1686.0	1686.0
5°	1688.9	1688.9	1686.0	1686.0	1686.0	1687.5	1686.0	1686.0
7.5°	1687.5	1686.0	1683.0	1681.6	1681.6	1680.1	1680.1	1680.1
10°	1684.6	1681.6	1678.7	1677.1	1677.1	1674.2	1674.2	1674.2
12.5°	1691.9	1687.5	1684.6	1683.0	1683.0	1683.0	1684.6	1684.6
15°	1712.4	1703.6	1699.2	1697.8	1699.2	1702.2	1703.6	1705.1
17.5°	1734.5	1725.6	1718.3	1715.4	1716.9	1721.3	1725.6	1728.6
20°	1762.5	1755.0	1746.3	1743.3	1743.3	1749.2	1752.1	1756.6
22.5°	1802.1	1796.2	1788.9	1784.4	1781.6	1788.9	1793.3	1796.2
25°	1865.3	1859.5	1853.6	1849.1	1847.7	1855.0	1858.0	1859.5
27.5°	1949.0	1943.1	1940.2	1938.8	1934.4	1937.3	1941.7	1940.2
30°	2057.9	2062.3	2057.9	2057.9	2050.6	2053.4	2050.6	2047.6
32.5°	2203.4	2199.0	2185.7	2176.9	2166.6	2166.6	2162.2	2157.9
35°	2349.0	2334.3	2326.9	2331.3	2326.9	2329.9	2322.5	2315.1
37.5°	2520.9	2512.1	2510.6	2523.9	2520.9	2523.9	2523.9	2513.5
40°	2748.8	2742.9	2753.2	2775.1	2784.0	2782.5	2785.4	2772.2
42.5°	3010.4	3000.0	3004.5	3023.6	3033.9	3036.9	3035.3	3023.6
45°	3272.0	3274.9	3274.9	3295.6	3305.8	3311.7	3301.4	3297.0
47.5°	3567.5	3571.9	3561.7	3574.9	3577.8	3588.1	3579.3	3571.9
50°	3908.5	3892.4	3868.8	3873.2	3873.2	3870.3	3860.0	3851.2
52.5°	4289.2	4252.5	4208.3	4193.7	4177.5	4161.3	4140.7	4124.5
55°	4722.8	4659.6	4580.2	4543.4	4512.6	4476.0	4428.9	4412.7
57.5°	5225.6	5116.7	5010.9	4944.7	4865.5	4816.9	4756.6	4753.7
60°	5822.3	5675.4	5488.6	5390.2	5310.8	5253.4	5207.9	5190.3
62.5°	6511.8	6258.9	6057.5	5951.7	5859.0	5823.7	5766.4	5773.8
65°	7218.8	6961.5	6766.0	6680.7	6594.1	6570.6	6517.6	6536.7
67.5°	7984.5	7772.9	7558.2	7478.9	7399.5	7376.0	7321.6	7337.8
70°	8671.1	8402.0	8158.0	8002.1	7867.0	7758.2	7689.1	7661.2
72.5°	8807.7	8341.7	7958.1	7568.6	7343.7	7146.6	7065.9	7034.9
75°	7913.9	7190.8	6643.9	6186.8	5934.0	5647.4	5616.5	5573.9
77.5°	6156.0	5332.8	4671.4	4083.4	3743.9	3394.0	3273.5	3182.4
80°	3671.8	2822.2	2187.3	1533.1	1250.9	1007.0	946.6	883.4
82.5°	1314.1	842.3	567.4	442.4	395.4	364.5	341.0	310.2
85°	317.5	267.5	252.8	229.3	226.3	192.6	136.7	122.1
87.5°	101.4	92.7	94.1	89.7	94.1	70.6	57.4	51.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)