

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: P196461

Luminaire Tested: **NAV-AF-03-D-UNV-5WQ-7030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196461  
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-03-D-UNV-5WQ-7030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19994.5 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G3

Input Watts (W): 191  
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

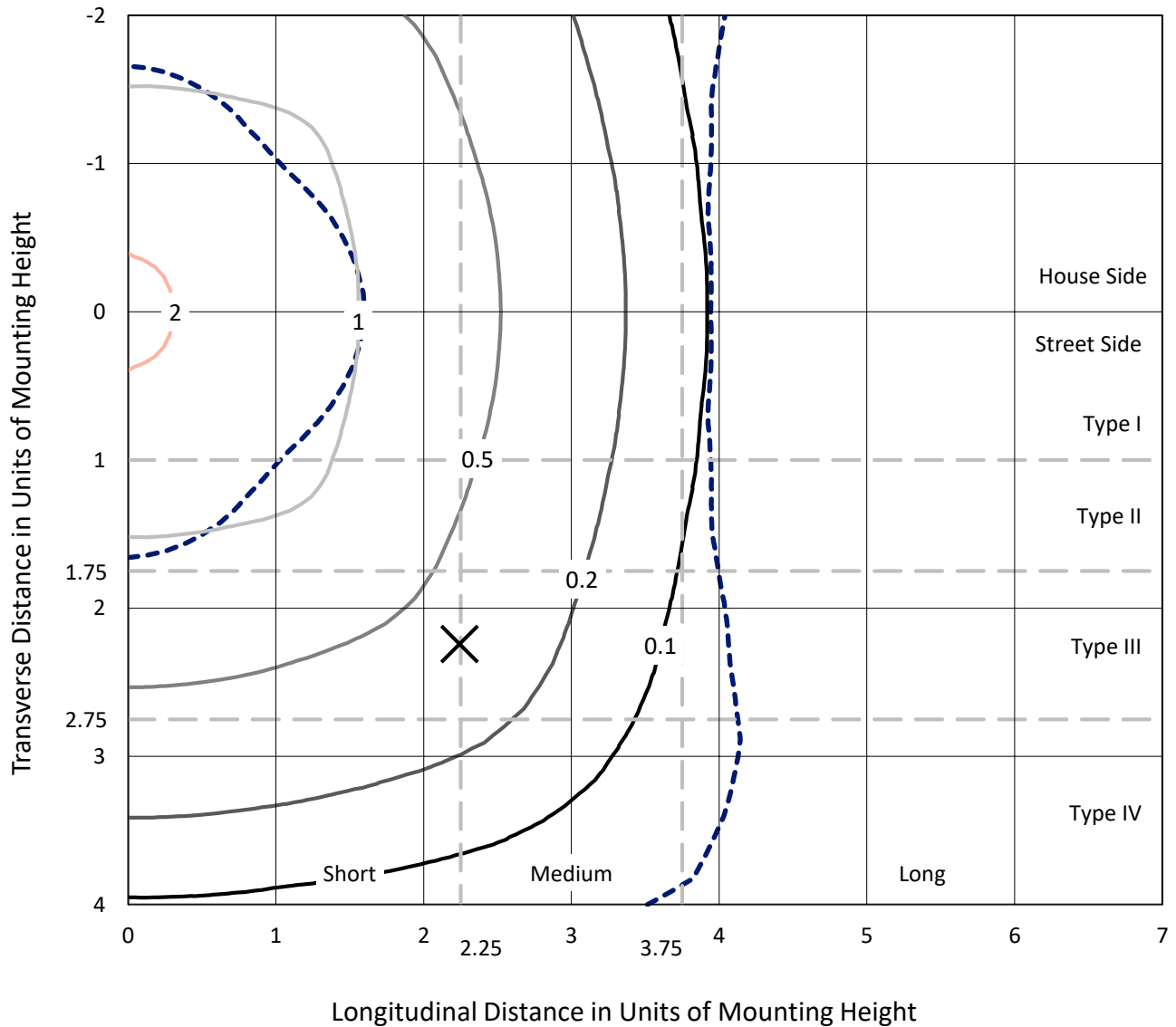


REPORT NUMBER: P196461

CATALOG NUMBER: NAV-AF-03-D-UNV-5WQ-7030-1200

### Iso-Footcandle Lines of Horizontal Illumination

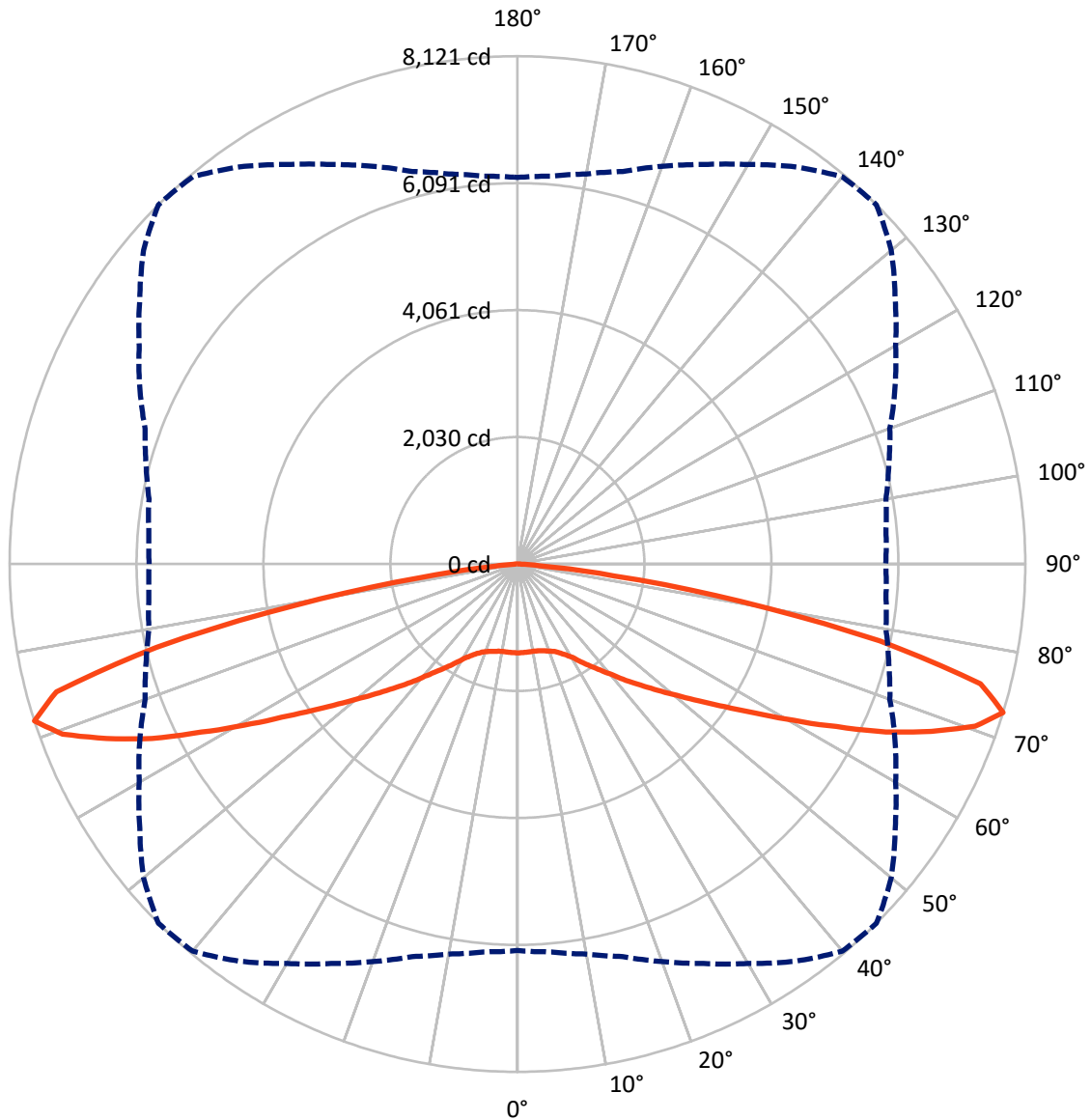
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc  
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P196461  
CATALOG NUMBER: NAV-AF-03-D-UNV-5WQ-7030-1200

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P196461

CATALOG NUMBER: NAV-AF-03-D-UNV-5WQ-7030-1200

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9997.2	0.0	9997.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9997.2	0.0	9997.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	19994.5	0.0	19994.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.7	0.7
10°-20°	410.6	2.1
20°-30°	741.3	3.7
30°-40°	1264.4	6.3
40°-50°	2152.7	10.8
50°-60°	3464.4	17.3
60°-70°	5761.4	28.8
70°-80°	5573.5	27.9
80°-90°	490.5	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°	19994.5	100.0
0°-180°	19994.5	100.0

**Coefficient of Utilization**



REPORT NUMBER: P196461

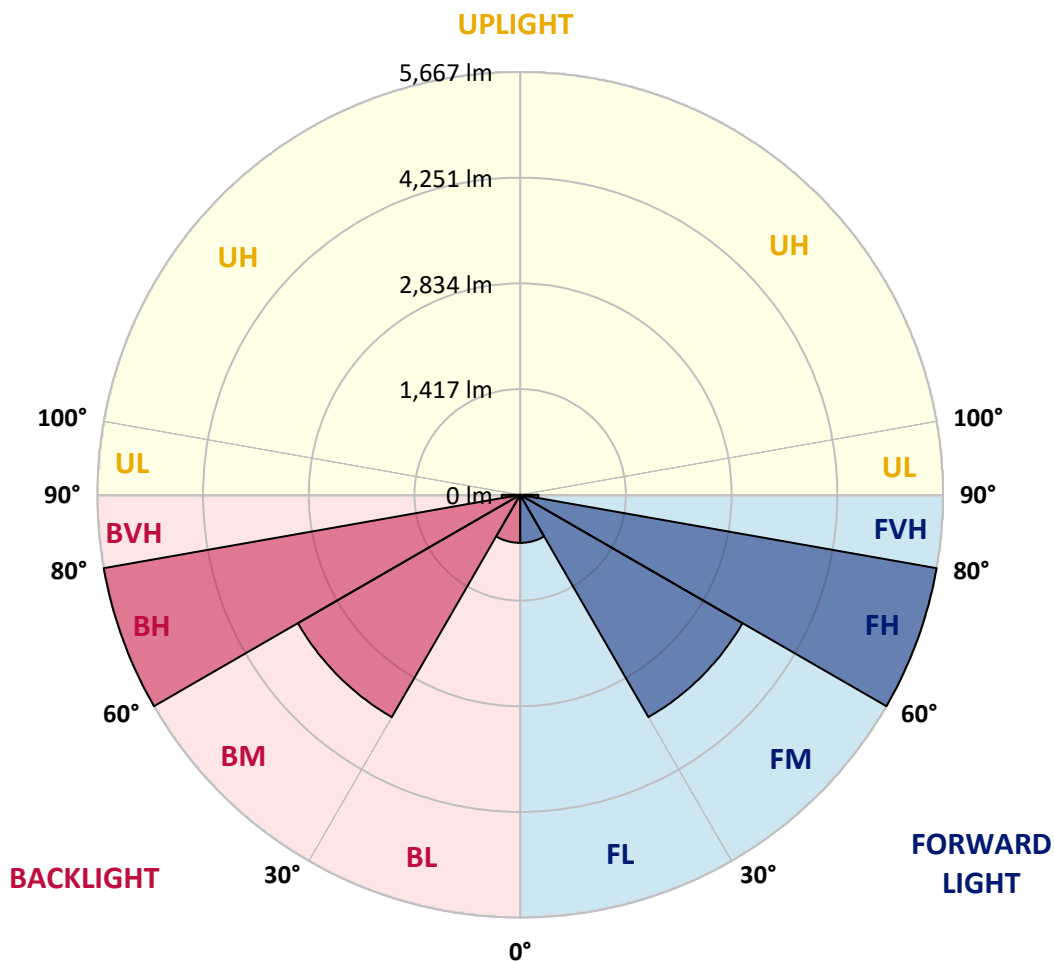
CATALOG NUMBER: NAV-AF-03-D-UNV-5WQ-7030-1200

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	643.8	3.2			
FM (30°-60°)	3440.8	17.2			
FH (60°-80°)	5667.4	28.3			G3/7500
FVH (80°-90°)	245.3	1.2			G3/500
BL (0°-30°)	643.8	3.2	B2/1000		
BM (30°-60°)	3440.8	17.2	B3/5000		
BH (60°-80°)	5667.4	28.3	B5		G3/7500
BVH (80°-90°)	245.3	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: P196461

CATALOG NUMBER: NAV-AF-03-D-UNV-5WQ-7030-1200

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1421.5	1421.5	1421.5	1421.5	1421.5	1421.5	1421.5	1421.5	1421.5	1421.5	1421.5
2.5°	1432.5	1432.5	1433.8	1432.5	1430.1	1428.9	1425.2	1422.7	1420.3	1419.0	1416.5
5°	1433.8	1433.8	1435.0	1433.8	1431.3	1428.9	1426.4	1422.7	1420.3	1417.7	1416.5
7.5°	1438.7	1439.9	1441.1	1439.9	1435.0	1432.5	1428.9	1425.2	1420.3	1417.7	1415.4
10°	1448.6	1448.6	1448.6	1447.2	1443.7	1438.7	1433.8	1430.1	1423.8	1417.7	1414.1
12.5°	1455.9	1457.2	1457.2	1454.7	1449.8	1443.7	1438.7	1435.0	1430.1	1425.2	1421.5
15°	1467.1	1467.1	1465.7	1460.8	1453.4	1448.6	1446.0	1444.9	1443.7	1441.1	1437.5
17.5°	1489.1	1487.9	1484.2	1476.8	1468.2	1464.5	1462.1	1462.1	1462.1	1460.8	1458.4
20°	1521.1	1521.1	1516.2	1504.0	1496.6	1492.8	1489.1	1489.1	1489.1	1485.5	1481.8
22.5°	1572.8	1574.1	1566.7	1551.9	1542.0	1534.6	1529.7	1526.1	1522.4	1519.9	1513.8
25°	1642.9	1641.7	1633.1	1614.7	1607.3	1599.9	1590.0	1583.9	1579.1	1575.3	1567.9
27.5°	1716.8	1715.6	1705.7	1689.7	1684.8	1673.8	1666.3	1657.8	1651.6	1645.5	1638.1
30°	1811.6	1805.4	1798.1	1785.8	1783.3	1774.7	1764.9	1752.5	1742.6	1732.9	1724.2
32.5°	1896.5	1896.5	1885.4	1879.3	1884.1	1880.5	1881.8	1874.4	1868.3	1864.5	1855.9
35°	2014.6	2014.6	2009.8	2002.4	2003.6	1995.0	1993.8	1995.0	1999.9	1999.9	1990.0
37.5°	2172.2	2174.6	2158.6	2156.2	2150.0	2137.7	2131.5	2134.1	2145.1	2151.2	2137.7
40°	2367.8	2372.8	2367.8	2352.0	2344.4	2323.5	2311.3	2311.3	2319.9	2326.0	2321.1
42.5°	2561.0	2569.7	2561.0	2548.8	2542.6	2526.6	2520.5	2525.4	2536.5	2543.9	2536.5
45°	2776.5	2782.7	2771.6	2756.7	2749.4	2740.8	2737.1	2740.8	2753.2	2760.4	2758.0
47.5°	2988.1	2996.8	2983.3	2977.1	2977.1	2968.5	2978.3	2988.1	2999.1	3016.4	3009.0
50°	3194.8	3206.0	3197.4	3198.6	3208.4	3224.5	3243.0	3262.6	3282.2	3300.7	3303.2
52.5°	3379.5	3396.8	3398.0	3420.2	3450.9	3475.5	3527.2	3570.3	3617.0	3633.0	3625.7
55°	3574.0	3597.4	3628.1	3662.6	3711.7	3762.3	3849.6	3927.1	3988.7	4026.9	4020.7
57.5°	3852.1	3875.4	3907.4	3964.0	4037.9	4106.8	4226.2	4346.8	4440.4	4498.2	4469.9
60°	4212.7	4237.3	4279.1	4339.4	4435.4	4529.1	4692.6	4866.2	5011.4	5077.9	5026.2
62.5°	4690.2	4713.6	4740.6	4820.6	4927.7	5048.4	5253.8	5476.6	5661.2	5725.1	5652.6
65°	5370.7	5399.0	5407.7	5472.9	5577.4	5689.4	5911.0	6162.1	6372.5	6477.1	6331.9
67.5°	6137.5	6148.6	6183.0	6259.4	6366.4	6467.3	6642.1	6879.6	7081.4	7139.2	6984.2
70°	6586.7	6608.9	6669.1	6774.9	6903.0	7061.8	7252.5	7508.6	7737.4	7764.5	7567.6
72.5°	6180.6	6226.1	6333.2	6498.0	6766.4	7048.2	7376.7	7754.5	8083.2	8121.4	7805.1
75°	4957.2	5009.0	5137.0	5317.8	5635.4	6053.8	6528.9	7096.2	7588.5	7651.2	7232.9
77.5°	2642.3	2706.4	2892.1	3135.8	3588.7	4142.6	4714.7	5362.1	5780.6	5922.1	5620.7
80°	665.8	700.3	790.1	932.8	1239.3	1686.1	2179.6	2876.1	3395.4	3615.8	3395.4
82.5°	258.4	284.3	308.8	326.1	355.6	417.2	576.1	939.0	1265.1	1558.0	1348.8
85°	99.7	105.9	152.6	173.5	173.5	190.7	219.1	258.4	320.0	349.5	293.0
87.5°	39.4	43.0	52.9	81.2	83.7	73.9	78.7	88.6	67.7	56.6	64.0
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: P196461

CATALOG NUMBER: NAV-AF-03-D-UNV-5WQ-7030-1200

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1421.5	1421.5	1421.5	1421.5	1421.5	1421.5	1421.5	1421.5
2.5°	1415.4	1414.1	1411.6	1412.8	1411.6	1411.6	1411.6	1411.6
5°	1414.1	1414.1	1411.6	1411.6	1411.6	1412.8	1411.6	1411.6
7.5°	1412.8	1411.6	1409.1	1408.0	1408.0	1406.7	1406.7	1406.7
10°	1410.4	1408.0	1405.4	1404.2	1404.2	1401.8	1401.8	1401.8
12.5°	1416.5	1412.8	1410.4	1409.1	1409.1	1409.1	1410.4	1410.4
15°	1433.8	1426.4	1422.7	1421.5	1422.7	1425.2	1426.4	1427.6
17.5°	1452.3	1444.9	1438.7	1436.2	1437.5	1441.1	1444.9	1447.2
20°	1475.6	1469.4	1462.1	1459.6	1459.6	1464.5	1467.1	1470.6
22.5°	1508.9	1504.0	1497.7	1494.1	1491.6	1497.7	1501.4	1504.0
25°	1561.8	1556.8	1551.9	1548.2	1547.0	1553.1	1555.7	1556.8
27.5°	1631.9	1627.0	1624.4	1623.3	1619.5	1622.1	1625.8	1624.4
30°	1723.0	1726.7	1723.0	1723.0	1716.8	1719.3	1716.8	1714.4
32.5°	1844.9	1841.1	1830.1	1822.7	1814.0	1814.0	1810.3	1806.7
35°	1966.6	1954.3	1948.2	1951.9	1948.2	1950.6	1944.5	1938.4
37.5°	2110.7	2103.2	2102.0	2113.1	2110.7	2113.1	2113.1	2104.5
40°	2301.4	2296.5	2305.1	2323.5	2330.9	2329.7	2332.1	2321.1
42.5°	2520.5	2511.9	2515.5	2531.5	2540.2	2542.6	2541.4	2531.5
45°	2739.5	2742.0	2742.0	2759.3	2767.9	2772.8	2764.2	2760.4
47.5°	2986.9	2990.7	2982.0	2993.0	2995.6	3004.1	2996.8	2990.7
50°	3272.5	3258.8	3239.2	3243.0	3243.0	3240.4	3231.8	3224.5
52.5°	3591.2	3560.4	3523.5	3511.1	3497.6	3484.1	3466.9	3453.3
55°	3954.2	3901.3	3834.9	3804.1	3778.1	3747.5	3708.0	3694.6
57.5°	4375.2	4284.0	4195.4	4140.1	4073.6	4033.0	3982.5	3980.1
60°	4874.8	4751.6	4595.5	4513.0	4446.6	4398.6	4360.3	4345.6
62.5°	5452.0	5240.3	5071.7	4983.1	4905.5	4876.0	4828.0	4834.1
65°	6044.0	5828.6	5664.9	5593.5	5520.9	5501.2	5457.0	5472.9
67.5°	6685.1	6507.9	6328.3	6261.7	6195.3	6175.7	6130.1	6143.6
70°	7259.8	7034.6	6830.4	6699.9	6586.7	6495.6	6437.8	6414.4
72.5°	7374.4	6984.2	6662.9	6336.8	6148.6	5983.7	5916.0	5890.1
75°	6626.0	6020.6	5562.7	5180.0	4968.3	4728.3	4702.5	4666.8
77.5°	5154.2	4465.0	3911.2	3418.8	3134.5	2841.8	2740.8	2664.5
80°	3074.2	2363.0	1831.3	1283.6	1047.4	843.1	792.5	739.6
82.5°	1100.2	705.2	475.1	370.4	331.0	305.2	285.5	259.7
85°	265.8	224.0	211.6	192.0	189.6	161.2	114.5	102.1
87.5°	84.9	77.6	78.7	75.1	78.7	59.1	48.0	43.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)