

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: P196459

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196459  
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-01-D-UNV-5WQ-7030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6743.5 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G2

Input Watts (W): 67  
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

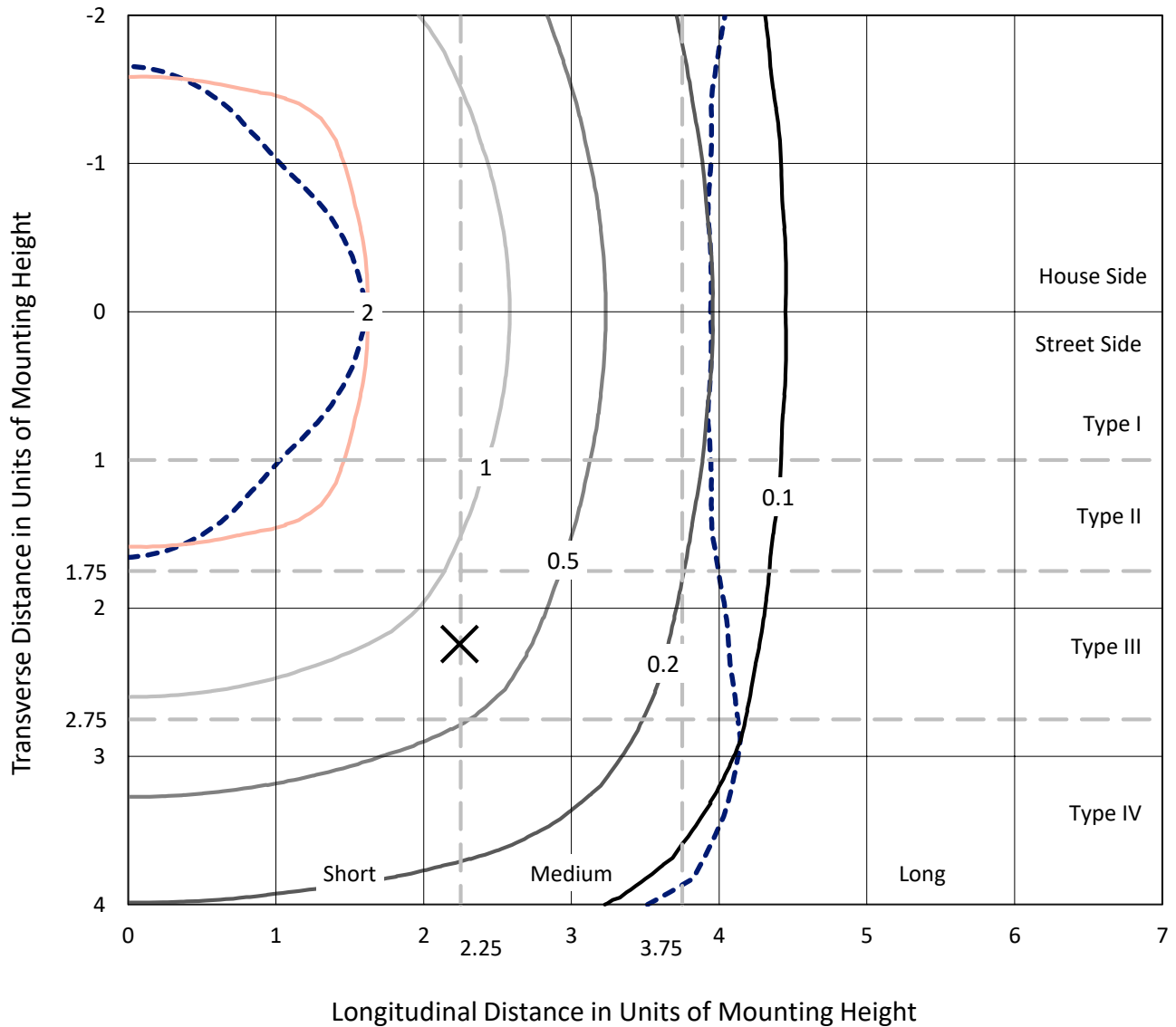


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### Iso-Footcandle Lines of Horizontal Illumination

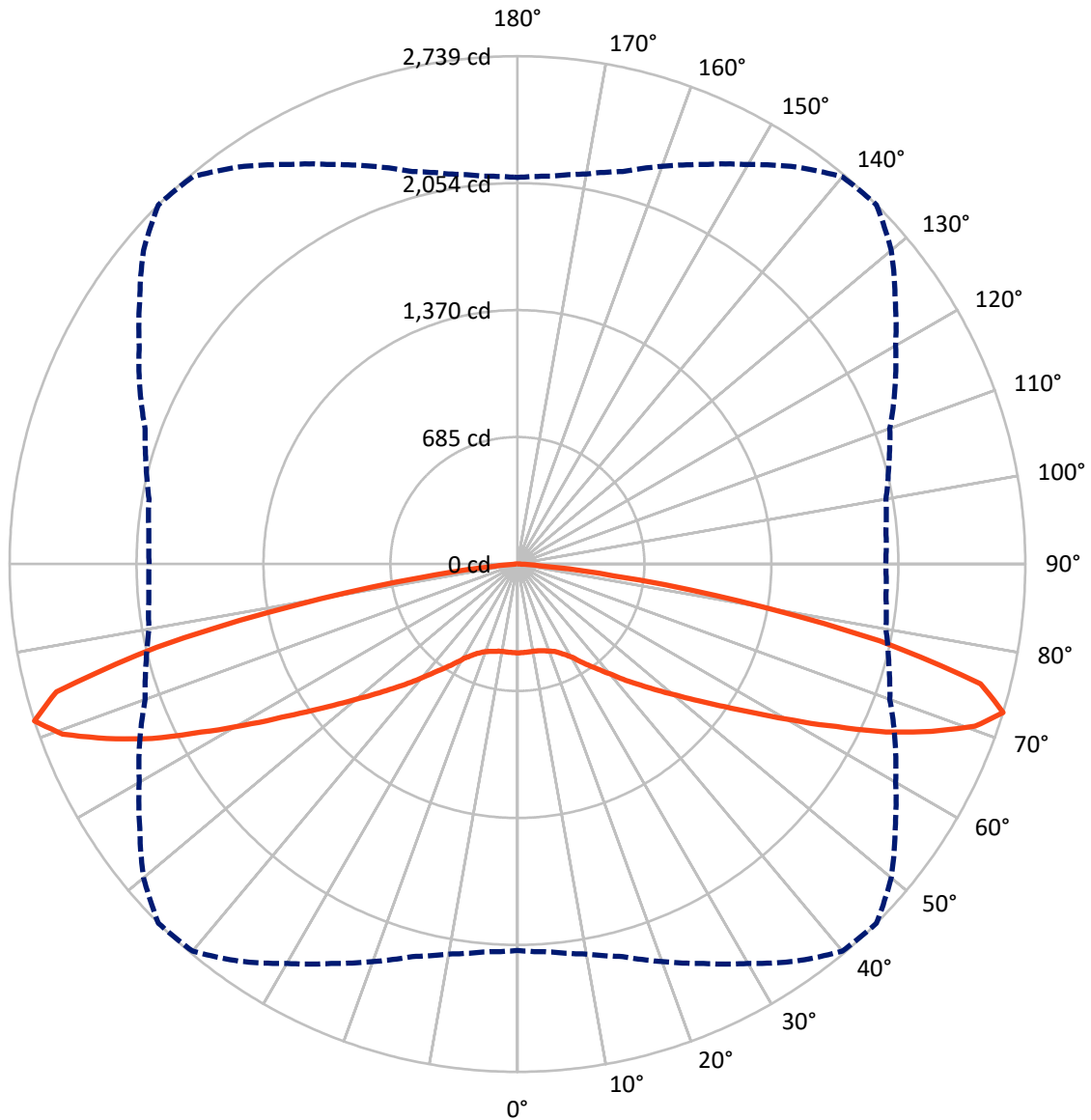
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 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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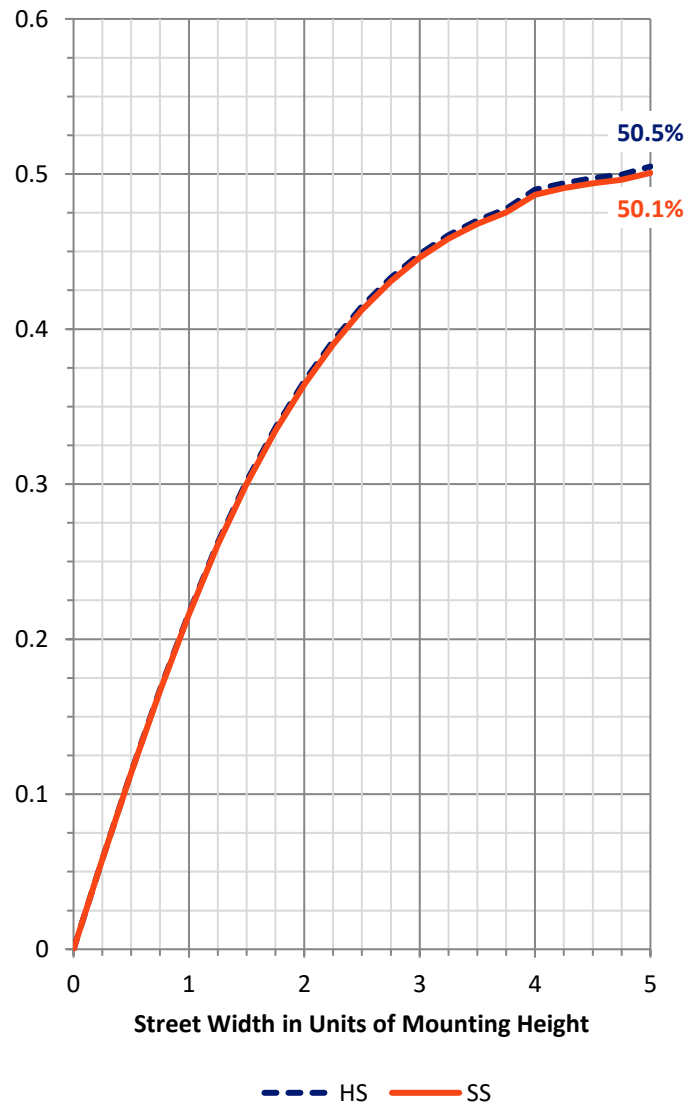
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3371.7	0.0	3371.7
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3371.7	0.0	3371.7
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6743.5	0.0	6743.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.8	0.7
10°-20°	138.5	2.1
20°-30°	250.0	3.7
30°-40°	426.4	6.3
40°-50°	726.0	10.8
50°-60°	1168.4	17.3
60°-70°	1943.1	28.8
70°-80°	1879.8	27.9
80°-90°	165.4	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°	6743.5	100.0
0°-180°	6743.5	100.0



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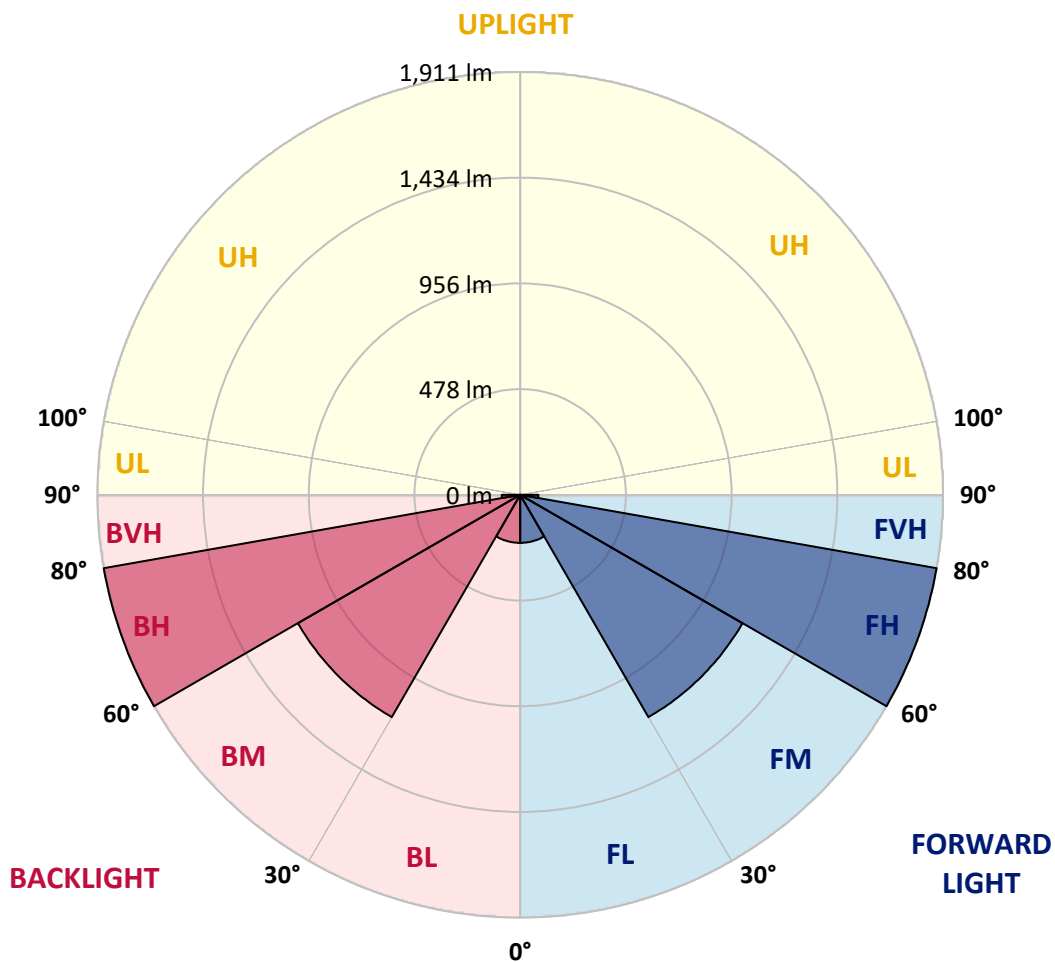
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	217.1	3.2			
FM (30°-60°)	1160.5	17.2			
FH (60°-80°)	1911.4	28.3			G2/5000
FVH (80°-90°)	82.7	1.2			G1/100
BL (0°-30°)	217.1	3.2	B1/500		
BM (30°-60°)	1160.5	17.2	B2/2500		
BH (60°-80°)	1911.4	28.3	B3/2500		G2/5000
BVH (80°-90°)	82.7	1.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4
2.5°	483.2	483.2	483.6	483.2	482.3	482.0	480.6	479.8	479.0	478.5	477.8
5°	483.6	483.6	484.0	483.6	482.7	482.0	481.1	479.8	479.0	478.1	477.8
7.5°	485.2	485.6	486.1	485.6	484.0	483.2	482.0	480.6	479.0	478.1	477.4
10°	488.5	488.5	488.5	488.2	486.9	485.2	483.6	482.3	480.2	478.1	476.9
12.5°	491.0	491.4	491.4	490.6	488.9	486.9	485.2	484.0	482.3	480.6	479.4
15°	494.7	494.7	494.4	492.6	490.2	488.5	487.8	487.3	486.9	486.1	484.8
17.5°	502.3	501.8	500.6	498.1	495.2	494.0	493.1	493.1	493.1	492.6	491.8
20°	513.1	513.1	511.4	507.2	504.8	503.4	502.3	502.3	502.3	501.0	499.8
22.5°	530.5	530.9	528.4	523.5	520.1	517.6	515.9	514.7	513.4	512.7	510.6
25°	554.2	553.7	550.7	544.5	542.0	539.6	536.3	534.2	532.5	531.3	528.9
27.5°	579.1	578.6	575.2	569.9	568.2	564.6	562.0	559.1	557.0	554.9	552.5
30°	611.0	608.9	606.4	602.2	601.5	598.5	595.3	591.1	587.7	584.4	581.5
32.5°	639.6	639.6	635.9	633.8	635.5	634.2	634.7	632.2	630.1	628.8	625.9
35°	679.5	679.5	677.9	675.3	675.8	672.8	672.4	672.8	674.4	674.4	671.2
37.5°	732.6	733.4	728.0	727.2	725.2	721.0	718.9	719.7	723.6	725.6	721.0
40°	798.5	800.3	798.5	793.2	790.7	783.6	779.4	779.4	782.4	784.5	782.9
42.5°	863.8	866.7	863.8	859.7	857.5	852.1	850.0	851.7	855.5	858.0	855.5
45°	936.5	938.5	934.7	929.8	927.3	924.4	923.1	924.4	928.4	931.0	930.3
47.5°	1007.8	1010.7	1006.2	1004.1	1004.1	1001.2	1004.5	1007.8	1011.5	1017.3	1014.9
50°	1077.6	1081.2	1078.4	1078.8	1082.1	1087.4	1093.6	1100.4	1107.1	1113.3	1114.0
52.5°	1139.8	1145.6	1146.0	1153.4	1163.8	1172.2	1189.7	1204.1	1219.9	1225.4	1222.8
55°	1205.3	1213.3	1223.6	1235.2	1251.9	1268.8	1298.3	1324.5	1345.3	1358.1	1356.0
57.5°	1299.2	1307.1	1317.8	1337.0	1361.8	1385.1	1425.4	1466.0	1497.6	1517.1	1507.6
60°	1420.8	1429.1	1443.2	1463.5	1496.0	1527.5	1582.7	1641.2	1690.1	1712.6	1695.1
62.5°	1581.8	1589.7	1598.9	1625.9	1662.0	1702.6	1771.9	1847.0	1909.3	1930.9	1906.5
65°	1811.4	1821.0	1823.9	1845.8	1881.1	1918.9	1993.7	2078.3	2149.2	2184.5	2135.6
67.5°	2070.0	2073.7	2085.3	2111.1	2147.2	2181.3	2240.2	2320.2	2388.3	2407.8	2355.5
70°	2221.5	2229.0	2249.3	2284.9	2328.2	2381.8	2446.0	2532.4	2609.5	2618.7	2552.3
72.5°	2084.5	2099.9	2136.0	2191.6	2282.1	2377.2	2488.0	2615.3	2726.2	2739.1	2632.4
75°	1671.8	1689.3	1732.6	1793.5	1900.7	2041.7	2202.0	2393.4	2559.4	2580.4	2439.4
77.5°	891.1	912.8	975.4	1057.6	1210.4	1397.1	1590.2	1808.5	1949.6	1997.4	1895.6
80°	224.5	236.2	266.5	314.6	418.0	568.7	735.1	970.0	1145.1	1219.5	1145.1
82.5°	87.2	95.9	104.3	110.1	119.9	140.7	194.3	316.8	426.6	525.5	454.9
85°	33.7	35.7	51.5	58.6	58.6	64.4	73.9	87.2	107.9	117.9	98.8
87.5°	13.3	14.5	17.8	27.5	28.2	24.9	26.6	29.9	22.8	19.1	21.7
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°	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4
2.5°	477.4	476.9	476.1	476.5	476.1	476.1	476.1	476.1
5°	476.9	476.9	476.1	476.1	476.1	476.5	476.1	476.1
7.5°	476.5	476.1	475.3	474.8	474.8	474.4	474.4	474.4
10°	475.8	474.8	473.9	473.6	473.6	472.8	472.8	472.8
12.5°	477.8	476.5	475.8	475.3	475.3	475.3	475.8	475.8
15°	483.6	481.1	479.8	479.4	479.8	480.6	481.1	481.5
17.5°	489.8	487.3	485.2	484.3	484.8	486.1	487.3	488.2
20°	497.6	495.6	493.1	492.3	492.3	494.0	494.7	496.0
22.5°	508.9	507.2	505.1	503.9	503.0	505.1	506.4	507.2
25°	526.7	525.1	523.5	522.1	521.7	523.8	524.7	525.1
27.5°	550.3	548.7	547.9	547.5	546.2	547.1	548.3	547.9
30°	581.1	582.4	581.1	581.1	579.1	579.8	579.1	578.2
32.5°	622.2	620.9	617.2	614.7	611.9	611.9	610.5	609.3
35°	663.3	659.2	657.0	658.3	657.0	657.8	655.8	653.7
37.5°	711.9	709.3	709.0	712.7	711.9	712.7	712.7	709.7
40°	776.2	774.5	777.5	783.6	786.1	785.7	786.5	782.9
42.5°	850.0	847.2	848.4	853.9	856.7	857.5	857.1	853.9
45°	924.0	924.8	924.8	930.6	933.5	935.1	932.3	931.0
47.5°	1007.4	1008.7	1005.7	1009.4	1010.3	1013.2	1010.7	1008.7
50°	1103.7	1099.1	1092.5	1093.6	1093.6	1092.9	1090.0	1087.4
52.5°	1211.1	1200.8	1188.3	1184.3	1179.7	1175.1	1169.3	1164.7
55°	1333.6	1315.8	1293.4	1283.0	1274.3	1263.9	1250.6	1246.1
57.5°	1475.5	1444.9	1415.0	1396.4	1373.9	1360.2	1343.3	1342.4
60°	1644.2	1602.7	1549.9	1522.1	1499.7	1483.5	1470.6	1465.6
62.5°	1838.9	1767.4	1710.6	1680.6	1654.5	1644.6	1628.3	1630.3
65°	2038.4	1965.8	1910.6	1886.5	1862.0	1855.3	1840.5	1845.8
67.5°	2254.7	2194.9	2134.3	2111.9	2089.5	2082.8	2067.5	2072.1
70°	2448.5	2372.6	2303.6	2259.7	2221.5	2190.7	2171.2	2163.4
72.5°	2487.2	2355.5	2247.3	2137.2	2073.7	2018.1	1995.3	1986.6
75°	2234.8	2030.6	1876.1	1747.0	1675.7	1594.7	1586.0	1574.0
77.5°	1738.4	1505.9	1319.1	1153.1	1057.2	958.4	924.4	898.6
80°	1036.9	796.9	617.7	432.8	353.2	284.3	267.3	249.4
82.5°	371.1	237.8	160.2	124.9	111.7	102.9	96.2	87.6
85°	89.7	75.5	71.3	64.8	63.9	54.4	38.6	34.4
87.5°	28.6	26.1	26.6	25.3	26.6	19.8	16.2	14.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)