

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: P270252

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270252
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-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 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: 6057.7 lumens
Efficiency: N/A
Efficacy: 90.4 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 - G1

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

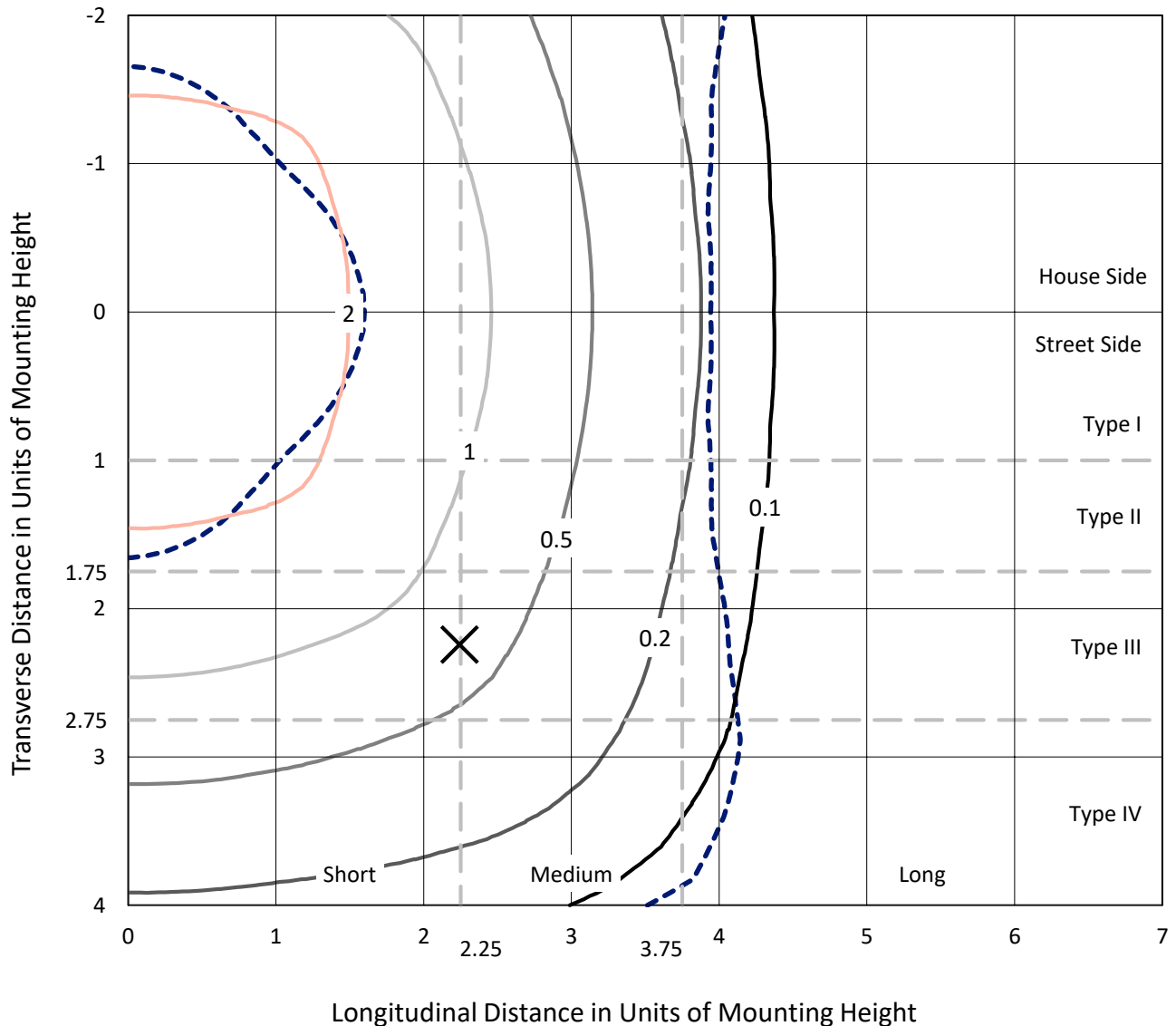


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

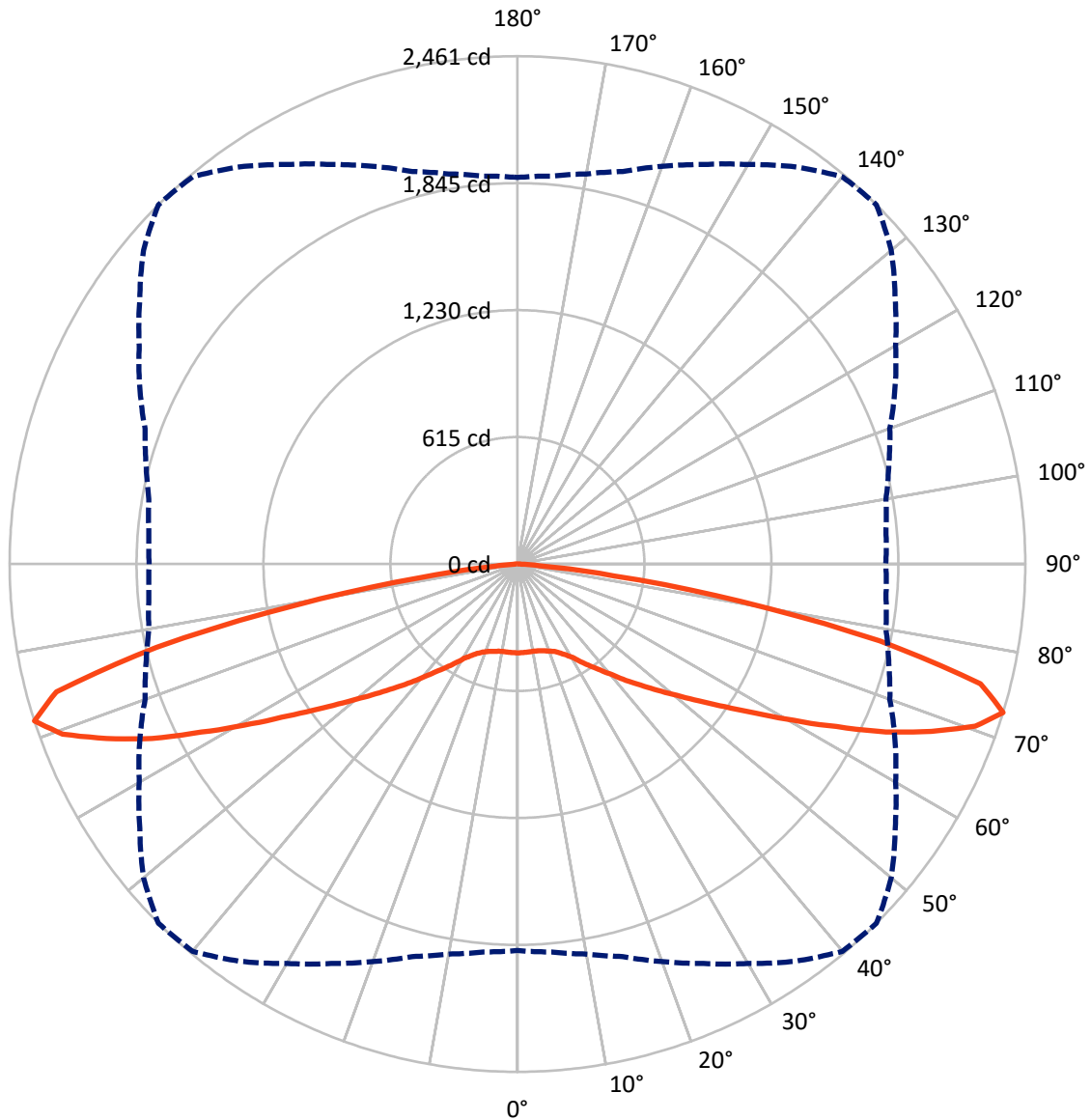


Based on 10 foot mounting height. Maximum calculated value = 4.3 fc
 Type V - Short - Semi-Cutoff

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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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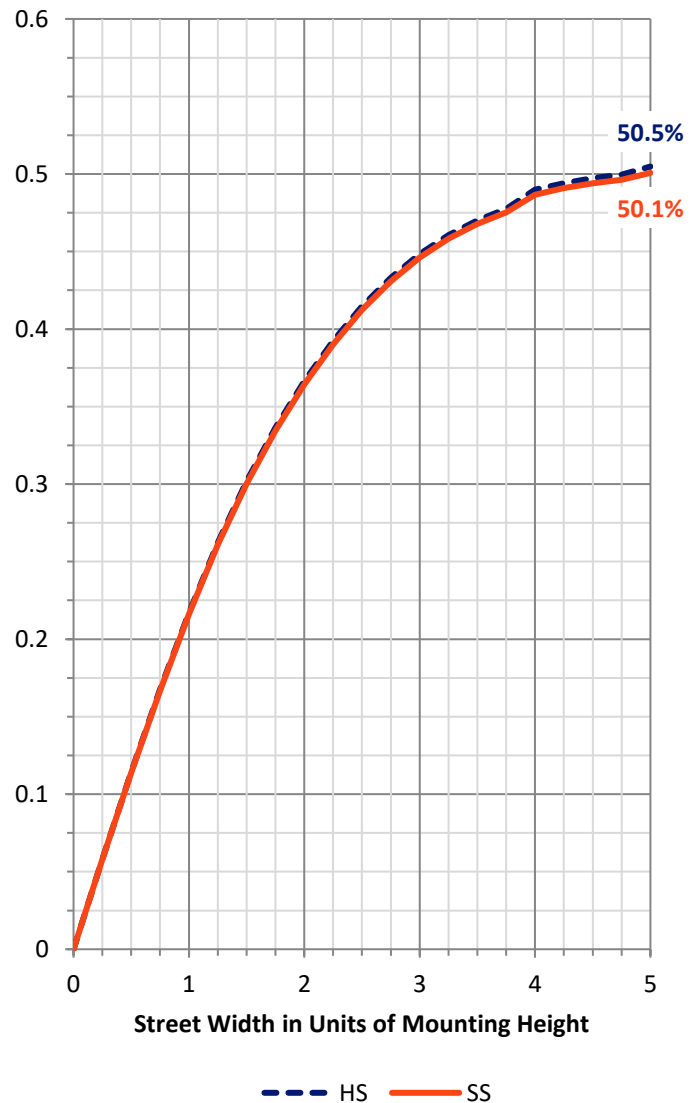
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3028.9	0.0	3028.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3028.9	0.0	3028.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	6057.7	0.0	6057.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.1	0.7
10°-20°	124.4	2.1
20°-30°	224.6	3.7
30°-40°	383.1	6.3
40°-50°	652.2	10.8
50°-60°	1049.6	17.3
60°-70°	1745.5	28.8
70°-80°	1688.6	27.9
80°-90°	148.6	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°	6057.7	100.0
0°-180°	6057.7	100.0



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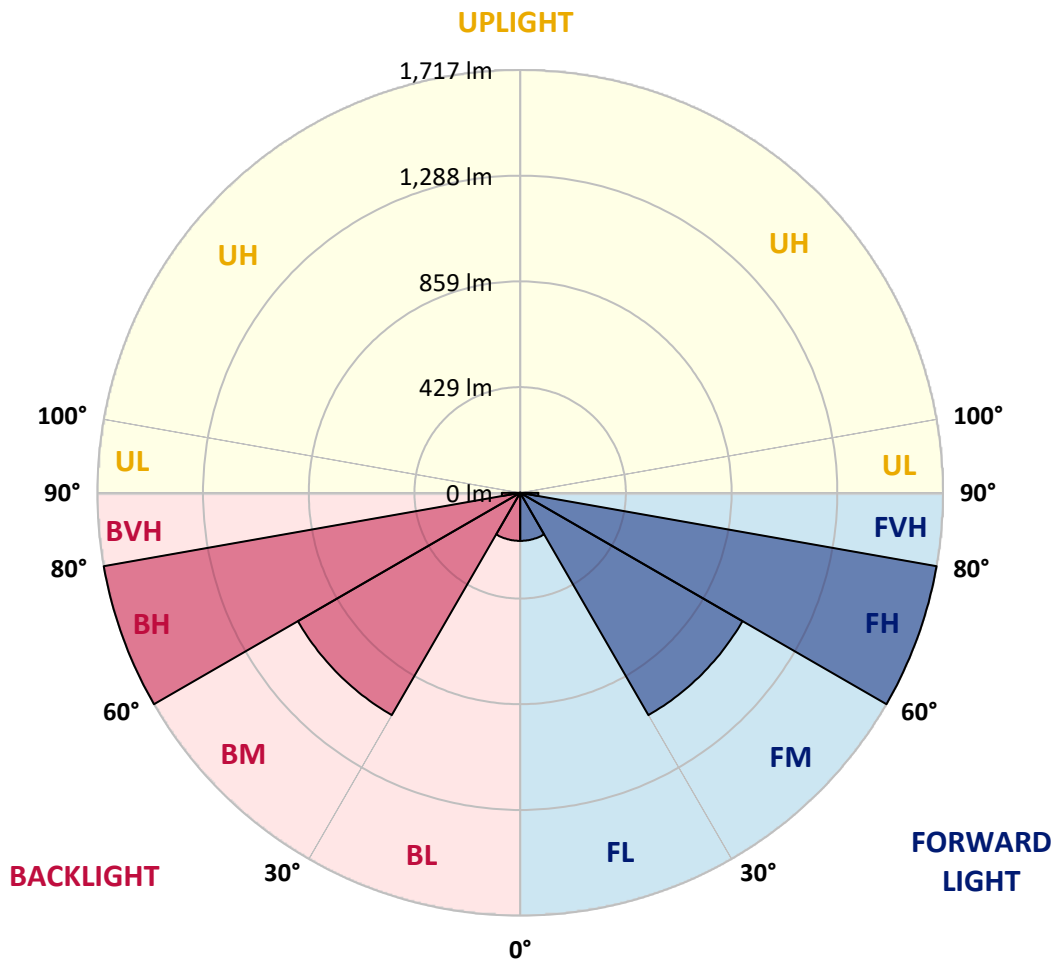
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	195.0	3.2			
FM (30°-60°)	1042.4	17.2			
FH (60°-80°)	1717.1	28.3			G1/1800
FVH (80°-90°)	74.3	1.2			G1/100
BL (0°-30°)	195.0	3.2	B1/500		
BM (30°-60°)	1042.4	17.2	B2/2500		
BH (60°-80°)	1717.1	28.3	B3/2500		G1/1800
BVH (80°-90°)	74.3	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-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6
2.5°	434.1	434.1	434.4	434.1	433.3	433.0	431.7	431.0	430.3	429.8	429.2
5°	434.4	434.4	434.8	434.4	433.6	433.0	432.2	431.0	430.3	429.5	429.2
7.5°	435.9	436.2	436.7	436.2	434.8	434.1	433.0	431.7	430.3	429.5	428.9
10°	438.8	438.8	438.8	438.6	437.4	435.9	434.4	433.3	431.4	429.5	428.4
12.5°	441.1	441.4	441.4	440.7	439.2	437.4	435.9	434.8	433.3	431.7	430.6
15°	444.4	444.4	444.1	442.5	440.3	438.8	438.2	437.7	437.4	436.7	435.5
17.5°	451.2	450.8	449.7	447.4	444.8	443.8	443.0	443.0	443.0	442.5	441.8
20°	460.9	460.9	459.4	455.6	453.5	452.2	451.2	451.2	451.2	450.1	449.0
22.5°	476.6	476.9	474.7	470.3	467.2	465.0	463.4	462.4	461.2	460.6	458.7
25°	497.8	497.4	494.7	489.1	486.9	484.7	481.8	479.9	478.3	477.3	475.1
27.5°	520.2	519.8	516.7	511.9	510.4	507.2	504.8	502.2	500.4	498.5	496.3
30°	548.9	547.0	544.7	541.0	540.3	537.6	534.8	531.0	527.9	525.0	522.4
32.5°	574.6	574.6	571.2	569.3	570.9	569.7	570.2	567.9	566.0	564.9	562.2
35°	610.4	610.4	609.0	606.6	607.1	604.4	604.0	604.4	605.8	605.8	602.9
37.5°	658.1	658.8	654.0	653.2	651.5	647.7	645.8	646.5	650.0	651.8	647.7
40°	717.3	718.9	717.3	712.5	710.3	703.9	700.1	700.1	702.8	704.7	703.3
42.5°	776.0	778.6	776.0	772.3	770.3	765.4	763.6	765.1	768.5	770.7	768.5
45°	841.3	843.1	839.6	835.2	833.0	830.4	829.2	830.4	834.0	836.3	835.7
47.5°	905.3	907.9	903.9	902.0	902.0	899.4	902.3	905.3	908.6	913.8	911.7
50°	968.0	971.2	968.7	969.1	972.1	976.8	982.4	988.5	994.5	1000.1	1000.7
52.5°	1023.9	1029.1	1029.5	1036.1	1045.4	1053.0	1068.7	1081.6	1095.8	1100.8	1098.4
55°	1082.7	1089.9	1099.2	1109.6	1124.6	1139.8	1166.3	1189.8	1208.5	1220.0	1218.1
57.5°	1167.1	1174.2	1183.8	1201.0	1223.3	1244.2	1280.4	1316.9	1345.3	1362.8	1354.3
60°	1276.3	1283.8	1296.4	1314.7	1343.9	1372.2	1421.7	1474.3	1518.2	1538.4	1522.7
62.5°	1420.9	1428.0	1436.3	1460.6	1493.0	1529.5	1591.7	1659.2	1715.1	1734.5	1712.6
65°	1627.2	1635.8	1638.4	1658.1	1689.8	1723.8	1791.0	1866.9	1930.6	1962.3	1918.4
67.5°	1859.5	1862.8	1873.2	1896.4	1928.8	1959.5	2012.4	2084.2	2145.4	2162.9	2116.0
70°	1995.6	2002.3	2020.6	2052.5	2091.4	2139.6	2197.3	2274.9	2344.1	2352.4	2292.7
72.5°	1872.5	1886.4	1918.8	1968.7	2050.0	2135.5	2235.0	2349.3	2449.0	2460.5	2364.7
75°	1501.8	1517.5	1556.4	1611.1	1707.4	1834.1	1978.1	2150.0	2299.1	2318.0	2191.3
77.5°	800.5	820.0	876.2	950.0	1087.3	1255.0	1428.5	1624.6	1751.3	1794.3	1702.8
80°	201.7	212.2	239.4	282.6	375.5	510.9	660.3	871.4	1028.6	1095.5	1028.6
82.5°	78.3	86.1	93.7	98.9	107.7	126.4	174.5	284.6	383.2	472.1	408.6
85°	30.3	32.1	46.3	52.6	52.6	57.9	66.4	78.3	96.9	105.9	88.8
87.5°	11.9	13.0	16.0	24.7	25.3	22.4	23.9	26.9	20.5	17.2	19.5
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°	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6
2.5°	428.9	428.4	427.7	428.0	427.7	427.7	427.7	427.7
5°	428.4	428.4	427.7	427.7	427.7	428.0	427.7	427.7
7.5°	428.0	427.7	427.0	426.5	426.5	426.2	426.2	426.2
10°	427.4	426.5	425.7	425.4	425.4	424.7	424.7	424.7
12.5°	429.2	428.0	427.4	427.0	427.0	427.0	427.4	427.4
15°	434.4	432.2	431.0	430.6	431.0	431.7	432.2	432.5
17.5°	440.0	437.7	435.9	435.0	435.5	436.7	437.7	438.6
20°	447.0	445.2	443.0	442.2	442.2	443.8	444.4	445.6
22.5°	457.1	455.6	453.7	452.7	451.8	453.7	454.9	455.6
25°	473.1	471.7	470.3	469.0	468.6	470.5	471.3	471.7
27.5°	494.3	492.9	492.2	491.8	490.7	491.5	492.5	492.2
30°	522.0	523.2	522.0	522.0	520.2	520.8	520.2	519.4
32.5°	558.9	557.8	554.4	552.2	549.7	549.7	548.4	547.3
35°	595.8	592.2	590.2	591.4	590.2	590.9	589.1	587.2
37.5°	639.5	637.2	636.9	640.2	639.5	640.2	640.2	637.5
40°	697.3	695.7	698.4	703.9	706.2	705.8	706.5	703.3
42.5°	763.6	761.0	762.1	767.1	769.6	770.3	769.9	767.1
45°	830.0	830.8	830.8	836.0	838.6	840.0	837.5	836.3
47.5°	905.0	906.1	903.4	906.7	907.6	910.2	907.9	906.1
50°	991.5	987.3	981.4	982.4	982.4	981.8	979.2	976.8
52.5°	1087.9	1078.7	1067.5	1063.9	1059.7	1055.6	1050.4	1046.3
55°	1198.0	1182.0	1161.9	1152.5	1144.7	1135.4	1123.4	1119.4
57.5°	1325.4	1298.0	1271.1	1254.4	1234.2	1221.9	1206.7	1205.9
60°	1477.0	1439.7	1392.3	1367.3	1347.2	1332.6	1321.0	1316.6
62.5°	1651.9	1587.7	1536.6	1509.7	1486.2	1477.4	1462.7	1464.5
65°	1831.1	1765.9	1716.3	1694.7	1672.6	1666.6	1653.3	1658.1
67.5°	2025.4	1971.7	1917.3	1897.1	1877.0	1871.0	1857.2	1861.4
70°	2199.5	2131.3	2069.3	2029.9	1995.6	1967.9	1950.4	1943.4
72.5°	2234.3	2116.0	2018.8	1919.9	1862.8	1812.9	1792.4	1784.6
75°	2007.5	1824.1	1685.3	1569.3	1505.3	1432.5	1424.7	1413.9
77.5°	1561.6	1352.8	1185.0	1035.8	949.7	860.9	830.4	807.2
80°	931.5	715.9	554.9	388.8	317.3	255.4	240.1	224.0
82.5°	333.4	213.6	143.9	112.2	100.3	92.4	86.4	78.7
85°	80.6	67.8	64.0	58.2	57.4	48.9	34.7	30.9
87.5°	25.7	23.4	23.9	22.7	23.9	17.8	14.6	13.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)