

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: P270330

Luminaire Tested: **NAV-AF-02-D-UNV-5WQ-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270330  
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-02-D-UNV-5WQ-7027-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 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: 7254.2 lumens  
Efficiency: N/A  
Efficacy: 109.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G2

Input Watts (W): 66  
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

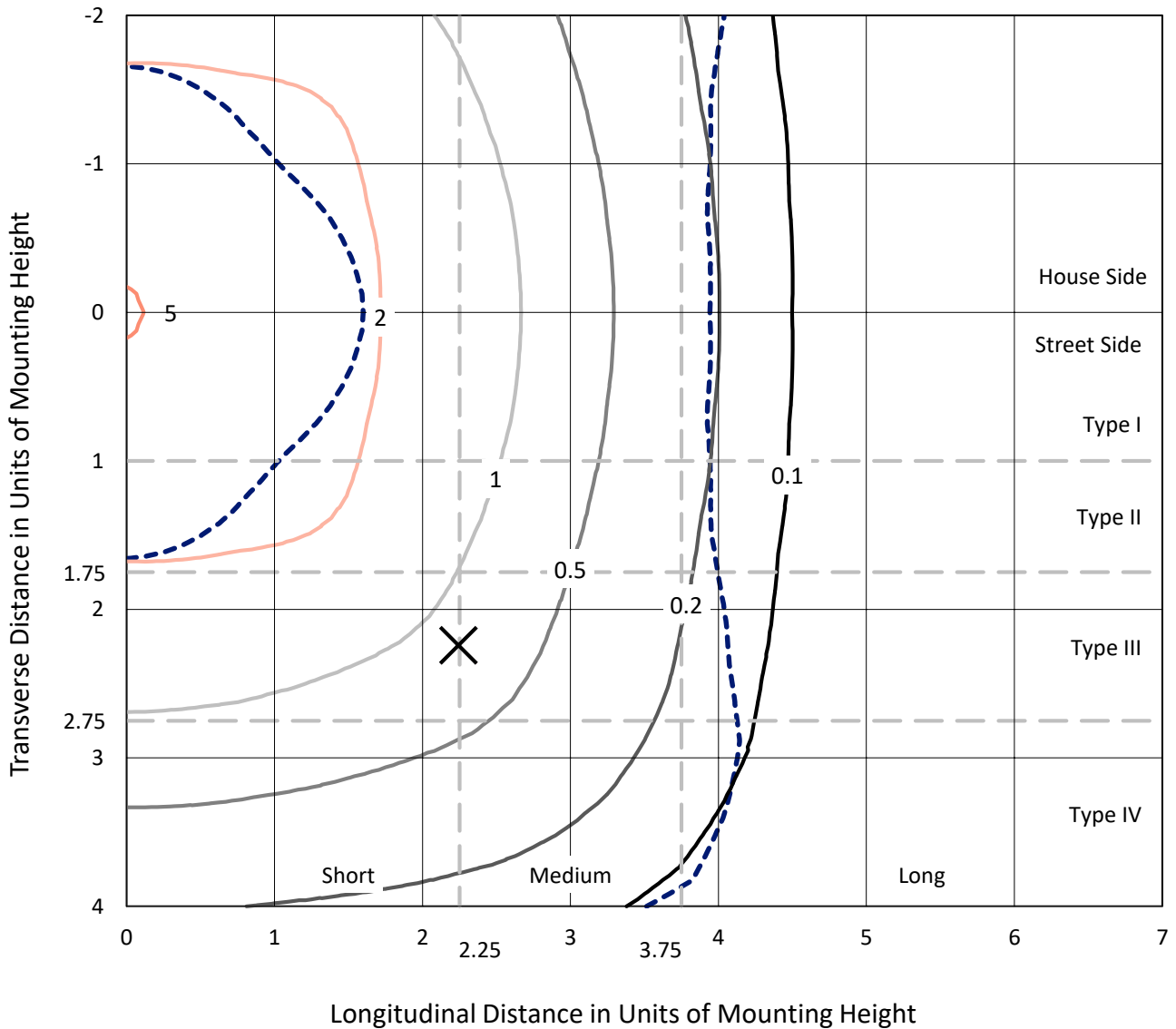


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

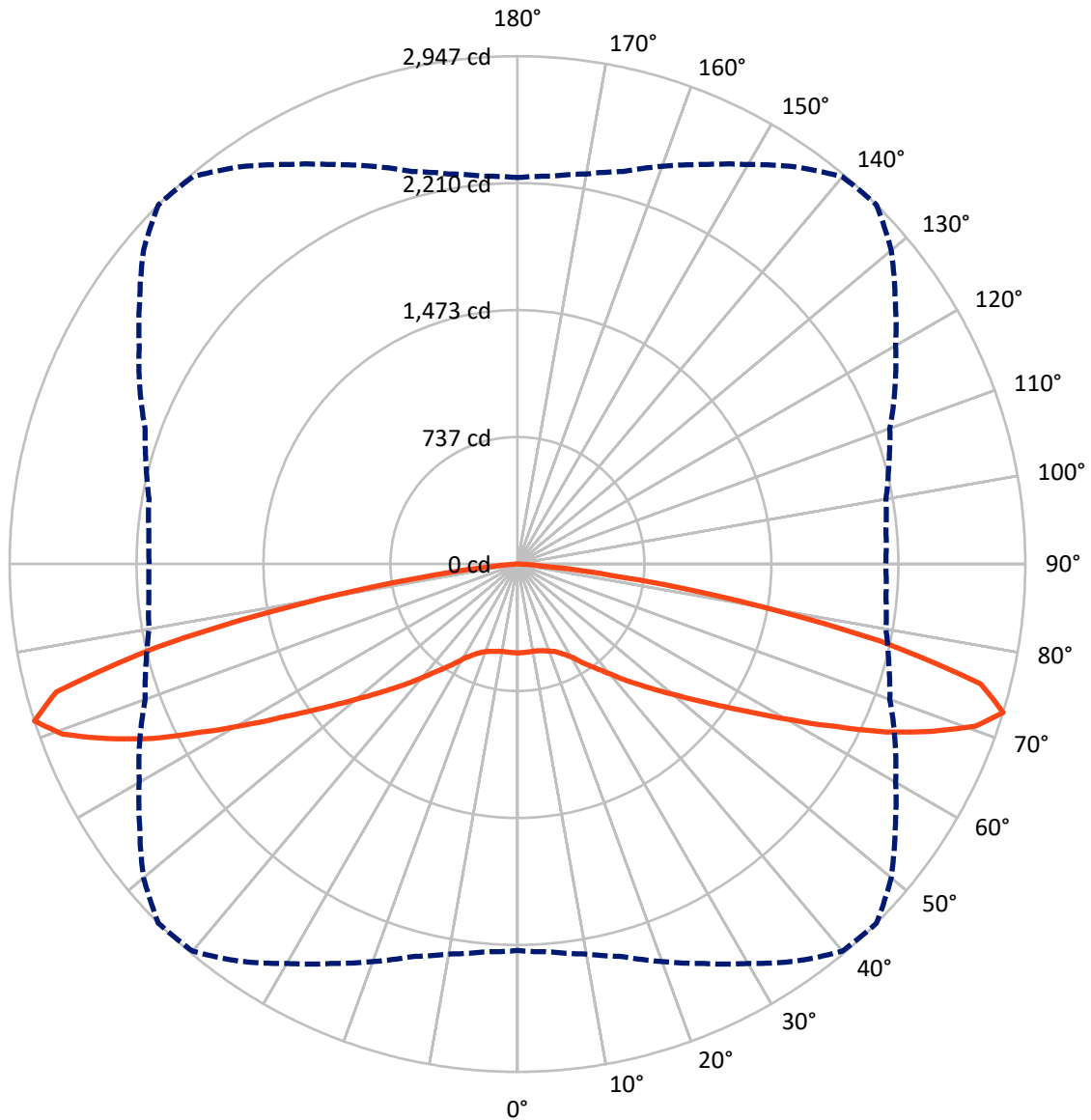


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc  
 Type V - Short - Semi-Cutoff

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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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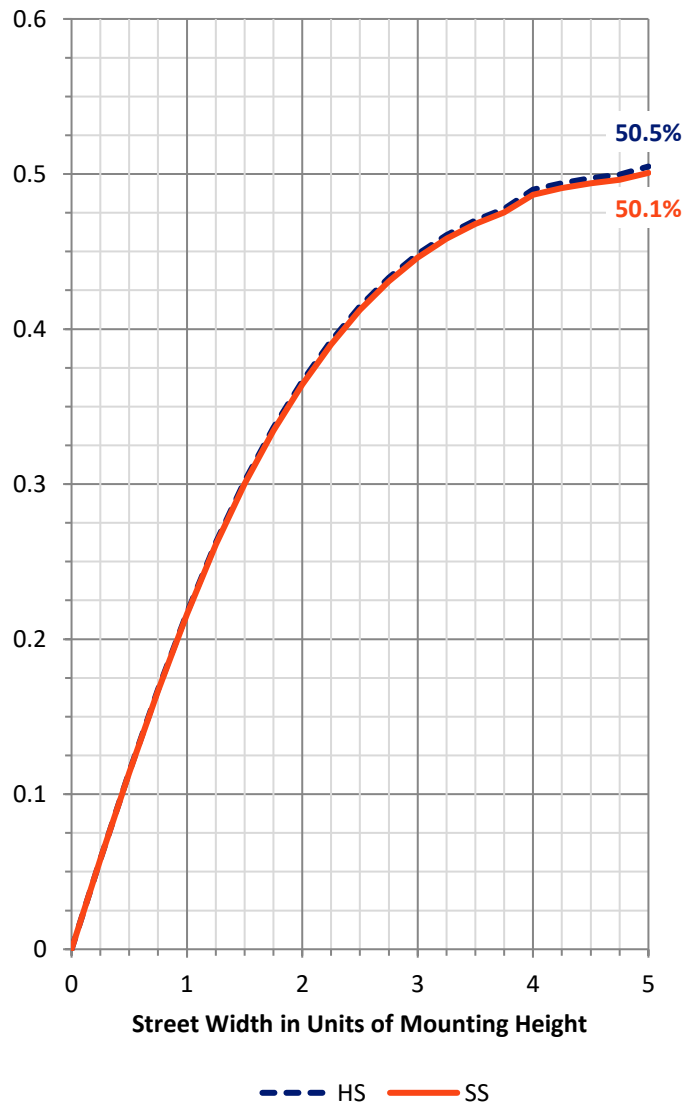
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3627.1	0.0	3627.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3627.1	0.0	3627.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	7254.2	0.0	7254.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.2	0.7
10°-20°	149.0	2.1
20°-30°	268.9	3.7
30°-40°	458.7	6.3
40°-50°	781.0	10.8
50°-60°	1256.9	17.3
60°-70°	2090.3	28.8
70°-80°	2022.1	27.9
80°-90°	178.0	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°	7254.2	100.0
0°-180°	7254.2	100.0

**Coefficient of Utilization**



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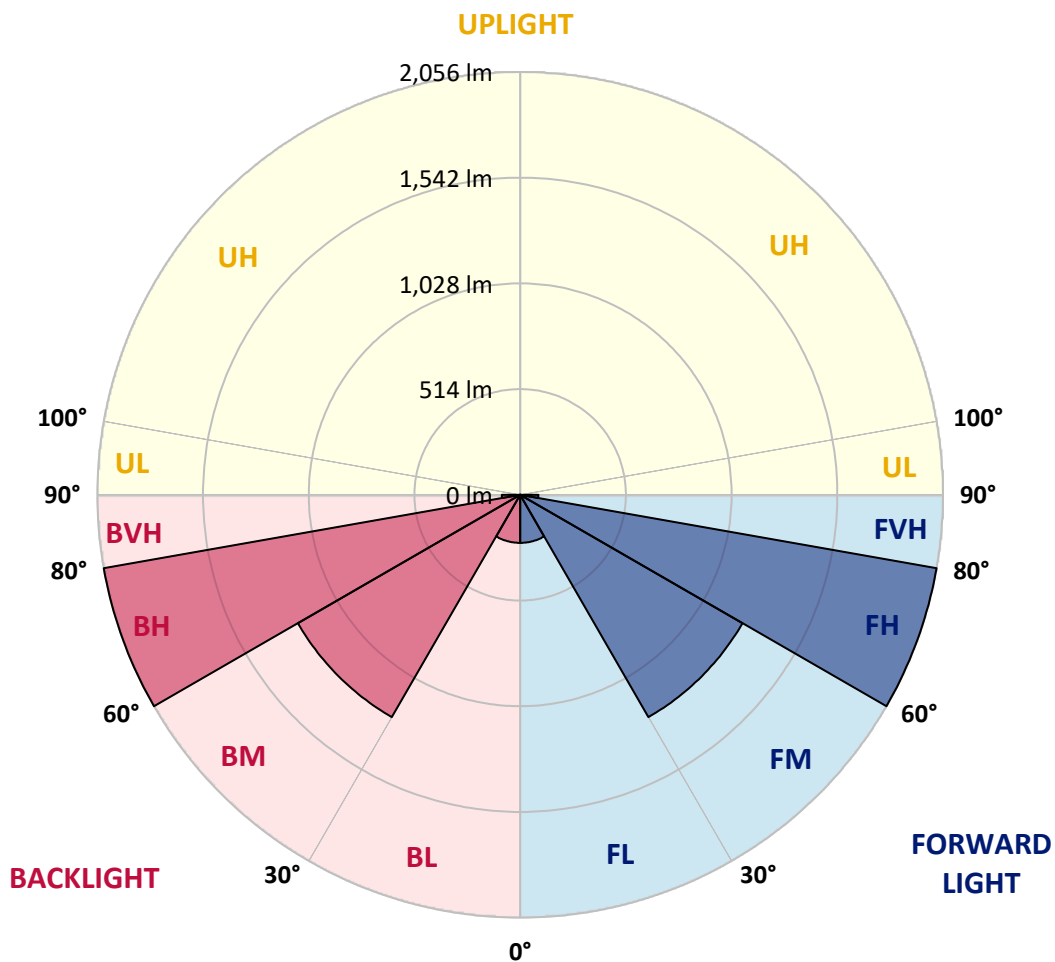
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	233.6	3.2			
FM	(30°-60°)	1248.3	17.2			
FH	(60°-80°)	2056.2	28.3			G2/5000
FVH	(80°-90°)	89.0	1.2			G1/100
BL	(0°-30°)	233.6	3.2	B1/500		
BM	(30°-60°)	1248.3	17.2	B2/2500		
BH	(60°-80°)	2056.2	28.3	B3/2500		G2/5000
BVH	(80°-90°)	89.0	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°	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6
2.5°	519.7	519.7	520.2	519.7	518.9	518.4	517.1	516.2	515.3	514.8	513.9
5°	520.2	520.2	520.6	520.2	519.3	518.4	517.6	516.2	515.3	514.4	513.9
7.5°	521.9	522.5	522.9	522.5	520.6	519.7	518.4	517.1	515.3	514.4	513.6
10°	525.6	525.6	525.6	525.1	523.7	521.9	520.2	518.9	516.6	514.4	513.0
12.5°	528.3	528.7	528.7	527.8	526.0	523.7	521.9	520.6	518.9	517.1	515.6
15°	532.2	532.2	531.7	530.0	527.3	525.6	524.6	524.3	523.7	522.9	521.6
17.5°	540.3	539.8	538.4	535.7	532.6	531.3	530.4	530.4	530.4	530.0	529.1
20°	551.9	551.9	550.1	545.6	542.9	541.6	540.3	540.3	540.3	539.0	537.5
22.5°	570.7	571.1	568.4	563.1	559.5	556.8	555.1	553.6	552.3	551.4	549.3
25°	596.0	595.7	592.5	585.9	583.1	580.5	576.9	574.6	572.8	571.5	568.8
27.5°	622.9	622.4	618.8	613.1	611.2	607.3	604.6	601.4	599.2	597.0	594.3
30°	657.3	655.0	652.3	647.9	647.0	643.8	640.3	635.8	632.2	628.6	625.6
32.5°	688.0	688.0	684.1	681.9	683.6	682.3	682.7	680.0	677.9	676.5	673.3
35°	731.0	731.0	729.2	726.5	726.9	723.8	723.3	723.8	725.7	725.7	722.0
37.5°	788.2	789.0	783.1	782.2	780.1	775.5	773.4	774.2	778.2	780.4	775.5
40°	859.0	860.8	859.0	853.3	850.5	843.0	838.6	838.6	841.6	843.9	842.2
42.5°	929.1	932.4	929.1	924.7	922.5	916.7	914.5	916.2	920.3	922.9	920.3
45°	1007.3	1009.5	1005.6	1000.2	997.5	994.3	993.0	994.3	998.8	1001.5	1000.6
47.5°	1084.2	1087.3	1082.4	1080.1	1080.1	1077.0	1080.5	1084.2	1088.1	1094.3	1091.7
50°	1159.2	1163.1	1160.0	1160.5	1164.1	1169.9	1176.5	1183.6	1190.9	1197.5	1198.3
52.5°	1226.0	1232.4	1232.8	1240.9	1252.0	1261.0	1279.6	1295.4	1312.2	1318.2	1315.4
55°	1296.7	1305.1	1316.2	1328.9	1346.6	1365.0	1396.7	1424.8	1447.1	1461.0	1458.8
57.5°	1397.6	1406.0	1417.6	1438.1	1465.0	1490.0	1533.2	1577.1	1611.0	1632.0	1621.7
60°	1528.3	1537.3	1552.5	1574.4	1609.3	1643.1	1702.5	1765.4	1818.2	1842.2	1823.5
62.5°	1701.6	1710.2	1720.0	1749.0	1787.7	1831.6	1906.2	1987.0	2054.0	2077.2	2050.8
65°	1948.6	1958.8	1962.0	1985.7	2023.5	2064.1	2144.6	2235.6	2312.0	2350.0	2297.2
67.5°	2226.7	2230.8	2243.2	2270.9	2309.8	2346.5	2409.9	2496.0	2569.2	2590.3	2533.8
70°	2389.8	2397.8	2419.7	2458.0	2504.5	2562.1	2631.2	2724.1	2807.2	2817.1	2745.6
72.5°	2242.3	2258.9	2297.8	2357.5	2454.9	2557.1	2676.4	2813.4	2932.6	2946.5	2831.7
75°	1798.5	1817.4	1863.8	1929.4	2044.5	2196.4	2368.7	2574.5	2753.1	2775.9	2624.0
77.5°	958.6	981.8	1049.3	1137.8	1302.1	1503.0	1710.6	1945.4	2097.3	2148.6	2039.2
80°	241.6	254.1	286.6	338.4	449.6	611.7	790.8	1043.6	1231.9	1311.9	1231.9
82.5°	93.8	103.1	112.1	118.3	129.0	151.4	208.9	340.6	459.0	565.3	489.3
85°	36.1	38.4	55.3	62.9	62.9	69.2	79.5	93.8	116.2	126.8	106.3
87.5°	14.4	15.6	19.3	29.5	30.4	26.8	28.6	32.2	24.6	20.5	23.3
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°	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6
2.5°	513.6	513.0	512.2	512.7	512.2	512.2	512.2	512.2
5°	513.0	513.0	512.2	512.2	512.2	512.7	512.2	512.2
7.5°	512.7	512.2	511.2	510.7	510.7	510.3	510.3	510.3
10°	511.8	510.7	509.9	509.5	509.5	508.6	508.6	508.6
12.5°	513.9	512.7	511.8	511.2	511.2	511.2	511.8	511.8
15°	520.2	517.6	516.2	515.6	516.2	517.1	517.6	518.0
17.5°	526.9	524.3	521.9	521.0	521.6	522.9	524.3	525.1
20°	535.4	533.1	530.4	529.6	529.6	531.3	532.2	533.6
22.5°	547.3	545.6	543.5	542.0	541.1	543.5	544.7	545.6
25°	566.7	564.9	563.1	561.7	561.3	563.4	564.3	564.9
27.5°	592.1	590.2	589.4	589.0	587.6	588.5	589.8	589.4
30°	625.1	626.5	625.1	625.1	622.9	623.8	622.9	621.9
32.5°	669.2	668.0	663.9	661.3	658.2	658.2	656.8	655.5
35°	713.6	709.0	706.8	708.1	706.8	707.8	705.4	703.3
37.5°	765.7	763.1	762.7	766.7	765.7	766.7	766.7	763.5
40°	835.0	833.2	836.3	843.0	845.7	845.2	846.2	842.2
42.5°	914.5	911.3	912.7	918.4	921.7	922.5	922.0	918.4
45°	994.0	994.9	994.9	1001.2	1004.1	1006.0	1002.9	1001.5
47.5°	1083.6	1085.1	1081.9	1086.0	1086.8	1090.0	1087.3	1085.1
50°	1187.3	1182.3	1175.3	1176.5	1176.5	1175.6	1172.5	1169.9
52.5°	1302.9	1291.8	1278.4	1273.8	1268.9	1264.0	1257.7	1252.9
55°	1434.7	1415.4	1391.4	1380.2	1370.8	1359.7	1345.3	1340.5
57.5°	1587.3	1554.2	1522.2	1502.1	1477.9	1463.2	1445.0	1443.9
60°	1768.7	1723.9	1667.3	1637.3	1613.3	1595.7	1581.9	1576.6
62.5°	1978.0	1901.3	1840.1	1807.8	1779.8	1769.0	1751.7	1753.9
65°	2192.9	2114.7	2055.2	2029.5	2003.0	1995.9	1979.9	1985.7
67.5°	2425.5	2361.1	2296.0	2271.9	2247.6	2240.6	2224.1	2229.0
70°	2633.9	2552.3	2478.2	2430.8	2389.8	2356.7	2335.7	2327.1
72.5°	2675.4	2533.8	2417.3	2299.0	2230.8	2170.9	2146.4	2137.0
75°	2404.0	2184.3	2018.2	1879.3	1802.5	1715.5	1706.2	1693.1
77.5°	1869.9	1620.0	1419.1	1240.4	1137.3	1031.0	994.3	966.7
80°	1115.3	857.3	664.3	465.7	380.0	305.9	287.5	268.4
82.5°	399.1	255.8	172.4	134.3	120.2	110.8	103.6	94.2
85°	96.5	81.2	76.7	69.7	68.8	58.5	41.5	37.1
87.5°	30.8	28.1	28.6	27.3	28.6	21.4	17.3	15.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)