

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: P196939

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-8030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196939
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-8030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 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: 5689 lumens
Efficiency: N/A
Efficacy: 84.9 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

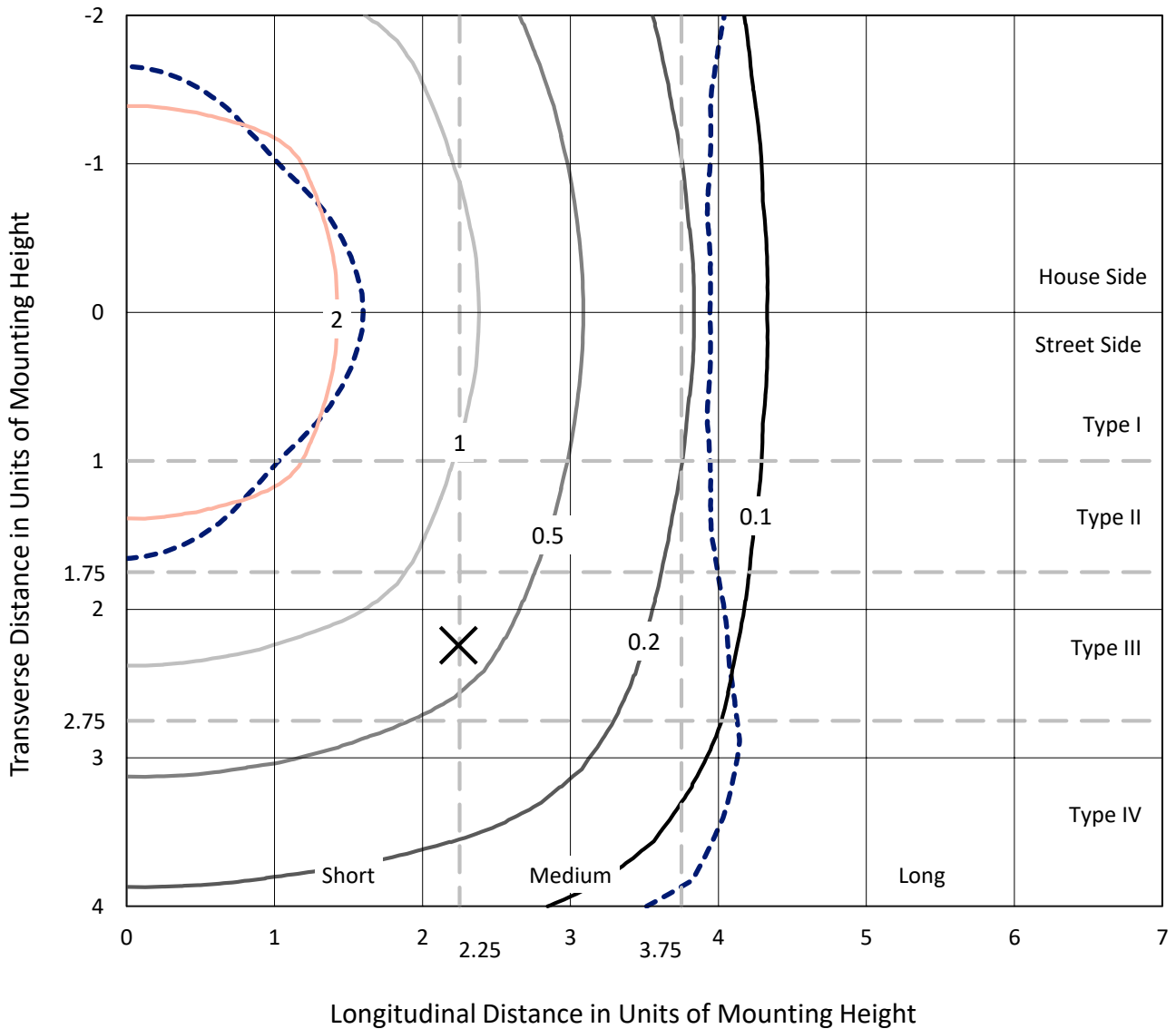


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Iso-Footcandle Lines of Horizontal Illumination

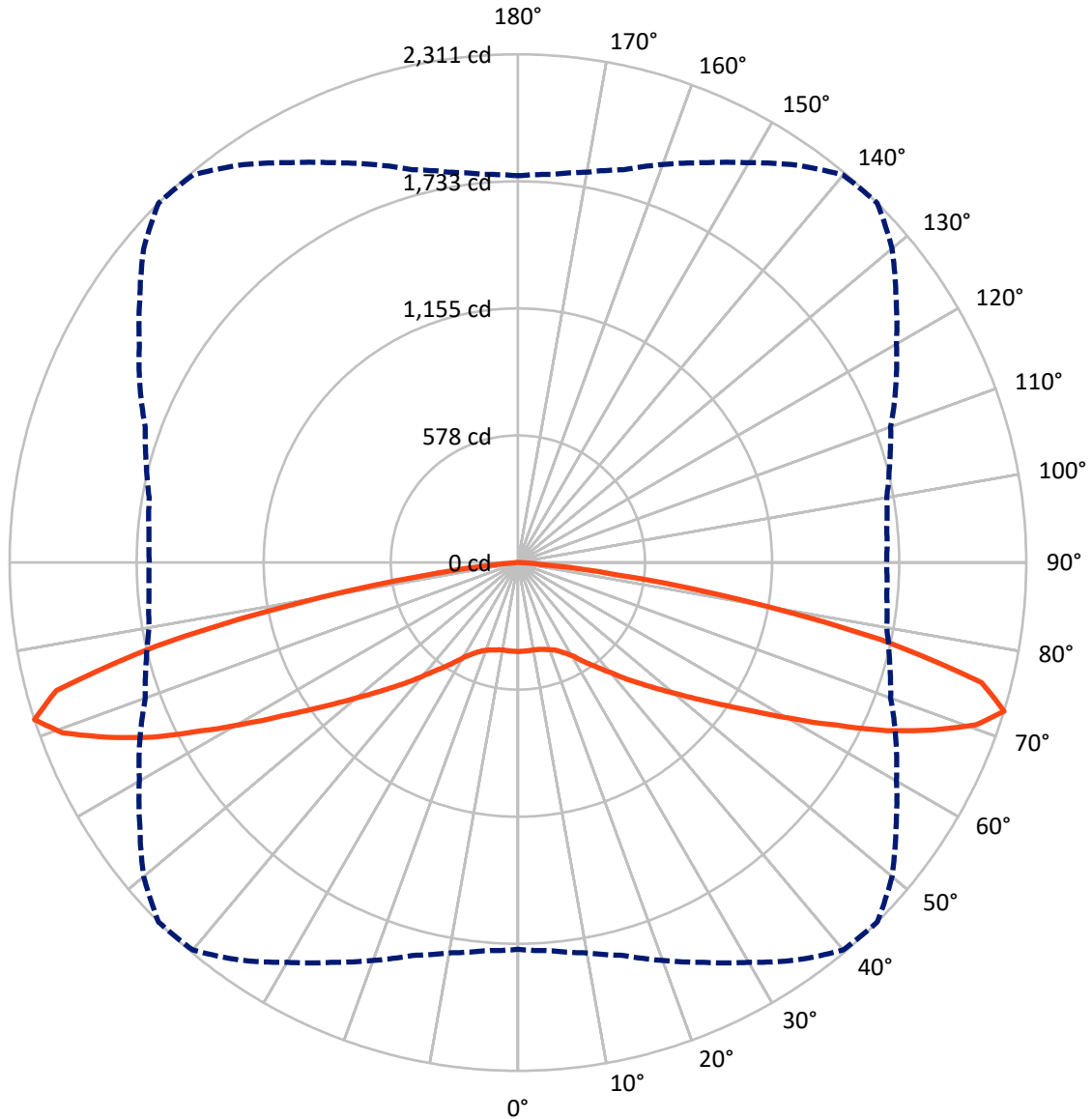
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4 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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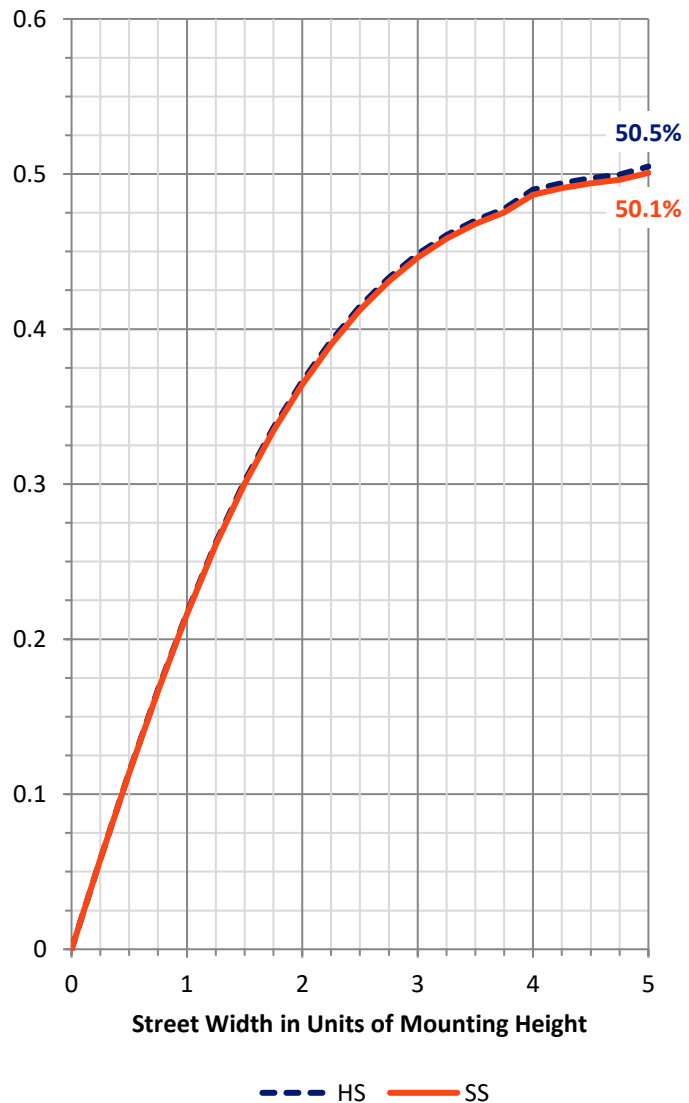
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2844.5	0.0	2844.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2844.5	0.0	2844.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	5689.0	0.0	5689.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	0.7
10°-20°	116.8	2.1
20°-30°	210.9	3.7
30°-40°	359.8	6.3
40°-50°	612.5	10.8
50°-60°	985.7	17.3
60°-70°	1639.3	28.8
70°-80°	1585.8	27.9
80°-90°	139.6	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°	5689.0	100.0
0°-180°	5689.0	100.0



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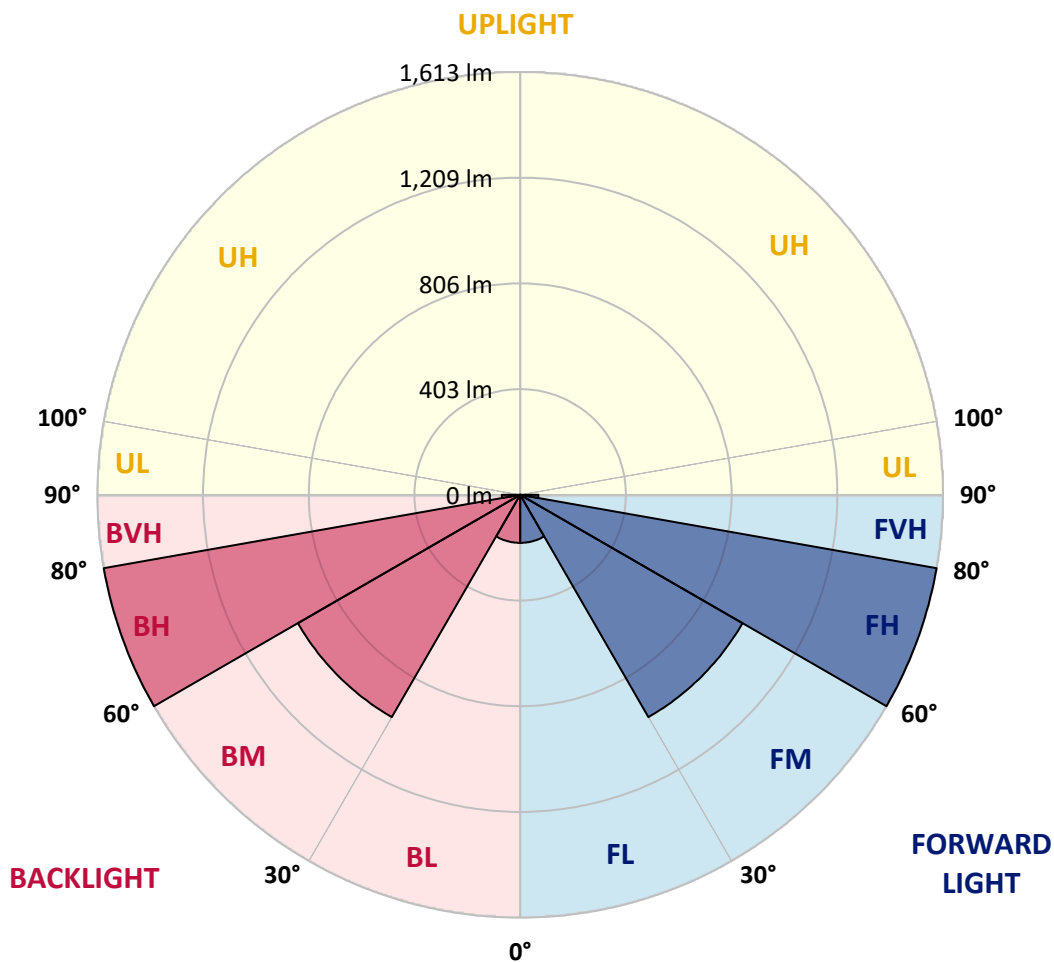
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	183.2	3.2			
FM (30°-60°)	979.0	17.2			
FH (60°-80°)	1612.5	28.3			G1/1800
FVH (80°-90°)	69.8	1.2			G1/100
BL (0°-30°)	183.2	3.2	B1/500		
BM (30°-60°)	979.0	17.2	B1/1000		
BH (60°-80°)	1612.5	28.3	B3/2500		G1/1800
BVH (80°-90°)	69.8	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°	404.4	404.4	404.4	404.4	404.4	404.4	404.4	404.4	404.4	404.4	404.4
2.5°	407.6	407.6	407.9	407.6	406.9	406.5	405.5	404.8	404.1	403.7	403.0
5°	407.9	407.9	408.3	407.9	407.2	406.5	405.8	404.8	404.1	403.4	403.0
7.5°	409.3	409.7	410.0	409.7	408.3	407.6	406.5	405.5	404.1	403.4	402.7
10°	412.1	412.1	412.1	411.8	410.7	409.3	407.9	406.9	405.1	403.4	402.3
12.5°	414.2	414.6	414.6	413.9	412.5	410.7	409.3	408.3	406.9	405.5	404.4
15°	417.4	417.4	417.1	415.7	413.5	412.1	411.4	411.1	410.7	410.0	409.0
17.5°	423.7	423.4	422.3	420.2	417.8	416.7	416.0	416.0	416.0	415.7	415.0
20°	432.8	432.8	431.4	427.9	425.8	424.8	423.7	423.7	423.7	422.7	421.6
22.5°	447.5	447.9	445.8	441.6	438.8	436.7	435.3	434.2	433.2	432.5	430.7
25°	467.5	467.1	464.7	459.4	457.3	455.2	452.4	450.7	449.3	448.2	446.1
27.5°	488.5	488.1	485.3	480.8	479.4	476.2	474.1	471.7	469.9	468.2	466.1
30°	515.4	513.7	511.6	508.1	507.4	504.9	502.1	498.6	495.8	493.0	490.6
32.5°	539.6	539.6	536.5	534.7	536.1	535.1	535.4	533.3	531.6	530.5	528.1
35°	573.2	573.2	571.8	569.7	570.1	567.6	567.3	567.6	569.0	569.0	566.2
37.5°	618.0	618.7	614.2	613.5	611.7	608.2	606.5	607.2	610.3	612.1	608.2
40°	673.7	675.1	673.7	669.2	667.1	661.1	657.6	657.6	660.1	661.8	660.4
42.5°	728.7	731.2	728.7	725.2	723.4	718.9	717.1	718.5	721.7	723.8	721.7
45°	790.0	791.7	788.6	784.4	782.3	779.8	778.8	779.8	783.3	785.4	784.7
47.5°	850.2	852.7	848.8	847.1	847.1	844.6	847.4	850.2	853.4	858.3	856.2
50°	909.0	912.2	909.7	910.1	912.9	917.4	922.7	928.3	933.9	939.2	939.9
52.5°	961.6	966.5	966.8	973.1	981.9	988.9	1003.6	1015.8	1029.1	1033.7	1031.6
55°	1016.9	1023.5	1032.3	1042.1	1056.1	1070.5	1095.3	1117.4	1134.9	1145.8	1144.0
57.5°	1096.0	1102.7	1111.8	1127.9	1148.9	1168.5	1202.5	1236.8	1263.4	1279.9	1271.8
60°	1198.6	1205.6	1217.5	1234.7	1262.0	1288.6	1335.2	1384.6	1425.9	1444.8	1430.1
62.5°	1334.5	1341.1	1348.9	1371.6	1402.1	1436.4	1494.9	1558.3	1610.8	1629.0	1608.3
65°	1528.1	1536.2	1538.6	1557.2	1587.0	1618.8	1681.9	1753.3	1813.2	1842.9	1801.6
67.5°	1746.3	1749.4	1759.2	1781.0	1811.4	1840.1	1889.9	1957.4	2014.9	2031.3	1987.2
70°	1874.1	1880.4	1897.6	1927.7	1964.1	2009.3	2063.5	2136.4	2201.5	2209.2	2153.2
72.5°	1758.5	1771.5	1802.0	1848.9	1925.2	2005.4	2098.9	2206.4	2299.9	2310.8	2220.8
75°	1410.5	1425.2	1461.6	1513.1	1603.4	1722.5	1857.6	2019.1	2159.1	2177.0	2057.9
77.5°	751.8	770.0	822.9	892.2	1021.1	1178.7	1341.5	1525.7	1644.7	1685.0	1599.2
80°	189.4	199.2	224.8	265.4	352.6	479.7	620.1	818.3	966.1	1028.8	966.1
82.5°	73.5	80.9	87.9	92.8	101.2	118.7	163.9	267.2	360.0	443.3	383.8
85°	28.4	30.1	43.4	49.4	49.4	54.3	62.3	73.5	91.0	99.4	83.3
87.5°	11.2	12.3	15.1	23.1	23.8	21.0	22.4	25.2	19.3	16.1	18.2
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°	404.4	404.4	404.4	404.4	404.4	404.4	404.4	404.4
2.5°	402.7	402.3	401.6	402.0	401.6	401.6	401.6	401.6
5°	402.3	402.3	401.6	401.6	401.6	402.0	401.6	401.6
7.5°	402.0	401.6	400.9	400.6	400.6	400.2	400.2	400.2
10°	401.3	400.6	399.9	399.5	399.5	398.8	398.8	398.8
12.5°	403.0	402.0	401.3	400.9	400.9	400.9	401.3	401.3
15°	407.9	405.8	404.8	404.4	404.8	405.5	405.8	406.2
17.5°	413.2	411.1	409.3	408.6	409.0	410.0	411.1	411.8
20°	419.9	418.1	416.0	415.3	415.3	416.7	417.4	418.5
22.5°	429.3	427.9	426.2	425.1	424.4	426.2	427.2	427.9
25°	444.4	443.0	441.6	440.5	440.2	441.9	442.6	443.0
27.5°	464.3	462.9	462.2	461.9	460.8	461.5	462.6	462.2
30°	490.2	491.3	490.2	490.2	488.5	489.2	488.5	487.8
32.5°	524.9	523.9	520.7	518.6	516.1	516.1	515.1	514.0
35°	559.6	556.1	554.3	555.4	554.3	555.0	553.3	551.5
37.5°	600.5	598.4	598.1	601.2	600.5	601.2	601.2	598.8
40°	654.8	653.4	655.9	661.1	663.2	662.9	663.6	660.4
42.5°	717.1	714.7	715.7	720.3	722.7	723.4	723.1	720.3
45°	779.5	780.2	780.2	785.1	787.5	788.9	786.5	785.4
47.5°	849.9	850.9	848.5	851.6	852.3	854.8	852.7	850.9
50°	931.1	927.2	921.6	922.7	922.7	922.0	919.5	917.4
52.5°	1021.8	1013.0	1002.5	999.0	995.2	991.3	986.4	982.6
55°	1125.1	1110.0	1091.1	1082.4	1075.0	1066.3	1055.1	1051.2
57.5°	1244.9	1218.9	1193.7	1178.0	1159.1	1147.5	1133.1	1132.4
60°	1387.0	1352.0	1307.5	1284.1	1265.2	1251.5	1240.6	1236.4
62.5°	1551.2	1491.0	1443.0	1417.8	1395.8	1387.4	1373.7	1375.5
65°	1719.7	1658.4	1611.8	1591.5	1570.9	1565.3	1552.6	1557.2
67.5°	1902.1	1851.7	1800.6	1781.7	1762.8	1757.1	1744.2	1748.0
70°	2065.6	2001.6	1943.4	1906.3	1874.1	1848.2	1831.7	1825.1
72.5°	2098.2	1987.2	1895.8	1803.0	1749.4	1702.5	1683.3	1675.9
75°	1885.3	1713.0	1582.8	1473.9	1413.6	1345.3	1338.0	1327.8
77.5°	1466.5	1270.4	1112.8	972.8	891.9	808.5	779.8	758.1
80°	874.7	672.3	521.1	365.2	298.0	239.9	225.5	210.5
82.5°	313.1	200.6	135.2	105.4	94.2	86.8	81.2	73.9
85°	75.6	63.7	60.2	54.6	53.9	45.9	32.6	29.1
87.5°	24.2	22.1	22.4	21.4	22.4	16.8	13.7	12.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)