

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: P270326

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270326
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
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-5NQ-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7167.8 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

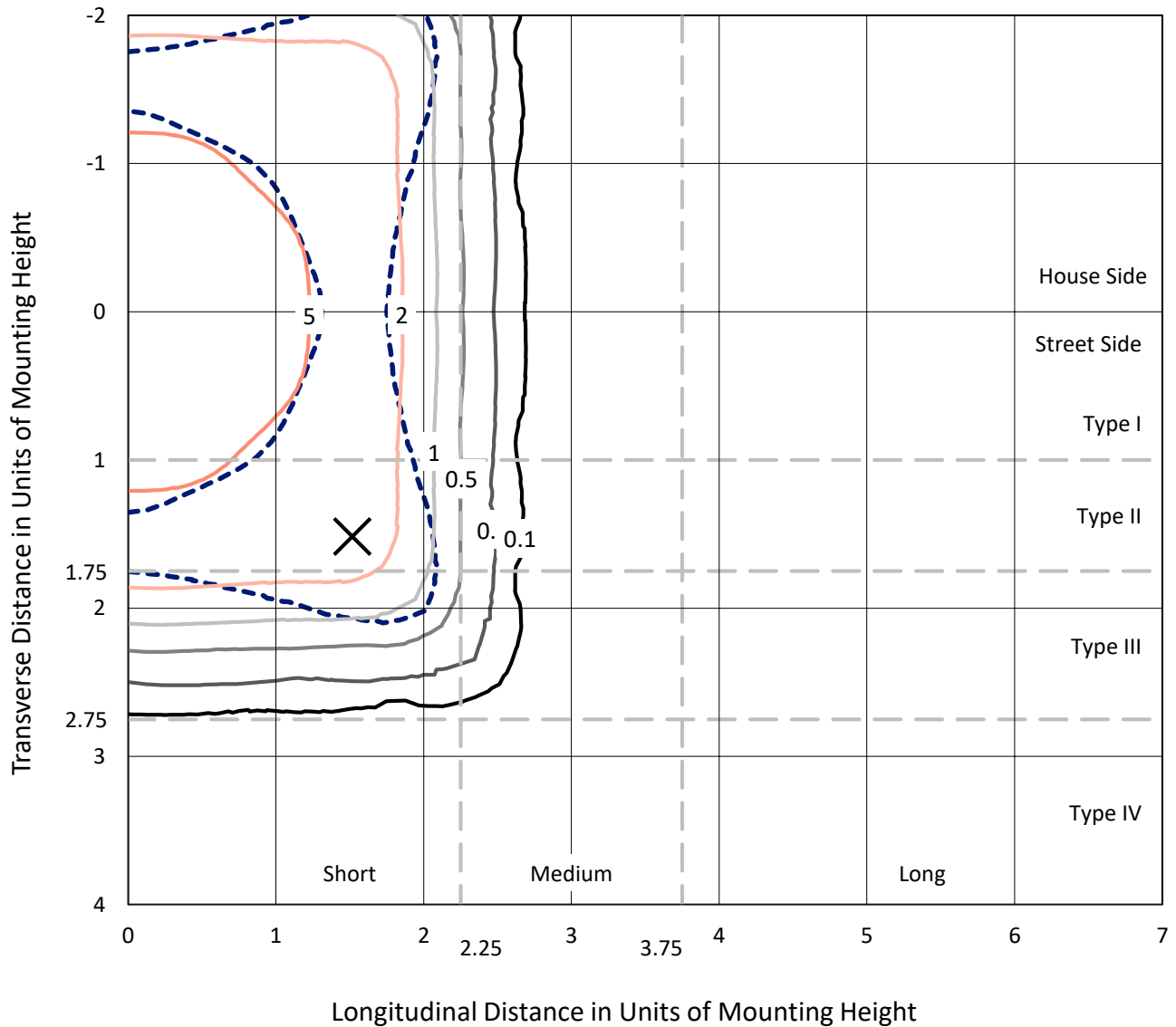
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

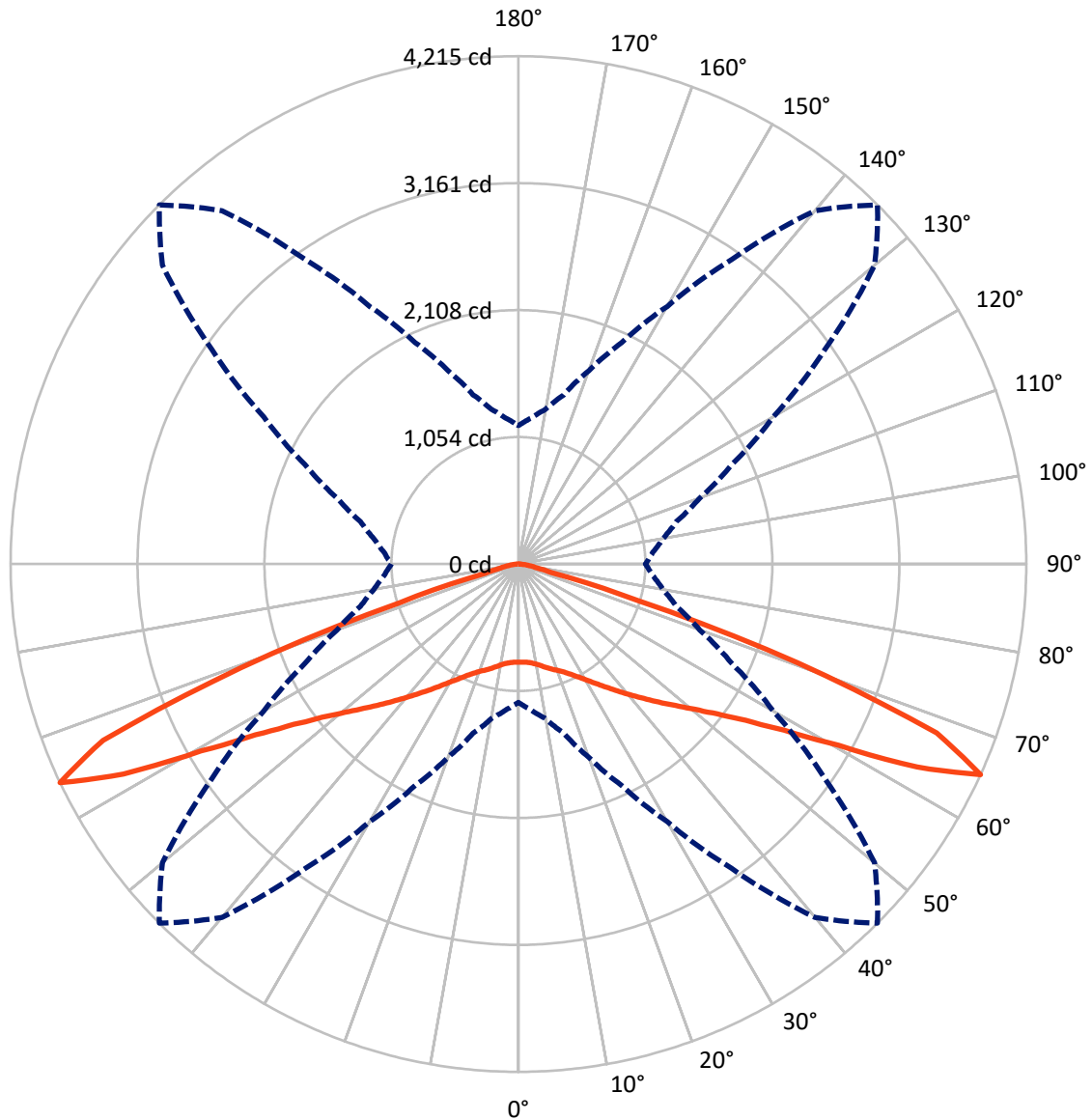
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3583.9	0.0	3583.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3583.9	0.0	3583.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	7167.8	0.0	7167.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	1.1
10°-20°	254.5	3.6
20°-30°	474.7	6.6
30°-40°	800.4	11.2
40°-50°	1300.1	18.1
50°-60°	2037.1	28.4
60°-70°	1922.9	26.8
70°-80°	259.2	3.6
80°-90°	39.5	0.6
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°	7167.8	100.0
0°-180°	7167.8	100.0



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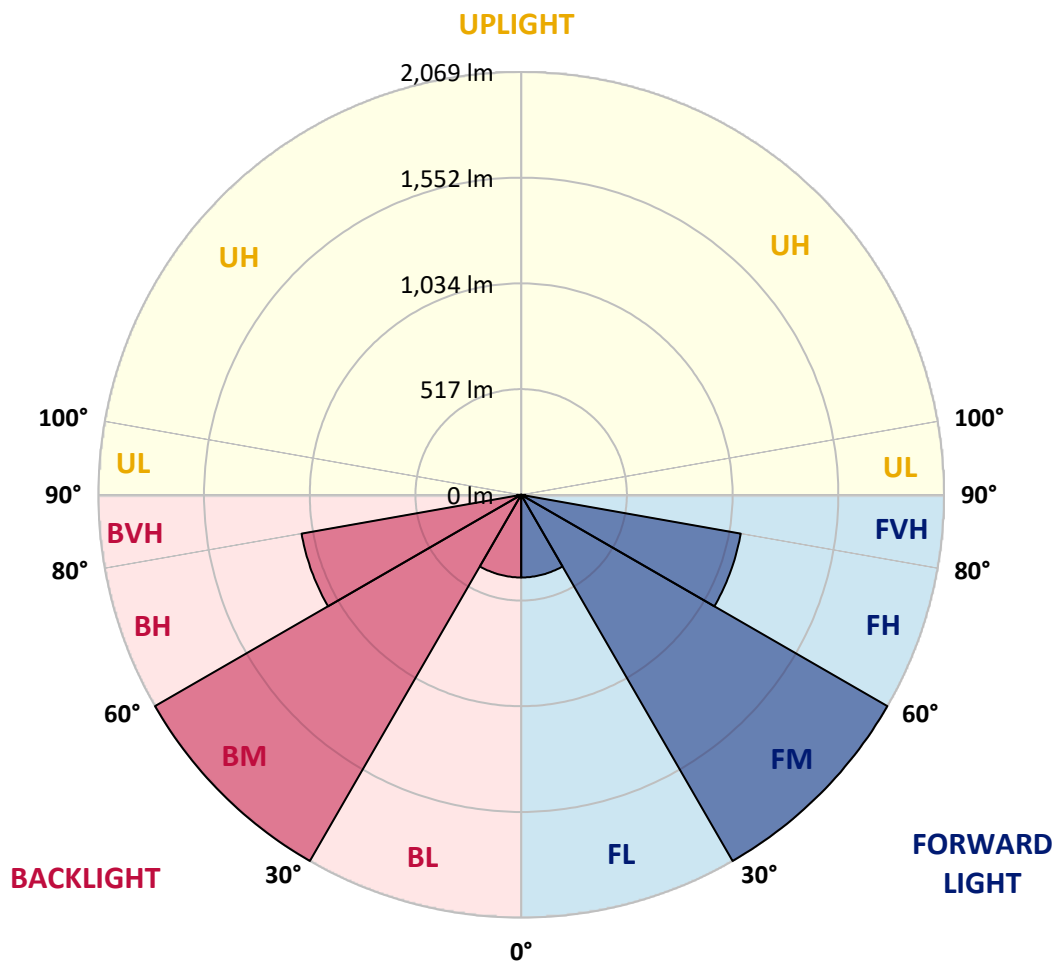
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	404.3	5.6			
FM	(30°-60°)	2068.8	28.9			
FH	(60°-80°)	1091.0	15.2			G1/1800
FVH	(80°-90°)	19.7	0.3			G1/100
BL	(0°-30°)	404.3	5.6	B1/500		
BM	(30°-60°)	2068.8	28.9	B2/2500		
BH	(60°-80°)	1091.0	15.2	B3/2500		G1/1800
BVH	(80°-90°)	19.7	0.3			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°	815.3	815.3	815.3	815.3	815.3	815.3	815.3	815.3	815.3	815.3	815.3
2.5°	821.9	821.9	823.3	822.8	821.1	819.9	818.4	816.6	815.8	814.9	814.5
5°	826.5	826.5	827.8	827.3	826.0	824.3	823.3	821.9	820.7	819.9	820.2
7.5°	837.7	838.1	838.6	838.1	836.7	835.5	833.6	833.2	831.4	830.0	830.9
10°	854.6	854.6	855.0	855.5	854.6	851.6	851.6	850.5	848.8	847.0	847.6
12.5°	873.3	873.3	873.8	873.8	873.8	872.1	872.4	872.1	869.7	868.9	869.7
15°	891.7	892.1	892.1	893.0	893.0	893.5	895.3	895.3	894.4	894.0	894.0
17.5°	913.0	913.9	914.5	915.8	916.2	917.1	919.0	919.3	919.9	918.4	919.0
20°	941.8	942.1	943.5	943.8	945.6	945.6	946.6	946.2	945.2	943.5	943.5
22.5°	973.9	974.8	977.4	977.4	979.6	978.3	978.8	977.4	975.2	974.3	973.5
25°	1015.9	1017.2	1019.3	1018.5	1019.3	1017.2	1017.2	1017.2	1015.9	1014.5	1014.0
27.5°	1069.0	1066.6	1069.0	1067.1	1066.6	1064.9	1065.4	1064.5	1063.1	1062.7	1060.9
30°	1124.3	1121.7	1123.1	1123.4	1122.5	1122.1	1120.2	1119.0	1116.8	1117.1	1115.9
32.5°	1187.6	1185.0	1186.4	1186.8	1185.9	1186.8	1186.4	1183.2	1180.6	1182.3	1182.3
35°	1263.1	1261.4	1265.0	1266.3	1263.6	1262.3	1260.5	1256.9	1252.9	1255.7	1256.0
37.5°	1353.8	1351.6	1354.3	1357.9	1352.8	1350.2	1343.1	1337.8	1335.1	1336.4	1338.1
40°	1448.0	1448.4	1456.1	1457.0	1451.7	1448.4	1441.3	1433.2	1425.7	1425.7	1427.9
42.5°	1547.2	1548.5	1557.4	1560.5	1558.7	1553.0	1543.1	1533.2	1523.4	1525.3	1527.9
45°	1659.2	1657.5	1666.8	1674.4	1673.1	1671.2	1662.0	1644.1	1635.2	1634.6	1639.1
47.5°	1777.0	1780.7	1790.5	1803.4	1803.0	1798.5	1786.5	1770.0	1753.4	1754.7	1760.0
50°	1914.6	1919.6	1936.0	1949.1	1950.8	1949.4	1935.2	1915.9	1892.8	1894.0	1901.3
52.5°	2037.8	2045.0	2064.2	2091.1	2107.6	2115.1	2105.7	2087.9	2064.2	2065.6	2073.2
55°	2149.5	2160.7	2189.2	2225.8	2258.9	2289.7	2303.6	2303.1	2285.6	2289.7	2299.5
57.5°	2219.6	2235.3	2278.6	2337.5	2403.1	2465.2	2518.8	2569.2	2580.4	2601.3	2601.3
60°	2125.4	2162.0	2219.6	2320.5	2449.6	2588.8	2739.8	2886.7	2981.4	3055.9	3015.7
62.5°	1775.0	1828.9	1909.6	2042.7	2243.6	2492.3	2795.5	3137.2	3493.5	3711.3	3551.4
65°	1148.5	1216.2	1304.2	1453.8	1707.0	2027.1	2468.7	3082.8	3828.3	4215.0	3857.9
67.5°	455.0	501.0	554.6	660.9	880.5	1194.8	1690.5	2447.7	3380.5	3745.4	3344.7
70°	217.5	225.0	235.3	258.2	313.0	422.5	679.2	1206.1	2073.2	2457.7	2023.6
72.5°	157.2	158.6	163.4	170.9	187.0	209.5	254.5	368.8	714.8	1039.5	715.8
75°	119.3	121.0	123.6	127.6	136.3	147.0	163.9	196.5	244.7	282.2	244.2
77.5°	90.6	92.4	94.6	98.6	103.1	110.8	117.0	130.0	150.5	158.6	157.7
80°	66.0	69.2	72.9	76.4	79.5	83.1	83.5	89.7	101.4	109.0	106.7
82.5°	42.0	44.6	54.0	58.0	58.5	59.4	59.0	59.4	65.7	71.0	69.2
85°	26.8	28.6	33.4	38.0	37.1	38.8	38.8	38.0	35.3	30.4	36.1
87.5°	13.4	13.8	16.1	20.1	19.3	17.0	16.4	16.4	12.0	10.3	11.1
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°	815.3	815.3	815.3	815.3	815.3	815.3	815.3	815.3
2.5°	813.1	814.0	812.6	812.6	812.2	813.1	811.8	811.8
5°	819.3	820.7	820.2	820.2	821.1	821.9	821.6	821.1
7.5°	830.6	831.4	832.3	832.6	833.6	833.2	834.0	833.6
10°	847.6	846.7	847.9	846.7	847.0	846.2	846.7	846.7
12.5°	868.9	867.6	866.7	865.7	865.7	864.0	864.0	864.4
15°	893.5	891.2	889.4	888.6	887.6	887.6	886.3	887.3
17.5°	917.6	915.4	912.1	912.1	910.9	910.1	909.1	911.3
20°	943.0	940.7	939.0	938.5	935.9	935.0	935.5	938.1
22.5°	972.4	971.2	971.2	970.3	968.5	967.1	967.1	970.3
25°	1012.2	1009.5	1010.1	1010.5	1009.5	1009.5	1008.6	1011.0
27.5°	1060.9	1058.7	1060.0	1060.9	1060.0	1061.3	1060.0	1061.7
30°	1118.1	1116.8	1118.1	1119.4	1117.1	1117.1	1116.2	1117.6
32.5°	1186.4	1184.5	1185.5	1185.5	1182.3	1179.7	1176.2	1178.8
35°	1261.4	1259.2	1261.0	1262.3	1258.7	1256.0	1250.7	1252.9
37.5°	1344.0	1344.9	1347.1	1352.8	1351.9	1347.5	1343.5	1345.3
40°	1436.4	1440.9	1450.8	1454.7	1453.8	1449.3	1444.0	1445.0
42.5°	1541.0	1546.7	1557.0	1563.7	1560.5	1554.2	1547.6	1550.2
45°	1654.8	1663.8	1677.0	1683.9	1679.8	1673.1	1663.8	1668.6
47.5°	1775.3	1793.1	1811.1	1820.0	1818.6	1809.2	1797.1	1798.5
50°	1919.6	1943.3	1966.0	1975.0	1968.1	1954.0	1936.9	1936.4
52.5°	2099.0	2124.5	2143.3	2141.0	2124.5	2102.2	2083.0	2082.1
55°	2323.1	2331.7	2328.9	2309.8	2280.7	2245.9	2221.4	2217.3
57.5°	2594.2	2565.6	2523.7	2465.6	2400.5	2334.3	2289.7	2273.3
60°	2925.5	2796.5	2646.4	2488.3	2344.1	2236.2	2167.8	2126.3
62.5°	3199.3	2825.4	2490.2	2215.6	1991.0	1857.4	1764.1	1706.6
65°	3105.5	2441.1	1955.3	1601.1	1356.0	1218.1	1119.4	1053.7
67.5°	2399.2	1631.1	1135.0	786.7	596.6	504.9	441.2	399.7
70°	1209.6	625.6	379.1	267.4	228.6	212.4	201.8	195.7
72.5°	355.0	237.2	196.9	174.1	160.3	150.5	144.2	141.2
75°	196.5	160.3	141.6	128.5	119.7	112.9	109.0	106.3
77.5°	135.3	116.5	107.2	98.6	91.5	86.6	83.5	80.8
80°	94.6	85.2	81.2	76.7	71.4	67.5	62.9	61.2
82.5°	62.9	59.0	58.0	54.4	51.4	46.9	38.8	36.1
85°	37.1	36.7	36.7	35.3	33.1	29.0	23.3	23.3
87.5°	12.9	13.4	13.8	14.7	14.4	12.0	9.8	9.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)