

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: P195571

Luminaire Tested: **NAV-AF-01-D-UNV-RW-7050-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195571
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7050-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6849 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

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

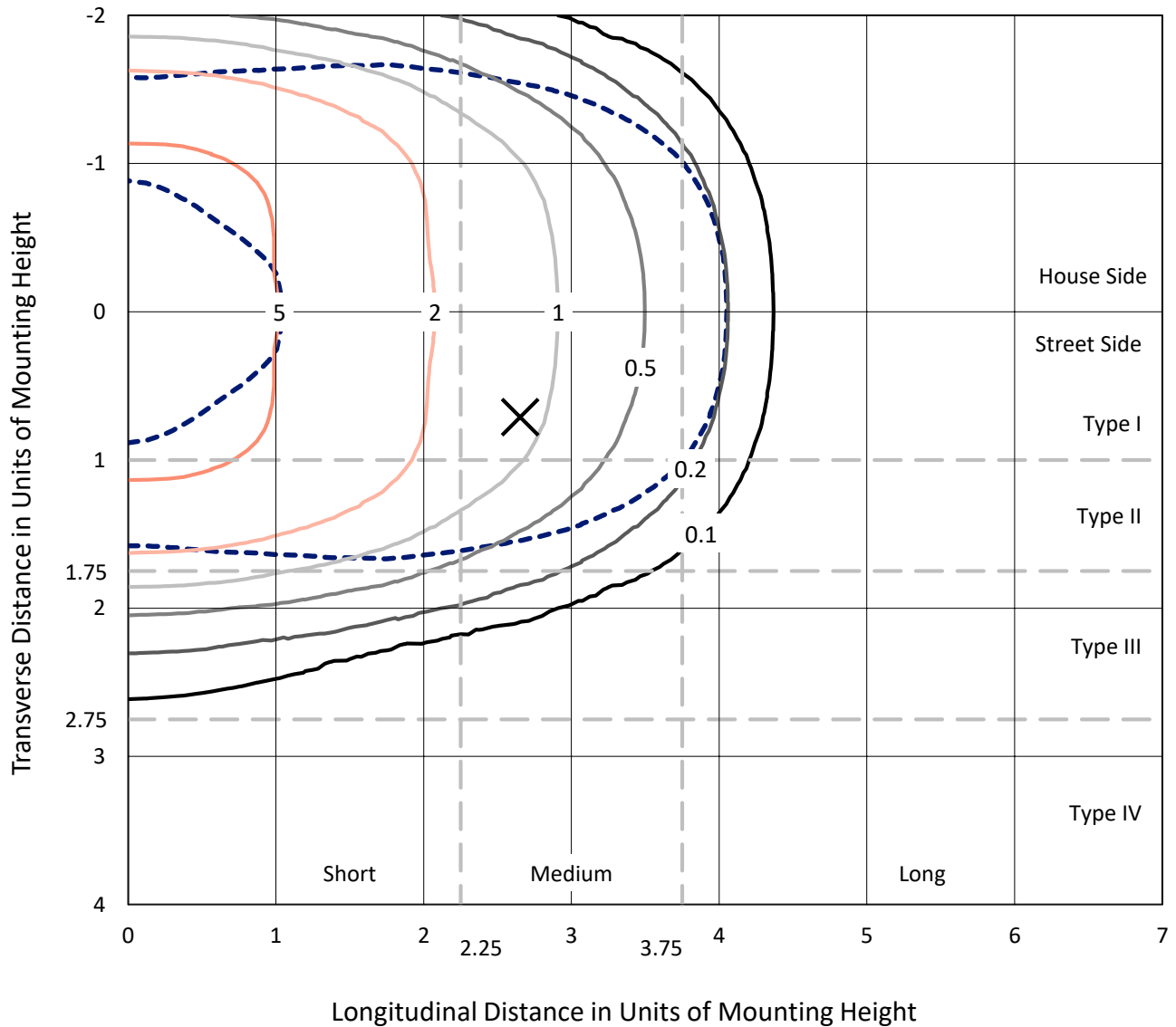


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Iso-Footcandle Lines of Horizontal Illumination

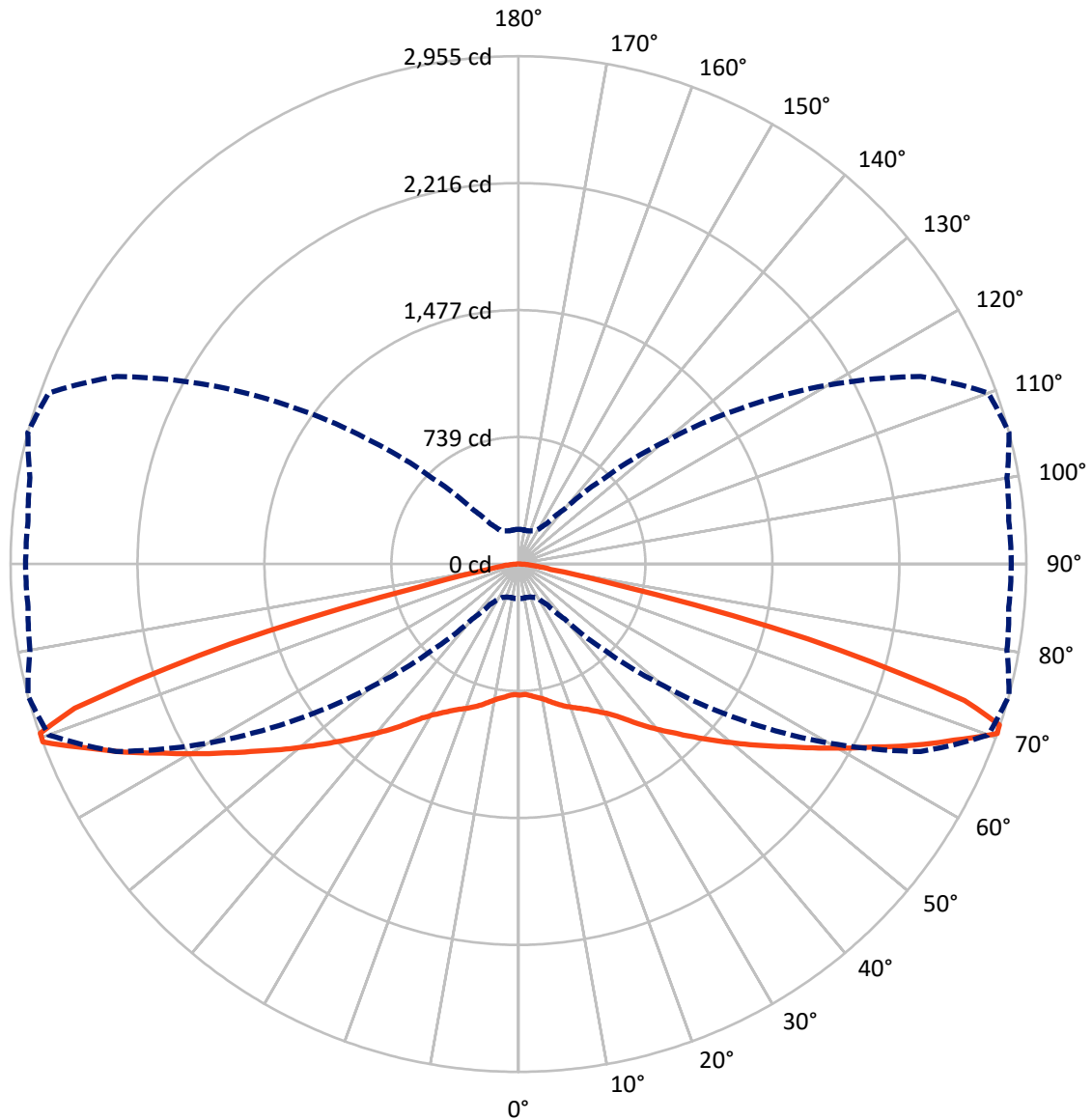
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.7 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3424.5	0.0	3424.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3424.5	0.0	3424.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	6849.0	0.0	6849.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	1.1
10°-20°	226.9	3.3
20°-30°	426.1	6.2
30°-40°	750.6	11.0
40°-50°	1244.0	18.2
50°-60°	1730.6	25.3
60°-70°	1633.8	23.9
70°-80°	697.8	10.2
80°-90°	65.9	1.0
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°	6849.0	100.0
0°-180°	6849.0	100.0



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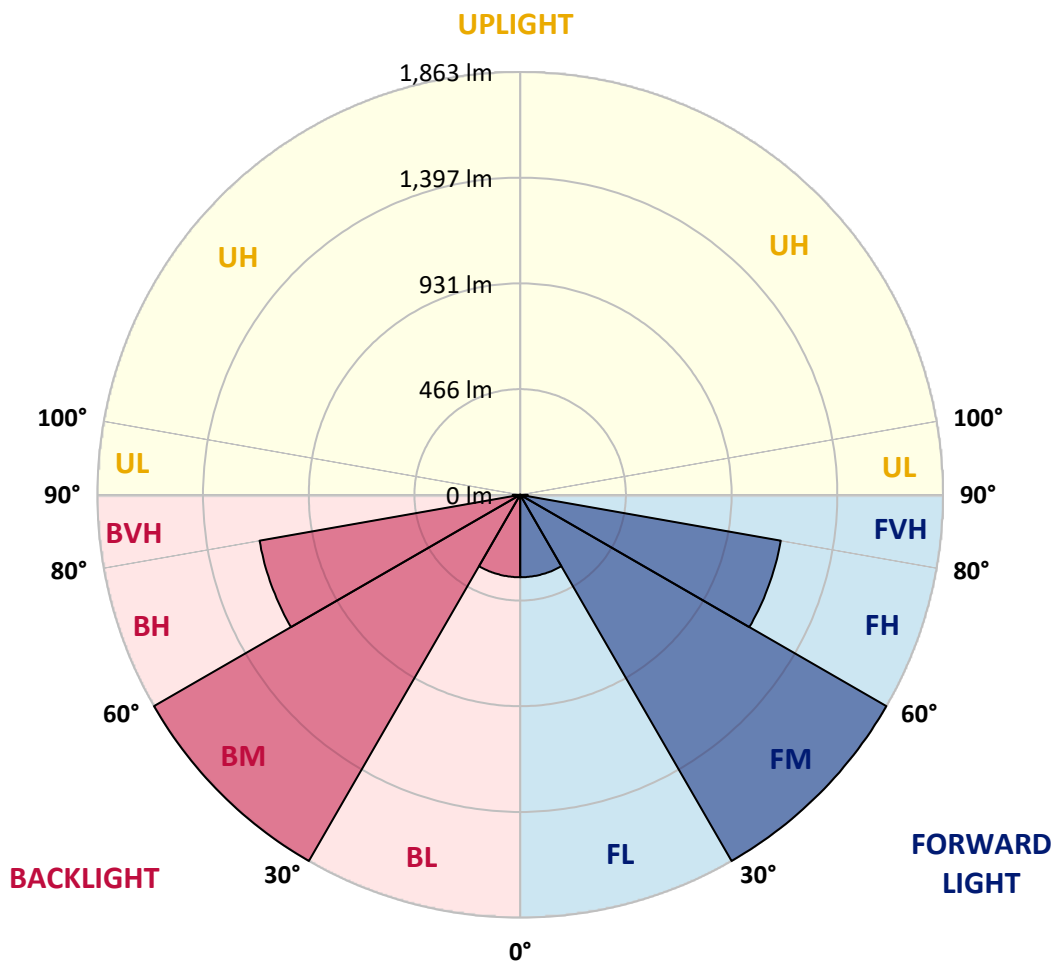
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	363.1	5.3			
FM	(30°-60°)	1862.7	27.2			
FH	(60°-80°)	1165.8	17.0			G1/1800
FVH	(80°-90°)	33.0	0.5			G1/100
BL	(0°-30°)	363.1	5.3	B1/500		
BM	(30°-60°)	1862.7	27.2	B2/2500		
BH	(60°-80°)	1165.8	17.0	B3/2500		G3/2500
BVH	(80°-90°)	33.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7
2.5°	767.4	767.0	767.4	766.1	766.6	766.1	766.1	764.4	764.4	763.6	762.3
5°	758.8	759.7	759.7	759.7	761.0	761.0	762.7	763.1	764.4	765.7	766.6
7.5°	744.7	745.1	746.4	747.3	749.8	753.3	756.7	760.6	764.0	768.3	773.0
10°	732.7	733.5	735.7	737.8	742.5	746.8	752.8	758.8	764.8	772.1	779.4
12.5°	726.2	727.5	730.9	734.4	741.7	747.3	755.4	764.8	773.0	779.9	788.0
15°	727.1	727.5	732.2	737.0	747.3	755.0	766.6	777.7	787.6	795.3	804.8
17.5°	739.5	740.4	745.1	752.0	761.8	771.7	784.2	795.8	809.1	818.1	829.2
20°	764.0	765.3	770.4	777.7	788.5	798.8	811.6	823.7	837.4	848.1	859.3
22.5°	795.8	797.9	803.5	812.5	823.2	835.7	849.0	861.4	874.3	885.0	894.5
25°	838.2	840.8	846.8	855.8	866.6	879.9	893.6	906.5	919.8	927.9	935.7
27.5°	895.3	899.6	906.1	913.4	922.8	937.0	949.8	960.6	973.4	982.5	987.6
30°	972.2	978.2	983.3	991.0	997.9	1012.9	1023.2	1031.8	1041.7	1046.8	1048.1
32.5°	1066.2	1071.7	1076.9	1082.5	1091.9	1105.6	1115.5	1120.2	1125.4	1124.5	1119.8
35°	1172.2	1176.5	1179.5	1189.3	1204.8	1213.8	1221.1	1222.8	1223.7	1214.7	1205.6
37.5°	1283.8	1288.9	1291.5	1306.9	1321.5	1331.8	1335.3	1339.1	1336.6	1321.5	1305.2
40°	1404.4	1409.9	1417.7	1431.0	1448.1	1458.0	1462.3	1461.9	1459.7	1442.1	1415.5
42.5°	1522.8	1529.7	1536.1	1559.3	1573.5	1590.2	1592.4	1591.9	1587.2	1567.0	1536.1
45°	1623.3	1631.4	1644.7	1670.5	1693.2	1713.4	1721.6	1724.6	1719.8	1698.4	1663.2
47.5°	1706.1	1711.7	1728.4	1759.8	1788.9	1818.6	1834.9	1846.5	1846.0	1830.6	1793.2
50°	1762.8	1769.2	1789.8	1825.0	1861.5	1896.2	1928.4	1954.6	1967.1	1955.9	1921.1
52.5°	1779.1	1787.2	1814.3	1856.3	1898.8	1945.6	1993.7	2040.0	2067.9	2074.8	2047.8
55°	1710.4	1719.4	1758.9	1817.3	1887.2	1956.3	2029.3	2095.4	2152.9	2179.5	2168.8
57.5°	1510.4	1516.8	1567.0	1642.6	1742.6	1864.1	1986.8	2107.8	2206.6	2275.7	2287.7
60°	1194.5	1202.6	1257.6	1337.4	1451.2	1604.8	1776.5	1974.8	2168.4	2326.7	2405.3
62.5°	806.1	811.6	864.4	937.4	1061.9	1209.9	1401.4	1652.5	1928.4	2211.3	2432.8
65°	423.2	423.2	458.8	509.9	609.0	741.7	937.8	1195.3	1523.7	1876.9	2247.3
67.5°	245.5	245.1	253.2	264.8	296.2	349.8	458.0	647.2	958.0	1369.2	1790.7
70°	202.6	201.3	200.0	200.0	204.7	212.9	233.5	285.4	417.6	706.0	1101.8
71°	193.6	192.7	189.3	188.0	190.1	194.4	203.4	227.5	296.6	481.6	822.8
72.5°	182.8	180.7	175.5	173.4	173.8	175.5	178.1	187.6	208.6	273.8	469.1
75°	166.5	161.4	154.9	151.9	150.7	150.2	150.2	152.8	157.5	165.2	192.3
77.5°	147.6	140.4	133.5	130.5	128.3	127.0	126.2	124.5	123.6	127.0	136.9
80°	124.9	117.2	111.6	109.9	108.6	106.0	102.6	99.1	97.0	98.7	104.7
82.5°	96.6	88.8	89.7	90.1	88.0	83.7	80.3	76.4	72.5	71.7	74.7
85°	76.8	73.0	70.4	76.0	71.2	66.1	61.4	54.9	45.9	37.8	41.2
87.5°	33.0	33.5	48.1	72.5	63.5	51.1	42.5	34.3	21.9	16.3	16.7
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°	762.7	762.7	762.7	762.7	762.7	762.7	762.7	762.7
2.5°	761.8	761.8	760.6	759.7	759.7	759.7	758.8	759.3
5°	767.0	767.9	768.7	768.3	769.6	770.9	770.4	770.0
7.5°	775.6	778.2	780.7	782.0	783.7	785.5	785.9	784.6
10°	784.2	789.3	793.2	796.6	798.8	800.5	801.8	801.3
12.5°	794.9	802.2	809.1	815.9	820.6	823.2	825.8	824.9
15°	812.5	820.6	829.2	838.2	845.5	849.4	853.3	852.4
17.5°	836.5	843.8	850.7	859.7	868.7	873.0	877.3	876.9
20°	866.6	872.2	876.0	881.2	889.7	894.5	898.3	897.0
22.5°	900.9	902.6	903.1	904.8	911.6	917.2	922.4	923.7
25°	938.2	937.0	934.4	933.1	937.8	943.8	950.3	952.0
27.5°	984.6	980.3	973.9	968.7	970.0	977.7	985.0	986.7
30°	1043.0	1033.1	1019.4	1009.5	1007.8	1015.9	1023.7	1026.2
32.5°	1109.5	1096.2	1077.3	1062.3	1055.9	1063.1	1070.0	1073.9
35°	1188.5	1173.9	1151.1	1131.8	1121.5	1126.2	1138.3	1142.6
37.5°	1282.0	1261.9	1236.5	1212.1	1194.9	1195.8	1208.7	1213.8
40°	1385.5	1356.3	1324.1	1293.6	1268.7	1267.0	1278.6	1282.5
42.5°	1493.2	1455.9	1418.1	1378.2	1347.3	1341.7	1356.7	1357.2
45°	1609.1	1561.0	1514.2	1467.9	1435.7	1425.8	1440.4	1442.1
47.5°	1732.7	1672.6	1617.3	1567.0	1532.3	1516.8	1531.0	1533.6
50°	1861.5	1799.2	1734.9	1679.1	1638.3	1619.4	1636.1	1637.9
52.5°	1989.0	1930.1	1866.2	1802.2	1752.9	1731.4	1751.2	1757.2
55°	2117.3	2060.6	2000.5	1936.6	1874.4	1855.5	1876.9	1883.4
57.5°	2250.8	2196.3	2141.7	2077.4	2016.8	1988.1	2011.3	2020.3
60°	2398.0	2349.9	2298.4	2233.6	2173.9	2140.5	2160.2	2170.5
62.5°	2542.6	2532.8	2486.0	2418.6	2343.0	2309.6	2326.3	2333.6
65°	2554.6	2714.7	2712.6	2645.6	2540.1	2483.8	2488.5	2492.0
67.5°	2229.7	2597.1	2831.9	2852.9	2735.3	2647.4	2637.1	2639.2
70°	1578.6	2082.9	2581.3	2908.3	2954.7	2886.4	2864.1	2867.5
71°	1264.9	1787.2	2335.8	2775.7	2951.2	2931.5	2919.0	2928.1
72.5°	807.3	1316.8	1850.7	2377.0	2713.9	2810.5	2824.6	2830.2
75°	293.1	566.6	958.9	1373.9	1741.3	1994.1	2133.2	2144.3
77.5°	157.5	203.0	313.8	468.7	588.9	653.3	661.0	664.0
80°	115.9	134.3	153.7	175.5	189.3	191.9	187.1	177.3
82.5°	82.0	92.7	100.4	108.2	113.7	109.0	90.6	69.1
85°	47.6	52.4	56.7	60.5	61.4	57.9	38.2	31.3
87.5°	18.9	20.6	20.2	22.7	21.9	20.2	15.0	12.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)