

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: P270411

Luminaire Tested: **NAV-AF-03-D-UNV-5WQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270411
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-03-D-UNV-5WQ-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13228.4 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

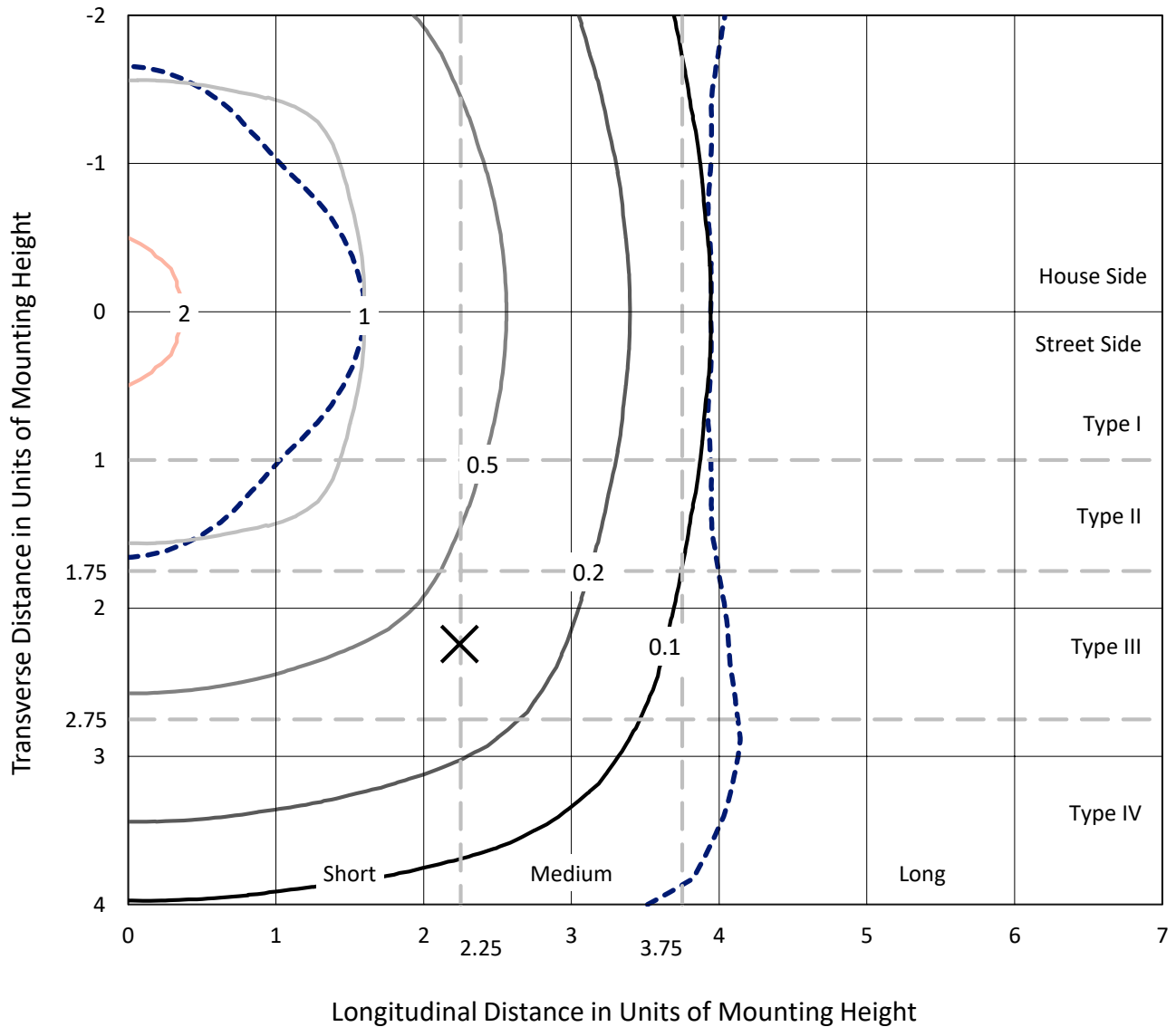
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

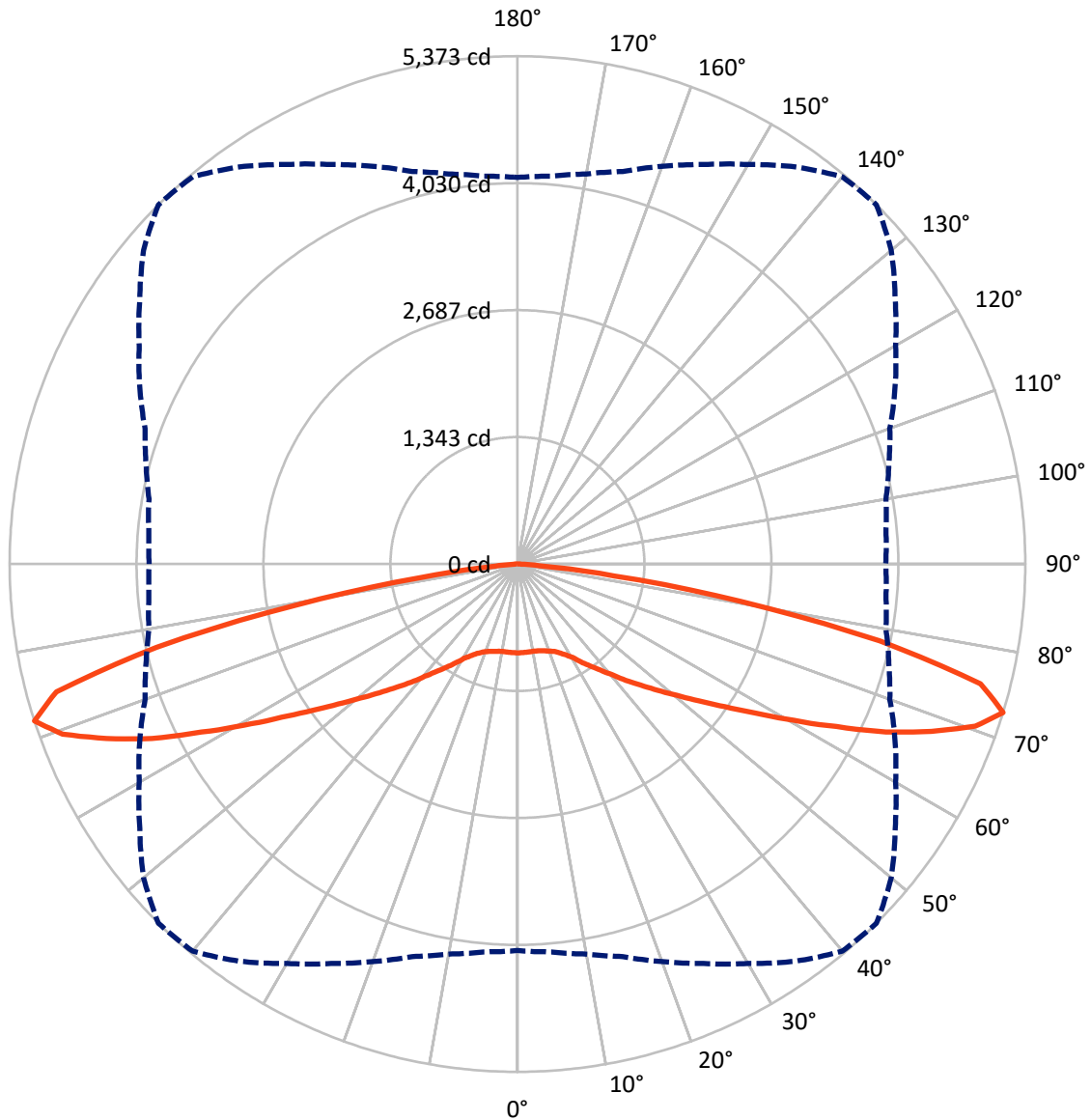
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.4 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	6614.2	0.0	6614.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6614.2	0.0	6614.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	13228.4	0.0	13228.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.8	0.7
10°-20°	271.7	2.1
20°-30°	490.4	3.7
30°-40°	836.5	6.3
40°-50°	1424.2	10.8
50°-60°	2292.1	17.3
60°-70°	3811.8	28.8
70°-80°	3687.4	27.9
80°-90°	324.5	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°	13228.4	100.0
0°-180°	13228.4	100.0

Coefficient of Utilization



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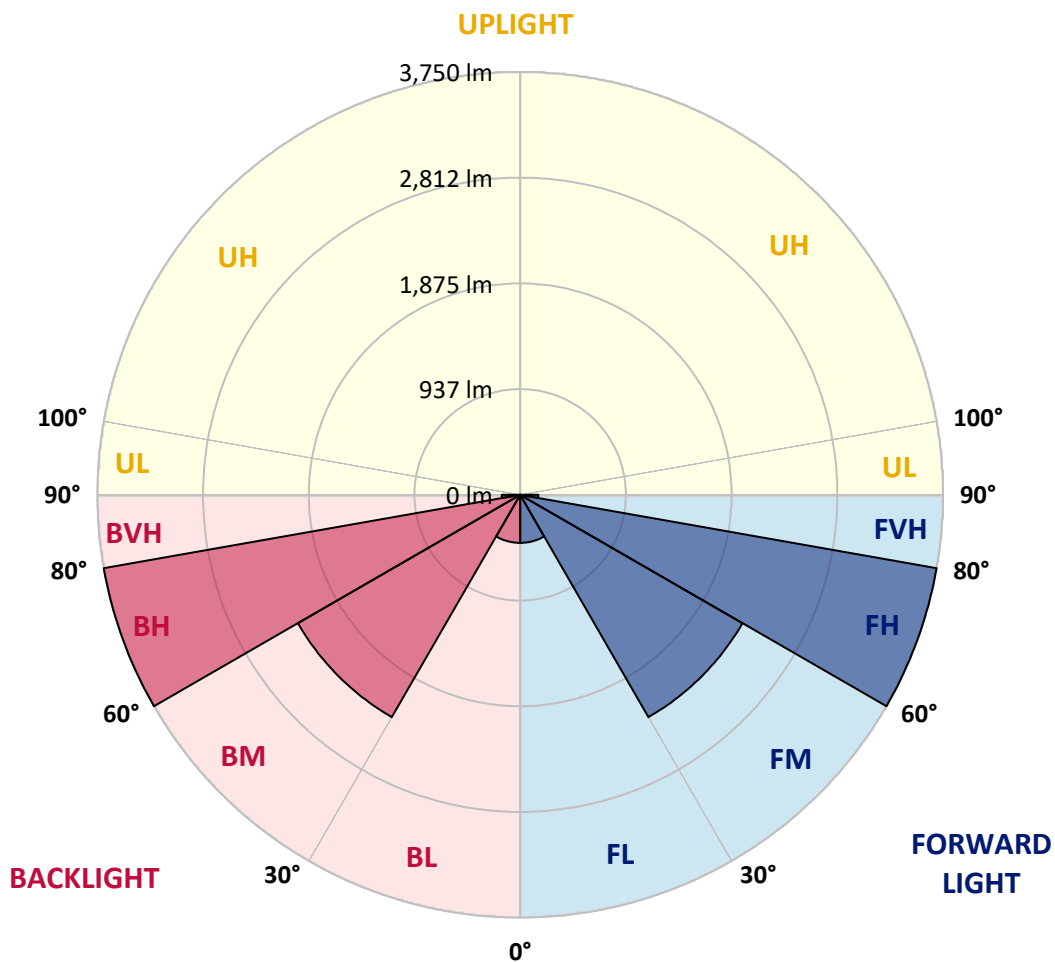
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	425.9	3.2			
FM	(30°-60°)	2276.4	17.2			
FH	(60°-80°)	3749.6	28.3			G2/5000
FVH	(80°-90°)	162.3	1.2			G2/225
BL	(0°-30°)	425.9	3.2	B1/500		
BM	(30°-60°)	2276.4	17.2	B2/2500		
BH	(60°-80°)	3749.6	28.3	B4/5000		G2/5000
BVH	(80°-90°)	162.3	1.2			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4
2.5°	947.8	947.8	948.6	947.8	946.2	945.3	943.0	941.2	939.6	938.8	937.2
5°	948.6	948.6	949.4	948.6	947.0	945.3	943.7	941.2	939.6	938.0	937.2
7.5°	951.8	952.7	953.6	952.7	949.4	947.8	945.3	943.0	939.6	938.0	936.4
10°	958.3	958.3	958.3	957.6	955.1	951.8	948.6	946.2	942.1	938.0	935.6
12.5°	963.3	964.1	964.1	962.4	959.2	955.1	951.8	949.4	946.2	943.0	940.4
15°	970.6	970.6	969.8	966.4	961.6	958.3	956.8	955.8	955.1	953.6	951.0
17.5°	985.3	984.5	981.9	977.0	971.3	968.9	967.4	967.4	967.4	966.4	964.9
20°	1006.5	1006.5	1003.1	995.1	990.1	987.6	985.3	985.3	985.3	982.7	980.3
22.5°	1040.5	1041.5	1036.6	1026.8	1020.3	1015.4	1012.1	1009.7	1007.2	1005.7	1001.5
25°	1086.9	1086.2	1080.5	1068.3	1063.5	1058.6	1051.9	1048.0	1044.6	1042.3	1037.4
27.5°	1135.8	1135.1	1128.5	1117.9	1114.6	1107.4	1102.5	1096.8	1092.7	1088.7	1083.7
30°	1198.6	1194.4	1189.5	1181.5	1179.8	1174.2	1167.5	1159.4	1153.0	1146.4	1140.8
32.5°	1254.8	1254.8	1247.3	1243.3	1246.6	1244.2	1245.1	1240.1	1236.0	1233.6	1227.9
35°	1332.9	1332.9	1329.6	1324.8	1325.5	1319.9	1319.0	1319.9	1323.2	1323.2	1316.6
37.5°	1437.1	1438.7	1428.1	1426.6	1422.5	1414.3	1410.2	1411.9	1419.2	1423.3	1414.3
40°	1566.6	1569.9	1566.6	1556.0	1551.2	1537.3	1529.2	1529.2	1534.8	1538.8	1535.7
42.5°	1694.5	1700.1	1694.5	1686.3	1682.2	1671.7	1667.6	1670.8	1678.2	1683.1	1678.2
45°	1836.9	1840.9	1833.7	1823.9	1819.0	1813.3	1810.9	1813.3	1821.5	1826.3	1824.6
47.5°	1977.0	1982.6	1973.7	1969.7	1969.7	1964.0	1970.4	1977.0	1984.3	1995.7	1990.9
50°	2113.7	2121.1	2115.4	2116.1	2122.8	2133.3	2145.5	2158.5	2171.6	2183.8	2185.3
52.5°	2235.9	2247.3	2248.1	2262.8	2283.1	2299.4	2333.5	2362.2	2393.1	2403.7	2398.7
55°	2364.5	2380.0	2400.5	2423.2	2455.7	2489.2	2547.0	2598.2	2639.0	2664.2	2660.2
57.5°	2548.5	2564.0	2585.2	2622.6	2671.5	2717.2	2796.1	2875.8	2937.7	2976.1	2957.3
60°	2787.1	2803.4	2831.1	2871.1	2934.6	2996.3	3104.7	3219.4	3315.6	3359.5	3325.3
62.5°	3103.0	3118.6	3136.4	3189.3	3260.2	3340.0	3475.9	3623.4	3745.5	3787.9	3739.7
65°	3553.3	3572.0	3577.7	3620.9	3690.1	3764.2	3910.9	4076.9	4216.1	4285.4	4189.2
67.5°	4060.6	4068.0	4090.7	4141.1	4212.1	4278.7	4394.4	4551.5	4685.1	4723.4	4620.8
70°	4357.8	4372.4	4412.4	4482.4	4567.1	4672.1	4798.2	4967.6	5119.1	5137.0	5006.8
72.5°	4089.1	4119.2	4190.1	4299.2	4476.7	4663.1	4880.5	5130.5	5347.9	5373.1	5163.8
75°	3279.7	3313.9	3398.6	3518.3	3728.3	4005.3	4319.5	4694.9	5020.5	5062.0	4785.2
77.5°	1748.1	1790.5	1913.5	2074.6	2374.3	2740.6	3119.4	3547.6	3824.4	3918.0	3718.7
80°	440.4	463.3	522.8	617.1	820.0	1115.4	1442.0	1902.9	2246.5	2392.2	2246.5
82.5°	170.9	188.0	204.4	215.8	235.4	276.0	381.2	621.3	837.0	1030.8	892.3
85°	65.9	70.0	101.0	114.9	114.9	126.2	144.9	170.9	211.7	231.3	193.8
87.5°	26.1	28.4	35.0	53.8	55.3	48.9	52.1	58.6	44.7	37.5	42.3
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°	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4
2.5°	936.4	935.6	933.9	934.7	933.9	933.9	933.9	933.9
5°	935.6	935.6	933.9	933.9	933.9	934.7	933.9	933.9
7.5°	934.7	933.9	932.4	931.5	931.5	930.6	930.6	930.6
10°	933.1	931.5	929.8	929.0	929.0	927.4	927.4	927.4
12.5°	937.2	934.7	933.1	932.4	932.4	932.4	933.1	933.1
15°	948.6	943.7	941.2	940.4	941.2	943.0	943.7	944.5
17.5°	960.7	955.8	951.8	950.1	951.0	953.6	955.8	957.6
20°	976.3	972.1	967.4	965.7	965.7	968.9	970.6	973.0
22.5°	998.2	995.1	990.9	988.5	986.9	990.9	993.3	995.1
25°	1033.3	1029.9	1026.8	1024.2	1023.4	1027.7	1029.2	1029.9
27.5°	1079.7	1076.3	1074.8	1074.0	1071.5	1073.1	1075.6	1074.8
30°	1139.9	1142.4	1139.9	1139.9	1135.8	1137.4	1135.8	1134.2
32.5°	1220.5	1218.1	1210.7	1205.9	1200.1	1200.1	1197.7	1195.3
35°	1301.1	1293.0	1289.0	1291.4	1289.0	1290.5	1286.6	1282.4
37.5°	1396.4	1391.6	1390.8	1398.0	1396.4	1398.0	1398.0	1392.4
40°	1522.5	1519.4	1525.1	1537.3	1542.2	1541.3	1543.0	1535.7
42.5°	1667.6	1661.9	1664.3	1674.9	1680.5	1682.2	1681.4	1674.9
45°	1812.5	1814.0	1814.0	1825.5	1831.3	1834.5	1828.8	1826.3
47.5°	1976.1	1978.5	1972.9	1980.3	1981.8	1987.5	1982.6	1978.5
50°	2165.1	2156.1	2143.0	2145.5	2145.5	2143.8	2138.1	2133.3
52.5°	2375.9	2355.5	2331.1	2322.9	2314.0	2305.1	2293.7	2284.7
55°	2616.1	2581.1	2537.2	2516.8	2499.8	2479.3	2453.4	2444.4
57.5°	2894.6	2834.3	2775.8	2739.1	2695.2	2668.2	2634.9	2633.2
60°	3225.2	3143.8	3040.4	2985.7	2941.8	2910.1	2884.8	2875.0
62.5°	3607.1	3467.0	3355.4	3296.8	3245.5	3226.1	3194.3	3198.3
65°	3998.7	3856.2	3747.9	3700.7	3652.7	3639.7	3610.3	3620.9
67.5°	4423.0	4305.7	4186.8	4142.9	4098.8	4085.9	4055.7	4064.7
70°	4803.1	4654.2	4519.1	4432.6	4357.8	4297.5	4259.3	4243.9
72.5°	4878.9	4620.8	4408.3	4192.5	4068.0	3958.8	3914.1	3896.9
75°	4383.9	3983.3	3680.4	3427.2	3287.1	3128.3	3111.2	3087.6
77.5°	3410.1	2954.0	2587.7	2261.9	2073.8	1880.1	1813.3	1762.8
80°	2033.9	1563.3	1211.5	849.3	693.0	557.8	524.4	489.3
82.5°	727.9	466.6	314.2	245.1	219.0	201.8	189.0	171.8
85°	175.9	148.2	140.0	127.0	125.5	106.7	75.7	67.6
87.5°	56.1	51.4	52.1	49.6	52.1	39.0	31.8	28.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)