

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: P195483

Luminaire Tested: **NAV-AF-03-D-UNV-5WQ-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195483
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-7050-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 5000K, 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: 12417 lumens
Efficiency: N/A
Efficacy: 129.3 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

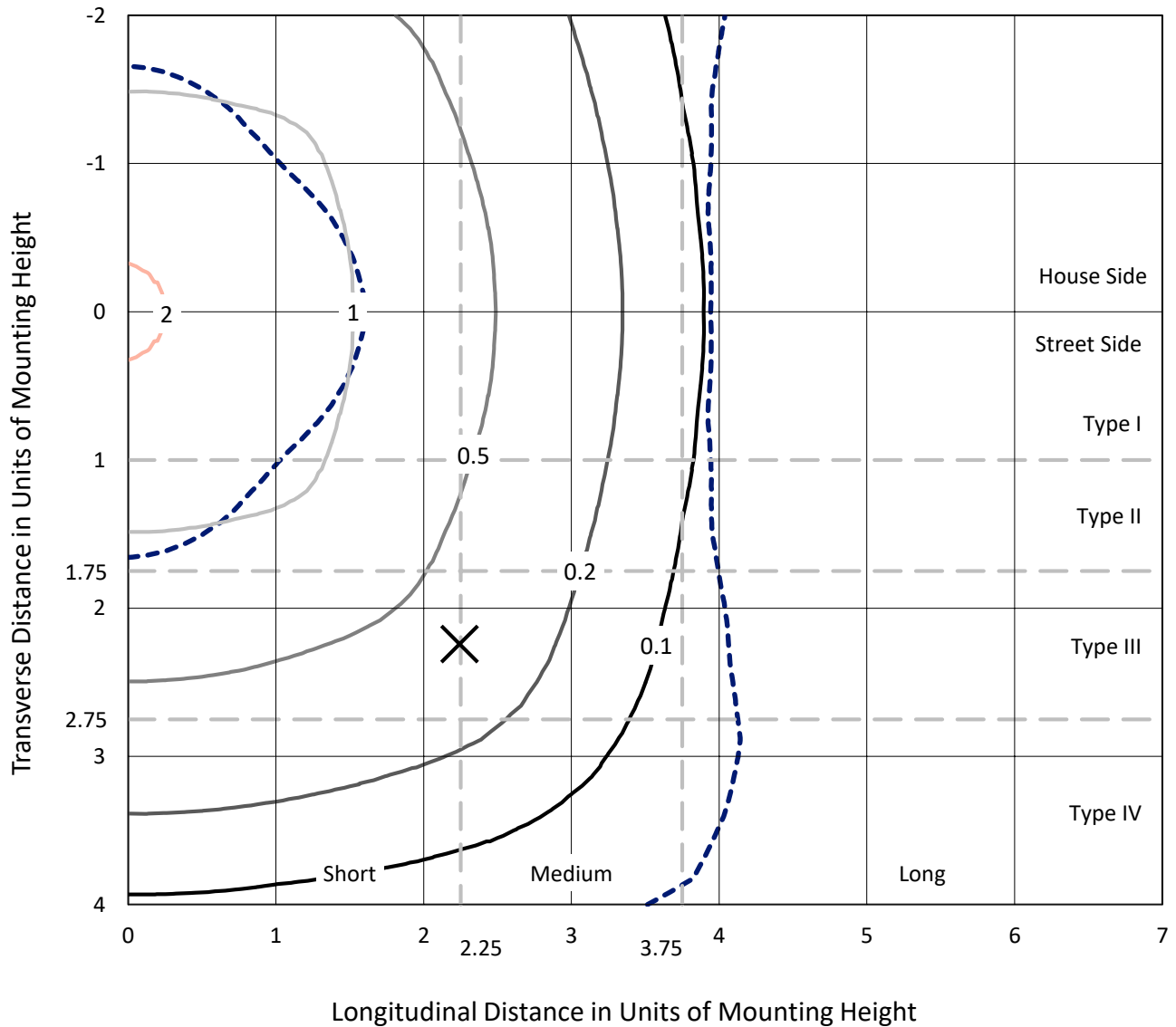
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

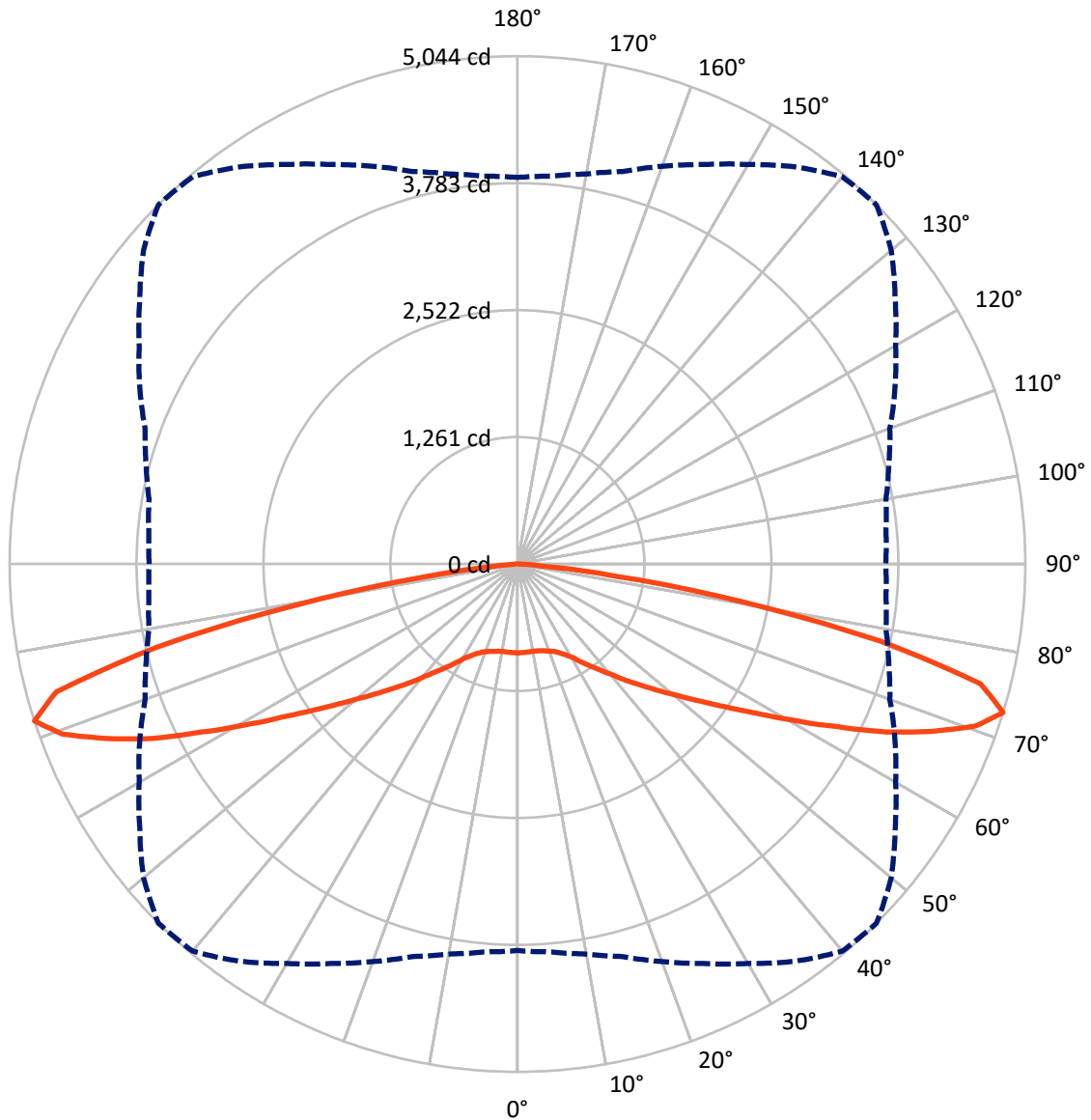
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.2 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
House Side	Lumens	6208.5	0.0	6208.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6208.5	0.0	6208.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	12417.0	0.0	12417.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	0.7
10°-20°	255.0	2.1
20°-30°	460.3	3.7
30°-40°	785.2	6.3
40°-50°	1336.9	10.8
50°-60°	2151.5	17.3
60°-70°	3577.9	28.8
70°-80°	3461.2	27.9
80°-90°	304.6	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°	12417.0	100.0
0°-180°	12417.0	100.0



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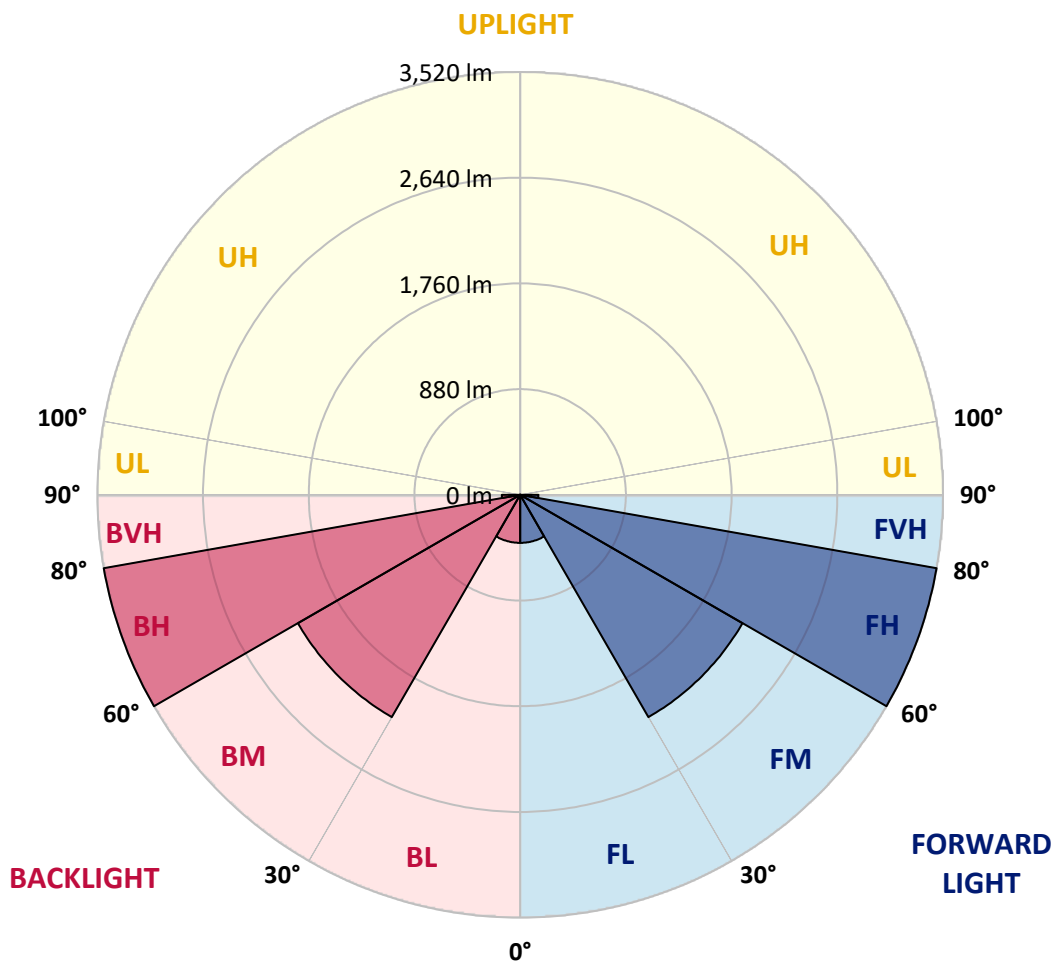
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	399.8	3.2			
FM	(30°-60°)	2136.8	17.2			
FH	(60°-80°)	3519.6	28.3			G2/5000
FVH	(80°-90°)	152.3	1.2			G2/225
BL	(0°-30°)	399.8	3.2	B1/500		
BM	(30°-60°)	2136.8	17.2	B2/2500		
BH	(60°-80°)	3519.6	28.3	B4/5000		G2/5000
BVH	(80°-90°)	152.3	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°	882.8	882.8	882.8	882.8	882.8	882.8	882.8	882.8	882.8	882.8	882.8
2.5°	889.6	889.6	890.4	889.6	888.1	887.3	885.0	883.5	882.0	881.2	879.7
5°	890.4	890.4	891.2	890.4	888.9	887.3	885.8	883.5	882.0	880.5	879.7
7.5°	893.5	894.2	895.0	894.2	891.2	889.6	887.3	885.0	882.0	880.5	878.9
10°	899.6	899.6	899.6	898.8	896.5	893.5	890.4	888.1	884.3	880.5	878.2
12.5°	904.2	904.9	904.9	903.4	900.3	896.5	893.5	891.2	888.1	885.0	882.8
15°	911.0	911.0	910.3	907.2	902.6	899.6	898.0	897.3	896.5	895.0	892.7
17.5°	924.8	924.0	921.7	917.1	911.8	909.5	908.0	908.0	908.0	907.2	905.7
20°	944.7	944.7	941.6	934.0	929.4	927.1	924.8	924.8	924.8	922.5	920.2
22.5°	976.8	977.5	972.9	963.8	957.7	953.1	950.0	947.7	945.4	943.9	940.1
25°	1020.3	1019.6	1014.2	1002.7	998.2	993.6	987.5	983.6	980.6	978.3	973.7
27.5°	1066.2	1065.4	1059.3	1049.4	1046.3	1039.4	1034.8	1029.5	1025.7	1021.9	1017.3
30°	1125.0	1121.2	1116.6	1109.0	1107.5	1102.1	1096.0	1088.3	1082.2	1076.1	1070.8
32.5°	1177.8	1177.8	1170.9	1167.1	1170.1	1167.8	1168.6	1164.0	1160.2	1157.9	1152.6
35°	1251.1	1251.1	1248.1	1243.5	1244.3	1238.9	1238.2	1238.9	1242.0	1242.0	1235.9
37.5°	1349.0	1350.5	1340.6	1339.0	1335.2	1327.6	1323.8	1325.3	1332.2	1336.0	1327.6
40°	1470.5	1473.6	1470.5	1460.6	1456.0	1443.0	1435.3	1435.3	1440.7	1444.5	1441.5
42.5°	1590.5	1595.8	1590.5	1582.8	1579.0	1569.1	1565.3	1568.3	1575.2	1579.8	1575.2
45°	1724.2	1728.1	1721.2	1712.0	1707.4	1702.1	1699.8	1702.1	1709.7	1714.3	1712.8
47.5°	1855.7	1861.0	1852.6	1848.8	1848.8	1843.5	1849.6	1855.7	1862.6	1873.3	1868.7
50°	1984.1	1991.0	1985.6	1986.4	1992.5	2002.4	2013.9	2026.1	2038.4	2049.8	2051.4
52.5°	2098.7	2109.4	2110.2	2124.0	2143.1	2158.4	2190.5	2217.2	2246.2	2256.2	2251.6
55°	2219.5	2234.0	2253.1	2274.5	2305.1	2336.4	2390.7	2438.9	2477.1	2500.8	2496.9
57.5°	2392.2	2406.8	2426.6	2461.8	2507.6	2550.4	2624.6	2699.5	2757.6	2793.5	2775.9
60°	2616.2	2631.5	2657.4	2694.9	2754.5	2812.6	2914.2	3022.0	3112.2	3153.5	3121.4
62.5°	2912.7	2927.2	2944.0	2993.7	3060.2	3135.1	3262.8	3401.1	3515.7	3555.5	3510.4
65°	3335.4	3352.9	3358.3	3398.8	3463.8	3533.3	3670.9	3826.8	3957.5	4022.5	3932.3
67.5°	3811.5	3818.4	3839.8	3887.2	3953.7	4016.3	4124.9	4272.4	4397.7	4433.6	4337.3
70°	4090.5	4104.2	4141.7	4207.4	4286.9	4385.5	4504.0	4662.9	4805.1	4821.9	4699.6
72.5°	3838.3	3866.5	3933.0	4035.5	4202.1	4377.1	4581.2	4815.8	5019.9	5043.6	4847.1
75°	3078.6	3110.7	3190.1	3302.5	3499.7	3759.5	4054.6	4406.9	4712.6	4751.6	4491.7
77.5°	1640.9	1680.7	1796.1	1947.4	2228.7	2572.6	2928.0	3330.0	3589.9	3677.8	3490.5
80°	413.5	434.9	490.7	579.3	769.6	1047.1	1353.6	1786.1	2108.7	2245.5	2108.7
82.5°	160.5	176.6	191.8	202.5	220.9	259.1	357.7	583.2	785.7	967.6	837.7
85°	61.9	65.7	94.8	107.8	107.8	118.5	136.0	160.5	198.7	217.1	181.9
87.5°	24.5	26.8	32.9	50.4	52.0	45.9	48.9	55.0	42.0	35.2	39.7
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°	882.8	882.8	882.8	882.8	882.8	882.8	882.8	882.8
2.5°	878.9	878.2	876.6	877.4	876.6	876.6	876.6	876.6
5°	878.2	878.2	876.6	876.6	876.6	877.4	876.6	876.6
7.5°	877.4	876.6	875.1	874.3	874.3	873.6	873.6	873.6
10°	875.9	874.3	872.8	872.1	872.1	870.5	870.5	870.5
12.5°	879.7	877.4	875.9	875.1	875.1	875.1	875.9	875.9
15°	890.4	885.8	883.5	882.8	883.5	885.0	885.8	886.6
17.5°	901.9	897.3	893.5	891.9	892.7	895.0	897.3	898.8
20°	916.4	912.6	908.0	906.4	906.4	909.5	911.0	913.3
22.5°	937.0	934.0	930.1	927.8	926.3	930.1	932.4	934.0
25°	969.9	966.8	963.8	961.5	960.7	964.5	966.1	966.8
27.5°	1013.4	1010.4	1008.9	1008.1	1005.8	1007.3	1009.6	1008.9
30°	1070.0	1072.3	1070.0	1070.0	1066.2	1067.7	1066.2	1064.7
32.5°	1145.7	1143.4	1136.5	1131.9	1126.6	1126.6	1124.3	1122.0
35°	1221.3	1213.7	1209.9	1212.2	1209.9	1211.4	1207.6	1203.8
37.5°	1310.8	1306.2	1305.4	1312.3	1310.8	1312.3	1312.3	1306.9
40°	1429.2	1426.2	1431.5	1443.0	1447.6	1446.8	1448.3	1441.5
42.5°	1565.3	1559.9	1562.2	1572.1	1577.5	1579.0	1578.3	1572.1
45°	1701.3	1702.8	1702.8	1713.5	1718.9	1721.9	1716.6	1714.3
47.5°	1854.9	1857.2	1851.9	1858.8	1860.3	1865.6	1861.0	1857.2
50°	2032.2	2023.8	2011.6	2013.9	2013.9	2012.4	2007.0	2002.4
52.5°	2230.2	2211.1	2188.2	2180.5	2172.1	2163.7	2153.0	2144.6
55°	2455.7	2422.8	2381.5	2362.4	2346.4	2327.3	2302.8	2294.4
57.5°	2717.1	2660.5	2605.5	2571.1	2529.8	2504.6	2473.2	2471.7
60°	3027.4	2950.9	2853.9	2802.7	2761.4	2731.6	2707.9	2698.7
62.5°	3385.8	3254.3	3149.6	3094.6	3046.5	3028.1	2998.3	3002.1
65°	3753.4	3619.7	3518.0	3473.7	3428.6	3416.4	3388.9	3398.8
67.5°	4151.6	4041.6	3930.0	3888.7	3847.4	3835.2	3806.9	3815.3
70°	4508.5	4368.7	4241.8	4160.8	4090.5	4033.9	3998.0	3983.5
72.5°	4579.6	4337.3	4137.9	3935.3	3818.4	3716.0	3673.9	3657.9
75°	4114.9	3738.9	3454.6	3216.9	3085.4	2936.4	2920.4	2898.2
77.5°	3200.8	2772.8	2428.9	2123.2	1946.6	1764.7	1702.1	1654.7
80°	1909.2	1467.4	1137.3	797.2	650.4	523.5	492.2	459.3
82.5°	683.3	437.9	295.0	230.1	205.6	189.5	177.3	161.3
85°	165.1	139.1	131.5	119.2	117.7	100.1	71.1	63.4
87.5°	52.7	48.2	48.9	46.6	48.9	36.7	29.8	26.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)