

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: P196929

Luminaire Tested: **NAV-AF-03-D-UNV-5WQ-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196929
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-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 80 CRI, 3000K, 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: 12424 lumens
Efficiency: N/A
Efficacy: 100.2 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

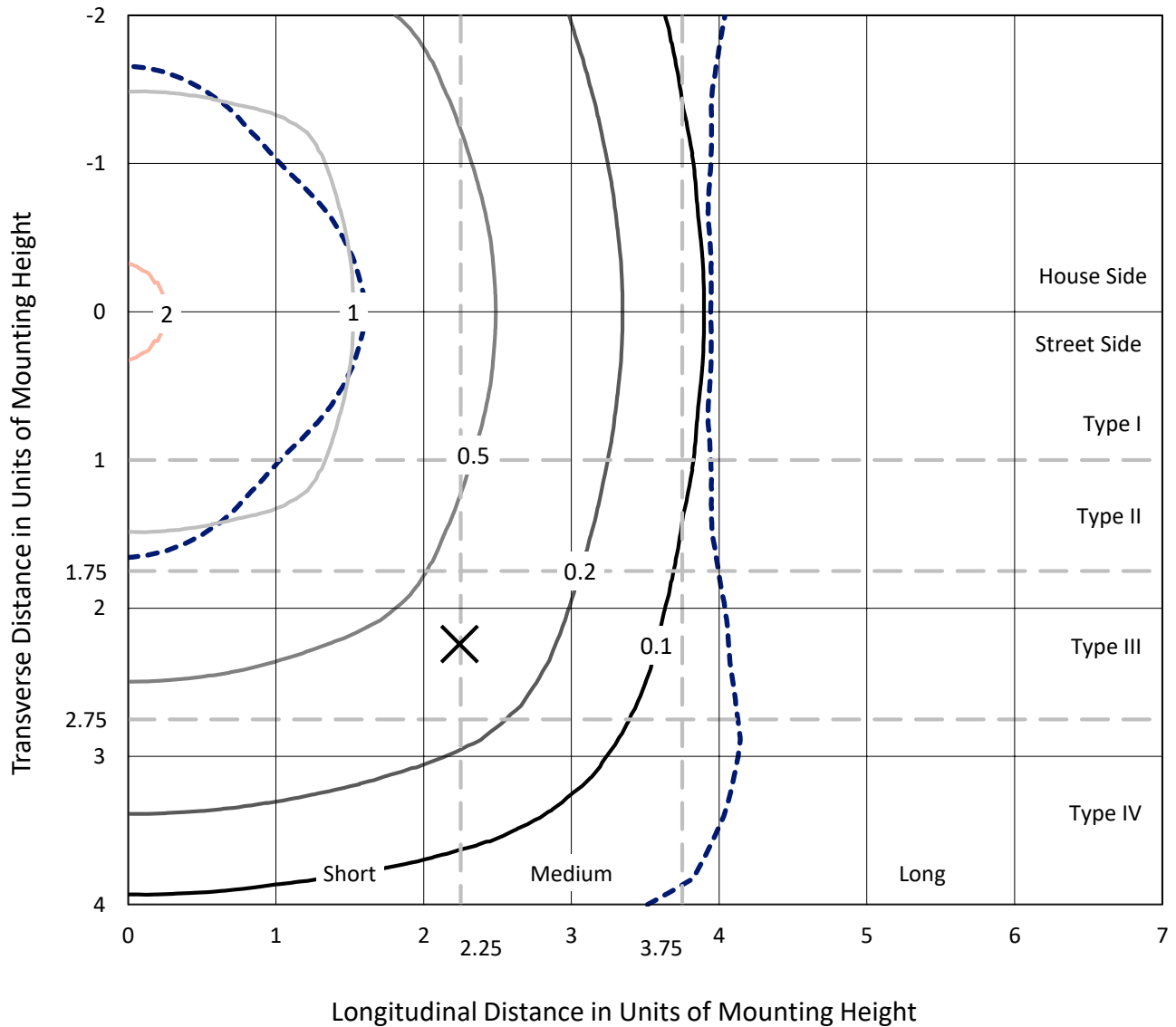
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

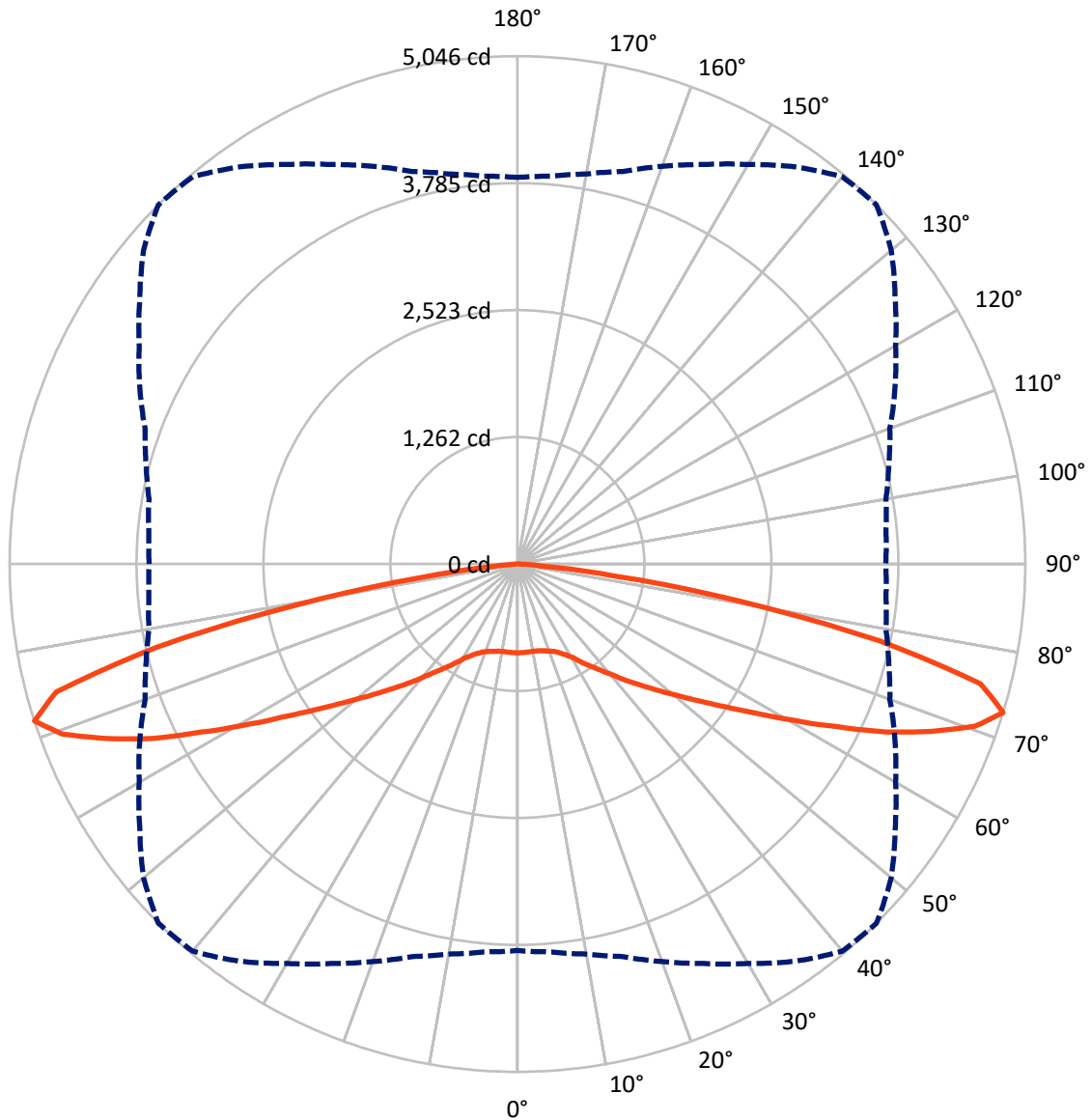
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.2 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	6212.0	0.0	6212.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6212.0	0.0	6212.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	12424.0	0.0	12424.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	0.7
10°-20°	255.1	2.1
20°-30°	460.6	3.7
30°-40°	785.7	6.3
40°-50°	1337.6	10.8
50°-60°	2152.7	17.3
60°-70°	3580.0	28.8
70°-80°	3463.2	27.9
80°-90°	304.8	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°	12424.0	100.0
0°-180°	12424.0	100.0



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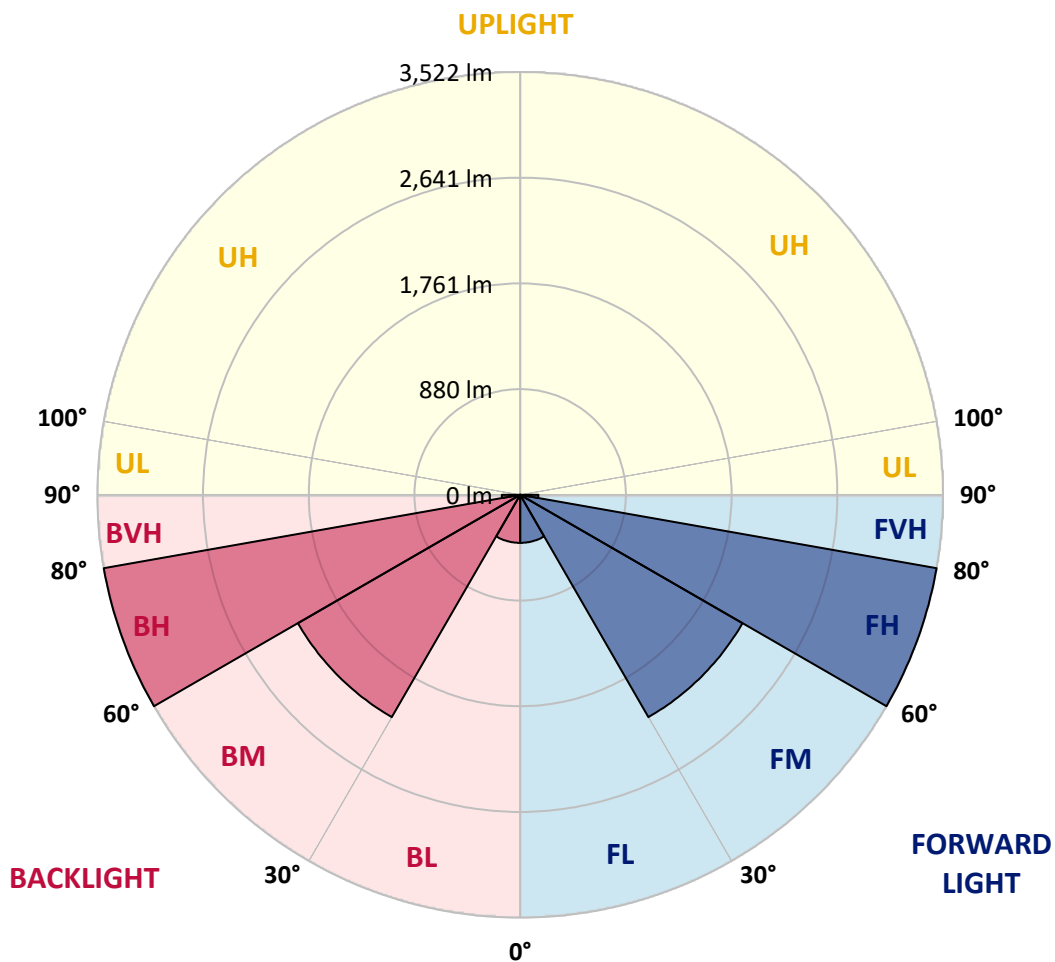
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	400.0	3.2			
FM (30°-60°)	2138.0	17.2			
FH (60°-80°)	3521.6	28.3			G2/5000
FVH (80°-90°)	152.4	1.2			G2/225
BL (0°-30°)	400.0	3.2	B1/500		
BM (30°-60°)	2138.0	17.2	B2/2500		
BH (60°-80°)	3521.6	28.3	B4/5000		G2/5000
BVH (80°-90°)	152.4	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°	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3
2.5°	890.1	890.1	890.9	890.1	888.6	887.8	885.5	884.0	882.5	881.7	880.2
5°	890.9	890.9	891.7	890.9	889.4	887.8	886.3	884.0	882.5	881.0	880.2
7.5°	894.0	894.7	895.5	894.7	891.7	890.1	887.8	885.5	882.5	881.0	879.4
10°	900.1	900.1	900.1	899.3	897.0	894.0	890.9	888.6	884.8	881.0	878.7
12.5°	904.7	905.4	905.4	903.9	900.8	897.0	894.0	891.7	888.6	885.5	883.3
15°	911.5	911.5	910.8	907.7	903.1	900.1	898.5	897.8	897.0	895.5	893.2
17.5°	925.3	924.5	922.3	917.7	912.3	910.0	908.5	908.5	908.5	907.7	906.2
20°	945.2	945.2	942.1	934.5	929.9	927.6	925.3	925.3	925.3	923.0	920.7
22.5°	977.3	978.1	973.5	964.3	958.2	953.6	950.5	948.3	946.0	944.4	940.6
25°	1020.9	1020.1	1014.8	1003.3	998.7	994.1	988.0	984.2	981.1	978.8	974.3
27.5°	1066.8	1066.0	1059.9	1050.0	1046.9	1040.0	1035.4	1030.1	1026.3	1022.4	1017.8
30°	1125.7	1121.8	1117.3	1109.6	1108.1	1102.7	1096.6	1089.0	1082.8	1076.7	1071.4
32.5°	1178.4	1178.4	1171.6	1167.7	1170.8	1168.5	1169.3	1164.7	1160.8	1158.6	1153.2
35°	1251.8	1251.8	1248.8	1244.2	1245.0	1239.6	1238.8	1239.6	1242.7	1242.7	1236.6
37.5°	1349.7	1351.3	1341.3	1339.8	1336.0	1328.3	1324.5	1326.0	1332.9	1336.7	1328.3
40°	1471.3	1474.4	1471.3	1461.4	1456.8	1443.8	1436.1	1436.1	1441.5	1445.3	1442.3
42.5°	1591.4	1596.7	1591.4	1583.7	1579.9	1570.0	1566.1	1569.2	1576.1	1580.7	1576.1
45°	1725.2	1729.0	1722.2	1713.0	1708.4	1703.0	1700.7	1703.0	1710.7	1715.3	1713.7
47.5°	1856.7	1862.1	1853.7	1849.9	1849.9	1844.5	1850.6	1856.7	1863.6	1874.3	1869.7
50°	1985.2	1992.1	1986.7	1987.5	1993.6	2003.6	2015.0	2027.3	2039.5	2051.0	2052.5
52.5°	2099.9	2110.6	2111.4	2125.2	2144.3	2159.6	2191.7	2218.5	2247.5	2257.5	2252.9
55°	2220.8	2235.3	2254.4	2275.8	2306.4	2337.8	2392.0	2440.2	2478.5	2502.2	2498.3
57.5°	2393.6	2408.1	2428.0	2463.2	2509.1	2551.9	2626.1	2701.0	2759.1	2795.1	2777.5
60°	2617.6	2632.9	2658.9	2696.4	2756.1	2814.2	2915.9	3023.7	3113.9	3155.2	3123.1
62.5°	2914.4	2928.9	2945.7	2995.4	3061.9	3136.9	3264.6	3403.0	3517.7	3557.5	3512.4
65°	3337.2	3354.8	3360.2	3400.7	3465.7	3535.3	3673.0	3829.0	3959.7	4024.7	3934.5
67.5°	3813.7	3820.5	3842.0	3889.4	3955.9	4018.6	4127.2	4274.8	4400.2	4436.1	4339.8
70°	4092.8	4106.6	4144.0	4209.8	4289.3	4388.0	4506.5	4665.6	4807.8	4824.6	4702.3
72.5°	3840.4	3868.7	3935.3	4037.7	4204.4	4379.6	4583.7	4818.5	5022.7	5046.4	4849.9
75°	3080.3	3112.4	3191.9	3304.4	3501.7	3761.7	4056.8	4409.4	4715.3	4754.3	4494.3
77.5°	1641.9	1681.6	1797.1	1948.5	2229.9	2574.1	2929.6	3331.9	3591.9	3679.8	3492.5
80°	413.7	435.1	491.0	579.7	770.1	1047.7	1354.3	1787.2	2109.9	2246.8	2109.9
82.5°	160.6	176.7	191.9	202.7	221.0	259.2	357.9	583.5	786.1	968.1	838.1
85°	61.9	65.8	94.8	107.8	107.8	118.5	136.1	160.6	198.8	217.2	182.0
87.5°	24.5	26.8	32.9	50.5	52.0	45.9	48.9	55.1	42.1	35.2	39.8
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°	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3
2.5°	879.4	878.7	877.1	877.9	877.1	877.1	877.1	877.1
5°	878.7	878.7	877.1	877.1	877.1	877.9	877.1	877.1
7.5°	877.9	877.1	875.6	874.8	874.8	874.1	874.1	874.1
10°	876.4	874.8	873.3	872.5	872.5	871.0	871.0	871.0
12.5°	880.2	877.9	876.4	875.6	875.6	875.6	876.4	876.4
15°	890.9	886.3	884.0	883.3	884.0	885.5	886.3	887.1
17.5°	902.4	897.8	894.0	892.4	893.2	895.5	897.8	899.3
20°	916.9	913.1	908.5	907.0	907.0	910.0	911.5	913.8
22.5°	937.5	934.5	930.7	928.4	926.8	930.7	933.0	934.5
25°	970.4	967.4	964.3	962.0	961.3	965.1	966.6	967.4
27.5°	1014.0	1011.0	1009.4	1008.7	1006.4	1007.9	1010.2	1009.4
30°	1070.6	1072.9	1070.6	1070.6	1066.8	1068.3	1066.8	1065.3
32.5°	1146.3	1144.0	1137.1	1132.6	1127.2	1127.2	1124.9	1122.6
35°	1222.0	1214.4	1210.6	1212.8	1210.6	1212.1	1208.3	1204.4
37.5°	1311.5	1306.9	1306.1	1313.0	1311.5	1313.0	1313.0	1307.7
40°	1430.0	1427.0	1432.3	1443.8	1448.4	1447.6	1449.1	1442.3
42.5°	1566.1	1560.8	1563.1	1573.0	1578.4	1579.9	1579.1	1573.0
45°	1702.3	1703.8	1703.8	1714.5	1719.9	1722.9	1717.6	1715.3
47.5°	1856.0	1858.3	1852.9	1859.8	1861.3	1866.7	1862.1	1858.3
50°	2033.4	2025.0	2012.7	2015.0	2015.0	2013.5	2008.2	2003.6
52.5°	2231.5	2212.3	2189.4	2181.7	2173.3	2164.9	2154.2	2145.8
55°	2457.0	2424.2	2382.9	2363.8	2347.7	2328.6	2304.1	2295.7
57.5°	2718.6	2662.0	2606.9	2572.5	2531.2	2506.0	2474.6	2473.1
60°	3029.1	2952.6	2855.5	2804.2	2762.9	2733.1	2709.4	2700.2
62.5°	3387.7	3256.2	3151.4	3096.4	3048.2	3029.8	3000.0	3003.8
65°	3755.5	3621.7	3520.0	3475.7	3430.5	3418.3	3390.8	3400.7
67.5°	4154.0	4043.8	3932.2	3890.9	3849.6	3837.4	3809.1	3817.5
70°	4511.1	4371.1	4244.2	4163.1	4092.8	4036.2	4000.3	3985.7
72.5°	4582.2	4339.8	4140.2	3937.6	3820.5	3718.1	3676.0	3660.0
75°	4117.3	3741.0	3456.5	3218.7	3087.2	2938.1	2922.0	2899.8
77.5°	3202.7	2774.4	2430.3	2124.4	1947.7	1765.7	1703.0	1655.6
80°	1910.3	1468.3	1137.9	797.6	650.8	523.8	492.5	459.6
82.5°	683.7	438.2	295.2	230.2	205.7	189.7	177.4	161.4
85°	165.2	139.2	131.5	119.3	117.8	100.2	71.1	63.5
87.5°	52.8	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)