

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: P195451

Luminaire Tested: **NAV-AF-01-D-UNV-5MQ-7050-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)
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-5MQ-7050-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7137 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

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

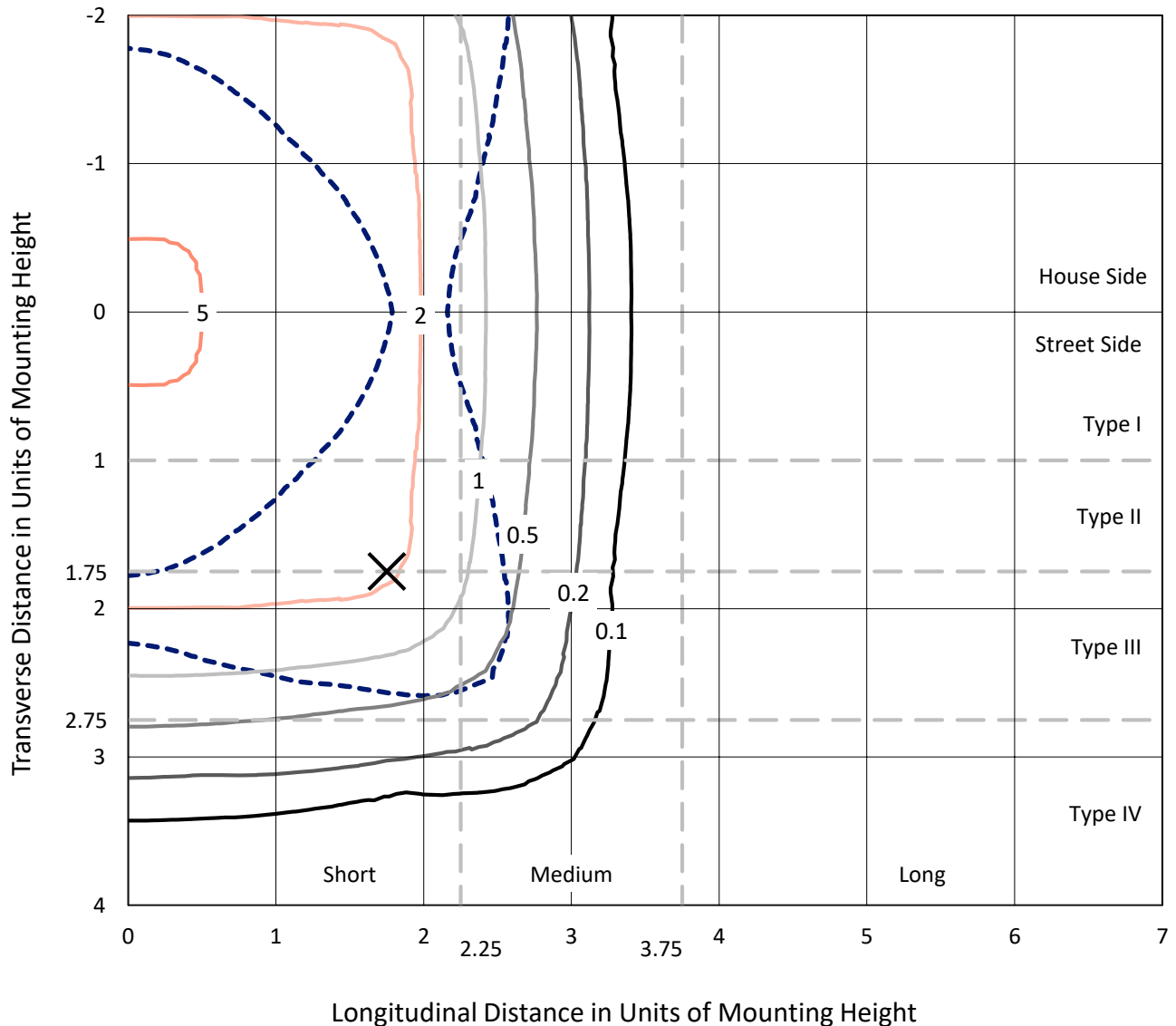


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Iso-Footcandle Lines of Horizontal Illumination

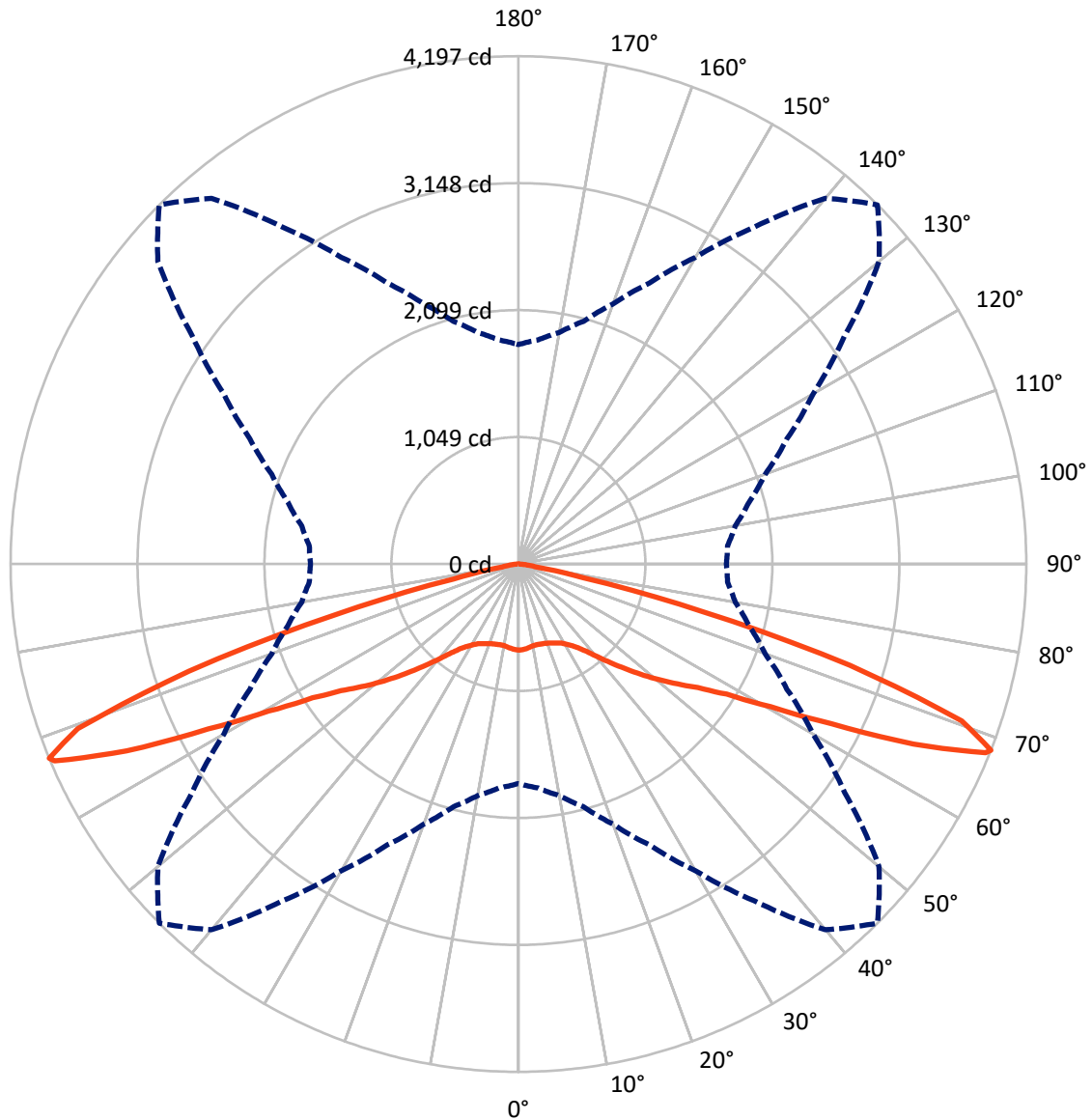
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.1 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3568.5	0.0	3568.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3568.5	0.0	3568.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	7137.0	0.0	7137.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	0.9
10°-20°	193.2	2.7
20°-30°	328.5	4.6
30°-40°	537.5	7.5
40°-50°	960.6	13.5
50°-60°	1622.4	22.7
60°-70°	2515.7	35.2
70°-80°	864.9	12.1
80°-90°	47.5	0.7
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°	7137.0	100.0
0°-180°	7137.0	100.0

Coefficient of Utilization



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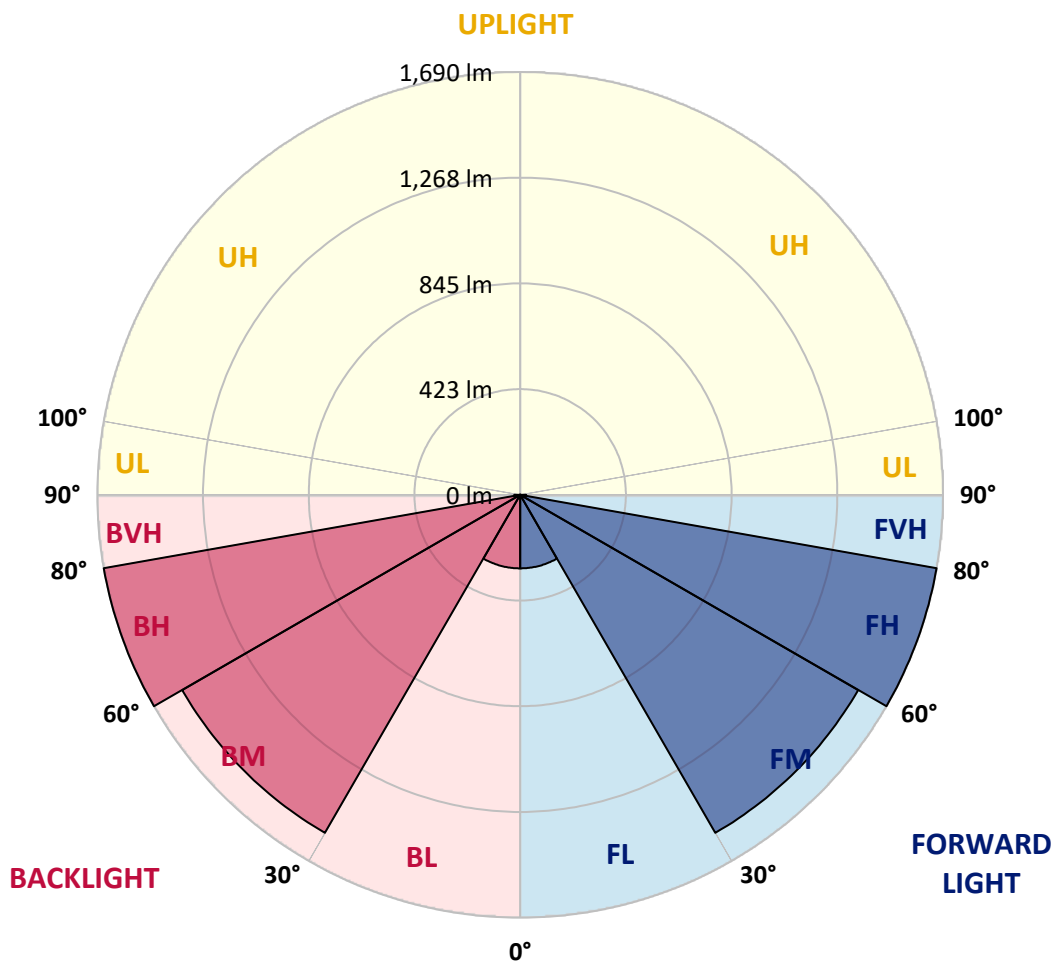
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	294.1	4.1			
FM	(30°-60°)	1560.3	21.9			
FH	(60°-80°)	1690.3	23.7			G1/1800
FVH	(80°-90°)	23.8	0.3			G1/100
BL	(0°-30°)	294.1	4.1	B1/500		
BM	(30°-60°)	1560.3	21.9	B2/2500		
BH	(60°-80°)	1690.3	23.7	B3/2500		G1/1800
BVH	(80°-90°)	23.8	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°	711.9	711.9	711.9	711.9	711.9	711.9	711.9	711.9	711.9	711.9	711.9
2.5°	715.0	715.0	715.9	715.4	714.1	712.8	711.5	710.2	709.3	708.4	707.6
5°	707.6	707.6	708.9	708.0	707.1	705.8	704.9	703.6	702.8	701.9	702.3
7.5°	698.0	698.8	699.7	699.3	697.5	697.1	695.8	695.3	694.5	693.1	693.6
10°	689.6	690.1	691.0	690.5	690.1	688.8	688.3	687.9	687.5	685.7	685.3
12.5°	681.3	682.2	683.1	683.5	683.1	683.5	684.0	684.4	684.0	683.1	683.1
15°	674.8	675.7	677.0	678.3	678.7	681.3	683.1	684.8	686.2	686.6	685.3
17.5°	671.3	672.6	674.4	677.0	679.2	682.2	685.3	687.9	690.1	690.5	689.2
20°	670.9	672.2	674.8	677.8	681.8	685.7	690.5	694.5	696.6	698.0	696.6
22.5°	673.9	675.7	679.2	683.1	687.9	693.1	699.3	703.6	708.0	709.8	708.4
25°	682.7	684.4	688.3	693.1	698.4	704.9	711.1	716.7	721.1	723.3	721.6
27.5°	701.0	701.4	705.8	711.1	717.2	722.9	730.7	733.4	736.8	739.0	736.8
30°	726.8	727.7	731.6	739.9	745.6	753.0	757.4	760.0	763.9	766.1	763.5
32.5°	766.1	767.0	770.5	778.4	783.6	789.3	794.5	796.3	800.2	802.8	799.8
35°	821.6	823.4	826.4	831.7	836.1	840.4	844.4	843.0	845.7	849.2	846.1
37.5°	897.7	897.2	898.1	902.0	906.4	909.0	915.2	912.1	914.7	917.8	916.0
40°	986.4	986.4	986.0	993.0	994.7	997.3	1003.9	999.9	1003.4	1006.9	1003.9
42.5°	1087.4	1089.1	1091.3	1097.0	1101.8	1102.7	1105.7	1104.0	1108.3	1111.4	1108.3
45°	1203.6	1206.2	1208.9	1222.0	1224.1	1225.9	1228.1	1222.4	1227.2	1229.8	1229.0
47.5°	1324.2	1329.0	1334.7	1348.3	1357.0	1360.9	1362.7	1356.1	1356.6	1360.5	1360.9
50°	1460.6	1465.8	1471.5	1486.8	1495.1	1502.1	1504.3	1496.9	1497.7	1500.8	1501.7
52.5°	1586.5	1592.6	1604.8	1625.3	1637.1	1649.4	1650.3	1641.1	1645.0	1647.2	1645.5
55°	1704.9	1712.8	1728.9	1756.5	1777.9	1801.9	1812.8	1802.8	1802.8	1801.0	1800.2
57.5°	1843.0	1851.7	1868.3	1900.2	1930.0	1964.5	1994.2	2004.3	2022.6	2028.7	2019.1
60°	2051.0	2060.2	2077.2	2119.2	2156.8	2207.0	2256.0	2295.8	2360.4	2395.4	2363.9
62.5°	2241.1	2255.1	2295.3	2368.8	2450.0	2543.1	2651.1	2728.0	2845.6	2904.1	2825.0
65°	2197.9	2226.3	2304.9	2420.3	2588.1	2790.1	3009.9	3221.0	3464.0	3588.5	3427.7
67.5°	1919.9	1944.0	2028.7	2162.9	2372.2	2650.6	2992.4	3429.4	3930.7	4164.1	3879.6
68°	1813.7	1858.7	1943.1	2076.4	2287.5	2561.1	2926.0	3398.0	3945.2	4197.3	3890.1
70°	1390.7	1406.8	1487.7	1607.4	1835.1	2103.5	2471.9	3009.9	3628.3	3887.9	3571.9
72.5°	660.8	670.4	722.9	840.9	985.5	1204.0	1529.2	2036.6	2593.8	2863.9	2548.8
75°	242.1	244.3	256.5	284.5	338.7	420.9	576.9	892.4	1321.2	1575.5	1326.4
77.5°	130.7	131.1	135.9	142.9	152.5	163.5	187.1	250.9	404.7	550.7	427.4
80°	82.2	81.7	86.5	92.2	98.8	104.0	106.2	113.6	128.1	149.9	137.7
82.5°	42.0	45.9	56.8	62.9	72.5	74.3	72.1	71.7	76.0	82.2	84.8
85°	23.2	20.5	30.2	40.2	43.7	45.0	45.5	42.8	42.0	41.1	43.3
87.5°	11.8	10.9	13.1	20.1	21.4	17.5	17.9	15.3	10.5	10.5	10.9
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°	711.9	711.9	711.9	711.9	711.9	711.9	711.9	711.9
2.5°	706.7	707.1	706.3	706.3	706.3	706.7	706.3	705.8
5°	701.0	701.9	701.9	702.3	702.8	702.8	702.8	702.8
7.5°	692.7	693.1	694.0	694.0	694.0	694.0	694.0	694.0
10°	684.8	684.0	683.5	682.7	682.7	681.3	681.8	682.2
12.5°	680.9	679.2	678.3	677.0	676.1	674.8	674.8	675.2
15°	682.7	680.0	677.4	676.5	675.7	674.8	673.9	674.4
17.5°	686.2	683.1	680.0	678.3	676.5	675.2	674.8	675.2
20°	693.6	689.2	684.4	681.3	677.8	677.0	675.7	677.0
22.5°	703.6	698.4	692.3	686.6	682.7	680.9	679.2	680.5
25°	715.9	710.2	704.1	697.5	693.1	691.8	689.6	689.6
27.5°	732.9	728.1	722.9	716.7	712.4	711.1	707.6	707.6
30°	760.0	755.2	750.4	745.2	740.8	739.5	735.1	735.1
32.5°	795.8	790.6	787.5	783.2	779.7	777.5	772.2	771.8
35°	843.9	839.1	838.7	835.6	832.1	832.6	827.3	826.4
37.5°	913.0	909.0	910.4	907.7	904.7	907.3	904.2	904.2
40°	1001.3	999.9	1001.3	999.5	999.9	1000.4	997.8	998.6
42.5°	1107.9	1104.4	1112.3	1111.4	1110.1	1113.6	1107.5	1103.1
45°	1230.7	1229.4	1237.3	1238.6	1235.9	1238.1	1227.2	1226.8
47.5°	1364.0	1364.0	1371.0	1370.1	1367.5	1367.9	1354.8	1346.5
50°	1503.0	1502.1	1509.1	1507.3	1503.9	1503.4	1489.9	1481.6
52.5°	1647.6	1647.6	1657.7	1652.9	1644.6	1640.6	1624.0	1613.1
55°	1807.6	1805.4	1808.5	1792.7	1776.6	1764.8	1744.2	1735.9
57.5°	2009.9	1984.6	1962.7	1942.6	1919.9	1905.9	1881.9	1873.2
60°	2297.1	2229.3	2200.1	2159.8	2122.3	2103.5	2071.6	2054.5
62.5°	2694.8	2582.5	2502.9	2414.2	2328.5	2268.2	2219.7	2198.3
65°	3154.5	2909.8	2707.5	2517.3	2356.1	2228.0	2156.8	2134.5
67.5°	3329.4	2880.1	2530.9	2258.2	2062.4	1909.9	1824.6	1806.7
68°	3292.2	2811.9	2449.2	2169.9	1973.2	1819.4	1734.6	1718.4
70°	2904.1	2372.2	1989.4	1711.4	1527.9	1381.5	1321.6	1295.8
72.5°	1979.8	1523.5	1168.6	934.8	797.6	704.9	649.9	631.1
75°	911.2	615.8	411.3	307.2	260.9	238.6	221.6	217.2
77.5°	265.7	193.2	166.1	153.8	144.7	136.8	131.1	130.7
80°	126.3	118.4	114.9	107.1	98.8	91.3	86.1	87.0
82.5°	84.8	82.6	82.6	74.7	61.6	52.9	43.7	39.3
85°	45.0	46.8	49.4	46.8	40.6	30.2	19.7	21.4
87.5°	15.3	17.5	18.4	17.9	16.2	12.2	9.2	9.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)