

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: P882297

Luminaire Tested: **NAV-SB2A-835-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882297  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-835-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7643 lumens  
Efficiency: N/A  
Efficacy: 133.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

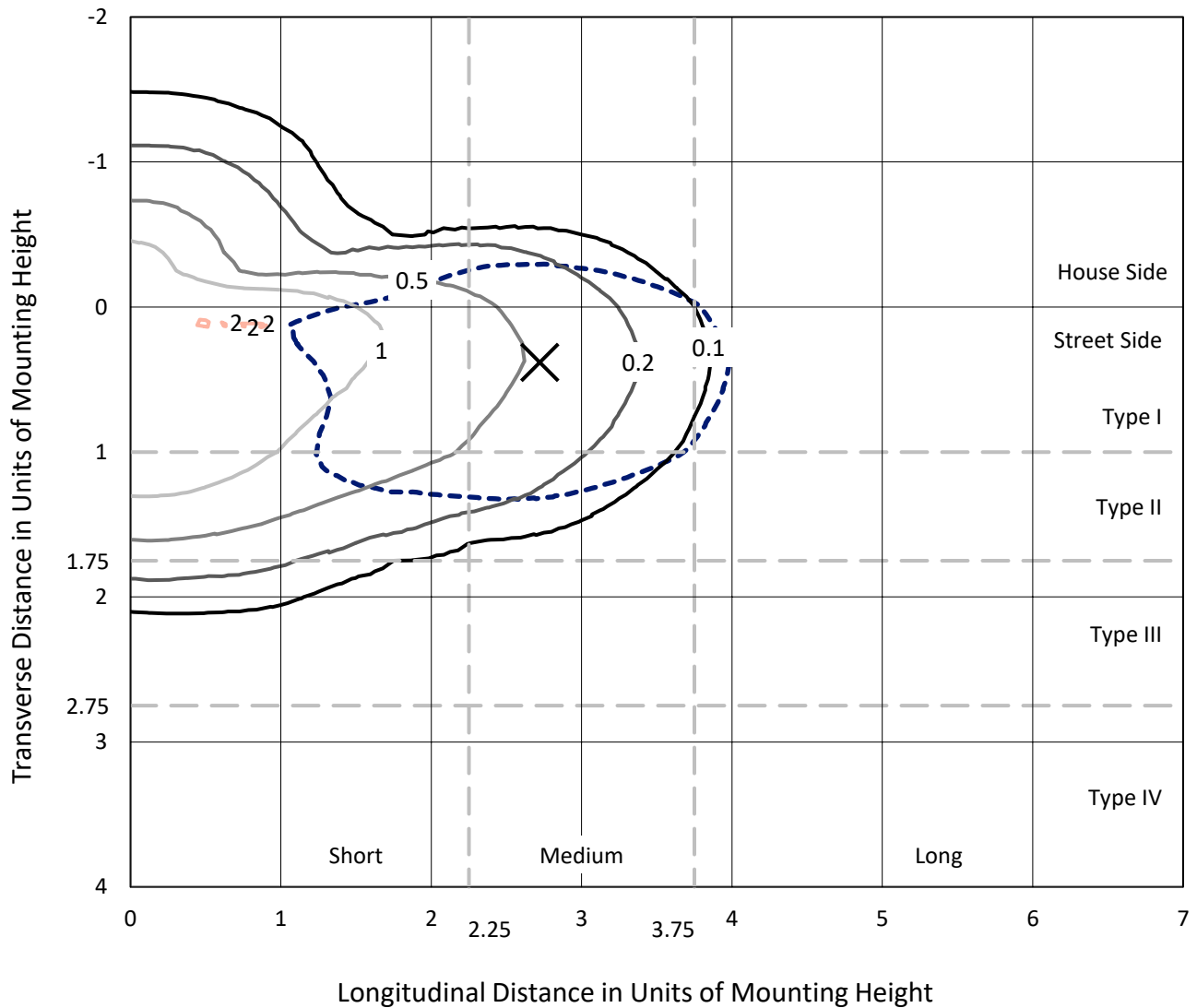
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

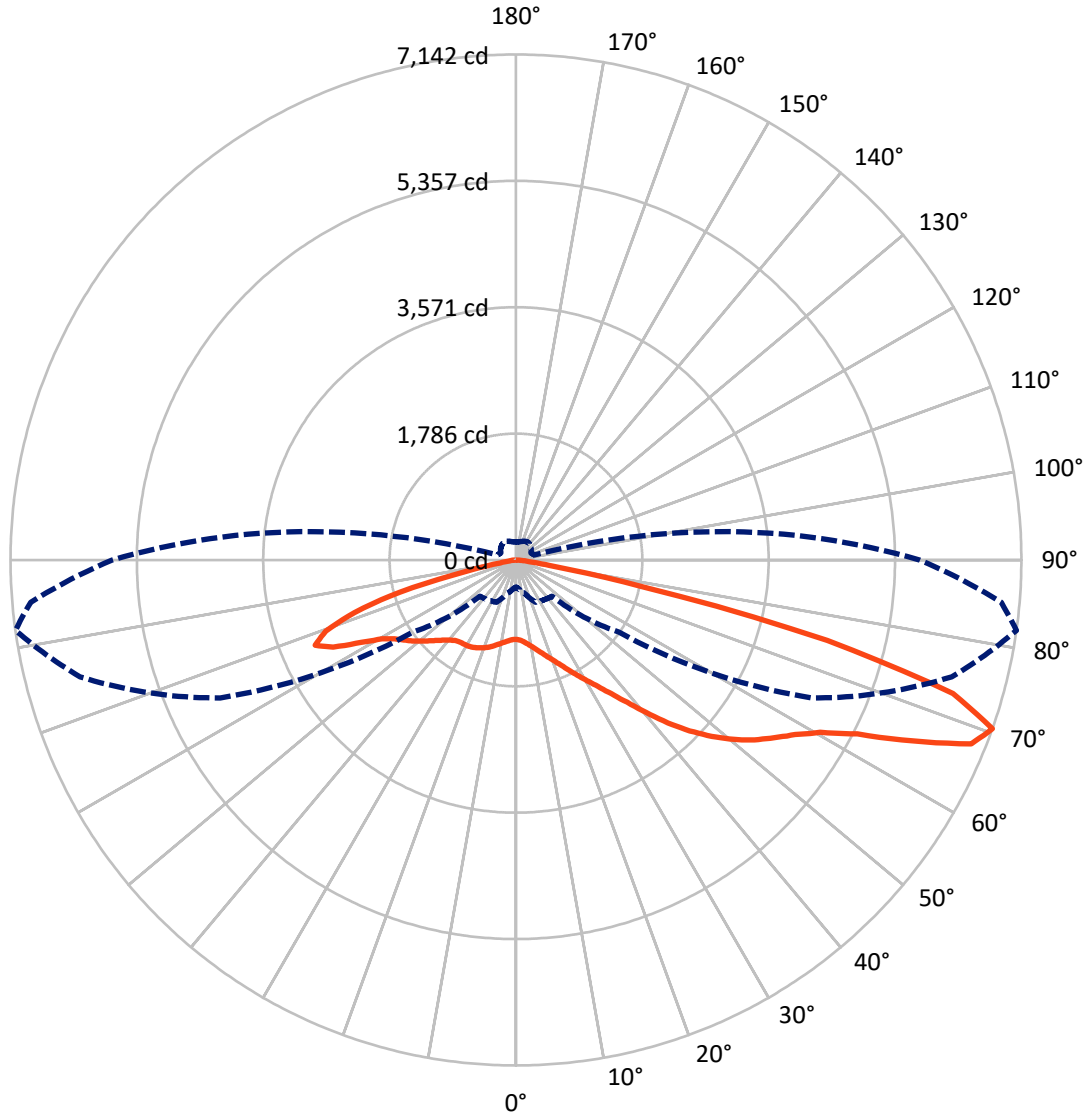
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1884.2	0.0	1884.2
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	5758.8	0.0	5758.8
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	7643.0	0.0	7643.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.8	1.4
10°-20°	304.0	4.0
20°-30°	508.5	6.7
30°-40°	794.4	10.4
40°-50°	1265.2	16.6
50°-60°	1760.7	23.0
60°-70°	1841.8	24.1
70°-80°	962.6	12.6
80°-90°	100.0	1.3
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°	7643.0	100.0
0°-180°	7643.0	100.0

**Coefficient of Utilization**

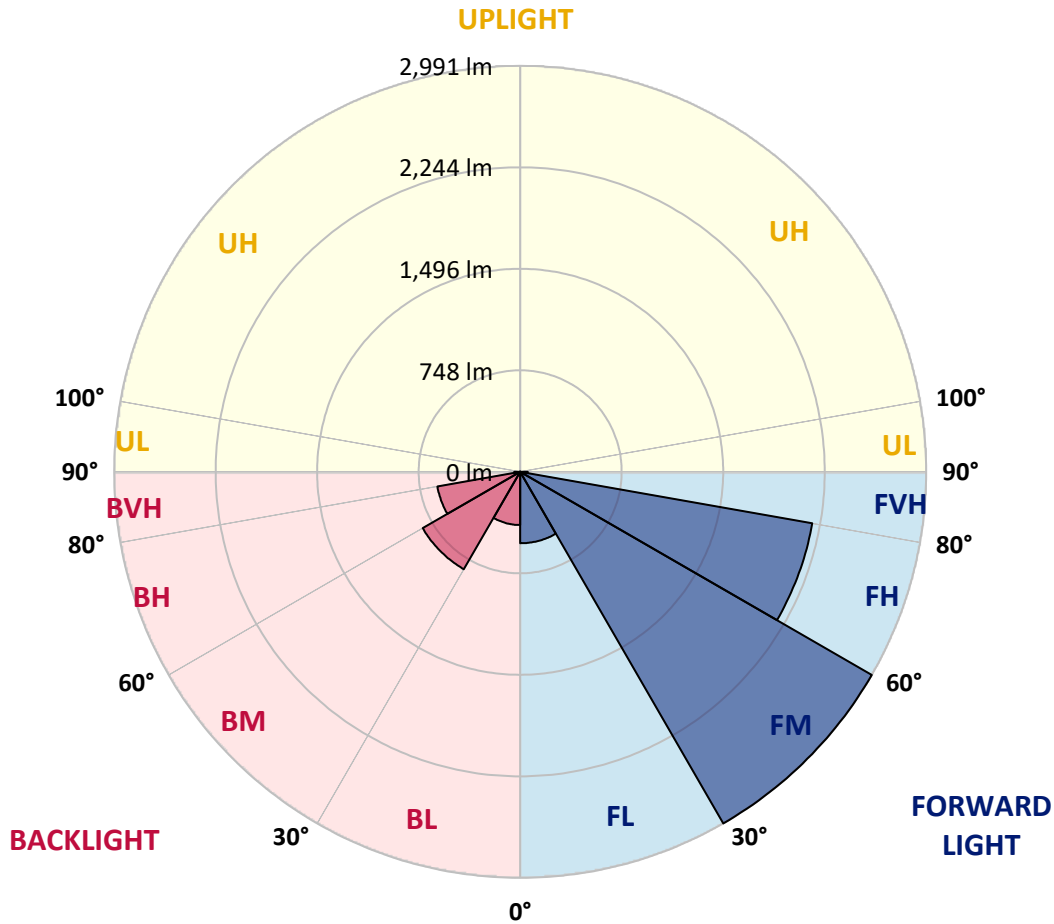


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	526.3	6.9			
FM (30°-60°)	2991.4	39.1			
FH (60°-80°)	2185.2	28.6			G2/5000
FVH (80°-90°)	56.0	0.7			G1/100
BL (0°-30°)	392.0	5.1	B1/500		
BM (30°-60°)	829.0	10.8	B1/1000		
BH (60°-80°)	619.2	8.1	B2/1000		G2/1000
BVH (80°-90°)	44.0	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6
2.5°	1147.3	1153.8	1151.8	1149.8	1149.8	1146.9	1146.5	1142.5	1139.2	1133.9	1132.7
5°	1161.9	1168.8	1168.0	1169.6	1174.9	1176.1	1177.3	1174.9	1168.4	1161.9	1159.1
7.5°	1148.9	1156.7	1159.1	1168.8	1185.0	1199.6	1210.6	1215.1	1209.0	1199.6	1195.2
10°	1105.1	1113.7	1122.2	1145.3	1174.1	1208.6	1237.8	1255.2	1254.0	1245.1	1237.4
12.5°	1016.3	1025.3	1043.5	1088.5	1141.2	1202.1	1256.4	1292.9	1305.5	1299.0	1285.6
15°	945.4	953.1	966.9	1013.1	1081.6	1174.1	1263.3	1334.3	1366.3	1362.7	1346.5
17.5°	943.3	946.6	955.1	977.0	1029.7	1130.3	1256.0	1374.8	1436.1	1435.7	1415.4
20°	979.0	980.2	985.1	989.6	1019.6	1097.0	1237.4	1408.5	1514.4	1514.4	1492.5
22.5°	1028.5	1027.7	1032.6	1028.5	1043.1	1094.2	1225.6	1438.1	1601.6	1608.0	1580.5
25°	1102.7	1098.7	1097.4	1088.1	1091.0	1120.6	1238.6	1471.8	1705.0	1718.4	1683.9
27.5°	1201.7	1195.2	1190.7	1169.2	1161.9	1174.9	1278.3	1512.3	1820.1	1843.3	1799.5
30°	1330.6	1318.9	1312.4	1275.1	1248.7	1250.7	1338.3	1566.3	1940.6	1977.9	1922.3
32.5°	1506.7	1488.4	1471.0	1409.7	1361.5	1345.6	1415.8	1640.9	2071.2	2130.8	2059.4
35°	1703.8	1689.2	1670.5	1576.0	1501.8	1465.3	1520.4	1745.1	2224.1	2318.6	2225.7
37.5°	1893.6	1881.0	1889.9	1762.6	1666.8	1613.7	1657.5	1885.0	2412.7	2552.2	2434.2
40°	2089.8	2080.1	2081.3	1959.7	1848.1	1788.5	1823.8	2060.6	2628.8	2830.0	2684.8
42.5°	2303.2	2295.9	2271.5	2163.7	2038.3	1982.8	2015.2	2263.4	2860.8	3146.3	2959.8
45°	2542.0	2537.6	2514.9	2391.2	2247.6	2185.2	2229.0	2487.3	3094.0	3444.0	3236.0
47.5°	2748.5	2752.1	2749.3	2645.1	2496.2	2404.6	2456.9	2720.9	3311.0	3723.8	3500.8
50°	2847.8	2866.9	2894.9	2862.4	2770.0	2676.7	2686.8	2946.4	3517.8	3986.2	3754.7
52.5°	2795.9	2832.0	2908.3	2960.2	2995.9	2976.4	2949.2	3170.3	3712.5	4223.1	3994.8
55°	2602.5	2653.2	2779.7	2905.0	3087.1	3228.7	3264.3	3418.5	3902.3	4431.5	4221.9
57.5°	2250.0	2332.4	2445.9	2699.4	3006.0	3350.7	3631.8	3762.8	4103.4	4654.2	4459.5
60°	1645.8	1756.1	1897.2	2274.4	2722.1	3285.4	3944.5	4291.6	4389.4	4942.5	4769.0
62.5°	1053.2	1121.4	1251.1	1606.4	2121.1	2950.8	4040.2	4952.7	4874.0	5415.4	5232.9
65°	721.1	764.9	883.7	1083.2	1371.2	2196.5	3783.9	5448.3	5643.8	6164.9	6026.2
67.5°	524.0	557.2	658.6	833.4	893.4	1299.8	2936.2	5425.6	6392.0	6937.1	6721.3
70°	382.0	405.6	490.7	658.6	687.4	723.1	1778.8	4612.0	6375.8	7142.3	6884.0
72.5°	283.1	299.3	356.5	511.0	556.4	488.3	880.5	3351.9	5478.7	6460.1	6252.9
75°	204.8	217.0	259.2	391.0	445.3	371.9	439.2	1958.8	3821.6	4544.3	4580.8
77.5°	156.5	165.9	193.5	286.3	356.5	279.0	272.5	901.2	1812.0	1821.0	1923.2
80°	125.7	131.8	146.8	201.6	273.3	208.9	177.6	363.8	572.6	484.6	508.6
82.5°	92.5	102.6	124.1	141.5	195.5	144.0	108.3	183.7	217.8	187.4	189.0
85°	52.7	59.6	75.0	101.4	124.9	88.0	62.1	81.5	101.4	83.1	74.2
87.5°	18.7	24.3	26.4	39.7	54.3	36.5	23.9	23.5	33.3	24.7	20.7
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6	1120.6
2.5°	1128.7	1126.6	1118.5	1107.6	1096.2	1085.3	1081.6	1073.9	1068.6	1065.8	1069.1
5°	1151.4	1144.9	1125.8	1101.5	1075.9	1048.4	1028.9	1011.1	998.1	985.9	990.8
7.5°	1183.8	1172.5	1139.6	1097.0	1051.6	1005.8	971.7	945.8	928.3	917.0	919.4
10°	1221.5	1204.1	1153.8	1090.1	1020.0	954.3	914.1	891.8	880.9	874.8	876.4
12.5°	1264.9	1240.2	1168.4	1074.3	971.7	896.7	869.1	862.6	863.0	863.4	864.2
15°	1318.5	1284.0	1180.2	1039.9	908.9	852.5	847.6	858.2	869.1	874.4	874.0
17.5°	1378.9	1330.2	1182.2	983.1	847.2	824.1	839.5	862.2	878.8	886.1	887.8
20°	1443.8	1377.3	1167.6	902.8	796.5	801.0	828.6	857.8	876.0	885.3	887.8
22.5°	1518.0	1427.6	1132.7	818.4	755.2	775.8	808.3	836.7	855.7	865.1	867.5
25°	1602.8	1483.9	1078.0	747.4	719.5	747.4	779.9	803.4	818.8	827.3	829.8
27.5°	1696.9	1542.7	1005.0	691.1	688.2	718.2	745.0	763.3	771.4	777.9	780.3
30°	1791.4	1596.3	916.6	648.5	661.1	689.5	708.5	716.6	719.1	720.3	723.1
32.5°	1893.6	1642.5	823.7	613.2	635.1	661.5	672.8	676.5	665.1	657.4	659.8
35°	2017.3	1692.0	732.8	585.2	609.6	632.3	635.9	632.7	619.3	603.5	604.3
37.5°	2170.1	1753.6	660.2	565.3	585.6	600.6	596.2	595.4	596.6	577.9	579.1
40°	2357.5	1833.9	607.1	549.9	566.2	569.4	556.8	563.7	569.8	541.4	542.2
42.5°	2565.6	1930.9	573.5	539.4	549.9	542.2	522.8	530.5	529.7	492.3	491.9
45°	2777.7	2036.3	561.7	531.7	534.9	519.5	498.0	500.1	483.0	449.4	450.6
47.5°	2988.6	2149.5	569.0	525.2	516.3	498.8	482.2	473.3	448.1	423.0	423.0
50°	3195.4	2268.3	595.8	512.2	490.7	480.6	468.4	452.6	425.8	404.3	402.7
52.5°	3387.2	2387.9	625.8	490.7	458.7	464.8	457.1	438.8	412.5	390.6	391.0
55°	3568.9	2507.6	637.5	461.1	428.7	451.0	446.5	412.9	381.2	363.4	361.8
57.5°	3766.8	2651.5	624.6	423.4	404.3	435.2	418.1	380.8	362.6	349.2	348.0
60°	4041.0	2877.4	596.6	376.8	381.2	411.6	382.4	367.0	347.2	332.2	331.3
62.5°	4496.4	3298.8	551.6	330.5	354.1	376.8	365.4	350.0	329.7	315.1	315.1
65°	5169.7	3884.4	466.8	294.4	323.6	342.7	347.2	331.7	310.7	295.2	296.1
67.5°	5737.4	4251.9	353.2	264.4	292.4	315.1	327.7	312.7	290.4	275.4	275.8
70°	5706.2	3985.0	269.7	234.8	264.8	287.9	304.2	292.4	268.5	254.3	255.5
72.5°	5068.3	3333.7	218.2	204.8	236.8	259.6	279.0	270.1	245.8	232.0	232.0
75°	3723.4	2366.4	174.4	174.4	202.0	230.0	251.4	245.8	223.5	213.7	210.9
77.5°	1569.5	992.8	136.7	144.8	167.9	197.5	224.3	226.3	206.8	219.0	198.7
80°	417.3	273.8	104.2	114.0	131.8	163.0	195.1	194.3	173.2	161.8	150.5
82.5°	159.0	107.9	74.2	80.3	95.3	124.9	154.5	159.4	138.3	119.6	119.6
85°	61.2	46.2	45.8	48.3	55.6	82.7	116.8	120.9	104.2	88.4	91.3
87.5°	15.8	13.8	17.0	16.2	25.6	44.2	66.9	69.4	63.7	36.9	52.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)