

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: P882047

Luminaire Tested: **NAV-SB1D-727-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882047  
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-SB1D-727-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9145 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

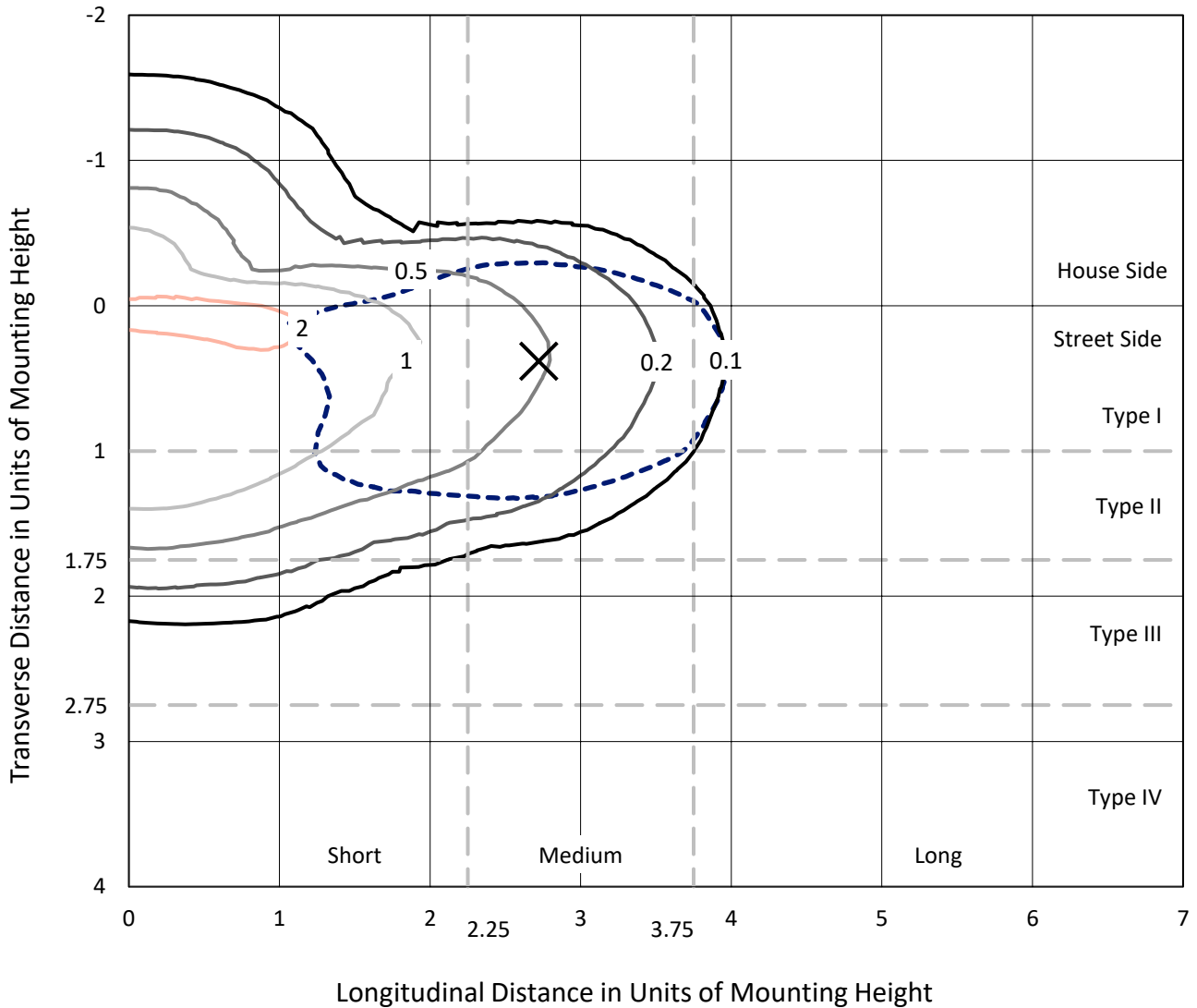
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 0.638  
Voltage Rise (V): NR  
Power Factor: 0.997  
Total Harmonic Distortion (THDi): 6.673  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

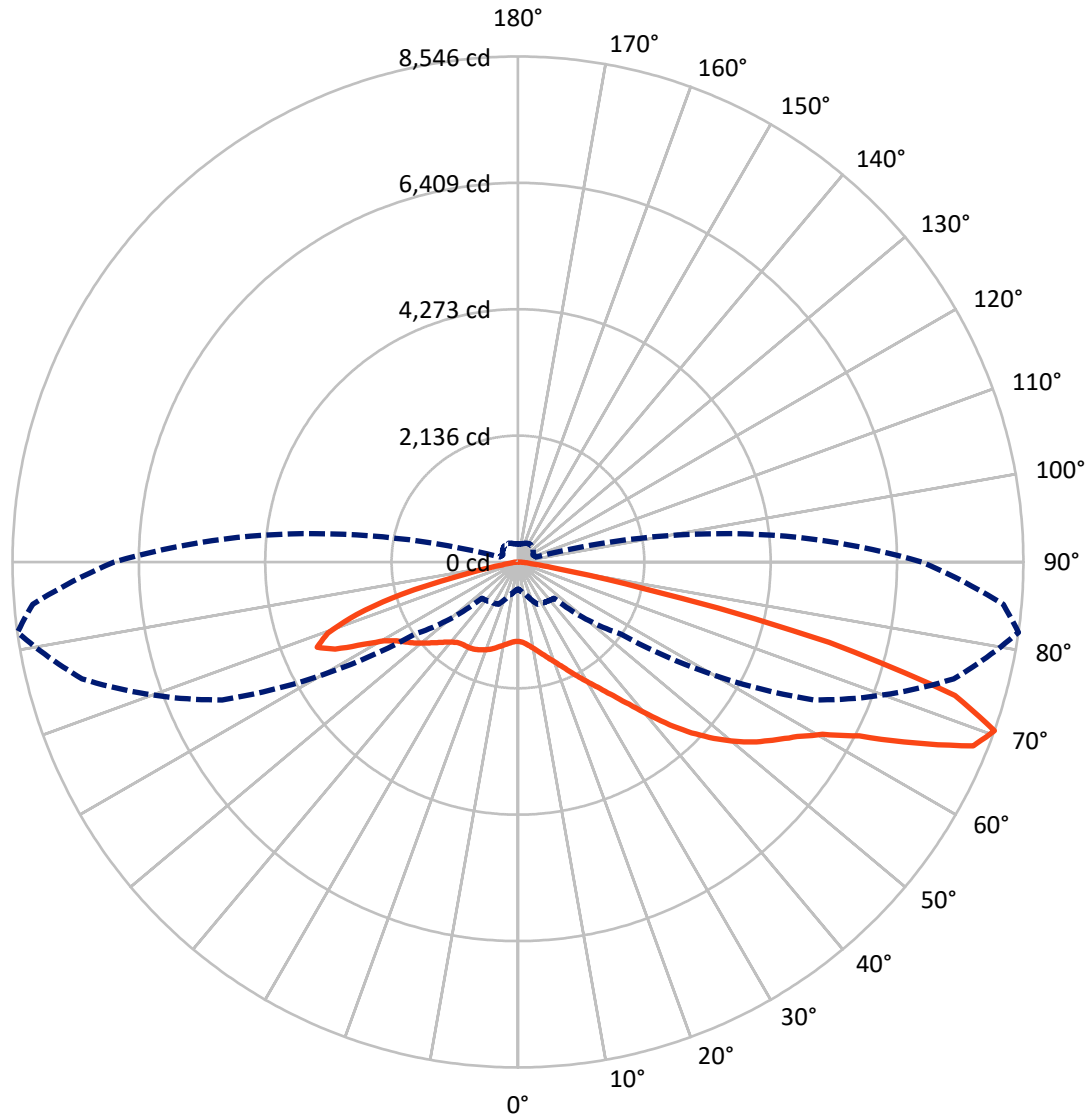
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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	2254.5	0.0	2254.5
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	6890.5	0.0	6890.5
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	9145.0	0.0	9145.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.6	1.4
10°-20°	363.7	4.0
20°-30°	608.4	6.7
30°-40°	950.6	10.4
40°-50°	1513.9	16.6
50°-60°	2106.7	23.0
60°-70°	2203.7	24.1
70°-80°	1151.8	12.6
80°-90°	119.6	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°	9145.0	100.0
0°-180°	9145.0	100.0

**Coefficient of Utilization**



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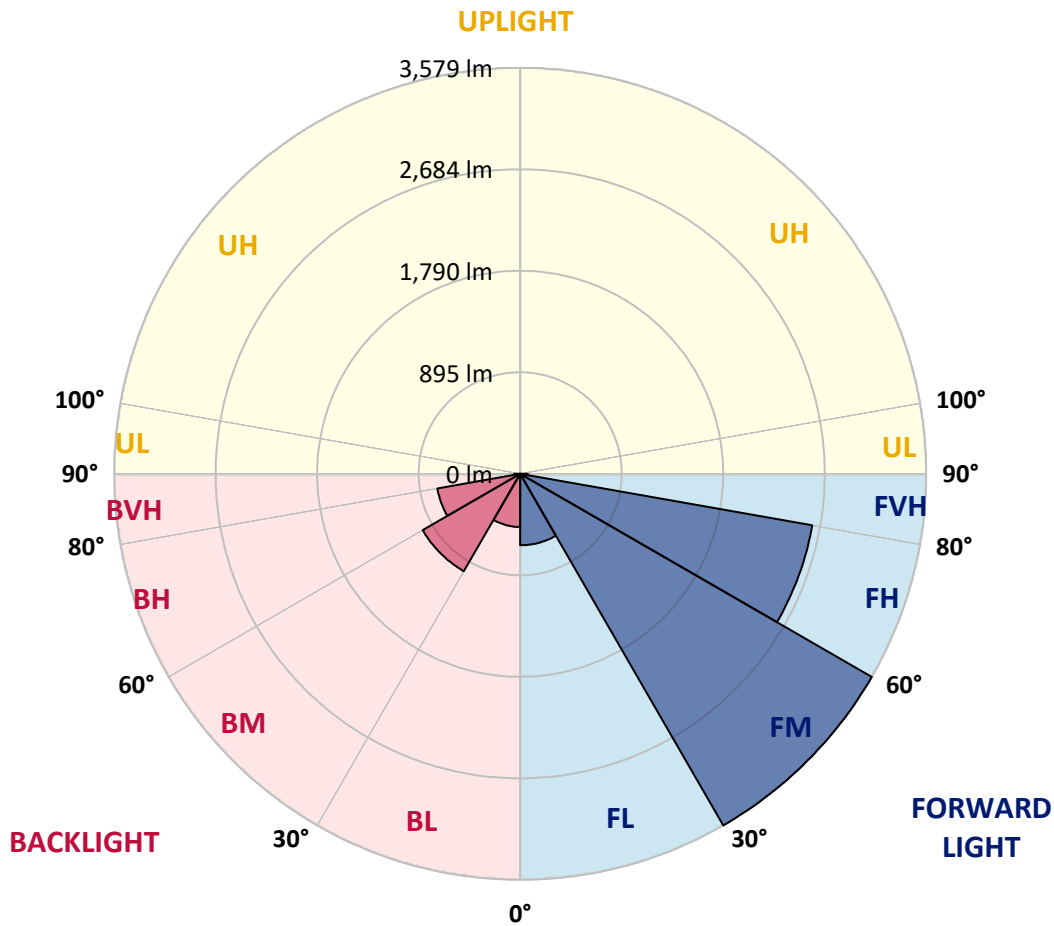
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	629.7	6.9			
FM (30°-60°)	3579.3	39.1			
FH (60°-80°)	2614.6	28.6			G2/5000
FVH (80°-90°)	67.0	0.7			G1/100
BL (0°-30°)	469.0	5.1	B1/500		
BM (30°-60°)	991.9	10.8	B1/1000		
BH (60°-80°)	740.9	8.1	B2/1000		G2/1000
BVH (80°-90°)	52.7	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°	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8
2.5°	1372.8	1380.6	1378.1	1375.7	1375.7	1372.3	1371.8	1367.0	1363.1	1356.8	1355.3
5°	1390.3	1398.5	1397.5	1399.5	1405.8	1407.3	1408.7	1405.8	1398.0	1390.3	1386.9
7.5°	1374.7	1384.0	1386.9	1398.5	1417.9	1435.4	1448.5	1453.8	1446.6	1435.4	1430.1
10°	1322.3	1332.5	1342.7	1370.4	1404.8	1446.1	1481.0	1501.9	1500.4	1489.7	1480.5
12.5°	1216.1	1226.7	1248.6	1302.4	1365.5	1438.3	1503.3	1547.0	1562.0	1554.3	1538.3
15°	1131.1	1140.4	1156.9	1212.2	1294.2	1404.8	1511.6	1596.5	1634.8	1630.5	1611.1
17.5°	1128.7	1132.6	1142.8	1169.0	1232.1	1352.4	1502.8	1645.0	1718.3	1717.8	1693.6
20°	1171.4	1172.9	1178.7	1184.0	1219.9	1312.6	1480.5	1685.3	1812.0	1812.0	1785.8
22.5°	1230.6	1229.6	1235.5	1230.6	1248.1	1309.2	1466.5	1720.7	1916.3	1924.1	1891.1
25°	1319.4	1314.6	1313.1	1302.0	1305.3	1340.8	1482.0	1761.0	2040.0	2056.0	2014.8
27.5°	1437.8	1430.1	1424.7	1399.0	1390.3	1405.8	1529.5	1809.5	2177.8	2205.5	2153.1
30°	1592.1	1578.1	1570.3	1525.7	1494.1	1496.5	1601.4	1874.1	2322.0	2366.6	2300.1
32.5°	1802.7	1780.9	1760.0	1686.8	1629.0	1610.1	1694.0	1963.4	2478.2	2549.6	2464.1
35°	2038.6	2021.1	1998.8	1885.7	1796.9	1753.2	1819.2	2088.1	2661.2	2774.2	2663.1
37.5°	2265.7	2250.6	2261.3	2108.9	1994.4	1930.8	1983.3	2255.5	2886.8	3053.7	2912.5
40°	2500.5	2488.9	2490.4	2344.8	2211.3	2140.0	2182.2	2465.6	3145.5	3386.1	3212.4
42.5°	2755.8	2747.1	2717.9	2588.9	2438.9	2372.4	2411.3	2708.2	3423.0	3764.6	3541.4
45°	3041.6	3036.3	3009.1	2861.1	2689.3	2614.6	2667.0	2976.1	3702.0	4120.8	3871.9
47.5°	3288.6	3293.0	3289.6	3164.9	2986.8	2877.1	2939.7	3255.6	3961.7	4455.7	4188.8
50°	3407.5	3430.3	3463.8	3425.0	3314.3	3202.7	3214.8	3525.4	4209.1	4769.6	4492.5
52.5°	3345.4	3388.6	3479.8	3541.9	3584.6	3561.3	3528.8	3793.3	4442.1	5053.0	4779.8
55°	3113.9	3174.6	3326.0	3475.9	3693.8	3863.1	3905.9	4090.3	4669.2	5302.4	5051.5
57.5°	2692.2	2790.7	2926.6	3229.9	3596.7	4009.2	4345.5	4502.2	4909.9	5568.8	5335.9
60°	1969.2	2101.2	2270.0	2721.3	3257.1	3931.1	4719.6	5135.0	5252.0	5913.9	5706.2
62.5°	1260.2	1341.7	1497.0	1922.1	2537.9	3530.7	4834.2	5926.0	5831.8	6479.7	6261.3
65°	862.8	915.2	1057.4	1296.1	1640.7	2628.2	4527.5	6519.0	6752.9	7376.4	7210.5
67.5°	627.0	666.7	788.1	997.2	1069.0	1555.3	3513.3	6491.8	7648.2	8300.4	8042.2
70°	457.1	485.3	587.2	788.1	822.5	865.2	2128.3	5518.4	7628.8	8545.9	8236.8
72.5°	338.7	358.1	426.5	611.4	665.8	584.3	1053.5	4010.7	6555.4	7729.7	7481.7
75°	245.1	259.6	310.1	467.8	532.8	445.0	525.5	2343.8	4572.6	5437.3	5481.0
77.5°	187.3	198.5	231.5	342.6	426.5	333.9	326.1	1078.2	2168.1	2178.8	2301.1
80°	150.4	157.7	175.7	241.2	327.1	249.9	212.5	435.3	685.2	579.9	608.5
82.5°	110.6	122.8	148.5	169.4	233.9	172.3	129.6	219.8	260.6	224.2	226.1
85°	63.1	71.3	89.8	121.3	149.5	105.3	74.2	97.5	121.3	99.5	88.8
87.5°	22.3	29.1	31.5	47.6	65.0	43.7	28.6	28.1	39.8	29.6	24.7
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°	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8	1340.8
2.5°	1350.5	1348.1	1338.3	1325.2	1311.7	1298.6	1294.2	1285.0	1278.7	1275.3	1279.1
5°	1377.7	1369.9	1347.1	1318.0	1287.4	1254.4	1231.1	1209.8	1194.2	1179.7	1185.5
7.5°	1416.5	1402.9	1363.6	1312.6	1258.3	1203.4	1162.7	1131.6	1110.8	1097.2	1100.1
10°	1461.6	1440.7	1380.6	1304.4	1220.4	1141.8	1093.8	1067.1	1054.0	1046.7	1048.6
12.5°	1513.5	1483.9	1398.0	1285.5	1162.7	1072.9	1039.9	1032.1	1032.6	1033.1	1034.1
15°	1577.6	1536.3	1412.1	1244.2	1087.5	1020.0	1014.2	1026.8	1039.9	1046.2	1045.7
17.5°	1649.9	1591.7	1414.5	1176.3	1013.7	986.0	1004.5	1031.7	1051.6	1060.3	1062.2
20°	1727.5	1647.9	1397.1	1080.2	953.0	958.4	991.4	1026.3	1048.2	1059.3	1062.2
22.5°	1816.3	1708.1	1355.3	979.3	903.6	928.3	967.1	1001.1	1023.9	1035.1	1038.0
25°	1917.7	1775.6	1289.8	894.3	860.8	894.3	933.2	961.3	979.7	989.9	992.8
27.5°	2030.3	1845.9	1202.5	826.9	823.5	859.4	891.4	913.3	923.0	930.7	933.6
30°	2143.4	1910.0	1096.7	775.9	791.0	824.9	847.7	857.5	860.4	861.8	865.2
32.5°	2265.7	1965.3	985.6	733.7	759.9	791.5	805.0	809.4	795.8	786.6	789.5
35°	2413.7	2024.5	876.9	700.2	729.3	756.5	760.9	757.0	741.0	722.1	723.0
37.5°	2596.6	2098.3	790.0	676.5	700.7	718.7	713.3	712.4	713.8	691.5	693.0
40°	2820.8	2194.3	726.4	658.0	677.4	681.3	666.3	674.5	681.8	647.8	648.8
42.5°	3069.8	2310.3	686.2	645.4	658.0	648.8	625.5	634.7	633.7	589.1	588.6
45°	3323.5	2436.5	672.1	636.2	640.1	621.6	595.9	598.3	577.9	537.7	539.1
47.5°	3575.9	2571.9	680.8	628.4	617.7	596.9	577.0	566.3	536.2	506.1	506.1
50°	3823.4	2714.1	712.8	612.9	587.2	575.0	560.5	541.5	509.5	483.8	481.9
52.5°	4052.9	2857.2	748.8	587.2	548.8	556.1	546.9	525.1	493.5	467.3	467.8
55°	4270.3	3000.4	762.8	551.7	512.9	539.6	534.3	494.0	456.1	434.8	432.9
57.5°	4507.1	3172.6	747.3	506.6	483.8	520.7	500.3	455.7	433.8	417.8	416.4
60°	4835.1	3442.9	713.8	450.8	456.1	492.5	457.6	439.2	415.4	397.4	396.5
62.5°	5380.1	3947.1	660.0	395.5	423.6	450.8	437.2	418.8	394.5	377.0	377.0
65°	6185.6	4647.8	558.5	352.3	387.2	410.0	415.4	396.9	371.7	353.3	354.2
67.5°	6865.0	5087.5	422.7	316.4	349.9	377.0	392.1	374.1	347.4	329.5	330.0
70°	6827.6	4768.2	322.7	281.0	316.9	344.5	363.9	349.9	321.2	304.3	305.7
72.5°	6064.3	3988.8	261.1	245.1	283.4	310.6	333.9	323.2	294.1	277.6	277.6
75°	4455.2	2831.5	208.7	208.7	241.7	275.1	300.9	294.1	267.4	255.7	252.3
77.5°	1878.0	1187.9	163.5	173.2	200.9	236.3	268.3	270.8	247.5	262.0	237.8
80°	499.3	327.6	124.7	136.4	157.7	195.1	233.4	232.4	207.2	193.6	180.0
82.5°	190.2	129.1	88.8	96.1	114.0	149.5	184.9	190.7	165.5	143.2	143.2
85°	73.3	55.3	54.8	57.7	66.5	99.0	139.8	144.6	124.7	105.8	109.2
87.5°	18.9	16.5	20.4	19.4	30.6	52.9	80.1	83.0	76.2	44.2	63.1
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)