

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: P882447

Luminaire Tested: **NAV-SB2B-827-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882447
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-SB2B-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9239 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

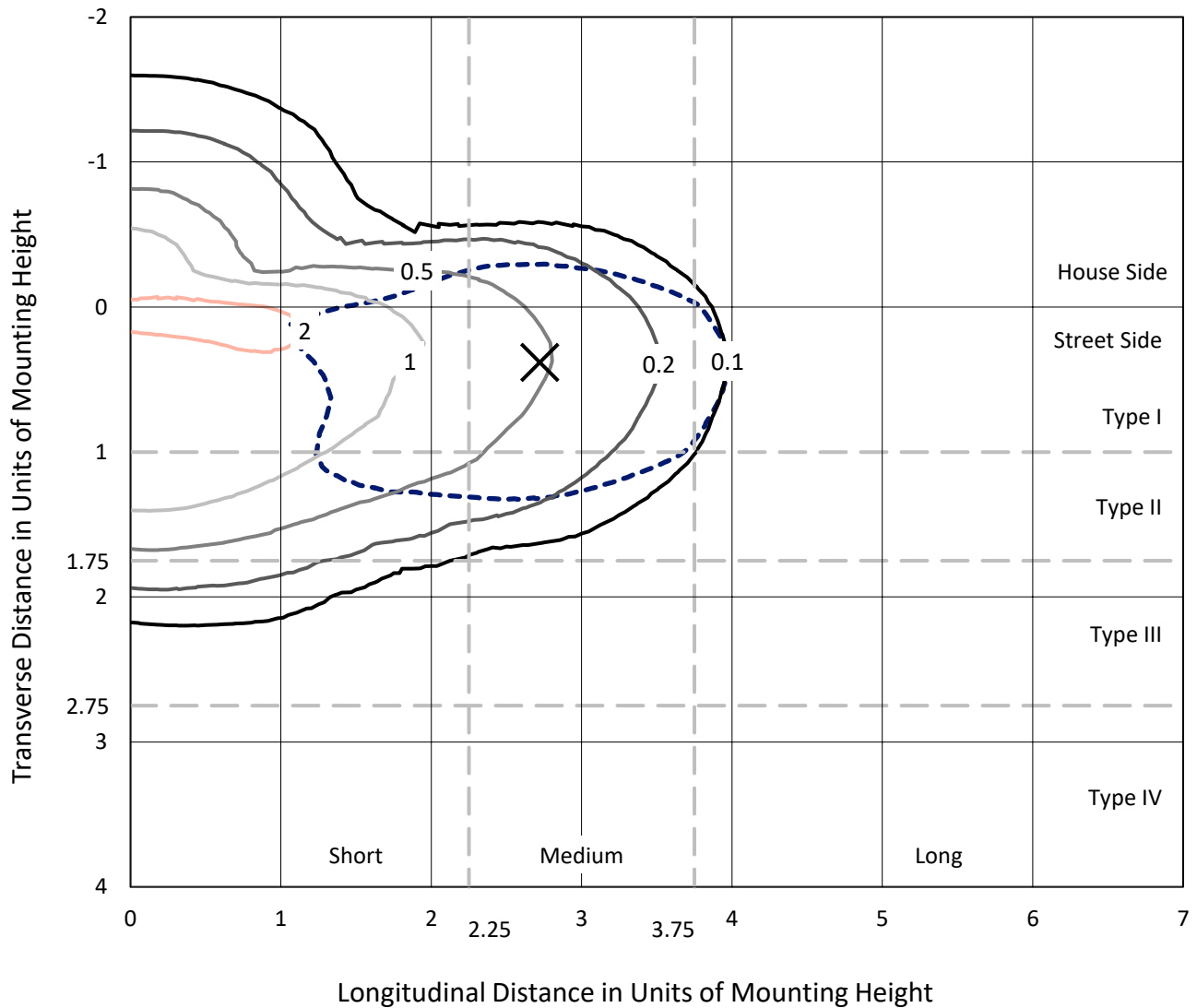
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

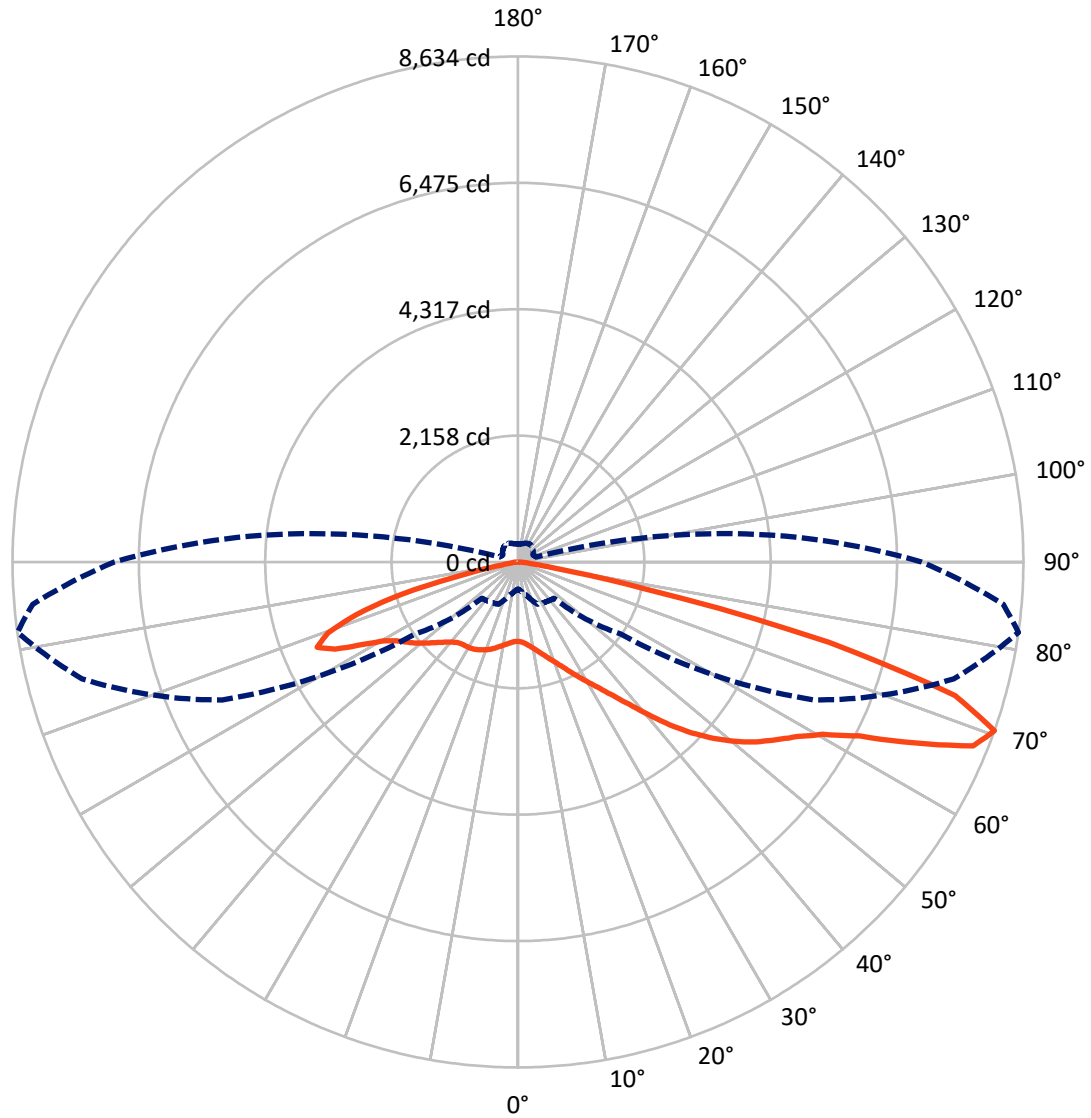
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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
House Side	Lumens	2277.6	0.0	2277.6
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	6961.4	0.0	6961.4
	% Fixture	75.3	0.0	75.3
Total	Lumens	9239.0	0.0	9239.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.9	1.4
10°-20°	367.4	4.0
20°-30°	614.7	6.7
30°-40°	960.3	10.4
40°-50°	1529.4	16.6
50°-60°	2128.4	23.0
60°-70°	2226.4	24.1
70°-80°	1163.6	12.6
80°-90°	120.8	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°	9239.0	100.0
0°-180°	9239.0	100.0

Coefficient of Utilization



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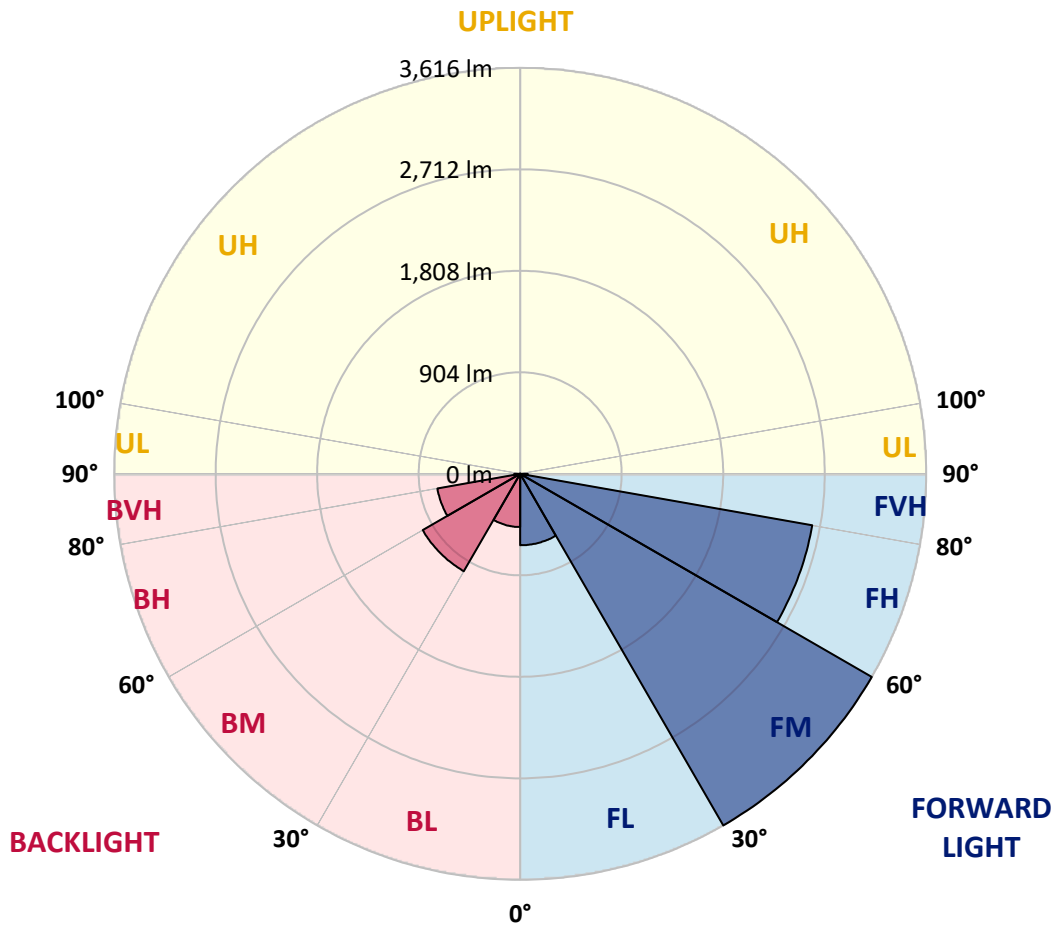
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	636.2	6.9			
FM (30°-60°)	3616.1	39.1			
FH (60°-80°)	2641.5	28.6			G2/5000
FVH (80°-90°)	67.6	0.7			G1/100
BL (0°-30°)	473.8	5.1	B1/500		
BM (30°-60°)	1002.1	10.8	B2/2500		
BH (60°-80°)	748.6	8.1	B2/1000		G2/1000
BVH (80°-90°)	53.2	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°	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6
2.5°	1386.9	1394.8	1392.3	1389.9	1389.9	1386.4	1385.9	1381.0	1377.1	1370.7	1369.3
5°	1404.6	1412.9	1411.9	1413.9	1420.2	1421.7	1423.2	1420.2	1412.4	1404.6	1401.1
7.5°	1388.9	1398.2	1401.1	1412.9	1432.5	1450.2	1463.4	1468.8	1461.4	1450.2	1444.8
10°	1335.9	1346.2	1356.5	1384.5	1419.3	1460.9	1496.2	1517.3	1515.8	1505.1	1495.7
12.5°	1228.6	1239.3	1261.4	1315.8	1379.6	1453.1	1518.8	1562.9	1578.1	1570.3	1554.1
15°	1142.8	1152.1	1168.7	1224.6	1307.5	1419.3	1527.1	1612.9	1651.6	1647.2	1627.6
17.5°	1140.3	1144.2	1154.5	1181.0	1244.7	1366.3	1518.3	1661.9	1736.0	1735.5	1711.0
20°	1183.5	1184.9	1190.8	1196.2	1232.5	1326.1	1495.7	1702.6	1830.6	1830.6	1804.1
22.5°	1243.3	1242.3	1248.2	1243.3	1260.9	1322.7	1481.5	1738.4	1936.0	1943.8	1910.5
25°	1333.0	1328.1	1326.6	1315.3	1318.8	1354.6	1497.2	1779.1	2061.0	2077.2	2035.5
27.5°	1452.6	1444.8	1439.4	1413.4	1404.6	1420.2	1545.3	1828.1	2200.2	2228.2	2175.2
30°	1608.5	1594.3	1586.4	1541.3	1509.5	1511.9	1617.8	1893.3	2345.8	2390.9	2323.8
32.5°	1821.3	1799.2	1778.1	1704.1	1645.8	1626.6	1711.5	1983.5	2503.7	2575.8	2489.5
35°	2059.5	2041.9	2019.3	1905.1	1815.4	1771.3	1837.9	2109.5	2688.5	2802.7	2690.5
37.5°	2289.0	2273.8	2284.6	2130.6	2014.9	1950.7	2003.6	2278.7	2916.5	3085.1	2942.5
40°	2526.2	2514.5	2515.9	2368.9	2234.1	2162.0	2204.6	2490.9	3177.8	3420.9	3245.4
42.5°	2784.1	2775.3	2745.9	2615.5	2464.0	2396.8	2436.0	2736.1	3458.2	3803.3	3577.8
45°	3072.9	3067.5	3040.0	2890.5	2716.9	2641.5	2694.4	3006.7	3740.1	4163.2	3911.7
47.5°	3322.4	3326.8	3323.4	3197.4	3017.5	2906.7	2969.9	3289.1	4002.4	4501.4	4231.8
50°	3442.5	3465.6	3499.4	3460.2	3348.4	3235.6	3247.9	3561.6	4252.4	4818.6	4538.7
52.5°	3379.8	3423.4	3515.6	3578.3	3621.5	3597.9	3565.1	3832.3	4487.7	5104.9	4828.9
55°	3145.9	3207.2	3360.2	3511.6	3731.8	3902.9	3946.0	4132.3	4717.2	5356.9	5103.5
57.5°	2719.9	2819.4	2956.7	3263.1	3633.7	4050.4	4390.2	4548.5	4960.3	5626.1	5390.8
60°	1989.4	2122.8	2293.4	2749.3	3290.5	3971.5	4768.1	5187.8	5305.9	5974.6	5764.8
62.5°	1273.2	1355.5	1512.4	1941.9	2564.0	3567.0	4883.8	5986.9	5891.8	6546.3	6325.7
65°	871.7	924.6	1068.2	1309.5	1657.5	2655.2	4574.0	6586.0	6822.3	7452.2	7284.6
67.5°	633.4	673.6	796.2	1007.5	1080.0	1571.2	3549.4	6558.5	7726.8	8385.7	8124.9
70°	461.8	490.2	593.2	796.2	831.0	874.1	2150.2	5575.1	7707.2	8633.7	8321.5
72.5°	342.2	361.8	430.9	617.7	672.6	590.3	1064.3	4051.9	6622.7	7809.1	7558.6
75°	247.6	262.3	313.3	472.6	538.3	449.6	530.9	2367.9	4619.6	5493.2	5537.3
77.5°	189.2	200.5	233.8	346.1	430.9	337.3	329.4	1089.3	2190.4	2201.2	2324.8
80°	152.0	159.3	177.5	243.7	330.4	252.5	214.7	439.8	692.2	585.8	614.8
82.5°	111.8	124.0	150.0	171.1	236.3	174.0	130.9	222.1	263.3	226.5	228.5
85°	63.7	72.1	90.7	122.6	151.0	106.4	75.0	98.5	122.6	100.5	89.7
87.5°	22.6	29.4	31.9	48.0	65.7	44.1	28.9	28.4	40.2	29.9	25.0
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°	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6	1354.6
2.5°	1364.4	1361.9	1352.1	1338.9	1325.1	1311.9	1307.5	1298.2	1291.8	1288.4	1292.3
5°	1391.8	1384.0	1360.9	1331.5	1300.6	1267.3	1243.8	1222.2	1206.5	1191.8	1197.7
7.5°	1431.0	1417.3	1377.6	1326.1	1271.2	1215.8	1174.6	1143.3	1122.2	1108.4	1111.4
10°	1476.6	1455.5	1394.8	1317.8	1233.0	1153.6	1105.0	1078.1	1064.8	1057.5	1059.4
12.5°	1529.1	1499.2	1412.4	1298.7	1174.6	1083.9	1050.6	1042.8	1043.2	1043.7	1044.7
15°	1593.8	1552.1	1426.6	1257.0	1098.6	1030.5	1024.6	1037.4	1050.6	1057.0	1056.5
17.5°	1666.8	1608.0	1429.1	1188.4	1024.1	996.2	1014.8	1042.3	1062.4	1071.2	1073.2
20°	1745.3	1664.9	1411.4	1091.3	962.8	968.2	1001.6	1036.9	1058.9	1070.2	1073.2
22.5°	1835.0	1725.7	1369.3	989.3	912.8	937.8	977.1	1011.4	1034.4	1045.7	1048.6
25°	1937.5	1793.8	1303.1	903.5	869.7	903.5	942.7	971.2	989.8	1000.1	1003.0
27.5°	2051.2	1864.9	1214.8	835.4	831.9	868.2	900.6	922.6	932.5	940.3	943.2
30°	2165.4	1929.6	1108.0	783.9	799.1	833.4	856.5	866.3	869.2	870.7	874.1
32.5°	2289.0	1985.5	995.7	741.3	767.7	799.6	813.3	817.7	804.0	794.7	797.6
35°	2438.5	2045.3	885.9	707.4	736.8	764.3	768.7	764.8	748.6	729.5	730.5
37.5°	2623.3	2119.8	798.1	683.4	707.9	726.1	720.7	719.7	721.2	698.6	700.1
40°	2849.8	2216.9	733.9	664.8	684.4	688.3	673.1	681.4	688.8	654.5	655.5
42.5°	3101.3	2334.1	693.2	652.0	664.8	655.5	631.9	641.2	640.3	595.2	594.7
45°	3357.7	2461.5	679.0	642.7	646.6	628.0	602.0	604.5	583.9	543.2	544.7
47.5°	3612.6	2598.3	687.8	634.9	624.1	603.0	582.9	572.1	541.7	511.3	511.3
50°	3862.7	2742.0	720.2	619.2	593.2	580.9	566.2	547.1	514.8	488.8	486.8
52.5°	4094.5	2886.6	756.5	593.2	554.5	561.8	552.5	530.4	498.6	472.1	472.6
55°	4314.2	3031.2	770.7	557.4	518.2	545.2	539.8	499.1	460.8	439.3	437.3
57.5°	4553.4	3205.2	755.0	511.8	488.8	526.0	505.4	460.3	438.3	422.1	420.6
60°	4884.8	3478.3	721.2	455.4	460.8	497.6	462.3	443.7	419.7	401.5	400.5
62.5°	5435.4	3987.7	666.7	399.6	428.0	455.4	441.7	423.1	398.6	380.9	380.9
65°	6249.2	4695.6	564.3	355.9	391.2	414.3	419.7	401.0	375.5	356.9	357.9
67.5°	6935.5	5139.8	427.0	319.6	353.5	380.9	396.1	378.0	351.0	332.9	333.4
70°	6897.8	4817.2	326.0	283.9	320.1	348.1	367.7	353.5	324.5	307.4	308.9
72.5°	6126.6	4029.8	263.8	247.6	286.3	313.8	337.3	326.5	297.1	280.4	280.4
75°	4501.0	2860.6	210.8	210.8	244.1	278.0	304.0	297.1	270.1	258.4	254.9
77.5°	1897.3	1200.1	165.2	175.0	203.0	238.8	271.1	273.6	250.0	264.7	240.2
80°	504.5	330.9	126.0	137.8	159.3	197.1	235.8	234.8	209.3	195.6	181.9
82.5°	192.2	130.4	89.7	97.1	115.2	151.0	186.8	192.7	167.2	144.6	144.6
85°	74.0	55.9	55.4	58.3	67.2	100.0	141.2	146.1	126.0	106.9	110.3
87.5°	19.1	16.7	20.6	19.6	30.9	53.4	80.9	83.8	77.0	44.6	63.7
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)