

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: P882894

Luminaire Tested: **NAV-SB3A-727-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882894
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-727-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12087 lumens
Efficiency: N/A
Efficacy: 142.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

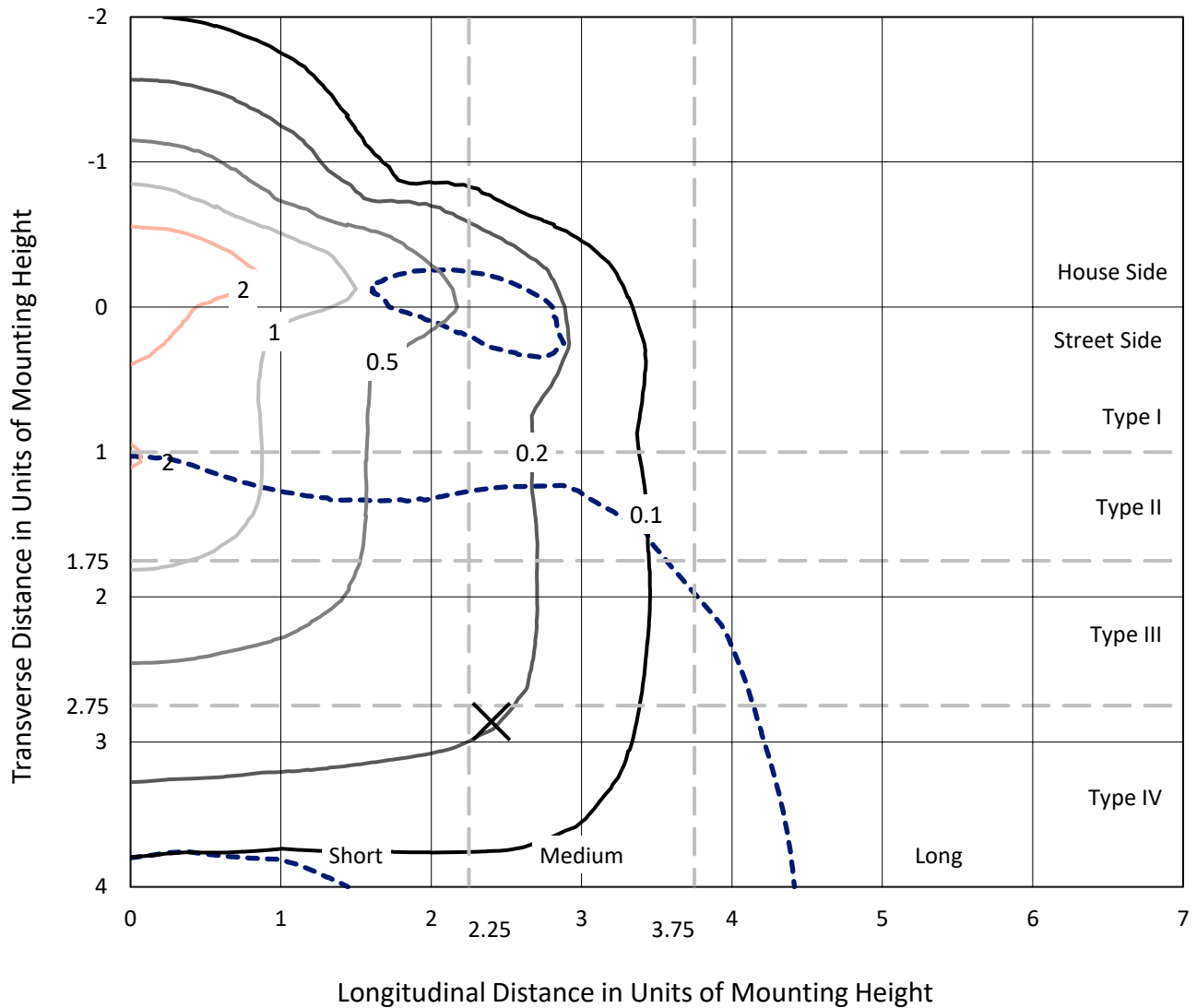
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P882894
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Iso-Footcandle Lines of Horizontal Illumination

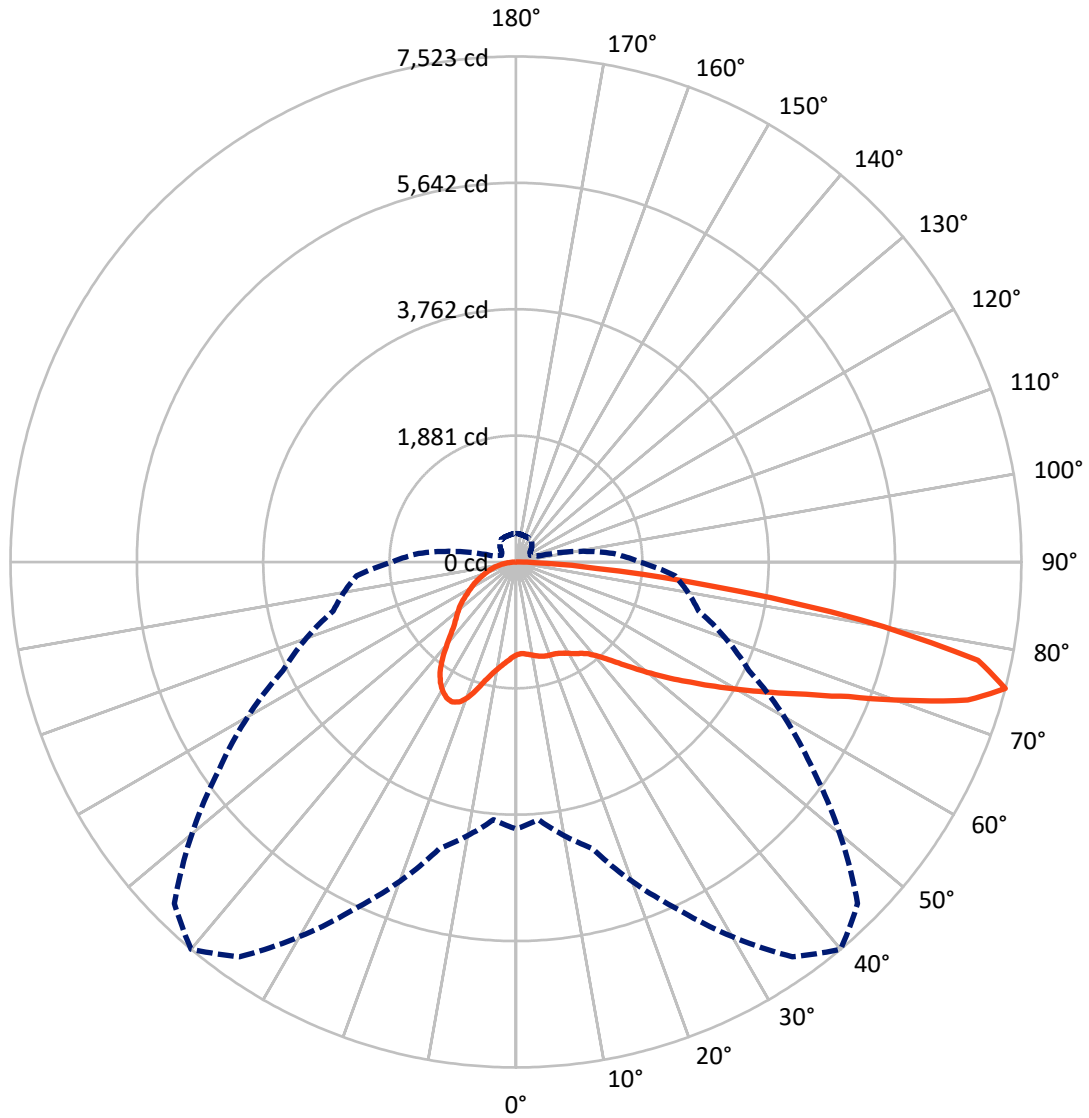
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Medium - N/A

REPORT NUMBER: P882894
CATALOG NUMBER: NAV-SB3A-727-U-SL4

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P882894

CATALOG NUMBER: NAV-SB3A-727-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3744.9	0.0	3744.9
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	8342.0	0.0	8342.0
	% Fixture	69.0	0.0	69.0
Total	Lumens	12087.0	0.0	12087.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.0	1.1
10°-20°	463.2	3.8
20°-30°	845.8	7.0
30°-40°	1199.6	9.9
40°-50°	1619.8	13.4
50°-60°	2179.0	18.0
60°-70°	2765.7	22.9
70°-80°	2510.0	20.8
80°-90°	365.9	3.0
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°	12087.0	100.0
0°-180°	12087.0	100.0

Coefficient of Utilization



REPORT NUMBER: P882894

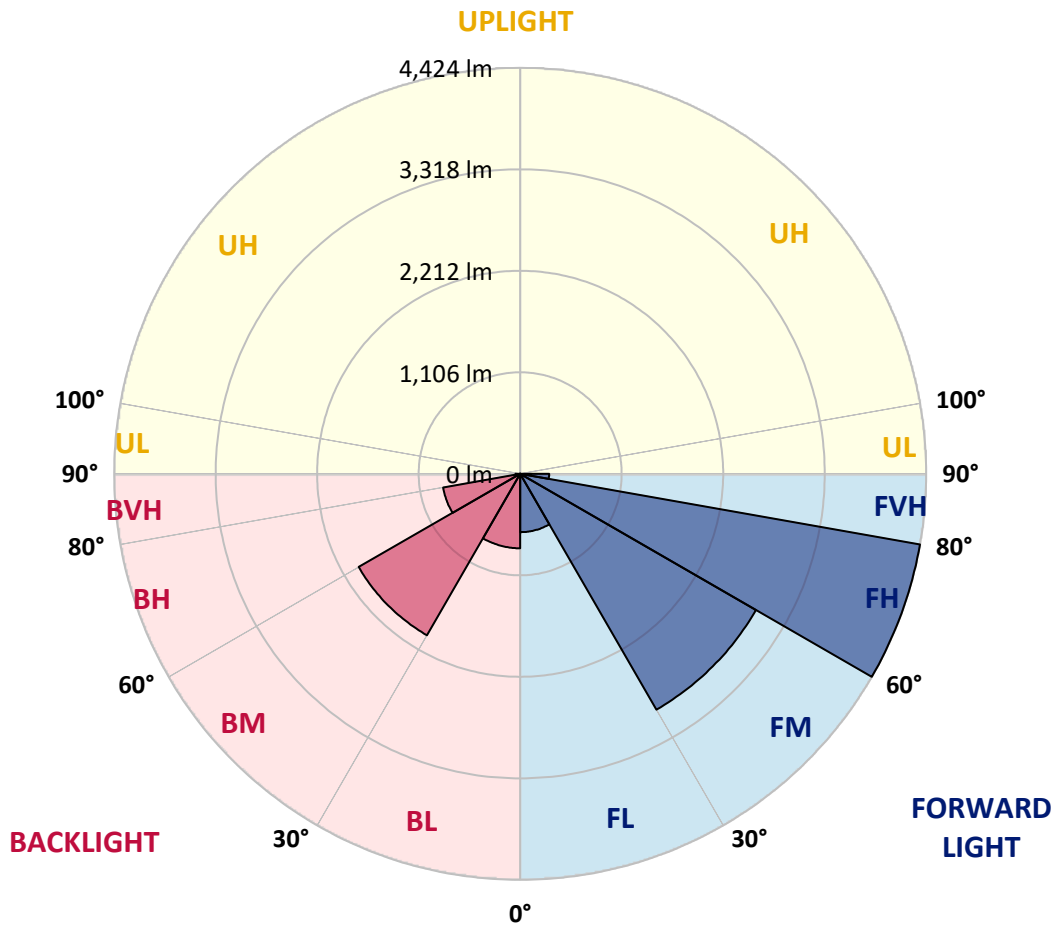
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	635.8	5.3			
FM (30°-60°)	2967.1	24.5			
FH (60°-80°)	4423.7	36.6			G2/5000
FVH (80°-90°)	315.5	2.6			G3/500
BL (0°-30°)	811.2	6.7	B2/1000		
BM (30°-60°)	2031.3	16.8	B2/2500		
BH (60°-80°)	852.1	7.0	B2/1000		G2/1000
BVH (80°-90°)	50.4	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Medium



REPORT NUMBER: P882894

CATALOG NUMBER: NAV-SB3A-727-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2
2.5°	1361.0	1368.7	1366.8	1364.2	1364.2	1364.9	1364.2	1368.7	1373.2	1377.7	1384.7
5°	1375.1	1382.8	1379.0	1375.8	1373.2	1372.5	1370.6	1370.0	1372.5	1378.3	1387.9
7.5°	1402.7	1410.4	1404.6	1398.8	1393.7	1391.1	1388.6	1384.7	1382.8	1386.0	1399.5
10°	1433.5	1441.1	1434.1	1423.8	1415.5	1412.3	1409.7	1405.9	1403.3	1405.2	1420.0
12.5°	1464.2	1471.9	1462.3	1448.2	1437.3	1435.4	1432.2	1430.9	1430.2	1429.6	1444.3
15°	1493.1	1499.5	1487.3	1470.6	1459.1	1455.9	1452.7	1454.6	1457.8	1461.7	1478.3
17.5°	1515.5	1521.9	1504.0	1482.2	1471.3	1470.0	1468.1	1474.5	1483.5	1493.1	1513.6
20°	1536.0	1542.4	1519.4	1489.9	1477.0	1477.0	1477.7	1491.1	1504.0	1518.1	1546.3
22.5°	1564.9	1570.0	1541.8	1501.4	1482.8	1484.1	1489.2	1502.7	1518.7	1537.9	1577.1
25°	1607.8	1611.7	1577.1	1523.2	1502.0	1505.9	1510.4	1516.8	1532.2	1554.6	1607.2
27.5°	1677.1	1680.3	1634.7	1561.7	1529.6	1536.0	1542.4	1537.9	1545.0	1564.2	1631.5
30°	1774.5	1776.4	1718.7	1621.9	1576.4	1579.6	1580.9	1562.3	1548.8	1564.2	1648.9
32.5°	1889.9	1889.3	1820.7	1695.0	1629.6	1626.4	1615.5	1579.0	1547.6	1561.0	1664.2
35°	2068.8	2061.7	1973.2	1797.6	1689.9	1670.0	1644.4	1597.6	1554.0	1557.8	1677.7
37.5°	2364.9	2343.1	2220.7	1965.5	1779.6	1729.0	1691.2	1627.7	1568.1	1556.5	1693.7
40°	2698.9	2671.4	2536.7	2195.7	1914.3	1832.8	1771.9	1670.6	1591.2	1562.3	1717.4
42.5°	3095.1	3056.0	2911.1	2466.9	2084.8	1966.8	1875.2	1725.1	1625.1	1580.9	1749.5
45°	3581.7	3529.8	3324.6	2772.7	2299.5	2142.5	2020.0	1807.8	1677.1	1616.8	1797.6
47.5°	4073.4	4086.2	3794.5	3122.7	2557.3	2359.2	2201.5	1932.2	1752.7	1674.5	1875.2
50°	4595.9	4604.9	4261.9	3510.5	2849.6	2604.1	2405.3	2071.3	1857.8	1756.6	1991.2
52.5°	5003.6	5004.9	4686.3	3916.3	3154.1	2873.3	2625.2	2230.3	1979.6	1865.5	2145.7
55°	5258.8	5255.6	4983.7	4300.4	3504.1	3156.0	2868.8	2411.1	2128.4	1993.8	2339.9
57.5°	5444.0	5434.4	5188.9	4630.5	3877.2	3490.0	3144.5	2616.2	2304.0	2146.3	2595.7
60°	5514.6	5508.8	5328.0	4915.8	4269.6	3859.3	3462.5	2845.7	2503.4	2326.5	2924.6
62.5°	5541.5	5552.4	5464.6	5192.1	4689.5	4268.3	3811.9	3120.1	2727.8	2530.3	3271.4
65°	5636.4	5656.2	5638.3	5553.7	5163.9	4747.2	4275.4	3446.4	2972.7	2748.9	3633.6
67.5°	5824.2	5844.1	5851.8	5986.4	5743.4	5344.0	4853.6	3852.9	3259.2	2975.9	3906.1
70°	5819.7	5813.9	5949.8	6330.6	6469.1	6170.4	5633.2	4352.9	3600.9	3164.4	3940.7
72.5°	5297.2	5251.1	5572.3	6326.8	7073.0	7033.3	6585.2	4997.8	3895.8	3187.4	3419.5
75°	3974.0	3851.0	4418.3	5701.7	7173.7	7523.1	7190.3	5397.9	3826.0	2816.3	2379.7
77.5°	1699.5	1575.8	2244.4	4220.9	6420.4	7032.6	6635.2	4709.4	3054.1	1862.3	1168.7
80°	444.9	444.3	678.3	1913.6	4366.4	5193.4	4556.1	3041.3	1745.0	665.4	322.5
82.5°	184.0	179.5	249.4	744.3	2133.5	2914.3	2378.4	1356.5	630.2	180.1	107.1
85°	68.6	68.0	121.2	257.1	752.6	1202.0	869.9	346.8	157.1	87.8	48.1
87.5°	19.2	18.6	26.3	89.1	183.3	278.2	148.7	57.1	44.2	34.6	14.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P882894
 CATALOG NUMBER: NAV-SB3A-727-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2
2.5°	1386.7	1389.9	1395.6	1400.1	1405.9	1412.3	1421.3	1427.0	1432.8	1436.7	1434.1
5°	1392.4	1399.5	1414.2	1429.0	1446.3	1462.3	1480.9	1494.4	1505.3	1508.5	1509.7
7.5°	1405.2	1416.8	1441.8	1466.8	1494.4	1520.6	1547.6	1570.6	1589.2	1596.3	1596.9
10°	1427.7	1443.1	1478.3	1513.6	1550.1	1590.5	1625.1	1658.5	1684.8	1695.7	1696.3
12.5°	1455.9	1475.1	1521.3	1570.0	1620.6	1676.4	1721.3	1762.3	1795.0	1809.8	1809.8
15°	1492.4	1517.4	1576.4	1641.8	1716.2	1793.7	1850.8	1896.3	1932.9	1950.8	1949.5
17.5°	1532.2	1565.5	1639.9	1738.6	1845.0	1947.0	2013.6	2047.0	2084.8	2102.1	2101.5
20°	1570.6	1611.7	1718.1	1861.7	2003.4	2111.7	2165.6	2174.5	2177.1	2179.0	2184.2
22.5°	1610.4	1665.5	1816.2	2016.8	2168.8	2243.8	2251.5	2213.0	2159.2	2134.1	2141.2
25°	1654.0	1727.1	1944.4	2188.0	2311.1	2320.1	2261.1	2167.5	2065.6	2018.8	2025.8
27.5°	1696.3	1798.2	2098.2	2351.5	2413.7	2334.8	2207.9	2075.2	1952.1	1902.7	1908.5
30°	1738.6	1879.6	2268.1	2494.4	2460.5	2298.3	2123.9	1975.8	1852.1	1800.1	1805.9
32.5°	1781.6	1974.5	2463.7	2597.6	2452.1	2220.7	2019.4	1864.3	1755.3	1700.8	1707.8
35°	1830.3	2091.2	2648.9	2654.1	2396.4	2106.6	1881.6	1730.9	1636.0	1592.4	1602.1
37.5°	1893.7	2239.3	2812.4	2668.2	2298.9	1939.3	1710.4	1573.2	1495.0	1475.1	1489.2
40°	1972.6	2417.5	2937.4	2645.7	2154.7	1736.0	1523.2	1413.6	1369.3	1373.8	1389.2
42.5°	2075.2	2616.9	3025.2	2588.0	1954.0	1526.4	1359.1	1310.4	1331.5	1349.5	1366.1
45°	2208.5	2823.9	3079.7	2489.9	1727.1	1348.8	1262.3	1273.8	1289.8	1291.8	1304.6
47.5°	2379.0	3033.6	3115.6	2341.9	1495.6	1223.8	1200.7	1203.3	1200.1	1186.6	1196.9
50°	2591.9	3237.4	3147.7	2145.7	1298.8	1145.6	1114.8	1105.9	1061.6	1018.0	1023.8
52.5°	2834.2	3424.6	3161.2	1902.1	1145.6	1080.2	1030.2	973.8	891.1	877.6	882.1
55°	3103.5	3597.7	3126.5	1602.7	1016.7	996.2	920.6	852.6	843.7	832.1	834.0
57.5°	3425.3	3784.3	3056.0	1268.7	884.7	898.2	824.4	832.1	816.1	798.1	794.9
60°	3777.2	3977.2	2932.3	964.2	748.1	775.7	799.4	798.8	794.3	779.6	774.4
62.5°	4093.9	4104.2	2688.7	738.5	628.3	680.8	745.6	744.9	741.1	732.8	729.5
65°	4282.4	4085.0	2282.2	581.5	529.5	602.6	672.5	677.6	678.3	677.6	677.6
67.5°	4249.1	3859.9	1724.5	462.9	448.1	523.1	600.0	607.1	612.2	613.5	614.8
70°	3872.1	3365.7	1124.5	369.3	375.7	453.2	531.5	538.5	543.0	548.1	550.7
72.5°	3018.2	2474.6	643.6	298.7	312.2	393.0	463.5	471.8	474.4	484.0	487.9
75°	1839.3	1455.2	347.5	235.3	256.4	335.9	396.2	405.8	410.3	421.8	423.1
77.5°	874.4	630.2	198.1	183.3	206.4	274.4	334.6	345.5	333.4	339.8	334.6
80°	295.5	234.0	125.0	139.8	157.7	214.1	268.0	278.9	253.2	251.9	249.4
82.5°	103.2	94.9	79.5	93.0	101.9	153.2	202.6	216.7	188.5	187.8	178.9
85°	40.4	38.5	44.2	50.6	60.9	94.2	133.3	140.4	116.0	93.6	92.3
87.5°	8.3	9.0	10.9	11.5	18.6	32.7	48.1	59.0	46.8	39.7	36.5
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)