

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: P882614

Luminaire Tested: **NAV-SB2C-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882614
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-SB2C-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 615mA 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: 12293 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

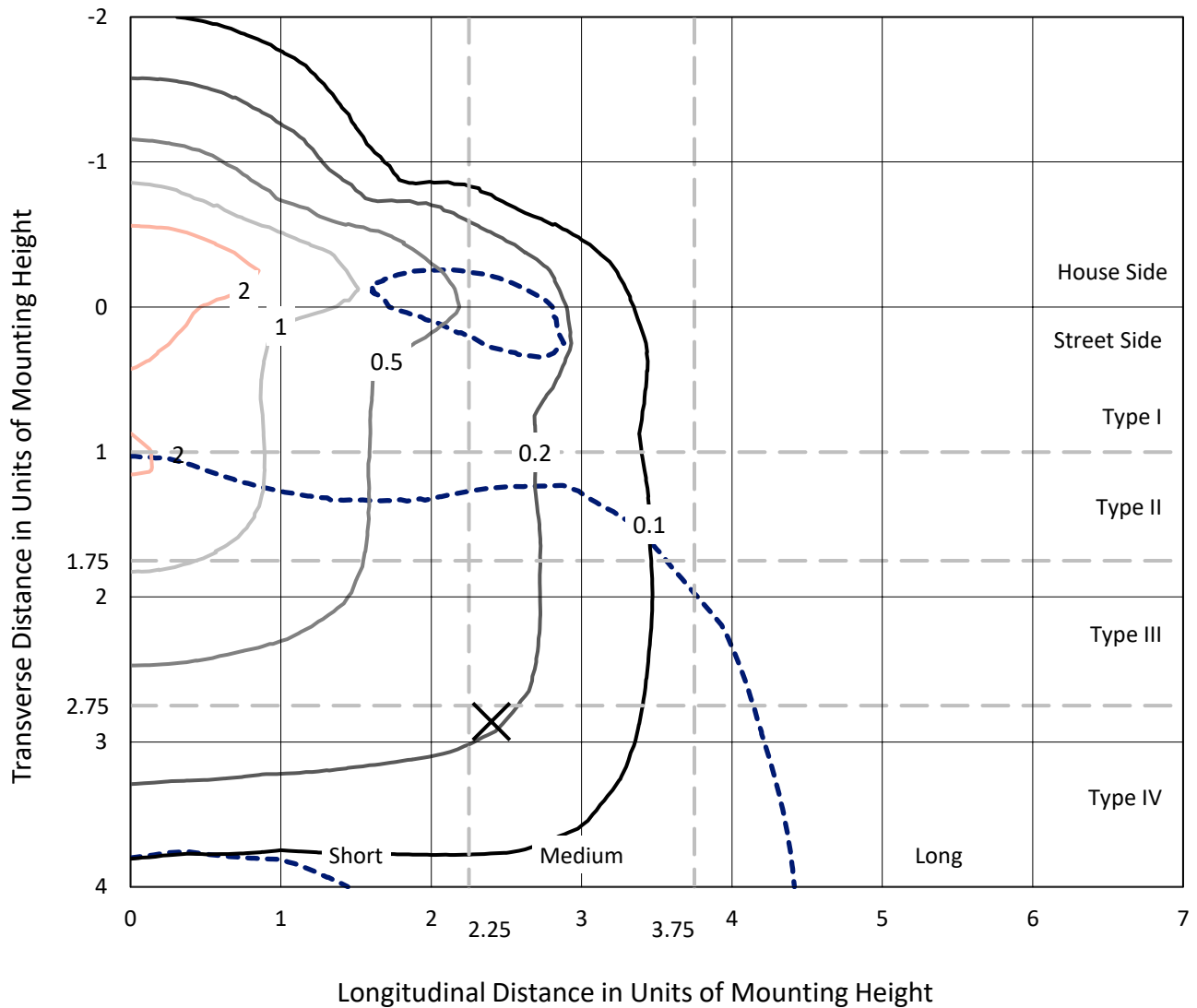
Input Watts (W): 100.9
Input Voltage (V): 120.0
Input Current (Ain): 0.857
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

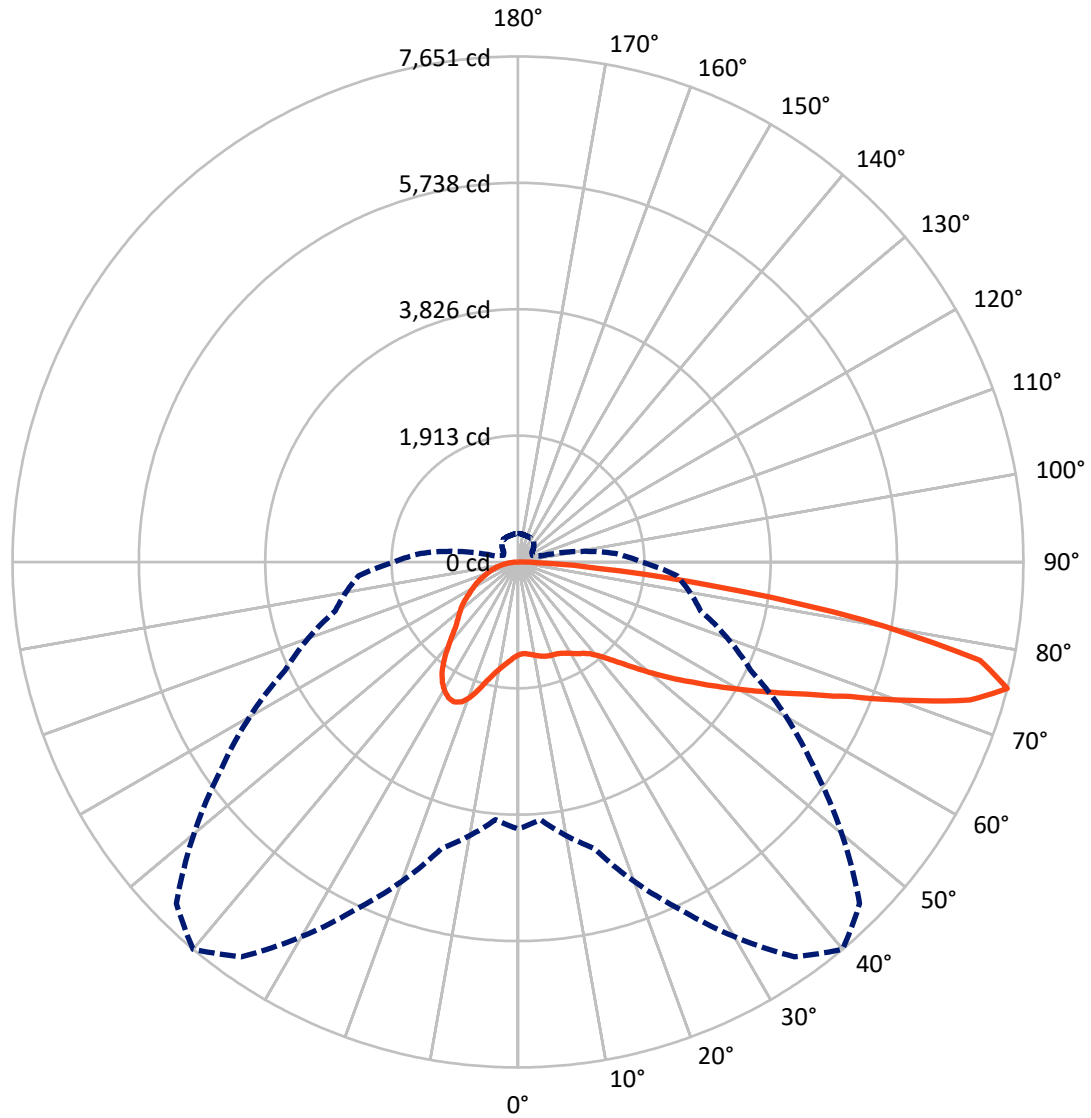
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3808.8	0.0	3808.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	8484.2	0.0	8484.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	12293.0	0.0	12293.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.3	1.1
10°-20°	471.1	3.8
20°-30°	860.2	7.0
30°-40°	1220.0	9.9
40°-50°	1647.4	13.4
50°-60°	2216.2	18.0
60°-70°	2812.8	22.9
70°-80°	2552.8	20.8
80°-90°	372.1	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°	12293.0	100.0
0°-180°	12293.0	100.0

Coefficient of Utilization



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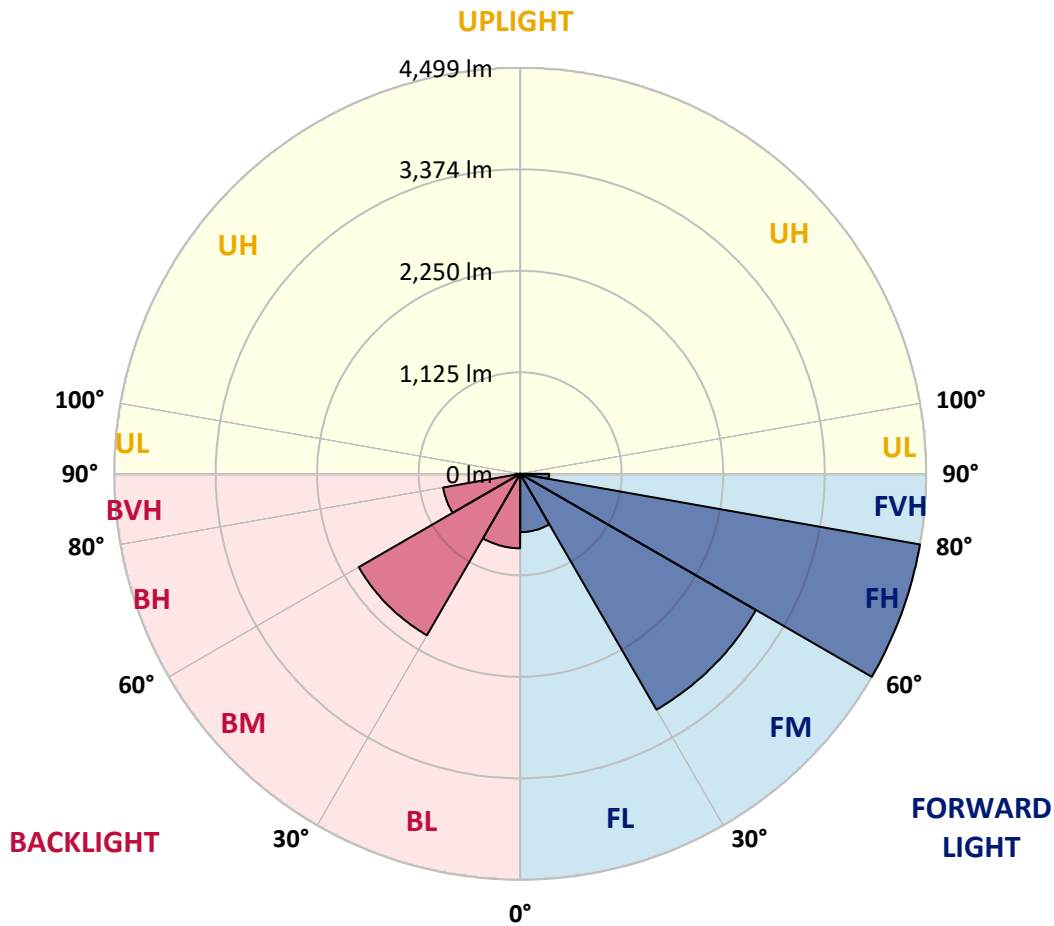
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	646.6	5.3			
FM (30°-60°)	3017.7	24.5			
FH (60°-80°)	4499.1	36.6			G2/5000
FVH (80°-90°)	320.9	2.6			G3/500
BL (0°-30°)	825.0	6.7	B2/1000		
BM (30°-60°)	2065.9	16.8	B2/2500		
BH (60°-80°)	866.6	7.0	B2/1000		G2/1000
BVH (80°-90°)	51.2	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7
2.5°	1384.2	1392.0	1390.1	1387.5	1387.5	1388.1	1387.5	1392.0	1396.6	1401.2	1408.3
5°	1398.5	1406.4	1402.5	1399.2	1396.6	1395.9	1394.0	1393.3	1395.9	1401.8	1411.6
7.5°	1426.6	1434.4	1428.5	1422.7	1417.5	1414.8	1412.2	1408.3	1406.4	1409.6	1423.3
10°	1457.9	1465.7	1458.5	1448.1	1439.6	1436.4	1433.8	1429.8	1427.2	1429.2	1444.2
12.5°	1489.2	1497.0	1487.2	1472.9	1461.8	1459.8	1456.6	1455.3	1454.6	1454.0	1469.0
15°	1518.5	1525.0	1512.6	1495.7	1484.0	1480.7	1477.4	1479.4	1482.7	1486.6	1503.5
17.5°	1541.3	1547.9	1529.6	1507.4	1496.3	1495.0	1493.1	1499.6	1508.7	1518.5	1539.4
20°	1562.2	1568.7	1545.2	1515.3	1502.2	1502.2	1502.9	1516.6	1529.6	1543.9	1572.6
22.5°	1591.5	1596.8	1568.1	1527.0	1508.1	1509.4	1514.6	1528.3	1544.6	1564.2	1603.9
25°	1635.2	1639.1	1603.9	1549.2	1527.6	1531.6	1536.1	1542.6	1558.3	1581.1	1634.6
27.5°	1705.6	1708.9	1662.6	1588.3	1555.7	1562.2	1568.7	1564.2	1571.3	1590.9	1659.4
30°	1804.7	1806.7	1748.0	1649.6	1603.3	1606.5	1607.8	1588.9	1575.2	1590.9	1677.0
32.5°	1922.1	1921.5	1851.7	1723.9	1657.4	1654.1	1643.1	1605.9	1573.9	1587.6	1692.6
35°	2104.0	2096.8	2006.9	1828.2	1718.7	1698.5	1672.4	1624.8	1580.5	1584.4	1706.3
37.5°	2405.2	2383.1	2258.5	1999.0	1810.0	1758.5	1720.0	1655.4	1594.8	1583.1	1722.6
40°	2744.9	2716.9	2580.0	2233.1	1946.9	1864.1	1802.1	1699.1	1618.3	1588.9	1746.7
42.5°	3147.9	3108.1	2960.8	2508.9	2120.3	2000.3	1907.1	1754.5	1652.8	1607.8	1779.3
45°	3642.7	3589.9	3381.3	2819.9	2338.7	2179.0	2054.5	1838.7	1705.6	1644.4	1828.2
47.5°	4142.8	4155.9	3859.2	3175.9	2600.8	2399.4	2239.0	1965.1	1782.6	1703.0	1907.1
50°	4674.2	4683.3	4334.5	3570.4	2898.2	2648.4	2446.3	2106.6	1889.5	1786.5	2025.1
52.5°	5088.9	5090.2	4766.2	3983.1	3207.9	2922.3	2670.0	2268.3	2013.4	1897.3	2182.3
55°	5348.4	5345.1	5068.7	4373.6	3563.9	3209.8	2917.7	2452.2	2164.7	2027.7	2379.8
57.5°	5536.8	5527.0	5277.3	4709.4	3943.3	3549.5	3198.1	2660.8	2343.3	2182.9	2640.0
60°	5608.5	5602.7	5418.8	4999.6	4342.3	3925.1	3521.5	2894.2	2546.1	2366.1	2974.4
62.5°	5635.9	5647.0	5557.7	5280.6	4769.4	4341.0	3876.8	3173.3	2774.3	2573.5	3327.2
65°	5732.4	5752.6	5734.4	5648.3	5251.9	4828.1	4348.2	3505.2	3023.3	2795.8	3695.6
67.5°	5923.5	5943.7	5951.5	6088.4	5841.3	5435.1	4936.3	3918.5	3314.8	3026.6	3972.7
70°	5918.9	5913.0	6051.3	6438.5	6579.4	6275.5	5729.2	4427.1	3662.3	3218.3	4007.9
72.5°	5387.5	5340.6	5667.2	6434.6	7193.6	7153.1	6697.4	5083.0	3962.2	3241.8	3477.8
75°	4041.8	3916.6	4493.6	5798.9	7295.9	7651.3	7312.9	5489.9	3891.2	2864.3	2420.2
77.5°	1728.5	1602.6	2282.7	4292.8	6529.8	7152.5	6748.2	4789.6	3106.1	1894.1	1188.6
80°	452.5	451.8	689.8	1946.2	4440.8	5281.9	4633.8	3093.1	1774.8	676.8	328.0
82.5°	187.1	182.6	253.6	757.0	2169.9	2964.0	2418.9	1379.6	640.9	183.2	108.9
85°	69.8	69.1	123.2	261.5	765.5	1222.5	884.8	352.7	159.7	89.3	48.9
87.5°	19.6	18.9	26.7	90.6	186.5	283.0	151.3	58.0	45.0	35.2	14.3
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°	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7
2.5°	1410.3	1413.5	1419.4	1424.0	1429.8	1436.4	1445.5	1451.4	1457.2	1461.1	1458.5
5°	1416.2	1423.3	1438.3	1453.3	1470.9	1487.2	1506.1	1519.8	1530.9	1534.2	1535.5
7.5°	1429.2	1440.9	1466.4	1491.8	1519.8	1546.6	1573.9	1597.4	1616.3	1623.5	1624.1
10°	1452.0	1467.7	1503.5	1539.4	1576.5	1617.6	1652.8	1686.7	1713.5	1724.6	1725.2
12.5°	1480.7	1500.3	1547.2	1596.8	1648.3	1705.0	1750.6	1792.4	1825.6	1840.6	1840.6
15°	1517.9	1543.3	1603.3	1669.8	1745.4	1824.3	1882.3	1928.6	1965.8	1984.0	1982.7
17.5°	1558.3	1592.2	1667.8	1768.2	1876.5	1980.1	2047.9	2081.8	2120.3	2137.9	2137.3
20°	1597.4	1639.1	1747.4	1893.4	2037.5	2147.7	2202.5	2211.6	2214.2	2216.2	2221.4
22.5°	1637.8	1693.9	1847.1	2051.2	2205.7	2282.0	2289.8	2250.7	2195.9	2170.5	2177.7
25°	1682.2	1756.5	1977.5	2225.3	2350.5	2359.6	2299.6	2204.4	2100.8	2053.2	2060.3
27.5°	1725.2	1828.9	2134.0	2391.6	2454.8	2374.6	2245.5	2110.5	1985.4	1935.1	1941.0
30°	1768.2	1911.7	2306.8	2536.9	2502.4	2337.4	2160.1	2009.5	1883.6	1830.8	1836.7
32.5°	1811.9	2008.2	2505.7	2641.9	2493.9	2258.5	2053.8	1896.0	1785.2	1729.8	1736.9
35°	1861.5	2126.8	2694.1	2699.3	2437.2	2142.5	1913.6	1760.4	1663.9	1619.6	1629.4
37.5°	1926.0	2277.5	2860.3	2713.6	2338.1	1972.3	1739.5	1600.0	1520.5	1500.3	1514.6
40°	2006.2	2458.7	2987.5	2690.8	2191.4	1765.6	1549.2	1437.7	1392.7	1397.2	1412.9
42.5°	2110.5	2661.5	3076.8	2632.1	1987.3	1552.4	1382.2	1332.7	1354.2	1372.5	1389.4
45°	2246.2	2872.1	3132.2	2532.4	1756.5	1371.8	1283.8	1295.5	1311.8	1313.8	1326.8
47.5°	2419.6	3085.3	3168.7	2381.8	1521.1	1244.7	1221.2	1223.8	1220.6	1206.9	1217.3
50°	2636.1	3292.6	3201.3	2182.3	1321.0	1165.1	1133.8	1124.7	1079.7	1035.4	1041.3
52.5°	2882.5	3483.0	3215.0	1934.5	1165.1	1098.6	1047.8	990.4	906.3	892.6	897.2
55°	3156.4	3659.0	3179.8	1630.0	1034.1	1013.2	936.3	867.2	858.0	846.3	848.3
57.5°	3483.7	3848.8	3108.1	1290.3	899.8	913.5	838.5	846.3	830.0	811.7	808.5
60°	3841.6	4045.0	2982.3	980.6	760.9	788.9	813.0	812.4	807.8	792.8	787.6
62.5°	4163.7	4174.1	2734.5	751.1	639.0	692.4	758.3	757.6	753.7	745.2	742.0
65°	4355.4	4154.6	2321.1	591.4	538.6	612.9	684.0	689.2	689.8	689.2	689.2
67.5°	4321.5	3925.7	1753.9	470.7	455.8	532.0	610.3	617.4	622.7	624.0	625.3
70°	3938.1	3423.0	1143.6	375.6	382.1	461.0	540.5	547.7	552.2	557.5	560.1
72.5°	3069.6	2516.7	654.6	303.8	317.5	399.7	471.4	479.9	482.5	492.3	496.2
75°	1870.6	1480.0	353.4	239.3	260.8	341.7	402.9	412.7	417.3	429.0	430.3
77.5°	889.3	640.9	201.5	186.5	209.9	279.1	340.3	351.4	339.0	345.6	340.3
80°	300.6	238.0	127.1	142.1	160.4	217.8	272.5	283.6	257.5	256.2	253.6
82.5°	105.0	96.5	80.8	94.5	103.7	155.8	206.0	220.4	191.7	191.0	181.9
85°	41.1	39.1	45.0	51.5	61.9	95.8	135.6	142.8	118.0	95.2	93.9
87.5°	8.5	9.1	11.1	11.7	18.9	33.3	48.9	60.0	47.6	40.4	37.2
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)