

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: P882921

Luminaire Tested: **NAV-SB3A-735-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882921
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13298 lumens
Efficiency: N/A
Efficacy: 157.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

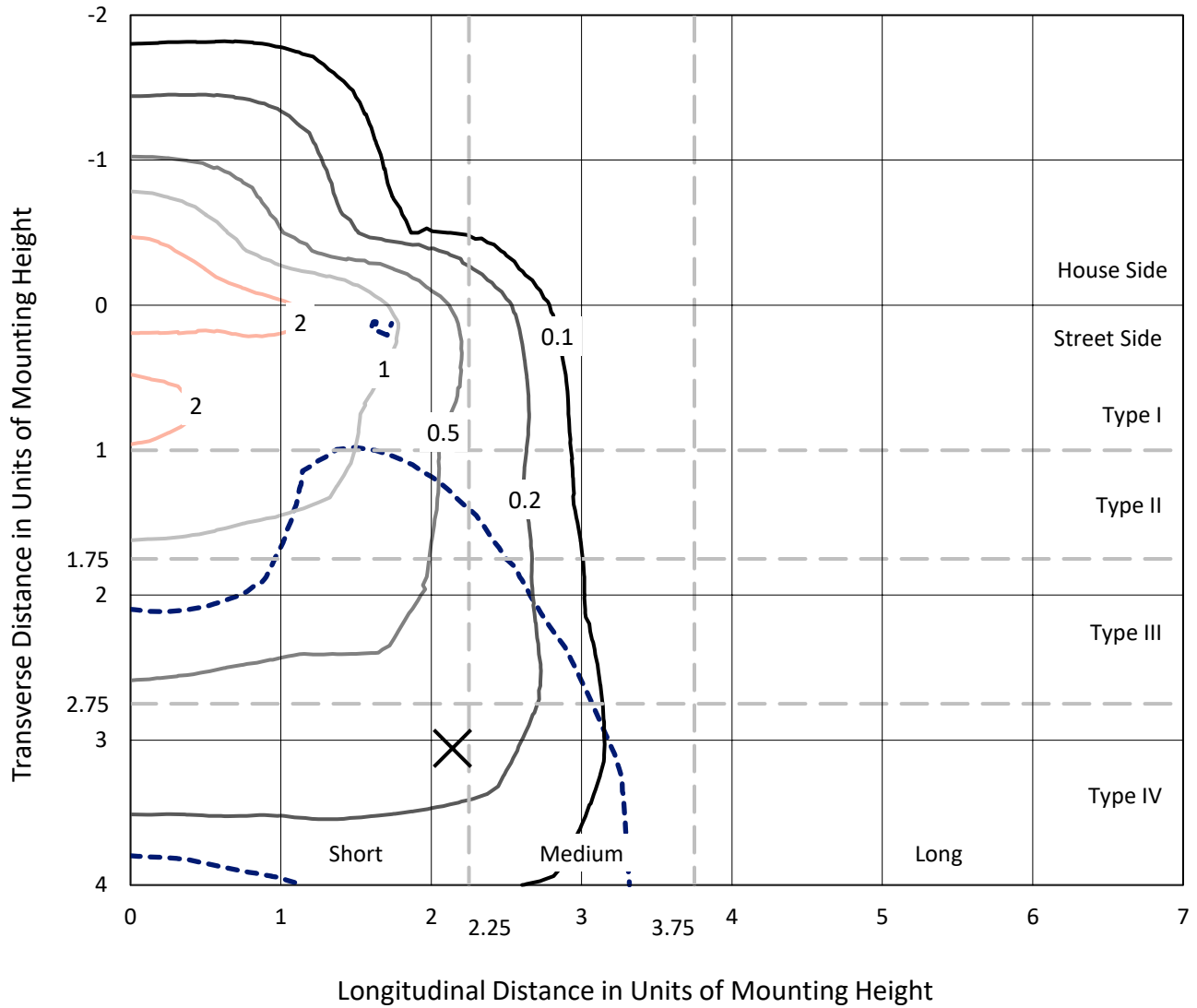
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

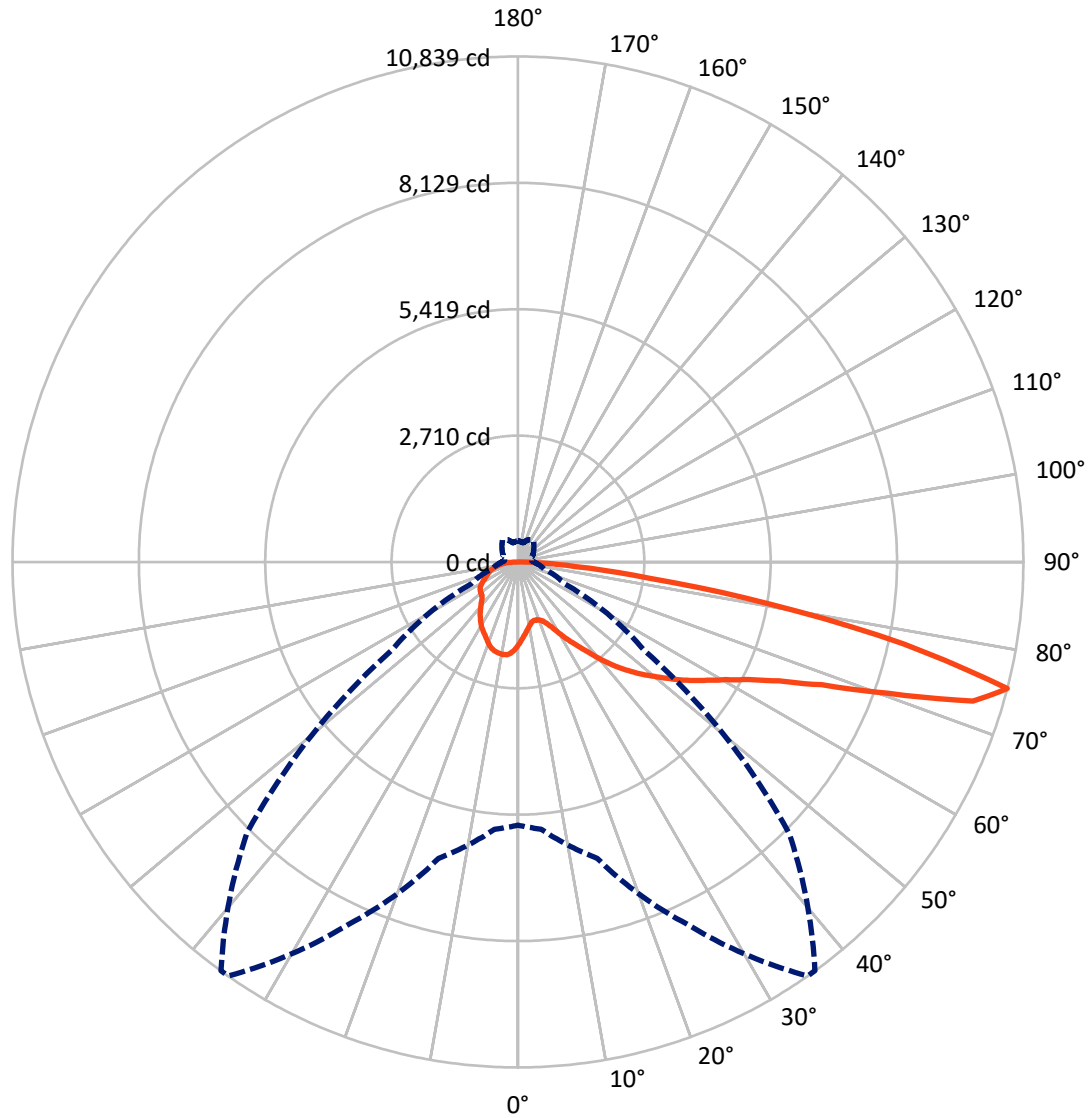
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3164.6	0.0	3164.6
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	10133.4	0.0	10133.4
	% Fixture	76.2	0.0	76.2
Total	Lumens	13298.0	0.0	13298.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.8	1.3
10°-20°	483.9	3.6
20°-30°	812.7	6.1
30°-40°	1263.0	9.5
40°-50°	1874.6	14.1
50°-60°	2588.0	19.5
60°-70°	3139.9	23.6
70°-80°	2594.9	19.5
80°-90°	373.2	2.8
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°	13298.0	100.0
0°-180°	13298.0	100.0

Coefficient of Utilization



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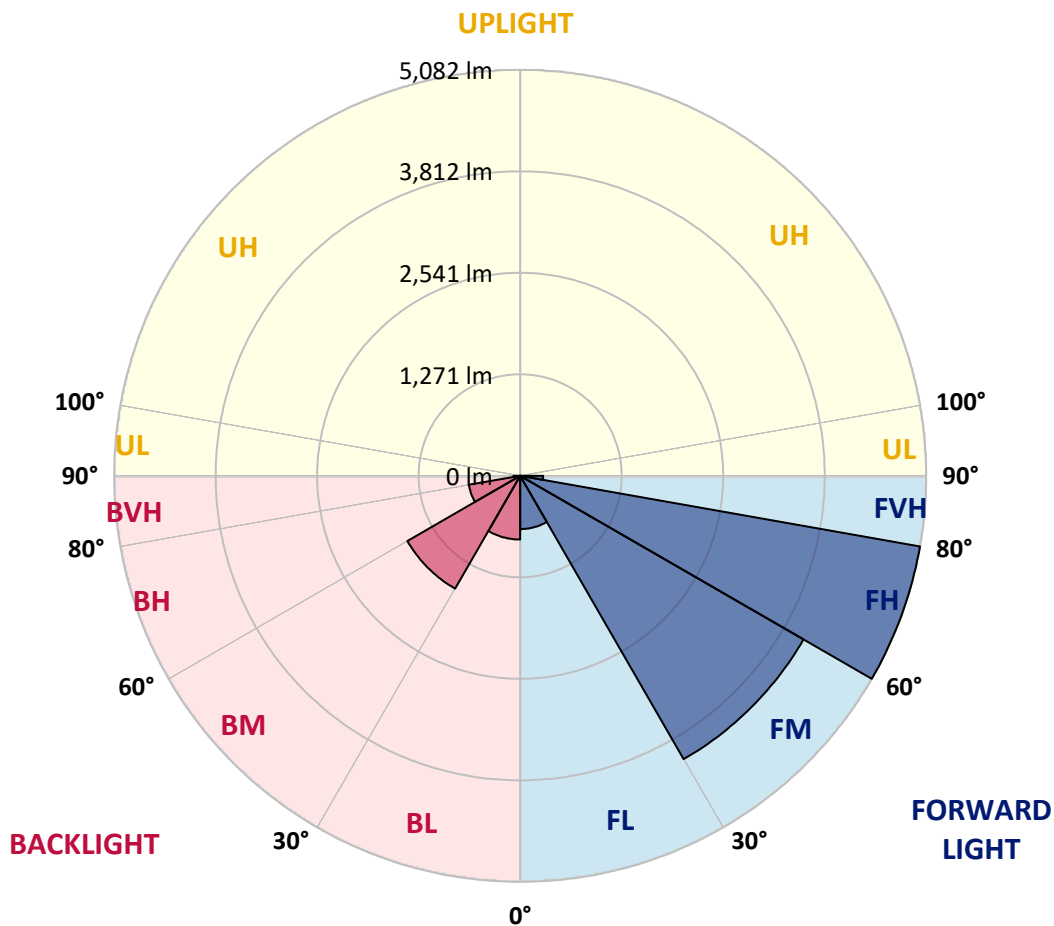
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	666.9	5.0			
FM (30°-60°)	4095.1	30.8			
FH (60°-80°)	5082.3	38.2			G3/7500
FVH (80°-90°)	289.2	2.2			G3/500
BL (0°-30°)	797.5	6.0	B2/1000		
BM (30°-60°)	1630.6	12.3	B2/2500		
BH (60°-80°)	652.4	4.9	B2/1000		G2/1000
BVH (80°-90°)	84.0	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-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0
2.5°	1634.0	1644.1	1648.4	1646.2	1657.0	1655.6	1670.7	1689.4	1715.3	1740.4	1777.1
5°	1508.2	1519.0	1528.3	1537.0	1557.8	1564.3	1588.0	1624.0	1671.4	1719.6	1780.0
7.5°	1391.0	1400.4	1414.8	1430.6	1465.8	1472.3	1511.8	1567.9	1634.0	1704.5	1787.9
10°	1295.4	1304.8	1319.9	1337.8	1381.7	1389.6	1439.9	1514.7	1601.0	1690.1	1796.5
12.5°	1254.5	1257.3	1266.0	1283.9	1322.0	1327.1	1382.4	1468.0	1568.6	1679.3	1809.4
15°	1252.3	1258.0	1258.8	1268.1	1299.7	1301.9	1352.9	1437.8	1548.5	1677.2	1828.8
17.5°	1273.9	1278.2	1271.7	1277.5	1304.1	1307.6	1347.9	1423.4	1542.0	1686.5	1861.9
20°	1331.4	1335.0	1315.6	1307.6	1327.1	1329.9	1369.5	1432.7	1548.5	1705.9	1907.2
22.5°	1453.6	1455.7	1408.3	1375.9	1377.4	1378.8	1413.3	1470.8	1573.6	1741.1	1964.7
25°	1644.1	1642.6	1567.2	1504.6	1468.7	1460.8	1483.8	1532.7	1616.1	1787.9	2038.8
27.5°	1866.9	1856.2	1780.7	1687.2	1608.9	1597.4	1592.3	1613.2	1676.4	1849.7	2129.3
30°	2118.6	2108.5	2027.3	1905.0	1796.5	1777.8	1730.4	1719.6	1766.3	1933.8	2255.1
32.5°	2394.6	2388.1	2291.1	2143.0	1997.8	1976.2	1896.4	1867.7	1904.3	2061.0	2430.5
35°	2626.1	2620.3	2539.8	2387.4	2209.8	2183.2	2102.0	2069.7	2088.4	2224.2	2659.9
37.5°	2835.3	2832.4	2763.4	2643.3	2460.0	2427.7	2336.4	2325.6	2322.0	2439.2	2938.1
40°	3029.4	3022.2	2950.3	2887.0	2751.2	2721.7	2641.2	2631.8	2604.5	2703.7	3252.9
42.5°	3244.3	3225.6	3121.4	3091.9	3055.3	3030.8	2982.6	2984.1	2923.7	3002.1	3586.5
45°	3419.7	3408.9	3301.8	3284.6	3324.1	3314.1	3355.7	3366.5	3249.4	3314.8	3933.0
47.5°	3608.1	3598.0	3507.4	3495.2	3602.3	3605.2	3752.6	3756.2	3567.1	3639.7	4280.2
50°	3840.3	3825.9	3736.0	3751.1	3871.2	3882.0	4151.6	4127.1	3859.7	3969.7	4624.6
52.5°	3993.4	4002.0	3982.6	4007.1	4171.0	4181.0	4544.1	4481.5	4149.4	4295.3	4962.5
55°	4106.3	4123.5	4183.9	4240.0	4487.3	4497.3	4914.3	4818.7	4389.5	4597.3	5280.2
57.5°	4251.5	4227.0	4339.9	4449.2	4787.8	4814.4	5274.5	5143.6	4602.3	4857.5	5498.0
60°	4460.0	4442.7	4530.4	4692.2	5124.2	5166.6	5655.5	5436.2	4758.3	5063.8	5540.4
62.5°	4882.7	4839.5	4853.2	4996.2	5548.3	5604.4	6085.4	5691.4	4835.9	5144.3	5313.3
65°	5514.6	5440.5	5371.5	5470.7	6145.7	6201.1	6570.6	5892.0	4807.2	4988.3	4710.1
67.5°	6310.4	6237.0	6152.2	6245.7	7025.7	7069.5	7169.4	6004.8	4580.7	4387.3	3644.0
70°	6966.7	6939.4	7040.7	7425.4	8431.1	8432.5	7937.2	5911.4	3960.3	3110.6	2108.5
72.5°	6879.7	6863.2	7397.3	8586.3	10202.4	10164.3	8664.0	5204.0	2667.8	1403.3	790.1
75°	5644.0	5751.1	6578.5	8565.5	10838.6	10833.6	8219.0	3308.3	1103.5	581.6	408.3
77.5°	3026.5	3196.2	4270.9	6324.0	8461.3	8588.5	5778.4	1157.4	473.7	372.4	282.5
80°	987.0	1135.1	1702.3	3219.9	5498.0	5474.3	2476.6	454.3	324.2	263.8	195.5
82.5°	419.1	436.4	760.6	1520.4	2821.6	2777.8	788.6	261.0	227.9	180.4	120.8
85°	163.9	183.3	335.7	703.1	1222.1	1195.5	284.7	129.4	145.9	117.9	71.9
87.5°	53.9	65.4	120.1	240.8	380.3	366.6	69.7	44.6	63.3	53.9	25.9
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°	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0	1772.0
2.5°	1787.1	1798.6	1812.3	1832.4	1849.7	1864.1	1879.2	1888.5	1892.1	1902.9	1902.2
5°	1800.1	1825.2	1859.0	1892.1	1924.5	1943.9	1961.1	1969.7	1977.6	1983.4	1984.8
7.5°	1821.7	1854.0	1907.2	1950.3	1977.6	1993.5	2005.0	2002.1	2005.0	2006.4	2008.6
10°	1840.3	1885.6	1948.9	1989.9	2010.7	2011.4	2008.6	1998.5	1993.5	1994.2	1995.6
12.5°	1862.6	1912.9	1981.2	2015.8	2021.5	2005.7	1993.5	1976.2	1969.7	1966.9	1965.4
15°	1892.8	1950.3	2016.5	2029.4	2015.0	1994.9	1974.1	1946.0	1931.6	1920.1	1923.7
17.5°	1929.5	1992.7	2043.8	2034.4	2003.5	1970.5	1936.7	1894.3	1864.8	1852.6	1853.3
20°	1980.5	2037.3	2064.6	2023.7	1976.9	1926.6	1869.1	1817.3	1790.0	1777.8	1776.4
22.5°	2042.3	2097.0	2084.8	2005.0	1938.8	1858.3	1786.4	1748.3	1734.7	1726.0	1727.5
25°	2116.4	2163.1	2099.1	1977.6	1876.3	1767.7	1712.4	1700.2	1693.7	1687.2	1687.2
27.5°	2212.7	2237.9	2109.9	1937.4	1778.5	1671.4	1651.3	1653.4	1651.3	1640.5	1642.6
30°	2340.0	2334.9	2120.0	1872.0	1666.4	1584.4	1585.9	1595.2	1596.6	1589.5	1593.0
32.5°	2507.5	2456.4	2125.0	1787.1	1559.3	1508.2	1509.7	1519.7	1526.9	1514.7	1520.4
35°	2710.2	2598.0	2117.1	1680.8	1476.6	1435.6	1424.8	1427.7	1429.9	1418.4	1426.3
37.5°	2946.7	2756.9	2081.9	1562.9	1408.3	1364.4	1341.4	1322.0	1310.5	1299.7	1306.9
40°	3206.2	2930.2	2017.2	1447.8	1332.1	1289.0	1254.5	1217.8	1179.0	1164.6	1171.1
42.5°	3478.0	3108.5	1938.8	1337.8	1244.4	1209.2	1172.5	1119.3	1061.1	1031.6	1035.2
45°	3759.8	3291.0	1861.9	1229.3	1154.5	1139.4	1097.0	1033.0	969.8	932.4	929.5
47.5°	4035.8	3463.6	1749.0	1120.0	1070.4	1087.0	1053.9	994.9	924.5	865.5	859.1
50°	4299.6	3625.3	1564.3	1009.3	1002.1	1071.1	1039.5	954.7	874.2	798.7	792.2
52.5°	4561.3	3756.2	1327.8	908.7	965.5	1066.8	1020.8	927.4	828.9	749.8	741.2
55°	4783.5	3823.7	1099.9	822.4	912.3	1030.2	998.5	895.0	764.9	680.8	673.6
57.5°	4910.0	3769.1	910.1	737.6	838.9	969.8	960.4	826.0	688.7	624.0	615.4
60°	4855.3	3547.7	754.8	663.5	769.2	904.4	894.3	757.7	630.5	569.4	560.7
62.5°	4554.1	3125.7	631.9	598.8	705.9	837.5	828.2	705.2	585.9	526.9	517.6
65°	3947.4	2542.7	536.3	544.9	642.0	757.0	770.6	661.4	550.7	493.2	483.8
67.5°	3010.7	1841.8	461.5	498.2	579.4	677.9	717.4	629.7	521.2	466.6	457.9
70°	1716.0	1046.0	398.3	452.9	524.1	604.6	676.5	604.6	489.6	444.3	438.5
72.5°	650.6	480.2	344.3	407.6	470.9	542.8	631.2	565.0	452.9	419.1	413.4
75°	347.2	292.6	289.7	354.4	409.8	482.4	574.4	526.2	425.6	442.8	457.2
77.5°	236.5	207.0	242.3	303.4	342.9	415.5	514.0	467.3	368.8	367.3	338.6
80°	163.9	146.7	197.0	244.4	265.3	349.4	448.6	401.1	300.5	280.4	268.1
82.5°	98.5	95.6	147.4	182.6	187.6	269.6	371.7	336.4	245.9	214.2	215.7
85°	53.9	56.8	94.2	107.1	109.3	188.3	291.1	260.2	189.1	158.9	160.3
87.5°	15.1	19.4	34.5	42.4	52.5	97.8	173.3	154.6	94.9	66.1	66.1
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)