

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: P882931

Luminaire Tested: **NAV-SB3A-740-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882931
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-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 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: 14337 lumens
Efficiency: N/A
Efficacy: 169.3 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

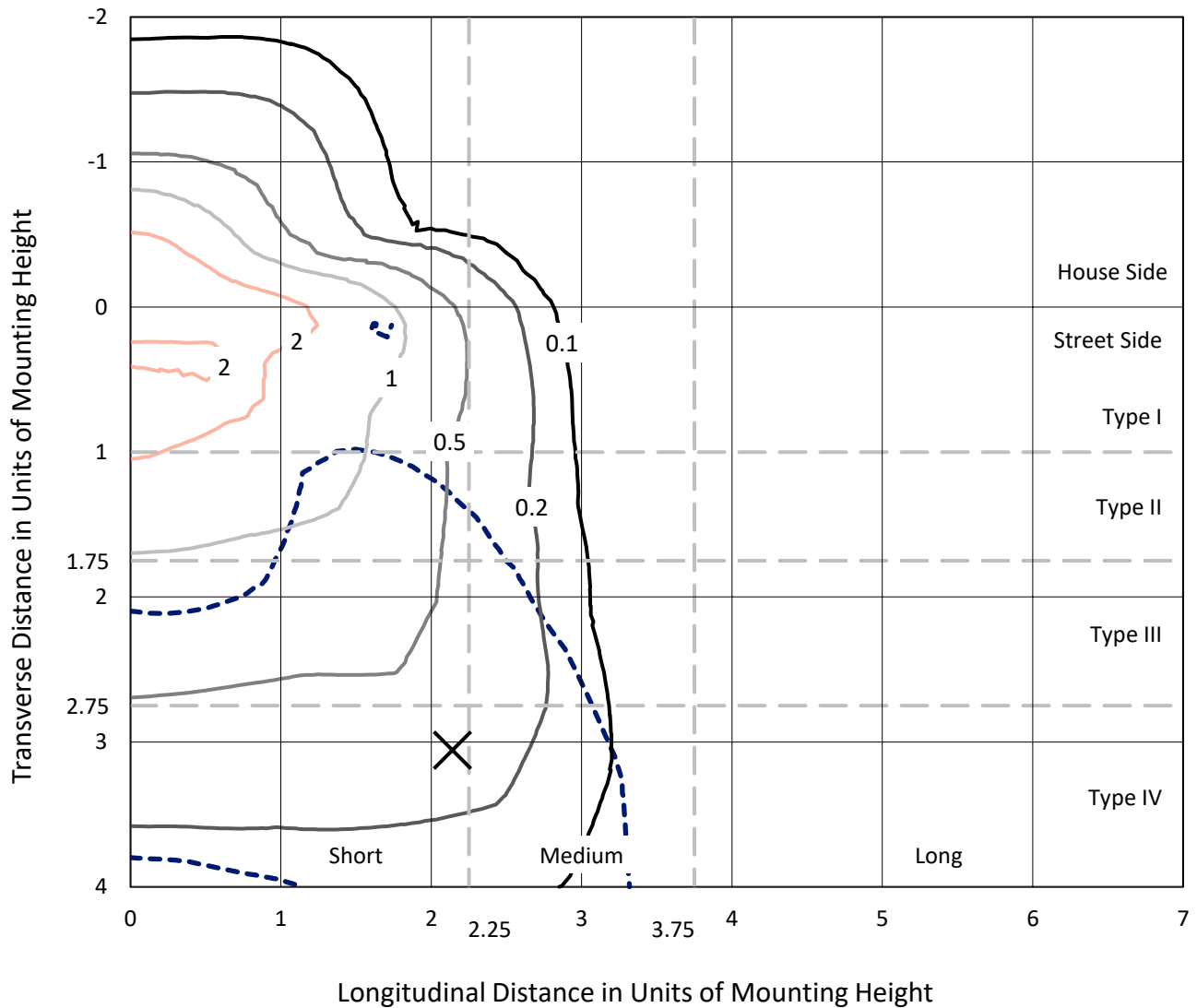
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

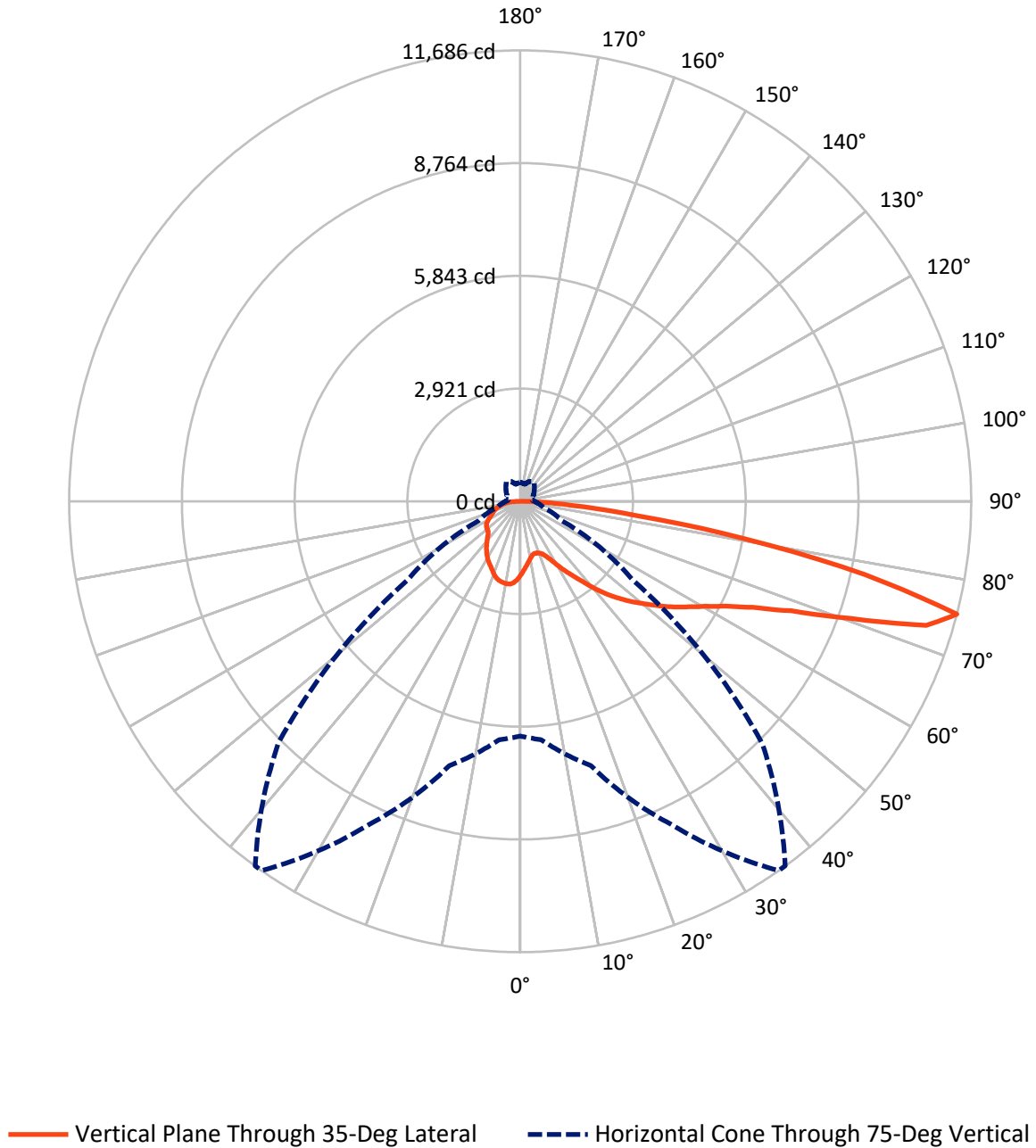
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3411.8	0.0	3411.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	10925.1	0.0	10925.1
	% Fixture	76.2	0.0	76.2
Total	Lumens	14337.0	0.0	14337.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.9	1.3
10°-20°	521.8	3.6
20°-30°	876.2	6.1
30°-40°	1361.7	9.5
40°-50°	2021.1	14.1
50°-60°	2790.2	19.5
60°-70°	3385.2	23.6
70°-80°	2797.6	19.5
80°-90°	402.4	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°	14337.0	100.0
0°-180°	14337.0	100.0

Coefficient of Utilization



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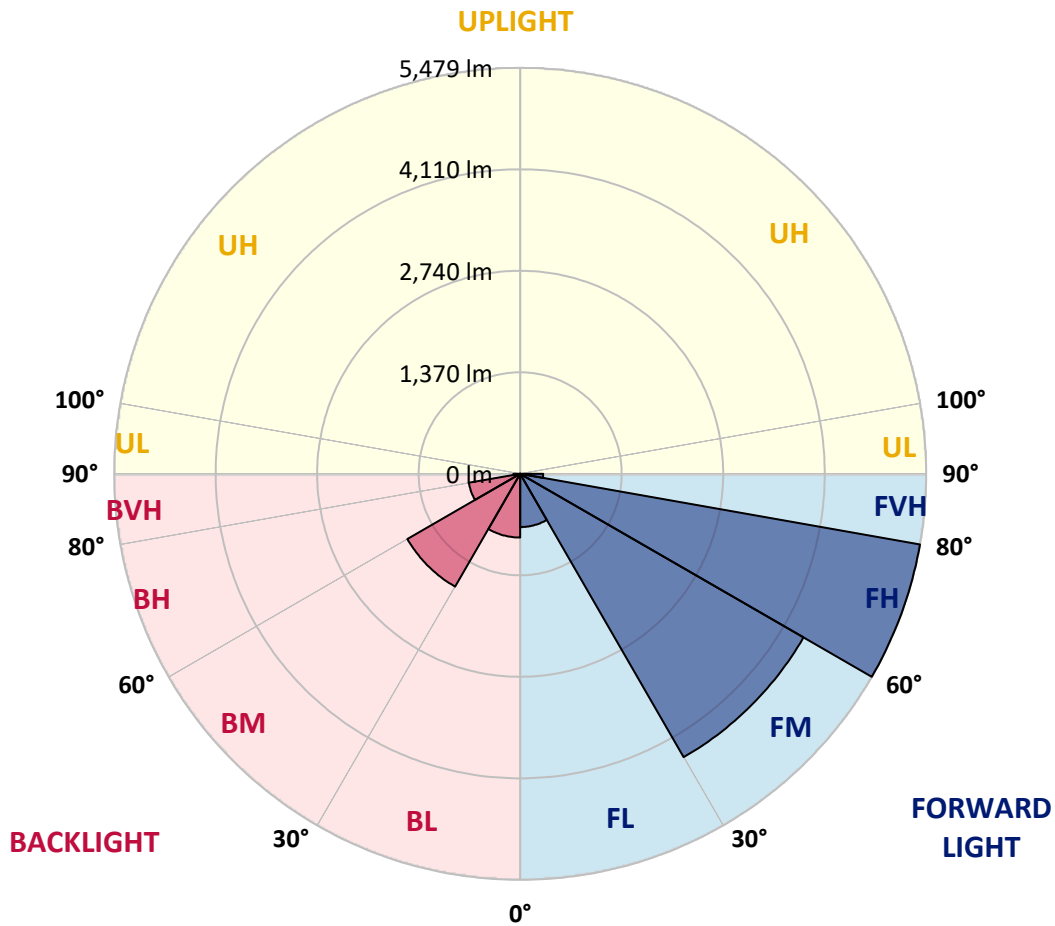
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	719.0	5.0			
FM (30°-60°)	4415.0	30.8			
FH (60°-80°)	5479.4	38.2			G3/7500
FVH (80°-90°)	311.8	2.2			G3/500
BL (0°-30°)	859.8	6.0	B2/1000		
BM (30°-60°)	1758.0	12.3	B2/2500		
BH (60°-80°)	703.4	4.9	B2/1000		G2/1000
BVH (80°-90°)	90.6	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°	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5
2.5°	1761.7	1772.5	1777.2	1774.9	1786.5	1784.9	1801.2	1821.4	1849.3	1876.4	1915.9
5°	1626.1	1637.7	1647.8	1657.1	1679.5	1686.5	1712.1	1750.8	1802.0	1853.9	1919.0
7.5°	1499.7	1509.8	1525.3	1542.4	1580.3	1587.3	1629.9	1690.4	1761.7	1837.6	1927.6
10°	1396.6	1406.7	1423.0	1442.4	1489.6	1498.2	1552.4	1633.0	1726.0	1822.1	1936.9
12.5°	1352.5	1355.6	1364.9	1384.2	1425.3	1430.7	1490.4	1582.7	1691.2	1810.5	1950.8
15°	1350.1	1356.3	1357.1	1367.2	1401.3	1403.6	1458.6	1550.1	1669.5	1808.2	1971.7
17.5°	1373.4	1378.0	1371.1	1377.3	1405.9	1409.8	1453.2	1534.6	1662.5	1818.3	2007.4
20°	1435.4	1439.3	1418.3	1409.8	1430.7	1433.8	1476.5	1544.7	1669.5	1839.2	2056.2
22.5°	1567.2	1569.5	1518.3	1483.4	1485.0	1486.5	1523.8	1585.8	1696.6	1877.2	2118.2
25°	1772.5	1771.0	1689.6	1622.2	1583.4	1574.9	1599.7	1652.4	1742.3	1927.6	2198.0
27.5°	2012.8	2001.2	1919.8	1819.0	1734.6	1722.2	1716.7	1739.2	1807.4	1994.2	2295.7
30°	2284.1	2273.2	2185.6	2053.9	1936.9	1916.7	1865.5	1853.9	1904.3	2084.9	2431.3
32.5°	2581.7	2574.7	2470.1	2310.4	2153.9	2130.6	2044.6	2013.6	2053.1	2222.1	2620.4
35°	2831.3	2825.1	2738.3	2573.9	2382.5	2353.8	2266.3	2231.4	2251.5	2398.0	2867.7
37.5°	3056.8	3053.7	2979.3	2849.9	2652.2	2617.3	2518.9	2507.3	2503.4	2629.8	3167.6
40°	3266.1	3258.3	3180.8	3112.6	2966.1	2934.3	2847.5	2837.5	2808.0	2915.0	3507.1
42.5°	3497.8	3477.7	3365.3	3333.5	3294.0	3267.6	3215.7	3217.2	3152.1	3236.6	3866.7
45°	3686.9	3675.3	3559.8	3541.2	3583.8	3573.0	3617.9	3629.6	3503.2	3573.8	4240.3
47.5°	3890.0	3879.1	3781.5	3768.3	3883.8	3886.9	4045.8	4049.6	3845.8	3924.1	4614.7
50°	4140.3	4124.8	4027.9	4044.2	4173.7	4185.3	4475.9	4449.6	4161.3	4279.8	4985.9
52.5°	4305.4	4314.7	4293.8	4320.1	4496.8	4507.7	4899.1	4831.7	4473.6	4630.9	5350.2
55°	4427.1	4445.7	4510.8	4571.3	4837.9	4848.7	5298.3	5195.2	4732.5	4956.5	5692.8
57.5°	4583.7	4557.3	4679.0	4796.8	5161.8	5190.5	5686.6	5545.5	4961.9	5237.0	5927.6
60°	4808.4	4789.8	4884.4	5058.8	5524.6	5570.3	6097.3	5860.9	5130.1	5459.5	5973.3
62.5°	5264.2	5217.6	5232.4	5386.6	5981.8	6042.3	6560.8	6136.1	5213.8	5546.3	5728.4
65°	5945.4	5865.6	5791.2	5898.1	6625.9	6685.6	7084.0	6352.3	5182.8	5378.1	5078.1
67.5°	6803.4	6724.3	6632.9	6733.6	7574.6	7621.9	7729.6	6474.0	4938.6	4730.1	3928.7
70°	7511.0	7481.6	7590.9	8005.5	9089.8	9091.4	8557.3	6373.2	4269.8	3353.6	2273.2
72.5°	7417.2	7399.4	7975.3	9257.2	10999.5	10958.5	9340.9	5610.6	2876.2	1512.9	851.8
75°	6084.9	6200.4	7092.5	9234.7	11685.5	11680.0	8861.2	3566.8	1189.7	627.0	440.2
77.5°	3263.0	3445.9	4604.6	6818.1	9122.4	9259.5	6229.9	1247.8	510.8	401.5	304.6
80°	1064.1	1223.8	1835.3	3471.5	5927.6	5902.0	2670.1	489.8	349.5	284.4	210.8
82.5°	451.9	470.5	820.0	1639.2	3042.1	2994.8	850.2	281.3	245.7	194.5	130.2
85°	176.7	197.6	361.9	758.0	1317.6	1288.9	306.9	139.5	157.3	127.1	77.5
87.5°	58.1	70.5	129.4	259.6	410.0	395.3	75.2	48.1	68.2	58.1	27.9
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°	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5
2.5°	1926.8	1939.2	1953.9	1975.6	1994.2	2009.7	2026.0	2036.1	2039.9	2051.6	2050.8
5°	1940.7	1967.9	2004.3	2039.9	2074.8	2095.7	2114.3	2123.6	2132.2	2138.4	2139.9
7.5°	1964.0	1998.9	2056.2	2102.7	2132.2	2149.2	2161.6	2158.5	2161.6	2163.2	2165.5
10°	1984.1	2033.0	2101.2	2145.3	2167.8	2168.6	2165.5	2154.6	2149.2	2150.0	2151.5
12.5°	2008.2	2062.4	2136.0	2173.2	2179.4	2162.4	2149.2	2130.6	2123.6	2120.5	2119.0
15°	2040.7	2102.7	2174.0	2188.0	2172.5	2150.8	2128.3	2098.1	2082.6	2070.2	2074.0
17.5°	2080.2	2148.4	2203.5	2193.4	2160.1	2124.4	2088.0	2042.3	2010.5	1997.3	1998.1
20°	2135.3	2196.5	2225.9	2181.8	2131.4	2077.1	2015.1	1959.3	1929.9	1916.7	1915.2
22.5°	2201.9	2260.8	2247.6	2161.6	2090.3	2003.5	1926.0	1884.9	1870.2	1860.9	1862.4
25°	2281.8	2332.1	2263.2	2132.2	2022.9	1905.9	1846.2	1833.0	1826.0	1819.0	1819.0
27.5°	2385.6	2412.7	2274.8	2088.8	1917.5	1802.0	1780.3	1782.6	1780.3	1768.7	1771.0
30°	2522.8	2517.4	2285.6	2018.2	1796.6	1708.2	1709.8	1719.8	1721.4	1713.6	1717.5
32.5°	2703.4	2648.4	2291.1	1926.8	1681.1	1626.1	1627.6	1638.5	1646.2	1633.0	1639.2
35°	2921.9	2801.0	2282.5	1812.1	1592.0	1547.8	1536.2	1539.3	1541.6	1529.2	1537.7
37.5°	3176.9	2972.3	2244.5	1685.0	1518.3	1471.0	1446.2	1425.3	1412.9	1401.3	1409.0
40°	3456.7	3159.1	2174.8	1561.0	1436.2	1389.7	1352.5	1312.9	1271.1	1255.6	1262.6
42.5°	3749.7	3351.3	2090.3	1442.4	1341.6	1303.6	1264.1	1206.8	1144.0	1112.2	1116.1
45°	4053.5	3548.2	2007.4	1325.3	1244.7	1228.5	1182.7	1113.7	1045.5	1005.2	1002.1
47.5°	4351.1	3734.2	1885.7	1207.5	1154.1	1171.9	1136.2	1072.7	996.7	933.2	926.2
50°	4635.6	3908.6	1686.5	1088.2	1080.4	1154.8	1120.7	1029.3	942.5	861.1	854.1
52.5°	4917.7	4049.6	1431.5	979.7	1040.9	1150.2	1100.6	999.8	893.6	808.4	799.1
55°	5157.2	4122.5	1185.8	886.7	983.5	1110.6	1076.5	964.9	824.7	734.0	726.2
57.5°	5293.6	4063.6	981.2	795.2	904.5	1045.5	1035.5	890.5	742.5	672.7	663.4
60°	5234.7	3824.9	813.8	715.4	829.3	975.0	964.2	816.9	679.7	613.8	604.5
62.5°	4910.0	3369.9	681.3	645.6	761.1	902.9	892.9	760.3	631.7	568.1	558.0
65°	4255.8	2741.4	578.2	587.5	692.1	816.1	830.9	713.0	593.7	531.7	521.6
67.5°	3245.9	1985.7	497.6	537.1	624.7	730.9	773.5	678.9	561.9	503.0	493.7
70°	1850.0	1127.7	429.4	488.3	565.0	651.8	729.3	651.8	527.8	479.0	472.8
72.5°	701.4	517.7	371.2	439.5	507.7	585.2	680.5	609.2	488.3	451.9	445.7
75°	374.3	315.4	312.3	382.1	441.8	520.1	619.3	567.3	458.8	477.4	492.9
77.5°	255.0	223.2	261.2	327.1	369.7	448.0	554.2	503.8	397.6	396.1	365.0
80°	176.7	158.1	212.4	263.5	286.0	376.7	483.6	432.5	324.0	302.3	289.1
82.5°	106.2	103.1	158.9	196.9	202.3	290.6	400.7	362.7	265.1	231.0	232.5
85°	58.1	61.2	101.5	115.5	117.8	203.1	313.9	280.6	203.8	171.3	172.8
87.5°	16.3	20.9	37.2	45.7	56.6	105.4	186.8	166.6	102.3	71.3	71.3
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)