

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: P883661

Luminaire Tested: **NAV-SB4A-835-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883661
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-SB4A-835-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 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: 15160 lumens
Efficiency: N/A
Efficacy: 133.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

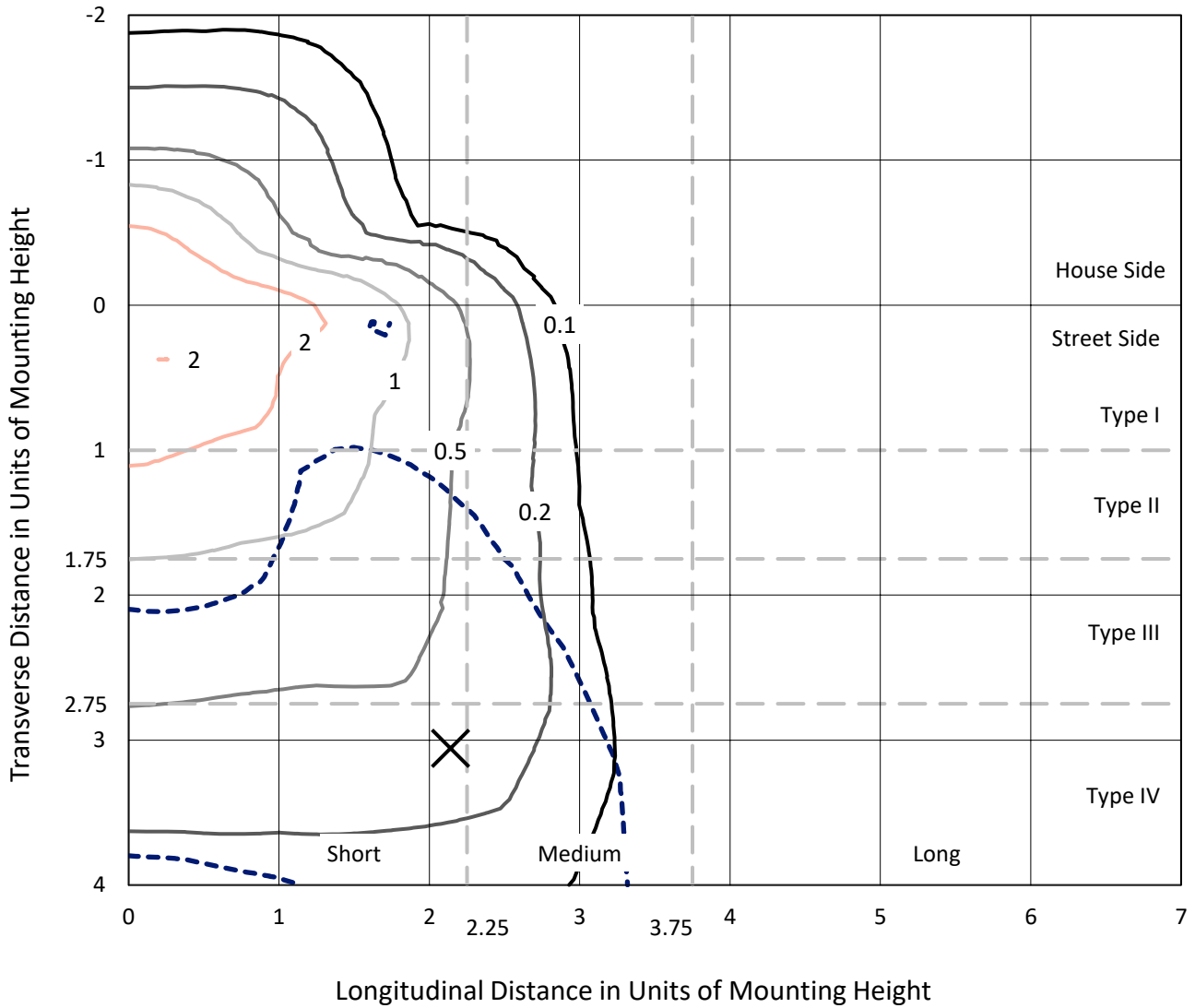
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

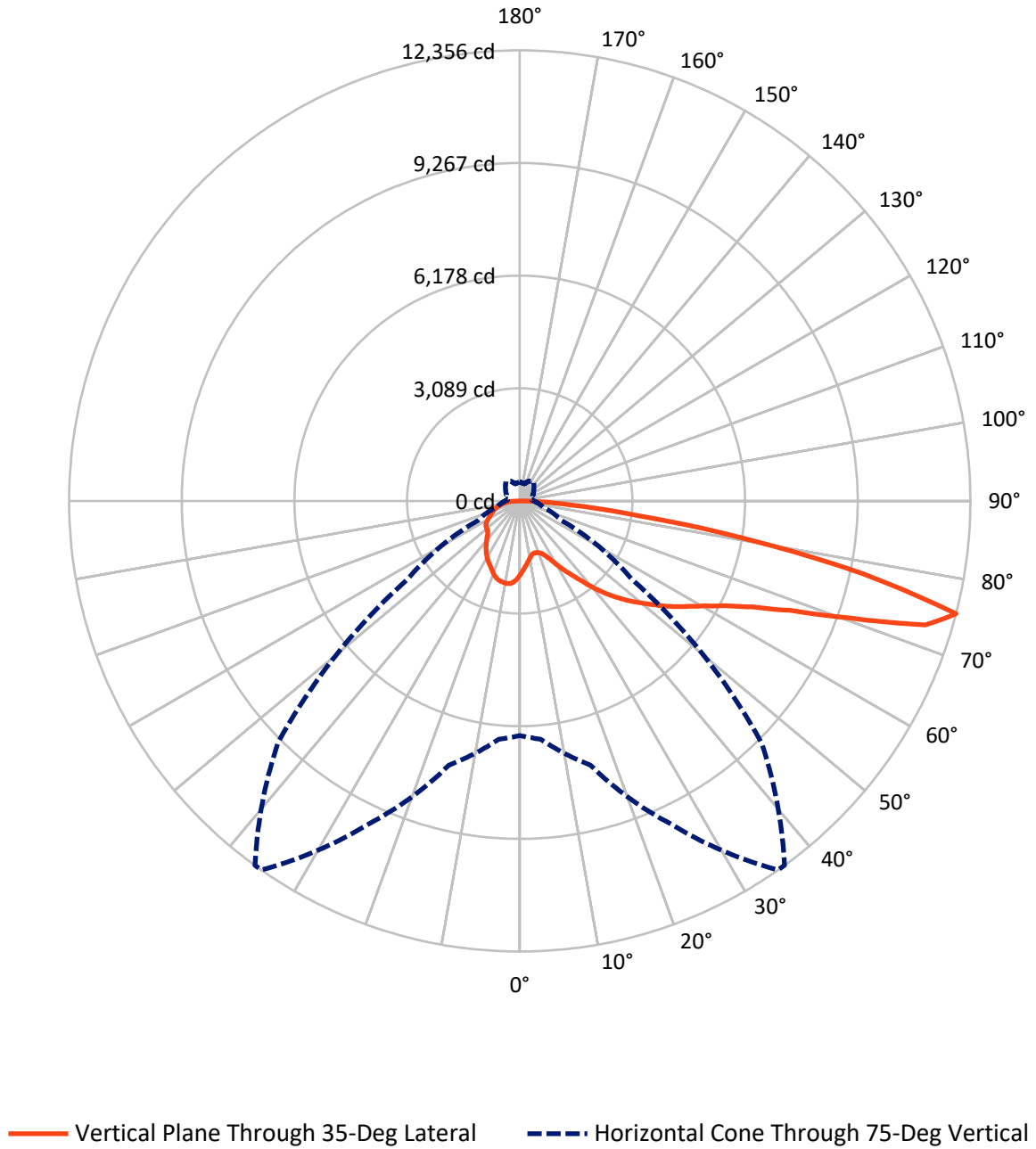
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 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	3607.7	0.0	3607.7
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	11552.3	0.0	11552.3
	% Fixture	76.2	0.0	76.2
Total	Lumens	15160.0	0.0	15160.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.3	1.3
10°-20°	551.7	3.6
20°-30°	926.5	6.1
30°-40°	1439.8	9.5
40°-50°	2137.1	14.1
50°-60°	2950.4	19.5
60°-70°	3579.5	23.6
70°-80°	2958.2	19.5
80°-90°	425.5	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°	15160.0	100.0
0°-180°	15160.0	100.0

Coefficient of Utilization



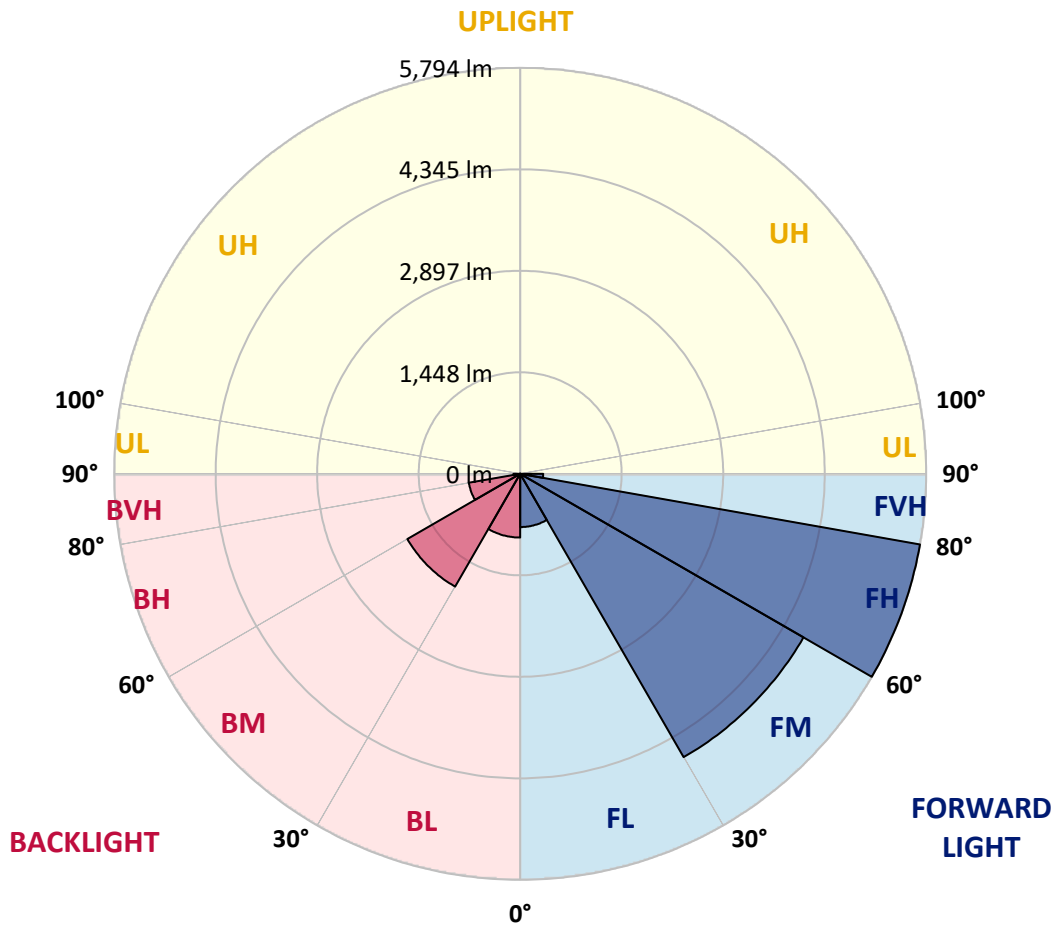
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	760.2	5.0			
FM (30°-60°)	4668.5	30.8			
FH (60°-80°)	5793.9	38.2			G3/7500
FVH (80°-90°)	329.7	2.2			G3/500
BL (0°-30°)	909.2	6.0	B2/1000		
BM (30°-60°)	1858.9	12.3	B2/2500		
BH (60°-80°)	743.8	4.9	B2/1000		G2/1000
BVH (80°-90°)	95.8	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°	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2
2.5°	1862.8	1874.3	1879.2	1876.8	1889.0	1887.4	1904.6	1925.9	1955.4	1984.1	2025.9
5°	1719.4	1731.7	1742.3	1752.2	1775.9	1783.3	1810.4	1851.3	1905.4	1960.3	2029.2
7.5°	1585.8	1596.5	1612.9	1630.9	1671.0	1678.4	1723.5	1787.4	1862.8	1943.1	2038.2
10°	1476.8	1487.5	1504.7	1525.2	1575.2	1584.2	1641.5	1726.8	1825.1	1926.7	2048.0
12.5°	1430.1	1433.4	1443.2	1463.7	1507.1	1512.9	1576.0	1673.5	1788.2	1914.5	2062.8
15°	1427.6	1434.2	1435.0	1445.7	1481.7	1484.2	1542.4	1639.1	1765.3	1912.0	2084.9
17.5°	1452.2	1457.1	1449.8	1456.3	1486.7	1490.7	1536.6	1622.7	1757.9	1922.6	2122.6
20°	1517.8	1521.9	1499.8	1490.7	1512.9	1516.2	1561.2	1633.3	1765.3	1944.8	2174.2
22.5°	1657.1	1659.6	1605.5	1568.6	1570.2	1571.9	1611.2	1676.8	1794.0	1984.9	2239.8
25°	1874.3	1872.7	1786.6	1715.3	1674.3	1665.3	1691.5	1747.3	1842.3	2038.2	2324.2
27.5°	2128.4	2116.1	2030.0	1923.5	1834.1	1821.0	1815.3	1839.1	1911.2	2108.7	2427.5
30°	2415.2	2403.7	2311.1	2171.8	2048.0	2026.7	1972.6	1960.3	2013.6	2204.6	2570.9
32.5°	2729.9	2722.5	2611.9	2443.1	2277.5	2252.9	2162.0	2129.2	2171.0	2349.6	2770.9
35°	2993.8	2987.2	2895.4	2721.7	2519.3	2489.0	2396.3	2359.5	2380.8	2535.7	3032.3
37.5°	3232.3	3229.0	3150.3	3013.5	2804.5	2767.6	2663.5	2651.2	2647.1	2780.7	3349.5
40°	3453.6	3445.4	3363.4	3291.3	3136.4	3102.8	3011.0	3000.3	2969.2	3082.3	3708.4
42.5°	3698.6	3677.3	3558.5	3524.9	3483.1	3455.2	3400.3	3401.9	3333.1	3422.4	4088.7
45°	3898.6	3886.3	3764.2	3744.5	3789.6	3778.1	3825.6	3837.9	3704.3	3778.9	4483.7
47.5°	4113.3	4101.8	3998.5	3984.6	4106.7	4110.0	4278.0	4282.1	4066.6	4149.3	4879.6
50°	4378.0	4361.6	4259.2	4276.4	4413.2	4425.5	4732.9	4705.0	4400.1	4525.5	5272.1
52.5°	4552.6	4562.4	4540.3	4568.1	4755.0	4766.5	5180.3	5109.0	4730.4	4896.8	5657.3
55°	4681.2	4700.9	4769.7	4833.7	5115.6	5127.1	5602.4	5493.4	5004.1	5241.0	6019.5
57.5°	4846.8	4818.9	4947.6	5072.1	5458.2	5488.5	6013.0	5863.8	5246.7	5537.6	6267.9
60°	5084.4	5064.8	5164.8	5349.2	5841.7	5890.1	6447.3	6197.4	5424.6	5772.9	6316.2
62.5°	5566.3	5517.2	5532.7	5695.8	6325.2	6389.2	6937.4	6488.3	5513.1	5864.6	6057.2
65°	6286.7	6202.3	6123.6	6236.7	7006.3	7069.4	7490.6	6717.0	5480.3	5686.8	5369.6
67.5°	7193.9	7110.4	7013.6	7120.2	8009.4	8059.4	8173.3	6845.6	5222.1	5001.7	4154.3
70°	7942.2	7911.0	8026.6	8465.1	9611.6	9613.2	9048.6	6739.1	4514.9	3546.2	2403.7
72.5°	7843.0	7824.2	8433.1	9788.6	11630.9	11587.5	9877.1	5932.7	3041.3	1599.7	900.7
75°	6434.2	6556.3	7499.6	9764.9	12356.2	12350.5	9369.8	3771.5	1258.0	663.0	465.5
77.5°	3450.3	3643.7	4868.9	7209.5	9646.0	9791.1	6587.5	1319.5	540.1	424.5	322.1
80°	1125.2	1294.1	1940.7	3670.7	6267.9	6240.8	2823.3	518.0	369.6	300.8	222.9
82.5°	477.8	497.5	867.1	1733.3	3216.7	3166.7	899.0	297.5	259.8	205.7	137.7
85°	186.9	209.0	382.7	801.5	1393.2	1362.9	324.5	147.5	166.4	134.4	82.0
87.5°	61.5	74.6	136.9	274.5	433.5	418.0	79.5	50.8	72.1	61.5	29.5
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°	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2	2020.2
2.5°	2037.4	2050.5	2066.1	2089.0	2108.7	2125.1	2142.3	2152.9	2157.0	2169.3	2168.5
5°	2052.1	2080.8	2119.3	2157.0	2193.9	2216.0	2235.7	2245.5	2254.6	2261.1	2262.8
7.5°	2076.7	2113.6	2174.2	2223.4	2254.6	2272.6	2285.7	2282.4	2285.7	2287.3	2289.8
10°	2098.0	2149.7	2221.8	2268.5	2292.3	2293.1	2289.8	2278.3	2272.6	2273.4	2275.1
12.5°	2123.4	2180.8	2258.7	2298.0	2304.6	2286.5	2272.6	2252.9	2245.5	2242.3	2240.6
15°	2157.9	2223.4	2298.8	2313.6	2297.2	2274.2	2250.5	2218.5	2202.1	2189.0	2193.1
17.5°	2199.7	2271.8	2330.0	2319.3	2284.1	2246.4	2207.8	2159.5	2125.9	2112.0	2112.8
20°	2257.8	2322.6	2353.7	2307.0	2253.7	2196.4	2130.8	2071.8	2040.7	2026.7	2025.1
22.5°	2328.3	2390.6	2376.7	2285.7	2210.3	2118.5	2036.6	1993.1	1977.6	1967.7	1969.4
25°	2412.7	2466.0	2393.1	2254.6	2139.0	2015.3	1952.2	1938.2	1930.8	1923.5	1923.5
27.5°	2522.6	2551.2	2405.4	2208.7	2027.5	1905.4	1882.5	1884.9	1882.5	1870.2	1872.7
30°	2667.6	2661.9	2416.8	2134.1	1899.7	1806.3	1807.9	1818.6	1820.2	1812.0	1816.1
32.5°	2858.6	2800.4	2422.6	2037.4	1777.6	1719.4	1721.0	1732.5	1740.7	1726.8	1733.3
35°	3089.7	2961.8	2413.6	1916.1	1683.3	1636.6	1624.3	1627.6	1630.1	1617.0	1626.0
37.5°	3359.3	3142.9	2373.4	1781.7	1605.5	1555.5	1529.3	1507.1	1494.0	1481.7	1489.9
40°	3655.2	3340.5	2299.6	1650.6	1518.6	1469.4	1430.1	1388.3	1344.0	1327.7	1335.0
42.5°	3964.9	3543.7	2210.3	1525.2	1418.6	1378.5	1336.7	1276.0	1209.6	1176.0	1180.1
45°	4286.2	3751.9	2122.6	1401.4	1316.2	1299.0	1250.6	1177.7	1105.6	1062.9	1059.7
47.5°	4600.9	3948.6	1993.9	1276.8	1220.3	1239.1	1201.4	1134.2	1053.9	986.7	979.4
50°	4901.7	4133.0	1783.3	1150.6	1142.4	1221.1	1185.1	1088.4	996.6	910.5	903.1
52.5°	5200.0	4282.1	1513.7	1035.9	1100.6	1216.2	1163.8	1057.2	944.9	854.8	844.9
55°	5453.2	4359.1	1253.9	937.6	1040.0	1174.4	1138.3	1020.3	872.0	776.1	767.9
57.5°	5597.5	4296.9	1037.5	840.9	956.4	1105.6	1094.9	941.7	785.1	711.4	701.5
60°	5535.2	4044.4	860.5	756.4	876.9	1031.0	1019.5	863.8	718.7	649.1	639.2
62.5°	5191.8	3563.4	720.4	682.7	804.8	954.8	944.1	804.0	667.9	600.7	590.1
65°	4500.1	2898.7	611.4	621.2	731.9	863.0	878.5	754.0	627.8	562.2	551.6
67.5°	3432.2	2099.7	526.1	567.9	660.6	772.8	817.9	717.9	594.2	531.9	522.0
70°	1956.2	1192.4	454.0	516.3	597.4	689.2	771.2	689.2	558.1	506.5	499.9
72.5°	741.7	547.5	392.6	464.7	536.8	618.8	719.6	644.2	516.3	477.8	471.2
75°	395.8	333.6	330.3	404.0	467.1	549.9	654.8	599.9	485.2	504.8	521.2
77.5°	269.6	236.0	276.2	345.8	390.9	473.7	586.0	532.7	420.4	418.8	386.0
80°	186.9	167.2	224.6	278.6	302.4	398.3	511.4	457.3	342.6	319.6	305.7
82.5°	112.3	109.0	168.0	208.2	213.9	307.3	423.7	383.5	280.3	244.2	245.9
85°	61.5	64.7	107.4	122.1	124.6	214.7	331.9	296.7	215.5	181.1	182.8
87.5°	17.2	22.1	39.3	48.4	59.8	111.5	197.5	176.2	108.2	75.4	75.4
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)