

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: P883600

Luminaire Tested: **NAV-SB4A-735-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883600  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-735-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

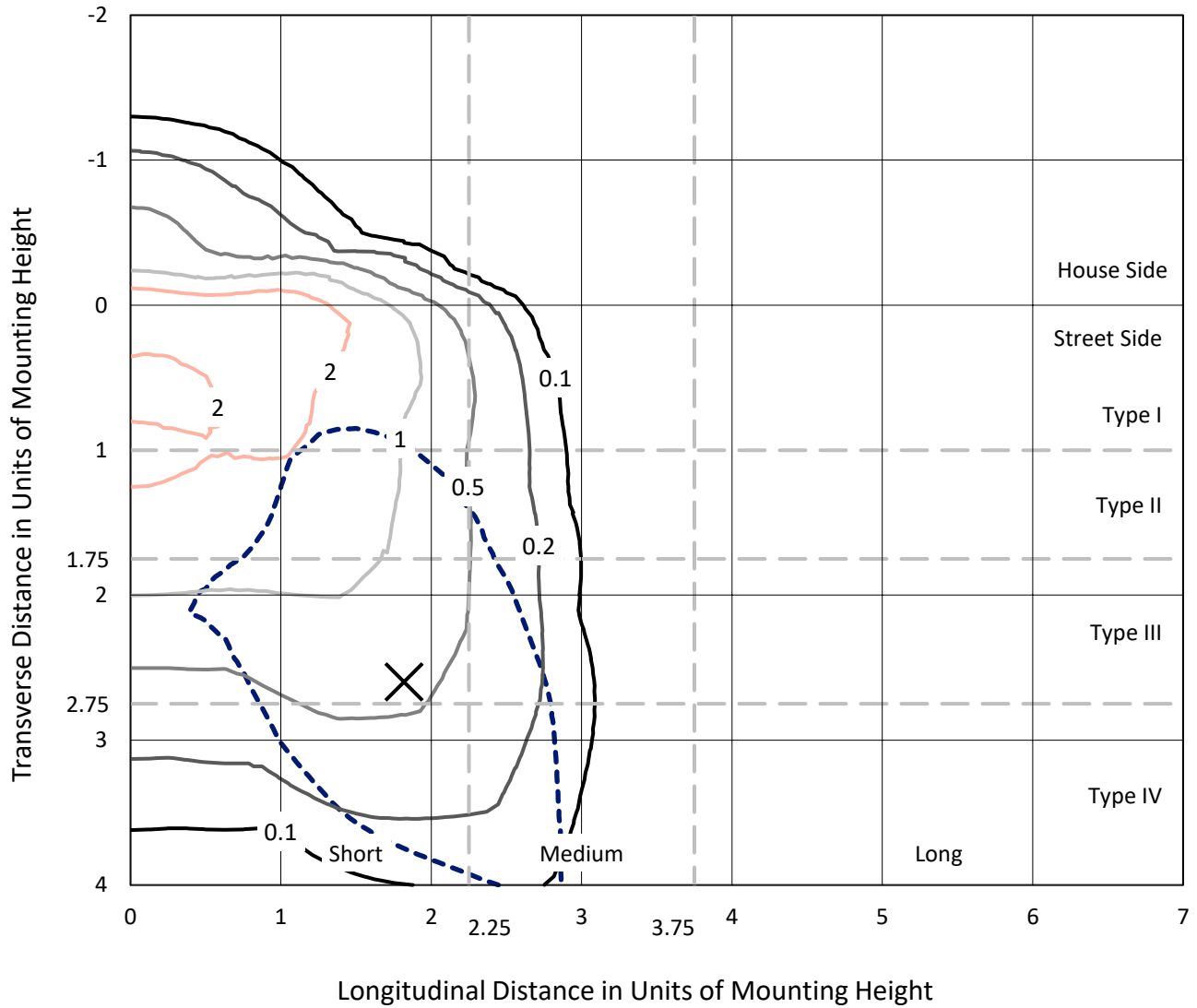
Lumens per Lamp: N/A  
Luminaire Lumens: 13764 lumens  
Efficiency: N/A  
Efficacy: 120.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3  
  
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
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

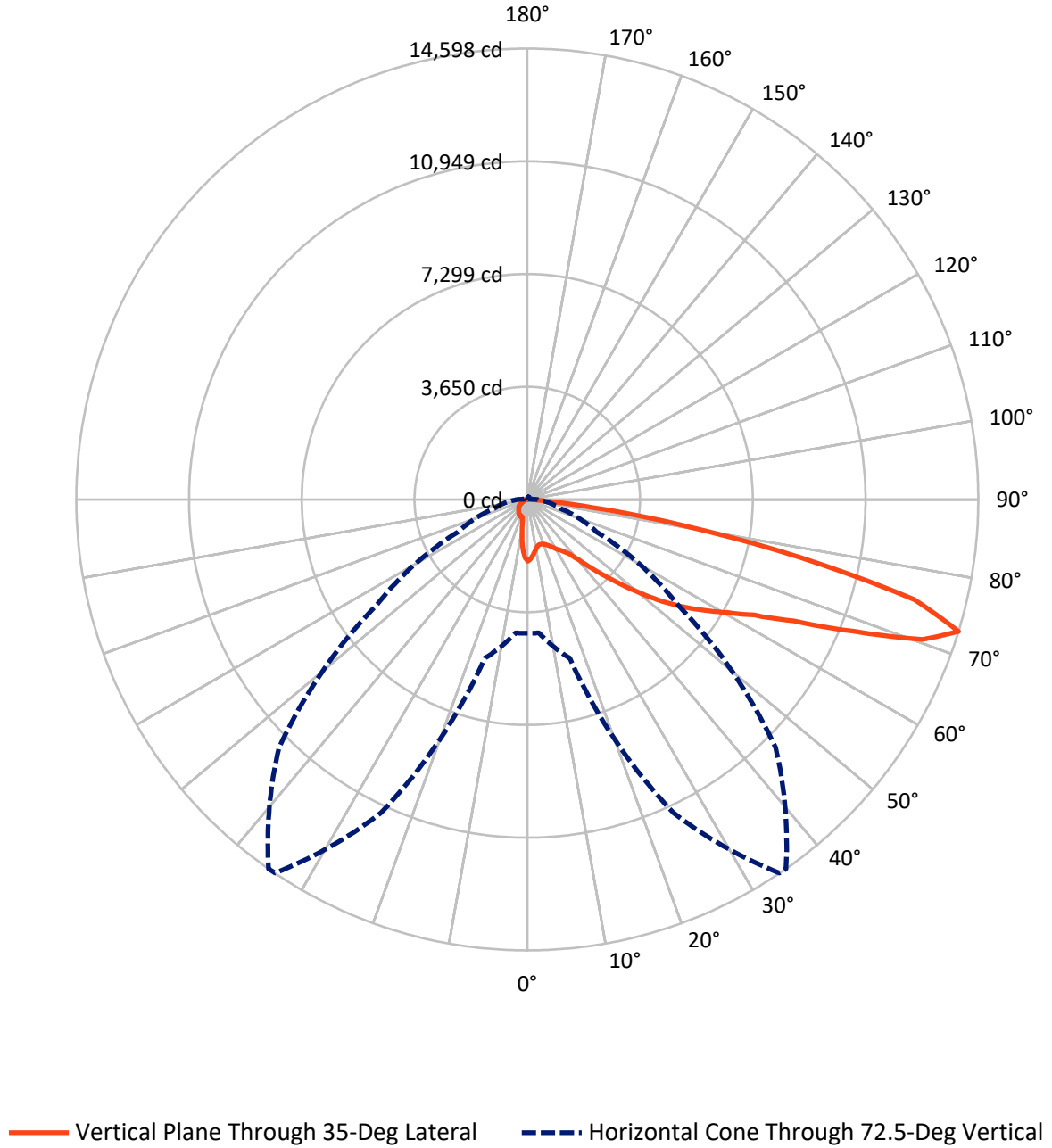
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1549.1	0.0	1549.1
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	12214.9	0.0	12214.9
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	13764.0	0.0	13764.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.9	1.2
10°-20°	383.5	2.8
20°-30°	623.0	4.5
30°-40°	1039.4	7.6
40°-50°	1966.6	14.3
50°-60°	3124.9	22.7
60°-70°	3865.7	28.1
70°-80°	2402.9	17.5
80°-90°	194.2	1.4
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°	13764.0	100.0
0°-180°	13764.0	100.0

**Coefficient of Utilization**



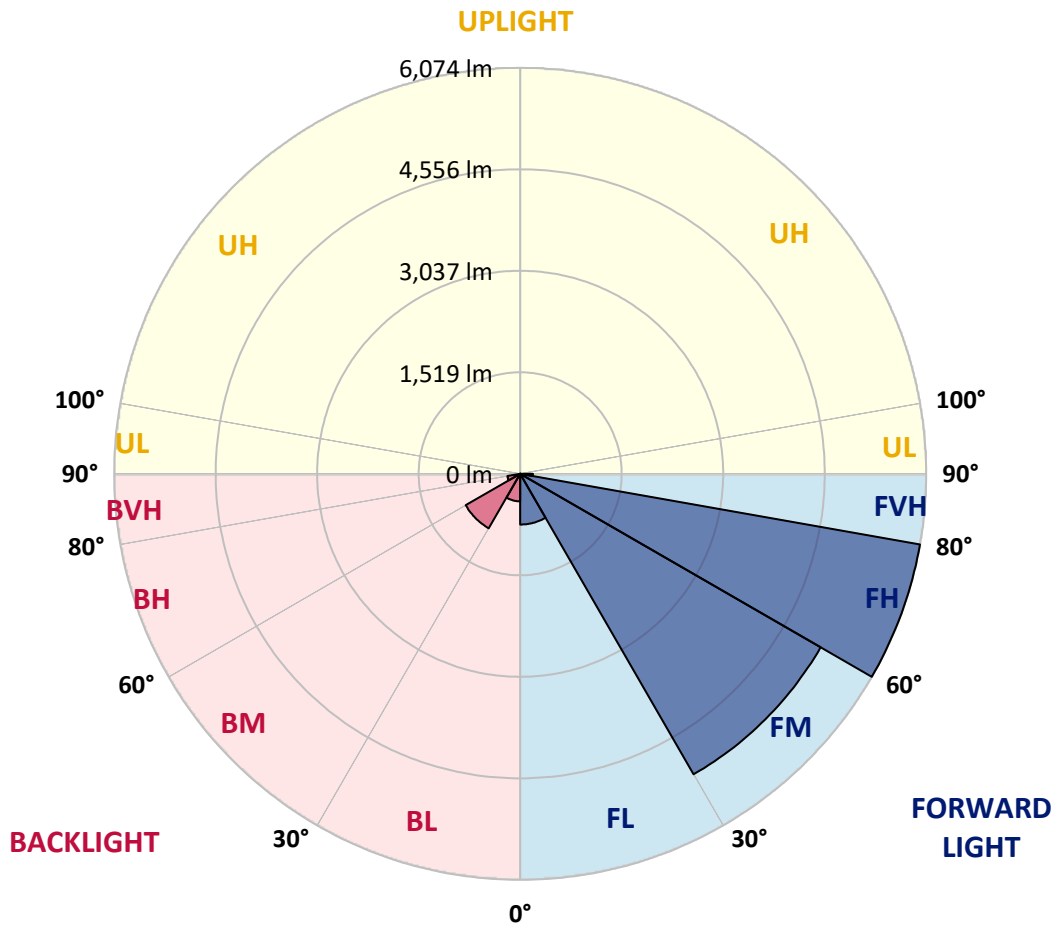
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	758.7	5.5			
FM (30°-60°)	5190.4	37.7			
FH (60°-80°)	6074.2	44.1			G3/7500
FVH (80°-90°)	191.5	1.4			G2/225
BL (0°-30°)	411.6	3.0	B1/500		
BM (30°-60°)	940.4	6.8	B1/1000		
BH (60°-80°)	194.4	1.4	B1/500		G1/500
BVH (80°-90°)	2.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9
2.5°	1906.1	1922.3	1925.3	1930.3	1930.3	1936.4	1946.5	1960.6	1983.8	1995.9	2003.9
5°	1756.9	1769.0	1784.1	1796.2	1819.4	1822.4	1861.7	1900.1	1953.5	1993.9	2022.1
7.5°	1606.6	1620.7	1640.9	1670.1	1700.4	1709.5	1769.0	1833.5	1918.2	1993.9	2041.3
10°	1500.7	1501.7	1519.8	1549.1	1597.5	1608.6	1681.2	1773.0	1878.9	1981.8	2059.4
12.5°	1441.2	1448.2	1456.3	1478.5	1524.9	1532.0	1609.6	1717.5	1839.6	1974.7	2080.6
15°	1441.2	1446.2	1451.3	1462.4	1499.7	1505.7	1574.3	1682.2	1819.4	1977.7	2114.9
17.5°	1456.3	1464.4	1460.3	1473.5	1512.8	1516.8	1577.3	1672.1	1818.4	1996.9	2167.3
20°	1492.6	1498.7	1490.6	1498.7	1538.0	1546.1	1608.6	1691.3	1835.5	2030.2	2232.9
22.5°	1550.1	1553.1	1534.0	1540.0	1580.4	1590.4	1663.1	1745.8	1876.9	2083.6	2320.6
25°	1622.7	1628.8	1599.5	1606.6	1644.9	1657.0	1740.7	1827.4	1942.4	2157.2	2432.6
27.5°	1706.4	1709.5	1684.2	1683.2	1732.6	1749.8	1834.5	1928.3	2030.2	2250.0	2573.8
30°	1802.2	1811.3	1787.1	1783.1	1845.6	1859.7	1943.4	2052.4	2159.3	2389.2	2774.5
32.5°	1877.9	1884.9	1870.8	1880.9	1944.4	1955.5	2075.5	2227.8	2362.0	2586.9	3047.8
35°	1986.8	1990.8	1958.6	1976.7	2049.3	2077.6	2256.1	2473.9	2617.1	2835.0	3404.8
37.5°	2381.1	2381.1	2244.0	2154.2	2223.8	2249.0	2503.2	2783.5	2931.8	3167.8	3854.6
40°	2926.7	2917.7	2717.0	2533.4	2524.3	2573.8	2855.1	3173.8	3338.2	3567.2	4360.9
42.5°	3508.7	3494.5	3221.2	3039.7	3009.4	3026.6	3261.6	3654.9	3822.3	4054.3	4905.5
45°	4025.0	4021.0	3770.9	3526.8	3472.4	3526.8	3768.9	4217.7	4337.7	4581.7	5449.1
47.5°	4457.7	4457.7	4275.1	4115.8	4087.6	4119.8	4455.7	4841.9	4830.8	5143.5	5978.5
50°	4955.9	4951.9	4778.4	4709.8	4739.1	4784.4	5246.4	5499.5	5341.2	5695.1	6451.5
52.5°	5304.8	5329.1	5269.6	5258.5	5407.7	5486.4	6049.1	6142.9	5798.0	6218.6	6805.5
55°	5581.2	5609.4	5678.0	5755.7	6043.1	6146.0	6826.7	6753.1	6180.2	6672.4	7009.3
57.5°	5972.5	5932.2	6038.0	6191.3	6656.3	6780.3	7580.1	7329.0	6487.8	7040.5	7031.4
60°	6447.5	6453.6	6471.7	6665.4	7268.4	7427.8	8322.4	7873.6	6685.5	7266.4	6785.4
62.5°	7018.3	7027.4	7064.7	7362.2	8090.4	8240.7	9113.0	8319.3	6776.3	7202.9	6150.0
65°	6979.0	7017.3	7433.8	8451.5	9340.0	9488.2	10035.8	8632.0	6639.1	6622.0	5007.3
67.5°	6357.7	6420.3	7117.2	9752.4	11223.9	11389.3	11151.3	8693.5	6047.1	5149.5	3266.6
70°	5542.9	5565.0	6403.1	10922.3	13405.3	13572.7	12149.7	8016.8	4588.8	2872.3	1463.4
72.5°	4328.6	4333.6	5317.0	11193.6	14589.3	14598.4	11366.1	5951.3	2467.9	1103.3	508.3
75°	3092.1	3061.9	3561.1	9077.7	12835.5	12938.4	8521.0	2791.6	943.0	521.4	253.1
77.5°	1658.0	1691.3	2015.0	5383.5	8867.0	9042.4	4649.3	804.8	480.1	355.0	167.4
80°	512.3	540.6	826.0	2464.8	5022.5	5128.4	1723.6	358.0	334.8	253.1	109.9
82.5°	161.4	167.4	385.3	1035.8	2084.6	2133.0	499.2	202.7	228.9	167.4	64.5
85°	46.4	47.4	171.4	386.3	515.4	525.4	140.2	78.7	131.1	103.9	33.3
87.5°	5.0	16.1	64.5	64.5	45.4	44.4	15.1	17.1	37.3	13.1	6.1
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°	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9
2.5°	1998.9	1999.9	1986.8	1964.6	1940.4	1920.2	1895.0	1874.9	1860.7	1856.7	1863.8
5°	2013.0	2006.0	1968.6	1901.1	1820.4	1750.8	1673.1	1611.6	1571.3	1554.1	1560.2
7.5°	2034.2	2014.0	1932.3	1799.2	1644.9	1507.7	1368.6	1260.7	1192.1	1157.8	1162.8
10°	2052.4	2012.0	1871.8	1652.0	1416.0	1208.2	1020.6	890.5	817.9	783.6	784.6
12.5°	2069.5	2011.0	1793.2	1477.5	1157.8	903.6	729.2	664.6	644.4	637.4	635.4
15°	2101.8	2014.0	1694.3	1277.8	900.6	682.8	619.2	618.2	622.3	620.2	619.2
17.5°	2146.1	2017.1	1582.4	1066.0	694.9	602.1	599.1	608.1	614.2	611.2	610.2
20°	2203.6	2029.2	1463.4	856.2	597.0	581.9	589.0	597.0	602.1	597.0	596.0
22.5°	2284.3	2050.3	1333.3	687.8	565.8	569.8	575.9	584.9	590.0	582.9	581.9
25°	2383.1	2083.6	1205.2	598.1	550.7	555.7	564.8	574.9	580.9	573.9	572.8
27.5°	2511.2	2137.1	1087.2	577.9	535.5	538.6	551.7	566.8	574.9	565.8	565.8
30°	2696.8	2224.8	985.3	587.0	526.5	519.4	537.5	558.7	567.8	559.7	558.7
32.5°	2942.9	2348.9	922.8	601.1	522.4	497.2	514.3	541.6	556.7	551.7	551.7
35°	3265.6	2537.5	898.6	617.2	519.4	474.0	486.1	515.4	541.6	546.6	546.6
37.5°	3656.9	2799.7	905.7	624.3	510.3	454.8	460.9	486.1	520.4	536.5	540.6
40°	4101.7	3105.3	946.0	617.2	500.2	438.7	439.7	458.9	489.1	513.3	521.4
42.5°	4560.6	3462.3	1020.6	591.0	491.2	424.6	421.6	434.7	454.8	472.0	479.1
45°	4997.2	3829.4	1094.3	554.7	480.1	410.5	403.4	408.5	412.5	419.5	423.6
47.5°	5378.5	4087.6	1073.1	521.4	464.9	394.3	382.2	380.2	368.1	367.1	366.1
50°	5641.7	4144.0	953.1	488.1	442.7	376.2	357.0	344.9	323.7	313.7	314.7
52.5°	5725.4	3921.2	778.6	454.8	406.4	352.0	324.7	305.6	279.4	270.3	269.3
55°	5614.5	3484.5	622.3	414.5	356.0	319.7	289.4	264.2	243.1	232.0	232.0
57.5°	5343.2	2928.8	492.2	367.1	302.6	283.4	253.1	227.9	209.8	198.7	196.7
60°	4893.4	2325.7	389.3	310.6	258.2	244.1	212.8	196.7	180.5	167.4	164.4
62.5°	4210.6	1660.0	305.6	246.1	215.8	199.7	181.5	169.4	150.3	132.1	129.1
65°	3285.8	1015.6	236.0	180.5	173.5	165.4	154.3	143.2	120.0	101.9	98.8
67.5°	2072.5	481.1	168.4	136.2	137.2	133.1	128.1	119.0	101.9	85.7	83.7
70°	912.7	233.0	110.9	103.9	101.9	101.9	105.9	102.9	86.7	71.6	68.6
72.5°	310.6	125.1	82.7	78.7	73.6	72.6	88.8	85.7	69.6	55.5	52.4
75°	162.4	83.7	60.5	56.5	44.4	53.5	70.6	66.6	49.4	36.3	33.3
77.5°	105.9	59.5	41.3	36.3	25.2	35.3	52.4	46.4	29.2	18.2	16.1
80°	66.6	39.3	24.2	17.1	12.1	19.2	28.2	20.2	11.1	4.0	3.0
82.5°	35.3	20.2	9.1	6.1	5.0	6.1	7.1	5.0	2.0	0.0	0.0
85°	14.1	7.1	3.0	2.0	1.0	0.0	2.0	1.0	0.0	0.0	0.0
87.5°	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)