

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: P884250

Luminaire Tested: **NAV-SB5A-722-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884250
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-SB5A-722-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 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: 13734 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

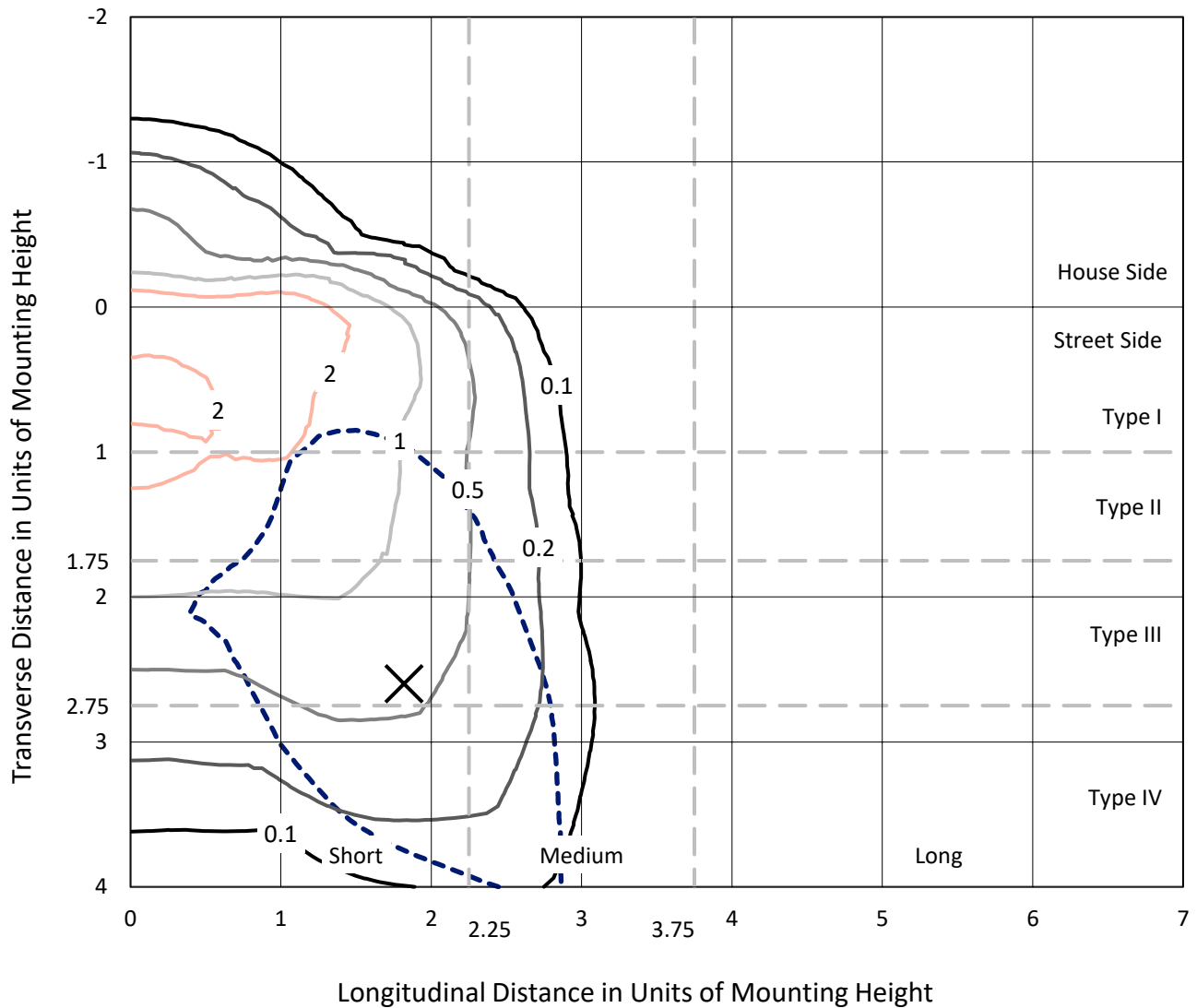
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

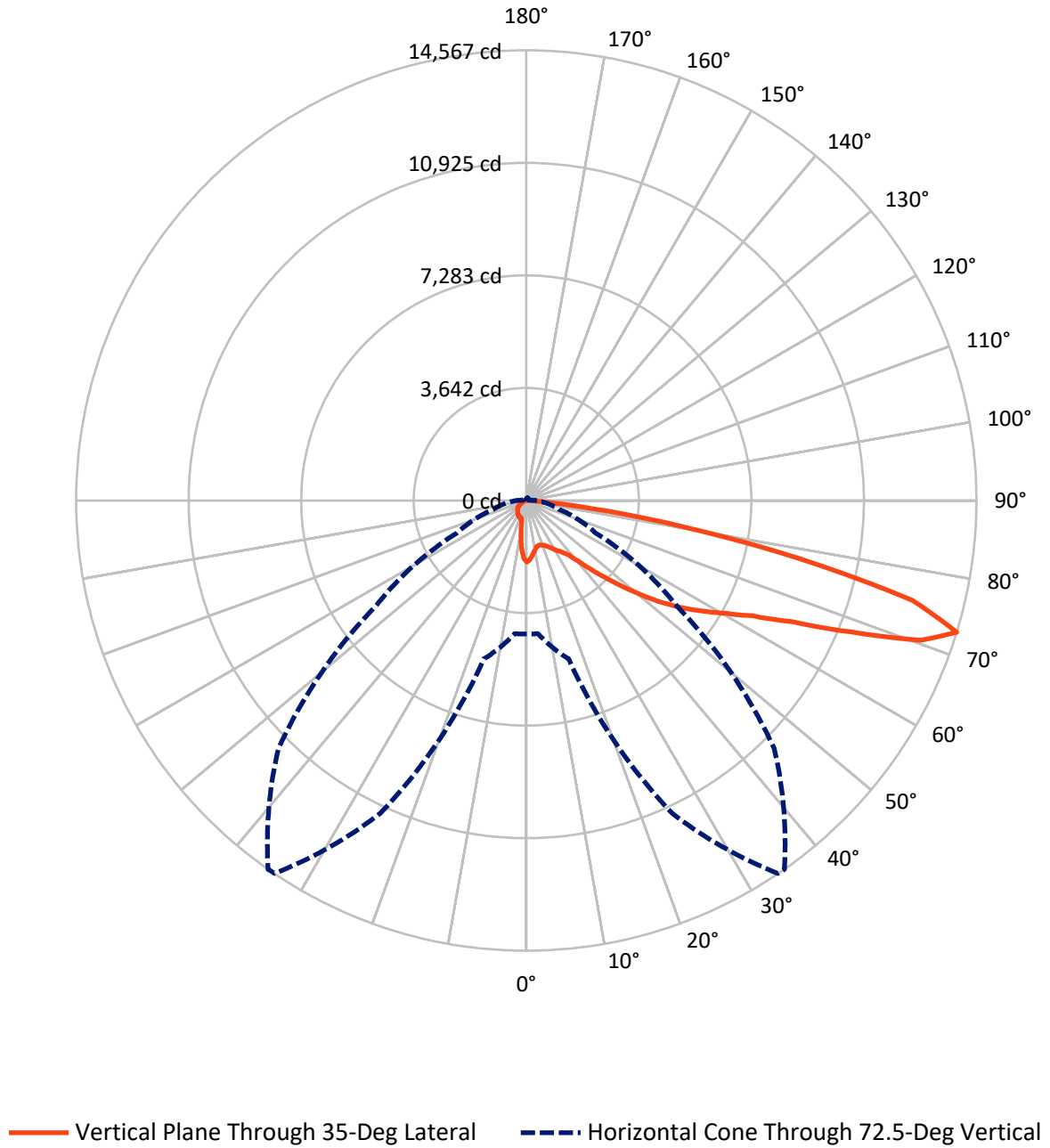
× Max cd
 - - - 1/2 Max cd



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
House Side	Lumens	1545.7	0.0	1545.7
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	12188.3	0.0	12188.3
	% Fixture	88.7	0.0	88.7
Total	Lumens	13734.0	0.0	13734.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.6	1.2
10°-20°	382.6	2.8
20°-30°	621.6	4.5
30°-40°	1037.1	7.6
40°-50°	1962.3	14.3
50°-60°	3118.1	22.7
60°-70°	3857.2	28.1
70°-80°	2397.7	17.5
80°-90°	193.8	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°	13734.0	100.0
0°-180°	13734.0	100.0

Coefficient of Utilization



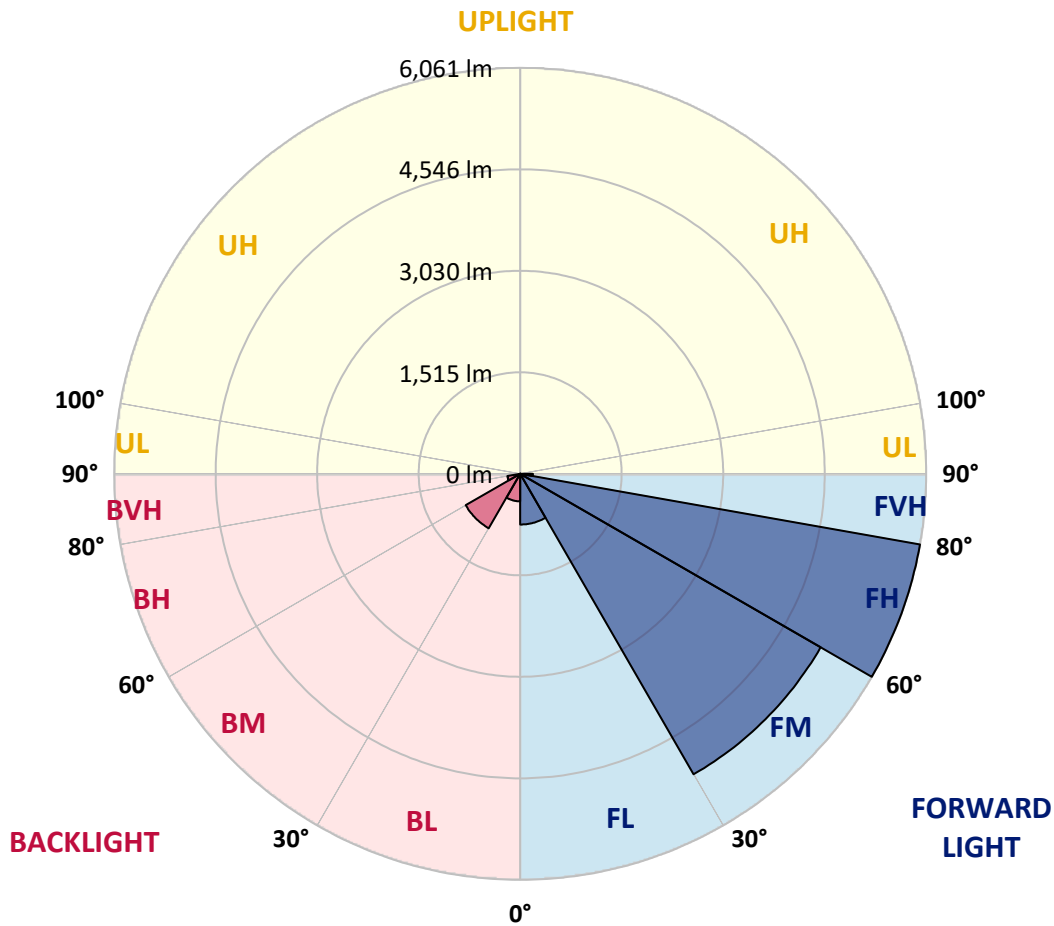
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	757.1	5.5			
FM (30°-60°)	5179.1	37.7			
FH (60°-80°)	6061.0	44.1			G3/7500
FVH (80°-90°)	191.1	1.4			G2/225
BL (0°-30°)	410.7	3.0	B1/500		
BM (30°-60°)	938.4	6.8	B1/1000		
BH (60°-80°)	194.0	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°	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5
2.5°	1902.0	1918.1	1921.1	1926.1	1926.1	1932.2	1942.2	1956.3	1979.4	1991.5	1999.6
5°	1753.0	1765.1	1780.2	1792.3	1815.4	1818.4	1857.7	1895.9	1949.3	1989.5	2017.7
7.5°	1603.1	1617.2	1637.3	1666.5	1696.7	1705.7	1765.1	1829.5	1914.0	1989.5	2036.8
10°	1497.4	1498.4	1516.5	1545.7	1594.0	1605.1	1677.5	1769.1	1874.8	1977.4	2054.9
12.5°	1438.0	1445.1	1453.1	1475.3	1521.6	1528.6	1606.1	1713.8	1835.5	1970.4	2076.1
15°	1438.0	1443.1	1448.1	1459.2	1496.4	1502.4	1570.9	1678.6	1815.4	1973.4	2110.3
17.5°	1453.1	1461.2	1457.2	1470.2	1509.5	1513.5	1573.9	1668.5	1814.4	1992.5	2162.6
20°	1489.4	1495.4	1487.4	1495.4	1534.7	1542.7	1605.1	1687.6	1831.5	2025.7	2228.0
22.5°	1546.7	1549.7	1530.6	1536.7	1576.9	1587.0	1659.4	1742.0	1872.8	2079.1	2315.6
25°	1619.2	1625.2	1596.0	1603.1	1641.3	1653.4	1736.9	1823.5	1938.2	2152.5	2427.3
27.5°	1702.7	1705.7	1680.6	1679.6	1728.9	1746.0	1830.5	1924.1	2025.7	2245.1	2568.1
30°	1798.3	1807.4	1783.2	1779.2	1841.6	1855.7	1939.2	2047.9	2154.5	2384.0	2768.4
32.5°	1873.8	1880.8	1866.7	1876.8	1940.2	1951.3	2071.0	2223.0	2356.8	2581.2	3041.1
35°	1982.5	1986.5	1954.3	1972.4	2044.9	2073.0	2251.2	2468.5	2611.4	2828.8	3397.4
37.5°	2375.9	2375.9	2239.1	2149.5	2219.0	2244.1	2497.7	2777.5	2925.4	3160.9	3846.2
40°	2920.4	2911.3	2711.0	2527.9	2518.8	2568.1	2848.9	3166.9	3330.9	3559.4	4351.4
42.5°	3501.0	3486.9	3214.2	3033.1	3002.9	3020.0	3254.5	3646.9	3814.0	4045.4	4894.8
45°	4016.3	4012.2	3762.7	3519.1	3464.8	3519.1	3760.6	4208.5	4328.2	4571.7	5437.2
47.5°	4448.0	4448.0	4265.8	4106.8	4078.6	4110.9	4446.0	4831.4	4820.3	5132.3	5965.5
50°	4945.1	4941.1	4768.0	4699.6	4728.7	4774.0	5234.9	5487.5	5329.5	5682.7	6437.5
52.5°	5293.3	5317.4	5258.1	5247.0	5395.9	5474.4	6036.0	6129.5	5785.4	6205.0	6790.7
55°	5569.0	5597.2	5665.6	5743.1	6029.9	6132.6	6811.8	6738.4	6166.8	6657.9	6994.0
57.5°	5959.5	5919.2	6024.9	6177.8	6641.8	6765.5	7563.6	7313.0	6473.7	7025.2	7016.1
60°	6433.5	6439.5	6457.6	6650.8	7252.6	7411.6	8304.2	7856.4	6670.9	7250.6	6770.6
62.5°	7003.0	7012.1	7049.3	7346.2	8072.8	8222.7	9093.2	8301.2	6761.5	7187.2	6136.6
65°	6963.8	7002.0	7417.6	8433.0	9319.6	9467.5	10014.0	8613.2	6624.7	6607.6	4996.4
67.5°	6343.9	6406.3	7101.7	9731.2	11199.4	11364.5	11127.0	8674.5	6033.9	5138.3	3259.5
70°	5530.8	5552.9	6389.2	10898.5	13376.1	13543.2	12123.2	7999.3	4578.8	2866.0	1460.2
72.5°	4319.2	4324.2	5305.4	11169.2	14557.5	14566.6	11341.3	5938.3	2462.5	1100.9	507.2
75°	3085.4	3055.2	3553.3	9058.0	12807.5	12910.2	8502.5	2785.5	940.9	520.3	252.6
77.5°	1654.4	1687.6	2010.6	5371.8	8847.6	9022.7	4639.2	803.0	479.0	354.2	167.1
80°	511.2	539.4	824.2	2459.5	5011.5	5117.2	1719.8	357.2	334.1	252.6	109.7
82.5°	161.0	167.1	384.4	1033.5	2080.1	2128.4	498.1	202.3	228.4	167.1	64.4
85°	46.3	47.3	171.1	385.4	514.2	524.3	139.9	78.5	130.8	103.7	33.2
87.5°	5.0	16.1	64.4	64.4	45.3	44.3	15.1	17.1	37.2	13.1	6.0
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°	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5	1990.5
2.5°	1994.5	1995.5	1982.5	1960.3	1936.2	1916.0	1890.9	1870.8	1856.7	1852.7	1859.7
5°	2008.6	2001.6	1964.4	1896.9	1816.4	1747.0	1669.5	1608.1	1567.9	1550.8	1556.8
7.5°	2029.8	2009.6	1928.1	1795.3	1641.3	1504.5	1365.6	1257.9	1189.5	1155.3	1160.3
10°	2047.9	2007.6	1867.7	1648.4	1412.9	1205.6	1018.4	888.6	816.1	781.9	782.9
12.5°	2065.0	2006.6	1789.3	1474.3	1155.3	901.7	727.6	663.2	643.0	636.0	634.0
15°	2097.2	2009.6	1690.6	1275.0	898.7	681.3	617.9	616.9	620.9	618.9	617.9
17.5°	2141.5	2012.7	1578.9	1063.7	693.4	600.8	597.8	606.8	612.9	609.8	608.8
20°	2198.8	2024.7	1460.2	854.4	595.7	580.7	587.7	595.7	600.8	595.7	594.7
22.5°	2279.3	2045.9	1330.4	686.3	564.6	568.6	574.6	583.7	588.7	581.7	580.7
25°	2378.0	2079.1	1202.6	596.8	549.5	554.5	563.5	573.6	579.6	572.6	571.6
27.5°	2505.8	2132.4	1084.8	576.6	534.4	537.4	550.5	565.6	573.6	564.6	564.6
30°	2690.9	2220.0	983.2	585.7	525.3	518.3	536.4	557.5	566.6	558.5	557.5
32.5°	2936.5	2343.7	920.8	599.8	521.3	496.1	513.2	540.4	555.5	550.5	550.5
35°	3258.5	2531.9	896.6	615.9	518.3	473.0	485.1	514.2	540.4	545.4	545.4
37.5°	3648.9	2793.6	903.7	622.9	509.2	453.9	459.9	485.1	519.3	535.4	539.4
40°	4092.7	3098.5	943.9	615.9	499.1	437.8	438.8	457.9	488.1	512.2	520.3
42.5°	4550.6	3454.7	1018.4	589.7	490.1	423.7	420.6	433.7	453.9	471.0	478.0
45°	4986.4	3821.0	1091.9	553.5	479.0	409.6	402.5	407.6	411.6	418.6	422.7
47.5°	5366.7	4078.6	1070.7	520.3	463.9	393.5	381.4	379.4	367.3	366.3	365.3
50°	5629.4	4135.0	951.0	487.1	441.8	375.4	356.2	344.2	323.0	313.0	314.0
52.5°	5712.9	3912.6	776.9	453.9	405.6	351.2	324.0	304.9	278.8	269.7	268.7
55°	5602.2	3476.9	620.9	413.6	355.2	319.0	288.8	263.7	242.5	231.5	231.5
57.5°	5331.5	2922.4	491.1	366.3	301.9	282.8	252.6	227.4	209.3	198.2	196.2
60°	4882.7	2320.6	388.4	309.9	257.6	243.5	212.3	196.2	180.1	167.1	164.0
62.5°	4201.4	1656.4	304.9	245.5	215.4	199.3	181.1	169.1	149.9	131.8	128.8
65°	3278.6	1013.4	235.5	180.1	173.1	165.0	154.0	142.9	119.8	101.6	98.6
67.5°	2068.0	480.0	168.1	135.9	136.9	132.8	127.8	118.7	101.6	85.5	83.5
70°	910.7	232.5	110.7	103.7	101.6	101.6	105.7	102.6	86.5	71.4	68.4
72.5°	309.9	124.8	82.5	78.5	73.5	72.5	88.6	85.5	69.4	55.3	52.3
75°	162.0	83.5	60.4	56.4	44.3	53.3	70.4	66.4	49.3	36.2	33.2
77.5°	105.7	59.4	41.3	36.2	25.2	35.2	52.3	46.3	29.2	18.1	16.1
80°	66.4	39.2	24.2	17.1	12.1	19.1	28.2	20.1	11.1	4.0	3.0
82.5°	35.2	20.1	9.1	6.0	5.0	6.0	7.0	5.0	2.0	0.0	0.0
85°	14.1	7.0	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)