

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: P884320

Luminaire Tested: **NAV-SB5A-827-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884320
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-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 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: 14003 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

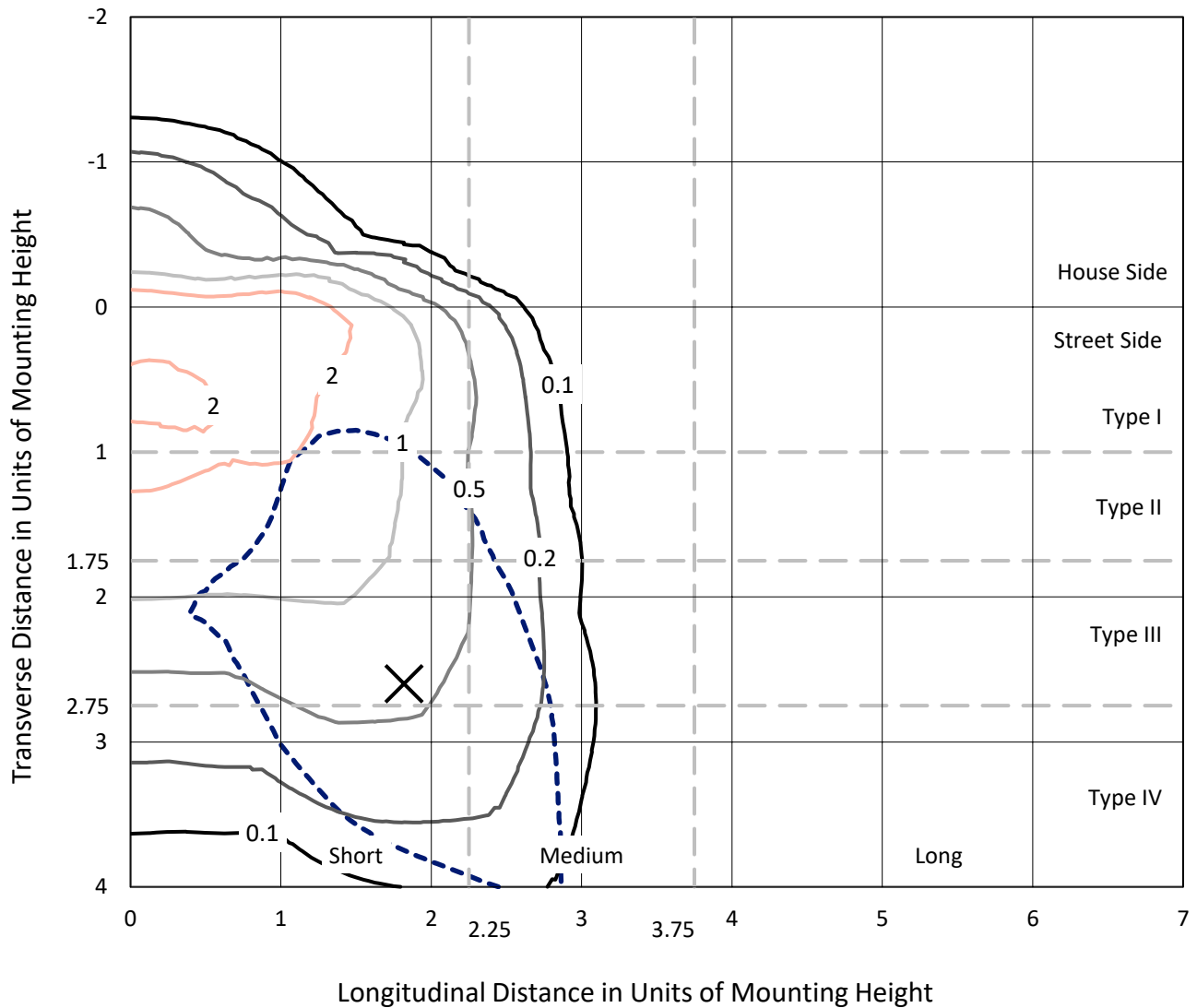
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

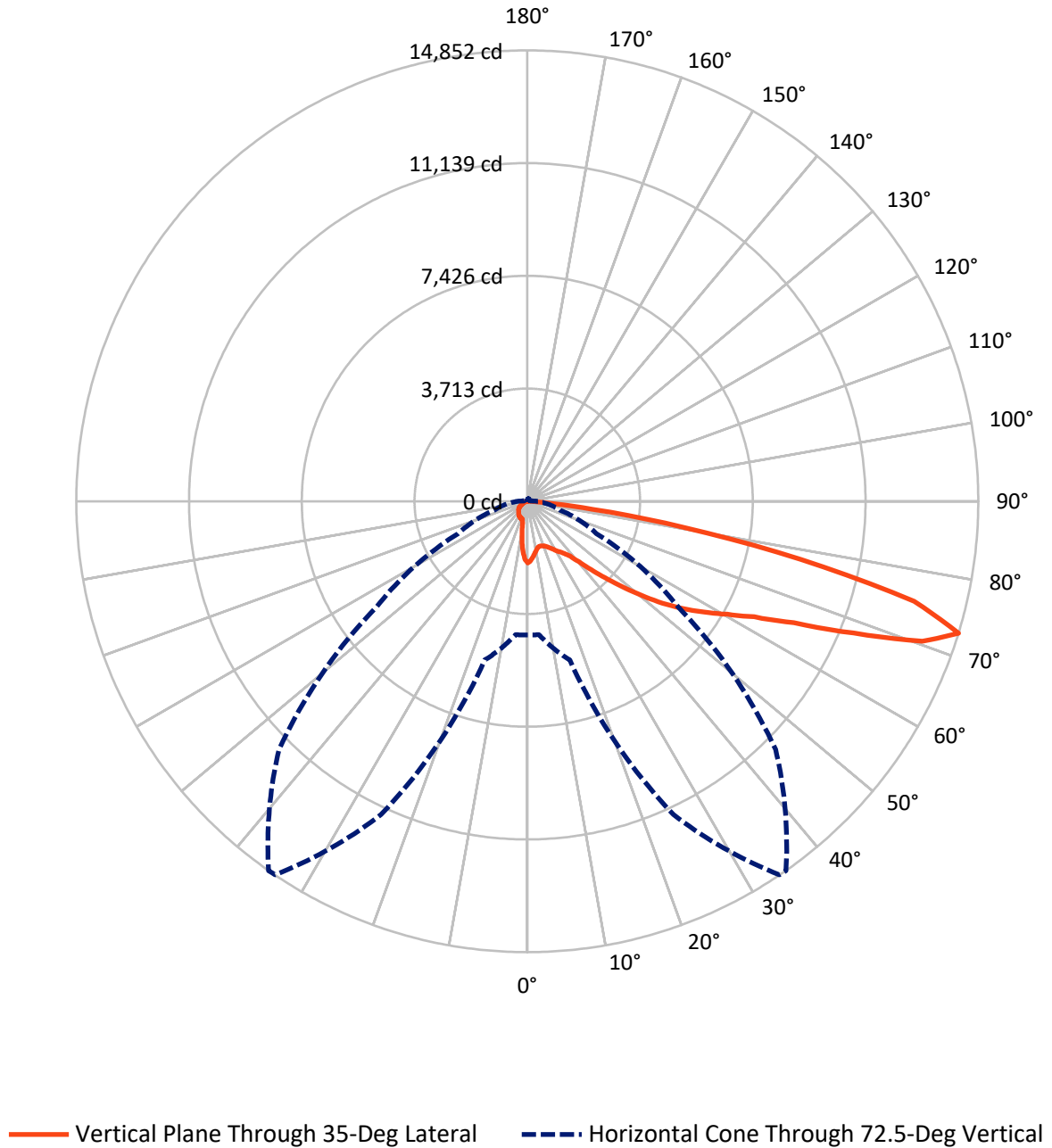
× Max cd
 - - - 1/2 Max cd



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	1576.0	0.0	1576.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	12427.0	0.0	12427.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	14003.0	0.0	14003.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.8	1.2
10°-20°	390.1	2.8
20°-30°	633.8	4.5
30°-40°	1057.4	7.6
40°-50°	2000.7	14.3
50°-60°	3179.1	22.7
60°-70°	3932.8	28.1
70°-80°	2444.7	17.5
80°-90°	197.6	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°	14003.0	100.0
0°-180°	14003.0	100.0

Coefficient of Utilization



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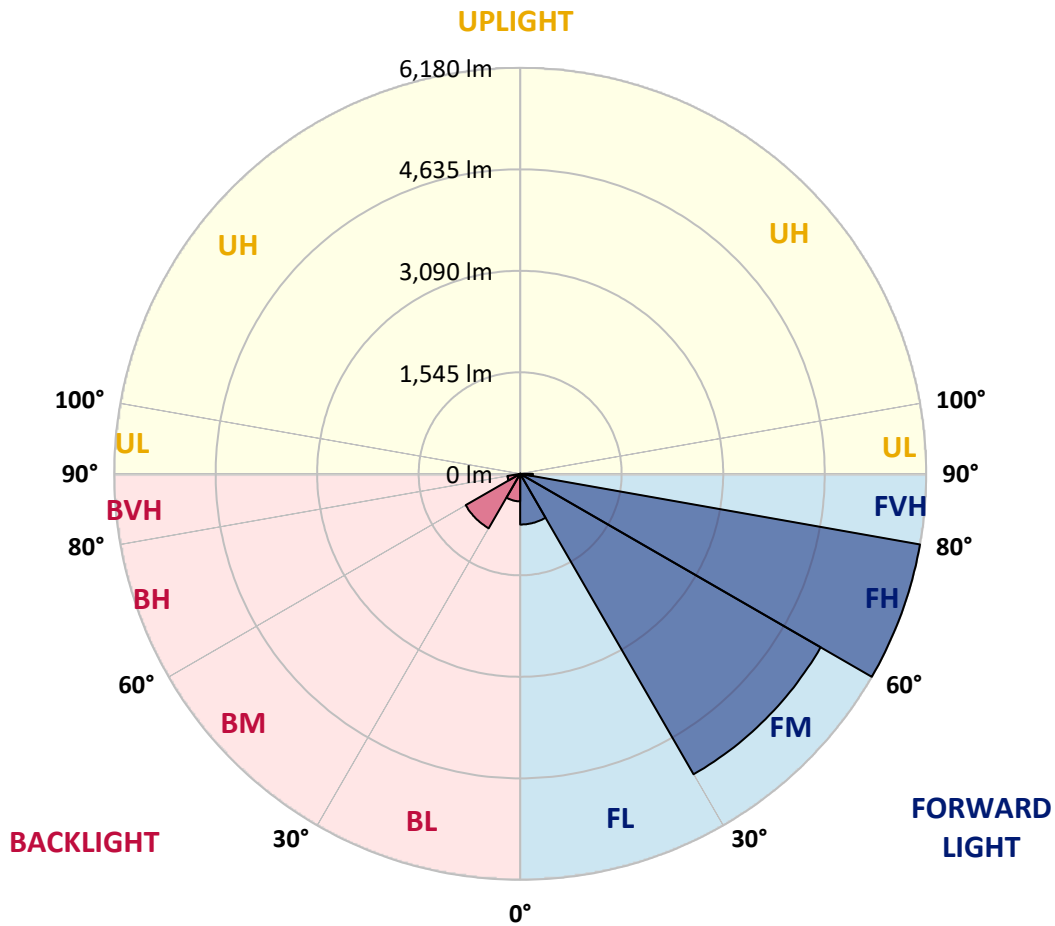
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	771.9	5.5			
FM (30°-60°)	5280.5	37.7			
FH (60°-80°)	6179.7	44.1			G3/7500
FVH (80°-90°)	194.9	1.4			G2/225
BL (0°-30°)	418.8	3.0	B1/500		
BM (30°-60°)	956.8	6.8	B1/1000		
BH (60°-80°)	197.8	1.4	B1/500		G1/500
BVH (80°-90°)	2.7	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°	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5
2.5°	1939.2	1955.6	1958.7	1963.8	1963.8	1970.0	1980.3	1994.6	2018.2	2030.5	2038.7
5°	1787.4	1799.7	1815.1	1827.4	1851.0	1854.1	1894.1	1933.1	1987.4	2028.5	2057.2
7.5°	1634.5	1648.8	1669.4	1699.1	1729.9	1739.1	1799.7	1865.3	1951.5	2028.5	2076.7
10°	1526.7	1527.8	1546.2	1576.0	1625.2	1636.5	1710.4	1803.8	1911.5	2016.2	2095.2
12.5°	1466.2	1473.4	1481.6	1504.2	1551.4	1558.6	1637.6	1747.3	1871.5	2009.0	2116.7
15°	1466.2	1471.3	1476.5	1487.8	1525.7	1531.9	1601.6	1711.4	1851.0	2012.1	2151.6
17.5°	1481.6	1489.8	1485.7	1499.0	1539.1	1543.2	1604.7	1701.2	1849.9	2031.6	2205.0
20°	1518.5	1524.7	1516.5	1524.7	1564.7	1572.9	1636.5	1720.7	1867.4	2065.4	2271.6
22.5°	1577.0	1580.1	1560.6	1566.8	1607.8	1618.1	1691.9	1776.1	1909.5	2119.8	2360.9
25°	1650.9	1657.1	1627.3	1634.5	1673.5	1685.8	1770.9	1859.2	1976.2	2194.7	2474.8
27.5°	1736.1	1739.1	1713.5	1712.5	1762.7	1780.2	1866.4	1961.8	2065.4	2289.1	2618.5
30°	1833.5	1842.8	1818.1	1814.0	1877.7	1892.0	1977.2	2088.0	2196.7	2430.7	2822.6
32.5°	1910.5	1917.7	1903.3	1913.6	1978.2	1989.5	2111.6	2266.5	2403.0	2631.8	3100.7
35°	2021.3	2025.4	1992.6	2011.0	2084.9	2113.6	2295.2	2516.9	2662.6	2884.2	3463.9
37.5°	2422.5	2422.5	2282.9	2191.6	2262.4	2288.1	2546.6	2831.9	2982.7	3222.8	3921.5
40°	2977.6	2968.3	2764.1	2577.4	2568.2	2618.5	2904.7	3228.9	3396.2	3629.1	4436.6
42.5°	3569.6	3555.2	3277.2	3092.5	3061.7	3079.1	3318.2	3718.4	3888.7	4124.7	4990.7
45°	4094.9	4090.8	3836.4	3588.1	3532.7	3588.1	3834.3	4290.9	4413.0	4661.3	5543.7
47.5°	4535.1	4535.1	4349.4	4187.3	4158.5	4191.4	4533.0	4926.0	4914.7	5232.8	6082.4
50°	5042.0	5037.8	4861.4	4791.6	4821.4	4867.5	5337.5	5595.0	5433.9	5794.0	6563.6
52.5°	5397.0	5421.6	5361.1	5349.8	5501.6	5581.6	6154.2	6249.6	5898.7	6326.6	6923.7
55°	5678.1	5706.8	5776.6	5855.6	6148.0	6252.7	6945.3	6870.4	6287.6	6788.3	7131.0
57.5°	6076.2	6035.2	6142.9	6298.9	6771.9	6898.1	7711.7	7456.2	6600.5	7162.8	7153.5
60°	6559.5	6565.6	6584.1	6781.1	7394.7	7556.8	8466.9	8010.3	6801.6	7392.6	6903.2
62.5°	7140.2	7149.4	7187.4	7490.1	8230.9	8383.8	9271.3	8463.8	6894.0	7328.0	6256.8
65°	7100.2	7139.2	7562.9	8598.2	9502.1	9653.0	10210.1	8781.9	6754.4	6737.0	5094.3
67.5°	6468.1	6531.8	7240.8	9921.8	11418.8	11587.1	11344.9	8844.5	6152.1	5239.0	3323.3
70°	5639.1	5661.7	6514.3	11112.0	13638.1	13808.4	12360.7	8156.0	4668.5	2922.2	1488.8
72.5°	4403.8	4408.9	5409.3	11388.0	14842.7	14851.9	11563.5	6054.7	2510.7	1122.5	517.1
75°	3145.8	3115.1	3622.9	9235.4	13058.4	13163.0	8669.0	2840.1	959.3	530.5	257.5
77.5°	1686.8	1720.7	2050.0	5477.0	9020.9	9199.5	4730.0	818.8	488.4	361.2	170.3
80°	521.2	550.0	840.3	2507.6	5109.7	5217.4	1753.5	364.2	340.6	257.5	111.8
82.5°	164.2	170.3	391.9	1053.7	2120.8	2170.1	507.9	206.2	232.9	170.3	65.7
85°	47.2	48.2	174.4	393.0	524.3	534.6	142.6	80.0	133.4	105.7	33.9
87.5°	5.1	16.4	65.7	65.7	46.2	45.1	15.4	17.4	38.0	13.3	6.2
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°	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5
2.5°	2033.6	2034.6	2021.3	1998.7	1974.1	1953.6	1927.9	1907.4	1893.0	1888.9	1896.1
5°	2048.0	2040.8	2002.8	1934.1	1852.0	1781.2	1702.2	1639.6	1598.6	1581.1	1587.3
7.5°	2069.5	2049.0	1965.9	1830.5	1673.5	1533.9	1392.3	1282.5	1212.8	1177.9	1183.0
10°	2088.0	2046.9	1904.3	1680.7	1440.6	1229.2	1038.4	906.0	832.1	797.2	798.3
12.5°	2105.4	2045.9	1824.3	1503.1	1177.9	919.3	741.8	676.2	655.6	648.5	646.4
15°	2138.3	2049.0	1723.7	1300.0	916.3	694.6	630.0	629.0	633.1	631.0	630.0
17.5°	2183.4	2052.1	1609.9	1084.5	706.9	612.5	609.5	618.7	624.9	621.8	620.8
20°	2241.9	2064.4	1488.8	871.1	607.4	592.0	599.2	607.4	612.5	607.4	606.4
22.5°	2324.0	2085.9	1356.4	699.8	575.6	579.7	585.9	595.1	600.2	593.1	592.0
25°	2424.5	2119.8	1226.1	608.4	560.2	565.3	574.6	584.8	591.0	583.8	582.8
27.5°	2554.8	2174.2	1106.1	587.9	544.8	547.9	561.2	576.6	584.8	575.6	575.6
30°	2743.6	2263.4	1002.4	597.2	535.6	528.4	546.9	568.4	577.7	569.5	568.4
32.5°	2994.0	2389.6	938.8	611.5	531.5	505.8	523.3	551.0	566.4	561.2	561.2
35°	3322.3	2581.5	914.2	627.9	528.4	482.2	494.6	524.3	551.0	556.1	556.1
37.5°	3720.4	2848.3	921.4	635.1	519.2	462.7	468.9	494.6	529.4	545.9	550.0
40°	4172.9	3159.2	962.4	627.9	508.9	446.3	447.4	466.8	497.6	522.3	530.5
42.5°	4639.7	3522.4	1038.4	601.3	499.7	432.0	428.9	442.2	462.7	480.2	487.4
45°	5084.0	3895.9	1113.3	564.3	488.4	417.6	410.4	415.5	419.6	426.8	430.9
47.5°	5471.9	4158.5	1091.7	530.5	473.0	401.2	388.9	386.8	374.5	373.5	372.5
50°	5739.7	4216.0	969.6	496.6	450.4	382.7	363.2	350.9	329.4	319.1	320.1
52.5°	5824.8	3989.2	792.1	462.7	413.5	358.1	330.4	310.9	284.2	275.0	274.0
55°	5712.0	3545.0	633.1	421.7	362.2	325.3	294.5	268.8	247.3	236.0	236.0
57.5°	5436.0	2979.6	500.7	373.5	307.8	288.3	257.5	231.9	213.4	202.1	200.1
60°	4978.3	2366.0	396.1	316.0	262.7	248.3	216.5	200.1	183.7	170.3	167.2
62.5°	4283.7	1688.9	310.9	250.4	219.6	203.2	184.7	172.4	152.9	134.4	131.3
65°	3342.8	1033.2	240.1	183.7	176.5	168.3	157.0	145.7	122.1	103.6	100.6
67.5°	2108.5	489.4	171.3	138.5	139.5	135.4	130.3	121.1	103.6	87.2	85.2
70°	928.6	237.0	112.9	105.7	103.6	103.6	107.7	104.7	88.2	72.8	69.8
72.5°	316.0	127.2	84.1	80.0	74.9	73.9	90.3	87.2	70.8	56.4	53.4
75°	165.2	85.2	61.6	57.5	45.1	54.4	71.8	67.7	50.3	36.9	33.9
77.5°	107.7	60.5	42.1	36.9	25.7	35.9	53.4	47.2	29.8	18.5	16.4
80°	67.7	40.0	24.6	17.4	12.3	19.5	28.7	20.5	11.3	4.1	3.1
82.5°	35.9	20.5	9.2	6.2	5.1	6.2	7.2	5.1	2.1	0.0	0.0
85°	14.4	7.2	3.1	2.1	1.0	0.0	2.1	1.0	0.0	0.0	0.0
87.5°	5.1	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)