

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: P965631

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965631
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
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: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13952.3 lumens
Efficiency: N/A
Efficacy: 122.4 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): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



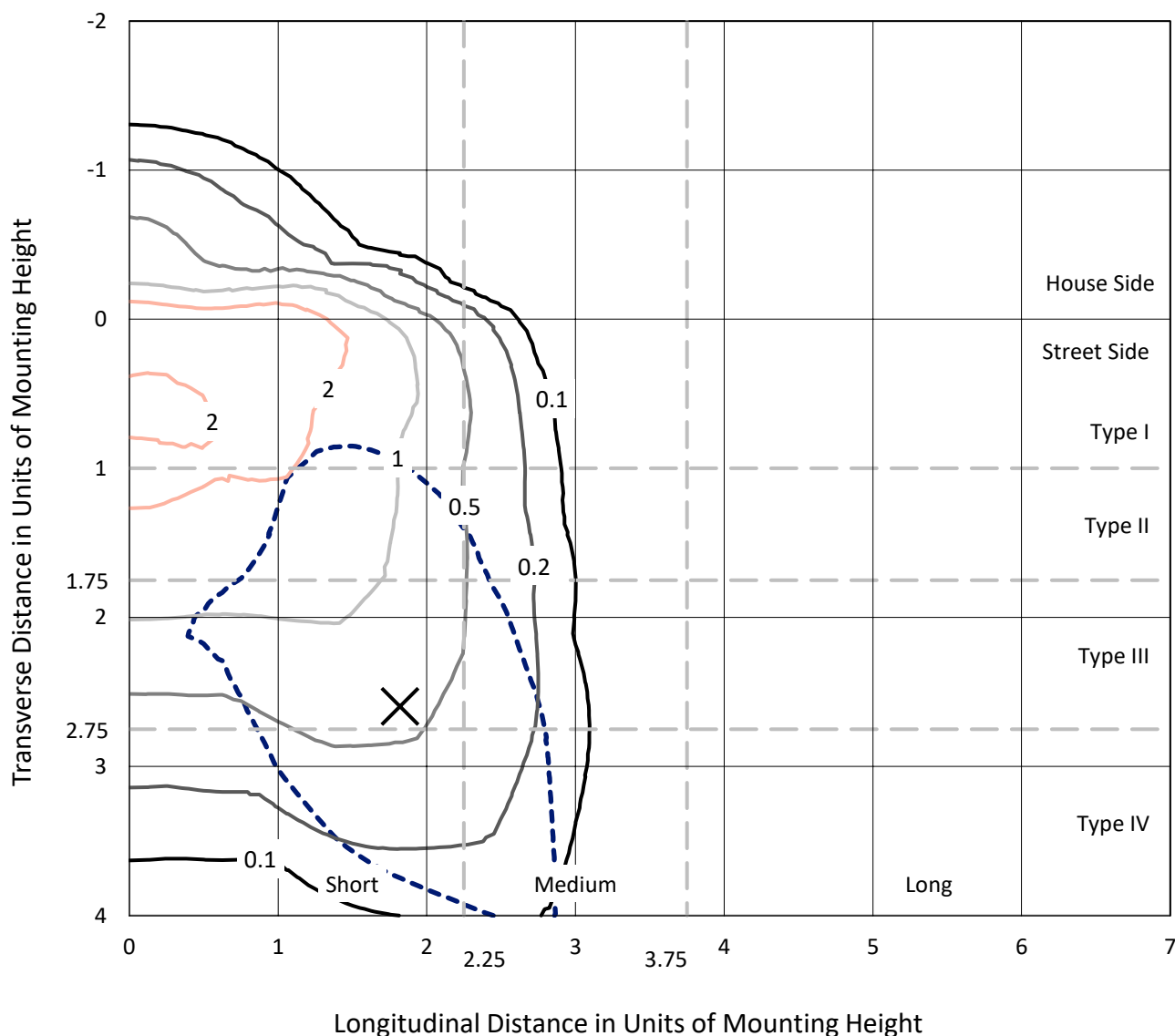
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

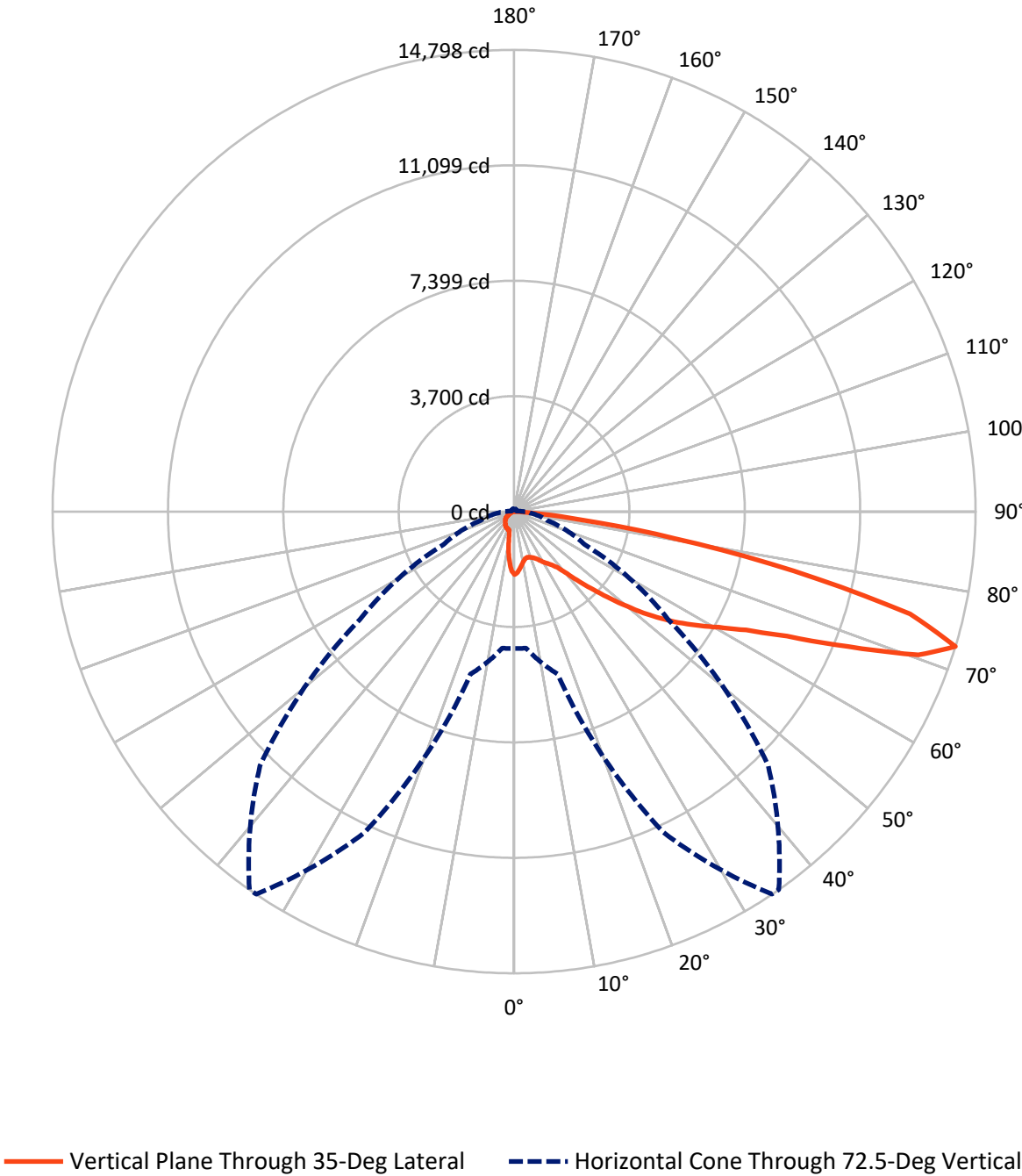


Based on 25 foot mounting height. Maximum calculated value = 3.2 fc

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	1570.3	0.0	1570.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	12382.0	0.0	12382.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	13952.3	0.0	13952.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.2	1.2
10°-20°	388.7	2.8
20°-30°	631.5	4.5
30°-40°	1053.6	7.6
40°-50°	1993.5	14.3
50°-60°	3167.6	22.7
60°-70°	3918.6	28.1
70°-80°	2435.8	17.5
80°-90°	196.8	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°	13952.3	100.0
0°-180°	13952.3	100.0

Coefficient of Utilization



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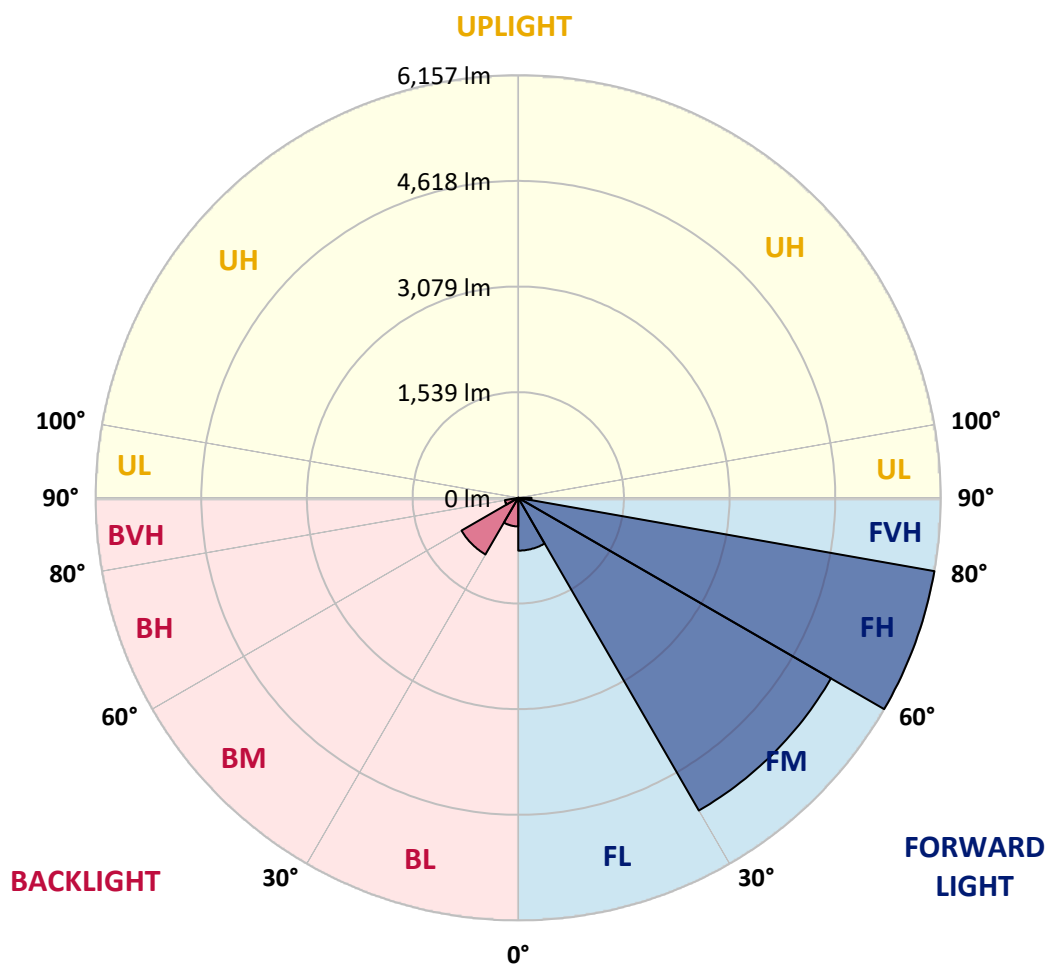
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	769.1	5.5			
FM	(30°-60°)	5261.4	37.7			
FH	(60°-80°)	6157.3	44.1			G3/7500
FVH	(80°-90°)	194.2	1.4			G2/225
BL	(0°-30°)	417.3	3.0	B1/500		
BM	(30°-60°)	953.3	6.8	B1/1000		
BH	(60°-80°)	197.0	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°	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1
2.5°	1932.2	1948.5	1951.6	1956.7	1956.7	1962.9	1973.1	1987.4	2010.9	2023.1	2031.3
5°	1780.9	1793.1	1808.5	1820.7	1844.3	1847.4	1887.2	1926.1	1980.2	2021.1	2049.8
7.5°	1628.5	1642.9	1663.4	1693.0	1723.6	1732.9	1793.1	1858.6	1944.4	2021.1	2069.2
10°	1521.2	1522.2	1540.7	1570.3	1619.4	1630.6	1704.2	1797.2	1904.6	2008.9	2087.6
12.5°	1460.9	1468.1	1476.2	1498.8	1545.8	1552.9	1631.6	1741.1	1864.7	2001.7	2109.0
15°	1460.9	1466.1	1471.1	1482.4	1520.2	1526.3	1595.8	1705.2	1844.3	2004.8	2143.8
17.5°	1476.2	1484.4	1480.3	1493.6	1533.5	1537.6	1598.9	1695.0	1843.3	2024.2	2197.0
20°	1513.0	1519.2	1511.0	1519.2	1559.0	1567.2	1630.6	1714.4	1860.6	2057.9	2263.4
22.5°	1571.3	1574.4	1554.9	1561.1	1602.0	1612.2	1685.8	1769.7	1902.5	2112.1	2352.4
25°	1644.9	1651.1	1621.4	1628.5	1667.4	1679.7	1764.5	1852.5	1969.0	2186.7	2465.8
27.5°	1729.8	1732.9	1707.2	1706.2	1756.3	1773.8	1859.7	1954.7	2057.9	2280.8	2608.9
30°	1826.9	1836.1	1811.6	1807.5	1870.8	1885.2	1970.0	2080.4	2188.8	2421.9	2812.4
32.5°	1903.5	1910.7	1896.5	1906.6	1971.1	1982.2	2103.9	2258.3	2394.3	2622.3	3089.5
35°	2014.0	2018.0	1985.3	2003.8	2077.4	2106.0	2287.0	2507.8	2652.9	2873.8	3451.4
37.5°	2413.7	2413.7	2274.7	2183.7	2254.2	2279.8	2537.4	2821.6	2971.9	3211.1	3907.3
40°	2966.8	2957.5	2754.2	2568.0	2558.9	2608.9	2894.2	3217.3	3383.9	3616.0	4420.5
42.5°	3556.6	3542.4	3265.3	3081.3	3050.6	3068.0	3306.2	3704.9	3874.6	4109.7	4972.6
45°	4080.1	4076.0	3822.4	3575.1	3519.8	3575.1	3820.4	4275.4	4397.0	4644.4	5523.6
47.5°	4518.7	4518.7	4333.6	4172.1	4143.5	4176.2	4516.7	4908.2	4896.9	5213.9	6060.3
50°	5023.7	5019.6	4843.7	4774.2	4803.9	4849.9	5318.1	5574.8	5414.3	5773.1	6539.8
52.5°	5377.5	5402.0	5341.7	5330.4	5481.7	5561.4	6131.9	6227.0	5877.3	6303.6	6898.7
55°	5657.5	5686.2	5755.7	5834.4	6125.8	6230.1	6920.1	6845.5	6264.8	6763.7	7105.2
57.5°	6054.2	6013.3	6120.7	6276.1	6747.4	6873.0	7683.8	7429.2	6576.6	7136.9	7127.6
60°	6535.7	6541.9	6560.2	6756.5	7367.9	7529.4	8436.3	7981.3	6777.0	7365.9	6878.2
62.5°	7114.3	7123.5	7161.4	7462.9	8201.1	8353.4	9237.7	8433.2	6869.0	7301.5	6234.2
65°	7074.4	7113.3	7535.6	8567.1	9467.7	9618.0	10173.1	8750.1	6729.9	6712.6	5075.8
67.5°	6444.7	6508.1	7214.6	9885.9	11377.4	11545.1	11303.8	8812.4	6129.8	5220.0	3311.3
70°	5618.6	5641.2	6490.7	11071.7	13588.7	13758.5	12315.9	8126.4	4651.6	2911.6	1483.4
72.5°	4387.8	4392.9	5389.7	11346.7	14788.9	14798.1	11521.6	6032.7	2501.6	1118.4	515.3
75°	3134.4	3103.8	3609.8	9201.9	13011.1	13115.4	8637.6	2829.8	955.9	528.6	256.6
77.5°	1680.7	1714.4	2042.6	5457.2	8988.2	9166.2	4713.0	815.8	486.7	359.9	169.7
80°	519.4	548.0	837.3	2498.5	5091.2	5198.5	1747.1	363.0	339.4	256.6	111.4
82.5°	163.6	169.7	390.5	1049.9	2113.1	2162.2	506.0	205.5	232.1	169.7	65.4
85°	47.0	48.1	173.8	391.5	522.4	532.6	142.1	79.7	132.9	105.3	33.7
87.5°	5.1	16.4	65.4	65.4	46.0	45.0	15.4	17.4	37.8	13.3	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°	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1	2022.1
2.5°	2026.2	2027.2	2014.0	1991.5	1967.0	1946.5	1921.0	1900.5	1886.2	1882.1	1889.3
5°	2040.6	2033.4	1995.6	1927.1	1845.3	1774.8	1696.1	1633.6	1592.7	1575.4	1581.6
7.5°	2062.0	2041.6	1958.8	1823.8	1667.4	1528.4	1387.3	1277.9	1208.4	1173.6	1178.8
10°	2080.4	2039.5	1897.5	1674.5	1435.3	1224.8	1034.6	902.7	829.1	794.4	795.4
12.5°	2097.8	2038.5	1817.7	1497.7	1173.6	916.0	739.1	673.7	653.2	646.1	644.1
15°	2130.6	2041.6	1717.5	1295.3	913.0	692.1	627.7	626.7	630.8	628.7	627.7
17.5°	2175.5	2044.7	1604.0	1080.6	704.4	610.3	607.2	616.4	622.6	619.5	618.5
20°	2233.8	2056.9	1483.4	868.0	605.3	589.9	597.1	605.3	610.3	605.3	604.2
22.5°	2315.6	2078.4	1351.5	697.2	573.5	577.6	583.7	593.0	598.1	590.9	589.9
25°	2415.7	2112.1	1221.7	606.3	558.2	563.3	572.5	582.7	588.9	581.7	580.7
27.5°	2545.6	2166.3	1102.1	585.8	542.8	545.9	559.2	574.5	582.7	573.5	573.5
30°	2733.7	2255.2	998.8	595.0	533.6	526.5	544.9	566.4	575.5	567.4	566.4
32.5°	2983.2	2381.0	935.4	609.3	529.5	504.0	521.4	549.0	564.4	559.2	559.2
35°	3310.2	2572.1	910.9	625.7	526.5	480.5	492.7	522.4	549.0	554.1	554.1
37.5°	3706.9	2838.0	918.1	632.8	517.3	461.0	467.2	492.7	527.6	543.9	548.0
40°	4157.8	3147.8	959.0	625.7	507.1	444.7	445.8	465.1	495.8	520.4	528.6
42.5°	4623.0	3509.6	1034.6	599.1	497.8	430.4	427.3	440.6	461.0	478.5	485.6
45°	5065.7	3881.8	1109.3	562.3	486.7	416.0	409.0	414.0	418.1	425.3	429.4
47.5°	5452.1	4143.5	1087.7	528.6	471.3	399.7	387.4	385.4	373.1	372.1	371.2
50°	5718.9	4200.8	966.1	494.8	448.8	381.3	361.9	349.6	328.2	318.0	319.0
52.5°	5803.8	3974.7	789.2	461.0	411.9	356.8	329.2	309.8	283.2	274.0	273.0
55°	5691.3	3532.2	630.8	420.1	360.9	324.1	293.5	267.8	246.4	235.1	235.1
57.5°	5416.3	2968.8	498.9	372.1	306.7	287.3	256.6	231.0	212.7	201.4	199.4
60°	4960.3	2357.5	394.6	314.9	261.7	247.4	215.7	199.4	183.0	169.7	166.7
62.5°	4268.2	1682.7	309.8	249.5	218.7	202.4	184.0	171.8	152.3	134.0	130.9
65°	3330.7	1029.5	239.2	183.0	175.9	167.7	156.4	145.1	121.7	103.2	100.1
67.5°	2100.8	487.7	170.8	138.0	139.0	135.0	129.9	120.6	103.2	86.9	84.9
70°	925.2	236.2	112.4	105.3	103.2	103.2	107.3	104.2	87.9	72.6	69.5
72.5°	314.9	126.8	83.8	79.7	74.6	73.6	90.0	86.9	70.5	56.3	53.2
75°	164.6	84.9	61.3	57.3	45.0	54.2	71.5	67.4	50.1	36.8	33.7
77.5°	107.3	60.3	41.9	36.8	25.5	35.8	53.2	47.0	29.6	18.4	16.4
80°	67.4	39.9	24.5	17.4	12.3	19.5	28.6	20.4	11.3	4.1	3.1
82.5°	35.8	20.4	9.2	6.1	5.1	6.1	7.2	5.1	2.0	0.0	0.0
85°	14.3	7.2	3.1	2.0	1.0	0.0	2.0	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)