

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: P883810

Luminaire Tested: **NAV-SB4B-827-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883810
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-SB4B-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA 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: 14039 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

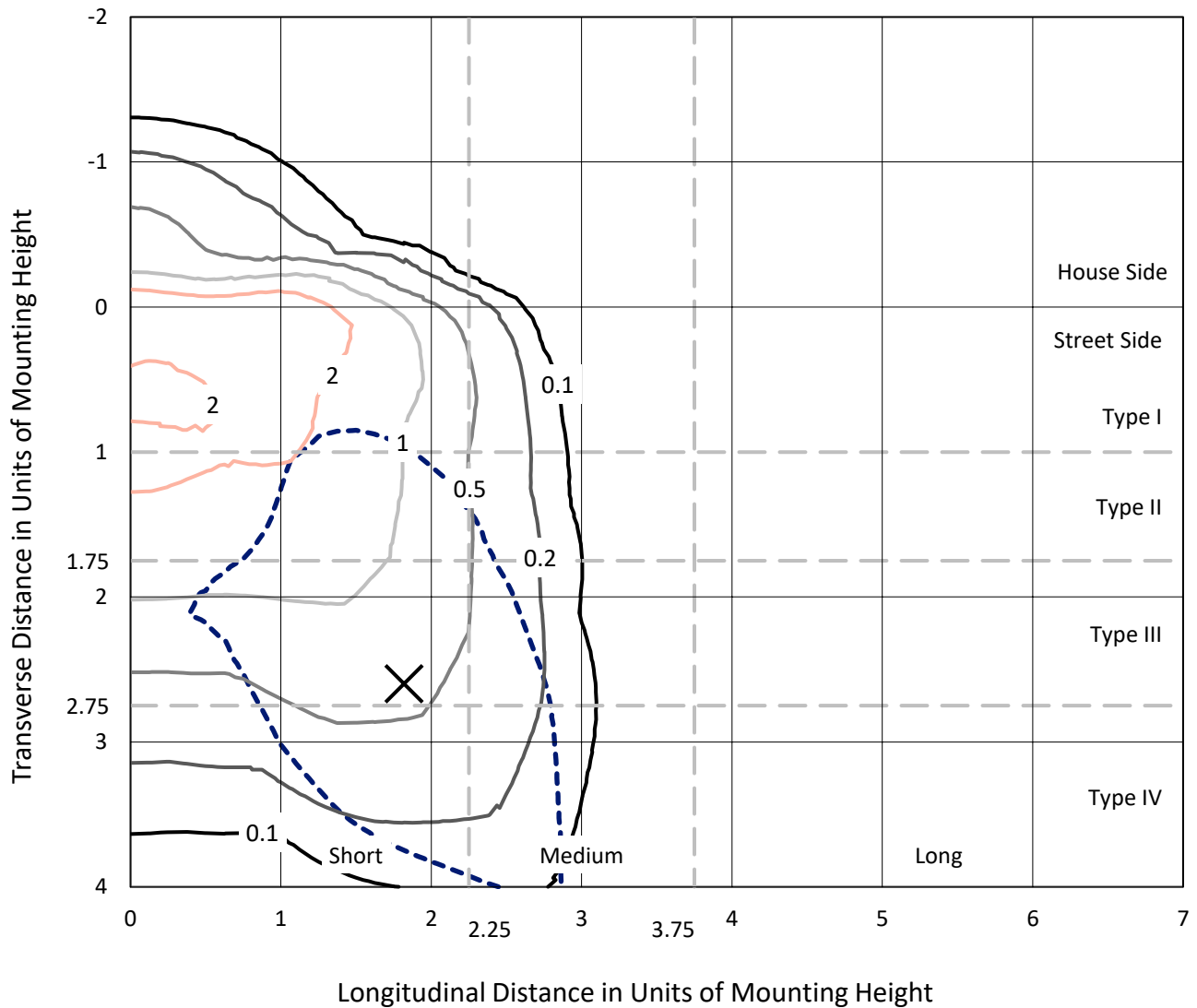
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

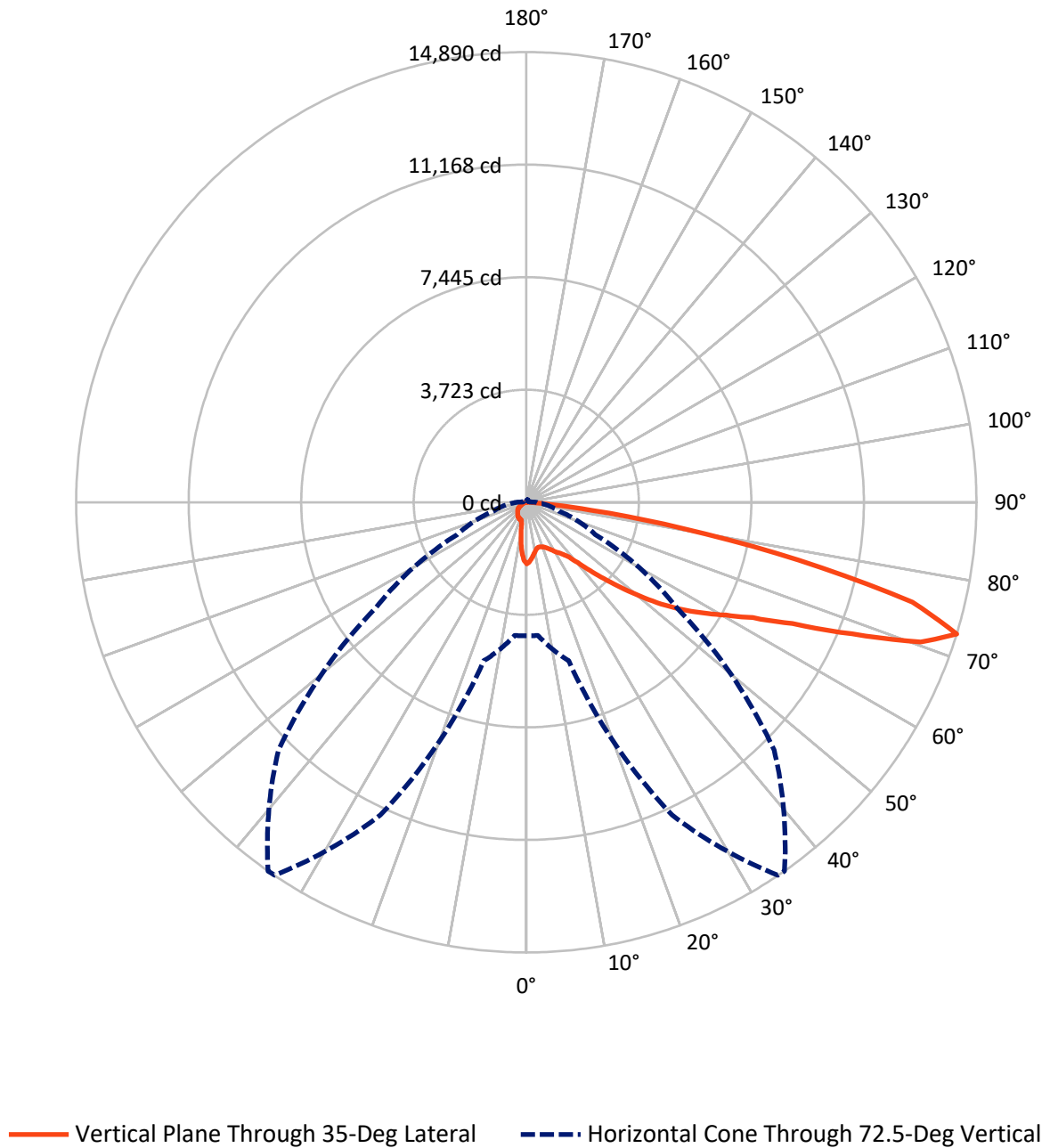
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 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	1580.0	0.0	1580.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	12459.0	0.0	12459.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	14039.0	0.0	14039.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.2	1.2
10°-20°	391.1	2.8
20°-30°	635.4	4.5
30°-40°	1060.2	7.6
40°-50°	2005.9	14.3
50°-60°	3187.3	22.7
60°-70°	3942.9	28.1
70°-80°	2450.9	17.5
80°-90°	198.1	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°	14039.0	100.0
0°-180°	14039.0	100.0

Coefficient of Utilization



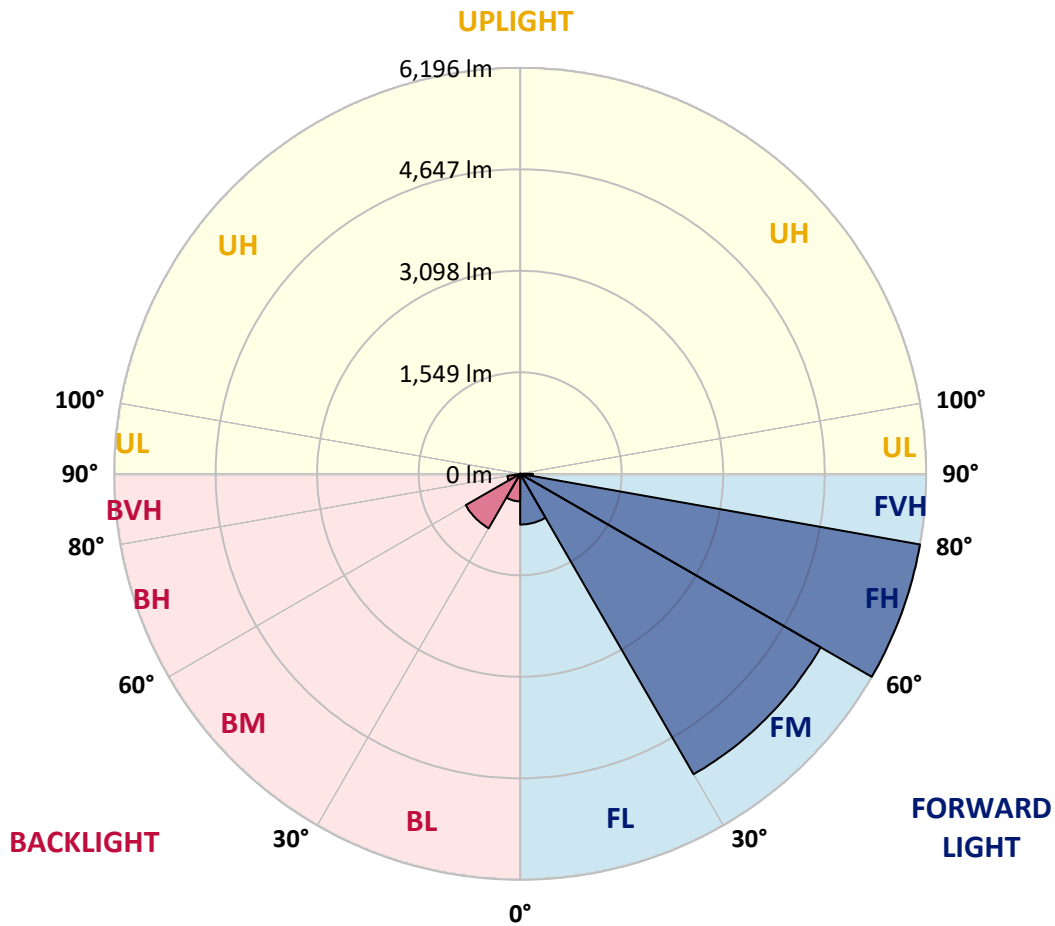
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	773.9	5.5			
FM (30°-60°)	5294.1	37.7			
FH (60°-80°)	6195.6	44.1			G3/7500
FVH (80°-90°)	195.4	1.4			G2/225
BL (0°-30°)	419.8	3.0	B1/500		
BM (30°-60°)	959.2	6.8	B1/1000		
BH (60°-80°)	198.3	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°	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7
2.5°	1944.2	1960.7	1963.7	1968.9	1968.9	1975.1	1985.3	1999.7	2023.4	2035.8	2044.0
5°	1792.0	1804.3	1819.7	1832.1	1855.7	1858.8	1898.9	1938.0	1992.5	2033.7	2062.5
7.5°	1638.7	1653.1	1673.7	1703.5	1734.3	1743.6	1804.3	1870.1	1956.5	2033.7	2082.0
10°	1530.7	1531.7	1550.2	1580.0	1629.4	1640.7	1714.8	1808.4	1916.4	2021.3	2100.6
12.5°	1470.0	1477.2	1485.4	1508.0	1555.4	1562.6	1641.8	1751.8	1876.3	2014.1	2122.2
15°	1470.0	1475.1	1480.3	1491.6	1529.6	1535.8	1605.8	1715.8	1855.7	2017.2	2157.1
17.5°	1485.4	1493.6	1489.5	1502.9	1543.0	1547.1	1608.8	1705.5	1854.7	2036.8	2210.6
20°	1522.4	1528.6	1520.4	1528.6	1568.7	1577.0	1640.7	1725.1	1872.2	2070.7	2277.5
22.5°	1581.1	1584.2	1564.6	1570.8	1611.9	1622.2	1696.3	1780.6	1914.4	2125.2	2367.0
25°	1655.1	1661.3	1631.5	1638.7	1677.8	1690.1	1775.5	1864.0	1981.2	2200.3	2481.2
27.5°	1740.5	1743.6	1717.9	1716.9	1767.3	1784.8	1871.2	1966.8	2070.7	2295.0	2625.2
30°	1838.2	1847.5	1822.8	1818.7	1882.5	1896.9	1982.3	2093.4	2202.4	2436.9	2829.9
32.5°	1915.4	1922.6	1908.2	1918.5	1983.3	1994.6	2117.0	2272.3	2409.2	2638.6	3108.7
35°	2026.5	2030.6	1997.7	2016.2	2090.3	2119.1	2301.1	2523.3	2669.4	2891.6	3472.8
37.5°	2428.7	2428.7	2288.8	2197.3	2268.2	2293.9	2553.2	2839.1	2990.4	3231.1	3931.6
40°	2985.2	2976.0	2771.3	2584.0	2574.8	2625.2	2912.2	3237.2	3404.9	3638.4	4448.0
42.5°	3578.8	3564.4	3285.6	3100.4	3069.6	3087.1	3326.7	3727.9	3898.7	4135.3	5003.5
45°	4105.4	4101.3	3846.2	3597.3	3541.7	3597.3	3844.2	4301.9	4424.3	4673.3	5557.9
47.5°	4546.7	4546.7	4360.6	4198.0	4169.2	4202.1	4544.7	4938.7	4927.4	5246.2	6098.0
50°	5054.9	5050.8	4873.9	4803.9	4833.8	4880.0	5351.2	5609.4	5447.9	5808.9	6580.4
52.5°	5410.8	5435.5	5374.8	5363.5	5515.8	5596.0	6170.0	6265.7	5913.9	6342.8	6941.5
55°	5692.7	5721.5	5791.4	5870.7	6163.8	6268.8	6963.1	6888.0	6303.7	6805.7	7149.3
57.5°	6091.8	6050.7	6158.7	6315.0	6789.3	6915.8	7731.5	7475.4	6617.5	7181.2	7171.9
60°	6576.3	6582.5	6601.0	6798.5	7413.7	7576.2	8488.6	8030.9	6819.1	7411.6	6920.9
62.5°	7158.6	7167.8	7205.9	7509.3	8252.0	8405.3	9295.1	8485.6	6911.7	7346.8	6272.9
65°	7118.4	7157.5	7582.4	8620.3	9526.6	9677.8	10236.4	8804.4	6771.8	6754.3	5107.4
67.5°	6484.8	6548.6	7259.4	9947.3	11448.1	11616.8	11374.1	8867.2	6167.9	5252.4	3331.9
70°	5653.6	5676.2	6531.1	11140.6	13673.2	13843.9	12392.5	8176.9	4680.5	2929.7	1492.6
72.5°	4415.1	4420.2	5423.2	11417.3	14880.8	14890.1	11593.2	6070.2	2517.2	1125.4	518.5
75°	3153.9	3123.1	3632.3	9259.1	13092.0	13196.9	8691.3	2847.4	961.8	531.8	258.2
77.5°	1691.1	1725.1	2055.3	5491.1	9044.1	9223.1	4742.2	820.9	489.6	362.1	170.8
80°	522.6	551.4	842.5	2514.1	5122.8	5230.8	1758.0	365.2	341.5	258.2	112.1
82.5°	164.6	170.8	393.0	1056.5	2126.3	2175.7	509.2	206.8	233.5	170.8	65.8
85°	47.3	48.3	174.9	394.0	525.7	535.9	143.0	80.2	133.7	106.0	33.9
87.5°	5.1	16.5	65.8	65.8	46.3	45.3	15.4	17.5	38.1	13.4	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°	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7	2034.7
2.5°	2038.8	2039.9	2026.5	2003.9	1979.2	1958.6	1932.9	1912.3	1897.9	1893.8	1901.0
5°	2053.2	2046.0	2008.0	1939.1	1856.8	1785.8	1706.6	1643.8	1602.7	1585.2	1591.4
7.5°	2074.8	2054.3	1970.9	1835.2	1677.8	1537.9	1395.9	1285.8	1215.9	1180.9	1186.1
10°	2093.4	2052.2	1909.2	1685.0	1444.3	1232.4	1041.0	908.3	834.3	799.3	800.3
12.5°	2110.8	2051.2	1829.0	1507.0	1180.9	921.7	743.7	677.9	657.3	650.1	648.1
15°	2143.8	2054.3	1728.2	1303.3	918.6	696.4	631.6	630.6	634.7	632.6	631.6
17.5°	2189.0	2057.4	1614.0	1087.3	708.8	614.1	611.0	620.3	626.5	623.4	622.3
20°	2247.7	2069.7	1492.6	873.3	609.0	593.5	600.7	609.0	614.1	609.0	607.9
22.5°	2330.0	2091.3	1359.9	701.6	577.1	581.2	587.4	596.6	601.8	594.6	593.5
25°	2430.8	2125.2	1229.3	610.0	561.7	566.8	576.1	586.3	592.5	585.3	584.3
27.5°	2561.4	2179.8	1108.9	589.4	546.2	549.3	562.7	578.1	586.3	577.1	577.1
30°	2750.7	2269.3	1005.0	598.7	537.0	529.8	548.3	569.9	579.1	570.9	569.9
32.5°	3001.7	2395.8	941.2	613.1	532.9	507.1	524.6	552.4	567.8	562.7	562.7
35°	3330.9	2588.1	916.6	629.5	529.8	483.5	495.8	525.7	552.4	557.5	557.5
37.5°	3730.0	2855.6	923.8	636.8	520.5	463.9	470.1	495.8	530.8	547.3	551.4
40°	4183.6	3167.3	964.9	629.5	510.2	447.5	448.5	468.0	498.9	523.6	531.8
42.5°	4651.7	3531.4	1041.0	602.8	501.0	433.1	430.0	443.4	463.9	481.4	488.6
45°	5097.1	3905.9	1116.1	565.8	489.6	418.7	411.5	416.6	420.7	427.9	432.0
47.5°	5485.9	4169.2	1094.5	531.8	474.2	402.2	389.9	387.8	375.5	374.4	373.4
50°	5754.4	4226.8	972.1	497.9	451.6	383.7	364.2	351.8	330.2	319.9	320.9
52.5°	5839.8	3999.5	794.1	463.9	414.6	359.0	331.2	311.7	284.9	275.7	274.7
55°	5726.6	3554.1	634.7	422.8	363.1	326.1	295.2	269.5	247.9	236.6	236.6
57.5°	5449.9	2987.3	502.0	374.4	308.6	289.1	258.2	232.5	214.0	202.6	200.6
60°	4991.1	2372.1	397.1	316.8	263.3	248.9	217.1	200.6	184.1	170.8	167.7
62.5°	4294.7	1693.2	311.7	251.0	220.1	203.7	185.2	172.8	153.3	134.8	131.7
65°	3351.4	1035.9	240.7	184.1	176.9	168.7	157.4	146.1	122.4	103.9	100.8
67.5°	2113.9	490.7	171.8	138.9	139.9	135.8	130.6	121.4	103.9	87.4	85.4
70°	931.0	237.6	113.2	106.0	103.9	103.9	108.0	104.9	88.5	73.0	69.9
72.5°	316.8	127.6	84.4	80.2	75.1	74.1	90.5	87.4	71.0	56.6	53.5
75°	165.6	85.4	61.7	57.6	45.3	54.5	72.0	67.9	50.4	37.0	33.9
77.5°	108.0	60.7	42.2	37.0	25.7	36.0	53.5	47.3	29.8	18.5	16.5
80°	67.9	40.1	24.7	17.5	12.3	19.5	28.8	20.6	11.3	4.1	3.1
82.5°	36.0	20.6	9.3	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)