

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: P963153

Luminaire Tested: **NAV-SB2D-830-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963153
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-830-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14437.1 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

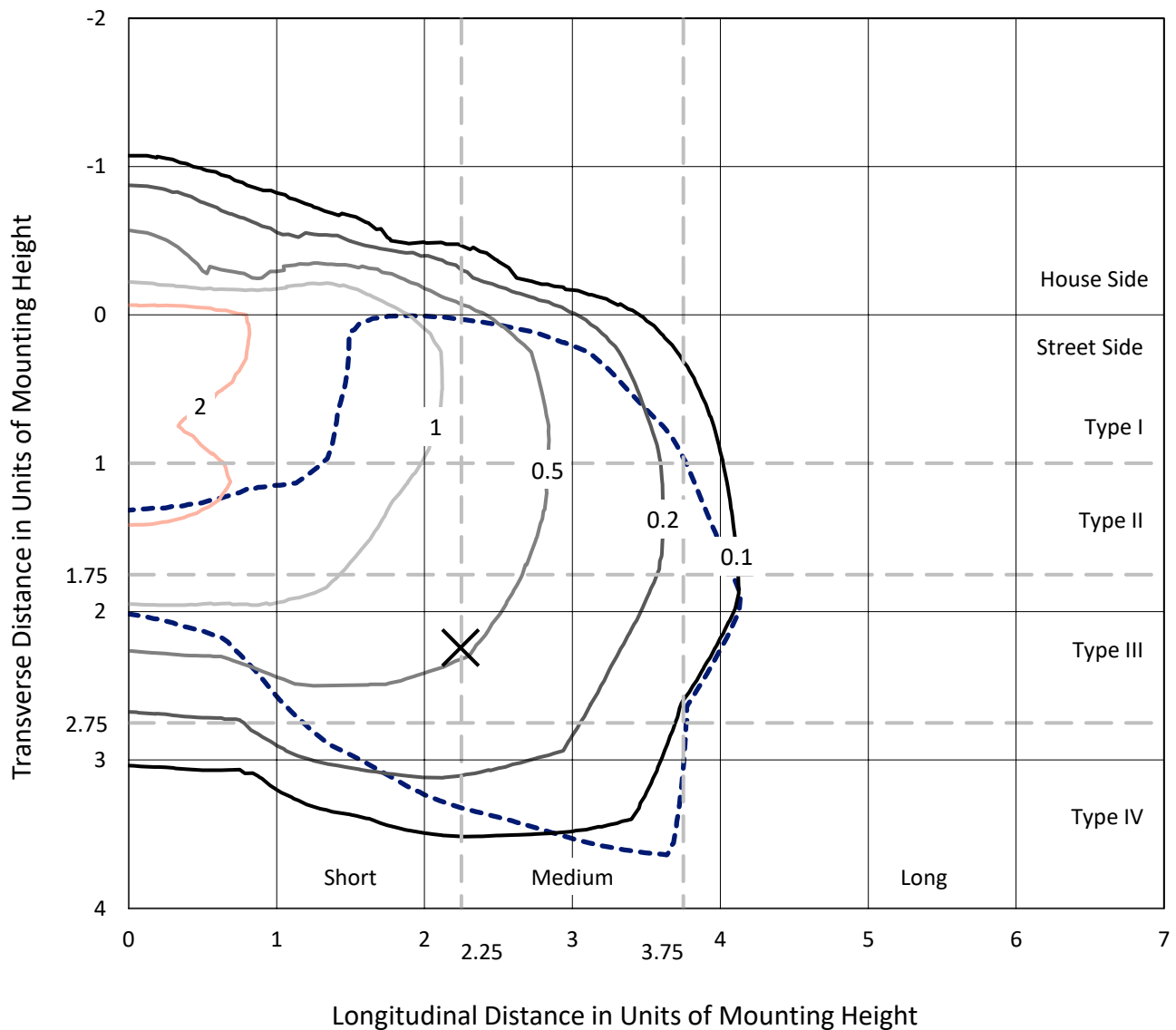
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

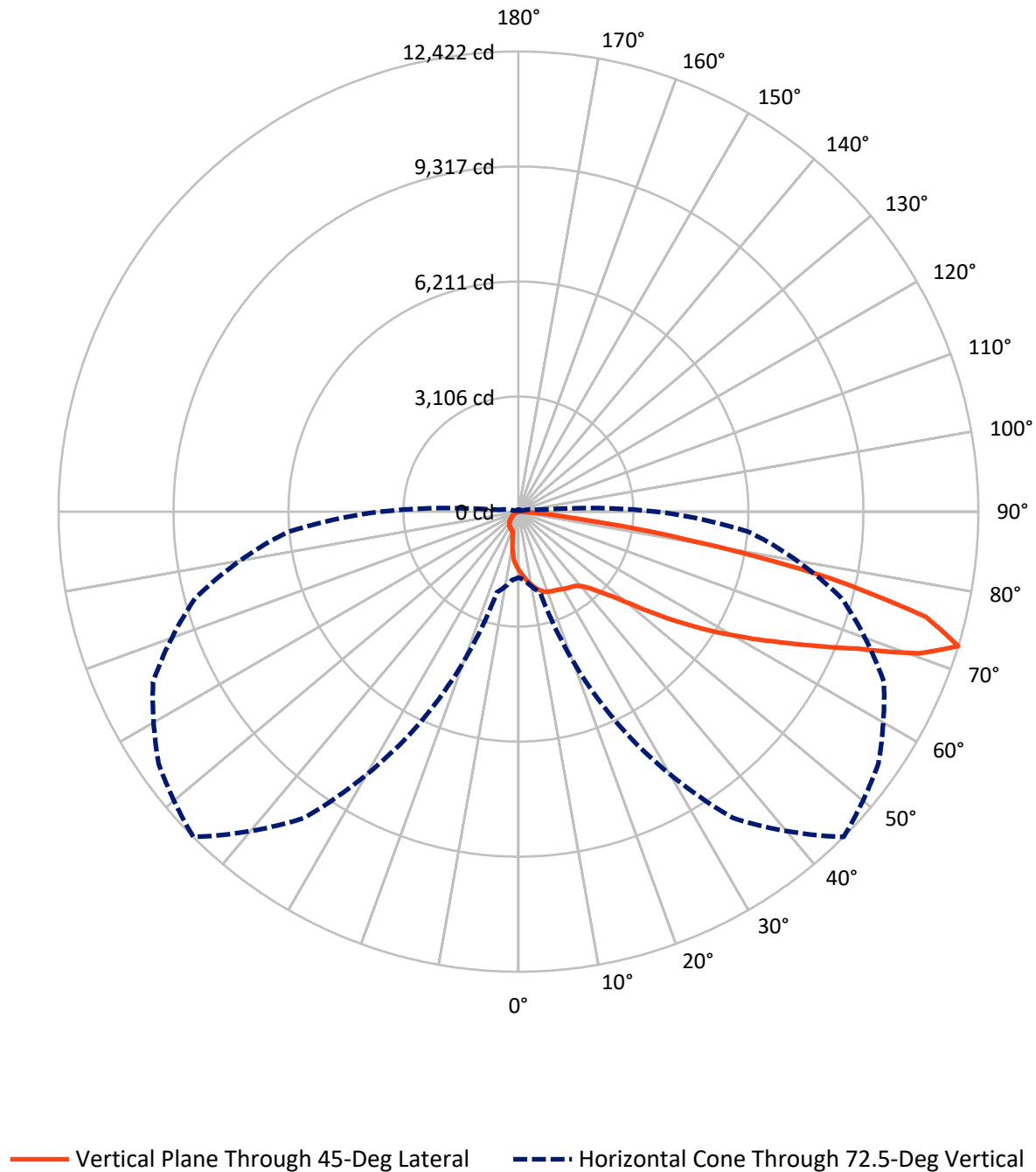
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 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	1516.9	0.0	1516.9
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	12920.2	0.0	12920.2
	% Fixture	89.5	0.0	89.5
Total	Lumens	14437.1	0.0	14437.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	1.0
10°-20°	435.5	3.0
20°-30°	715.2	5.0
30°-40°	1014.3	7.0
40°-50°	1676.6	11.6
50°-60°	3011.8	20.9
60°-70°	4182.0	29.0
70°-80°	3033.5	21.0
80°-90°	219.3	1.5
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°	14437.1	100.0
0°-180°	14437.1	100.0

Coefficient of Utilization



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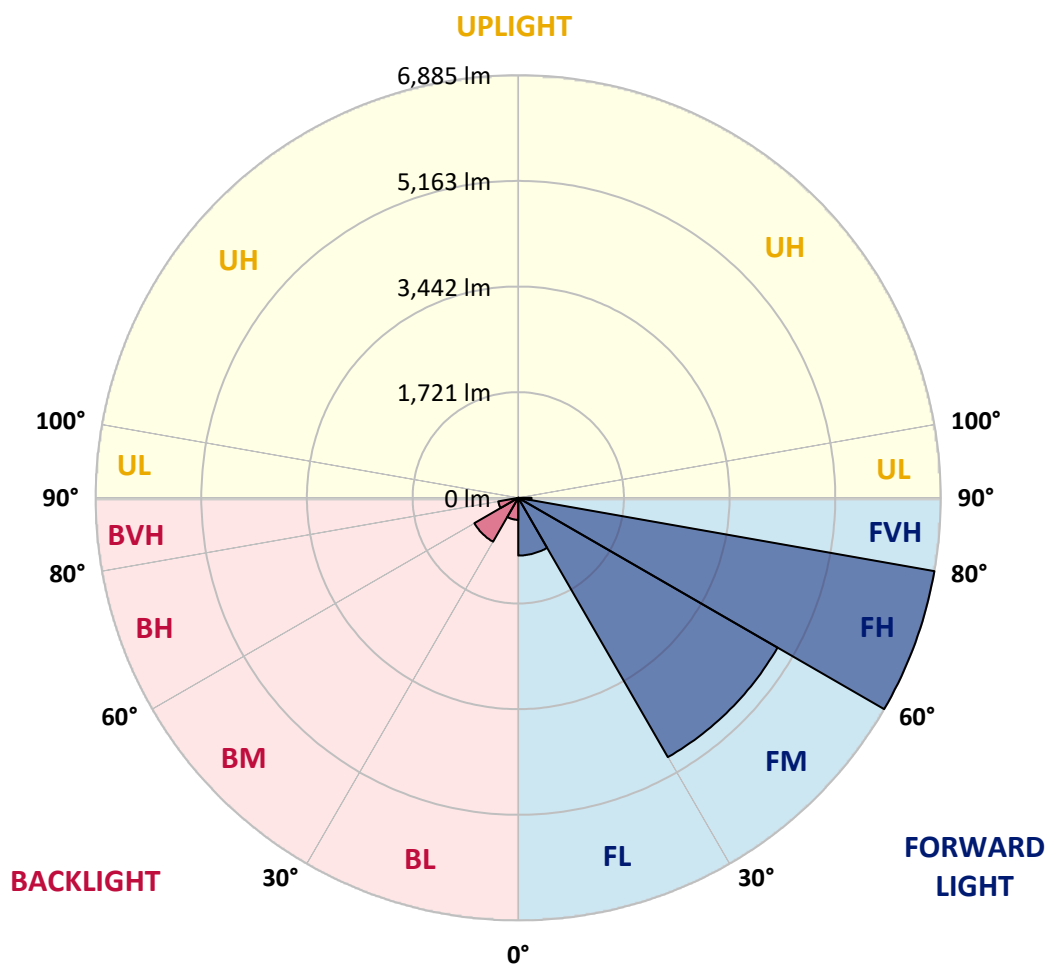
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	940.4	6.5			
FM	(30°-60°)	4877.6	33.8			
FH	(60°-80°)	6884.7	47.7			G3/7500
FVH	(80°-90°)	217.5	1.5			G2/225
BL	(0°-30°)	359.3	2.5	B1/500		
BM	(30°-60°)	825.0	5.7	B1/1000		
BH	(60°-80°)	330.8	2.3	B1/500		G1/500
BVH	(80°-90°)	1.8	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°	35°	45°	46°	55°	65°	75°	85°
0°	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6
2.5°	1727.4	1730.4	1728.5	1716.7	1696.9	1686.0	1680.2	1660.5	1647.7	1624.9	1601.4
5°	1886.1	1898.0	1891.0	1867.3	1829.9	1803.4	1795.5	1755.0	1718.6	1676.2	1627.0
7.5°	2054.6	2060.6	2047.7	2017.2	1966.9	1921.6	1914.7	1858.5	1800.4	1735.3	1668.3
10°	2200.5	2207.3	2187.7	2143.3	2086.2	2030.0	2020.2	1958.1	1889.1	1809.2	1723.5
12.5°	2322.6	2329.5	2303.9	2250.7	2187.7	2129.5	2119.7	2054.6	1978.8	1890.1	1783.6
15°	2415.3	2428.1	2393.6	2336.5	2268.4	2210.3	2205.4	2141.3	2067.4	1968.9	1855.6
17.5°	2469.5	2482.3	2449.8	2380.8	2322.6	2273.3	2267.5	2214.3	2145.3	2050.7	1925.6
20°	2478.3	2490.1	2455.7	2395.6	2347.2	2307.9	2304.9	2266.5	2216.3	2125.5	2001.4
22.5°	2451.8	2466.6	2435.0	2386.7	2353.2	2332.5	2328.6	2306.9	2278.3	2201.5	2072.3
25°	2424.1	2436.0	2412.3	2370.0	2352.3	2350.2	2353.2	2349.3	2343.4	2278.3	2155.2
27.5°	2422.2	2435.0	2408.4	2368.0	2358.1	2378.8	2381.8	2400.5	2405.5	2348.3	2234.9
30°	2439.0	2447.8	2422.2	2379.8	2374.9	2422.2	2423.2	2456.7	2464.6	2407.4	2313.8
32.5°	2475.4	2485.2	2459.6	2397.6	2390.6	2456.7	2459.6	2504.0	2516.8	2470.5	2396.6
35°	2561.2	2573.0	2543.4	2446.8	2422.2	2489.2	2498.0	2550.3	2575.9	2537.5	2482.3
37.5°	2775.0	2740.4	2700.1	2546.3	2494.1	2540.5	2555.2	2616.3	2661.6	2617.3	2584.7
40°	3306.1	3197.7	3071.6	2715.8	2620.3	2649.8	2661.6	2722.7	2784.8	2741.5	2725.7
42.5°	4103.4	3975.3	3772.2	3106.1	2810.4	2825.2	2834.1	2887.3	2975.1	2940.5	2944.5
45°	4813.8	4767.5	4560.5	3772.2	3166.2	3093.2	3104.1	3131.7	3260.8	3248.0	3273.6
47.5°	5359.7	5333.2	5173.5	4537.0	3767.3	3421.4	3452.0	3464.8	3651.0	3696.4	3765.3
50°	5779.6	5769.7	5626.8	5216.8	4552.7	3905.2	3916.1	3888.5	4167.3	4279.7	4410.8
52.5°	6175.7	6209.2	6103.8	5848.5	5391.3	4538.9	4537.0	4406.9	4783.3	4952.8	5176.5
55°	6533.5	6545.2	6556.1	6493.0	6234.9	5260.2	5241.5	5028.6	5497.7	5673.2	5915.6
57.5°	6869.4	6874.4	6970.9	7100.1	7112.9	6034.8	6000.2	5745.0	6278.2	6403.4	6552.1
60°	7095.2	7117.8	7321.8	7680.4	7837.2	6834.0	6815.2	6555.1	7072.4	7130.6	7102.9
62.5°	6769.9	6907.9	7422.2	8133.8	8521.0	7719.9	7711.0	7466.6	7908.1	7860.8	7624.3
65°	5480.0	5713.6	6618.1	8440.3	9192.1	8709.2	8722.0	8461.9	8766.4	8612.7	8048.0
67.5°	3833.3	4079.7	5149.9	8464.9	9942.0	9871.1	9945.0	9537.0	9677.9	9333.0	8148.5
70°	2650.9	2778.0	3474.6	7934.7	10526.3	11471.4	11469.4	10857.5	10584.6	9661.1	7636.1
72.5°	1782.7	1848.7	2256.6	6294.9	10096.8	12422.4	12365.2	11866.5	10890.0	9035.4	6238.8
75°	751.8	800.2	1044.6	3537.7	7987.9	11365.0	11210.2	10487.0	9676.0	7114.8	3892.4
77.5°	238.5	259.1	411.9	1266.3	4399.9	8542.7	8379.2	6549.1	6485.2	3569.3	1423.0
80°	113.4	132.0	231.5	508.5	1731.4	4646.3	4623.7	2971.1	2789.7	963.7	285.8
82.5°	49.3	58.1	128.1	271.9	774.6	1657.5	1691.0	1011.1	836.6	365.6	87.7
85°	15.8	20.7	59.1	125.2	327.2	411.9	407.0	240.5	337.0	199.1	30.5
87.5°	0.0	0.0	19.7	28.6	33.5	23.7	26.6	20.7	93.6	55.1	10.9
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°	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6	1581.6
2.5°	1589.5	1573.8	1546.1	1520.5	1497.8	1475.2	1461.4	1441.7	1439.7	1439.7	1444.6
5°	1600.3	1574.7	1525.4	1473.2	1413.1	1356.0	1298.8	1243.6	1225.9	1213.1	1218.9
7.5°	1631.9	1591.5	1513.6	1414.1	1299.8	1174.6	1086.9	992.3	955.9	936.1	939.1
10°	1677.2	1622.1	1503.8	1329.3	1144.1	973.6	848.5	746.0	706.5	689.8	689.8
12.5°	1727.4	1659.5	1486.0	1224.0	973.6	769.7	647.4	600.1	594.2	594.2	594.2
15°	1787.6	1704.8	1455.5	1099.7	795.2	609.0	565.6	567.6	573.5	577.5	577.5
17.5°	1849.6	1753.1	1407.2	960.8	637.6	547.9	548.9	551.9	556.8	560.7	560.7
20°	1916.6	1801.3	1343.2	813.0	546.9	530.1	533.1	536.1	540.0	542.0	542.9
22.5°	1988.6	1846.7	1267.3	668.1	516.4	515.4	516.4	519.4	524.3	524.3	526.2
25°	2065.5	1897.0	1180.6	562.7	500.6	500.6	502.6	504.5	508.5	508.5	509.4
27.5°	2144.3	1943.3	1088.9	507.5	486.8	485.8	485.8	488.8	490.8	491.7	492.7
30°	2231.0	1997.5	997.2	495.7	476.0	471.0	468.1	470.1	472.0	473.0	475.0
32.5°	2319.7	2049.7	915.4	500.6	465.1	456.2	446.4	444.4	444.4	448.3	451.3
35°	2418.3	2106.9	852.4	517.3	459.2	434.6	418.8	409.9	410.9	416.9	419.8
37.5°	2536.5	2175.9	806.1	532.2	455.3	409.9	384.3	373.5	366.5	373.5	371.5
40°	2691.2	2277.3	772.5	544.0	450.4	381.4	346.9	329.1	316.3	320.3	318.3
42.5°	2918.9	2436.9	759.7	545.0	439.5	347.9	308.4	284.7	266.1	267.0	263.1
45°	3238.1	2689.3	825.8	532.2	415.8	311.4	268.0	236.5	224.7	221.7	217.8
47.5°	3675.6	3056.9	978.6	505.5	381.4	275.9	228.6	202.0	193.1	188.2	185.2
50°	4262.0	3528.9	1148.0	476.0	346.9	242.4	196.1	179.4	173.4	168.5	167.5
52.5°	4941.9	4007.7	1287.0	446.4	312.4	212.9	175.4	165.5	160.6	156.7	155.7
55°	5565.7	4337.9	1279.1	414.8	278.9	189.2	160.6	154.7	148.8	144.8	142.9
57.5°	5954.0	4384.2	1054.4	380.4	240.5	170.5	146.8	142.9	136.0	131.1	130.1
60°	6132.4	4120.1	739.0	335.1	202.0	152.7	132.0	130.1	121.3	114.3	112.3
62.5°	6164.9	3629.3	492.7	278.9	168.5	136.0	117.3	114.3	102.5	90.6	84.8
65°	6032.8	2927.7	340.9	217.8	143.9	118.3	100.6	94.6	81.8	70.0	66.0
67.5°	5615.0	2055.6	237.5	156.7	122.2	93.6	79.8	77.9	68.0	58.1	55.1
70°	4849.3	1171.7	158.7	117.3	96.6	64.1	63.0	65.1	55.1	47.3	43.4
72.5°	3718.0	536.1	98.5	85.7	66.0	43.4	50.2	51.2	42.3	35.5	31.6
75°	2188.7	229.6	62.1	55.1	33.5	28.6	36.5	37.4	28.6	22.7	19.7
77.5°	745.0	86.7	39.5	32.5	16.7	15.8	23.7	23.7	15.8	8.9	6.9
80°	169.5	32.5	19.7	12.8	7.9	6.9	7.9	6.9	3.9	1.0	0.0
82.5°	48.3	12.8	7.9	4.9	3.0	3.0	1.0	0.0	0.0	0.0	0.0
85°	13.8	5.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.9	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)