

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: P965788

Luminaire Tested: **NAV-SB4A-830-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965788
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-SB4A-830-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA 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: 12754.1 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

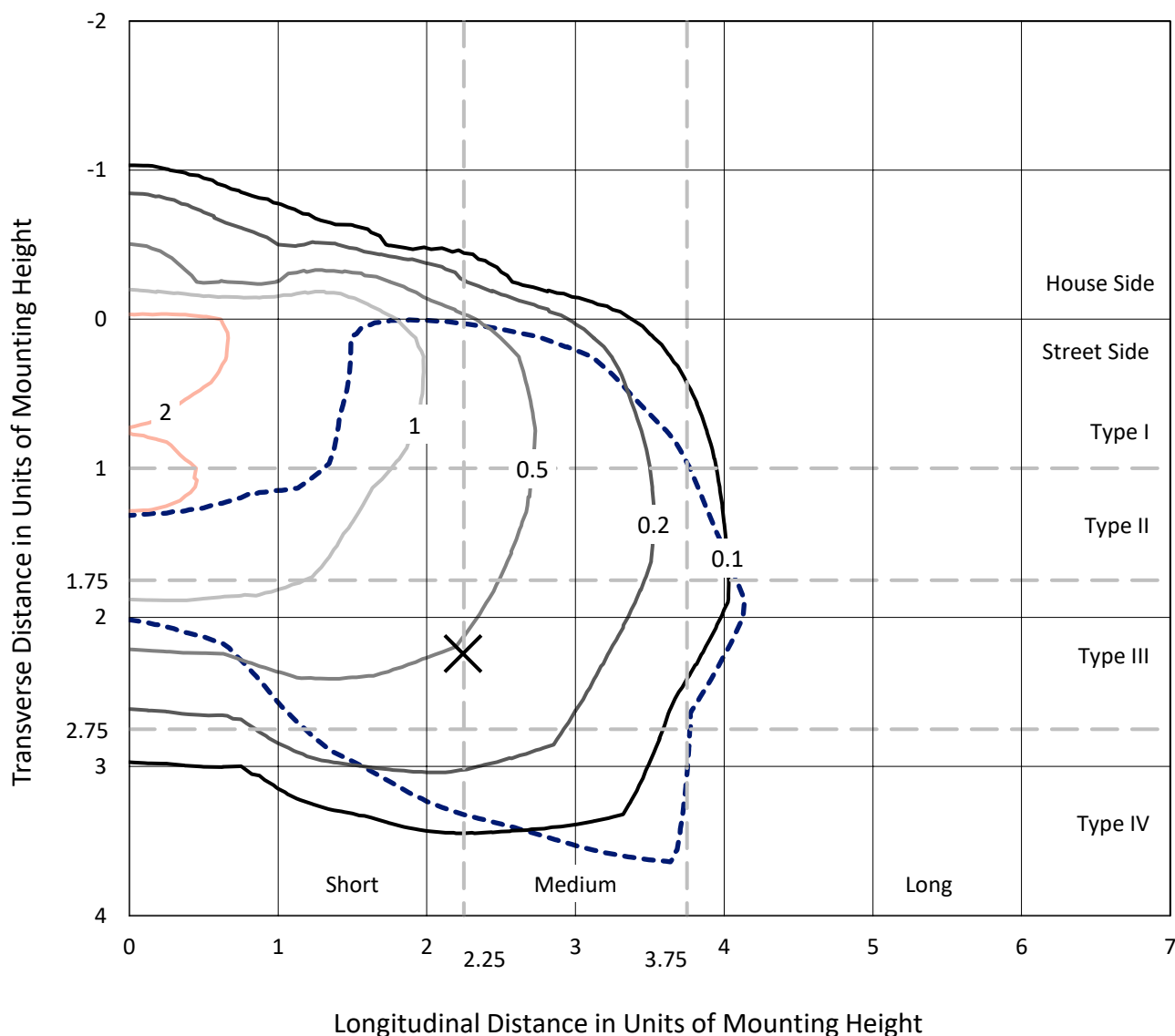
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

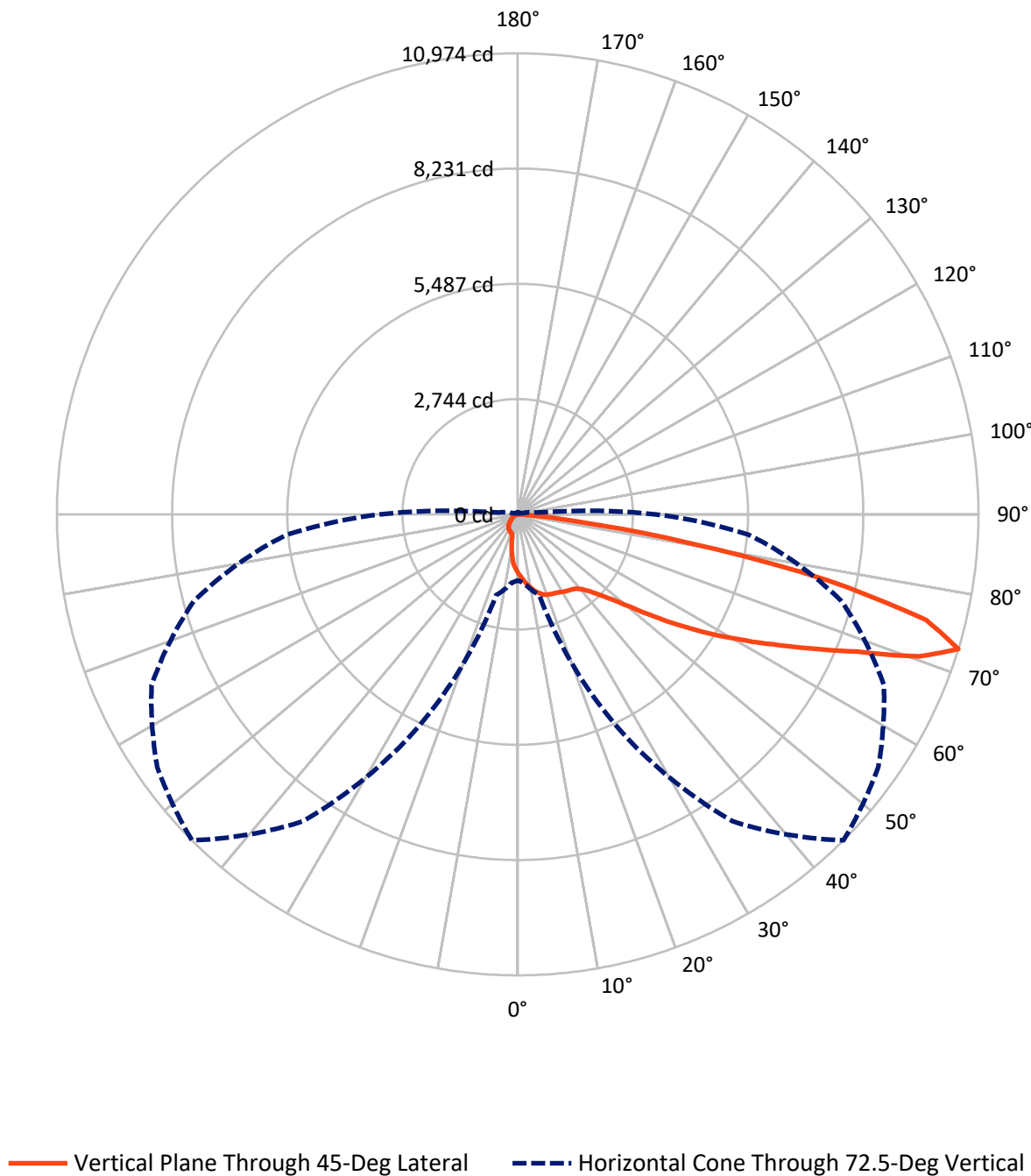
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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	1340.1	0.0	1340.1
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	11414.0	0.0	11414.0
	% Fixture	89.5	0.0	89.5
Total	Lumens	12754.1	0.0	12754.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.6	1.0
10°-20°	384.7	3.0
20°-30°	631.8	5.0
30°-40°	896.1	7.0
40°-50°	1481.1	11.6
50°-60°	2660.7	20.9
60°-70°	3694.4	29.0
70°-80°	2679.8	21.0
80°-90°	193.7	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°	12754.1	100.0
0°-180°	12754.1	100.0

Coefficient of Utilization



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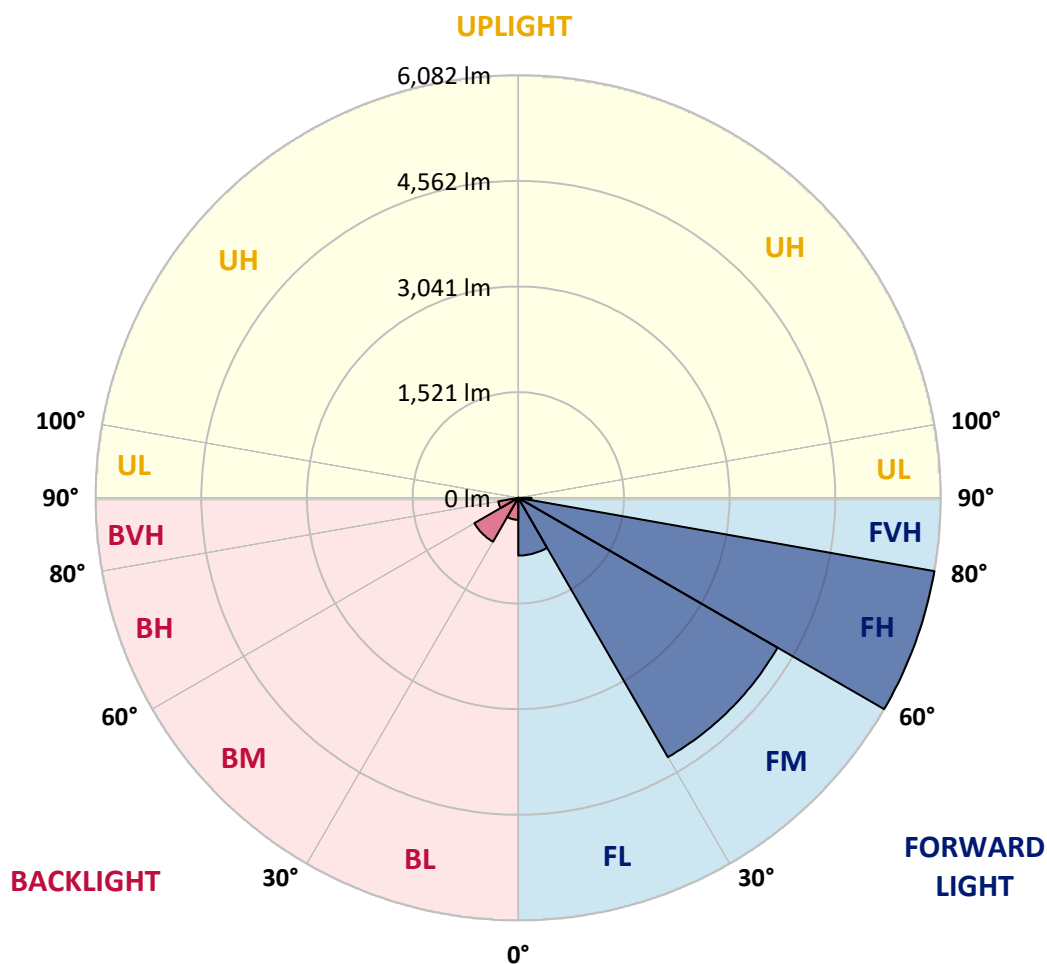
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	830.8	6.5			
FM	(30°-60°)	4309.0	33.8			
FH	(60°-80°)	6082.1	47.7			G3/7500
FVH	(80°-90°)	192.1	1.5			G2/225
BL	(0°-30°)	317.4	2.5	B1/500		
BM	(30°-60°)	728.8	5.7	B1/1000		
BH	(60°-80°)	292.2	2.3	B1/500		G1/500
BVH	(80°-90°)	1.6	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°	35°	45°	46°	55°	65°	75°	85°
0°	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3
2.5°	1526.1	1528.7	1526.9	1516.5	1499.1	1489.5	1484.3	1466.9	1455.6	1435.5	1414.6
5°	1666.2	1676.7	1670.5	1649.7	1616.6	1593.2	1586.2	1550.4	1518.2	1480.8	1437.3
7.5°	1815.1	1820.3	1809.0	1782.1	1737.6	1697.6	1691.5	1641.8	1590.5	1533.1	1473.8
10°	1943.9	1950.1	1932.6	1893.5	1843.0	1793.3	1784.6	1729.8	1668.8	1598.3	1522.6
12.5°	2051.8	2058.0	2035.3	1988.3	1932.6	1881.3	1872.6	1815.1	1748.0	1669.7	1575.7
15°	2133.7	2145.0	2114.6	2064.0	2004.0	1952.6	1948.3	1891.7	1826.4	1739.3	1639.3
17.5°	2181.6	2192.9	2164.2	2103.3	2051.8	2008.4	2003.2	1956.1	1895.2	1811.6	1701.1
20°	2189.4	2199.9	2169.4	2116.3	2073.7	2038.8	2036.3	2002.2	1957.9	1877.8	1768.1
22.5°	2165.9	2178.9	2151.2	2108.5	2078.9	2060.6	2057.1	2038.0	2012.7	1944.8	1830.8
25°	2141.5	2152.0	2131.1	2093.7	2078.0	2076.2	2078.9	2075.4	2070.2	2012.7	1903.9
27.5°	2139.8	2151.2	2127.6	2091.9	2083.2	2101.6	2104.1	2120.6	2125.0	2074.5	1974.5
30°	2154.7	2162.4	2139.8	2102.4	2098.1	2139.8	2140.7	2170.3	2177.2	2126.8	2044.1
32.5°	2186.8	2195.5	2172.9	2118.1	2111.9	2170.3	2172.9	2212.1	2223.4	2182.4	2117.1
35°	2262.6	2273.0	2246.9	2161.6	2139.8	2199.0	2206.8	2253.0	2275.6	2241.7	2192.9
37.5°	2451.5	2421.0	2385.3	2249.5	2203.3	2244.2	2257.4	2311.3	2351.4	2312.2	2283.5
40°	2920.7	2824.9	2713.5	2399.2	2314.8	2340.9	2351.4	2405.4	2460.2	2421.9	2407.9
42.5°	3625.0	3511.9	3332.5	2744.0	2482.9	2495.9	2503.7	2550.7	2628.2	2597.8	2601.2
45°	4252.6	4211.7	4028.9	3332.5	2797.1	2732.6	2742.3	2766.6	2880.7	2869.4	2891.9
47.5°	4734.9	4711.4	4570.4	4008.1	3328.1	3022.5	3049.6	3060.9	3225.4	3265.4	3326.3
50°	5105.8	5097.1	4970.8	4608.7	4022.0	3450.0	3459.6	3435.2	3681.6	3780.8	3896.6
52.5°	5455.8	5485.4	5392.2	5166.7	4762.8	4009.8	4008.1	3893.2	4225.7	4375.4	4573.0
55°	5771.8	5782.2	5791.8	5736.1	5507.9	4647.0	4630.4	4442.5	4856.9	5011.7	5226.0
57.5°	6068.6	6072.9	6158.3	6272.3	6283.7	5331.2	5300.8	5075.3	5546.3	5656.9	5788.3
60°	6268.0	6288.0	6468.2	6785.1	6923.5	6037.2	6020.7	5790.9	6248.0	6299.3	6274.9
62.5°	5980.7	6102.5	6557.0	7185.6	7527.7	6819.9	6812.0	6596.2	6986.2	6944.4	6735.5
65°	4841.2	5047.5	5846.6	7456.3	8120.5	7694.0	7705.2	7475.4	7744.4	7608.6	7109.8
67.5°	3386.5	3604.1	4549.5	7478.1	8783.0	8720.3	8785.6	8425.2	8549.7	8245.0	7198.6
70°	2341.8	2454.1	3069.6	7009.7	9299.2	10134.1	10132.3	9591.7	9350.6	8534.9	6745.9
72.5°	1574.8	1633.1	1993.5	5561.1	8919.7	10974.2	10923.7	10483.2	9620.4	7982.1	5511.4
75°	664.2	706.8	922.8	3125.3	7056.7	10040.1	9903.4	9264.5	8548.0	6285.4	3438.7
77.5°	210.6	229.0	363.9	1118.7	3887.0	7546.8	7402.3	5785.7	5729.1	3153.1	1257.1
80°	100.1	116.6	204.6	449.2	1529.6	4104.6	4084.6	2624.7	2464.5	851.4	252.5
82.5°	43.6	51.4	113.2	240.3	684.3	1464.3	1493.8	893.2	739.1	323.0	77.5
85°	13.9	18.2	52.3	110.6	289.0	363.9	359.6	212.4	297.8	175.9	27.0
87.5°	0.0	0.0	17.4	25.2	29.6	20.9	23.5	18.2	82.7	48.8	9.5
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°	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3	1397.3
2.5°	1404.2	1390.3	1365.9	1343.3	1323.3	1303.2	1291.0	1273.7	1271.9	1271.9	1276.2
5°	1413.8	1391.1	1347.6	1301.4	1248.3	1197.9	1147.4	1098.6	1083.0	1071.6	1076.9
7.5°	1441.7	1406.0	1337.2	1249.3	1148.3	1037.7	960.2	876.7	844.4	827.1	829.6
10°	1481.6	1432.9	1328.5	1174.3	1010.8	860.1	749.6	659.0	624.2	609.4	609.4
12.5°	1526.1	1466.1	1312.8	1081.3	860.1	679.9	571.9	530.1	524.9	524.9	524.9
15°	1579.2	1506.0	1285.8	971.5	702.5	538.0	499.7	501.4	506.7	510.1	510.1
17.5°	1634.1	1548.7	1243.1	848.8	563.2	484.0	484.9	487.5	491.9	495.4	495.4
20°	1693.2	1591.4	1186.5	718.2	483.2	468.3	471.0	473.6	477.0	478.8	479.7
22.5°	1756.7	1631.4	1119.5	590.2	456.1	455.3	456.1	458.8	463.1	463.1	464.8
25°	1824.7	1675.8	1042.9	497.1	442.3	442.3	444.0	445.8	449.2	449.2	450.1
27.5°	1894.3	1716.8	962.0	448.3	430.1	429.2	429.2	431.8	433.6	434.4	435.3
30°	1971.0	1764.6	881.0	437.9	420.5	416.2	413.5	415.2	417.0	417.9	419.6
32.5°	2049.3	1810.8	808.7	442.3	410.9	403.0	394.3	392.6	392.6	396.1	398.7
35°	2136.3	1861.2	753.1	457.0	405.7	383.9	370.0	362.1	363.1	368.3	370.8
37.5°	2240.8	1922.2	712.1	470.1	402.2	362.1	339.5	329.9	323.8	329.9	328.2
40°	2377.5	2011.9	682.5	480.5	397.8	336.9	306.5	290.8	279.4	282.9	281.2
42.5°	2578.6	2152.9	671.2	481.4	388.3	307.3	272.4	251.6	235.0	236.0	232.5
45°	2860.7	2375.7	729.5	470.1	367.4	275.1	236.8	208.9	198.4	195.9	192.4
47.5°	3247.2	2700.5	864.5	446.6	336.9	243.7	201.9	178.5	170.7	166.3	163.7
50°	3765.1	3117.4	1014.2	420.5	306.5	214.1	173.2	158.5	153.2	148.8	148.0
52.5°	4365.8	3540.6	1136.9	394.3	275.9	188.1	155.0	146.3	141.9	138.4	137.6
55°	4916.9	3832.2	1130.0	366.5	246.4	167.2	141.9	136.6	131.4	127.9	126.3
57.5°	5259.9	3873.1	931.5	336.0	212.4	150.6	129.7	126.3	120.1	115.8	114.9
60°	5417.4	3639.8	652.9	296.0	178.5	134.9	116.6	114.9	107.1	101.0	99.2
62.5°	5446.1	3206.2	435.3	246.4	148.8	120.1	103.6	101.0	90.5	80.1	74.8
65°	5329.5	2586.4	301.2	192.4	127.1	104.4	88.8	83.5	72.3	61.8	58.3
67.5°	4960.4	1816.0	209.8	138.4	107.9	82.7	70.5	68.8	60.1	51.4	48.8
70°	4284.0	1035.0	140.1	103.6	85.3	56.6	55.8	57.5	48.8	41.8	38.3
72.5°	3284.6	473.6	87.0	75.7	58.3	38.3	44.4	45.3	37.4	31.4	27.9
75°	1933.5	202.8	54.8	48.8	29.6	25.2	32.2	33.1	25.2	20.0	17.4
77.5°	658.2	76.6	34.8	28.7	14.8	13.9	20.9	20.9	13.9	7.8	6.0
80°	149.8	28.7	17.4	11.3	7.0	6.0	7.0	6.0	3.5	0.8	0.0
82.5°	42.6	11.3	7.0	4.3	2.6	2.6	0.8	0.0	0.0	0.0	0.0
85°	12.2	5.2	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.2	0.8	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)