

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: P965819

Luminaire Tested: **NAV-SB4A-835-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965819
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-835-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 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: 13166.1 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

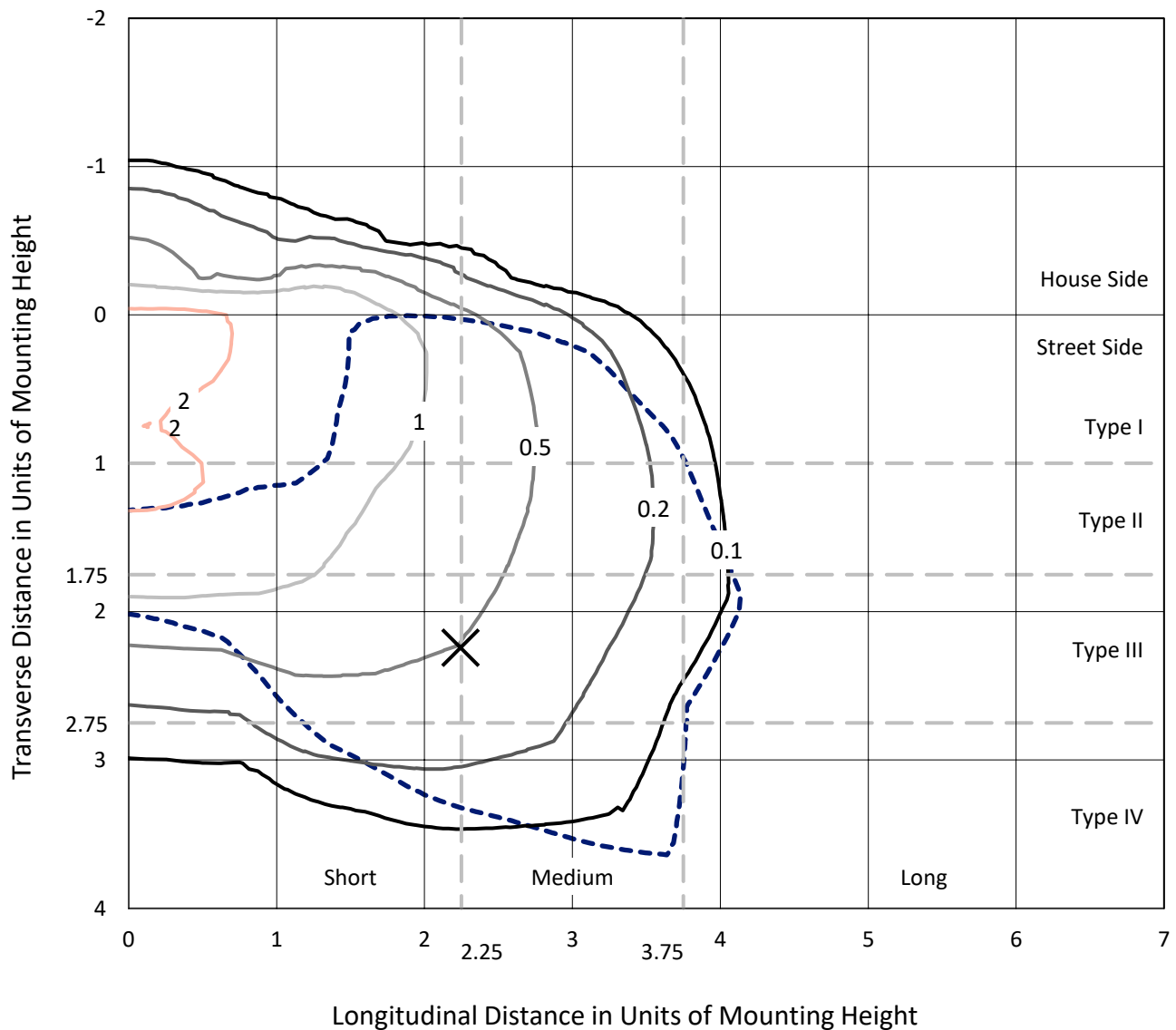
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

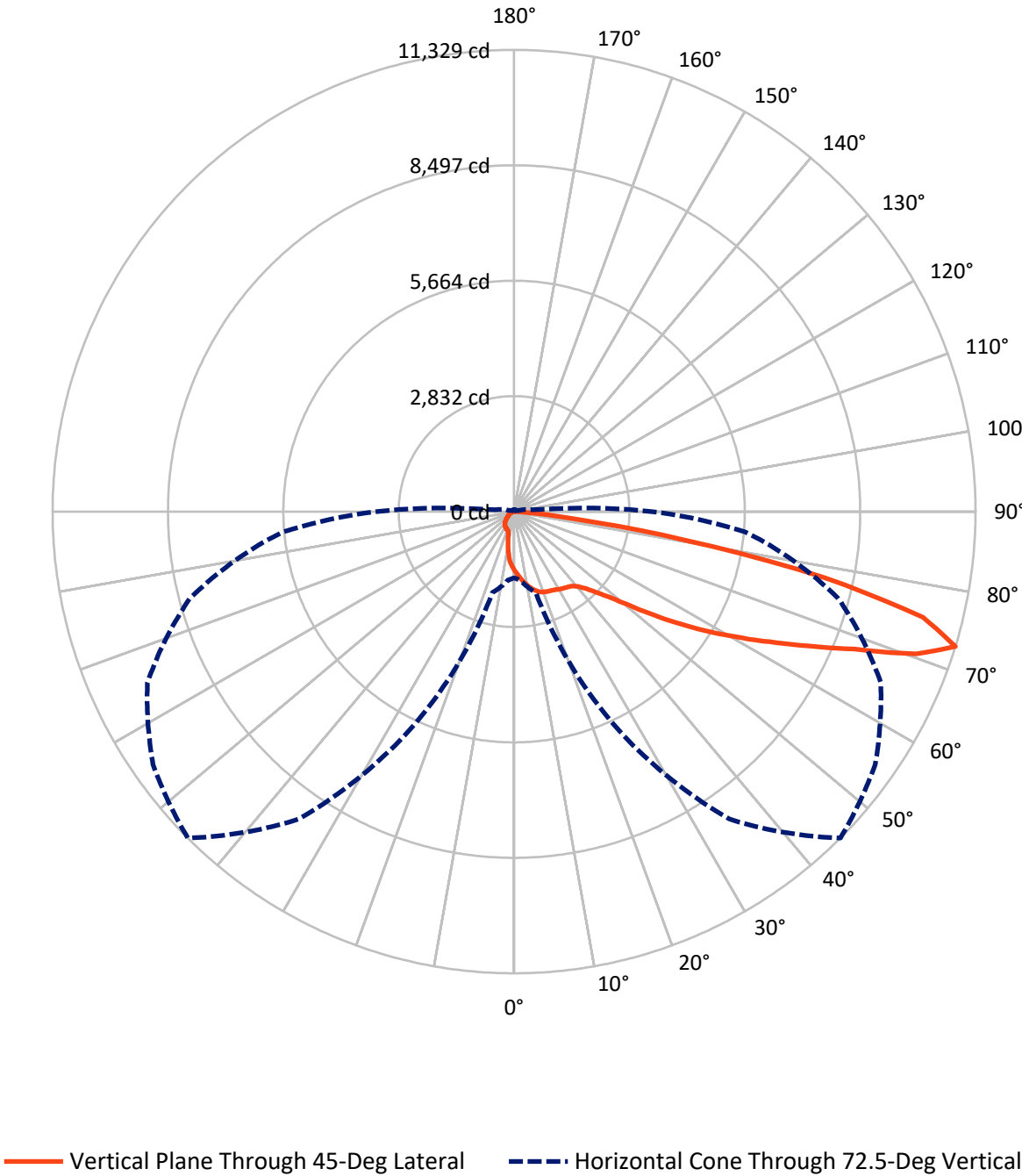
× Max cd
- - - 1/2 Max cd



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	1383.4	0.0	1383.4
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	11782.7	0.0	11782.7
	% Fixture	89.5	0.0	89.5
Total	Lumens	13166.1	0.0	13166.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.9	1.0
10°-20°	397.2	3.0
20°-30°	652.2	5.0
30°-40°	925.0	7.0
40°-50°	1529.0	11.6
50°-60°	2746.6	20.9
60°-70°	3813.8	29.0
70°-80°	2766.4	21.0
80°-90°	200.0	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°	13166.1	100.0
0°-180°	13166.1	100.0

Coefficient of Utilization



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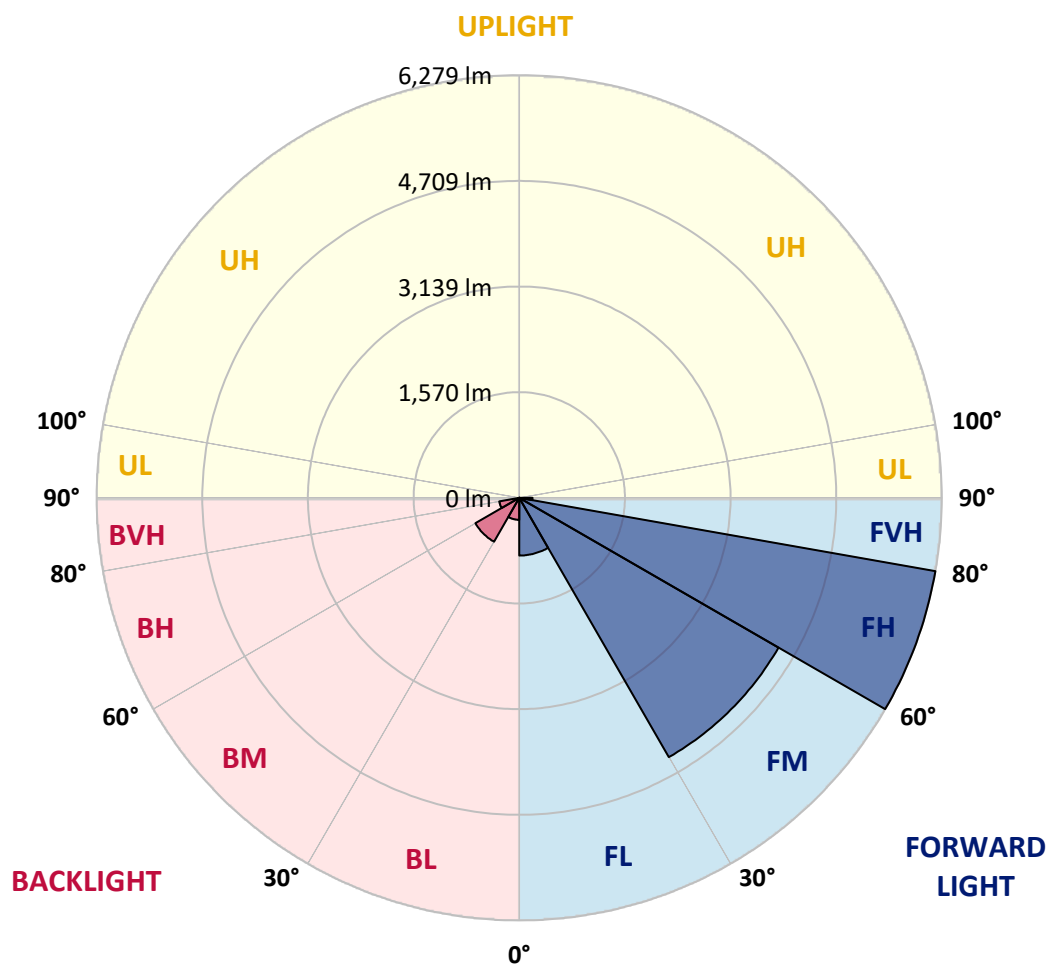
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	857.6	6.5			
FM	(30°-60°)	4448.2	33.8			
FH	(60°-80°)	6278.5	47.7			G3/7500
FVH	(80°-90°)	198.3	1.5			G2/225
BL	(0°-30°)	327.7	2.5	B1/500		
BM	(30°-60°)	752.4	5.7	B1/1000		
BH	(60°-80°)	301.7	2.3	B1/500		G1/500
BVH	(80°-90°)	1.7	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°	35°	45°	46°	55°	65°	75°	85°
0°	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4
2.5°	1575.4	1578.1	1576.2	1565.5	1547.5	1537.6	1532.3	1514.2	1502.5	1481.9	1460.3
5°	1720.1	1730.8	1724.6	1703.0	1668.8	1644.6	1637.4	1600.5	1567.3	1528.7	1483.7
7.5°	1873.7	1879.1	1867.4	1839.6	1793.7	1752.4	1746.1	1694.9	1641.8	1582.6	1521.5
10°	2006.7	2013.0	1995.1	1954.6	1902.5	1851.3	1842.3	1785.7	1722.7	1649.9	1571.8
12.5°	2118.2	2124.5	2101.1	2052.6	1995.1	1942.1	1933.0	1873.7	1804.5	1723.6	1626.6
15°	2202.6	2214.3	2182.8	2130.8	2068.8	2015.8	2011.3	1952.8	1885.4	1795.6	1692.2
17.5°	2252.1	2263.8	2234.1	2171.2	2118.2	2073.3	2067.8	2019.4	1956.4	1870.1	1756.0
20°	2260.1	2271.0	2239.5	2184.7	2140.6	2104.7	2102.0	2066.9	2021.1	1938.5	1825.2
22.5°	2235.9	2249.4	2220.7	2176.6	2146.0	2127.2	2123.6	2103.8	2077.8	2007.7	1889.9
25°	2210.7	2221.5	2200.0	2161.3	2145.1	2143.4	2146.0	2142.5	2137.0	2077.8	1965.4
27.5°	2209.0	2220.7	2196.4	2159.6	2150.6	2169.4	2172.1	2189.2	2193.7	2141.5	2038.2
30°	2224.2	2232.3	2209.0	2170.3	2165.8	2209.0	2209.8	2240.4	2247.6	2195.4	2110.1
32.5°	2257.5	2266.5	2243.1	2186.5	2180.2	2240.4	2243.1	2283.5	2295.2	2253.0	2185.6
35°	2335.7	2346.4	2319.5	2231.4	2209.0	2270.1	2278.2	2325.8	2349.1	2314.1	2263.8
37.5°	2530.7	2499.3	2462.4	2322.1	2274.6	2316.8	2330.2	2386.0	2427.3	2386.9	2357.2
40°	3015.0	2916.2	2801.2	2476.7	2389.6	2416.5	2427.3	2483.1	2539.6	2500.1	2485.7
42.5°	3742.1	3625.2	3440.1	2832.6	2563.0	2576.5	2584.6	2633.1	2713.1	2681.6	2685.3
45°	4390.1	4347.8	4159.0	3440.1	2887.4	2820.9	2830.8	2856.0	2973.7	2962.0	2985.4
47.5°	4887.9	4863.6	4718.1	4137.5	3435.6	3120.2	3148.1	3159.8	3329.6	3370.9	3433.9
50°	5270.8	5261.7	5131.5	4757.6	4151.9	3561.5	3571.3	3546.2	3800.5	3903.0	4022.5
52.5°	5632.0	5662.6	5566.4	5333.7	4916.6	4139.3	4137.5	4018.9	4362.2	4516.8	4720.7
55°	5958.2	5969.0	5978.9	5921.4	5685.9	4797.1	4780.1	4586.0	5013.7	5173.7	5394.8
57.5°	6264.7	6269.2	6357.3	6474.9	6486.6	5503.5	5472.1	5239.3	5725.4	5839.6	5975.3
60°	6470.5	6491.1	6677.2	7004.3	7147.2	6232.3	6215.3	5978.0	6449.8	6502.8	6477.7
62.5°	6173.9	6299.8	6768.8	7417.7	7770.8	7040.2	7032.1	6809.3	7211.9	7168.7	6953.1
65°	4997.6	5210.5	6035.5	7697.1	8382.9	7942.5	7954.2	7716.9	7994.6	7854.5	7339.5
67.5°	3495.9	3720.5	4696.4	7719.7	9066.7	9002.1	9069.4	8697.4	8825.9	8511.4	7431.1
70°	2417.5	2533.4	3168.7	7236.2	9599.6	10461.5	10459.7	9901.6	9652.7	8810.6	6963.8
72.5°	1625.8	1685.9	2058.0	5740.7	9207.9	11328.7	11276.6	10821.8	9931.3	8240.0	5689.6
75°	685.7	729.7	952.6	3226.3	7284.7	10364.5	10223.3	9563.8	8824.1	6488.5	3549.8
77.5°	217.5	236.4	375.7	1154.8	4012.6	7790.6	7641.5	5972.6	5914.1	3255.0	1297.6
80°	103.3	120.4	211.2	463.7	1579.0	4237.2	4216.5	2709.5	2544.2	878.9	260.7
82.5°	44.9	53.0	116.8	248.0	706.3	1511.6	1542.1	922.1	763.0	333.4	79.9
85°	14.3	18.9	53.9	114.1	298.4	375.7	371.2	219.2	307.4	181.5	27.9
87.5°	0.0	0.0	17.9	26.0	30.5	21.5	24.3	18.9	85.4	50.3	9.8
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°	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4
2.5°	1449.6	1435.2	1410.0	1386.6	1366.0	1345.3	1332.7	1314.8	1312.9	1312.9	1317.4
5°	1459.5	1436.1	1391.1	1343.6	1288.7	1236.6	1184.5	1134.2	1118.0	1106.3	1111.7
7.5°	1488.2	1451.4	1380.4	1289.6	1185.3	1071.2	991.3	905.0	871.8	853.7	856.5
10°	1529.5	1479.2	1371.3	1212.3	1043.3	887.9	773.8	680.3	644.3	629.0	629.0
12.5°	1575.4	1513.4	1355.3	1116.1	887.9	701.8	590.4	547.2	541.9	541.9	541.9
15°	1630.2	1554.7	1327.4	1003.0	725.2	555.3	515.9	517.6	523.1	526.6	526.6
17.5°	1686.8	1598.8	1283.3	876.2	581.5	499.7	500.6	503.3	507.8	511.4	511.4
20°	1747.9	1642.8	1224.9	741.4	498.8	483.5	486.2	488.9	492.5	494.3	495.2
22.5°	1813.5	1684.1	1155.7	609.3	470.9	470.0	470.9	473.7	478.1	478.1	479.9
25°	1883.6	1730.0	1076.7	513.1	456.5	456.5	458.3	460.1	463.7	463.7	464.6
27.5°	1955.5	1772.2	993.0	462.8	443.9	443.0	443.0	445.8	447.5	448.4	449.4
30°	2034.6	1821.6	909.5	452.0	434.1	429.6	426.9	428.7	430.5	431.3	433.2
32.5°	2115.5	1869.3	834.9	456.5	424.1	416.0	407.1	405.3	405.3	408.9	411.6
35°	2205.4	1921.4	777.4	471.8	418.8	396.4	381.9	373.8	374.7	380.2	382.8
37.5°	2313.2	1984.3	735.1	485.2	415.2	373.8	350.4	340.6	334.4	340.6	338.8
40°	2454.3	2076.9	704.6	496.1	410.7	347.8	316.3	300.1	288.4	292.0	290.3
42.5°	2661.9	2222.4	692.9	496.9	400.8	317.2	281.3	259.7	242.6	243.5	240.0
45°	2953.0	2452.5	753.1	485.2	379.2	284.0	244.5	215.7	204.9	202.2	198.6
47.5°	3352.1	2787.7	892.4	461.0	347.8	251.6	208.5	184.2	176.1	171.7	168.9
50°	3886.8	3218.2	1046.9	434.1	316.3	221.1	178.9	163.6	158.2	153.6	152.7
52.5°	4506.8	3654.9	1173.6	407.1	284.8	194.1	160.0	151.0	146.5	142.9	142.0
55°	5075.7	3956.0	1166.4	378.3	254.3	172.5	146.5	141.1	135.7	132.1	130.3
57.5°	5429.8	3998.2	961.6	346.9	219.2	155.5	133.9	130.3	124.0	119.5	118.6
60°	5592.5	3757.3	674.0	305.6	184.2	139.3	120.4	118.6	110.5	104.2	102.5
62.5°	5622.1	3309.8	449.4	254.3	153.6	124.0	106.9	104.2	93.5	82.7	77.3
65°	5501.7	2669.9	311.0	198.6	131.2	107.8	91.6	86.3	74.6	63.8	60.2
67.5°	5120.7	1874.6	216.6	142.9	111.4	85.4	72.8	71.0	62.0	53.0	50.3
70°	4422.4	1068.6	144.7	106.9	88.0	58.4	57.5	59.3	50.3	43.2	39.6
72.5°	3390.7	488.9	89.9	78.2	60.2	39.6	45.8	46.7	38.6	32.4	28.8
75°	1996.0	209.4	56.6	50.3	30.5	26.0	33.2	34.1	26.0	20.7	17.9
77.5°	679.4	79.1	36.0	29.6	15.3	14.3	21.5	21.5	14.3	8.1	6.3
80°	154.6	29.6	17.9	11.7	7.2	6.3	7.2	6.3	3.6	0.9	0.0
82.5°	44.1	11.7	7.2	4.5	2.7	2.7	0.9	0.0	0.0	0.0	0.0
85°	12.6	5.4	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.4	0.9	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)