

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: P965757

Luminaire Tested: **NAV-SB4A-827-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965757
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-827-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 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: 12343 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

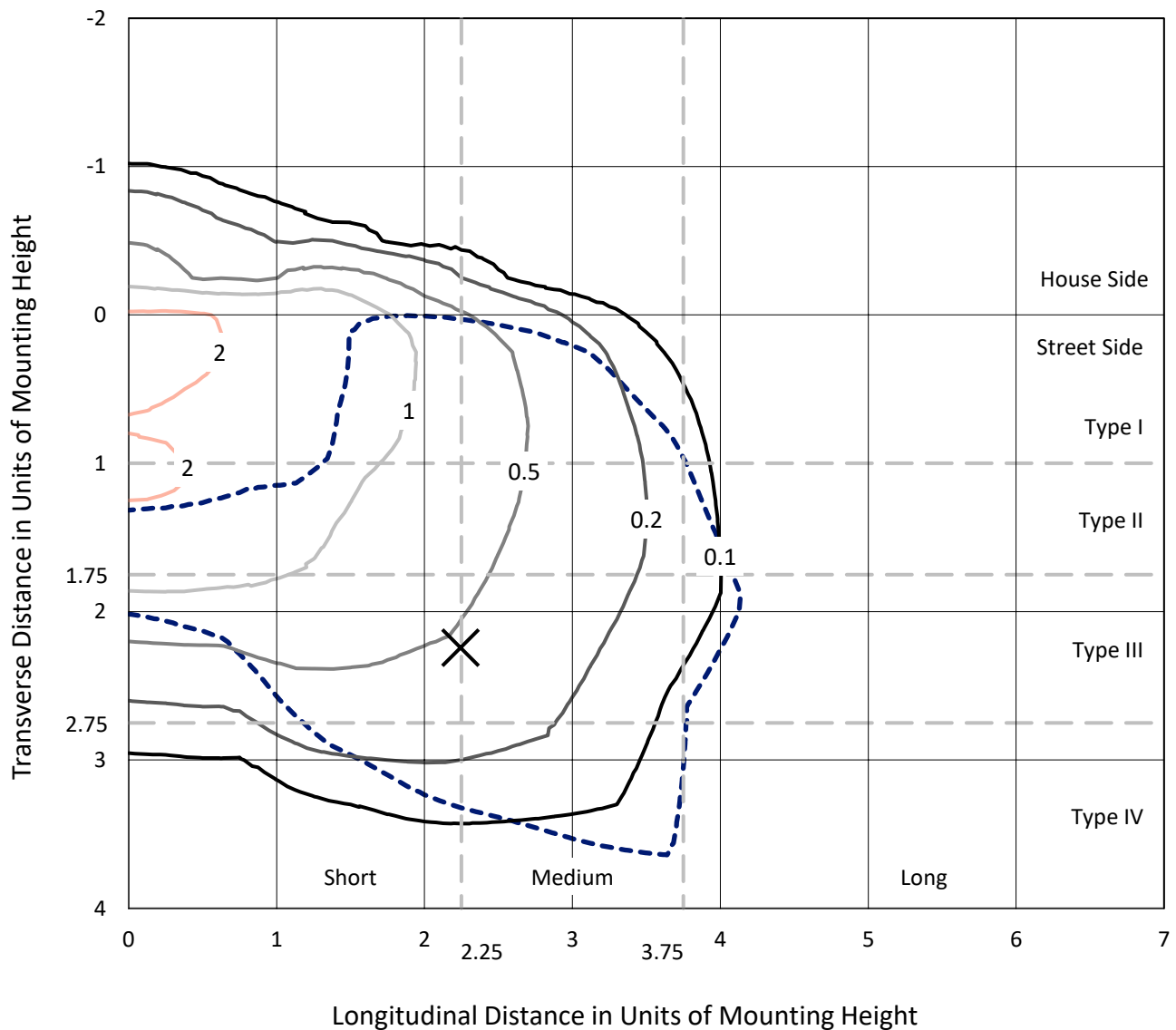
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

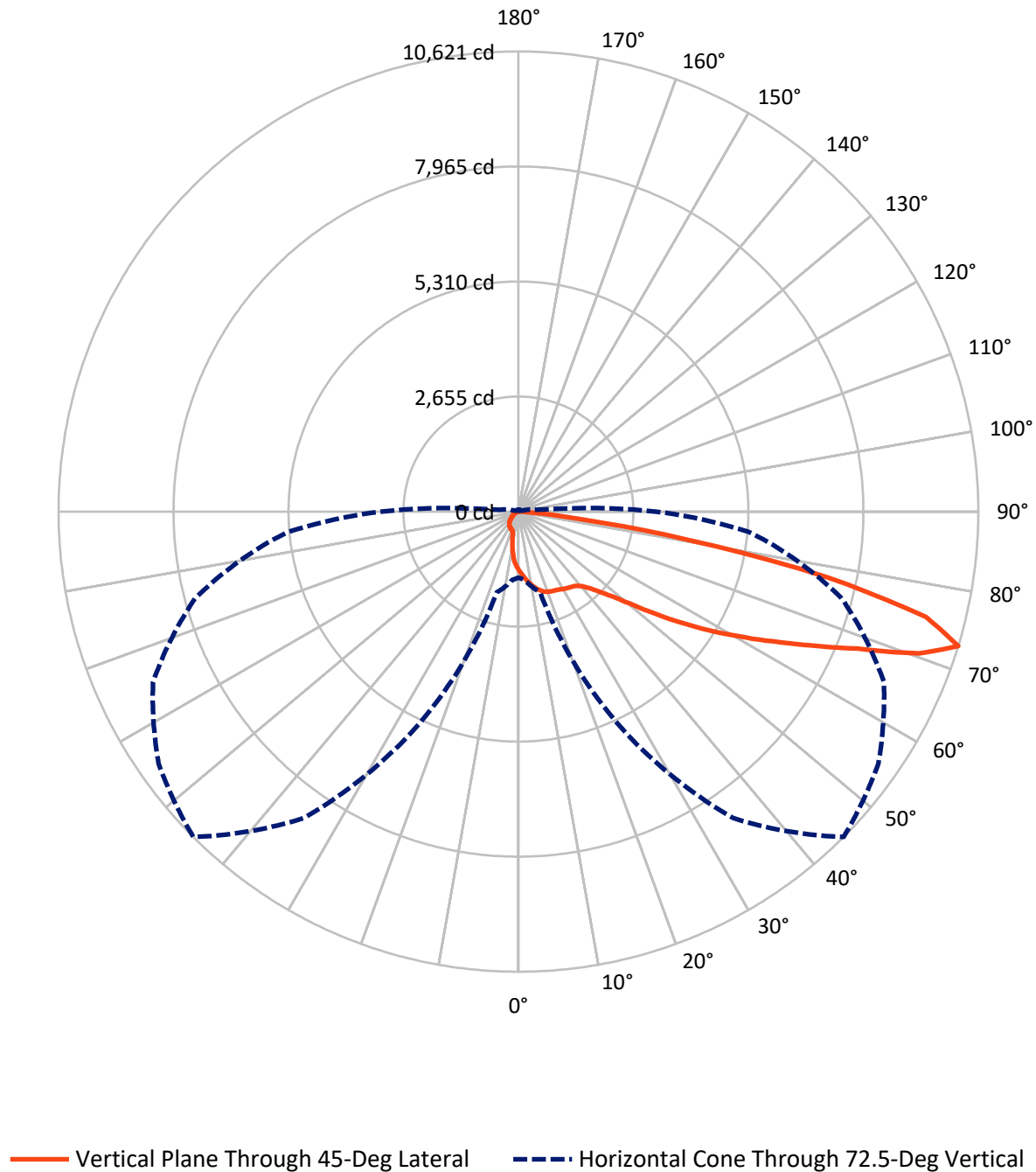
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 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	1296.9	0.0	1296.9
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	11046.1	0.0	11046.1
	% Fixture	89.5	0.0	89.5
Total	Lumens	12343.0	0.0	12343.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.4	1.0
10°-20°	372.3	3.0
20°-30°	611.5	5.0
30°-40°	867.2	7.0
40°-50°	1433.4	11.6
50°-60°	2574.9	20.9
60°-70°	3575.4	29.0
70°-80°	2593.5	21.0
80°-90°	187.5	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°	12343.0	100.0
0°-180°	12343.0	100.0

Coefficient of Utilization



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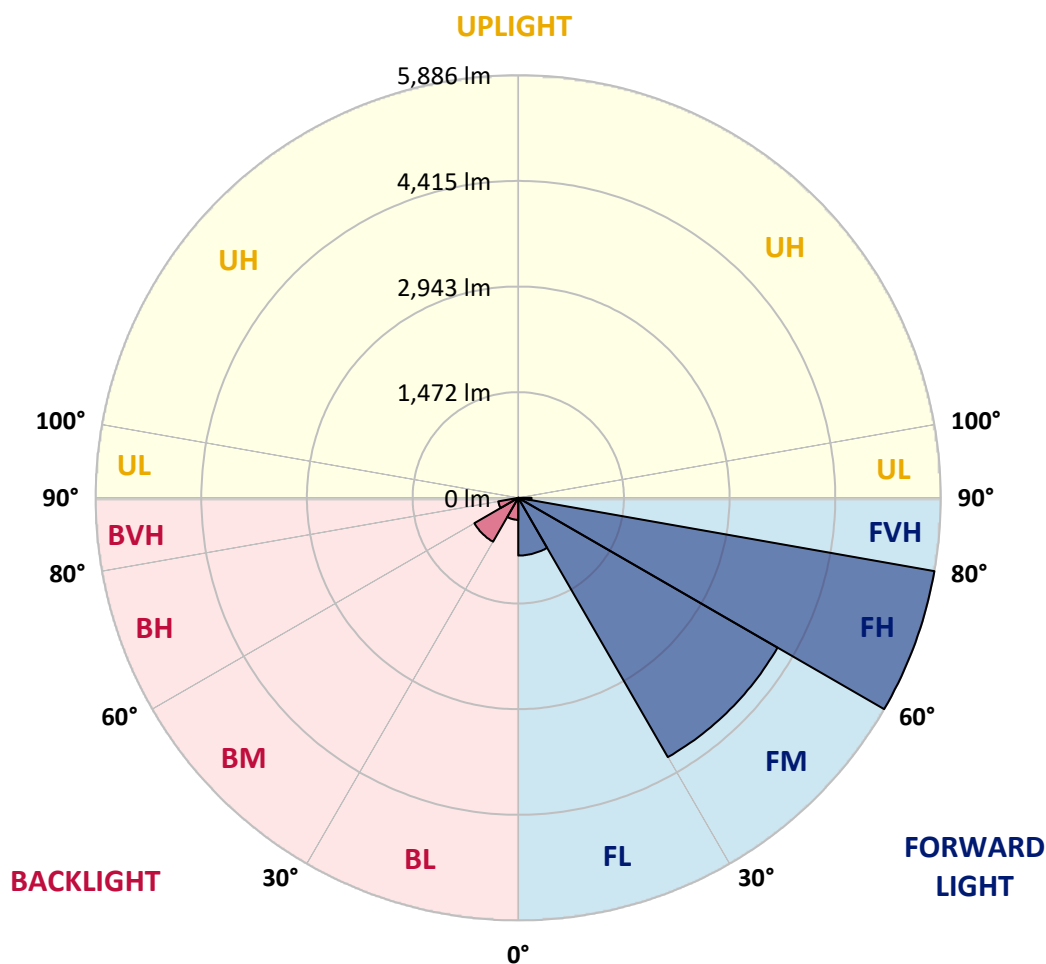
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	804.0	6.5			
FM	(30°-60°)	4170.1	33.8			
FH	(60°-80°)	5886.1	47.7			G3/7500
FVH	(80°-90°)	185.9	1.5			G2/225
BL	(0°-30°)	307.2	2.5	B1/500		
BM	(30°-60°)	705.3	5.7	B1/1000		
BH	(60°-80°)	282.8	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°	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2
2.5°	1476.9	1479.4	1477.7	1467.6	1450.8	1441.6	1436.4	1419.6	1408.7	1389.3	1369.1
5°	1612.5	1622.7	1616.7	1596.5	1564.6	1541.8	1535.0	1500.5	1469.3	1433.1	1390.9
7.5°	1756.6	1761.7	1750.7	1724.6	1681.6	1642.9	1636.9	1589.0	1539.2	1483.7	1426.4
10°	1881.3	1887.2	1870.3	1832.4	1783.6	1735.5	1727.1	1674.0	1615.1	1546.8	1473.5
12.5°	1985.7	1991.7	1969.7	1924.2	1870.3	1820.6	1812.2	1756.6	1691.8	1615.9	1524.9
15°	2065.0	2075.9	2046.4	1997.5	1939.4	1889.7	1885.5	1830.8	1767.5	1683.4	1586.4
17.5°	2111.3	2122.3	2094.5	2035.4	1985.7	1943.6	1938.6	1893.1	1834.1	1753.3	1646.3
20°	2118.9	2129.0	2099.5	2048.2	2006.8	1973.1	1970.6	1937.8	1894.8	1817.2	1711.1
22.5°	2096.1	2108.7	2081.8	2040.6	2011.9	1994.2	1990.9	1972.3	1947.8	1882.1	1771.8
25°	2072.5	2082.7	2062.4	2026.2	2011.0	2009.3	2011.9	2008.5	2003.5	1947.8	1842.5
27.5°	2070.8	2081.8	2059.0	2024.5	2016.1	2033.8	2036.3	2052.4	2056.6	2007.7	1910.8
30°	2085.2	2092.7	2070.8	2034.6	2030.4	2070.8	2071.7	2100.3	2107.1	2058.2	1978.1
32.5°	2116.3	2124.8	2102.9	2049.8	2043.8	2100.3	2102.9	2140.8	2151.8	2112.1	2049.0
35°	2189.6	2199.8	2174.4	2091.9	2070.8	2128.1	2135.7	2180.4	2202.3	2169.4	2122.3
37.5°	2372.5	2342.9	2308.4	2177.0	2132.4	2172.0	2184.6	2236.9	2275.6	2237.7	2209.9
40°	2826.5	2733.9	2626.0	2321.9	2240.2	2265.5	2275.6	2327.8	2380.9	2343.9	2330.3
42.5°	3508.2	3398.6	3225.1	2655.6	2402.8	2415.4	2423.0	2468.5	2543.5	2514.0	2517.4
45°	4115.6	4076.0	3899.1	3225.1	2706.9	2644.6	2653.8	2677.5	2787.8	2776.8	2798.8
47.5°	4582.4	4559.6	4423.1	3878.8	3220.9	2925.1	2951.3	2962.2	3121.4	3160.2	3219.2
50°	4941.2	4932.8	4810.6	4460.2	3892.3	3338.8	3348.1	3324.5	3562.9	3658.9	3771.0
52.5°	5279.9	5308.6	5218.4	5000.3	4609.3	3880.5	3878.8	3767.7	4089.4	4234.4	4425.6
55°	5585.7	5595.9	5605.1	5551.2	5330.5	4497.3	4481.2	4299.3	4700.2	4850.3	5057.6
57.5°	5873.0	5877.2	5959.9	6070.2	6081.1	5159.4	5129.9	4911.8	5367.5	5474.5	5601.7
60°	6066.0	6085.3	6259.8	6566.5	6700.4	5842.7	5826.7	5604.3	6046.6	6096.3	6072.7
62.5°	5788.0	5905.9	6345.7	6954.0	7285.1	6600.1	6592.5	6383.6	6761.0	6720.6	6518.4
65°	4685.2	4884.8	5658.2	7216.0	7858.8	7446.0	7457.0	7234.6	7494.9	7363.4	6880.7
67.5°	3277.3	3488.0	4402.9	7237.0	8499.9	8439.3	8502.5	8153.7	8274.2	7979.3	6966.6
70°	2266.3	2375.0	2970.7	6783.8	8999.5	9807.5	9805.9	9282.6	9049.2	8259.9	6528.5
72.5°	1524.1	1580.6	1929.4	5381.9	8632.2	10620.5	10571.6	10145.3	9310.4	7724.8	5333.9
75°	642.8	684.1	893.1	3024.6	6829.3	9716.5	9584.3	8965.9	8272.5	6082.9	3327.9
77.5°	203.9	221.6	352.2	1082.6	3761.7	7303.6	7163.7	5599.3	5544.4	3051.5	1216.6
80°	96.9	112.9	198.0	434.7	1480.3	3972.4	3953.0	2540.2	2385.1	824.0	244.4
82.5°	42.1	49.7	109.6	232.6	662.3	1417.1	1445.8	864.4	715.2	312.5	75.0
85°	13.5	17.7	50.5	107.0	279.7	352.2	348.0	205.6	288.1	170.1	26.1
87.5°	0.0	0.0	16.8	24.4	28.6	20.2	22.8	17.7	80.1	47.2	9.2
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°	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2
2.5°	1358.9	1345.5	1321.8	1300.0	1280.6	1261.3	1249.4	1232.6	1230.9	1230.9	1235.1
5°	1368.2	1346.3	1304.2	1259.5	1208.2	1159.3	1110.4	1063.2	1048.1	1037.1	1042.1
7.5°	1395.1	1360.6	1294.1	1209.0	1111.2	1004.3	929.3	848.4	817.2	800.4	802.9
10°	1434.0	1386.7	1285.7	1136.5	978.2	832.4	725.4	637.8	604.0	589.8	589.8
12.5°	1476.9	1418.8	1270.5	1046.4	832.4	657.9	553.5	513.1	508.0	508.0	508.0
15°	1528.3	1457.6	1244.4	940.2	679.9	520.7	483.6	485.2	490.4	493.7	493.7
17.5°	1581.4	1498.8	1203.0	821.4	545.1	468.4	469.2	471.8	476.0	479.4	479.4
20°	1638.7	1540.1	1148.3	695.1	467.6	453.3	455.8	458.3	461.7	463.4	464.2
22.5°	1700.2	1578.8	1083.4	571.2	441.5	440.6	441.5	444.0	448.2	448.2	449.9
25°	1765.9	1621.9	1009.3	481.0	427.9	427.9	429.7	431.3	434.7	434.7	435.5
27.5°	1833.3	1661.4	931.0	433.9	416.2	415.3	415.3	417.9	419.5	420.5	421.3
30°	1907.4	1707.8	852.6	423.7	406.9	402.7	400.2	401.9	403.5	404.4	406.1
32.5°	1983.3	1752.4	782.7	427.9	397.7	390.1	381.6	380.0	380.0	383.3	385.9
35°	2067.5	1801.2	728.8	442.3	392.6	371.6	358.0	350.4	351.4	356.4	358.9
37.5°	2168.6	1860.3	689.2	455.0	389.2	350.4	328.6	319.3	313.4	319.3	317.6
40°	2300.8	1947.0	660.5	465.0	385.0	326.1	296.5	281.4	270.4	273.8	272.1
42.5°	2495.5	2083.5	649.5	465.9	375.8	297.4	263.7	243.4	227.4	228.3	225.0
45°	2768.4	2299.2	706.0	455.0	355.6	266.2	229.2	202.2	192.1	189.5	186.2
47.5°	3142.5	2613.4	836.6	432.2	326.1	235.9	195.5	172.7	165.1	160.9	158.4
50°	3643.8	3017.0	981.5	406.9	296.5	207.3	167.7	153.3	148.3	144.1	143.2
52.5°	4225.2	3426.5	1100.3	381.6	267.1	181.9	150.0	141.6	137.4	134.0	133.1
55°	4758.5	3708.7	1093.6	354.6	238.4	161.7	137.4	132.2	127.2	123.8	122.2
57.5°	5090.4	3748.2	901.5	325.2	205.6	145.8	125.6	122.2	116.2	112.0	111.2
60°	5242.9	3522.5	631.9	286.5	172.7	130.6	112.9	111.2	103.6	97.7	96.0
62.5°	5270.7	3102.9	421.3	238.4	144.1	116.2	100.2	97.7	87.6	77.5	72.5
65°	5157.8	2503.0	291.5	186.2	123.0	101.1	85.9	80.9	69.9	59.9	56.5
67.5°	4800.6	1757.5	203.1	134.0	104.4	80.1	68.3	66.5	58.1	49.7	47.2
70°	4145.9	1001.7	135.6	100.2	82.6	54.7	53.9	55.6	47.2	40.5	37.1
72.5°	3178.7	458.3	84.3	73.3	56.5	37.1	42.9	43.8	36.2	30.3	27.0
75°	1871.1	196.3	53.1	47.2	28.6	24.4	31.2	32.0	24.4	19.4	16.8
77.5°	636.9	74.1	33.7	27.8	14.3	13.5	20.2	20.2	13.5	7.6	5.9
80°	144.9	27.8	16.8	11.0	6.8	5.9	6.8	5.9	3.4	0.8	0.0
82.5°	41.3	11.0	6.8	4.2	2.6	2.6	0.8	0.0	0.0	0.0	0.0
85°	11.8	5.0	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.0	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)