

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: P882901

Luminaire Tested: **NAV-SB3A-727-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882901
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-727-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12052 lumens
Efficiency: N/A
Efficacy: 142.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

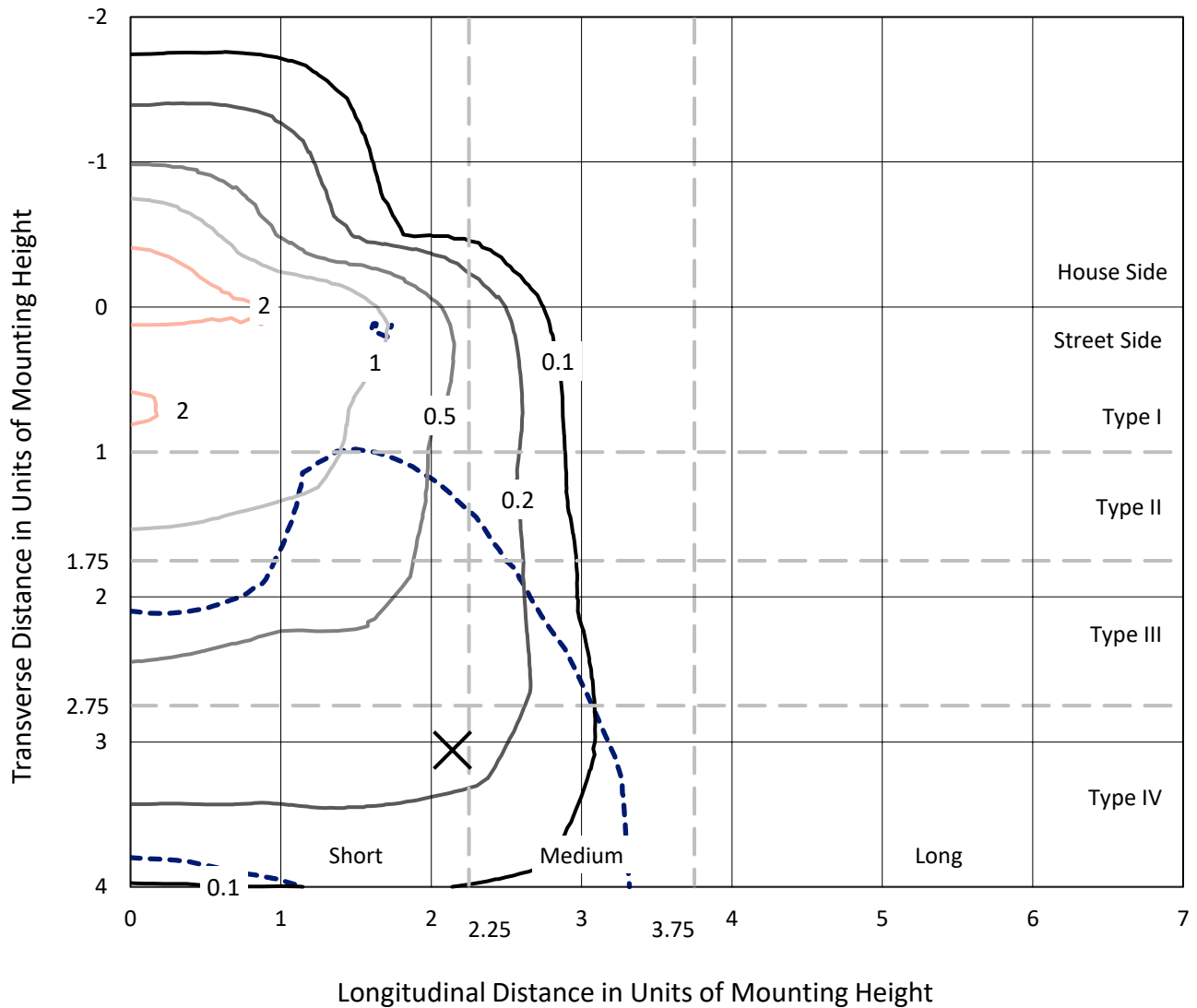
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

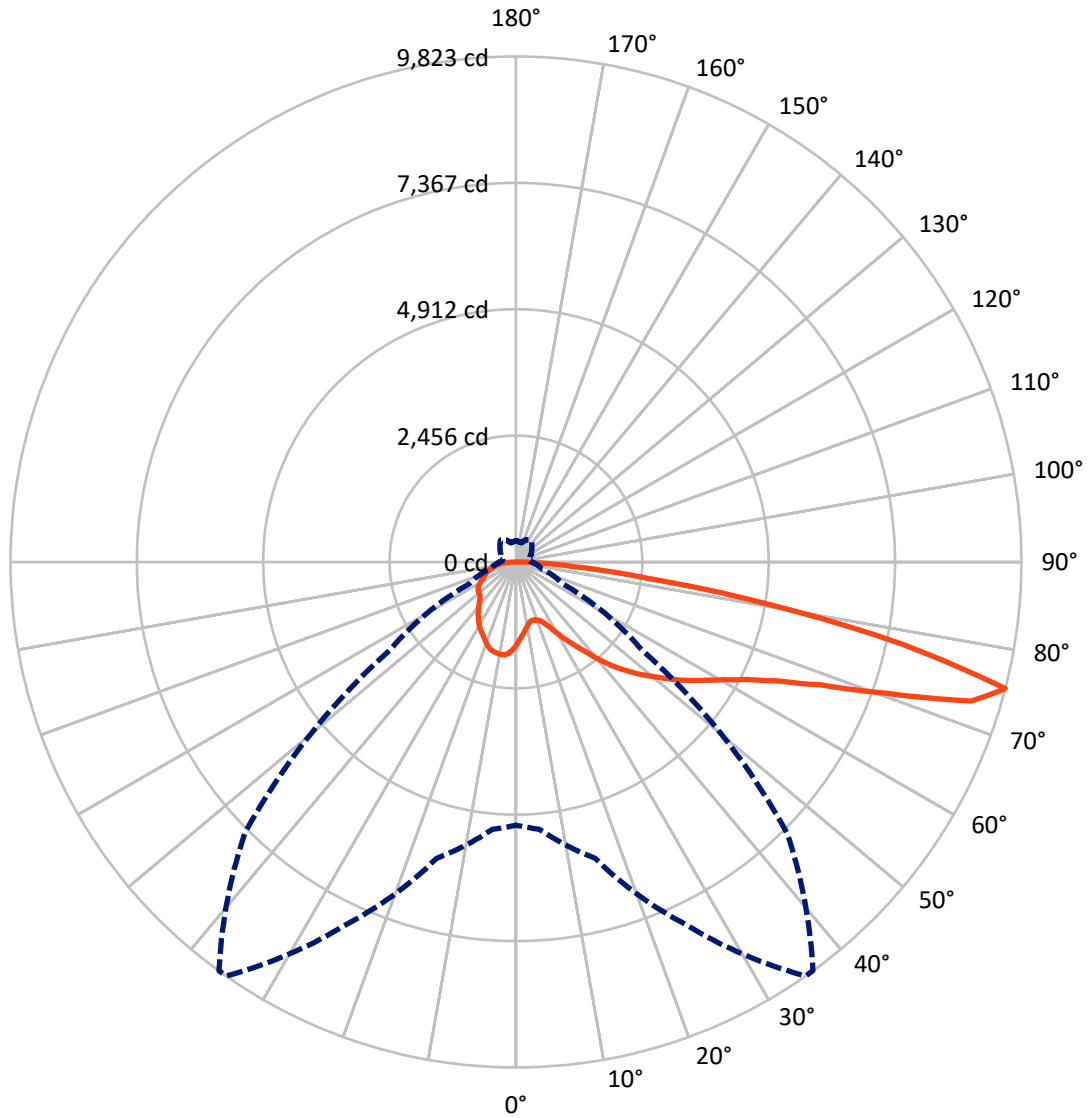
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2868.1	0.0	2868.1
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	9183.9	0.0	9183.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	12052.0	0.0	12052.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.1	1.3
10°-20°	438.6	3.6
20°-30°	736.5	6.1
30°-40°	1144.7	9.5
40°-50°	1699.0	14.1
50°-60°	2345.5	19.5
60°-70°	2845.7	23.6
70°-80°	2351.7	19.5
80°-90°	338.3	2.8
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°	12052.0	100.0
0°-180°	12052.0	100.0

Coefficient of Utilization



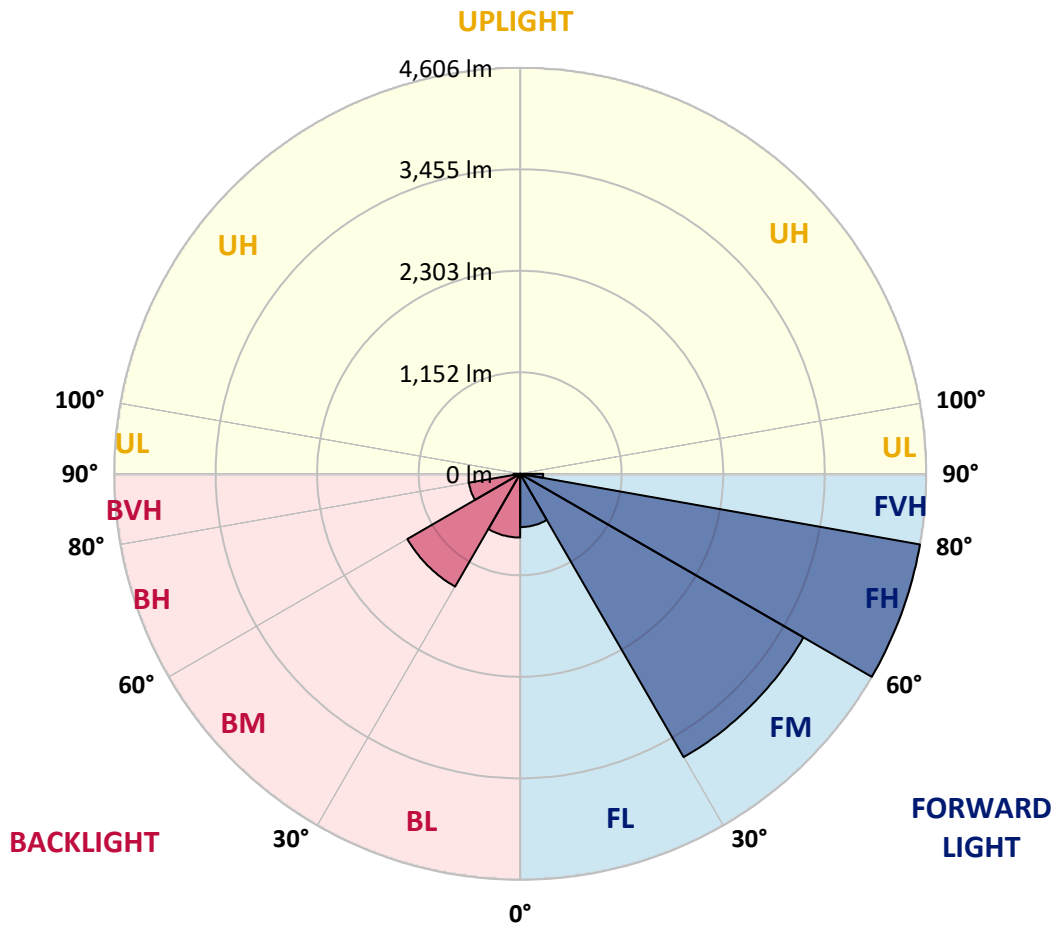
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	604.4	5.0			
FM (30°-60°)	3711.4	30.8			
FH (60°-80°)	4606.1	38.2			G2/5000
FVH (80°-90°)	262.1	2.2			G3/500
BL (0°-30°)	722.8	6.0	B2/1000		
BM (30°-60°)	1477.8	12.3	B2/2500		
BH (60°-80°)	591.3	4.9	B2/1000		G2/1000
BVH (80°-90°)	76.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1480.9	1490.0	1493.9	1492.0	1501.8	1500.5	1514.1	1531.1	1554.5	1577.3	1610.6
5°	1366.9	1376.7	1385.1	1393.0	1411.9	1417.7	1439.2	1471.8	1514.8	1558.4	1613.2
7.5°	1260.7	1269.2	1282.2	1296.5	1328.5	1334.3	1370.2	1421.0	1480.9	1544.8	1620.3
10°	1174.0	1182.5	1196.2	1212.5	1252.2	1259.4	1305.0	1372.8	1450.9	1531.7	1628.2
12.5°	1136.9	1139.5	1147.3	1163.6	1198.2	1202.7	1252.9	1330.4	1421.6	1522.0	1639.9
15°	1135.0	1140.2	1140.8	1149.3	1178.0	1179.9	1226.2	1303.1	1403.4	1520.0	1657.5
17.5°	1154.5	1158.4	1152.5	1157.8	1181.9	1185.1	1221.6	1290.0	1397.5	1528.5	1687.5
20°	1206.6	1209.9	1192.3	1185.1	1202.7	1205.3	1241.2	1298.5	1403.4	1546.1	1728.5
22.5°	1317.4	1319.3	1276.3	1247.0	1248.3	1249.6	1280.9	1333.0	1426.2	1578.0	1780.6
25°	1490.0	1488.7	1420.3	1363.6	1331.1	1323.9	1344.7	1389.1	1464.6	1620.3	1847.7
27.5°	1692.0	1682.2	1613.8	1529.1	1458.1	1447.7	1443.1	1462.0	1519.4	1676.4	1929.8
30°	1920.0	1910.9	1837.3	1726.5	1628.2	1611.2	1568.2	1558.4	1600.8	1752.6	2043.8
32.5°	2170.2	2164.4	2076.4	1942.2	1810.6	1791.0	1718.7	1692.7	1725.9	1867.9	2202.8
35°	2380.0	2374.8	2301.8	2163.7	2002.8	1978.7	1905.1	1875.7	1892.7	2015.8	2410.6
37.5°	2569.6	2567.0	2504.5	2395.7	2229.5	2200.2	2117.5	2107.7	2104.4	2210.6	2662.8
40°	2745.5	2739.0	2673.9	2616.5	2493.4	2466.7	2393.7	2385.2	2360.5	2450.4	2948.2
42.5°	2940.3	2923.4	2828.9	2802.2	2769.0	2746.8	2703.2	2704.5	2649.8	2720.8	3250.5
45°	3099.3	3089.5	2992.5	2976.8	3012.7	3003.5	3041.3	3051.1	2944.9	3004.2	3564.5
47.5°	3270.0	3260.9	3178.8	3167.7	3264.8	3267.4	3401.0	3404.2	3232.9	3298.7	3879.2
50°	3480.4	3467.4	3386.0	3399.7	3508.5	3518.2	3762.6	3740.4	3498.0	3597.7	4191.3
52.5°	3619.2	3627.0	3609.5	3631.6	3780.2	3789.3	4118.3	4061.6	3760.6	3892.9	4497.5
55°	3721.5	3737.2	3791.9	3842.7	4066.8	4075.9	4453.8	4367.2	3978.2	4166.5	4785.5
57.5°	3853.1	3831.0	3933.3	4032.3	4339.2	4363.3	4780.2	4661.7	4171.1	4402.4	4982.9
60°	4042.1	4026.4	4105.9	4252.5	4644.1	4682.5	5125.6	4926.8	4312.4	4589.3	5021.3
62.5°	4425.2	4386.1	4398.4	4528.1	5028.5	5079.3	5515.2	5158.1	4382.8	4662.3	4815.4
65°	4997.9	4930.7	4868.2	4958.1	5569.9	5620.1	5954.9	5339.9	4356.8	4520.9	4268.8
67.5°	5719.1	5652.6	5575.8	5660.5	6367.4	6407.1	6497.7	5442.2	4151.5	3976.3	3302.6
70°	6313.9	6289.2	6381.0	6729.6	7641.1	7642.4	7193.5	5357.5	3589.3	2819.2	1910.9
72.5°	6235.1	6220.1	6704.2	7781.8	9246.5	9211.9	7852.2	4716.4	2417.8	1271.8	716.0
75°	5115.1	5212.2	5962.1	7762.9	9823.1	9818.5	7448.9	2998.3	1000.1	527.1	370.1
77.5°	2742.9	2896.7	3870.7	5731.5	7668.5	7783.8	5237.0	1049.0	429.4	337.5	256.0
80°	894.5	1028.8	1542.8	2918.2	4982.9	4961.4	2244.5	411.8	293.8	239.1	177.2
82.5°	379.8	395.5	689.3	1378.0	2557.2	2517.5	714.7	236.5	206.5	163.5	109.5
85°	148.5	166.1	304.3	637.2	1107.6	1083.5	258.0	117.3	132.3	106.9	65.2
87.5°	48.9	59.3	108.8	218.3	344.7	332.3	63.2	40.4	57.3	48.9	23.5
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°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1619.7	1630.1	1642.5	1660.7	1676.4	1689.4	1703.1	1711.6	1714.8	1724.6	1723.9
5°	1631.4	1654.2	1684.8	1714.8	1744.1	1761.7	1777.4	1785.2	1792.3	1797.6	1798.9
7.5°	1651.0	1680.3	1728.5	1767.6	1792.3	1806.7	1817.1	1814.5	1817.1	1818.4	1820.4
10°	1667.9	1709.0	1766.3	1803.4	1822.3	1823.0	1820.4	1811.2	1806.7	1807.3	1808.6
12.5°	1688.1	1733.7	1795.6	1826.9	1832.1	1817.8	1806.7	1791.0	1785.2	1782.6	1781.3
15°	1715.5	1767.6	1827.5	1839.3	1826.2	1808.0	1789.1	1763.7	1750.6	1740.2	1743.5
17.5°	1748.7	1806.0	1852.3	1843.8	1815.8	1785.8	1755.2	1716.8	1690.1	1679.0	1679.6
20°	1795.0	1846.4	1871.2	1834.0	1791.7	1746.1	1694.0	1647.1	1622.3	1611.2	1609.9
22.5°	1851.0	1900.5	1889.4	1817.1	1757.2	1684.2	1619.0	1584.5	1572.1	1564.3	1565.6
25°	1918.1	1960.4	1902.5	1792.3	1700.5	1602.1	1551.9	1540.9	1535.0	1529.1	1529.1
27.5°	2005.4	2028.2	1912.2	1755.9	1611.9	1514.8	1496.6	1498.5	1496.6	1486.8	1488.7
30°	2120.7	2116.2	1921.3	1696.6	1510.2	1436.0	1437.3	1445.7	1447.0	1440.5	1443.8
32.5°	2272.5	2226.3	1925.9	1619.7	1413.2	1366.9	1368.2	1377.3	1383.8	1372.8	1378.0
35°	2456.3	2354.6	1918.7	1523.3	1338.2	1301.1	1291.3	1293.9	1295.9	1285.5	1292.6
37.5°	2670.6	2498.6	1886.8	1416.4	1276.3	1236.6	1215.7	1198.2	1187.7	1178.0	1184.5
40°	2905.8	2655.6	1828.2	1312.2	1207.3	1168.2	1136.9	1103.7	1068.5	1055.5	1061.3
42.5°	3152.1	2817.2	1757.2	1212.5	1127.8	1095.9	1062.6	1014.4	961.7	934.9	938.2
45°	3407.5	2982.7	1687.5	1114.1	1046.4	1032.7	994.2	936.2	878.9	845.0	842.4
47.5°	3657.7	3139.1	1585.2	1015.1	970.1	985.1	955.1	901.7	837.9	784.4	778.6
50°	3896.8	3285.6	1417.7	914.7	908.2	970.8	942.1	865.2	792.3	723.8	718.0
52.5°	4133.9	3404.2	1203.4	823.5	875.0	966.9	925.2	840.5	751.2	679.5	671.7
55°	4335.3	3465.5	996.8	745.3	826.8	933.6	905.0	811.1	693.2	617.0	610.5
57.5°	4449.9	3415.9	824.8	668.5	760.3	878.9	870.4	748.6	624.2	565.5	557.7
60°	4400.4	3215.3	684.1	601.4	697.1	819.6	810.5	686.7	571.4	516.0	508.2
62.5°	4127.4	2832.8	572.7	542.7	639.8	759.0	750.6	639.1	531.0	477.6	469.1
65°	3577.5	2304.4	486.0	493.9	581.8	686.1	698.4	599.4	499.1	446.9	438.5
67.5°	2728.6	1669.2	418.3	451.5	525.1	614.4	650.2	570.7	472.4	422.8	415.0
70°	1555.2	948.0	360.9	410.5	475.0	547.9	613.1	547.9	443.7	402.6	397.4
72.5°	589.6	435.2	312.1	369.4	426.7	491.9	572.0	512.1	410.5	379.8	374.6
75°	314.7	265.2	262.6	321.2	371.4	437.2	520.6	476.9	385.7	401.3	414.4
77.5°	214.4	187.6	219.6	274.9	310.8	376.6	465.8	423.5	334.2	332.9	306.9
80°	148.5	132.9	178.5	221.5	240.4	316.6	406.6	363.6	272.3	254.1	243.0
82.5°	89.3	86.7	133.6	165.5	170.0	244.3	336.8	304.9	222.8	194.2	195.5
85°	48.9	51.5	85.3	97.1	99.0	170.7	263.9	235.9	171.4	144.0	145.3
87.5°	13.7	17.6	31.3	38.4	47.6	88.6	157.0	140.1	86.0	59.9	59.9
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)