

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: P883641

Luminaire Tested: **NAV-SB4A-827-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883641
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-SB4A-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 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: 14599 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

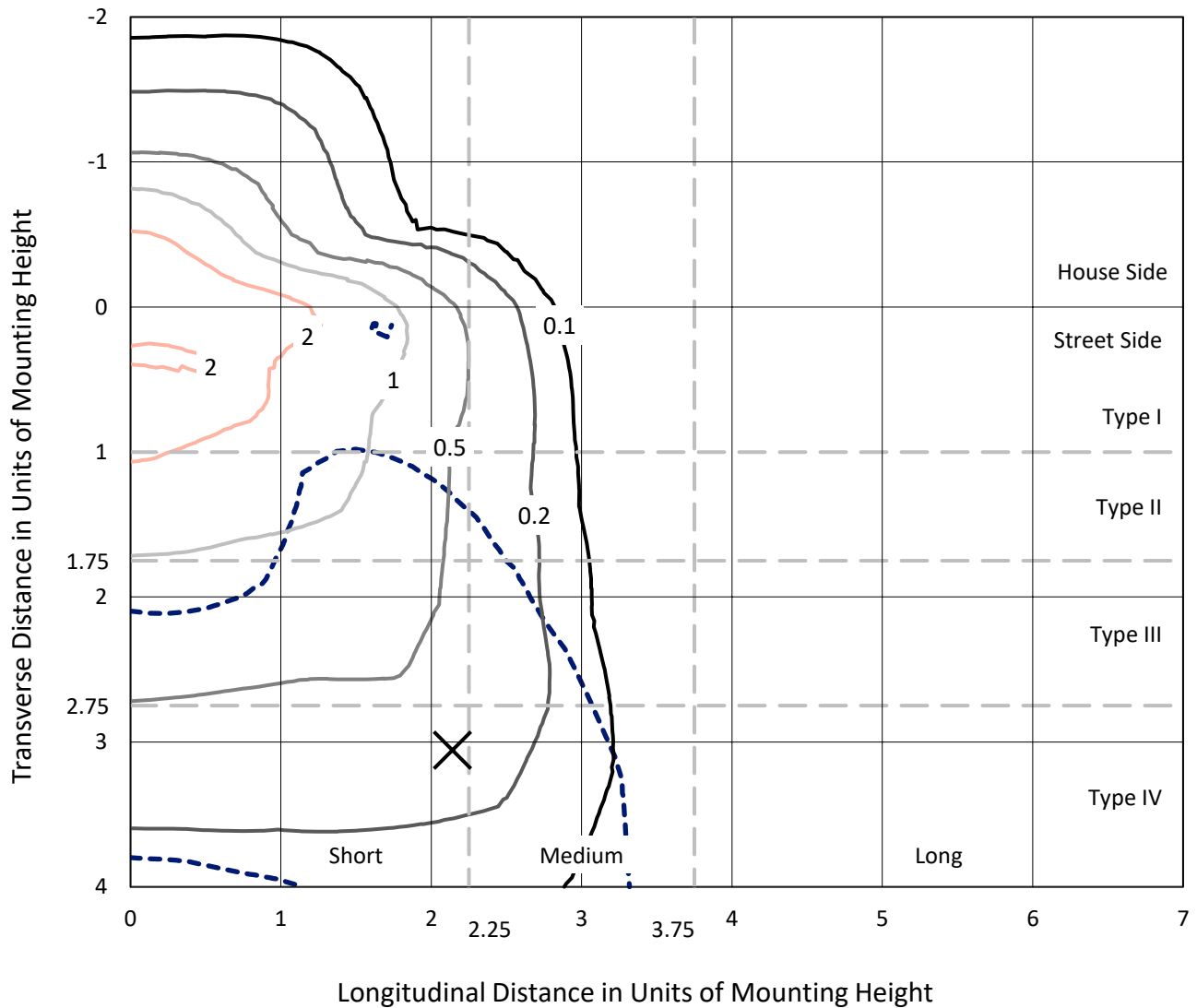
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883641
 CATALOG NUMBER: NAV-SB4A-827-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

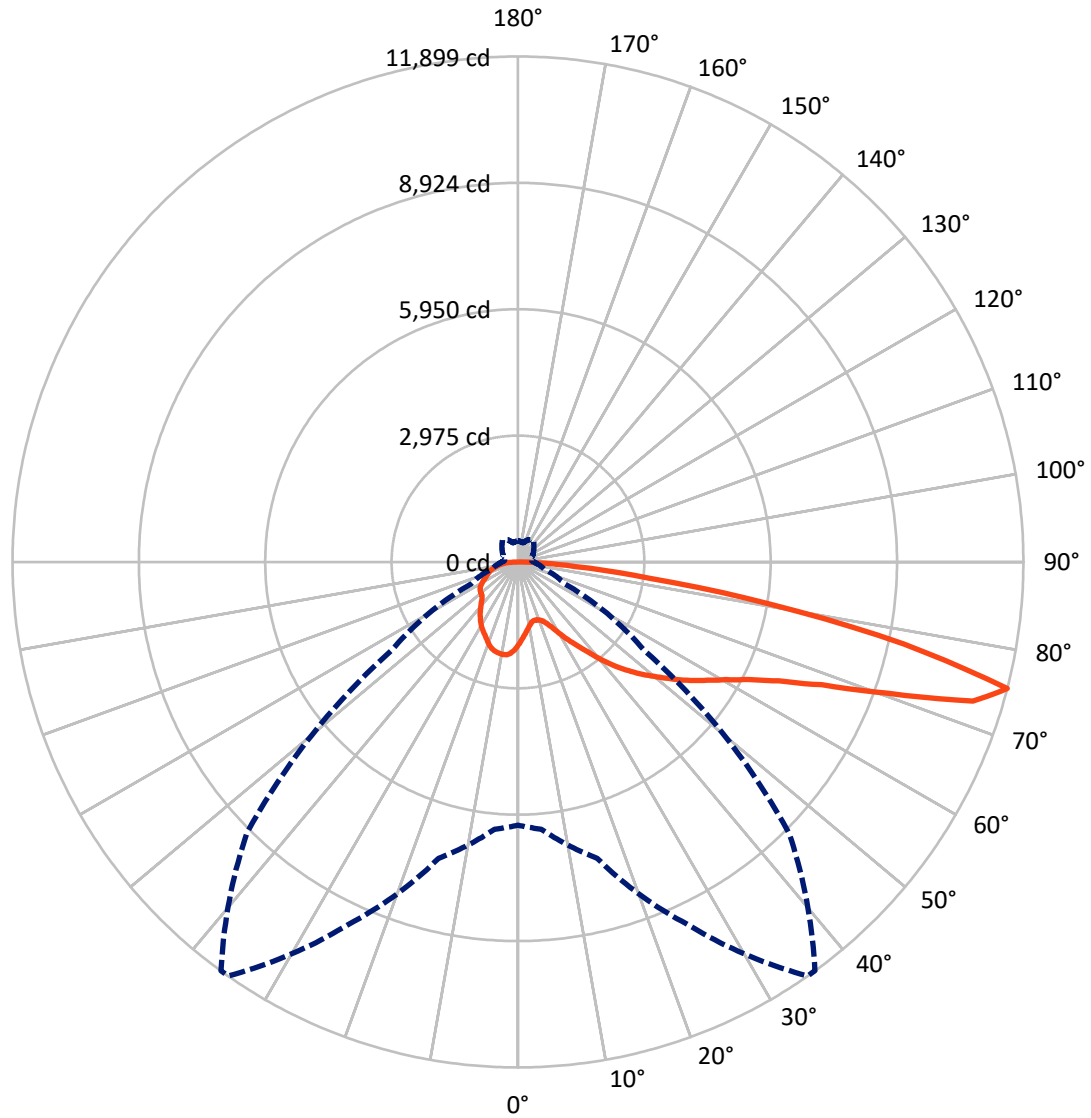
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - N/A

REPORT NUMBER: P883641
CATALOG NUMBER: NAV-SB4A-827-U-T4FT

Luminous Intensity Polar Plot



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

REPORT NUMBER: P883641
 CATALOG NUMBER: NAV-SB4A-827-U-T4FT

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3474.2	0.0	3474.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	11124.8	0.0	11124.8
	% Fixture	76.2	0.0	76.2
Total	Lumens	14599.0	0.0	14599.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.2	1.3
10°-20°	531.3	3.6
20°-30°	892.2	6.1
30°-40°	1386.6	9.5
40°-50°	2058.0	14.1
50°-60°	2841.2	19.5
60°-70°	3447.1	23.6
70°-80°	2848.7	19.5
80°-90°	409.7	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°	14599.0	100.0
0°-180°	14599.0	100.0

Coefficient of Utilization



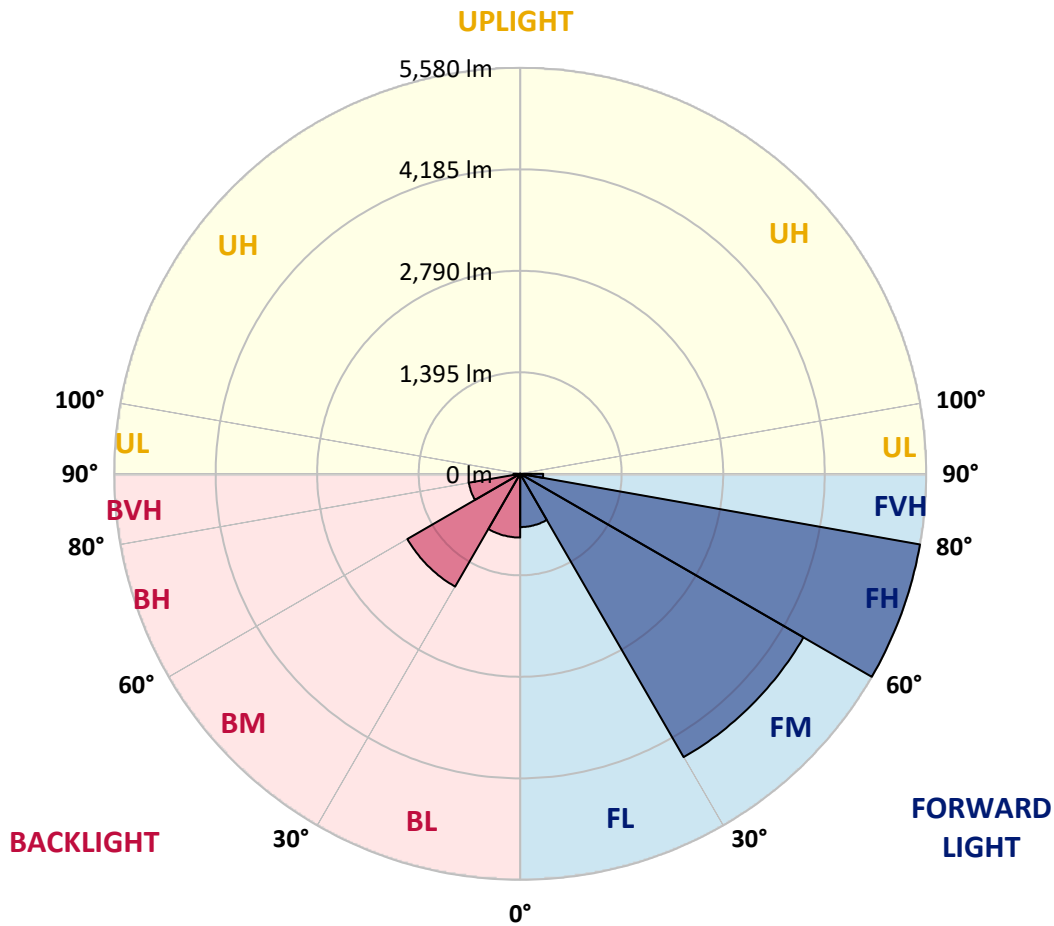
REPORT NUMBER: P883641
 CATALOG NUMBER: NAV-SB4A-827-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	732.1	5.0			
FM (30°-60°)	4495.7	30.8			
FH (60°-80°)	5579.5	38.2			G3/7500
FVH (80°-90°)	317.5	2.2			G3/500
BL (0°-30°)	875.5	6.0	B2/1000		
BM (30°-60°)	1790.1	12.3	B2/2500		
BH (60°-80°)	716.3	4.9	B2/1000		G2/1000
BVH (80°-90°)	92.3	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



REPORT NUMBER: P883641

CATALOG NUMBER: NAV-SB4A-827-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4
2.5°	1793.9	1804.9	1809.7	1807.3	1819.1	1817.6	1834.1	1854.7	1883.1	1910.7	1950.9
5°	1655.8	1667.6	1677.9	1687.3	1710.2	1717.3	1743.4	1782.8	1834.9	1887.8	1954.1
7.5°	1527.1	1537.4	1553.2	1570.5	1609.2	1616.3	1659.7	1721.3	1793.9	1871.2	1962.8
10°	1422.2	1432.4	1449.0	1468.7	1516.9	1525.6	1580.8	1662.9	1757.6	1855.4	1972.2
12.5°	1377.2	1380.3	1389.8	1409.5	1451.4	1456.9	1517.7	1611.6	1722.1	1843.6	1986.5
15°	1374.8	1381.1	1381.9	1392.2	1426.9	1429.3	1485.3	1578.4	1700.0	1841.2	2007.8
17.5°	1398.5	1403.2	1396.1	1402.4	1431.6	1435.6	1479.8	1562.6	1692.9	1851.5	2044.1
20°	1461.6	1465.6	1444.3	1435.6	1456.9	1460.0	1503.5	1572.9	1700.0	1872.8	2093.8
22.5°	1595.8	1598.2	1546.1	1510.6	1512.1	1513.7	1551.6	1614.7	1727.6	1911.5	2156.9
25°	1804.9	1803.4	1720.5	1651.8	1612.4	1603.7	1628.9	1682.6	1774.2	1962.8	2238.2
27.5°	2049.6	2037.8	1954.9	1852.3	1766.3	1753.6	1748.1	1771.0	1840.4	2030.7	2337.7
30°	2325.8	2314.8	2225.6	2091.4	1972.2	1951.7	1899.6	1887.8	1939.1	2123.0	2475.8
32.5°	2628.9	2621.8	2515.2	2352.7	2193.2	2169.6	2081.9	2050.4	2090.6	2262.7	2668.3
35°	2883.0	2876.7	2788.3	2621.0	2426.0	2396.8	2307.7	2272.2	2292.7	2441.8	2920.1
37.5°	3112.7	3109.5	3033.7	2901.9	2700.7	2665.2	2564.9	2553.1	2549.2	2677.8	3225.5
40°	3325.8	3317.9	3238.9	3169.5	3020.3	2988.0	2899.6	2889.3	2859.3	2968.2	3571.2
42.5°	3561.7	3541.2	3426.8	3394.4	3354.2	3327.3	3274.5	3276.0	3209.7	3295.8	3937.4
45°	3754.3	3742.5	3624.9	3605.9	3649.3	3638.3	3684.1	3695.9	3567.3	3639.1	4317.8
47.5°	3961.1	3950.0	3850.6	3837.2	3954.8	3957.9	4119.7	4123.6	3916.1	3995.8	4699.0
50°	4216.0	4200.2	4101.6	4118.1	4249.9	4261.8	4557.7	4530.9	4237.3	4358.0	5077.0
52.5°	4384.1	4393.6	4372.3	4399.1	4579.0	4590.1	4988.6	4920.0	4555.4	4715.6	5448.0
55°	4508.0	4526.9	4593.2	4654.8	4926.3	4937.3	5395.1	5290.1	4818.9	5047.0	5796.8
57.5°	4667.4	4640.6	4764.5	4884.5	5256.2	5285.4	5790.5	5646.8	5052.6	5332.7	6035.9
60°	4896.3	4877.4	4973.6	5151.2	5625.5	5672.1	6208.8	5968.0	5223.8	5559.2	6082.5
62.5°	5360.3	5313.0	5328.0	5485.0	6091.2	6152.7	6680.7	6248.2	5309.1	5647.6	5833.1
65°	6054.1	5972.8	5897.0	6005.9	6747.0	6807.8	7213.4	6468.4	5277.5	5476.4	5170.9
67.5°	6927.7	6847.2	6754.1	6856.7	7713.0	7761.1	7870.8	6592.3	5028.9	4816.6	4000.5
70°	7648.3	7618.3	7729.6	8151.8	9255.9	9257.5	8713.7	6489.7	4347.8	3414.9	2314.8
72.5°	7552.8	7534.6	8121.0	9426.4	11200.5	11158.7	9511.6	5713.1	2928.8	1540.5	867.3
75°	6196.1	6313.7	7222.1	9403.5	11899.0	11893.5	9023.1	3632.0	1211.4	638.5	448.3
77.5°	3322.6	3508.9	4688.7	6942.7	9289.1	9428.8	6343.7	1270.6	520.1	408.8	310.2
80°	1083.6	1246.2	1868.9	3534.9	6035.9	6009.9	2718.8	498.8	355.9	289.6	214.7
82.5°	460.1	479.1	835.0	1669.2	3097.7	3049.5	865.8	286.5	250.2	198.1	132.6
85°	179.9	201.2	368.6	771.9	1341.7	1312.5	312.5	142.1	160.2	129.4	78.9
87.5°	59.2	71.8	131.8	264.4	417.5	402.5	76.6	48.9	69.5	59.2	28.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P883641

CATALOG NUMBER: NAV-SB4A-827-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4	1945.4
2.5°	1962.0	1974.6	1989.6	2011.7	2030.7	2046.4	2063.0	2073.3	2077.2	2089.1	2088.3
5°	1976.2	2003.8	2040.9	2077.2	2112.7	2134.0	2153.0	2162.4	2171.1	2177.4	2179.0
7.5°	1999.9	2035.4	2093.8	2141.1	2171.1	2188.5	2201.1	2198.0	2201.1	2202.7	2205.1
10°	2020.4	2070.1	2139.6	2184.5	2207.4	2208.2	2205.1	2194.0	2188.5	2189.3	2190.9
12.5°	2044.9	2100.1	2175.1	2213.0	2219.3	2201.9	2188.5	2169.6	2162.4	2159.3	2157.7
15°	2078.0	2141.1	2213.7	2228.0	2212.2	2190.1	2167.2	2136.4	2120.6	2108.0	2111.9
17.5°	2118.3	2187.7	2243.7	2233.5	2199.5	2163.2	2126.1	2079.6	2047.2	2033.8	2034.6
20°	2174.3	2236.6	2266.6	2221.6	2170.3	2115.1	2052.0	1995.1	1965.1	1951.7	1950.2
22.5°	2242.2	2302.1	2288.7	2201.1	2128.5	2040.1	1961.2	1919.4	1904.4	1894.9	1896.5
25°	2323.4	2374.7	2304.5	2171.1	2059.9	1940.7	1879.9	1866.5	1859.4	1852.3	1852.3
27.5°	2429.2	2456.8	2316.3	2126.9	1952.5	1834.9	1812.8	1815.2	1812.8	1801.0	1803.4
30°	2568.9	2563.4	2327.4	2055.1	1829.4	1739.4	1741.0	1751.3	1752.8	1745.0	1748.9
32.5°	2752.8	2696.7	2332.9	1962.0	1711.8	1655.8	1657.4	1668.4	1676.3	1662.9	1669.2
35°	2975.3	2852.2	2324.2	1845.2	1621.0	1576.1	1564.2	1567.4	1569.7	1557.1	1565.8
37.5°	3235.0	3026.6	2285.6	1715.8	1546.1	1497.9	1472.7	1451.4	1438.7	1426.9	1434.8
40°	3519.9	3216.8	2214.5	1589.5	1462.4	1415.1	1377.2	1336.9	1294.3	1278.5	1285.6
42.5°	3818.2	3412.6	2128.5	1468.7	1366.1	1327.5	1287.2	1228.8	1164.9	1132.5	1136.5
45°	4127.6	3613.0	2044.1	1349.6	1267.5	1250.9	1204.3	1134.1	1064.7	1023.6	1020.5
47.5°	4430.7	3802.4	1920.2	1229.6	1175.1	1193.3	1157.0	1092.3	1014.9	950.2	943.1
50°	4720.3	3980.0	1717.3	1108.1	1100.2	1175.9	1141.2	1048.1	959.7	876.8	869.7
52.5°	5007.6	4123.6	1457.7	997.6	1059.9	1171.2	1120.7	1018.1	910.0	823.2	813.7
55°	5251.4	4197.8	1207.5	902.9	1001.5	1130.9	1096.2	982.6	839.7	747.4	739.5
57.5°	5390.3	4137.9	999.1	809.7	921.0	1064.7	1054.4	906.8	756.1	685.0	675.6
60°	5330.4	3894.8	828.7	728.4	844.5	992.8	981.8	831.8	692.1	625.1	615.6
62.5°	4999.7	3431.5	693.7	657.4	775.0	919.4	909.2	774.2	643.2	578.5	568.2
65°	4333.6	2791.5	588.8	598.2	704.8	831.0	846.0	726.1	604.5	541.4	531.1
67.5°	3305.2	2022.0	506.7	546.9	636.1	744.2	787.6	691.4	572.2	512.2	502.7
70°	1883.9	1148.3	437.2	497.2	575.3	663.7	742.7	663.7	537.5	487.7	481.4
72.5°	714.2	527.2	378.0	447.5	516.9	595.9	692.9	620.3	497.2	460.1	453.8
75°	381.2	321.2	318.1	389.1	449.9	529.6	630.6	577.7	467.2	486.2	501.9
77.5°	259.7	227.3	266.0	333.0	376.5	456.2	564.3	513.0	404.9	403.3	371.7
80°	179.9	161.0	216.2	268.3	291.2	383.6	492.5	440.4	329.9	307.8	294.4
82.5°	108.1	105.0	161.8	200.5	206.0	296.0	408.0	369.4	269.9	235.2	236.8
85°	59.2	62.3	103.4	117.6	120.0	206.8	319.6	285.7	207.6	174.4	176.0
87.5°	16.6	21.3	37.9	46.6	57.6	107.3	190.2	169.7	104.2	72.6	72.6
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)