

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: P882621

Luminaire Tested: **NAV-SB2C-827-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882621
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-SB2C-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 615mA 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: 12257 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

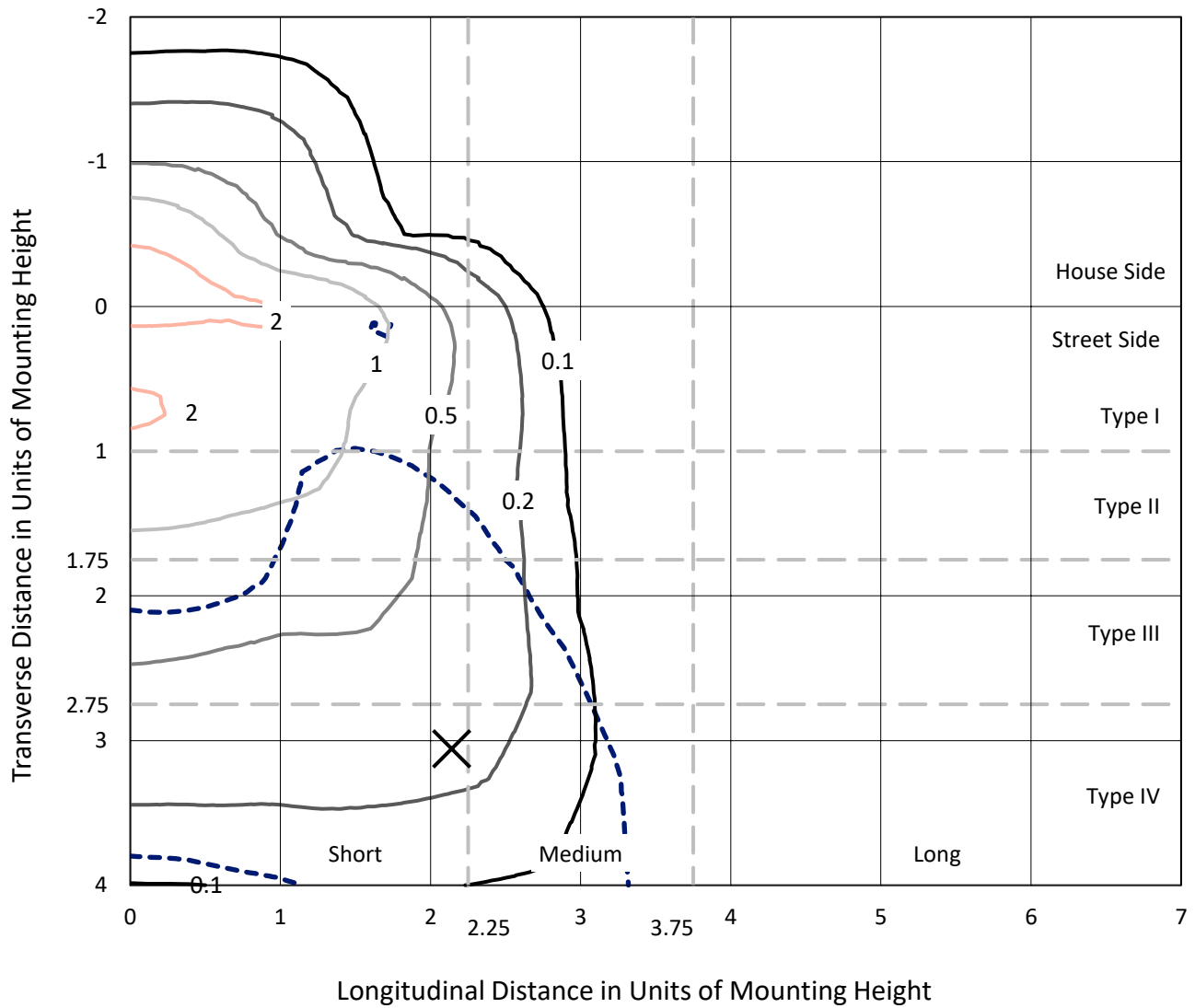
Input Watts (W): 100.9
Input Voltage (V): 120.0
Input Current (Ain): 0.857
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

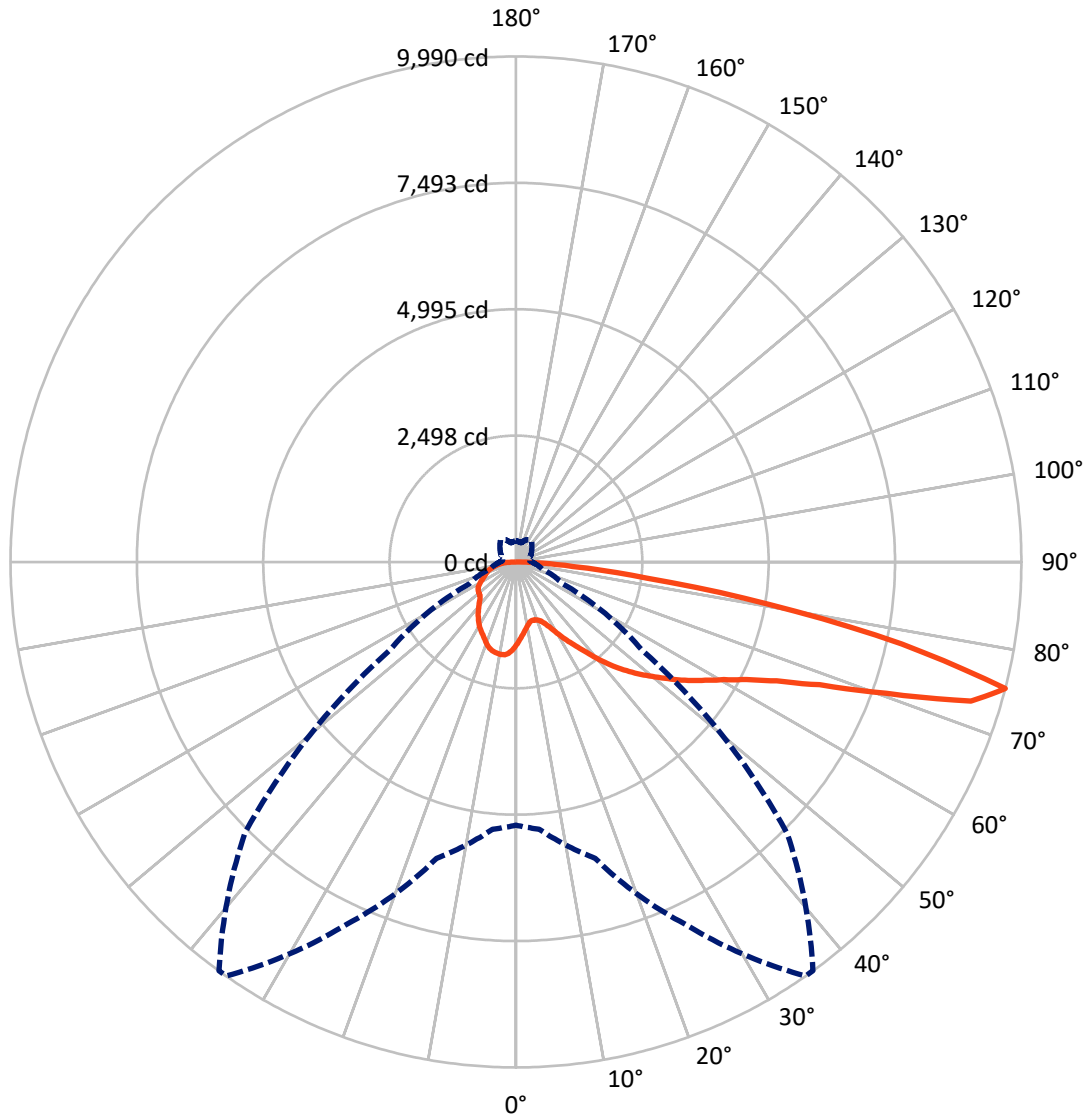
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 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	2916.9	0.0	2916.9
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	9340.1	0.0	9340.1
	% Fixture	76.2	0.0	76.2
Total	Lumens	12257.0	0.0	12257.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.6	1.3
10°-20°	446.1	3.6
20°-30°	749.0	6.1
30°-40°	1164.1	9.5
40°-50°	1727.9	14.1
50°-60°	2385.4	19.5
60°-70°	2894.1	23.6
70°-80°	2391.7	19.5
80°-90°	344.0	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°	12257.0	100.0
0°-180°	12257.0	100.0

Coefficient of Utilization



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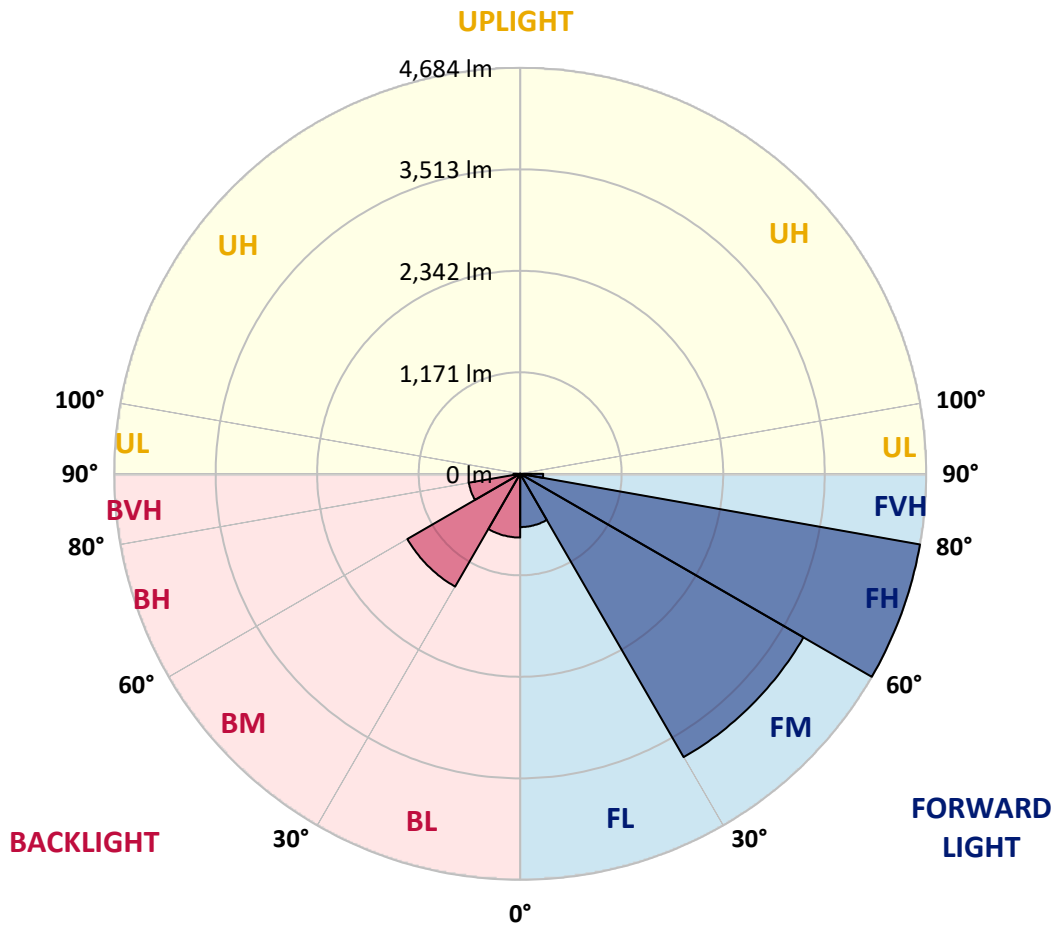
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	614.7	5.0			
FM (30°-60°)	3774.5	30.8			
FH (60°-80°)	4684.4	38.2			G2/5000
FVH (80°-90°)	266.5	2.2			G3/500
BL (0°-30°)	735.1	6.0	B2/1000		
BM (30°-60°)	1502.9	12.3	B2/2500		
BH (60°-80°)	601.4	4.9	B2/1000		G2/1000
BVH (80°-90°)	77.5	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°	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3
2.5°	1506.1	1515.4	1519.4	1517.4	1527.3	1526.0	1539.9	1557.1	1581.0	1604.2	1638.0
5°	1390.2	1400.1	1408.7	1416.7	1435.9	1441.8	1463.7	1496.8	1540.6	1585.0	1640.6
7.5°	1282.1	1290.8	1304.0	1318.6	1351.1	1357.0	1393.5	1445.1	1506.1	1571.0	1647.9
10°	1194.0	1202.6	1216.5	1233.1	1273.5	1280.8	1327.2	1396.1	1475.6	1557.8	1655.9
12.5°	1156.3	1158.9	1166.9	1183.4	1218.5	1223.2	1274.2	1353.0	1445.8	1547.9	1667.8
15°	1154.3	1159.6	1160.2	1168.8	1198.0	1200.0	1247.0	1325.2	1427.3	1545.9	1685.7
17.5°	1174.1	1178.1	1172.2	1177.5	1202.0	1205.3	1242.4	1312.0	1421.3	1554.5	1716.2
20°	1227.1	1230.5	1212.6	1205.3	1223.2	1225.8	1262.3	1320.6	1427.3	1572.4	1757.9
22.5°	1339.8	1341.8	1298.0	1268.2	1269.6	1270.9	1302.7	1355.7	1450.4	1604.8	1810.9
25°	1515.4	1514.1	1444.5	1386.8	1353.7	1346.4	1367.6	1412.7	1489.5	1647.9	1879.2
27.5°	1720.8	1710.9	1641.3	1555.1	1482.9	1472.3	1467.7	1486.9	1545.2	1704.9	1962.6
30°	1952.7	1943.4	1868.6	1755.9	1655.9	1638.6	1594.9	1585.0	1628.0	1782.4	2078.6
32.5°	2207.1	2201.2	2111.7	1975.2	1841.4	1821.5	1748.0	1721.5	1755.2	1899.7	2240.3
35°	2420.5	2415.2	2341.0	2200.5	2036.9	2012.3	1937.5	1907.6	1924.9	2050.1	2451.6
37.5°	2613.3	2610.7	2547.1	2436.4	2267.4	2237.6	2153.5	2143.5	2140.2	2248.2	2708.1
40°	2792.2	2785.6	2719.3	2661.0	2535.8	2508.6	2434.4	2425.8	2400.6	2492.1	2998.3
42.5°	2990.3	2973.1	2877.0	2849.9	2816.1	2793.6	2749.2	2750.5	2694.8	2767.1	3305.8
45°	3152.0	3142.1	3043.4	3027.5	3063.9	3054.6	3093.1	3103.0	2995.0	3055.3	3625.1
47.5°	3325.6	3316.4	3232.9	3221.6	3320.3	3323.0	3458.8	3462.1	3287.9	3354.8	3945.2
50°	3539.7	3526.4	3443.6	3457.5	3568.1	3578.1	3826.6	3804.0	3557.5	3658.9	4262.6
52.5°	3680.8	3688.7	3670.8	3693.4	3844.5	3853.7	4188.3	4130.7	3824.6	3959.1	4574.0
55°	3784.8	3800.7	3856.4	3908.1	4136.0	4145.3	4529.6	4441.5	4045.9	4237.4	4866.9
57.5°	3918.7	3896.1	4000.2	4100.9	4413.0	4437.5	4861.6	4741.0	4242.0	4477.2	5067.6
60°	4110.8	4094.9	4175.8	4324.8	4723.1	4762.2	5212.7	5010.6	4385.8	4667.4	5106.7
62.5°	4500.4	4460.7	4473.3	4605.1	5114.0	5165.7	5609.0	5245.9	4457.4	4741.6	4897.3
65°	5082.9	5014.6	4951.0	5042.4	5664.6	5715.7	6056.2	5430.7	4430.9	4597.8	4341.4
67.5°	5816.4	5748.8	5670.6	5756.7	6475.7	6516.1	6608.2	5534.8	4222.1	4043.9	3358.8
70°	6421.3	6396.2	6489.6	6844.1	7771.1	7772.4	7315.9	5448.6	3650.3	2867.1	1943.4
72.5°	6341.2	6325.9	6818.2	7914.2	9403.7	9368.6	7985.7	4796.6	2458.9	1293.4	728.2
75°	5202.1	5300.9	6063.5	7895.0	9990.1	9985.5	7575.6	3049.3	1017.1	536.0	376.4
77.5°	2789.6	2946.0	3936.6	5829.0	7798.9	7916.2	5326.0	1066.8	436.7	343.2	260.4
80°	909.8	1046.3	1569.1	2967.8	5067.6	5045.8	2282.7	418.8	298.8	243.2	180.2
82.5°	386.3	402.2	701.0	1401.4	2600.7	2560.3	726.9	240.5	210.0	166.3	111.3
85°	151.1	169.0	309.4	648.0	1126.4	1101.9	262.4	119.3	134.5	108.7	66.3
87.5°	49.7	60.3	110.7	222.0	350.5	337.9	64.3	41.1	58.3	49.7	23.9
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°	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3	1633.3
2.5°	1647.2	1657.8	1670.4	1689.0	1704.9	1718.1	1732.1	1740.7	1744.0	1753.9	1753.3
5°	1659.2	1682.4	1713.5	1744.0	1773.8	1791.7	1807.6	1815.5	1822.8	1828.1	1829.5
7.5°	1679.0	1708.9	1757.9	1797.7	1822.8	1837.4	1848.0	1845.4	1848.0	1849.3	1851.3
10°	1696.3	1738.0	1796.3	1834.1	1853.3	1854.0	1851.3	1842.0	1837.4	1838.1	1839.4
12.5°	1716.8	1763.2	1826.1	1858.0	1863.3	1848.7	1837.4	1821.5	1815.5	1812.9	1811.6
15°	1744.6	1797.7	1858.6	1870.5	1857.3	1838.7	1819.5	1793.7	1780.4	1769.8	1773.1
17.5°	1778.4	1836.7	1883.8	1875.2	1846.7	1816.2	1785.1	1746.0	1718.8	1707.5	1708.2
20°	1825.5	1877.8	1903.0	1865.2	1822.2	1775.8	1722.8	1675.1	1649.9	1638.6	1637.3
22.5°	1882.5	1932.8	1921.6	1848.0	1787.1	1712.8	1646.6	1611.5	1598.9	1590.9	1592.2
25°	1950.7	1993.8	1934.8	1822.8	1729.4	1629.4	1578.3	1567.1	1561.1	1555.1	1555.1
27.5°	2039.5	2062.7	1944.8	1785.7	1639.3	1540.6	1522.0	1524.0	1522.0	1512.1	1514.1
30°	2156.8	2152.2	1954.0	1725.4	1535.9	1460.4	1461.7	1470.3	1471.7	1465.0	1468.3
32.5°	2311.2	2264.1	1958.7	1647.2	1437.2	1390.2	1391.5	1400.8	1407.4	1396.1	1401.4
35°	2498.0	2394.7	1951.4	1549.2	1361.0	1323.2	1313.3	1315.9	1317.9	1307.3	1314.6
37.5°	2716.0	2541.1	1918.9	1440.5	1298.0	1257.6	1236.4	1218.5	1207.9	1198.0	1204.6
40°	2955.2	2700.8	1859.3	1334.5	1227.8	1188.1	1156.3	1122.5	1086.7	1073.4	1079.4
42.5°	3205.7	2865.1	1787.1	1233.1	1147.0	1114.5	1080.7	1031.7	978.0	950.8	954.2
45°	3465.4	3033.4	1716.2	1133.1	1064.1	1050.2	1011.1	952.2	893.9	859.4	856.8
47.5°	3719.9	3192.4	1612.1	1032.3	986.6	1001.9	971.4	917.0	852.1	797.8	791.8
50°	3963.1	3341.5	1441.8	930.3	923.7	987.3	958.1	879.9	805.7	736.2	730.2
52.5°	4204.2	3462.1	1223.8	837.5	889.9	983.3	940.9	854.8	764.0	691.1	683.1
55°	4409.0	3524.4	1013.8	758.0	840.8	949.5	920.4	824.9	705.0	627.5	620.9
57.5°	4525.6	3474.1	838.9	679.8	773.3	893.9	885.2	761.3	634.8	575.1	567.2
60°	4475.3	3270.0	695.7	611.6	709.0	833.6	824.3	698.4	581.1	524.8	516.8
62.5°	4197.6	2881.0	582.4	552.0	650.7	771.9	763.3	650.0	540.0	485.7	477.1
65°	3638.4	2343.6	494.3	502.3	591.7	697.7	710.3	609.6	507.6	454.5	445.9
67.5°	2775.0	1697.6	425.4	459.2	534.1	624.8	661.3	580.4	480.4	430.0	422.1
70°	1581.6	964.1	367.1	417.4	483.0	557.3	623.5	557.3	451.2	409.5	404.2
72.5°	599.7	442.6	317.4	375.7	434.0	500.3	581.8	520.8	417.4	386.3	381.0
75°	320.0	269.7	267.0	326.7	377.7	444.6	529.4	485.0	392.3	408.2	421.4
77.5°	218.0	190.8	223.3	279.6	316.1	383.0	473.8	430.7	339.9	338.6	312.1
80°	151.1	135.2	181.6	225.3	244.5	322.0	413.5	369.7	277.0	258.4	247.2
82.5°	90.8	88.1	135.8	168.3	172.9	248.5	342.6	310.1	226.6	197.5	198.8
85°	49.7	52.3	86.8	98.7	100.7	173.6	268.4	239.9	174.3	146.4	147.8
87.5°	13.9	17.9	31.8	39.1	48.4	90.1	159.7	142.5	87.5	61.0	61.0
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)