

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: P883131

Luminaire Tested: **NAV-SB3B-827-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883131
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-SB3B-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 450mA 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: 13564 lumens
Efficiency: N/A
Efficacy: 124.2 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

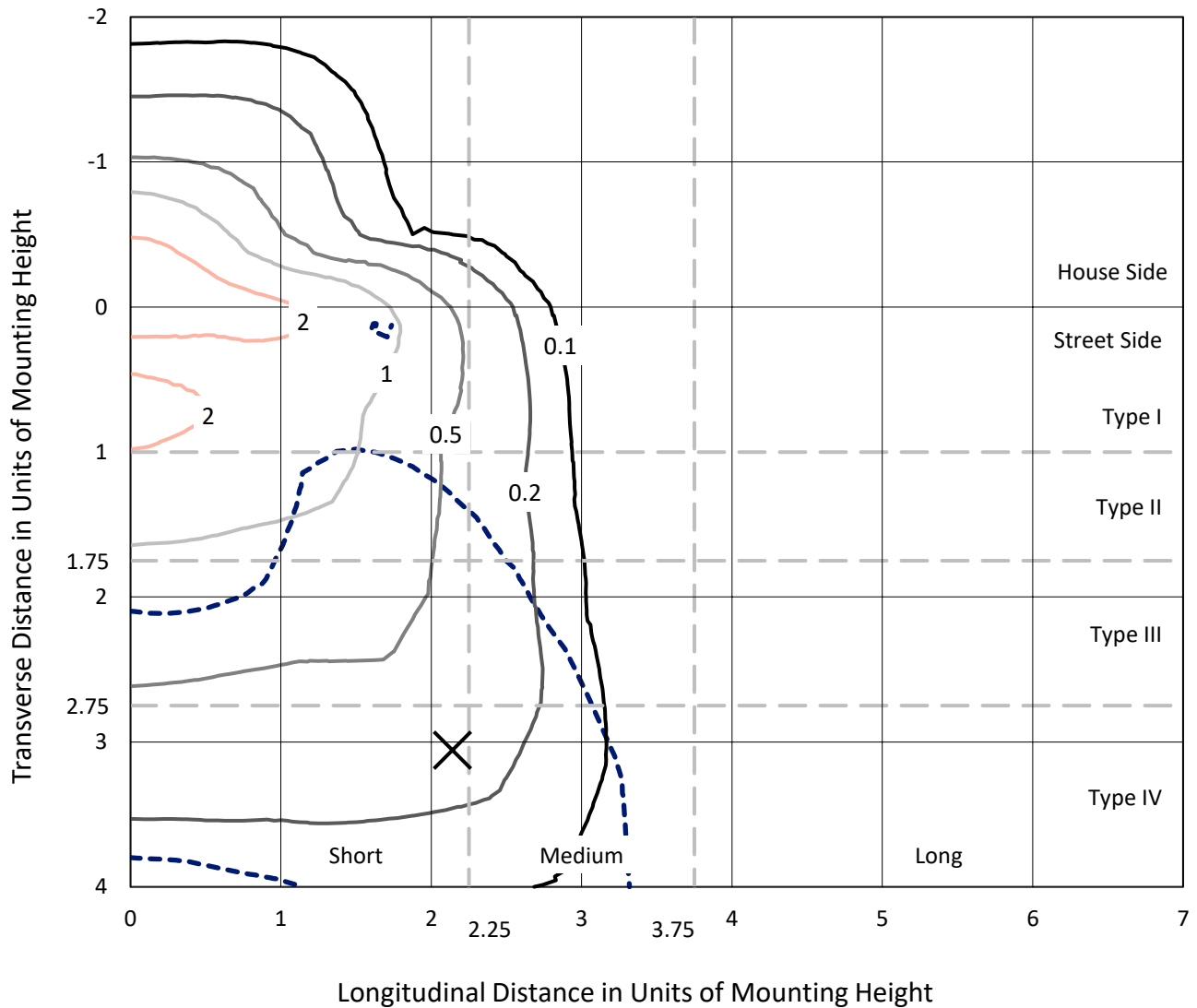
Input Watts (W): 109.2
Input Voltage (V): 120.0
Input Current (Ain): 0.919
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.657
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

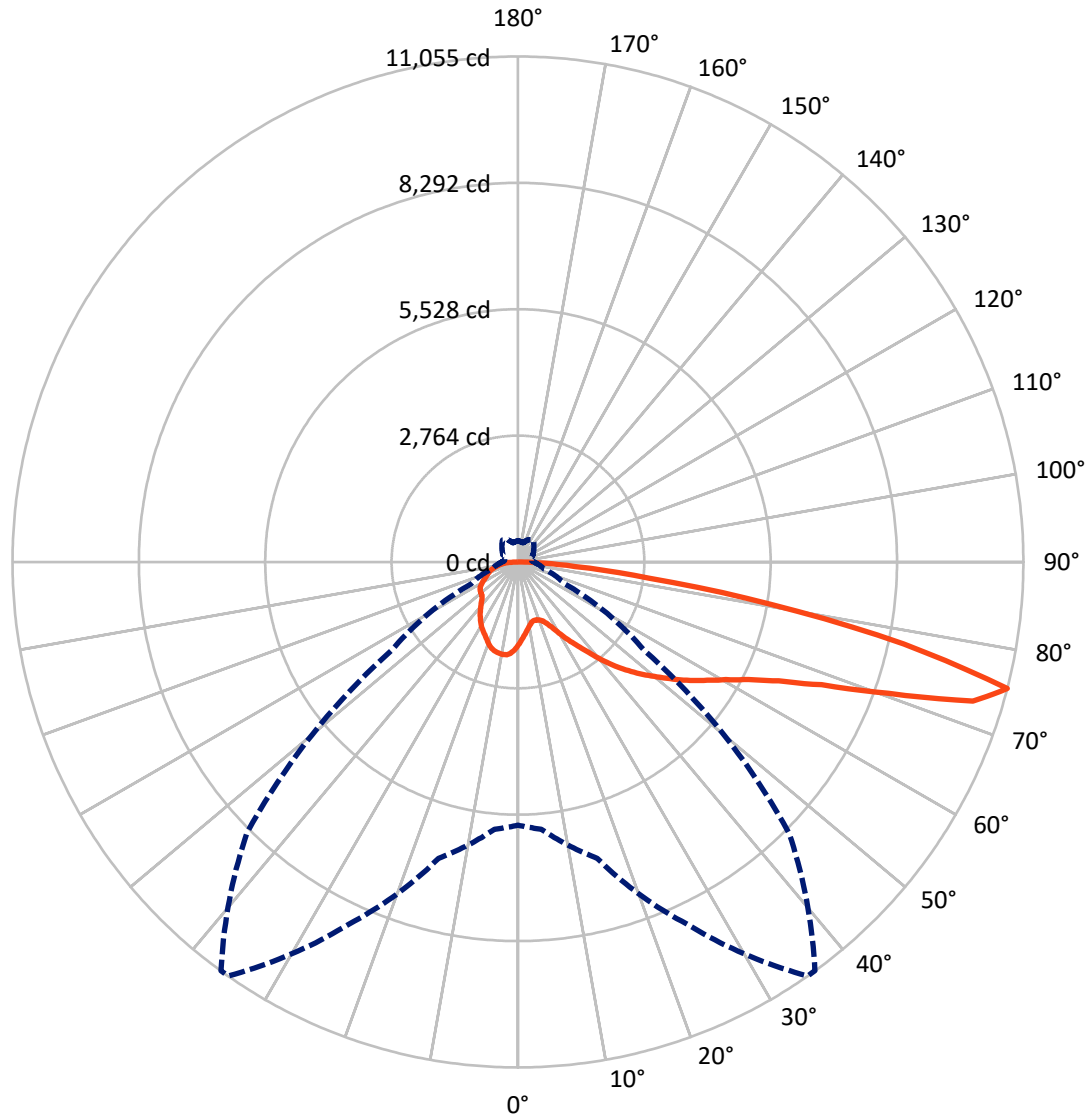
× Max cd
 - - - 1/2 Max cd



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



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3227.9	0.0	3227.9
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	10336.1	0.0	10336.1
	% Fixture	76.2	0.0	76.2
Total	Lumens	13564.0	0.0	13564.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.1	1.3
10°-20°	493.6	3.6
20°-30°	828.9	6.1
30°-40°	1288.3	9.5
40°-50°	1912.1	14.1
50°-60°	2639.8	19.5
60°-70°	3202.7	23.6
70°-80°	2646.8	19.5
80°-90°	380.7	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°	13564.0	100.0
0°-180°	13564.0	100.0

Coefficient of Utilization



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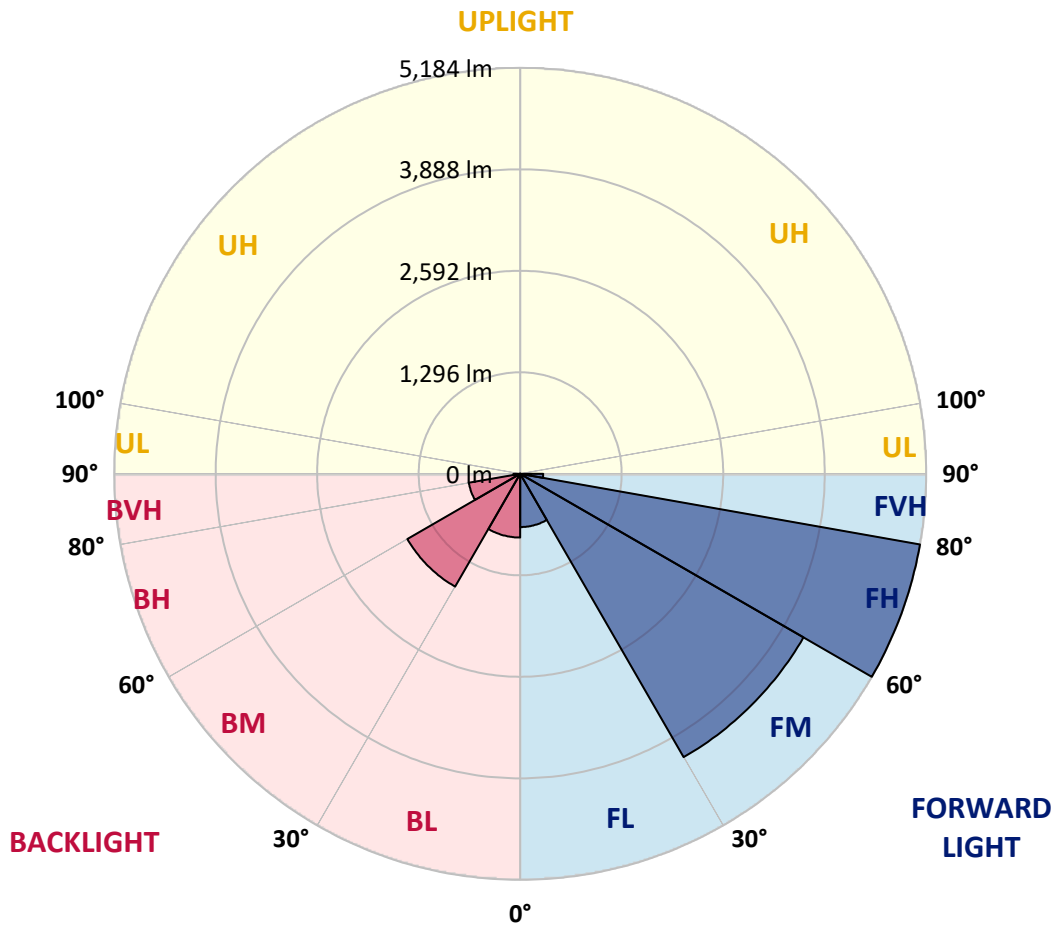
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	680.2	5.0			
FM (30°-60°)	4177.0	30.8			
FH (60°-80°)	5184.0	38.2			G3/7500
FVH (80°-90°)	295.0	2.2			G3/500
BL (0°-30°)	813.5	6.0	B2/1000		
BM (30°-60°)	1663.2	12.3	B2/2500		
BH (60°-80°)	665.5	4.9	B2/1000		G2/1000
BVH (80°-90°)	85.7	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°	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5
2.5°	1666.7	1677.0	1681.4	1679.2	1690.2	1688.7	1704.1	1723.2	1749.6	1775.2	1812.6
5°	1538.4	1549.4	1558.9	1567.7	1589.0	1595.6	1619.8	1656.4	1704.8	1754.0	1815.6
7.5°	1418.9	1428.4	1443.1	1459.2	1495.1	1501.7	1542.1	1599.2	1666.7	1738.6	1823.6
10°	1321.3	1330.9	1346.3	1364.6	1409.3	1417.4	1468.7	1545.0	1633.0	1723.9	1832.4
12.5°	1279.5	1282.5	1291.3	1309.6	1348.5	1353.6	1410.1	1497.3	1600.0	1712.9	1845.6
15°	1277.3	1283.2	1283.9	1293.5	1325.7	1327.9	1380.0	1466.5	1579.4	1710.7	1865.4
17.5°	1299.3	1303.7	1297.1	1303.0	1330.1	1333.8	1374.9	1451.9	1572.9	1720.2	1899.2
20°	1358.0	1361.7	1341.9	1333.8	1353.6	1356.5	1396.9	1461.4	1579.4	1740.0	1945.3
22.5°	1482.7	1484.9	1436.5	1403.5	1404.9	1406.4	1441.6	1500.3	1605.1	1776.0	2004.0
25°	1677.0	1675.5	1598.5	1534.7	1498.1	1490.0	1513.5	1563.3	1648.4	1823.6	2079.5
27.5°	1904.3	1893.3	1816.3	1721.0	1641.0	1629.3	1624.2	1645.4	1710.0	1886.7	2171.9
30°	2160.9	2150.7	2067.8	1943.1	1832.4	1813.4	1765.0	1754.0	1801.6	1972.5	2300.2
32.5°	2442.5	2435.9	2336.9	2185.9	2037.7	2015.7	1934.3	1905.0	1942.4	2102.3	2479.2
35°	2678.6	2672.7	2590.6	2435.2	2254.1	2226.9	2144.1	2111.1	2130.1	2268.7	2713.1
37.5°	2892.0	2889.1	2818.7	2696.2	2509.2	2476.2	2383.1	2372.1	2368.4	2488.0	2996.8
40°	3090.0	3082.6	3009.3	2944.8	2806.2	2776.1	2694.0	2684.5	2656.6	2757.8	3318.0
42.5°	3309.2	3290.2	3183.8	3153.8	3116.4	3091.4	3042.3	3043.8	2982.2	3062.1	3658.3
45°	3488.1	3477.1	3367.9	3350.3	3390.6	3380.3	3422.9	3433.9	3314.4	3381.1	4011.7
47.5°	3680.2	3670.0	3577.6	3565.1	3674.4	3677.3	3827.6	3831.3	3638.5	3712.5	4365.9
50°	3917.1	3902.4	3810.8	3826.2	3948.6	3959.6	4234.6	4209.7	3936.9	4049.1	4717.1
52.5°	4073.3	4082.1	4062.3	4087.2	4254.4	4264.7	4635.0	4571.2	4232.4	4381.2	5061.7
55°	4188.4	4206.0	4267.6	4324.8	4577.0	4587.3	5012.6	4915.1	4477.3	4689.2	5385.8
57.5°	4336.5	4311.6	4426.7	4538.2	4883.5	4910.7	5380.0	5246.5	4694.4	4954.7	5608.0
60°	4549.2	4531.6	4621.0	4786.0	5226.7	5270.0	5768.6	5544.9	4853.5	5165.1	5651.3
62.5°	4980.3	4936.3	4950.3	5096.2	5659.3	5716.5	6207.1	5805.2	4932.7	5247.2	5419.6
65°	5624.9	5549.3	5478.9	5580.1	6268.7	6325.1	6702.0	6009.8	4903.3	5088.1	4804.3
67.5°	6436.6	6361.8	6275.3	6370.6	7166.2	7210.9	7312.8	6125.0	4672.4	4475.1	3716.9
70°	7106.1	7078.2	7181.6	7573.9	8599.7	8601.2	8096.0	6029.6	4039.5	3172.8	2150.7
72.5°	7017.3	7000.5	7545.3	8758.1	10406.5	10367.6	8837.3	5308.1	2721.1	1431.3	805.9
75°	5756.9	5866.1	6710.1	8736.8	11055.4	11050.3	8383.4	3374.5	1125.6	593.2	416.5
77.5°	3087.0	3260.1	4356.3	6450.5	8630.5	8760.3	5894.0	1180.6	483.2	379.8	288.2
80°	1006.8	1157.8	1736.4	3284.3	5608.0	5583.8	2526.1	463.4	330.7	269.1	199.4
82.5°	427.5	445.1	775.8	1550.9	2878.1	2833.3	804.4	266.2	232.4	184.0	123.2
85°	167.2	187.0	342.4	717.1	1246.5	1219.4	290.4	132.0	148.9	120.3	73.3
87.5°	55.0	66.7	122.5	245.6	387.9	374.0	71.1	45.5	64.5	55.0	26.4
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°	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5	1807.5
2.5°	1822.9	1834.6	1848.6	1869.1	1886.7	1901.4	1916.8	1926.3	1929.9	1940.9	1940.2
5°	1836.1	1861.8	1896.2	1929.9	1962.9	1982.7	2000.3	2009.1	2017.2	2023.1	2024.5
7.5°	1858.1	1891.1	1945.3	1989.3	2017.2	2033.3	2045.1	2042.1	2045.1	2046.5	2048.7
10°	1877.2	1923.4	1987.9	2029.7	2050.9	2051.7	2048.7	2038.5	2033.3	2034.1	2035.5
12.5°	1899.9	1951.2	2020.9	2056.1	2061.9	2045.8	2033.3	2015.7	2009.1	2006.2	2004.7
15°	1930.7	1989.3	2056.8	2070.0	2055.3	2034.8	2013.5	1984.9	1970.3	1958.5	1962.2
17.5°	1968.1	2032.6	2084.7	2075.1	2043.6	2009.9	1975.4	1932.1	1902.1	1889.6	1890.4
20°	2020.1	2078.1	2105.9	2064.1	2016.5	1965.1	1906.5	1853.7	1825.8	1813.4	1811.9
22.5°	2083.2	2138.9	2126.5	2045.1	1977.6	1895.5	1822.2	1783.3	1769.4	1760.6	1762.0
25°	2158.7	2206.4	2141.1	2017.2	1913.8	1803.1	1746.6	1734.2	1727.6	1721.0	1721.0
27.5°	2257.0	2282.6	2152.1	1976.1	1814.1	1704.8	1684.3	1686.5	1684.3	1673.3	1675.5
30°	2386.8	2381.6	2162.4	1909.4	1699.7	1616.1	1617.6	1627.1	1628.6	1621.2	1624.9
32.5°	2557.6	2505.6	2167.5	1822.9	1590.4	1538.4	1539.9	1550.1	1557.5	1545.0	1550.9
35°	2764.4	2650.0	2159.5	1714.4	1506.1	1464.3	1453.3	1456.3	1458.5	1446.7	1454.8
37.5°	3005.6	2812.1	2123.5	1594.1	1436.5	1391.7	1368.3	1348.5	1336.7	1325.7	1333.1
40°	3270.4	2988.8	2057.5	1476.8	1358.7	1314.7	1279.5	1242.1	1202.6	1187.9	1194.5
42.5°	3547.5	3170.6	1977.6	1364.6	1269.3	1233.3	1196.0	1141.7	1082.3	1052.2	1055.9
45°	3835.0	3356.9	1899.2	1253.9	1177.6	1162.2	1119.0	1053.7	989.2	951.0	948.1
47.5°	4116.5	3532.9	1784.0	1142.4	1091.8	1108.7	1075.0	1014.8	943.0	882.8	876.2
50°	4385.6	3697.8	1595.6	1029.5	1022.2	1092.6	1060.3	973.8	891.6	814.7	808.1
52.5°	4652.6	3831.3	1354.3	926.8	984.8	1088.2	1041.2	945.9	845.5	764.8	756.0
55°	4879.1	3900.2	1121.9	838.9	930.5	1050.8	1018.5	912.9	780.2	694.4	687.1
57.5°	5008.2	3844.5	928.3	752.3	855.7	989.2	979.6	842.5	702.5	636.5	627.7
60°	4952.5	3618.7	769.9	676.8	784.6	922.4	912.2	772.9	643.1	580.7	571.9
62.5°	4645.2	3188.2	644.5	610.8	720.1	854.3	844.7	719.3	597.6	537.5	527.9
65°	4026.4	2593.6	547.0	555.8	654.8	772.1	786.1	674.6	561.7	503.0	493.5
67.5°	3070.9	1878.6	470.8	508.2	591.0	691.5	731.8	642.3	531.6	475.9	467.1
70°	1750.3	1066.9	406.2	462.0	534.5	616.7	690.0	616.7	499.4	453.2	447.3
72.5°	663.6	489.8	351.2	415.8	480.3	553.6	643.8	576.3	462.0	427.5	421.6
75°	354.2	298.4	295.5	361.5	418.0	492.0	585.9	536.7	434.1	451.7	466.4
77.5°	241.2	211.2	247.1	309.4	349.8	423.8	524.3	476.6	376.2	374.7	345.4
80°	167.2	149.6	200.9	249.3	270.6	356.4	457.6	409.2	306.5	286.0	273.5
82.5°	100.5	97.5	150.3	186.2	191.4	275.0	379.1	343.2	250.8	218.5	220.0
85°	55.0	57.9	96.1	109.3	111.5	192.1	297.0	265.4	192.8	162.1	163.5
87.5°	15.4	19.8	35.2	43.3	53.5	99.7	176.7	157.7	96.8	67.5	67.5
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)