

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: P883649

Luminaire Tested: **NAV-SB4A-830-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883649
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-830-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15918 lumens
Efficiency: N/A
Efficacy: 139.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

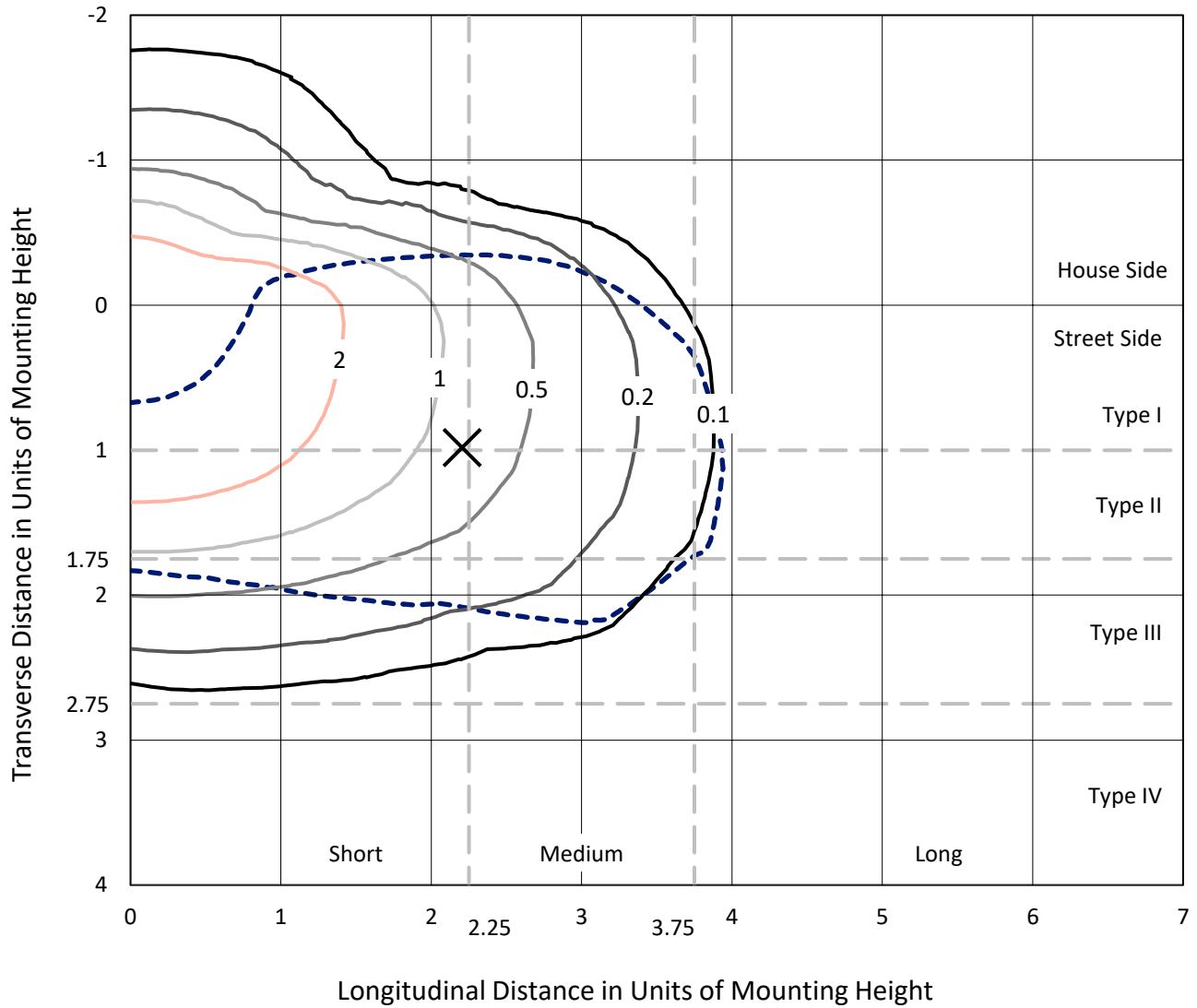
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

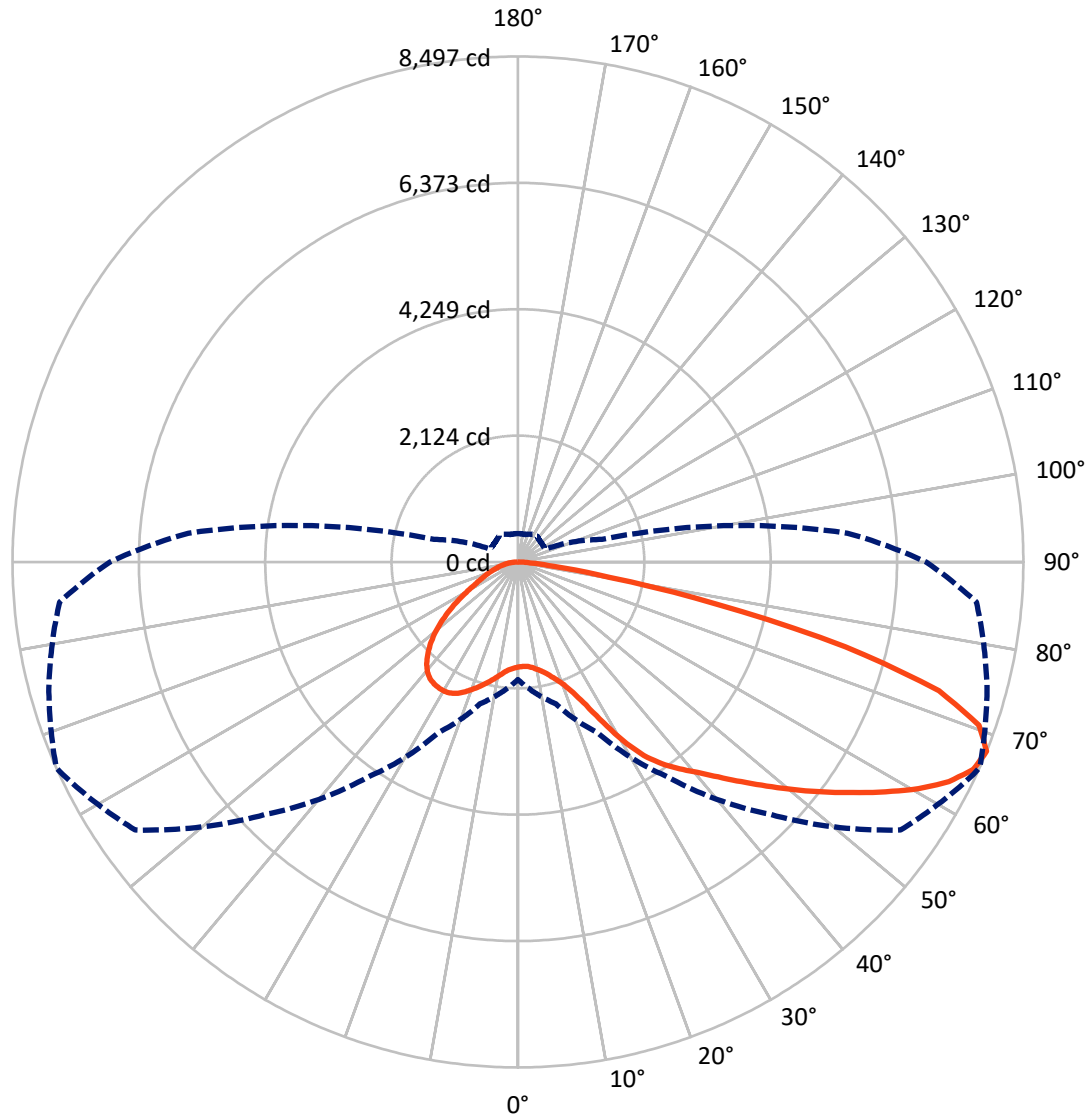
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3958.0	0.0	3958.0
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	11960.0	0.0	11960.0
	% Fixture	75.1	0.0	75.1
Total	Lumens	15918.0	0.0	15918.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.0	1.1
10°-20°	578.3	3.6
20°-30°	1114.7	7.0
30°-40°	1954.5	12.3
40°-50°	2905.6	18.3
50°-60°	3683.2	23.1
60°-70°	3603.9	22.6
70°-80°	1719.1	10.8
80°-90°	183.7	1.2
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°	15918.0	100.0
0°-180°	15918.0	100.0

Coefficient of Utilization



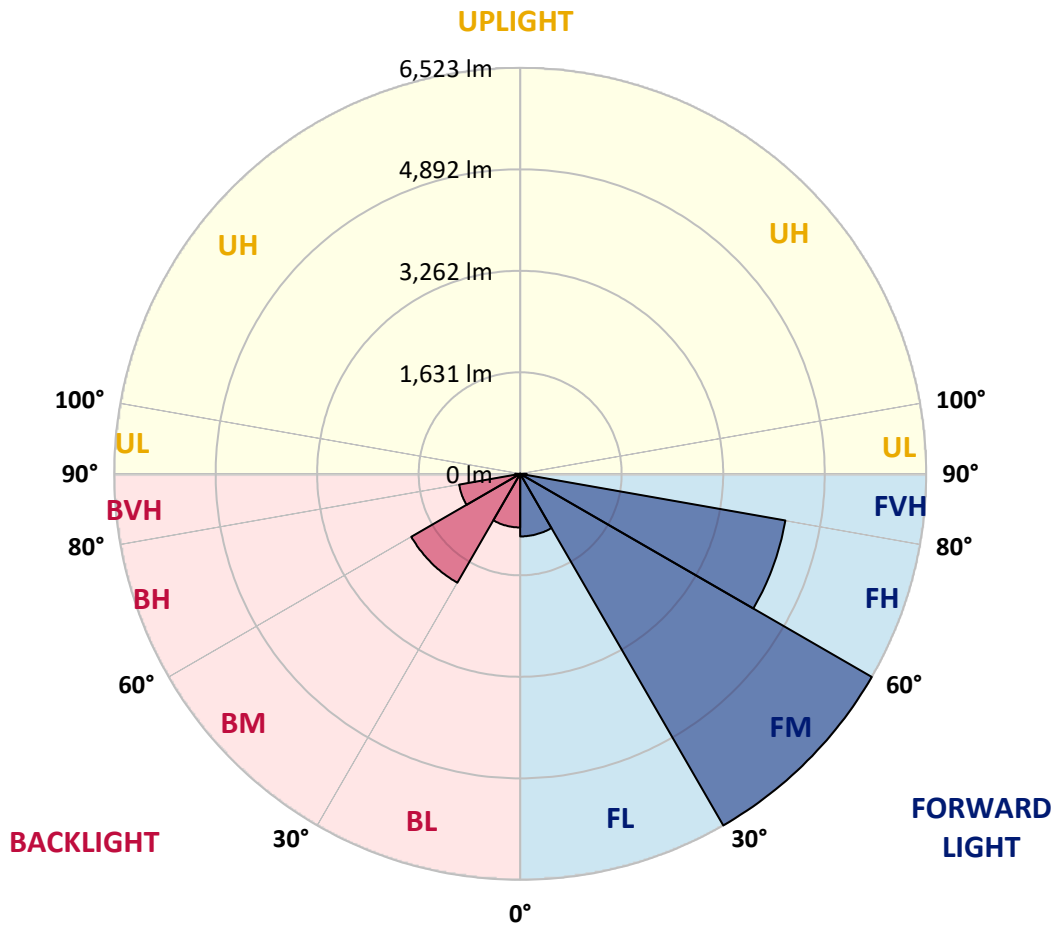
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1005.9	6.3			
FM (30°-60°)	6523.1	41.0			
FH (60°-80°)	4326.9	27.2			G2/5000
FVH (80°-90°)	104.2	0.7			G2/225
BL (0°-30°)	862.2	5.4	B2/1000		
BM (30°-60°)	2020.2	12.7	B2/2500		
BH (60°-80°)	996.0	6.3	B2/1000		G2/1000
BVH (80°-90°)	79.6	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5
2.5°	1747.1	1757.2	1754.6	1750.5	1749.6	1751.3	1753.8	1756.3	1755.5	1759.7	1766.4
5°	1742.1	1752.1	1751.3	1751.3	1754.6	1761.3	1765.5	1769.7	1765.5	1770.5	1779.7
7.5°	1745.4	1753.0	1756.3	1759.7	1768.0	1780.6	1790.6	1799.8	1794.8	1800.6	1812.4
10°	1788.1	1794.0	1797.3	1797.3	1803.2	1817.4	1827.4	1844.1	1840.0	1849.2	1864.2
12.5°	1865.9	1871.7	1871.7	1868.4	1872.6	1881.8	1885.1	1903.5	1896.0	1911.0	1926.1
15°	1961.2	1972.9	1963.7	1957.9	1959.5	1968.7	1967.9	1982.1	1974.6	1987.1	2000.5
17.5°	2066.6	2081.7	2066.6	2065.8	2062.4	2072.5	2073.3	2085.8	2072.5	2081.7	2090.9
20°	2191.2	2212.1	2199.6	2203.8	2196.2	2200.4	2204.6	2223.0	2202.1	2208.8	2206.3
22.5°	2366.8	2391.9	2378.6	2394.4	2389.4	2386.1	2385.2	2417.9	2385.2	2387.8	2363.5
25°	2622.8	2652.9	2629.5	2651.2	2651.2	2662.1	2674.6	2716.4	2662.1	2646.2	2583.5
27.5°	3000.8	3030.9	2984.9	2998.3	2994.1	3020.9	3007.5	3111.2	3052.6	3026.7	2900.4
30°	3455.8	3509.3	3422.3	3419.0	3414.8	3457.4	3476.7	3545.3	3485.9	3459.9	3307.7
32.5°	3947.5	4003.6	3899.9	3869.8	3853.9	3879.8	3863.9	3919.1	3878.1	3838.0	3649.8
35°	4467.7	4522.9	4424.2	4365.7	4302.1	4247.8	4190.9	4205.1	4166.7	4105.6	3910.7
37.5°	4959.5	5060.7	4956.2	4893.4	4776.3	4670.1	4511.2	4445.2	4409.2	4353.2	4156.6
40°	5460.5	5518.2	5438.7	5385.2	5258.1	5091.6	4837.4	4697.7	4649.2	4594.9	4428.4
42.5°	5829.3	5884.5	5841.8	5805.0	5705.5	5512.3	5183.6	5008.8	4938.6	4877.5	4736.2
45°	6122.0	6163.0	6136.2	6149.6	6107.0	5919.6	5542.4	5342.5	5269.8	5195.4	5084.1
47.5°	6239.9	6283.4	6326.1	6405.5	6478.3	6340.3	5928.0	5703.8	5626.9	5550.8	5441.2
50°	6226.6	6270.9	6394.7	6563.6	6789.4	6743.4	6334.4	6088.6	6017.5	5930.5	5829.3
52.5°	6119.5	6169.7	6328.6	6609.6	6969.2	7045.3	6748.4	6485.8	6418.9	6315.2	6214.0
55°	5838.5	5868.6	6107.0	6505.1	7011.9	7256.1	7154.1	6909.0	6842.1	6697.4	6587.0
57.5°	5317.5	5360.9	5708.0	6223.2	6904.8	7399.1	7510.3	7353.9	7289.6	7081.3	6965.9
60°	4637.5	4706.9	5104.2	5749.8	6632.2	7398.3	7834.0	7791.4	7737.8	7459.3	7338.9
62.5°	3868.1	3948.4	4330.6	5080.8	6155.5	7188.4	8036.4	8157.7	8130.1	7808.1	7654.2
65°	2970.7	3025.9	3406.4	4215.2	5413.6	6737.6	8059.8	8407.7	8412.8	8073.2	7819.0
67.5°	1977.9	2136.9	2467.2	3163.0	4420.1	6000.7	7854.1	8448.7	8497.2	8164.4	7736.2
70°	965.1	1174.2	1497.9	2055.7	3163.0	4870.9	7316.3	8112.5	8220.4	7898.4	7242.7
72.5°	400.6	468.4	644.8	1014.5	1815.7	3286.8	6235.8	7200.9	7400.8	6998.5	6089.4
75°	270.1	292.7	368.8	520.2	827.1	1620.8	4497.0	5369.3	5691.3	5285.7	4320.5
77.5°	208.2	222.5	268.5	363.8	491.8	613.0	2407.0	3235.8	3402.2	3149.7	2248.1
80°	163.9	174.8	200.7	265.1	348.8	327.8	820.5	1466.1	1562.3	1310.5	722.6
82.5°	142.2	146.4	143.9	179.8	231.7	191.5	269.3	541.1	597.1	433.2	235.8
85°	102.9	114.6	119.6	111.2	122.9	97.0	110.4	191.5	210.8	188.2	133.0
87.5°	41.8	61.9	76.1	71.9	45.2	27.6	34.3	56.0	64.4	70.3	43.5
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°	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5	1765.5
2.5°	1767.2	1773.0	1777.2	1782.2	1785.6	1790.6	1800.6	1806.5	1807.3	1811.5	1810.7
5°	1783.1	1791.4	1800.6	1814.0	1829.1	1841.6	1860.9	1874.2	1879.3	1883.4	1882.6
7.5°	1817.4	1829.1	1845.8	1869.2	1891.0	1907.7	1931.1	1947.0	1962.9	1968.7	1969.6
10°	1868.4	1885.1	1909.4	1941.1	1964.6	1986.3	2010.6	2023.9	2039.8	2046.5	2049.9
12.5°	1931.9	1949.5	1981.3	2025.6	2047.4	2062.4	2070.8	2067.4	2070.8	2076.6	2078.3
15°	2004.7	2023.9	2059.9	2107.6	2122.6	2109.3	2090.9	2074.1	2071.6	2073.3	2079.1
17.5°	2090.9	2105.1	2146.9	2187.0	2176.2	2121.0	2080.8	2054.1	2040.7	2036.5	2042.3
20°	2211.3	2211.3	2245.6	2270.7	2197.9	2104.2	2041.5	1998.0	1970.4	1958.7	1956.2
22.5°	2357.6	2344.3	2366.0	2348.4	2193.7	2057.4	1970.4	1895.1	1853.3	1836.6	1834.1
25°	2543.3	2527.4	2521.6	2412.8	2163.6	1983.0	1841.6	1750.5	1713.7	1704.5	1706.1
27.5°	2823.5	2783.3	2707.2	2448.0	2108.4	1865.9	1691.1	1606.6	1585.7	1586.5	1589.0
30°	3196.5	3116.2	2929.7	2453.8	2018.1	1700.3	1537.2	1477.0	1466.9	1471.1	1485.3
32.5°	3541.9	3465.8	3157.2	2427.1	1879.3	1538.0	1399.2	1359.1	1344.0	1349.0	1355.7
35°	3812.9	3792.0	3367.9	2389.4	1708.6	1385.8	1275.4	1241.1	1211.9	1205.2	1210.2
37.5°	4068.8	4060.4	3526.0	2336.7	1539.7	1277.9	1175.9	1130.7	1088.1	1064.7	1065.5
40°	4349.8	4341.4	3629.7	2255.6	1390.0	1184.3	1086.4	1027.0	974.3	931.7	935.9
42.5°	4665.9	4616.6	3679.1	2139.4	1262.9	1104.8	1013.6	933.4	863.9	824.6	827.1
45°	5011.4	4900.1	3678.2	1991.3	1155.8	1032.0	935.9	822.1	757.7	720.9	719.3
47.5°	5377.7	5171.1	3633.1	1827.4	1052.1	951.8	815.4	728.5	685.8	663.2	658.2
50°	5755.7	5424.5	3556.1	1639.2	945.9	860.6	740.2	680.8	648.2	627.3	619.7
52.5°	6111.1	5654.5	3463.3	1426.0	838.0	771.9	706.7	660.7	626.4	603.0	593.0
55°	6441.5	5852.7	3332.0	1207.7	750.2	712.6	690.8	652.3	613.0	585.4	574.6
57.5°	6735.1	5981.5	3105.3	1002.8	687.5	671.6	674.1	638.1	593.0	569.5	554.5
60°	6979.3	6076.0	2770.0	812.9	636.5	631.4	648.2	611.4	558.7	531.9	520.2
62.5°	7125.6	6074.3	2358.5	665.7	593.0	594.6	613.9	577.9	524.4	499.3	491.8
65°	7113.1	5925.5	1906.9	569.5	551.1	552.8	577.9	541.1	496.0	480.9	480.1
67.5°	6861.3	5562.5	1462.8	506.8	505.2	512.7	541.9	516.0	478.4	476.7	479.2
70°	6179.7	4809.0	1053.8	456.6	457.5	468.4	506.8	500.1	469.2	472.5	471.7
72.5°	4955.3	3666.5	707.5	404.0	404.8	422.4	473.4	487.6	460.0	504.3	511.0
75°	3300.2	2286.6	455.0	347.9	348.8	371.3	444.1	463.3	434.9	502.6	506.8
77.5°	1585.7	1027.9	329.5	292.7	292.7	313.6	383.9	414.8	370.5	390.6	358.0
80°	547.8	386.4	259.3	235.8	230.8	245.0	323.7	359.6	319.5	294.4	276.0
82.5°	215.8	200.7	208.2	183.2	166.4	175.6	251.7	296.9	235.0	212.4	211.6
85°	123.8	130.5	147.2	121.3	96.2	107.9	184.8	213.3	177.3	156.4	159.7
87.5°	33.5	46.0	67.7	62.7	43.5	46.0	87.8	117.9	102.0	78.6	81.1
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)