

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: P884249

Luminaire Tested: **NAV-SB5A-722-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884249
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-SB5A-722-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18151 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

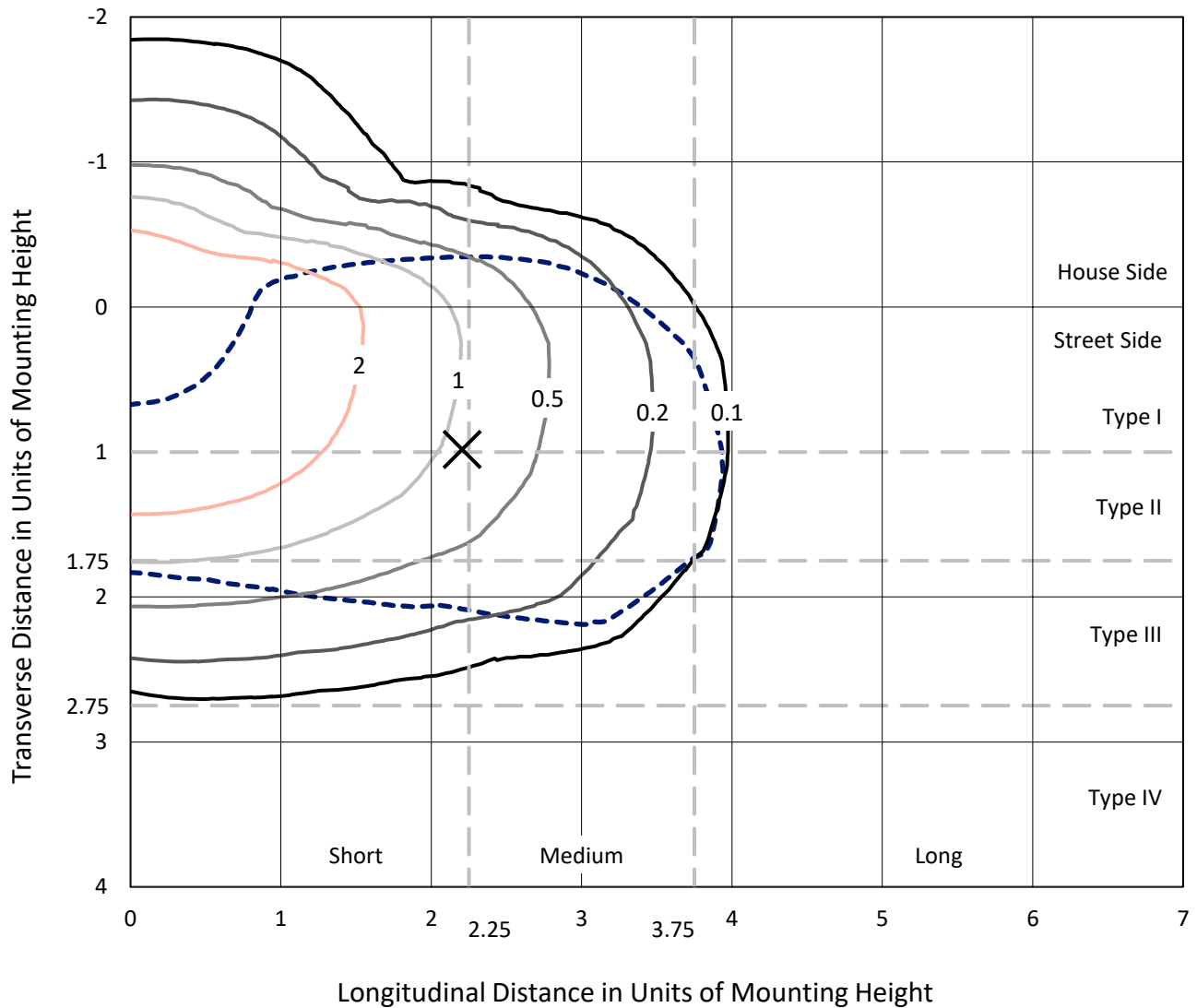
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

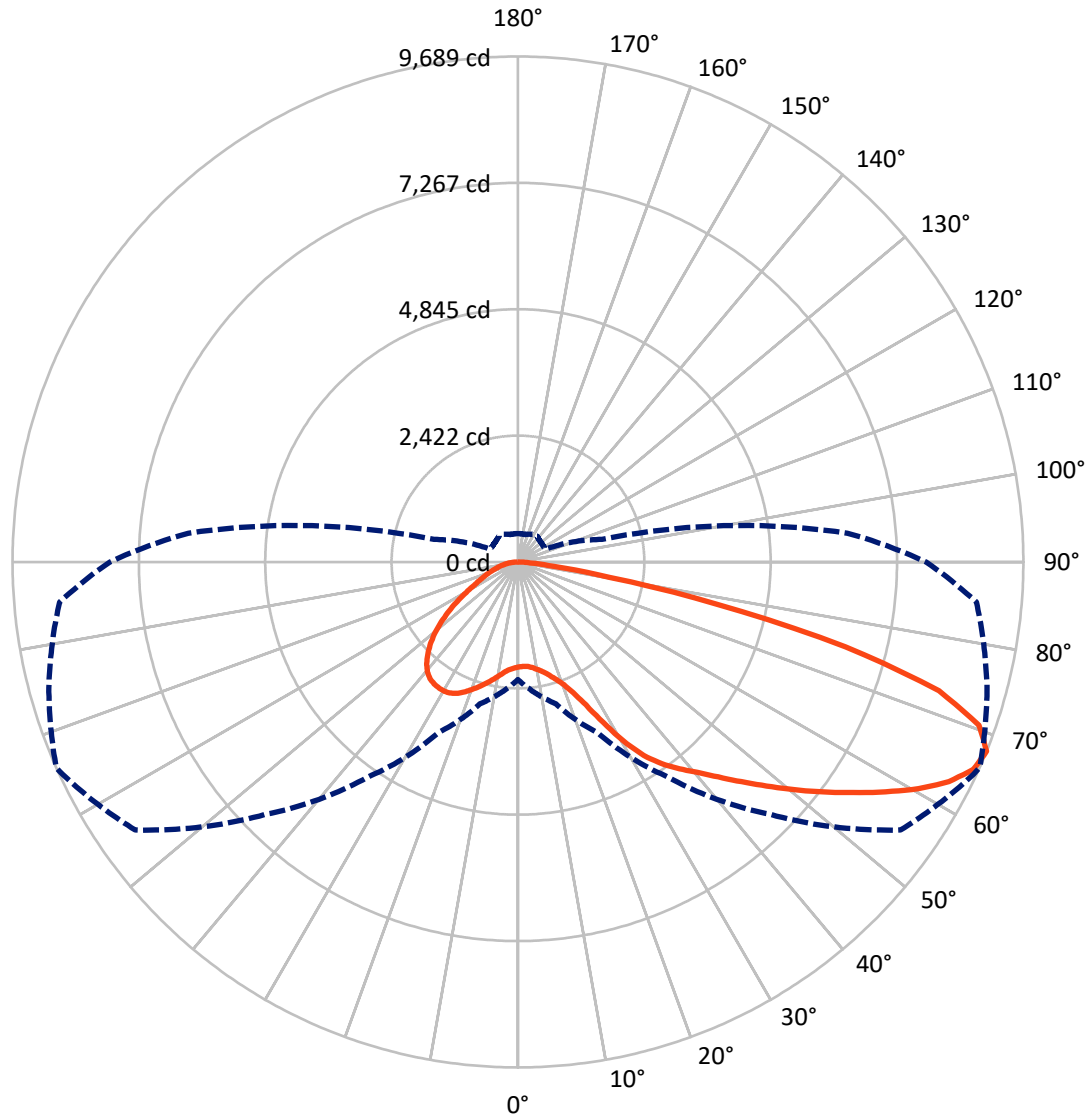
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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	4513.2	0.0	4513.2
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	13637.8	0.0	13637.8
	% Fixture	75.1	0.0	75.1
Total	Lumens	18151.0	0.0	18151.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.6	1.1
10°-20°	659.4	3.6
20°-30°	1271.1	7.0
30°-40°	2228.6	12.3
40°-50°	3313.2	18.3
50°-60°	4199.8	23.1
60°-70°	4109.4	22.6
70°-80°	1960.2	10.8
80°-90°	209.5	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°	18151.0	100.0
0°-180°	18151.0	100.0

Coefficient of Utilization



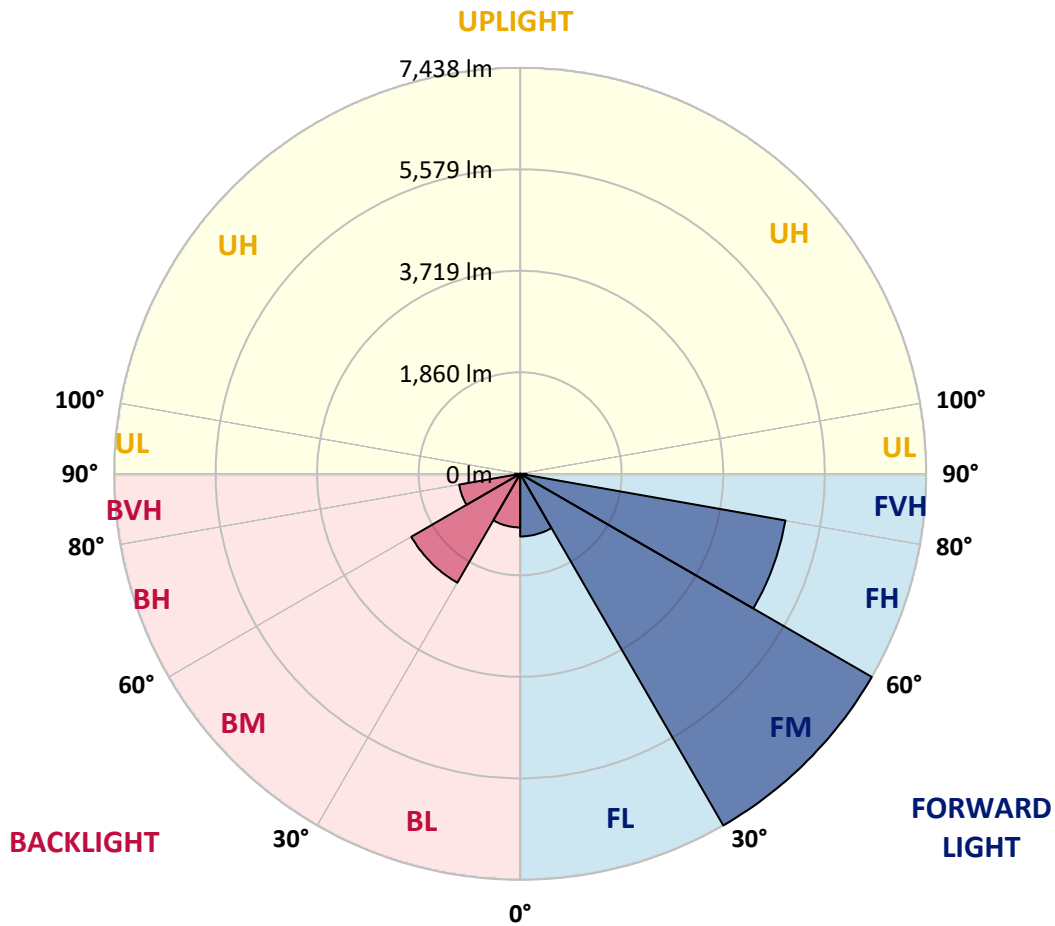
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1147.0	6.3			
FM (30°-60°)	7438.1	41.0			
FH (60°-80°)	4933.9	27.2			G2/5000
FVH (80°-90°)	118.8	0.7			G2/225
BL (0°-30°)	983.1	5.4	B2/1000		
BM (30°-60°)	2303.6	12.7	B2/2500		
BH (60°-80°)	1135.8	6.3	B3/2500		G3/2500
BVH (80°-90°)	90.7	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2
2.5°	1992.2	2003.6	2000.8	1996.0	1995.1	1997.0	1999.8	2002.7	2001.7	2006.5	2014.1
5°	1986.5	1997.9	1997.0	1997.0	2000.8	2008.4	2013.2	2018.0	2013.2	2018.9	2029.4
7.5°	1990.3	1998.9	2002.7	2006.5	2016.0	2030.4	2041.8	2052.3	2046.6	2053.2	2066.6
10°	2038.9	2045.6	2049.4	2049.4	2056.1	2072.3	2083.8	2102.8	2098.1	2108.6	2125.7
12.5°	2127.6	2134.3	2134.3	2130.5	2135.3	2145.7	2149.6	2170.5	2162.0	2179.1	2196.3
15°	2236.3	2249.7	2239.2	2232.5	2234.4	2244.9	2244.0	2260.2	2251.6	2265.9	2281.2
17.5°	2356.5	2373.7	2356.5	2355.6	2351.7	2363.2	2364.1	2378.4	2363.2	2373.7	2384.2
20°	2498.6	2522.4	2508.1	2512.9	2504.3	2509.1	2513.9	2534.8	2511.0	2518.6	2515.8
22.5°	2698.9	2727.5	2712.2	2730.3	2724.6	2720.8	2719.9	2757.0	2719.9	2722.7	2695.1
25°	2990.7	3025.0	2998.3	3023.1	3023.1	3035.5	3049.8	3097.5	3035.5	3017.4	2945.9
27.5°	3421.7	3456.1	3403.6	3418.9	3414.1	3444.6	3429.4	3547.6	3480.9	3451.3	3307.3
30°	3940.5	4001.6	3902.4	3898.6	3893.8	3942.4	3964.4	4042.6	3974.9	3945.3	3771.7
32.5°	4501.3	4565.2	4446.9	4412.6	4394.5	4424.0	4405.9	4468.9	4422.1	4376.4	4161.8
35°	5094.5	5157.4	5044.9	4978.1	4905.7	4843.7	4778.8	4795.0	4751.2	4681.5	4459.3
37.5°	5655.2	5770.6	5651.4	5579.9	5446.4	5325.3	5144.1	5068.7	5027.7	4963.8	4739.7
40°	6226.5	6292.3	6201.7	6140.6	5995.7	5805.9	5516.0	5356.7	5301.4	5239.4	5049.7
42.5°	6647.0	6710.0	6661.3	6619.4	6505.9	6285.6	5910.8	5711.5	5631.4	5561.8	5400.6
45°	6980.8	7027.6	6997.0	7012.3	6963.7	6750.0	6319.9	6092.0	6009.0	5924.2	5797.3
47.5°	7115.3	7164.9	7213.5	7304.1	7387.1	7229.7	6759.6	6504.0	6416.3	6329.5	6204.5
50°	7100.0	7150.6	7291.7	7484.4	7741.8	7689.4	7223.1	6942.7	6861.6	6762.4	6647.0
52.5°	6978.0	7035.2	7216.4	7536.8	7946.9	8033.7	7695.1	7395.7	7319.4	7201.1	7085.7
55°	6657.5	6691.9	6963.7	7417.6	7995.5	8274.0	8157.6	7878.2	7801.9	7636.9	7511.1
57.5°	6063.4	6113.0	6508.8	7096.2	7873.5	8437.1	8563.9	8385.6	8312.1	8074.7	7943.1
60°	5288.1	5367.2	5820.2	6556.4	7562.6	8436.1	8933.0	8884.3	8823.3	8505.7	8368.4
62.5°	4410.7	4502.3	4938.1	5793.5	7019.0	8196.7	9163.8	9302.0	9270.6	8903.4	8727.9
65°	3387.4	3450.4	3884.3	4806.5	6173.1	7682.7	9190.5	9587.2	9592.9	9205.7	8915.8
67.5°	2255.4	2436.6	2813.3	3606.8	5040.1	6842.5	8955.9	9633.9	9689.2	9309.7	8821.4
70°	1100.5	1338.9	1708.0	2344.1	3606.8	5554.1	8342.7	9250.5	9373.6	9006.4	8258.7
72.5°	456.8	534.1	735.3	1156.8	2070.4	3747.9	7110.5	8211.1	8439.0	7980.3	6943.6
75°	308.0	333.8	420.6	593.2	943.2	1848.2	5127.9	6122.5	6489.7	6027.2	4926.6
77.5°	237.5	253.7	306.1	414.8	560.8	699.0	2744.6	3689.7	3879.5	3591.5	2563.5
80°	186.9	199.3	228.9	302.3	397.7	373.8	935.5	1671.8	1781.4	1494.4	824.0
82.5°	162.1	166.9	164.0	205.0	264.2	218.4	307.1	617.0	680.9	494.0	268.9
85°	117.3	130.7	136.4	126.8	140.2	110.6	125.9	218.4	240.3	214.6	151.6
87.5°	47.7	70.6	86.8	82.0	51.5	31.5	39.1	63.9	73.4	80.1	49.6
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°	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2	2013.2
2.5°	2015.1	2021.8	2026.5	2032.3	2036.1	2041.8	2053.2	2059.9	2060.9	2065.6	2064.7
5°	2033.2	2042.7	2053.2	2068.5	2085.7	2100.0	2121.9	2137.2	2142.9	2147.7	2146.7
7.5°	2072.3	2085.7	2104.7	2131.4	2156.2	2175.3	2202.0	2220.1	2238.3	2244.9	2245.9
10°	2130.5	2149.6	2177.2	2213.5	2240.2	2265.0	2292.6	2307.9	2326.0	2333.6	2337.4
12.5°	2203.0	2223.0	2259.2	2309.8	2334.6	2351.7	2361.3	2357.5	2361.3	2367.9	2369.9
15°	2285.9	2307.9	2348.9	2403.2	2420.4	2405.1	2384.2	2365.1	2362.2	2364.1	2370.8
17.5°	2384.2	2400.4	2448.1	2493.8	2481.4	2418.5	2372.7	2342.2	2326.9	2322.2	2328.8
20°	2521.5	2521.5	2560.6	2589.2	2506.2	2399.4	2327.9	2278.3	2246.8	2233.5	2230.6
22.5°	2688.4	2673.1	2697.9	2677.9	2501.5	2346.0	2246.8	2161.0	2113.3	2094.2	2091.4
25°	2900.1	2882.0	2875.3	2751.3	2467.1	2261.1	2100.0	1996.0	1954.1	1943.6	1945.5
27.5°	3219.6	3173.8	3087.0	2791.4	2404.2	2127.6	1928.3	1832.0	1808.1	1809.1	1812.0
30°	3644.9	3553.4	3340.7	2798.1	2301.2	1938.8	1752.8	1684.2	1672.7	1677.5	1693.7
32.5°	4038.8	3952.0	3600.1	2767.5	2142.9	1753.8	1595.5	1549.7	1532.5	1538.3	1545.9
35°	4347.8	4323.9	3840.4	2724.6	1948.3	1580.2	1454.3	1415.2	1381.9	1374.2	1380.0
37.5°	4639.6	4630.0	4020.6	2664.5	1755.7	1457.2	1340.9	1289.4	1240.7	1214.0	1215.0
40°	4960.0	4950.5	4138.9	2572.0	1585.0	1350.4	1238.8	1171.1	1111.0	1062.4	1067.2
42.5°	5320.5	5264.2	4195.2	2439.5	1440.0	1259.8	1155.8	1064.3	985.1	940.3	943.2
45°	5714.4	5587.5	4194.2	2270.7	1318.0	1176.8	1067.2	937.5	864.0	822.1	820.2
47.5°	6132.1	5896.5	4142.7	2083.8	1199.7	1085.3	929.8	830.6	782.0	756.3	750.5
50°	6563.1	6185.5	4055.0	1869.2	1078.6	981.3	844.0	776.3	739.1	715.2	706.7
52.5°	6968.4	6447.7	3949.1	1626.0	955.6	880.2	805.8	753.4	714.3	687.6	676.1
55°	7345.1	6673.7	3799.4	1377.1	855.4	812.5	787.7	743.9	699.0	667.6	655.2
57.5°	7679.9	6820.6	3541.0	1143.4	783.9	765.8	768.7	727.6	676.1	649.4	632.3
60°	7958.3	6928.4	3158.5	927.0	725.7	720.0	739.1	697.1	637.0	606.5	593.2
62.5°	8125.2	6926.5	2689.3	759.1	676.1	678.1	700.0	659.0	597.9	569.3	560.8
65°	8110.9	6756.7	2174.4	649.4	628.5	630.4	659.0	617.0	565.5	548.4	547.4
67.5°	7823.9	6342.8	1668.0	577.9	576.0	584.6	618.0	588.4	545.5	543.6	546.4
70°	7046.6	5483.6	1201.6	520.7	521.7	534.1	577.9	570.3	535.0	538.8	537.9
72.5°	5650.5	4180.9	806.8	460.6	461.6	481.6	539.8	556.0	524.5	575.1	582.7
75°	3763.2	2607.3	518.8	396.7	397.7	423.4	506.4	528.3	495.9	573.2	577.9
77.5°	1808.1	1172.1	375.7	333.8	333.8	357.6	437.7	473.0	422.5	445.4	408.2
80°	624.7	440.6	295.6	268.9	263.2	279.4	369.1	410.1	364.3	335.7	314.7
82.5°	246.0	228.9	237.5	208.9	189.8	200.3	287.1	338.6	268.0	242.2	241.3
85°	141.1	148.8	167.8	138.3	109.7	123.0	210.8	243.2	202.2	178.3	182.1
87.5°	38.1	52.5	77.2	71.5	49.6	52.5	100.1	134.5	116.3	89.6	92.5
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)