

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: P884321

Luminaire Tested: **NAV-SB5A-827-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884321
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-SB5A-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 18279 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

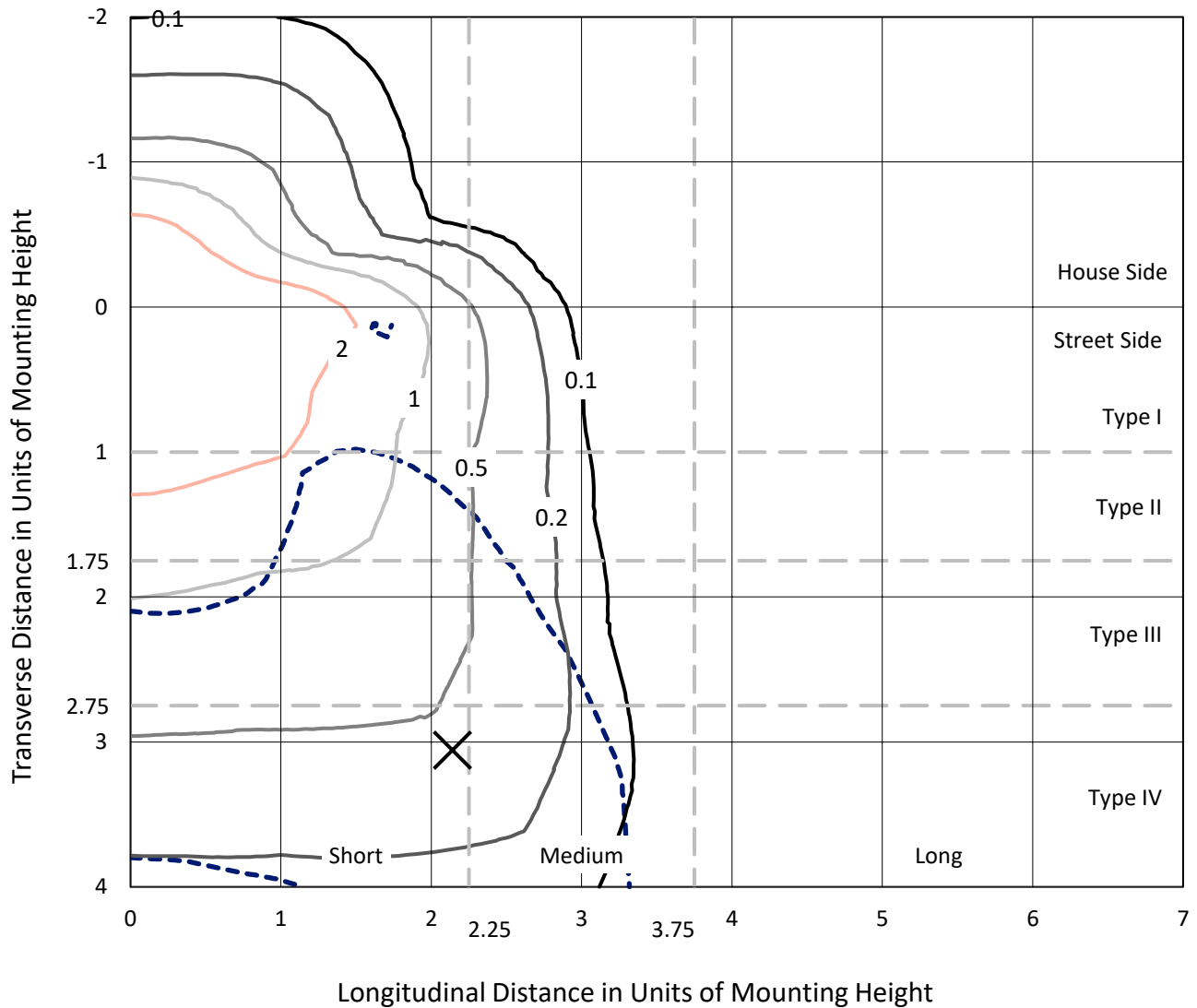
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

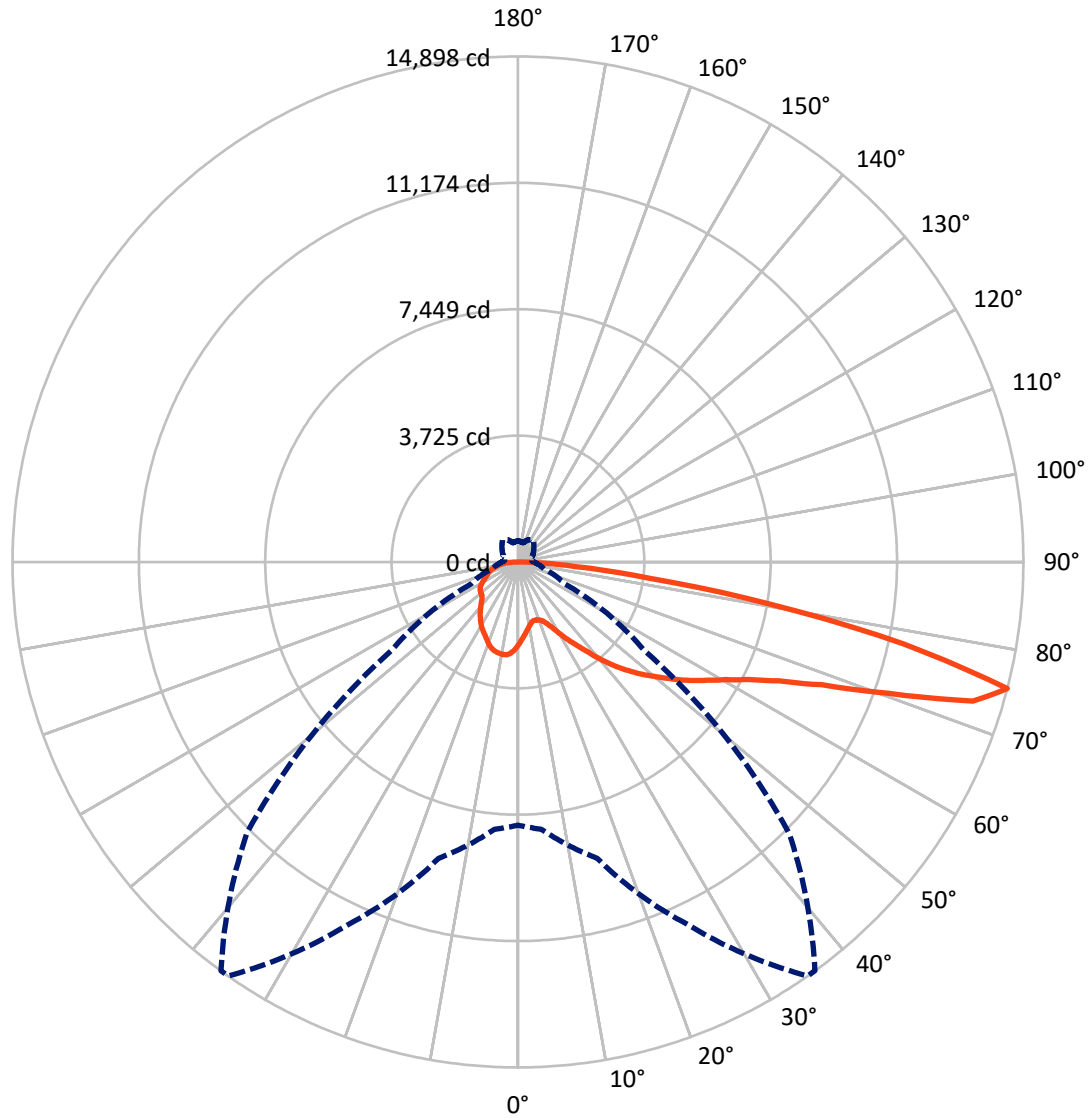
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 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	4349.9	0.0	4349.9
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	13929.1	0.0	13929.1
	% Fixture	76.2	0.0	76.2
Total	Lumens	18279.0	0.0	18279.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.6	1.3
10°-20°	665.2	3.6
20°-30°	1117.1	6.1
30°-40°	1736.1	9.5
40°-50°	2576.8	14.1
50°-60°	3557.4	19.5
60°-70°	4316.0	23.6
70°-80°	3566.8	19.5
80°-90°	513.0	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°	18279.0	100.0
0°-180°	18279.0	100.0

Coefficient of Utilization



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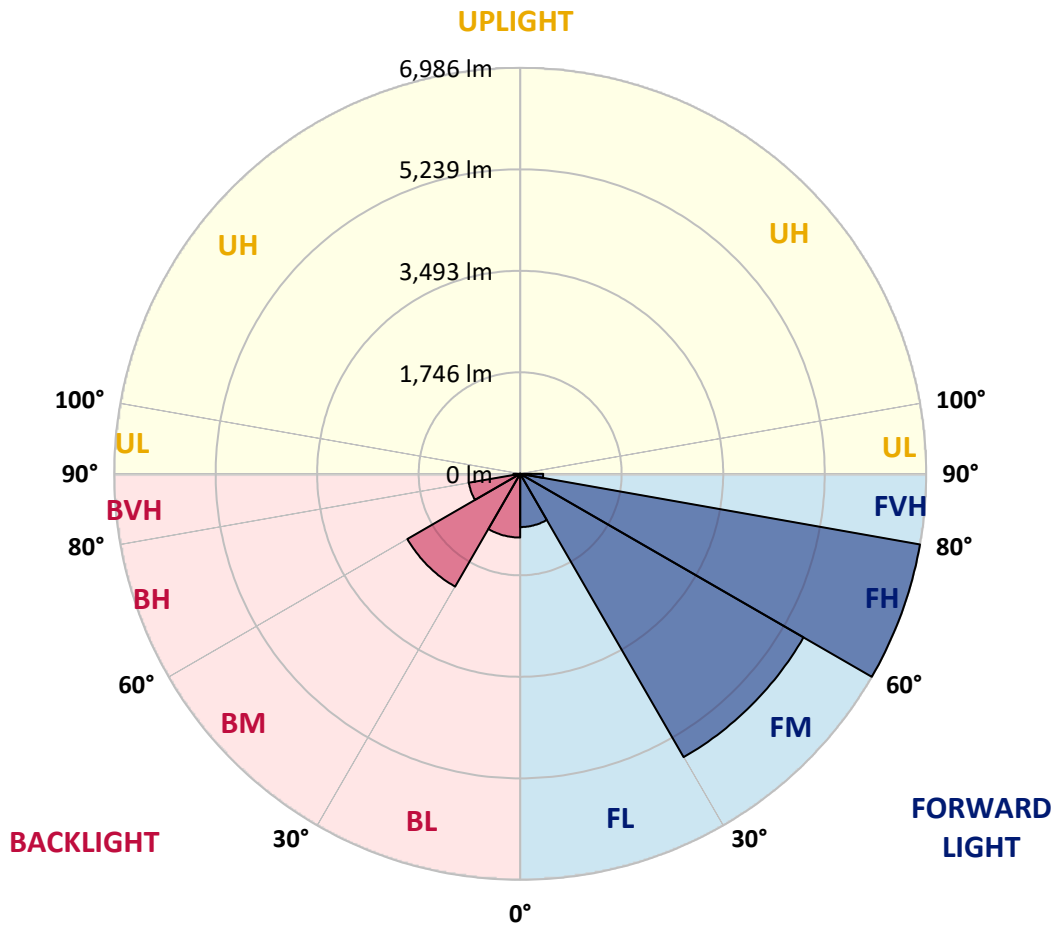
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	916.7	5.0			
FM (30°-60°)	5628.9	30.8			
FH (60°-80°)	6986.0	38.2			G3/7500
FVH (80°-90°)	397.5	2.2			G3/500
BL (0°-30°)	1096.2	6.0	B3/2500		
BM (30°-60°)	2241.4	12.3	B2/2500		
BH (60°-80°)	896.8	4.9	B2/1000		G2/1000
BVH (80°-90°)	115.5	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8
2.5°	2246.1	2259.9	2265.8	2262.9	2277.7	2275.7	2296.5	2322.2	2357.7	2392.3	2442.7
5°	2073.1	2088.0	2100.8	2112.7	2141.3	2150.2	2182.8	2232.2	2297.5	2363.7	2446.7
7.5°	1912.1	1924.9	1944.7	1966.4	2014.8	2023.7	2078.1	2155.2	2246.1	2342.9	2457.5
10°	1780.7	1793.5	1814.3	1839.0	1899.2	1910.1	1979.3	2082.0	2200.6	2323.2	2469.4
12.5°	1724.3	1728.3	1740.1	1764.8	1817.2	1824.1	1900.2	2017.8	2156.2	2308.3	2487.2
15°	1721.4	1729.3	1730.3	1743.1	1786.6	1789.5	1859.7	1976.3	2128.5	2305.4	2513.9
17.5°	1751.0	1756.9	1748.0	1756.0	1792.5	1797.5	1852.8	1956.5	2119.6	2318.2	2559.3
20°	1830.1	1835.0	1808.3	1797.5	1824.1	1828.1	1882.4	1969.4	2128.5	2344.9	2621.6
22.5°	1998.0	2001.0	1935.8	1891.3	1893.3	1895.3	1942.7	2021.8	2163.1	2393.3	2700.6
25°	2259.9	2257.9	2154.2	2068.2	2018.8	2007.9	2039.6	2106.7	2221.4	2457.5	2802.4
27.5°	2566.2	2551.4	2447.7	2319.2	2211.5	2195.7	2188.8	2217.4	2304.4	2542.5	2926.9
30°	2912.1	2898.3	2786.6	2618.6	2469.4	2443.7	2378.5	2363.7	2427.9	2658.1	3099.8
32.5°	3291.5	3282.6	3149.2	2945.7	2746.1	2716.4	2606.8	2567.2	2617.6	2833.0	3340.9
35°	3609.7	3601.8	3491.1	3281.7	3037.6	3001.0	2889.4	2844.9	2870.6	3057.3	3656.2
37.5°	3897.3	3893.3	3798.5	3633.4	3381.5	3337.0	3211.5	3196.7	3191.7	3352.8	4038.6
40°	4164.1	4154.2	4055.4	3968.4	3781.7	3741.2	3630.5	3617.6	3580.1	3716.4	4471.4
42.5°	4459.5	4433.8	4290.6	4250.1	4199.7	4166.1	4099.9	4101.8	4018.8	4126.5	4929.9
45°	4700.7	4685.8	4538.6	4514.9	4569.2	4555.4	4612.7	4627.5	4466.5	4556.4	5406.2
47.5°	4959.5	4945.7	4821.2	4804.4	4951.6	4955.6	5158.2	5163.1	4903.2	5003.0	5883.5
50°	5278.7	5259.0	5135.4	5156.2	5321.2	5336.0	5706.6	5673.0	5305.4	5456.6	6356.8
52.5°	5489.2	5501.1	5474.4	5508.0	5733.3	5747.1	6246.1	6160.2	5703.6	5904.2	6821.2
55°	5644.3	5668.1	5751.1	5828.1	6168.1	6181.9	6755.0	6623.6	6033.7	6319.2	7258.0
57.5°	5843.9	5810.3	5965.5	6115.7	6581.1	6617.7	7250.1	7070.2	6326.2	6677.0	7557.4
60°	6130.5	6106.8	6227.3	6449.7	7043.6	7101.9	7773.8	7472.4	6540.6	6960.6	7615.7
62.5°	6711.5	6652.3	6671.0	6867.7	7626.6	7703.7	8364.7	7823.2	6647.3	7071.2	7303.4
65°	7580.1	7478.4	7383.5	7519.9	8447.7	8523.8	9031.7	8098.9	6607.8	6856.8	6474.4
67.5°	8674.0	8573.2	8456.6	8585.1	9657.2	9717.5	9854.9	8254.1	6296.5	6030.7	5009.0
70°	9576.2	9538.7	9678.0	10206.6	11589.1	11591.1	10910.2	8125.6	5443.7	4275.7	2898.3
72.5°	9456.6	9433.9	10168.1	11802.5	14023.9	13971.5	11909.2	7153.2	3667.0	1928.9	1086.0
75°	7758.0	7905.2	9042.6	11773.9	14898.4	14891.5	11297.6	4547.5	1516.8	799.4	561.3
77.5°	4160.1	4393.3	5870.6	8692.8	11630.6	11805.5	7942.8	1590.9	651.2	511.9	388.3
80°	1356.7	1560.3	2339.9	4425.9	7557.4	7524.8	3404.2	624.5	445.7	362.7	268.8
82.5°	576.1	599.8	1045.5	2089.9	3878.5	3818.2	1084.0	358.7	313.2	248.0	166.0
85°	225.3	252.0	461.5	966.4	1679.9	1643.3	391.3	177.9	200.6	162.1	98.8
87.5°	74.1	89.9	165.0	331.0	522.7	504.0	95.9	61.3	87.0	74.1	35.6
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°	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8	2435.8
2.5°	2456.6	2472.4	2491.1	2518.8	2542.5	2562.3	2583.0	2595.9	2600.8	2615.6	2614.7
5°	2474.3	2508.9	2555.4	2600.8	2645.3	2672.0	2695.7	2707.5	2718.4	2726.3	2728.3
7.5°	2504.0	2548.4	2621.6	2680.9	2718.4	2740.2	2756.0	2752.0	2756.0	2757.9	2760.9
10°	2529.7	2591.9	2678.9	2735.2	2763.9	2764.9	2760.9	2747.1	2740.2	2741.1	2743.1
12.5°	2560.3	2629.5	2723.4	2770.8	2778.7	2757.0	2740.2	2716.4	2707.5	2703.6	2701.6
15°	2601.8	2680.9	2771.8	2789.6	2769.8	2742.1	2713.5	2674.9	2655.2	2639.4	2644.3
17.5°	2652.2	2739.2	2809.3	2796.5	2754.0	2708.5	2662.1	2603.8	2563.3	2546.5	2547.5
20°	2722.4	2800.4	2838.0	2781.7	2717.4	2648.3	2569.2	2498.1	2460.5	2443.7	2441.7
22.5°	2807.3	2882.4	2865.6	2756.0	2665.1	2554.4	2455.6	2403.2	2384.4	2372.6	2374.5
25°	2909.1	2973.4	2885.4	2718.4	2579.1	2429.9	2353.8	2337.0	2328.1	2319.2	2319.2
27.5°	3041.5	3076.1	2900.2	2663.1	2444.7	2297.5	2269.8	2272.8	2269.8	2255.0	2257.9
30°	3216.4	3209.5	2914.1	2573.2	2290.5	2177.9	2179.9	2192.7	2194.7	2184.8	2189.7
32.5°	3446.7	3376.5	2921.0	2456.6	2143.3	2073.1	2075.1	2089.0	2098.8	2082.0	2089.9
35°	3725.3	3571.2	2910.1	2310.3	2029.7	1973.3	1958.5	1962.5	1965.4	1949.6	1960.5
37.5°	4050.4	3789.6	2861.7	2148.2	1935.8	1875.5	1843.9	1817.2	1801.4	1786.6	1796.5
40°	4407.2	4027.7	2772.8	1990.1	1831.0	1771.8	1724.3	1673.9	1620.6	1600.8	1609.7
42.5°	4780.7	4272.8	2665.1	1839.0	1710.5	1662.1	1611.7	1538.6	1458.5	1418.0	1422.9
45°	5168.0	4523.8	2559.3	1689.7	1587.0	1566.2	1507.9	1420.0	1333.0	1281.6	1277.7
47.5°	5547.5	4760.9	2404.2	1539.5	1471.4	1494.1	1448.6	1367.6	1270.8	1189.7	1180.8
50°	5910.2	4983.3	2150.2	1387.4	1377.5	1472.3	1428.9	1312.3	1201.6	1097.8	1088.9
52.5°	6269.8	5163.1	1825.1	1249.0	1327.1	1466.4	1403.2	1274.7	1139.3	1030.6	1018.8
55°	6575.2	5256.0	1511.9	1130.4	1254.0	1416.0	1372.5	1230.3	1051.4	935.8	925.9
57.5°	6749.1	5180.9	1251.0	1013.8	1153.2	1333.0	1320.2	1135.4	946.7	857.7	845.9
60°	6674.0	4876.5	1037.6	912.1	1057.3	1243.1	1229.3	1041.5	866.6	782.6	770.8
62.5°	6260.0	4296.5	868.6	823.1	970.4	1151.2	1138.4	969.4	805.3	724.3	711.5
65°	5426.0	3495.1	737.2	749.0	882.4	1040.5	1059.3	909.1	756.9	677.9	665.0
67.5°	4138.4	2531.7	634.4	684.8	796.5	931.8	986.2	865.6	716.4	641.3	629.5
70°	2358.7	1437.8	547.4	622.5	720.4	831.0	929.9	831.0	672.9	610.7	602.8
72.5°	894.3	660.1	473.3	560.3	647.2	746.1	867.6	776.7	622.5	576.1	568.2
75°	477.3	402.2	398.2	487.2	563.2	663.1	789.5	723.3	585.0	608.7	628.5
77.5°	325.1	284.6	333.0	417.0	471.3	571.2	706.5	642.3	506.9	504.9	465.4
80°	225.3	201.6	270.8	336.0	364.6	480.2	616.6	551.4	413.0	385.4	368.6
82.5°	135.4	131.4	202.6	251.0	257.9	370.6	510.9	462.5	337.9	294.5	296.4
85°	74.1	78.1	129.4	147.2	150.2	258.9	400.2	357.7	259.9	218.4	220.4
87.5°	20.8	26.7	47.4	58.3	72.1	134.4	238.1	212.5	130.4	90.9	90.9
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)