

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: P883101

Luminaire Tested: **NAV-SB3B-740-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883101
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-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 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: 17998 lumens
Efficiency: N/A
Efficacy: 164.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

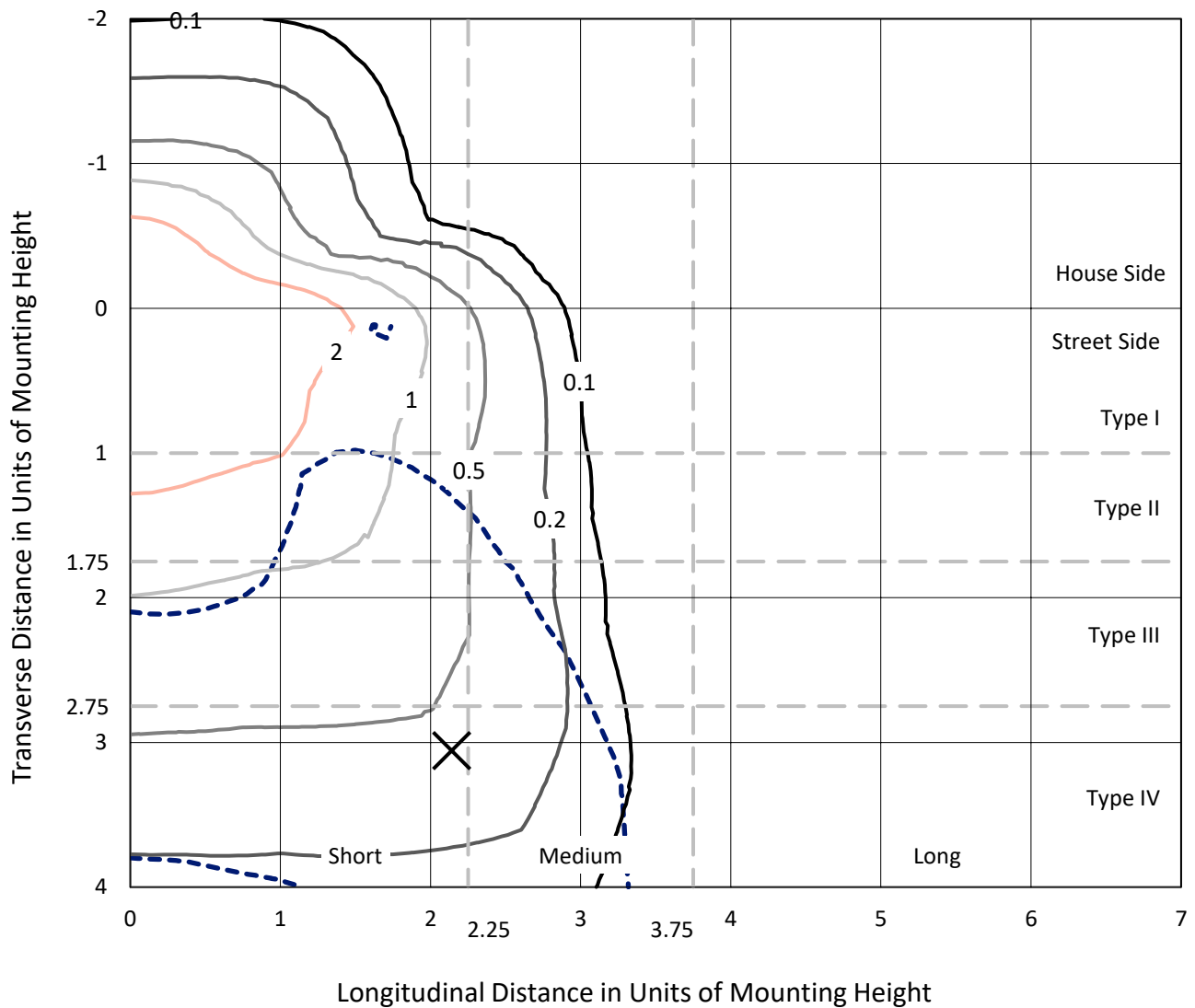
Input Watts (W): 109.2
Input Voltage (V): 120.0
Input Current (Ain): 0.919
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.657
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883101
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Iso-Footcandle Lines of Horizontal Illumination

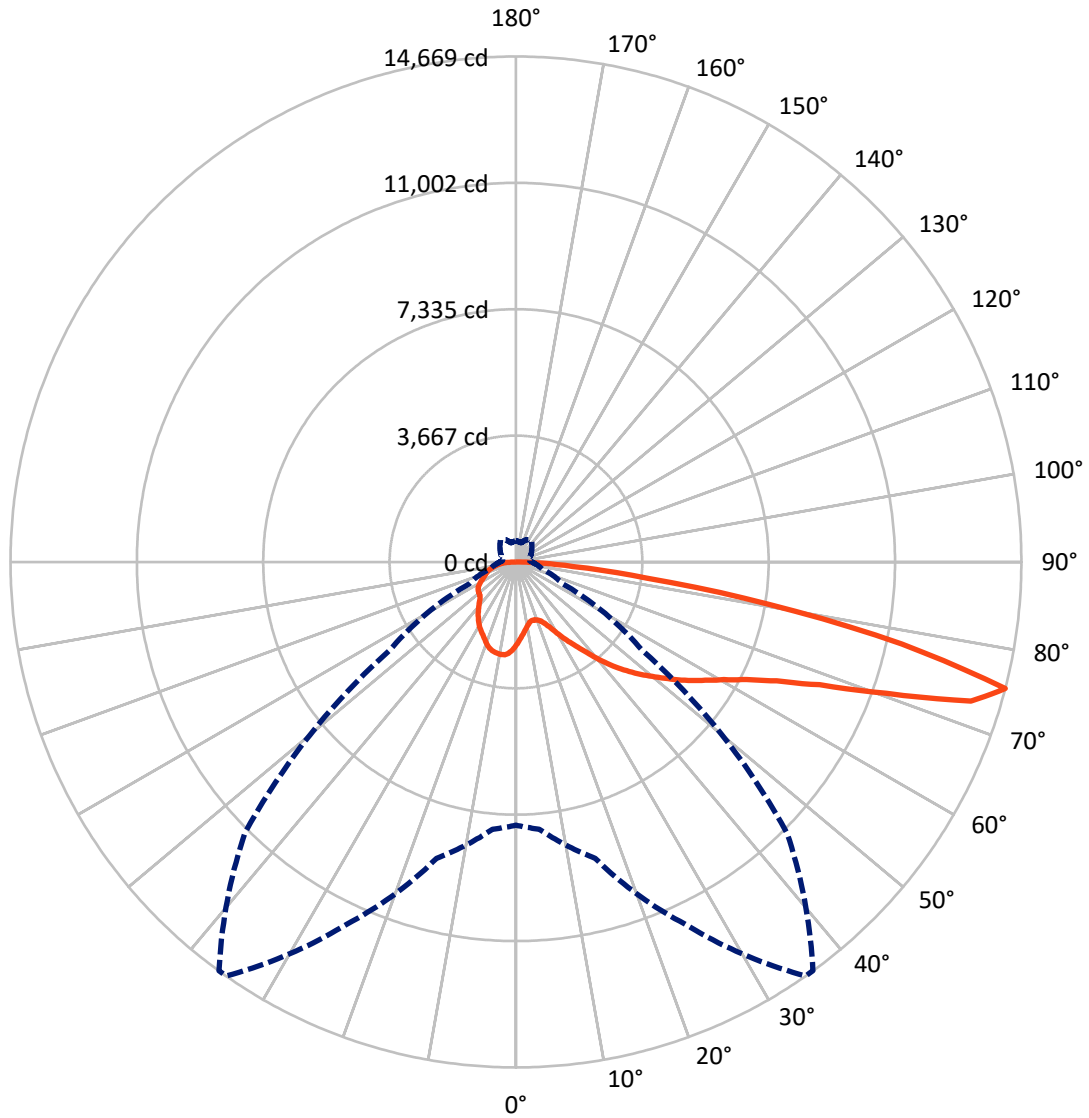
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - N/A

REPORT NUMBER: P883101
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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	4283.1	0.0	4283.1
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	13714.9	0.0	13714.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	17998.0	0.0	17998.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.1	1.3
10°-20°	655.0	3.6
20°-30°	1099.9	6.1
30°-40°	1709.4	9.5
40°-50°	2537.2	14.1
50°-60°	3502.7	19.5
60°-70°	4249.6	23.6
70°-80°	3512.0	19.5
80°-90°	505.1	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°	17998.0	100.0
0°-180°	17998.0	100.0



REPORT NUMBER: P883101

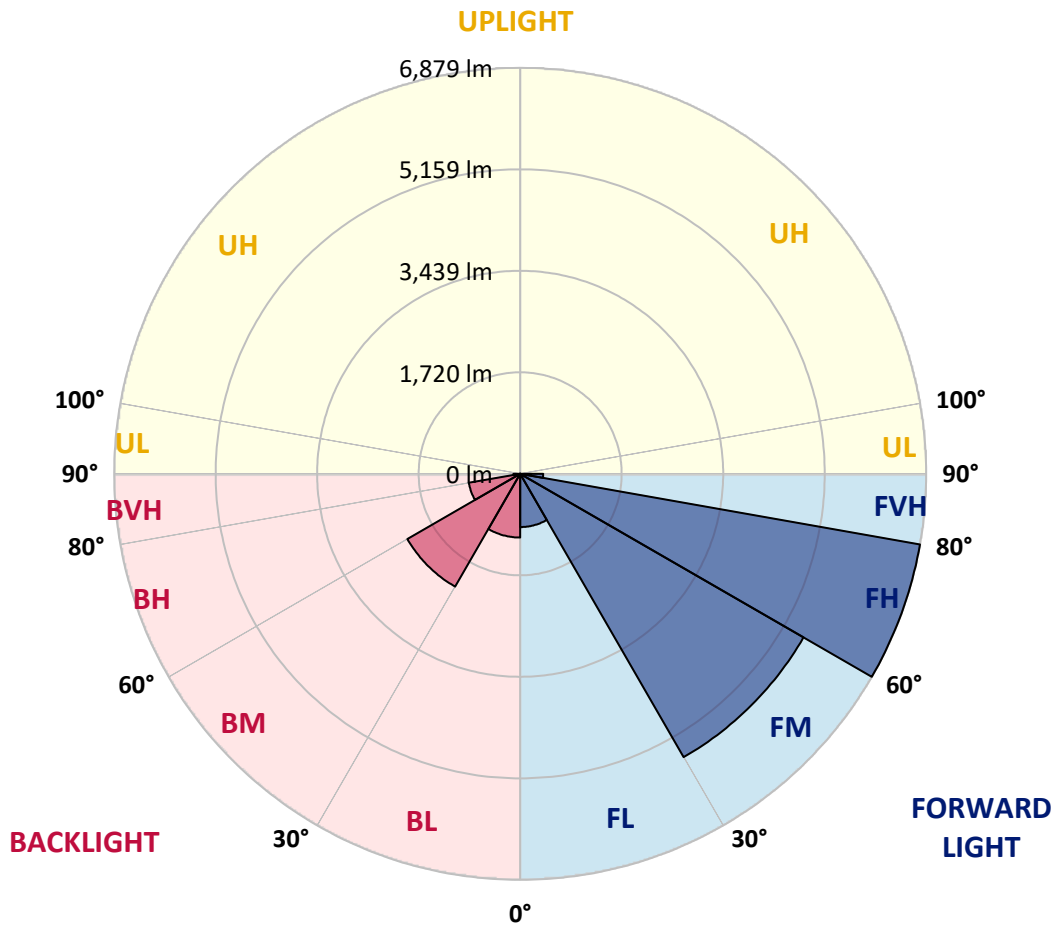
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	902.6	5.0			
FM (30°-60°)	5542.4	30.8			
FH (60°-80°)	6878.6	38.2			G3/7500
FVH (80°-90°)	391.4	2.2			G3/500
BL (0°-30°)	1079.4	6.0	B3/2500		
BM (30°-60°)	2206.9	12.3	B2/2500		
BH (60°-80°)	883.0	4.9	B2/1000		G2/1000
BVH (80°-90°)	113.7	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



REPORT NUMBER: P883101
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4
2.5°	2211.5	2225.2	2231.0	2228.1	2242.7	2240.7	2261.2	2286.5	2321.5	2355.5	2405.2
5°	2041.3	2055.9	2068.5	2080.2	2108.4	2117.2	2149.3	2197.9	2262.1	2327.3	2409.1
7.5°	1882.7	1895.3	1914.8	1936.2	1983.9	1992.6	2046.1	2122.0	2211.5	2306.9	2419.8
10°	1753.3	1765.9	1786.4	1810.7	1870.0	1880.7	1948.8	2050.0	2166.8	2287.4	2431.4
12.5°	1697.8	1701.7	1713.4	1737.7	1789.3	1796.1	1871.0	1986.8	2123.0	2272.8	2448.9
15°	1694.9	1702.7	1703.7	1716.3	1759.1	1762.0	1831.1	1945.9	2095.8	2269.9	2475.2
17.5°	1724.1	1729.9	1721.2	1729.0	1765.0	1769.8	1824.3	1926.5	2087.0	2282.6	2520.0
20°	1801.9	1806.8	1780.5	1769.8	1796.1	1800.0	1853.5	1939.1	2095.8	2308.8	2581.3
22.5°	1967.3	1970.3	1906.0	1862.3	1864.2	1866.1	1912.8	1990.7	2129.8	2356.5	2659.1
25°	2225.2	2223.2	2121.1	2036.4	1987.8	1977.1	2008.2	2074.4	2187.2	2419.8	2759.3
27.5°	2526.8	2512.2	2410.0	2283.5	2177.5	2161.9	2155.1	2183.3	2269.0	2503.4	2881.9
30°	2867.3	2853.7	2743.8	2578.4	2431.4	2406.1	2341.9	2327.3	2390.6	2617.3	3052.2
32.5°	3240.9	3232.2	3100.8	2900.4	2703.9	2674.7	2566.7	2527.8	2577.4	2789.5	3289.6
35°	3554.2	3546.5	3437.5	3231.2	2990.9	2954.9	2844.9	2801.2	2826.5	3010.3	3600.0
37.5°	3837.4	3833.5	3740.1	3577.6	3329.5	3285.7	3162.1	3147.5	3142.7	3301.3	3976.5
40°	4100.1	4090.3	3993.0	3907.4	3723.5	3683.6	3574.7	3562.0	3525.0	3659.3	4402.7
42.5°	4391.0	4365.7	4224.6	4184.7	4135.1	4102.0	4036.8	4038.8	3957.0	4063.1	4854.1
45°	4628.4	4613.8	4468.8	4445.5	4499.0	4485.4	4541.8	4556.4	4397.8	4486.3	5323.1
47.5°	4883.3	4869.7	4747.1	4730.5	4875.5	4879.4	5078.9	5083.7	4827.8	4926.1	5793.0
50°	5197.6	5178.1	5056.5	5076.9	5239.4	5254.0	5618.9	5585.8	5223.8	5372.7	6259.1
52.5°	5404.8	5416.5	5390.2	5423.3	5645.1	5658.8	6150.1	6065.5	5615.9	5813.5	6716.4
55°	5557.6	5580.9	5662.6	5738.5	6073.2	6086.9	6651.2	6521.8	5940.9	6222.1	7146.4
57.5°	5754.1	5721.0	5873.8	6021.7	6479.9	6515.9	7138.6	6961.6	6228.9	6574.3	7441.2
60°	6036.3	6012.9	6131.6	6350.5	6935.3	6992.7	7654.3	7357.6	6440.0	6853.6	7498.6
62.5°	6608.4	6550.0	6568.5	6762.1	7509.3	7585.2	8236.1	7703.0	6545.1	6962.5	7191.2
65°	7463.6	7363.4	7270.0	7404.3	8317.9	8392.8	8892.9	7974.4	6506.2	6751.4	6374.9
67.5°	8540.7	8441.4	8326.6	8453.1	9508.8	9568.1	9703.4	8127.2	6199.7	5938.0	4932.0
70°	9429.0	9392.0	9529.2	10049.7	11410.9	11412.9	10742.5	8000.7	5360.1	4210.0	2853.7
72.5°	9311.3	9288.9	10011.8	11621.1	13808.3	13756.7	11726.2	7043.3	3610.7	1899.2	1069.3
75°	7638.7	7783.7	8903.6	11592.9	14669.4	14662.6	11123.9	4477.6	1493.5	787.1	552.6
77.5°	4096.2	4325.8	5780.4	8559.2	11451.8	11624.0	7820.7	1566.5	641.2	504.0	382.4
80°	1335.9	1536.3	2304.0	4357.9	7441.2	7409.1	3351.9	614.9	438.8	357.1	264.6
82.5°	567.2	590.6	1029.4	2057.8	3818.9	3759.5	1067.3	353.2	308.4	244.2	163.5
85°	221.8	248.1	454.4	951.6	1654.0	1618.0	385.3	175.1	197.5	159.6	97.3
87.5°	73.0	88.5	162.5	325.9	514.7	496.2	94.4	60.3	85.6	73.0	35.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P883101
 CATALOG NUMBER: NAV-SB3B-740-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4	2398.4
2.5°	2418.8	2434.4	2452.8	2480.1	2503.4	2522.9	2543.3	2556.0	2560.8	2575.4	2574.5
5°	2436.3	2470.4	2516.1	2560.8	2604.6	2630.9	2654.2	2665.9	2676.6	2684.4	2686.4
7.5°	2465.5	2509.3	2581.3	2639.7	2676.6	2698.0	2713.6	2709.7	2713.6	2715.5	2718.5
10°	2490.8	2552.1	2637.7	2693.2	2721.4	2722.4	2718.5	2704.8	2698.0	2699.0	2700.9
12.5°	2520.9	2589.1	2681.5	2728.2	2736.0	2714.6	2698.0	2674.7	2665.9	2662.0	2660.1
15°	2561.8	2639.7	2729.2	2746.7	2727.2	2700.0	2671.8	2633.8	2614.4	2598.8	2603.7
17.5°	2611.4	2697.1	2766.1	2753.5	2711.6	2666.9	2621.2	2563.8	2523.9	2507.3	2508.3
20°	2680.5	2757.4	2794.4	2738.9	2675.6	2607.5	2529.7	2459.7	2422.7	2406.1	2404.2
22.5°	2764.2	2838.1	2821.6	2713.6	2624.1	2515.1	2417.8	2366.2	2347.8	2336.1	2338.0
25°	2864.4	2927.6	2841.1	2676.6	2539.4	2392.5	2317.6	2301.1	2292.3	2283.5	2283.5
27.5°	2994.8	3028.8	2855.6	2622.1	2407.1	2262.1	2234.9	2237.8	2234.9	2220.3	2223.2
30°	3167.0	3160.2	2869.3	2533.6	2255.3	2144.4	2146.4	2159.0	2161.0	2151.2	2156.1
32.5°	3393.7	3324.6	2876.1	2418.8	2110.4	2041.3	2043.2	2056.8	2066.6	2050.0	2057.8
35°	3668.1	3516.3	2865.4	2274.8	1998.5	1943.0	1928.4	1932.3	1935.2	1919.7	1930.4
37.5°	3988.2	3731.3	2817.7	2115.2	1906.0	1846.7	1815.6	1789.3	1773.7	1759.1	1768.8
40°	4339.4	3965.8	2730.1	1959.5	1802.9	1744.5	1697.8	1648.2	1595.7	1576.2	1585.0
42.5°	4707.2	4207.1	2624.1	1810.7	1684.2	1636.5	1586.9	1514.9	1436.1	1396.2	1401.1
45°	5088.6	4454.2	2520.0	1663.8	1562.6	1542.1	1484.7	1398.1	1312.5	1261.9	1258.0
47.5°	5462.2	4687.7	2367.2	1515.9	1448.7	1471.1	1426.4	1346.6	1251.2	1171.4	1162.7
50°	5819.3	4906.7	2117.2	1366.0	1356.3	1449.7	1406.9	1292.1	1183.1	1081.0	1072.2
52.5°	6173.5	5083.7	1797.1	1229.8	1306.7	1443.9	1381.6	1255.1	1121.8	1014.8	1003.1
55°	6474.1	5175.2	1488.6	1113.1	1234.7	1394.3	1351.4	1211.3	1035.2	921.4	911.7
57.5°	6645.3	5101.2	1231.8	998.3	1135.4	1312.5	1299.9	1117.9	932.1	844.5	832.9
60°	6571.4	4801.6	1021.6	898.0	1041.1	1224.0	1210.4	1025.5	853.3	770.6	758.9
62.5°	6163.7	4230.4	855.2	810.5	955.5	1133.5	1120.9	954.5	793.0	713.2	700.5
65°	5342.5	3441.4	725.8	737.5	868.9	1024.5	1043.0	895.1	745.3	667.5	654.8
67.5°	4074.8	2492.7	624.6	674.3	784.2	917.5	971.0	852.3	705.4	631.5	619.8
70°	2322.5	1415.7	539.0	613.0	709.3	818.3	915.6	818.3	662.6	601.3	593.5
72.5°	880.5	649.9	466.0	551.7	637.3	734.6	854.3	764.7	613.0	567.2	559.5
75°	469.9	396.0	392.1	479.7	554.6	652.9	777.4	712.2	576.0	599.3	618.8
77.5°	320.1	280.2	327.9	410.6	464.1	562.4	695.7	632.4	499.1	497.2	458.3
80°	221.8	198.5	266.6	330.8	359.0	472.9	607.1	542.9	406.7	379.5	362.9
82.5°	133.3	129.4	199.5	247.1	253.9	364.9	503.0	455.3	332.8	289.9	291.9
85°	73.0	76.9	127.5	145.0	147.9	254.9	394.1	352.2	255.9	215.0	217.0
87.5°	20.4	26.3	46.7	57.4	71.0	132.3	234.5	209.2	128.4	89.5	89.5
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)