

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: P965784

Luminaire Tested: **NAV-SB4A-830-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965784
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-830-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16998.6 lumens
Efficiency: N/A
Efficacy: 149.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

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



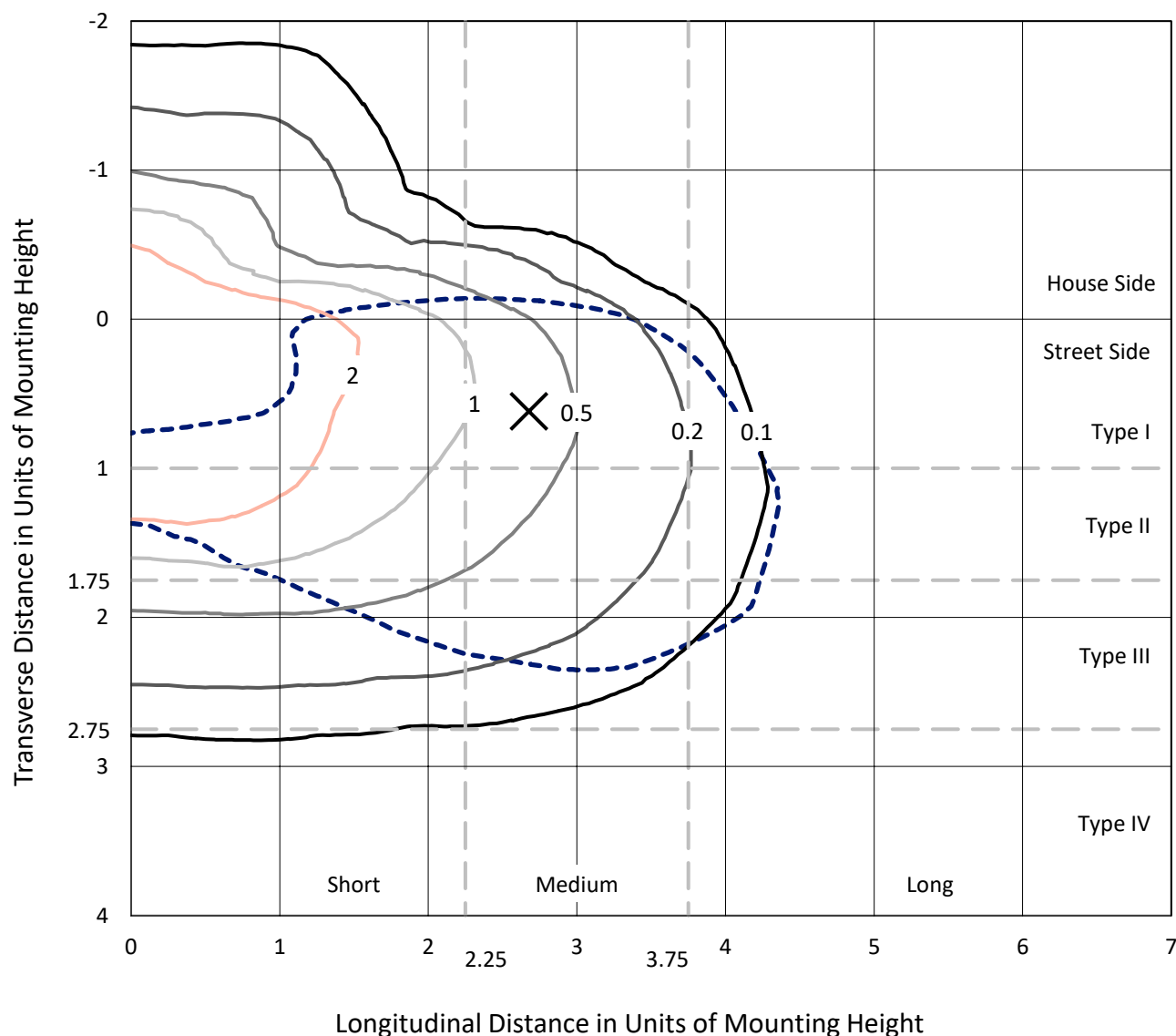
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

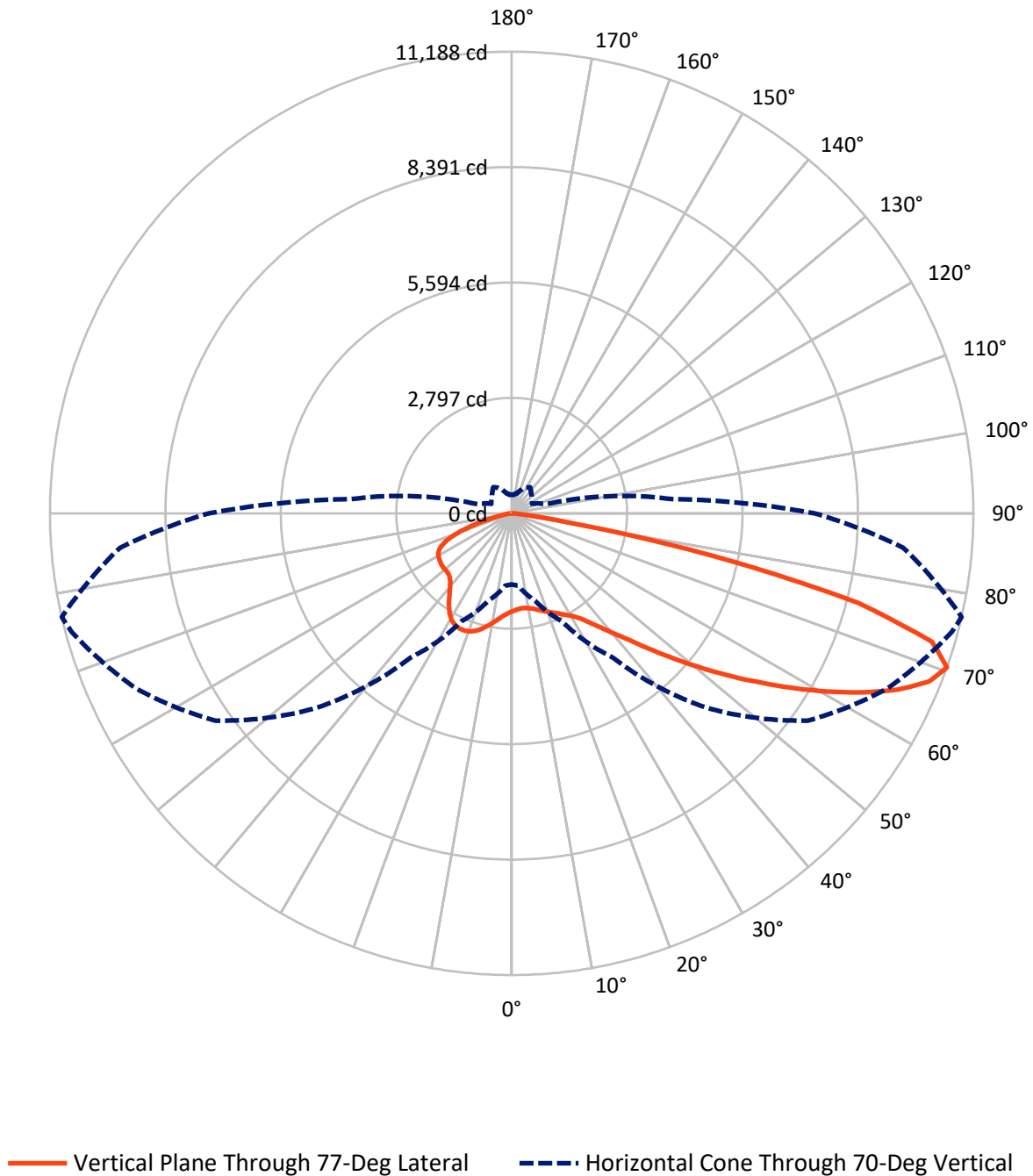


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc

Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3722.4	0.0	3722.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	13276.2	0.0	13276.2
	% Fixture	78.1	0.0	78.1
Total	Lumens	16998.6	0.0	16998.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.2	1.3
10°-20°	652.8	3.8
20°-30°	1116.3	6.6
30°-40°	1795.1	10.6
40°-50°	2802.7	16.5
50°-60°	3743.7	22.0
60°-70°	3990.2	23.5
70°-80°	2456.4	14.5
80°-90°	215.2	1.3
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°	16998.6	100.0
0°-180°	16998.6	100.0

Coefficient of Utilization



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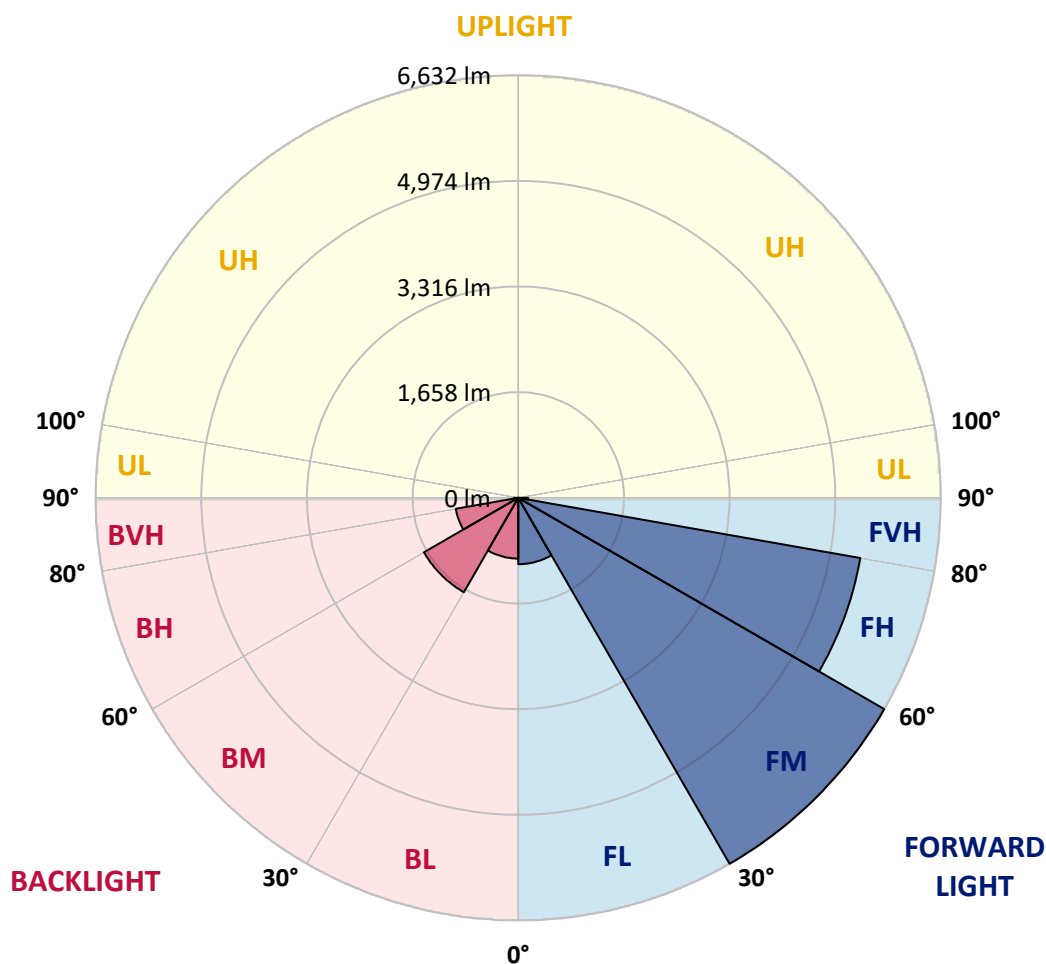
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1041.4	6.1			
FM	(30°-60°)	6632.5	39.0			
FH	(60°-80°)	5451.7	32.1			G3/7500
FVH	(80°-90°)	150.5	0.9			G2/225
BL	(0°-30°)	953.8	5.6	B2/1000		
BM	(30°-60°)	1709.0	10.1	B2/2500		
BH	(60°-80°)	994.9	5.9	B2/1000		G2/1000
BVH	(80°-90°)	64.7	0.4			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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4
2.5°	2186.0	2185.2	2196.5	2200.0	2220.9	2235.6	2263.5	2293.1	2331.4	2335.8	2359.2
5°	2059.8	2059.8	2072.9	2086.8	2113.8	2143.4	2186.0	2237.4	2303.6	2314.0	2372.4
7.5°	1952.7	1959.7	1971.0	1997.9	2029.3	2071.9	2137.2	2210.4	2297.4	2314.0	2408.0
10°	1866.5	1874.3	1888.3	1910.1	1957.0	2016.3	2101.6	2195.7	2312.3	2338.3	2460.3
12.5°	1839.6	1847.4	1855.2	1871.8	1915.3	1984.9	2086.8	2202.5	2348.0	2374.1	2531.6
15°	1902.2	1911.8	1905.7	1901.4	1924.0	1987.6	2093.8	2227.8	2392.4	2429.8	2619.6
17.5°	2046.7	2050.2	2036.3	1995.4	1991.9	2025.8	2126.9	2262.7	2448.1	2489.0	2708.4
20°	2280.0	2274.0	2245.3	2164.3	2118.2	2111.2	2183.5	2314.9	2505.5	2549.1	2804.1
22.5°	2596.9	2590.0	2532.5	2404.5	2301.8	2233.9	2265.2	2382.8	2570.0	2618.7	2897.3
25°	2992.2	2982.6	2898.2	2724.0	2564.8	2396.8	2376.7	2472.4	2649.2	2694.4	2994.8
27.5°	3453.6	3445.7	3354.3	3124.5	2894.7	2619.6	2515.1	2577.8	2731.8	2783.3	3104.5
30°	3949.8	3972.5	3810.5	3563.3	3272.5	2910.4	2701.4	2707.5	2838.9	2885.1	3237.7
32.5°	4533.1	4572.3	4377.3	4063.8	3666.8	3226.4	2936.4	2888.6	2994.8	3033.1	3405.7
35°	5111.2	5155.5	4993.7	4647.1	4190.1	3599.0	3182.0	3096.6	3202.0	3243.8	3628.6
37.5°	5610.8	5670.1	5586.6	5285.3	4749.8	4048.2	3502.3	3341.3	3457.1	3509.3	3928.1
40°	6005.3	6095.8	6089.7	5901.6	5409.7	4593.2	3908.9	3643.4	3773.9	3830.5	4291.1
42.5°	6325.7	6404.0	6471.8	6462.3	6098.4	5212.1	4386.9	4036.0	4135.3	4200.6	4699.4
45°	6546.8	6630.3	6776.6	6934.1	6760.9	5874.7	4934.5	4501.8	4592.3	4690.7	5186.1
47.5°	6744.4	6839.3	7029.0	7278.9	7323.3	6539.8	5534.3	5044.1	5126.8	5228.7	5674.4
50°	6761.8	6843.6	7137.9	7492.2	7723.0	7178.8	6178.5	5652.7	5730.2	5839.0	6197.7
52.5°	6341.3	6470.1	6983.8	7486.1	7906.6	7713.3	6818.4	6285.6	6372.6	6503.2	6739.2
55°	4922.3	5111.2	6531.9	7252.8	7841.4	8059.0	7426.9	6958.5	7069.9	7206.7	7284.2
57.5°	4239.7	4322.4	5185.2	6827.9	7543.6	8148.6	7940.6	7638.5	7817.8	7967.5	7860.4
60°	3810.5	3879.3	4389.5	6167.2	7151.8	8006.7	8337.6	8272.3	8582.2	8760.7	8449.9
62.5°	3350.8	3416.1	3880.1	5149.5	6650.4	7770.8	8588.3	8857.2	9365.7	9560.7	9005.2
65°	2894.7	2950.4	3395.3	4326.8	6013.1	7534.9	8718.0	9363.1	10090.9	10292.8	9466.7
67.5°	2386.3	2432.4	2852.9	3650.3	5238.3	7211.9	8782.4	9761.0	10722.0	10895.3	9694.8
70°	1722.0	1757.7	2192.2	2886.8	4265.8	6656.5	8756.3	10043.1	11049.4	11187.8	9522.4
72.5°	814.0	846.2	1356.4	1874.3	3013.1	5575.2	8227.9	9819.3	10716.9	10648.1	8467.2
75°	434.4	462.3	779.2	1028.2	1591.4	3821.8	6733.0	8458.5	8999.2	8664.8	6257.7
77.5°	294.3	316.0	482.3	617.3	726.9	1814.2	4327.7	5856.4	5634.4	5082.5	3134.0
80°	233.3	255.9	395.2	417.9	351.7	655.6	1788.2	2711.0	1947.5	1557.5	891.4
82.5°	179.4	204.6	332.6	303.0	191.6	269.0	520.6	857.5	498.9	379.6	215.9
85°	109.7	136.6	261.2	193.3	107.9	122.8	176.7	238.5	152.3	127.1	77.5
87.5°	55.8	78.3	132.3	70.5	48.8	28.7	47.0	47.0	40.1	34.8	20.0
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°	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4
2.5°	2380.2	2397.6	2427.2	2455.1	2476.8	2497.7	2518.6	2529.9	2533.4	2547.3	2555.1
5°	2408.0	2440.2	2497.7	2551.6	2585.7	2606.5	2621.3	2630.0	2631.8	2636.1	2643.1
7.5°	2459.4	2510.7	2590.9	2644.8	2670.0	2668.3	2662.2	2640.5	2631.8	2623.9	2625.6
10°	2531.6	2599.5	2697.9	2735.3	2719.7	2677.9	2623.9	2560.3	2530.7	2502.0	2493.3
12.5°	2621.3	2707.5	2804.1	2802.4	2725.0	2617.8	2492.5	2395.0	2333.1	2288.7	2278.3
15°	2730.1	2829.4	2903.4	2844.2	2674.4	2482.0	2298.4	2171.3	2115.5	2066.7	2061.6
17.5°	2842.4	2948.6	2982.6	2831.2	2547.3	2280.9	2072.9	1972.7	1917.9	1891.7	1899.6
20°	2952.1	3057.5	3029.6	2756.2	2354.0	2052.9	1867.3	1812.5	1801.2	1807.3	1804.7
22.5°	3067.9	3161.9	3039.2	2611.7	2107.7	1819.5	1717.7	1719.4	1744.7	1762.9	1767.3
25°	3186.3	3249.9	3013.9	2402.8	1843.1	1648.0	1622.8	1650.7	1700.3	1735.9	1745.5
27.5°	3300.4	3328.3	2959.1	2144.2	1615.8	1525.3	1529.6	1587.1	1661.9	1711.5	1723.7
30°	3429.2	3397.9	2853.8	1853.5	1458.3	1419.9	1456.5	1523.6	1598.4	1642.8	1653.2
32.5°	3574.6	3457.9	2686.6	1584.4	1346.7	1335.5	1395.5	1439.1	1472.1	1485.2	1492.2
35°	3755.7	3542.4	2472.4	1395.5	1246.7	1273.7	1331.2	1309.3	1296.3	1289.3	1296.3
37.5°	3990.7	3656.5	2221.7	1272.7	1165.7	1229.3	1252.8	1184.9	1133.4	1108.2	1114.4
40°	4273.6	3823.6	1980.6	1177.9	1114.4	1190.9	1150.0	1068.2	1002.9	967.2	969.9
42.5°	4588.0	3998.5	1777.8	1106.5	1085.6	1159.6	1074.3	976.8	871.5	860.2	871.5
45°	4918.0	4178.8	1639.3	1051.6	1071.6	1132.6	1030.7	873.2	798.4	844.5	868.8
47.5°	5247.9	4344.2	1555.7	1010.8	1064.8	1102.2	992.5	815.7	762.6	829.6	861.0
50°	5615.3	4492.2	1518.3	981.1	1056.9	1090.0	935.0	800.9	725.2	769.6	802.7
52.5°	5980.1	4607.1	1490.5	951.5	1045.6	1080.4	907.1	783.5	679.9	682.5	700.8
55°	6343.9	4682.0	1460.0	912.4	1020.3	1059.5	904.6	764.3	646.0	633.8	642.5
57.5°	6732.2	4724.6	1422.5	868.8	976.8	1006.3	901.9	749.6	635.5	615.5	618.1
60°	7127.4	4787.4	1373.8	815.7	918.5	942.8	895.8	744.4	629.5	595.5	598.1
62.5°	7481.8	4809.1	1315.5	765.3	843.6	880.2	882.7	739.9	612.8	554.5	554.5
65°	7714.3	4715.1	1213.6	707.8	762.6	815.7	857.5	725.2	583.3	525.0	525.0
67.5°	7704.6	4447.0	1054.3	633.8	684.3	744.4	820.9	700.0	547.6	488.4	491.0
70°	7346.0	3917.7	852.3	547.6	598.1	667.7	774.0	662.6	504.9	448.3	453.6
72.5°	6300.4	3066.2	619.0	446.6	497.9	588.6	713.0	617.3	461.5	412.7	410.0
75°	4500.9	1940.5	419.6	343.0	387.4	498.9	637.2	564.2	421.4	414.4	390.9
77.5°	2299.2	927.2	277.7	250.7	269.9	393.5	535.4	504.1	427.4	342.1	304.7
80°	747.8	342.1	175.0	170.7	179.4	262.1	414.4	413.5	323.9	232.5	205.4
82.5°	238.5	147.1	114.1	109.7	105.4	164.5	289.0	327.4	218.5	147.1	146.3
85°	94.9	87.9	67.0	61.8	44.4	77.5	151.5	217.6	162.8	106.2	108.9
87.5°	34.8	34.8	18.2	13.0	9.5	26.1	40.9	65.3	93.2	54.8	54.0
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)