

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: P963121

Luminaire Tested: **NAV-SB2D-827-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963121
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17927.3 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

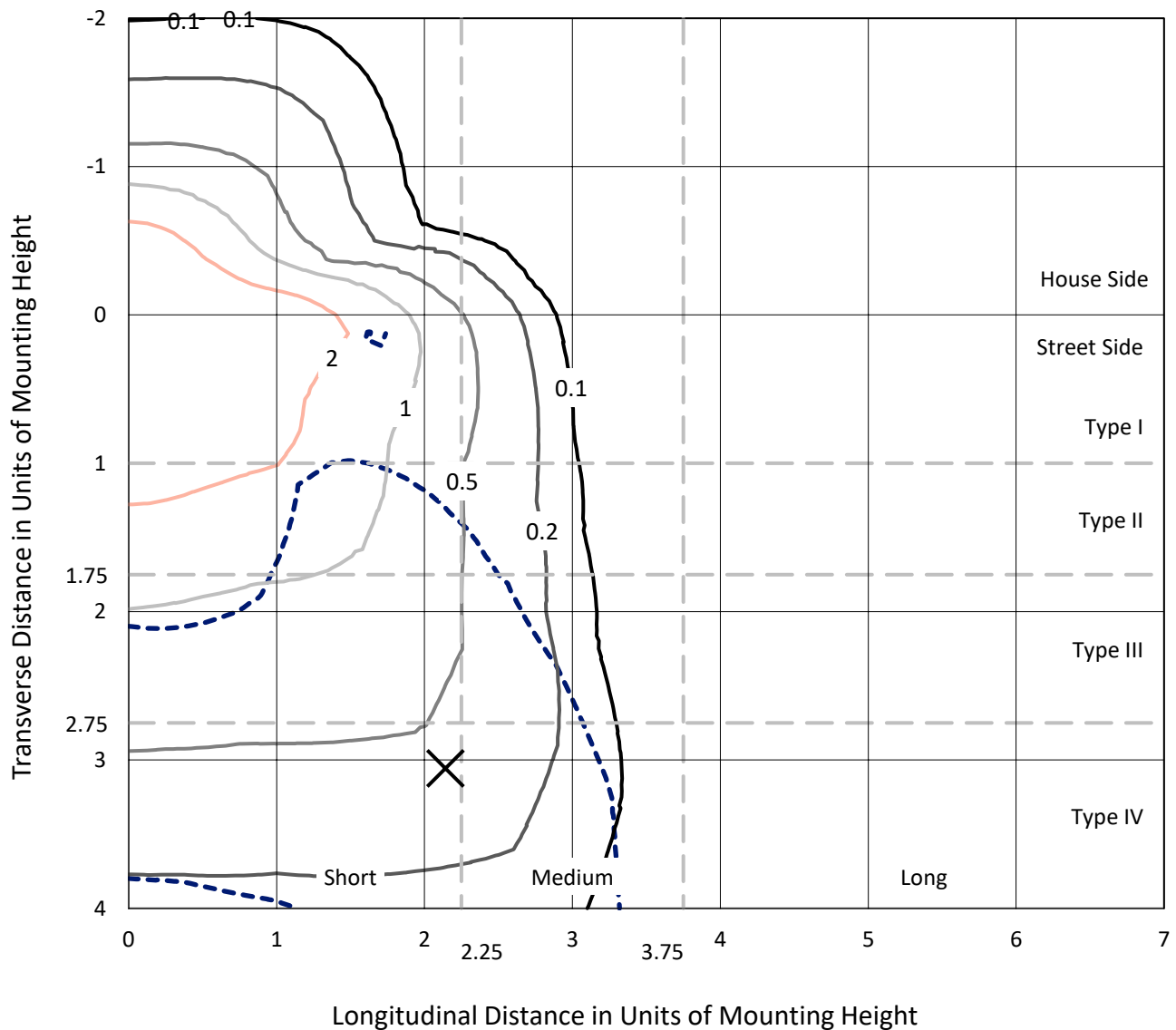
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P963121
CATALOG NUMBER: NAV-SB2D-827-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

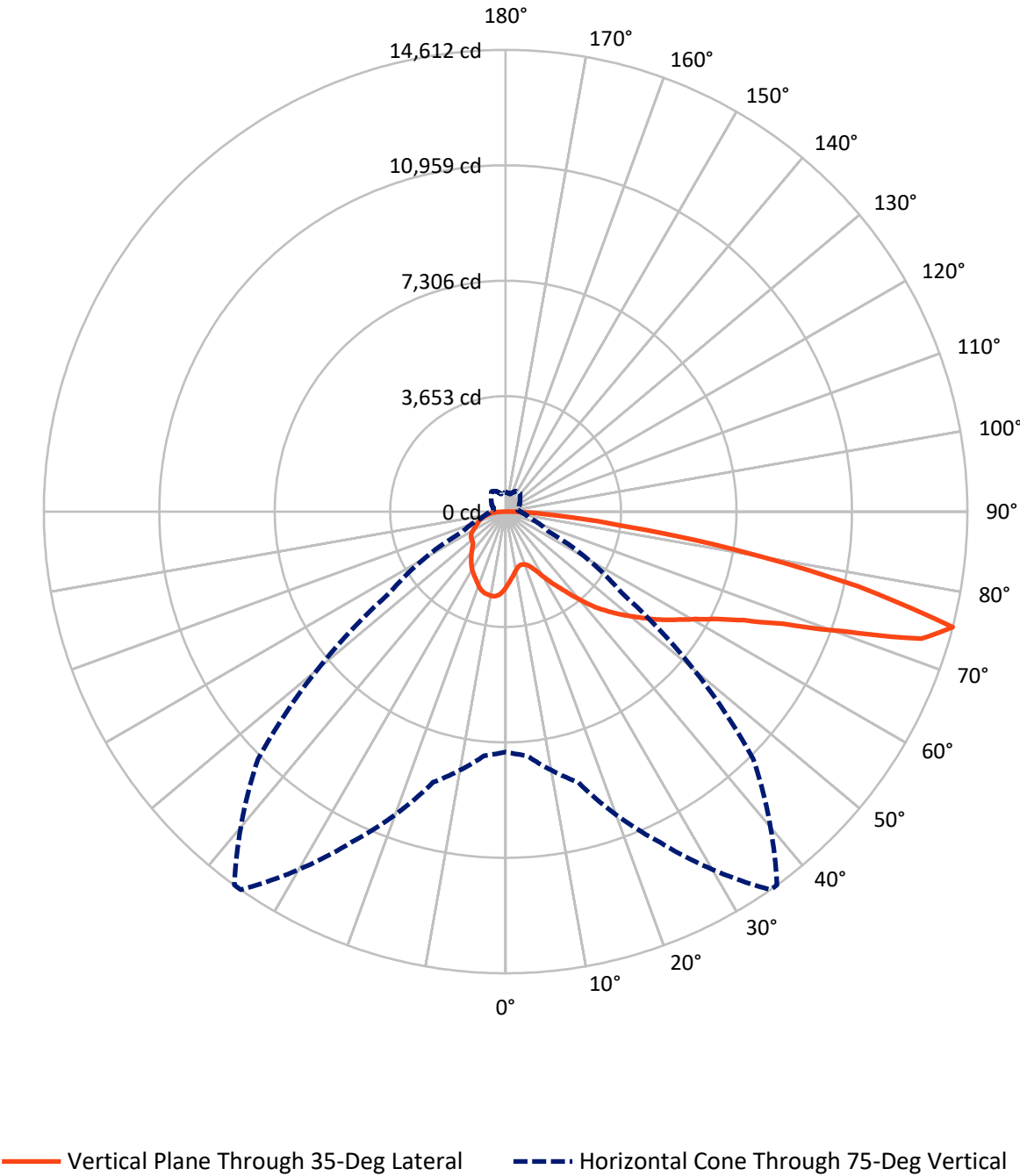
× Max cd
- - - 1/2 Max cd



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

REPORT NUMBER: P963121
CATALOG NUMBER: NAV-SB2D-827-U-T4FT

Luminous Intensity Polar Plot



REPORT NUMBER: P963121

CATALOG NUMBER: NAV-SB2D-827-U-T4FT

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4266.2	0.0	4266.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	13661.0	0.0	13661.0
	% Fixture	76.2	0.0	76.2
Total	Lumens	17927.3	0.0	17927.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.2	1.3
10°-20°	652.4	3.6
20°-30°	1095.6	6.1
30°-40°	1702.7	9.5
40°-50°	2527.2	14.1
50°-60°	3489.0	19.5
60°-70°	4232.9	23.6
70°-80°	3498.2	19.5
80°-90°	503.1	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°	17927.3	100.0
0°-180°	17927.3	100.0

Coefficient of Utilization



REPORT NUMBER: P963121

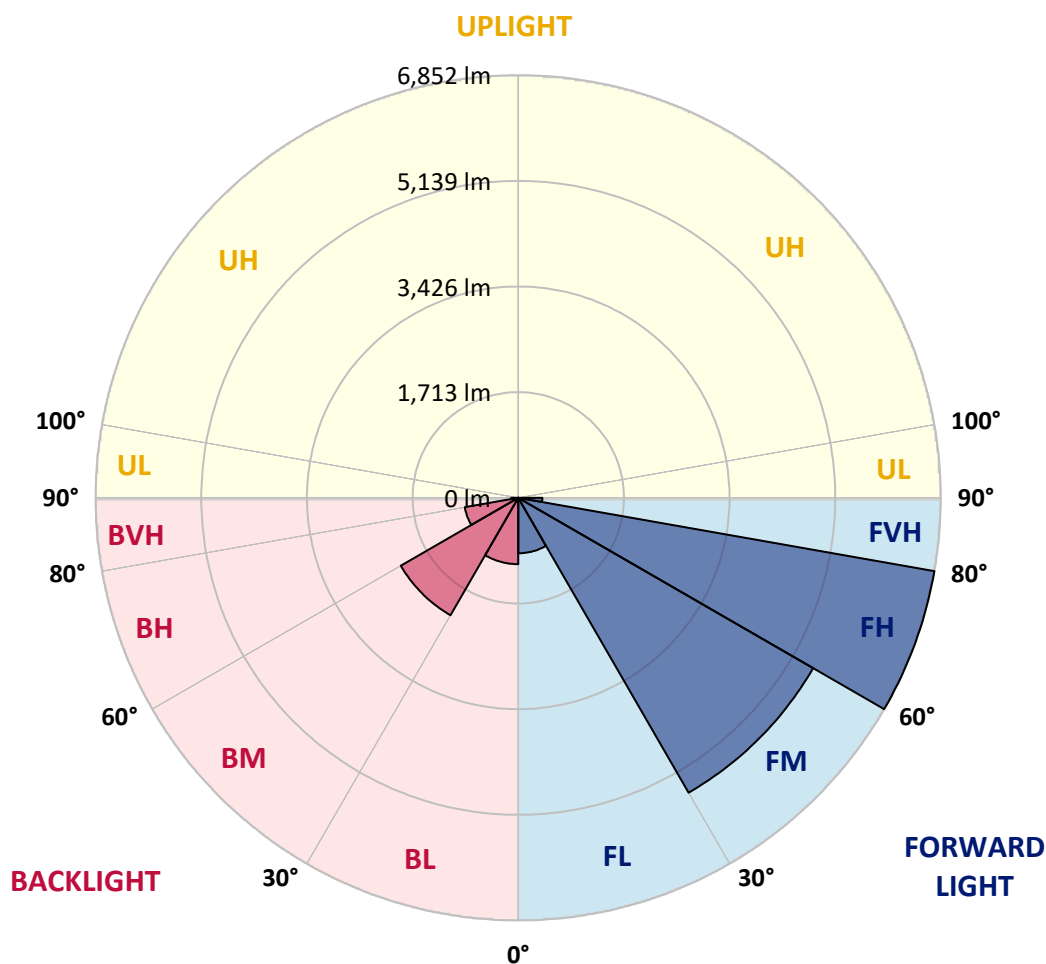
CATALOG NUMBER: NAV-SB2D-827-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	899.0	5.0			
FM	(30°-60°)	5520.6	30.8			
FH	(60°-80°)	6851.5	38.2			G3/7500
FVH	(80°-90°)	389.8	2.2			G3/500
BL	(0°-30°)	1075.2	6.0	B3/2500		
BM	(30°-60°)	2198.2	12.3	B2/2500		
BH	(60°-80°)	879.6	4.9	B2/1000		G2/1000
BVH	(80°-90°)	113.3	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: P963121

CATALOG NUMBER: NAV-SB2D-827-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0
2.5°	2202.8	2216.5	2222.2	2219.3	2233.9	2231.9	2252.2	2277.4	2312.4	2346.3	2395.7
5°	2033.3	2047.7	2060.4	2072.0	2100.1	2108.8	2140.8	2189.3	2253.3	2318.1	2399.6
7.5°	1875.2	1887.8	1907.2	1928.5	1976.1	1984.8	2038.1	2113.7	2202.8	2297.8	2410.3
10°	1746.4	1759.0	1779.3	1803.6	1862.7	1873.4	1941.1	2042.0	2158.2	2278.5	2421.9
12.5°	1691.1	1695.0	1706.6	1730.9	1782.3	1789.0	1863.7	1979.0	2114.7	2263.9	2439.3
15°	1688.3	1696.0	1697.0	1709.6	1752.2	1755.1	1823.9	1938.3	2087.5	2261.0	2465.5
17.5°	1717.3	1723.1	1714.4	1722.2	1758.0	1762.9	1817.1	1918.9	2078.8	2273.6	2510.0
20°	1794.9	1799.7	1773.6	1762.9	1789.0	1792.9	1846.2	1931.5	2087.5	2299.8	2571.1
22.5°	1959.6	1962.5	1898.5	1854.9	1856.9	1858.8	1905.4	1982.9	2121.4	2347.2	2648.7
25°	2216.5	2214.5	2112.7	2028.4	1980.0	1969.3	2000.3	2066.2	2178.6	2410.3	2748.4
27.5°	2516.9	2502.3	2400.5	2274.6	2168.9	2153.4	2146.7	2174.7	2260.0	2493.6	2870.6
30°	2856.1	2842.5	2733.0	2568.2	2421.9	2396.7	2332.7	2318.1	2381.2	2607.0	3040.1
32.5°	3228.2	3219.5	3088.6	2889.0	2693.2	2664.2	2556.6	2517.8	2567.2	2778.6	3276.6
35°	3540.2	3532.6	3424.0	3218.5	2979.2	2943.3	2833.7	2790.2	2815.4	2998.5	3585.9
37.5°	3822.3	3818.4	3725.4	3563.5	3316.4	3272.8	3149.7	3135.2	3130.4	3288.3	3960.9
40°	4083.9	4074.3	3977.3	3892.0	3708.9	3669.2	3560.6	3548.0	3511.2	3644.9	4385.4
42.5°	4373.7	4348.6	4208.0	4168.3	4118.9	4085.9	4021.0	4022.9	3941.5	4047.1	4835.0
45°	4610.1	4595.7	4451.3	4428.0	4481.3	4467.8	4523.9	4538.5	4380.5	4468.7	5302.1
47.5°	4864.1	4850.5	4728.4	4711.9	4856.3	4860.2	5058.9	5063.7	4808.9	4906.8	5770.2
50°	5177.2	5157.8	5036.6	5056.9	5218.8	5233.3	5596.8	5563.8	5203.3	5351.6	6234.5
52.5°	5383.6	5395.2	5369.1	5402.0	5622.9	5636.5	6125.9	6041.7	5593.8	5790.6	6690.0
55°	5535.7	5559.0	5640.4	5716.0	6049.3	6063.0	6625.0	6496.1	5917.5	6197.7	7118.3
57.5°	5731.5	5698.5	5850.7	5998.0	6454.4	6490.3	7110.5	6934.2	6204.4	6548.5	7412.0
60°	6012.5	5989.3	6107.5	6325.6	6908.0	6965.2	7624.3	7328.6	6414.8	6826.6	7469.2
62.5°	6582.3	6524.2	6542.7	6735.5	7479.8	7555.4	8203.8	7672.6	6519.4	6935.2	7162.9
65°	7434.2	7334.5	7241.4	7375.2	8285.2	8359.8	8857.9	7943.0	6480.7	6724.8	6349.8
67.5°	8507.1	8408.3	8293.9	8419.9	9471.4	9530.6	9665.2	8095.2	6175.3	5914.7	4912.5
70°	9392.0	9355.1	9491.7	10010.3	11366.0	11368.0	10700.3	7969.3	5339.0	4193.5	2842.5
72.5°	9274.6	9252.4	9972.4	11575.4	13754.1	13702.6	11680.1	7015.6	3596.5	1891.7	1065.1
75°	7608.7	7753.1	8868.6	11547.2	14611.7	14604.9	11080.1	4460.0	1487.6	784.0	550.4
77.5°	4080.1	4308.8	5757.6	8525.5	11406.8	11578.3	7789.9	1560.4	638.7	502.0	380.9
80°	1330.7	1530.2	2294.9	4340.8	7412.0	7380.0	3338.7	612.5	437.1	355.7	263.6
82.5°	565.0	588.2	1025.3	2049.7	3803.9	3744.7	1063.1	351.8	307.2	243.2	162.8
85°	221.0	247.1	452.5	947.8	1647.6	1611.7	383.8	174.5	196.7	159.0	97.0
87.5°	72.7	88.1	161.8	324.6	512.7	494.3	94.0	60.1	85.3	72.7	34.8
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: P963121

CATALOG NUMBER: NAV-SB2D-827-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0
2.5°	2409.3	2424.7	2443.2	2470.4	2493.6	2513.0	2533.3	2545.9	2550.8	2565.3	2564.3
5°	2426.7	2460.6	2506.2	2550.8	2594.4	2620.5	2643.8	2655.5	2666.1	2673.8	2675.8
7.5°	2455.8	2499.4	2571.1	2629.2	2666.1	2687.4	2702.9	2699.0	2702.9	2704.9	2707.7
10°	2481.0	2542.1	2627.4	2682.5	2710.7	2711.6	2707.7	2694.2	2687.4	2688.4	2690.3
12.5°	2511.0	2578.9	2670.9	2717.5	2725.2	2703.8	2687.4	2664.2	2655.5	2651.6	2649.6
15°	2551.7	2629.2	2718.4	2735.9	2716.5	2689.4	2661.2	2623.5	2604.1	2588.5	2593.5
17.5°	2601.1	2686.4	2755.3	2742.7	2701.0	2656.4	2610.9	2553.7	2513.9	2497.5	2498.4
20°	2670.0	2746.6	2783.4	2728.1	2665.1	2597.2	2519.8	2450.0	2413.2	2396.7	2394.7
22.5°	2753.4	2827.0	2810.5	2702.9	2613.8	2505.2	2408.3	2357.0	2338.5	2326.9	2328.8
25°	2853.2	2916.1	2829.9	2666.1	2529.5	2383.1	2308.5	2292.0	2283.3	2274.6	2274.6
27.5°	2983.1	3016.9	2844.4	2611.8	2397.7	2253.3	2226.1	2229.1	2226.1	2211.5	2214.5
30°	3154.5	3147.8	2858.0	2523.7	2246.5	2136.0	2137.9	2150.6	2152.5	2142.8	2147.6
32.5°	3380.3	3311.6	2864.8	2409.3	2102.1	2033.3	2035.2	2048.8	2058.4	2042.0	2049.7
35°	3653.6	3502.4	2854.1	2265.9	1990.7	1935.4	1920.8	1924.7	1927.6	1912.1	1922.8
37.5°	3972.5	3716.6	2806.7	2106.9	1898.5	1839.5	1808.4	1782.3	1766.7	1752.2	1761.9
40°	4322.3	3950.2	2719.4	1951.8	1795.8	1737.7	1691.1	1641.7	1589.4	1570.0	1578.7
42.5°	4688.7	4190.5	2613.8	1803.6	1677.6	1630.1	1580.7	1508.9	1430.5	1390.7	1395.5
45°	5068.6	4436.7	2510.0	1657.2	1556.5	1536.1	1478.9	1392.7	1307.4	1257.0	1253.1
47.5°	5440.7	4669.3	2357.9	1509.9	1443.1	1465.3	1420.8	1341.3	1246.3	1166.9	1158.1
50°	5796.4	4887.4	2108.8	1360.7	1350.9	1444.0	1401.4	1287.0	1178.4	1076.8	1067.9
52.5°	6149.2	5063.7	1790.0	1225.0	1301.5	1438.2	1376.2	1250.2	1117.5	1010.9	999.2
55°	6448.7	5154.8	1482.8	1108.7	1229.8	1388.8	1346.1	1206.5	1031.1	917.8	908.0
57.5°	6619.2	5081.2	1226.9	994.4	1131.0	1307.4	1294.8	1113.6	928.4	841.2	829.5
60°	6545.5	4782.6	1017.6	894.5	1037.0	1219.1	1205.6	1021.5	849.9	767.5	755.9
62.5°	6139.5	4213.8	851.9	807.3	951.7	1129.0	1116.4	950.7	789.9	710.4	697.8
65°	5321.5	3427.8	722.9	734.6	865.4	1020.5	1038.9	891.6	742.4	664.8	652.2
67.5°	4058.8	2483.0	622.2	671.6	781.2	913.9	967.2	849.0	702.6	628.9	617.4
70°	2313.3	1410.1	536.9	610.6	706.5	815.1	911.9	815.1	660.0	598.9	591.2
72.5°	877.1	647.4	464.2	549.5	634.8	731.7	851.0	761.8	610.6	565.0	557.3
75°	468.1	394.4	390.5	477.8	552.4	650.3	774.4	709.4	573.7	597.0	616.3
77.5°	318.9	279.1	326.6	409.0	462.3	560.2	692.9	630.0	497.1	495.3	456.4
80°	221.0	197.7	265.6	329.5	357.6	471.0	604.8	540.8	405.1	377.9	361.5
82.5°	132.7	128.9	198.6	246.2	253.0	363.5	501.0	453.6	331.5	288.8	290.8
85°	72.7	76.6	127.0	144.4	147.3	253.9	392.5	350.9	254.9	214.2	216.1
87.5°	20.4	26.1	46.5	57.2	70.7	131.8	233.6	208.4	127.9	89.2	89.2
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)