

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: P965787

Luminaire Tested: **NAV-SB4A-830-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965787
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-SB4A-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16365.2 lumens
Efficiency: N/A
Efficacy: 143.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
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



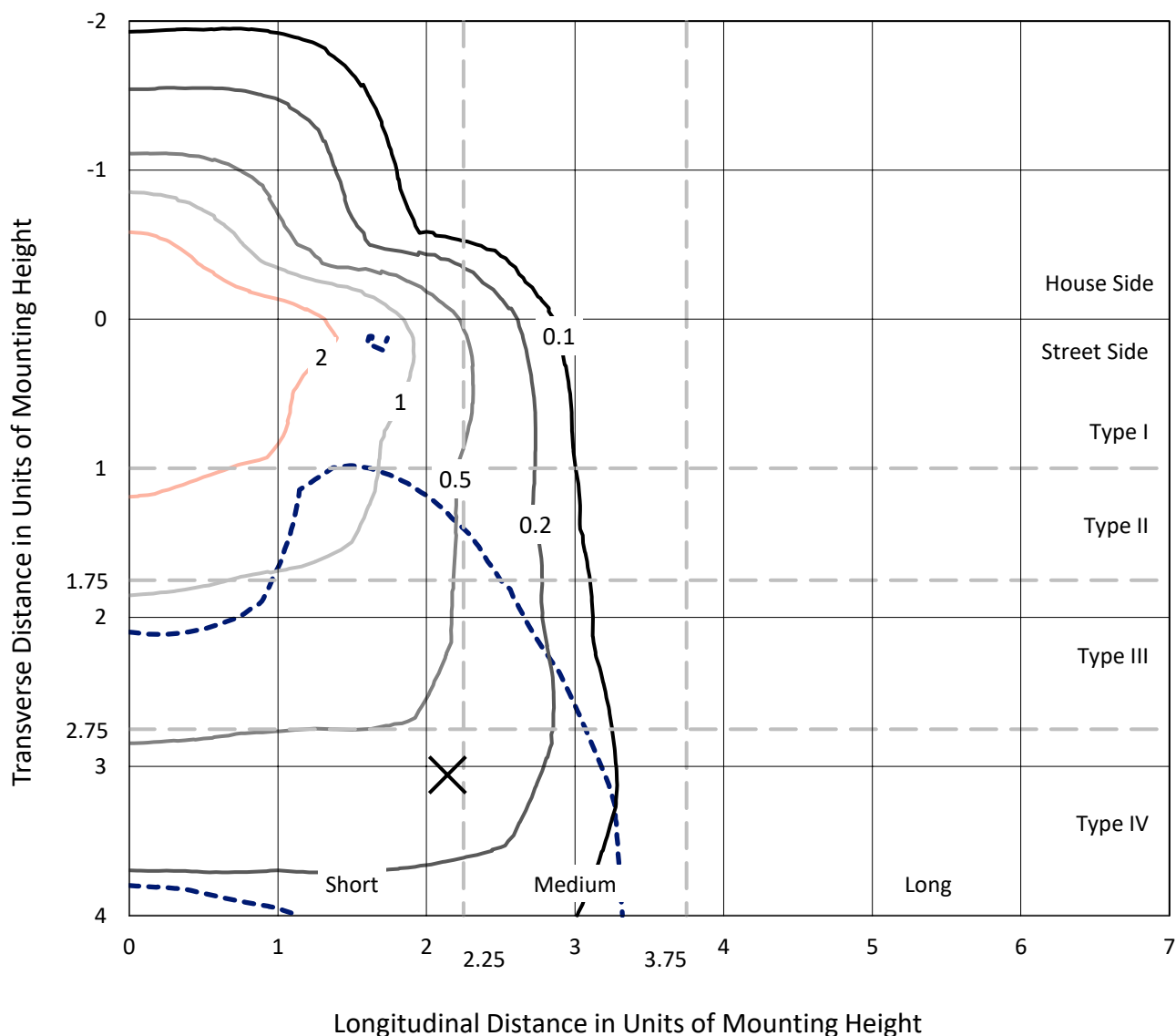
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

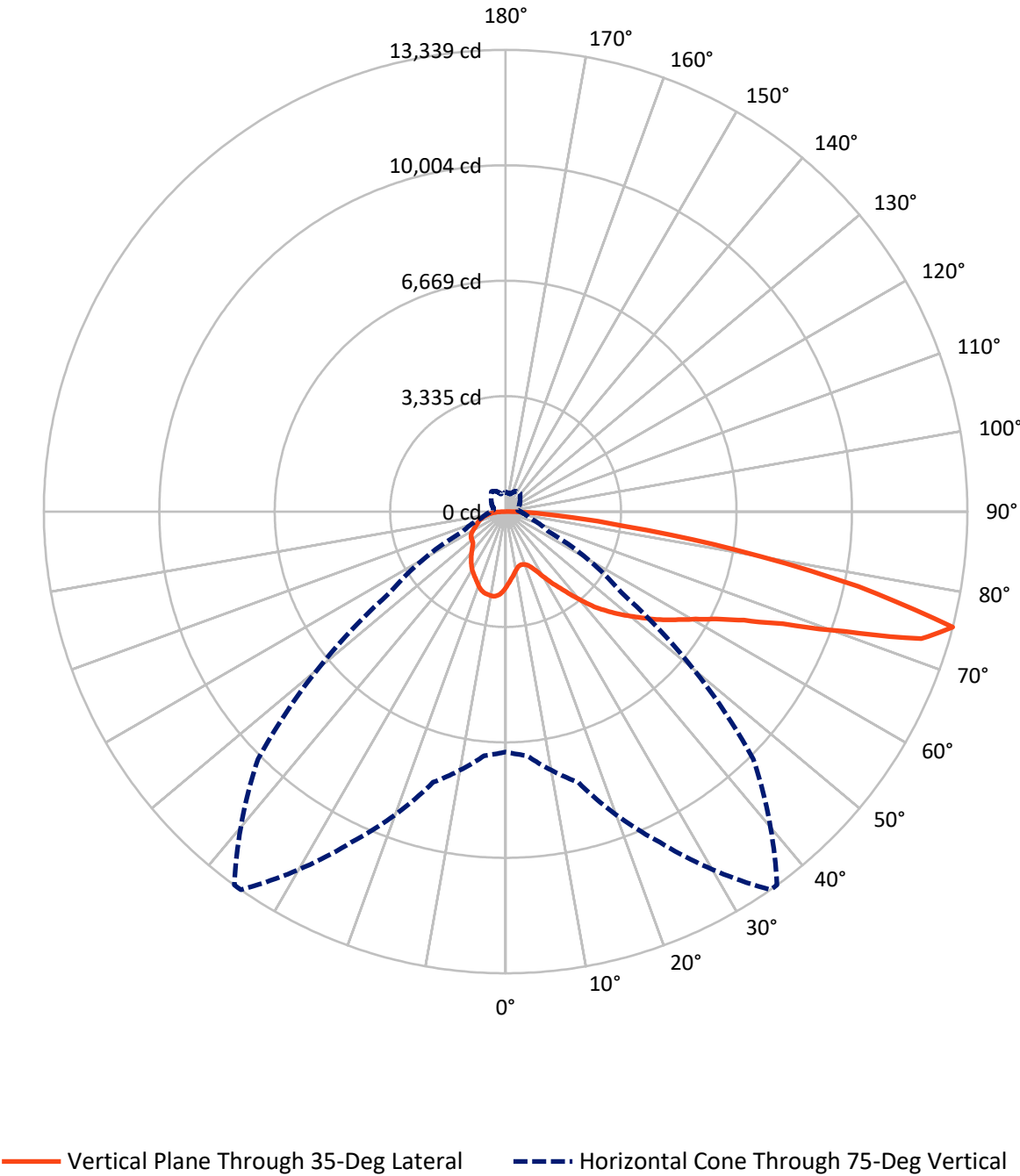


Based on 25 foot mounting height. Maximum calculated value = 3.9 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3894.5	0.0	3894.5
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	12470.7	0.0	12470.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	16365.2	0.0	16365.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.5	1.3
10°-20°	595.6	3.6
20°-30°	1000.1	6.1
30°-40°	1554.3	9.5
40°-50°	2307.0	14.1
50°-60°	3185.0	19.5
60°-70°	3864.1	23.6
70°-80°	3193.4	19.5
80°-90°	459.3	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°	16365.2	100.0
0°-180°	16365.2	100.0

Coefficient of Utilization



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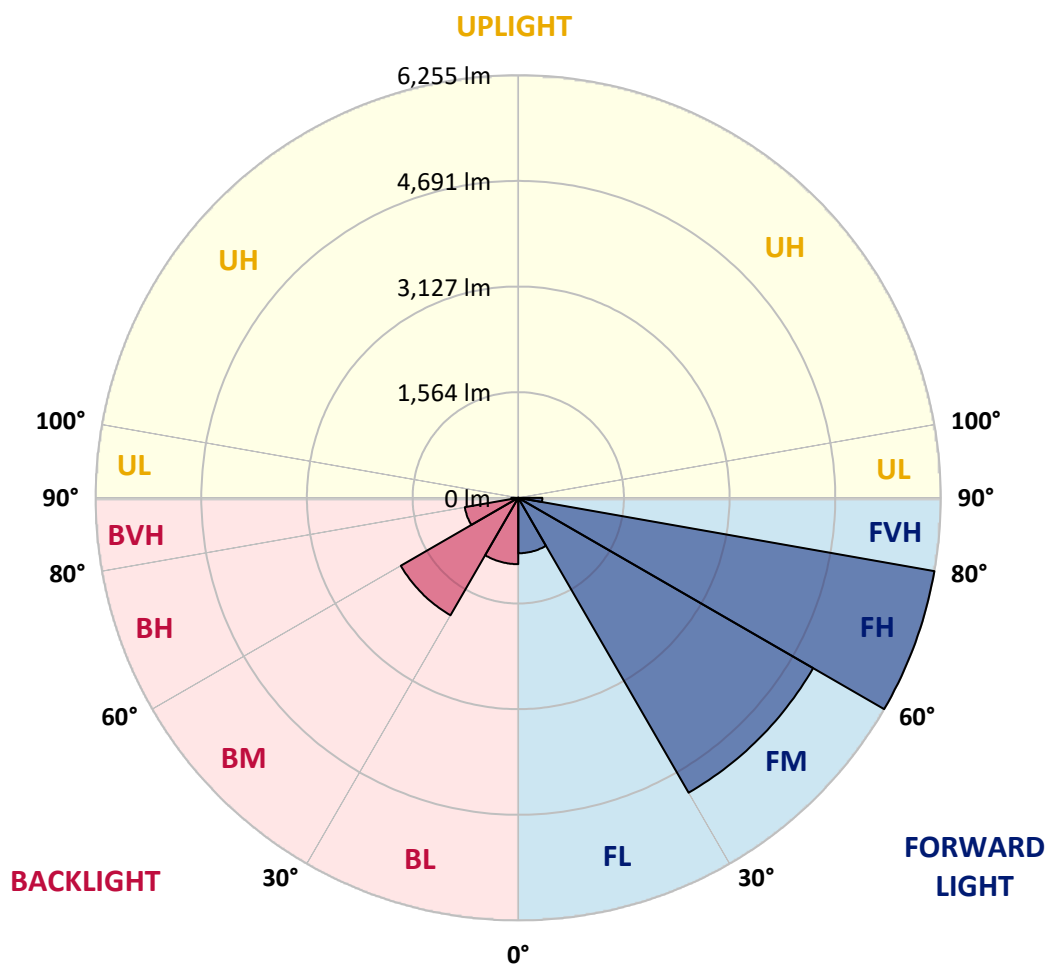
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	820.7	5.0			
FM	(30°-60°)	5039.6	30.8			
FH	(60°-80°)	6254.5	38.2			G3/7500
FVH	(80°-90°)	355.9	2.2			G3/500
BL	(0°-30°)	981.5	6.0	B2/1000		
BM	(30°-60°)	2006.7	12.3	B2/2500		
BH	(60°-80°)	802.9	4.9	B2/1000		G2/1000
BVH	(80°-90°)	103.4	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8
2.5°	2010.9	2023.2	2028.6	2025.9	2039.2	2037.5	2056.0	2079.0	2110.9	2141.8	2186.9
5°	1856.1	1869.4	1880.9	1891.4	1917.2	1925.1	1954.3	1998.5	2056.9	2116.2	2190.5
7.5°	1711.9	1723.3	1741.1	1760.5	1803.9	1811.9	1860.5	1929.6	2010.9	2097.6	2200.3
10°	1594.2	1605.8	1624.3	1646.5	1700.4	1710.1	1772.0	1864.1	1970.3	2079.9	2210.8
12.5°	1543.8	1547.3	1557.9	1580.0	1627.0	1633.1	1701.3	1806.6	1930.4	2066.6	2226.8
15°	1541.1	1548.3	1549.1	1560.6	1599.5	1602.2	1665.0	1769.4	1905.6	2063.9	2250.7
17.5°	1567.6	1573.0	1565.0	1572.1	1604.8	1609.2	1658.8	1751.7	1897.7	2075.5	2291.4
20°	1638.5	1642.9	1619.0	1609.2	1633.1	1636.7	1685.3	1763.2	1905.6	2099.4	2347.0
22.5°	1788.8	1791.5	1733.1	1693.3	1695.0	1696.9	1739.3	1810.0	1936.6	2142.8	2417.9
25°	2023.2	2021.5	1928.6	1851.7	1807.4	1797.6	1826.0	1886.2	1988.8	2200.3	2509.0
27.5°	2297.5	2284.3	2191.3	2076.3	1980.0	1965.7	1959.6	1985.2	2063.1	2276.3	2620.4
30°	2607.2	2594.8	2494.8	2344.5	2210.8	2187.9	2129.4	2116.2	2173.7	2379.8	2775.3
32.5°	2946.9	2939.0	2819.5	2637.2	2458.6	2432.0	2333.8	2298.5	2343.6	2536.4	2991.2
35°	3231.8	3224.8	3125.6	2938.1	2719.5	2686.8	2586.8	2547.0	2570.0	2737.3	3273.3
37.5°	3489.2	3485.7	3400.7	3253.0	3027.4	2987.6	2875.2	2862.0	2857.6	3001.7	3615.7
40°	3728.1	3719.2	3630.8	3553.0	3385.7	3349.5	3250.4	3238.9	3205.3	3327.4	4003.2
42.5°	3992.6	3969.6	3841.3	3805.1	3759.9	3729.9	3670.6	3672.4	3598.1	3694.5	4413.8
45°	4208.4	4195.2	4063.4	4042.2	4090.8	4078.5	4129.7	4143.0	3998.8	4079.3	4840.2
47.5°	4440.3	4427.9	4316.4	4301.4	4433.2	4436.7	4618.1	4622.5	4389.9	4479.1	5267.5
50°	4726.1	4708.3	4597.7	4616.3	4764.1	4777.3	5109.1	5079.0	4750.0	4885.3	5691.2
52.5°	4914.5	4925.1	4901.2	4931.3	5133.0	5145.4	5592.1	5515.2	5106.4	5286.0	6107.1
55°	5053.4	5074.6	5148.9	5217.9	5522.3	5534.6	6047.8	5930.1	5402.0	5657.6	6498.1
57.5°	5232.1	5202.0	5340.9	5475.3	5892.0	5924.8	6491.0	6330.0	5663.8	5977.9	6766.1
60°	5488.7	5467.3	5575.3	5774.3	6306.1	6358.3	6959.9	6690.1	5855.8	6231.8	6818.3
62.5°	6008.9	5955.8	5972.6	6148.6	6828.0	6897.0	7489.0	7004.1	5951.4	6330.8	6538.8
65°	6786.5	6695.4	6610.4	6732.5	7563.3	7631.3	8086.1	7251.0	5915.9	6138.9	5796.5
67.5°	7765.8	7675.6	7571.2	7686.2	8646.1	8700.1	8823.0	7389.8	5637.3	5399.3	4484.5
70°	8573.5	8539.9	8664.6	9138.0	10375.7	10377.4	9767.8	7274.8	4873.8	3828.1	2594.8
72.5°	8466.5	8446.2	9103.4	10566.7	12555.5	12508.7	10662.4	6404.3	3283.1	1726.9	972.3
75°	6945.7	7077.5	8095.9	10541.1	13338.5	13332.3	10114.7	4071.4	1358.0	715.8	502.5
77.5°	3724.5	3933.3	5256.0	7782.6	10412.9	10569.4	7111.1	1424.3	583.0	458.3	347.7
80°	1214.7	1397.0	2095.0	3962.5	6766.1	6736.9	3047.7	559.1	399.0	324.7	240.7
82.5°	515.8	537.0	936.0	1871.1	3472.4	3418.5	970.5	321.1	280.4	222.0	148.6
85°	201.7	225.6	413.2	865.2	1504.0	1471.3	350.3	159.3	179.6	145.1	88.5
87.5°	66.3	80.5	147.7	296.3	468.0	451.2	85.8	54.8	77.9	66.3	31.9
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°	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8	2180.8
2.5°	2199.3	2213.5	2230.3	2255.1	2276.3	2294.1	2312.6	2324.1	2328.5	2341.8	2340.9
5°	2215.2	2246.2	2287.8	2328.5	2368.4	2392.2	2413.5	2424.0	2433.8	2440.8	2442.7
7.5°	2241.8	2281.6	2347.0	2400.1	2433.8	2453.2	2467.4	2463.9	2467.4	2469.2	2471.8
10°	2264.8	2320.5	2398.4	2448.8	2474.5	2475.4	2471.8	2459.5	2453.2	2454.2	2455.9
12.5°	2292.2	2354.1	2438.2	2480.7	2487.8	2468.3	2453.2	2432.0	2424.0	2420.5	2418.8
15°	2329.4	2400.1	2481.5	2497.5	2479.8	2455.0	2429.4	2394.9	2377.2	2363.0	2367.4
17.5°	2374.5	2452.4	2515.1	2503.7	2465.6	2424.9	2383.3	2331.2	2294.9	2279.8	2280.7
20°	2437.3	2507.3	2540.9	2490.4	2432.9	2370.9	2300.2	2236.5	2202.9	2187.9	2186.1
22.5°	2513.4	2580.6	2565.6	2467.4	2386.0	2287.0	2198.4	2151.6	2134.8	2124.1	2126.0
25°	2604.5	2662.0	2583.3	2433.8	2309.0	2175.5	2107.3	2092.3	2084.3	2076.3	2076.3
27.5°	2723.1	2754.1	2596.5	2384.3	2188.7	2056.9	2032.2	2034.8	2032.2	2018.8	2021.5
30°	2879.6	2873.5	2608.9	2303.8	2050.7	1949.9	1951.6	1963.2	1964.9	1956.0	1960.5
32.5°	3085.8	3023.0	2615.2	2199.3	1918.9	1856.1	1857.8	1870.2	1879.1	1864.1	1871.1
35°	3335.2	3197.3	2605.4	2068.4	1817.1	1766.7	1753.5	1757.0	1759.6	1745.5	1755.2
37.5°	3626.3	3392.7	2562.1	1923.3	1733.1	1679.2	1650.9	1627.0	1612.8	1599.5	1608.3
40°	3945.7	3606.1	2482.4	1781.8	1639.4	1586.3	1543.8	1498.7	1450.9	1433.2	1441.1
42.5°	4280.1	3825.4	2386.0	1646.5	1531.5	1488.1	1442.9	1377.5	1305.8	1269.6	1274.0
45°	4627.0	4050.1	2291.4	1512.8	1420.9	1402.2	1350.0	1271.3	1193.4	1147.5	1143.9
47.5°	4966.6	4262.5	2152.5	1378.3	1317.3	1337.6	1296.9	1224.5	1137.8	1065.2	1057.2
50°	5291.4	4461.5	1925.1	1242.1	1233.3	1318.1	1279.3	1174.9	1075.7	982.9	975.0
52.5°	5613.4	4622.5	1634.1	1118.3	1188.2	1312.9	1256.2	1141.2	1020.1	922.7	912.1
55°	5886.8	4705.7	1353.6	1012.1	1122.7	1267.7	1228.9	1101.5	941.4	837.8	828.9
57.5°	6042.5	4638.4	1120.0	907.7	1032.5	1193.4	1181.9	1016.5	847.6	767.9	757.3
60°	5975.2	4366.0	929.0	816.6	946.6	1112.9	1100.5	932.4	775.9	700.7	690.0
62.5°	5604.5	3846.6	777.7	737.0	868.8	1030.6	1019.2	867.9	721.0	648.5	636.9
65°	4857.9	3129.1	660.0	670.6	790.1	931.6	948.4	814.0	677.6	606.9	595.4
67.5°	3705.1	2266.6	568.0	613.1	713.1	834.2	882.9	775.0	641.4	574.2	563.5
70°	2111.8	1287.2	490.2	557.4	644.9	744.0	832.5	744.0	602.5	546.7	539.7
72.5°	800.6	591.0	423.7	501.6	579.4	668.0	776.7	695.4	557.4	515.8	508.7
75°	427.3	360.1	356.5	436.1	504.3	593.6	706.8	647.6	523.8	545.0	562.6
77.5°	291.1	254.8	298.2	373.3	422.0	511.4	632.5	575.0	453.9	452.1	416.7
80°	201.7	180.5	242.4	300.8	326.5	430.0	552.1	493.6	369.8	345.0	329.9
82.5°	121.2	117.7	181.3	224.7	230.9	331.8	457.4	414.0	302.6	263.6	265.4
85°	66.3	69.9	115.9	131.8	134.5	231.8	358.3	320.2	232.7	195.5	197.3
87.5°	18.6	23.9	42.4	52.2	64.6	120.3	213.2	190.2	116.7	81.4	81.4
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)