

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: P963183

Luminaire Tested: **NAV-SB2D-835-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963183
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-835-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19122.4 lumens
Efficiency: N/A
Efficacy: 129.6 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



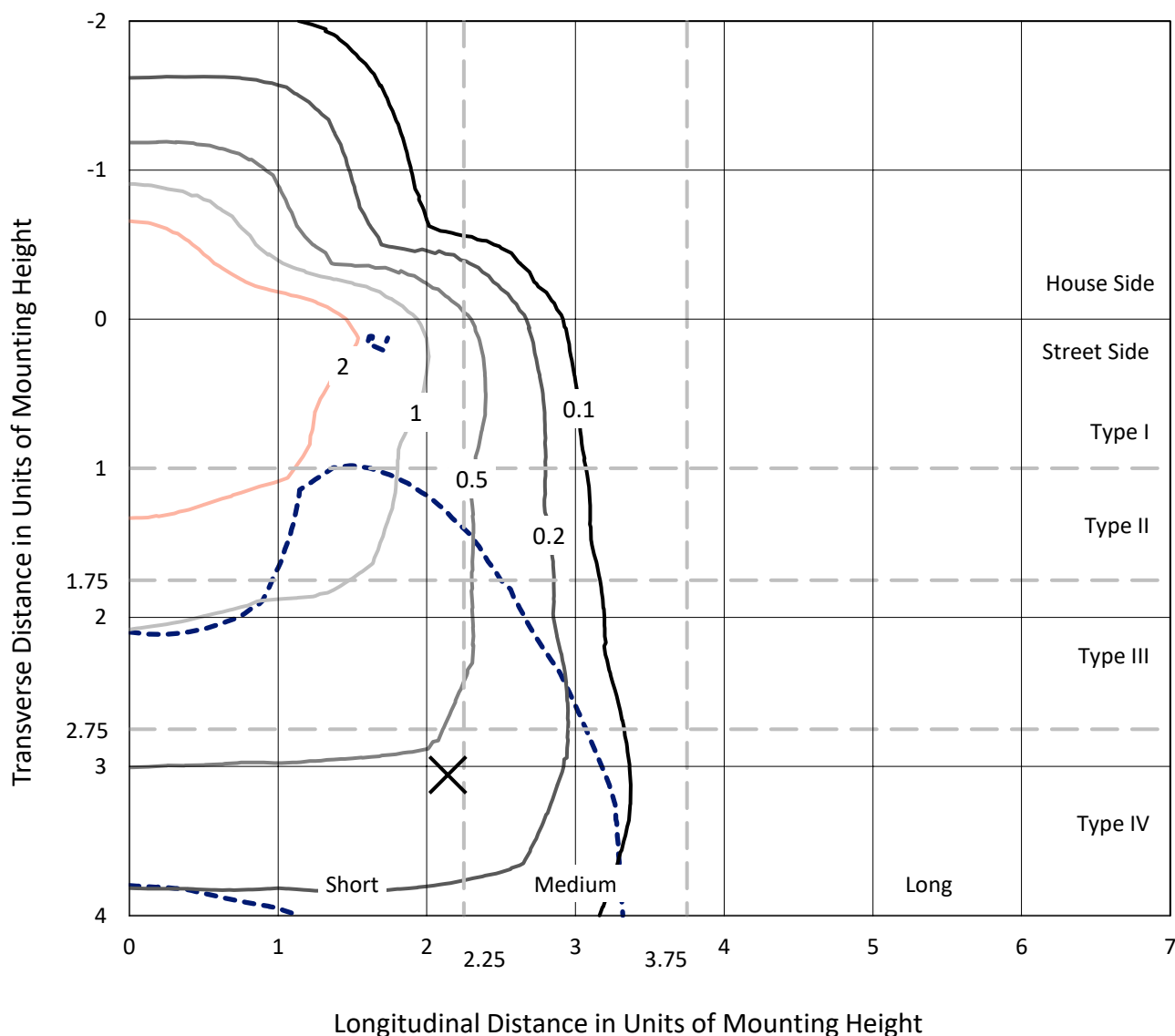
REPORT NUMBER: P963183

CATALOG NUMBER: NAV-SB2D-835-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

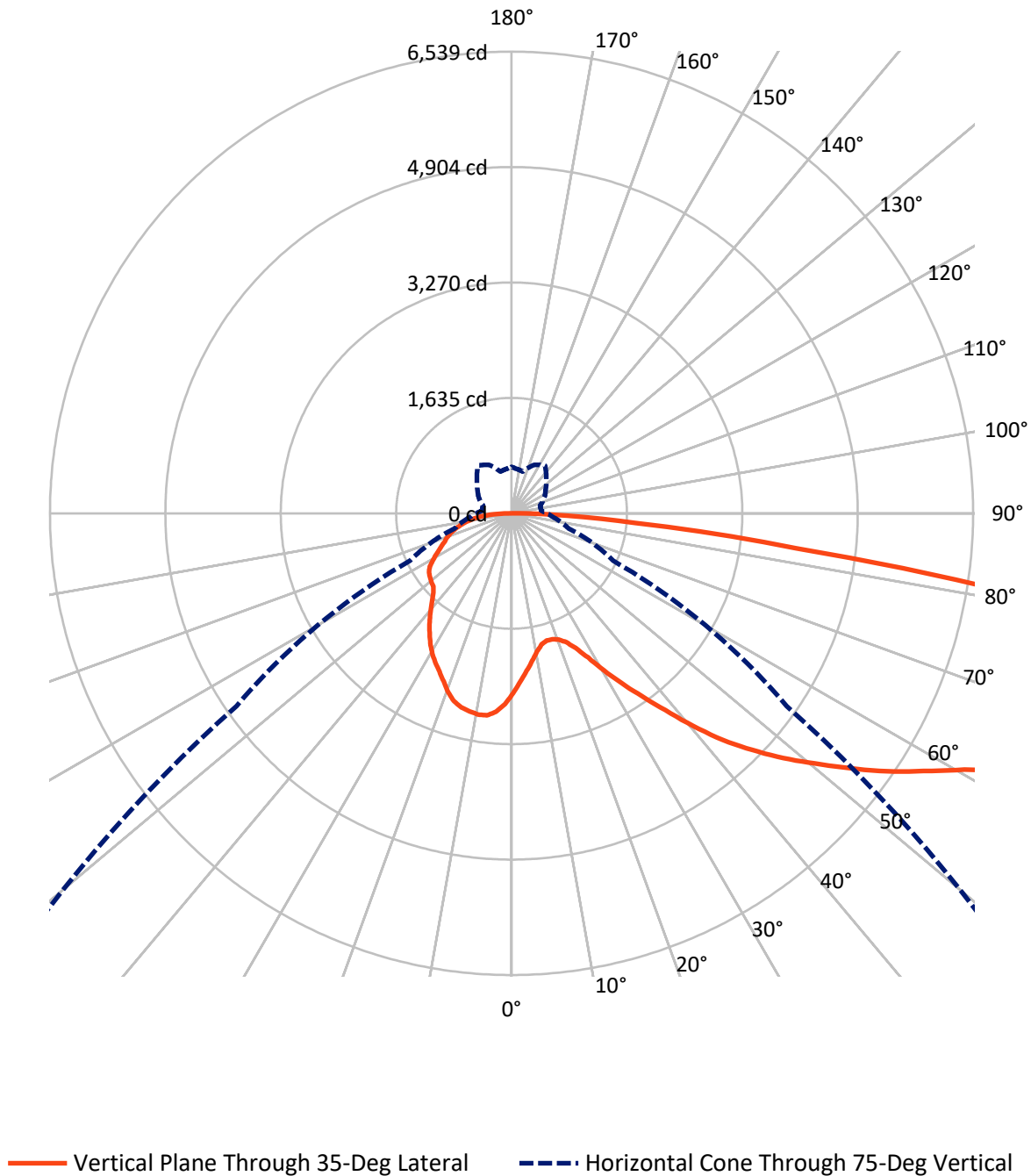


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc

Type IV - Short - N/A

REPORT NUMBER: P963183
CATALOG NUMBER: NAV-SB2D-835-U-T4FT

Luminous Intensity Polar Plot



REPORT NUMBER: P963183

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4550.7	0.0	4550.7
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	14571.7	0.0	14571.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	19122.4	0.0	19122.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.3	1.3
10°-20°	695.9	3.6
20°-30°	1168.6	6.1
30°-40°	1816.2	9.5
40°-50°	2695.7	14.1
50°-60°	3721.6	19.5
60°-70°	4515.1	23.6
70°-80°	3731.4	19.5
80°-90°	536.7	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°	19122.4	100.0
0°-180°	19122.4	100.0

Coefficient of Utilization



REPORT NUMBER: P963183

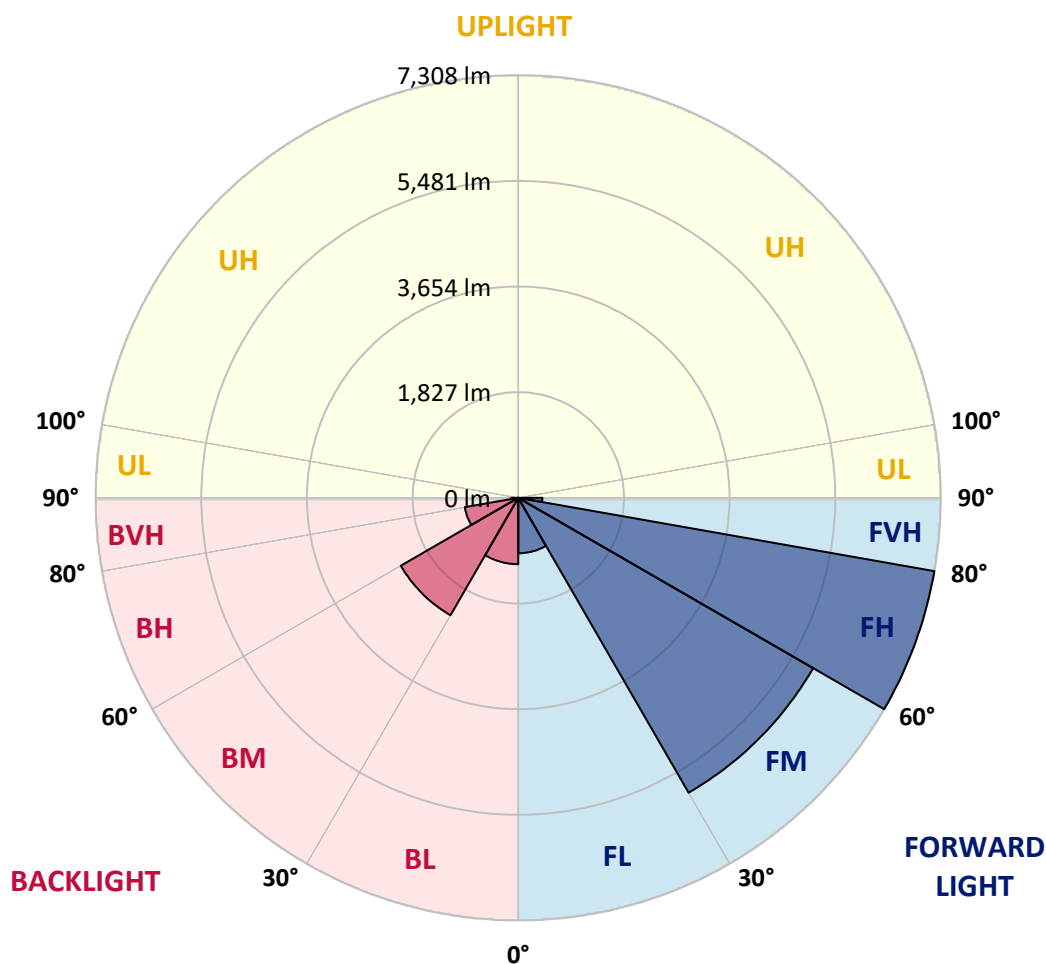
CATALOG NUMBER: NAV-SB2D-835-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	959.0	5.0			
FM	(30°-60°)	5888.7	30.8			
FH	(60°-80°)	7308.3	38.2			G3/7500
FVH	(80°-90°)	415.8	2.2			G3/500
BL	(0°-30°)	1146.8	6.0	B3/2500		
BM	(30°-60°)	2344.8	12.3	B2/2500		
BH	(60°-80°)	938.2	4.9	B2/1000		G2/1000
BVH	(80°-90°)	120.8	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: P963183

CATALOG NUMBER: NAV-SB2D-835-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1
2.5°	2349.7	2364.2	2370.4	2367.2	2382.8	2380.8	2402.4	2429.4	2466.6	2502.7	2555.4
5°	2168.8	2184.3	2197.7	2210.1	2240.1	2249.5	2283.6	2335.3	2403.4	2472.7	2559.5
7.5°	2000.3	2013.7	2034.4	2057.2	2107.8	2117.1	2173.9	2254.6	2349.7	2451.0	2570.9
10°	1862.8	1876.3	1898.0	1923.8	1986.9	1998.2	2070.6	2178.1	2302.1	2430.4	2583.3
12.5°	1803.9	1808.0	1820.4	1846.2	1901.1	1908.3	1987.9	2110.9	2255.6	2414.8	2602.0
15°	1800.8	1809.0	1810.0	1823.6	1869.0	1872.2	1945.6	2067.5	2226.7	2411.7	2629.8
17.5°	1831.8	1838.0	1828.7	1837.0	1875.2	1880.4	1938.3	2046.8	2217.4	2425.1	2677.4
20°	1914.5	1919.6	1891.7	1880.4	1908.3	1912.4	1969.3	2060.2	2226.7	2453.1	2742.5
22.5°	2090.3	2093.4	2025.1	1978.6	1980.7	1982.8	2032.4	2115.1	2262.9	2503.8	2825.2
25°	2364.2	2362.1	2253.6	2163.7	2111.9	2100.5	2133.6	2204.0	2323.9	2570.9	2931.7
27.5°	2684.7	2669.1	2560.6	2426.2	2313.5	2297.0	2289.7	2319.8	2410.7	2659.9	3062.0
30°	3046.5	3032.0	2915.2	2739.4	2583.3	2556.5	2488.2	2472.7	2540.0	2780.8	3242.9
32.5°	3443.4	3434.2	3294.6	3081.6	2872.8	2841.8	2727.0	2685.7	2738.4	2963.8	3495.1
35°	3776.3	3768.0	3652.3	3433.0	3177.7	3139.5	3022.7	2976.2	3003.0	3198.4	3824.9
37.5°	4077.1	4072.9	3973.7	3801.1	3537.5	3490.9	3359.6	3344.2	3339.0	3507.6	4224.9
40°	4356.2	4345.9	4242.5	4151.6	3956.2	3913.8	3798.0	3784.5	3745.2	3887.9	4677.7
42.5°	4665.3	4638.4	4488.6	4446.1	4393.5	4358.3	4289.0	4291.1	4204.2	4316.9	5157.4
45°	4917.5	4902.1	4748.0	4723.2	4780.1	4765.5	4825.5	4841.1	4672.6	4766.7	5655.6
47.5°	5188.3	5173.9	5043.6	5026.1	5180.1	5184.2	5396.2	5401.3	5129.4	5233.9	6154.9
50°	5522.3	5501.6	5372.4	5394.1	5566.8	5582.3	5969.9	5934.7	5550.2	5708.3	6650.1
52.5°	5742.5	5754.9	5727.0	5762.1	5997.8	6012.2	6534.3	6444.4	5966.8	6176.6	7135.9
55°	5904.8	5929.6	6016.4	6097.0	6452.7	6467.1	7066.7	6929.2	6312.1	6610.8	7592.9
57.5°	6113.6	6078.5	6240.7	6397.8	6884.7	6923.1	7584.6	7396.5	6618.0	6985.1	7906.1
60°	6413.3	6388.5	6514.7	6747.3	7368.5	7429.5	8132.5	7817.2	6842.4	7281.7	7967.1
62.5°	7021.2	6959.2	6978.8	7184.5	7978.5	8059.1	8750.6	8184.2	6954.0	7397.5	7640.5
65°	7929.9	7823.4	7724.2	7866.8	8837.6	8917.1	9448.4	8472.6	6912.7	7173.2	6773.1
67.5°	9074.2	8968.8	8846.8	8981.3	10102.8	10165.8	10309.6	8634.9	6587.1	6309.0	5240.1
70°	10018.0	9978.8	10124.5	10677.6	12123.8	12125.9	11413.6	8500.5	5694.9	4473.0	3032.0
72.5°	9893.0	9869.2	10637.2	12347.0	14670.9	14616.2	12458.8	7483.3	3836.3	2017.9	1136.1
75°	8115.9	8270.0	9459.8	12317.1	15585.8	15578.6	11818.9	4757.3	1586.8	836.3	587.1
77.5°	4352.0	4596.0	6141.5	9093.9	12167.3	12350.2	8309.3	1664.3	681.2	535.5	406.3
80°	1419.3	1632.3	2447.9	4630.1	7906.1	7872.0	3561.3	653.3	466.2	379.4	281.2
82.5°	602.7	627.5	1093.7	2186.4	4057.5	3994.4	1134.1	375.3	327.7	259.4	173.6
85°	235.6	263.6	482.8	1011.0	1757.4	1719.1	409.4	186.0	209.8	169.5	103.4
87.5°	77.5	94.1	172.6	346.3	546.8	527.3	100.2	64.1	91.0	77.5	37.2
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: P963183

CATALOG NUMBER: NAV-SB2D-835-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1	2548.1
2.5°	2569.9	2586.5	2606.1	2635.1	2659.9	2680.5	2702.2	2715.6	2720.9	2736.3	2735.3
5°	2588.5	2624.7	2673.3	2720.9	2767.3	2795.3	2820.1	2832.5	2843.9	2852.1	2854.2
7.5°	2619.5	2666.0	2742.5	2804.6	2843.9	2866.6	2883.1	2879.0	2883.1	2885.2	2888.2
10°	2646.3	2711.5	2802.5	2861.4	2891.4	2892.4	2888.2	2873.8	2866.6	2867.6	2869.7
12.5°	2678.4	2750.8	2849.0	2898.6	2906.9	2884.1	2866.6	2841.8	2832.5	2828.4	2826.2
15°	2721.9	2804.6	2899.6	2918.3	2897.6	2868.7	2838.6	2798.4	2777.6	2761.1	2766.3
17.5°	2774.6	2865.6	2939.0	2925.6	2881.1	2833.5	2784.9	2723.9	2681.5	2664.0	2665.0
20°	2848.0	2929.7	2968.9	2910.0	2842.8	2770.5	2687.8	2613.3	2574.1	2556.5	2554.4
22.5°	2936.8	3015.4	2997.9	2883.1	2788.0	2672.3	2568.9	2514.1	2494.4	2482.0	2484.1
25°	3043.3	3110.6	3018.5	2843.9	2698.1	2542.0	2462.4	2444.8	2435.5	2426.2	2426.2
27.5°	3181.9	3218.1	3034.0	2786.0	2557.5	2403.4	2374.5	2377.6	2374.5	2359.0	2362.1
30°	3364.9	3357.6	3048.6	2691.9	2396.2	2278.4	2280.4	2293.8	2296.0	2285.6	2290.8
32.5°	3605.7	3532.4	3055.7	2569.9	2242.2	2168.8	2170.8	2185.3	2195.7	2178.1	2186.4
35°	3897.3	3735.9	3044.4	2417.0	2123.3	2064.4	2048.9	2053.1	2056.1	2039.5	2050.9
37.5°	4237.3	3964.4	2993.7	2247.4	2025.1	1962.1	1928.9	1901.1	1884.6	1869.0	1879.3
40°	4610.6	4213.6	2900.6	2082.0	1915.5	1853.5	1803.9	1751.2	1695.4	1674.6	1684.0
42.5°	5001.3	4469.9	2788.0	1923.8	1789.4	1738.8	1686.0	1609.6	1525.8	1483.4	1488.6
45°	5406.5	4732.5	2677.4	1767.7	1660.2	1638.5	1577.5	1485.5	1394.5	1340.8	1336.6
47.5°	5803.4	4980.6	2515.1	1610.6	1539.2	1563.0	1515.5	1430.7	1329.4	1244.7	1235.3
50°	6182.8	5213.2	2249.5	1451.4	1441.0	1540.3	1494.8	1372.8	1257.1	1148.5	1139.2
52.5°	6559.2	5401.3	1909.4	1306.7	1388.4	1534.1	1467.9	1333.5	1191.9	1078.2	1065.8
55°	6878.6	5498.5	1581.7	1182.6	1311.8	1481.3	1435.9	1287.0	1099.9	979.0	968.6
57.5°	7060.5	5419.9	1308.7	1060.7	1206.4	1394.5	1381.1	1187.8	990.4	897.3	884.9
60°	6981.9	5101.5	1085.5	954.2	1106.1	1300.4	1286.0	1089.6	906.6	818.8	806.4
62.5°	6548.8	4494.7	908.7	861.1	1015.2	1204.3	1190.8	1014.1	842.6	757.8	744.3
65°	5676.3	3656.4	771.2	783.6	923.1	1088.6	1108.1	951.1	791.8	709.2	695.7
67.5°	4329.3	2648.5	663.7	716.4	833.2	974.8	1031.7	905.6	749.5	670.9	658.5
70°	2467.6	1504.1	572.7	651.3	753.6	869.4	972.7	869.4	704.0	638.9	630.6
72.5°	935.5	690.5	495.2	586.1	677.1	780.4	907.6	812.5	651.3	602.7	594.4
75°	499.3	420.8	416.6	509.6	589.3	693.6	825.9	756.7	612.0	636.8	657.4
77.5°	340.1	297.8	348.4	436.2	493.1	597.5	739.1	671.9	530.3	528.3	486.9
80°	235.6	210.8	283.2	351.5	381.4	502.4	645.0	576.9	432.1	403.1	385.6
82.5°	141.7	137.5	211.9	262.6	269.8	387.7	534.4	483.8	353.5	308.0	310.2
85°	77.5	81.7	135.4	154.1	157.1	270.8	418.7	374.2	271.8	228.5	230.5
87.5°	21.7	27.9	49.6	61.0	75.4	140.6	249.2	222.2	136.4	95.1	95.1
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)