

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: P962999

Luminaire Tested: **NAV-SB2D-735-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962999
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-735-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20818.8 lumens
Efficiency: N/A
Efficacy: 141.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

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

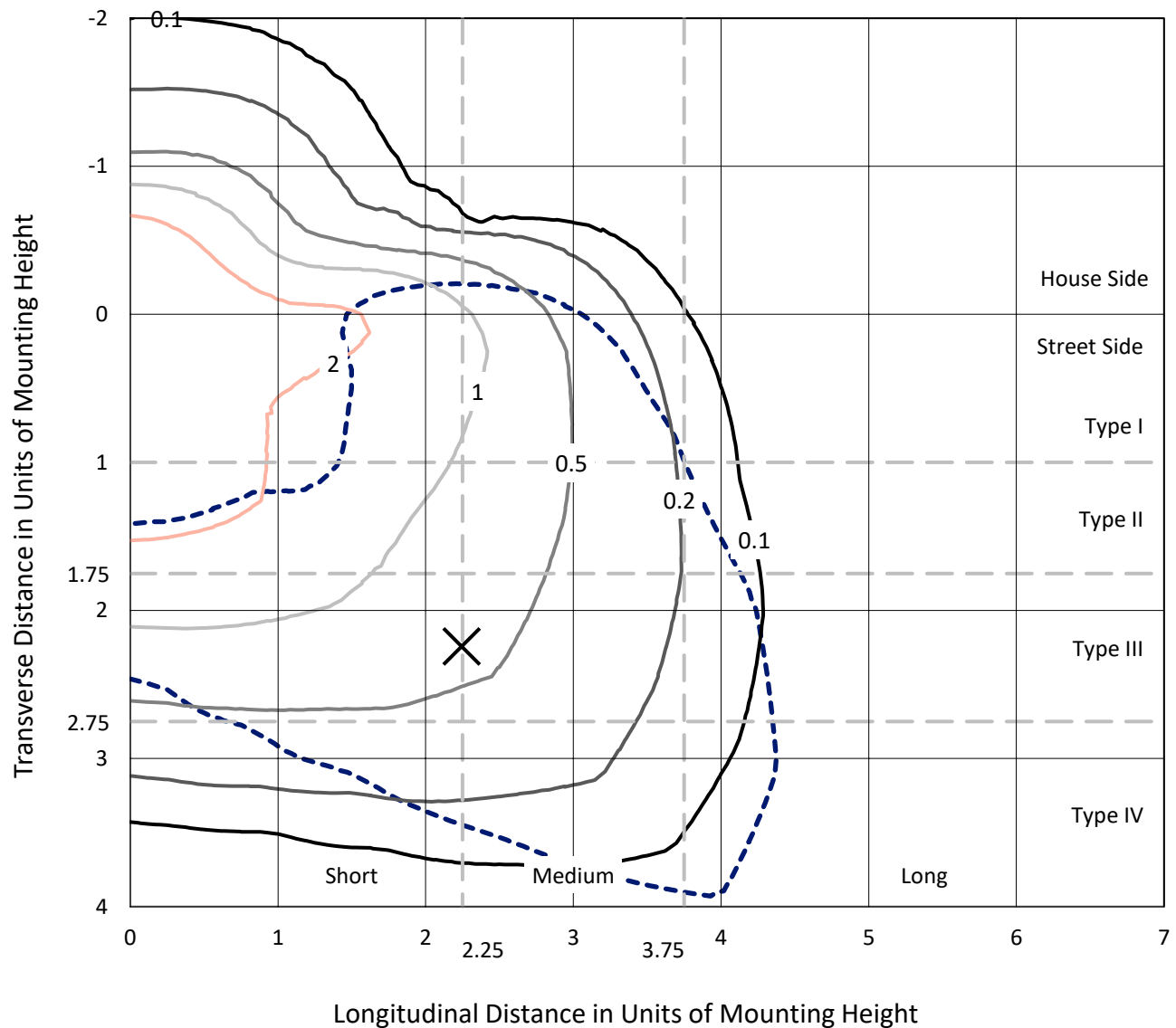


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Iso-Footcandle Lines of Horizontal Illumination

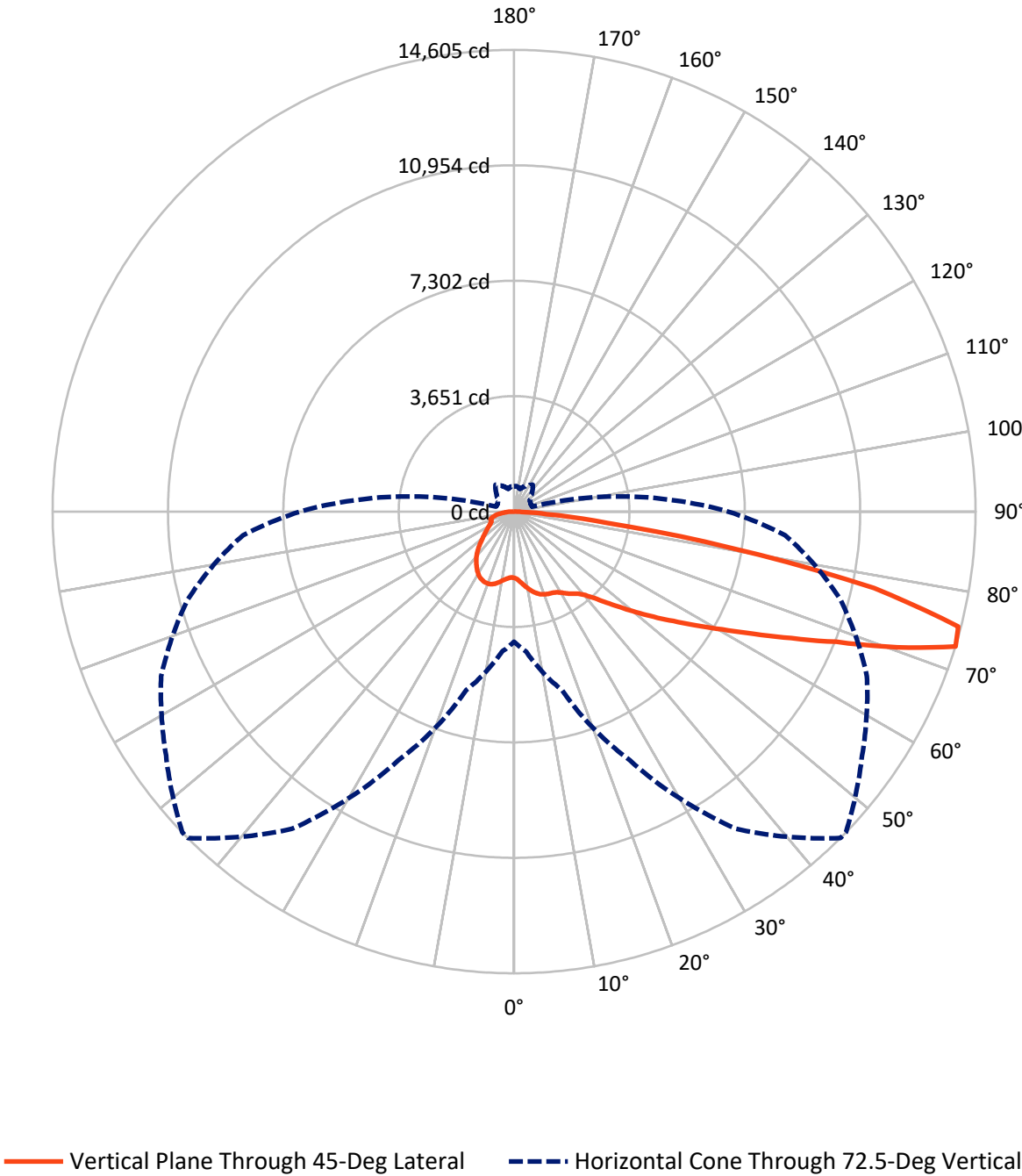
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4706.4	0.0	4706.4
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	16112.4	0.0	16112.4
	% Fixture	77.4	0.0	77.4
Total	Lumens	20818.8	0.0	20818.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.8	1.0
10°-20°	712.7	3.4
20°-30°	1239.8	6.0
30°-40°	1777.3	8.5
40°-50°	2502.5	12.0
50°-60°	3833.2	18.4
60°-70°	5552.9	26.7
70°-80°	4434.3	21.3
80°-90°	552.3	2.7
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°	20818.8	100.0
0°-180°	20818.8	100.0

Coefficient of Utilization



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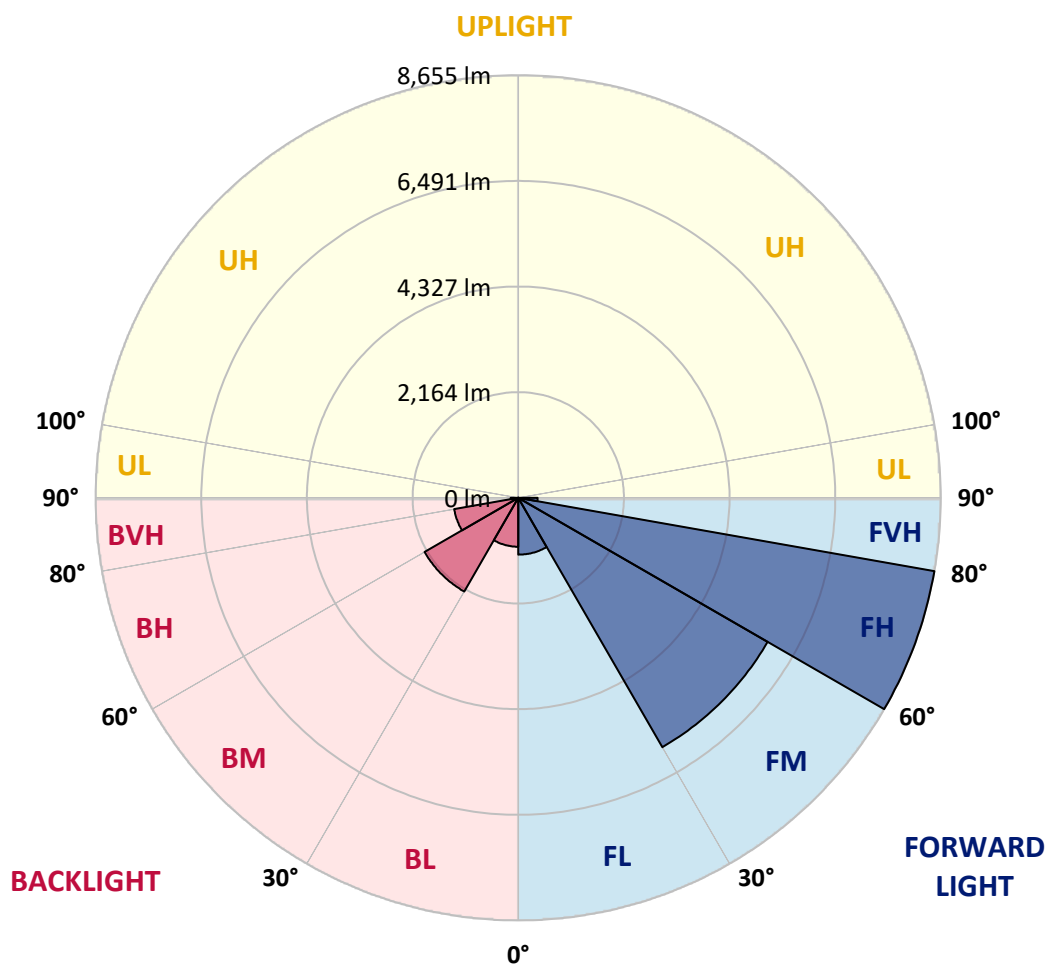
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1164.2	5.6			
FM	(30°-60°)	5897.0	28.3			
FH	(60°-80°)	8655.0	41.6			G4/12000
FVH	(80°-90°)	396.2	1.9			G3/500
BL	(0°-30°)	1002.0	4.8	B3/2500		
BM	(30°-60°)	2216.0	10.6	B2/2500		
BH	(60°-80°)	1332.3	6.4	B3/2500		G3/2500
BVH	(80°-90°)	156.1	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2
2.5°	2182.4	2196.7	2183.6	2171.5	2166.0	2151.8	2150.7	2141.8	2136.4	2121.0	2116.6
5°	2335.0	2353.5	2331.6	2307.5	2285.5	2250.5	2246.1	2220.9	2192.4	2159.5	2140.8
7.5°	2507.0	2523.5	2498.3	2462.2	2423.7	2365.6	2364.5	2318.4	2273.4	2217.6	2185.7
10°	2657.3	2679.2	2645.3	2595.9	2547.6	2481.8	2474.1	2421.6	2364.5	2292.1	2243.9
12.5°	2790.0	2805.4	2772.5	2712.1	2656.3	2590.5	2580.5	2522.4	2458.9	2376.6	2315.2
15°	2895.3	2915.1	2871.2	2806.4	2747.3	2682.5	2673.8	2621.1	2557.6	2470.9	2391.9
17.5°	2964.4	2980.9	2935.9	2863.5	2806.4	2752.7	2746.2	2702.3	2646.3	2558.6	2474.1
20°	2990.7	3008.3	2961.1	2887.6	2835.0	2793.3	2790.0	2758.3	2719.8	2639.8	2554.3
22.5°	3017.1	3033.5	2972.1	2895.3	2849.3	2823.0	2821.8	2801.0	2785.6	2719.8	2636.5
25°	3123.5	3127.8	3045.6	2934.8	2869.0	2846.0	2844.9	2843.8	2850.3	2798.9	2725.4
27.5°	3215.5	3214.5	3144.3	3040.0	2938.1	2889.9	2888.8	2899.7	2920.5	2877.8	2817.4
30°	3350.4	3338.4	3255.1	3146.4	3053.3	2978.6	2972.1	2962.2	2978.6	2944.7	2909.6
32.5°	3636.7	3598.4	3463.5	3270.4	3148.7	3091.6	3082.9	3021.5	3028.1	3007.1	2989.6
35°	4046.9	3996.5	3816.6	3505.1	3267.1	3186.0	3181.6	3103.7	3090.6	3071.9	3078.5
37.5°	4534.9	4472.4	4263.0	3845.1	3471.1	3295.6	3289.0	3218.8	3165.1	3145.4	3182.6
40°	5025.2	4946.1	4772.9	4259.6	3771.6	3478.7	3457.9	3351.5	3290.1	3257.2	3336.2
42.5°	5501.1	5435.4	5287.3	4724.6	4142.3	3746.4	3700.4	3518.3	3472.2	3441.5	3584.0
45°	5922.2	5863.0	5754.5	5221.5	4576.6	4110.5	4065.6	3768.3	3754.1	3754.1	3960.2
47.5°	6264.4	6251.3	6136.2	5728.1	5088.7	4525.1	4447.2	4116.0	4154.3	4213.6	4494.3
50°	6643.9	6607.7	6484.9	6227.2	5690.9	5000.0	4936.3	4542.6	4686.3	4848.6	5266.4
52.5°	6992.7	7012.4	6875.3	6747.0	6370.8	5529.7	5417.7	5046.0	5356.3	5625.1	6171.2
55°	7351.3	7352.4	7314.0	7296.5	7083.7	6115.3	5992.5	5651.3	6144.9	6478.3	7226.2
57.5°	7688.0	7690.2	7747.2	7901.8	7910.6	6790.8	6651.5	6395.0	7021.1	7361.1	8314.2
60°	7988.4	8003.8	8159.5	8521.4	8637.8	7565.1	7433.5	7273.4	7927.0	8269.2	9458.1
62.5°	8089.4	8145.3	8491.8	9006.3	9356.1	8514.9	8385.5	8290.1	8879.0	9197.0	10414.4
65°	7918.3	8046.6	8716.7	9406.5	10095.2	9643.4	9515.1	9410.9	9868.3	10167.7	11199.7
67.5°	7498.3	7663.8	8703.5	9826.6	10992.4	11001.1	10881.6	10637.0	10928.8	11044.0	11455.2
70°	6391.7	6639.5	7936.9	9983.4	12022.2	12857.9	12742.7	12113.2	11987.1	11430.0	10735.7
72.5°	4118.1	4451.6	5844.3	8692.5	12251.4	14604.9	14598.4	13445.7	12321.6	10679.8	8610.3
75°	1502.5	1706.5	2715.4	5456.2	10283.9	14516.2	14558.9	13217.6	11247.9	8249.5	5364.0
77.5°	547.2	598.8	886.1	2096.9	6324.8	11647.1	11735.9	10566.8	8006.1	4140.1	2125.4
80°	287.3	315.9	454.1	813.7	2710.0	6917.0	7056.3	6279.8	3762.9	1247.0	637.2
82.5°	159.0	172.2	254.4	442.0	1220.7	2957.8	3041.2	2480.8	1323.7	528.6	263.2
85°	85.6	91.0	119.5	241.3	596.7	1025.4	1048.5	741.4	527.6	310.4	127.2
87.5°	25.2	30.7	39.5	76.8	233.6	230.3	235.7	147.0	208.4	156.8	41.7
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°	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2	2100.2
2.5°	2110.1	2106.8	2094.7	2089.3	2082.7	2081.6	2087.0	2088.1	2089.3	2090.4	2094.7
5°	2129.8	2118.9	2107.9	2101.4	2103.5	2104.6	2115.6	2123.3	2128.7	2133.1	2135.3
7.5°	2168.2	2159.5	2140.8	2139.7	2143.0	2152.8	2167.2	2184.7	2194.5	2202.2	2204.4
10°	2225.3	2208.8	2186.8	2190.1	2196.7	2211.0	2240.5	2254.8	2271.3	2285.5	2282.3
12.5°	2283.4	2269.1	2243.9	2246.1	2257.0	2282.3	2310.8	2328.3	2339.3	2350.2	2354.6
15°	2359.0	2333.8	2306.4	2306.4	2326.1	2353.5	2366.7	2381.0	2387.5	2399.6	2404.0
17.5°	2436.9	2404.0	2367.9	2365.6	2389.8	2402.9	2410.6	2412.7	2415.0	2428.1	2432.5
20°	2514.7	2478.6	2427.0	2422.7	2428.1	2426.0	2424.8	2422.7	2426.0	2442.4	2448.9
22.5°	2591.5	2549.9	2478.6	2458.9	2443.5	2422.7	2421.6	2420.4	2422.7	2439.1	2450.1
25°	2681.5	2631.0	2535.6	2476.4	2424.8	2396.3	2399.6	2400.8	2402.9	2416.0	2433.7
27.5°	2779.1	2723.1	2588.2	2470.9	2377.7	2357.9	2352.5	2355.8	2363.4	2384.3	2405.1
30°	2876.7	2810.9	2636.5	2448.9	2318.4	2291.1	2273.4	2281.1	2305.3	2326.1	2349.2
32.5°	2965.5	2899.7	2674.8	2400.8	2242.8	2200.1	2177.0	2186.8	2211.0	2218.6	2246.1
35°	3069.7	2995.2	2691.3	2324.0	2160.5	2094.7	2064.0	2049.8	2061.8	2054.1	2078.3
37.5°	3186.0	3108.1	2689.2	2223.0	2064.0	1988.3	1945.6	1891.8	1866.6	1840.3	1856.8
40°	3358.1	3246.3	2662.8	2101.4	1944.4	1875.3	1798.6	1707.5	1650.6	1599.0	1602.3
42.5°	3592.8	3438.2	2614.6	1967.5	1809.5	1744.9	1640.7	1534.3	1444.3	1358.8	1351.2
45°	3942.7	3689.4	2554.3	1824.9	1663.7	1600.1	1487.2	1367.6	1265.6	1155.9	1142.8
47.5°	4447.2	4027.1	2497.2	1662.7	1510.1	1452.0	1350.0	1239.3	1118.7	1012.3	1000.2
50°	5140.3	4511.8	2444.6	1504.7	1358.8	1315.0	1233.8	1120.8	999.1	913.6	908.0
52.5°	6022.1	5171.0	2422.7	1352.3	1217.4	1200.9	1136.2	1030.9	915.7	843.4	837.9
55°	7034.4	5959.6	2422.7	1206.4	1093.5	1098.9	1053.9	956.3	856.5	791.8	785.3
57.5°	8067.5	6757.9	2378.8	1071.5	988.1	1011.2	982.7	897.1	807.2	740.3	729.3
60°	9019.4	7426.9	2201.1	948.6	894.9	931.1	912.5	839.0	729.3	673.4	664.6
62.5°	9750.9	7804.2	1858.9	851.1	818.2	859.9	849.9	762.2	715.0	692.0	684.4
65°	10117.2	7742.8	1421.4	764.4	753.5	818.2	797.3	794.1	756.8	730.4	721.6
67.5°	9892.4	7214.2	1030.9	700.8	716.2	779.7	859.9	873.0	803.9	752.3	743.5
70°	8906.4	6257.8	767.7	640.5	669.0	780.8	980.4	913.6	788.5	728.3	718.3
72.5°	6775.5	4666.5	595.5	576.9	607.6	786.4	1034.2	894.9	744.7	805.0	798.4
75°	3874.7	2561.9	478.2	499.0	530.8	734.8	1006.8	846.6	710.6	739.2	739.2
77.5°	1477.2	984.8	394.8	422.2	426.6	641.5	962.9	843.4	676.7	660.2	602.1
80°	512.2	385.0	326.8	335.6	330.2	570.3	923.4	733.7	553.8	495.7	479.3
82.5°	209.5	191.9	258.8	247.8	234.7	443.1	745.8	599.9	452.9	400.3	396.0
85°	91.0	121.8	171.1	150.3	136.0	307.1	597.7	507.8	382.7	330.2	329.0
87.5°	18.7	46.0	72.4	68.0	70.2	205.1	424.5	360.8	270.9	202.8	159.0
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)