

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: P963176

Luminaire Tested: **NAV-SB2D-835-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-835-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19607.2 lumens
Efficiency: N/A
Efficacy: 132.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - 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

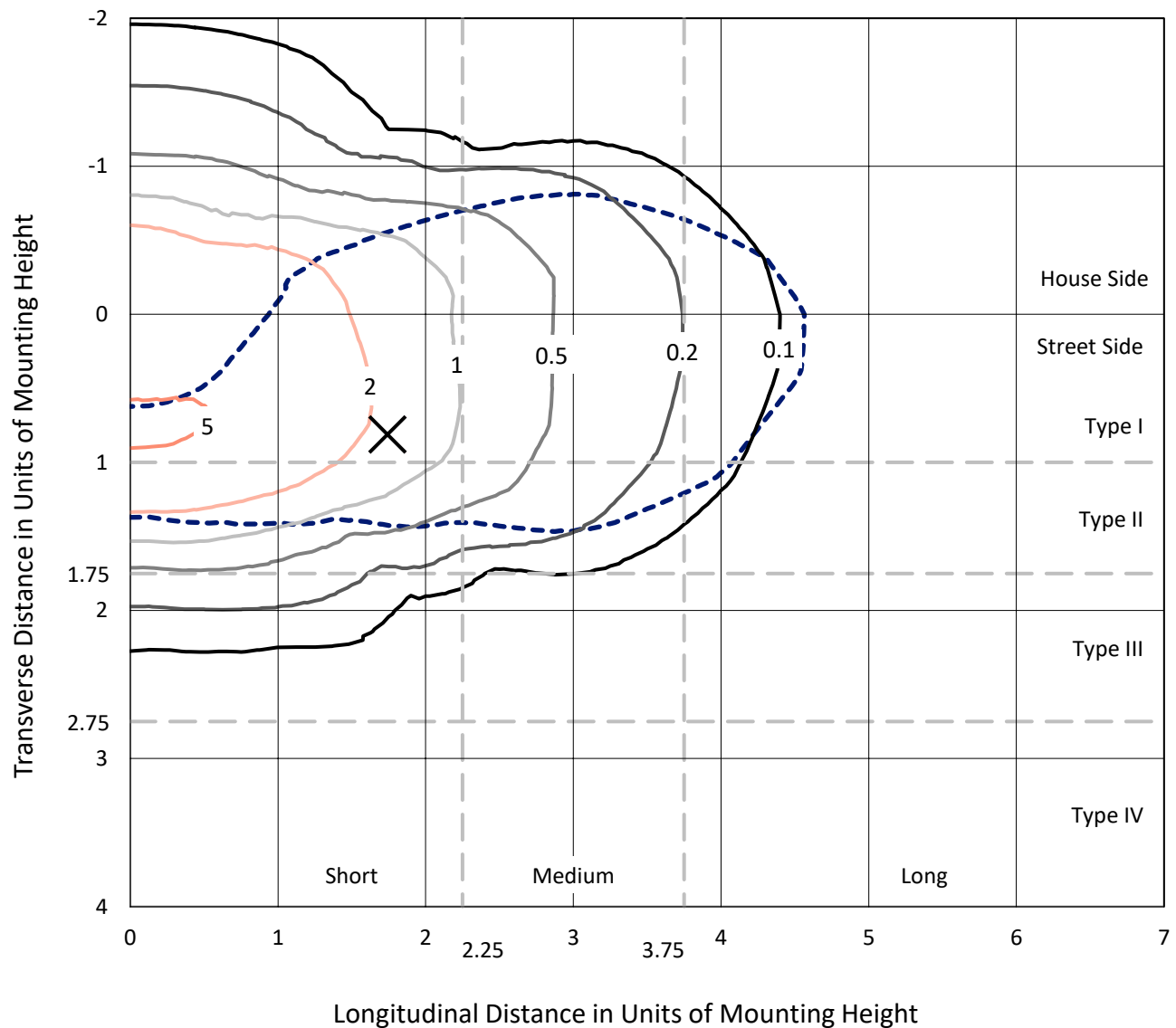


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Iso-Footcandle Lines of Horizontal Illumination

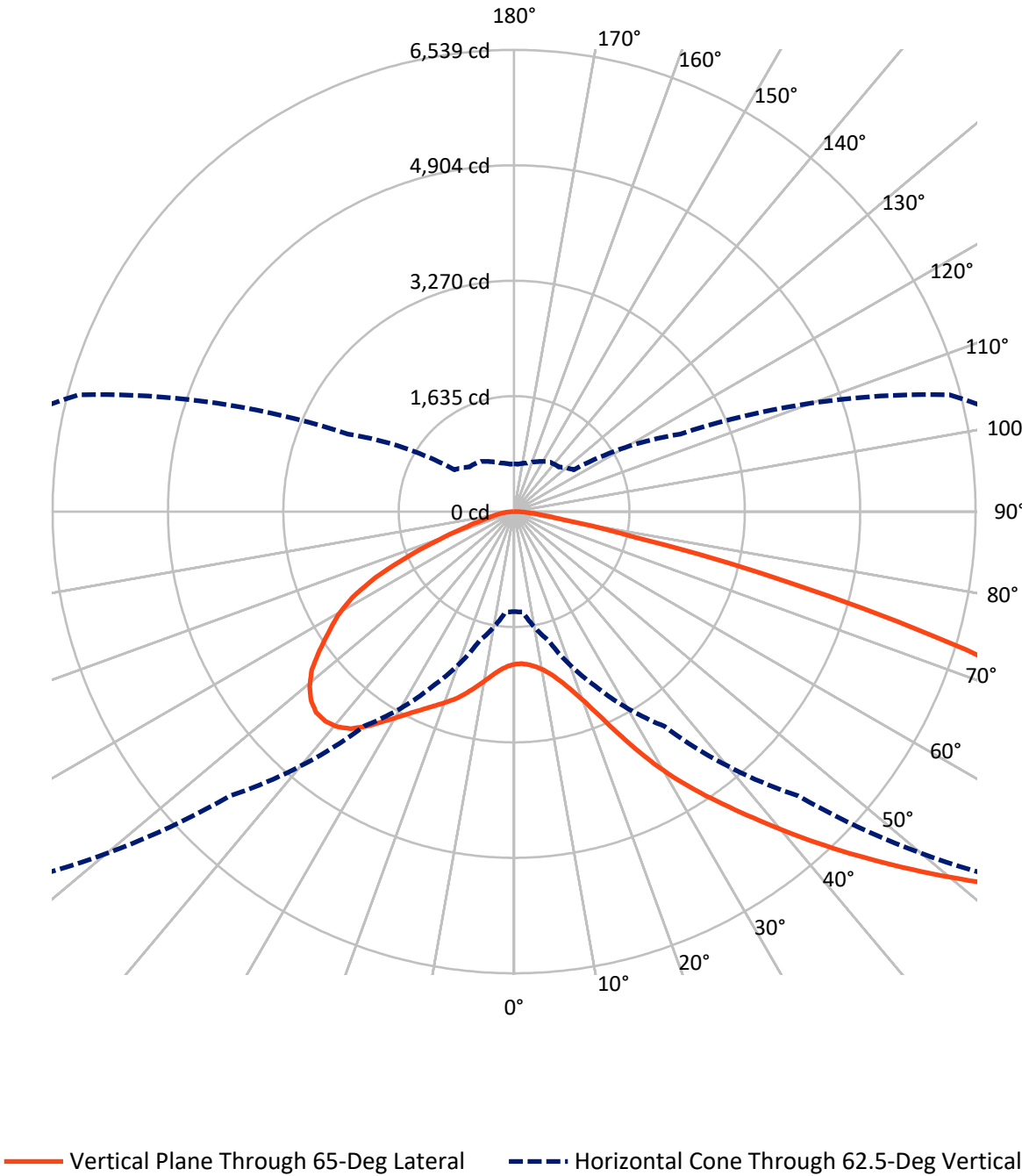
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6187.2	0.0	6187.2
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	13420.0	0.0	13420.0
	% Fixture	68.4	0.0	68.4
Total	Lumens	19607.2	0.0	19607.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.4	1.1
10°-20°	730.5	3.7
20°-30°	1481.1	7.6
30°-40°	2563.1	13.1
40°-50°	3878.7	19.8
50°-60°	4547.6	23.2
60°-70°	3812.6	19.4
70°-80°	2104.9	10.7
80°-90°	273.4	1.4
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°	19607.2	100.0
0°-180°	19607.2	100.0

Coefficient of Utilization



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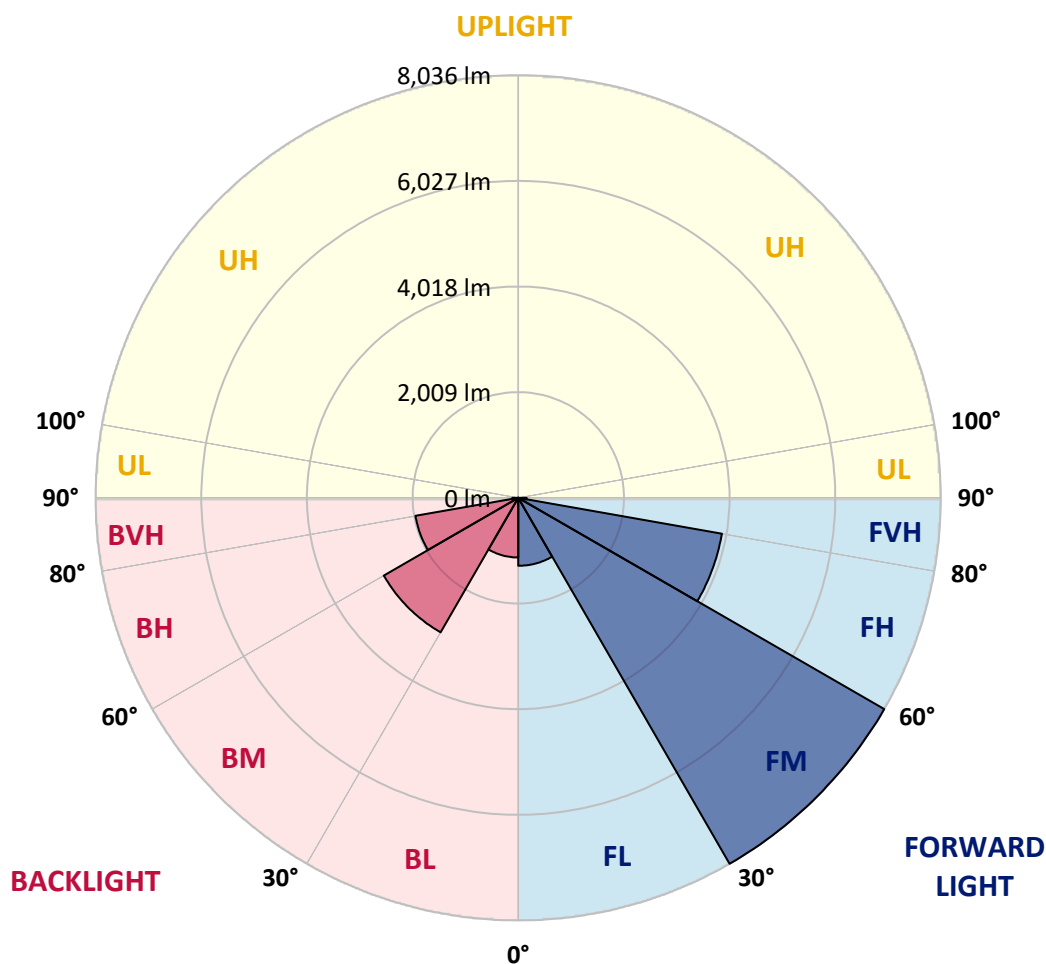
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1292.4	6.6			
FM	(30°-60°)	8035.7	41.0			
FH	(60°-80°)	3932.6	20.1			G2/5000
FVH	(80°-90°)	159.4	0.8			G2/225
BL	(0°-30°)	1134.7	5.8	B3/2500		
BM	(30°-60°)	2953.7	15.1	B3/5000		
BH	(60°-80°)	1984.8	10.1	B3/2500		G3/2500
BVH	(80°-90°)	114.1	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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6
2.5°	2146.4	2140.3	2145.3	2145.3	2147.4	2146.4	2153.5	2155.6	2158.5	2164.7	2164.7
5°	2125.0	2124.0	2133.1	2141.3	2149.4	2156.6	2165.7	2178.9	2181.0	2188.1	2197.3
7.5°	2118.0	2111.8	2126.1	2136.2	2155.6	2172.8	2197.3	2219.6	2228.8	2231.8	2249.2
10°	2172.8	2162.6	2175.9	2182.0	2198.3	2215.5	2244.0	2279.6	2289.8	2302.0	2321.3
12.5°	2266.4	2255.2	2274.6	2283.7	2299.0	2314.2	2333.5	2368.2	2373.3	2395.6	2413.9
15°	2394.6	2381.4	2393.6	2404.8	2430.2	2444.4	2463.8	2497.3	2497.3	2514.6	2527.9
17.5°	2568.5	2551.2	2560.4	2564.4	2580.7	2602.1	2634.7	2664.2	2679.5	2673.3	2655.1
20°	2828.0	2806.6	2806.6	2786.3	2780.1	2797.4	2840.2	2880.9	2897.2	2865.6	2820.8
22.5°	3217.6	3187.0	3169.7	3100.5	3073.1	3075.1	3117.8	3167.7	3180.9	3125.0	3024.3
25°	3713.0	3665.1	3641.7	3540.0	3477.9	3424.0	3457.6	3521.7	3540.0	3470.9	3308.1
27.5°	4208.3	4211.4	4189.0	4067.0	3964.2	3865.6	3848.3	3915.4	3934.7	3856.4	3654.9
30°	4903.1	4830.9	4788.2	4641.7	4495.2	4356.9	4285.6	4313.1	4318.2	4224.6	3990.6
32.5°	5502.3	5484.0	5392.4	5264.3	5076.1	4859.4	4740.3	4696.7	4688.5	4555.2	4277.5
35°	6184.8	6174.7	6078.0	5925.4	5722.0	5420.9	5206.3	5081.1	5071.0	4883.8	4561.4
37.5°	6878.6	6878.6	6784.1	6617.2	6406.7	6030.3	5703.7	5505.4	5472.8	5228.6	4850.2
40°	7432.0	7398.4	7415.8	7345.6	7104.5	6704.6	6256.1	5968.2	5924.4	5631.5	5157.4
42.5°	7746.3	7735.2	7838.9	7917.2	7818.6	7499.1	6864.4	6469.7	6408.6	6075.0	5511.4
45°	7816.5	7804.4	7989.5	8276.4	8414.6	8283.4	7525.6	6997.7	6923.4	6538.9	5890.9
47.5°	7654.8	7630.4	7901.9	8354.7	8798.2	9029.1	8241.7	7570.3	7462.5	6990.5	6280.5
50°	7168.5	7145.2	7556.1	8157.3	8927.3	9535.7	9018.9	8177.7	8012.8	7474.7	6674.2
52.5°	6111.7	6122.8	6766.7	7592.7	8757.5	9851.0	9688.3	8817.5	8619.1	7970.1	7043.4
55°	4760.7	4785.1	5576.5	6486.0	8077.9	9803.2	10145.0	9476.6	9279.3	8436.1	7424.9
57.5°	3408.8	3516.6	4258.2	5158.4	6772.8	9045.3	10244.7	10103.3	9912.1	8944.7	7798.2
60°	2209.5	2228.8	2991.8	3899.1	5157.4	7698.6	10042.2	10578.3	10428.8	9463.4	8110.5
62.5°	1416.0	1429.3	1894.1	2727.2	3711.9	5695.5	9360.7	10784.8	10739.0	9806.3	8410.6
65°	1040.7	1030.4	1272.5	1802.6	2500.4	3512.6	8037.2	10685.1	10775.7	10020.9	8658.8
67.5°	868.7	854.4	973.5	1248.1	1842.2	1994.9	5946.8	10037.2	10368.8	9996.5	8840.9
70°	791.4	779.2	851.5	926.7	1437.4	1335.7	2997.8	8725.9	9236.6	9718.7	8811.4
72.5°	670.3	649.0	747.6	823.0	1118.0	1024.4	1239.0	6702.7	7325.2	8828.6	8396.4
75°	519.8	505.5	590.0	724.3	840.3	799.6	783.3	4070.0	4749.5	6827.7	7345.6
77.5°	411.9	392.7	470.0	564.6	755.8	603.2	570.7	1752.7	2426.2	4358.9	5496.2
80°	310.3	292.9	357.0	446.6	580.9	454.7	369.3	715.1	914.5	2208.5	2763.8
82.5°	220.8	205.5	249.2	327.6	390.6	408.0	226.8	400.8	450.6	851.5	617.5
85°	141.3	132.2	166.9	205.5	248.3	262.4	138.4	209.5	229.9	351.0	257.4
87.5°	77.3	63.0	89.5	95.6	114.9	104.8	66.1	76.3	82.4	127.2	108.9
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°	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6	2160.6
2.5°	2168.8	2171.8	2182.0	2185.1	2192.2	2201.3	2207.4	2213.5	2213.5	2219.6	2219.6
5°	2198.3	2205.4	2226.7	2238.0	2256.2	2274.6	2285.8	2299.0	2307.1	2311.2	2313.2
7.5°	2255.2	2266.4	2296.9	2316.3	2347.8	2373.3	2390.5	2408.9	2413.0	2424.1	2420.0
10°	2332.6	2345.8	2380.4	2417.0	2454.6	2486.1	2502.4	2515.7	2520.8	2522.7	2517.7
12.5°	2421.0	2440.4	2485.1	2529.9	2569.6	2597.0	2601.1	2598.1	2583.8	2571.6	2571.6
15°	2529.9	2547.2	2597.0	2645.8	2684.5	2689.6	2664.2	2647.9	2630.6	2627.6	2627.6
17.5°	2660.1	2669.3	2715.0	2762.9	2765.9	2748.6	2710.9	2695.7	2679.5	2668.3	2669.3
20°	2811.7	2808.6	2841.2	2861.5	2840.2	2787.3	2730.3	2704.9	2688.6	2675.4	2676.4
22.5°	2992.7	2969.3	2965.2	2960.2	2903.2	2792.3	2715.0	2682.5	2657.0	2638.8	2644.8
25°	3256.2	3166.7	3104.6	3070.1	2941.9	2764.8	2666.2	2594.0	2546.2	2514.6	2526.8
27.5°	3585.8	3435.3	3278.6	3194.1	2941.9	2709.0	2548.3	2431.2	2352.9	2320.3	2336.6
30°	3900.1	3742.5	3511.5	3343.7	2934.8	2617.3	2358.0	2195.2	2103.7	2071.1	2090.5
32.5°	4168.7	3996.8	3758.7	3507.4	2917.5	2468.8	2122.0	1942.0	1853.4	1814.8	1834.1
35°	4417.9	4234.8	4006.9	3687.5	2871.6	2251.2	1862.5	1725.3	1626.6	1564.6	1584.9
37.5°	4673.2	4455.6	4242.0	3850.3	2789.3	1996.9	1663.2	1546.2	1430.3	1346.8	1369.2
40°	4951.0	4690.5	4493.2	3946.9	2654.0	1754.8	1508.6	1401.8	1278.7	1190.1	1207.4
42.5°	5275.5	4972.3	4772.9	3996.8	2468.8	1582.8	1407.8	1303.1	1187.2	1114.9	1129.1
45°	5614.2	5282.5	5028.2	3995.8	2262.4	1502.4	1375.3	1271.5	1143.4	1068.2	1080.4
47.5°	5969.2	5607.1	5249.0	3930.7	2083.3	1513.6	1357.0	1203.5	1062.0	988.7	999.0
50°	6325.3	5962.1	5462.6	3808.6	2007.1	1489.2	1288.8	1107.8	941.0	874.8	878.9
52.5°	6678.2	6339.5	5646.7	3634.6	1929.8	1398.7	1201.4	983.7	891.1	845.3	845.3
55°	7033.2	6712.8	5847.1	3381.4	1736.5	1292.9	1054.9	936.8	851.5	809.7	805.6
57.5°	7389.3	7144.1	6037.4	3128.0	1493.3	1162.8	974.6	880.0	811.8	776.1	770.1
60°	7759.6	7637.5	6233.6	2895.1	1253.3	995.9	915.5	834.1	765.0	725.3	722.2
62.5°	8141.1	8180.7	6387.3	2595.0	1032.5	894.2	862.6	779.2	712.1	674.4	673.4
65°	8525.5	8704.6	6488.0	2178.9	837.2	797.6	805.6	719.2	651.1	618.5	617.5
67.5°	8815.4	9082.0	6459.5	1648.9	686.6	706.0	734.4	656.1	592.0	566.6	567.6
70°	8848.0	9037.2	6178.8	1129.1	574.7	616.4	655.1	594.1	528.0	509.6	510.7
72.5°	8414.6	8426.8	5396.5	737.5	486.3	541.2	571.6	531.1	466.9	448.6	447.6
75°	7278.4	6969.2	3962.1	486.3	406.9	464.8	493.3	464.8	402.8	406.9	392.7
77.5°	5514.5	4935.7	2405.8	345.8	339.8	390.6	429.3	409.0	356.1	399.7	352.0
80°	2841.2	2670.2	1073.2	258.4	268.5	312.3	353.0	326.6	281.8	268.5	245.2
82.5°	651.1	756.9	423.2	185.1	194.3	224.8	269.6	245.2	202.4	170.9	168.8
85°	227.9	249.2	187.2	115.9	114.0	140.4	183.1	163.8	137.4	109.9	115.9
87.5°	72.3	94.6	70.2	46.8	48.8	63.0	84.5	77.3	64.1	41.7	43.8
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)