

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: P884281

Luminaire Tested: **NAV-SB5A-735-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884281  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5A-735-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

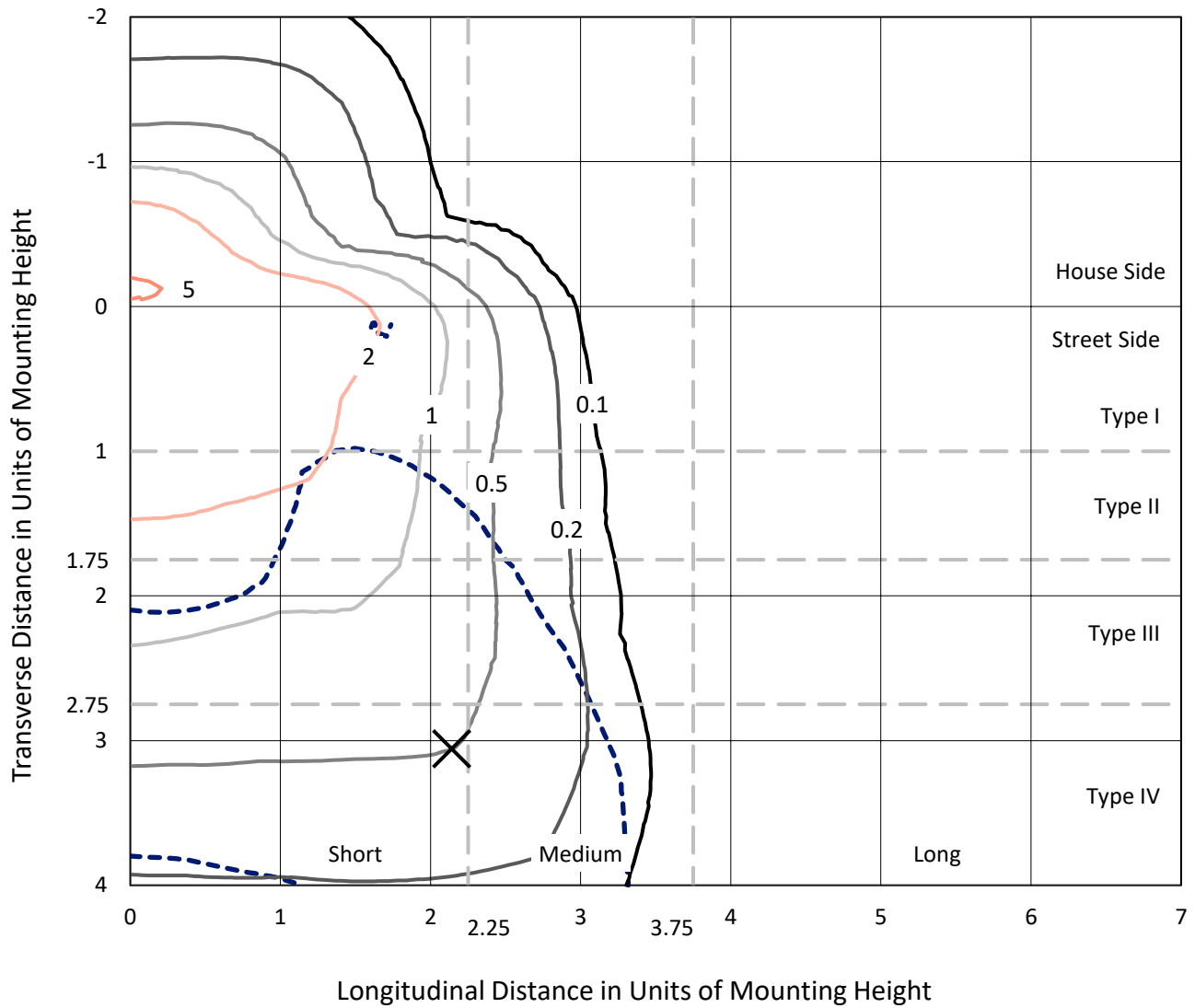
Lumens per Lamp: N/A  
Luminaire Lumens: 22498 lumens  
Efficiency: N/A  
Efficacy: 158.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 141.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.201  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 10.503  
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

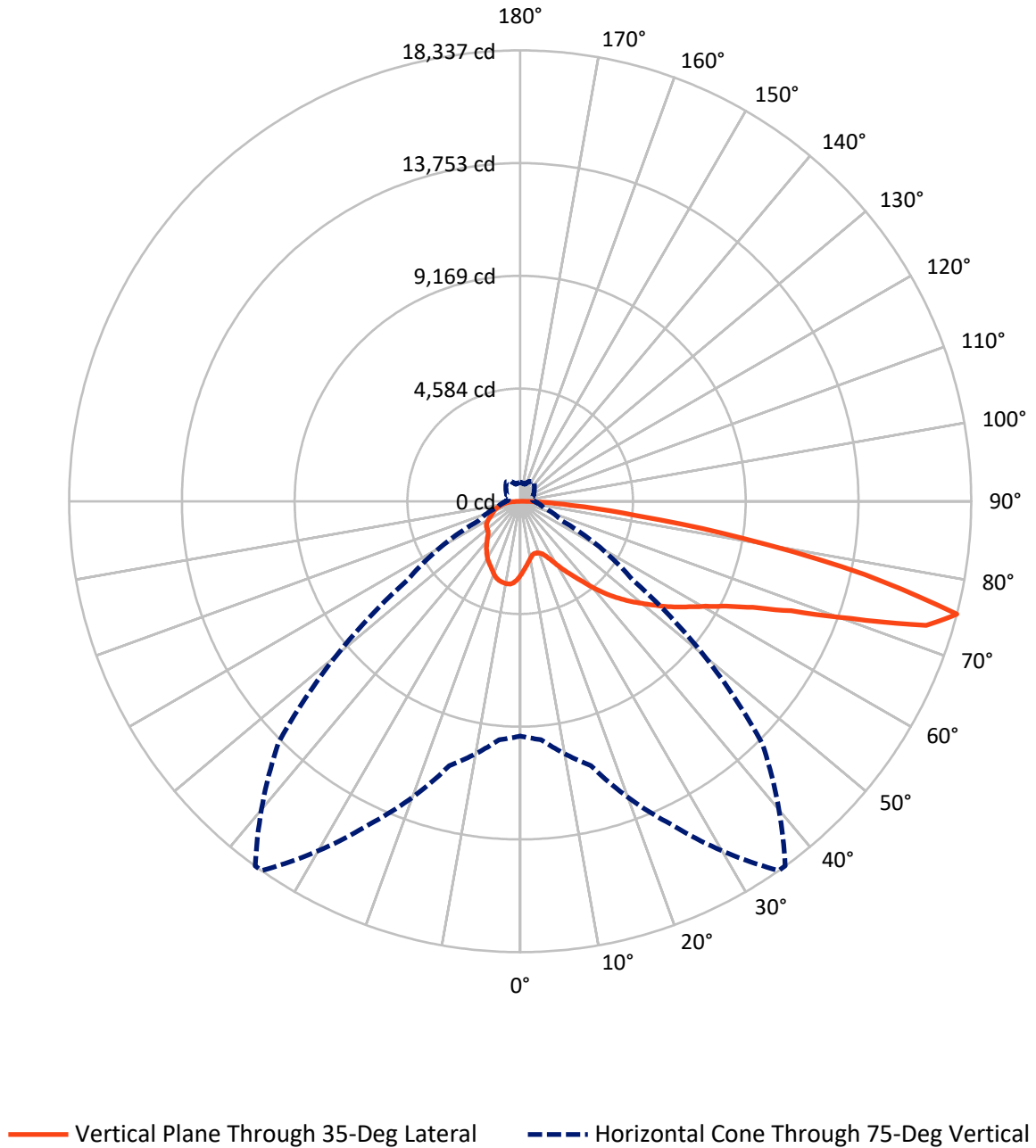
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5354.0	0.0	5354.0
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	17144.0	0.0	17144.0
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	22498.0	0.0	22498.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.9	1.3
10°-20°	818.8	3.6
20°-30°	1374.9	6.1
30°-40°	2136.8	9.5
40°-50°	3171.6	14.1
50°-60°	4378.5	19.5
60°-70°	5312.1	23.6
70°-80°	4390.1	19.5
80°-90°	631.4	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°	22498.0	100.0
0°-180°	22498.0	100.0

**Coefficient of Utilization**



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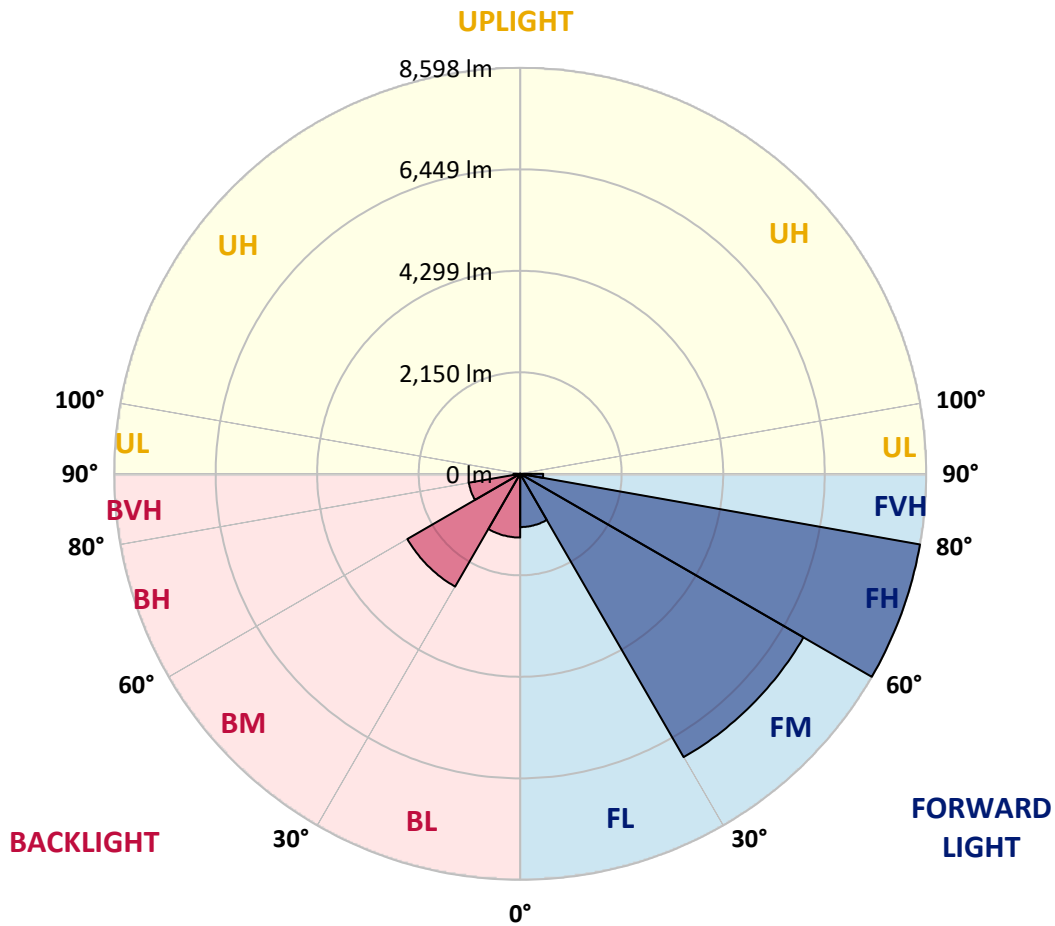
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1128.2	5.0			
FM (30°-60°)	6928.2	30.8			
FH (60°-80°)	8598.4	38.2			G4/12000
FVH (80°-90°)	489.2	2.2			G3/500
BL (0°-30°)	1349.3	6.0	B3/2500		
BM (30°-60°)	2758.7	12.3	B3/5000		
BH (60°-80°)	1103.8	4.9	B3/2500		G3/2500
BVH (80°-90°)	142.2	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-G4**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0
2.5°	2764.5	2781.5	2788.8	2785.2	2803.4	2801.0	2826.5	2858.1	2901.9	2944.5	3006.5
5°	2551.7	2569.9	2585.7	2600.3	2635.6	2646.5	2686.7	2747.5	2827.7	2909.2	3011.4
7.5°	2353.4	2369.2	2393.5	2420.3	2479.9	2490.8	2557.7	2652.6	2764.5	2883.7	3024.8
10°	2191.6	2207.5	2233.0	2263.4	2337.6	2351.0	2436.1	2562.6	2708.5	2859.4	3039.4
12.5°	2122.3	2127.2	2141.8	2172.2	2236.6	2245.2	2338.8	2483.5	2653.8	2841.1	3061.3
15°	2118.7	2128.4	2129.6	2145.4	2198.9	2202.6	2288.9	2432.5	2619.8	2837.5	3094.1
17.5°	2155.2	2162.5	2151.5	2161.2	2206.2	2212.3	2280.4	2408.1	2608.8	2853.3	3150.0
20°	2252.5	2258.5	2225.7	2212.3	2245.2	2250.0	2316.9	2423.9	2619.8	2886.1	3226.7
22.5°	2459.2	2462.9	2382.6	2327.9	2330.3	2332.7	2391.1	2488.4	2662.3	2945.7	3324.0
25°	2781.5	2779.1	2651.4	2545.6	2484.8	2471.4	2510.3	2593.0	2734.1	3024.8	3449.2
27.5°	3158.6	3140.3	3012.6	2854.5	2721.9	2702.5	2694.0	2729.2	2836.3	3129.4	3602.5
30°	3584.2	3567.2	3429.8	3223.0	3039.4	3007.7	2927.5	2909.2	2988.3	3271.7	3815.3
32.5°	4051.3	4040.3	3876.1	3625.6	3379.9	3343.4	3208.4	3159.8	3221.8	3486.9	4112.1
35°	4442.9	4433.2	4296.9	4039.1	3738.7	3693.7	3556.3	3501.5	3533.2	3763.0	4500.1
37.5°	4796.8	4792.0	4675.2	4472.1	4161.9	4107.2	3952.8	3934.5	3928.4	4126.7	4970.7
40°	5125.2	5113.0	4991.4	4884.4	4654.5	4604.7	4468.4	4452.6	4406.4	4574.2	5503.4
42.5°	5488.9	5457.2	5280.9	5231.0	5169.0	5127.6	5046.1	5048.6	4946.4	5079.0	6067.8
45°	5785.6	5767.4	5586.2	5557.0	5623.9	5606.8	5677.4	5695.6	5497.4	5608.0	6654.0
47.5°	6104.3	6087.2	5934.0	5913.3	6094.5	6099.4	6348.7	6354.8	6034.9	6157.8	7241.4
50°	6497.1	6472.8	6320.8	6346.3	6549.4	6567.7	7023.7	6982.4	6529.9	6716.0	7824.0
52.5°	6756.2	6770.8	6737.9	6779.3	7056.6	7073.6	7687.8	7582.0	7020.1	7267.0	8395.6
55°	6947.1	6976.3	7078.5	7173.3	7591.7	7608.7	8314.2	8152.4	7426.3	7777.8	8933.2
57.5°	7192.8	7151.4	7342.4	7527.3	8100.1	8145.1	8923.5	8702.1	7786.3	8218.1	9301.7
60°	7545.5	7516.3	7664.7	7938.3	8669.3	8741.1	9568.1	9197.1	8050.2	8567.1	9373.5
62.5°	8260.6	8187.7	8210.8	8452.8	9386.9	9481.7	10295.4	9628.9	8181.6	8703.4	8989.2
65°	9329.7	9204.4	9087.7	9255.5	10397.6	10491.2	11116.4	9968.2	8132.9	8439.4	7968.7
67.5°	10676.1	10552.0	10408.5	10566.6	11886.2	11960.4	12129.5	10159.2	7749.8	7422.7	6165.1
70°	11786.5	11740.3	11911.8	12562.5	14264.0	14266.4	13428.4	10001.1	6700.2	5262.6	3567.2
72.5°	11639.3	11611.4	12515.0	14526.7	17260.8	17196.3	14658.0	8804.3	4513.4	2374.1	1336.6
75°	9548.6	9729.9	11129.7	14491.4	18337.1	18328.6	13905.2	5597.1	1866.9	983.9	690.8
77.5°	5120.3	5407.4	7225.6	10699.2	14315.0	14530.3	9776.1	1958.1	801.5	630.0	478.0
80°	1669.9	1920.4	2880.0	5447.5	9301.7	9261.6	4189.9	768.7	548.5	446.4	330.8
82.5°	709.1	738.3	1286.8	2572.3	4773.7	4699.5	1334.2	441.5	385.5	305.3	204.3
85°	277.3	310.1	568.0	1189.5	2067.6	2022.6	481.6	218.9	246.9	199.5	121.6
87.5°	91.2	110.7	203.1	407.4	643.4	620.3	118.0	75.4	107.0	91.2	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

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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0	2998.0
2.5°	3023.6	3043.0	3066.1	3100.2	3129.4	3153.7	3179.2	3195.0	3201.1	3219.4	3218.1
5°	3045.4	3088.0	3145.2	3201.1	3255.9	3288.7	3317.9	3332.5	3345.9	3355.6	3358.0
7.5°	3081.9	3136.7	3226.7	3299.6	3345.9	3372.6	3392.1	3387.2	3392.1	3394.5	3398.2
10°	3113.6	3190.2	3297.2	3366.5	3401.8	3403.0	3398.2	3381.1	3372.6	3373.8	3376.3
12.5°	3151.3	3236.4	3351.9	3410.3	3420.0	3393.3	3372.6	3343.4	3332.5	3327.6	3325.2
15°	3202.3	3299.6	3411.5	3433.4	3409.1	3375.0	3339.8	3292.3	3268.0	3248.6	3254.6
17.5°	3264.4	3371.4	3457.7	3441.9	3389.6	3333.7	3276.5	3204.8	3154.9	3134.2	3135.4
20°	3350.7	3446.8	3493.0	3423.7	3344.6	3259.5	3162.2	3074.6	3028.4	3007.7	3005.3
22.5°	3455.3	3547.7	3527.1	3392.1	3280.2	3144.0	3022.3	2957.9	2934.8	2920.2	2922.6
25°	3580.6	3659.6	3551.4	3345.9	3174.4	2990.7	2897.1	2876.4	2865.4	2854.5	2854.5
27.5°	3743.6	3786.1	3569.6	3277.7	3009.0	2827.7	2793.7	2797.3	2793.7	2775.4	2779.1
30°	3958.8	3950.3	3586.7	3167.1	2819.2	2680.6	2683.0	2698.8	2701.3	2689.1	2695.2
32.5°	4242.2	4155.9	3595.2	3023.6	2638.0	2551.7	2554.1	2571.1	2583.3	2562.6	2572.3
35°	4585.2	4395.5	3581.8	2843.5	2498.1	2428.8	2410.6	2415.4	2419.1	2399.6	2413.0
37.5°	4985.3	4664.2	3522.2	2644.1	2382.6	2308.4	2269.5	2236.6	2217.2	2198.9	2211.1
40°	5424.4	4957.4	3412.7	2449.5	2253.7	2180.7	2122.3	2060.3	1994.6	1970.3	1981.2
42.5°	5884.1	5259.0	3280.2	2263.4	2105.3	2045.7	1983.7	1893.7	1795.2	1745.3	1751.4
45°	6360.9	5567.9	3150.0	2079.8	1953.3	1927.7	1856.0	1747.7	1640.7	1577.5	1572.6
47.5°	6827.9	5859.8	2959.1	1894.9	1811.0	1838.9	1783.0	1683.3	1564.1	1464.3	1453.4
50°	7274.3	6133.5	2646.5	1707.6	1695.4	1812.2	1758.7	1615.2	1478.9	1351.2	1340.3
52.5°	7717.0	6354.8	2246.4	1537.3	1633.4	1804.9	1727.0	1568.9	1402.3	1268.5	1253.9
55°	8092.8	6469.1	1860.8	1391.4	1543.4	1742.9	1689.3	1514.2	1294.1	1151.8	1139.6
57.5°	8306.9	6376.7	1539.7	1247.9	1419.3	1640.7	1624.9	1397.5	1165.1	1055.7	1041.1
60°	8214.4	6002.1	1277.0	1122.6	1301.4	1530.0	1513.0	1281.9	1066.6	963.3	948.7
62.5°	7704.8	5288.2	1069.1	1013.1	1194.3	1416.9	1401.1	1193.1	991.2	891.5	875.7
65°	6678.3	4301.8	907.3	921.9	1086.1	1280.7	1303.8	1118.9	931.6	834.3	818.5
67.5°	5093.6	3116.0	780.8	842.8	980.3	1146.9	1213.8	1065.4	881.8	789.3	774.7
70°	2903.1	1769.6	673.8	766.2	886.6	1022.9	1144.5	1022.9	828.3	751.6	741.9
72.5°	1100.7	812.4	582.6	689.6	796.6	918.3	1067.9	956.0	766.2	709.1	699.3
75°	587.4	495.0	490.1	599.6	693.3	816.1	971.8	890.3	720.0	749.2	773.5
77.5°	400.1	350.3	409.9	513.2	580.1	703.0	869.6	790.6	623.9	621.5	572.8
80°	277.3	248.1	333.2	413.5	448.8	591.1	758.9	678.7	508.4	474.3	453.7
82.5°	166.6	161.8	249.3	308.9	317.4	456.1	628.8	569.2	416.0	362.4	364.9
85°	91.2	96.1	159.3	181.2	184.9	318.7	492.6	440.3	319.9	268.8	271.2
87.5°	25.5	32.8	58.4	71.8	88.8	165.4	293.1	261.5	160.5	111.9	111.9
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)