

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: P884291

Luminaire Tested: **NAV-SB5A-740-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884291
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-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 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: 24255 lumens
Efficiency: N/A
Efficacy: 171.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

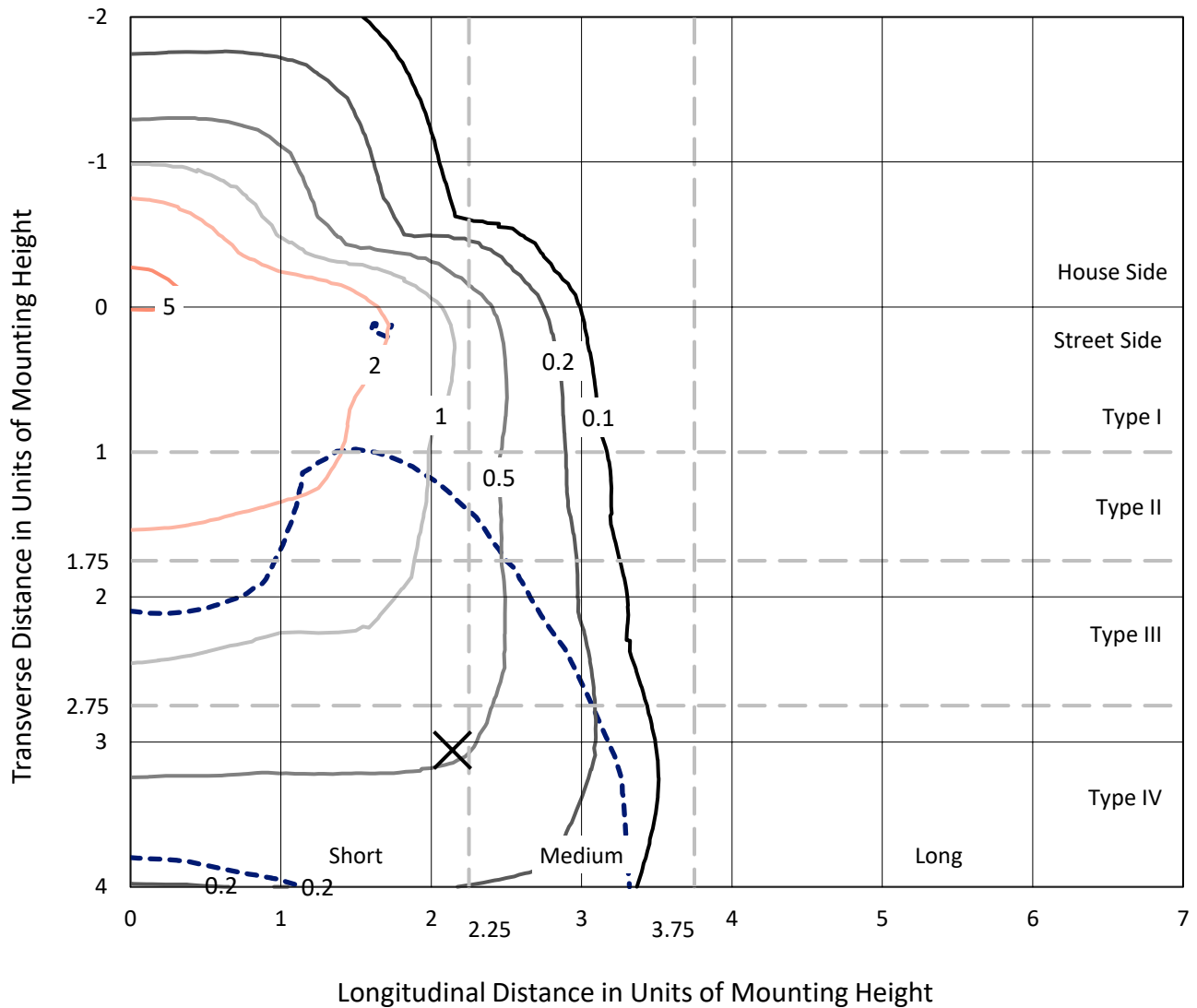
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

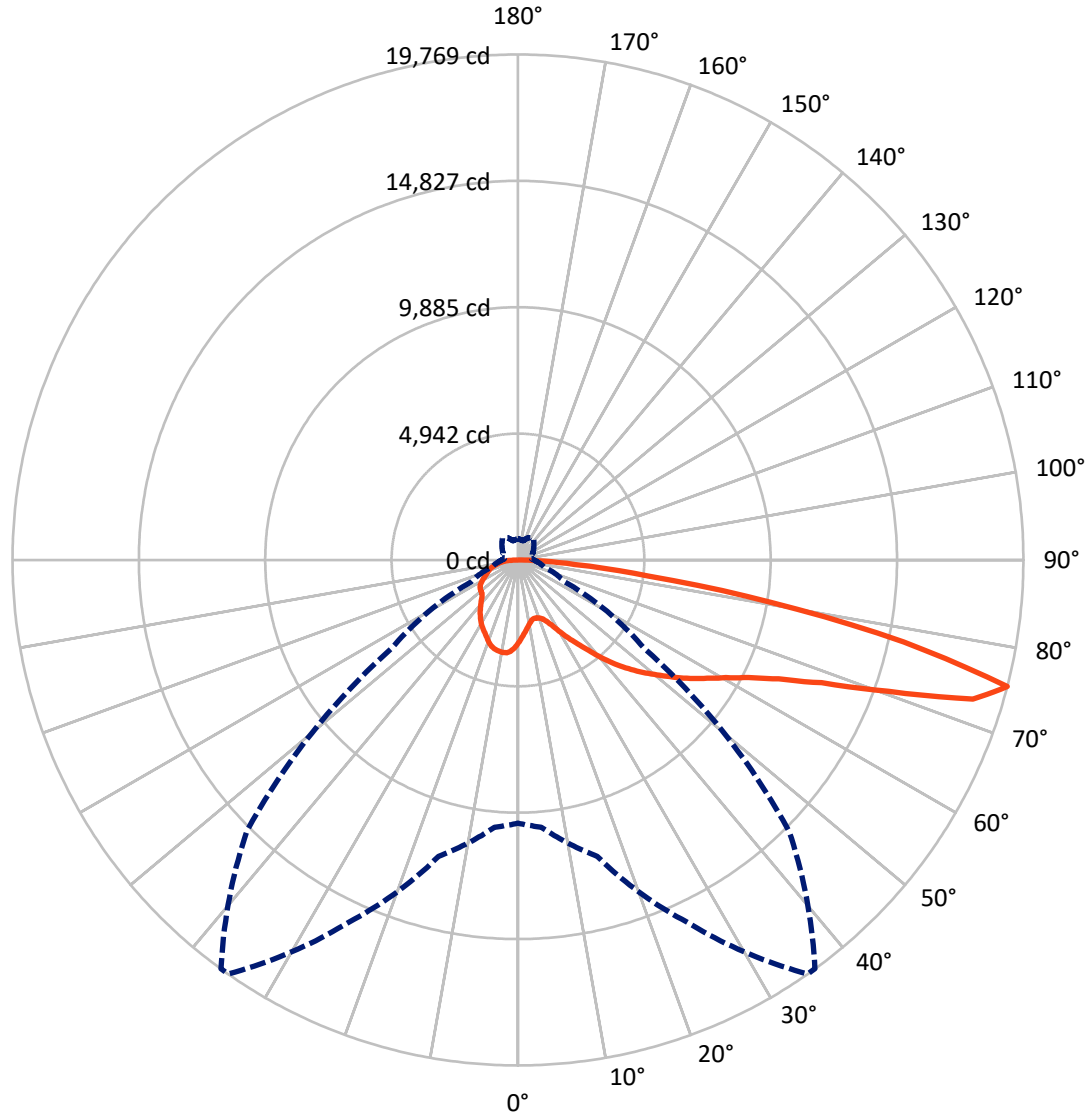
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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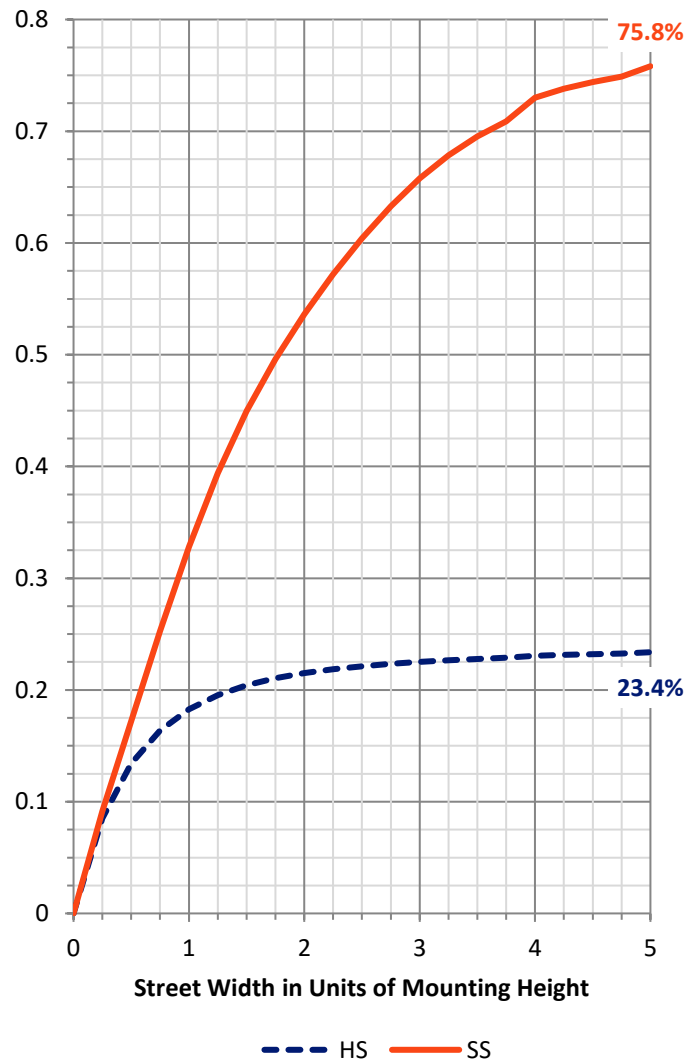
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5772.1	0.0	5772.1
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	18482.9	0.0	18482.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	24255.0	0.0	24255.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.0	1.3
10°-20°	882.7	3.6
20°-30°	1482.3	6.1
30°-40°	2303.7	9.5
40°-50°	3419.2	14.1
50°-60°	4720.5	19.5
60°-70°	5727.0	23.6
70°-80°	4732.9	19.5
80°-90°	680.7	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°	24255.0	100.0
0°-180°	24255.0	100.0



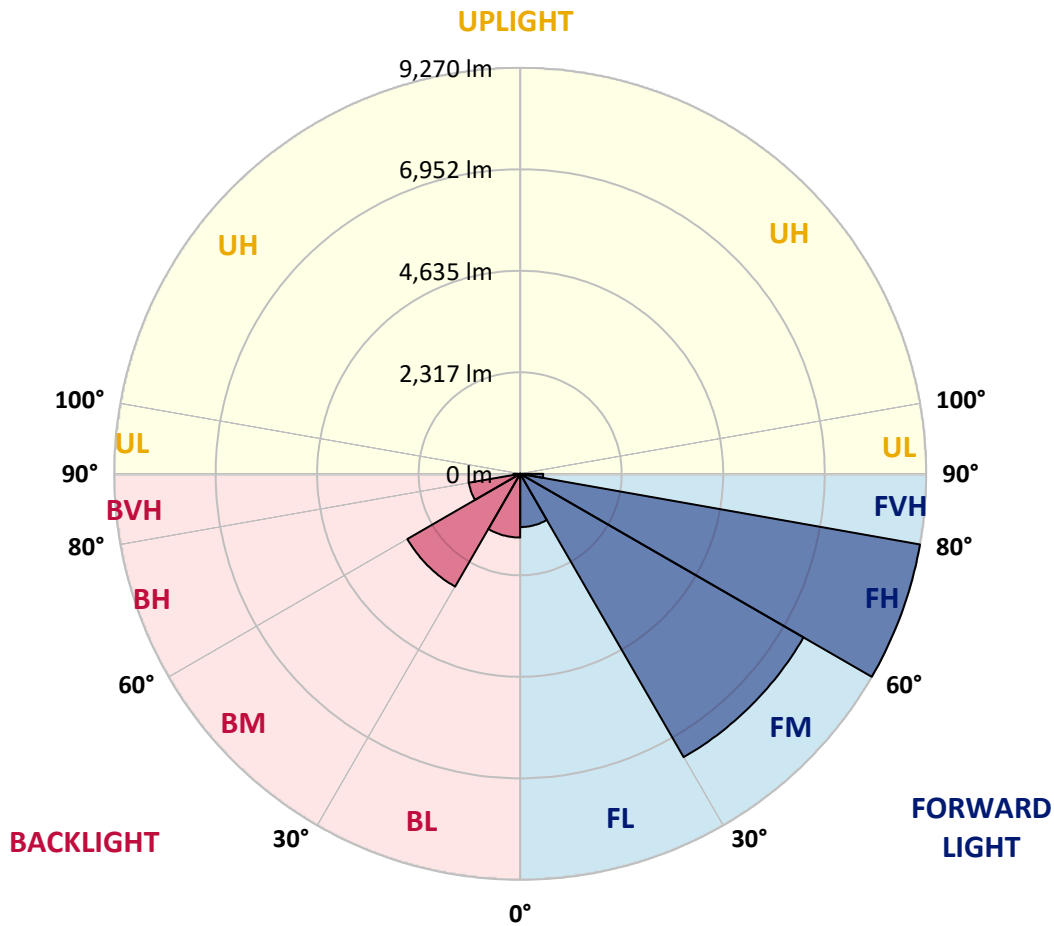
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1216.3	5.0			
FM (30°-60°)	7469.2	30.8			
FH (60°-80°)	9269.9	38.2			G4/12000
FVH (80°-90°)	527.5	2.2			G4/750
BL (0°-30°)	1454.6	6.0	B3/2500		
BM (30°-60°)	2974.1	12.3	B3/5000		
BH (60°-80°)	1190.0	4.9	B3/2500		G3/2500
BVH (80°-90°)	153.3	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°	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1
2.5°	2980.4	2998.7	3006.6	3002.7	3022.3	3019.7	3047.3	3081.4	3128.6	3174.4	3241.3
5°	2750.9	2770.6	2787.6	2803.4	2841.4	2853.2	2896.5	2962.0	3048.6	3136.4	3246.6
7.5°	2537.2	2554.2	2580.5	2609.3	2673.6	2685.4	2757.5	2859.8	2980.4	3108.9	3261.0
10°	2362.8	2379.9	2407.4	2440.2	2520.2	2534.6	2626.4	2762.7	2920.1	3082.7	3276.7
12.5°	2288.1	2293.3	2309.0	2341.8	2411.3	2420.5	2521.5	2677.5	2861.1	3063.0	3300.3
15°	2284.1	2294.6	2295.9	2313.0	2370.7	2374.6	2467.7	2622.4	2824.4	3059.1	3335.7
17.5°	2323.5	2331.3	2319.5	2330.0	2378.5	2385.1	2458.5	2596.2	2812.6	3076.1	3396.0
20°	2428.4	2434.9	2399.5	2385.1	2420.5	2425.7	2497.9	2613.2	2824.4	3111.5	3478.7
22.5°	2651.3	2655.2	2568.7	2509.7	2512.3	2514.9	2577.8	2682.7	2870.2	3175.8	3583.5
25°	2998.7	2996.1	2858.4	2744.4	2678.8	2664.4	2706.3	2795.5	2947.6	3261.0	3718.6
27.5°	3405.2	3385.6	3247.9	3077.4	2934.5	2913.5	2904.3	2942.4	3057.8	3373.8	3883.8
30°	3864.1	3845.8	3697.6	3474.7	3276.7	3242.6	3156.1	3136.4	3221.7	3527.2	4113.3
32.5°	4367.7	4355.9	4178.8	3908.7	3643.9	3604.5	3459.0	3406.5	3473.4	3759.3	4433.2
35°	4789.9	4779.4	4632.5	4354.5	4030.7	3982.2	3834.0	3775.0	3809.1	4056.9	4851.5
37.5°	5171.4	5166.2	5040.3	4821.3	4487.0	4428.0	4261.4	4241.8	4235.2	4448.9	5358.9
40°	5525.5	5512.3	5381.2	5265.8	5018.0	4964.3	4817.4	4800.4	4750.5	4931.5	5933.2
42.5°	5917.5	5883.4	5693.3	5639.5	5572.7	5528.1	5440.2	5442.8	5332.7	5475.6	6541.6
45°	6237.4	6217.8	6022.4	5990.9	6063.1	6044.7	6120.7	6140.4	5926.7	6046.0	7173.7
47.5°	6581.0	6562.6	6397.4	6375.1	6570.5	6575.7	6844.5	6851.1	6506.2	6638.7	7807.0
50°	7004.5	6978.3	6814.4	6841.9	7060.9	7080.6	7572.3	7527.7	7039.9	7240.5	8435.0
52.5°	7283.8	7299.5	7264.1	7308.7	7607.7	7626.0	8288.2	8174.1	7568.3	7834.5	9051.3
55°	7489.7	7521.1	7631.3	7733.5	8184.6	8203.0	8963.5	8789.1	8006.3	8385.2	9630.9
57.5°	7754.5	7709.9	7915.8	8115.1	8732.7	8781.2	9620.4	9381.7	8394.4	8859.9	10028.2
60°	8134.8	8103.3	8263.3	8558.3	9346.3	9423.7	10315.3	9915.4	8678.9	9236.2	10105.5
62.5°	8905.8	8827.1	8852.0	9112.9	10120.0	10222.2	11099.4	10380.9	8820.5	9383.0	9691.2
65°	10058.3	9923.3	9797.4	9978.3	11209.6	11310.5	11984.5	10746.7	8768.1	9098.5	8591.1
67.5°	11509.8	11376.1	11221.4	11391.8	12814.5	12894.5	13076.7	10952.6	8355.1	8002.3	6646.5
70°	12707.0	12657.1	12842.0	13543.5	15377.9	15380.5	14477.1	10782.1	7223.5	5673.6	3845.8
72.5°	12548.3	12518.2	13492.4	15661.1	18608.8	18539.3	15802.8	9491.9	4865.9	2559.5	1441.0
75°	10294.3	10489.7	11998.9	15623.1	19769.2	19760.0	14991.1	6034.2	2012.7	1060.8	744.8
77.5°	5520.2	5829.7	7789.9	11534.8	15433.0	15665.1	10539.5	2111.1	864.1	679.2	515.3
80°	1800.3	2070.4	3105.0	5872.9	10028.2	9984.9	4517.1	828.7	591.4	481.2	356.7
82.5°	764.4	795.9	1387.3	2773.2	5146.5	5066.5	1438.4	476.0	415.7	329.1	220.3
85°	299.0	334.4	612.3	1282.4	2229.1	2180.5	519.2	236.0	266.2	215.0	131.1
87.5°	98.3	119.3	219.0	439.3	693.6	668.7	127.2	81.3	115.4	98.3	47.2
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°	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1	3232.1
2.5°	3259.7	3280.7	3305.6	3342.3	3373.8	3400.0	3427.5	3444.6	3451.1	3470.8	3469.5
5°	3283.3	3329.2	3390.8	3451.1	3510.1	3545.5	3577.0	3592.7	3607.2	3617.6	3620.3
7.5°	3322.6	3381.6	3478.7	3557.3	3607.2	3636.0	3657.0	3651.7	3657.0	3659.6	3663.5
10°	3356.7	3439.3	3554.7	3629.4	3667.5	3668.8	3663.5	3645.2	3636.0	3637.3	3639.9
12.5°	3397.4	3489.1	3613.7	3676.6	3687.1	3658.3	3636.0	3604.5	3592.7	3587.5	3584.9
15°	3452.4	3557.3	3678.0	3701.6	3675.3	3638.6	3600.6	3549.5	3523.2	3502.3	3508.8
17.5°	3519.3	3634.7	3727.8	3710.7	3654.4	3594.0	3532.4	3455.0	3401.3	3379.0	3380.3
20°	3612.4	3716.0	3765.8	3691.1	3605.8	3514.1	3409.2	3314.7	3264.9	3242.6	3240.0
22.5°	3725.2	3824.8	3802.5	3657.0	3536.3	3389.5	3258.4	3188.9	3164.0	3148.2	3150.8
25°	3860.2	3945.4	3828.7	3607.2	3422.3	3224.3	3123.3	3101.0	3089.2	3077.4	3077.4
27.5°	4035.9	4081.8	3848.4	3533.7	3243.9	3048.6	3011.9	3015.8	3011.9	2992.2	2996.1
30°	4268.0	4258.8	3866.8	3414.4	3039.4	2889.9	2892.5	2909.6	2912.2	2899.1	2905.7
32.5°	4573.5	4480.4	3875.9	3259.7	2844.0	2750.9	2753.5	2771.9	2785.0	2762.7	2773.2
35°	4943.3	4738.7	3861.5	3065.6	2693.2	2618.5	2598.8	2604.1	2608.0	2587.0	2601.4
37.5°	5374.7	5028.5	3797.3	2850.6	2568.7	2488.7	2446.7	2411.3	2390.3	2370.7	2383.8
40°	5848.0	5344.5	3679.3	2640.8	2429.7	2351.0	2288.1	2221.2	2150.4	2124.2	2136.0
42.5°	6343.7	5669.7	3536.3	2440.2	2269.7	2205.5	2138.6	2041.6	1935.4	1881.6	1888.1
45°	6857.6	6002.7	3396.0	2242.2	2105.8	2078.3	2000.9	1884.2	1768.8	1700.6	1695.4
47.5°	7361.2	6317.4	3190.2	2042.9	1952.4	1982.6	1922.2	1814.7	1686.2	1578.7	1566.9
50°	7842.4	6612.5	2853.2	1840.9	1827.8	1953.7	1896.0	1741.3	1594.4	1456.8	1445.0
52.5°	8319.7	6851.1	2421.8	1657.4	1761.0	1945.8	1861.9	1691.5	1511.8	1367.6	1351.9
55°	8724.8	6974.3	2006.2	1500.0	1663.9	1879.0	1821.3	1632.5	1395.1	1241.7	1228.6
57.5°	8955.6	6874.7	1660.0	1345.3	1530.2	1768.8	1751.8	1506.6	1256.1	1138.1	1122.4
60°	8855.9	6470.8	1376.8	1210.3	1403.0	1649.5	1631.2	1382.0	1149.9	1038.5	1022.7
62.5°	8306.5	5701.2	1152.6	1092.2	1287.6	1527.6	1510.5	1286.3	1068.6	961.1	944.1
65°	7199.9	4637.8	978.2	993.9	1170.9	1380.7	1405.6	1206.3	1004.4	899.5	882.4
67.5°	5491.4	3359.3	841.8	908.7	1056.8	1236.5	1308.6	1148.6	950.6	851.0	835.2
70°	3129.9	1907.8	726.4	826.1	955.9	1102.7	1233.9	1102.7	892.9	810.3	799.8
72.5°	1186.6	875.9	628.1	743.5	858.8	990.0	1151.2	1030.6	826.1	764.4	753.9
75°	633.3	533.7	528.4	646.4	747.4	879.8	1047.7	959.8	776.2	807.7	833.9
77.5°	431.4	377.6	441.9	553.3	625.4	757.9	937.5	852.3	672.7	670.0	617.6
80°	299.0	267.5	359.3	445.8	483.8	637.3	818.2	731.7	548.1	511.4	489.1
82.5°	179.6	174.4	268.8	333.0	342.2	491.7	677.9	613.6	448.4	390.7	393.4
85°	98.3	103.6	171.8	195.4	199.3	343.5	531.0	474.7	344.8	289.8	292.4
87.5°	27.5	35.4	62.9	77.4	95.7	178.3	316.0	281.9	173.1	120.6	120.6
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)