

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: P966153

Luminaire Tested: **NAV-SB4B-735-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966153
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-735-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22920 lumens
Efficiency: N/A
Efficacy: 155.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147
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



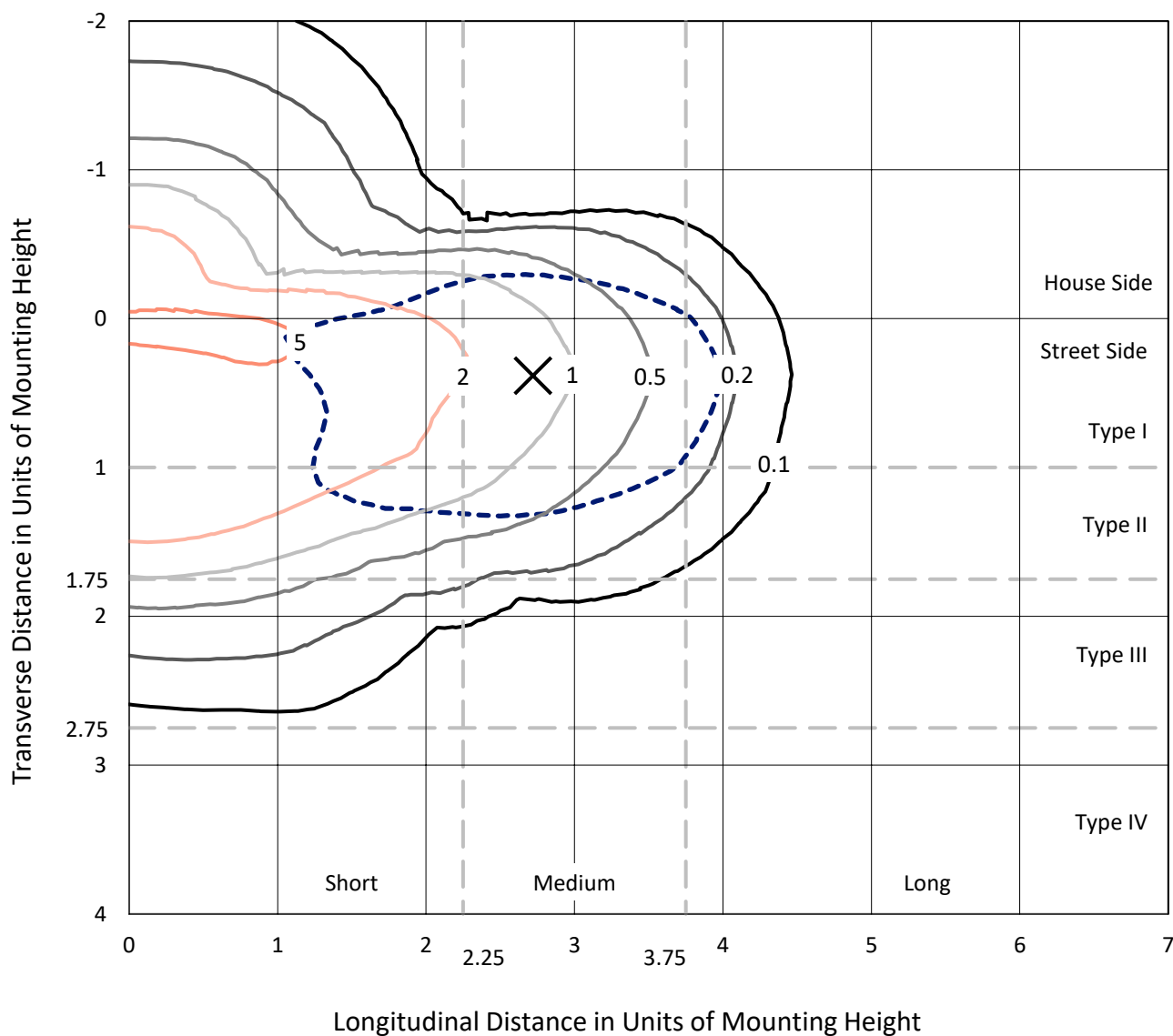
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

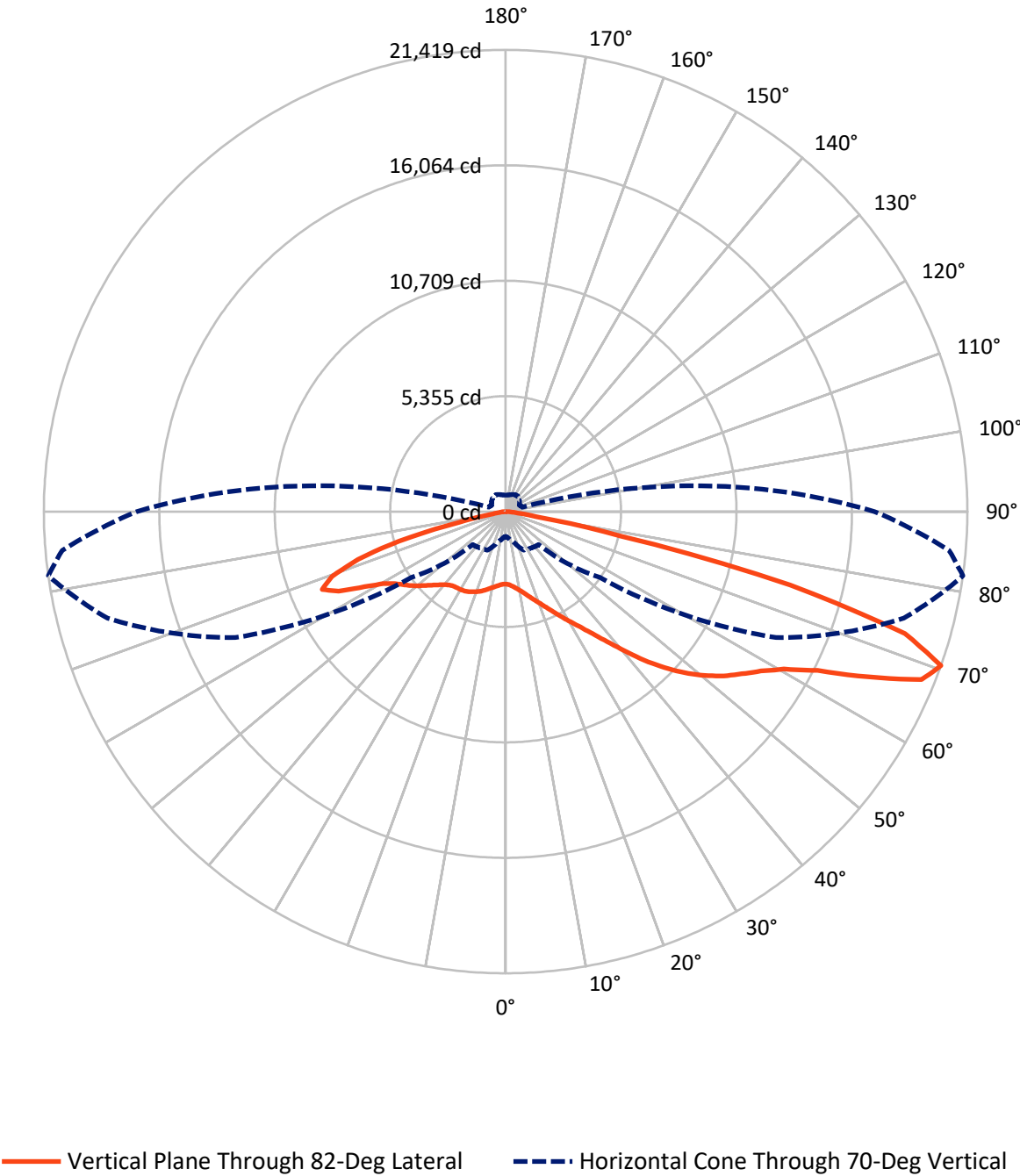
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5650.3	0.0	5650.3
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	17269.7	0.0	17269.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	22920.0	0.0	22920.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.3	1.4
10°-20°	911.6	4.0
20°-30°	1524.9	6.7
30°-40°	2382.4	10.4
40°-50°	3794.2	16.6
50°-60°	5280.1	23.0
60°-70°	5523.2	24.1
70°-80°	2886.7	12.6
80°-90°	299.8	1.3
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°	22920.0	100.0
0°-180°	22920.0	100.0

Coefficient of Utilization



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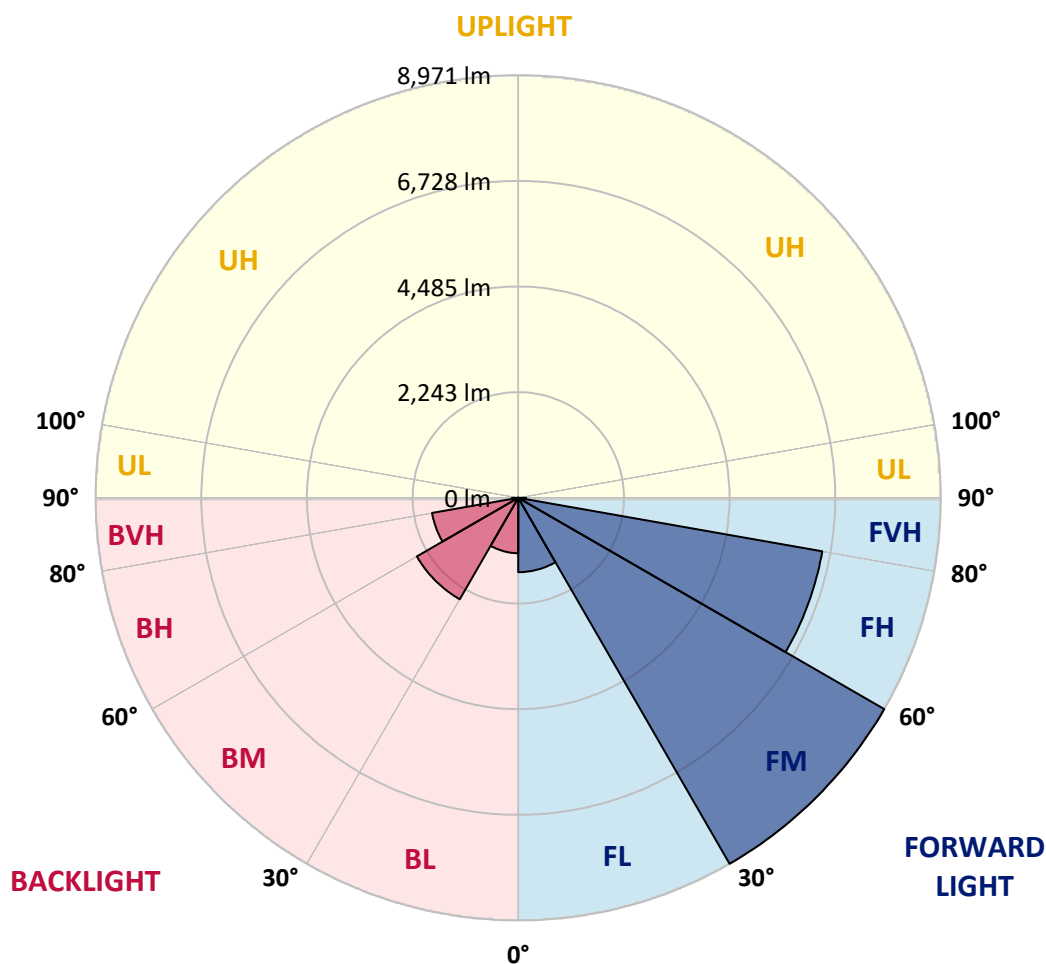
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1578.3	6.9			
FM	(30°-60°)	8970.7	39.1			
FH	(60°-80°)	6552.9	28.6			G3/7500
FVH	(80°-90°)	167.8	0.7			G2/225
BL	(0°-30°)	1175.5	5.1	B3/2500		
BM	(30°-60°)	2485.9	10.8	B2/2500		
BH	(60°-80°)	1857.0	8.1	B3/2500		G3/2500
BVH	(80°-90°)	132.0	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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4
2.5°	3440.6	3460.1	3454.0	3447.9	3447.9	3439.4	3438.2	3426.1	3416.3	3400.5	3396.8
5°	3484.4	3505.1	3502.6	3507.6	3523.3	3527.0	3530.6	3523.3	3503.9	3484.4	3475.9
7.5°	3445.5	3468.6	3475.9	3505.1	3553.8	3597.5	3630.3	3643.8	3625.5	3597.5	3584.1
10°	3314.1	3339.7	3365.2	3434.6	3520.9	3624.3	3711.8	3764.1	3760.5	3733.8	3710.6
12.5°	3047.8	3074.6	3129.3	3264.3	3422.4	3604.8	3767.8	3877.3	3915.0	3895.5	3855.3
15°	2834.9	2858.1	2899.4	3038.1	3243.6	3520.9	3788.5	4001.3	4097.3	4086.5	4037.8
17.5°	2828.9	2838.6	2864.2	2929.9	3087.9	3389.6	3766.6	4123.0	4306.5	4305.3	4244.5
20°	2935.9	2939.6	2954.2	2967.6	3057.6	3289.8	3710.6	4223.8	4541.3	4541.3	4475.7
22.5°	3084.3	3081.9	3096.4	3084.3	3128.1	3281.3	3675.3	4312.7	4802.7	4822.2	4739.5
25°	3306.9	3294.7	3291.1	3263.1	3271.6	3360.4	3714.3	4413.5	5112.9	5153.1	5049.7
27.5°	3603.6	3584.1	3570.8	3506.3	3484.4	3523.3	3833.5	4535.2	5458.3	5527.6	5396.3
30°	3990.3	3955.1	3935.6	3823.8	3744.6	3750.8	4013.5	4697.0	5819.5	5931.4	5764.8
32.5°	4518.2	4463.5	4411.2	4227.5	4082.8	4035.3	4245.8	4920.7	6211.1	6390.0	6175.8
35°	5109.2	5065.4	5009.5	4726.2	4503.5	4394.2	4559.5	5233.3	6669.7	6953.0	6674.5
37.5°	5678.4	5640.8	5667.5	5285.6	4998.6	4839.2	4970.6	5652.9	7235.2	7653.6	7299.6
40°	6267.1	6237.8	6241.5	5876.6	5542.2	5363.4	5469.3	6179.5	7883.4	8486.7	8051.3
42.5°	6906.8	6884.9	6811.9	6488.5	6112.6	5946.0	6043.3	6787.7	8579.0	9435.3	8875.8
45°	7623.1	7609.8	7541.6	7170.7	6740.2	6552.9	6684.2	7458.9	9278.4	10328.0	9704.1
47.5°	8242.2	8253.1	8244.6	7932.1	7485.7	7210.9	7367.7	8159.5	9929.1	11167.2	10498.3
50°	8540.2	8597.3	8681.2	8584.0	8306.6	8026.9	8057.3	8835.7	10549.3	11954.1	11259.6
52.5°	8384.5	8492.7	8721.4	8877.0	8984.1	8925.7	8844.2	9507.1	11133.1	12664.3	11979.6
55°	7804.4	7956.4	8335.8	8711.7	9257.7	9682.2	9789.2	10251.3	11702.3	13289.4	12660.7
57.5°	6747.5	6994.4	7334.9	8095.0	9014.5	10048.3	10891.0	11283.9	12305.5	13957.1	13373.4
60°	4935.4	5266.1	5689.4	6820.5	8163.1	9852.4	11828.8	12869.8	13162.9	14821.8	14301.3
62.5°	3158.4	3362.8	3752.0	4817.4	6360.7	8849.0	12115.8	14852.2	14616.3	16239.9	15692.6
65°	2162.4	2293.7	2650.1	3248.4	4112.0	6587.0	11347.2	16338.4	16924.7	18487.5	18071.6
67.5°	1571.3	1671.1	1975.1	2499.3	2679.2	3898.0	8805.3	16270.3	19168.5	20803.1	20156.1
70°	1145.6	1216.2	1471.6	1975.1	2061.5	2168.5	5334.3	13830.6	19119.9	21418.5	20643.8
72.5°	848.9	897.6	1069.1	1532.4	1668.6	1464.3	2640.4	10051.9	16429.6	19372.9	18751.4
75°	614.2	650.7	777.2	1172.4	1335.4	1115.3	1317.1	5874.3	11460.2	13627.5	13736.9
77.5°	469.4	497.4	580.2	858.6	1069.1	836.7	817.3	2702.4	5433.9	5460.8	5767.3
80°	377.0	395.2	440.2	604.4	819.7	626.4	532.7	1090.9	1717.3	1453.3	1525.1
82.5°	277.3	307.7	372.2	424.5	586.2	431.7	324.7	550.9	653.1	561.9	566.7
85°	158.1	178.8	225.0	304.0	374.6	263.9	186.0	244.5	304.0	249.3	222.5
87.5°	56.0	73.0	79.0	119.2	163.0	109.5	71.8	70.5	99.7	74.2	62.0
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°	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4	3360.4
2.5°	3384.7	3378.6	3354.3	3321.4	3287.4	3254.6	3243.6	3220.5	3204.7	3196.2	3205.9
5°	3452.8	3433.3	3376.1	3303.2	3226.6	3143.9	3085.5	3032.0	2993.1	2956.6	2971.2
7.5°	3550.1	3516.1	3417.6	3289.8	3153.6	3016.2	2914.0	2836.2	2783.9	2749.9	2757.1
10°	3663.1	3610.9	3460.1	3269.1	3058.7	2861.7	2741.4	2674.4	2641.6	2623.4	2628.2
12.5°	3793.3	3719.1	3503.9	3221.7	2914.0	2689.0	2606.3	2586.9	2588.1	2589.3	2591.7
15°	3953.8	3850.5	3539.1	3118.4	2725.5	2556.5	2541.9	2573.5	2606.3	2622.2	2620.9
17.5°	4135.1	3989.1	3545.3	2948.1	2540.7	2471.3	2517.5	2585.7	2635.5	2657.4	2662.2
20°	4329.7	4130.2	3501.4	2707.2	2388.7	2402.0	2484.7	2572.2	2627.0	2655.0	2662.2
22.5°	4552.2	4281.0	3396.8	2454.3	2264.5	2326.5	2423.9	2509.0	2566.2	2594.2	2601.4
25°	4806.4	4450.0	3232.6	2241.5	2157.5	2241.5	2338.7	2409.3	2455.5	2481.0	2488.4
27.5°	5088.6	4626.4	3013.7	2072.4	2063.9	2153.9	2234.2	2288.9	2313.2	2332.7	2340.0
30°	5371.9	4787.0	2748.6	1944.7	1982.5	2067.5	2124.7	2149.0	2156.3	2160.0	2168.5
32.5°	5678.4	4925.6	2470.1	1838.8	1904.6	1983.6	2017.7	2028.6	1994.5	1971.5	1978.8
35°	6049.3	5074.0	2197.7	1755.0	1828.0	1896.0	1907.0	1897.3	1857.1	1809.7	1812.1
37.5°	6507.9	5258.9	1980.0	1695.4	1756.2	1801.2	1787.8	1785.3	1789.0	1733.1	1736.8
40°	7069.7	5499.6	1820.6	1649.1	1697.8	1707.5	1669.8	1690.5	1708.8	1623.6	1626.1
42.5°	7693.6	5790.3	1719.7	1617.6	1649.1	1626.1	1567.6	1590.8	1588.3	1476.5	1475.3
45°	8329.8	6106.5	1684.5	1594.5	1604.1	1558.0	1493.5	1499.6	1448.5	1347.6	1351.2
47.5°	8962.2	6445.8	1706.3	1575.0	1548.3	1495.9	1446.1	1419.3	1343.9	1268.5	1268.5
50°	9582.4	6802.2	1786.6	1536.1	1471.6	1441.1	1404.8	1357.3	1277.0	1212.6	1207.7
52.5°	10157.8	7161.0	1876.6	1471.6	1375.6	1393.8	1370.6	1315.9	1236.9	1171.2	1172.4
55°	10702.5	7519.8	1911.8	1382.8	1285.6	1352.4	1339.1	1238.1	1143.2	1089.7	1084.9
57.5°	11296.1	7951.5	1873.0	1269.7	1212.6	1305.0	1253.9	1142.1	1087.3	1047.1	1043.4
60°	12118.3	8629.0	1789.0	1129.9	1143.2	1234.4	1146.9	1100.6	1041.1	996.1	993.6
62.5°	13484.0	9892.6	1654.0	991.2	1061.7	1129.9	1095.8	1049.6	988.8	944.9	944.9
65°	15502.9	11648.8	1399.8	882.9	970.6	1027.7	1041.1	994.9	931.6	885.4	887.9
67.5°	17205.5	12750.7	1059.3	792.9	876.9	944.9	982.7	937.7	870.8	825.8	827.0
70°	17112.0	11950.4	808.7	704.2	794.2	863.5	912.1	876.9	805.1	762.6	766.2
72.5°	15198.9	9997.1	654.4	614.2	710.2	778.4	836.7	810.0	737.0	695.7	695.7
75°	11165.9	7096.5	523.0	523.0	605.7	689.6	754.1	737.0	670.1	640.9	632.4
77.5°	4706.7	2977.2	409.9	434.2	503.5	592.2	672.6	678.7	620.2	656.7	595.9
80°	1251.4	820.9	312.5	341.7	395.2	488.9	585.0	582.6	519.4	485.2	451.2
82.5°	476.7	323.5	222.5	240.8	285.8	374.6	463.4	478.0	414.7	358.7	358.7
85°	183.7	138.7	137.5	144.7	166.7	248.2	350.2	362.4	312.5	265.2	273.7
87.5°	47.5	41.3	51.0	48.7	76.7	132.5	200.7	208.0	191.0	110.7	158.1
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)