

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: P967096

Luminaire Tested: **NAV-SB4D-722-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967096
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-722-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35120.6 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

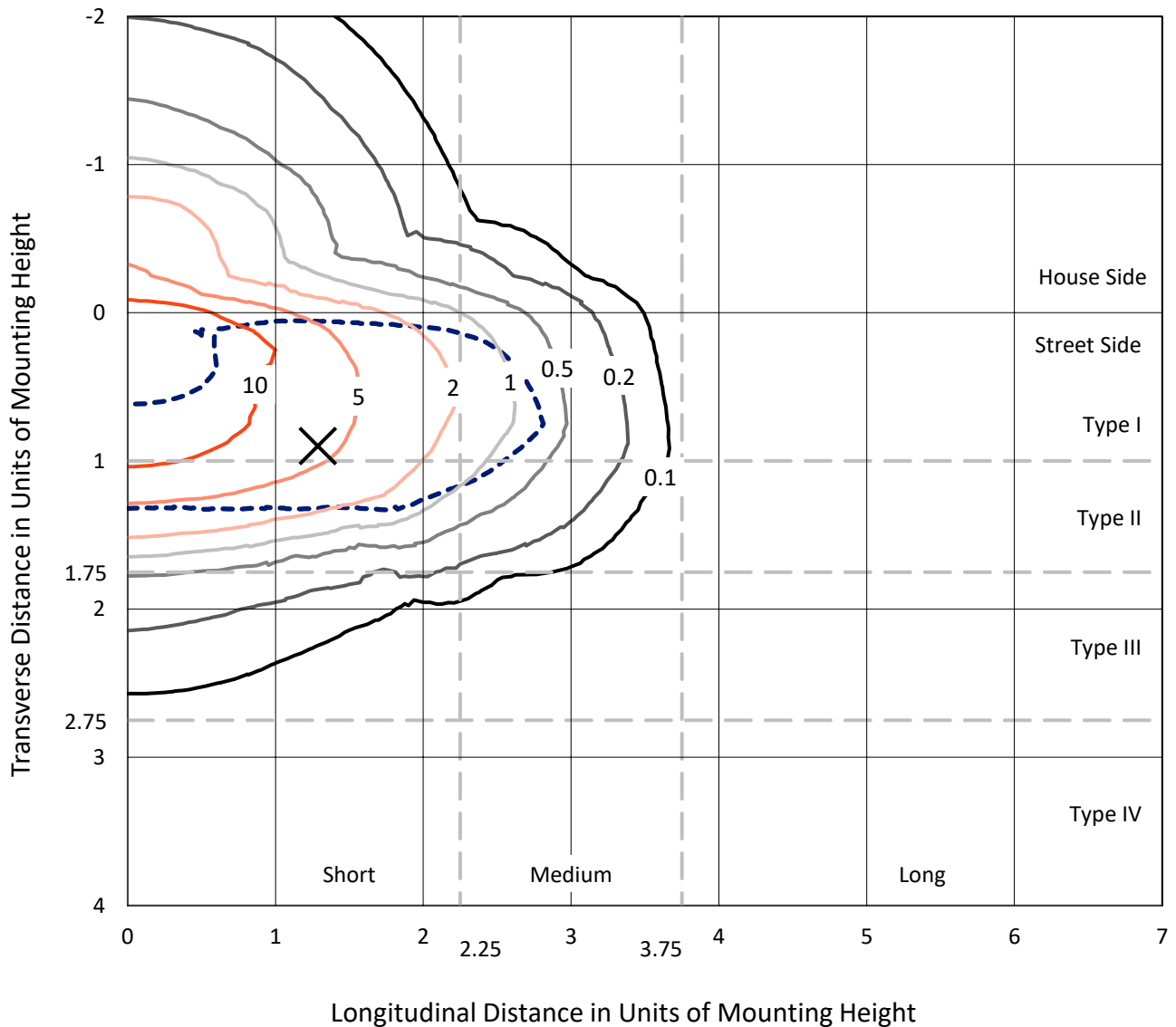
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

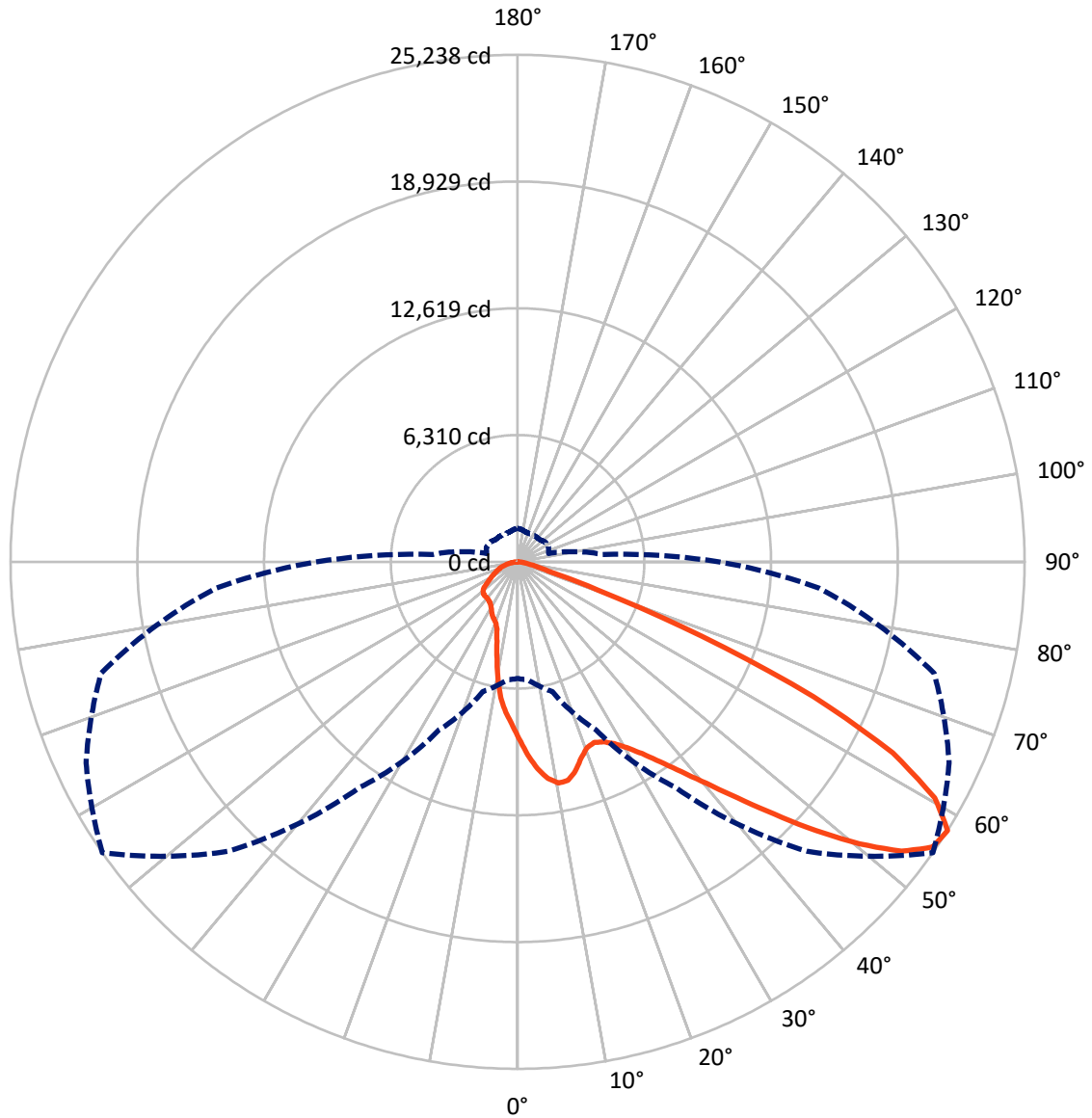
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 17 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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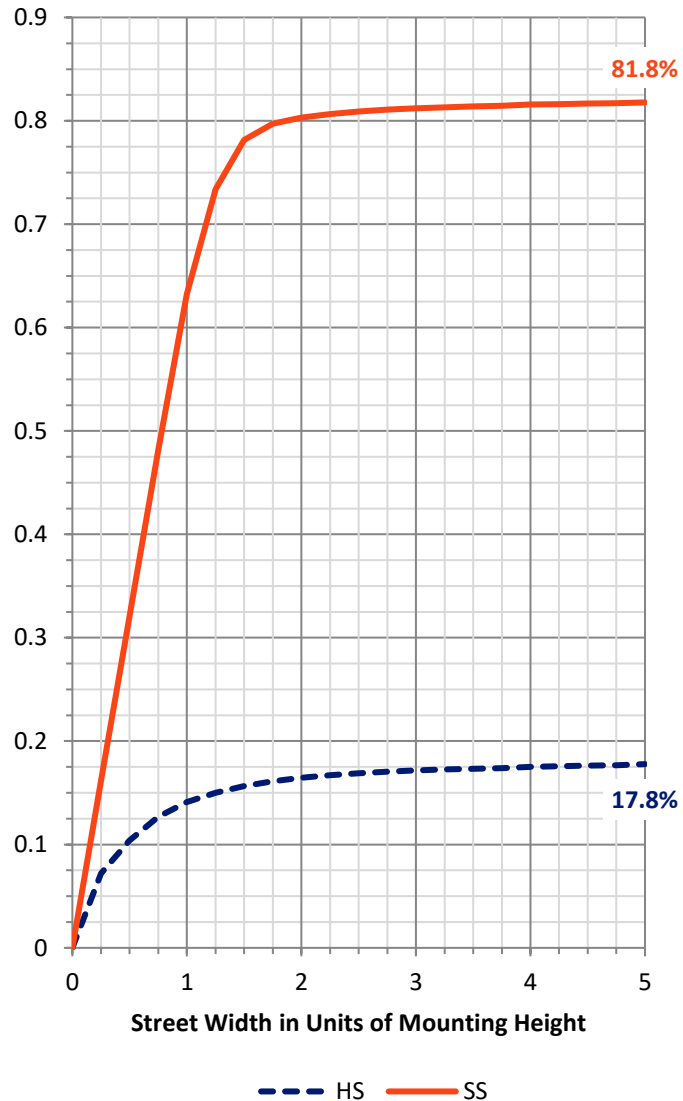
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6354.9	0.0	6354.9
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	28765.7	0.0	28765.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	35120.6	0.0	35120.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	816.6	2.3
10°-20°	2061.1	5.9
20°-30°	3289.0	9.4
30°-40°	5207.2	14.8
40°-50°	7970.2	22.7
50°-60°	8536.9	24.3
60°-70°	5370.6	15.3
70°-80°	1588.2	4.5
80°-90°	280.8	0.8
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°	35120.6	100.0
0°-180°	35120.6	100.0

Coefficient of Utilization



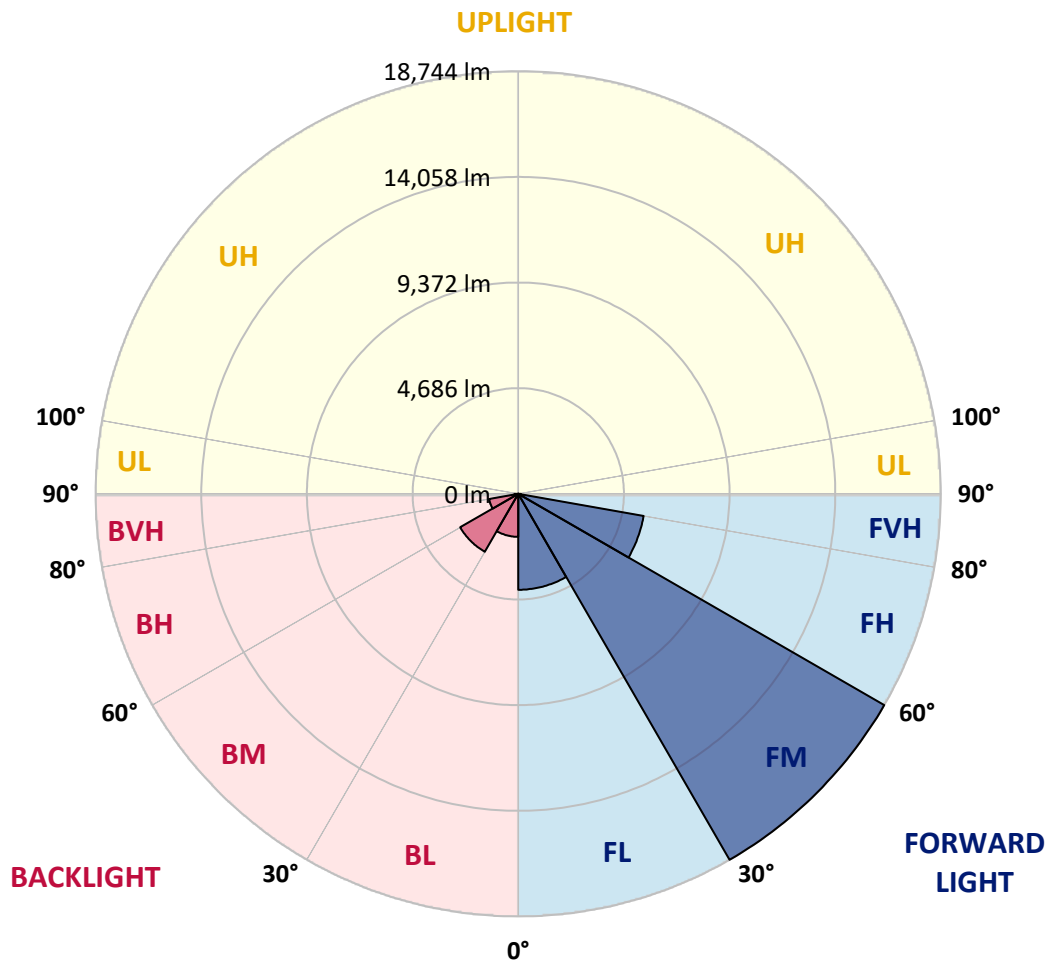
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4256.6	12.1			
FM (30°-60°)	18744.1	53.4			
FH (60°-80°)	5646.3	16.1			G3/7500
FVH (80°-90°)	118.6	0.3			G2/225
BL (0°-30°)	1910.1	5.4	B3/2500		
BM (30°-60°)	2970.2	8.5	B3/5000		
BH (60°-80°)	1312.4	3.7	B3/2500		G3/2500
BVH (80°-90°)	162.2	0.5			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°	75°	85°	90°
0°	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0
2.5°	10096.4	10089.2	10129.0	9992.9	9900.3	9775.0	9609.8	9399.2	9172.3	8932.7	8829.1
5°	11006.0	10942.5	10984.2	10882.5	10780.8	10592.0	10347.0	10003.8	9584.4	9106.9	8852.7
7.5°	10862.5	10819.0	10926.1	11016.9	11093.2	11069.6	10889.8	10530.3	9989.2	9295.7	8927.1
10°	9706.0	9657.0	9807.7	10121.8	10583.0	10984.2	11202.1	10978.8	10403.2	9502.7	8999.8
12.5°	8685.7	8662.1	8761.9	9016.1	9528.1	10298.0	11162.1	11370.9	10833.5	9747.9	9097.8
15°	8249.9	8220.9	8284.5	8413.4	8740.2	9457.4	10799.0	11639.6	11256.6	10031.1	9254.0
17.5°	8153.8	8121.1	8148.3	8215.5	8426.1	8972.5	10250.7	11772.1	11697.7	10347.0	9384.7
20°	8331.7	8304.4	8308.0	8304.4	8451.5	8885.4	9869.4	11721.4	12082.6	10637.4	9511.8
22.5°	8761.9	8716.6	8718.3	8622.2	8702.0	9037.9	9769.6	11585.2	12425.8	10891.6	9608.0
25°	9462.8	9381.1	9397.4	9152.3	9130.5	9379.3	9925.7	11479.9	12767.1	11095.0	9626.2
27.5°	10421.4	10328.8	10279.7	9914.8	9740.6	9864.0	10243.4	11516.2	13090.3	11271.1	9580.8
30°	11619.7	11507.1	11407.2	10889.8	10573.9	10528.5	10737.3	11755.8	13471.6	11456.2	9502.7
32.5°	13088.4	12957.7	12776.2	12089.9	11645.1	11407.2	11376.4	12182.5	13918.2	11692.3	9462.8
35°	14836.9	14666.2	14408.4	13520.6	12957.7	12471.2	12218.8	12797.9	14530.0	12048.2	9508.1
37.5°	16637.9	16445.5	16209.5	15152.8	14461.0	13743.9	13246.4	13633.1	15345.2	12531.0	9628.0
40°	18299.1	18083.2	17863.4	16923.0	16180.3	15316.2	14504.6	14689.8	16342.0	13108.4	9831.3
42.5°	19279.5	19119.8	19036.3	18527.9	17954.2	17077.3	16069.6	15942.5	17462.2	13772.9	10063.8
45°	19236.0	19170.7	19428.5	19639.1	19502.9	19016.3	17903.4	17327.8	18586.0	14348.5	10278.0
47.5°	18208.4	18252.0	18827.5	20011.3	20532.3	20786.5	19991.3	18687.7	19562.8	14778.8	10374.2
50°	15412.4	15448.7	16781.3	19334.1	20797.4	22229.9	22062.8	20014.9	20319.9	15042.0	10352.4
52.5°	13199.2	13222.8	13794.8	17326.0	19922.3	22956.1	23929.2	21265.8	20873.6	15114.6	10230.7
55°	9942.1	10023.8	10664.7	13593.2	17645.6	22380.6	25065.8	22554.8	21224.1	15121.9	10103.6
57.5°	5808.1	5897.0	6688.5	9226.7	13714.8	20374.3	25238.3	23698.7	21461.9	15063.8	10027.4
60°	2845.0	2883.1	3228.1	4849.4	8457.0	16509.0	23851.1	24252.4	21594.4	15033.0	10023.8
62.5°	1917.3	1911.8	1926.3	2393.0	4166.7	10606.6	20960.8	23282.9	21523.7	14915.0	9987.5
65°	1648.5	1628.5	1574.1	1679.4	2158.8	4851.2	16194.9	20388.9	20984.4	14619.0	9738.7
67.5°	1425.3	1427.0	1428.8	1396.2	1541.4	2238.6	9896.7	16060.5	19049.0	13217.4	8780.2
70°	1180.1	1196.5	1203.8	1203.8	1256.3	1468.8	4224.8	11007.8	15025.7	10363.3	7071.7
72.5°	1074.8	1040.3	1044.0	1025.8	1025.8	1118.4	1701.2	6240.1	9466.4	5829.8	4315.7
75°	876.9	898.7	902.3	889.6	847.9	853.3	1009.4	2618.1	4050.5	2418.4	2133.3
77.5°	757.1	757.1	764.3	755.3	722.6	639.1	673.5	1015.0	1378.0	991.3	1065.7
80°	608.2	606.4	637.2	655.4	604.5	472.0	430.3	561.0	611.8	435.7	553.7
82.5°	295.9	314.1	437.6	499.3	459.3	341.3	263.2	348.6	326.8	192.5	248.8
85°	172.5	163.4	196.1	277.8	263.2	188.8	127.1	181.5	170.7	98.0	99.8
87.5°	54.4	50.8	40.0	94.4	76.3	52.7	34.5	52.7	47.3	21.8	21.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0	8800.0
2.5°	8700.2	8486.0	8273.6	8079.3	7961.3	7885.0	7808.8	7723.5	7690.8	7641.8
5°	8613.1	8199.1	7830.6	7512.8	7224.2	6997.3	6768.5	6583.3	6499.7	6556.0
7.5°	8562.2	7963.1	7394.9	6812.0	6251.1	5802.5	5412.2	5138.1	5014.6	5045.5
10°	8516.8	7696.2	6830.2	5909.7	5103.6	4548.0	4148.6	3939.8	3861.7	3878.1
12.5°	8475.1	7396.6	6149.4	4938.3	4081.4	3714.7	3600.3	3602.1	3616.6	3627.5
15°	8467.8	7035.4	5388.6	4088.6	3529.5	3505.9	3629.3	3707.4	3749.1	3761.9
17.5°	8457.0	6603.3	4613.3	3509.5	3395.1	3554.9	3669.3	3720.1	3752.8	3754.6
20°	8413.4	6055.0	3898.1	3233.6	3366.1	3504.1	3574.9	3614.8	3642.0	3651.2
22.5°	8279.0	5444.9	3340.7	3110.1	3249.9	3360.7	3444.1	3489.5	3505.9	3516.8
25°	8037.5	4762.3	2955.8	2992.1	3088.3	3228.1	3295.3	3304.3	3298.9	3315.3
27.5°	7721.6	4030.6	2716.1	2832.3	2955.8	3075.6	3111.9	3106.5	3095.6	3113.7
30°	7340.3	3373.4	2563.6	2652.6	2821.4	2930.4	2963.0	2950.3	2928.5	2948.5
32.5°	6937.3	2836.0	2438.3	2527.2	2710.6	2817.7	2850.4	2837.7	2821.4	2837.7
35°	6561.4	2460.1	2322.1	2443.8	2623.5	2728.8	2770.6	2772.4	2772.4	2792.3
37.5°	6216.5	2240.4	2225.9	2391.1	2563.6	2658.0	2717.9	2721.6	2643.5	2648.9
40°	5897.0	2147.8	2182.3	2356.6	2505.5	2596.2	2599.9	2396.6	2253.2	2249.5
42.5°	5635.6	2129.6	2195.0	2353.0	2463.7	2467.4	2211.3	2053.4	2013.5	2015.3
45°	5390.5	2124.2	2224.0	2353.0	2402.0	2131.5	1959.0	1917.3	1920.8	1935.4
47.5°	5116.3	2102.5	2229.5	2320.3	2224.0	1895.4	1844.6	1826.4	1819.2	1822.9
50°	4816.7	2024.4	2160.5	2254.9	1919.1	1793.7	1730.2	1724.8	1733.9	1739.3
52.5°	4500.8	1897.3	2042.5	2136.9	1779.3	1704.8	1634.1	1646.8	1686.6	1699.3
55°	4293.8	1748.4	1886.4	1900.9	1681.2	1621.3	1561.4	1590.5	1664.9	1688.5
57.5°	4239.4	1590.5	1708.5	1692.1	1555.9	1548.7	1512.4	1537.8	1632.2	1666.6
60°	4223.0	1448.8	1534.1	1521.4	1434.3	1468.8	1459.7	1472.4	1505.1	1516.0
62.5°	4095.9	1336.3	1378.0	1359.9	1325.3	1385.3	1407.1	1379.9	1405.3	1418.0
65°	3772.7	1245.5	1225.5	1212.8	1227.3	1281.8	1325.3	1270.9	1294.5	1330.9
67.5°	3239.0	1122.1	1067.5	1082.1	1127.5	1156.5	1212.8	1151.1	1171.1	1232.8
70°	2619.9	965.9	916.9	958.6	1002.2	1062.1	1071.2	1029.4	1076.7	1145.6
72.5°	1853.7	807.9	773.5	858.7	873.3	951.4	931.4	911.4	976.8	1000.4
75°	1285.5	651.8	631.8	697.2	749.8	817.0	802.5	826.0	964.1	975.0
77.5°	813.3	506.6	493.8	535.6	608.2	682.6	706.2	975.0	1646.8	1712.1
80°	472.0	377.6	363.2	395.8	459.3	528.3	680.8	1196.5	1085.7	1073.0
82.5°	263.2	259.6	241.5	250.5	306.8	381.3	962.3	842.4	684.5	706.2
85°	123.4	152.5	130.7	125.3	172.5	446.6	642.7	481.1	319.5	312.3
87.5°	32.7	29.0	29.0	32.7	72.7	384.9	256.0	205.2	121.7	118.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)