

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: P965701

Luminaire Tested: **NAV-SB4A-760-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965701
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-SB4A-760-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19827.6 lumens
Efficiency: N/A
Efficacy: 173.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

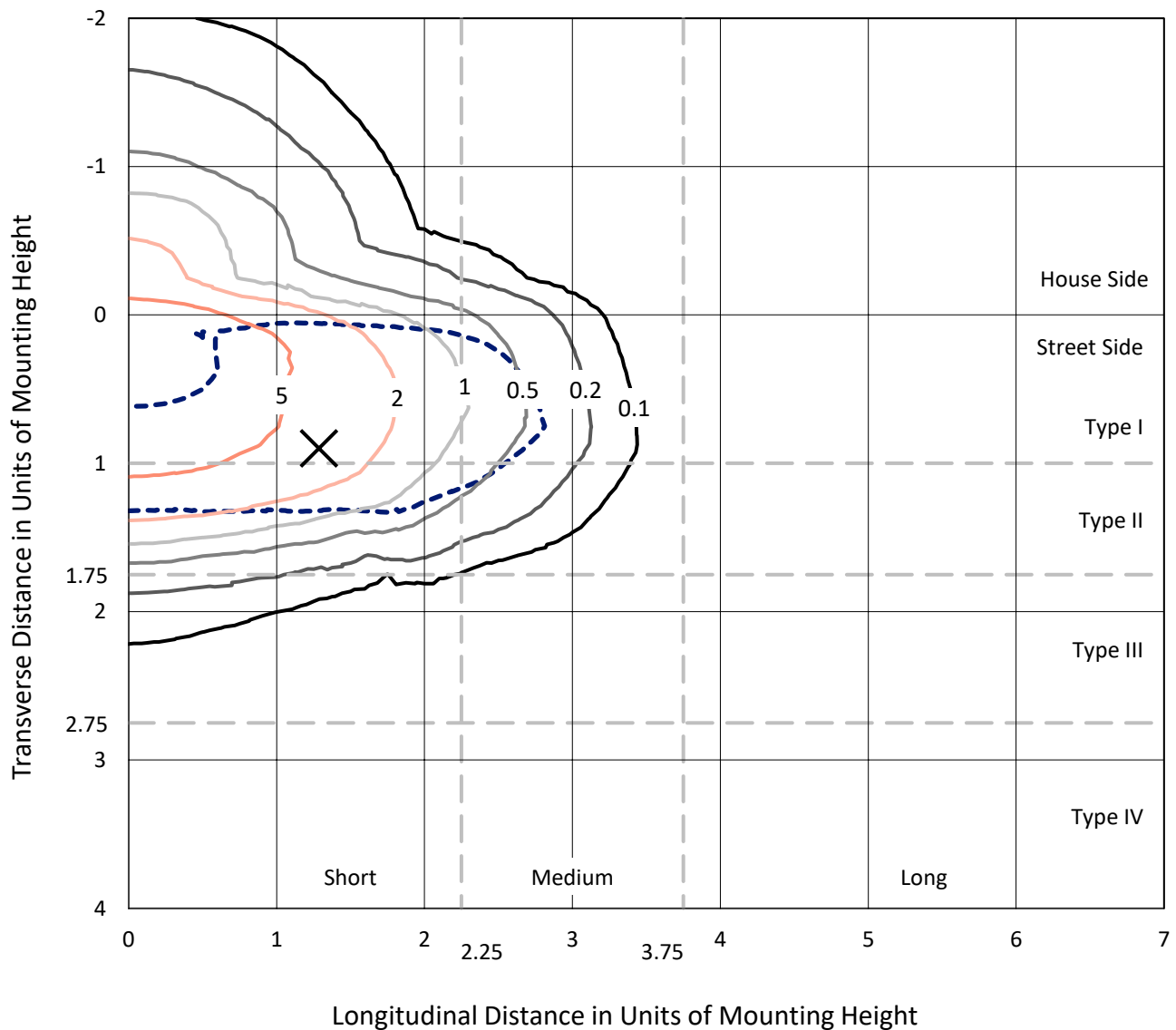
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

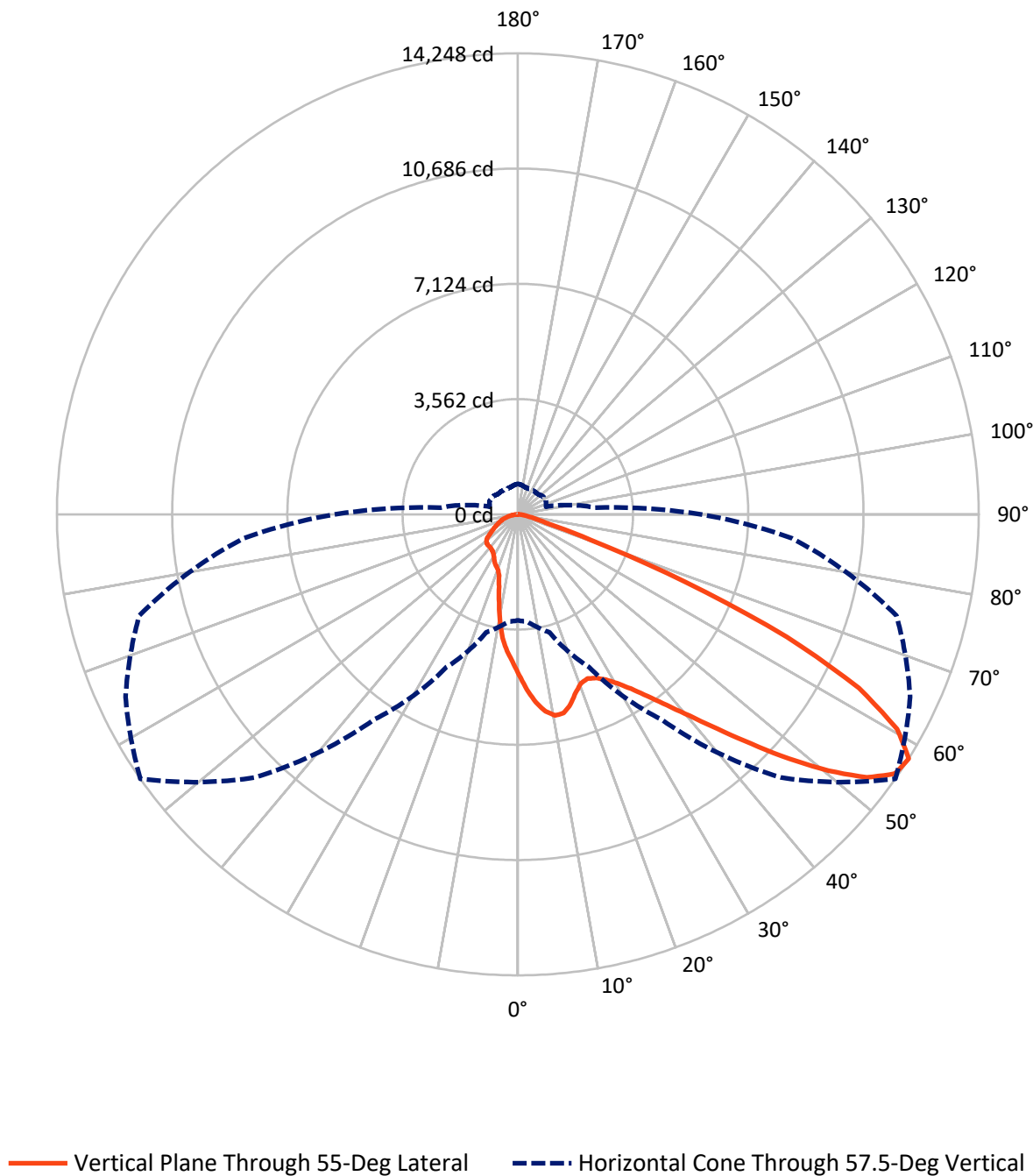
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 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	3587.7	0.0	3587.7
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	16239.9	0.0	16239.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	19827.6	0.0	19827.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	461.0	2.3
10°-20°	1163.6	5.9
20°-30°	1856.8	9.4
30°-40°	2939.8	14.8
40°-50°	4499.7	22.7
50°-60°	4819.5	24.3
60°-70°	3032.0	15.3
70°-80°	896.6	4.5
80°-90°	158.5	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°	19827.6	100.0
0°-180°	19827.6	100.0

Coefficient of Utilization



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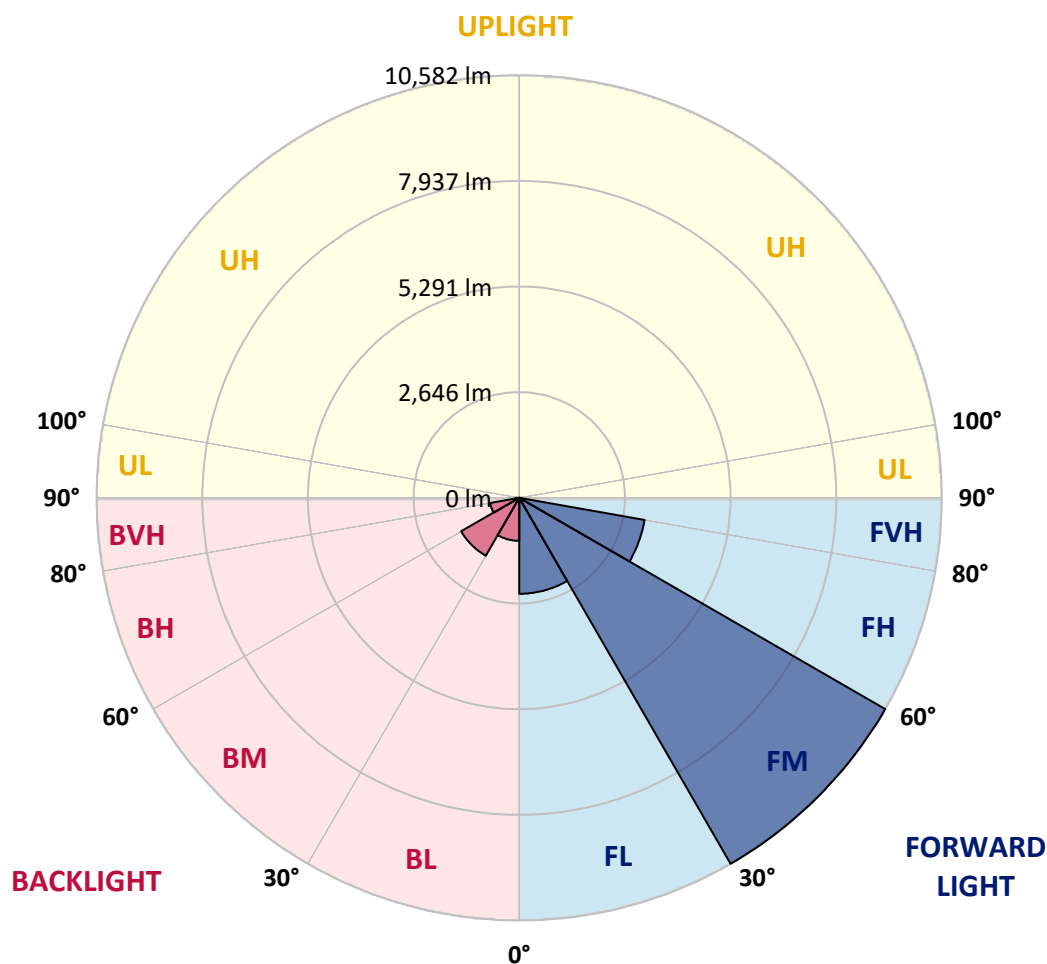
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2403.1	12.1			
FM	(30°-60°)	10582.1	53.4			
FH	(60°-80°)	3187.7	16.1			G2/5000
FVH	(80°-90°)	67.0	0.3			G1/100
BL	(0°-30°)	1078.3	5.4	B3/2500		
BM	(30°-60°)	1676.9	8.5	B2/2500		
BH	(60°-80°)	740.9	3.7	B2/1000		G2/1000
BVH	(80°-90°)	91.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2
2.5°	5700.0	5695.9	5718.5	5641.6	5589.3	5518.6	5425.3	5306.4	5178.3	5043.0	4984.6
5°	6213.5	6177.7	6201.2	6143.8	6086.4	5979.8	5841.5	5647.7	5411.0	5141.4	4997.9
7.5°	6132.6	6108.0	6168.4	6219.7	6262.7	6249.4	6148.0	5945.0	5639.5	5248.0	5039.9
10°	5479.6	5452.0	5537.0	5714.4	5974.7	6201.2	6324.2	6198.2	5873.2	5364.8	5080.9
12.5°	4903.6	4890.3	4946.6	5090.2	5379.2	5813.8	6301.7	6419.6	6116.2	5503.2	5136.3
15°	4657.6	4641.2	4677.1	4749.8	4934.3	5339.2	6096.7	6571.3	6355.0	5663.1	5224.4
17.5°	4603.3	4584.8	4600.2	4638.1	4757.0	5065.5	5787.2	6646.1	6604.1	5841.5	5298.2
20°	4703.7	4688.3	4690.4	4688.3	4771.4	5016.3	5571.9	6617.4	6821.4	6005.5	5370.0
22.5°	4946.6	4921.0	4922.0	4867.7	4912.8	5102.4	5515.5	6540.5	7015.1	6149.0	5424.3
25°	5342.3	5296.2	5305.4	5167.0	5154.7	5295.2	5603.7	6481.1	7207.8	6263.8	5434.5
27.5°	5883.5	5831.2	5803.5	5597.5	5499.1	5568.8	5783.0	6501.6	7390.2	6363.2	5408.9
30°	6560.0	6496.4	6440.1	6148.0	5969.6	5944.0	6061.8	6636.9	7605.5	6467.7	5364.8
32.5°	7389.2	7315.4	7212.9	6825.5	6574.4	6440.1	6422.6	6877.7	7857.6	6601.0	5342.3
35°	8376.3	8279.9	8134.4	7633.2	7315.4	7040.7	6898.2	7225.2	8203.1	6801.9	5367.9
37.5°	9393.1	9284.4	9151.2	8554.6	8164.1	7759.2	7478.4	7696.7	8663.3	7074.6	5435.6
40°	10331.0	10209.0	10085.0	9554.0	9134.8	8646.9	8188.7	8293.3	9226.0	7400.5	5550.4
42.5°	10884.5	10794.3	10747.1	10460.1	10136.2	9641.2	9072.3	9000.5	9858.4	7775.6	5681.6
45°	10859.9	10823.0	10968.5	11087.4	11010.6	10735.8	10107.5	9782.6	10492.9	8100.6	5802.5
47.5°	10279.7	10304.3	10629.2	11297.6	11591.6	11735.1	11286.3	10550.3	11044.4	8343.5	5856.8
50°	8701.2	8721.7	9474.1	10915.2	11741.3	12550.0	12455.7	11299.6	11471.8	8492.1	5844.5
52.5°	7451.7	7465.1	7787.9	9781.6	11247.3	12960.0	13509.4	12005.7	11784.3	8533.1	5775.9
55°	5612.9	5659.0	6020.8	7674.2	9962.0	12635.1	14151.0	12733.5	11982.1	8537.2	5704.1
57.5°	3279.0	3329.2	3776.1	5209.0	7742.8	11502.6	14248.4	13379.2	12116.4	8504.4	5661.1
60°	1606.2	1627.7	1822.4	2737.8	4774.4	9320.3	13465.3	13691.8	12191.2	8487.0	5659.0
62.5°	1082.4	1079.3	1087.5	1350.9	2352.4	5988.0	11833.5	13144.5	12151.3	8420.4	5638.5
65°	930.7	919.4	888.7	948.1	1218.7	2738.8	9143.0	11510.7	11846.8	8253.3	5498.1
67.5°	804.6	805.6	806.7	788.2	870.2	1263.8	5587.3	9067.2	10754.3	7462.0	4956.9
70°	666.2	675.5	679.6	679.6	709.3	829.2	2385.2	6214.6	8482.9	5850.7	3992.4
72.5°	606.8	587.3	589.4	579.1	579.1	631.4	960.4	3522.9	5344.3	3291.3	2436.4
75°	495.1	507.4	509.4	502.2	478.7	481.7	569.9	1478.0	2286.8	1365.3	1204.4
77.5°	427.4	427.4	431.5	426.4	408.0	360.8	380.3	573.0	778.0	559.6	601.7
80°	343.4	342.3	359.8	370.0	341.3	266.5	242.9	316.7	345.4	246.0	312.6
82.5°	167.1	177.3	247.0	281.9	259.3	192.7	148.6	196.8	184.5	108.6	140.4
85°	97.4	92.2	110.7	156.8	148.6	106.6	71.8	102.5	96.4	55.4	56.4
87.5°	30.7	28.7	22.5	53.3	43.0	29.7	19.5	29.7	26.6	12.3	12.3
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°	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2	4968.2
2.5°	4911.8	4790.8	4670.9	4561.2	4494.6	4451.6	4408.5	4360.3	4341.9	4314.2
5°	4862.6	4628.9	4420.8	4241.4	4078.5	3950.3	3821.2	3716.6	3669.5	3701.3
7.5°	4833.9	4495.6	4174.8	3845.8	3529.1	3275.9	3055.5	2900.7	2831.0	2848.5
10°	4808.3	4345.0	3856.0	3336.4	2881.3	2567.6	2342.1	2224.2	2180.2	2189.4
12.5°	4784.7	4175.8	3471.7	2788.0	2304.2	2097.1	2032.6	2033.6	2041.8	2048.0
15°	4780.6	3971.9	3042.2	2308.3	1992.6	1979.3	2049.0	2093.0	2116.6	2123.8
17.5°	4774.4	3727.9	2604.5	1981.3	1916.7	2007.0	2071.5	2100.2	2118.7	2119.7
20°	4749.8	3418.4	2200.7	1825.5	1900.4	1978.2	2018.2	2040.8	2056.1	2061.3
22.5°	4674.0	3074.0	1886.0	1755.8	1834.7	1897.3	1944.4	1970.0	1979.3	1985.4
25°	4537.7	2688.6	1668.7	1689.2	1743.5	1822.4	1860.4	1865.5	1862.4	1871.6
27.5°	4359.3	2275.5	1533.4	1599.0	1668.7	1736.4	1756.8	1753.8	1747.6	1757.9
30°	4144.1	1904.4	1447.3	1497.5	1592.8	1654.4	1672.8	1665.6	1653.3	1664.6
32.5°	3916.5	1601.0	1376.6	1426.8	1530.3	1590.8	1609.2	1602.1	1592.8	1602.1
35°	3704.3	1388.9	1311.0	1379.6	1481.1	1540.6	1564.1	1565.2	1565.2	1576.4
37.5°	3509.6	1264.8	1256.6	1349.9	1447.3	1500.6	1534.4	1536.5	1492.4	1495.5
40°	3329.2	1212.6	1232.0	1330.4	1414.5	1465.7	1467.8	1353.0	1272.0	1270.0
42.5°	3181.6	1202.3	1239.2	1328.4	1390.9	1393.0	1248.4	1159.3	1136.7	1137.8
45°	3043.2	1199.2	1255.6	1328.4	1356.1	1203.4	1106.0	1082.4	1084.4	1092.6
47.5°	2888.4	1186.9	1258.7	1309.9	1255.6	1070.1	1041.4	1031.1	1027.0	1029.1
50°	2719.3	1142.9	1219.8	1273.0	1083.4	1012.7	976.8	973.7	978.9	982.0
52.5°	2541.0	1071.1	1153.1	1206.4	1004.5	962.5	922.5	929.7	952.2	959.4
55°	2424.1	987.1	1065.0	1073.2	949.1	915.3	881.5	897.9	939.9	953.2
57.5°	2393.4	897.9	964.5	955.3	878.4	874.3	853.8	868.2	921.5	941.0
60°	2384.1	817.9	866.1	859.0	809.7	829.2	824.1	831.3	849.7	855.9
62.5°	2312.4	754.4	778.0	767.7	748.2	782.1	794.4	779.0	793.3	800.5
65°	2130.0	703.2	691.9	684.7	692.9	723.6	748.2	717.5	730.8	751.3
67.5°	1828.6	633.4	602.7	610.9	636.5	652.9	684.7	649.8	661.1	696.0
70°	1479.1	545.3	517.6	541.2	565.8	599.6	604.8	581.2	607.8	646.8
72.5°	1046.5	456.1	436.6	484.8	493.0	537.1	525.8	514.6	551.4	564.8
75°	725.7	368.0	356.7	393.6	423.3	461.2	453.0	466.4	544.3	550.4
77.5°	459.2	286.0	278.8	302.4	343.4	385.4	398.7	550.4	929.7	966.6
80°	266.5	213.2	205.0	223.4	259.3	298.3	384.4	675.5	612.9	605.8
82.5°	148.6	146.6	136.3	141.4	173.2	215.2	543.2	475.6	386.4	398.7
85°	69.7	86.1	73.8	70.7	97.4	252.2	362.8	271.6	180.4	176.3
87.5°	18.4	16.4	16.4	18.4	41.0	217.3	144.5	115.8	68.7	66.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)