

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: P882899

Luminaire Tested: **NAV-SB3A-727-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882899
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-727-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12202 lumens
Efficiency: N/A
Efficacy: 144.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

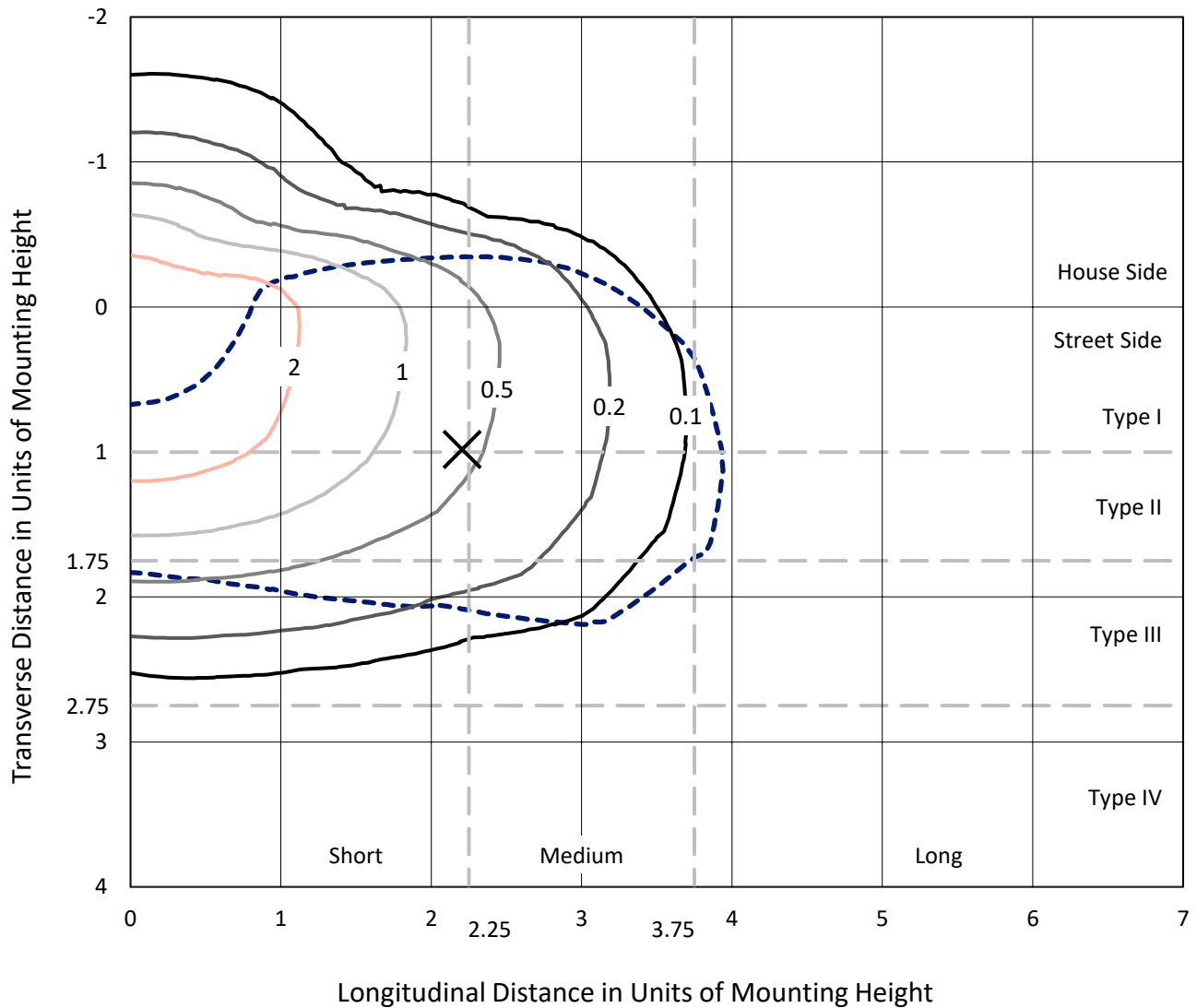
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

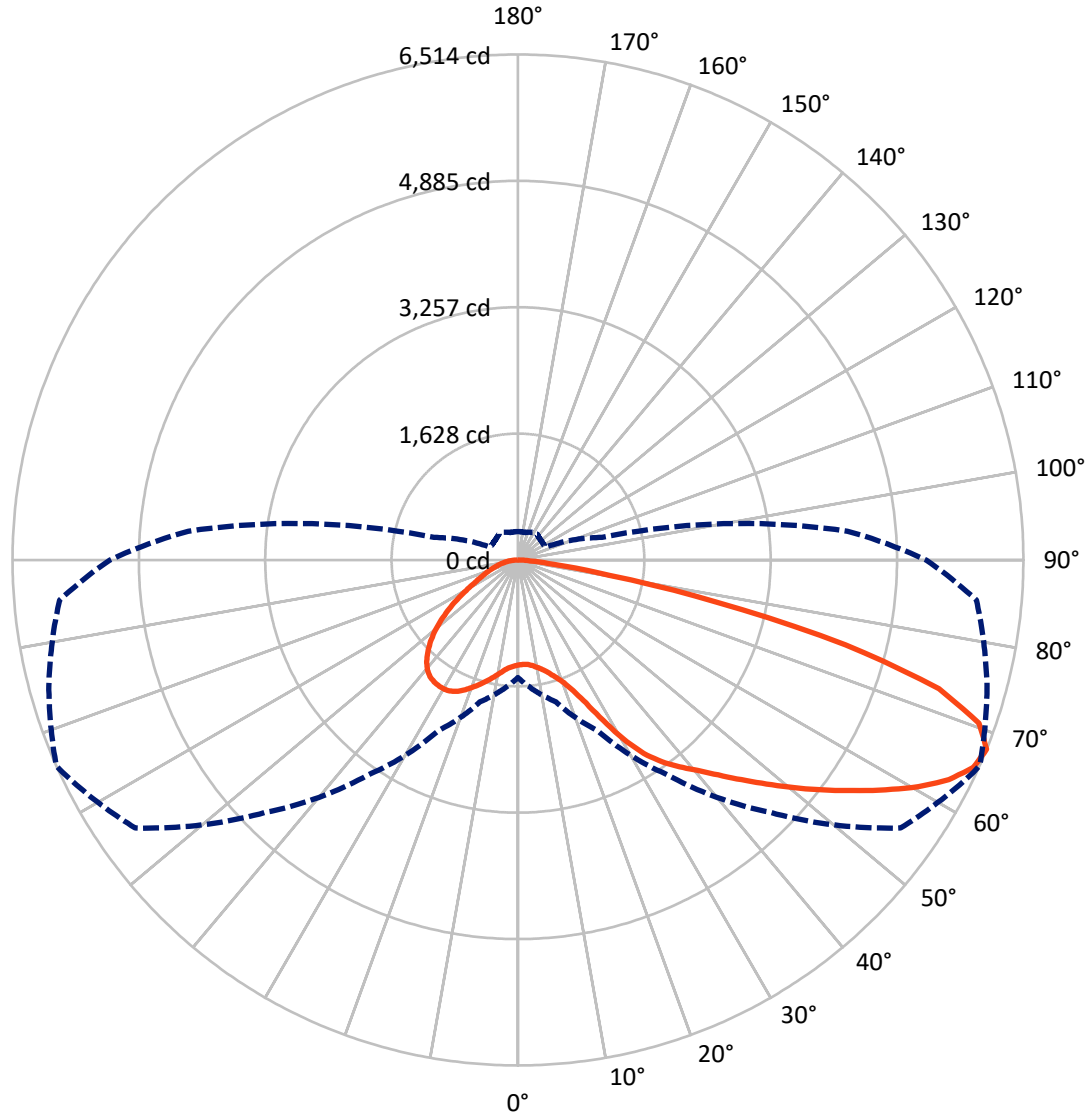
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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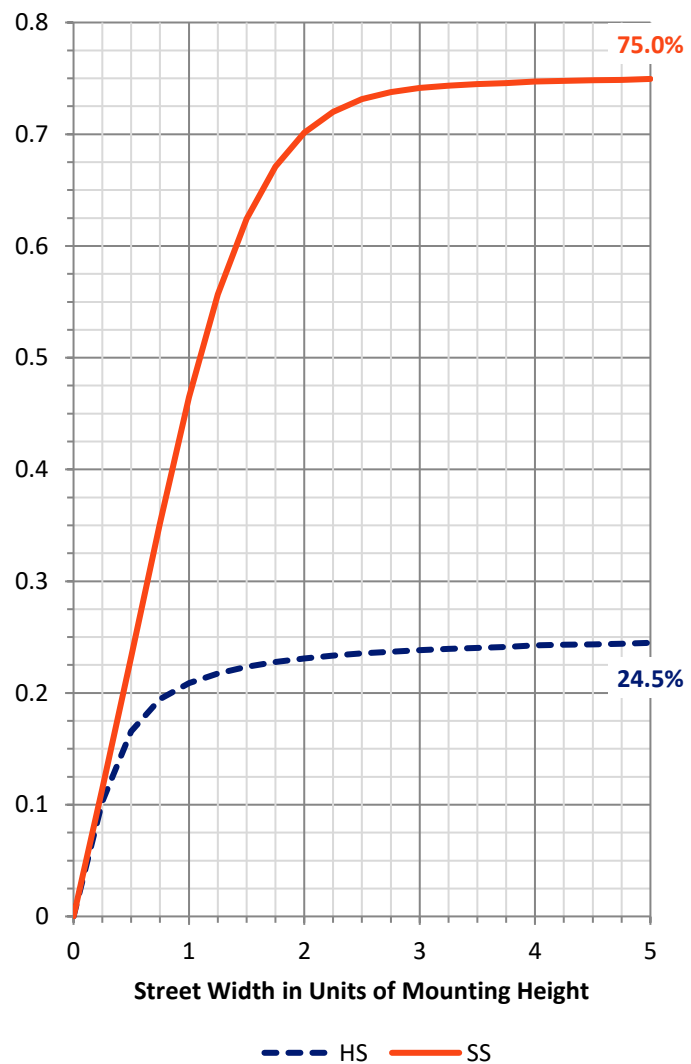
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3034.0	0.0	3034.0
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	9168.0	0.0	9168.0
	% Fixture	75.1	0.0	75.1
Total	Lumens	12202.0	0.0	12202.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.2	1.1
10°-20°	443.3	3.6
20°-30°	854.5	7.0
30°-40°	1498.2	12.3
40°-50°	2227.3	18.3
50°-60°	2823.3	23.1
60°-70°	2762.6	22.6
70°-80°	1317.8	10.8
80°-90°	140.8	1.2
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°	12202.0	100.0
0°-180°	12202.0	100.0

Coefficient of Utilization



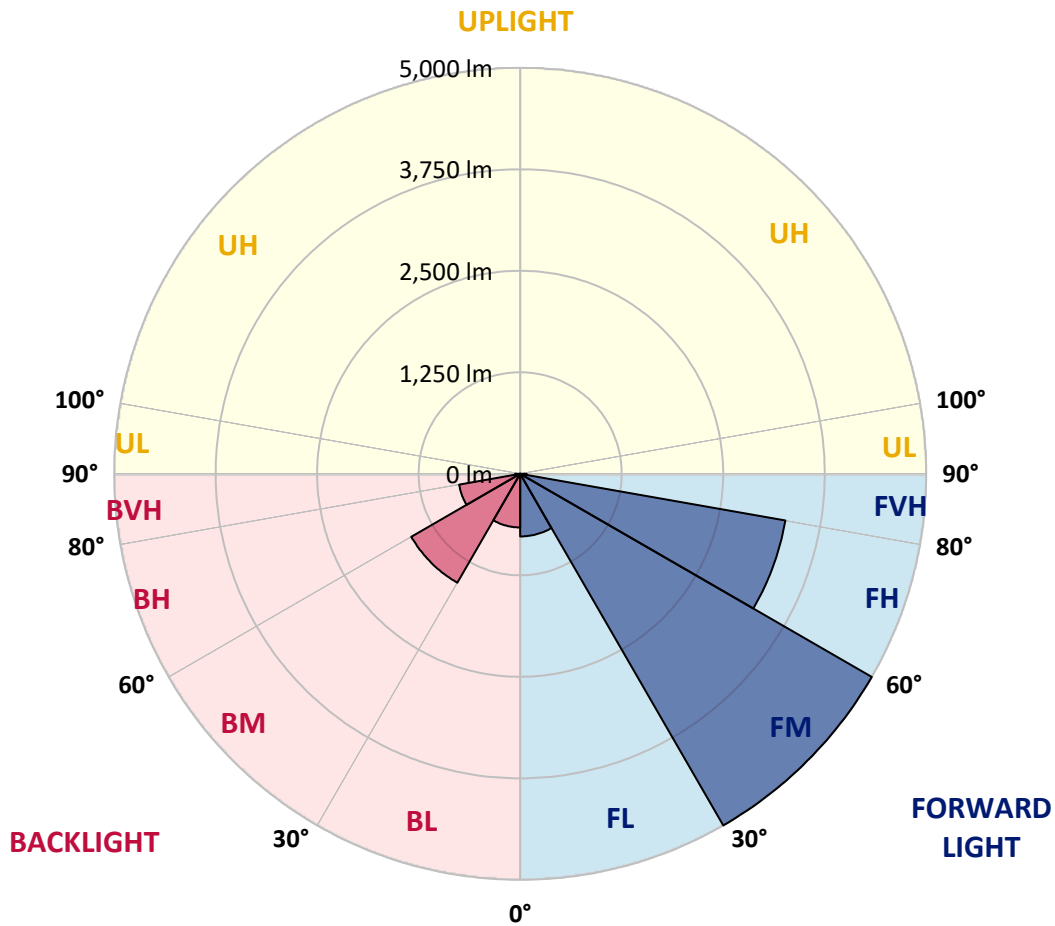
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	771.0	6.3			
FM (30°-60°)	5000.3	41.0			
FH (60°-80°)	3316.8	27.2			G2/5000
FVH (80°-90°)	79.8	0.7			G1/100
BL (0°-30°)	660.9	5.4	B2/1000		
BM (30°-60°)	1548.6	12.7	B2/2500		
BH (60°-80°)	763.5	6.3	B2/1000		G2/1000
BVH (80°-90°)	61.0	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4
2.5°	1339.3	1347.0	1345.0	1341.8	1341.2	1342.5	1344.4	1346.3	1345.7	1348.9	1354.0
5°	1335.4	1343.1	1342.5	1342.5	1345.0	1350.2	1353.4	1356.6	1353.4	1357.2	1364.3
7.5°	1338.0	1343.7	1346.3	1348.9	1355.3	1364.9	1372.6	1379.6	1375.8	1380.3	1389.3
10°	1370.7	1375.2	1377.7	1377.7	1382.2	1393.1	1400.8	1413.6	1410.4	1417.5	1429.0
12.5°	1430.3	1434.8	1434.8	1432.2	1435.4	1442.5	1445.0	1459.1	1453.4	1464.9	1476.5
15°	1503.4	1512.4	1505.3	1500.8	1502.1	1509.2	1508.5	1519.4	1513.6	1523.3	1533.5
17.5°	1584.2	1595.7	1584.2	1583.5	1581.0	1588.6	1589.3	1598.9	1588.6	1595.7	1602.8
20°	1679.7	1695.7	1686.1	1689.3	1683.5	1686.7	1689.9	1704.0	1688.0	1693.1	1691.2
22.5°	1814.3	1833.5	1823.3	1835.5	1831.6	1829.1	1828.4	1853.4	1828.4	1830.3	1811.7
25°	2010.5	2033.6	2015.6	2032.3	2032.3	2040.6	2050.2	2082.3	2040.6	2028.4	1980.4
27.5°	2300.3	2323.3	2288.1	2298.3	2295.1	2315.7	2305.4	2384.9	2340.0	2320.1	2223.3
30°	2649.0	2690.1	2623.4	2620.8	2617.6	2650.3	2665.1	2717.6	2672.1	2652.2	2535.6
32.5°	3026.0	3068.9	2989.5	2966.4	2954.2	2974.1	2961.9	3004.2	2972.8	2942.0	2797.8
35°	3424.8	3467.1	3391.4	3346.5	3297.8	3256.1	3212.6	3223.5	3194.0	3147.2	2997.8
37.5°	3801.7	3879.3	3799.2	3751.1	3661.3	3579.9	3458.1	3407.4	3379.9	3336.9	3186.3
40°	4185.7	4230.0	4169.1	4128.0	4030.6	3903.0	3708.1	3601.1	3563.9	3522.2	3394.6
42.5°	4468.5	4510.8	4478.1	4449.9	4373.6	4225.5	3973.5	3839.6	3785.7	3738.9	3630.6
45°	4692.9	4724.3	4703.8	4714.0	4681.3	4537.7	4248.6	4095.3	4039.6	3982.5	3897.2
47.5°	4783.3	4816.6	4849.3	4910.2	4966.0	4860.2	4544.1	4372.3	4313.3	4255.0	4171.0
50°	4773.0	4807.0	4901.9	5031.4	5204.5	5169.2	4855.7	4667.2	4612.7	4546.0	4468.5
52.5°	4690.9	4729.4	4851.2	5066.6	5342.3	5400.6	5173.0	4971.7	4920.4	4840.9	4763.4
55°	4475.5	4498.6	4681.3	4986.5	5375.0	5562.2	5484.0	5296.1	5244.8	5133.9	5049.3
57.5°	4076.1	4109.5	4375.5	4770.4	5292.9	5671.8	5757.1	5637.2	5587.8	5428.2	5339.7
60°	3554.9	3608.1	3912.6	4407.6	5083.9	5671.2	6005.2	5972.5	5931.5	5718.0	5625.7
62.5°	2965.1	3026.6	3319.6	3894.7	4718.5	5510.3	6160.3	6253.3	6232.1	5985.3	5867.4
65°	2277.2	2319.5	2611.2	3231.1	4149.8	5164.7	6178.3	6445.0	6448.8	6188.5	5993.6
67.5°	1516.2	1638.0	1891.2	2424.6	3388.2	4599.9	6020.6	6476.4	6513.6	6258.4	5930.2
70°	739.8	900.1	1148.2	1575.8	2424.6	3733.8	5608.3	6218.7	6301.4	6054.6	5551.9
72.5°	307.1	359.0	494.3	777.7	1391.8	2519.5	4780.0	5519.9	5673.1	5364.7	4667.9
75°	207.1	224.4	282.7	398.8	634.0	1242.5	3447.2	4115.9	4362.7	4051.8	3311.9
77.5°	159.6	170.5	205.8	278.9	377.0	469.9	1845.1	2480.4	2608.0	2414.4	1723.3
80°	125.7	134.0	153.9	203.2	267.3	251.3	628.9	1123.8	1197.6	1004.6	553.9
82.5°	109.0	112.2	110.3	137.8	177.6	146.8	206.4	414.8	457.7	332.1	180.8
85°	78.9	87.8	91.7	85.3	94.2	74.4	84.6	146.8	161.6	144.2	101.9
87.5°	32.1	47.4	58.3	55.1	34.6	21.2	26.3	43.0	49.4	53.9	33.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4	1353.4
2.5°	1354.6	1359.1	1362.3	1366.2	1368.7	1372.6	1380.3	1384.8	1385.4	1388.6	1388.0
5°	1366.8	1373.2	1380.3	1390.5	1402.1	1411.7	1426.4	1436.7	1440.6	1443.8	1443.1
7.5°	1393.1	1402.1	1414.9	1432.9	1449.5	1462.4	1480.3	1492.5	1504.7	1509.2	1509.8
10°	1432.2	1445.0	1463.6	1488.0	1505.9	1522.6	1541.2	1551.5	1563.6	1568.8	1571.3
12.5°	1480.9	1494.4	1518.8	1552.7	1569.4	1581.0	1587.4	1584.8	1587.4	1591.9	1593.1
15°	1536.7	1551.5	1579.0	1615.6	1627.1	1616.9	1602.8	1589.9	1588.0	1589.3	1593.8
17.5°	1602.8	1613.6	1645.7	1676.5	1668.1	1625.8	1595.1	1574.5	1564.3	1561.1	1565.6
20°	1695.1	1695.1	1721.4	1740.6	1684.8	1613.0	1564.9	1531.6	1510.4	1501.5	1499.5
22.5°	1807.3	1797.0	1813.7	1800.2	1681.6	1577.1	1510.4	1452.7	1420.7	1407.9	1405.9
25°	1949.6	1937.4	1932.9	1849.6	1658.5	1520.0	1411.7	1341.8	1313.6	1306.6	1307.8
27.5°	2164.4	2133.6	2075.2	1876.5	1616.2	1430.3	1296.3	1231.6	1215.5	1216.2	1218.1
30°	2450.3	2388.7	2245.8	1881.0	1547.0	1303.4	1178.3	1132.2	1124.5	1127.7	1138.6
32.5°	2715.1	2656.7	2420.2	1860.5	1440.6	1179.0	1072.6	1041.8	1030.2	1034.1	1039.2
35°	2922.8	2906.7	2581.7	1831.6	1309.8	1062.3	977.7	951.4	929.0	923.8	927.7
37.5°	3119.0	3112.5	2702.9	1791.2	1180.3	979.6	901.4	866.8	834.1	816.1	816.8
40°	3334.4	3328.0	2782.4	1729.0	1065.5	907.8	832.8	787.3	746.9	714.2	717.4
42.5°	3576.7	3538.9	2820.2	1639.9	968.1	846.9	777.0	715.5	662.3	632.1	634.0
45°	3841.5	3756.2	2819.6	1526.5	886.0	791.1	717.4	630.2	580.8	552.6	551.3
47.5°	4122.3	3963.9	2784.9	1400.8	806.5	729.6	625.1	558.4	525.7	508.4	504.5
50°	4412.1	4158.2	2726.0	1256.6	725.1	659.7	567.4	521.9	496.9	480.8	475.1
52.5°	4684.5	4334.5	2654.8	1093.1	642.4	591.7	541.7	506.5	480.2	462.2	454.5
55°	4937.8	4486.4	2554.1	925.7	575.1	546.2	529.5	500.1	469.9	448.8	440.4
57.5°	5162.8	4585.2	2380.4	768.7	527.0	514.8	516.7	489.2	454.5	436.6	425.0
60°	5350.0	4657.6	2123.3	623.1	487.9	484.0	496.9	468.6	428.3	407.7	398.8
62.5°	5462.2	4656.3	1807.9	510.3	454.5	455.8	470.6	443.0	402.0	382.7	377.0
65°	5452.6	4542.2	1461.7	436.6	422.5	423.8	443.0	414.8	380.2	368.6	368.0
67.5°	5259.6	4264.0	1121.3	388.5	387.2	393.0	415.4	395.6	366.7	365.4	367.4
70°	4737.1	3686.3	807.8	350.0	350.7	359.0	388.5	383.4	359.7	362.2	361.6
72.5°	3798.5	2810.6	542.4	309.7	310.3	323.8	362.9	373.8	352.6	386.6	391.7
75°	2529.8	1752.8	348.8	266.7	267.3	284.6	340.4	355.2	333.4	385.3	388.5
77.5°	1215.5	787.9	252.6	224.4	224.4	240.4	294.3	318.0	284.0	299.4	274.4
80°	419.9	296.2	198.7	180.8	176.9	187.8	248.1	275.7	244.9	225.7	211.6
82.5°	165.4	153.9	159.6	140.4	127.6	134.6	193.0	227.6	180.1	162.8	162.2
85°	94.9	100.0	112.8	93.0	73.7	82.7	141.7	163.5	135.9	119.9	122.5
87.5°	25.6	35.3	51.9	48.1	33.3	35.3	67.3	90.4	78.2	60.3	62.2
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)