

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: P965755

Luminaire Tested: **NAV-SB4A-827-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965755
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12131.9 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

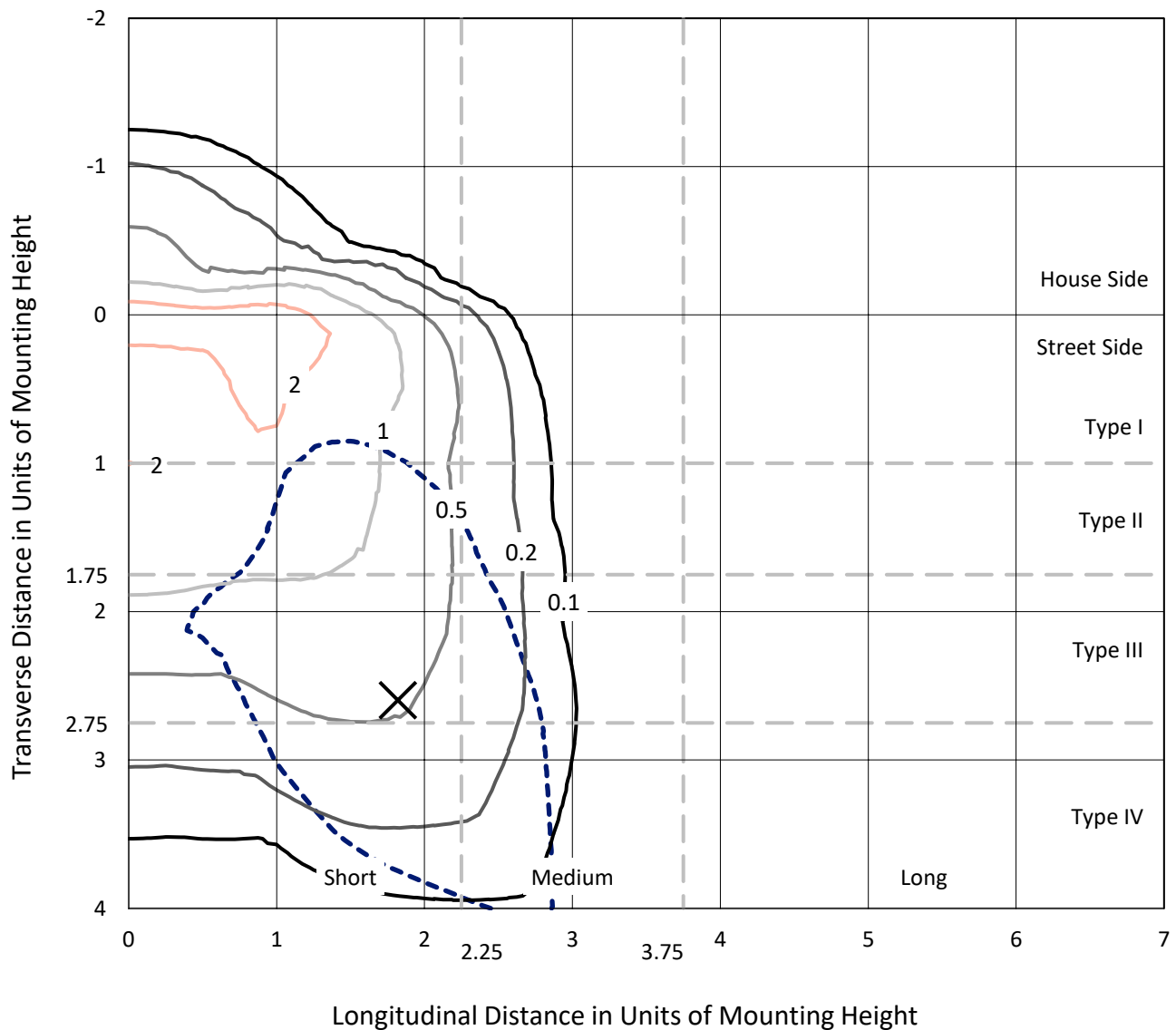
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

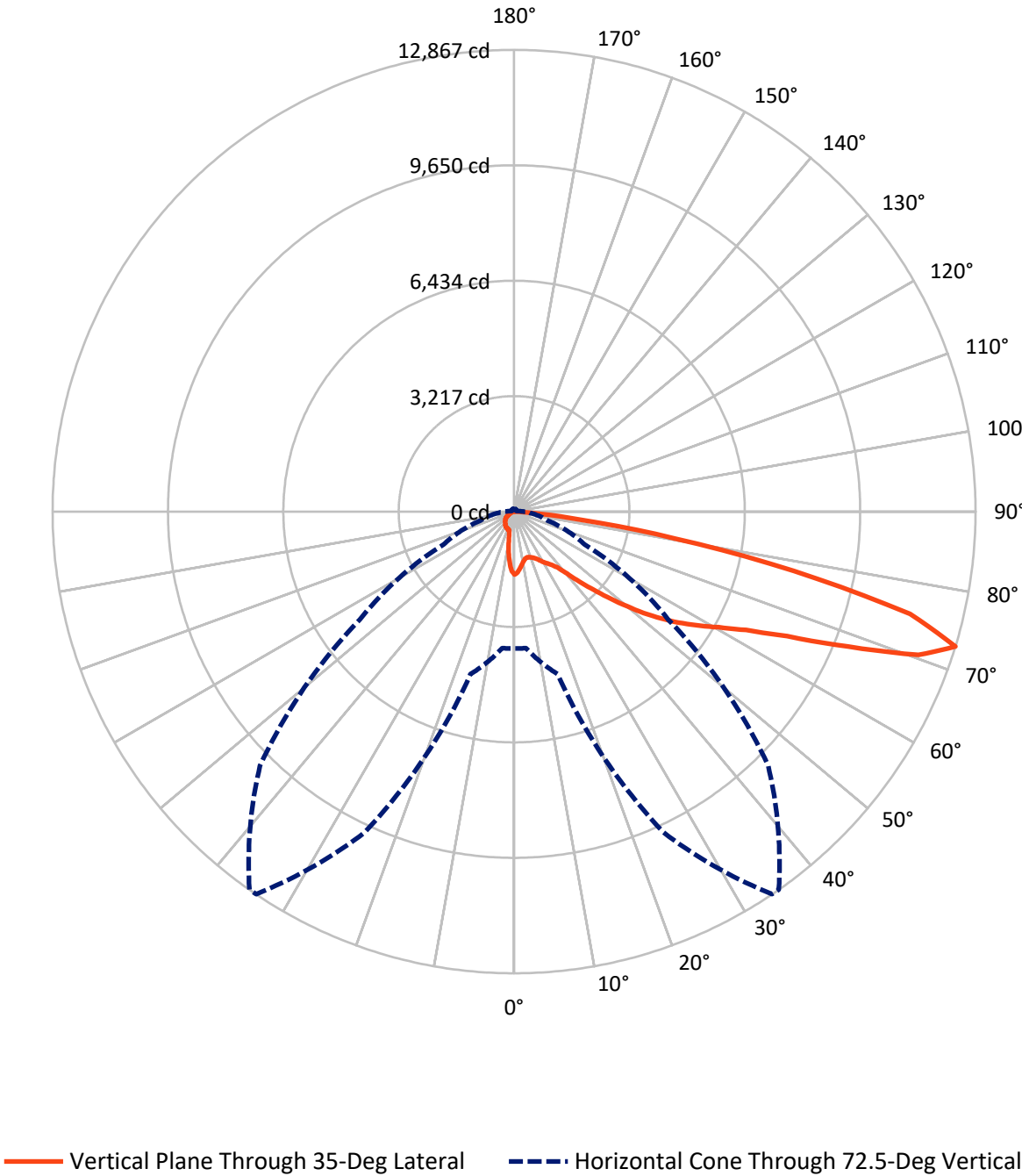
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1365.4	0.0	1365.4
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	10766.5	0.0	10766.5
	% Fixture	88.7	0.0	88.7
Total	Lumens	12131.9	0.0	12131.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.5	1.2
10°-20°	338.0	2.8
20°-30°	549.1	4.5
30°-40°	916.1	7.6
40°-50°	1733.4	14.3
50°-60°	2754.3	22.7
60°-70°	3407.3	28.1
70°-80°	2118.0	17.5
80°-90°	171.2	1.4
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°	12131.9	100.0
0°-180°	12131.9	100.0

Coefficient of Utilization



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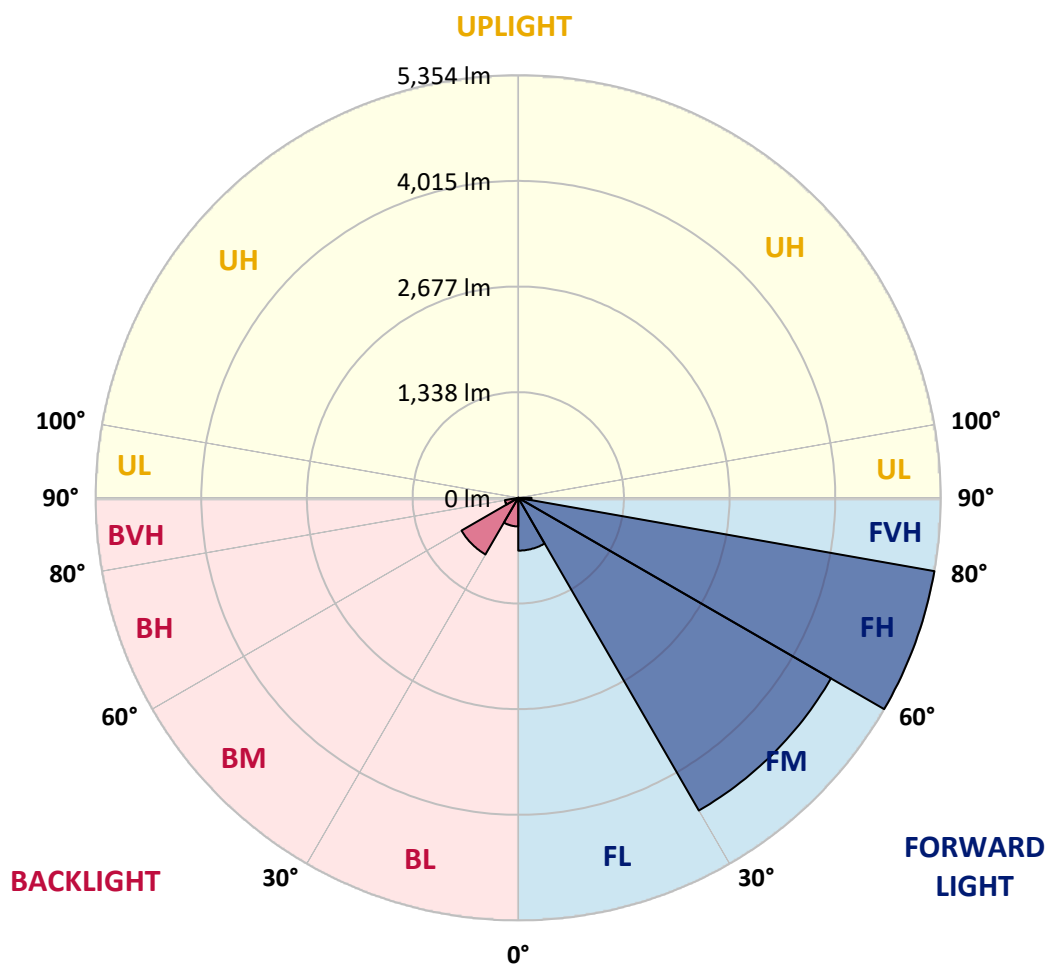
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	668.8	5.5			
FM	(30°-60°)	4574.9	37.7			
FH	(60°-80°)	5354.0	44.1			G3/7500
FVH	(80°-90°)	168.8	1.4			G2/225
BL	(0°-30°)	362.8	3.0	B1/500		
BM	(30°-60°)	828.9	6.8	B1/1000		
BH	(60°-80°)	171.3	1.4	B1/500		G1/500
BVH	(80°-90°)	2.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3
2.5°	1680.1	1694.3	1697.0	1701.4	1701.4	1706.7	1715.6	1728.0	1748.5	1759.2	1766.3
5°	1548.6	1559.2	1572.6	1583.2	1603.6	1606.3	1641.0	1674.7	1721.9	1757.5	1782.3
7.5°	1416.0	1428.5	1446.3	1472.1	1498.8	1506.7	1559.2	1616.1	1690.7	1757.5	1799.2
10°	1322.8	1323.6	1339.7	1365.4	1408.0	1417.9	1481.8	1562.7	1656.1	1746.8	1815.2
12.5°	1270.3	1276.5	1283.6	1303.2	1344.1	1350.3	1418.7	1513.8	1621.4	1740.6	1833.9
15°	1270.3	1274.7	1279.2	1288.9	1321.8	1327.2	1387.6	1482.8	1603.6	1743.2	1864.1
17.5°	1283.6	1290.8	1287.2	1298.8	1333.4	1337.0	1390.3	1473.8	1602.8	1760.1	1910.3
20°	1315.6	1320.9	1313.8	1320.9	1355.7	1362.7	1417.9	1490.8	1617.9	1789.4	1968.1
22.5°	1366.3	1369.0	1352.1	1357.4	1393.0	1401.9	1465.9	1538.7	1654.4	1836.6	2045.5
25°	1430.3	1435.6	1409.9	1416.0	1449.9	1460.5	1534.3	1610.8	1712.1	1901.5	2144.1
27.5°	1504.1	1506.7	1484.5	1483.7	1527.1	1542.3	1616.9	1699.7	1789.4	1983.2	2268.5
30°	1588.5	1596.5	1575.2	1571.6	1626.8	1639.2	1713.0	1809.0	1903.2	2105.9	2445.4
32.5°	1655.2	1661.4	1649.0	1657.8	1713.9	1723.6	1829.4	1963.7	2081.9	2280.1	2686.3
35°	1751.2	1754.8	1726.3	1742.3	1806.4	1831.2	1988.6	2180.6	2306.8	2498.8	3001.1
37.5°	2098.8	2098.8	1977.8	1898.8	1960.1	1982.4	2206.3	2453.4	2584.1	2792.2	3397.6
40°	2579.7	2571.7	2394.8	2233.0	2225.0	2268.5	2516.6	2797.5	2942.4	3144.2	3843.7
42.5°	3092.6	3080.1	2839.2	2679.2	2652.6	2667.7	2874.8	3221.5	3369.1	3573.6	4323.8
45°	3547.7	3544.2	3323.8	3108.6	3060.6	3108.6	3321.9	3717.6	3823.4	4038.4	4802.9
47.5°	3929.1	3929.1	3768.2	3627.8	3602.9	3631.3	3927.3	4267.8	4258.1	4533.6	5269.6
50°	4368.2	4364.7	4211.8	4151.4	4177.1	4217.2	4624.3	4847.3	4707.8	5019.8	5686.5
52.5°	4675.8	4697.2	4644.7	4634.9	4766.5	4835.8	5331.8	5414.6	5110.5	5481.2	5998.5
55°	4919.4	4944.3	5004.8	5073.1	5326.5	5417.2	6017.3	5952.3	5447.4	5881.2	6178.1
57.5°	5264.3	5228.7	5322.1	5457.2	5867.0	5976.4	6681.3	6460.0	5718.6	6205.7	6197.7
60°	5683.0	5688.3	5704.3	5875.0	6406.6	6547.0	7335.5	6940.0	5892.7	6404.8	5980.8
62.5°	6186.1	6194.1	6227.0	6489.3	7131.0	7263.6	8032.4	7332.8	5972.8	6348.7	5420.7
65°	6151.4	6185.3	6552.3	7449.3	8232.5	8363.1	8845.9	7608.4	5851.8	5836.8	4413.5
67.5°	5603.9	5659.0	6273.2	8596.1	9893.0	10038.7	9829.0	7662.7	5330.1	4538.9	2879.2
70°	4885.6	4905.1	5643.9	9627.2	11815.8	11963.3	10709.0	7066.1	4044.6	2531.6	1289.9
72.5°	3815.4	3819.8	4686.5	9866.3	12859.3	12867.3	10018.3	5245.6	2175.3	972.5	448.0
75°	2725.5	2698.8	3138.9	8001.4	11313.5	11404.2	7510.6	2460.6	831.2	459.6	223.1
77.5°	1461.4	1490.8	1776.1	4745.1	7815.5	7970.2	4098.1	709.4	423.1	312.9	147.6
80°	451.6	476.4	728.1	2172.6	4426.9	4520.2	1519.2	315.6	295.1	223.1	96.9
82.5°	142.3	147.6	339.6	913.0	1837.4	1880.1	440.0	178.7	201.8	147.6	56.9
85°	40.9	41.8	151.1	340.5	454.3	463.1	123.5	69.3	115.5	91.5	29.3
87.5°	4.4	14.2	56.9	56.9	40.0	39.2	13.3	15.1	32.9	11.6	5.3
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°	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3	1758.3
2.5°	1761.9	1762.8	1751.2	1731.6	1710.3	1692.6	1670.3	1652.5	1640.1	1636.5	1642.8
5°	1774.3	1768.1	1735.2	1675.7	1604.5	1543.2	1474.8	1420.5	1385.0	1369.8	1375.1
7.5°	1793.0	1775.2	1703.2	1585.9	1449.9	1328.9	1206.3	1111.2	1050.7	1020.5	1024.9
10°	1809.0	1773.5	1649.8	1456.1	1248.0	1065.0	899.6	784.9	720.9	690.7	691.6
12.5°	1824.1	1772.5	1580.6	1302.3	1020.5	796.5	642.7	585.8	568.1	561.8	560.1
15°	1852.6	1775.2	1493.4	1126.3	793.9	601.8	545.8	544.9	548.5	546.7	545.8
17.5°	1891.6	1777.9	1394.7	939.6	612.4	530.7	528.1	536.1	541.4	538.7	537.8
20°	1942.4	1788.5	1289.9	754.7	526.2	512.9	519.2	526.2	530.7	526.2	525.3
22.5°	2013.4	1807.2	1175.2	606.3	498.7	502.2	507.6	515.6	520.0	513.8	512.9
25°	2100.5	1836.6	1062.3	527.2	485.3	489.8	497.8	506.7	512.0	505.8	504.9
27.5°	2213.5	1883.6	958.3	509.3	472.0	474.7	486.3	499.6	506.7	498.7	498.7
30°	2377.0	1961.0	868.5	517.3	464.0	457.8	473.8	492.5	500.5	493.3	492.5
32.5°	2594.0	2070.3	813.3	529.8	460.4	438.3	453.4	477.3	490.7	486.3	486.3
35°	2878.4	2236.5	792.0	544.1	457.8	417.8	428.4	454.3	477.3	481.9	481.9
37.5°	3223.3	2467.7	798.3	550.2	449.8	400.9	406.2	428.4	458.7	472.9	476.4
40°	3615.3	2737.1	833.8	544.1	441.0	386.7	387.6	404.5	431.1	452.4	459.6
42.5°	4019.7	3051.7	899.6	520.9	433.0	374.2	371.6	383.1	400.9	416.0	422.2
45°	4404.7	3375.3	964.5	488.9	423.1	361.8	355.6	360.0	363.6	369.8	373.3
47.5°	4740.7	3602.9	945.9	459.6	409.8	347.6	336.9	335.2	324.4	323.6	322.7
50°	4972.7	3652.7	840.1	430.3	390.2	331.6	314.7	304.0	285.4	276.4	277.4
52.5°	5046.5	3456.2	686.2	400.9	358.2	310.3	286.3	269.4	246.2	238.2	237.4
55°	4948.7	3071.3	548.5	365.3	313.8	281.8	255.1	232.9	214.2	204.5	204.5
57.5°	4709.6	2581.5	433.8	323.6	266.7	249.8	223.1	200.9	184.9	175.1	173.3
60°	4313.1	2049.9	343.2	273.8	227.6	215.1	187.6	173.3	159.1	147.6	144.9
62.5°	3711.3	1463.2	269.4	216.9	190.2	176.0	160.0	149.3	132.4	116.4	113.8
65°	2896.1	895.1	208.0	159.1	152.9	145.8	136.0	126.3	105.8	89.8	87.1
67.5°	1826.8	424.0	148.4	120.0	120.8	117.4	112.9	104.9	89.8	75.5	73.8
70°	804.5	205.3	97.8	91.5	89.8	89.8	93.4	90.7	76.5	63.1	60.5
72.5°	273.8	110.2	72.9	69.3	64.9	64.0	78.2	75.5	61.3	48.9	46.2
75°	143.1	73.8	53.3	49.8	39.2	47.2	62.2	58.6	43.6	32.0	29.3
77.5°	93.4	52.5	36.5	32.0	22.2	31.2	46.2	40.9	25.8	16.0	14.2
80°	58.6	34.6	21.3	15.1	10.7	16.9	24.9	17.7	9.7	3.6	2.7
82.5°	31.2	17.7	8.0	5.3	4.4	5.3	6.3	4.4	1.7	0.0	0.0
85°	12.4	6.3	2.7	1.7	0.9	0.0	1.7	0.9	0.0	0.0	0.0
87.5°	4.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)