

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: P883578

Luminaire Tested: **NAV-SB4A-727-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883578
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-727-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12921 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

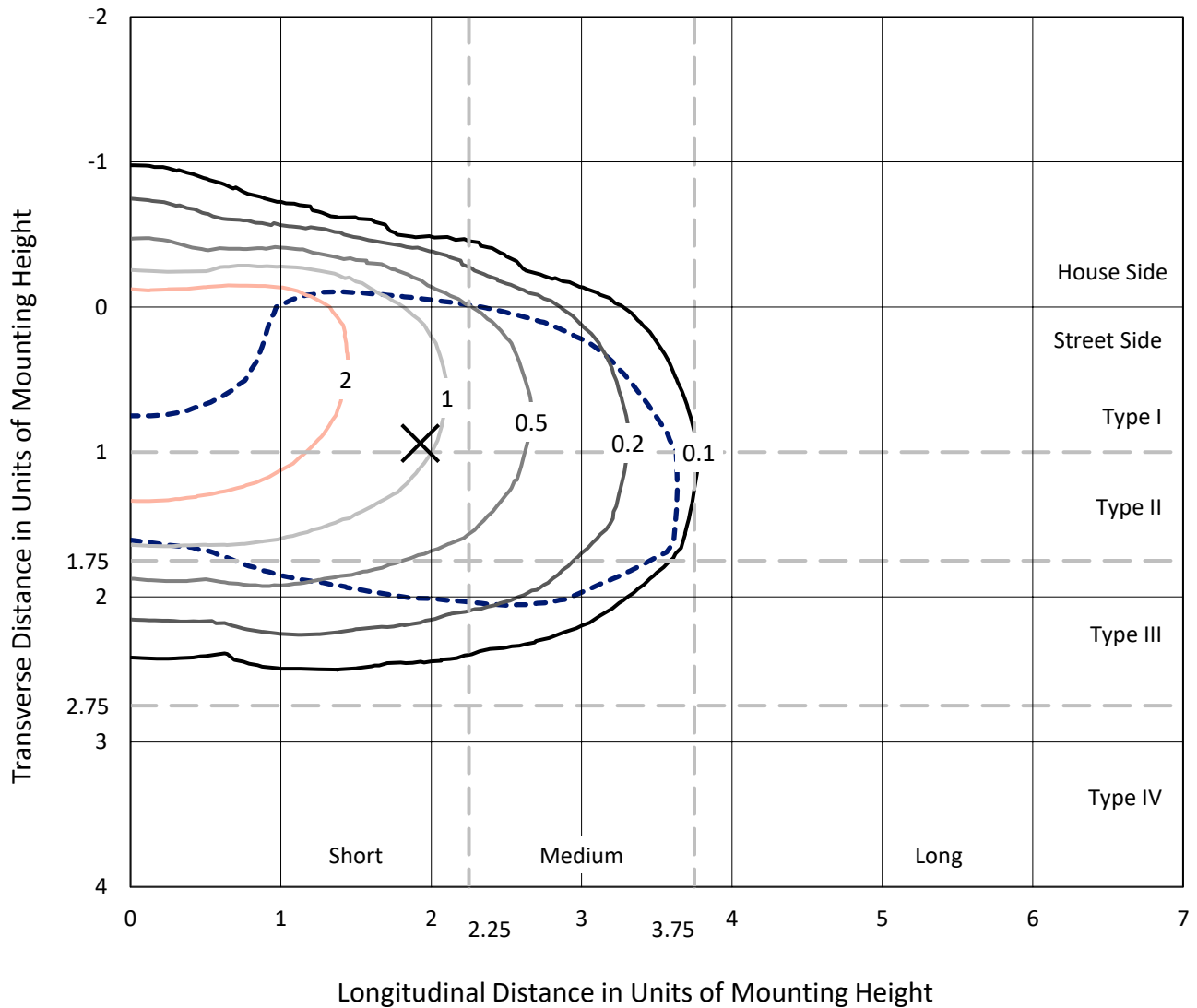
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

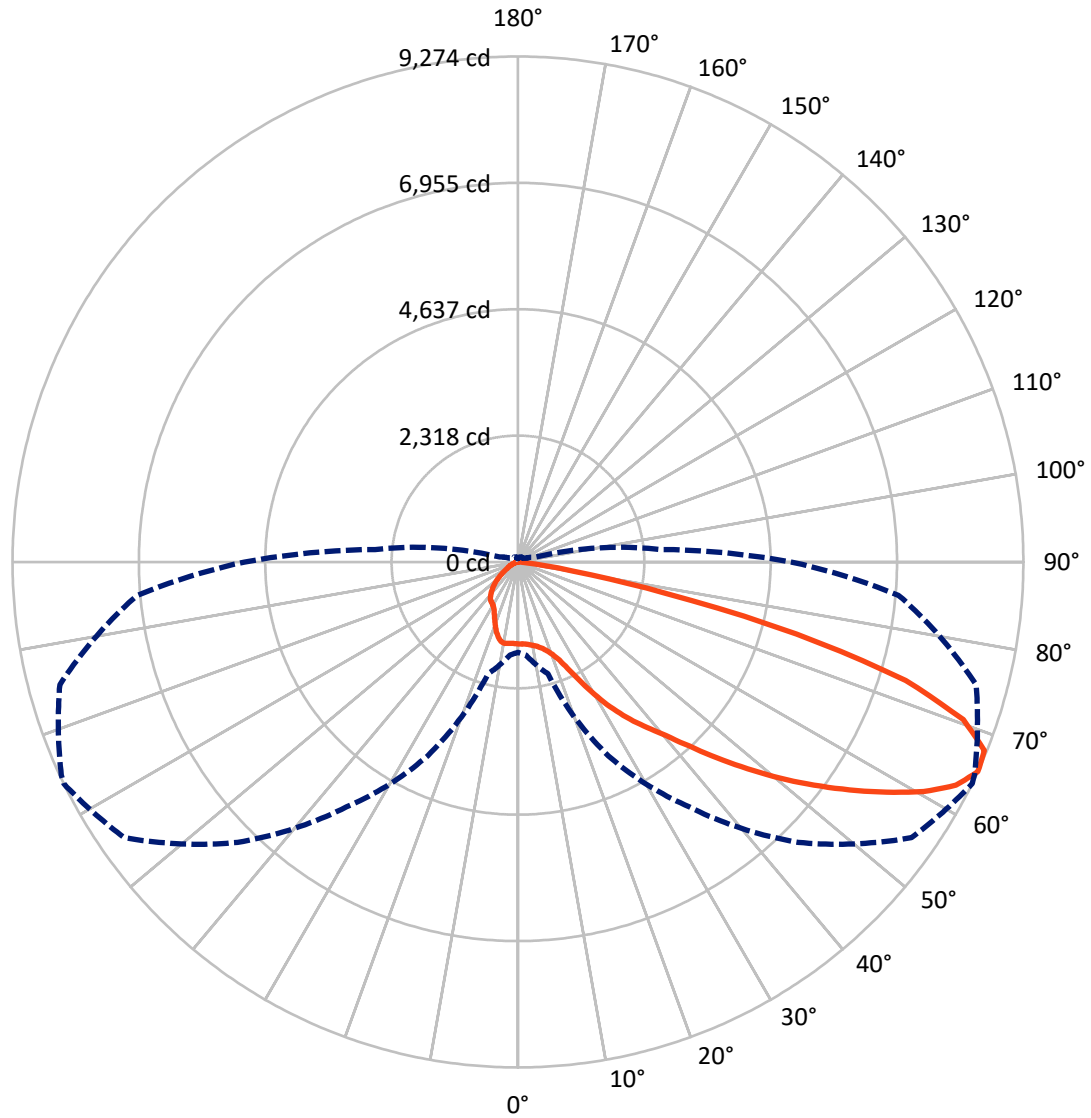
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1727.9	0.0	1727.9
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	11193.1	0.0	11193.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	12921.0	0.0	12921.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.7	1.1
10°-20°	376.1	2.9
20°-30°	712.6	5.5
30°-40°	1442.0	11.2
40°-50°	2456.4	19.0
50°-60°	3340.6	25.9
60°-70°	3137.0	24.3
70°-80°	1256.8	9.7
80°-90°	60.9	0.5
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°	12921.0	100.0
0°-180°	12921.0	100.0

Coefficient of Utilization



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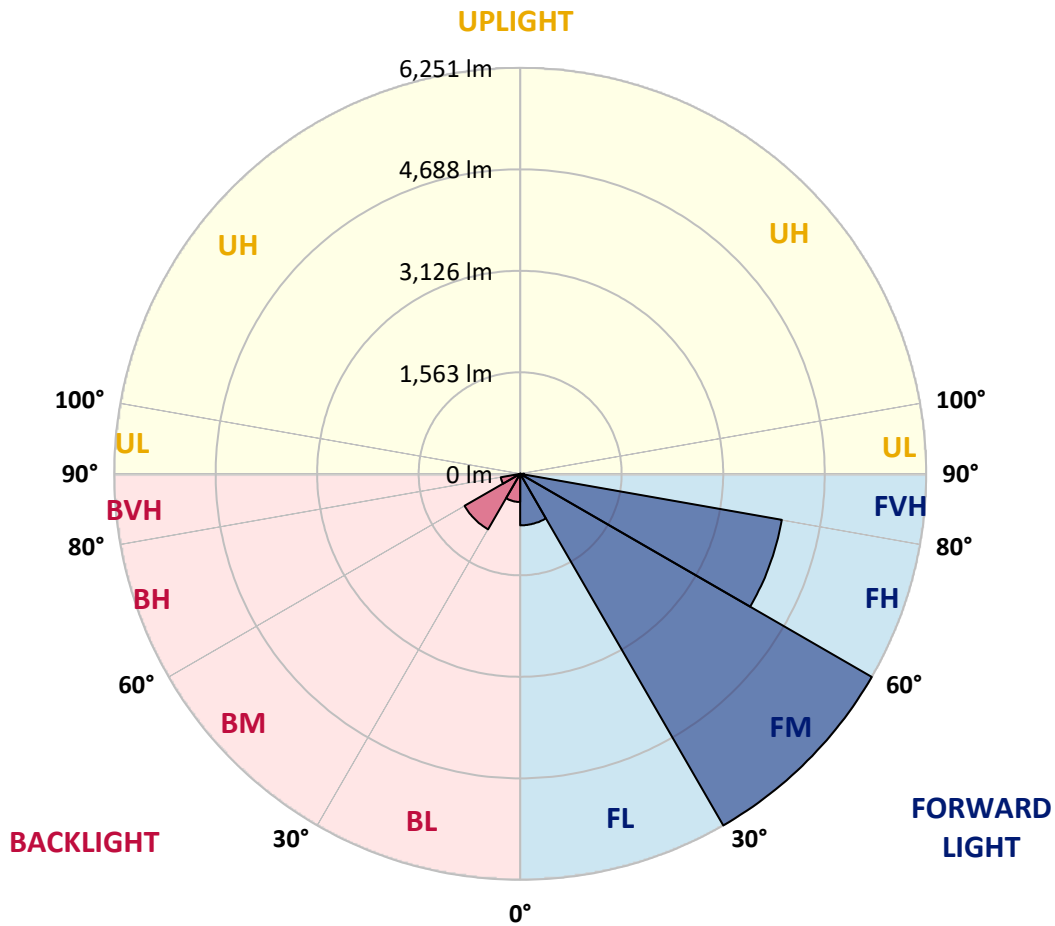
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	793.5	6.1			
FM (30°-60°)	6251.2	48.4			
FH (60°-80°)	4090.5	31.7			G2/5000
FVH (80°-90°)	57.9	0.4			G1/100
BL (0°-30°)	433.8	3.4	B1/500		
BM (30°-60°)	987.8	7.6	B1/1000		
BH (60°-80°)	303.3	2.3	B1/500		G1/500
BVH (80°-90°)	3.0	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-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8
2.5°	1497.6	1508.0	1505.4	1502.8	1502.0	1503.7	1504.6	1503.7	1503.7	1503.7	1504.6
5°	1469.1	1477.7	1477.7	1483.8	1492.5	1502.8	1510.6	1512.4	1514.1	1516.7	1515.8
7.5°	1414.5	1421.4	1426.6	1446.5	1468.2	1495.9	1519.3	1531.4	1533.2	1542.7	1546.2
10°	1377.2	1385.9	1394.6	1415.4	1446.5	1488.1	1528.0	1557.4	1561.7	1584.3	1594.7
12.5°	1375.5	1384.2	1395.4	1418.0	1454.3	1498.5	1547.0	1589.5	1597.3	1630.2	1651.8
15°	1393.7	1404.1	1414.5	1442.2	1481.2	1534.9	1586.9	1639.7	1647.5	1694.3	1717.7
17.5°	1431.0	1444.8	1452.6	1480.3	1521.9	1581.7	1650.1	1710.7	1717.7	1772.2	1801.7
20°	1504.6	1521.0	1523.6	1546.2	1586.9	1651.0	1732.4	1807.7	1816.4	1878.8	1911.7
22.5°	1657.0	1680.4	1659.6	1670.9	1707.3	1771.4	1859.7	1955.0	1967.1	2038.2	2067.6
25°	1925.5	1958.5	1904.8	1885.7	1901.3	1968.0	2078.9	2199.3	2213.1	2270.3	2285.0
27.5°	2453.1	2410.6	2329.2	2249.5	2202.7	2240.8	2365.6	2514.6	2531.9	2587.3	2570.0
30°	3032.5	2995.3	2885.3	2708.6	2597.7	2591.7	2706.9	2873.2	2893.1	2945.9	2893.1
32.5°	3612.9	3577.4	3457.8	3240.4	3048.1	2952.9	3032.5	3217.0	3227.4	3261.2	3183.3
35°	4183.7	4147.3	4027.8	3805.2	3568.7	3352.2	3336.6	3544.5	3547.9	3583.4	3467.4
37.5°	4758.0	4727.7	4600.4	4382.1	4149.1	3850.2	3705.6	3854.6	3858.9	3893.5	3773.1
40°	5167.7	5180.7	5093.2	4924.3	4724.2	4397.7	4119.6	4184.6	4158.6	4216.6	4144.7
42.5°	5519.4	5545.4	5469.1	5384.3	5268.2	4980.6	4632.4	4621.1	4579.6	4610.8	4536.3
45°	5823.4	5845.1	5776.6	5756.7	5754.1	5552.3	5192.8	5125.3	5067.2	5061.2	4972.0
47.5°	5935.2	5976.7	6006.2	6072.9	6202.8	6117.9	5772.3	5667.5	5602.5	5554.9	5413.7
50°	5977.6	6021.8	6122.3	6316.3	6623.8	6660.2	6349.2	6231.4	6151.7	6065.1	5857.2
52.5°	5920.4	5999.3	6134.4	6460.9	6907.0	7095.0	6902.7	6799.6	6708.7	6567.5	6259.1
55°	5583.5	5662.3	5938.6	6459.2	7048.2	7399.9	7425.9	7380.0	7277.8	7055.1	6583.9
57.5°	4873.2	4990.1	5427.6	6239.2	7045.6	7662.4	7938.7	7971.6	7857.2	7538.5	6839.5
60°	3889.2	4047.7	4581.3	5751.5	6828.2	7804.4	8388.2	8552.8	8431.5	8014.9	7046.5
62.5°	2713.8	2897.4	3402.4	4987.5	6331.0	7702.2	8716.5	9020.5	8928.7	8441.1	7126.2
65°	1655.3	1714.2	2121.3	3924.7	5485.6	7274.3	8817.9	9273.5	9243.2	8701.8	7008.4
67.5°	1102.7	1152.0	1269.0	2691.3	4258.2	6419.4	8575.3	9229.3	9238.0	8659.3	6577.0
70°	664.4	706.8	783.0	1565.2	2759.7	5081.1	7824.3	8666.3	8716.5	8092.0	5759.3
72.5°	273.7	302.3	371.6	709.4	1429.2	3224.8	6230.5	7440.6	7557.5	6804.0	4420.2
75°	155.0	169.8	218.3	356.0	620.2	1502.8	3774.0	5282.1	5454.4	4689.6	2659.2
77.5°	103.1	110.0	141.2	230.4	349.1	512.8	1612.9	2751.9	3081.1	2561.3	1151.2
80°	69.3	75.4	97.0	154.2	226.9	220.0	513.7	1019.5	1254.2	880.1	280.6
82.5°	46.8	47.6	69.3	101.3	143.8	106.5	151.6	317.0	398.4	254.7	106.5
85°	26.9	26.0	51.1	58.9	64.1	44.2	45.9	95.3	124.7	107.4	60.6
87.5°	3.5	5.2	19.9	15.6	8.7	9.5	9.5	16.5	24.3	26.0	13.0
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°	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8	1502.8
2.5°	1504.6	1503.7	1501.1	1498.5	1492.5	1489.0	1490.7	1489.0	1488.1	1489.0	1492.5
5°	1515.8	1513.2	1506.3	1497.6	1485.5	1470.8	1461.3	1447.4	1434.4	1426.6	1428.4
7.5°	1546.2	1543.6	1534.0	1509.8	1470.8	1409.3	1353.0	1303.6	1266.4	1244.7	1245.6
10°	1594.7	1590.3	1575.6	1521.9	1419.7	1285.4	1173.7	1081.0	1020.4	991.8	989.2
12.5°	1651.8	1646.6	1620.6	1510.6	1322.7	1113.1	958.9	855.8	799.5	774.4	771.8
15°	1719.4	1712.5	1661.4	1456.9	1181.5	922.5	781.3	704.2	667.8	645.3	646.2
17.5°	1803.4	1791.3	1691.7	1376.4	1028.2	777.0	672.2	614.1	582.1	560.4	558.7
20°	1912.6	1892.6	1715.9	1280.2	887.0	685.2	598.5	550.0	525.8	506.7	503.3
22.5°	2065.0	2036.4	1745.4	1176.3	787.4	621.9	544.0	508.5	488.5	466.9	463.4
25°	2253.8	2220.1	1781.8	1080.1	718.9	567.4	504.1	474.7	451.3	426.2	423.6
27.5°	2518.0	2457.4	1825.1	1001.3	660.0	520.6	467.7	434.8	408.0	387.2	382.9
30°	2812.5	2712.9	1863.2	953.7	606.3	477.3	420.1	387.2	362.1	347.3	344.7
32.5°	3091.4	2956.3	1888.3	932.9	557.8	427.9	368.1	332.6	313.6	309.2	311.8
35°	3354.8	3176.3	1885.7	913.0	514.5	378.5	317.0	280.6	265.9	268.5	268.5
37.5°	3657.9	3411.1	1867.5	881.8	479.0	333.5	272.9	240.8	227.8	228.7	232.1
40°	4010.5	3682.2	1856.3	822.9	440.0	291.9	236.5	210.5	201.0	197.5	196.6
42.5°	4386.4	3944.6	1858.0	756.2	391.5	254.7	211.4	189.7	181.0	178.4	177.6
45°	4764.1	4195.0	1860.6	686.9	340.4	226.1	193.2	175.0	169.8	166.3	166.3
47.5°	5119.2	4408.1	1812.1	612.4	290.2	204.4	178.4	166.3	162.0	157.6	157.6
50°	5450.1	4550.1	1695.1	525.8	250.3	187.1	167.2	158.5	154.2	149.9	149.9
52.5°	5707.4	4572.6	1502.0	436.6	222.6	174.1	160.2	152.5	147.3	142.9	142.1
55°	5821.7	4431.4	1227.4	353.4	201.0	162.8	153.3	145.5	139.5	135.1	134.3
57.5°	5792.2	4134.3	957.1	284.1	180.2	151.6	144.7	139.5	132.5	125.6	124.7
60°	5647.6	3736.8	721.5	236.5	161.1	139.5	135.1	130.8	121.3	110.9	109.1
62.5°	5397.3	3237.0	514.5	195.8	140.3	125.6	123.9	120.4	106.5	87.5	85.8
65°	5014.4	2629.8	346.5	162.8	120.4	110.0	110.9	104.8	86.6	65.0	63.2
67.5°	4454.8	1923.0	221.7	133.4	100.5	91.8	92.7	89.2	73.6	55.4	52.8
70°	3742.0	1273.3	144.7	101.3	80.6	71.0	76.2	77.1	62.4	45.0	43.3
72.5°	2743.2	751.9	101.3	75.4	58.9	49.4	62.4	64.1	50.2	33.8	32.0
75°	1563.5	356.9	76.2	54.6	36.4	34.6	48.5	48.5	34.6	22.5	20.8
77.5°	656.6	149.0	53.7	35.5	20.8	19.9	32.9	30.3	17.3	10.4	10.4
80°	189.7	66.7	28.6	17.3	8.7	7.8	13.0	9.5	4.3	1.7	1.7
82.5°	74.5	29.5	11.3	6.9	3.5	3.5	1.7	0.0	0.0	0.0	0.0
85°	44.2	12.1	5.2	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.3	2.6	1.7	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)