

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: P884258

Luminaire Tested: **NAV-SB5A-727-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884258
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-SB5A-727-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 16178 lumens
Efficiency: N/A
Efficacy: 114.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

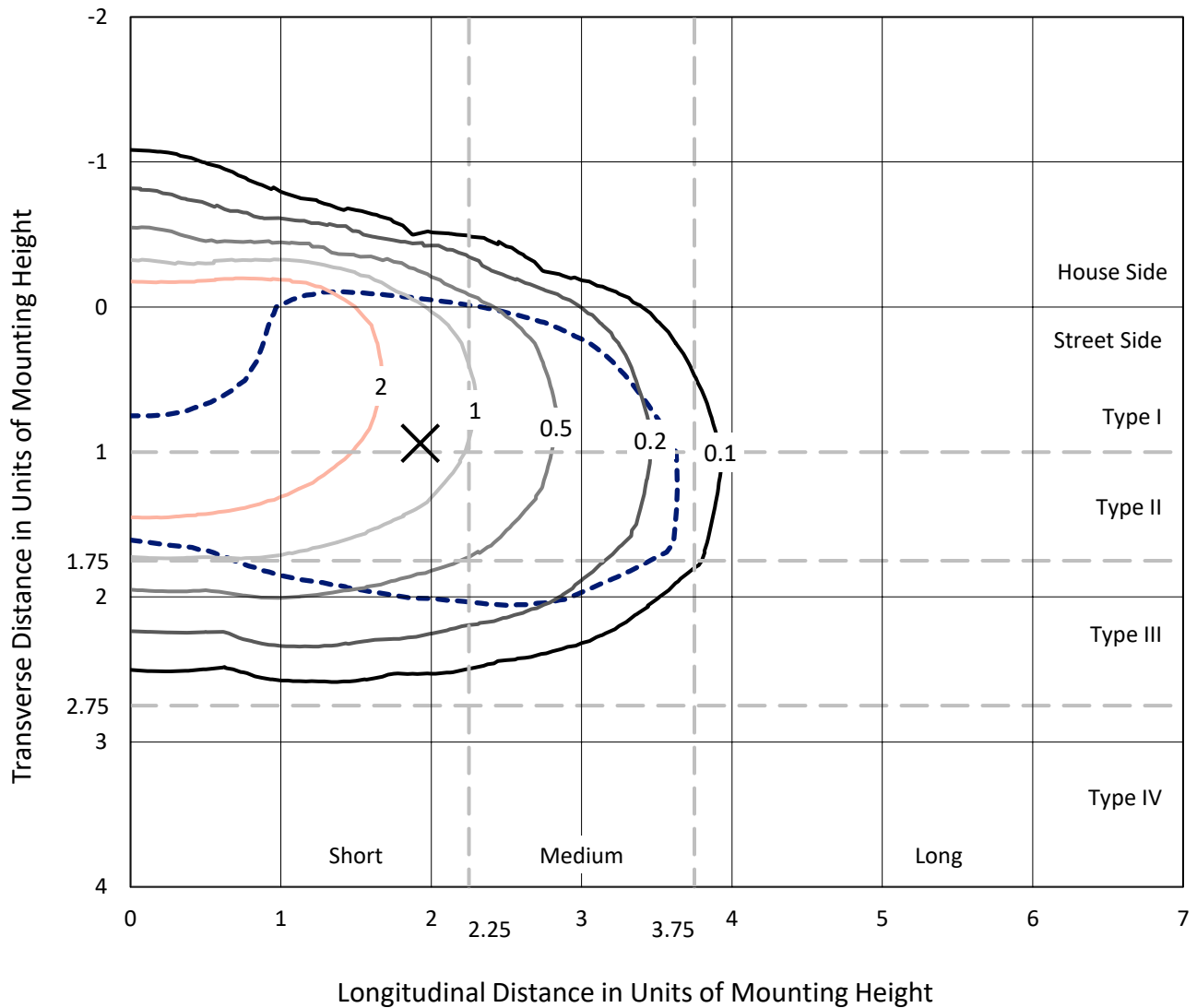
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

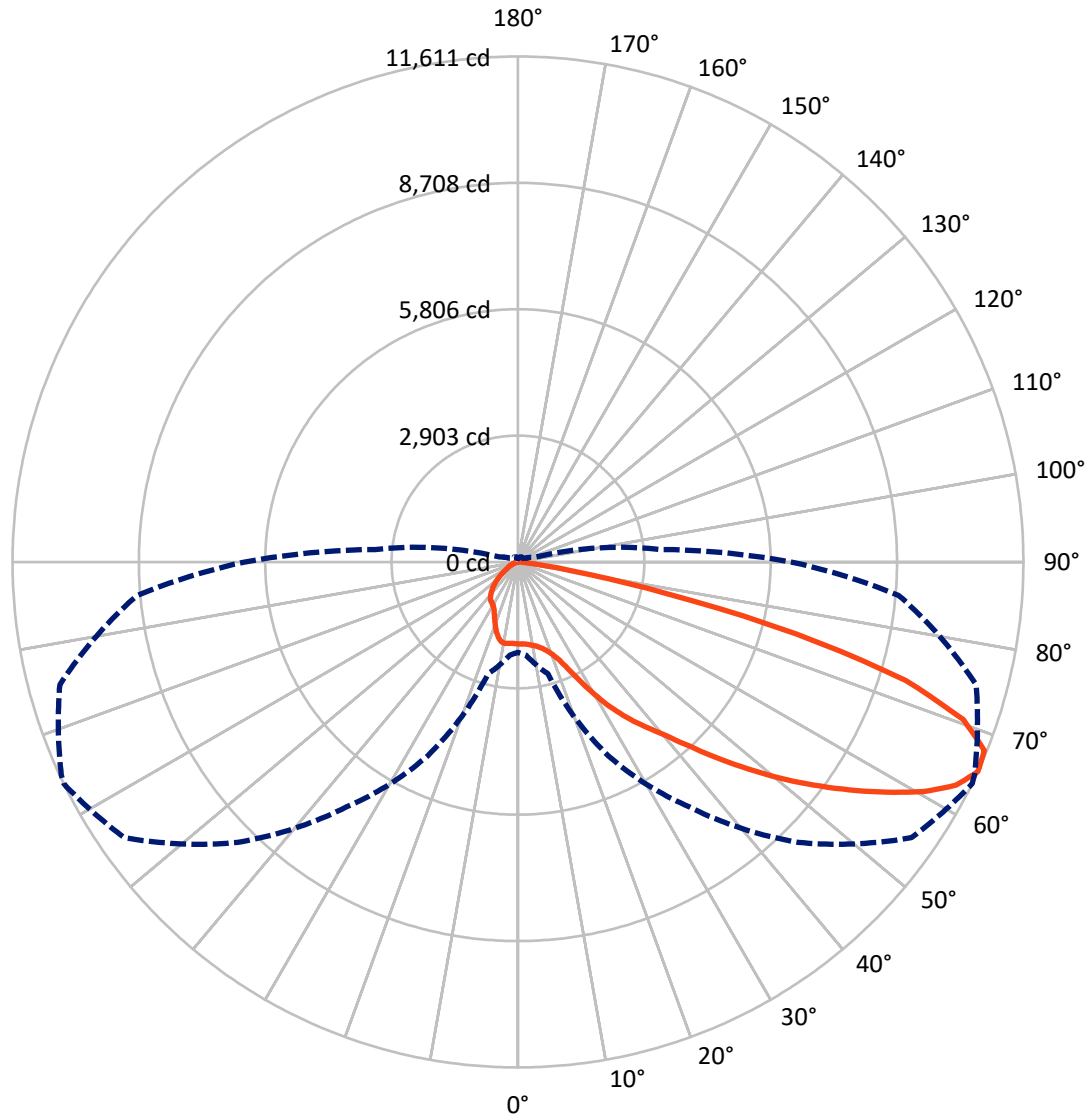
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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	2163.5	0.0	2163.5
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	14014.5	0.0	14014.5
	% Fixture	86.6	0.0	86.6
Total	Lumens	16178.0	0.0	16178.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.6	1.1
10°-20°	470.9	2.9
20°-30°	892.2	5.5
30°-40°	1805.5	11.2
40°-50°	3075.6	19.0
50°-60°	4182.6	25.9
60°-70°	3927.7	24.3
70°-80°	1573.6	9.7
80°-90°	76.2	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°	16178.0	100.0
0°-180°	16178.0	100.0

Coefficient of Utilization



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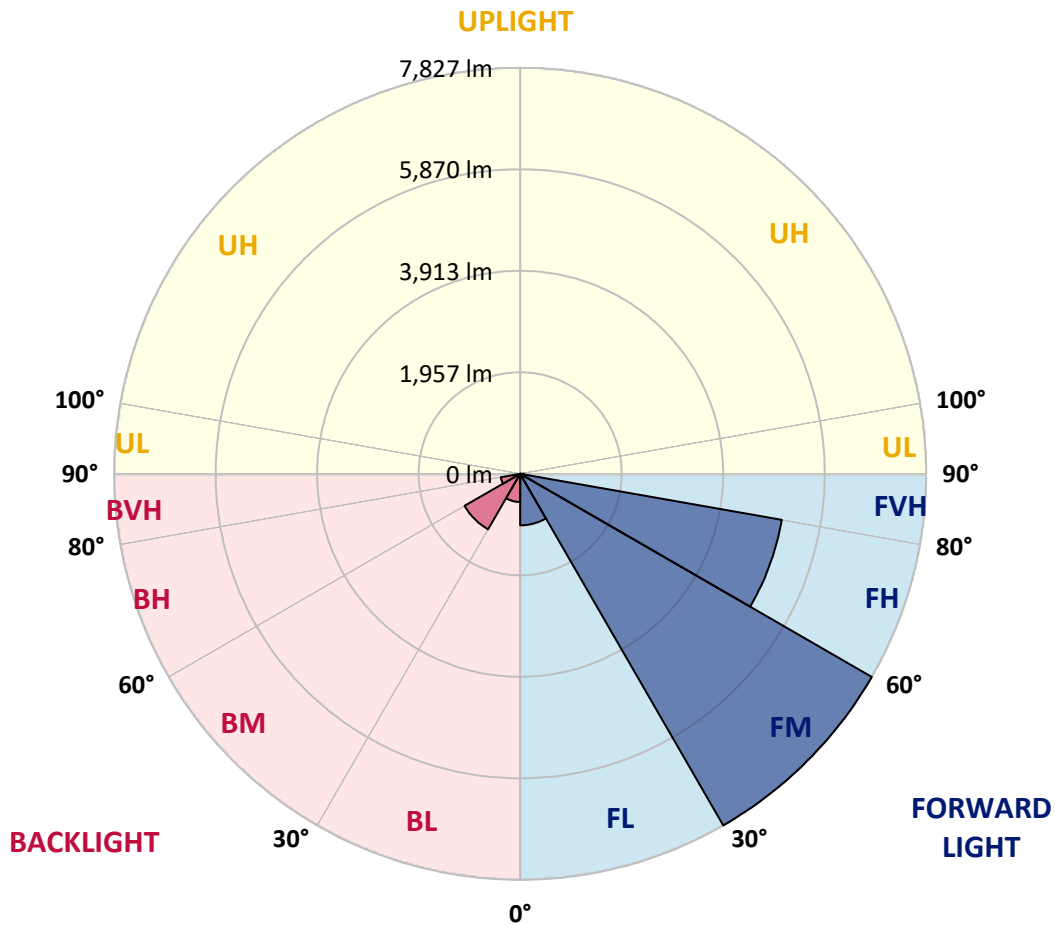
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	993.5	6.1			
FM (30°-60°)	7826.9	48.4			
FH (60°-80°)	5121.6	31.7			G3/7500
FVH (80°-90°)	72.5	0.4			G1/100
BL (0°-30°)	543.2	3.4	B2/1000		
BM (30°-60°)	1236.9	7.6	B2/2500		
BH (60°-80°)	379.7	2.3	B1/500		G1/500
BVH (80°-90°)	3.7	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7
2.5°	1875.2	1888.2	1884.9	1881.7	1880.6	1882.8	1883.8	1882.8	1882.8	1882.8	1883.8
5°	1839.4	1850.2	1850.2	1857.8	1868.7	1881.7	1891.4	1893.6	1895.8	1899.0	1897.9
7.5°	1771.0	1779.7	1786.2	1811.2	1838.3	1873.0	1902.3	1917.5	1919.6	1931.6	1935.9
10°	1724.4	1735.3	1746.1	1772.1	1811.2	1863.2	1913.1	1950.0	1955.4	1983.6	1996.6
12.5°	1722.2	1733.1	1747.2	1775.4	1820.9	1876.2	1937.0	1990.1	1999.9	2041.1	2068.2
15°	1745.0	1758.0	1771.0	1805.8	1854.6	1921.8	1986.9	2053.0	2062.8	2121.4	2150.6
17.5°	1791.7	1809.0	1818.8	1853.5	1905.5	1980.4	2066.0	2142.0	2150.6	2219.0	2255.8
20°	1883.8	1904.4	1907.7	1935.9	1986.9	2067.1	2169.1	2263.4	2274.3	2352.4	2393.6
22.5°	2074.7	2104.0	2078.0	2092.1	2137.6	2217.9	2328.5	2447.8	2463.0	2551.9	2588.8
25°	2410.9	2452.1	2384.9	2361.0	2380.6	2464.1	2602.9	2753.6	2771.0	2842.6	2861.0
27.5°	3071.4	3018.3	2916.3	2816.5	2758.0	2805.7	2961.9	3148.4	3170.1	3239.5	3217.8
30°	3797.0	3750.3	3612.6	3391.3	3252.5	3244.9	3389.2	3597.4	3622.3	3688.5	3622.3
32.5°	4523.6	4479.1	4329.5	4057.2	3816.5	3697.2	3797.0	4028.0	4041.0	4083.3	3985.7
35°	5238.3	5192.8	5043.1	4764.4	4468.3	4197.2	4177.6	4437.9	4442.3	4486.7	4341.4
37.5°	5957.4	5919.4	5760.0	5486.7	5194.9	4820.8	4639.6	4826.2	4831.6	4875.0	4724.2
40°	6470.3	6486.6	6377.1	6165.6	5915.1	5506.2	5158.1	5239.4	5206.9	5279.5	5189.5
42.5°	6910.7	6943.2	6847.8	6741.5	6596.1	6236.1	5800.1	5786.0	5733.9	5773.0	5679.7
45°	7291.3	7318.4	7232.8	7207.8	7204.6	6951.9	6501.8	6417.2	6344.5	6336.9	6225.2
47.5°	7431.2	7483.3	7520.2	7603.7	7766.4	7660.1	7227.3	7096.1	7014.8	6955.1	6778.3
50°	7484.4	7539.7	7665.5	7908.4	8293.4	8339.0	7949.6	7802.1	7702.4	7593.9	7333.6
52.5°	7412.8	7511.5	7680.7	8089.6	8648.1	8883.4	8642.7	8513.6	8399.7	8222.9	7836.9
55°	6990.9	7089.6	7435.6	8087.4	8824.9	9265.2	9297.7	9240.2	9112.3	8833.5	8243.6
57.5°	6101.6	6248.0	6795.7	7811.9	8821.6	9593.8	9939.8	9981.0	9837.8	9438.7	8563.5
60°	4869.6	5068.0	5736.1	7201.3	8549.4	9771.7	10502.6	10708.7	10556.9	10035.2	8822.7
62.5°	3397.9	3627.8	4260.1	6244.8	7926.9	9643.7	10913.7	11294.4	11179.4	10568.8	8922.5
65°	2072.5	2146.3	2656.0	4914.0	6868.4	9107.9	11040.6	11611.0	11573.1	10895.2	8775.0
67.5°	1380.6	1442.4	1588.8	3369.7	5331.6	8037.5	10736.9	11555.7	11566.6	10842.1	8234.9
70°	831.8	885.0	980.4	1959.8	3455.3	6361.9	9796.6	10850.8	10913.7	10131.7	7211.1
72.5°	342.7	378.5	465.3	888.2	1789.5	4037.7	7801.1	9316.2	9462.6	8519.0	5534.4
75°	194.1	212.6	273.3	445.7	776.5	1881.7	4725.3	6613.5	6829.3	5871.7	3329.5
77.5°	129.1	137.7	176.8	288.5	437.1	642.0	2019.4	3445.6	3857.7	3207.0	1441.3
80°	86.8	94.4	121.5	193.0	284.1	275.5	643.1	1276.5	1570.4	1101.9	351.4
82.5°	58.6	59.6	86.8	126.9	180.0	133.4	189.8	396.9	498.9	318.9	133.4
85°	33.6	32.5	64.0	73.7	80.3	55.3	57.5	119.3	156.2	134.5	75.9
87.5°	4.3	6.5	24.9	19.5	10.8	11.9	11.9	20.6	30.4	32.5	16.3
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°	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7	1881.7
2.5°	1883.8	1882.8	1879.5	1876.2	1868.7	1864.3	1866.5	1864.3	1863.2	1864.3	1868.7
5°	1897.9	1894.7	1886.0	1875.2	1860.0	1841.5	1829.6	1812.3	1796.0	1786.2	1788.4
7.5°	1935.9	1932.6	1920.7	1890.3	1841.5	1764.5	1694.0	1632.2	1585.6	1558.5	1559.6
10°	1996.6	1991.2	1972.8	1905.5	1777.6	1609.5	1469.5	1353.5	1277.6	1241.8	1238.5
12.5°	2068.2	2061.7	2029.2	1891.4	1656.1	1393.6	1200.6	1071.5	1001.0	969.6	966.3
15°	2152.8	2144.1	2080.1	1824.2	1479.3	1155.0	978.3	881.7	836.2	808.0	809.1
17.5°	2258.0	2242.8	2118.1	1723.3	1287.3	972.8	841.6	768.9	728.8	701.7	699.5
20°	2394.7	2369.7	2148.5	1602.9	1110.6	857.9	749.4	688.7	658.3	634.5	630.1
22.5°	2585.5	2549.7	2185.3	1472.8	985.8	778.7	681.1	636.6	611.7	584.6	580.2
25°	2822.0	2779.7	2230.9	1352.4	900.2	710.4	631.2	594.3	565.0	533.6	530.3
27.5°	3152.7	3076.8	2285.1	1253.7	826.4	651.8	585.6	544.4	510.8	484.8	479.4
30°	3521.5	3396.8	2332.8	1194.1	759.2	597.6	526.0	484.8	453.3	434.9	431.6
32.5°	3870.7	3701.5	2364.3	1168.0	698.4	535.8	460.9	416.5	392.6	387.2	390.4
35°	4200.4	3977.0	2361.0	1143.1	644.2	473.9	396.9	351.4	333.0	336.2	336.2
37.5°	4580.0	4270.9	2338.3	1104.1	599.7	417.5	341.6	301.5	285.2	286.3	290.7
40°	5021.4	4610.4	2324.2	1030.3	550.9	365.5	296.1	263.5	251.6	247.3	246.2
42.5°	5492.1	4939.0	2326.3	946.8	490.2	318.9	264.6	237.5	226.7	223.4	222.3
45°	5964.9	5252.4	2329.6	860.0	426.2	283.1	241.9	219.1	212.6	208.2	208.2
47.5°	6409.6	5519.2	2268.8	766.8	363.3	256.0	223.4	208.2	202.8	197.4	197.4
50°	6823.9	5697.1	2122.4	658.3	313.4	234.3	209.3	198.5	193.0	187.6	187.6
52.5°	7146.0	5725.3	1880.6	546.6	278.7	218.0	200.6	190.9	184.4	178.9	177.9
55°	7289.2	5548.5	1536.8	442.5	251.6	203.9	192.0	182.2	174.6	169.2	168.1
57.5°	7252.3	5176.5	1198.4	355.7	225.6	189.8	181.1	174.6	165.9	157.3	156.2
60°	7071.2	4678.7	903.4	296.1	201.7	174.6	169.2	163.8	151.8	138.8	136.7
62.5°	6757.7	4052.9	644.2	245.1	175.7	157.3	155.1	150.8	133.4	109.5	107.4
65°	6278.4	3292.7	433.8	203.9	150.8	137.7	138.8	131.2	108.5	81.3	79.2
67.5°	5577.8	2407.7	277.6	167.0	125.8	115.0	116.0	111.7	92.2	69.4	66.2
70°	4685.2	1594.3	181.1	126.9	100.9	88.9	95.4	96.5	78.1	56.4	54.2
72.5°	3434.7	941.4	126.9	94.4	73.7	61.8	78.1	80.3	62.9	42.3	40.1
75°	1957.6	446.8	95.4	68.3	45.6	43.4	60.7	60.7	43.4	28.2	26.0
77.5°	822.1	186.5	67.2	44.5	26.0	24.9	41.2	38.0	21.7	13.0	13.0
80°	237.5	83.5	35.8	21.7	10.8	9.8	16.3	11.9	5.4	2.2	2.2
82.5°	93.3	36.9	14.1	8.7	4.3	4.3	2.2	0.0	0.0	0.0	0.0
85°	55.3	15.2	6.5	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	14.1	3.3	2.2	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)