

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: P883598

Luminaire Tested: **NAV-SB4A-735-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883598
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-735-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 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: 14257 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

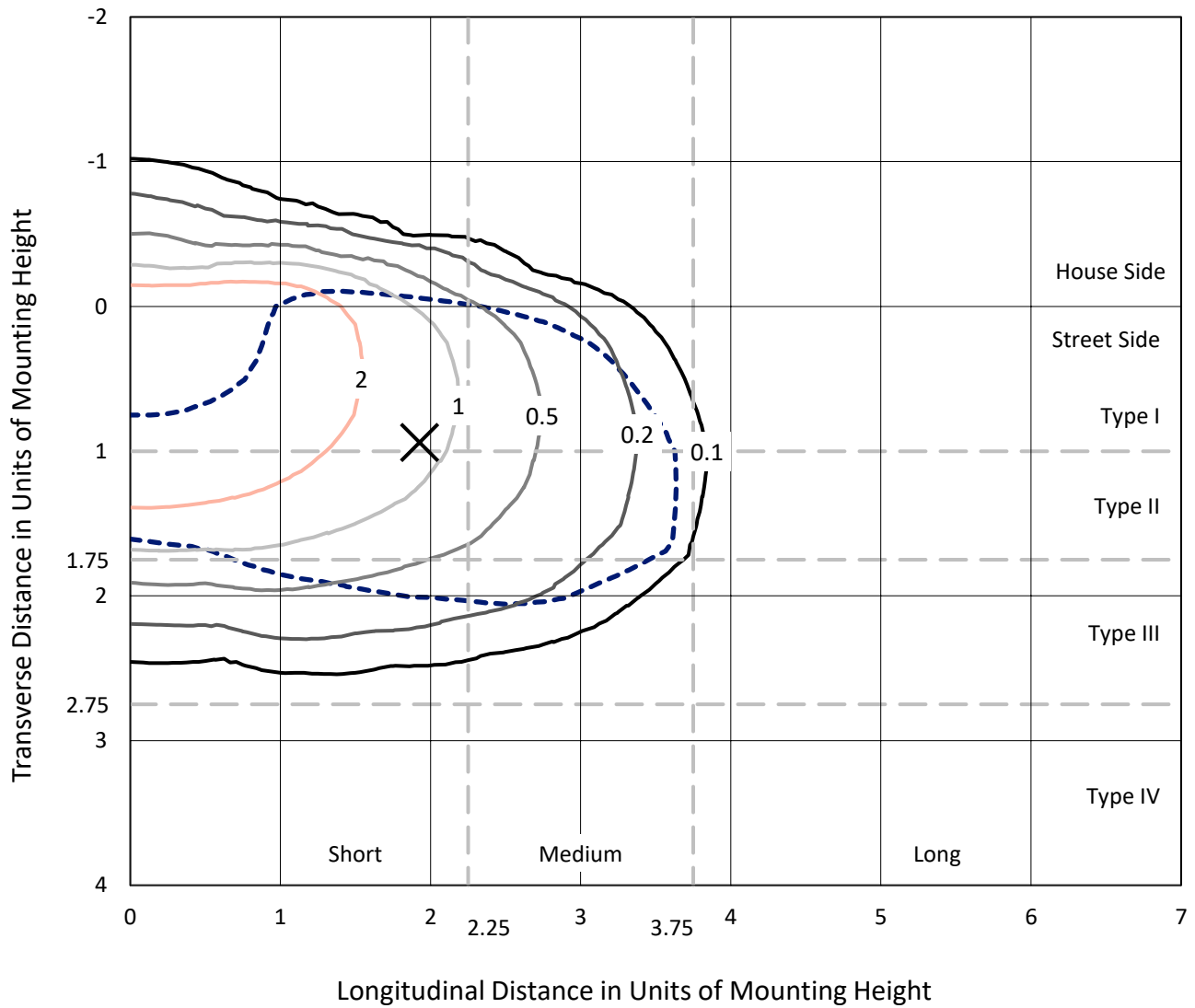
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

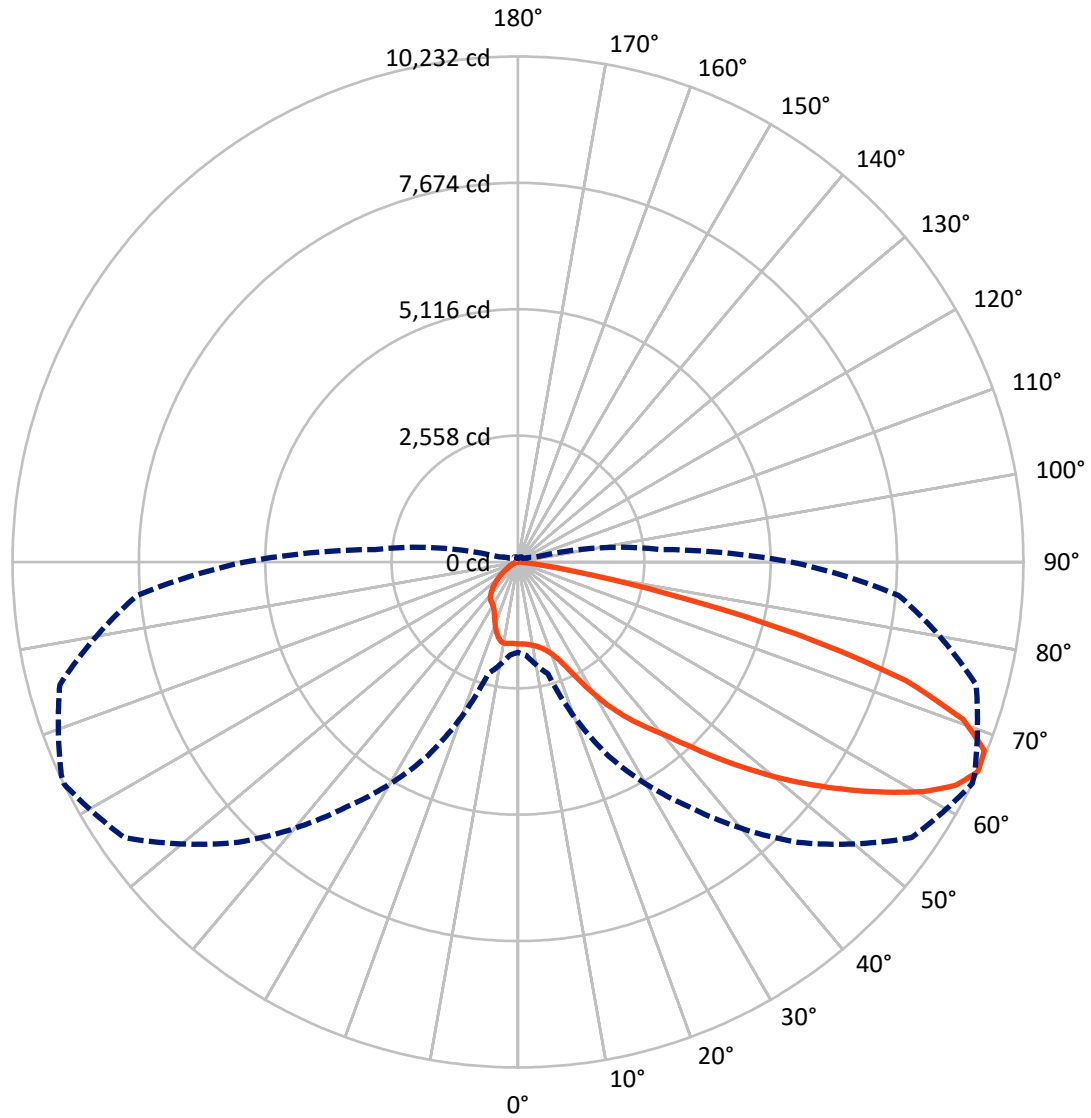
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	1906.6	0.0	1906.6
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	12350.4	0.0	12350.4
	% Fixture	86.6	0.0	86.6
Total	Lumens	14257.0	0.0	14257.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.0	1.1
10°-20°	415.0	2.9
20°-30°	786.3	5.5
30°-40°	1591.1	11.2
40°-50°	2710.4	19.0
50°-60°	3686.0	25.9
60°-70°	3461.3	24.3
70°-80°	1386.8	9.7
80°-90°	67.2	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°	14257.0	100.0
0°-180°	14257.0	100.0

Coefficient of Utilization



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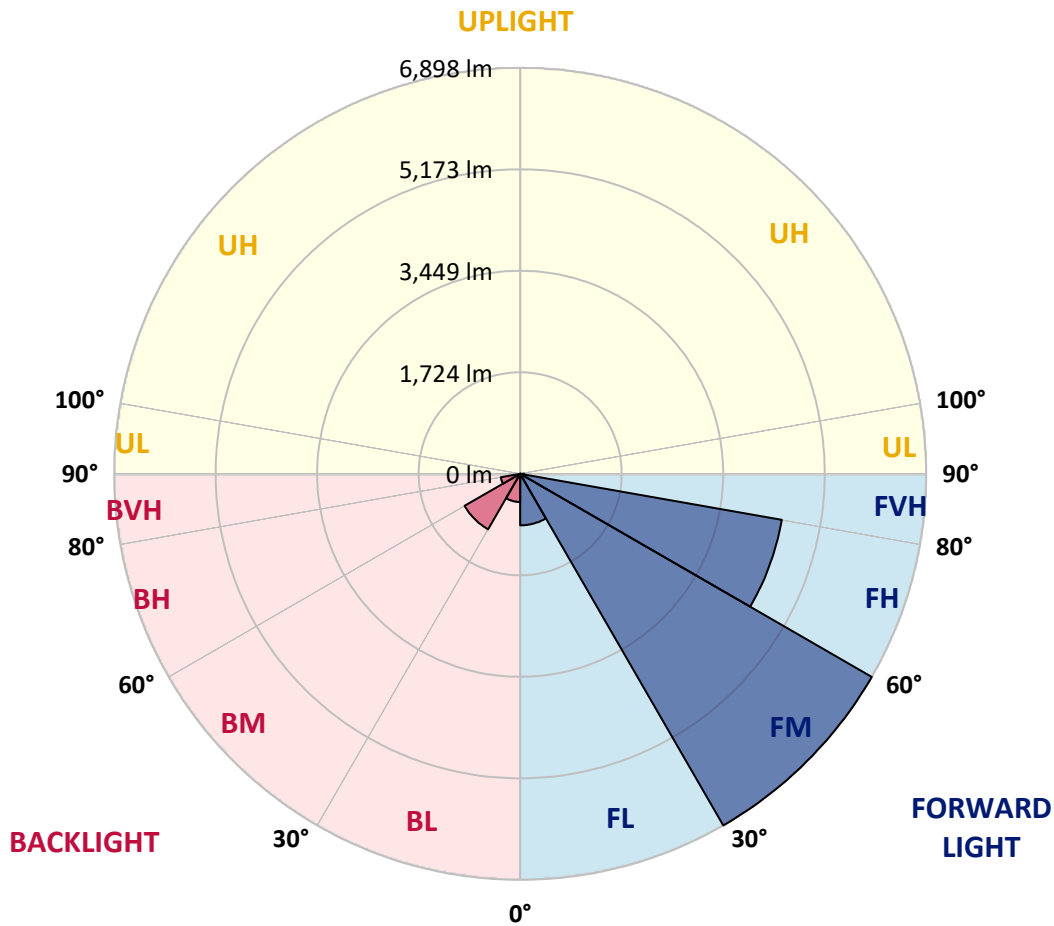
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	875.5	6.1			
FM (30°-60°)	6897.5	48.4			
FH (60°-80°)	4513.4	31.7			G2/5000
FVH (80°-90°)	63.9	0.4			G1/100
BL (0°-30°)	478.7	3.4	B1/500		
BM (30°-60°)	1090.0	7.6	B2/2500		
BH (60°-80°)	334.6	2.3	B1/500		G1/500
BVH (80°-90°)	3.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2
2.5°	1652.5	1664.0	1661.1	1658.2	1657.3	1659.2	1660.1	1659.2	1659.2	1659.2	1660.1
5°	1621.0	1630.5	1630.5	1637.2	1646.8	1658.2	1666.8	1668.8	1670.7	1673.5	1672.6
7.5°	1560.8	1568.4	1574.1	1596.1	1620.0	1650.6	1676.4	1689.8	1691.7	1702.2	1706.0
10°	1519.7	1529.2	1538.8	1561.7	1596.1	1642.0	1686.0	1718.4	1723.2	1748.1	1759.5
12.5°	1517.7	1527.3	1539.7	1564.6	1604.7	1653.5	1707.0	1753.8	1762.4	1798.7	1822.6
15°	1537.8	1549.3	1560.8	1591.3	1634.3	1693.6	1750.9	1809.2	1817.8	1869.5	1895.3
17.5°	1578.9	1594.2	1602.8	1633.4	1679.3	1745.2	1820.7	1887.6	1895.3	1955.5	1988.0
20°	1660.1	1678.3	1681.2	1706.0	1750.9	1821.7	1911.5	1994.7	2004.2	2073.0	2109.4
22.5°	1828.4	1854.2	1831.2	1843.7	1883.8	1954.5	2052.0	2157.1	2170.5	2248.9	2281.4
25°	2124.6	2161.0	2101.7	2080.7	2097.9	2171.5	2293.8	2426.7	2442.0	2505.0	2521.3
27.5°	2706.7	2659.9	2570.0	2482.1	2430.5	2472.5	2610.2	2774.6	2793.7	2854.8	2835.7
30°	3346.1	3305.0	3183.6	2988.6	2866.3	2859.6	2986.7	3170.2	3192.2	3250.5	3192.2
32.5°	3986.5	3947.3	3815.4	3575.5	3363.3	3258.2	3346.1	3549.7	3561.1	3598.4	3512.4
35°	4616.3	4576.2	4444.3	4198.6	3937.7	3698.8	3681.6	3911.0	3914.8	3954.0	3825.9
37.5°	5250.0	5216.5	5076.0	4835.2	4578.1	4248.3	4088.7	4253.1	4257.9	4296.1	4163.3
40°	5702.0	5716.4	5619.8	5433.5	5212.7	4852.4	4545.6	4617.3	4588.6	4652.6	4573.3
42.5°	6090.1	6118.8	6034.6	5941.0	5812.9	5495.6	5111.4	5099.0	5053.1	5087.5	5005.3
45°	6425.5	6449.4	6373.9	6352.0	6349.1	6126.4	5729.8	5655.2	5591.2	5584.5	5486.0
47.5°	6548.8	6594.7	6627.2	6700.8	6844.2	6750.5	6369.2	6253.5	6181.8	6129.3	5973.5
50°	6595.7	6644.4	6755.3	6969.4	7308.7	7348.8	7005.7	6875.7	6787.8	6692.2	6462.8
52.5°	6532.6	6619.6	6768.7	7129.0	7621.2	7828.6	7616.4	7502.7	7402.3	7246.5	6906.3
55°	6160.8	6247.8	6552.7	7127.1	7777.0	8165.0	8193.7	8143.0	8030.3	7784.6	7264.7
57.5°	5377.1	5506.1	5988.8	6884.3	7774.1	8454.6	8759.5	8795.8	8669.7	8317.9	7546.7
60°	4291.3	4466.2	5055.0	6346.2	7534.2	8611.4	9255.5	9437.1	9303.3	8843.6	7775.1
62.5°	2994.4	3197.0	3754.2	5503.2	6985.6	8498.6	9617.8	9953.2	9851.9	9313.8	7863.0
65°	1826.5	1891.4	2340.6	4330.5	6052.8	8026.4	9729.6	10232.3	10198.9	9601.5	7733.0
67.5°	1216.7	1271.2	1400.2	2969.5	4698.5	7083.1	9462.0	10183.6	10193.1	9554.7	7257.1
70°	733.1	779.9	864.0	1727.1	3045.0	5606.5	8633.3	9562.3	9617.8	8928.7	6354.8
72.5°	302.0	333.6	410.0	782.8	1577.0	3558.3	6874.8	8209.9	8339.0	7507.5	4877.2
75°	171.1	187.3	240.9	392.8	684.3	1658.2	4164.2	5828.2	6018.4	5174.5	2934.2
77.5°	113.7	121.4	155.8	254.2	385.2	565.8	1779.6	3036.4	3399.6	2826.2	1270.2
80°	76.5	83.2	107.0	170.1	250.4	242.8	566.8	1124.9	1383.9	971.0	309.7
82.5°	51.6	52.6	76.5	111.8	158.7	117.6	167.3	349.8	439.6	281.0	117.6
85°	29.6	28.7	56.4	65.0	70.7	48.7	50.7	105.1	137.6	118.5	66.9
87.5°	3.8	5.7	22.0	17.2	9.6	10.5	10.5	18.2	26.8	28.7	14.3
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°	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2	1658.2
2.5°	1660.1	1659.2	1656.3	1653.5	1646.8	1642.9	1644.9	1642.9	1642.0	1642.9	1646.8
5°	1672.6	1669.7	1662.1	1652.5	1639.1	1622.9	1612.4	1597.1	1582.7	1574.1	1576.0
7.5°	1706.0	1703.2	1692.6	1665.9	1622.9	1555.0	1492.9	1438.4	1397.3	1373.4	1374.4
10°	1759.5	1754.8	1738.5	1679.3	1566.5	1418.3	1295.0	1192.8	1125.9	1094.3	1091.5
12.5°	1822.6	1816.9	1788.2	1666.8	1459.4	1228.1	1058.0	944.3	882.2	854.4	851.6
15°	1897.2	1889.5	1833.1	1607.6	1303.7	1017.9	862.1	777.0	736.9	712.0	713.0
17.5°	1989.9	1976.5	1866.6	1518.7	1134.5	857.3	741.7	677.6	642.3	618.4	616.5
20°	2110.3	2088.3	1893.4	1412.6	978.7	756.0	660.4	606.9	580.1	559.1	555.3
22.5°	2278.5	2247.0	1925.8	1297.9	868.8	686.2	600.2	561.0	539.0	515.2	511.3
25°	2486.9	2449.6	1966.0	1191.8	793.3	626.0	556.3	523.8	497.9	470.2	467.4
27.5°	2778.4	2711.5	2013.8	1104.9	728.3	574.4	516.1	479.8	450.2	427.2	422.4
30°	3103.3	2993.4	2055.8	1052.3	669.0	526.6	463.5	427.2	399.5	383.3	380.4
32.5°	3411.1	3262.0	2083.5	1029.3	615.5	472.1	406.2	367.0	346.0	341.2	344.1
35°	3701.6	3504.8	2080.7	1007.4	567.7	417.7	349.8	309.7	293.4	296.3	296.3
37.5°	4036.2	3763.8	2060.6	973.0	528.5	368.0	301.1	265.7	251.4	252.3	256.1
40°	4425.2	4062.9	2048.2	908.0	485.5	322.1	260.9	232.2	221.7	217.9	217.0
42.5°	4839.9	4352.5	2050.1	834.4	432.0	281.0	233.2	209.3	199.8	196.9	195.9
45°	5256.7	4628.7	2053.0	757.9	375.6	249.5	213.1	193.1	187.3	183.5	183.5
47.5°	5648.5	4863.8	1999.4	675.7	320.2	225.6	196.9	183.5	178.7	173.9	173.9
50°	6013.6	5020.6	1870.4	580.1	276.2	206.4	184.5	174.9	170.1	165.3	165.3
52.5°	6297.5	5045.4	1657.3	481.7	245.6	192.1	176.8	168.2	162.5	157.7	156.7
55°	6423.6	4889.6	1354.3	389.9	221.7	179.7	169.2	160.6	153.9	149.1	148.1
57.5°	6391.1	4561.8	1056.1	313.5	198.8	167.3	159.6	153.9	146.2	138.6	137.6
60°	6231.5	4123.1	796.1	260.9	177.8	153.9	149.1	144.3	133.8	122.3	120.4
62.5°	5955.3	3571.7	567.7	216.0	154.8	138.6	136.7	132.9	117.6	96.5	94.6
65°	5532.9	2901.7	382.3	179.7	132.9	121.4	122.3	115.6	95.6	71.7	69.8
67.5°	4915.5	2121.8	244.7	147.2	110.9	101.3	102.3	98.4	81.2	61.2	58.3
70°	4128.9	1405.0	159.6	111.8	88.9	78.4	84.1	85.1	68.8	49.7	47.8
72.5°	3026.9	829.6	111.8	83.2	65.0	54.5	68.8	70.7	55.4	37.3	35.4
75°	1725.1	393.8	84.1	60.2	40.1	38.2	53.5	53.5	38.2	24.8	22.9
77.5°	724.5	164.4	59.3	39.2	22.9	22.0	36.3	33.5	19.1	11.5	11.5
80°	209.3	73.6	31.5	19.1	9.6	8.6	14.3	10.5	4.8	1.9	1.9
82.5°	82.2	32.5	12.4	7.6	3.8	3.8	1.9	0.0	0.0	0.0	0.0
85°	48.7	13.4	5.7	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.4	2.9	1.9	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)