

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: P884318

Luminaire Tested: **NAV-SB5A-827-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884318
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-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 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: 14505 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

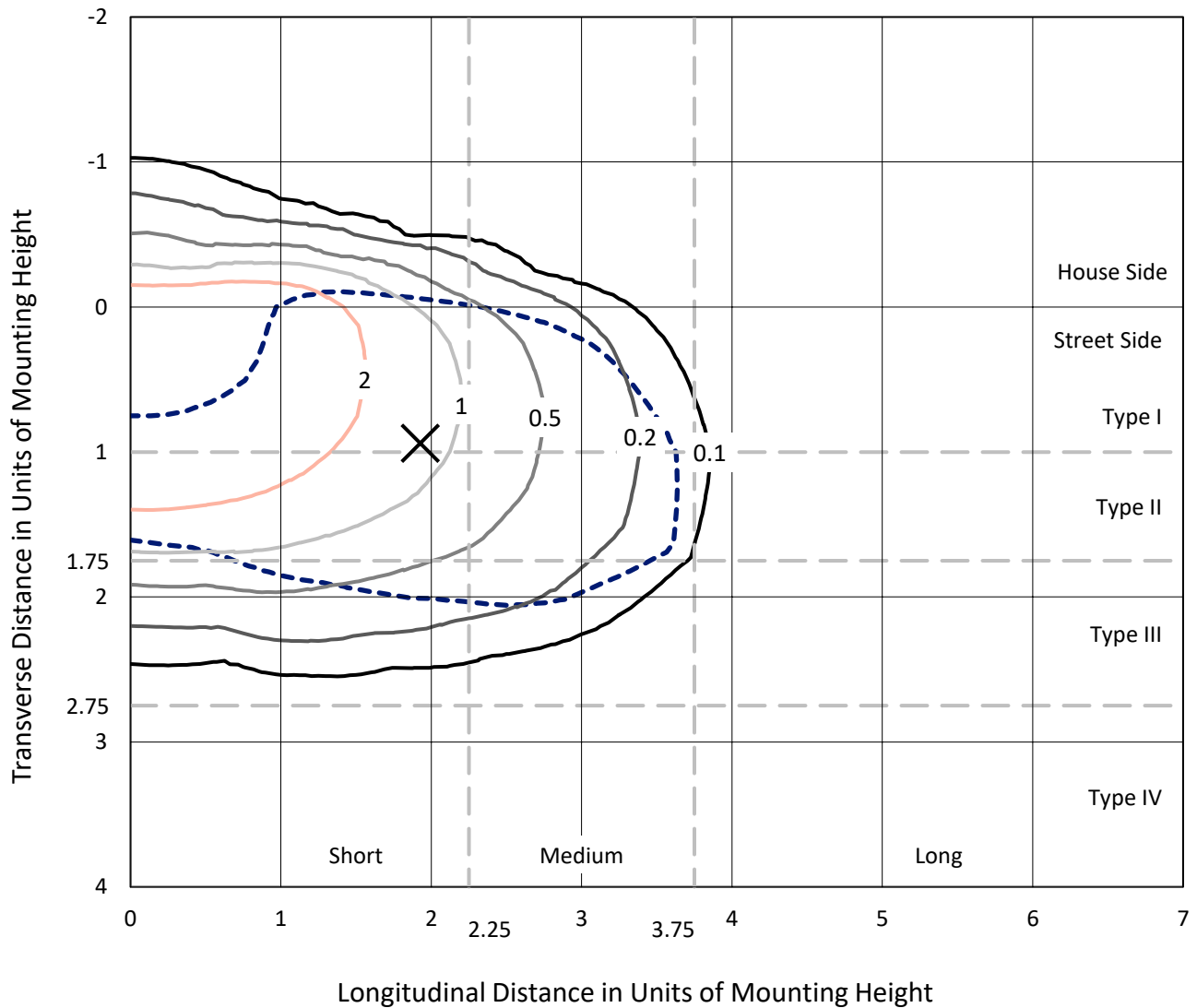
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

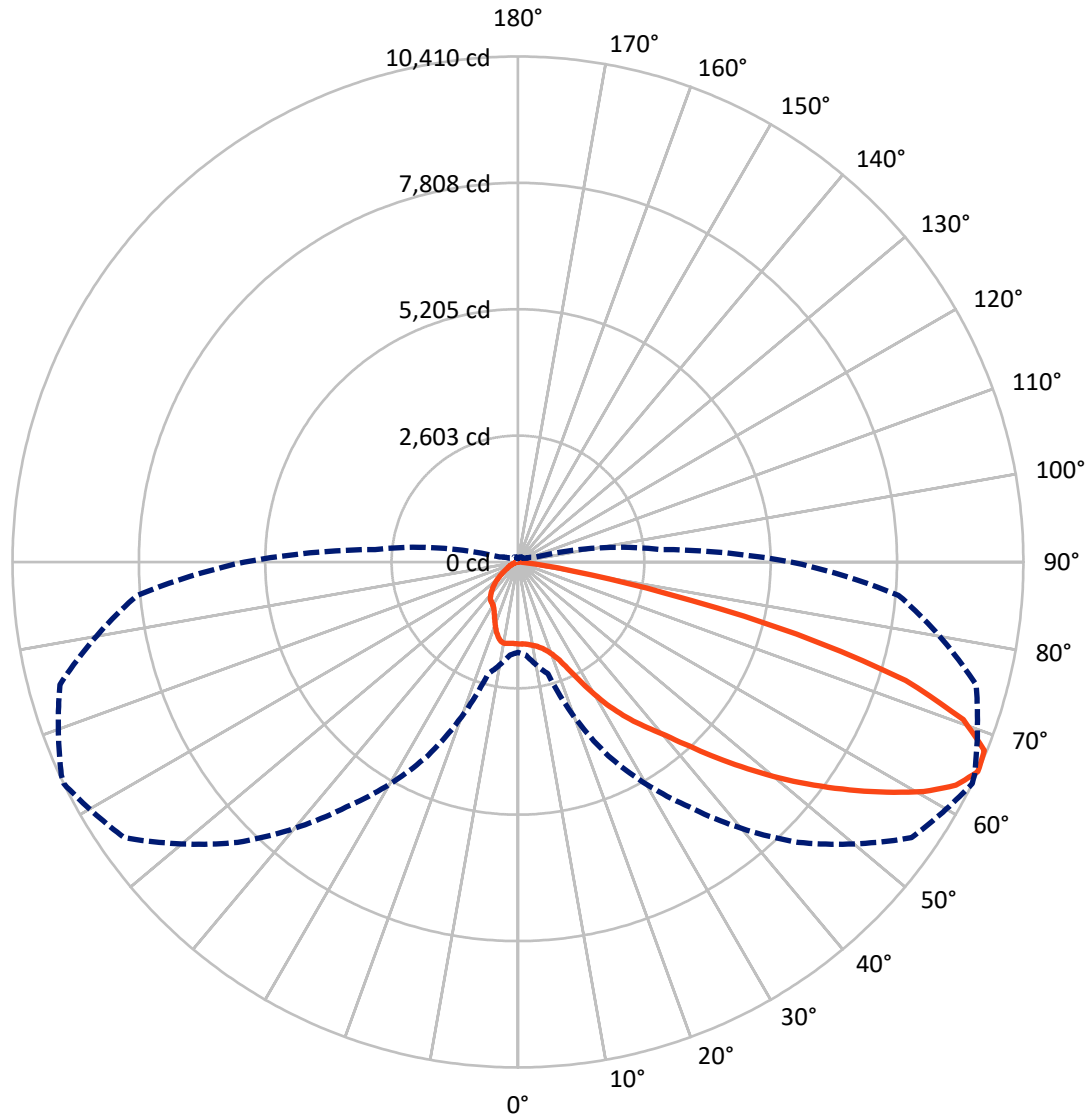
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	1939.8	0.0	1939.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	12565.2	0.0	12565.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	14505.0	0.0	14505.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.7	1.1
10°-20°	422.2	2.9
20°-30°	800.0	5.5
30°-40°	1618.8	11.2
40°-50°	2757.6	19.0
50°-60°	3750.1	25.9
60°-70°	3521.5	24.3
70°-80°	1410.9	9.7
80°-90°	68.4	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°	14505.0	100.0
0°-180°	14505.0	100.0

Coefficient of Utilization



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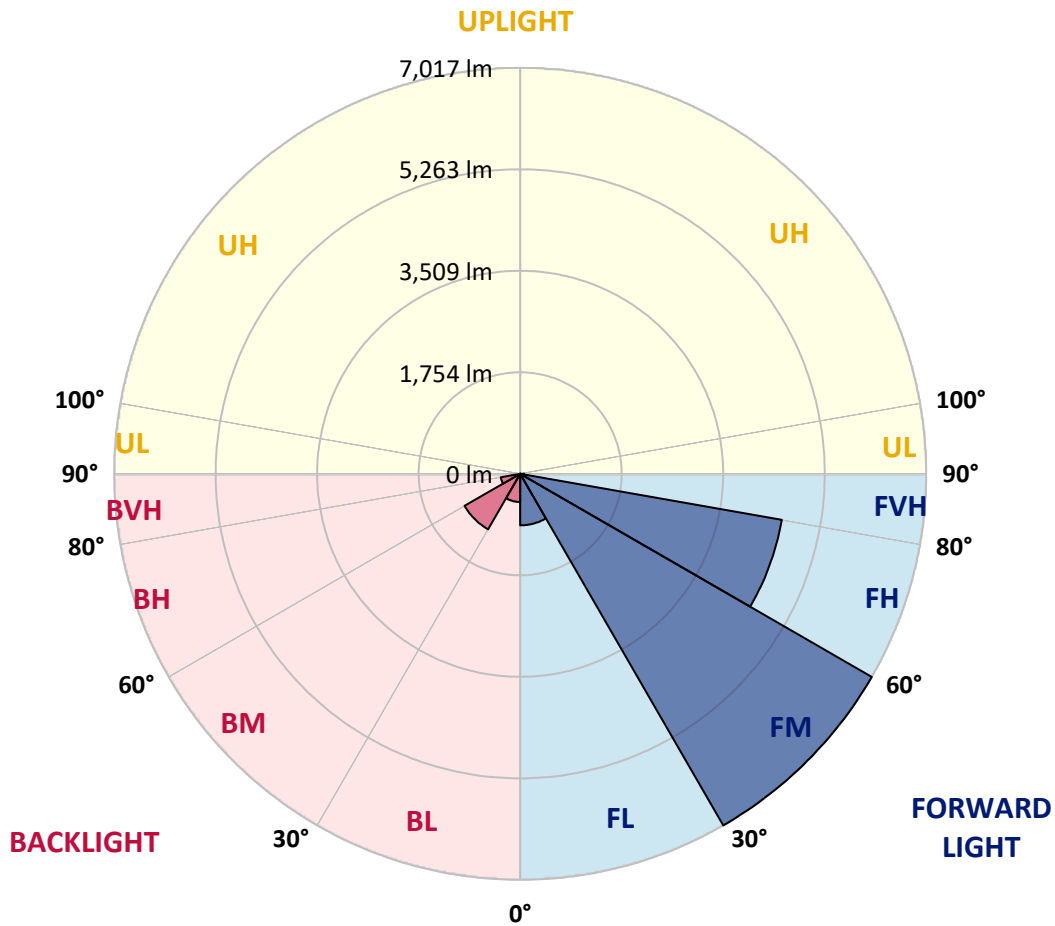
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	890.8	6.1			
FM (30°-60°)	7017.5	48.4			
FH (60°-80°)	4592.0	31.7			G2/5000
FVH (80°-90°)	65.0	0.4			G1/100
BL (0°-30°)	487.0	3.4	B1/500		
BM (30°-60°)	1108.9	7.6	B2/2500		
BH (60°-80°)	340.5	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°	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1
2.5°	1681.2	1692.9	1690.0	1687.1	1686.1	1688.1	1689.0	1688.1	1688.1	1688.1	1689.0
5°	1649.2	1658.9	1658.9	1665.7	1675.4	1687.1	1695.8	1697.8	1699.7	1702.6	1701.7
7.5°	1587.9	1595.7	1601.5	1623.9	1648.2	1679.3	1705.6	1719.2	1721.1	1731.8	1735.7
10°	1546.1	1555.8	1565.5	1588.9	1623.9	1670.6	1715.3	1748.3	1753.2	1778.5	1790.2
12.5°	1544.1	1553.9	1566.5	1591.8	1632.6	1682.2	1736.7	1784.3	1793.1	1830.0	1854.3
15°	1564.6	1576.2	1587.9	1619.0	1662.8	1723.1	1781.4	1840.7	1849.5	1902.0	1928.2
17.5°	1606.4	1621.9	1630.7	1661.8	1708.5	1775.6	1852.4	1920.5	1928.2	1989.5	2022.6
20°	1689.0	1707.5	1710.4	1735.7	1781.4	1853.4	1944.8	2029.4	2039.1	2109.1	2146.0
22.5°	1860.2	1886.4	1863.1	1875.7	1916.6	1988.5	2087.7	2194.7	2208.3	2288.0	2321.1
25°	2161.6	2198.6	2138.3	2116.9	2134.4	2209.3	2333.7	2468.9	2484.4	2548.6	2565.1
27.5°	2753.8	2706.1	2614.7	2525.3	2472.8	2515.6	2655.6	2822.8	2842.3	2904.5	2885.1
30°	3404.3	3362.5	3239.0	3040.6	2916.2	2909.4	3038.7	3225.4	3247.8	3307.1	3247.8
32.5°	4055.8	4015.9	3881.7	3637.7	3421.8	3314.8	3404.3	3611.4	3623.1	3661.0	3573.5
35°	4696.6	4655.8	4521.6	4271.7	4006.2	3763.1	3745.6	3979.0	3982.9	4022.7	3892.4
37.5°	5341.3	5307.3	5164.3	4919.3	4657.7	4322.2	4159.8	4327.1	4332.0	4370.9	4235.7
40°	5801.2	5815.8	5717.6	5528.0	5303.4	4936.8	4624.6	4697.6	4668.4	4733.6	4652.8
42.5°	6196.0	6225.2	6139.6	6044.3	5914.0	5591.2	5200.3	5187.7	5141.0	5176.0	5092.4
45°	6537.3	6561.6	6484.8	6462.4	6459.5	6233.0	5829.4	5753.6	5688.4	5681.6	5581.5
47.5°	6662.8	6709.4	6742.5	6817.4	6963.2	6867.9	6480.0	6362.3	6289.4	6235.9	6077.4
50°	6710.4	6760.0	6872.8	7090.6	7435.8	7476.6	7127.6	6995.3	6905.9	6808.6	6575.2
52.5°	6646.2	6734.7	6886.4	7253.0	7753.8	7964.8	7748.9	7633.2	7531.1	7372.6	7026.4
55°	6268.0	6356.5	6666.6	7251.0	7912.3	8307.1	8336.2	8284.7	8170.0	7920.0	7391.1
57.5°	5470.6	5601.9	6092.9	7004.1	7909.4	8601.7	8911.9	8948.8	8820.5	8462.6	7677.9
60°	4366.0	4543.9	5142.9	6456.6	7665.3	8761.2	9416.5	9601.3	9465.2	8997.4	7910.3
62.5°	3046.5	3252.6	3819.5	5599.0	7107.1	8646.4	9785.1	10126.4	10023.3	9475.9	7999.8
65°	1858.2	1924.3	2381.4	4405.9	6158.1	8166.1	9898.8	10410.3	10376.3	9768.5	7867.5
67.5°	1237.8	1293.3	1424.5	3021.2	4780.2	7206.3	9626.6	10360.7	10370.5	9720.9	7383.3
70°	745.8	793.5	879.0	1757.1	3098.0	5704.0	8783.5	9728.7	9785.1	9084.0	6465.4
72.5°	307.3	339.4	417.2	796.4	1604.4	3620.2	6994.3	8352.8	8484.0	7638.1	4962.1
75°	174.1	190.6	245.0	399.6	696.2	1687.1	4236.7	5929.6	6123.1	5264.5	2985.2
77.5°	115.7	123.5	158.5	258.7	391.9	575.6	1810.6	3089.3	3458.8	2875.3	1292.3
80°	77.8	84.6	108.9	173.1	254.8	247.0	576.6	1144.5	1408.0	987.9	315.1
82.5°	52.5	53.5	77.8	113.8	161.4	119.6	170.2	355.9	447.3	285.9	119.6
85°	30.1	29.2	57.4	66.1	72.0	49.6	51.5	107.0	140.0	120.6	68.1
87.5°	3.9	5.8	22.4	17.5	9.7	10.7	10.7	18.5	27.2	29.2	14.6
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°	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1	1687.1
2.5°	1689.0	1688.1	1685.1	1682.2	1675.4	1671.5	1673.5	1671.5	1670.6	1671.5	1675.4
5°	1701.7	1698.8	1691.0	1681.2	1667.6	1651.1	1640.4	1624.8	1610.3	1601.5	1603.5
7.5°	1735.7	1732.8	1722.1	1694.9	1651.1	1582.1	1518.9	1463.4	1421.6	1397.3	1398.3
10°	1790.2	1785.3	1768.8	1708.5	1593.7	1443.0	1317.6	1213.5	1145.5	1113.4	1110.5
12.5°	1854.3	1848.5	1819.3	1695.8	1484.8	1249.5	1076.4	960.7	897.5	869.3	866.4
15°	1930.2	1922.4	1865.0	1635.5	1326.3	1035.6	877.1	790.5	749.7	724.4	725.4
17.5°	2024.5	2010.9	1899.1	1545.1	1154.2	872.2	754.6	689.4	653.4	629.1	627.2
20°	2147.0	2124.7	1926.3	1437.2	995.7	769.2	671.9	617.5	590.2	568.8	565.0
22.5°	2318.2	2286.1	1959.3	1320.5	883.9	698.2	610.7	570.8	548.4	524.1	520.2
25°	2530.1	2492.2	2000.2	1212.6	807.1	636.9	565.9	532.9	506.6	478.4	475.5
27.5°	2826.7	2758.6	2048.8	1124.1	741.0	584.4	525.1	488.1	458.0	434.7	429.8
30°	3157.3	3045.5	2091.6	1070.6	680.7	535.8	471.6	434.7	406.5	389.9	387.0
32.5°	3470.4	3318.7	2119.8	1047.3	626.2	480.4	413.3	373.4	352.0	347.1	350.1
35°	3766.0	3565.7	2116.9	1024.9	577.6	424.9	355.9	315.1	298.5	301.4	301.4
37.5°	4106.4	3829.2	2096.5	989.9	537.7	374.4	306.3	270.3	255.7	256.7	260.6
40°	4502.1	4133.6	2083.8	923.8	494.0	327.7	265.5	236.3	225.6	221.7	220.7
42.5°	4924.1	4428.2	2085.8	848.9	439.5	285.9	237.3	213.0	203.2	200.3	199.3
45°	5348.1	4709.2	2088.7	771.1	382.1	253.8	216.8	196.4	190.6	186.7	186.7
47.5°	5746.8	4948.5	2034.2	687.5	325.7	229.5	200.3	186.7	181.8	177.0	177.0
50°	6118.2	5107.9	1903.0	590.2	281.0	210.0	187.7	177.9	173.1	168.2	168.2
52.5°	6407.0	5133.2	1686.1	490.1	249.9	195.4	179.9	171.1	165.3	160.4	159.5
55°	6535.4	4974.7	1377.9	396.7	225.6	182.8	172.1	163.4	156.6	151.7	150.7
57.5°	6502.3	4641.2	1074.5	318.9	202.3	170.2	162.4	156.6	148.8	141.0	140.0
60°	6339.9	4194.9	810.0	265.5	180.9	156.6	151.7	146.8	136.1	124.5	122.5
62.5°	6058.9	3633.8	577.6	219.8	157.5	141.0	139.1	135.2	119.6	98.2	96.3
65°	5629.1	2952.2	389.0	182.8	135.2	123.5	124.5	117.7	97.2	72.9	71.0
67.5°	5001.0	2158.7	248.9	149.7	112.8	103.1	104.0	100.2	82.7	62.2	59.3
70°	4200.7	1429.4	162.4	113.8	90.4	79.7	85.6	86.5	70.0	50.6	48.6
72.5°	3079.5	844.0	113.8	84.6	66.1	55.4	70.0	72.0	56.4	37.9	36.0
75°	1755.1	400.6	85.6	61.3	40.8	38.9	54.5	54.5	38.9	25.3	23.3
77.5°	737.1	167.2	60.3	39.9	23.3	22.4	37.0	34.0	19.4	11.7	11.7
80°	213.0	74.9	32.1	19.4	9.7	8.8	14.6	10.7	4.9	1.9	1.9
82.5°	83.6	33.1	12.6	7.8	3.9	3.9	1.9	0.0	0.0	0.0	0.0
85°	49.6	13.6	5.8	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.6	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)