

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: P884338

Luminaire Tested: **NAV-SB5A-835-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884338
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-835-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 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: 15063 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

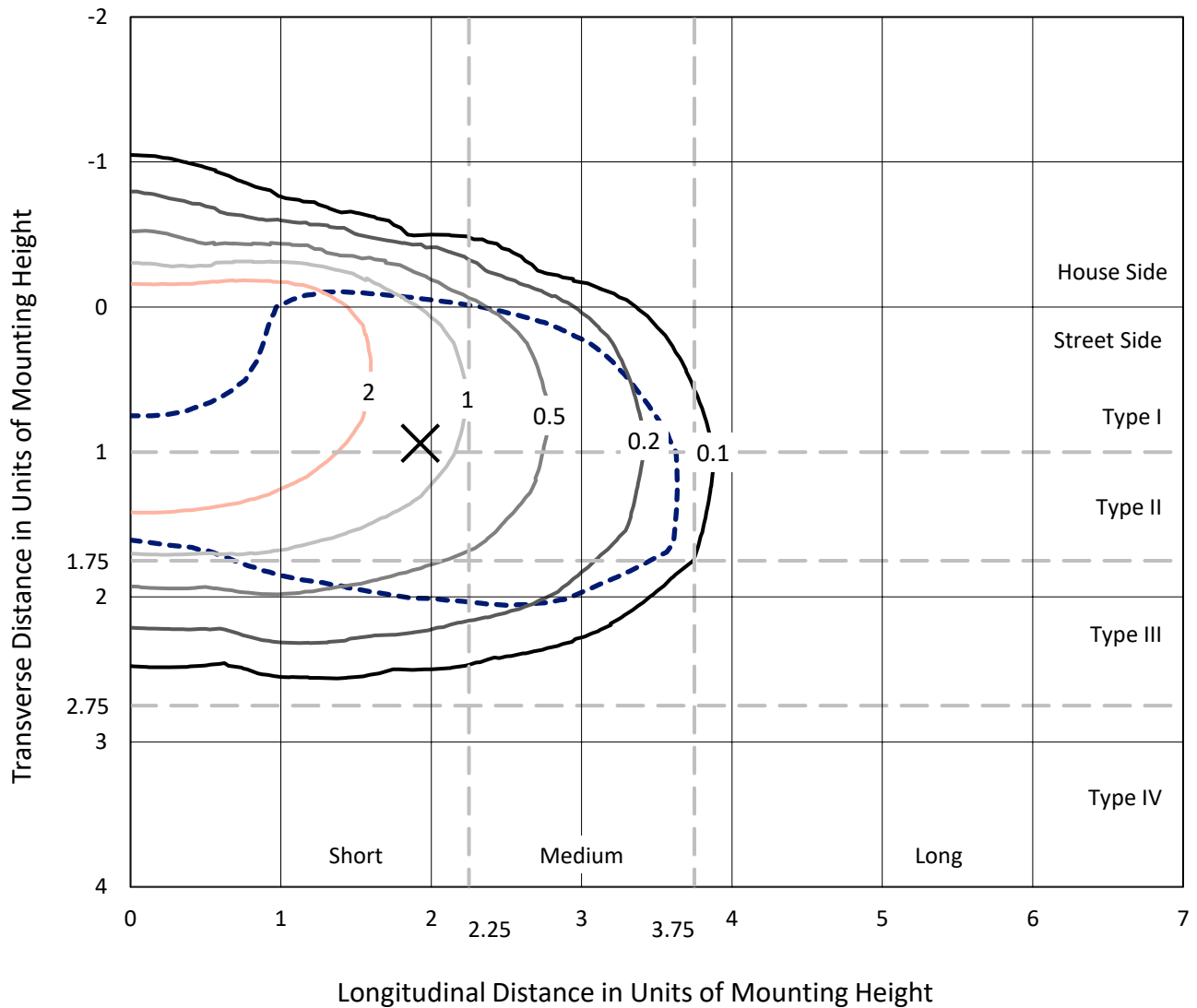
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

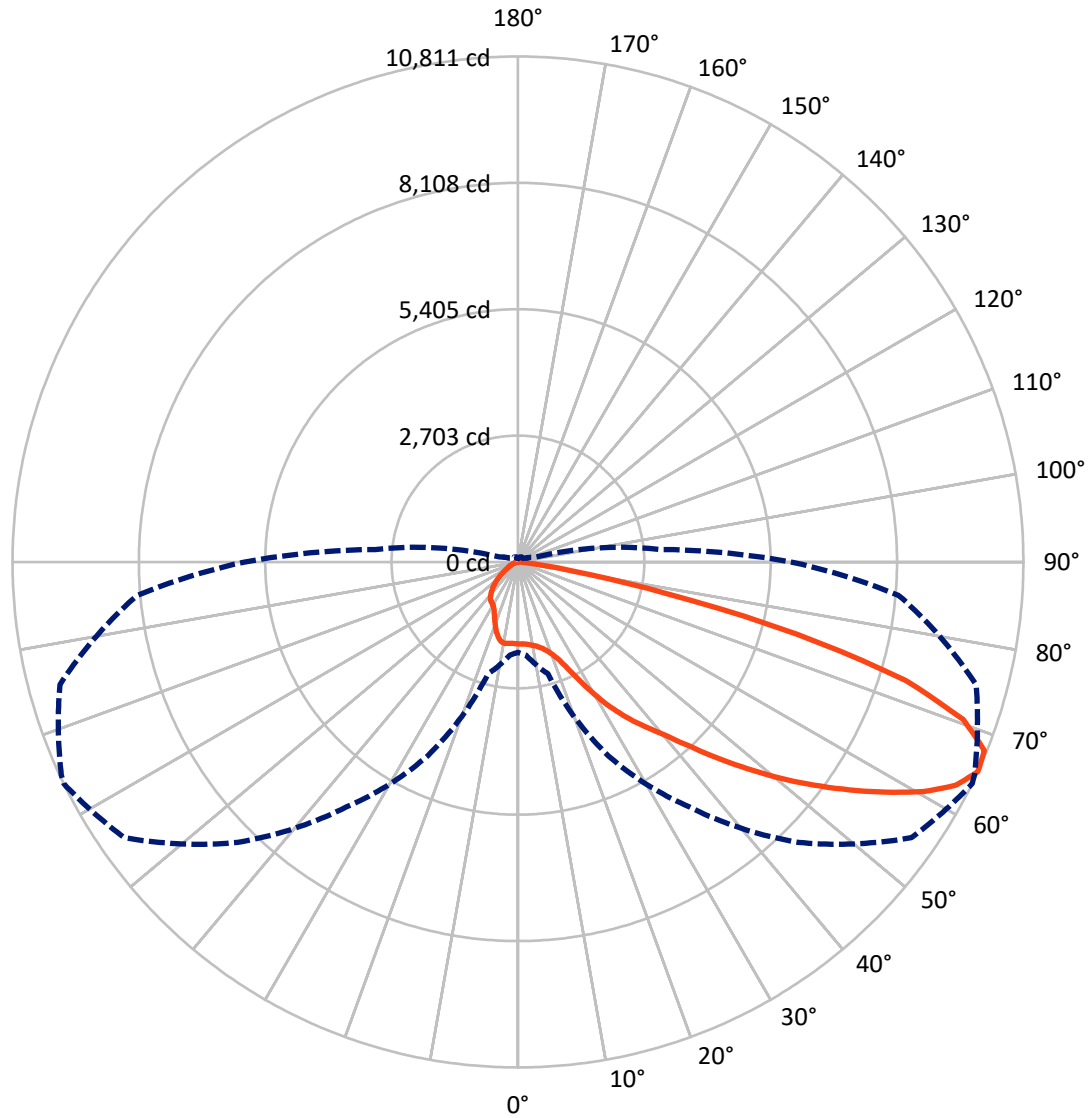
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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	2014.4	0.0	2014.4
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	13048.6	0.0	13048.6
	% Fixture	86.6	0.0	86.6
Total	Lumens	15063.0	0.0	15063.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.6	1.1
10°-20°	438.4	2.9
20°-30°	830.7	5.5
30°-40°	1681.0	11.2
40°-50°	2863.7	19.0
50°-60°	3894.4	25.9
60°-70°	3657.0	24.3
70°-80°	1465.1	9.7
80°-90°	71.0	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°	15063.0	100.0
0°-180°	15063.0	100.0

Coefficient of Utilization



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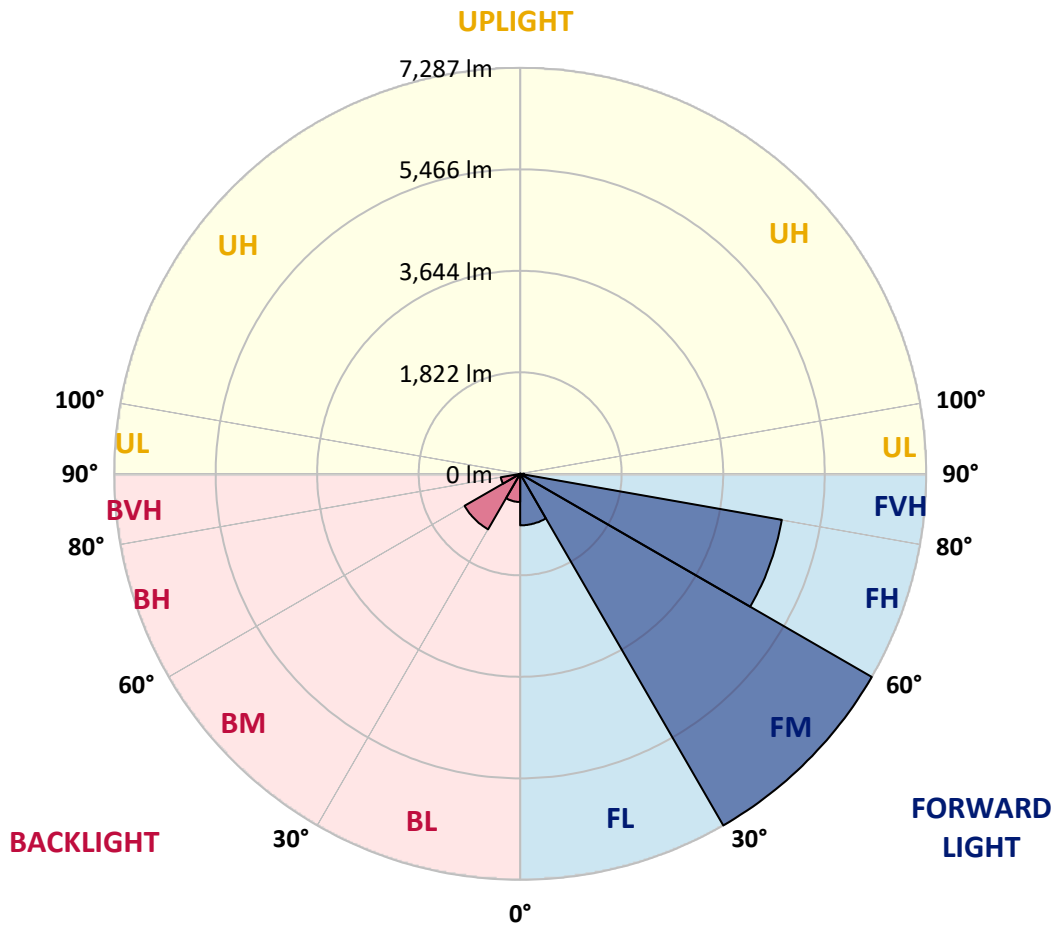
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	925.0	6.1			
FM (30°-60°)	7287.5	48.4			
FH (60°-80°)	4768.6	31.7			G2/5000
FVH (80°-90°)	67.5	0.4			G1/100
BL (0°-30°)	505.8	3.4	B2/1000		
BM (30°-60°)	1151.6	7.6	B2/2500		
BH (60°-80°)	353.6	2.3	B1/500		G1/500
BVH (80°-90°)	3.5	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°	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0
2.5°	1745.9	1758.0	1755.0	1752.0	1751.0	1753.0	1754.0	1753.0	1753.0	1753.0	1754.0
5°	1712.6	1722.7	1722.7	1729.8	1739.9	1752.0	1761.1	1763.1	1765.1	1768.1	1767.1
7.5°	1649.0	1657.1	1663.1	1686.3	1711.6	1743.9	1771.2	1785.3	1787.3	1798.4	1802.5
10°	1605.6	1615.7	1625.8	1650.0	1686.3	1734.8	1781.3	1815.6	1820.6	1846.9	1859.0
12.5°	1603.5	1613.6	1626.8	1653.0	1695.4	1746.9	1803.5	1853.0	1862.1	1900.4	1925.7
15°	1624.7	1636.9	1649.0	1681.3	1726.7	1789.3	1849.9	1911.5	1920.6	1975.1	2002.4
17.5°	1668.2	1684.3	1693.4	1725.7	1774.2	1843.9	1923.6	1994.3	2002.4	2066.0	2100.4
20°	1754.0	1773.2	1776.2	1802.5	1849.9	1924.7	2019.6	2107.4	2117.5	2190.2	2228.6
22.5°	1931.7	1959.0	1934.8	1947.9	1990.3	2065.0	2168.0	2279.1	2293.2	2376.0	2410.4
25°	2244.8	2283.1	2220.5	2198.3	2216.5	2294.2	2423.5	2563.9	2580.0	2646.7	2663.8
27.5°	2859.7	2810.2	2715.3	2622.4	2567.9	2612.3	2757.7	2931.4	2951.6	3016.2	2996.0
30°	3535.3	3491.8	3363.6	3157.6	3028.4	3021.3	3155.6	3349.5	3372.7	3434.3	3372.7
32.5°	4211.8	4170.4	4031.1	3777.6	3553.4	3442.4	3535.3	3750.4	3762.5	3801.9	3711.0
35°	4877.3	4834.9	4695.5	4436.0	4160.3	3907.9	3889.7	4132.1	4136.1	4177.5	4042.2
37.5°	5546.8	5511.4	5363.0	5108.5	4836.9	4488.5	4319.9	4493.6	4498.6	4539.0	4398.6
40°	6024.4	6039.5	5937.6	5740.6	5507.4	5126.7	4802.6	4878.3	4848.0	4915.7	4831.8
42.5°	6434.4	6464.7	6375.8	6276.8	6141.5	5806.3	5400.3	5387.2	5338.8	5375.1	5288.3
45°	6788.8	6814.1	6734.3	6711.1	6708.0	6472.7	6053.7	5974.9	5907.3	5900.2	5796.2
47.5°	6919.1	6967.5	7001.9	7079.6	7231.1	7132.1	6729.2	6607.0	6531.3	6475.8	6311.2
50°	6968.6	7020.1	7137.2	7363.4	7721.9	7764.3	7401.8	7264.4	7171.5	7070.5	6828.2
52.5°	6901.9	6993.8	7151.3	7532.0	8052.1	8271.2	8047.0	7926.8	7820.8	7656.2	7296.7
55°	6509.1	6601.0	6923.1	7530.0	8216.7	8626.6	8656.9	8603.4	8484.2	8224.7	7675.4
57.5°	5681.1	5817.4	6327.3	7273.5	8213.6	8932.6	9254.7	9293.1	9159.8	8788.2	7973.3
60°	4534.0	4718.7	5340.8	6705.0	7960.2	9098.2	9778.8	9970.7	9829.3	9343.6	8214.6
62.5°	3163.7	3377.7	3966.4	5814.4	7380.5	8979.0	10161.5	10515.9	10408.9	9840.4	8307.5
65°	1929.7	1998.4	2473.0	4575.4	6395.0	8480.2	10279.6	10810.8	10775.5	10144.3	8170.2
67.5°	1285.5	1343.0	1479.3	3137.4	4964.1	7483.5	9996.9	10759.3	10769.4	10094.9	7667.3
70°	774.5	824.0	912.8	1824.7	3217.2	5923.4	9121.4	10102.9	10161.5	9433.4	6714.1
72.5°	319.1	352.4	433.2	827.0	1666.2	3759.4	7263.4	8674.1	8810.4	7931.9	5153.0
75°	180.8	197.9	254.5	415.0	723.0	1752.0	4399.6	6157.7	6358.6	5467.0	3100.1
77.5°	120.2	128.2	164.6	268.6	406.9	597.8	1880.2	3208.1	3591.8	2985.9	1342.0
80°	80.8	87.9	113.1	179.7	264.6	256.5	598.8	1188.5	1462.2	1025.9	327.2
82.5°	54.5	55.5	80.8	118.1	167.6	124.2	176.7	369.6	464.5	296.9	124.2
85°	31.3	30.3	59.6	68.7	74.7	51.5	53.5	111.1	145.4	125.2	70.7
87.5°	4.0	6.1	23.2	18.2	10.1	11.1	11.1	19.2	28.3	30.3	15.1
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°	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0	1752.0
2.5°	1754.0	1753.0	1750.0	1746.9	1739.9	1735.8	1737.8	1735.8	1734.8	1735.8	1739.9
5°	1767.1	1764.1	1756.0	1745.9	1731.8	1714.6	1703.5	1687.4	1672.2	1663.1	1665.1
7.5°	1802.5	1799.4	1788.3	1760.1	1714.6	1642.9	1577.3	1519.7	1476.3	1451.1	1452.1
10°	1859.0	1854.0	1836.8	1774.2	1655.0	1498.5	1368.3	1260.2	1189.5	1156.2	1153.2
12.5°	1925.7	1919.6	1889.3	1761.1	1541.9	1297.6	1117.8	997.7	932.0	902.8	899.7
15°	2004.4	1996.4	1936.8	1698.5	1377.4	1075.4	910.8	821.0	778.5	752.3	753.3
17.5°	2102.4	2088.2	1972.1	1604.6	1198.6	905.8	783.6	715.9	678.6	653.3	651.3
20°	2229.6	2206.4	2000.4	1492.5	1034.0	798.7	697.8	641.2	612.9	590.7	586.7
22.5°	2407.3	2374.0	2034.7	1371.3	917.9	725.0	634.1	592.7	569.5	544.3	540.2
25°	2627.5	2588.1	2077.1	1259.2	838.1	661.4	587.7	553.4	526.1	496.8	493.8
27.5°	2935.5	2864.8	2127.6	1167.3	769.5	606.9	545.3	506.9	475.6	451.4	446.3
30°	3278.8	3162.7	2172.1	1111.8	706.9	556.4	489.7	451.4	422.1	404.9	401.9
32.5°	3603.9	3446.4	2201.3	1087.5	650.3	498.8	429.2	387.8	365.5	360.5	363.5
35°	3910.9	3702.9	2198.3	1064.3	599.8	441.3	369.6	327.2	310.0	313.0	313.0
37.5°	4264.3	3976.5	2177.1	1028.0	558.4	388.8	318.1	280.7	265.6	266.6	270.6
40°	4675.3	4292.6	2164.0	959.3	513.0	340.3	275.7	245.4	234.3	230.2	229.2
42.5°	5113.6	4598.6	2166.0	881.5	456.4	296.9	246.4	221.1	211.0	208.0	207.0
45°	5553.8	4890.4	2169.0	800.8	396.8	263.6	225.2	204.0	197.9	193.9	193.9
47.5°	5967.9	5138.8	2112.5	713.9	338.3	238.3	208.0	193.9	188.8	183.8	183.8
50°	6353.6	5304.4	1976.2	612.9	291.8	218.1	194.9	184.8	179.7	174.7	174.7
52.5°	6653.5	5330.7	1751.0	508.9	259.5	203.0	186.8	177.7	171.7	166.6	165.6
55°	6786.8	5166.1	1430.9	412.0	234.3	189.8	178.7	169.6	162.6	157.5	156.5
57.5°	6752.5	4819.7	1115.8	331.2	210.0	176.7	168.6	162.6	154.5	146.4	145.4
60°	6583.8	4356.2	841.2	275.7	187.8	162.6	157.5	152.5	141.4	129.3	127.2
62.5°	6292.0	3773.6	599.8	228.2	163.6	146.4	144.4	140.4	124.2	102.0	100.0
65°	5845.7	3065.7	403.9	189.8	140.4	128.2	129.3	122.2	101.0	75.7	73.7
67.5°	5193.3	2241.7	258.5	155.5	117.1	107.0	108.0	104.0	85.8	64.6	61.6
70°	4362.3	1484.4	168.6	118.1	93.9	82.8	88.9	89.9	72.7	52.5	50.5
72.5°	3198.0	876.5	118.1	87.9	68.7	57.6	72.7	74.7	58.6	39.4	37.4
75°	1822.7	416.0	88.9	63.6	42.4	40.4	56.5	56.5	40.4	26.3	24.2
77.5°	765.4	173.7	62.6	41.4	24.2	23.2	38.4	35.3	20.2	12.1	12.1
80°	221.1	77.8	33.3	20.2	10.1	9.1	15.1	11.1	5.0	2.0	2.0
82.5°	86.8	34.3	13.1	8.1	4.0	4.0	2.0	0.0	0.0	0.0	0.0
85°	51.5	14.1	6.1	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.1	3.0	2.0	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)