

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: P883748

Luminaire Tested: **NAV-SB4B-727-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883748
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-SB4B-727-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 450mA 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: 16220 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

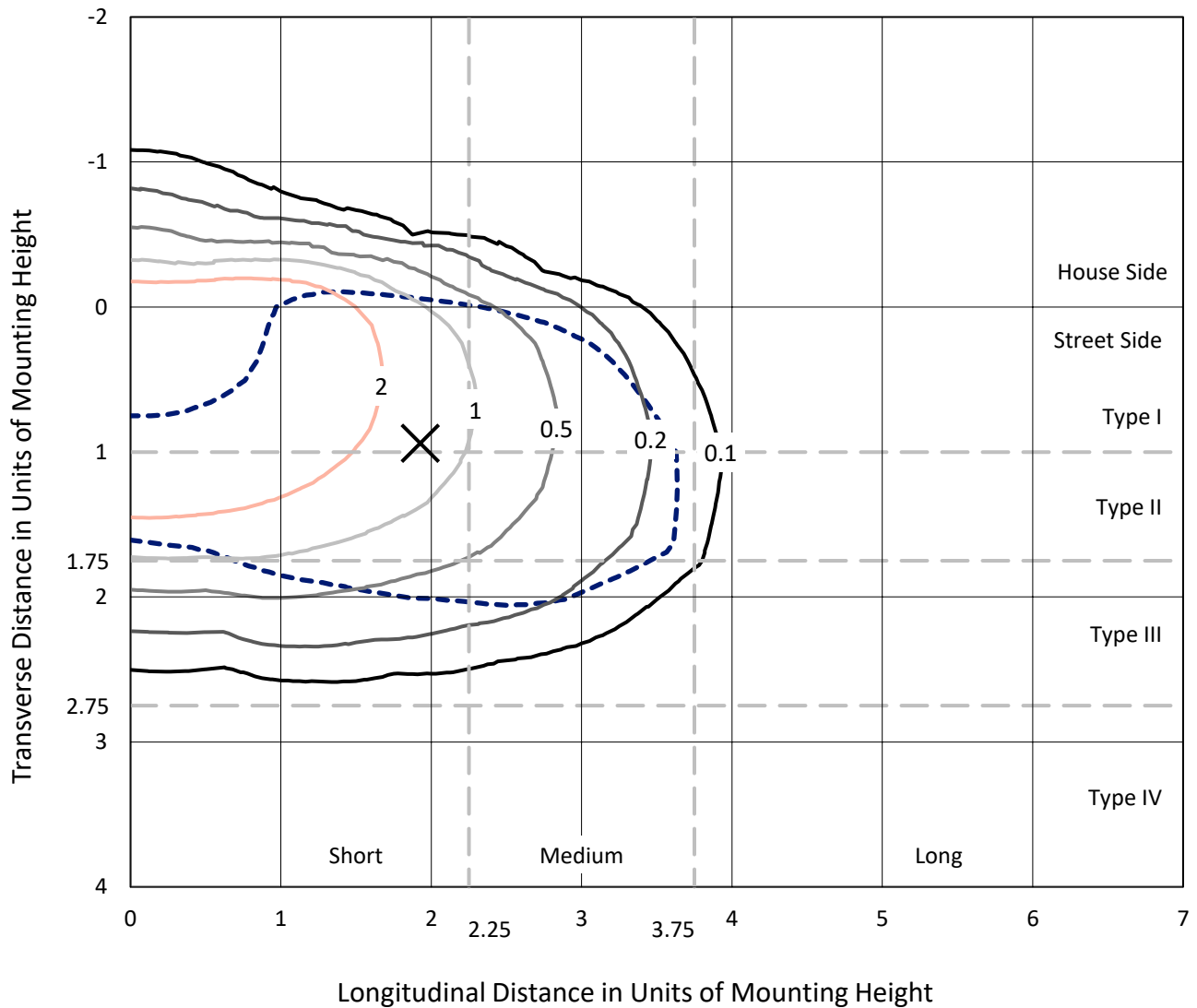
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

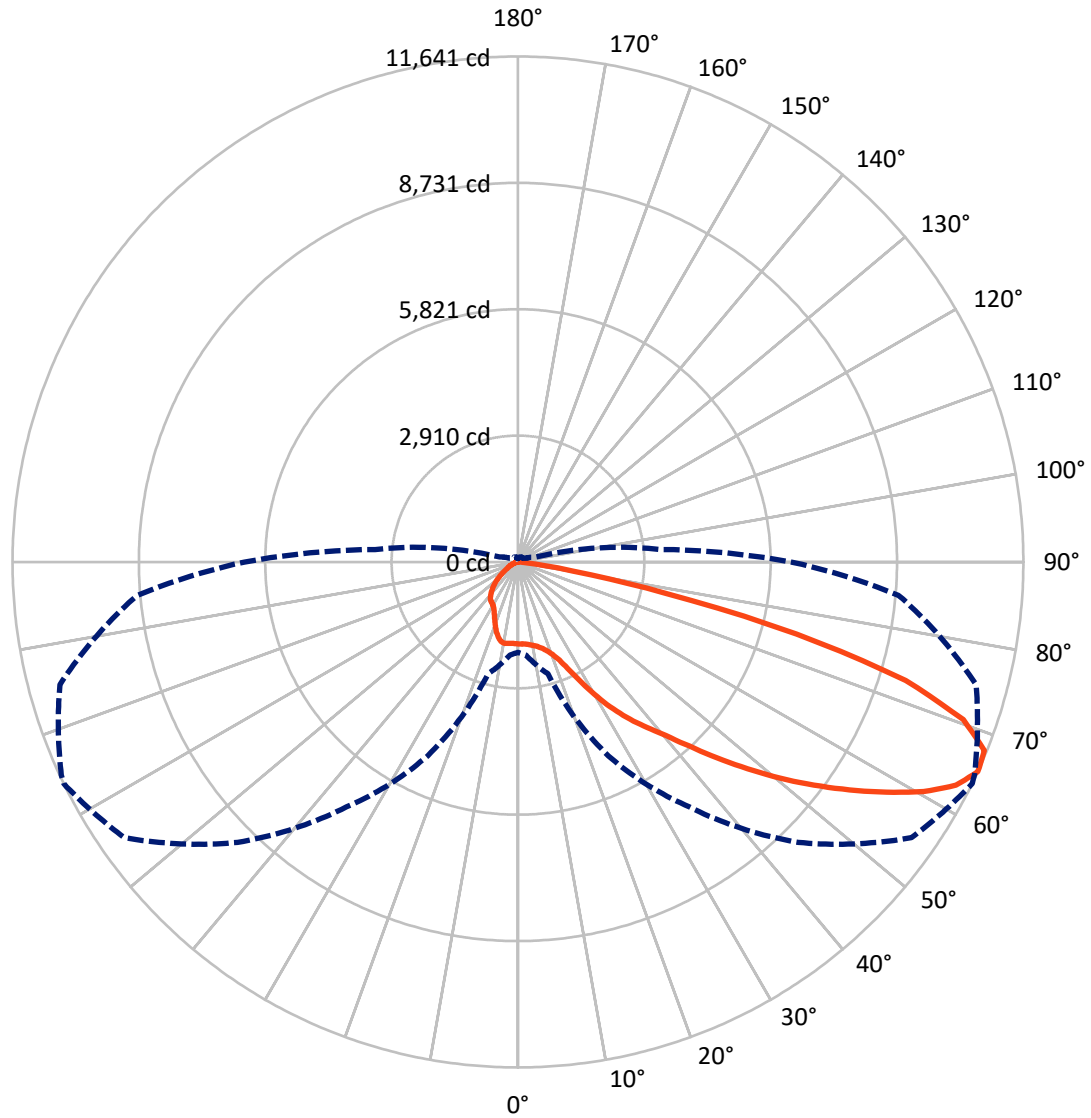
✕ Max cd
 - - - 1/2 Max cd



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	2169.1	0.0	2169.1
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	14050.9	0.0	14050.9
	% Fixture	86.6	0.0	86.6
Total	Lumens	16220.0	0.0	16220.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.1	1.1
10°-20°	472.1	2.9
20°-30°	894.6	5.5
30°-40°	1810.2	11.2
40°-50°	3083.6	19.0
50°-60°	4193.5	25.9
60°-70°	3937.9	24.3
70°-80°	1577.7	9.7
80°-90°	76.4	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°	16220.0	100.0
0°-180°	16220.0	100.0

Coefficient of Utilization



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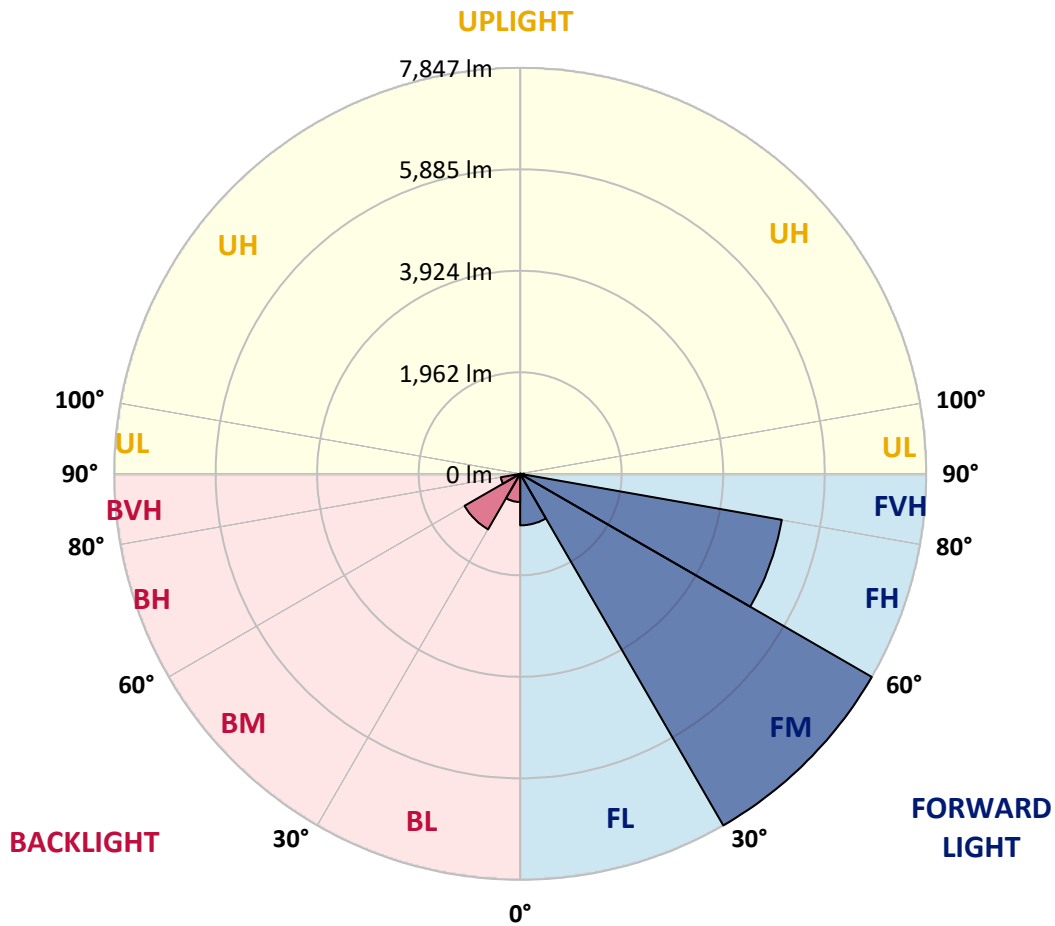
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	996.1	6.1			
FM (30°-60°)	7847.2	48.4			
FH (60°-80°)	5134.9	31.7			G3/7500
FVH (80°-90°)	72.7	0.4			G1/100
BL (0°-30°)	544.6	3.4	B2/1000		
BM (30°-60°)	1240.1	7.6	B2/2500		
BH (60°-80°)	380.7	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°	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6
2.5°	1880.0	1893.1	1889.8	1886.6	1885.5	1887.6	1888.7	1887.6	1887.6	1887.6	1888.7
5°	1844.1	1855.0	1855.0	1862.6	1873.5	1886.6	1896.3	1898.5	1900.7	1904.0	1902.9
7.5°	1775.6	1784.3	1790.9	1815.9	1843.1	1877.9	1907.2	1922.4	1924.6	1936.6	1940.9
10°	1728.9	1739.8	1750.6	1776.7	1815.9	1868.1	1918.1	1955.1	1960.5	1988.8	2001.8
12.5°	1726.7	1737.6	1751.7	1780.0	1825.7	1881.1	1942.0	1995.3	2005.1	2046.4	2073.6
15°	1749.5	1762.6	1775.6	1810.4	1859.4	1926.8	1992.0	2058.4	2068.1	2126.9	2156.2
17.5°	1796.3	1813.7	1823.5	1858.3	1910.5	1985.5	2071.4	2147.5	2156.2	2224.7	2261.7
20°	1888.7	1909.4	1912.7	1940.9	1992.0	2072.5	2174.7	2269.3	2280.2	2358.5	2399.8
22.5°	2080.1	2109.5	2083.4	2097.5	2143.2	2223.6	2334.5	2454.2	2469.4	2558.5	2595.5
25°	2417.2	2458.5	2391.1	2367.2	2386.7	2470.5	2609.6	2760.8	2778.2	2849.9	2868.4
27.5°	3079.4	3026.1	2923.9	2823.9	2765.1	2813.0	2969.6	3156.6	3178.3	3247.9	3226.2
30°	3806.8	3760.1	3622.0	3400.1	3261.0	3253.4	3398.0	3606.7	3631.8	3698.1	3631.8
32.5°	4535.3	4490.8	4340.7	4067.8	3826.4	3706.8	3806.8	4038.4	4051.5	4093.9	3996.0
35°	5251.9	5206.2	5056.2	4776.7	4479.9	4208.0	4188.5	4449.4	4453.8	4498.4	4352.7
37.5°	5972.8	5934.8	5774.9	5500.9	5208.4	4833.3	4651.7	4838.7	4844.1	4887.6	4736.5
40°	6487.1	6503.4	6393.6	6181.6	5930.4	5520.5	5171.4	5253.0	5220.4	5293.2	5203.0
42.5°	6928.6	6961.2	6865.5	6759.0	6613.3	6252.3	5815.2	5801.0	5748.8	5788.0	5694.5
45°	7310.3	7337.4	7251.5	7226.5	7223.3	6969.9	6518.7	6433.9	6361.0	6353.4	6241.4
47.5°	7450.5	7502.7	7539.7	7623.4	7786.5	7680.0	7246.1	7114.5	7033.0	6973.2	6795.9
50°	7503.8	7559.3	7685.4	7929.0	8315.0	8360.6	7970.3	7822.4	7722.4	7613.6	7352.7
52.5°	7432.0	7531.0	7700.6	8110.6	8670.5	8906.5	8665.1	8535.7	8421.5	8244.3	7857.2
55°	7009.1	7108.0	7454.9	8108.4	8847.8	9289.2	9321.9	9264.2	9135.9	8856.5	8265.0
57.5°	6117.4	6264.2	6813.3	7832.2	8844.5	9618.7	9965.6	10006.9	9863.4	9463.2	8585.7
60°	4882.2	5081.2	5751.0	7220.0	8571.6	9797.0	10529.9	10736.5	10584.3	10061.3	8845.6
62.5°	3406.7	3637.2	4271.1	6261.0	7947.5	9668.7	10942.0	11323.7	11208.4	10596.2	8945.6
65°	2077.9	2151.9	2662.9	4926.8	6886.2	9131.6	11069.2	11641.2	11603.1	10923.5	8797.8
67.5°	1384.2	1446.2	1593.0	3378.4	5345.4	8058.4	10764.8	11585.7	11596.6	10870.3	8256.3
70°	834.0	887.3	983.0	1964.8	3464.3	6378.4	9822.0	10878.9	10942.0	10158.0	7229.8
72.5°	343.6	379.5	466.5	890.5	1794.1	4048.2	7821.3	9340.3	9487.1	8541.1	5548.8
75°	194.6	213.1	274.0	446.9	778.5	1886.6	4737.6	6630.7	6847.1	5886.9	3338.2
77.5°	129.4	138.1	177.2	289.2	438.2	643.7	2024.6	3454.5	3867.7	3215.3	1445.1
80°	87.0	94.6	121.8	193.5	284.9	276.2	644.8	1279.8	1574.5	1104.7	352.3
82.5°	58.7	59.8	87.0	127.2	180.5	133.7	190.3	398.0	500.2	319.7	133.7
85°	33.7	32.6	64.2	73.9	80.5	55.5	57.6	119.6	156.6	134.8	76.1
87.5°	4.3	6.5	25.0	19.6	10.9	12.0	12.0	20.7	30.4	32.6	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°	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6	1886.6
2.5°	1888.7	1887.6	1884.4	1881.1	1873.5	1869.2	1871.3	1869.2	1868.1	1869.2	1873.5
5°	1902.9	1899.6	1890.9	1880.0	1864.8	1846.3	1834.4	1817.0	1800.7	1790.9	1793.0
7.5°	1940.9	1937.7	1925.7	1895.3	1846.3	1769.1	1698.4	1636.5	1589.7	1562.5	1563.6
10°	2001.8	1996.4	1977.9	1910.5	1782.2	1613.6	1473.4	1357.0	1280.9	1245.0	1241.8
12.5°	2073.6	2067.1	2034.4	1896.3	1660.4	1397.2	1203.7	1074.3	1003.6	972.1	968.8
15°	2158.4	2149.7	2085.5	1828.9	1483.1	1158.0	980.8	884.0	838.3	810.1	811.2
17.5°	2263.9	2248.6	2123.6	1727.8	1290.7	975.4	843.8	770.9	730.7	703.5	701.3
20°	2400.9	2375.9	2154.0	1607.1	1113.4	860.1	751.4	690.5	660.0	636.1	631.8
22.5°	2592.2	2556.4	2191.0	1476.6	988.4	780.7	682.9	638.3	613.3	586.1	581.7
25°	2829.3	2786.9	2236.7	1355.9	902.5	712.2	632.8	595.9	566.5	535.0	531.7
27.5°	3160.9	3084.8	2291.0	1257.0	828.6	653.5	587.2	545.9	512.1	486.0	480.6
30°	3530.6	3405.6	2338.9	1197.2	761.1	599.1	527.4	486.0	454.5	436.0	432.8
32.5°	3880.8	3711.1	2370.4	1171.1	700.3	537.2	462.1	417.5	393.6	388.2	391.4
35°	4211.3	3987.3	2367.2	1146.1	645.9	475.2	398.0	352.3	333.8	337.1	337.1
37.5°	4591.9	4282.0	2344.3	1106.9	601.3	418.6	342.5	302.3	286.0	287.1	291.4
40°	5034.4	4622.3	2330.2	1033.0	552.4	366.4	296.8	264.2	252.3	247.9	246.8
42.5°	5506.3	4951.8	2332.4	949.3	491.5	319.7	265.3	238.1	227.3	224.0	222.9
45°	5980.4	5266.0	2335.6	862.3	427.3	283.8	242.5	219.6	213.1	208.8	208.8
47.5°	6426.2	5533.5	2274.7	768.8	364.3	256.6	224.0	208.8	203.3	197.9	197.9
50°	6841.6	5711.9	2127.9	660.0	314.2	234.9	209.9	199.0	193.5	188.1	188.1
52.5°	7164.6	5740.1	1885.5	548.0	279.4	218.6	201.2	191.4	184.8	179.4	178.3
55°	7308.1	5562.9	1540.8	443.6	252.3	204.4	192.5	182.7	175.1	169.6	168.5
57.5°	7271.1	5189.9	1201.5	356.7	226.2	190.3	181.6	175.1	166.4	157.7	156.6
60°	7089.5	4690.8	905.8	296.8	202.2	175.1	169.6	164.2	152.2	139.2	137.0
62.5°	6775.3	4063.4	645.9	245.7	176.2	157.7	155.5	151.1	133.7	109.8	107.6
65°	6294.7	3301.2	434.9	204.4	151.1	138.1	139.2	131.6	108.7	81.6	79.4
67.5°	5592.2	2413.9	278.4	167.5	126.1	115.3	116.3	112.0	92.4	69.6	66.3
70°	4697.4	1598.4	181.6	127.2	101.1	89.2	95.7	96.8	78.3	56.5	54.4
72.5°	3443.6	943.8	127.2	94.6	73.9	62.0	78.3	80.5	63.1	42.4	40.2
75°	1962.7	448.0	95.7	68.5	45.7	43.5	60.9	60.9	43.5	28.3	26.1
77.5°	824.2	187.0	67.4	44.6	26.1	25.0	41.3	38.1	21.7	13.0	13.0
80°	238.1	83.7	35.9	21.7	10.9	9.8	16.3	12.0	5.4	2.2	2.2
82.5°	93.5	37.0	14.1	8.7	4.3	4.3	2.2	0.0	0.0	0.0	0.0
85°	55.5	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)