

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: P883738

Luminaire Tested: **NAV-SB4B-722-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883738  
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-722-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

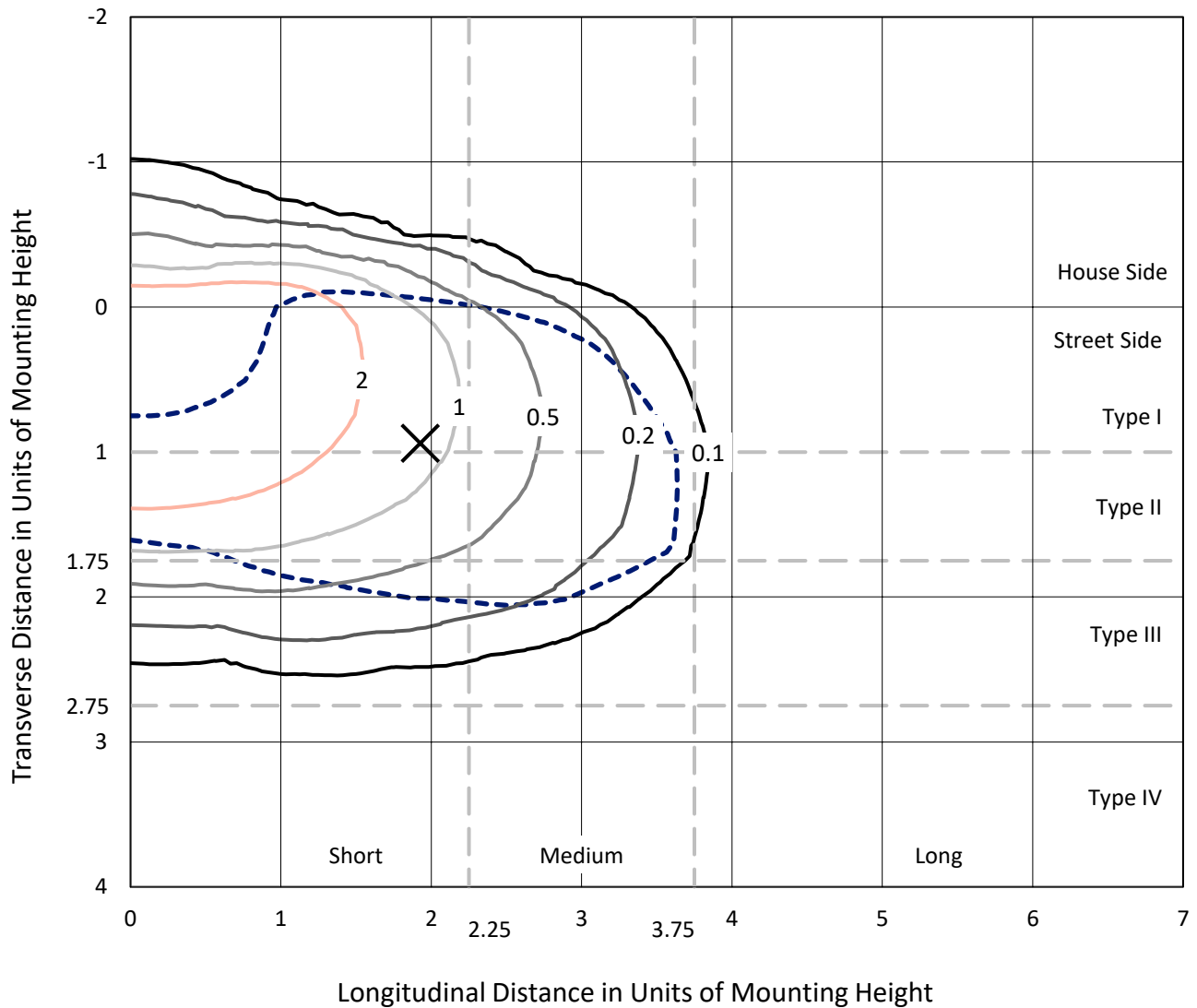
Lumens per Lamp: N/A  
Luminaire Lumens: 14262 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
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

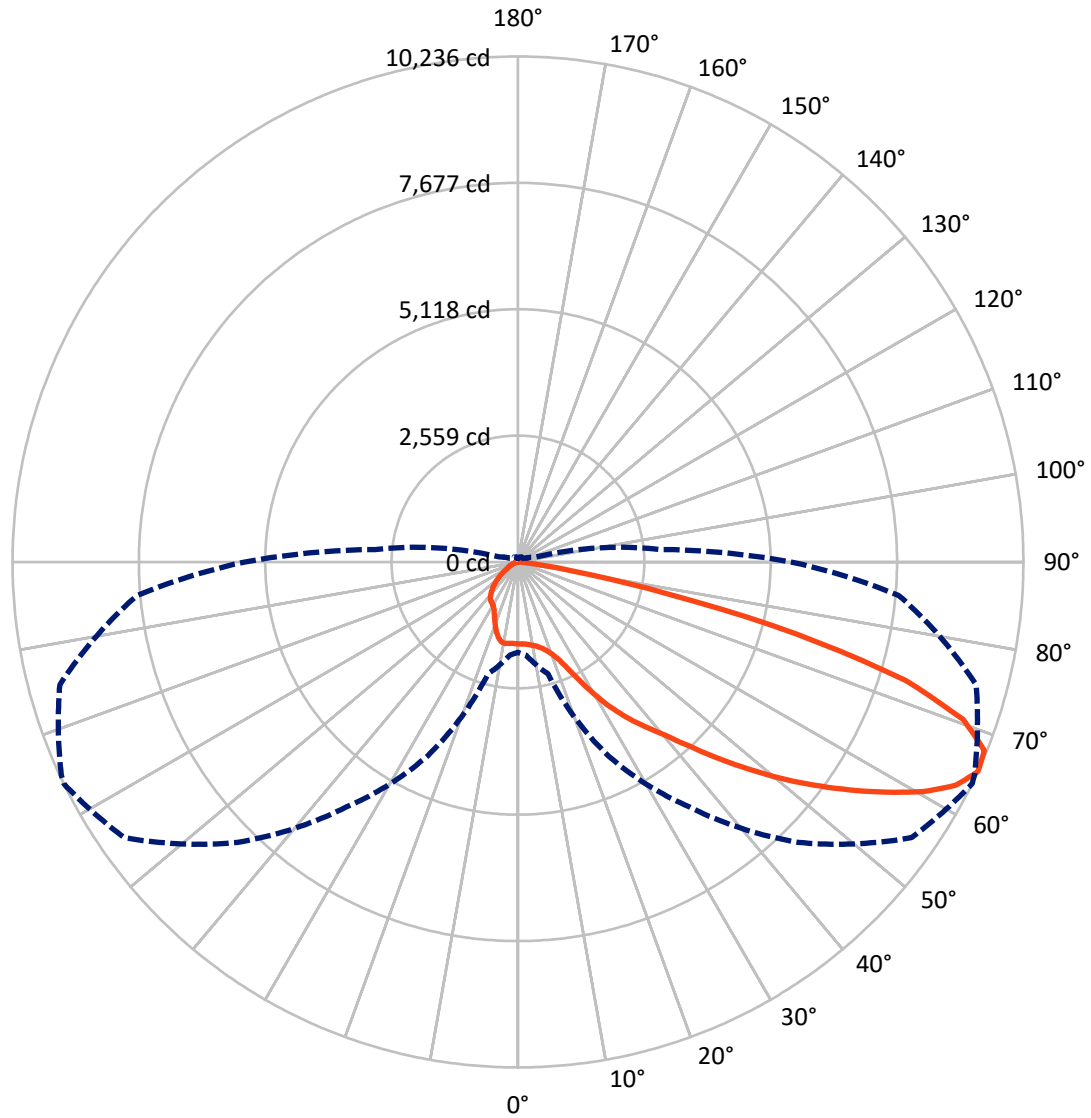
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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
<b>House Side</b>	Lumens	1907.3	0.0	1907.3
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	12354.7	0.0	12354.7
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	14262.0	0.0	14262.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.0	1.1
10°-20°	415.1	2.9
20°-30°	786.6	5.5
30°-40°	1591.6	11.2
40°-50°	2711.4	19.0
50°-60°	3687.3	25.9
60°-70°	3462.5	24.3
70°-80°	1387.2	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°	14262.0	100.0
0°-180°	14262.0	100.0

**Coefficient of Utilization**



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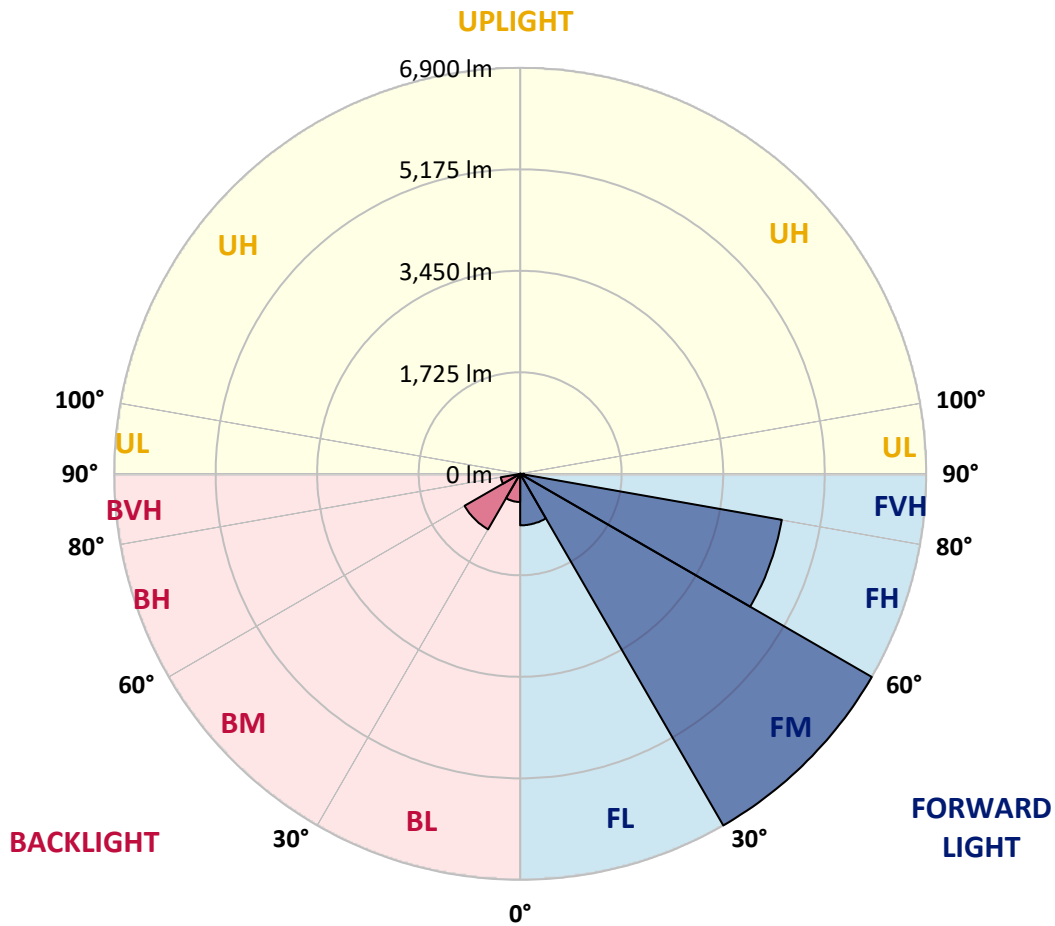
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	875.9	6.1			
FM (30°-60°)	6899.9	48.4			
FH (60°-80°)	4515.0	31.7			G2/5000
FVH (80°-90°)	63.9	0.4			G1/100
BL (0°-30°)	478.9	3.4	B1/500		
BM (30°-60°)	1090.4	7.6	B2/2500		
BH (60°-80°)	334.8	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°	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8
2.5°	1653.1	1664.6	1661.7	1658.8	1657.9	1659.8	1660.7	1659.8	1659.8	1659.8	1660.7
5°	1621.5	1631.1	1631.1	1637.8	1647.3	1658.8	1667.4	1669.3	1671.2	1674.1	1673.2
7.5°	1561.3	1568.9	1574.7	1596.7	1620.6	1651.2	1677.0	1690.4	1692.3	1702.8	1706.6
10°	1520.2	1529.7	1539.3	1562.3	1596.7	1642.6	1686.5	1719.1	1723.8	1748.7	1760.2
12.5°	1518.3	1527.8	1540.3	1565.1	1605.3	1654.0	1707.6	1754.4	1763.0	1799.4	1823.3
15°	1538.4	1549.8	1561.3	1591.9	1634.9	1694.2	1751.6	1809.9	1818.5	1870.1	1895.9
17.5°	1579.5	1594.8	1603.4	1634.0	1679.9	1745.8	1821.4	1888.3	1895.9	1956.2	1988.7
20°	1660.7	1678.9	1681.8	1706.6	1751.6	1822.3	1912.2	1995.4	2004.9	2073.8	2110.1
22.5°	1829.0	1854.8	1831.9	1844.3	1884.5	1955.2	2052.7	2157.9	2171.3	2249.7	2282.2
25°	2125.4	2161.7	2102.4	2081.4	2098.6	2172.2	2294.6	2427.5	2442.8	2505.9	2522.2
27.5°	2707.7	2660.8	2570.9	2483.0	2431.3	2473.4	2611.1	2775.5	2794.7	2855.8	2836.7
30°	3347.3	3306.2	3184.7	2989.7	2867.3	2860.6	2987.8	3171.4	3193.3	3251.7	3193.3
32.5°	3987.9	3948.7	3816.7	3576.7	3364.5	3259.3	3347.3	3550.9	3562.4	3599.7	3513.6
35°	4617.9	4577.8	4445.8	4200.1	3939.1	3700.1	3682.9	3912.3	3916.2	3955.4	3827.2
37.5°	5251.8	5218.3	5077.8	4836.9	4579.7	4249.8	4090.2	4254.6	4259.4	4297.6	4164.7
40°	5704.0	5718.4	5621.8	5435.4	5214.5	4854.1	4547.2	4618.9	4590.2	4654.3	4574.9
42.5°	6092.2	6120.9	6036.8	5943.1	5814.9	5497.5	5113.2	5100.7	5054.9	5089.3	5007.1
45°	6427.8	6451.7	6376.2	6354.2	6351.3	6128.5	5731.8	5657.2	5593.1	5586.4	5488.0
47.5°	6551.1	6597.0	6629.5	6703.2	6846.6	6752.9	6371.4	6255.7	6184.0	6131.4	5975.6
50°	6598.0	6646.7	6757.7	6971.8	7311.2	7351.4	7008.2	6878.1	6790.2	6694.6	6465.1
52.5°	6534.9	6621.9	6771.0	7131.5	7623.9	7831.3	7619.1	7505.3	7404.9	7249.1	6908.7
55°	6163.0	6250.0	6555.0	7129.6	7779.7	8167.9	8196.6	8145.9	8033.1	7787.4	7267.3
57.5°	5379.0	5508.0	5990.9	6886.7	7776.8	8457.6	8762.6	8798.9	8672.7	8320.9	7549.3
60°	4292.9	4467.8	5056.8	6348.4	7536.9	8614.4	9258.8	9440.4	9306.6	8846.7	7777.8
62.5°	2995.4	3198.1	3755.5	5505.2	6988.1	8501.6	9621.1	9956.7	9855.4	9317.1	7865.8
65°	1827.1	1892.1	2341.5	4332.1	6054.9	8029.3	9733.0	10235.9	10202.5	9604.9	7735.7
67.5°	1217.1	1271.6	1400.7	2970.6	4700.1	7085.6	9465.3	10187.2	10196.7	9558.0	7259.6
70°	733.3	780.2	864.3	1727.7	3046.1	5608.4	8636.4	9565.7	9621.1	8931.8	6357.1
72.5°	302.1	333.7	410.2	783.0	1577.6	3559.5	6877.2	8212.8	8341.9	7510.1	4878.9
75°	171.1	187.4	240.9	393.0	684.6	1658.8	4165.7	5830.2	6020.5	5176.3	2935.2
77.5°	113.8	121.4	155.8	254.3	385.3	566.0	1780.2	3037.5	3400.8	2827.2	1270.6
80°	76.5	83.2	107.1	170.2	250.5	242.8	567.0	1125.3	1384.4	971.4	309.8
82.5°	51.6	52.6	76.5	111.9	158.7	117.6	167.3	349.9	439.8	281.1	117.6
85°	29.6	28.7	56.4	65.0	70.8	48.8	50.7	105.2	137.7	118.6	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°	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8	1658.8
2.5°	1660.7	1659.8	1656.9	1654.0	1647.3	1643.5	1645.4	1643.5	1642.6	1643.5	1647.3
5°	1673.2	1670.3	1662.6	1653.1	1639.7	1623.4	1612.9	1597.6	1583.3	1574.7	1576.6
7.5°	1706.6	1703.8	1693.2	1666.5	1623.4	1555.6	1493.4	1438.9	1397.8	1373.9	1374.9
10°	1760.2	1755.4	1739.1	1679.9	1567.0	1418.8	1295.5	1193.2	1126.3	1094.7	1091.9
12.5°	1823.3	1817.5	1788.8	1667.4	1460.0	1228.6	1058.4	944.6	882.5	854.7	851.9
15°	1897.8	1890.2	1833.8	1608.1	1304.1	1018.2	862.4	777.3	737.1	712.3	713.2
17.5°	1990.6	1977.2	1867.2	1519.2	1134.9	857.6	741.9	677.9	642.5	618.6	616.7
20°	2111.0	2089.1	1894.0	1413.1	979.0	756.3	660.7	607.1	580.3	559.3	555.5
22.5°	2279.3	2247.8	1926.5	1298.4	869.1	686.5	600.4	561.2	539.2	515.3	511.5
25°	2487.7	2450.5	1966.7	1192.2	793.6	626.2	556.4	523.9	498.1	470.4	467.5
27.5°	2779.4	2712.4	2014.5	1105.2	728.5	574.6	516.3	480.0	450.3	427.4	422.6
30°	3104.4	2994.5	2056.6	1052.7	669.3	526.8	463.7	427.4	399.6	383.4	380.5
32.5°	3412.3	3263.1	2084.3	1029.7	615.7	472.3	406.3	367.1	346.1	341.3	344.2
35°	3702.9	3506.0	2081.4	1007.7	567.9	417.8	349.9	309.8	293.5	296.4	296.4
37.5°	4037.6	3765.1	2061.3	973.3	528.7	368.1	301.2	265.8	251.5	252.4	256.2
40°	4426.7	4064.3	2048.9	908.3	485.7	322.2	261.0	232.3	221.8	218.0	217.0
42.5°	4841.6	4354.0	2050.8	834.7	432.2	281.1	233.3	209.4	199.8	197.0	196.0
45°	5258.5	4630.4	2053.7	758.2	375.7	249.5	213.2	193.1	187.4	183.6	183.6
47.5°	5650.5	4865.5	2000.1	676.0	320.3	225.6	197.0	183.6	178.8	174.0	174.0
50°	6015.7	5022.3	1871.1	580.3	276.3	206.5	184.5	175.0	170.2	165.4	165.4
52.5°	6299.7	5047.2	1657.9	481.9	245.7	192.2	176.9	168.3	162.5	157.8	156.8
55°	6425.9	4891.4	1354.8	390.1	221.8	179.7	169.2	160.6	153.9	149.2	148.2
57.5°	6393.4	4563.4	1056.5	313.6	198.9	167.3	159.7	153.9	146.3	138.6	137.7
60°	6233.7	4124.6	796.4	261.0	177.8	153.9	149.2	144.4	133.9	122.4	120.5
62.5°	5957.4	3572.9	567.9	216.1	154.9	138.6	136.7	132.9	117.6	96.6	94.7
65°	5534.8	2902.7	382.4	179.7	132.9	121.4	122.4	115.7	95.6	71.7	69.8
67.5°	4917.2	2122.5	244.8	147.2	110.9	101.3	102.3	98.5	81.3	61.2	58.3
70°	4130.3	1405.5	159.7	111.9	88.9	78.4	84.1	85.1	68.8	49.7	47.8
72.5°	3027.9	829.9	111.9	83.2	65.0	54.5	68.8	70.8	55.5	37.3	35.4
75°	1725.7	393.9	84.1	60.2	40.2	38.2	53.5	53.5	38.2	24.9	22.9
77.5°	724.7	164.4	59.3	39.2	22.9	22.0	36.3	33.5	19.1	11.5	11.5
80°	209.4	73.6	31.6	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°	48.8	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)