

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: P963451

Luminaire Tested: **NAV-SB3A-727-U-T2-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P963451  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3A-727-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9343.9 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

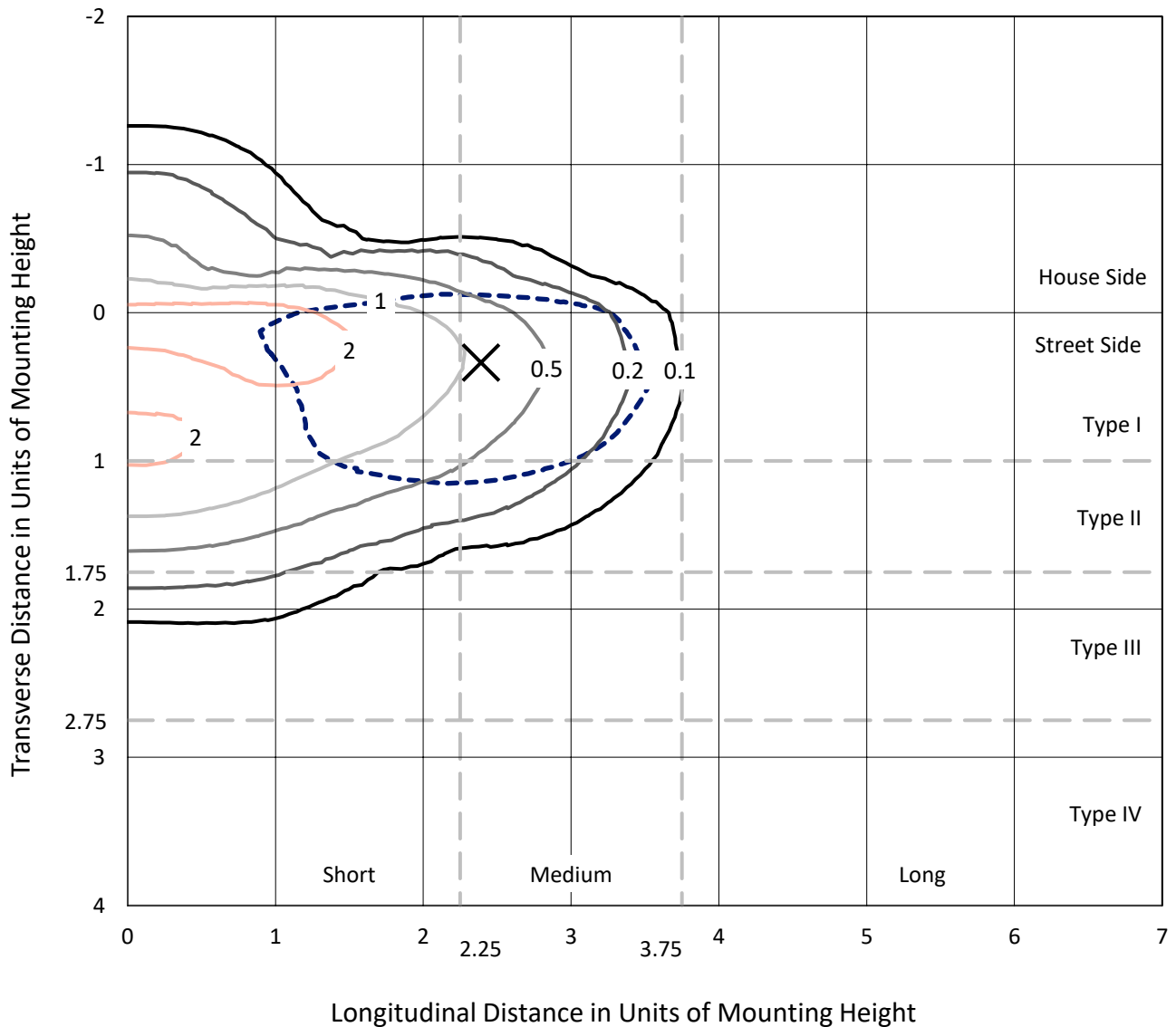
Input Watts (W): 84.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

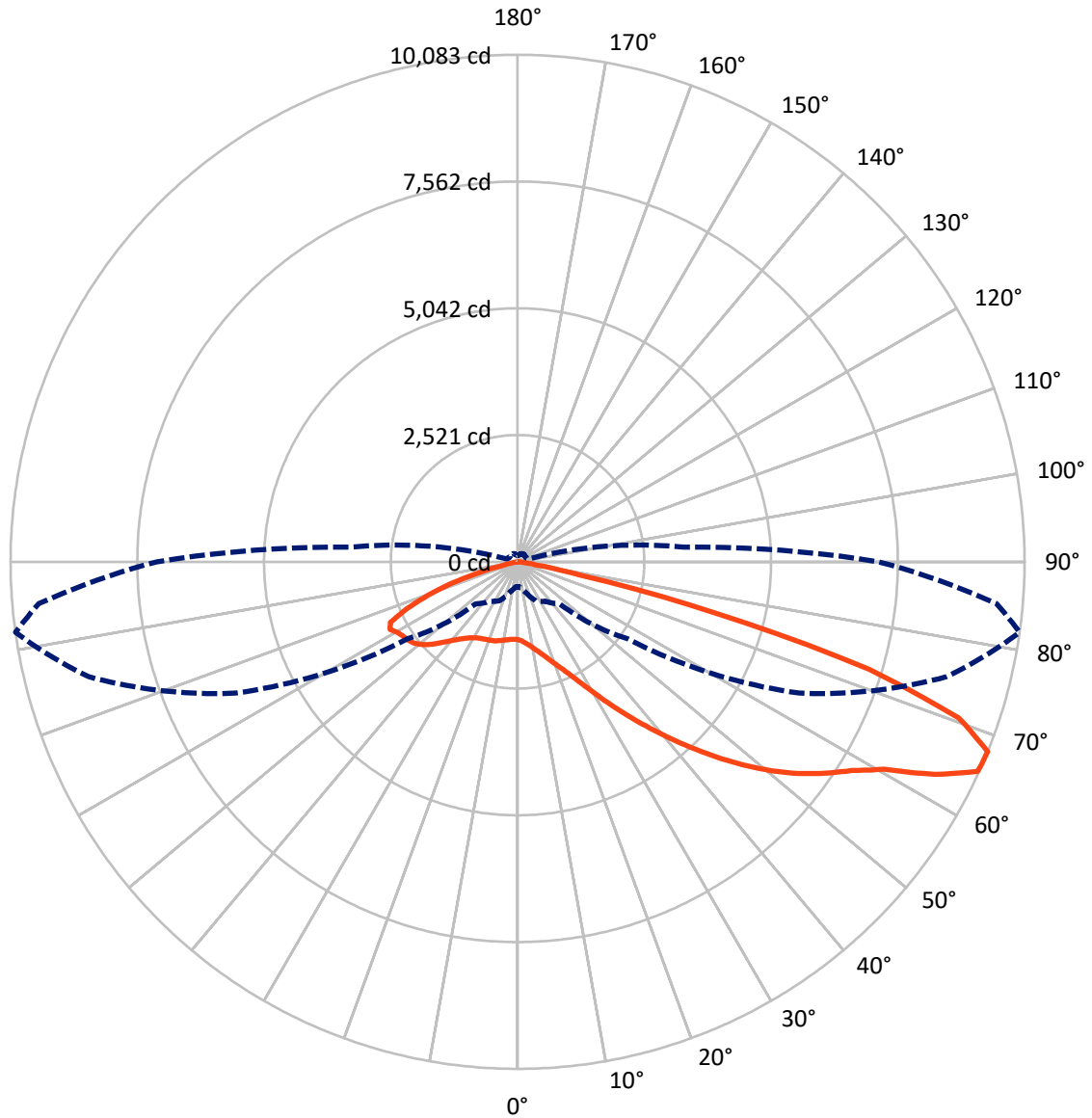
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc  
 Type II - Medium - N/A

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CATALOG NUMBER: NAV-SB3A-727-U-T2-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1692.6	0.0	1692.6
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	7651.3	0.0	7651.3
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	9343.9	0.0	9343.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.9	1.5
10°-20°	358.4	3.8
20°-30°	574.0	6.1
30°-40°	1015.0	10.9
40°-50°	1778.4	19.0
50°-60°	2371.9	25.4
60°-70°	2208.1	23.6
70°-80°	847.5	9.1
80°-90°	52.6	0.6
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°	9343.9	100.0
0°-180°	9343.9	100.0

**Coefficient of Utilization**



REPORT NUMBER: P963451

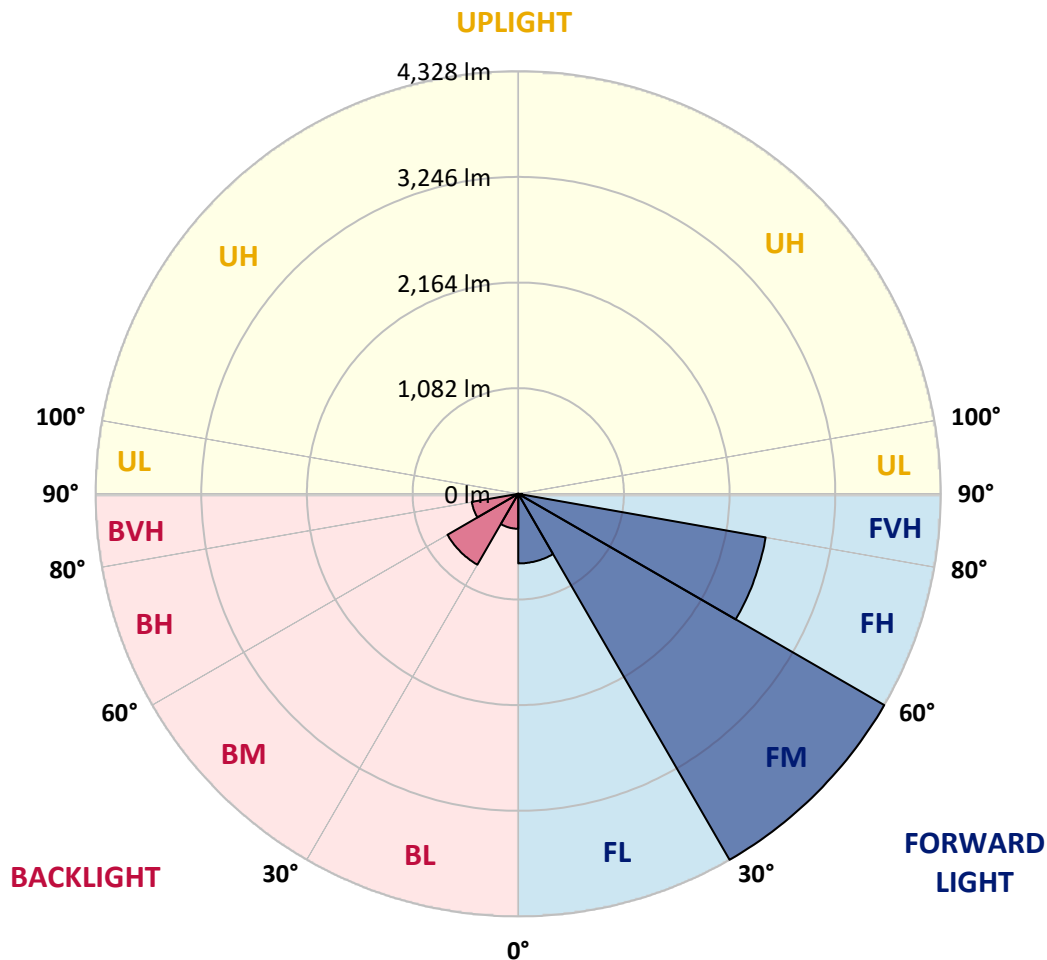
CATALOG NUMBER: NAV-SB3A-727-U-T2-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	712.8	7.6			
FM (30°-60°)	4327.7	46.3			
FH (60°-80°)	2572.5	27.5			G2/5000
FVH (80°-90°)	38.3	0.4			G1/100
BL (0°-30°)	357.5	3.8	B1/500		
BM (30°-60°)	837.6	9.0	B1/1000		
BH (60°-80°)	483.1	5.2	B1/500		G1/500
BVH (80°-90°)	14.4	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0
2.5°	1636.1	1645.5	1640.1	1637.4	1632.7	1626.0	1620.6	1603.8	1586.3	1574.9	1570.8
5°	1669.1	1678.4	1677.8	1680.5	1683.9	1685.9	1684.5	1665.7	1640.8	1621.3	1609.9
7.5°	1640.8	1651.6	1660.3	1673.7	1697.3	1722.2	1734.3	1730.3	1704.7	1677.8	1663.7
10°	1560.8	1572.1	1593.1	1624.6	1674.4	1728.3	1773.4	1794.2	1778.1	1748.4	1729.0
12.5°	1414.1	1425.6	1466.6	1535.1	1618.6	1712.2	1798.3	1854.0	1858.1	1828.5	1805.6
15°	1249.3	1260.8	1304.4	1390.5	1517.7	1667.7	1811.7	1917.3	1952.9	1927.4	1899.8
17.5°	1147.0	1157.1	1190.0	1259.3	1391.8	1578.9	1807.0	1984.6	2066.0	2045.8	2012.8
20°	1116.0	1124.8	1140.3	1188.7	1299.1	1486.8	1776.0	2047.8	2187.8	2176.3	2139.3
22.5°	1149.0	1157.1	1161.8	1183.4	1252.7	1426.2	1737.0	2112.4	2329.0	2330.3	2285.2
25°	1225.1	1233.2	1227.7	1241.2	1271.5	1407.3	1722.2	2188.4	2506.6	2521.4	2470.2
27.5°	1350.2	1350.8	1338.0	1337.4	1342.1	1435.6	1737.7	2269.9	2730.6	2758.2	2695.0
30°	1601.2	1591.0	1541.9	1488.8	1464.5	1520.4	1780.7	2366.0	2995.0	3044.1	2964.7
32.5°	1988.0	1973.1	1883.0	1755.8	1628.0	1656.9	1858.1	2475.7	3283.0	3371.7	3274.9
35°	2407.7	2403.7	2309.5	2120.4	1897.1	1851.4	1983.9	2619.6	3597.1	3738.4	3623.4
37.5°	2797.9	2795.9	2742.1	2519.4	2247.6	2122.5	2185.7	2808.0	3933.5	4138.0	4002.1
40°	3154.4	3160.5	3106.7	2907.6	2633.7	2470.2	2460.2	3040.8	4307.6	4573.2	4411.8
42.5°	3462.6	3469.3	3414.8	3267.5	3015.2	2855.1	2797.2	3326.0	4672.9	5040.8	4849.8
45°	3671.8	3713.5	3705.5	3587.7	3406.7	3240.5	3202.2	3684.0	5089.2	5536.6	5312.6
47.5°	3731.0	3769.3	3829.9	3846.0	3735.7	3572.2	3617.9	4115.2	5510.4	6033.2	5778.1
50°	3585.0	3620.7	3746.5	3914.0	3990.6	3940.2	4022.3	4577.3	5941.6	6528.2	6235.0
52.5°	3297.1	3333.4	3492.2	3757.2	4070.1	4228.8	4428.0	5032.8	6359.4	6997.2	6667.5
55°	2880.7	2919.0	3122.9	3422.9	3918.7	4347.9	4766.4	5487.5	6742.1	7418.9	7057.6
57.5°	2314.2	2342.4	2554.4	2974.1	3537.9	4229.5	5015.9	5984.0	7102.7	7833.4	7444.5
60°	1508.3	1533.2	1779.4	2247.6	2906.9	3833.9	5065.8	6537.7	7581.7	8372.2	7965.9
62.5°	1003.1	1019.9	1165.8	1509.6	2047.1	3074.4	4774.4	6979.6	8284.0	9310.0	8860.0
65°	688.2	705.0	851.1	1090.5	1322.6	2033.7	3936.8	6921.1	8920.5	10054.7	9522.6
67.5°	491.1	505.2	629.0	855.1	957.4	1181.3	2668.8	6173.1	8829.0	10083.0	9558.2
70°	351.9	359.9	462.2	666.0	760.9	709.7	1484.1	4721.3	7730.4	9310.7	8830.4
72.5°	246.2	248.9	320.9	507.3	612.8	518.0	706.3	3147.8	5846.8	7307.9	6845.8
75°	166.9	170.3	216.0	372.0	491.8	395.5	374.0	1687.9	3432.3	4045.2	3626.0
77.5°	102.3	103.6	139.3	254.3	368.0	301.3	240.9	715.1	1328.0	1303.8	1111.4
80°	57.8	57.8	88.8	158.1	250.9	194.4	168.8	304.1	420.5	369.3	325.6
82.5°	32.3	33.0	64.6	98.2	166.2	115.0	92.9	140.6	181.6	160.8	139.9
85°	13.4	14.8	39.7	46.4	79.3	57.2	37.7	59.2	67.2	59.9	43.8
87.5°	1.3	2.0	12.1	8.7	9.4	11.5	5.4	11.5	9.4	9.4	6.8
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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 CATALOG NUMBER: NAV-SB3A-727-U-T2-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0	1548.0
2.5°	1558.1	1548.0	1522.4	1492.8	1453.8	1434.9	1409.4	1391.8	1377.1	1378.4	1365.0
5°	1588.3	1562.8	1505.6	1434.3	1345.5	1282.3	1214.9	1168.5	1130.9	1122.8	1104.6
7.5°	1630.1	1589.7	1489.4	1361.0	1210.9	1097.3	995.7	930.4	884.0	869.2	854.3
10°	1683.9	1625.3	1468.6	1268.7	1052.9	908.2	799.2	748.0	716.5	705.7	697.6
12.5°	1746.4	1666.3	1441.0	1156.4	890.0	750.8	681.5	655.9	645.9	642.5	640.4
15°	1825.1	1717.5	1399.3	1023.3	752.1	654.6	624.9	621.6	623.0	621.6	620.9
17.5°	1918.6	1773.4	1331.4	886.0	659.3	605.5	594.7	597.4	600.8	600.0	598.7
20°	2020.9	1828.5	1244.6	764.2	596.0	570.5	564.5	567.1	569.8	568.5	567.7
22.5°	2137.3	1887.7	1148.4	669.3	553.7	538.2	531.5	532.2	532.2	529.4	528.1
25°	2276.5	1952.9	1047.4	602.1	521.4	509.2	501.2	498.5	494.5	486.4	485.0
27.5°	2442.7	2022.2	950.6	555.0	495.8	484.4	475.0	468.2	458.2	444.6	443.3
30°	2629.7	2106.4	868.5	525.4	475.6	464.2	453.5	443.3	428.6	411.7	410.4
32.5°	2849.7	2196.5	808.6	505.9	457.5	445.4	432.6	420.5	404.4	387.4	388.2
35°	3112.1	2305.4	773.7	492.4	443.3	427.2	413.1	399.6	387.4	372.7	371.4
37.5°	3396.6	2421.2	762.9	485.7	433.9	409.0	392.9	383.5	382.1	373.4	372.7
40°	3708.1	2558.4	771.0	481.6	423.8	391.5	374.0	372.0	375.4	359.9	360.6
42.5°	4037.8	2721.3	784.4	476.9	409.7	374.0	357.2	357.2	354.5	333.0	333.0
45°	4394.3	2909.0	797.9	465.6	392.9	356.6	343.8	339.1	327.6	306.8	306.1
47.5°	4753.5	3100.0	808.0	444.6	372.7	341.7	330.4	319.6	302.7	283.9	283.2
50°	5094.7	3271.5	797.1	413.7	349.8	327.6	315.5	300.7	282.6	269.8	267.7
52.5°	5399.4	3420.2	751.4	377.4	325.6	312.8	302.1	286.6	271.8	258.3	257.0
55°	5664.5	3540.7	670.8	343.1	304.1	300.0	289.3	269.8	249.6	238.1	236.8
57.5°	5918.8	3632.1	569.8	314.9	284.5	285.9	269.8	252.3	233.4	221.3	220.0
60°	6257.1	3754.6	467.5	288.6	263.7	267.7	250.3	237.5	213.9	198.4	196.4
62.5°	6798.0	3944.9	371.4	256.4	239.5	240.9	233.4	218.0	189.7	171.6	170.3
65°	7227.2	3875.0	292.6	221.3	211.9	213.9	213.9	197.1	166.9	146.0	144.0
67.5°	7178.8	3317.9	233.4	187.1	185.6	187.1	191.8	177.6	148.0	131.2	128.5
70°	6613.0	2639.2	187.1	155.4	161.4	158.1	171.6	162.2	133.2	116.3	114.4
72.5°	5396.0	1901.2	142.6	128.5	123.8	129.1	154.8	146.0	111.0	92.1	90.1
75°	3153.1	1014.4	106.3	101.6	89.5	107.6	137.2	124.4	84.8	68.0	65.9
77.5°	1026.6	353.8	78.0	74.7	66.6	86.8	117.1	105.0	69.3	53.8	51.8
80°	275.1	107.0	53.1	49.1	43.0	64.6	92.9	83.4	49.8	35.0	34.3
82.5°	110.3	45.1	31.0	27.6	23.6	44.4	73.3	67.2	37.0	22.2	22.2
85°	35.7	14.8	11.5	8.7	10.8	27.6	43.8	45.7	26.2	11.5	8.7
87.5°	4.7	2.0	2.0	2.7	2.0	4.7	13.4	12.8	7.4	1.3	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)