

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: P882720

Luminaire Tested: **NAV-SB2D-722-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882720  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2D-722-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

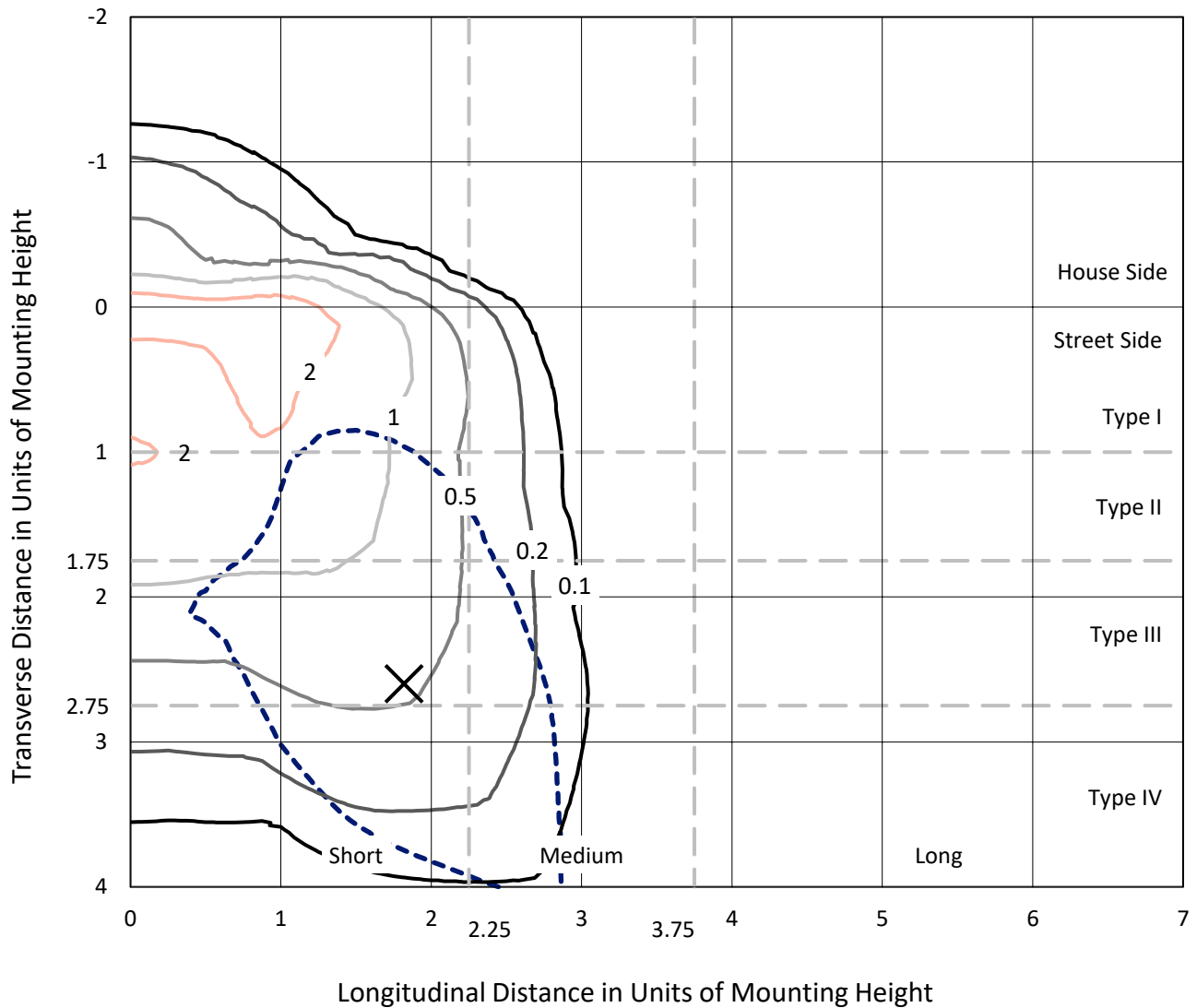
Lumens per Lamp: N/A  
Luminaire Lumens: 12513 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 1.234  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

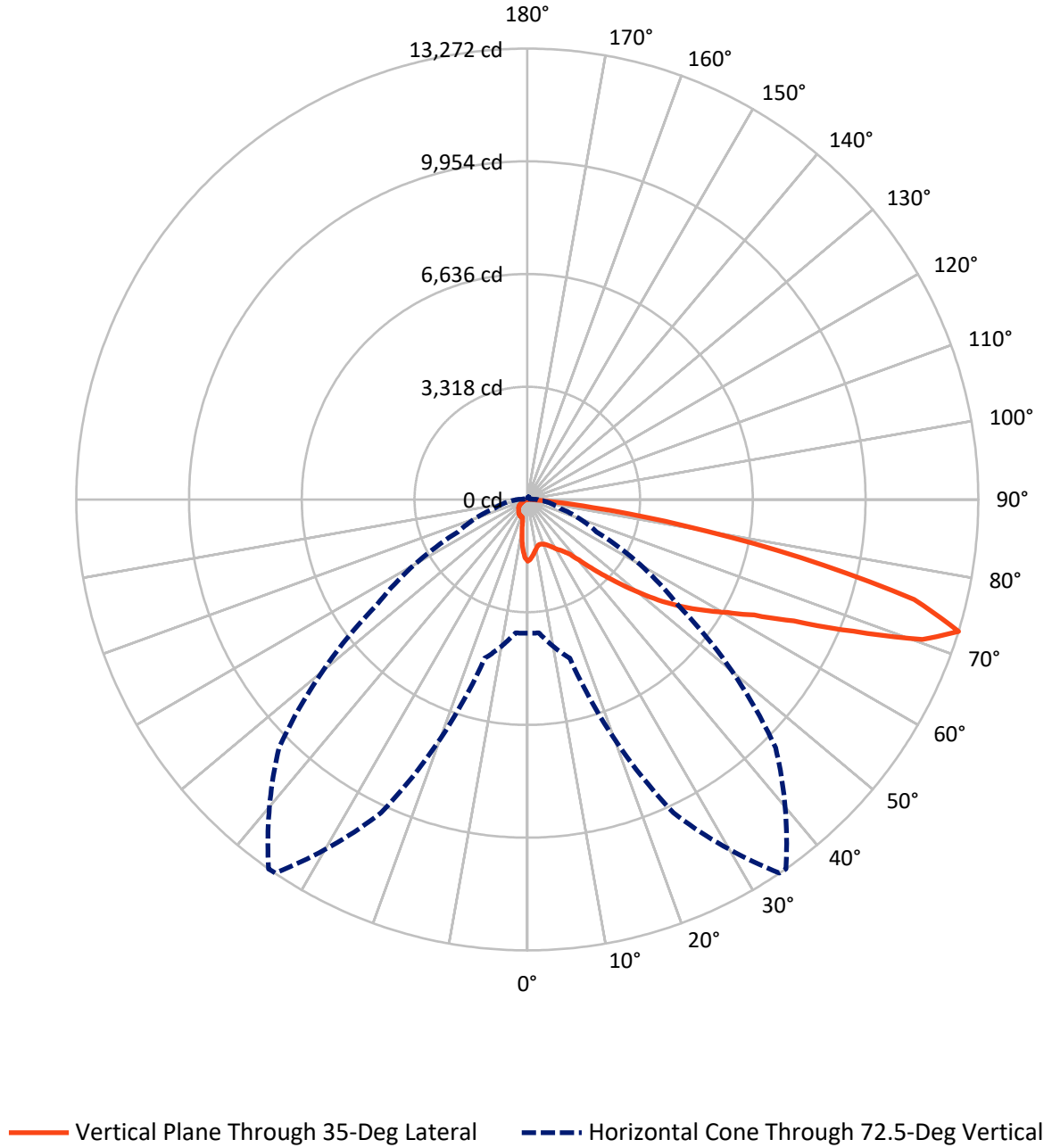
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1408.3	0.0	1408.3
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	11104.7	0.0	11104.7
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	12513.0	0.0	12513.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.0	1.2
10°-20°	348.6	2.8
20°-30°	566.3	4.5
30°-40°	944.9	7.6
40°-50°	1787.8	14.3
50°-60°	2840.8	22.7
60°-70°	3514.3	28.1
70°-80°	2184.5	17.5
80°-90°	176.5	1.4
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°	12513.0	100.0
0°-180°	12513.0	100.0



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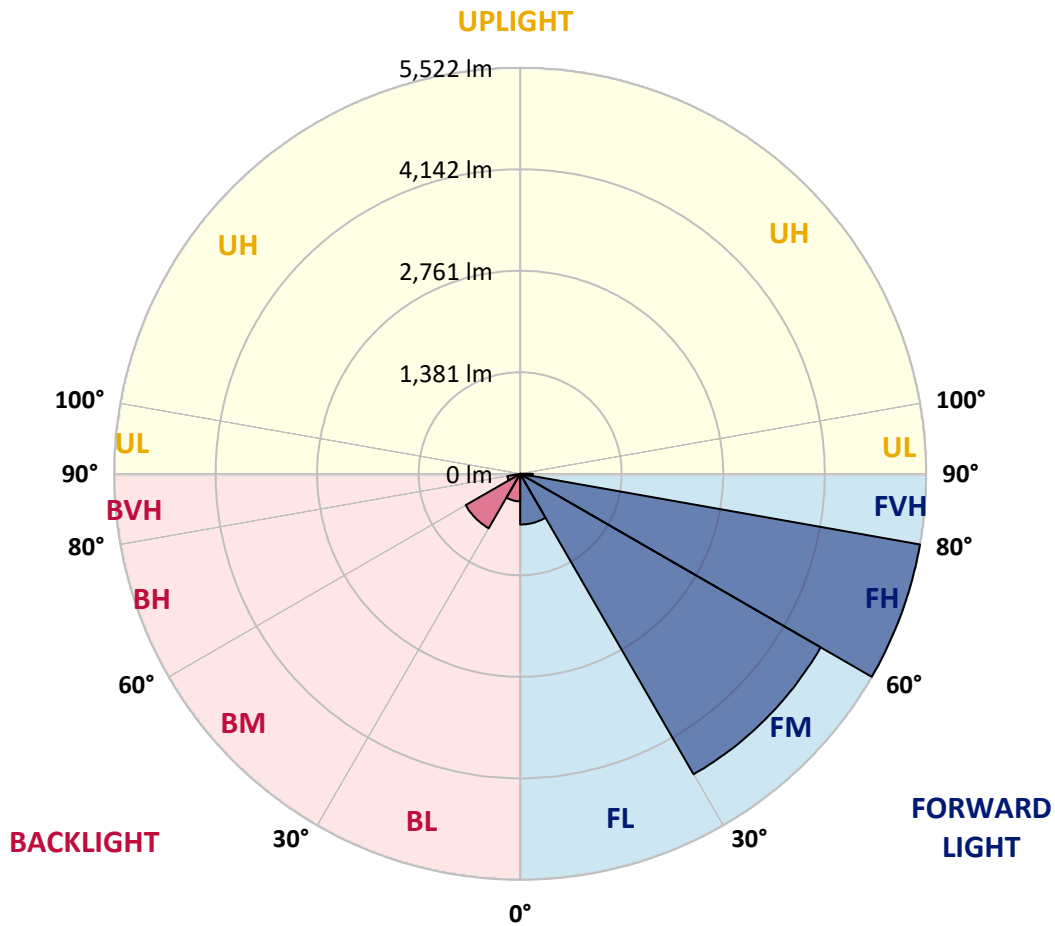
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	689.8	5.5			
FM (30°-60°)	4718.6	37.7			
FH (60°-80°)	5522.1	44.1			G3/7500
FVH (80°-90°)	174.1	1.4			G2/225
BL (0°-30°)	374.2	3.0	B1/500		
BM (30°-60°)	854.9	6.8	B1/1000		
BH (60°-80°)	176.7	1.4	B1/500		G1/500
BVH (80°-90°)	2.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6
2.5°	1732.9	1747.5	1750.3	1754.9	1754.9	1760.4	1769.5	1782.4	1803.5	1814.5	1821.8
5°	1597.2	1608.2	1621.9	1632.9	1654.0	1656.8	1692.5	1727.4	1776.0	1812.6	1838.3
7.5°	1460.6	1473.4	1491.7	1518.3	1545.8	1554.1	1608.2	1666.9	1743.9	1812.6	1855.7
10°	1364.3	1365.2	1381.7	1408.3	1452.3	1462.4	1528.4	1611.8	1708.1	1801.6	1872.2
12.5°	1310.2	1316.6	1323.9	1344.1	1386.3	1392.7	1463.3	1561.4	1672.4	1795.2	1891.5
15°	1310.2	1314.8	1319.4	1329.5	1363.4	1368.9	1431.2	1529.3	1654.0	1798.0	1922.7
17.5°	1323.9	1331.3	1327.6	1339.5	1375.3	1379.0	1434.0	1520.2	1653.1	1815.4	1970.3
20°	1357.0	1362.5	1355.1	1362.5	1398.2	1405.5	1462.4	1537.6	1668.7	1845.6	2029.9
22.5°	1409.2	1412.0	1394.5	1400.0	1436.7	1445.9	1511.9	1587.1	1706.3	1894.2	2109.7
25°	1475.2	1480.7	1454.1	1460.6	1495.4	1506.4	1582.5	1661.4	1765.9	1961.2	2211.5
27.5°	1551.3	1554.1	1531.2	1530.2	1575.2	1590.8	1667.8	1753.0	1845.6	2045.5	2339.8
30°	1638.4	1646.7	1624.7	1621.0	1677.9	1690.7	1766.8	1865.8	1963.0	2172.0	2522.3
32.5°	1707.2	1713.6	1700.8	1709.9	1767.7	1777.8	1886.9	2025.3	2147.3	2351.8	2770.8
35°	1806.2	1809.9	1780.5	1797.0	1863.1	1888.7	2051.0	2249.1	2379.3	2577.3	3095.3
37.5°	2164.7	2164.7	2040.0	1958.4	2021.7	2044.6	2275.7	2530.5	2665.3	2879.9	3504.2
40°	2660.7	2652.5	2470.0	2303.2	2294.9	2339.8	2595.6	2885.4	3034.8	3242.9	3964.5
42.5°	3189.8	3176.9	2928.5	2763.4	2735.9	2751.5	2965.1	3322.7	3474.9	3685.8	4459.6
45°	3659.2	3655.5	3428.1	3206.3	3156.8	3206.3	3426.3	3834.3	3943.4	4165.3	4953.8
47.5°	4052.5	4052.5	3886.6	3741.7	3716.0	3745.4	4050.7	4401.9	4391.8	4676.0	5435.2
50°	4505.5	4501.8	4344.1	4281.7	4308.3	4349.6	4769.5	4999.6	4855.7	5177.5	5865.2
52.5°	4822.7	4844.7	4790.6	4780.5	4916.2	4987.7	5499.3	5584.6	5271.0	5653.4	6187.0
55°	5073.9	5099.6	5161.9	5232.5	5493.8	5587.4	6206.2	6139.3	5618.5	6066.0	6372.2
57.5°	5429.7	5393.0	5489.3	5628.6	6051.3	6164.1	6891.1	6662.8	5898.2	6400.6	6392.4
60°	5861.5	5867.0	5883.5	6059.5	6607.8	6752.7	7565.9	7157.9	6077.9	6606.0	6168.6
62.5°	6380.4	6388.7	6422.6	6693.1	7355.1	7491.7	8284.8	7563.2	6160.4	6548.2	5591.0
65°	6344.7	6379.5	6758.2	7683.3	8491.1	8625.8	9123.7	7847.4	6035.7	6020.1	4552.2
67.5°	5779.9	5836.7	6470.3	8866.1	10203.8	10354.1	10137.7	7903.4	5497.5	4681.5	2969.7
70°	5039.1	5059.2	5821.2	9929.6	12186.9	12339.1	11045.4	7288.1	4171.7	2611.2	1330.4
72.5°	3935.2	3939.8	4833.7	10176.3	13263.3	13271.6	10333.0	5410.4	2243.6	1003.0	462.1
75°	2811.1	2783.6	3237.4	8252.7	11668.9	11762.4	7746.6	2537.9	857.3	474.0	230.1
77.5°	1507.3	1537.6	1831.9	4894.2	8061.1	8220.6	4226.7	731.7	436.4	322.7	152.2
80°	465.8	491.4	750.9	2240.8	4566.0	4662.2	1566.9	325.5	304.4	230.1	99.9
82.5°	146.7	152.2	350.2	941.6	1895.2	1939.2	453.8	184.3	208.1	152.2	58.7
85°	42.2	43.1	155.9	351.2	468.5	477.7	127.4	71.5	119.2	94.4	30.3
87.5°	4.6	14.7	58.7	58.7	41.3	40.3	13.8	15.6	33.9	11.9	5.5
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°	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6	1813.6
2.5°	1817.2	1818.1	1806.2	1786.0	1764.0	1745.7	1722.8	1704.4	1691.6	1687.9	1694.4
5°	1830.1	1823.6	1789.7	1728.3	1654.9	1591.7	1521.1	1465.1	1428.5	1412.9	1418.4
7.5°	1849.3	1831.0	1756.7	1635.7	1495.4	1370.7	1244.2	1146.1	1083.7	1052.6	1057.1
10°	1865.8	1829.1	1701.7	1501.8	1287.3	1098.4	927.9	809.6	743.6	712.4	713.3
12.5°	1881.4	1828.2	1630.2	1343.2	1052.6	821.5	662.9	604.2	585.9	579.5	577.6
15°	1910.7	1831.0	1540.3	1161.7	818.8	620.7	563.0	562.0	565.7	563.9	563.0
17.5°	1951.1	1833.7	1438.6	969.1	631.7	547.4	544.6	552.9	558.4	555.6	554.7
20°	2003.3	1844.7	1330.4	778.4	542.8	529.0	535.4	542.8	547.4	542.8	541.9
22.5°	2076.7	1864.0	1212.1	625.3	514.4	518.0	523.5	531.8	536.4	529.9	529.0
25°	2166.5	1894.2	1095.7	543.7	500.6	505.2	513.4	522.6	528.1	521.7	520.8
27.5°	2283.0	1942.8	988.4	525.4	486.9	489.6	501.5	515.3	522.6	514.4	514.4
30°	2451.7	2022.6	895.8	533.6	478.6	472.2	488.7	507.9	516.2	508.9	507.9
32.5°	2675.4	2135.4	838.9	546.4	474.9	452.0	467.6	492.4	506.1	501.5	501.5
35°	2968.8	2306.8	816.9	561.1	472.2	430.9	441.9	468.5	492.4	496.9	496.9
37.5°	3324.5	2545.2	823.3	567.5	463.9	413.5	419.0	441.9	473.1	487.8	491.4
40°	3728.9	2823.0	860.0	561.1	454.8	398.8	399.8	417.2	444.7	466.7	474.0
42.5°	4146.1	3147.6	927.9	537.3	446.5	386.0	383.2	395.2	413.5	429.1	435.5
45°	4543.1	3481.3	994.8	504.3	436.4	373.2	366.7	371.3	375.0	381.4	385.1
47.5°	4889.6	3716.0	975.5	474.0	422.7	358.5	347.5	345.7	334.7	333.7	332.8
50°	5128.9	3767.4	866.4	443.8	402.5	342.0	324.6	313.6	294.3	285.1	286.1
52.5°	5205.0	3564.8	707.8	413.5	369.5	320.0	295.2	277.8	254.0	245.7	244.8
55°	5104.2	3167.8	565.7	376.8	323.7	290.6	263.1	240.2	221.0	210.9	210.9
57.5°	4857.5	2662.6	447.4	333.7	275.1	257.6	230.1	207.2	190.7	180.6	178.8
60°	4448.6	2114.3	353.9	282.4	234.7	221.9	193.5	178.8	164.1	152.2	149.4
62.5°	3827.9	1509.2	277.8	223.7	196.2	181.5	165.0	154.0	136.6	120.1	117.4
65°	2987.1	923.3	214.5	164.1	157.7	150.4	140.3	130.2	109.1	92.6	89.9
67.5°	1884.2	437.3	153.1	123.8	124.7	121.0	116.4	108.2	92.6	77.9	76.1
70°	829.8	211.8	100.9	94.4	92.6	92.6	96.3	93.5	78.9	65.1	62.3
72.5°	282.4	113.7	75.2	71.5	66.9	66.0	80.7	77.9	63.3	50.4	47.7
75°	147.6	76.1	55.0	51.3	40.3	48.6	64.2	60.5	44.9	33.0	30.3
77.5°	96.3	54.1	37.6	33.0	22.9	32.1	47.7	42.2	26.6	16.5	14.7
80°	60.5	35.8	22.0	15.6	11.0	17.4	25.7	18.3	10.1	3.7	2.8
82.5°	32.1	18.3	8.3	5.5	4.6	5.5	6.4	4.6	1.8	0.0	0.0
85°	12.8	6.4	2.8	1.8	0.9	0.0	1.8	0.9	0.0	0.0	0.0
87.5°	4.6	0.9	0.0	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)