

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: P883569

Luminaire Tested: **NAV-SB4A-722-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883569  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-722-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14496 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

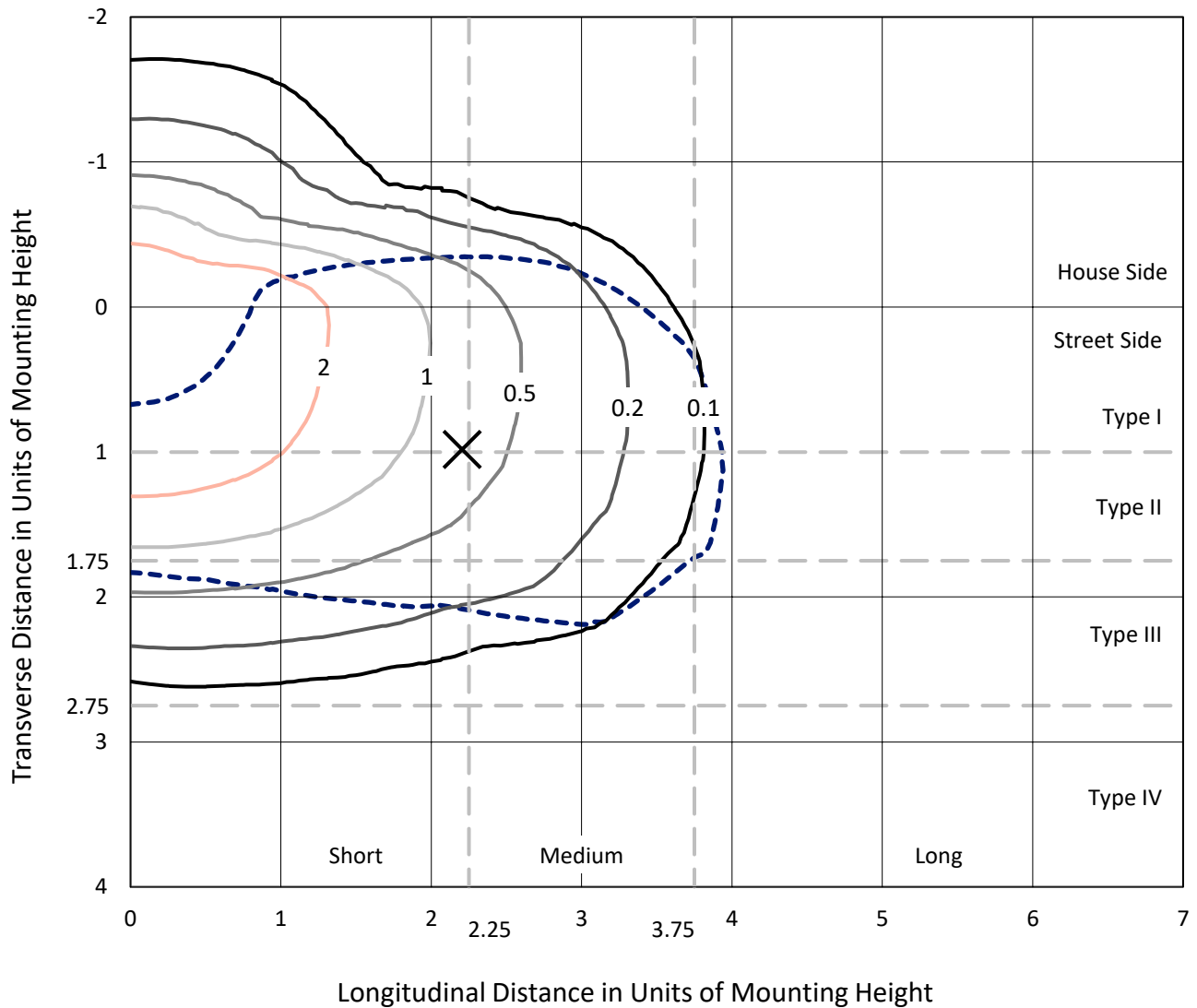
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.206  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

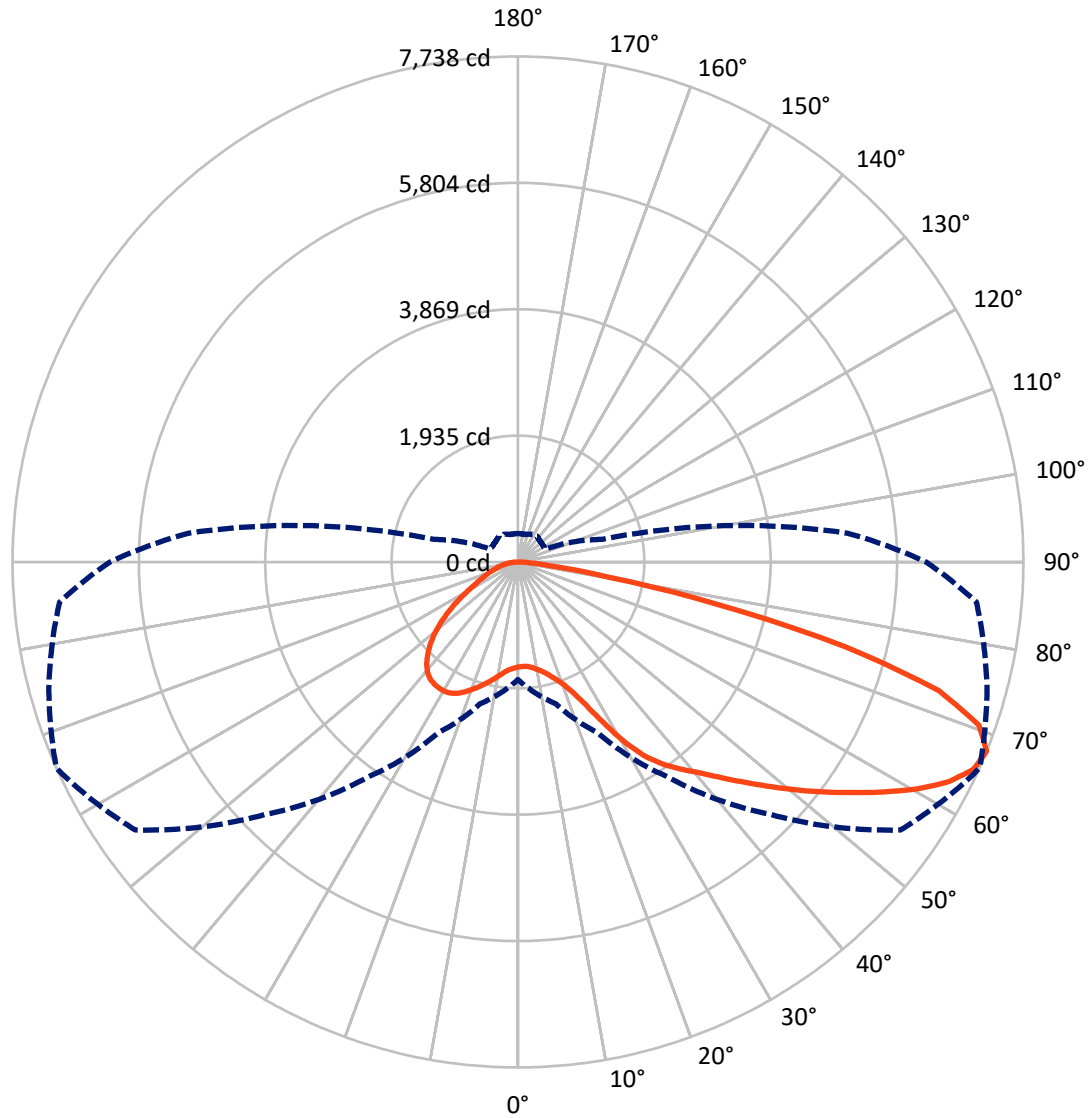
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3604.4	0.0	3604.4
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	10891.6	0.0	10891.6
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	14496.0	0.0	14496.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.4	1.1
10°-20°	526.7	3.6
20°-30°	1015.1	7.0
30°-40°	1779.9	12.3
40°-50°	2646.1	18.3
50°-60°	3354.1	23.1
60°-70°	3281.9	22.6
70°-80°	1565.5	10.8
80°-90°	167.3	1.2
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°	14496.0	100.0
0°-180°	14496.0	100.0

**Coefficient of Utilization**



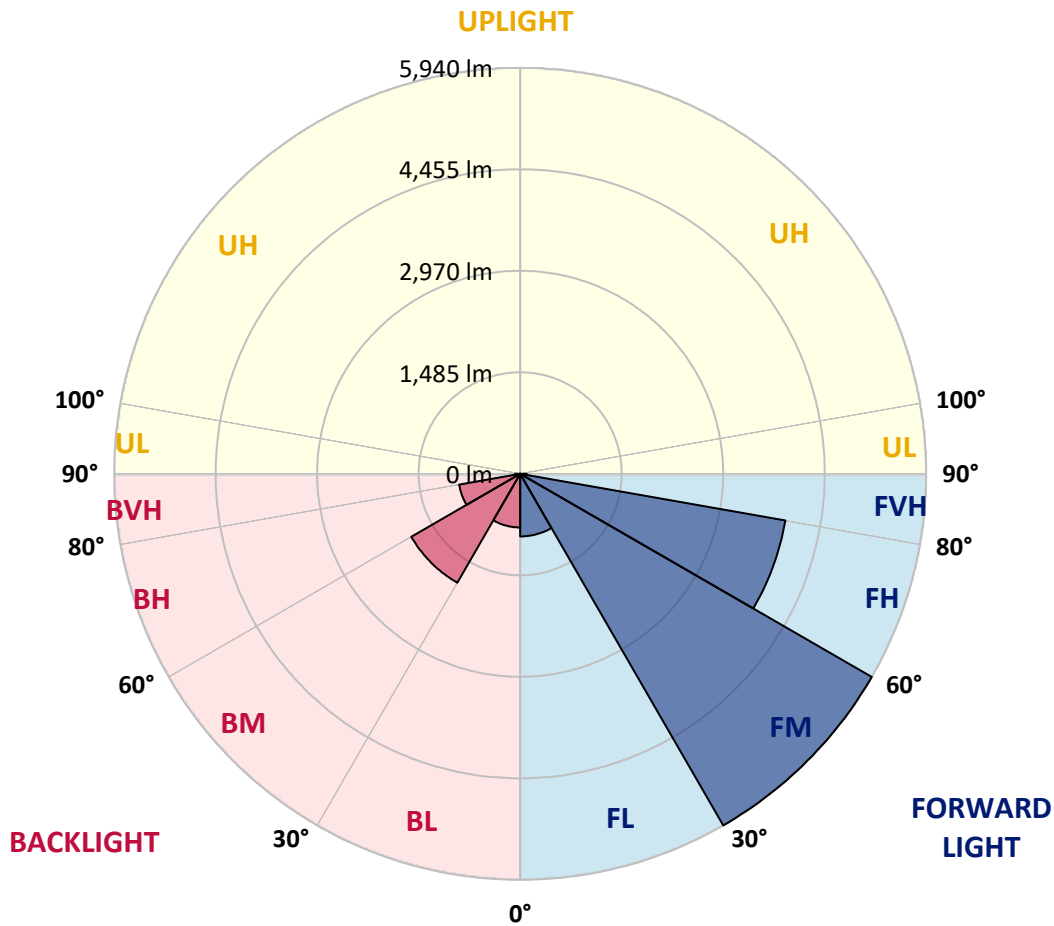
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	916.0	6.3			
FM (30°-60°)	5940.3	41.0			
FH (60°-80°)	3940.4	27.2			G2/5000
FVH (80°-90°)	94.9	0.7			G1/100
BL (0°-30°)	785.2	5.4	B2/1000		
BM (30°-60°)	1839.7	12.7	B2/2500		
BH (60°-80°)	907.0	6.3	B2/1000		G2/1000
BVH (80°-90°)	72.5	0.5			G1/100
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°	65°	66°	75°	85°
0°	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8
2.5°	1591.0	1600.2	1597.9	1594.1	1593.3	1594.9	1597.1	1599.4	1598.7	1602.5	1608.6
5°	1586.5	1595.6	1594.9	1594.9	1597.9	1604.0	1607.8	1611.6	1607.8	1612.4	1620.7
7.5°	1589.5	1596.4	1599.4	1602.5	1610.1	1621.5	1630.6	1639.0	1634.5	1639.8	1650.4
10°	1628.4	1633.7	1636.7	1636.7	1642.1	1655.0	1664.2	1679.4	1675.6	1684.0	1697.7
12.5°	1699.2	1704.5	1704.5	1701.5	1705.3	1713.7	1716.7	1733.5	1726.6	1740.3	1754.0
15°	1786.0	1796.7	1788.3	1783.0	1784.5	1792.9	1792.1	1805.1	1798.2	1809.6	1821.8
17.5°	1882.0	1895.7	1882.0	1881.2	1878.2	1887.3	1888.1	1899.5	1887.3	1895.7	1904.1
20°	1995.5	2014.5	2003.1	2006.9	2000.0	2003.8	2007.7	2024.4	2005.4	2011.5	2009.2
22.5°	2155.4	2178.3	2166.1	2180.5	2176.0	2172.9	2172.2	2201.9	2172.2	2174.4	2152.4
25°	2388.5	2415.9	2394.6	2414.4	2414.4	2424.3	2435.7	2473.8	2424.3	2409.8	2352.7
27.5°	2732.7	2760.1	2718.3	2730.4	2726.6	2751.0	2738.8	2833.3	2779.9	2756.3	2641.3
30°	3147.0	3195.8	3116.6	3113.5	3109.7	3148.6	3166.1	3228.5	3174.5	3150.9	3012.2
32.5°	3594.9	3645.9	3551.5	3524.1	3509.6	3533.2	3518.7	3569.0	3531.7	3495.1	3323.7
35°	4068.6	4118.9	4029.0	3975.7	3917.8	3868.3	3816.5	3829.5	3794.4	3738.8	3561.4
37.5°	4516.5	4608.6	4513.4	4456.3	4349.7	4252.9	4108.2	4048.1	4015.3	3964.3	3785.3
40°	4972.7	5025.2	4952.9	4904.1	4788.4	4636.8	4405.3	4278.1	4233.9	4184.4	4032.8
42.5°	5308.6	5358.8	5320.0	5286.5	5195.8	5019.9	4720.6	4561.4	4497.4	4441.8	4313.1
45°	5575.1	5612.4	5588.1	5600.3	5561.4	5390.8	5047.3	4865.3	4799.0	4731.2	4629.9
47.5°	5682.5	5722.1	5761.0	5833.3	5899.6	5773.9	5398.4	5194.3	5124.2	5054.9	4955.2
50°	5670.3	5710.7	5823.4	5977.3	6182.9	6141.0	5768.6	5544.7	5479.9	5400.7	5308.6
52.5°	5572.8	5618.5	5763.2	6019.2	6346.7	6416.0	6145.6	5906.4	5845.5	5751.1	5658.9
55°	5316.9	5344.3	5561.4	5923.9	6385.5	6607.9	6515.0	6291.8	6230.9	6099.1	5998.6
57.5°	4842.4	4882.0	5198.1	5667.3	6288.0	6738.1	6839.4	6697.0	6638.4	6448.7	6343.6
60°	4223.2	4286.4	4648.2	5236.2	6039.7	6737.4	7134.2	7095.3	7046.6	6793.0	6683.3
62.5°	3522.5	3595.6	3943.7	4626.9	5605.6	6546.2	7318.5	7428.9	7403.8	7110.6	6970.4
65°	2705.3	2755.6	3102.1	3838.6	4930.0	6135.7	7339.8	7656.7	7661.2	7352.0	7120.5
67.5°	1801.3	1946.0	2246.8	2880.5	4025.2	5464.7	7152.5	7694.0	7738.1	7435.0	7045.1
70°	878.9	1069.3	1364.1	1872.1	2880.5	4435.7	6662.7	7387.8	7486.0	7192.8	6595.7
72.5°	364.8	426.5	587.2	923.9	1653.5	2993.2	5678.7	6557.6	6739.7	6373.3	5545.4
75°	246.0	266.6	335.9	473.7	753.3	1476.0	4095.3	4889.7	5182.9	4813.5	3934.6
77.5°	189.6	202.6	244.5	331.3	447.8	558.3	2192.0	2946.7	3098.3	2868.3	2047.3
80°	149.3	159.2	182.8	241.4	317.6	298.6	747.2	1335.1	1422.7	1193.5	658.0
82.5°	129.5	133.3	131.0	163.8	211.0	174.4	245.2	492.8	543.8	394.5	214.8
85°	93.7	104.3	108.9	101.3	112.0	88.3	100.5	174.4	191.9	171.4	121.1
87.5°	38.1	56.4	69.3	65.5	41.1	25.1	31.2	51.0	58.6	64.0	39.6
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°	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8	1607.8
2.5°	1609.3	1614.7	1618.5	1623.0	1626.1	1630.6	1639.8	1645.1	1645.9	1649.7	1648.9
5°	1623.8	1631.4	1639.8	1652.0	1665.7	1677.1	1694.6	1706.8	1711.4	1715.2	1714.4
7.5°	1655.0	1665.7	1680.9	1702.2	1722.0	1737.3	1758.6	1773.1	1787.5	1792.9	1793.6
10°	1701.5	1716.7	1738.8	1767.7	1789.1	1808.9	1831.0	1843.1	1857.6	1863.7	1866.8
12.5°	1759.4	1775.4	1804.3	1844.7	1864.5	1878.2	1885.8	1882.7	1885.8	1891.1	1892.6
15°	1825.6	1843.1	1875.9	1919.3	1933.0	1920.8	1904.1	1888.8	1886.6	1888.1	1893.4
17.5°	1904.1	1917.0	1955.1	1991.7	1981.8	1931.5	1894.9	1870.6	1858.4	1854.6	1859.9
20°	2013.7	2013.7	2045.0	2067.8	2001.6	1916.3	1859.1	1819.5	1794.4	1783.7	1781.4
22.5°	2147.0	2134.8	2154.6	2138.7	1997.8	1873.6	1794.4	1725.9	1687.8	1672.5	1670.3
25°	2316.1	2301.6	2296.3	2197.3	1970.3	1805.8	1677.1	1594.1	1560.6	1552.2	1553.7
27.5°	2571.3	2534.7	2465.4	2229.3	1920.1	1699.2	1540.0	1463.1	1444.0	1444.8	1447.1
30°	2910.9	2837.8	2668.0	2234.6	1837.8	1548.4	1399.9	1345.0	1335.9	1339.7	1352.7
32.5°	3225.5	3156.2	2875.1	2210.2	1711.4	1400.6	1274.2	1237.6	1223.9	1228.5	1234.6
35°	3472.3	3453.2	3067.1	2176.0	1556.0	1262.0	1161.5	1130.3	1103.6	1097.5	1102.1
37.5°	3705.3	3697.7	3211.0	2128.0	1402.2	1163.8	1070.8	1029.7	990.9	969.6	970.3
40°	3961.2	3953.6	3305.5	2054.1	1265.8	1078.5	989.4	935.3	887.3	848.5	852.3
42.5°	4249.1	4204.2	3350.4	1948.2	1150.1	1006.1	923.1	850.0	786.8	751.0	753.3
45°	4563.7	4462.4	3349.6	1813.4	1052.6	939.8	852.3	748.7	690.0	656.5	655.0
47.5°	4897.3	4709.1	3308.5	1664.2	958.1	866.7	742.6	663.4	624.5	604.0	599.4
50°	5241.5	4939.9	3238.4	1492.8	861.4	783.7	674.0	620.0	590.3	571.2	564.4
52.5°	5565.2	5149.4	3153.9	1298.6	763.2	703.0	643.6	601.7	570.5	549.1	540.0
55°	5866.1	5329.9	3034.3	1099.8	683.2	648.9	629.1	594.1	558.3	533.1	523.2
57.5°	6133.4	5447.2	2827.9	913.2	626.1	611.6	613.9	581.1	540.0	518.7	505.0
60°	6355.8	5533.2	2522.5	740.3	579.6	575.0	590.3	556.8	508.8	484.4	473.7
62.5°	6489.1	5531.7	2147.8	606.3	540.0	541.5	559.0	526.3	477.5	454.7	447.8
65°	6477.7	5396.1	1736.5	518.7	501.9	503.4	526.3	492.8	451.6	437.9	437.2
67.5°	6248.4	5065.6	1332.1	461.5	460.0	466.9	493.5	469.9	435.7	434.1	436.4
70°	5627.7	4379.4	959.7	415.8	416.6	426.5	461.5	455.5	427.3	430.3	429.6
72.5°	4512.6	3339.0	644.3	367.9	368.6	384.6	431.1	444.0	418.9	459.3	465.4
75°	3005.4	2082.3	414.3	316.8	317.6	338.2	404.4	421.9	396.0	457.7	461.5
77.5°	1444.0	936.0	300.1	266.6	266.6	285.6	349.6	377.8	337.4	355.7	326.0
80°	498.9	351.9	236.1	214.8	210.2	223.2	294.8	327.5	290.9	268.1	251.3
82.5°	196.5	182.8	189.6	166.8	151.6	159.9	229.3	270.4	214.0	193.5	192.7
85°	112.7	118.8	134.0	110.4	87.6	98.3	168.3	194.2	161.5	142.4	145.5
87.5°	30.5	41.9	61.7	57.1	39.6	41.9	80.0	107.4	92.9	71.6	73.9
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)