

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: P883071

Luminaire Tested: **NAV-SB3B-727-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883071  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3B-727-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

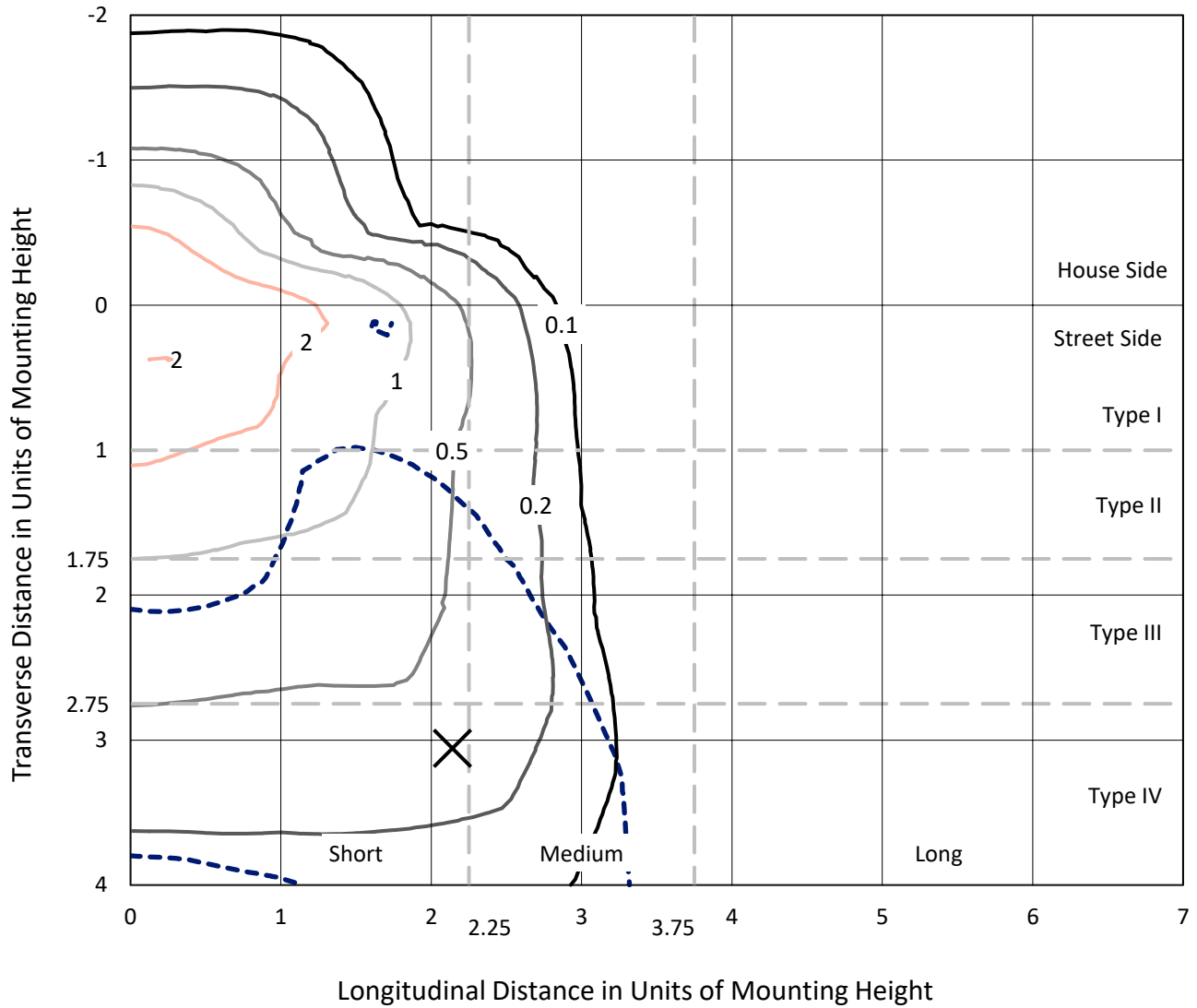
Lumens per Lamp: N/A  
Luminaire Lumens: 15129 lumens  
Efficiency: N/A  
Efficacy: 138.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 109.2  
Input Voltage (V): 120.0  
Input Current (Ain): 0.919  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.657  
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

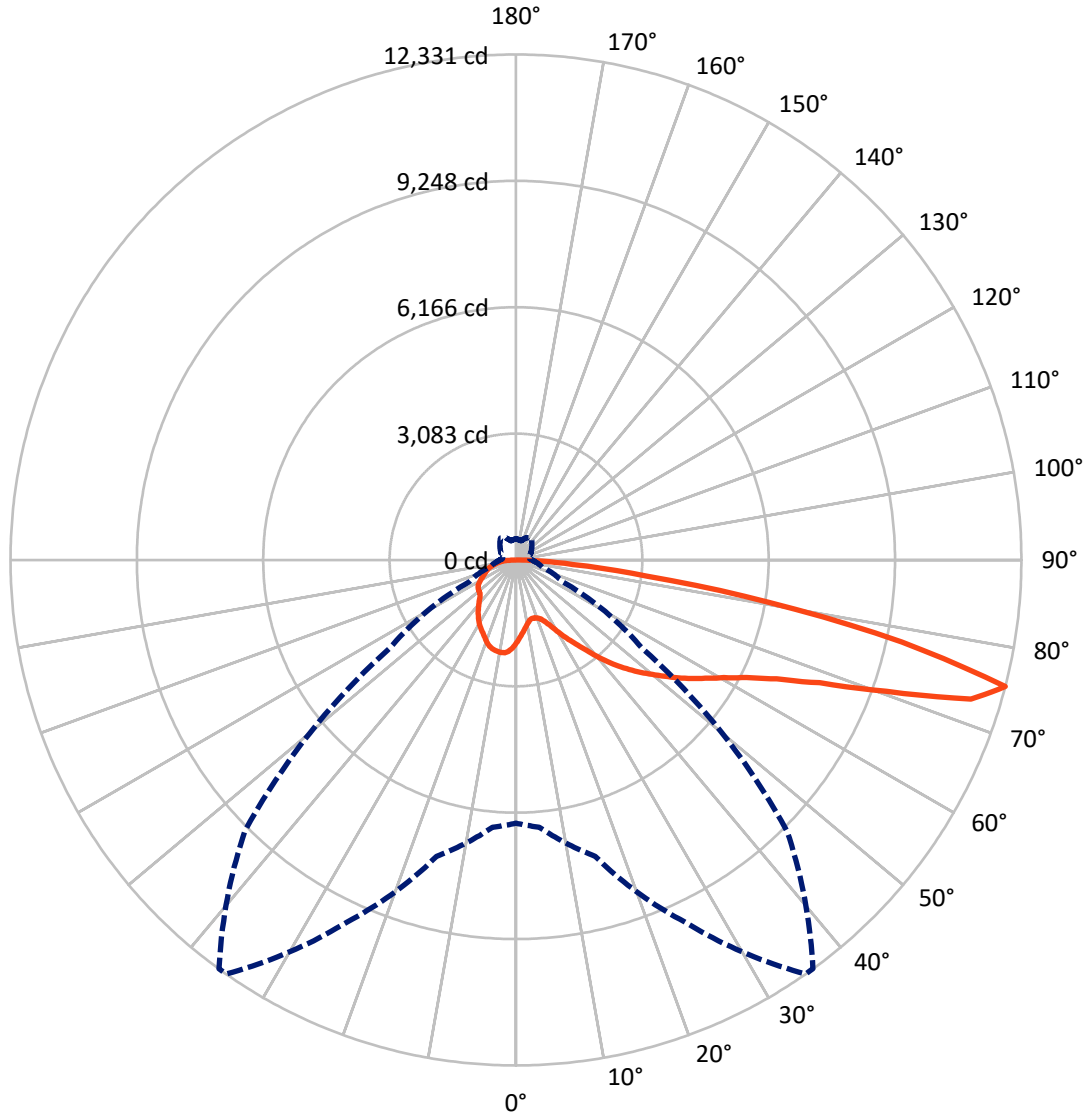
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3600.3	0.0	3600.3
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	11528.7	0.0	11528.7
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	15129.0	0.0	15129.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.9	1.3
10°-20°	550.6	3.6
20°-30°	924.6	6.1
30°-40°	1436.9	9.5
40°-50°	2132.7	14.1
50°-60°	2944.4	19.5
60°-70°	3572.2	23.6
70°-80°	2952.2	19.5
80°-90°	424.6	2.8
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°	15129.0	100.0
0°-180°	15129.0	100.0

**Coefficient of Utilization**



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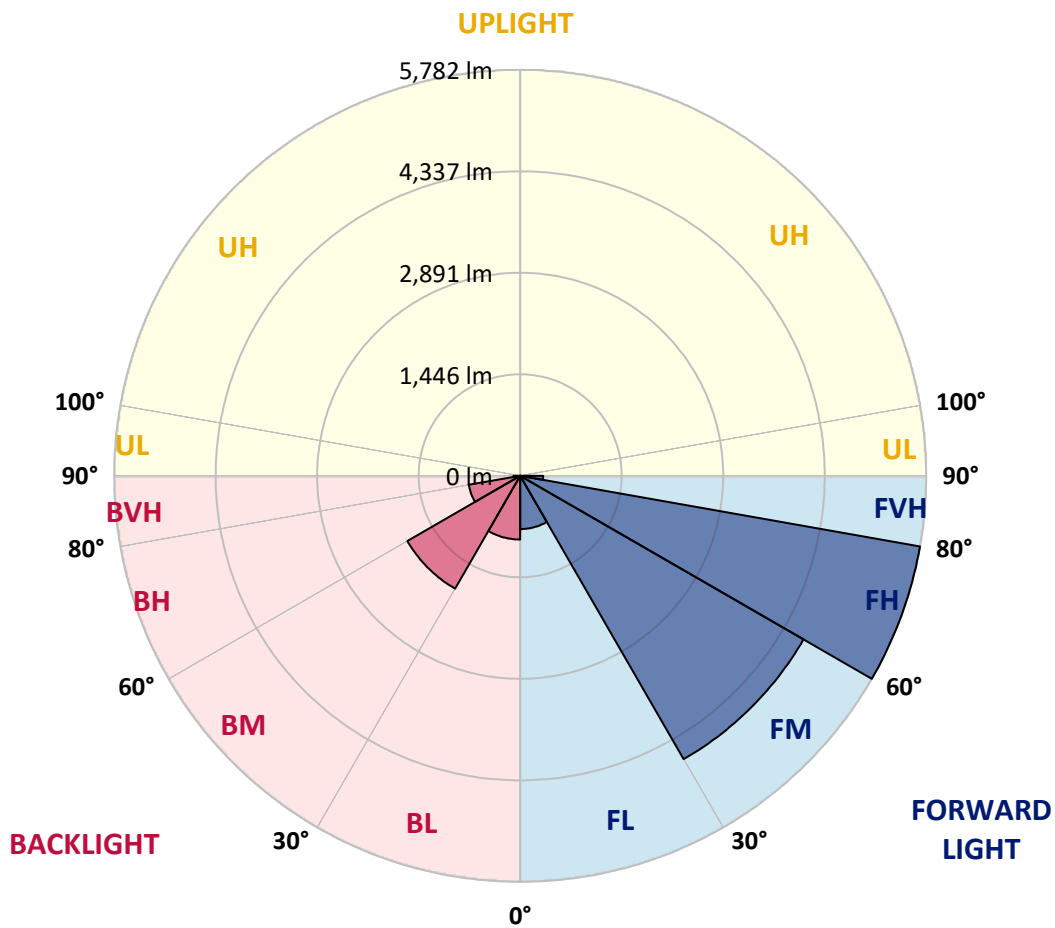
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	758.7	5.0			
FM (30°-60°)	4658.9	30.8			
FH (60°-80°)	5782.1	38.2			G3/7500
FVH (80°-90°)	329.0	2.2			G3/500
BL (0°-30°)	907.3	6.0	B2/1000		
BM (30°-60°)	1855.1	12.3	B2/2500		
BH (60°-80°)	742.3	4.9	B2/1000		G2/1000
BVH (80°-90°)	95.6	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0
2.5°	1859.0	1870.5	1875.4	1872.9	1885.2	1883.5	1900.7	1922.0	1951.4	1980.1	2021.8
5°	1715.9	1728.2	1738.8	1748.6	1772.3	1779.7	1806.7	1847.6	1901.5	1956.3	2025.0
7.5°	1582.6	1593.2	1609.6	1627.6	1667.6	1675.0	1720.0	1783.8	1859.0	1939.2	2034.0
10°	1473.8	1484.4	1501.6	1522.1	1571.9	1580.9	1638.2	1723.2	1821.4	1922.8	2043.8
12.5°	1427.2	1430.4	1440.3	1460.7	1504.1	1509.8	1572.8	1670.1	1784.6	1910.5	2058.6
15°	1424.7	1431.3	1432.1	1442.7	1478.7	1481.2	1539.2	1635.7	1761.7	1908.1	2080.7
17.5°	1449.3	1454.2	1446.8	1453.3	1483.6	1487.7	1533.5	1619.4	1754.3	1918.7	2118.3
20°	1514.7	1518.8	1496.7	1487.7	1509.8	1513.1	1558.0	1630.0	1761.7	1940.8	2169.8
22.5°	1653.7	1656.2	1602.2	1565.4	1567.0	1568.7	1607.9	1673.4	1790.3	1980.9	2235.2
25°	1870.5	1868.8	1782.9	1711.8	1670.9	1661.9	1688.1	1743.7	1838.6	2034.0	2319.5
27.5°	2124.0	2111.7	2025.9	1919.5	1830.4	1817.3	1811.6	1835.3	1907.3	2104.4	2422.5
30°	2410.3	2398.8	2306.4	2167.3	2043.8	2022.6	1968.6	1956.3	2009.5	2200.1	2565.6
32.5°	2724.3	2717.0	2606.5	2438.1	2272.9	2248.3	2157.5	2124.8	2166.5	2344.8	2765.2
35°	2987.7	2981.1	2889.5	2716.1	2514.1	2483.9	2391.4	2354.6	2375.9	2530.5	3026.1
37.5°	3225.7	3222.4	3143.9	3007.3	2798.7	2761.9	2658.1	2645.8	2641.7	2775.0	3342.6
40°	3446.5	3438.3	3356.5	3284.6	3130.0	3096.4	3004.8	2994.2	2963.1	3076.0	3700.8
42.5°	3691.0	3669.8	3551.2	3517.6	3475.9	3448.1	3393.3	3395.0	3326.3	3415.4	4080.3
45°	3890.6	3878.3	3756.5	3736.8	3781.8	3770.4	3817.8	3830.1	3696.8	3771.2	4474.5
47.5°	4104.9	4093.4	3990.4	3976.5	4098.3	4101.6	4269.3	4273.4	4058.3	4140.9	4869.6
50°	4369.0	4352.7	4250.5	4267.6	4404.2	4416.5	4723.2	4695.4	4391.1	4516.3	5261.3
52.5°	4543.2	4553.1	4531.0	4558.8	4745.3	4756.7	5169.7	5098.6	4720.7	4886.8	5645.7
55°	4671.7	4691.3	4760.0	4823.8	5105.1	5116.6	5590.9	5482.2	4993.9	5230.3	6007.2
57.5°	4836.9	4809.1	4937.5	5061.8	5447.0	5477.3	6000.7	5851.8	5236.0	5526.3	6255.0
60°	5074.0	5054.4	5154.2	5338.2	5829.8	5878.0	6434.2	6184.7	5413.5	5761.1	6303.3
62.5°	5555.0	5505.9	5521.4	5684.2	6312.3	6376.1	6923.2	6475.1	5501.8	5852.7	6044.9
65°	6273.9	6189.6	6111.1	6224.0	6991.9	7054.9	7475.3	6703.2	5469.1	5675.2	5358.7
67.5°	7179.2	7095.8	6999.3	7105.6	7993.0	8042.9	8156.6	6831.6	5211.4	4991.4	4145.8
70°	7925.9	7894.9	8010.2	8447.7	9591.9	9593.6	9030.1	6725.3	4505.6	3538.9	2398.8
72.5°	7827.0	7808.2	8415.8	9768.6	11607.2	11563.8	9856.9	5920.5	3035.1	1596.5	898.8
75°	6421.1	6542.9	7484.3	9744.9	12331.0	12325.3	9350.7	3763.8	1255.4	661.7	464.5
77.5°	3443.2	3636.2	4858.9	7194.8	9626.3	9771.1	6574.0	1316.8	539.0	423.7	321.4
80°	1122.9	1291.4	1936.7	3663.2	6255.0	6228.1	2817.6	516.9	368.9	300.2	222.5
82.5°	476.8	496.4	865.3	1729.8	3210.1	3160.2	897.2	296.9	259.3	205.3	137.4
85°	186.5	208.6	381.9	799.9	1390.4	1360.1	323.9	147.2	166.0	134.1	81.8
87.5°	61.3	74.4	136.6	274.0	432.7	417.1	79.3	50.7	72.0	61.3	29.4
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°	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0	2016.0
2.5°	2033.2	2046.3	2061.8	2084.7	2104.4	2120.7	2137.9	2148.5	2152.6	2164.9	2164.1
5°	2047.9	2076.6	2115.0	2152.6	2189.4	2211.5	2231.1	2241.0	2250.0	2256.5	2258.1
7.5°	2072.5	2109.3	2169.8	2218.9	2250.0	2267.9	2281.0	2277.8	2281.0	2282.7	2285.1
10°	2093.7	2145.3	2217.2	2263.9	2287.6	2288.4	2285.1	2273.7	2267.9	2268.8	2270.4
12.5°	2119.1	2176.3	2254.0	2293.3	2299.8	2281.8	2267.9	2248.3	2241.0	2237.7	2236.0
15°	2153.4	2218.9	2294.1	2308.8	2292.5	2269.6	2245.9	2214.0	2197.6	2184.5	2188.6
17.5°	2195.2	2267.1	2325.2	2314.6	2279.4	2241.8	2203.3	2155.1	2121.5	2107.6	2108.5
20°	2253.2	2317.8	2348.9	2302.3	2249.1	2191.9	2126.5	2067.6	2036.5	2022.6	2020.9
22.5°	2323.6	2385.7	2371.8	2281.0	2205.8	2114.2	2032.4	1989.1	1973.5	1963.7	1965.3
25°	2407.8	2461.0	2388.2	2250.0	2134.6	2011.1	1948.2	1934.3	1926.9	1919.5	1919.5
27.5°	2517.4	2546.0	2400.4	2204.2	2023.4	1901.5	1878.6	1881.1	1878.6	1866.4	1868.8
30°	2662.2	2656.4	2411.9	2129.7	1895.8	1802.6	1804.2	1814.8	1816.5	1808.3	1812.4
32.5°	2852.7	2794.7	2417.6	2033.2	1774.0	1715.9	1717.5	1729.0	1737.1	1723.2	1729.8
35°	3083.4	2955.8	2408.6	1912.2	1679.9	1633.3	1621.0	1624.3	1626.7	1613.7	1622.6
37.5°	3352.4	3136.5	2368.5	1778.0	1602.2	1552.3	1526.1	1504.1	1491.0	1478.7	1486.9
40°	3647.7	3333.6	2294.9	1647.2	1515.5	1466.4	1427.2	1385.5	1341.3	1324.9	1332.3
42.5°	3956.8	3536.5	2205.8	1522.1	1415.7	1375.7	1333.9	1273.4	1207.2	1173.6	1177.7
45°	4277.4	3744.2	2118.3	1398.6	1313.5	1296.3	1248.1	1175.3	1103.3	1060.8	1057.5
47.5°	4591.5	3940.5	1989.9	1274.2	1217.8	1236.6	1199.0	1131.9	1051.8	984.7	977.4
50°	4891.7	4124.5	1779.7	1148.3	1140.1	1218.6	1182.6	1086.1	994.5	908.6	901.3
52.5°	5189.4	4273.4	1510.6	1033.8	1098.4	1213.7	1161.4	1055.0	943.0	853.0	843.2
55°	5442.1	4350.2	1251.3	935.6	1037.9	1172.0	1136.0	1018.2	870.2	774.5	766.3
57.5°	5586.0	4288.1	1035.4	839.1	954.5	1103.3	1092.7	939.7	783.5	709.9	700.1
60°	5523.9	4036.2	858.8	754.9	875.1	1028.9	1017.4	862.0	717.3	647.8	637.9
62.5°	5181.2	3556.1	718.9	681.3	803.1	952.8	942.2	802.3	666.6	599.5	588.9
65°	4490.9	2892.8	610.1	619.9	730.4	861.2	876.8	752.4	626.5	561.1	550.4
67.5°	3425.2	2095.4	525.1	566.8	659.2	771.2	816.2	716.5	593.0	530.8	521.0
70°	1952.2	1190.0	453.1	515.3	596.2	687.8	769.6	687.8	557.0	505.4	498.9
72.5°	740.2	546.3	391.8	463.7	535.7	617.5	718.1	642.8	515.3	476.8	470.3
75°	395.0	332.9	329.6	403.2	466.2	548.8	653.5	598.7	484.2	503.8	520.2
77.5°	269.1	235.5	275.6	345.1	390.1	472.7	584.8	531.6	419.6	417.9	385.2
80°	186.5	166.8	224.1	278.1	301.8	397.5	510.3	456.4	341.9	319.0	305.1
82.5°	112.0	108.8	167.7	207.7	213.5	306.7	422.8	382.8	279.7	243.7	245.4
85°	61.3	64.6	107.1	121.9	124.3	214.3	331.2	296.1	215.1	180.7	182.4
87.5°	17.2	22.1	39.3	48.3	59.7	111.2	197.1	175.8	108.0	75.2	75.2
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)