

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: P882631

Luminaire Tested: **NAV-SB2C-830-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882631  
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-SB2C-830-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

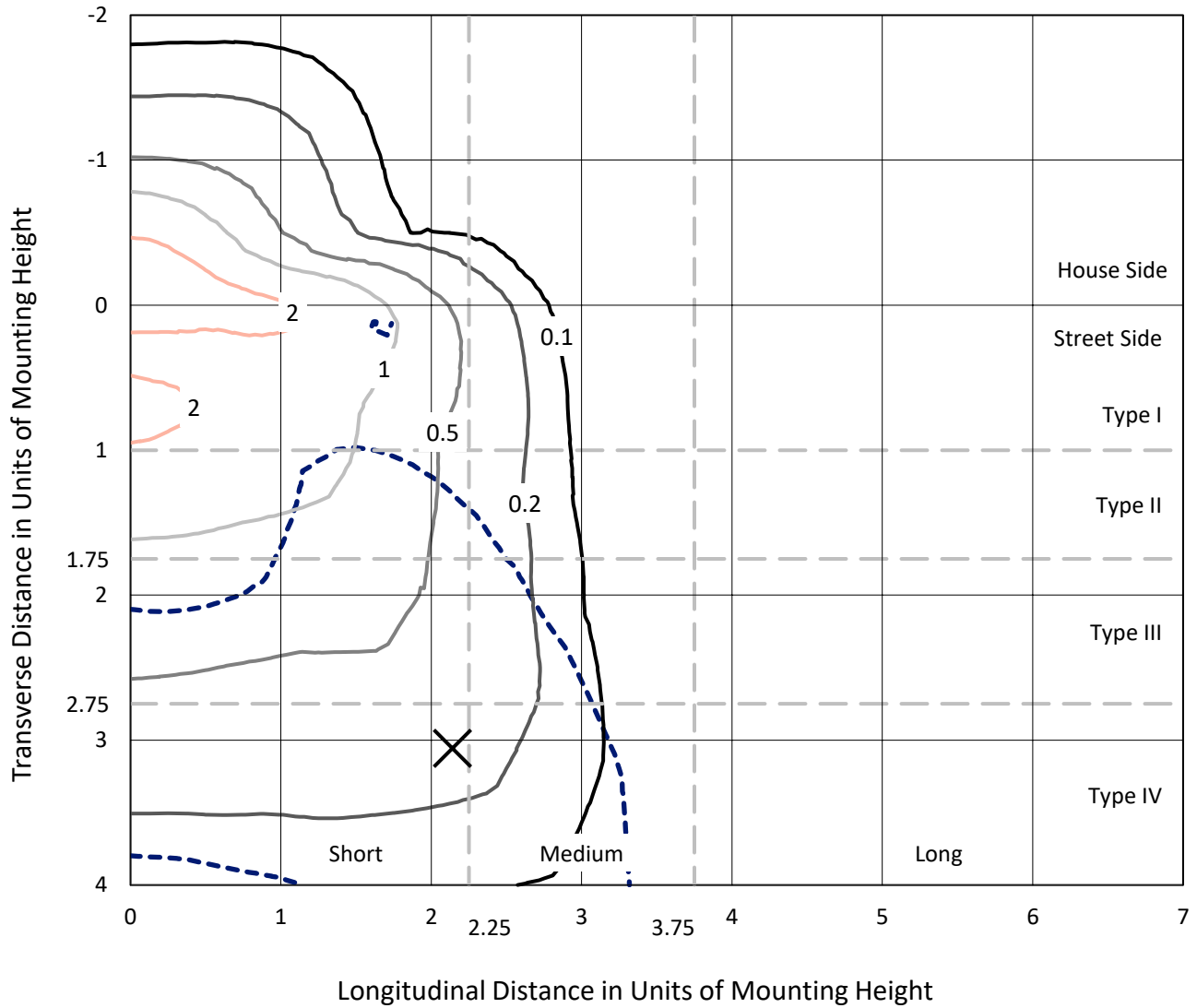
Lumens per Lamp: N/A  
Luminaire Lumens: 13200 lumens  
Efficiency: N/A  
Efficacy: 130.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 100.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.857  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.472  
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

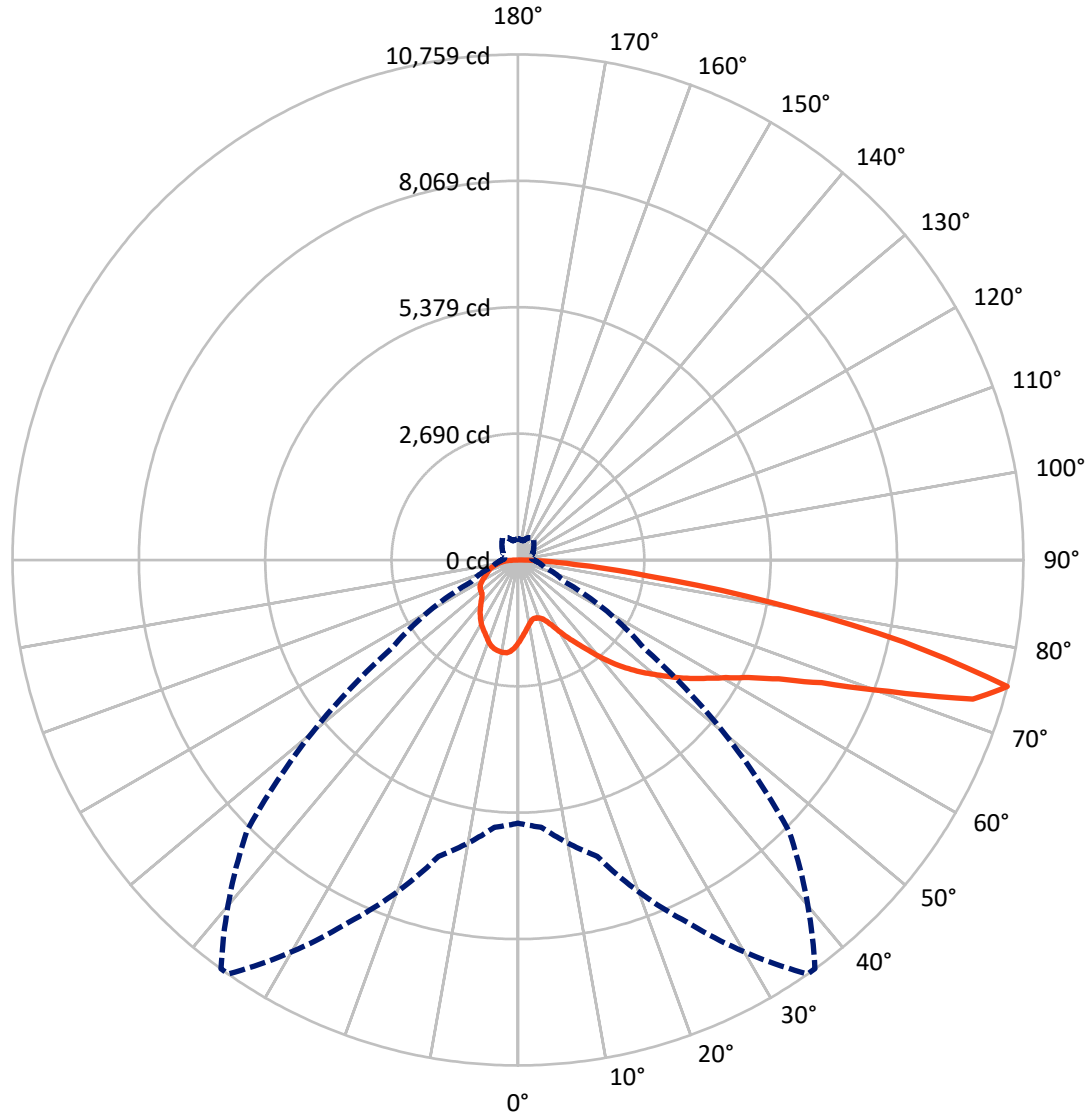
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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	3141.3	0.0	3141.3
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	10058.7	0.0	10058.7
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	13200.0	0.0	13200.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.5	1.3
10°-20°	480.4	3.6
20°-30°	806.7	6.1
30°-40°	1253.7	9.5
40°-50°	1860.8	14.1
50°-60°	2569.0	19.5
60°-70°	3116.7	23.6
70°-80°	2575.7	19.5
80°-90°	370.5	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°	13200.0	100.0
0°-180°	13200.0	100.0

**Coefficient of Utilization**



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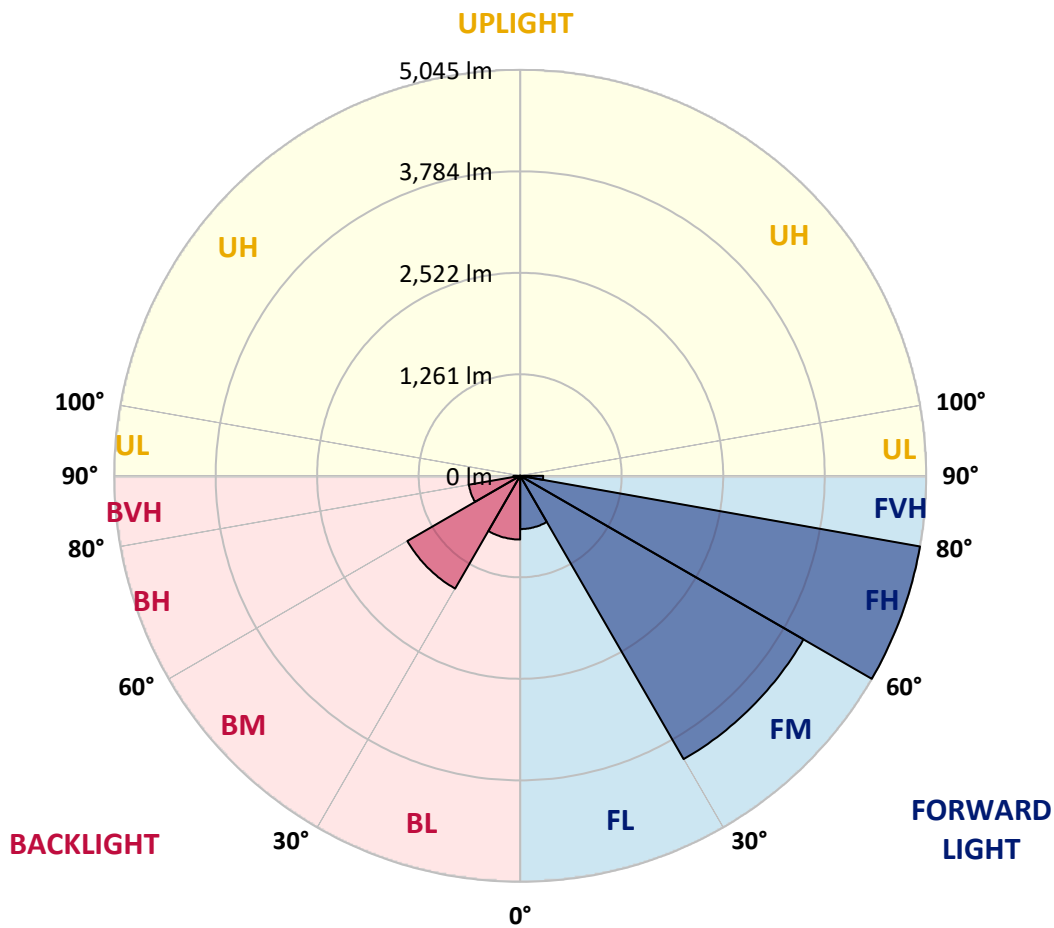
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	662.0	5.0			
FM (30°-60°)	4064.9	30.8			
FH (60°-80°)	5044.8	38.2			G3/7500
FVH (80°-90°)	287.0	2.2			G3/500
BL (0°-30°)	791.6	6.0	B2/1000		
BM (30°-60°)	1618.6	12.3	B2/2500		
BH (60°-80°)	647.6	4.9	B2/1000		G2/1000
BVH (80°-90°)	83.4	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°	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0
2.5°	1622.0	1632.0	1636.3	1634.1	1644.8	1643.4	1658.4	1676.9	1702.6	1727.6	1764.0
5°	1497.1	1507.8	1517.1	1525.6	1546.3	1552.8	1576.3	1612.0	1659.1	1706.9	1766.8
7.5°	1380.8	1390.1	1404.3	1420.0	1455.0	1461.4	1500.7	1556.3	1622.0	1691.9	1774.7
10°	1285.9	1295.2	1310.1	1328.0	1371.5	1379.4	1429.3	1503.5	1589.2	1677.6	1783.3
12.5°	1245.2	1248.1	1256.6	1274.5	1312.3	1317.3	1372.2	1457.1	1557.0	1666.9	1796.1
15°	1243.1	1248.8	1249.5	1258.8	1290.2	1292.3	1343.0	1427.2	1537.1	1664.8	1815.4
17.5°	1264.5	1268.8	1262.3	1268.0	1294.4	1298.0	1338.0	1412.9	1530.6	1674.1	1848.2
20°	1321.6	1325.1	1305.9	1298.0	1317.3	1320.1	1359.4	1422.2	1537.1	1693.3	1893.1
22.5°	1442.9	1445.0	1397.9	1365.8	1367.2	1368.7	1402.9	1460.0	1562.0	1728.3	1950.2
25°	1632.0	1630.5	1555.6	1493.5	1457.9	1450.0	1472.8	1521.4	1604.1	1774.7	2023.7
27.5°	1853.2	1842.5	1767.6	1674.8	1597.0	1585.6	1580.6	1601.3	1664.1	1836.1	2113.6
30°	2102.9	2092.9	2012.3	1891.0	1783.3	1764.7	1717.6	1706.9	1753.3	1919.5	2238.5
32.5°	2377.0	2370.5	2274.2	2127.2	1983.1	1961.6	1882.4	1853.9	1890.3	2045.9	2412.6
35°	2606.7	2601.0	2521.1	2369.8	2193.6	2167.2	2086.5	2054.4	2073.0	2207.8	2640.3
37.5°	2814.4	2811.5	2743.0	2623.9	2441.9	2409.8	2319.2	2308.5	2304.9	2421.2	2916.4
40°	3007.1	2999.9	2928.6	2865.8	2730.9	2701.6	2621.7	2612.4	2585.3	2683.8	3229.0
42.5°	3220.4	3201.9	3098.4	3069.1	3032.7	3008.5	2960.7	2962.1	2902.2	2979.9	3560.1
45°	3394.5	3383.8	3277.5	3260.4	3299.6	3289.6	3331.0	3341.7	3225.4	3290.3	3904.0
47.5°	3581.5	3571.5	3481.6	3469.5	3575.8	3578.6	3724.9	3728.5	3540.8	3612.9	4248.7
50°	3812.0	3797.7	3708.5	3723.5	3842.7	3853.4	4121.0	4096.7	3831.2	3940.4	4590.5
52.5°	3964.0	3972.5	3953.3	3977.5	4140.2	4150.2	4510.6	4448.5	4118.8	4263.7	4925.9
55°	4076.0	4093.1	4153.1	4208.7	4454.2	4464.2	4878.1	4783.2	4357.2	4563.4	5241.3
57.5°	4220.1	4195.9	4307.9	4416.4	4752.5	4778.9	5235.6	5105.7	4568.4	4821.7	5457.5
60°	4427.1	4410.0	4497.0	4657.6	5086.4	5128.5	5613.8	5396.1	4723.2	5026.5	5499.6
62.5°	4846.7	4803.9	4817.4	4959.4	5507.5	5563.1	6040.5	5649.5	4800.3	5106.4	5274.1
65°	5473.9	5400.4	5331.9	5430.4	6100.4	6155.4	6522.2	5848.6	4771.7	4951.6	4675.4
67.5°	6263.9	6191.1	6106.9	6199.6	6973.9	7017.4	7116.6	5960.6	4547.0	4355.0	3617.2
70°	6915.4	6888.2	6988.9	7370.6	8368.9	8370.4	7878.7	5867.8	3931.1	3087.7	2092.9
72.5°	6829.0	6812.6	7342.8	8523.1	10127.2	10089.4	8600.1	5165.6	2648.1	1392.9	784.2
75°	5602.4	5708.7	6530.0	8502.4	10758.7	10753.7	8158.4	3283.9	1095.4	577.3	405.3
77.5°	3004.2	3172.6	4239.4	6277.4	8398.9	8525.2	5735.8	1148.9	470.3	369.6	280.4
80°	979.8	1126.8	1689.8	3196.2	5457.5	5434.0	2458.3	451.0	321.8	261.9	194.1
82.5°	416.0	433.1	755.0	1509.2	2800.8	2757.3	782.8	259.0	226.2	179.1	119.9
85°	162.7	182.0	333.2	697.9	1213.1	1186.7	282.6	128.4	144.9	117.0	71.4
87.5°	53.5	64.9	119.2	239.1	377.5	363.9	69.2	44.2	62.8	53.5	25.7
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°	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0	1759.0
2.5°	1774.0	1785.4	1799.0	1818.9	1836.1	1850.3	1865.3	1874.6	1878.2	1888.9	1888.1
5°	1786.8	1811.8	1845.3	1878.2	1910.3	1929.5	1946.7	1955.2	1963.1	1968.8	1970.2
7.5°	1808.2	1840.3	1893.1	1936.0	1963.1	1978.8	1990.2	1987.3	1990.2	1991.6	1993.8
10°	1826.8	1871.7	1934.5	1975.2	1995.9	1996.6	1993.8	1983.8	1978.8	1979.5	1980.9
12.5°	1848.9	1898.9	1966.6	2000.9	2006.6	1990.9	1978.8	1961.6	1955.2	1952.4	1950.9
15°	1878.9	1936.0	2001.6	2014.5	2000.2	1980.2	1959.5	1931.7	1917.4	1906.0	1909.6
17.5°	1915.3	1978.1	2028.7	2019.4	1988.8	1955.9	1922.4	1880.3	1851.0	1838.9	1839.6
20°	1965.9	2022.3	2049.4	2008.7	1962.4	1912.4	1855.3	1803.9	1776.8	1764.7	1763.3
22.5°	2027.3	2081.5	2069.4	1990.2	1924.5	1844.6	1773.3	1735.4	1721.9	1713.3	1714.7
25°	2100.8	2147.2	2083.7	1963.1	1862.5	1754.7	1699.8	1687.6	1681.2	1674.8	1674.8
27.5°	2196.4	2221.4	2094.4	1923.1	1765.4	1659.1	1639.1	1641.2	1639.1	1628.4	1630.5
30°	2322.7	2317.7	2104.4	1858.2	1654.1	1572.7	1574.2	1583.4	1584.9	1577.7	1581.3
32.5°	2489.0	2438.3	2109.4	1774.0	1547.8	1497.1	1498.5	1508.5	1515.7	1503.5	1509.2
35°	2690.2	2578.9	2101.5	1668.4	1465.7	1425.0	1414.3	1417.2	1419.3	1407.9	1415.8
37.5°	2925.0	2736.6	2066.5	1551.3	1397.9	1354.4	1331.6	1312.3	1300.9	1290.2	1297.3
40°	3182.6	2908.6	2002.3	1437.2	1322.3	1279.5	1245.2	1208.8	1170.3	1156.0	1162.4
42.5°	3452.3	3085.5	1924.5	1328.0	1235.2	1200.3	1163.9	1111.1	1053.3	1024.0	1027.6
45°	3732.1	3266.8	1848.2	1220.2	1146.0	1131.0	1088.9	1025.4	962.6	925.5	922.7
47.5°	4006.1	3438.1	1736.2	1111.8	1062.5	1078.9	1046.1	987.6	917.7	859.2	852.7
50°	4268.0	3598.6	1552.8	1001.9	994.7	1063.2	1031.8	947.6	867.7	792.8	786.4
52.5°	4527.7	3728.5	1318.0	902.0	958.3	1059.0	1013.3	920.5	822.8	744.3	735.7
55°	4748.2	3795.6	1091.8	816.3	905.5	1022.6	991.2	888.4	759.3	675.8	668.6
57.5°	4873.8	3741.3	903.4	732.1	832.8	962.6	953.4	819.9	683.6	619.4	610.8
60°	4819.6	3521.5	749.3	658.6	763.5	897.7	887.7	752.1	625.8	565.2	556.6
62.5°	4520.6	3102.7	627.2	594.4	700.7	831.3	822.1	700.0	581.6	523.1	513.8
65°	3918.3	2524.0	532.3	540.9	637.2	751.4	765.0	656.5	546.6	489.5	480.2
67.5°	2988.5	1828.2	458.1	494.5	575.2	672.9	712.2	625.1	517.3	463.1	454.6
70°	1703.3	1038.3	395.3	449.6	520.2	600.1	671.5	600.1	486.0	441.0	435.3
72.5°	645.8	476.7	341.8	404.6	467.4	538.8	626.5	560.9	449.6	416.0	410.3
75°	344.7	290.4	287.6	351.8	406.7	478.8	570.2	522.3	422.4	439.6	453.8
77.5°	234.8	205.5	240.5	301.1	340.4	412.5	510.2	463.8	366.1	364.6	336.1
80°	162.7	145.6	195.5	242.6	263.3	346.8	445.3	398.2	298.3	278.3	266.2
82.5°	97.8	94.9	146.3	181.3	186.2	267.6	368.9	334.0	244.0	212.6	214.1
85°	53.5	56.4	93.5	106.3	108.5	187.0	289.0	258.3	187.7	157.7	159.1
87.5°	15.0	19.3	34.3	42.1	52.1	97.0	172.0	153.4	94.2	65.6	65.6
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)