

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: P883651

Luminaire Tested: **NAV-SB4A-830-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883651  
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-SB4A-830-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

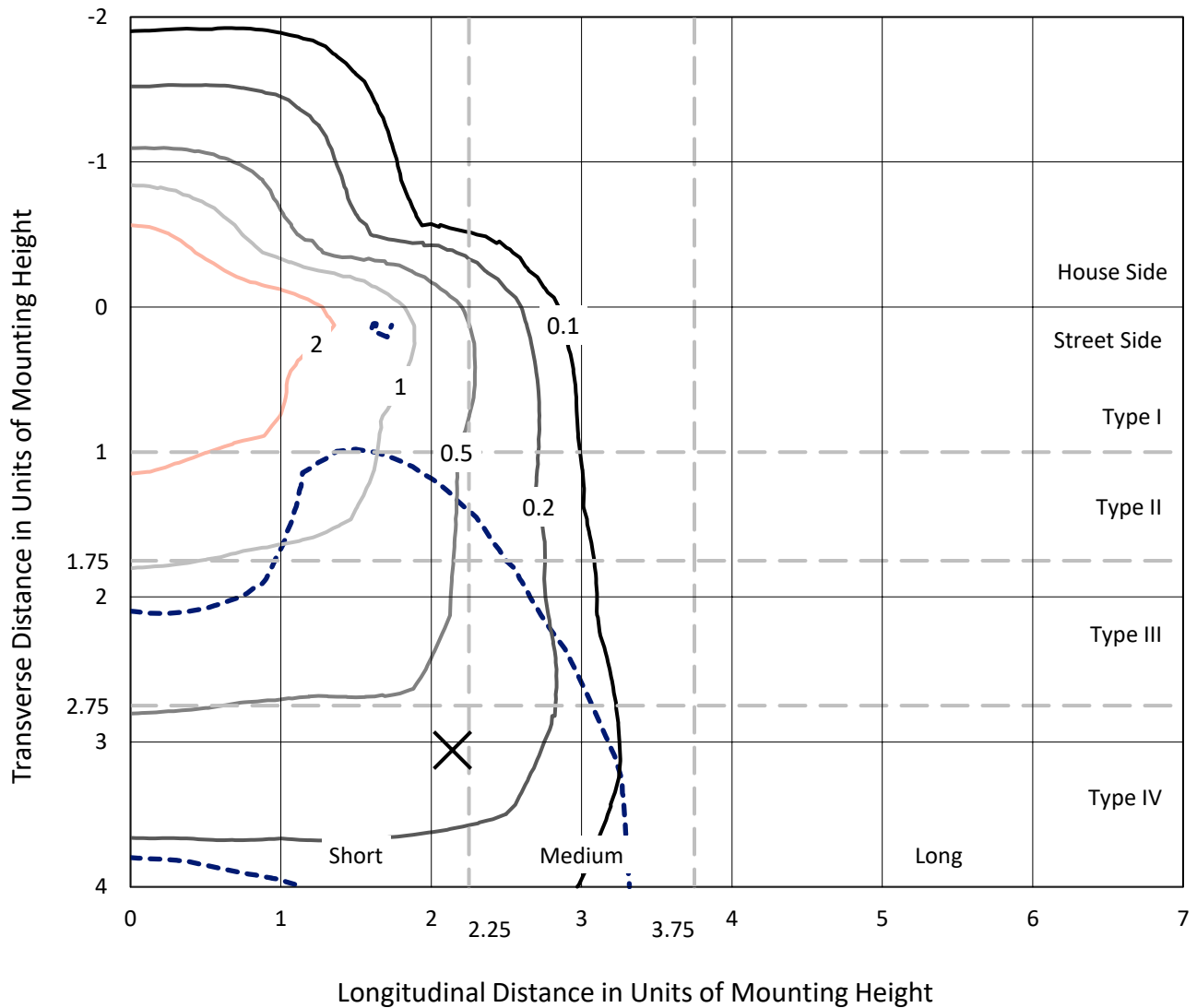
Lumens per Lamp: N/A  
Luminaire Lumens: 15722 lumens  
Efficiency: N/A  
Efficacy: 137.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
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

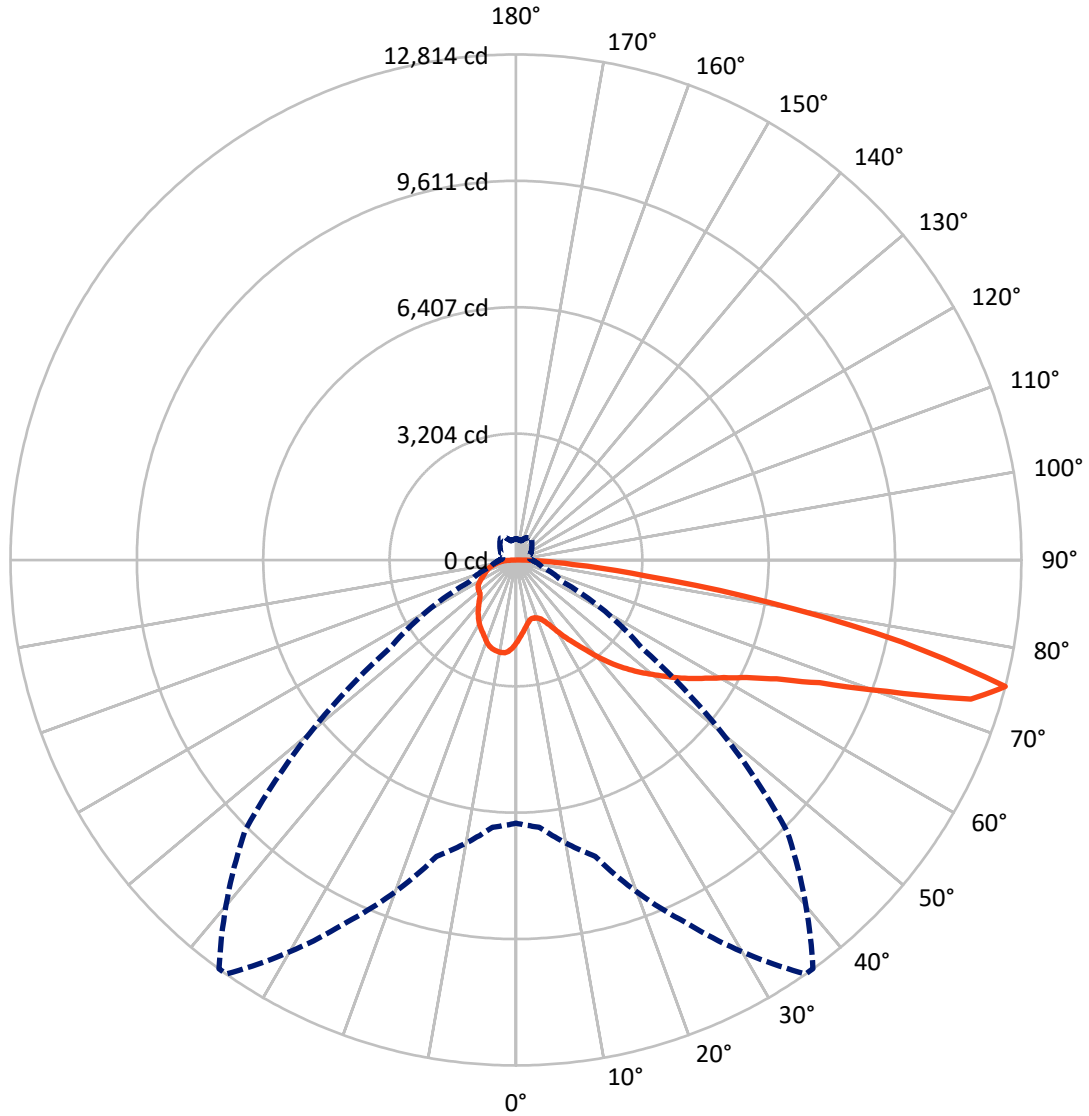
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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	3741.4	0.0	3741.4
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	11980.6	0.0	11980.6
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	15722.0	0.0	15722.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.4	1.3
10°-20°	572.2	3.6
20°-30°	960.8	6.1
30°-40°	1493.2	9.5
40°-50°	2216.3	14.1
50°-60°	3059.8	19.5
60°-70°	3712.2	23.6
70°-80°	3067.9	19.5
80°-90°	441.2	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°	15722.0	100.0
0°-180°	15722.0	100.0

**Coefficient of Utilization**



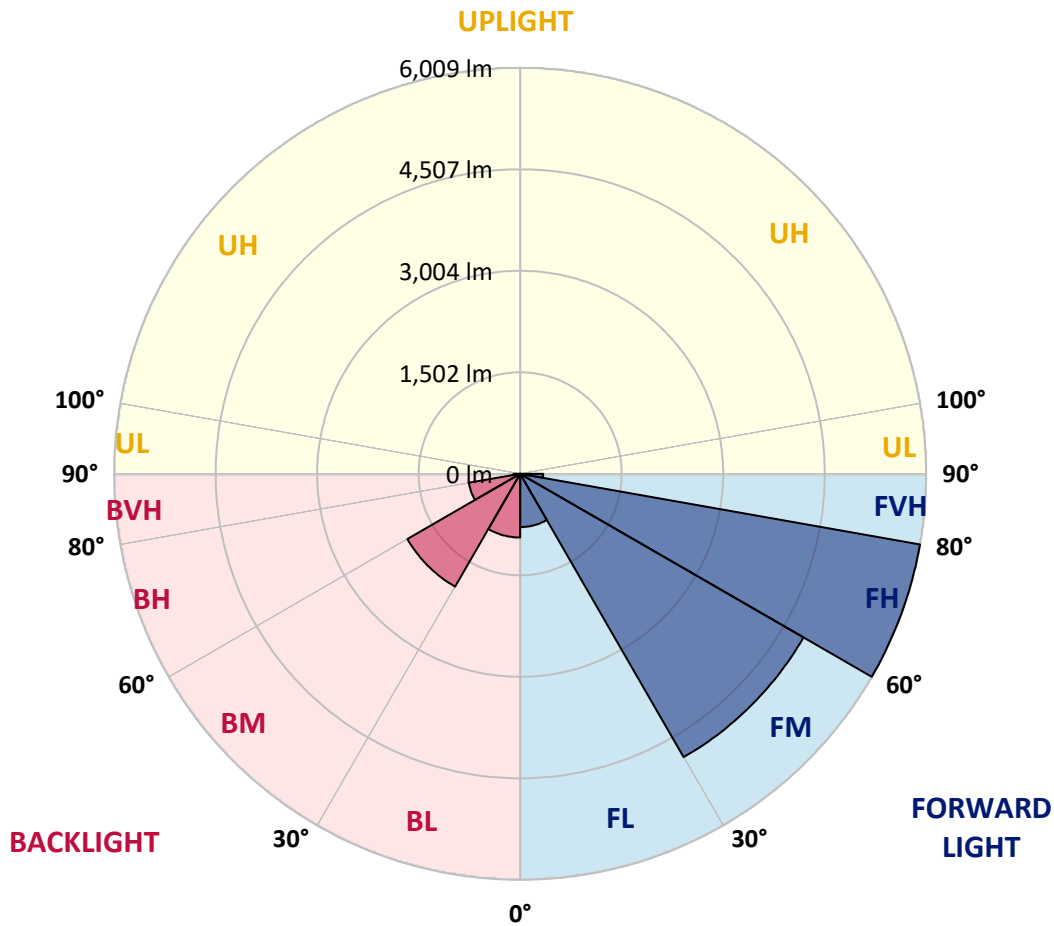
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	788.4	5.0			
FM (30°-60°)	4841.5	30.8			
FH (60°-80°)	6008.7	38.2			G3/7500
FVH (80°-90°)	341.9	2.2			G3/500
BL (0°-30°)	942.9	6.0	B2/1000		
BM (30°-60°)	1927.8	12.3	B2/2500		
BH (60°-80°)	771.4	4.9	B2/1000		G2/1000
BVH (80°-90°)	99.4	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°	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1
2.5°	1931.9	1943.8	1948.9	1946.3	1959.1	1957.4	1975.2	1997.3	2027.9	2057.7	2101.0
5°	1783.1	1795.9	1806.9	1817.1	1841.8	1849.4	1877.5	1920.0	1976.1	2033.0	2104.4
7.5°	1644.6	1655.7	1672.7	1691.3	1733.0	1740.6	1787.4	1853.7	1931.9	2015.2	2113.8
10°	1531.6	1542.6	1560.5	1581.7	1633.6	1642.9	1702.4	1790.8	1892.8	1998.2	2124.0
12.5°	1483.1	1486.5	1496.7	1518.0	1563.0	1569.0	1634.4	1735.5	1854.5	1985.4	2139.3
15°	1480.6	1487.4	1488.2	1499.3	1536.7	1539.2	1599.6	1699.8	1830.7	1982.9	2162.2
17.5°	1506.1	1511.2	1503.5	1510.3	1541.8	1546.0	1593.6	1682.8	1823.1	1993.9	2201.3
20°	1574.1	1578.3	1555.4	1546.0	1569.0	1572.4	1619.1	1693.9	1830.7	2016.9	2254.8
22.5°	1718.5	1721.1	1665.0	1626.8	1628.5	1630.2	1671.0	1738.9	1860.5	2058.5	2322.8
25°	1943.8	1942.1	1852.8	1778.9	1736.4	1727.0	1754.2	1812.0	1910.6	2113.8	2410.4
27.5°	2207.3	2194.5	2105.3	1994.8	1902.1	1888.5	1882.6	1907.2	1982.0	2186.9	2517.5
30°	2504.7	2492.8	2396.8	2252.3	2124.0	2101.9	2045.8	2033.0	2088.3	2286.3	2666.2
32.5°	2831.1	2823.4	2708.7	2533.6	2361.9	2336.4	2242.1	2208.1	2251.4	2436.7	2873.6
35°	3104.8	3098.0	3002.8	2822.6	2612.7	2581.2	2485.2	2446.9	2469.0	2629.7	3144.7
37.5°	3352.1	3348.7	3267.1	3125.2	2908.4	2870.2	2762.3	2749.5	2745.3	2883.8	3473.6
40°	3581.6	3573.1	3488.1	3413.3	3252.7	3217.8	3122.6	3111.6	3079.3	3196.6	3845.9
42.5°	3835.7	3813.6	3690.4	3655.5	3612.2	3583.3	3526.3	3528.0	3456.6	3549.3	4240.3
45°	4043.1	4030.3	3903.7	3883.3	3930.0	3918.2	3967.4	3980.2	3841.7	3919.0	4649.9
47.5°	4265.8	4253.9	4146.8	4132.3	4259.0	4262.4	4436.6	4440.9	4217.3	4303.2	5060.4
50°	4540.3	4523.3	4417.1	4434.9	4576.8	4589.6	4908.3	4879.4	4563.2	4693.3	5467.6
52.5°	4721.3	4731.5	4708.6	4737.5	4931.3	4943.2	5372.4	5298.4	4905.8	5078.3	5867.0
55°	4854.8	4875.2	4946.6	5012.9	5305.2	5317.1	5810.1	5697.0	5189.6	5435.3	6242.7
57.5°	5026.5	4997.6	5131.0	5260.2	5660.5	5691.9	6235.9	6081.2	5441.2	5742.9	6500.2
60°	5272.9	5252.5	5356.2	5547.5	6058.3	6108.4	6686.4	6427.1	5625.6	5986.9	6550.4
62.5°	5772.7	5721.7	5737.8	5907.0	6559.7	6626.0	7194.6	6728.8	5717.4	6082.1	6281.8
65°	6519.8	6432.2	6350.6	6467.9	7266.0	7331.4	7768.3	6966.0	5683.4	5897.6	5568.7
67.5°	7460.6	7373.9	7273.7	7384.1	8306.3	8358.2	8476.3	7099.4	5415.7	5187.1	4308.3
70°	8236.6	8204.3	8324.2	8778.9	9967.9	9969.6	9384.0	6988.9	4682.2	3677.6	2492.8
72.5°	8133.8	8114.2	8745.7	10151.5	12062.1	12017.1	10243.3	6152.6	3154.1	1659.1	934.1
75°	6672.8	6799.4	7777.7	10126.8	12814.3	12808.4	9717.2	3911.4	1304.6	687.6	482.8
77.5°	3578.2	3778.8	5049.4	7476.8	10003.6	10154.0	6831.7	1368.4	560.1	440.3	334.0
80°	1166.9	1342.0	2012.6	3806.8	6500.2	6472.2	2928.0	537.2	383.3	311.9	231.2
82.5°	495.5	515.9	899.2	1797.6	3336.0	3284.1	932.4	308.5	269.4	213.3	142.8
85°	193.8	216.7	396.9	831.2	1444.9	1413.4	336.6	153.0	172.5	139.4	85.0
87.5°	63.7	77.3	141.9	284.7	449.6	433.5	82.4	52.7	74.8	63.7	30.6
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°	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1	2095.1
2.5°	2112.9	2126.5	2142.7	2166.5	2186.9	2203.9	2221.7	2232.8	2237.0	2249.7	2248.9
5°	2128.2	2158.0	2197.9	2237.0	2275.2	2298.2	2318.6	2328.8	2338.1	2344.9	2346.6
7.5°	2153.7	2192.0	2254.8	2305.8	2338.1	2356.8	2370.4	2367.0	2370.4	2372.1	2374.7
10°	2175.8	2229.4	2304.1	2352.6	2377.2	2378.1	2374.7	2362.8	2356.8	2357.7	2359.4
12.5°	2202.2	2261.6	2342.4	2383.2	2390.0	2371.3	2356.8	2336.4	2328.8	2325.4	2323.7
15°	2237.9	2305.8	2384.0	2399.3	2382.3	2358.5	2333.9	2300.7	2283.7	2270.1	2274.4
17.5°	2281.2	2356.0	2416.3	2405.3	2368.7	2329.6	2289.7	2239.5	2204.7	2190.3	2191.1
20°	2341.5	2408.7	2441.0	2392.5	2337.3	2277.8	2209.8	2148.6	2116.3	2101.9	2100.2
22.5°	2414.6	2479.2	2464.8	2370.4	2292.2	2197.1	2112.1	2067.0	2050.9	2040.7	2042.4
25°	2502.2	2557.4	2481.8	2338.1	2218.3	2090.0	2024.5	2010.1	2002.4	1994.8	1994.8
27.5°	2616.1	2645.8	2494.5	2290.5	2102.7	1976.1	1952.3	1954.8	1952.3	1939.5	1942.1
30°	2766.5	2760.6	2506.4	2213.2	1970.1	1873.2	1874.9	1886.0	1887.7	1879.2	1883.4
32.5°	2964.5	2904.2	2512.4	2112.9	1843.5	1783.1	1784.8	1796.7	1805.2	1790.8	1797.6
35°	3204.2	3071.6	2503.0	1987.1	1745.7	1697.3	1684.5	1687.9	1690.5	1676.9	1686.2
37.5°	3483.8	3259.5	2461.4	1847.7	1665.0	1613.2	1586.0	1563.0	1549.4	1536.7	1545.2
40°	3790.7	3464.3	2384.9	1711.7	1574.9	1523.9	1483.1	1439.8	1393.9	1376.9	1384.5
42.5°	4111.9	3675.1	2292.2	1581.7	1471.2	1429.6	1386.2	1323.3	1254.5	1219.6	1223.9
45°	4445.1	3891.0	2201.3	1453.4	1365.0	1347.1	1297.0	1221.3	1146.5	1102.4	1099.0
47.5°	4771.5	4094.9	2067.9	1324.2	1265.5	1285.1	1246.0	1176.3	1093.0	1023.3	1015.7
50°	5083.4	4286.2	1849.4	1193.3	1184.8	1266.4	1229.0	1128.7	1033.5	944.3	936.6
52.5°	5392.8	4440.9	1569.8	1074.3	1141.4	1261.3	1206.9	1096.4	980.0	886.5	876.3
55°	5655.4	4520.7	1300.4	972.3	1078.6	1217.9	1180.5	1058.2	904.3	804.9	796.4
57.5°	5805.0	4456.2	1076.0	872.0	991.9	1146.5	1135.5	976.6	814.2	737.7	727.5
60°	5740.4	4194.4	892.4	784.5	909.4	1069.2	1057.3	895.8	745.4	673.1	662.9
62.5°	5384.3	3695.5	747.1	708.0	834.6	990.2	979.1	833.8	692.7	623.0	611.9
65°	4666.9	3006.2	634.0	644.2	759.0	895.0	911.1	781.9	651.0	583.0	572.0
67.5°	3559.5	2177.5	545.7	589.0	685.0	801.5	848.2	744.5	616.2	551.6	541.4
70°	2028.8	1236.6	470.9	535.5	619.6	714.8	799.8	714.8	578.8	525.3	518.5
72.5°	769.2	567.7	407.1	481.9	556.7	641.7	746.2	668.0	535.5	495.5	488.7
75°	410.5	345.9	342.5	419.0	484.5	570.3	679.1	622.1	503.2	523.6	540.6
77.5°	279.6	244.8	286.4	358.7	405.4	491.3	607.7	552.5	436.0	434.3	400.3
80°	193.8	173.4	232.9	289.0	313.6	413.1	530.4	474.3	355.3	331.5	317.0
82.5°	116.4	113.0	174.2	215.9	221.8	318.7	439.4	397.8	290.7	253.3	255.0
85°	63.7	67.1	111.3	126.6	129.2	222.7	344.2	307.7	223.5	187.8	189.5
87.5°	17.8	22.9	40.8	50.1	62.0	115.6	204.8	182.7	112.2	78.2	78.2
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)