

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: P883657

Luminaire Tested: **NAV-SB4A-835-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883657  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-835-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15198 lumens  
Efficiency: N/A  
Efficacy: 133.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

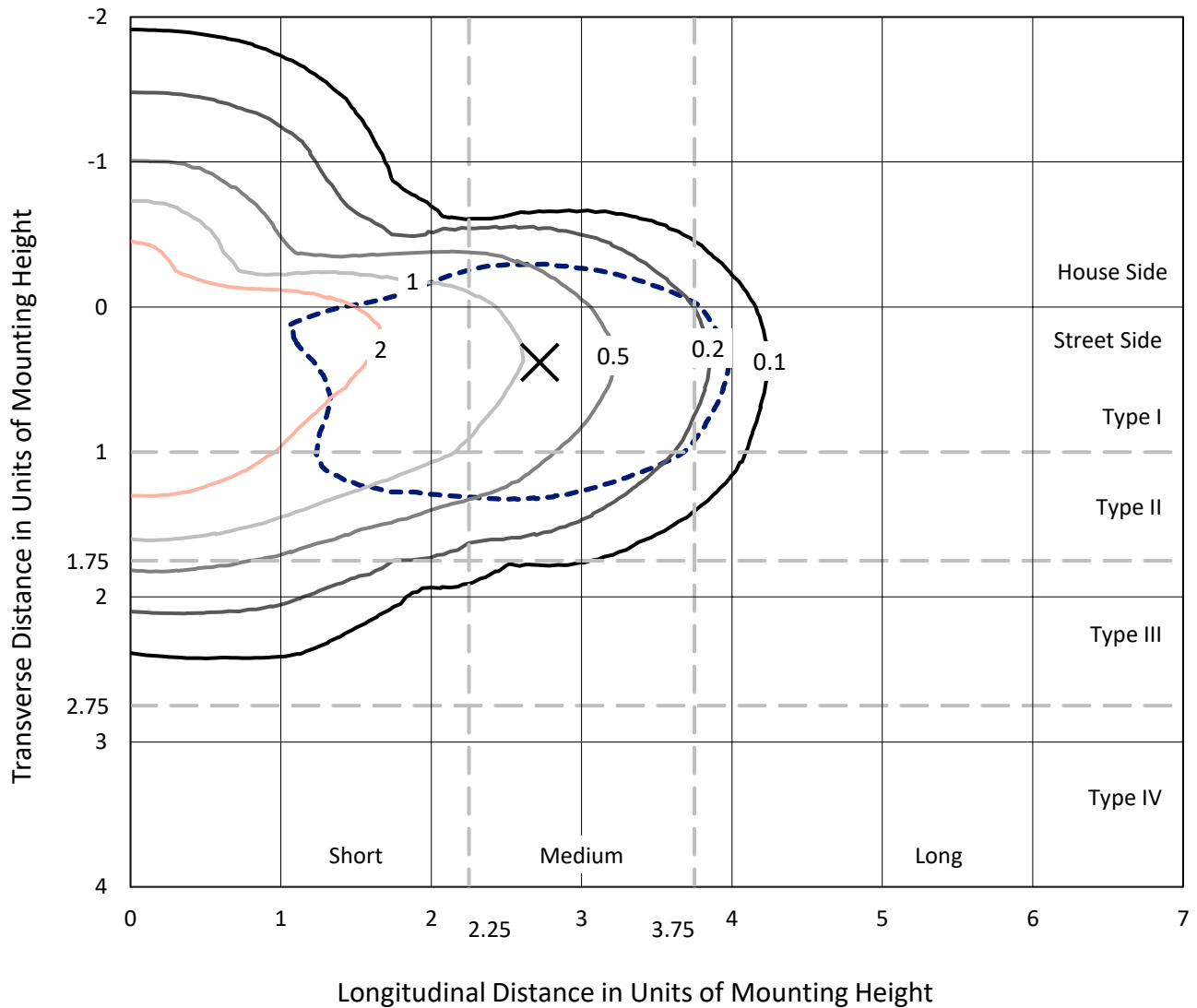
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.206  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

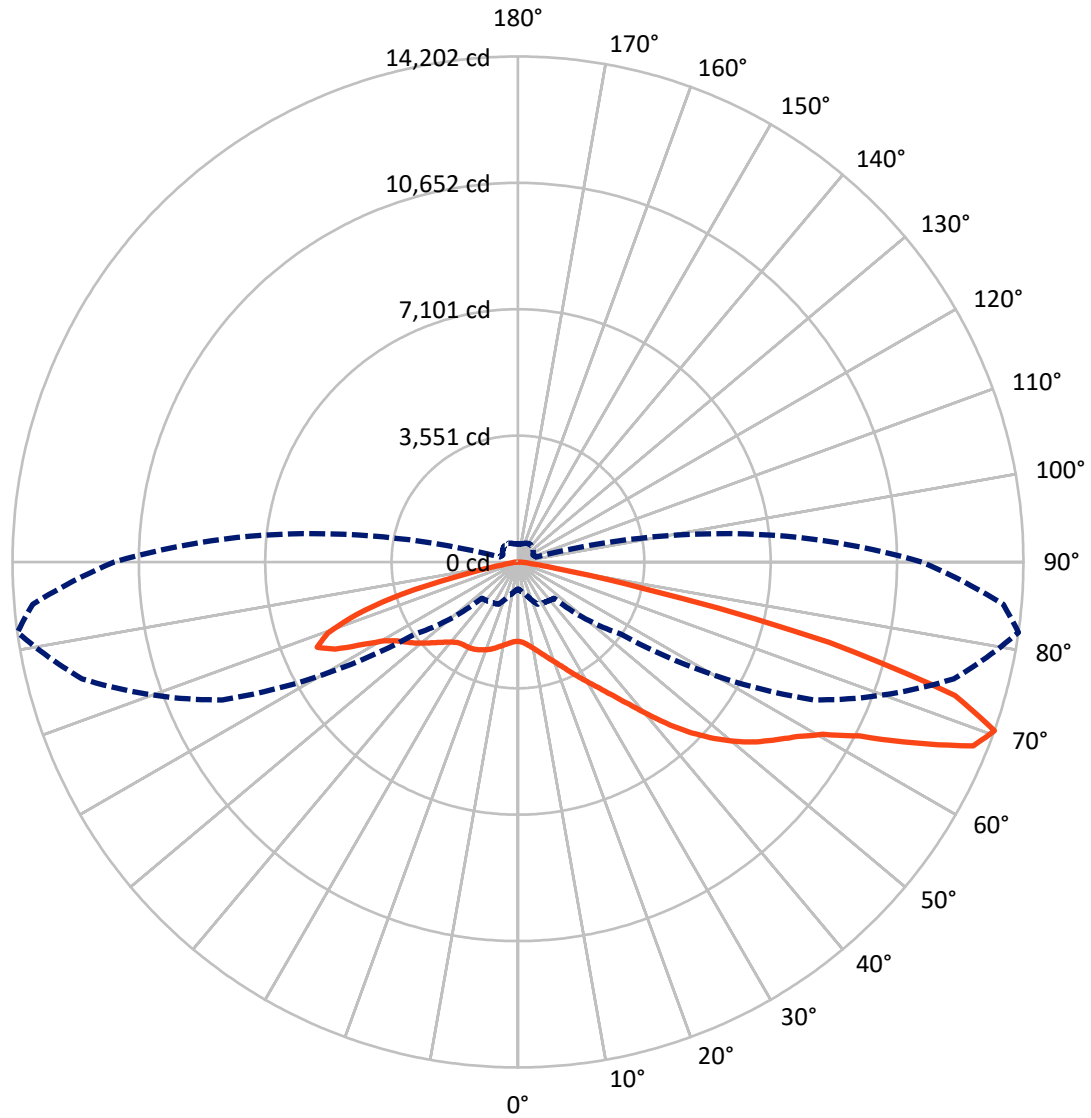
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3746.7	0.0	3746.7
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	11451.3	0.0	11451.3
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	15198.0	0.0	15198.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.4	1.4
10°-20°	604.4	4.0
20°-30°	1011.2	6.7
30°-40°	1579.7	10.4
40°-50°	2515.9	16.6
50°-60°	3501.1	23.0
60°-70°	3662.4	24.1
70°-80°	1914.1	12.6
80°-90°	198.8	1.3
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°	15198.0	100.0
0°-180°	15198.0	100.0

**Coefficient of Utilization**



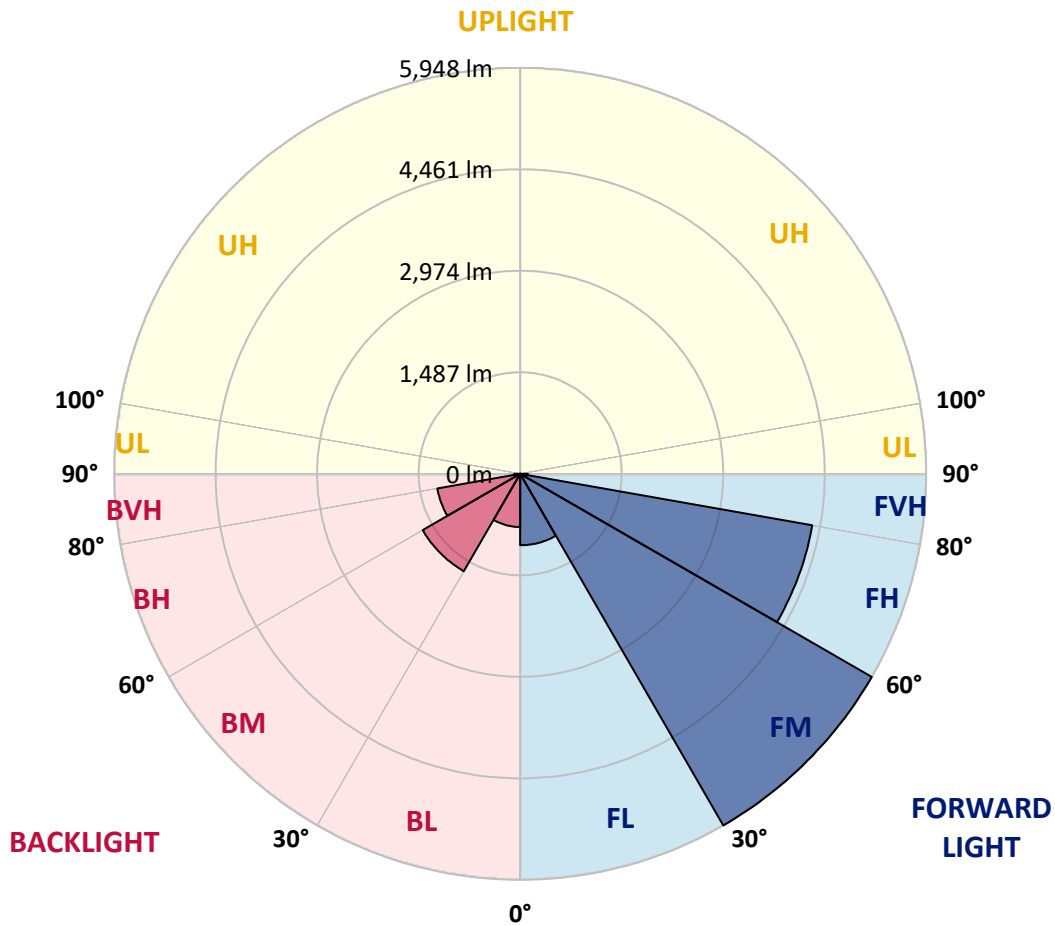
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1046.6	6.9			
FM (30°-60°)	5948.3	39.1			
FH (60°-80°)	4345.2	28.6			G2/5000
FVH (80°-90°)	111.3	0.7			G2/225
BL (0°-30°)	779.4	5.1	B2/1000		
BM (30°-60°)	1648.4	10.8	B2/2500		
BH (60°-80°)	1231.4	8.1	B3/2500		G3/2500
BVH (80°-90°)	87.5	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2
2.5°	2281.4	2294.3	2290.3	2286.3	2286.3	2280.6	2279.8	2271.8	2265.3	2254.8	2252.4
5°	2310.5	2324.2	2322.6	2325.8	2336.3	2338.7	2341.1	2336.3	2323.4	2310.5	2304.8
7.5°	2284.7	2300.0	2304.8	2324.2	2356.4	2385.5	2407.2	2416.1	2404.0	2385.5	2376.6
10°	2197.6	2214.5	2231.4	2277.4	2334.7	2403.2	2461.3	2496.0	2493.5	2475.8	2460.5
12.5°	2021.0	2038.7	2075.0	2164.5	2269.3	2390.3	2498.4	2571.0	2596.0	2583.1	2556.4
15°	1879.8	1895.2	1922.6	2014.5	2150.8	2334.7	2512.1	2653.2	2716.9	2709.7	2677.4
17.5°	1875.8	1882.3	1899.2	1942.7	2047.6	2247.6	2497.6	2733.9	2855.6	2854.8	2814.5
20°	1946.8	1949.2	1958.9	1967.7	2027.4	2181.4	2460.5	2800.8	3011.3	3011.3	2967.7
22.5°	2045.2	2043.5	2053.2	2045.2	2074.2	2175.8	2437.1	2859.7	3184.7	3197.6	3142.7
25°	2192.7	2184.7	2182.2	2163.7	2169.3	2228.2	2462.9	2926.6	3390.3	3416.9	3348.4
27.5°	2389.5	2376.6	2367.7	2325.0	2310.5	2336.3	2541.9	3007.2	3619.3	3665.3	3578.2
30°	2646.0	2622.6	2609.7	2535.5	2483.1	2487.1	2661.3	3114.5	3858.9	3933.0	3822.6
32.5°	2996.0	2959.7	2925.0	2803.2	2707.2	2675.8	2815.3	3262.9	4118.5	4237.1	4095.1
35°	3387.9	3358.9	3321.8	3133.9	2986.3	2913.7	3023.4	3470.1	4422.6	4610.5	4425.8
37.5°	3765.3	3740.3	3758.0	3504.8	3314.5	3208.9	3296.0	3748.4	4797.6	5075.0	4840.3
40°	4155.6	4136.3	4138.7	3896.8	3675.0	3556.4	3626.6	4097.6	5227.4	5627.4	5338.7
42.5°	4579.8	4565.3	4516.9	4302.4	4053.2	3942.7	4007.2	4500.8	5688.7	6256.4	5885.5
45°	5054.8	5045.9	5000.8	4754.8	4469.3	4345.1	4432.2	4945.9	6152.4	6848.4	6434.7
47.5°	5465.3	5472.6	5466.9	5259.7	4963.7	4781.4	4885.5	5410.5	6583.8	7404.8	6961.3
50°	5662.9	5700.8	5756.4	5691.9	5508.0	5322.6	5342.7	5858.8	6995.1	7926.6	7466.1
52.5°	5559.7	5631.4	5783.0	5886.3	5957.2	5918.5	5864.5	6304.0	7382.2	8397.5	7943.5
55°	5175.0	5275.8	5527.4	5776.6	6138.7	6420.1	6491.1	6797.6	7759.6	8812.1	8395.1
57.5°	4474.2	4637.9	4863.7	5367.7	5977.4	6662.9	7221.7	7482.2	8159.6	9254.8	8867.7
60°	3272.6	3491.9	3772.6	4522.6	5412.9	6533.0	7843.5	8533.8	8728.2	9828.2	9483.0
62.5°	2094.3	2229.8	2487.9	3194.3	4217.7	5867.7	8033.8	9848.3	9691.9	10768.5	10405.6
65°	1433.9	1521.0	1757.3	2154.0	2726.6	4367.7	7524.2	10833.8	11222.5	12258.8	11983.0
67.5°	1041.9	1108.1	1309.7	1657.3	1776.6	2584.7	5838.7	10788.7	12710.4	13794.3	13365.3
70°	759.7	806.4	975.8	1309.7	1366.9	1437.9	3537.1	9170.9	12678.2	14202.4	13688.7
72.5°	562.9	595.2	708.9	1016.1	1106.4	971.0	1750.8	6665.3	10894.3	12845.9	12433.8
75°	407.3	431.4	515.3	777.4	885.5	739.5	873.4	3895.1	7599.2	9036.3	9108.8
77.5°	311.3	329.8	384.7	569.4	708.9	554.8	541.9	1791.9	3603.2	3621.0	3824.2
80°	250.0	262.1	291.9	400.8	543.5	415.3	353.2	723.4	1138.7	963.7	1011.3
82.5°	183.9	204.0	246.8	281.5	388.7	286.3	215.3	365.3	433.1	372.6	375.8
85°	104.8	118.5	149.2	201.6	248.4	175.0	123.4	162.1	201.6	165.3	147.6
87.5°	37.1	48.4	52.4	79.0	108.1	72.6	47.6	46.8	66.1	49.2	41.1
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°	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2	2228.2
2.5°	2244.3	2240.3	2224.2	2202.4	2179.8	2158.1	2150.8	2135.5	2125.0	2119.3	2125.8
5°	2289.5	2276.6	2238.7	2190.3	2139.5	2084.7	2046.0	2010.5	1984.7	1960.5	1970.2
7.5°	2354.0	2331.4	2266.1	2181.4	2091.1	2000.0	1932.3	1880.6	1846.0	1823.4	1828.2
10°	2429.0	2394.3	2294.3	2167.7	2028.2	1897.6	1817.7	1773.4	1751.6	1739.5	1742.7
12.5°	2515.3	2466.1	2323.4	2136.3	1932.3	1783.1	1728.2	1715.3	1716.1	1716.9	1718.5
15°	2621.8	2553.2	2346.8	2067.7	1807.3	1695.2	1685.5	1706.4	1728.2	1738.7	1737.9
17.5°	2741.9	2645.2	2350.8	1954.8	1684.7	1638.7	1669.3	1714.5	1747.6	1762.1	1765.3
20°	2871.0	2738.7	2321.8	1795.2	1583.9	1592.7	1647.6	1705.6	1741.9	1760.5	1765.3
22.5°	3018.5	2838.7	2252.4	1627.4	1501.6	1542.7	1607.3	1663.7	1701.6	1720.2	1725.0
25°	3187.1	2950.8	2143.5	1486.3	1430.6	1486.3	1550.8	1597.6	1628.2	1645.2	1650.0
27.5°	3374.2	3067.7	1998.4	1374.2	1368.5	1428.2	1481.4	1517.7	1533.9	1546.8	1551.6
30°	3562.1	3174.2	1822.6	1289.5	1314.5	1371.0	1408.9	1425.0	1429.8	1432.3	1437.9
32.5°	3765.3	3266.1	1637.9	1219.3	1262.9	1315.3	1337.9	1345.2	1322.6	1307.3	1312.1
35°	4011.3	3364.5	1457.3	1163.7	1212.1	1257.3	1264.5	1258.1	1231.4	1200.0	1201.6
37.5°	4315.3	3487.1	1312.9	1124.2	1164.5	1194.4	1185.5	1183.9	1186.3	1149.2	1151.6
40°	4687.9	3646.8	1207.3	1093.5	1125.8	1132.3	1107.3	1121.0	1133.1	1076.6	1078.2
42.5°	5101.6	3839.5	1140.3	1072.6	1093.5	1078.2	1039.5	1054.8	1053.2	979.0	978.2
45°	5523.4	4049.2	1116.9	1057.3	1063.7	1033.1	990.3	994.4	960.5	893.5	896.0
47.5°	5942.7	4274.2	1131.4	1044.4	1026.6	991.9	958.9	941.1	891.1	841.1	841.1
50°	6354.0	4510.5	1184.7	1018.5	975.8	955.6	931.4	900.0	846.8	804.0	800.8
52.5°	6735.5	4748.4	1244.3	975.8	912.1	924.2	908.9	872.6	820.2	776.6	777.4
55°	7096.7	4986.3	1267.7	916.9	852.4	896.8	887.9	821.0	758.1	722.6	719.4
57.5°	7490.3	5272.6	1241.9	841.9	804.0	865.3	831.4	757.3	721.0	694.4	691.9
60°	8035.5	5721.8	1186.3	749.2	758.1	818.5	760.5	729.8	690.3	660.5	658.9
62.5°	8941.1	6559.7	1096.8	657.3	704.0	749.2	726.6	696.0	655.6	626.6	626.6
65°	10279.8	7724.2	928.2	585.5	643.5	681.4	690.3	659.7	617.7	587.1	588.7
67.5°	11408.8	8454.8	702.4	525.8	581.4	626.6	651.6	621.8	577.4	547.6	548.4
70°	11346.7	7924.2	536.3	466.9	526.6	572.6	604.8	581.4	533.9	505.6	508.1
72.5°	10078.2	6629.0	433.9	407.3	471.0	516.1	554.8	537.1	488.7	461.3	461.3
75°	7404.0	4705.6	346.8	346.8	401.6	457.3	500.0	488.7	444.4	425.0	419.4
77.5°	3121.0	1974.2	271.8	287.9	333.9	392.7	446.0	450.0	411.3	435.5	395.2
80°	829.8	544.4	207.3	226.6	262.1	324.2	387.9	386.3	344.4	321.8	299.2
82.5°	316.1	214.5	147.6	159.7	189.5	248.4	307.3	316.9	275.0	237.9	237.9
85°	121.8	91.9	91.1	96.0	110.5	164.5	232.3	240.3	207.3	175.8	181.5
87.5°	31.5	27.4	33.9	32.3	50.8	87.9	133.1	137.9	126.6	73.4	104.8
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)