

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: P882719

Luminaire Tested: **NAV-SB2D-722-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882719  
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-SB2D-722-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16538 lumens  
Efficiency: N/A  
Efficacy: 112.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3

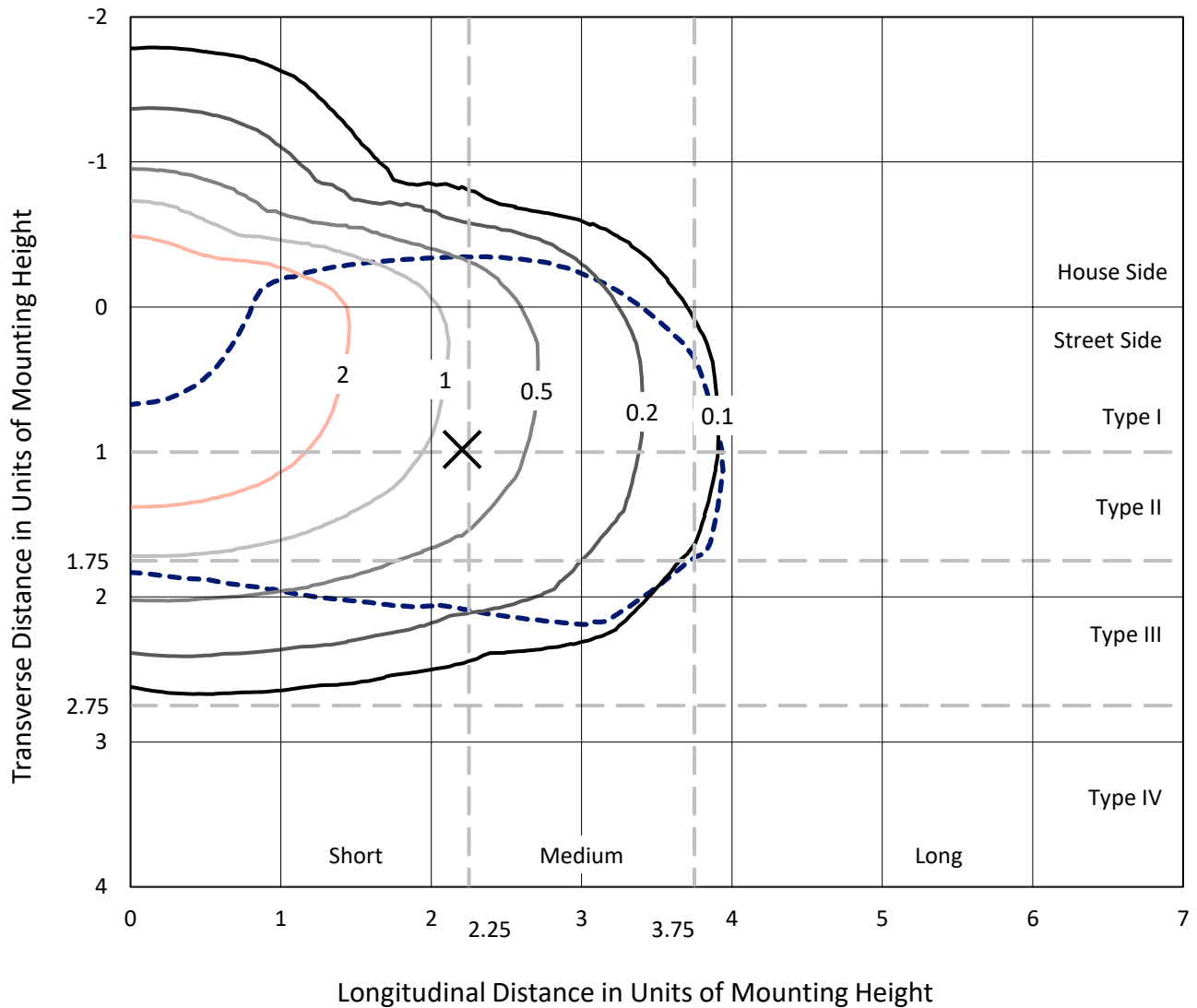
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 1.234  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

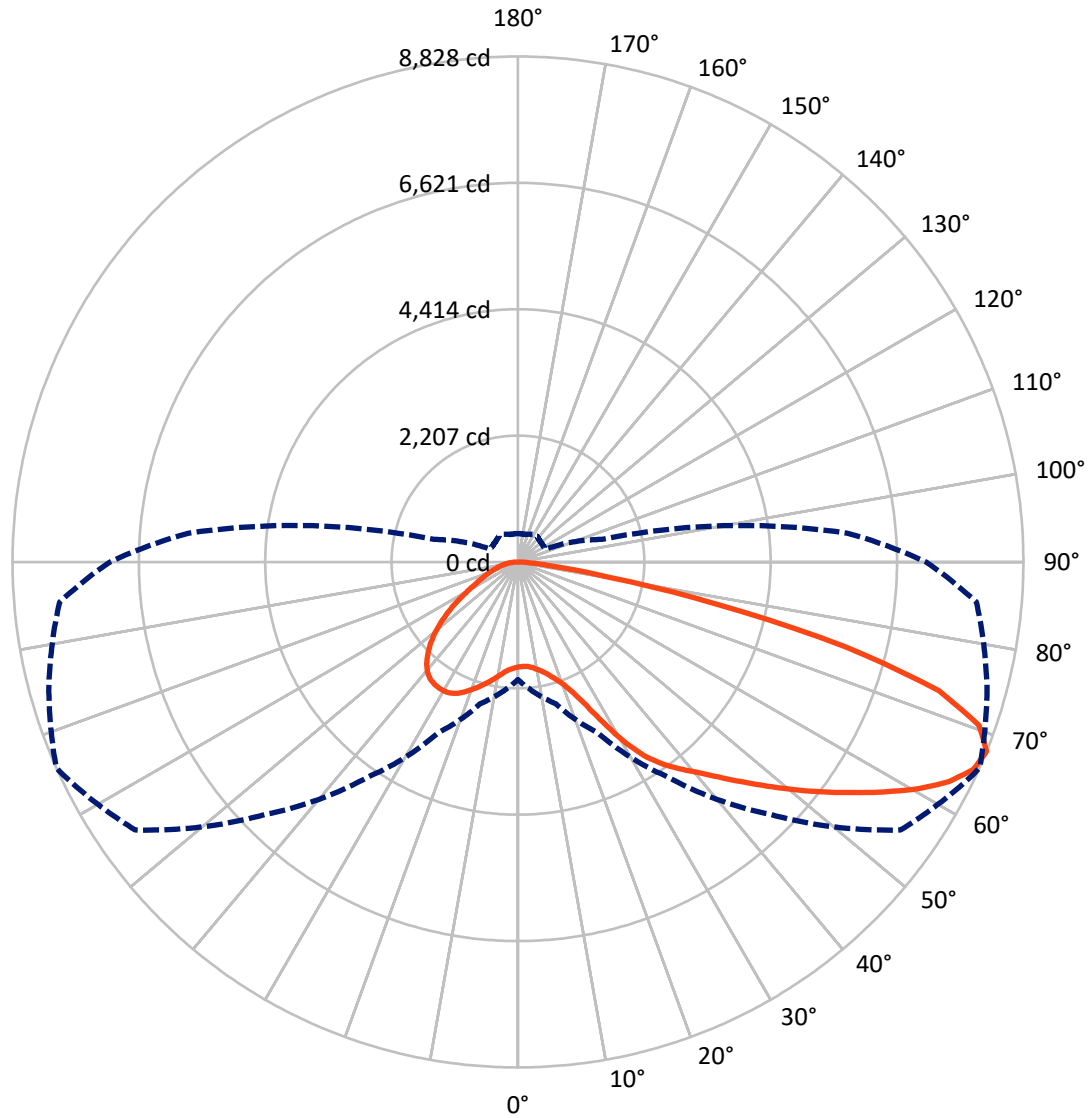
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	4112.1	0.0	4112.1
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	12425.9	0.0	12425.9
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	16538.0	0.0	16538.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.9	1.1
10°-20°	600.8	3.6
20°-30°	1158.1	7.0
30°-40°	2030.6	12.3
40°-50°	3018.8	18.3
50°-60°	3826.6	23.1
60°-70°	3744.3	22.6
70°-80°	1786.0	10.8
80°-90°	190.9	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°	16538.0	100.0
0°-180°	16538.0	100.0

**Coefficient of Utilization**



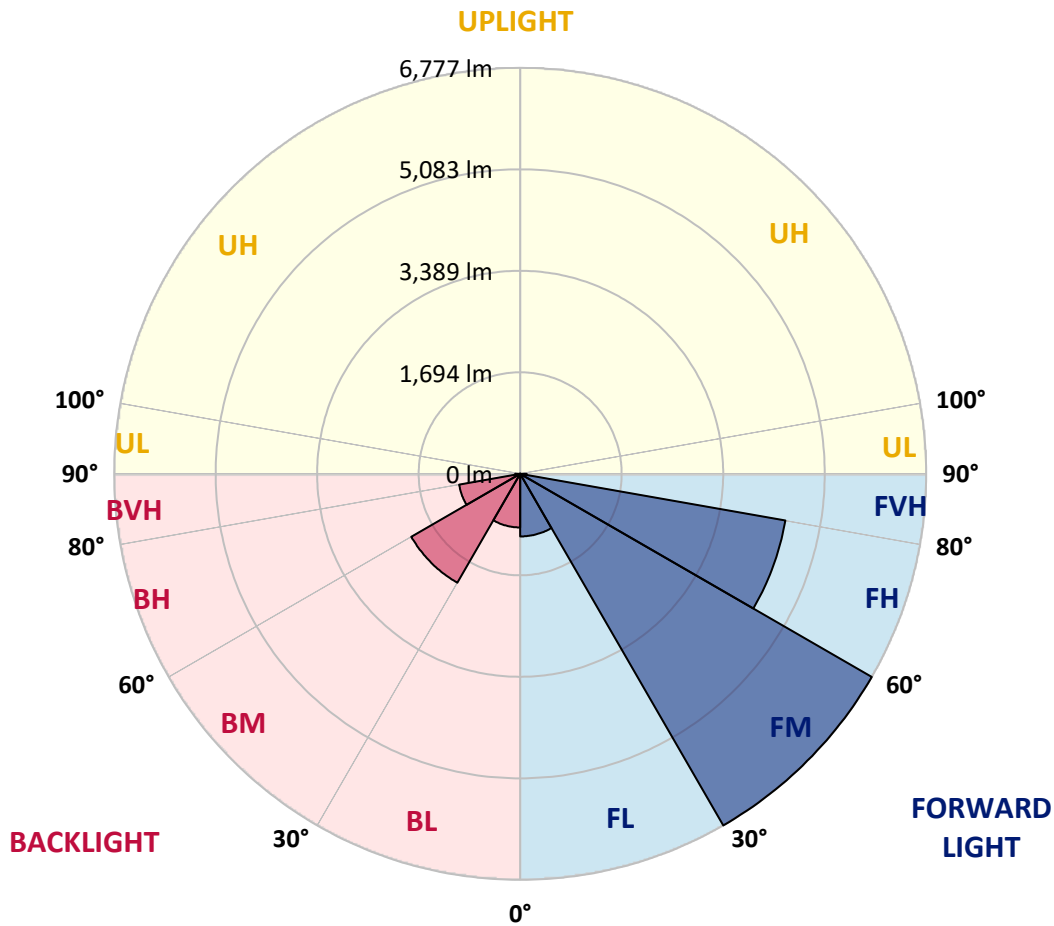
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1045.0	6.3			
FM (30°-60°)	6777.1	41.0			
FH (60°-80°)	4495.5	27.2			G2/5000
FVH (80°-90°)	108.2	0.7			G2/225
BL (0°-30°)	895.8	5.4	B2/1000		
BM (30°-60°)	2098.9	12.7	B2/2500		
BH (60°-80°)	1034.8	6.3	B3/2500		G3/2500
BVH (80°-90°)	82.7	0.5			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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3
2.5°	1815.2	1825.6	1823.0	1818.6	1817.8	1819.5	1822.1	1824.7	1823.9	1828.2	1835.2
5°	1810.0	1820.4	1819.5	1819.5	1823.0	1829.9	1834.3	1838.6	1834.3	1839.5	1849.1
7.5°	1813.4	1821.2	1824.7	1828.2	1836.9	1849.9	1860.4	1869.9	1864.7	1870.8	1882.9
10°	1857.7	1863.8	1867.3	1867.3	1873.4	1888.2	1898.6	1916.0	1911.6	1921.2	1936.8
12.5°	1938.6	1944.6	1944.6	1941.2	1945.5	1955.1	1958.5	1977.7	1969.8	1985.5	2001.1
15°	2037.6	2049.8	2040.2	2034.1	2035.9	2045.4	2044.6	2059.3	2051.5	2064.5	2078.4
17.5°	2147.1	2162.7	2147.1	2146.2	2142.7	2153.2	2154.0	2167.1	2153.2	2162.7	2172.3
20°	2276.6	2298.3	2285.3	2289.6	2281.8	2286.1	2290.5	2309.6	2287.9	2294.8	2292.2
22.5°	2459.0	2485.1	2471.2	2487.7	2482.5	2479.0	2478.1	2512.0	2478.1	2480.8	2455.6
25°	2724.9	2756.2	2731.9	2754.5	2754.5	2765.8	2778.8	2822.2	2765.8	2749.3	2684.1
27.5°	3117.7	3149.0	3101.2	3115.1	3110.7	3138.5	3124.6	3232.4	3171.5	3144.6	3013.4
30°	3590.4	3646.0	3555.6	3552.1	3547.8	3592.1	3612.1	3683.3	3621.6	3594.7	3436.6
32.5°	4101.3	4159.5	4051.8	4020.5	4004.0	4030.9	4014.4	4071.7	4029.2	3987.5	3792.0
35°	4641.8	4699.1	4596.6	4535.7	4469.7	4413.2	4354.1	4368.9	4328.9	4265.5	4063.1
37.5°	5152.7	5257.8	5149.2	5084.0	4962.4	4852.0	4686.9	4618.3	4580.9	4522.7	4318.5
40°	5673.2	5733.1	5650.6	5595.0	5462.9	5290.0	5025.8	4880.7	4830.3	4773.8	4600.9
42.5°	6056.3	6113.7	6069.4	6031.1	5927.7	5727.0	5385.5	5203.9	5131.0	5067.5	4920.7
45°	6360.5	6403.0	6375.2	6389.1	6344.8	6150.2	5758.3	5550.6	5475.0	5397.7	5282.1
47.5°	6483.0	6528.2	6572.5	6655.0	6730.6	6587.3	6158.9	5926.0	5846.1	5767.0	5653.2
50°	6469.1	6515.1	6643.7	6819.3	7053.9	7006.1	6581.2	6325.7	6251.9	6161.5	6056.3
52.5°	6357.9	6410.0	6575.1	6867.0	7240.7	7319.8	7011.3	6738.4	6668.9	6561.2	6456.0
55°	6065.9	6097.2	6344.8	6758.4	7285.0	7538.7	7432.7	7178.1	7108.6	6958.3	6843.6
57.5°	5524.6	5569.8	5930.4	6465.6	7173.8	7687.3	7802.9	7640.4	7573.5	7357.1	7237.2
60°	4818.1	4890.3	5303.0	5973.8	6890.5	7686.4	8139.1	8094.8	8039.2	7749.9	7624.7
62.5°	4018.7	4102.2	4499.2	5278.7	6395.2	7468.3	8349.4	8475.4	8446.7	8112.2	7952.3
65°	3086.4	3143.7	3539.1	4379.3	5624.5	7000.0	8373.7	8735.2	8740.4	8387.7	8123.5
67.5°	2055.0	2220.1	2563.3	3286.2	4592.2	6234.5	8160.0	8777.8	8828.2	8482.4	8037.5
70°	1002.7	1220.0	1556.2	2135.8	3286.2	5060.6	7601.3	8428.5	8540.6	8206.0	7524.8
72.5°	416.2	486.6	669.9	1054.0	1886.4	3414.8	6478.6	7481.4	7689.0	7271.1	6326.6
75°	280.7	304.1	383.2	540.5	859.4	1684.0	4672.2	5578.4	5913.0	5491.6	4488.8
77.5°	216.4	231.1	278.9	378.0	510.9	636.9	2500.7	3361.8	3534.8	3272.3	2335.6
80°	170.3	181.6	208.5	275.4	362.3	340.6	852.4	1523.2	1623.1	1361.6	750.7
82.5°	147.7	152.1	149.5	186.8	240.7	199.0	279.8	562.2	620.4	450.1	245.0
85°	106.9	119.0	124.3	115.6	127.7	100.8	114.7	199.0	219.0	195.5	138.2
87.5°	43.4	64.3	79.1	74.7	46.9	28.7	35.6	58.2	66.9	73.0	45.2
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°	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3	1834.3
2.5°	1836.0	1842.1	1846.4	1851.7	1855.1	1860.4	1870.8	1876.9	1877.7	1882.1	1881.2
5°	1852.5	1861.2	1870.8	1884.7	1900.3	1913.4	1933.3	1947.2	1952.5	1956.8	1955.9
7.5°	1888.2	1900.3	1917.7	1942.0	1964.6	1982.0	2006.3	2022.8	2039.3	2045.4	2046.3
10°	1941.2	1958.5	1983.7	2016.8	2041.1	2063.7	2088.9	2102.8	2119.3	2126.2	2129.7
12.5°	2007.2	2025.4	2058.5	2104.5	2127.1	2142.7	2151.4	2148.0	2151.4	2157.5	2159.3
15°	2082.8	2102.8	2140.1	2189.7	2205.3	2191.4	2172.3	2154.9	2152.3	2154.0	2160.1
17.5°	2172.3	2187.1	2230.5	2272.2	2260.9	2203.6	2161.9	2134.1	2120.2	2115.8	2121.9
20°	2297.4	2297.4	2333.0	2359.1	2283.5	2186.2	2121.0	2075.8	2047.2	2035.0	2032.4
22.5°	2449.5	2435.6	2458.2	2439.9	2279.2	2137.5	2047.2	1969.0	1925.5	1908.1	1905.5
25°	2642.4	2625.9	2619.8	2506.8	2247.9	2060.2	1913.4	1818.6	1780.4	1770.9	1772.6
27.5°	2933.5	2891.8	2812.7	2543.3	2190.5	1938.6	1756.9	1669.2	1647.5	1648.3	1650.9
30°	3321.0	3237.6	3043.8	2549.4	2096.7	1766.5	1597.1	1534.5	1524.1	1528.4	1543.2
32.5°	3679.9	3600.8	3280.2	2521.6	1952.5	1597.9	1453.7	1412.0	1396.3	1401.6	1408.5
35°	3961.4	3939.7	3499.1	2482.5	1775.2	1439.8	1325.1	1289.5	1259.1	1252.1	1257.3
37.5°	4227.3	4218.6	3663.4	2427.8	1599.7	1327.7	1221.7	1174.8	1130.5	1106.1	1107.0
40°	4519.2	4510.5	3771.1	2343.5	1444.1	1230.4	1128.7	1067.0	1012.3	968.0	972.3
42.5°	4847.7	4796.4	3822.4	2222.7	1312.1	1147.8	1053.1	969.7	897.6	856.8	859.4
45°	5206.5	5091.0	3821.5	2068.9	1200.8	1072.2	972.3	854.1	787.2	749.0	747.3
47.5°	5587.1	5372.5	3774.6	1898.6	1093.1	988.8	847.2	756.8	712.5	689.1	683.8
50°	5979.9	5635.8	3694.6	1703.1	982.7	894.1	769.0	707.3	673.4	651.7	643.9
52.5°	6349.2	5874.7	3598.2	1481.5	870.7	802.0	734.2	686.4	650.8	626.5	616.1
55°	6692.4	6080.7	3461.8	1254.7	779.4	740.3	717.7	677.8	636.9	608.2	596.9
57.5°	6997.4	6214.5	3226.3	1041.8	714.2	697.7	700.3	663.0	616.1	591.7	576.1
60°	7251.1	6312.7	2877.9	844.6	661.2	656.0	673.4	635.2	580.4	552.6	540.5
62.5°	7403.2	6310.9	2450.3	691.7	616.1	617.8	637.8	600.4	544.8	518.7	510.9
65°	7390.1	6156.3	1981.1	591.7	572.6	574.4	600.4	562.2	515.3	499.6	498.8
67.5°	7128.6	5779.2	1519.7	526.6	524.8	532.6	563.1	536.1	497.0	495.3	497.9
70°	6420.4	4996.3	1094.8	474.4	475.3	486.6	526.6	519.6	487.5	490.9	490.1
72.5°	5148.3	3809.3	735.1	419.7	420.6	438.8	491.8	506.6	477.9	524.0	530.9
75°	3428.7	2375.6	472.7	361.5	362.3	385.8	461.4	481.4	451.8	522.2	526.6
77.5°	1647.5	1067.9	342.4	304.1	304.1	325.8	398.8	431.0	384.9	405.8	371.9
80°	569.1	401.4	269.4	245.0	239.8	254.6	336.3	373.6	331.9	305.9	286.7
82.5°	224.2	208.5	216.4	190.3	172.9	182.5	261.5	308.5	244.2	220.7	219.8
85°	128.6	135.6	152.9	126.0	99.9	112.1	192.0	221.6	184.2	162.5	166.0
87.5°	34.8	47.8	70.4	65.2	45.2	47.8	91.2	122.5	106.0	81.7	84.3
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)