

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: P883737

Luminaire Tested: **NAV-SB4B-722-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883737  
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-SB4B-722-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18019 lumens  
Efficiency: N/A  
Efficacy: 122.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

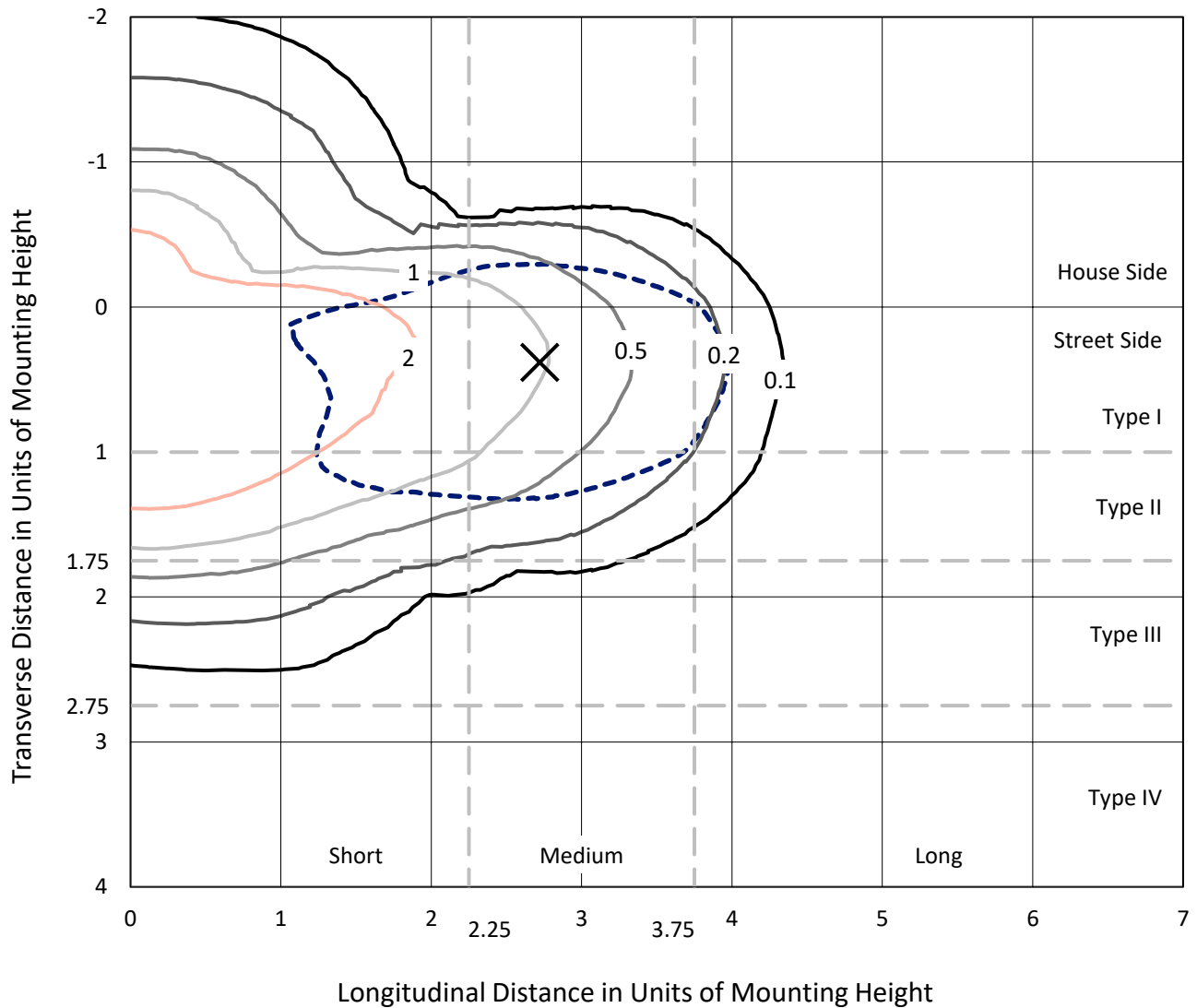
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

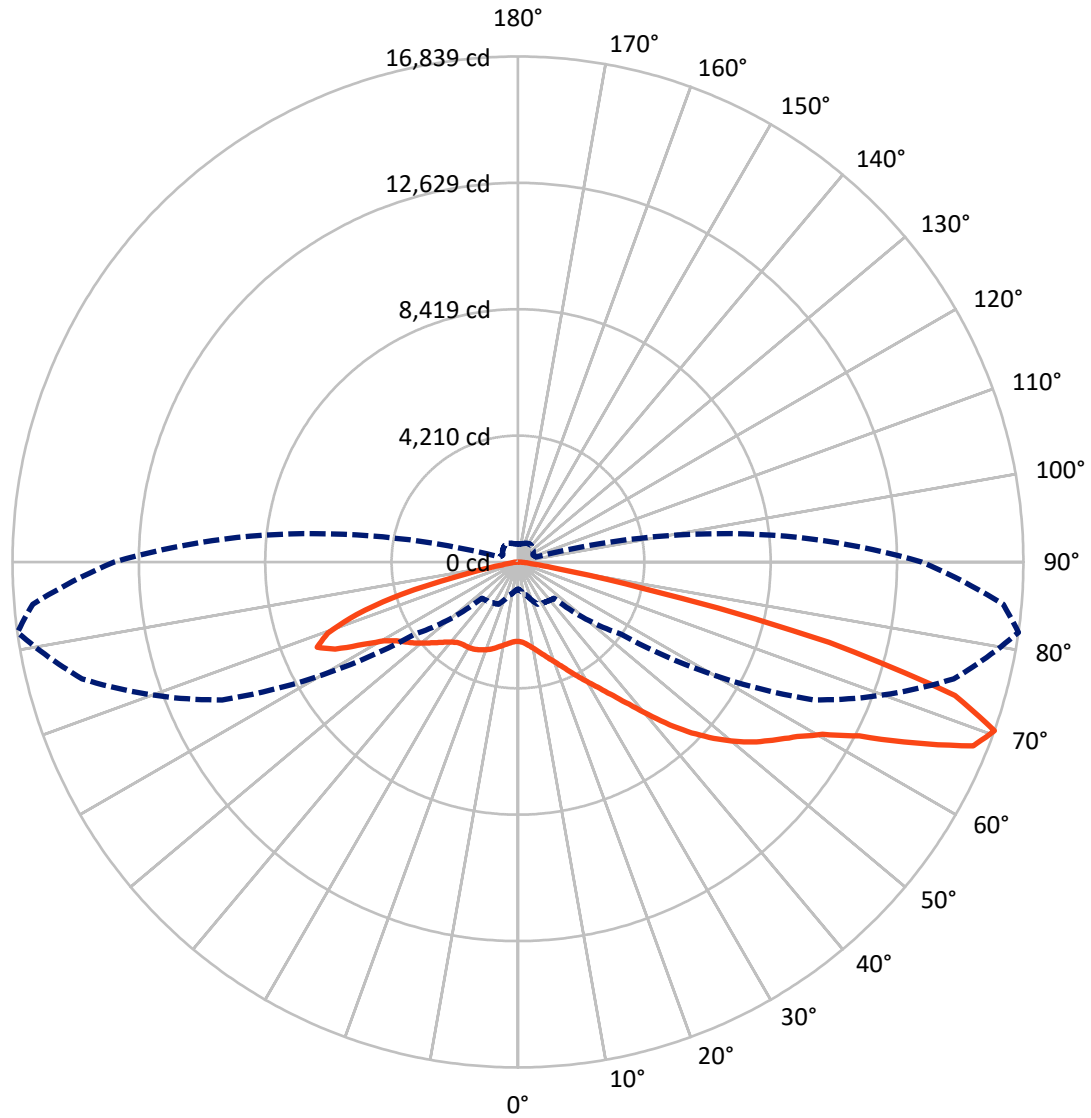
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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	4442.1	0.0	4442.1
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	13576.9	0.0	13576.9
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	18019.0	0.0	18019.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	249.4	1.4
10°-20°	716.6	4.0
20°-30°	1198.9	6.7
30°-40°	1872.9	10.4
40°-50°	2982.9	16.6
50°-60°	4151.0	23.0
60°-70°	4342.2	24.1
70°-80°	2269.4	12.6
80°-90°	235.7	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°	18019.0	100.0
0°-180°	18019.0	100.0

**Coefficient of Utilization**



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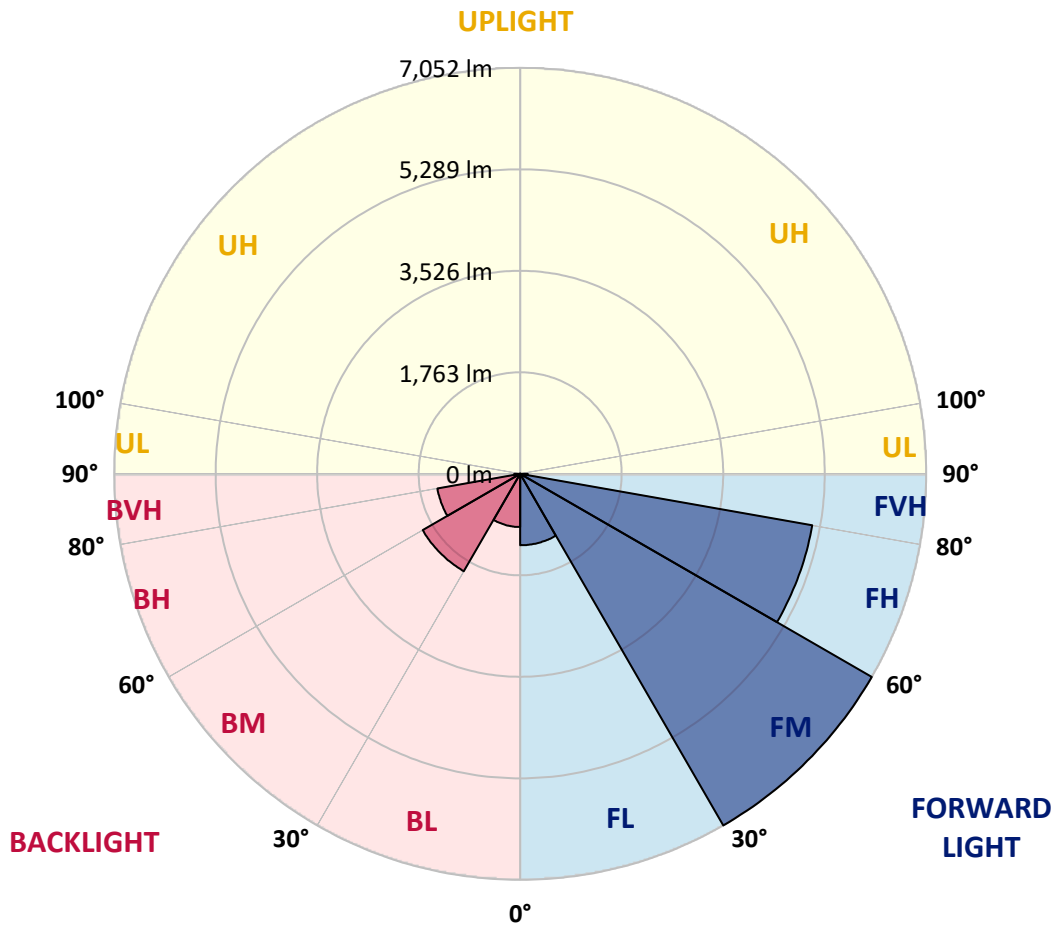
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1240.8	6.9			
FM (30°-60°)	7052.5	39.1			
FH (60°-80°)	5151.7	28.6			G3/7500
FVH (80°-90°)	131.9	0.7			G2/225
BL (0°-30°)	924.1	5.1	B2/1000		
BM (30°-60°)	1954.4	10.8	B2/2500		
BH (60°-80°)	1459.9	8.1	B3/2500		G3/2500
BVH (80°-90°)	103.7	0.6			G2/225
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°	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8
2.5°	2704.9	2720.2	2715.4	2710.7	2710.7	2704.0	2703.0	2693.4	2685.8	2673.4	2670.5
5°	2739.3	2755.6	2753.7	2757.5	2769.9	2772.8	2775.7	2769.9	2754.6	2739.3	2732.6
7.5°	2708.7	2726.9	2732.6	2755.6	2793.8	2828.3	2854.1	2864.6	2850.2	2828.3	2817.7
10°	2605.5	2625.6	2645.6	2700.1	2768.0	2849.3	2918.1	2959.2	2956.4	2935.3	2917.2
12.5°	2396.1	2417.1	2460.1	2566.3	2690.6	2834.0	2962.1	3048.2	3077.8	3062.5	3031.0
15°	2228.8	2246.9	2279.4	2388.4	2550.0	2768.0	2978.4	3145.7	3221.2	3212.6	3174.4
17.5°	2224.0	2231.6	2251.7	2303.3	2427.6	2664.8	2961.2	3241.3	3385.7	3384.7	3336.9
20°	2308.1	2311.0	2322.5	2333.0	2403.7	2586.4	2917.2	3320.7	3570.2	3570.2	3518.6
22.5°	2424.8	2422.9	2434.3	2424.8	2459.2	2579.7	2889.5	3390.5	3775.8	3791.1	3726.1
25°	2599.7	2590.2	2587.3	2565.3	2572.0	2641.8	2920.0	3469.8	4019.6	4051.2	3969.9
27.5°	2833.0	2817.7	2807.2	2756.5	2739.3	2769.9	3013.7	3565.4	4291.1	4345.6	4242.4
30°	3137.1	3109.4	3094.1	3006.1	2944.0	2948.7	3155.3	3692.6	4575.1	4663.1	4532.1
32.5°	3552.1	3509.0	3467.9	3323.5	3209.8	3172.5	3337.9	3868.5	4883.0	5023.6	4855.3
35°	4016.7	3982.3	3938.3	3715.6	3540.6	3454.5	3584.6	4114.3	5243.5	5466.2	5247.3
37.5°	4464.2	4434.6	4455.6	4155.4	3929.7	3804.5	3907.7	4444.1	5688.1	6017.0	5738.7
40°	4927.0	4904.0	4906.9	4620.1	4357.1	4216.6	4299.8	4858.1	6197.7	6671.9	6329.6
42.5°	5429.9	5412.7	5355.3	5101.0	4805.6	4674.6	4751.1	5336.2	6744.6	7417.7	6977.9
45°	5993.1	5982.6	5929.0	5637.4	5298.9	5151.7	5254.9	5864.0	7294.4	8119.5	7629.0
47.5°	6479.8	6488.4	6481.7	6235.9	5885.0	5668.9	5792.3	6414.7	7805.9	8779.3	8253.4
50°	6714.0	6758.9	6824.9	6748.4	6530.4	6310.5	6334.4	6946.3	8293.5	9397.9	8851.9
52.5°	6591.6	6676.7	6856.5	6978.9	7063.0	7017.1	6953.0	7474.1	8752.5	9956.3	9418.0
55°	6135.5	6255.1	6553.4	6848.8	7278.1	7611.8	7696.0	8059.3	9200.0	10447.7	9953.4
57.5°	5304.7	5498.8	5766.5	6364.1	7086.9	7899.6	8562.2	8871.1	9674.2	10972.6	10513.7
60°	3880.0	4140.1	4472.8	5362.0	6417.6	7745.7	9299.4	10117.9	10348.3	11652.5	11243.2
62.5°	2483.1	2643.7	2949.7	3787.3	5000.6	6956.9	9525.1	11676.4	11490.9	12767.3	12337.1
65°	1700.0	1803.3	2083.4	2553.8	3232.7	5178.4	8920.8	12844.8	13305.6	14534.3	14207.3
67.5°	1235.3	1313.7	1552.8	1964.9	2106.4	3064.4	6922.4	12791.2	15069.7	16354.7	15846.1
70°	900.7	956.1	1156.9	1552.8	1620.7	1704.8	4193.6	10873.2	15031.5	16838.6	16229.5
72.5°	667.4	705.6	840.4	1204.7	1311.8	1151.2	2075.8	7902.5	12916.5	15230.3	14741.7
75°	482.8	511.5	611.0	921.7	1049.8	876.8	1035.5	4618.1	9009.7	10713.5	10799.6
77.5°	369.1	391.1	456.1	675.0	840.4	657.8	642.5	2124.5	4272.0	4293.1	4534.0
80°	296.4	310.7	346.1	475.2	644.4	492.4	418.8	857.7	1350.1	1142.6	1199.0
82.5°	218.0	241.9	292.6	333.7	460.9	339.4	255.3	433.1	513.4	441.7	445.6
85°	124.3	140.6	176.9	239.0	294.5	207.5	146.3	192.2	239.0	196.0	175.0
87.5°	44.0	57.4	62.1	93.7	128.1	86.1	56.4	55.5	78.4	58.3	48.8
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°	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8	2641.8
2.5°	2660.9	2656.2	2637.0	2611.2	2584.4	2558.6	2550.0	2531.9	2519.4	2512.7	2520.4
5°	2714.5	2699.2	2654.2	2596.9	2536.6	2471.6	2425.7	2383.7	2353.1	2324.4	2335.8
7.5°	2791.0	2764.2	2686.7	2586.4	2479.3	2371.2	2290.9	2229.7	2188.6	2161.8	2167.6
10°	2879.9	2838.8	2720.2	2570.1	2404.7	2249.8	2155.1	2102.5	2076.7	2062.4	2066.2
12.5°	2982.2	2923.9	2754.6	2532.8	2290.9	2114.0	2049.0	2033.7	2034.7	2035.6	2037.5
15°	3108.4	3027.1	2782.4	2451.5	2142.7	2009.8	1998.3	2023.2	2049.0	2061.4	2060.5
17.5°	3250.9	3136.1	2787.1	2317.7	1997.4	1942.9	1979.2	2032.8	2072.0	2089.2	2093.0
20°	3403.9	3247.0	2752.7	2128.4	1877.9	1888.4	1953.4	2022.2	2065.3	2087.3	2093.0
22.5°	3578.8	3365.6	2670.5	1929.5	1780.3	1829.1	1905.6	1972.5	2017.5	2039.4	2045.2
25°	3778.7	3498.5	2541.4	1762.2	1696.2	1762.2	1838.7	1894.1	1930.4	1950.5	1956.3
27.5°	4000.5	3637.2	2369.3	1629.3	1622.6	1693.3	1756.4	1799.5	1818.6	1833.9	1839.6
30°	4223.3	3763.4	2160.9	1528.9	1558.5	1625.4	1670.4	1689.5	1695.2	1698.1	1704.8
32.5°	4464.2	3872.4	1941.9	1445.7	1497.3	1559.5	1586.2	1594.8	1568.1	1549.9	1555.6
35°	4755.8	3989.0	1727.7	1379.7	1437.1	1490.6	1499.2	1491.6	1460.0	1422.7	1424.6
37.5°	5116.3	4134.3	1556.6	1332.9	1380.7	1416.0	1405.5	1403.6	1406.5	1362.5	1365.4
40°	5558.0	4323.7	1431.3	1296.5	1334.8	1342.4	1312.8	1329.0	1343.4	1276.4	1278.4
42.5°	6048.5	4552.2	1352.0	1271.7	1296.5	1278.4	1232.5	1250.6	1248.7	1160.8	1159.8
45°	6548.6	4800.8	1324.3	1253.5	1261.1	1224.8	1174.1	1178.9	1138.8	1059.4	1062.3
47.5°	7045.8	5067.5	1341.5	1238.2	1217.2	1176.1	1136.8	1115.8	1056.5	997.3	997.3
50°	7533.4	5347.7	1404.6	1207.6	1156.9	1133.0	1104.3	1067.1	1003.9	953.3	949.4
52.5°	7985.7	5629.7	1475.3	1156.9	1081.4	1095.7	1077.6	1034.5	972.4	920.8	921.7
55°	8414.0	5911.8	1503.0	1087.1	1010.6	1063.2	1052.7	973.3	898.8	856.7	852.9
57.5°	8880.6	6251.2	1472.5	998.2	953.3	1025.9	985.8	897.8	854.8	823.2	820.4
60°	9527.0	6783.8	1406.5	888.3	898.8	970.5	901.6	865.3	818.5	783.1	781.2
62.5°	10600.7	7777.2	1300.3	779.3	834.7	888.3	861.5	825.1	777.3	742.9	742.9
65°	12187.9	9157.9	1100.5	694.2	763.0	807.9	818.5	782.1	732.4	696.1	698.0
67.5°	13526.5	10024.2	832.8	623.4	689.4	742.9	772.6	737.2	684.6	649.2	650.2
70°	13452.9	9395.0	635.8	553.6	624.4	678.9	717.1	689.4	633.0	599.5	602.4
72.5°	11948.9	7859.5	514.4	482.8	558.4	611.9	657.8	636.8	579.4	546.9	546.9
75°	8778.3	5579.1	411.1	411.1	476.2	542.1	592.8	579.4	526.8	503.9	497.2
77.5°	3700.3	2340.6	322.2	341.3	395.8	465.6	528.7	533.5	487.6	516.3	468.5
80°	983.9	645.4	245.7	268.7	310.7	384.4	459.9	458.0	408.3	381.5	354.7
82.5°	374.8	254.3	175.0	189.3	224.7	294.5	364.3	375.8	326.0	282.1	282.1
85°	144.4	109.0	108.0	113.8	131.0	195.1	275.4	284.9	245.7	208.4	215.1
87.5°	37.3	32.5	40.2	38.2	60.2	104.2	157.8	163.5	150.1	87.0	124.3
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)