

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: P883587

Luminaire Tested: **NAV-SB4A-730-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883587
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-730-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17731 lumens
Efficiency: N/A
Efficacy: 155.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

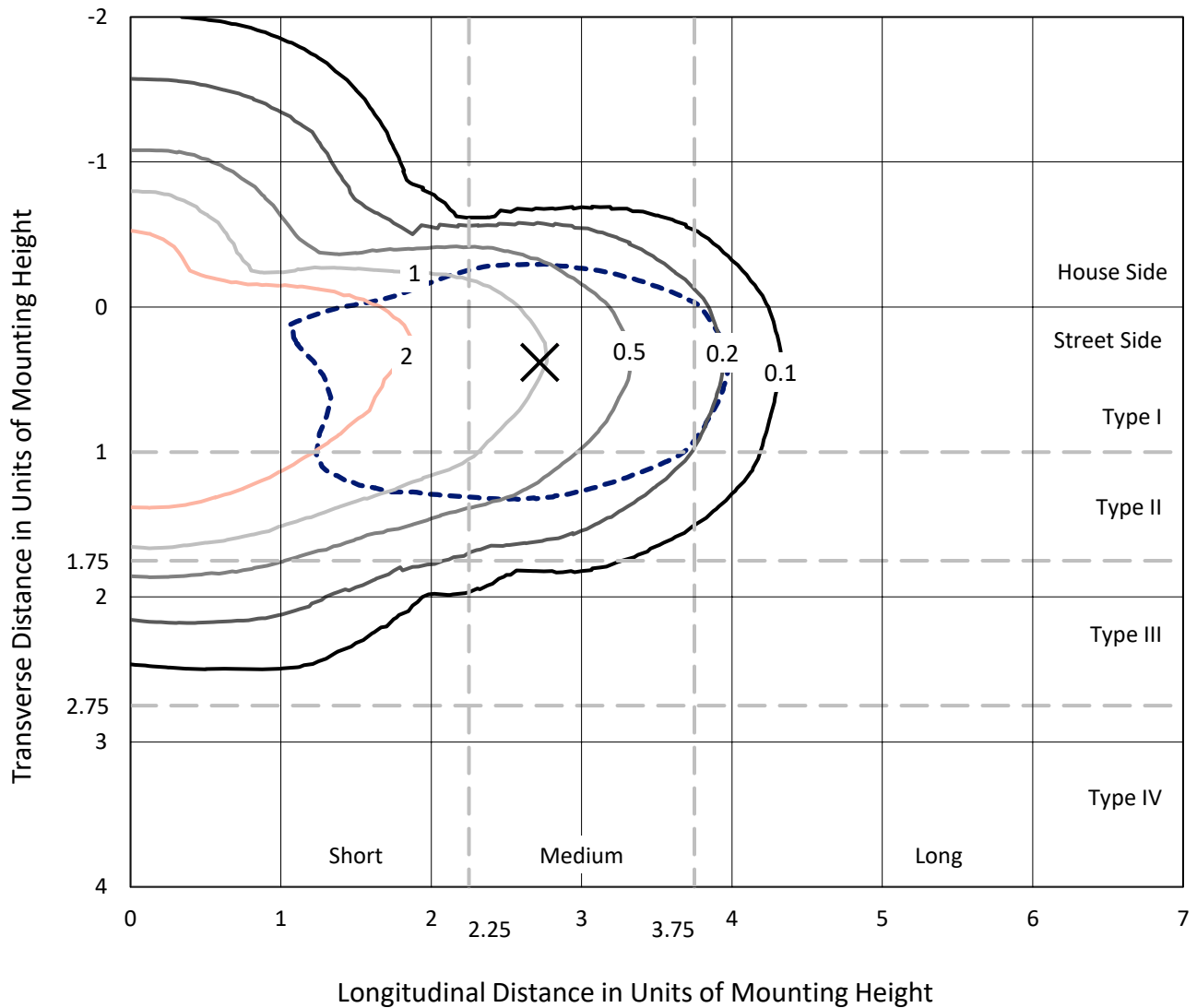
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

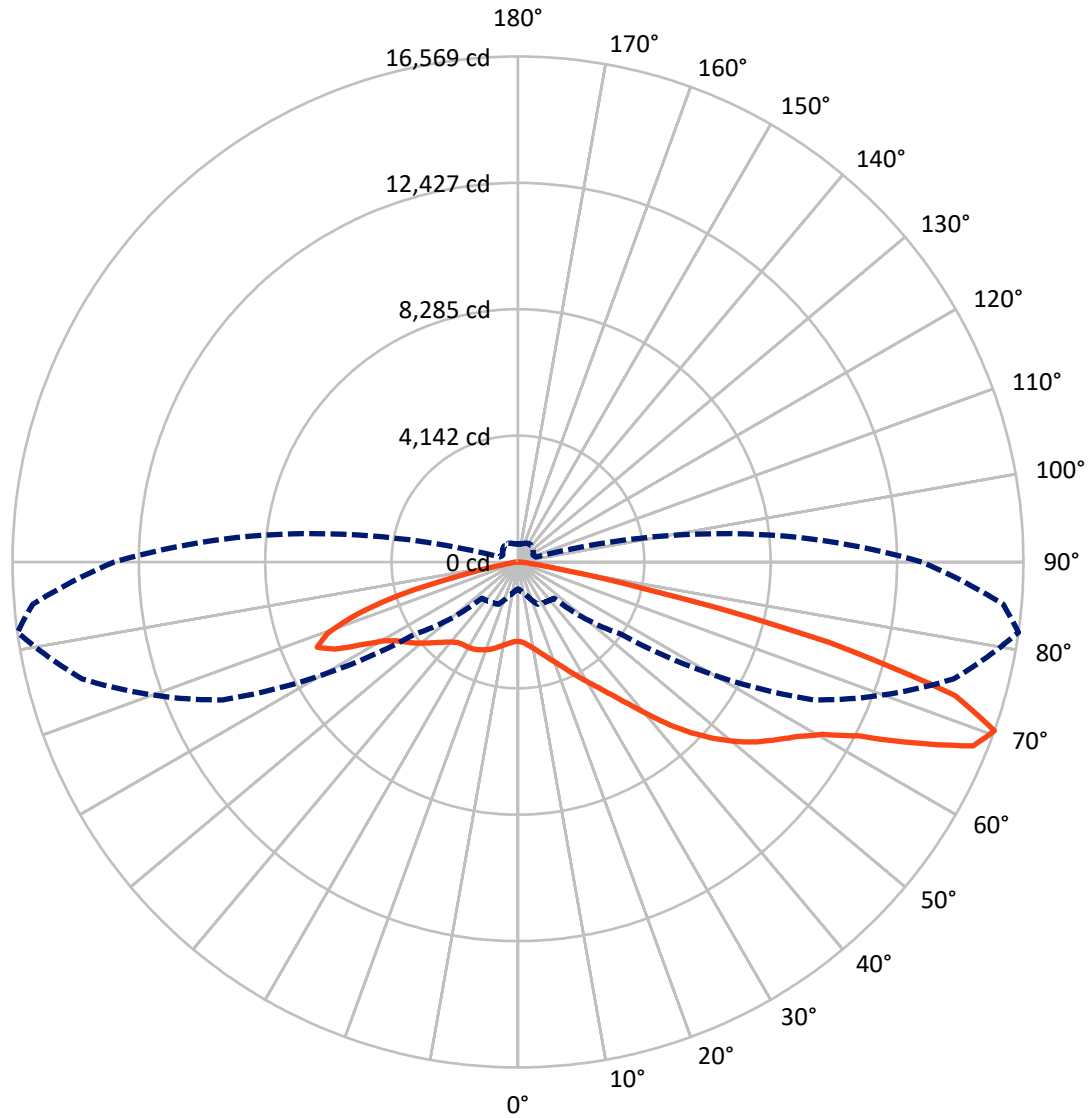
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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
House Side	Lumens	4371.1	0.0	4371.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	13359.9	0.0	13359.9
	% Fixture	75.3	0.0	75.3
Total	Lumens	17731.0	0.0	17731.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.4	1.4
10°-20°	705.2	4.0
20°-30°	1179.7	6.7
30°-40°	1843.0	10.4
40°-50°	2935.2	16.6
50°-60°	4084.7	23.0
60°-70°	4272.8	24.1
70°-80°	2233.2	12.6
80°-90°	231.9	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°	17731.0	100.0
0°-180°	17731.0	100.0

Coefficient of Utilization



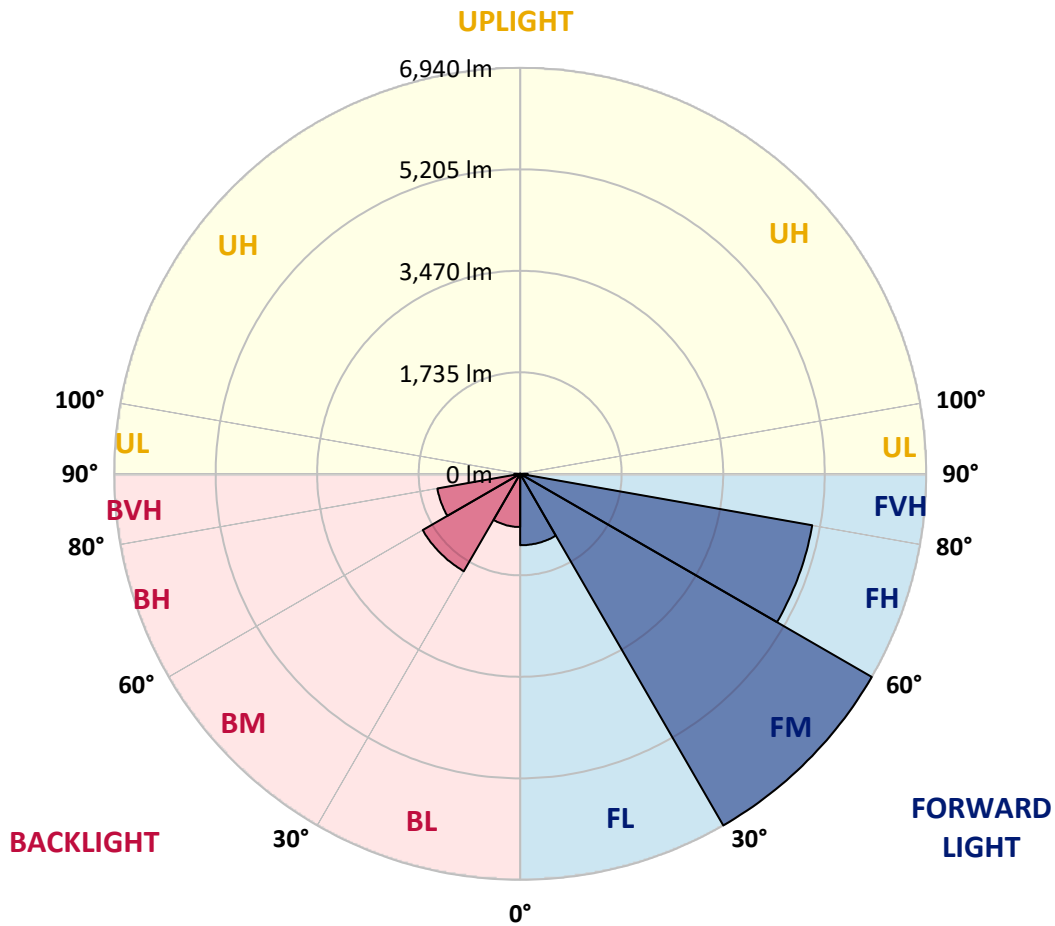
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1221.0	6.9			
FM (30°-60°)	6939.7	39.1			
FH (60°-80°)	5069.3	28.6			G3/7500
FVH (80°-90°)	129.8	0.7			G2/225
BL (0°-30°)	909.4	5.1	B2/1000		
BM (30°-60°)	1923.1	10.8	B2/2500		
BH (60°-80°)	1436.6	8.1	B3/2500		G3/2500
BVH (80°-90°)	102.1	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°	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6
2.5°	2661.7	2676.7	2672.0	2667.3	2667.3	2660.7	2659.8	2650.4	2642.9	2630.6	2627.8
5°	2695.6	2711.5	2709.7	2713.4	2725.7	2728.5	2731.3	2725.7	2710.6	2695.6	2689.0
7.5°	2665.4	2683.3	2689.0	2711.5	2749.2	2783.1	2808.5	2818.8	2804.7	2783.1	2772.7
10°	2563.8	2583.6	2603.3	2657.0	2723.8	2803.8	2871.5	2912.0	2909.1	2888.4	2870.6
12.5°	2357.8	2378.5	2420.8	2525.3	2647.6	2788.7	2914.8	2999.5	3028.6	3013.6	2982.5
15°	2193.1	2211.0	2243.0	2350.3	2509.3	2723.8	2930.8	3095.4	3169.7	3161.3	3123.6
17.5°	2188.4	2196.0	2215.7	2266.5	2388.8	2622.2	2913.8	3189.5	3331.6	3330.6	3283.6
20°	2271.2	2274.0	2285.3	2295.7	2365.3	2545.0	2870.6	3267.6	3513.2	3513.2	3462.4
22.5°	2386.0	2384.1	2395.4	2386.0	2419.9	2538.4	2843.3	3336.3	3715.4	3730.5	3666.5
25°	2558.2	2548.8	2546.0	2524.3	2530.9	2599.6	2873.4	3414.4	3955.4	3986.4	3906.4
27.5°	2787.8	2772.7	2762.4	2712.5	2695.6	2725.7	2965.6	3508.5	4222.6	4276.2	4174.6
30°	3086.9	3059.7	3044.6	2958.1	2896.9	2901.6	3104.8	3633.6	4502.0	4588.6	4459.7
32.5°	3495.3	3452.9	3412.5	3270.4	3158.5	3121.8	3284.5	3806.7	4805.0	4943.3	4777.7
35°	3952.5	3918.7	3875.4	3656.2	3484.0	3399.3	3527.3	4048.5	5159.7	5378.9	5163.4
37.5°	4392.9	4363.7	4384.4	4089.0	3866.9	3743.7	3845.3	4373.1	5597.2	5920.8	5647.0
40°	4848.2	4825.7	4828.5	4546.2	4287.5	4149.2	4231.0	4780.5	6098.6	6565.3	6228.5
42.5°	5343.1	5326.2	5269.7	5019.5	4728.7	4599.8	4675.1	5250.9	6636.8	7299.2	6866.4
45°	5897.3	5886.9	5834.3	5547.3	5214.2	5069.3	5170.9	5770.3	7177.8	7989.8	7507.1
47.5°	6376.2	6384.7	6378.1	6136.3	5791.0	5578.3	5699.7	6312.2	7681.2	8638.9	8121.5
50°	6606.7	6650.9	6715.8	6640.6	6426.0	6209.7	6233.2	6835.3	8161.0	9247.7	8710.4
52.5°	6486.3	6570.0	6746.9	6867.3	6950.1	6904.9	6841.9	7354.7	8612.6	9797.1	9267.4
55°	6037.5	6155.1	6448.6	6739.4	7161.8	7490.2	7573.0	7930.5	9052.9	10280.7	9794.3
57.5°	5219.9	5410.9	5674.3	6262.3	6973.6	7773.4	8425.4	8729.3	9519.6	10797.3	10345.7
60°	3818.0	4073.9	4401.3	5276.3	6315.0	7621.9	9150.8	9956.1	10182.9	11466.2	11063.5
62.5°	2443.4	2601.5	2902.5	3726.7	4920.7	6845.7	9372.8	11489.7	11307.2	12563.3	12139.9
65°	1672.8	1774.5	2050.1	2513.0	3181.0	5095.7	8778.2	12639.5	13093.0	14302.0	13980.2
67.5°	1215.6	1292.7	1528.0	1933.5	2072.7	3015.4	6811.8	12586.8	14828.8	16093.3	15592.8
70°	886.3	940.9	1138.4	1528.0	1594.8	1677.5	4126.6	10699.4	14791.2	16569.4	15970.1
72.5°	656.7	694.4	827.0	1185.5	1290.9	1132.8	2042.6	7776.2	12710.0	14986.9	14506.1
75°	475.1	503.4	601.2	907.0	1033.1	862.8	1018.9	4544.3	8865.7	10542.3	10627.0
77.5°	363.2	384.8	448.8	664.2	827.0	647.3	632.3	2090.6	4203.7	4224.4	4461.5
80°	291.7	305.8	340.6	467.6	634.1	484.5	412.1	843.9	1328.5	1124.3	1179.8
82.5°	214.5	238.0	287.9	328.4	453.5	334.0	251.2	426.2	505.2	434.7	438.4
85°	122.3	138.3	174.1	235.2	289.8	204.2	144.0	189.1	235.2	192.9	172.2
87.5°	43.3	56.5	61.2	92.2	126.1	84.7	55.5	54.6	77.2	57.4	48.0
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°	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6	2599.6
2.5°	2618.4	2613.7	2594.9	2569.5	2543.1	2517.7	2509.3	2491.4	2479.2	2472.6	2480.1
5°	2671.1	2656.0	2611.8	2555.4	2496.1	2432.1	2387.0	2345.6	2315.4	2287.2	2298.5
7.5°	2746.4	2720.0	2643.8	2545.0	2439.6	2333.3	2254.3	2194.1	2153.6	2127.3	2132.9
10°	2833.9	2793.4	2676.7	2529.0	2366.3	2213.8	2120.7	2068.9	2043.5	2029.4	2033.2
12.5°	2934.5	2877.1	2710.6	2492.3	2254.3	2080.2	2016.3	2001.2	2002.1	2003.1	2005.0
15°	3058.7	2978.8	2737.9	2412.4	2108.5	1977.7	1966.4	1990.9	2016.3	2028.5	2027.5
17.5°	3198.9	3086.0	2742.6	2280.6	1965.4	1911.8	1947.6	2000.3	2038.8	2055.8	2059.5
20°	3349.4	3195.1	2708.7	2094.3	1847.8	1858.2	1922.2	1989.9	2032.2	2053.9	2059.5
22.5°	3521.6	3311.8	2627.8	1898.6	1751.9	1799.9	1875.1	1941.0	1985.2	2006.8	2012.5
25°	3718.3	3442.6	2500.8	1734.0	1669.1	1734.0	1809.3	1863.8	1899.6	1919.3	1925.0
27.5°	3936.5	3579.0	2331.4	1603.2	1596.6	1666.3	1728.4	1770.7	1789.5	1804.6	1810.2
30°	4155.8	3703.2	2126.3	1504.4	1533.6	1599.5	1643.7	1662.5	1668.1	1671.0	1677.5
32.5°	4392.9	3810.5	1910.9	1422.6	1473.4	1534.5	1560.9	1569.3	1543.0	1525.1	1530.8
35°	4679.8	3925.3	1700.1	1357.7	1414.1	1466.8	1475.3	1467.7	1436.7	1400.0	1401.9
37.5°	5034.5	4068.3	1531.7	1311.6	1358.6	1393.4	1383.1	1381.2	1384.0	1340.7	1343.5
40°	5469.2	4254.6	1408.5	1275.8	1313.4	1321.0	1291.8	1307.8	1321.9	1256.0	1257.9
42.5°	5951.9	4479.4	1330.4	1251.3	1275.8	1257.9	1212.8	1230.6	1228.8	1142.2	1141.3
45°	6443.9	4724.0	1303.1	1233.5	1241.0	1205.2	1155.4	1160.1	1120.6	1042.5	1045.3
47.5°	6933.2	4986.5	1320.0	1218.4	1197.7	1157.3	1118.7	1098.0	1039.6	981.3	981.3
50°	7413.0	5262.2	1382.1	1188.3	1138.4	1114.9	1086.7	1050.0	987.9	938.0	934.3
52.5°	7858.0	5539.8	1451.7	1138.4	1064.1	1078.2	1060.3	1018.0	956.9	906.0	907.0
55°	8279.5	5817.3	1479.0	1069.8	994.5	1046.2	1035.9	957.8	884.4	843.0	839.2
57.5°	8738.7	6151.3	1448.9	982.3	938.0	1009.5	970.0	883.5	841.1	810.1	807.3
60°	9374.7	6675.4	1384.0	874.1	884.4	955.0	887.2	851.5	805.4	770.6	768.7
62.5°	10431.3	7652.9	1279.6	766.8	821.4	874.1	847.7	812.0	764.9	731.0	731.0
65°	11993.1	9011.5	1082.9	683.1	750.8	795.0	805.4	769.6	720.7	684.9	686.8
67.5°	13310.3	9863.9	819.5	613.4	678.4	731.0	760.2	725.4	673.7	638.8	639.8
70°	13237.8	9244.9	625.7	544.8	614.4	668.0	705.6	678.4	622.8	589.9	592.7
72.5°	11757.9	7733.8	506.2	475.1	549.5	602.1	647.3	626.6	570.2	538.2	538.2
75°	8638.0	5489.9	404.6	404.6	468.5	533.5	583.3	570.2	518.4	495.8	489.2
77.5°	3641.1	2303.2	317.1	335.9	389.5	458.2	520.3	525.0	479.8	508.1	461.0
80°	968.1	635.1	241.8	264.4	305.8	378.2	452.6	450.7	401.7	375.4	349.1
82.5°	368.8	250.3	172.2	186.3	221.1	289.8	358.5	369.8	320.8	277.6	277.6
85°	142.1	107.3	106.3	112.0	128.9	191.9	271.0	280.4	241.8	205.1	211.7
87.5°	36.7	32.0	39.5	37.6	59.3	102.6	155.2	160.9	147.7	85.6	122.3
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)