

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: P884327

Luminaire Tested: **NAV-SB5A-830-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884327
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-SB5A-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 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: 19735 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

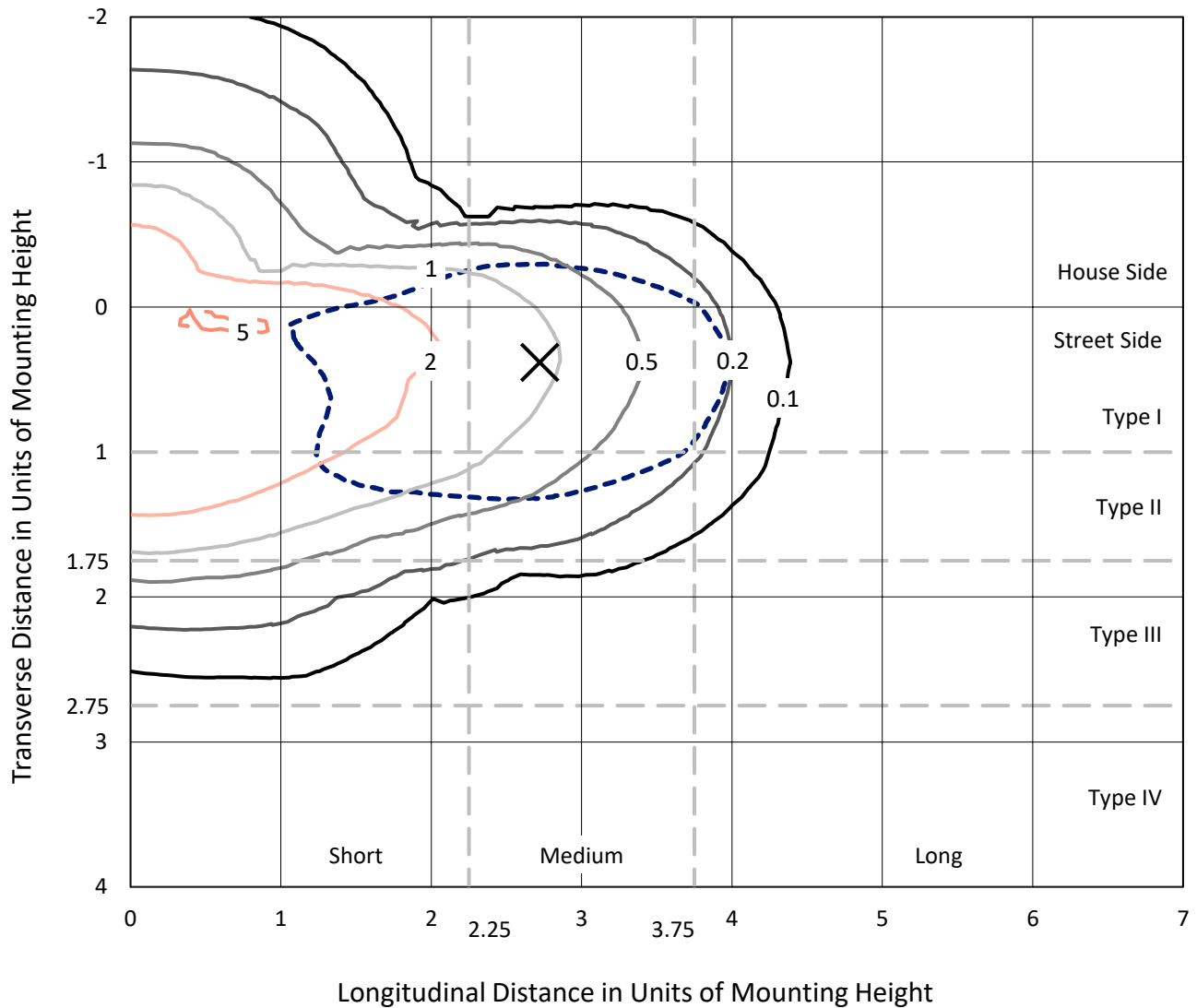
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

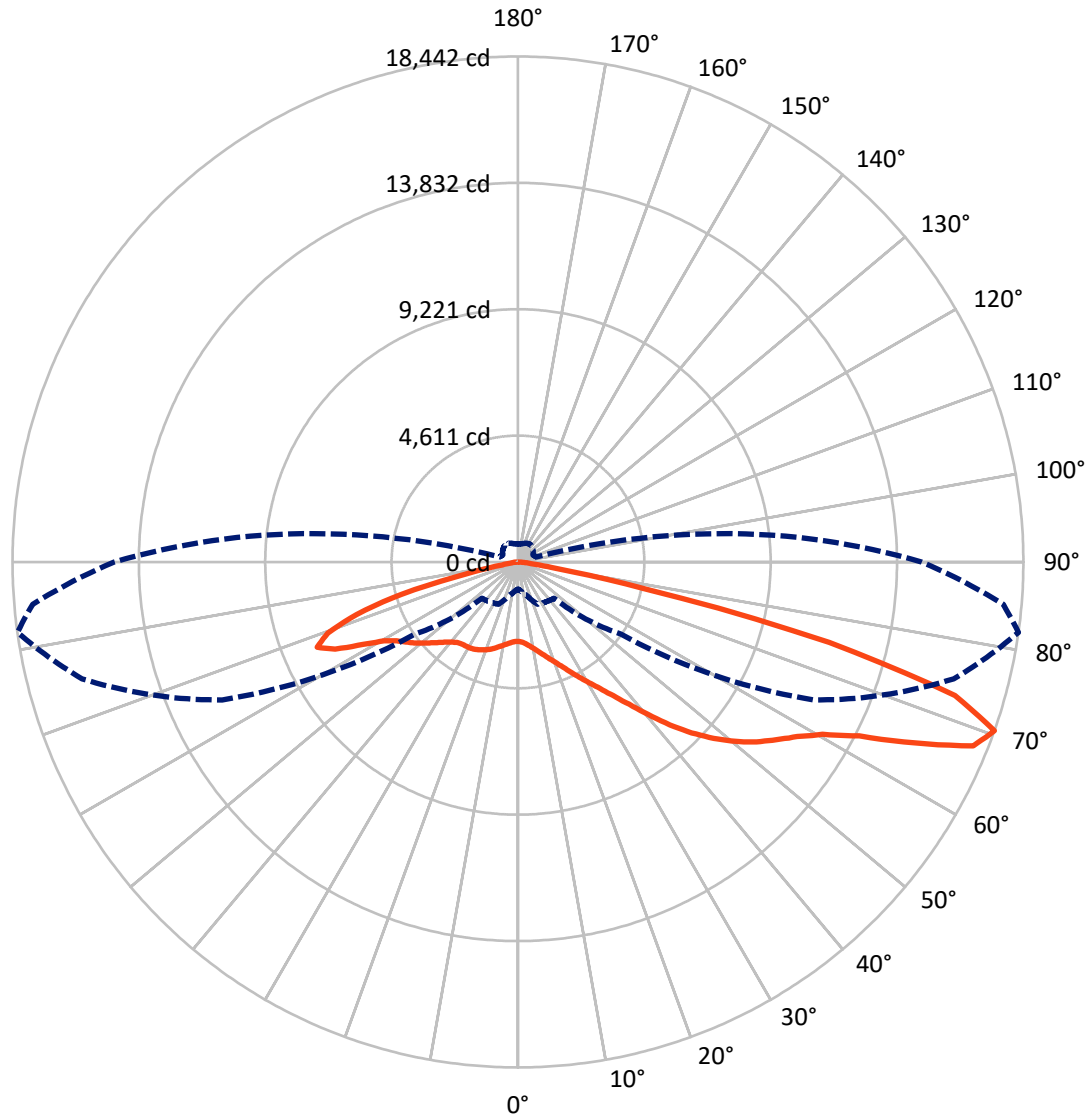
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 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	4865.2	0.0	4865.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	14869.8	0.0	14869.8
	% Fixture	75.3	0.0	75.3
Total	Lumens	19735.0	0.0	19735.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.2	1.4
10°-20°	784.9	4.0
20°-30°	1313.0	6.7
30°-40°	2051.3	10.4
40°-50°	3266.9	16.6
50°-60°	4546.3	23.0
60°-70°	4755.7	24.1
70°-80°	2485.6	12.6
80°-90°	258.1	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°	19735.0	100.0
0°-180°	19735.0	100.0

Coefficient of Utilization



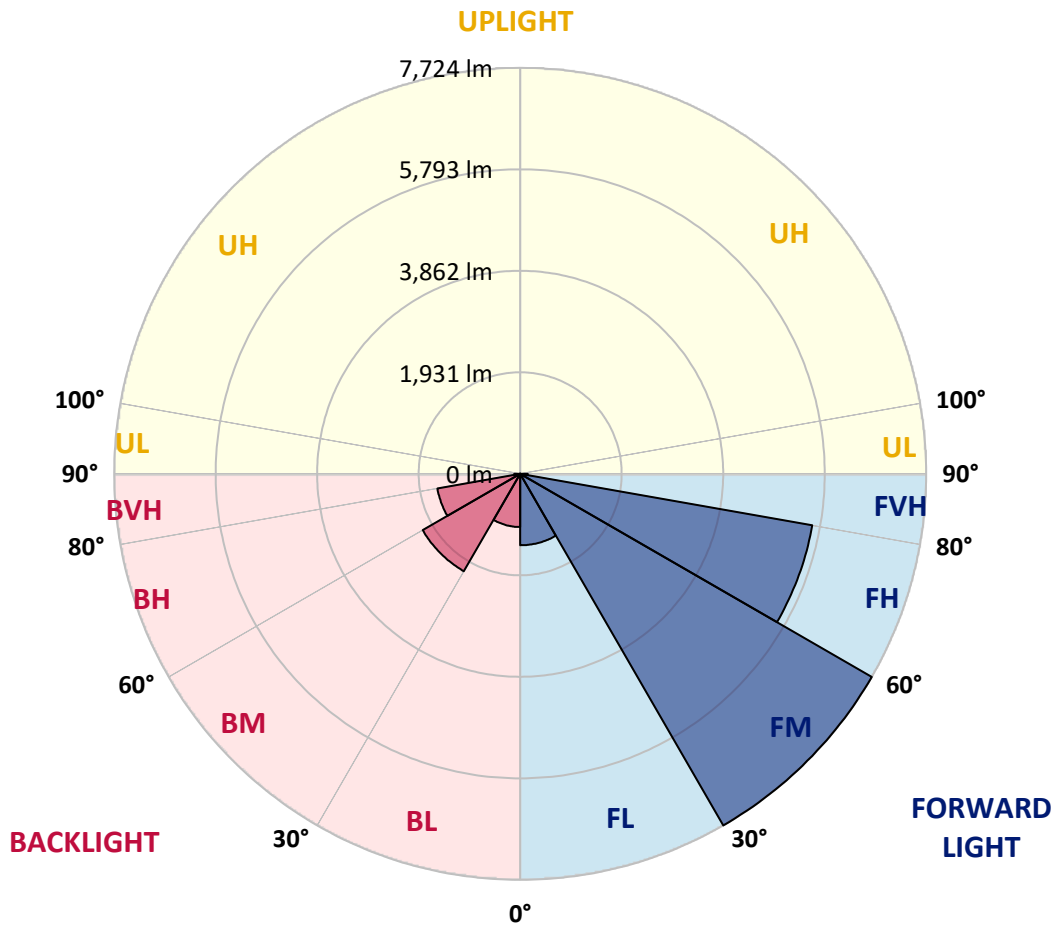
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1359.0	6.9			
FM (30°-60°)	7724.1	39.1			
FH (60°-80°)	5642.3	28.6			G3/7500
FVH (80°-90°)	144.5	0.7			G2/225
BL (0°-30°)	1012.1	5.1	B3/2500		
BM (30°-60°)	2140.5	10.8	B2/2500		
BH (60°-80°)	1598.9	8.1	B3/2500		G3/2500
BVH (80°-90°)	113.6	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°	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4
2.5°	2962.5	2979.3	2974.0	2968.8	2968.8	2961.5	2960.4	2949.9	2941.6	2928.0	2924.8
5°	3000.2	3018.0	3015.9	3020.1	3033.7	3036.9	3040.0	3033.7	3017.0	3000.2	2992.9
7.5°	2966.7	2986.6	2992.9	3018.0	3059.9	3097.6	3125.9	3137.4	3121.7	3097.6	3086.1
10°	2853.6	2875.6	2897.6	2957.3	3031.6	3120.6	3196.0	3241.1	3237.9	3214.9	3195.0
12.5°	2624.3	2647.3	2694.4	2810.7	2946.8	3103.9	3244.2	3338.5	3370.9	3354.2	3319.6
15°	2441.0	2460.9	2496.5	2615.9	2792.9	3031.6	3262.0	3445.3	3528.0	3518.6	3476.7
17.5°	2435.8	2444.2	2466.1	2522.7	2658.8	2918.5	3243.2	3550.0	3708.1	3707.1	3654.7
20°	2527.9	2531.1	2543.6	2555.2	2632.6	2832.7	3195.0	3636.9	3910.2	3910.2	3853.7
22.5°	2655.7	2653.6	2666.2	2655.7	2693.4	2825.3	3164.6	3713.4	4135.4	4152.1	4080.9
25°	2847.3	2836.8	2833.7	2809.6	2817.0	2893.4	3198.1	3800.3	4402.4	4437.0	4348.0
27.5°	3102.8	3086.1	3074.6	3019.1	3000.2	3033.7	3300.8	3905.0	4699.8	4759.5	4646.4
30°	3435.8	3405.5	3388.7	3292.4	3224.3	3229.5	3455.7	4044.3	5010.8	5107.2	4963.7
32.5°	3890.3	3843.2	3798.2	3640.0	3515.4	3474.6	3655.8	4236.9	5348.0	5502.0	5317.7
35°	4399.3	4361.6	4313.4	4069.4	3877.8	3783.5	3925.9	4506.1	5742.8	5986.8	5747.0
37.5°	4889.4	4856.9	4879.9	4551.1	4304.0	4166.8	4279.9	4867.4	6229.8	6590.0	6285.3
40°	5396.2	5371.1	5374.2	5060.0	4772.1	4618.1	4709.2	5320.8	6787.9	7307.3	6932.4
42.5°	5947.0	5928.2	5865.3	5586.8	5263.2	5119.7	5203.5	5844.4	7386.9	8124.1	7642.4
45°	6563.8	6552.3	6493.7	6174.3	5803.6	5642.3	5755.4	6422.4	7989.0	8892.8	8355.6
47.5°	7096.8	7106.3	7098.9	6829.8	6445.5	6208.8	6343.9	7025.6	8549.3	9615.3	9039.4
50°	7353.4	7402.6	7474.9	7391.1	7152.3	6911.5	6937.7	7607.9	9083.4	10292.9	9694.9
52.5°	7219.4	7312.6	7509.4	7643.5	7735.6	7685.4	7615.2	8185.9	9586.0	10904.4	10314.9
55°	6719.8	6850.7	7177.5	7501.1	7971.2	8336.7	8428.9	8826.8	10076.1	11442.7	10901.3
57.5°	5809.8	6022.4	6315.6	6970.1	7761.8	8651.9	9377.6	9715.9	10595.5	12017.6	11514.9
60°	4249.5	4534.4	4898.8	5872.7	7028.8	8483.3	10185.0	11081.4	11333.8	12762.2	12314.0
62.5°	2719.6	2895.5	3230.6	4147.9	5476.8	7619.4	10432.1	12788.3	12585.2	13983.2	13511.9
65°	1861.9	1975.0	2281.8	2797.1	3540.6	5671.6	9770.3	14068.0	14572.8	15918.4	15560.3
67.5°	1353.0	1438.8	1700.6	2152.0	2307.0	3356.3	7581.7	14009.4	16504.8	17912.3	17355.2
70°	986.5	1047.2	1267.1	1700.6	1775.0	1867.1	4593.0	11908.7	16462.9	18442.1	17775.1
72.5°	730.9	772.8	920.5	1319.5	1436.8	1260.8	2273.5	8655.1	14146.5	16680.8	16145.6
75°	528.8	560.2	669.2	1009.5	1149.8	960.3	1134.1	5057.9	9867.7	11733.8	11828.1
77.5°	404.2	428.3	499.5	739.3	920.5	720.5	703.7	2326.9	4678.9	4701.9	4965.8
80°	324.6	340.3	379.1	520.5	705.8	539.3	458.7	939.3	1478.6	1251.4	1313.2
82.5°	238.8	264.9	320.4	365.5	504.7	371.8	279.6	474.4	562.3	483.8	488.0
85°	136.1	153.9	193.7	261.8	322.5	227.2	160.2	210.5	261.8	214.7	191.6
87.5°	48.2	62.8	68.1	102.6	140.3	94.2	61.8	60.7	85.9	63.9	53.4
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°	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4	2893.4
2.5°	2914.3	2909.1	2888.2	2859.9	2830.6	2802.3	2792.9	2773.0	2759.4	2752.0	2760.4
5°	2973.0	2956.2	2907.0	2844.2	2778.2	2707.0	2656.7	2610.7	2577.1	2545.7	2558.3
7.5°	3056.8	3027.4	2942.6	2832.7	2715.4	2597.0	2509.1	2442.1	2397.0	2367.7	2374.0
10°	3154.1	3109.1	2979.3	2814.9	2633.7	2464.0	2360.4	2302.8	2274.5	2258.8	2263.0
12.5°	3266.2	3202.3	3017.0	2774.0	2509.1	2315.3	2244.1	2227.4	2228.4	2229.5	2231.6
15°	3404.4	3315.4	3047.3	2685.0	2346.8	2201.2	2188.6	2215.9	2244.1	2257.8	2256.7
17.5°	3560.5	3434.8	3052.6	2538.4	2187.6	2127.9	2167.7	2226.3	2269.3	2288.1	2292.3
20°	3728.0	3556.3	3014.9	2331.1	2056.7	2068.2	2139.4	2214.8	2261.9	2286.0	2292.3
22.5°	3919.6	3686.1	2924.8	2113.2	1949.9	2003.3	2087.1	2160.4	2209.6	2233.7	2239.9
25°	4138.5	3831.7	2783.4	1930.0	1857.7	1930.0	2013.8	2074.5	2114.3	2136.3	2142.6
27.5°	4381.5	3983.5	2594.9	1784.4	1777.1	1854.6	1923.7	1970.8	1991.8	2008.5	2014.8
30°	4625.5	4121.8	2366.7	1674.5	1706.9	1780.2	1829.4	1850.4	1856.7	1859.8	1867.1
32.5°	4889.4	4241.1	2126.9	1583.4	1639.9	1708.0	1737.3	1746.7	1717.4	1697.5	1703.8
35°	5208.7	4368.9	1892.3	1511.1	1573.9	1632.6	1642.0	1633.6	1599.1	1558.2	1560.3
37.5°	5603.5	4528.1	1704.8	1459.8	1512.1	1550.9	1539.4	1537.3	1540.4	1492.3	1495.4
40°	6087.3	4735.4	1567.6	1420.0	1461.9	1470.3	1437.8	1455.6	1471.3	1398.0	1400.1
42.5°	6624.6	4985.7	1480.7	1392.8	1420.0	1400.1	1349.8	1369.7	1367.6	1271.3	1270.2
45°	7172.2	5258.0	1450.4	1372.9	1381.2	1341.5	1286.0	1291.2	1247.2	1160.3	1163.4
47.5°	7716.8	5550.1	1469.2	1356.1	1333.1	1288.0	1245.1	1222.1	1157.1	1092.2	1092.2
50°	8250.8	5857.0	1538.3	1322.6	1267.1	1240.9	1209.5	1168.7	1099.6	1044.1	1039.9
52.5°	8746.2	6165.9	1615.8	1267.1	1184.4	1200.1	1180.2	1133.1	1065.0	1008.4	1009.5
55°	9215.3	6474.8	1646.2	1190.7	1106.9	1164.5	1153.0	1066.0	984.4	938.3	934.1
57.5°	9726.3	6846.6	1612.7	1093.3	1044.1	1123.6	1079.7	983.3	936.2	901.6	898.5
60°	10434.2	7429.8	1540.4	972.8	984.4	1062.9	987.5	947.7	896.4	857.7	855.6
62.5°	11610.2	8517.9	1424.2	853.5	914.2	972.8	943.5	903.7	851.4	813.7	813.7
65°	13348.6	10030.0	1205.3	760.3	835.7	884.9	896.4	856.6	802.2	762.4	764.5
67.5°	14814.7	10978.8	912.1	682.8	755.0	813.7	846.1	807.4	749.8	711.0	712.1
70°	14734.0	10289.7	696.4	606.3	683.8	743.5	785.4	755.0	693.2	656.6	659.7
72.5°	13086.8	8607.9	563.4	528.8	611.6	670.2	720.5	697.4	634.6	599.0	599.0
75°	9614.3	6110.4	450.3	450.3	521.5	593.8	649.3	634.6	577.0	551.9	544.5
77.5°	4052.6	2563.5	352.9	373.8	433.5	510.0	579.1	584.3	534.1	565.5	513.1
80°	1077.6	706.9	269.1	294.3	340.3	421.0	503.7	501.6	447.2	417.8	388.5
82.5°	410.5	278.6	191.6	207.3	246.1	322.5	399.0	411.5	357.1	308.9	308.9
85°	158.1	119.4	118.3	124.6	143.5	213.6	301.6	312.1	269.1	228.3	235.6
87.5°	40.8	35.6	44.0	41.9	66.0	114.1	172.8	179.1	164.4	95.3	136.1
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)