

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: P882807

Luminaire Tested: **NAV-SB2D-835-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882807
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-SB2D-835-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17339 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

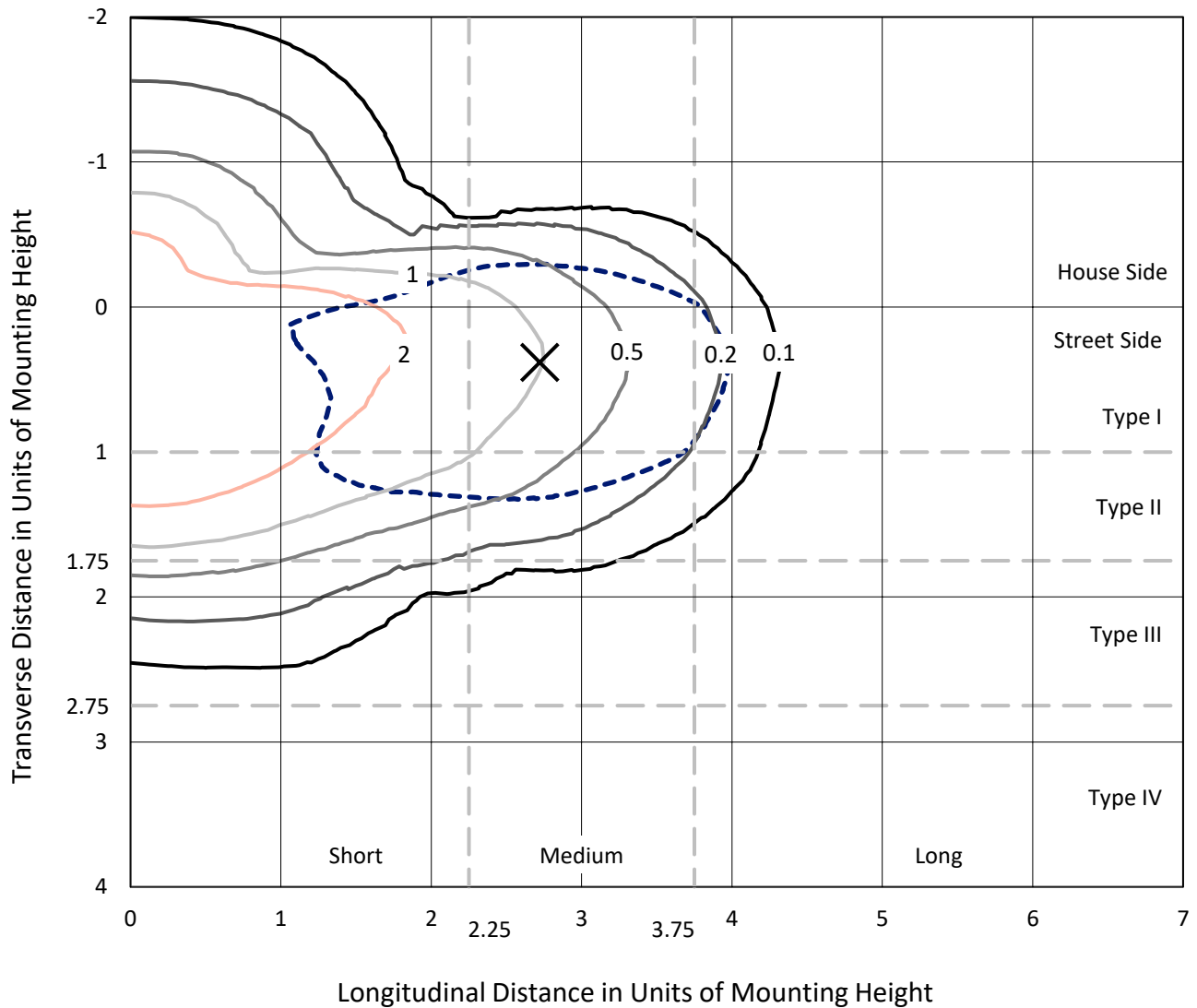
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

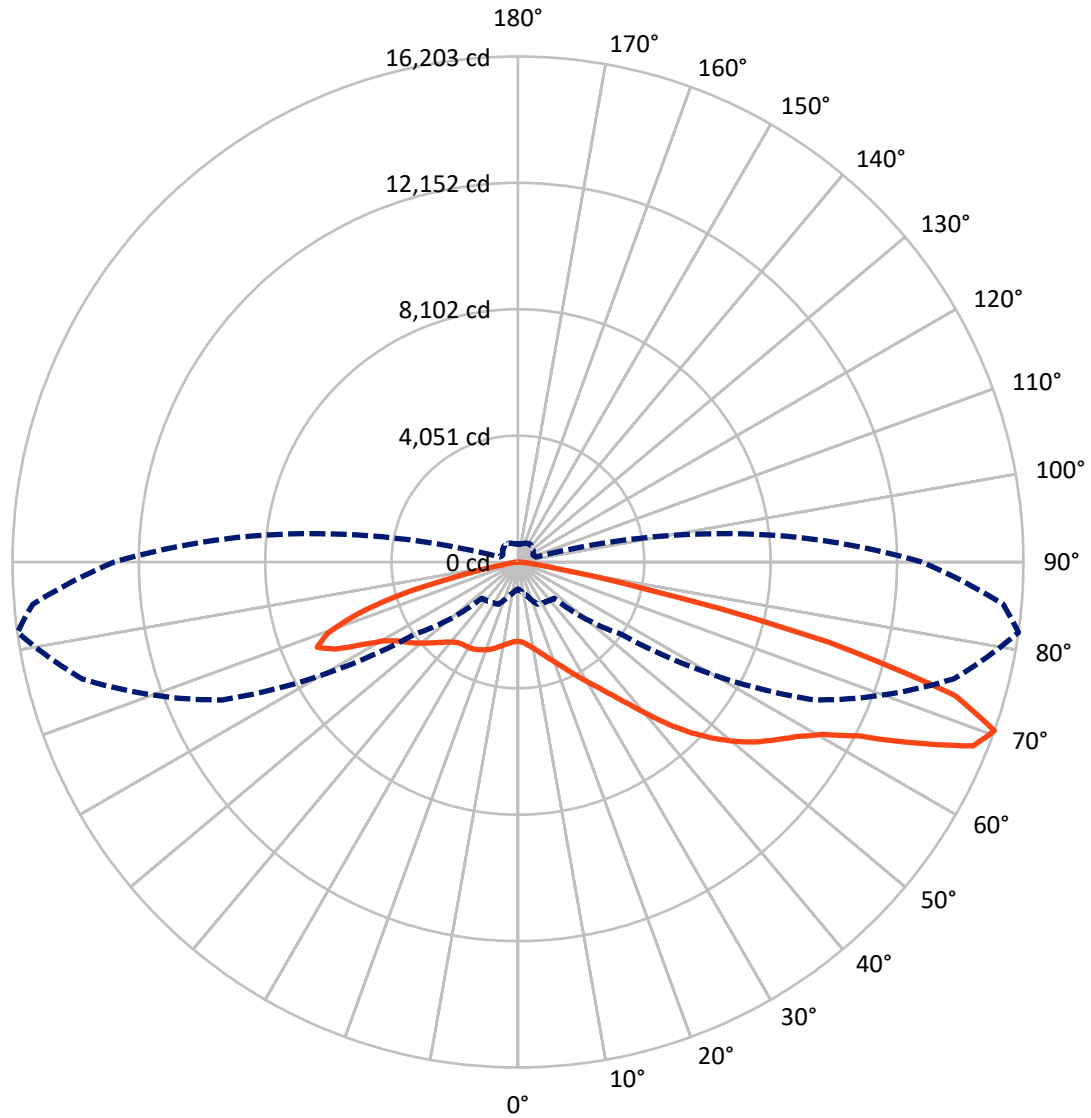
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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	4274.5	0.0	4274.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	13064.5	0.0	13064.5
	% Fixture	75.3	0.0	75.3
Total	Lumens	17339.0	0.0	17339.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.0	1.4
10°-20°	689.6	4.0
20°-30°	1153.6	6.7
30°-40°	1802.3	10.4
40°-50°	2870.3	16.6
50°-60°	3994.4	23.0
60°-70°	4178.3	24.1
70°-80°	2183.8	12.6
80°-90°	226.8	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°	17339.0	100.0
0°-180°	17339.0	100.0

Coefficient of Utilization



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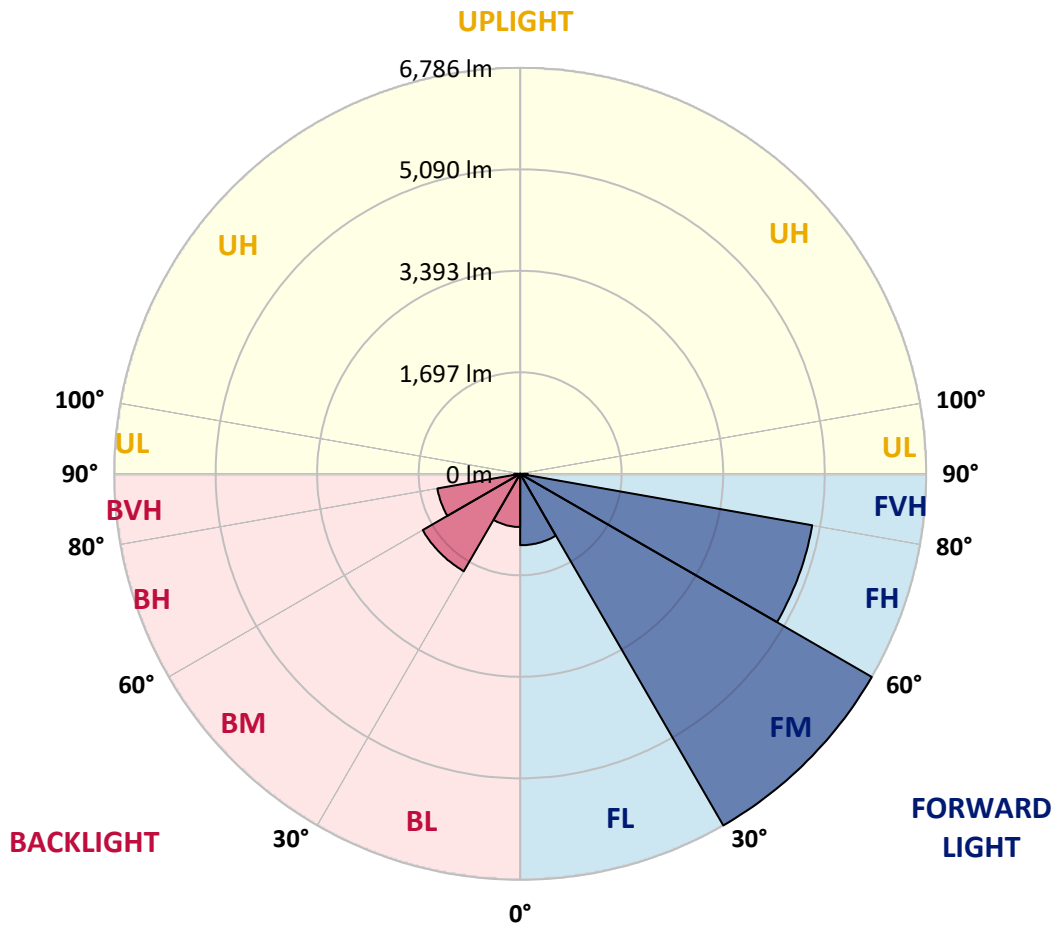
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1194.0	6.9			
FM (30°-60°)	6786.3	39.1			
FH (60°-80°)	4957.3	28.6			G2/5000
FVH (80°-90°)	126.9	0.7			G2/225
BL (0°-30°)	889.2	5.1	B2/1000		
BM (30°-60°)	1880.6	10.8	B2/2500		
BH (60°-80°)	1404.8	8.1	B3/2500		G3/2500
BVH (80°-90°)	99.8	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°	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1
2.5°	2602.8	2617.6	2613.0	2608.4	2608.4	2601.9	2601.0	2591.8	2584.4	2572.5	2569.7
5°	2636.0	2651.6	2649.8	2653.4	2665.4	2668.2	2670.9	2665.4	2650.7	2636.0	2629.5
7.5°	2606.5	2624.0	2629.5	2651.6	2688.4	2721.5	2746.4	2756.5	2742.7	2721.5	2711.4
10°	2507.2	2526.5	2545.8	2598.2	2663.6	2741.8	2808.0	2847.6	2844.8	2824.6	2807.1
12.5°	2305.7	2325.9	2367.3	2469.4	2589.0	2727.0	2850.3	2933.1	2961.7	2946.9	2916.6
15°	2144.7	2162.1	2193.4	2298.3	2453.8	2663.6	2866.0	3027.0	3099.7	3091.4	3054.6
17.5°	2140.0	2147.4	2166.7	2216.4	2336.0	2564.2	2849.4	3119.0	3257.9	3257.0	3211.0
20°	2221.0	2223.8	2234.8	2244.9	2313.0	2488.8	2807.1	3195.4	3435.5	3435.5	3385.8
22.5°	2333.3	2331.4	2342.5	2333.3	2366.4	2482.3	2780.4	3262.5	3633.3	3648.0	3585.5
25°	2501.6	2492.4	2489.7	2468.5	2475.0	2542.1	2809.9	3338.9	3867.9	3898.3	3820.1
27.5°	2726.1	2711.4	2701.3	2652.5	2636.0	2665.4	2900.0	3430.9	4129.2	4181.7	4082.3
30°	3018.7	2992.0	2977.3	2892.7	2832.9	2837.5	3036.2	3553.3	4402.5	4487.1	4361.1
32.5°	3418.0	3376.6	3337.0	3198.1	3088.6	3052.7	3211.9	3722.5	4698.7	4834.0	4672.0
35°	3865.2	3832.0	3789.7	3575.3	3407.0	3324.2	3449.3	3959.0	5045.6	5260.0	5049.3
37.5°	4295.7	4267.2	4287.5	3998.6	3781.4	3660.9	3760.3	4276.4	5473.4	5789.9	5522.2
40°	4741.0	4719.0	4721.7	4445.7	4192.7	4057.4	4137.5	4674.8	5963.8	6420.1	6090.8
42.5°	5225.0	5208.4	5153.2	4908.5	4624.2	4498.2	4571.8	5134.8	6490.1	7137.8	6714.6
45°	5766.9	5756.8	5705.3	5424.6	5098.9	4957.3	5056.6	5642.7	7019.1	7813.1	7341.1
47.5°	6235.2	6243.5	6237.1	6000.6	5662.9	5455.0	5573.7	6172.7	7511.3	8448.0	7941.9
50°	6460.6	6503.9	6567.4	6493.8	6284.0	6072.4	6095.4	6684.2	7980.6	9043.2	8517.9
52.5°	6342.9	6424.7	6597.7	6715.5	6796.5	6752.3	6690.6	7192.1	8422.2	9580.5	9062.5
55°	5904.0	6019.0	6306.1	6590.4	7003.5	7324.6	7405.5	7755.2	8852.8	10053.4	9577.8
57.5°	5104.5	5291.2	5548.9	6123.9	6819.5	7601.5	8239.1	8536.3	9309.1	10558.6	10116.9
60°	3733.6	3983.8	4304.0	5159.7	6175.4	7453.4	8948.5	9736.0	9957.8	11212.7	10818.9
62.5°	2389.4	2544.0	2838.4	3644.3	4811.9	6694.3	9165.6	11235.7	11057.2	12285.5	11871.5
65°	1635.9	1735.2	2004.8	2457.5	3110.7	4983.0	8584.1	12360.0	12803.5	13985.8	13671.1
67.5°	1188.7	1264.2	1494.2	1890.7	2026.9	2948.8	6661.2	12308.5	14501.0	15737.6	15248.1
70°	866.7	920.1	1113.3	1494.2	1559.5	1640.5	4035.4	10462.9	14464.2	16203.1	15617.0
72.5°	642.2	679.0	808.7	1159.3	1262.3	1107.7	1997.4	7604.3	12429.0	14655.6	14185.4
75°	464.6	492.2	587.9	886.9	1010.2	843.7	996.4	4443.9	8669.7	10309.2	10392.0
77.5°	355.1	376.3	438.9	649.6	808.7	633.0	618.3	2044.4	4110.8	4131.1	4362.9
80°	285.2	299.0	333.1	457.3	620.1	473.8	403.0	825.3	1299.1	1099.5	1153.7
82.5°	209.8	232.8	281.5	321.1	443.5	326.6	245.7	416.8	494.1	425.1	428.7
85°	119.6	135.2	170.2	230.0	283.4	199.7	140.8	184.9	230.0	188.6	168.4
87.5°	42.3	55.2	59.8	90.2	123.3	82.8	54.3	53.4	75.4	56.1	46.9
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°	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1	2542.1
2.5°	2560.5	2555.9	2537.5	2512.7	2486.9	2462.1	2453.8	2436.3	2424.3	2417.9	2425.3
5°	2612.0	2597.3	2554.1	2498.9	2440.9	2378.3	2334.2	2293.7	2264.3	2236.7	2247.7
7.5°	2685.6	2659.9	2585.4	2488.8	2385.7	2281.7	2204.5	2145.6	2106.0	2080.2	2085.8
10°	2771.2	2731.6	2617.6	2473.1	2313.9	2164.9	2073.8	2023.2	1998.4	1984.6	1988.2
12.5°	2869.7	2813.5	2650.7	2437.2	2204.5	2034.2	1971.7	1957.0	1957.9	1958.8	1960.6
15°	2991.1	2912.9	2677.4	2359.0	2061.8	1934.0	1922.9	1946.8	1971.7	1983.6	1982.7
17.5°	3128.2	3017.8	2682.0	2230.2	1922.0	1869.6	1904.5	1956.0	1993.8	2010.3	2014.0
20°	3275.4	3124.5	2648.8	2048.0	1807.0	1817.1	1879.7	1945.9	1987.3	2008.5	2014.0
22.5°	3443.8	3238.6	2569.7	1856.7	1713.1	1760.1	1833.7	1898.1	1941.3	1962.5	1968.0
25°	3636.1	3366.5	2445.5	1695.7	1632.2	1695.7	1769.3	1822.6	1857.6	1876.9	1882.4
27.5°	3849.5	3499.9	2279.9	1567.8	1561.3	1629.4	1690.1	1731.5	1749.9	1764.7	1770.2
30°	4063.9	3621.3	2079.3	1471.2	1499.7	1564.1	1607.3	1625.7	1631.3	1634.0	1640.5
32.5°	4295.7	3726.2	1868.6	1391.1	1440.8	1500.6	1526.4	1534.7	1508.9	1491.4	1496.9
35°	4576.4	3838.5	1662.5	1327.6	1382.8	1434.4	1442.6	1435.3	1404.9	1369.0	1370.9
37.5°	4923.2	3978.3	1497.9	1282.6	1328.6	1362.6	1352.5	1350.6	1353.4	1311.1	1313.8
40°	5348.3	4160.5	1377.3	1247.6	1284.4	1291.8	1263.2	1278.9	1292.7	1228.3	1230.1
42.5°	5820.3	4380.4	1301.0	1223.7	1247.6	1230.1	1186.0	1203.4	1201.6	1116.9	1116.0
45°	6301.5	4619.6	1274.3	1206.2	1213.6	1178.6	1129.8	1134.4	1095.8	1019.4	1022.2
47.5°	6779.9	4876.3	1290.8	1191.5	1171.2	1131.7	1093.9	1073.7	1016.7	959.6	959.6
50°	7249.1	5145.9	1351.6	1162.0	1113.3	1090.3	1062.7	1026.8	966.1	917.3	913.6
52.5°	7684.3	5417.3	1419.6	1113.3	1040.6	1054.4	1036.9	995.5	935.7	886.0	886.9
55°	8096.5	5688.7	1446.3	1046.1	972.5	1023.1	1013.0	936.6	864.9	824.4	820.7
57.5°	8545.5	6015.3	1416.9	960.5	917.3	987.2	948.6	863.9	822.5	792.2	789.4
60°	9167.4	6527.8	1353.4	854.7	864.9	933.9	867.6	832.7	787.6	753.5	751.7
62.5°	10200.7	7483.7	1251.3	749.8	803.2	854.7	829.0	794.0	748.0	714.9	714.9
65°	11728.0	8812.3	1059.0	668.0	734.2	777.4	787.6	752.6	704.8	669.8	671.6
67.5°	13016.0	9645.9	801.4	599.9	663.4	714.9	743.4	709.4	658.8	624.7	625.6
70°	12945.2	9040.5	611.8	532.7	600.8	653.2	690.0	663.4	609.1	576.9	579.6
72.5°	11497.9	7562.9	495.0	464.6	537.3	588.8	633.0	612.8	557.6	526.3	526.3
75°	8447.0	5368.5	395.6	395.6	458.2	521.7	570.4	557.6	507.0	484.9	478.4
77.5°	3560.6	2252.3	310.1	328.5	380.9	448.1	508.8	513.4	469.2	496.8	450.8
80°	946.7	621.0	236.5	258.5	299.0	369.9	442.5	440.7	392.9	367.1	341.3
82.5°	360.7	244.7	168.4	182.2	216.2	283.4	350.5	361.6	313.7	271.4	271.4
85°	138.9	104.9	104.0	109.5	126.0	187.7	265.0	274.2	236.5	200.6	207.0
87.5°	35.9	31.3	38.6	36.8	58.0	100.3	151.8	157.3	144.4	83.7	119.6
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)