

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: P962932

Luminaire Tested: **NAV-SB2D-727-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962932
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-727-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19862.4 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

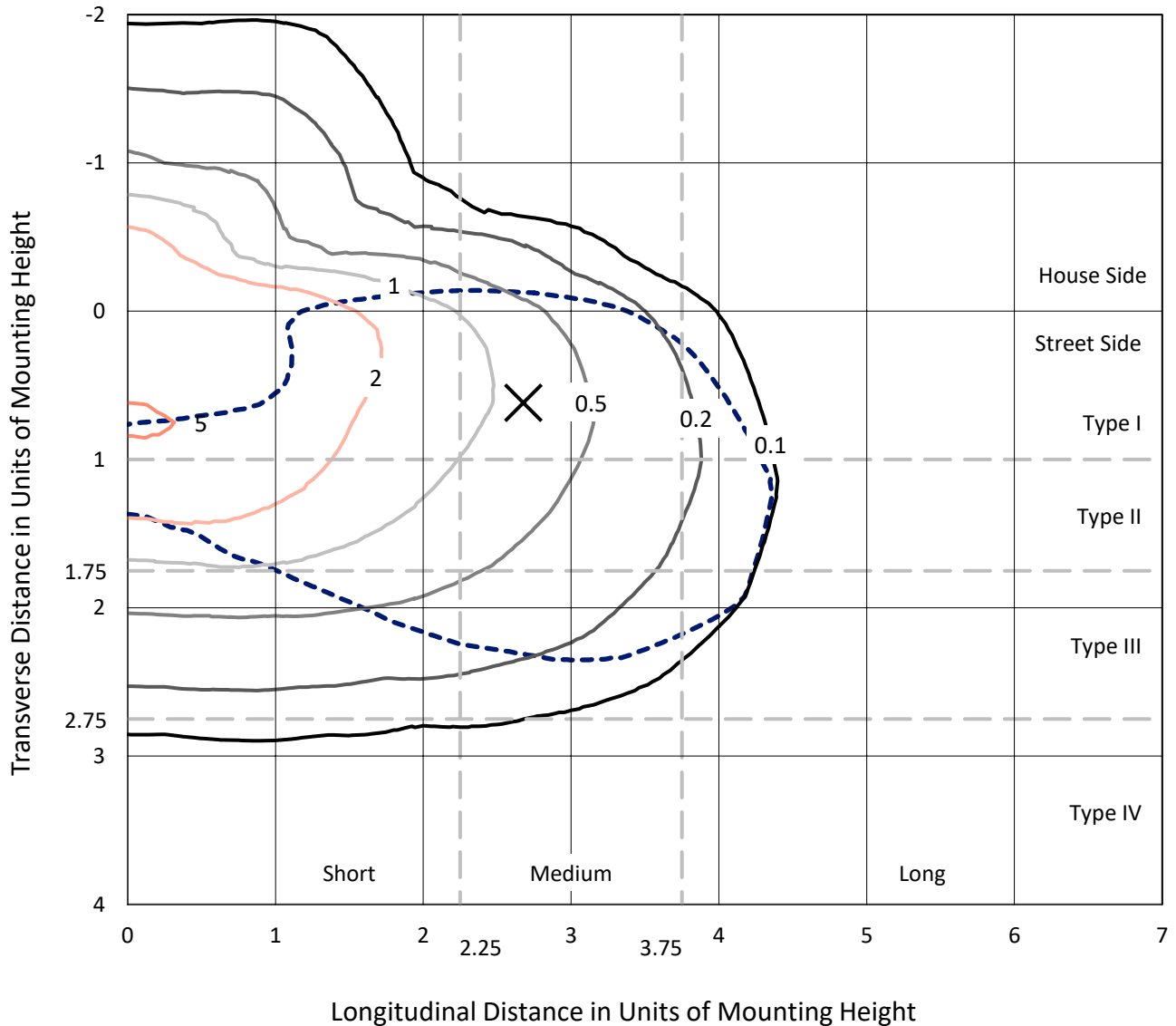
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

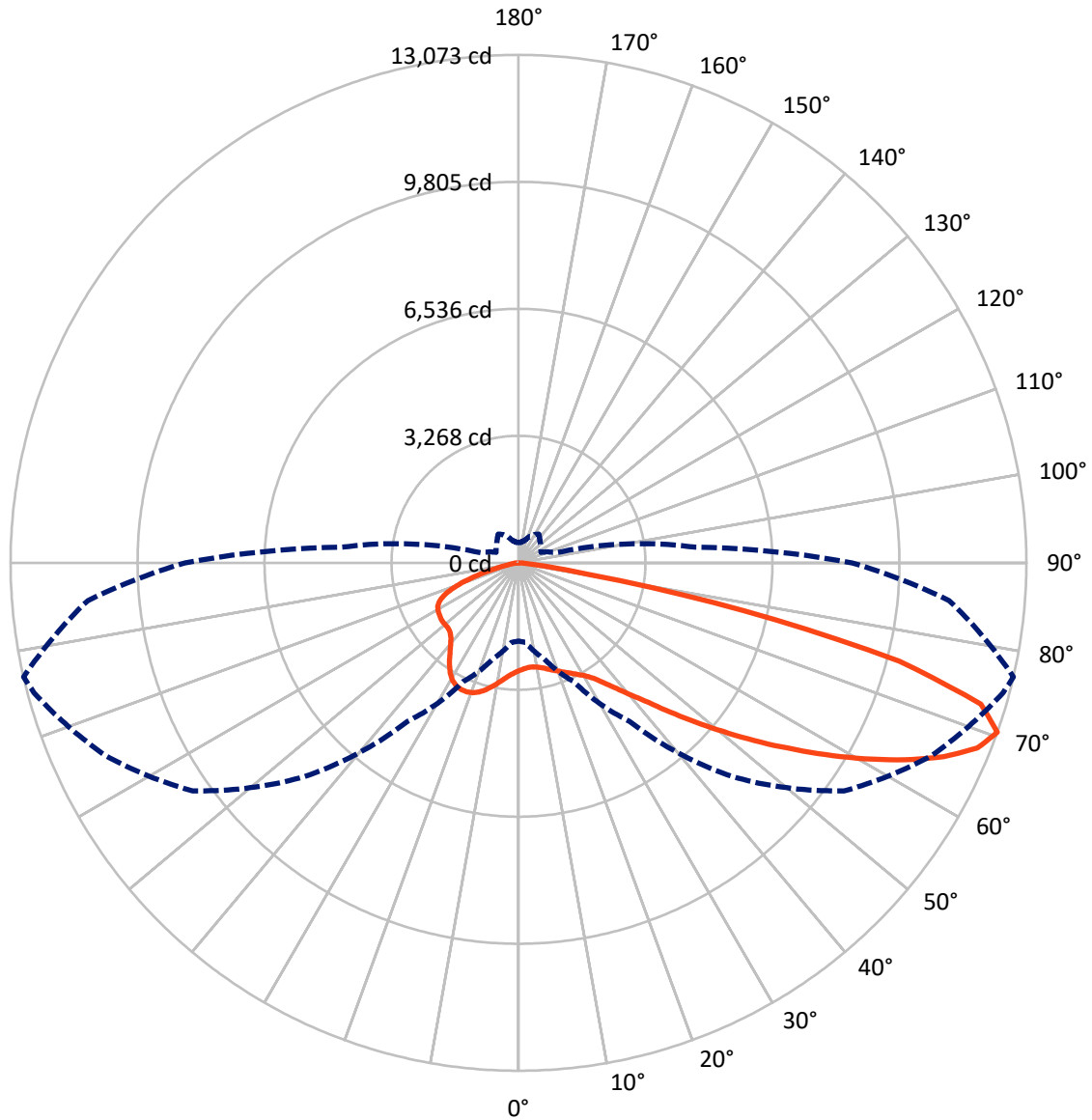
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4349.6	0.0	4349.6
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	15512.9	0.0	15512.9
	% Fixture	78.1	0.0	78.1
Total	Lumens	19862.4	0.0	19862.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.3	1.3
10°-20°	762.7	3.8
20°-30°	1304.4	6.6
30°-40°	2097.6	10.6
40°-50°	3274.9	16.5
50°-60°	4374.4	22.0
60°-70°	4662.5	23.5
70°-80°	2870.2	14.5
80°-90°	251.5	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°	19862.4	100.0
0°-180°	19862.4	100.0

Coefficient of Utilization

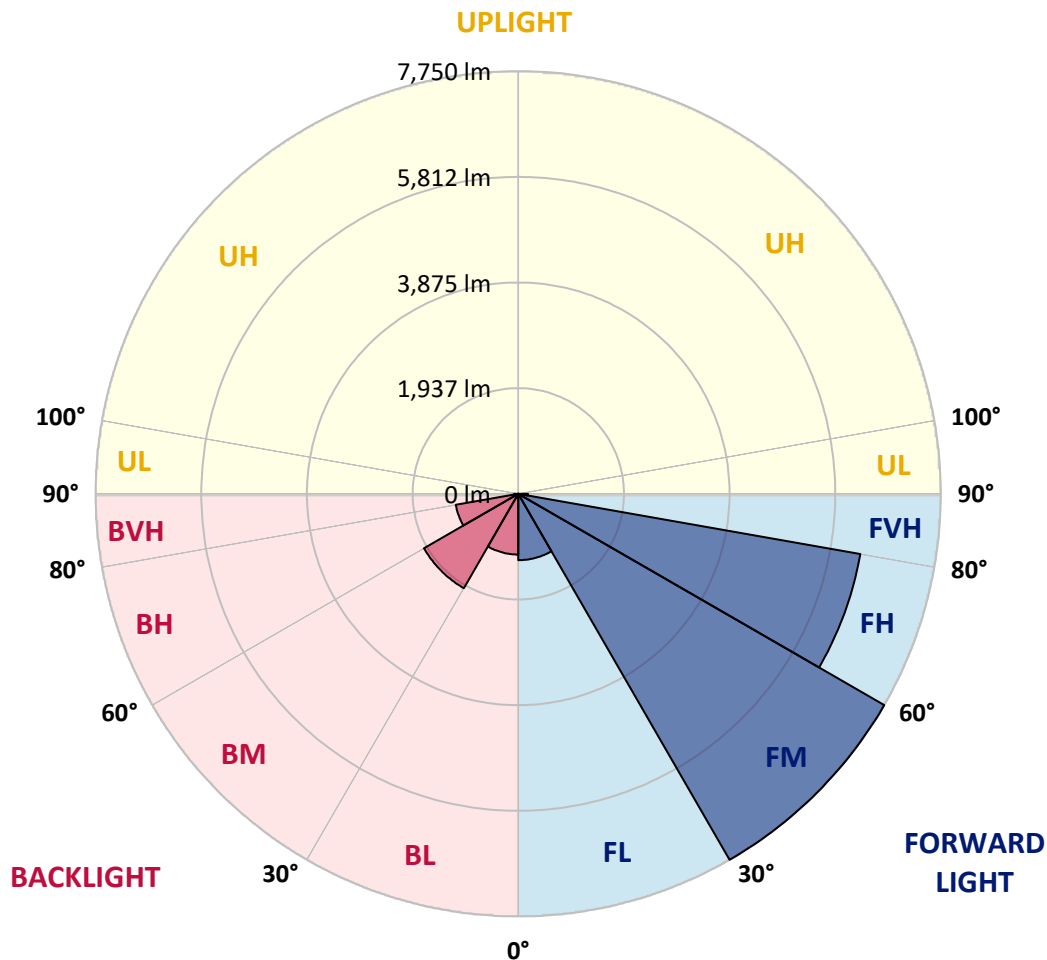


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1216.9	6.1			
FM (30°-60°)	7749.9	39.0			
FH (60°-80°)	6370.2	32.1			G3/7500
FVH (80°-90°)	175.9	0.9			G2/225
BL (0°-30°)	1114.5	5.6	B3/2500		
BM (30°-60°)	1997.0	10.1	B2/2500		
BH (60°-80°)	1162.4	5.9	B3/2500		G3/2500
BVH (80°-90°)	75.6	0.4			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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0
2.5°	2554.3	2553.3	2566.5	2570.6	2595.0	2612.3	2644.8	2679.5	2724.2	2729.3	2756.7
5°	2406.8	2406.8	2422.1	2438.4	2469.8	2504.5	2554.3	2614.4	2691.6	2703.8	2772.0
7.5°	2281.6	2289.8	2303.1	2334.6	2371.2	2421.0	2497.3	2582.8	2684.6	2703.8	2813.7
10°	2181.0	2190.1	2206.4	2231.8	2286.8	2356.0	2455.7	2565.5	2701.8	2732.3	2874.7
12.5°	2149.4	2158.6	2167.8	2187.0	2238.0	2319.4	2438.4	2573.7	2743.5	2774.1	2958.1
15°	2222.7	2233.9	2226.8	2221.7	2248.1	2322.3	2446.5	2603.2	2795.4	2839.1	3061.0
17.5°	2391.5	2395.6	2379.3	2331.6	2327.5	2367.1	2485.1	2643.9	2860.5	2908.3	3164.7
20°	2664.2	2657.1	2623.5	2528.9	2475.0	2466.9	2551.2	2704.9	2927.6	2978.5	3276.6
22.5°	3034.4	3026.3	2959.2	2809.6	2689.6	2610.3	2646.9	2784.2	3002.9	3059.9	3385.4
25°	3496.3	3485.1	3386.4	3182.9	2996.8	2800.5	2777.1	2889.0	3095.5	3148.4	3499.4
27.5°	4035.4	4026.3	3919.5	3650.9	3382.4	3061.0	2938.9	3012.1	3192.2	3252.1	3627.5
30°	4615.3	4641.7	4452.5	4163.7	3823.9	3400.6	3156.5	3163.7	3317.2	3371.1	3783.2
32.5°	5296.8	5342.6	5114.8	4748.5	4284.7	3770.0	3431.2	3375.2	3499.4	3544.1	3979.5
35°	5972.3	6024.1	5834.9	5430.0	4896.0	4205.3	3718.1	3618.4	3741.5	3790.2	4239.9
37.5°	6556.2	6625.4	6527.7	6175.7	5550.2	4730.2	4092.4	3904.2	4039.5	4100.5	4589.8
40°	7017.0	7122.8	7115.7	6896.0	6321.2	5367.0	4567.5	4257.2	4409.8	4475.9	5014.0
42.5°	7391.4	7482.9	7562.2	7551.1	7125.8	6090.2	5125.9	4716.0	4832.0	4908.2	5491.1
45°	7649.8	7747.4	7918.3	8102.4	7900.0	6864.4	5765.8	5260.2	5366.0	5481.0	6059.8
47.5°	7880.6	7991.5	8213.3	8505.2	8557.1	7641.6	6466.6	5894.0	5990.6	6109.6	6630.4
50°	7901.0	7996.6	8340.4	8754.4	9024.0	8388.3	7219.4	6605.0	6695.5	6822.7	7241.8
52.5°	7409.6	7560.2	8160.4	8747.3	9238.6	9012.8	7967.1	7344.5	7446.3	7598.8	7874.6
55°	5751.6	5972.3	7632.5	8474.7	9162.4	9416.7	8678.2	8130.9	8261.1	8420.8	8511.3
57.5°	4954.0	5050.7	6058.8	7978.3	8814.5	9521.4	9278.3	8925.4	9134.9	9309.9	9184.7
60°	4452.5	4532.9	5129.0	7206.2	8356.7	9355.7	9742.2	9666.0	10028.1	10236.6	9873.4
62.5°	3915.4	3991.7	4533.9	6017.1	7770.8	9080.0	10035.2	10349.5	10943.6	11171.5	10522.4
65°	3382.4	3447.5	3967.3	5055.7	7026.2	8804.3	10186.8	10940.5	11791.0	12026.9	11061.6
67.5°	2788.3	2842.2	3333.5	4265.3	6120.8	8426.9	10262.0	11405.4	12528.5	12730.9	11328.1
70°	2012.1	2053.8	2561.5	3373.2	4984.6	7777.9	10231.6	11735.0	12911.0	13072.7	11126.7
72.5°	951.1	988.8	1584.9	2190.1	3520.7	6514.5	9614.1	11473.5	12522.3	12442.0	9893.8
75°	507.6	540.2	910.4	1201.4	1859.6	4465.7	7867.4	9883.7	10515.4	10124.7	7312.0
77.5°	343.8	369.3	563.5	721.2	849.4	2119.9	5056.7	6843.0	6583.7	5938.7	3662.1
80°	272.6	299.1	461.9	488.3	410.9	766.0	2089.5	3167.8	2275.6	1819.9	1041.7
82.5°	209.5	239.0	388.6	354.0	223.8	314.4	608.3	1002.0	582.9	443.5	252.3
85°	128.1	159.7	305.1	225.8	126.2	143.4	206.5	278.7	178.0	148.5	90.5
87.5°	65.1	91.5	154.7	82.4	57.0	33.6	54.9	54.9	46.8	40.7	23.4
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°	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0	2771.0
2.5°	2781.1	2801.5	2836.1	2868.7	2894.1	2918.5	2942.9	2956.1	2960.2	2976.5	2985.6
5°	2813.7	2851.3	2918.5	2981.5	3021.2	3045.7	3062.9	3073.2	3075.1	3080.2	3088.3
7.5°	2873.7	2933.8	3027.3	3090.4	3119.9	3117.8	3110.8	3085.4	3075.1	3066.0	3068.0
10°	2958.1	3037.5	3152.5	3196.2	3177.9	3129.0	3066.0	2991.8	2957.1	2923.6	2913.4
12.5°	3062.9	3163.7	3276.6	3274.6	3184.0	3058.9	2912.4	2798.5	2726.2	2674.3	2662.1
15°	3190.1	3306.0	3392.5	3323.4	3125.0	2900.1	2685.5	2537.0	2471.9	2415.0	2408.9
17.5°	3321.3	3445.4	3485.1	3308.1	2976.5	2665.2	2422.1	2305.1	2241.0	2210.5	2219.6
20°	3449.5	3572.6	3540.0	3220.7	2750.7	2398.7	2182.0	2118.0	2104.7	2111.8	2108.7
22.5°	3584.8	3694.6	3551.2	3051.7	2462.8	2126.1	2007.1	2009.1	2038.6	2059.9	2065.1
25°	3723.1	3797.4	3521.7	2807.6	2153.5	1925.7	1896.1	1928.7	1986.7	2028.4	2039.5
27.5°	3856.4	3889.0	3457.6	2505.5	1888.0	1782.3	1787.3	1854.4	1942.0	1999.9	2014.1
30°	4006.9	3970.3	3334.5	2165.7	1703.9	1659.2	1701.9	1780.2	1867.7	1919.5	1931.7
32.5°	4176.9	4040.6	3139.3	1851.4	1573.7	1560.5	1630.7	1681.5	1720.2	1735.4	1743.5
35°	4388.4	4139.2	2889.0	1630.7	1456.7	1488.2	1555.3	1529.9	1514.6	1506.5	1514.6
37.5°	4663.0	4272.4	2596.0	1487.2	1362.1	1436.3	1463.8	1384.5	1324.5	1295.0	1302.1
40°	4993.7	4467.8	2314.2	1376.4	1302.1	1391.6	1343.8	1248.1	1171.9	1130.2	1133.2
42.5°	5361.0	4672.3	2077.3	1292.9	1268.5	1354.9	1255.3	1141.3	1018.2	1005.0	1018.2
45°	5746.5	4882.8	1915.5	1228.9	1252.2	1323.5	1204.4	1020.3	932.9	986.8	1015.3
47.5°	6132.0	5076.1	1817.8	1181.0	1244.1	1287.8	1159.7	953.1	891.1	969.4	1006.0
50°	6561.2	5249.0	1774.1	1146.5	1234.9	1273.6	1092.5	935.8	847.4	899.2	937.9
52.5°	6987.5	5383.3	1741.6	1111.8	1221.7	1262.4	1060.0	915.5	794.5	797.6	818.9
55°	7412.7	5470.7	1705.9	1066.1	1192.2	1238.0	1056.9	893.2	754.8	740.6	750.7
57.5°	7866.4	5520.6	1662.1	1015.3	1141.3	1176.0	1053.9	875.9	742.6	719.2	722.2
60°	8328.2	5593.8	1605.3	953.1	1073.2	1101.7	1046.7	869.7	735.4	695.8	698.8
62.5°	8742.2	5619.3	1537.1	894.2	985.7	1028.5	1031.5	864.7	716.2	648.0	648.0
65°	9013.8	5509.5	1418.1	827.1	891.1	953.1	1002.0	847.4	681.5	613.4	613.4
67.5°	9002.7	5196.1	1231.8	740.6	799.6	869.7	959.3	817.8	639.8	570.7	573.7
70°	8583.6	4577.6	995.9	639.8	698.8	780.2	904.4	774.1	590.0	523.9	530.0
72.5°	7361.9	3582.8	723.2	521.8	581.9	687.7	833.1	721.2	539.2	482.2	479.1
75°	5259.2	2267.4	490.4	400.8	452.6	582.9	744.7	659.2	492.3	484.2	456.7
77.5°	2686.5	1083.3	324.5	292.9	315.4	459.8	625.7	589.0	499.5	399.7	356.1
80°	873.8	399.7	204.5	199.4	209.5	306.2	484.2	483.2	378.4	271.6	240.1
82.5°	278.7	171.9	133.2	128.1	123.1	192.3	337.7	382.5	255.3	171.9	170.9
85°	110.9	102.7	78.3	72.3	51.9	90.5	177.0	254.3	190.2	124.1	127.2
87.5°	40.7	40.7	21.3	15.3	11.2	30.5	47.8	76.3	108.9	64.1	63.0
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)