

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: P967111

Luminaire Tested: **NAV-SB4D-722-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967111
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-722-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35173.9 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

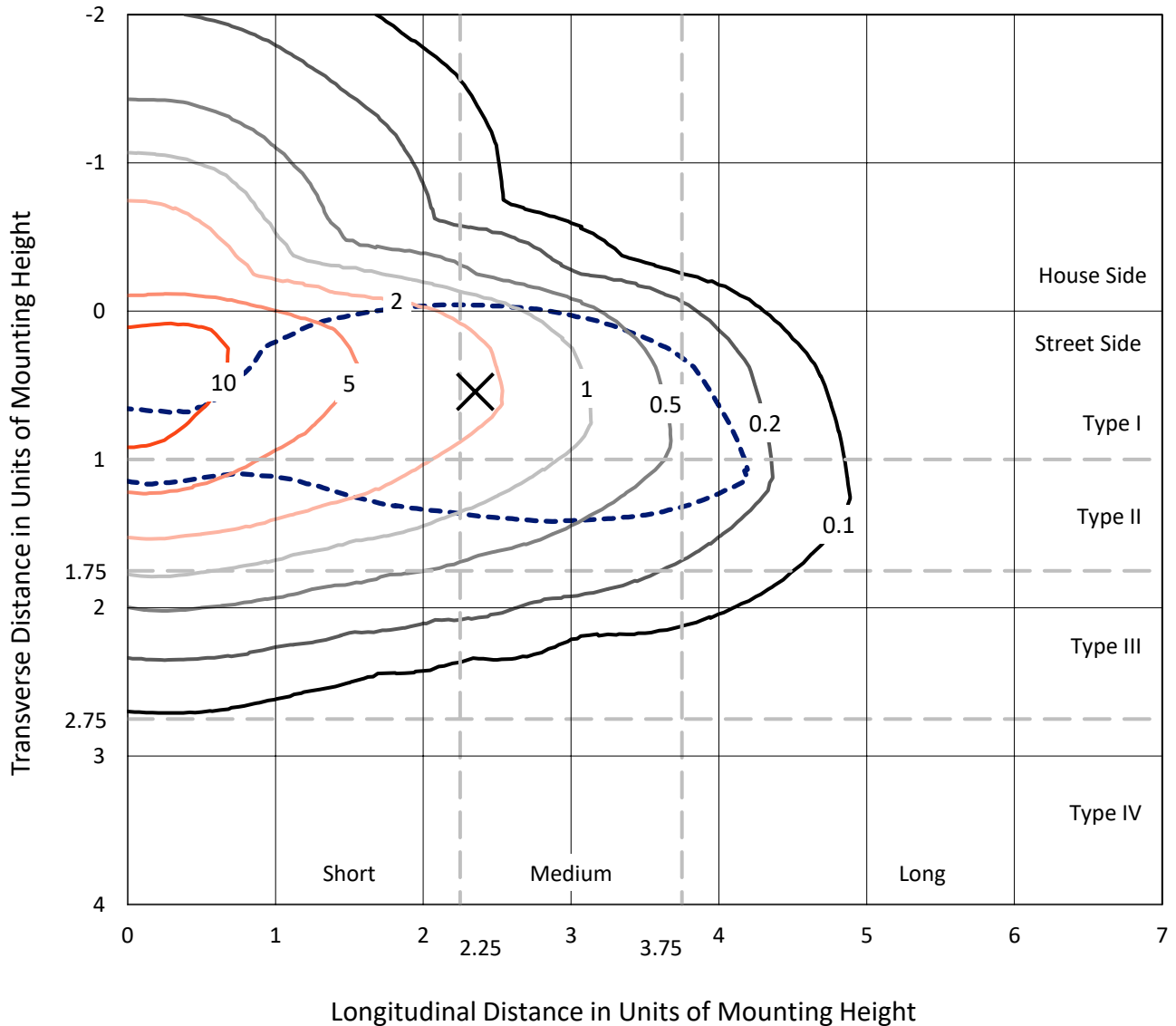
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

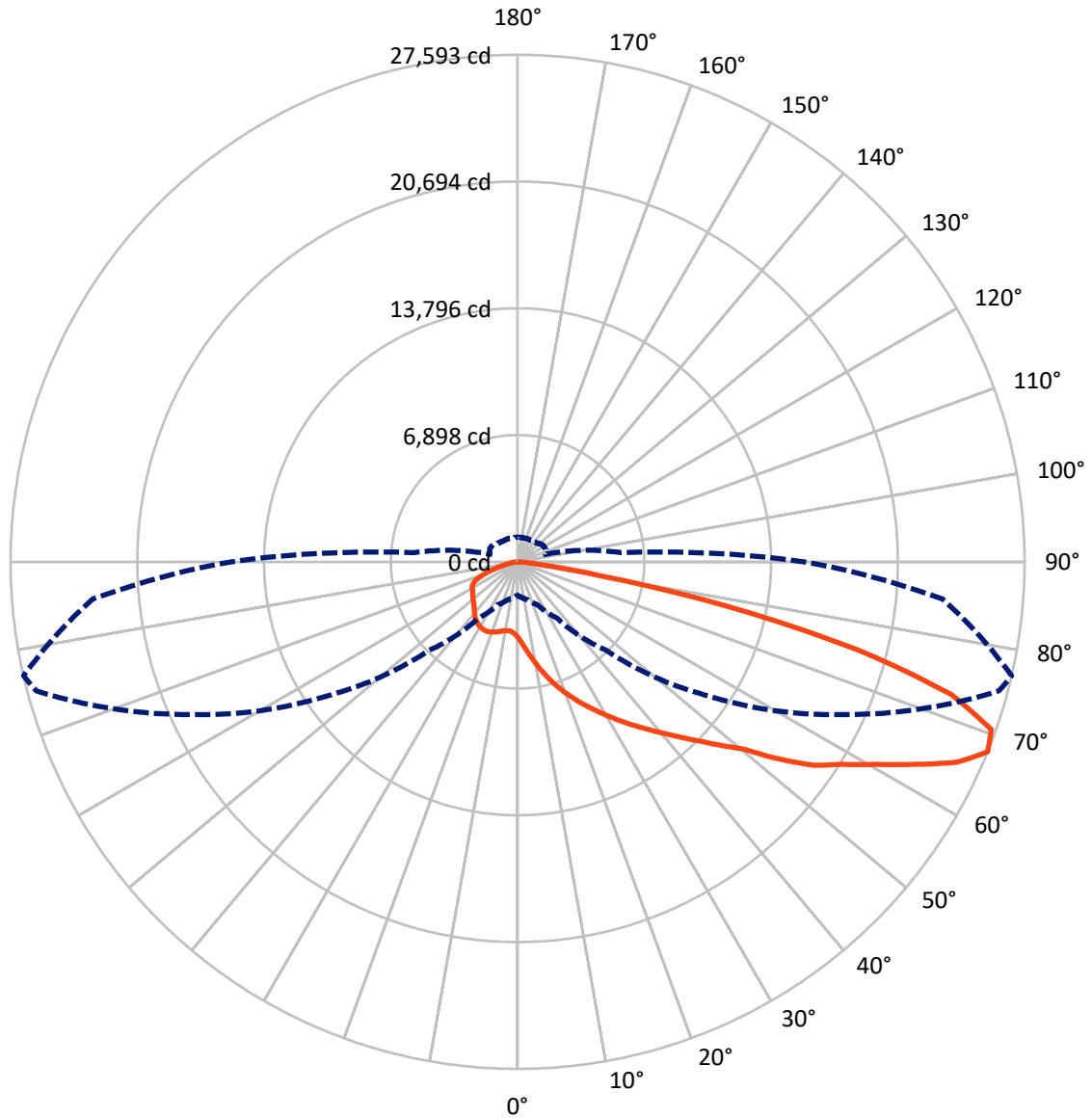
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6653.5	0.0	6653.5
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	28520.4	0.0	28520.4
	% Fixture	81.1	0.0	81.1
Total	Lumens	35173.9	0.0	35173.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	442.4	1.3
10°-20°	1589.2	4.5
20°-30°	3000.6	8.5
30°-40°	4833.9	13.7
40°-50°	6611.9	18.8
50°-60°	7458.3	21.2
60°-70°	6961.4	19.8
70°-80°	3816.0	10.8
80°-90°	460.3	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°	35173.9	100.0
0°-180°	35173.9	100.0

Coefficient of Utilization

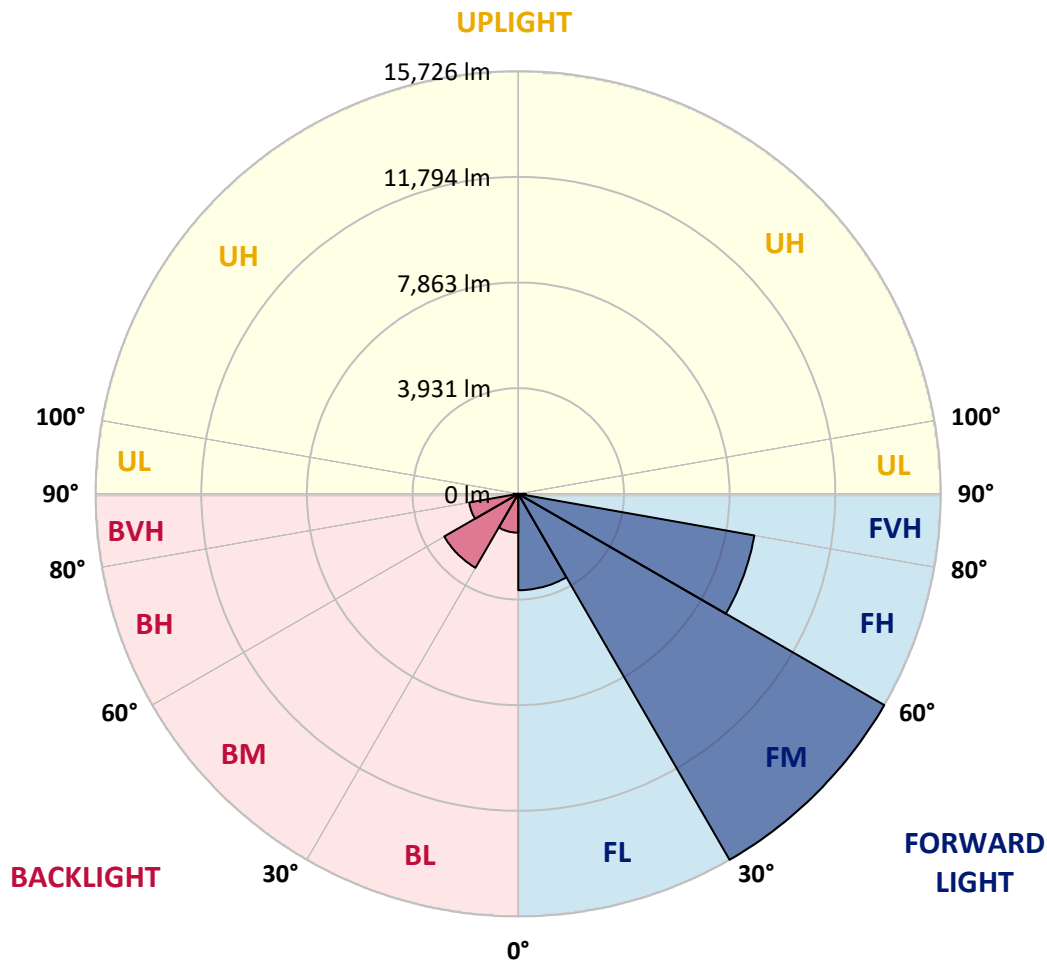


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3585.5	10.2			
FM (30°-60°)	15725.9	44.7			
FH (60°-80°)	8921.1	25.4			G4/12000
FVH (80°-90°)	287.9	0.8			G3/500
BL (0°-30°)	1446.6	4.1	B3/2500		
BM (30°-60°)	3178.2	9.0	B3/5000		
BH (60°-80°)	1856.2	5.3	B3/2500		G3/2500
BVH (80°-90°)	172.4	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0
2.5°	5167.3	5203.7	5158.3	5158.3	5005.8	4925.8	4773.3	4657.2	4448.4	4412.0	4274.0
5°	6107.9	6153.3	6089.7	6062.5	5882.8	5717.6	5461.5	5209.2	4836.9	4798.7	4473.8
7.5°	6835.9	6894.0	6837.8	6808.8	6649.0	6463.8	6164.1	5812.0	5287.2	5212.7	4742.5
10°	7429.7	7438.7	7420.6	7431.5	7306.2	7153.7	6846.9	6436.5	5781.1	5679.4	5067.5
12.5°	7765.6	7807.3	7843.6	7909.0	7887.2	7792.8	7516.8	7026.6	6304.0	6173.3	5421.5
15°	7923.6	7996.1	8077.8	8228.6	8350.2	8373.8	8163.2	7660.2	6835.9	6678.0	5779.3
17.5°	7979.8	8048.8	8177.8	8395.6	8657.0	8833.1	8738.7	8275.7	7362.5	7180.9	6155.1
20°	8264.9	8284.9	8362.9	8569.9	8853.1	9145.5	9216.3	8867.7	7883.6	7678.4	6543.6
22.5°	8875.0	8835.0	8856.8	8951.2	9154.6	9437.8	9599.4	9390.5	8419.2	8183.2	6935.8
25°	9882.6	9766.4	9650.3	9541.3	9644.7	9804.5	9987.9	9913.5	8980.2	8680.6	7331.6
27.5°	11155.4	11013.8	10757.8	10400.1	10274.8	10331.1	10412.8	10398.3	9499.5	9196.3	7740.2
30°	12408.2	12243.0	11938.0	11420.4	11090.1	10941.2	10879.5	10837.6	10064.2	9741.0	8152.3
32.5°	13408.6	13278.0	12978.3	12399.1	11919.8	11665.6	11460.4	11311.6	10654.3	10331.1	8588.1
35°	14283.8	14162.1	13818.9	13187.1	12666.0	12395.5	12126.8	11809.0	11267.9	10941.2	9056.5
37.5°	15082.7	14961.0	14490.7	13833.5	13308.8	13121.7	12882.1	12342.8	11883.4	11574.8	9552.2
40°	15587.4	15560.2	15120.8	14376.3	13831.7	13739.1	13659.2	12961.9	12566.2	12279.3	10096.9
42.5°	15716.3	15776.3	15427.7	14815.8	14296.5	14222.1	14409.0	13662.8	13332.4	13058.2	10714.2
45°	15405.9	15578.4	15349.6	14933.8	14627.0	14587.0	15073.5	14429.0	14180.3	13929.7	11458.6
47.5°	14619.7	14912.0	14817.6	14759.5	14715.9	14888.4	15658.2	15242.5	15140.8	14922.9	12308.3
50°	13032.8	13586.6	13751.8	14118.6	14539.8	15122.6	16190.2	16130.3	16262.9	16043.2	13343.2
52.5°	10289.4	11052.0	12010.5	12929.3	13998.7	15044.5	16774.8	17404.9	17964.1	17844.3	14988.3
55°	8493.7	8836.8	9574.0	11258.9	12949.2	14715.9	17038.2	18434.4	19652.7	19545.5	16235.6
57.5°	7113.7	7420.6	7874.5	9281.7	11362.4	13969.7	17201.6	19062.6	20809.2	20798.4	17466.6
60°	5634.0	5958.9	6423.8	7420.6	9508.6	12680.6	17165.3	19778.0	22285.3	22376.2	18968.1
62.5°	3963.6	4321.3	4836.9	5766.5	7614.8	11010.1	16424.4	20295.4	24022.9	24269.9	20774.8
65°	2605.4	2841.5	3230.1	4032.6	5673.9	8862.3	15010.0	20362.6	25882.2	26299.9	22470.6
67.5°	1826.6	1917.4	2146.1	2581.9	3740.2	6796.1	12756.8	19667.2	27122.3	27592.6	23205.9
70°	1425.3	1470.7	1586.9	1761.2	2349.5	4570.0	9775.5	17858.8	26857.3	27347.4	22437.9
72.5°	1231.0	1274.6	1318.1	1340.0	1576.0	2821.5	6621.7	14932.0	24360.7	24693.0	19509.2
75°	1116.6	1127.5	1163.9	1156.6	1201.9	1830.1	3821.9	10879.5	19220.6	19106.2	14401.8
77.5°	938.7	953.2	1013.1	1004.1	1067.6	1251.0	1984.5	7021.1	12460.8	11683.8	8016.1
80°	795.3	802.5	867.9	857.0	927.8	906.0	1013.1	3578.7	5285.4	4477.4	2311.4
82.5°	275.9	341.3	662.8	682.6	708.1	548.4	584.7	1459.8	1614.2	1236.5	484.8
85°	134.4	143.4	337.7	479.3	477.5	275.9	285.1	521.1	508.4	399.4	161.6
87.5°	21.8	27.3	40.0	187.1	148.9	72.7	98.1	101.7	105.3	90.8	36.3
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°	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0	4127.0
2.5°	4172.4	4081.6	3891.0	3714.8	3576.8	3444.3	3369.9	3306.3	3270.0	3262.8	3262.8
5°	4284.9	4098.0	3751.2	3458.9	3268.2	3126.6	3052.1	3004.9	2981.3	2966.8	2965.0
7.5°	4446.6	4172.4	3678.5	3346.2	3146.5	3044.9	3006.7	2999.5	2997.6	2999.5	3004.9
10°	4669.9	4294.0	3671.2	3319.1	3152.0	3095.7	3093.9	3095.7	3103.0	3104.7	3106.6
12.5°	4911.4	4419.3	3700.4	3342.6	3221.0	3190.1	3184.7	3182.8	3188.3	3192.0	3193.7
15°	5174.6	4584.5	3749.3	3393.5	3297.2	3264.5	3259.1	3248.2	3246.4	3244.5	3242.8
17.5°	5445.2	4747.9	3803.8	3447.9	3346.2	3300.9	3280.9	3255.5	3235.5	3230.1	3235.5
20°	5719.3	4909.5	3841.9	3475.2	3349.9	3286.4	3246.4	3202.8	3168.3	3148.4	3155.6
22.5°	6011.6	5078.4	3865.6	3467.9	3317.2	3230.1	3157.4	3106.6	3054.0	3019.4	3021.3
25°	6296.7	5225.4	3863.7	3429.8	3253.7	3142.9	3050.3	2984.9	2912.3	2876.0	2876.0
27.5°	6570.9	5358.0	3818.3	3362.6	3162.8	3039.4	2928.6	2850.6	2779.8	2745.3	2743.4
30°	6854.1	5468.8	3747.5	3264.5	3055.7	2919.6	2797.9	2730.7	2667.2	2634.6	2632.7
32.5°	7135.5	5570.5	3647.7	3142.9	2932.3	2801.5	2681.7	2620.0	2581.9	2581.9	2583.7
35°	7433.3	5641.3	3515.1	3001.3	2801.5	2676.3	2581.9	2545.6	2541.9	2520.2	2514.7
37.5°	7747.5	5686.6	3353.5	2856.1	2672.7	2554.6	2525.6	2482.0	2445.6	2398.5	2391.2
40°	8077.8	5732.0	3159.3	2705.3	2536.5	2471.1	2458.4	2400.3	2296.8	2180.6	2164.3
42.5°	8479.1	5762.9	2957.7	2554.6	2393.1	2371.2	2389.4	2289.5	2124.3	2037.2	2039.0
45°	8943.9	5813.7	2772.5	2405.8	2246.0	2246.0	2322.2	2191.4	2055.3	2000.9	2009.9
47.5°	9546.7	5931.8	2600.0	2242.3	2109.8	2146.1	2173.3	2073.5	1997.2	1930.1	1928.2
50°	10418.2	6215.0	2422.1	2077.2	2006.3	2078.9	2040.8	1982.7	1893.7	1839.3	1833.8
52.5°	11500.4	6382.1	2264.1	1928.2	1917.4	1989.9	1935.5	1881.0	1813.8	1741.2	1726.7
55°	12237.6	6412.9	2131.6	1819.3	1857.4	1850.1	1830.1	1781.1	1744.9	1648.6	1650.5
57.5°	13061.9	6474.6	2022.6	1753.9	1819.3	1739.4	1732.1	1690.3	1643.2	1577.8	1556.1
60°	14047.7	6570.9	1928.2	1728.5	1786.6	1666.8	1630.5	1614.2	1566.9	1534.2	1543.3
62.5°	15122.6	6658.0	1832.0	1732.1	1748.4	1595.9	1541.5	1536.1	1507.0	1496.1	1496.1
65°	15856.1	6420.2	1712.2	1728.5	1688.6	1523.4	1454.4	1452.5	1429.0	1425.3	1423.5
67.5°	15600.1	5666.7	1550.6	1677.6	1626.9	1450.7	1374.4	1367.1	1336.3	1338.1	1338.1
70°	14318.3	4591.8	1327.3	1552.4	1550.6	1385.4	1290.9	1267.3	1225.6	1232.9	1240.0
72.5°	11914.4	3402.6	1027.7	1343.6	1429.0	1325.4	1194.7	1156.6	1103.9	1111.2	1109.4
75°	8604.4	2313.1	748.0	1022.2	1243.7	1254.6	1100.3	1034.9	971.4	982.3	985.9
77.5°	4403.0	1310.9	550.1	704.5	976.8	1140.2	1015.0	927.8	913.3	1015.0	1000.4
80°	1436.2	657.2	381.3	493.8	640.9	933.3	889.7	789.8	786.2	809.7	695.4
82.5°	428.4	277.8	245.1	325.0	354.0	715.3	768.0	597.4	513.8	541.1	559.2
85°	147.1	134.4	139.8	161.6	168.8	419.4	537.4	395.9	374.0	412.2	406.7
87.5°	34.5	47.3	40.0	36.3	36.3	101.7	208.8	165.2	228.8	152.5	147.1
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)