

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: P963639

Luminaire Tested: **NAV-SB3A-827-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963639
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-SB3A-827-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12219 lumens
Efficiency: N/A
Efficacy: 144.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 84.7
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

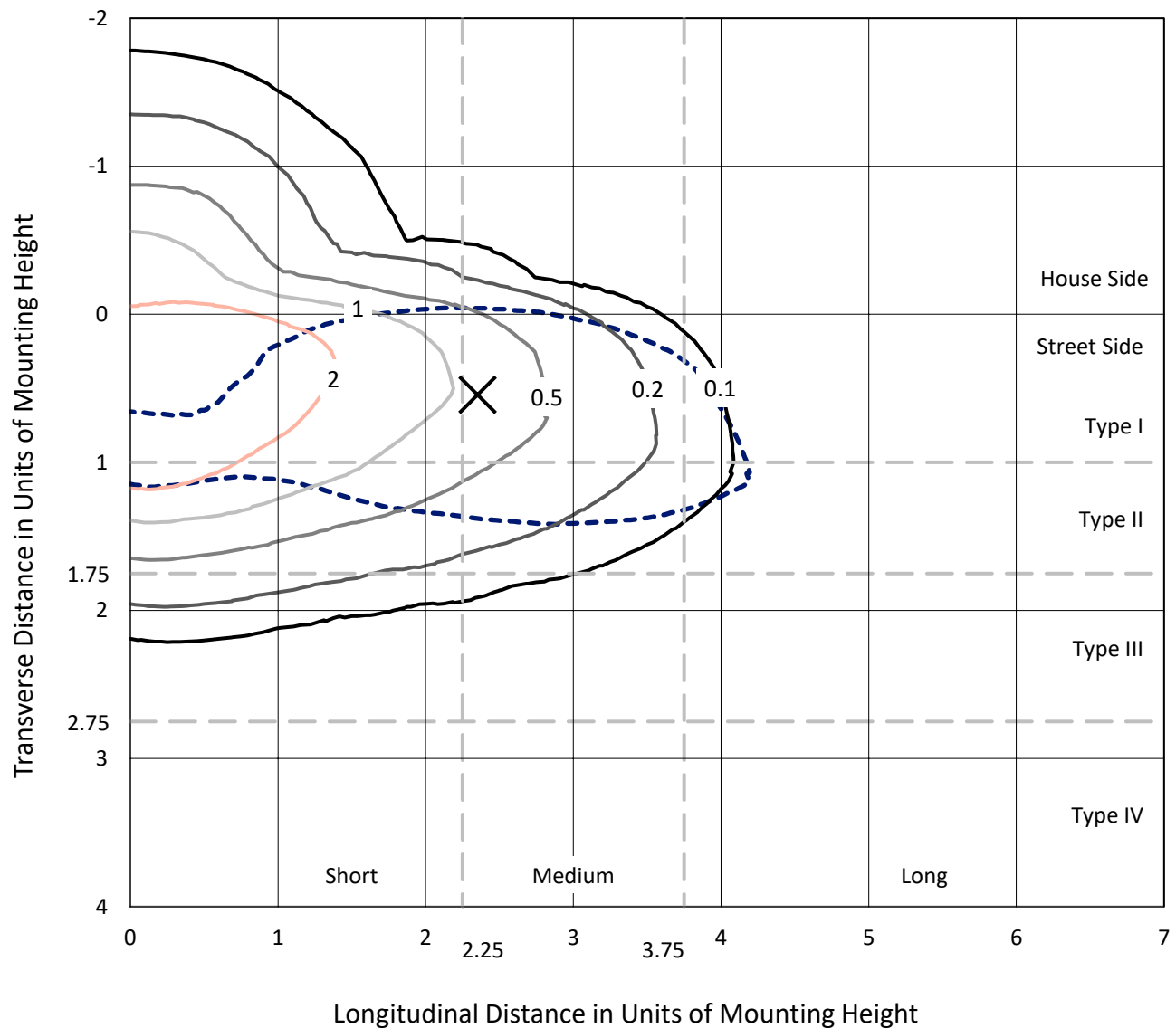


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Iso-Footcandle Lines of Horizontal Illumination

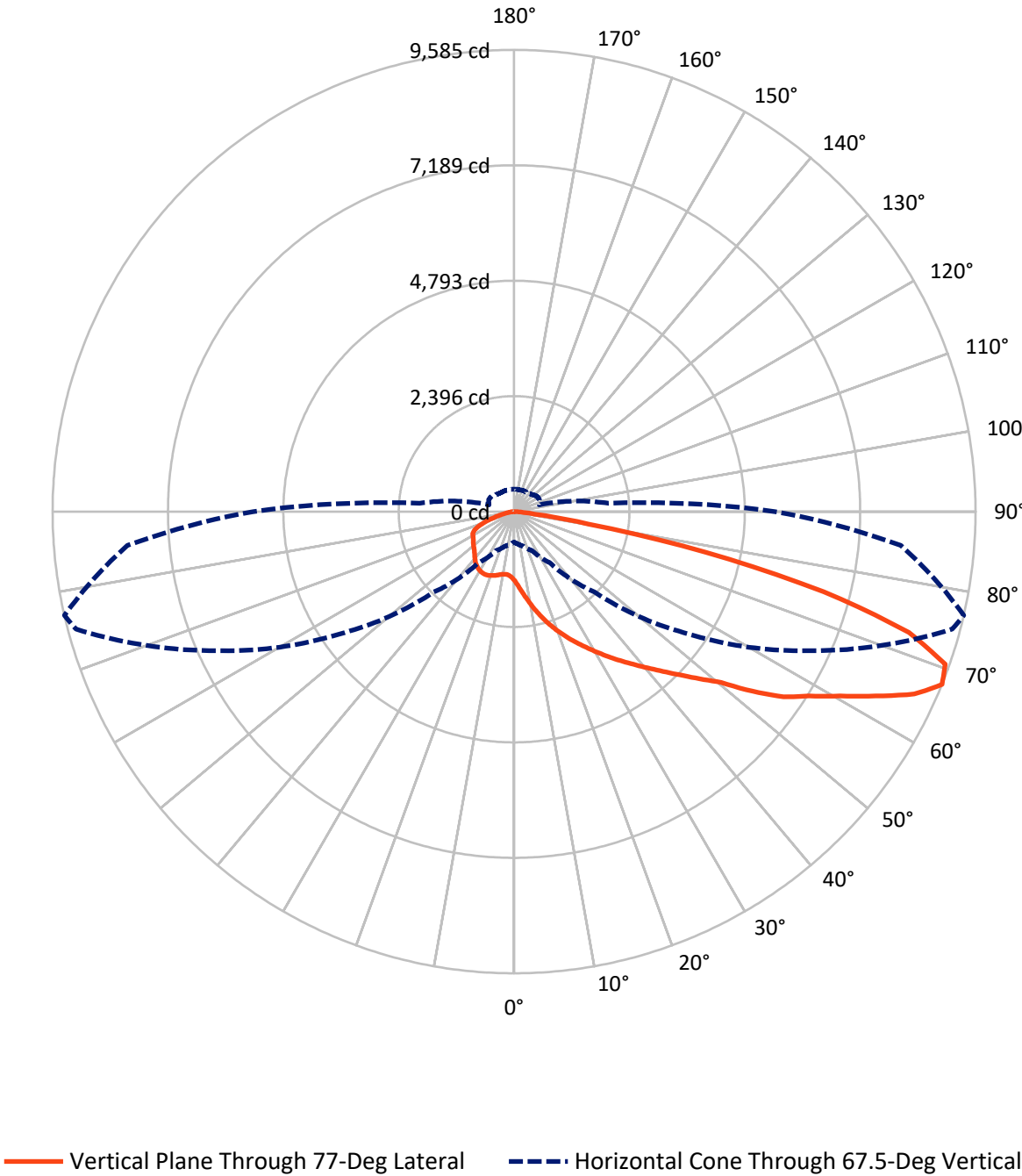
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2311.3	0.0	2311.3
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	9907.7	0.0	9907.7
	% Fixture	81.1	0.0	81.1
Total	Lumens	12219.0	0.0	12219.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.7	1.3
10°-20°	552.1	4.5
20°-30°	1042.4	8.5
30°-40°	1679.2	13.7
40°-50°	2296.9	18.8
50°-60°	2590.9	21.2
60°-70°	2418.3	19.8
70°-80°	1325.6	10.8
80°-90°	159.9	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°	12219.0	100.0
0°-180°	12219.0	100.0

Coefficient of Utilization



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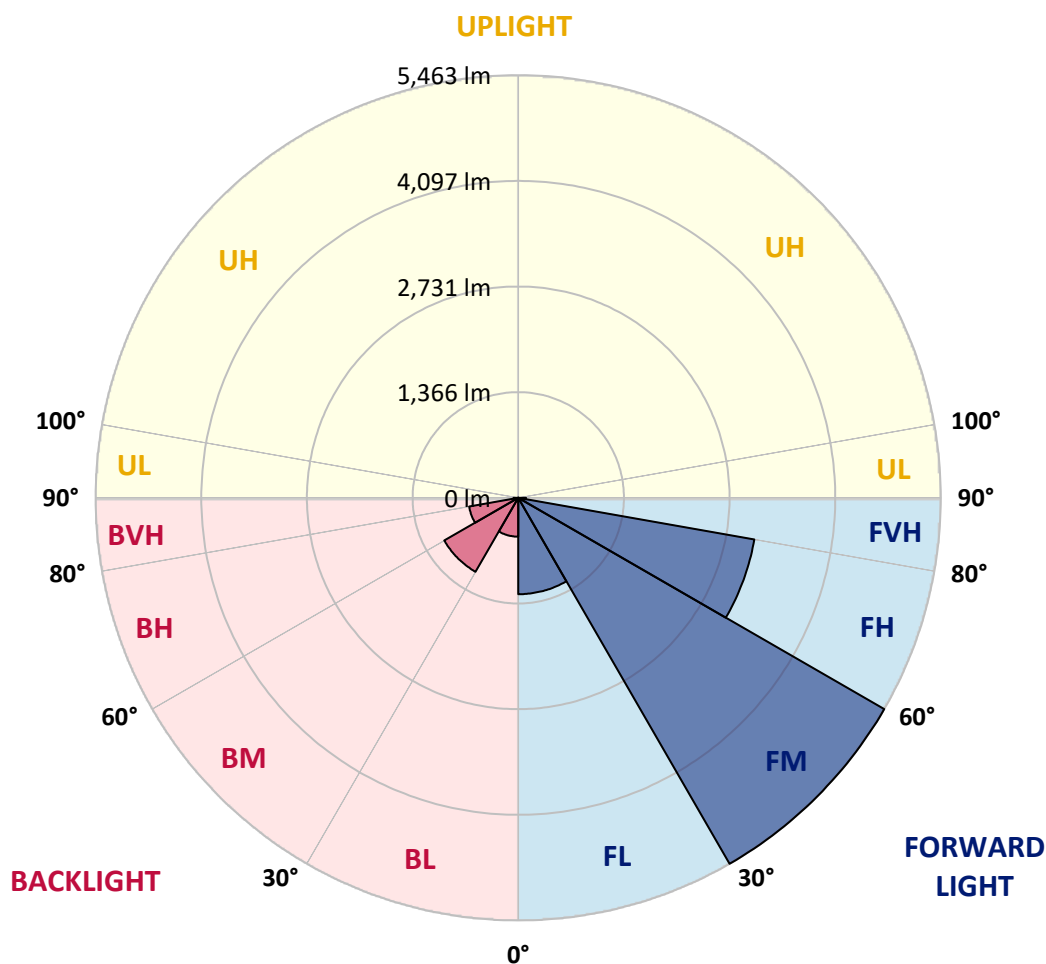
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1245.6	10.2			
FM	(30°-60°)	5463.0	44.7			
FH	(60°-80°)	3099.1	25.4			G2/5000
FVH	(80°-90°)	100.0	0.8			G1/100
BL	(0°-30°)	502.5	4.1	B2/1000		
BM	(30°-60°)	1104.1	9.0	B2/2500		
BH	(60°-80°)	644.8	5.3	B2/1000		G2/1000
BVH	(80°-90°)	59.9	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7
2.5°	1795.1	1807.7	1791.9	1791.9	1738.9	1711.2	1658.2	1617.9	1545.3	1532.7	1484.7
5°	2121.9	2137.5	2115.5	2106.1	2043.6	1986.2	1897.3	1809.6	1680.3	1667.1	1554.1
7.5°	2374.7	2394.9	2375.3	2365.3	2309.7	2245.5	2141.3	2019.0	1836.7	1810.9	1647.5
10°	2581.0	2584.1	2577.9	2581.7	2538.1	2485.1	2378.5	2235.9	2008.3	1972.9	1760.4
12.5°	2697.7	2712.1	2724.8	2747.5	2739.9	2707.1	2611.3	2440.9	2189.9	2144.5	1883.4
15°	2752.5	2777.7	2806.1	2858.5	2900.7	2909.0	2835.8	2661.1	2374.7	2319.9	2007.7
17.5°	2772.1	2796.1	2840.9	2916.5	3007.4	3068.5	3035.7	2874.9	2557.7	2494.5	2138.3
20°	2871.1	2878.1	2905.2	2977.1	3075.5	3177.0	3201.6	3080.5	2738.7	2667.4	2273.1
22.5°	3083.1	3069.2	3076.7	3109.5	3180.2	3278.6	3334.7	3262.2	2924.7	2842.7	2409.5
25°	3433.1	3392.7	3352.4	3314.5	3350.5	3406.0	3469.7	3443.8	3119.6	3015.5	2546.9
27.5°	3875.2	3826.0	3737.2	3612.9	3569.4	3588.9	3617.3	3612.2	3300.0	3194.7	2688.9
30°	4310.4	4253.0	4147.2	3967.4	3852.6	3800.8	3779.4	3764.9	3496.2	3383.9	2832.0
32.5°	4658.0	4612.6	4508.6	4307.4	4140.8	4052.5	3981.2	3929.5	3701.2	3588.9	2983.4
35°	4962.0	4919.8	4800.6	4581.0	4400.0	4306.0	4212.8	4102.4	3914.4	3800.8	3146.1
37.5°	5239.6	5197.3	5034.0	4805.6	4623.4	4558.4	4475.0	4287.8	4128.2	4021.0	3318.3
40°	5414.9	5405.4	5252.8	4994.2	4805.0	4772.8	4745.0	4502.8	4365.4	4265.7	3507.6
42.5°	5459.7	5480.5	5359.4	5146.8	4966.4	4940.6	5005.6	4746.4	4631.6	4536.2	3722.0
45°	5351.8	5411.8	5332.3	5187.8	5081.2	5067.4	5236.4	5012.5	4926.0	4839.0	3980.6
47.5°	5078.7	5180.2	5147.4	5127.3	5112.2	5172.0	5439.5	5295.0	5259.8	5184.0	4275.8
50°	4527.4	4719.8	4777.2	4904.6	5051.0	5253.4	5624.3	5603.5	5649.5	5573.2	4635.3
52.5°	3574.4	3839.3	4172.4	4491.4	4863.0	5226.3	5827.4	6046.3	6240.5	6198.9	5206.8
55°	2950.6	3069.8	3325.9	3911.2	4498.4	5112.2	5918.9	6403.9	6827.1	6789.9	5640.1
57.5°	2471.3	2577.9	2735.5	3224.3	3947.2	4852.9	5975.6	6622.1	7228.9	7225.1	6067.7
60°	1957.1	2070.1	2231.5	2577.9	3303.2	4405.0	5963.0	6870.7	7741.7	7773.2	6589.3
62.5°	1376.9	1501.1	1680.3	2003.3	2645.3	3824.8	5705.7	7050.4	8345.3	8431.1	7216.9
65°	905.1	987.1	1122.1	1400.9	1971.1	3078.7	5214.3	7073.7	8991.2	9136.2	7806.0
67.5°	634.5	666.0	745.6	896.9	1299.3	2360.9	4431.6	6832.1	9422.0	9585.4	8061.5
70°	495.2	510.9	551.2	611.8	816.2	1587.6	3395.9	6203.9	9329.9	9500.2	7794.7
72.5°	427.6	442.8	457.9	465.5	547.5	980.2	2300.3	5187.2	8462.6	8578.0	6777.3
75°	387.9	391.7	404.3	401.8	417.6	635.8	1327.7	3779.4	6677.1	6637.3	5003.0
77.5°	326.1	331.2	352.0	348.8	370.8	434.6	689.4	2439.1	4328.8	4058.8	2784.7
80°	276.2	278.8	301.5	297.7	322.3	314.8	352.0	1243.2	1836.1	1555.4	802.9
82.5°	95.8	118.6	230.2	237.2	246.0	190.4	203.1	507.1	560.8	429.6	168.4
85°	46.6	49.8	117.4	166.6	165.8	95.8	99.0	181.0	176.6	138.8	56.2
87.5°	7.6	9.4	13.8	65.0	51.8	25.2	34.0	35.4	36.6	31.6	12.6
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°	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7
2.5°	1449.5	1417.9	1351.7	1290.5	1242.6	1196.5	1170.7	1148.6	1136.0	1133.4	1133.4
5°	1488.5	1423.6	1303.1	1201.6	1135.3	1086.1	1060.3	1043.9	1035.7	1030.6	1030.0
7.5°	1544.7	1449.5	1277.9	1162.5	1093.1	1057.8	1044.5	1042.0	1041.4	1042.0	1043.9
10°	1622.3	1491.7	1275.3	1153.0	1095.0	1075.4	1074.8	1075.4	1077.9	1078.6	1079.2
12.5°	1706.1	1535.2	1285.5	1161.2	1118.9	1108.2	1106.3	1105.7	1107.6	1108.8	1109.5
15°	1797.6	1592.6	1302.5	1178.9	1145.4	1134.1	1132.2	1128.4	1127.8	1127.1	1126.5
17.5°	1891.6	1649.4	1321.4	1197.8	1162.5	1146.7	1139.7	1130.9	1124.0	1122.1	1124.0
20°	1986.9	1705.5	1334.7	1207.2	1163.7	1141.6	1127.8	1112.6	1100.6	1093.7	1096.2
22.5°	2088.3	1764.2	1342.9	1204.7	1152.4	1122.1	1096.9	1079.2	1060.9	1048.9	1049.6
25°	2187.5	1815.3	1342.2	1191.5	1130.3	1091.8	1059.6	1036.9	1011.7	999.1	999.1
27.5°	2282.7	1861.3	1326.5	1168.1	1098.7	1055.9	1017.4	990.3	965.7	953.7	953.0
30°	2381.1	1899.8	1301.9	1134.1	1061.5	1014.2	972.0	948.6	926.6	915.2	914.6
32.5°	2478.8	1935.1	1267.1	1091.8	1018.6	973.2	931.6	910.2	896.9	896.9	897.6
35°	2582.3	1959.7	1221.1	1042.6	973.2	929.7	896.9	884.3	883.0	875.5	873.6
37.5°	2691.3	1975.5	1165.0	992.2	928.4	887.4	877.4	862.2	849.6	833.2	830.7
40°	2806.1	1991.3	1097.5	939.8	881.2	858.4	854.0	833.8	797.9	757.5	751.8
42.5°	2945.5	2001.9	1027.5	887.4	831.3	823.8	830.0	795.4	738.0	707.7	708.3
45°	3107.0	2019.7	963.1	835.7	780.2	780.2	806.7	761.3	714.0	695.1	698.2
47.5°	3316.4	2060.7	903.2	779.0	732.9	745.6	755.0	720.3	693.8	670.5	669.8
50°	3619.2	2159.1	841.4	721.6	697.0	722.2	709.0	688.8	657.8	639.0	637.0
52.5°	3995.1	2217.1	786.5	669.8	666.0	691.3	672.4	653.4	630.1	604.9	599.8
55°	4251.2	2227.7	740.5	632.0	645.2	642.7	635.8	618.8	606.2	572.7	573.4
57.5°	4537.6	2249.3	702.6	609.3	632.0	604.2	601.7	587.2	570.8	548.1	540.6
60°	4880.0	2282.7	669.8	600.4	620.6	579.0	566.4	560.8	544.4	533.0	536.2
62.5°	5253.4	2312.9	636.4	601.7	607.4	554.4	535.5	533.6	523.5	519.8	519.8
65°	5508.2	2230.3	594.8	600.4	586.6	529.2	505.2	504.6	496.4	495.2	494.5
67.5°	5419.3	1968.5	538.6	582.8	565.2	504.0	477.4	475.0	464.2	464.8	464.8
70°	4974.0	1595.1	461.0	539.3	538.6	481.2	448.4	440.2	425.8	428.2	430.8
72.5°	4139.0	1182.0	357.0	466.8	496.4	460.4	415.0	401.8	383.5	386.0	385.4
75°	2989.1	803.6	259.8	355.1	432.0	435.8	382.2	359.6	337.4	341.2	342.5
77.5°	1529.5	455.4	191.2	244.8	339.4	396.1	352.6	322.3	317.2	352.6	347.6
80°	498.9	228.4	132.4	171.6	222.6	324.2	309.0	274.4	273.1	281.3	241.6
82.5°	148.8	96.5	85.2	112.9	123.0	248.6	266.8	207.6	178.5	188.0	194.2
85°	51.0	46.6	48.6	56.2	58.6	145.7	186.7	137.5	130.0	143.2	141.2
87.5°	12.0	16.4	13.8	12.6	12.6	35.4	72.6	57.4	79.4	53.0	51.0
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)