

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: P960880

Luminaire Tested: **NAV-SB1D-735-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960880
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-SB1D-735-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10627.2 lumens
Efficiency: N/A
Efficacy: 133.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 79.6
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

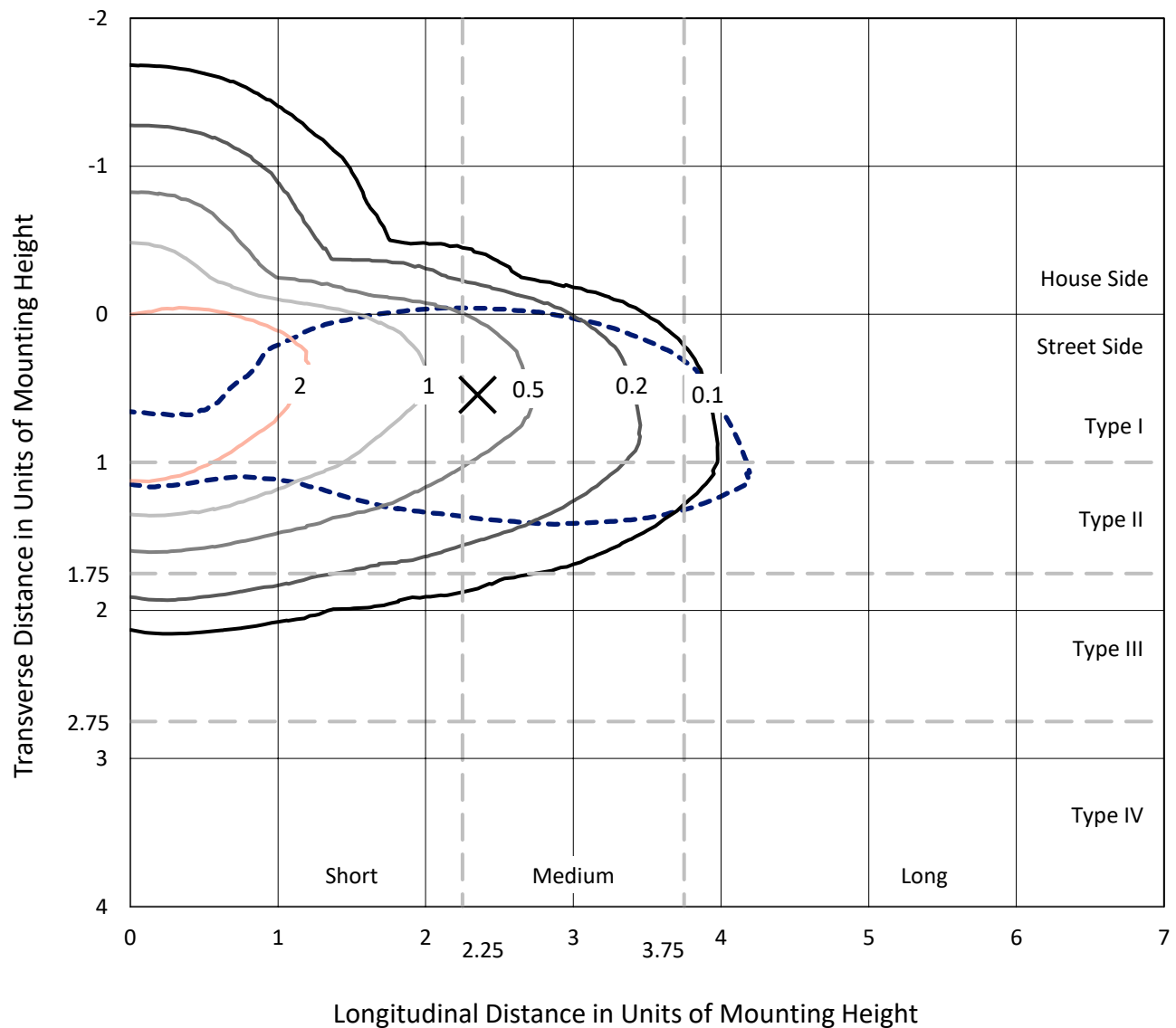


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Iso-Footcandle Lines of Horizontal Illumination

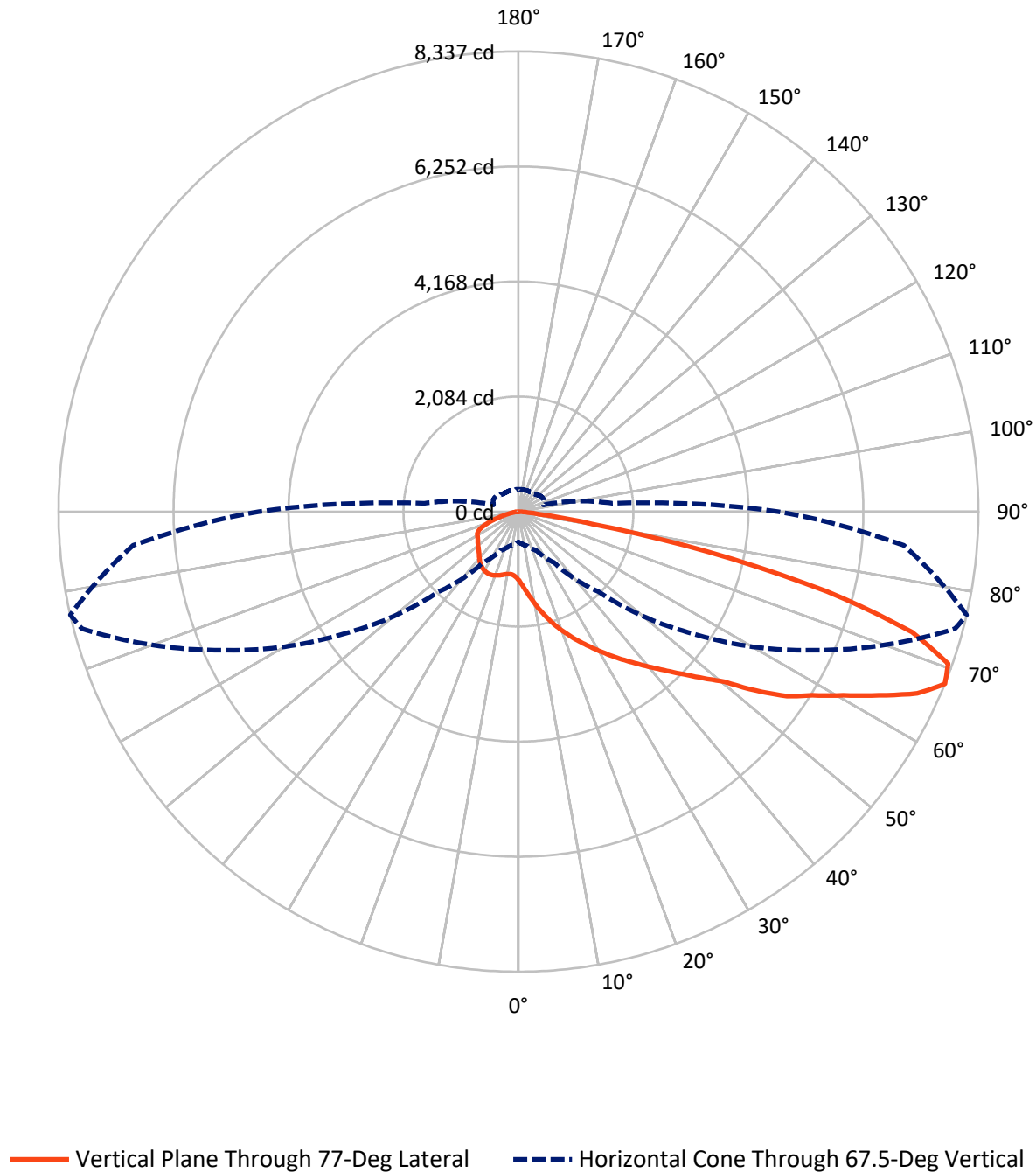
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 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	2010.2	0.0	2010.2
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	8616.9	0.0	8616.9
	% Fixture	81.1	0.0	81.1
Total	Lumens	10627.2	0.0	10627.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.7	1.3
10°-20°	480.2	4.5
20°-30°	906.6	8.5
30°-40°	1460.5	13.7
40°-50°	1997.7	18.8
50°-60°	2253.4	21.2
60°-70°	2103.3	19.8
70°-80°	1152.9	10.8
80°-90°	139.1	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°	10627.2	100.0
0°-180°	10627.2	100.0

Coefficient of Utilization



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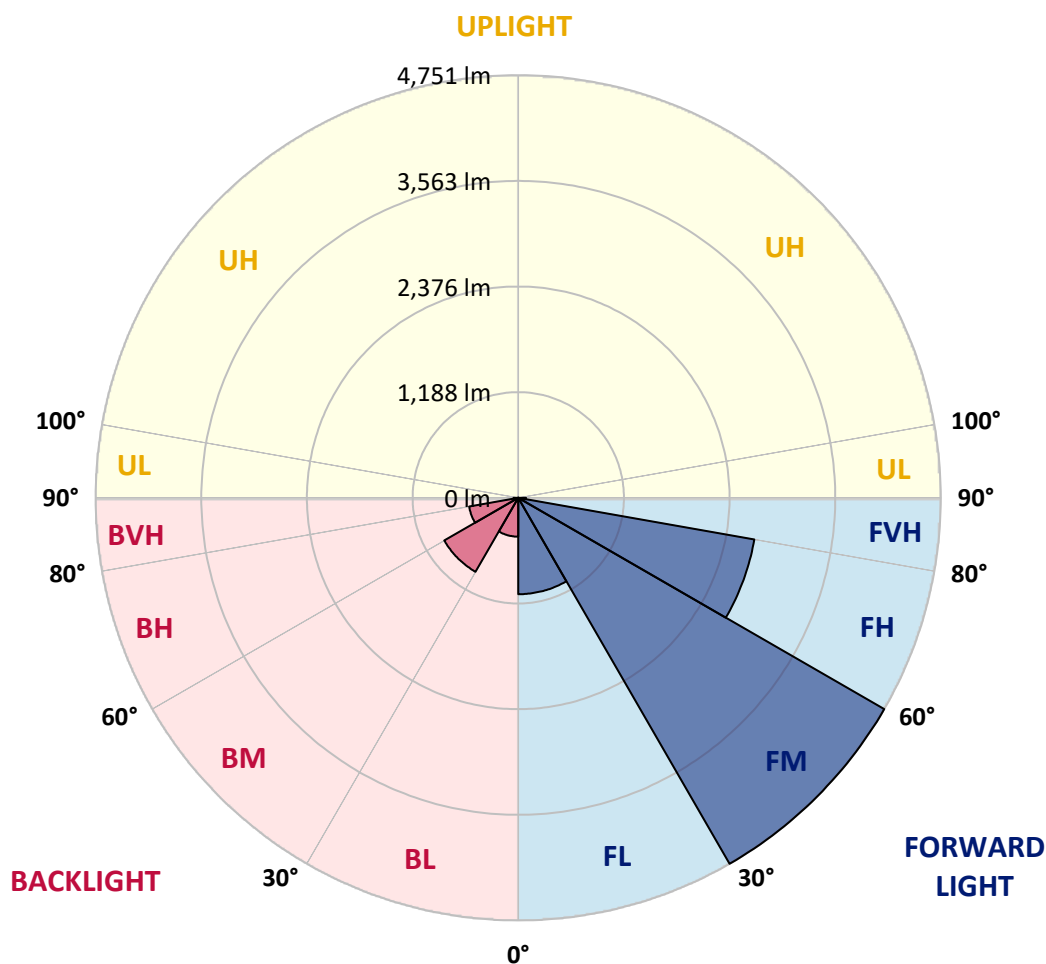
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1083.3	10.2			
FM	(30°-60°)	4751.3	44.7			
FH	(60°-80°)	2695.4	25.4			G2/5000
FVH	(80°-90°)	87.0	0.8			G1/100
BL	(0°-30°)	437.1	4.1	B1/500		
BM	(30°-60°)	960.2	9.0	B1/1000		
BH	(60°-80°)	560.8	5.3	B2/1000		G2/1000
BVH	(80°-90°)	52.1	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°	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9
2.5°	1561.3	1572.2	1558.5	1558.5	1512.4	1488.3	1442.2	1407.1	1344.0	1333.0	1291.3
5°	1845.4	1859.1	1839.9	1831.7	1777.4	1727.4	1650.1	1573.9	1461.3	1449.9	1351.7
7.5°	2065.4	2082.9	2065.9	2057.2	2008.9	1952.9	1862.4	1755.9	1597.5	1574.9	1432.8
10°	2244.8	2247.5	2242.0	2245.3	2207.4	2161.4	2068.7	1944.7	1746.6	1716.0	1531.0
12.5°	2346.2	2358.8	2369.8	2389.6	2383.0	2354.4	2271.1	2123.0	1904.7	1865.1	1638.1
15°	2394.0	2415.9	2440.6	2486.1	2522.8	2530.0	2466.4	2314.4	2065.4	2017.6	1746.1
17.5°	2411.0	2431.8	2470.8	2536.6	2615.6	2668.8	2640.3	2500.4	2224.5	2169.6	1859.7
20°	2497.1	2503.2	2526.7	2589.3	2674.8	2763.2	2784.5	2679.2	2381.9	2319.9	1977.0
22.5°	2681.4	2669.3	2676.0	2704.5	2765.9	2851.4	2900.3	2837.2	2543.7	2472.4	2095.5
25°	2985.8	2950.8	2915.6	2882.7	2914.0	2962.2	3017.7	2995.2	2713.3	2622.7	2215.1
27.5°	3370.4	3327.7	3250.3	3142.2	3104.3	3121.3	3146.0	3141.6	2870.1	2778.5	2338.5
30°	3748.9	3699.0	3606.9	3450.5	3350.6	3305.7	3287.1	3274.5	3040.8	2943.1	2463.1
32.5°	4051.2	4011.6	3921.1	3746.2	3601.3	3524.6	3462.6	3417.6	3219.0	3121.3	2594.8
35°	4315.6	4278.9	4175.1	3984.3	3826.8	3745.0	3663.9	3567.9	3404.4	3305.7	2736.2
37.5°	4556.9	4520.2	4378.2	4179.5	4021.0	3964.5	3892.1	3729.2	3590.4	3497.1	2886.0
40°	4709.5	4701.3	4568.5	4343.5	4179.0	4151.0	4126.9	3916.2	3796.7	3710.0	3050.6
42.5°	4748.4	4766.6	4661.2	4476.4	4319.5	4296.9	4353.5	4128.0	4028.1	3945.3	3237.2
45°	4654.6	4706.7	4637.6	4511.9	4419.3	4407.2	4554.3	4359.5	4284.3	4208.6	3462.0
47.5°	4417.1	4505.4	4476.9	4459.4	4446.1	4498.3	4730.9	4605.2	4574.6	4508.7	3718.8
50°	3937.6	4104.9	4154.8	4265.6	4392.9	4569.0	4891.6	4873.5	4913.5	4847.1	4031.4
52.5°	3108.7	3339.1	3628.8	3906.4	4229.5	4545.5	5068.2	5258.6	5427.6	5391.4	4528.4
55°	2566.2	2669.9	2892.7	3401.7	3912.4	4446.1	5147.8	5569.6	5937.7	5905.3	4905.3
57.5°	2149.3	2242.0	2379.1	2804.3	3432.9	4220.7	5197.2	5759.5	6287.1	6283.9	5277.2
60°	1702.2	1800.4	1940.8	2242.0	2872.9	3831.2	5186.2	5975.5	6733.1	6760.6	5730.9
62.5°	1197.5	1305.6	1461.3	1742.3	2300.7	3326.5	4962.3	6132.0	7258.1	7332.7	6276.8
65°	787.2	858.5	975.9	1218.4	1714.3	2677.6	4535.0	6152.3	7819.8	7946.0	6789.1
67.5°	551.9	579.3	648.4	780.0	1130.1	2053.3	3854.2	5942.1	8194.6	8336.6	7011.3
70°	430.6	444.3	479.5	532.1	709.8	1380.8	2953.5	5395.7	8114.4	8262.5	6779.2
72.5°	372.0	385.1	398.2	404.9	476.1	852.5	2000.6	4511.4	7360.2	7460.6	5894.4
75°	337.3	340.7	351.7	349.4	363.2	553.0	1154.8	3287.1	5807.1	5772.6	4351.2
77.5°	283.6	288.0	306.1	303.4	322.6	377.9	599.6	2121.3	3764.8	3530.1	2422.0
80°	240.3	242.5	262.2	258.9	280.3	273.8	306.1	1081.3	1596.8	1352.8	698.3
82.5°	83.3	103.1	200.2	206.2	213.9	165.6	176.6	441.1	487.7	373.6	146.5
85°	40.6	43.4	102.0	144.8	144.3	83.3	86.1	157.4	153.6	120.6	48.8
87.5°	6.6	8.2	12.1	56.5	45.0	21.9	29.6	30.7	31.8	27.5	11.0
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°	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9	1246.9
2.5°	1260.6	1233.2	1175.6	1122.4	1080.7	1040.7	1018.1	999.0	988.0	985.7	985.7
5°	1294.7	1238.1	1133.3	1045.0	987.4	944.6	922.2	907.8	900.8	896.4	895.8
7.5°	1343.5	1260.6	1111.4	1011.1	950.7	919.9	908.5	906.2	905.7	906.2	907.8
10°	1410.9	1297.3	1109.3	1002.8	952.3	935.3	934.8	935.3	937.5	938.1	938.6
12.5°	1483.9	1335.3	1118.0	1009.9	973.1	963.8	962.2	961.7	963.3	964.4	964.9
15°	1563.4	1385.2	1132.8	1025.3	996.2	986.4	984.7	981.4	980.8	980.3	979.8
17.5°	1645.1	1434.5	1149.2	1041.7	1011.1	997.3	991.3	983.6	977.5	975.9	977.5
20°	1728.0	1483.4	1160.8	1050.0	1012.1	992.9	980.8	967.7	957.2	951.2	953.5
22.5°	1816.3	1534.3	1167.9	1047.8	1002.2	975.9	954.0	938.6	922.7	912.2	912.9
25°	1902.4	1578.8	1167.4	1036.3	983.1	949.6	921.6	901.9	879.9	868.9	868.9
27.5°	1985.3	1618.8	1153.6	1016.0	955.6	918.3	884.9	861.2	839.9	829.4	828.9
30°	2070.8	1652.3	1132.2	986.4	923.2	882.1	845.3	825.0	805.9	796.0	795.4
32.5°	2155.9	1683.0	1102.1	949.6	885.9	846.4	810.3	791.6	780.0	780.0	780.6
35°	2245.9	1704.4	1062.0	906.8	846.4	808.6	780.0	769.1	768.0	761.4	759.7
37.5°	2340.8	1718.1	1013.2	862.9	807.5	771.8	763.1	749.9	738.9	724.7	722.4
40°	2440.6	1731.8	954.5	817.3	766.4	746.6	742.7	725.2	693.9	658.9	653.8
42.5°	2561.8	1741.2	893.6	771.8	723.0	716.5	721.9	691.8	641.9	615.5	616.0
45°	2702.2	1756.5	837.6	726.8	678.6	678.6	701.6	662.2	620.9	604.5	607.3
47.5°	2884.4	1792.2	785.6	677.5	637.4	648.4	656.6	626.5	603.4	583.1	582.6
50°	3147.7	1877.8	731.7	627.6	606.2	628.1	616.6	599.0	572.2	555.7	554.0
52.5°	3474.6	1928.2	684.1	582.6	579.3	601.3	584.8	568.4	548.1	526.0	521.7
55°	3697.4	1937.6	644.0	549.7	561.2	559.0	553.0	538.1	527.2	498.2	498.7
57.5°	3946.5	1956.2	611.1	529.9	549.7	525.5	523.4	510.8	496.4	476.7	470.2
60°	4244.3	1985.3	582.6	522.2	539.8	503.6	492.6	487.7	473.4	463.5	466.3
62.5°	4569.0	2011.6	553.5	523.4	528.3	482.2	465.8	464.1	455.3	452.0	452.0
65°	4790.6	1939.7	517.3	522.2	510.1	460.2	439.4	438.9	431.7	430.6	430.1
67.5°	4713.4	1712.1	468.5	506.9	491.5	438.3	415.2	413.1	403.7	404.3	404.3
70°	4326.0	1387.3	401.0	469.0	468.5	418.6	390.0	382.9	370.3	372.5	374.6
72.5°	3599.7	1028.0	310.5	405.9	431.7	400.5	361.0	349.4	333.5	335.7	335.2
75°	2599.7	698.8	226.0	308.8	375.8	379.0	332.4	312.7	293.5	296.7	297.9
77.5°	1330.2	396.1	166.3	212.9	295.1	344.5	306.7	280.3	275.9	306.7	302.3
80°	433.9	198.5	115.2	149.2	193.6	282.0	268.8	238.6	237.5	244.7	210.1
82.5°	129.5	83.9	74.1	98.2	107.0	216.2	232.1	180.5	155.3	163.5	168.9
85°	44.5	40.6	42.2	48.8	51.0	126.7	162.4	119.6	113.0	124.5	122.9
87.5°	10.5	14.2	12.1	11.0	11.0	30.7	63.0	49.9	69.1	46.1	44.5
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)