

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: P961965

Luminaire Tested: **NAV-SB2B-740-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961965
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-SB2B-740-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12438.4 lumens
Efficiency: N/A
Efficacy: 168.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 73.9
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



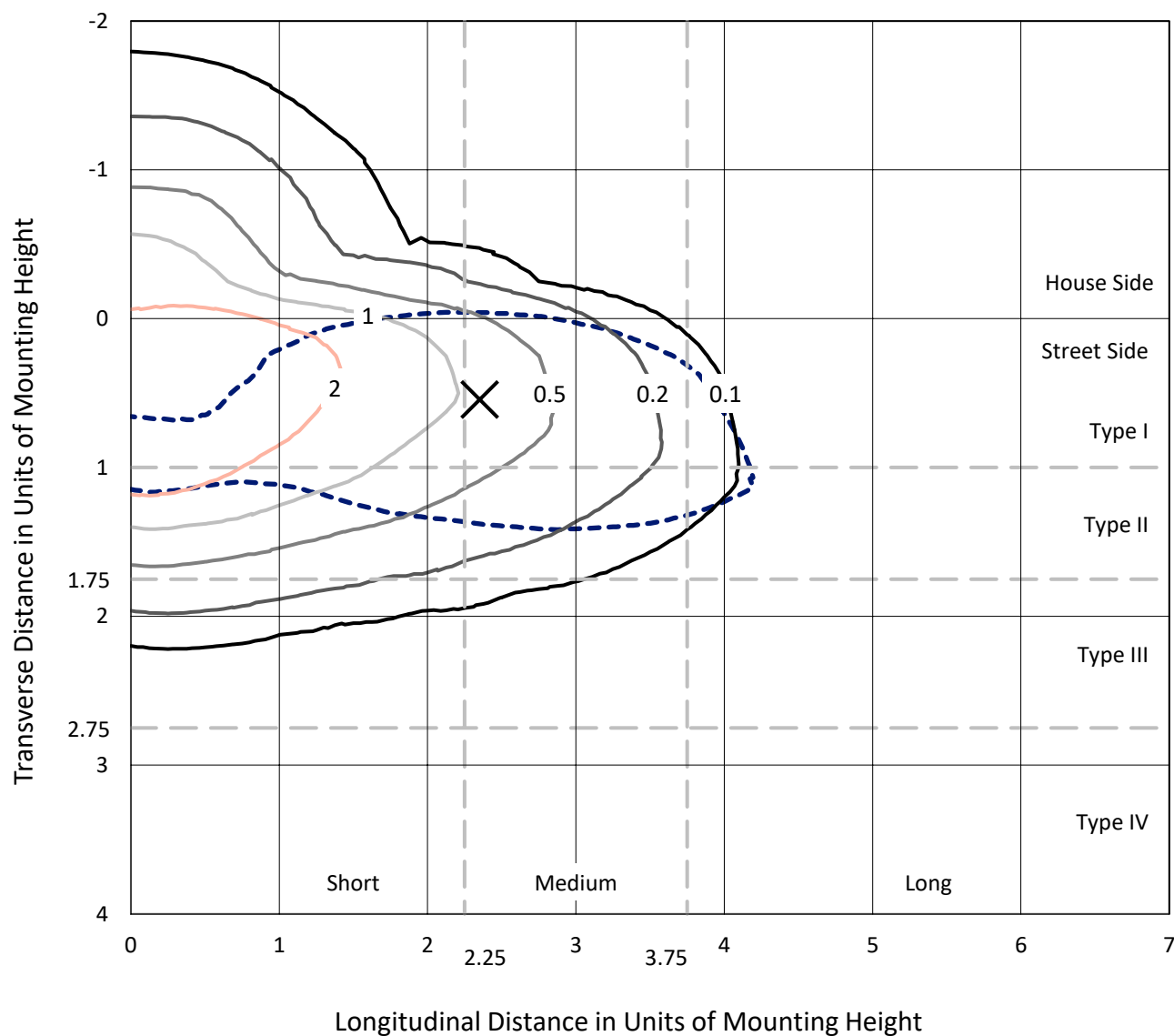
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

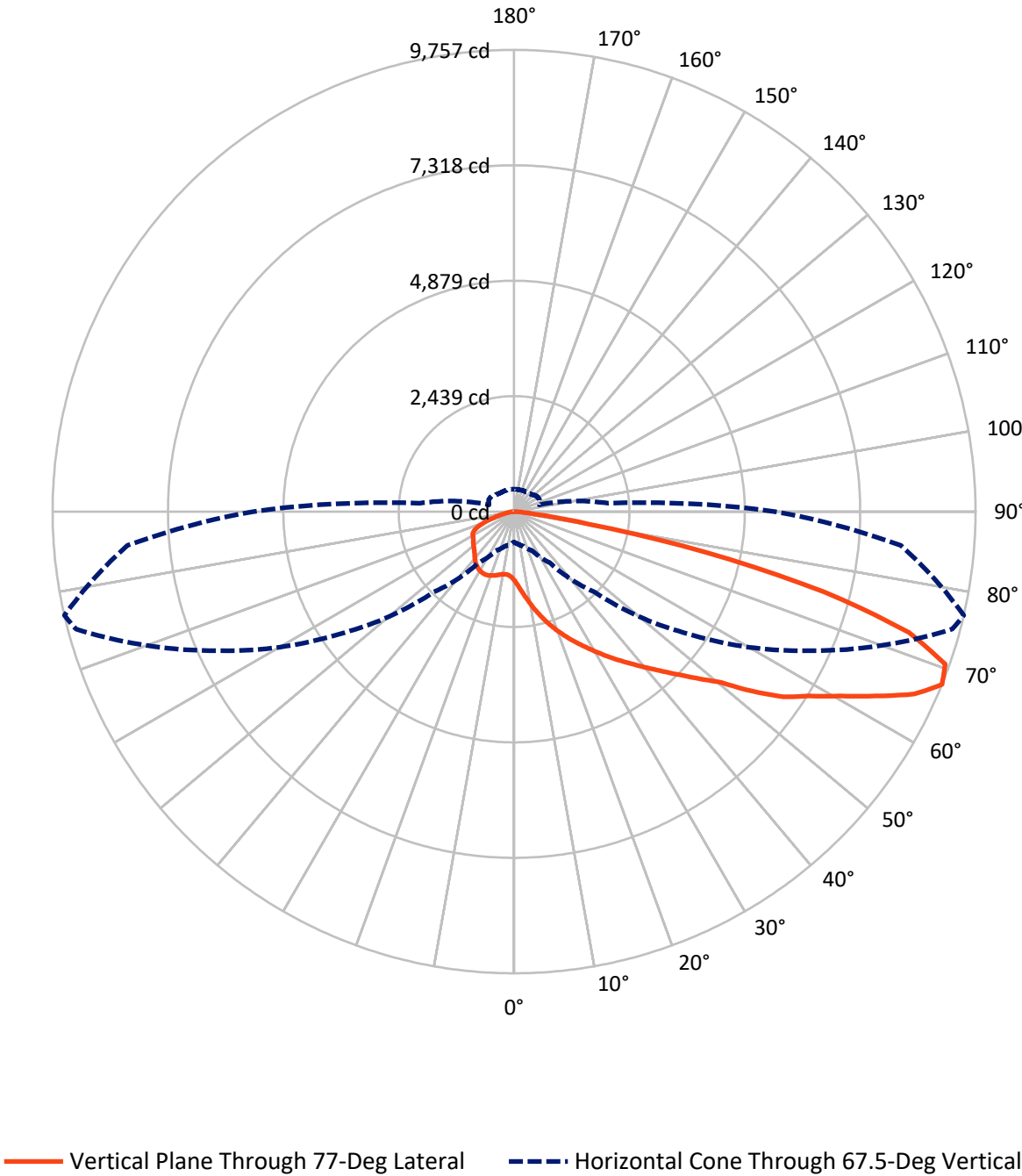
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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	2352.8	0.0	2352.8
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	10085.5	0.0	10085.5
	% Fixture	81.1	0.0	81.1
Total	Lumens	12438.4	0.0	12438.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.4	1.3
10°-20°	562.0	4.5
20°-30°	1061.1	8.5
30°-40°	1709.4	13.7
40°-50°	2338.1	18.8
50°-60°	2637.4	21.2
60°-70°	2461.7	19.8
70°-80°	1349.4	10.8
80°-90°	162.8	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°	12438.4	100.0
0°-180°	12438.4	100.0

Coefficient of Utilization



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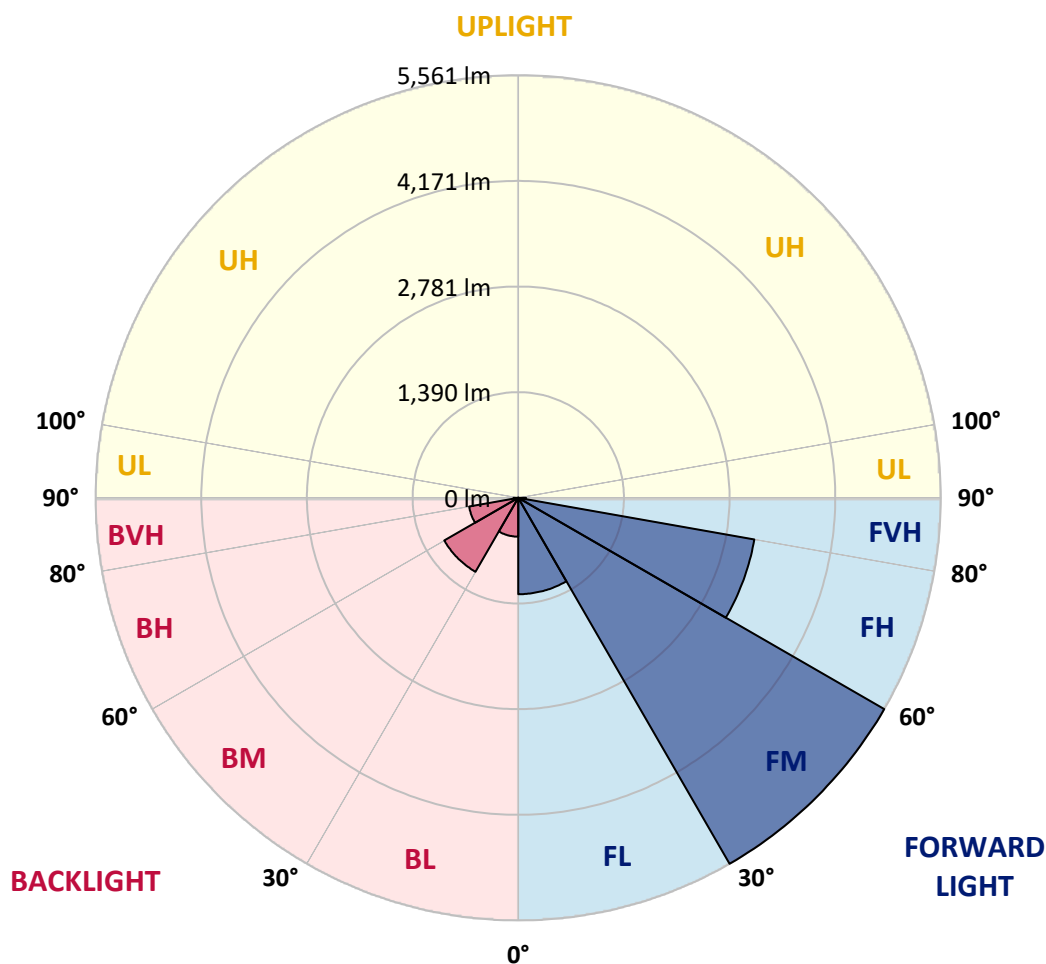
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1267.9	10.2			
FM	(30°-60°)	5561.1	44.7			
FH	(60°-80°)	3154.7	25.4			G2/5000
FVH	(80°-90°)	101.8	0.8			G2/225
BL	(0°-30°)	511.6	4.1	B2/1000		
BM	(30°-60°)	1123.9	9.0	B2/2500		
BH	(60°-80°)	656.4	5.3	B2/1000		G2/1000
BVH	(80°-90°)	61.0	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°	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4
2.5°	1827.3	1840.2	1824.1	1824.1	1770.2	1741.9	1688.0	1646.9	1573.1	1560.3	1511.5
5°	2159.9	2176.0	2153.5	2143.9	2080.2	2021.8	1931.3	1842.0	1710.4	1697.0	1582.1
7.5°	2417.4	2437.9	2418.0	2407.7	2351.2	2285.8	2179.8	2055.2	1869.7	1843.4	1677.1
10°	2627.3	2630.6	2624.1	2628.0	2583.6	2529.7	2421.3	2276.1	2044.4	2008.4	1792.0
12.5°	2746.1	2760.8	2773.8	2796.8	2789.1	2755.7	2658.1	2484.8	2229.3	2183.0	1917.2
15°	2801.9	2827.7	2856.6	2909.9	2952.8	2961.2	2886.7	2708.9	2417.4	2361.5	2043.6
17.5°	2821.8	2846.2	2891.8	2968.9	3061.4	3123.6	3090.3	2926.5	2603.6	2539.3	2176.6
20°	2922.7	2929.8	2957.3	3030.5	3130.7	3234.1	3259.1	3135.8	2787.8	2715.3	2314.0
22.5°	3138.4	3124.3	3132.0	3165.4	3237.3	3337.4	3394.6	3320.8	2977.2	2893.8	2452.7
25°	3494.7	3453.6	3412.5	3374.0	3410.6	3467.2	3531.9	3505.7	3175.7	3069.7	2592.6
27.5°	3944.8	3894.8	3804.2	3677.7	3633.4	3653.3	3682.2	3677.1	3359.2	3252.0	2737.2
30°	4387.8	4329.4	4221.6	4038.6	3921.8	3869.1	3847.2	3832.5	3558.9	3444.6	2882.8
32.5°	4741.6	4695.4	4589.4	4384.6	4215.1	4125.2	4052.7	4000.1	3767.6	3653.3	3037.0
35°	5051.1	5008.0	4886.7	4663.3	4479.0	4383.3	4288.3	4176.0	3984.7	3869.1	3202.6
37.5°	5333.6	5290.6	5124.3	4891.9	4706.3	4640.2	4555.4	4364.8	4202.3	4093.1	3377.9
40°	5512.1	5502.5	5347.1	5083.9	4891.2	4858.5	4830.2	4583.7	4443.7	4342.3	3570.5
42.5°	5557.7	5578.9	5455.6	5239.2	5055.6	5029.3	5095.4	4831.5	4714.7	4617.7	3788.8
45°	5447.9	5508.9	5428.0	5281.0	5172.5	5158.3	5330.4	5102.4	5014.5	4925.9	4052.0
47.5°	5169.9	5273.2	5239.9	5219.3	5203.9	5264.9	5537.2	5390.1	5354.2	5277.1	4352.6
50°	4608.7	4804.6	4863.0	4992.7	5141.6	5347.7	5725.2	5704.1	5751.0	5673.3	4718.5
52.5°	3638.5	3908.2	4247.3	4572.1	4950.3	5320.2	5932.0	6154.8	6352.5	6310.2	5300.3
55°	3003.6	3124.9	3385.6	3981.4	4579.2	5203.9	6025.2	6518.9	6949.7	6911.8	5741.3
57.5°	2515.6	2624.1	2784.6	3282.3	4018.0	4940.0	6082.9	6741.0	7358.7	7354.8	6176.6
60°	1992.3	2107.3	2271.6	2624.1	3362.5	4484.2	6070.0	6994.0	7880.7	7912.8	6707.6
62.5°	1401.6	1528.1	1710.4	2039.2	2692.8	3893.5	5808.1	7176.9	8495.1	8582.4	7346.5
65°	921.4	1004.8	1142.3	1426.0	2006.4	3133.9	5308.0	7200.7	9152.6	9300.2	7946.2
67.5°	646.0	678.0	758.9	913.0	1322.7	2403.2	4511.1	6954.8	9591.1	9757.4	8206.2
70°	504.0	520.1	561.2	622.8	830.9	1616.1	3456.9	6315.3	9497.3	9670.8	7934.6
72.5°	435.3	450.7	466.2	473.9	557.3	997.7	2341.6	5280.3	8614.5	8732.1	6899.0
75°	394.8	398.7	411.5	409.0	425.1	647.2	1351.6	3847.2	6796.9	6756.4	5092.8
77.5°	332.0	337.1	358.2	355.1	377.5	442.4	701.8	2482.9	4406.5	4131.7	2834.7
80°	281.3	283.8	306.9	303.1	328.1	320.4	358.2	1265.5	1869.1	1583.3	817.3
82.5°	97.6	120.7	234.3	241.4	250.4	193.9	206.7	516.2	570.8	437.3	171.4
85°	47.6	50.7	119.4	169.5	168.8	97.6	100.8	184.3	179.8	141.2	57.1
87.5°	7.7	9.6	14.1	66.1	52.7	25.7	34.6	36.0	37.2	32.1	12.8
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°	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4	1459.4
2.5°	1475.5	1443.4	1376.0	1313.6	1264.8	1218.0	1191.7	1169.2	1156.4	1153.7	1153.7
5°	1515.3	1449.1	1326.5	1223.1	1155.7	1105.7	1079.3	1062.6	1054.3	1049.1	1048.5
7.5°	1572.5	1475.5	1300.8	1183.4	1112.7	1076.8	1063.2	1060.7	1060.1	1060.7	1062.6
10°	1651.4	1518.4	1298.3	1173.7	1114.6	1094.7	1094.1	1094.7	1097.3	1097.9	1098.6
12.5°	1736.8	1562.8	1308.5	1182.0	1139.0	1128.1	1126.2	1125.6	1127.5	1128.7	1129.3
15°	1829.8	1621.2	1325.8	1200.0	1165.9	1154.5	1152.5	1148.6	1148.0	1147.4	1146.8
17.5°	1925.6	1679.0	1345.1	1219.2	1183.4	1167.3	1160.2	1151.2	1144.1	1142.3	1144.1
20°	2022.5	1736.1	1358.6	1228.9	1184.6	1162.1	1148.0	1132.6	1120.4	1113.4	1115.9
22.5°	2125.8	1795.8	1366.9	1226.3	1173.0	1142.3	1116.5	1098.6	1079.9	1067.7	1068.4
25°	2226.7	1847.9	1366.3	1212.9	1150.6	1111.4	1078.7	1055.5	1029.8	1017.0	1017.0
27.5°	2323.7	1894.7	1350.2	1189.1	1118.5	1074.8	1035.7	1008.1	983.0	970.8	970.2
30°	2423.8	1933.9	1325.2	1154.5	1080.6	1032.5	989.4	965.7	943.2	931.6	931.0
32.5°	2523.3	1969.8	1289.9	1111.4	1036.9	990.7	948.3	926.5	913.0	913.0	913.7
35°	2628.6	1994.9	1243.0	1061.3	990.7	946.4	913.0	900.2	898.9	891.1	889.3
37.5°	2739.7	2010.9	1185.9	1009.9	945.2	903.3	893.1	877.7	864.9	848.2	845.6
40°	2856.6	2027.0	1117.1	956.6	897.0	873.8	869.3	848.8	812.2	771.1	765.4
42.5°	2998.4	2037.9	1045.9	903.3	846.2	838.6	844.9	809.6	751.2	720.4	721.0
45°	3162.8	2055.8	980.4	850.7	794.3	794.3	821.2	775.0	726.8	707.6	710.7
47.5°	3375.9	2097.7	919.4	792.9	746.1	758.9	768.5	733.3	706.2	682.5	681.8
50°	3684.2	2197.8	856.5	734.5	709.5	735.1	721.7	701.1	669.6	650.4	648.5
52.5°	4066.8	2256.8	800.6	681.8	678.0	703.7	684.4	665.2	641.4	615.7	610.6
55°	4327.5	2267.8	753.8	643.4	656.8	654.3	647.2	629.9	617.0	583.0	583.6
57.5°	4619.0	2289.6	715.2	620.2	643.4	615.1	612.5	597.8	581.1	557.9	550.2
60°	4967.7	2323.7	681.8	611.2	631.8	589.4	576.6	570.8	554.1	542.5	545.7
62.5°	5347.7	2354.4	647.8	612.5	618.3	564.4	545.1	543.1	532.9	529.1	529.1
65°	5607.2	2270.4	605.5	611.2	597.2	538.7	514.2	513.6	505.3	504.0	503.4
67.5°	5516.5	2003.9	548.3	593.3	575.3	513.0	486.1	483.5	472.5	473.2	473.2
70°	5063.3	1623.8	469.3	549.0	548.3	489.8	456.5	448.1	433.4	435.9	438.5
72.5°	4213.3	1203.2	363.4	475.1	505.3	468.7	422.5	409.0	390.4	393.0	392.3
75°	3042.7	817.9	264.6	361.5	439.8	443.6	389.1	365.9	343.5	347.4	348.6
77.5°	1557.0	463.6	194.5	249.1	345.4	403.2	359.0	328.1	323.0	359.0	353.7
80°	507.9	232.5	134.8	174.7	226.6	330.0	314.6	279.3	278.0	286.4	245.9
82.5°	151.5	98.2	86.7	114.9	125.2	253.0	271.6	211.3	181.7	191.4	197.7
85°	52.0	47.6	49.4	57.1	59.8	148.3	190.0	140.0	132.2	145.8	143.8
87.5°	12.2	16.7	14.1	12.8	12.8	36.0	73.8	58.4	80.9	53.9	52.0
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)