

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: P962131

Luminaire Tested: **NAV-SB2B-835-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962131
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-835-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10685.6 lumens
Efficiency: N/A
Efficacy: 144.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
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

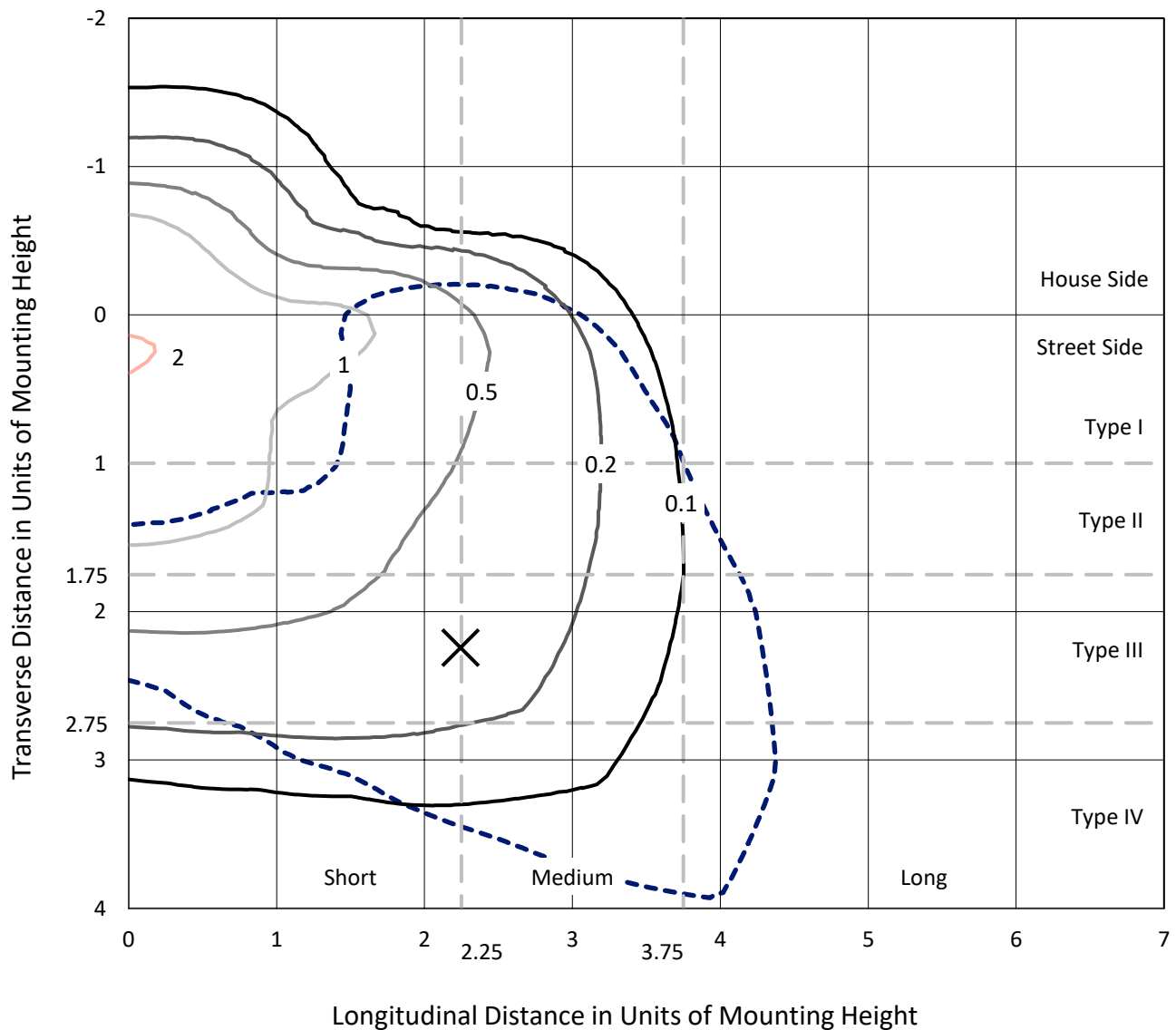


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Iso-Footcandle Lines of Horizontal Illumination

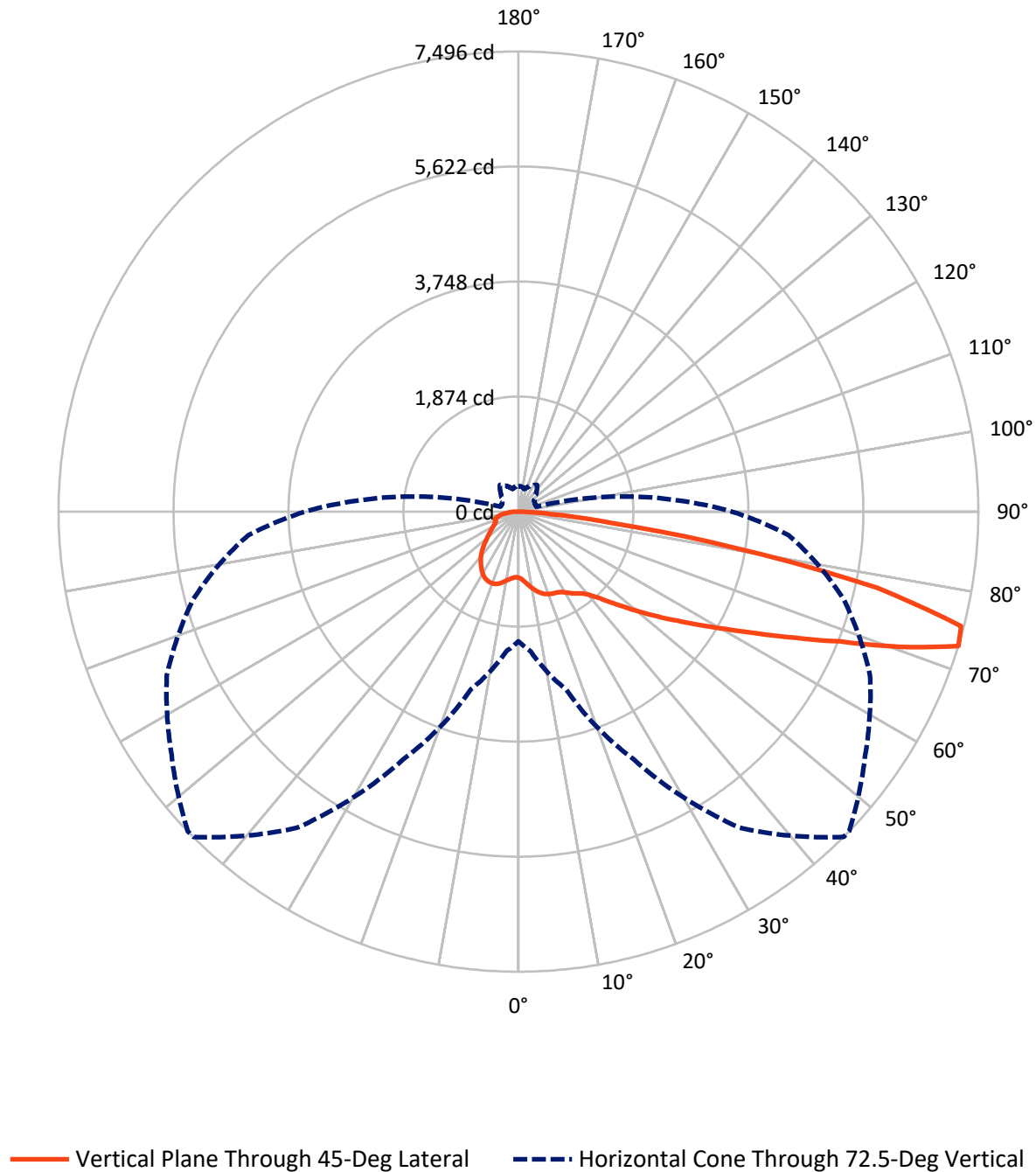
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2415.6	0.0	2415.6
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	8270.0	0.0	8270.0
	% Fixture	77.4	0.0	77.4
Total	Lumens	10685.6	0.0	10685.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.7	1.0
10°-20°	365.8	3.4
20°-30°	636.3	6.0
30°-40°	912.2	8.5
40°-50°	1284.5	12.0
50°-60°	1967.4	18.4
60°-70°	2850.1	26.7
70°-80°	2276.0	21.3
80°-90°	283.5	2.7
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°	10685.6	100.0
0°-180°	10685.6	100.0

Coefficient of Utilization



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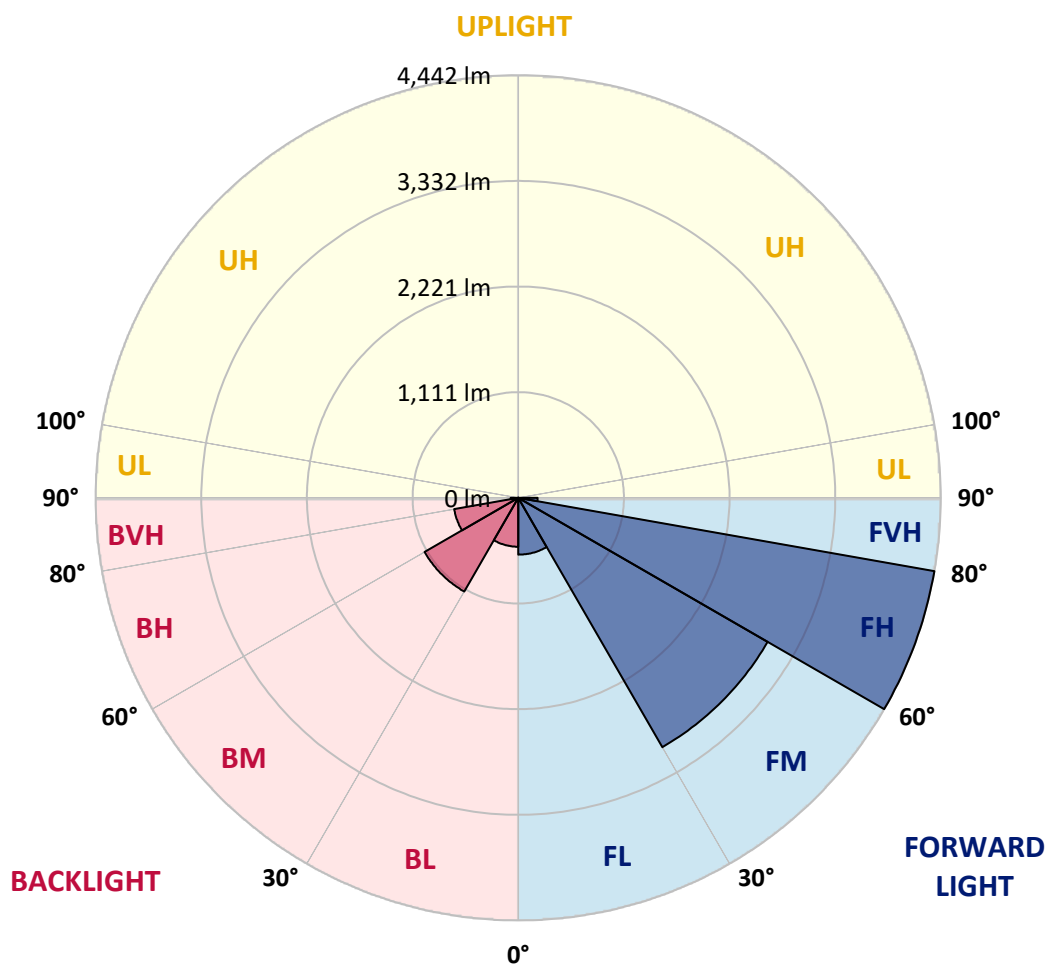
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	597.6	5.6			
FM	(30°-60°)	3026.7	28.3			
FH	(60°-80°)	4442.3	41.6			G2/5000
FVH	(80°-90°)	203.4	1.9			G2/225
BL	(0°-30°)	514.3	4.8	B2/1000		
BM	(30°-60°)	1137.4	10.6	B2/2500		
BH	(60°-80°)	683.8	6.4	B2/1000		G2/1000
BVH	(80°-90°)	80.1	0.7			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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0
2.5°	1120.2	1127.5	1120.7	1114.6	1111.7	1104.4	1103.8	1099.3	1096.5	1088.7	1086.4
5°	1198.4	1208.0	1196.8	1184.4	1173.1	1155.1	1152.8	1139.9	1125.2	1108.3	1098.8
7.5°	1286.8	1295.3	1282.3	1263.7	1244.0	1214.2	1213.6	1190.0	1167.0	1138.2	1121.9
10°	1364.0	1375.1	1357.7	1332.4	1307.6	1273.9	1269.9	1242.9	1213.6	1176.5	1151.7
12.5°	1432.0	1439.9	1423.0	1392.1	1363.4	1329.6	1324.5	1294.7	1262.1	1219.9	1188.3
15°	1486.0	1496.2	1473.7	1440.5	1410.1	1376.9	1372.4	1345.3	1312.7	1268.2	1227.7
17.5°	1521.5	1530.0	1507.0	1469.7	1440.5	1412.9	1409.5	1387.0	1358.3	1313.2	1269.9
20°	1535.0	1544.1	1519.9	1482.1	1455.1	1433.8	1432.0	1415.7	1396.0	1354.9	1311.0
22.5°	1548.6	1557.0	1525.5	1486.0	1462.5	1448.9	1448.3	1437.7	1429.8	1396.0	1353.2
25°	1603.2	1605.5	1563.2	1506.3	1472.6	1460.7	1460.2	1459.6	1463.0	1436.5	1398.8
27.5°	1650.5	1649.8	1613.9	1560.4	1508.1	1483.3	1482.7	1488.3	1499.1	1477.0	1446.1
30°	1719.6	1713.5	1670.7	1615.0	1567.1	1528.9	1525.5	1520.4	1528.9	1511.4	1493.4
32.5°	1866.6	1846.9	1777.7	1678.6	1616.1	1586.8	1582.3	1550.8	1554.2	1543.5	1534.5
35°	2077.2	2051.2	1958.9	1799.1	1676.9	1635.3	1633.0	1593.1	1586.3	1576.8	1580.0
37.5°	2327.7	2295.6	2188.1	1973.5	1781.7	1691.6	1688.2	1652.1	1624.5	1614.4	1633.5
40°	2579.2	2538.7	2449.8	2186.3	1935.8	1785.6	1774.9	1720.3	1688.7	1671.9	1712.4
42.5°	2823.6	2789.7	2713.8	2425.0	2126.2	1922.9	1899.2	1805.8	1782.2	1766.4	1839.6
45°	3039.7	3009.3	2953.5	2680.0	2349.0	2109.8	2086.7	1934.2	1926.8	1926.8	2032.7
47.5°	3215.3	3208.6	3149.5	2940.1	2611.9	2322.5	2282.6	2112.6	2132.3	2162.6	2306.8
50°	3410.1	3391.5	3328.5	3196.2	2920.9	2566.3	2533.7	2331.6	2405.3	2488.6	2703.1
52.5°	3589.1	3599.3	3528.9	3463.1	3270.0	2838.2	2780.7	2590.0	2749.3	2887.1	3167.5
55°	3773.2	3773.7	3754.1	3745.0	3635.9	3138.8	3075.7	2900.6	3154.0	3325.1	3709.0
57.5°	3946.0	3947.1	3976.4	4055.7	4060.2	3485.5	3414.1	3282.4	3603.7	3778.3	4267.4
60°	4100.2	4108.1	4188.0	4373.8	4433.4	3882.9	3815.4	3733.3	4068.7	4244.3	4854.5
62.5°	4152.1	4180.8	4358.6	4622.6	4802.2	4370.4	4304.0	4255.1	4557.4	4720.5	5345.4
65°	4064.2	4130.0	4474.0	4828.1	5181.6	4949.6	4883.8	4830.3	5065.0	5218.7	5748.4
67.5°	3848.6	3933.6	4467.3	5043.7	5642.0	5646.5	5585.2	5459.7	5609.4	5668.5	5879.6
70°	3280.6	3407.8	4073.8	5124.2	6170.6	6599.6	6540.4	6217.3	6152.6	5866.7	5510.3
72.5°	2113.8	2284.8	2999.8	4461.6	6288.3	7496.2	7492.9	6901.2	6324.2	5481.6	4419.4
75°	771.2	875.9	1393.8	2800.5	5278.4	7450.6	7472.7	6784.2	5773.2	4234.2	2753.1
77.5°	280.8	307.4	454.8	1076.2	3246.3	5978.1	6023.7	5423.6	4109.2	2125.0	1090.9
80°	147.5	162.2	233.1	417.7	1390.9	3550.3	3621.7	3223.2	1931.3	640.0	327.1
82.5°	81.6	88.4	130.6	226.8	626.5	1518.1	1561.0	1273.3	679.5	271.3	135.1
85°	43.9	46.7	61.4	123.8	306.3	526.3	538.1	380.5	270.8	159.3	65.3
87.5°	12.9	15.8	20.3	39.4	119.9	118.2	121.1	75.4	106.9	80.5	21.4
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°	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0
2.5°	1083.0	1081.4	1075.1	1072.4	1069.0	1068.4	1071.2	1071.7	1072.4	1072.9	1075.1
5°	1093.2	1087.5	1081.9	1078.5	1079.6	1080.2	1085.9	1089.8	1092.6	1094.9	1096.0
7.5°	1112.8	1108.3	1098.8	1098.3	1099.9	1104.9	1112.3	1121.4	1126.4	1130.4	1131.5
10°	1142.2	1133.6	1122.5	1124.1	1127.5	1134.8	1150.0	1157.3	1165.8	1173.1	1171.4
12.5°	1172.0	1164.7	1151.7	1152.8	1158.5	1171.4	1186.0	1195.0	1200.7	1206.3	1208.6
15°	1210.8	1197.9	1183.8	1183.8	1193.9	1208.0	1214.7	1222.1	1225.5	1231.6	1233.9
17.5°	1250.8	1233.9	1215.3	1214.2	1226.6	1233.4	1237.3	1238.4	1239.5	1246.3	1248.6
20°	1290.8	1272.1	1245.7	1243.4	1246.3	1245.2	1244.6	1243.4	1245.2	1253.6	1257.0
22.5°	1330.1	1308.7	1272.1	1262.1	1254.2	1243.4	1242.9	1242.3	1243.4	1251.9	1257.6
25°	1376.3	1350.4	1301.4	1271.0	1244.6	1230.0	1231.6	1232.3	1233.4	1240.0	1249.1
27.5°	1426.4	1397.7	1328.5	1268.2	1220.4	1210.2	1207.4	1209.1	1213.1	1223.7	1234.5
30°	1476.5	1442.7	1353.2	1257.0	1190.0	1175.9	1167.0	1170.9	1183.3	1193.9	1205.7
32.5°	1522.1	1488.3	1372.9	1232.3	1151.2	1129.2	1117.4	1122.5	1134.8	1138.8	1152.8
35°	1575.6	1537.3	1381.4	1192.8	1108.9	1075.1	1059.4	1052.1	1058.3	1054.3	1066.7
37.5°	1635.3	1595.3	1380.3	1141.0	1059.4	1020.6	998.6	971.0	958.1	944.5	953.0
40°	1723.6	1666.2	1366.7	1078.5	998.0	962.6	923.2	876.5	847.2	820.7	822.5
42.5°	1844.1	1764.7	1341.9	1009.8	928.8	895.5	842.1	787.5	741.4	697.4	693.5
45°	2023.7	1893.6	1311.0	936.6	853.9	821.3	763.3	701.9	649.6	593.3	586.5
47.5°	2282.6	2067.0	1281.8	853.4	775.1	745.3	692.9	636.1	574.2	519.6	513.4
50°	2638.4	2315.8	1254.7	772.3	697.4	675.0	633.2	575.3	512.8	468.9	466.1
52.5°	3090.9	2654.1	1243.4	694.0	624.8	616.4	583.2	529.1	470.1	432.9	430.1
55°	3610.5	3058.8	1243.4	619.2	561.2	564.1	541.0	490.9	439.6	406.4	403.0
57.5°	4140.8	3468.6	1221.0	549.9	507.2	519.0	504.4	460.4	414.3	380.0	374.3
60°	4629.4	3812.0	1129.8	486.9	459.3	478.0	468.3	430.6	374.3	345.6	341.1
62.5°	5004.9	4005.7	954.2	436.9	419.9	441.4	436.2	391.2	367.1	355.2	351.3
65°	5192.9	3974.1	729.5	392.4	386.7	419.9	409.3	407.5	388.4	374.9	370.4
67.5°	5077.4	3702.8	529.1	359.7	367.6	400.3	441.4	448.0	412.6	386.1	381.6
70°	4571.4	3211.9	394.0	328.7	343.4	400.8	503.3	468.9	404.8	373.8	368.7
72.5°	3477.6	2395.2	305.7	296.1	311.8	403.6	530.8	459.3	382.2	413.2	409.8
75°	1988.8	1315.0	245.4	256.1	272.4	377.2	516.7	434.6	364.8	379.4	379.4
77.5°	758.2	505.5	202.6	216.7	218.9	329.3	494.3	432.9	347.3	338.9	309.0
80°	262.9	197.6	167.8	172.2	169.4	292.7	474.0	376.6	284.2	254.4	246.0
82.5°	107.5	98.5	132.8	127.2	120.4	227.4	382.7	307.9	232.5	205.5	203.3
85°	46.7	62.5	87.8	77.1	69.8	157.6	306.8	260.7	196.5	169.4	168.9
87.5°	9.5	23.7	37.1	34.8	36.0	105.3	217.8	185.2	139.0	104.1	81.6
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)