

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: P960902

Luminaire Tested: **NAV-SB1D-740-U-SL4-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960902
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7706 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - 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



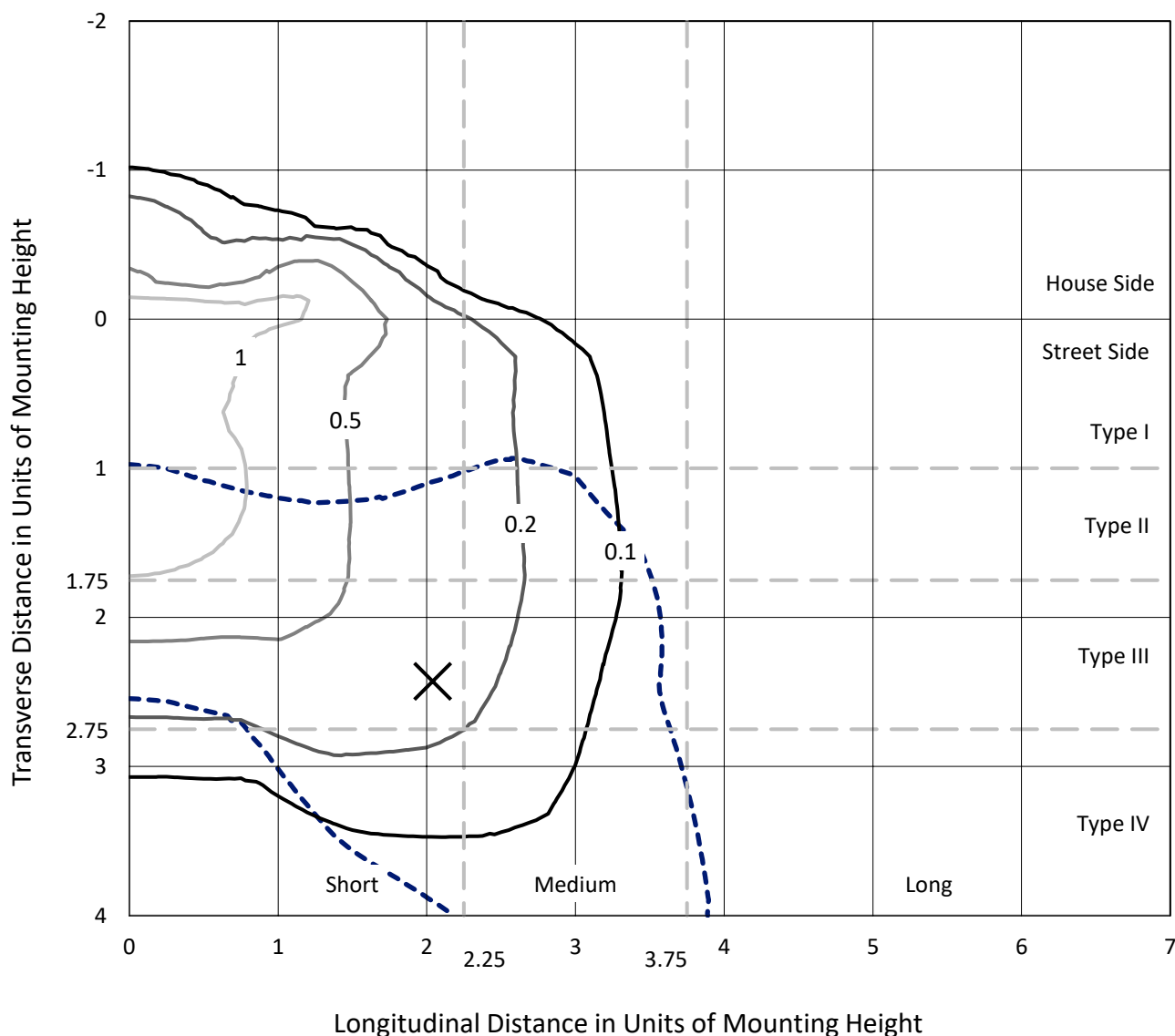
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

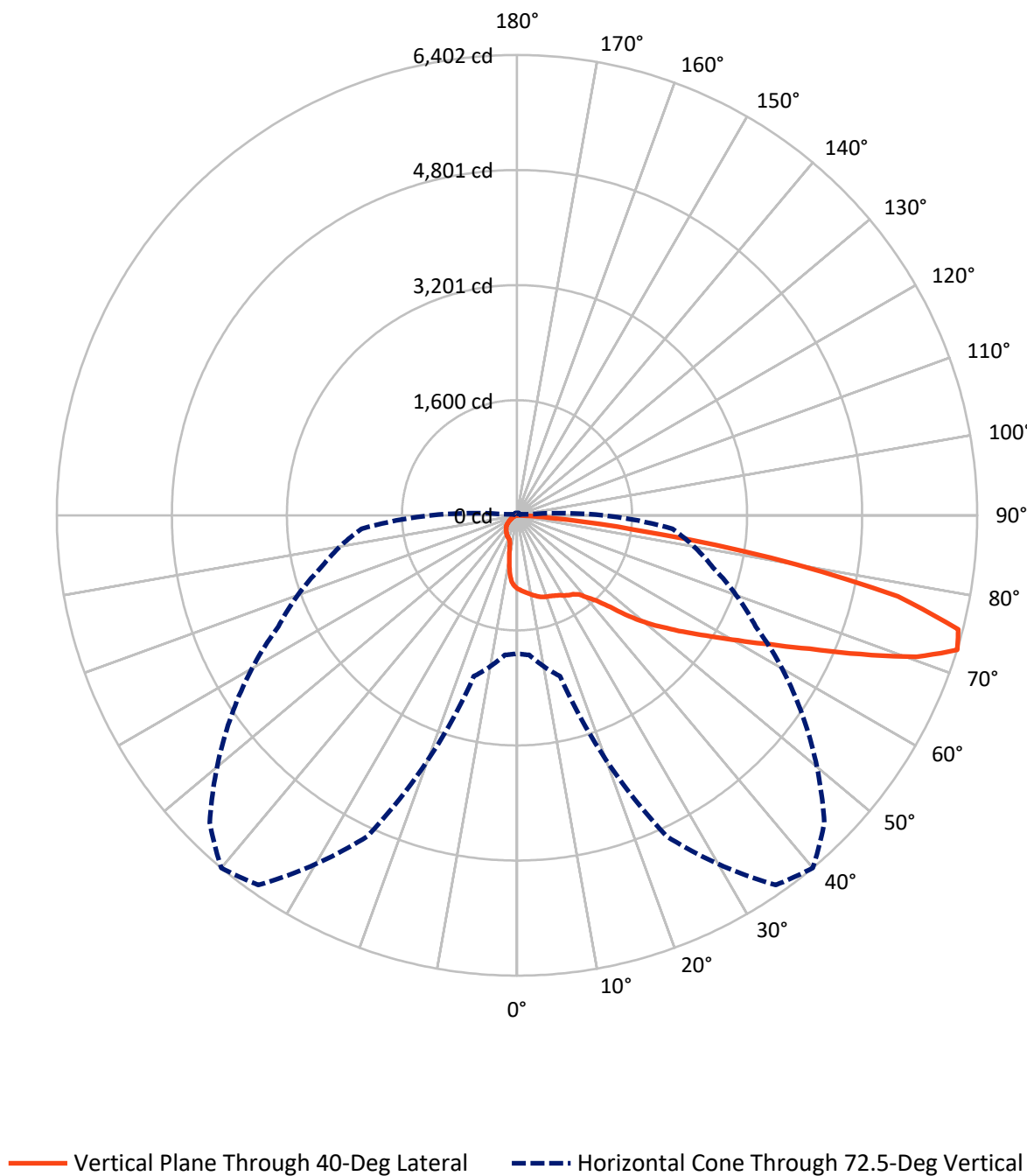


Based on 25 foot mounting height. Maximum calculated value = 1.9 fc

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	995.1	0.0	995.1
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	6710.8	0.0	6710.8
	% Fixture	87.1	0.0	87.1
Total	Lumens	7706.0	0.0	7706.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.2	1.2
10°-20°	253.1	3.3
20°-30°	409.5	5.3
30°-40°	604.5	7.8
40°-50°	1017.4	13.2
50°-60°	1579.8	20.5
60°-70°	1976.7	25.7
70°-80°	1618.4	21.0
80°-90°	153.5	2.0
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°	7706.0	100.0
0°-180°	7706.0	100.0

Coefficient of Utilization



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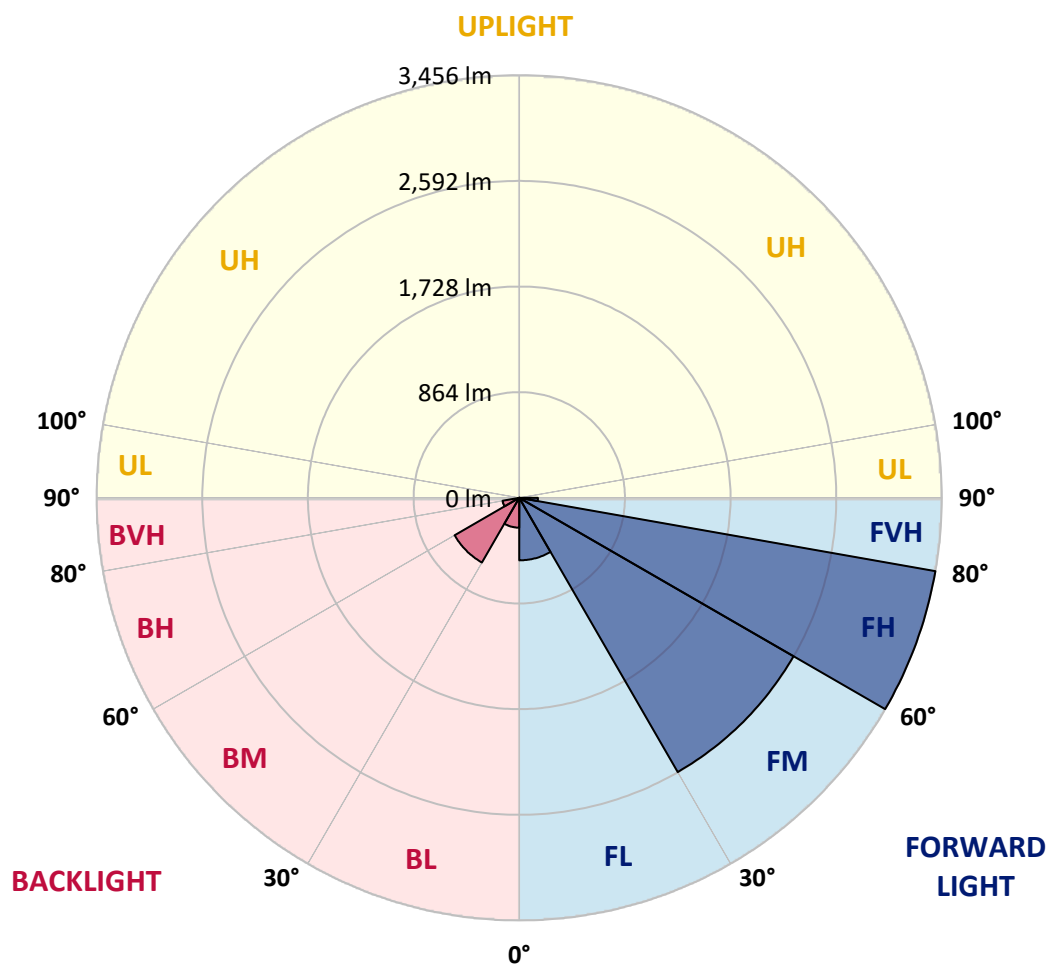
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	511.4	6.6			
FM	(30°-60°)	2590.6	33.6			
FH	(60°-80°)	3456.5	44.9			G2/5000
FVH	(80°-90°)	152.3	2.0			G2/225
BL	(0°-30°)	244.3	3.2	B1/500		
BM	(30°-60°)	611.1	7.9	B1/1000		
BH	(60°-80°)	138.6	1.8	B1/500		G1/500
BVH	(80°-90°)	1.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3
2.5°	1051.1	1055.1	1052.9	1048.2	1047.0	1044.7	1041.8	1040.7	1036.6	1033.1	1029.0
5°	1080.7	1084.8	1081.9	1075.4	1072.6	1069.7	1065.6	1062.1	1054.0	1046.4	1037.2
7.5°	1113.1	1116.6	1113.1	1103.9	1099.3	1095.8	1090.0	1084.8	1075.4	1064.5	1052.9
10°	1149.1	1152.1	1146.9	1134.7	1127.1	1121.9	1116.6	1110.9	1102.2	1090.0	1076.0
12.5°	1182.8	1186.3	1178.2	1163.7	1155.0	1149.7	1144.0	1139.3	1130.6	1119.0	1104.4
15°	1213.6	1218.8	1204.9	1189.2	1179.4	1175.3	1169.5	1166.6	1160.8	1152.6	1139.3
17.5°	1236.9	1240.2	1225.8	1207.2	1196.2	1193.3	1189.2	1190.9	1189.8	1185.7	1177.0
20°	1256.5	1258.9	1239.7	1217.1	1204.9	1205.5	1204.3	1210.1	1212.5	1212.5	1211.9
22.5°	1280.9	1281.6	1257.2	1228.7	1214.2	1218.2	1220.0	1226.4	1231.0	1235.6	1246.1
25°	1312.8	1311.7	1282.7	1243.7	1231.0	1236.9	1240.9	1243.2	1248.4	1255.9	1279.8
27.5°	1360.5	1357.0	1319.8	1268.1	1253.1	1258.3	1265.9	1264.6	1262.4	1268.1	1308.2
30°	1420.8	1416.1	1366.8	1302.4	1288.4	1293.1	1295.4	1284.9	1268.1	1273.4	1333.1
32.5°	1516.6	1508.4	1439.9	1340.7	1319.3	1324.5	1321.5	1300.1	1275.1	1280.3	1358.1
35°	1683.2	1663.4	1566.5	1420.8	1354.0	1348.3	1341.3	1320.4	1289.7	1284.4	1379.0
37.5°	2037.2	2002.3	1836.9	1577.0	1432.9	1395.2	1373.8	1352.9	1305.3	1284.4	1402.8
40°	2436.5	2401.1	2210.1	1838.1	1564.1	1500.3	1449.2	1391.2	1321.5	1291.9	1439.9
42.5°	2853.2	2814.3	2618.2	2161.9	1751.6	1620.4	1525.3	1422.0	1348.3	1315.2	1489.3
45°	3318.6	3270.0	3013.4	2499.8	2023.9	1820.1	1647.7	1485.2	1394.7	1356.4	1556.6
47.5°	3809.7	3746.5	3407.5	2827.7	2316.9	2096.3	1871.8	1598.4	1463.2	1417.9	1647.7
50°	4245.0	4182.3	3814.3	3170.7	2590.9	2359.3	2127.2	1755.1	1565.9	1505.0	1770.2
52.5°	4557.9	4510.2	4184.7	3524.8	2875.8	2606.0	2358.7	1937.4	1695.9	1616.4	1914.7
55°	4767.4	4723.8	4447.0	3860.2	3207.2	2877.6	2586.8	2135.3	1852.6	1749.9	2074.3
57.5°	4894.5	4869.5	4636.8	4159.7	3535.7	3174.7	2848.0	2352.9	2037.2	1907.2	2252.5
60°	4939.7	4919.4	4754.6	4445.2	3932.7	3531.7	3155.1	2598.4	2261.3	2086.0	2435.3
62.5°	4819.0	4823.0	4839.3	4783.6	4351.2	3949.5	3523.0	2893.3	2509.6	2288.5	2607.1
65°	4250.8	4284.5	4593.2	5158.5	4905.4	4473.1	3991.3	3253.1	2794.0	2518.9	2743.5
67.5°	3519.5	3568.2	3952.5	5377.9	5496.4	5152.7	4643.8	3711.6	3132.9	2753.4	2795.2
70°	2694.2	2746.4	3211.9	5332.0	6049.4	5895.6	5450.4	4295.0	3484.1	2915.9	2663.5
72.5°	1922.8	1949.5	2316.4	4924.1	6276.4	6401.7	6044.8	4847.4	3663.5	2825.9	2172.4
75°	1351.2	1346.5	1589.7	3965.2	5922.9	6340.2	5836.5	4548.5	3315.2	2245.0	1339.6
77.5°	588.6	589.7	794.0	2408.0	4727.3	5415.1	4851.5	2849.2	2311.2	1189.8	565.3
80°	152.6	157.3	291.4	958.8	2846.2	3574.1	2958.9	1252.4	1067.9	290.2	107.9
82.5°	54.0	57.5	134.1	301.2	1049.9	1639.1	1317.5	400.5	278.6	83.0	29.0
85°	15.7	18.6	72.0	92.2	217.1	463.2	319.8	77.8	68.5	42.9	7.6
87.5°	0.0	2.4	14.6	12.8	12.8	8.7	16.3	8.7	11.1	5.2	2.4
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°	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3	1020.3
2.5°	1025.5	1021.5	1012.8	1003.5	994.8	986.7	984.3	975.6	971.6	972.1	971.6
5°	1030.7	1023.3	1006.4	986.0	965.2	941.4	921.7	893.8	870.0	867.2	865.4
7.5°	1044.7	1032.5	1005.2	965.8	913.6	848.0	787.0	726.6	692.4	673.8	672.7
10°	1066.2	1049.9	1008.2	932.6	821.8	704.6	612.3	536.3	497.4	479.4	475.9
12.5°	1091.7	1073.7	1012.8	876.4	703.5	549.6	449.8	403.3	395.2	394.1	393.5
15°	1127.7	1107.9	1018.0	800.3	575.1	418.5	372.6	373.2	379.6	383.0	382.5
17.5°	1167.8	1148.0	1010.4	707.5	448.6	357.5	356.4	361.6	370.8	374.3	373.8
20°	1208.4	1189.8	983.8	598.4	362.7	340.7	345.3	351.2	360.4	365.1	365.1
22.5°	1250.2	1233.9	941.4	482.3	327.4	328.5	334.4	340.1	350.5	355.8	355.8
25°	1294.9	1280.9	885.1	386.5	312.2	315.7	323.3	330.3	341.2	347.7	347.7
27.5°	1340.1	1329.6	821.2	322.7	298.3	302.4	311.1	320.4	331.4	339.0	339.5
30°	1389.5	1383.6	770.2	298.9	285.0	288.4	298.3	308.7	320.9	330.3	331.4
32.5°	1439.9	1438.8	745.2	316.3	272.8	275.1	283.8	294.3	309.3	320.9	322.2
35°	1489.8	1492.2	730.7	365.6	268.8	262.3	268.1	277.5	295.4	310.0	312.2
37.5°	1553.7	1559.5	730.1	419.0	278.6	249.6	253.6	260.0	275.7	292.5	295.4
40°	1648.9	1679.7	767.3	464.9	296.0	238.0	239.1	240.3	248.4	262.3	267.0
42.5°	1775.4	1865.4	901.4	496.2	303.0	227.6	223.4	217.1	215.9	223.4	227.6
45°	1932.7	2090.0	1137.0	513.6	296.0	215.9	204.9	188.1	181.6	186.9	186.9
47.5°	2117.9	2336.1	1416.1	517.7	284.4	201.4	181.6	159.6	154.4	156.1	155.6
50°	2298.4	2520.7	1661.6	484.0	265.3	182.9	156.1	137.6	134.1	134.7	134.7
52.5°	2458.0	2583.9	1731.3	404.6	239.7	160.2	134.1	121.3	119.0	119.0	118.4
55°	2563.6	2515.5	1543.9	309.3	207.8	136.9	114.9	108.5	107.4	106.8	105.7
57.5°	2585.7	2292.5	1166.0	223.4	162.5	115.5	102.2	98.7	96.4	94.0	92.9
60°	2506.7	1921.1	742.3	156.1	121.9	98.7	90.5	88.3	83.5	78.9	77.2
62.5°	2336.1	1451.0	410.9	108.5	98.1	84.2	80.1	77.2	68.5	61.0	58.6
65°	2106.8	964.6	181.6	84.8	80.1	70.8	68.5	64.5	54.0	45.3	43.6
67.5°	1876.4	555.4	81.8	67.9	64.5	58.0	56.3	53.4	45.8	37.7	36.6
70°	1613.5	281.5	56.3	54.0	49.9	44.1	45.8	45.3	37.7	30.7	29.6
72.5°	1201.4	139.9	42.3	40.6	36.0	31.4	37.7	37.1	29.6	23.2	22.0
75°	680.2	69.1	30.7	28.4	21.5	23.2	30.1	28.4	20.3	15.1	13.9
77.5°	269.9	35.4	20.3	17.4	12.8	15.7	22.0	19.2	10.5	6.4	5.8
80°	62.1	17.4	10.5	7.6	5.8	9.3	11.6	7.0	2.9	0.6	0.0
82.5°	17.4	7.6	3.5	2.9	2.9	3.5	2.9	1.1	0.0	0.0	0.0
85°	5.8	3.5	1.1	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0
87.5°	2.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)