

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: P882900

Luminaire Tested: **NAV-SB3A-727-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882900
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9232 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

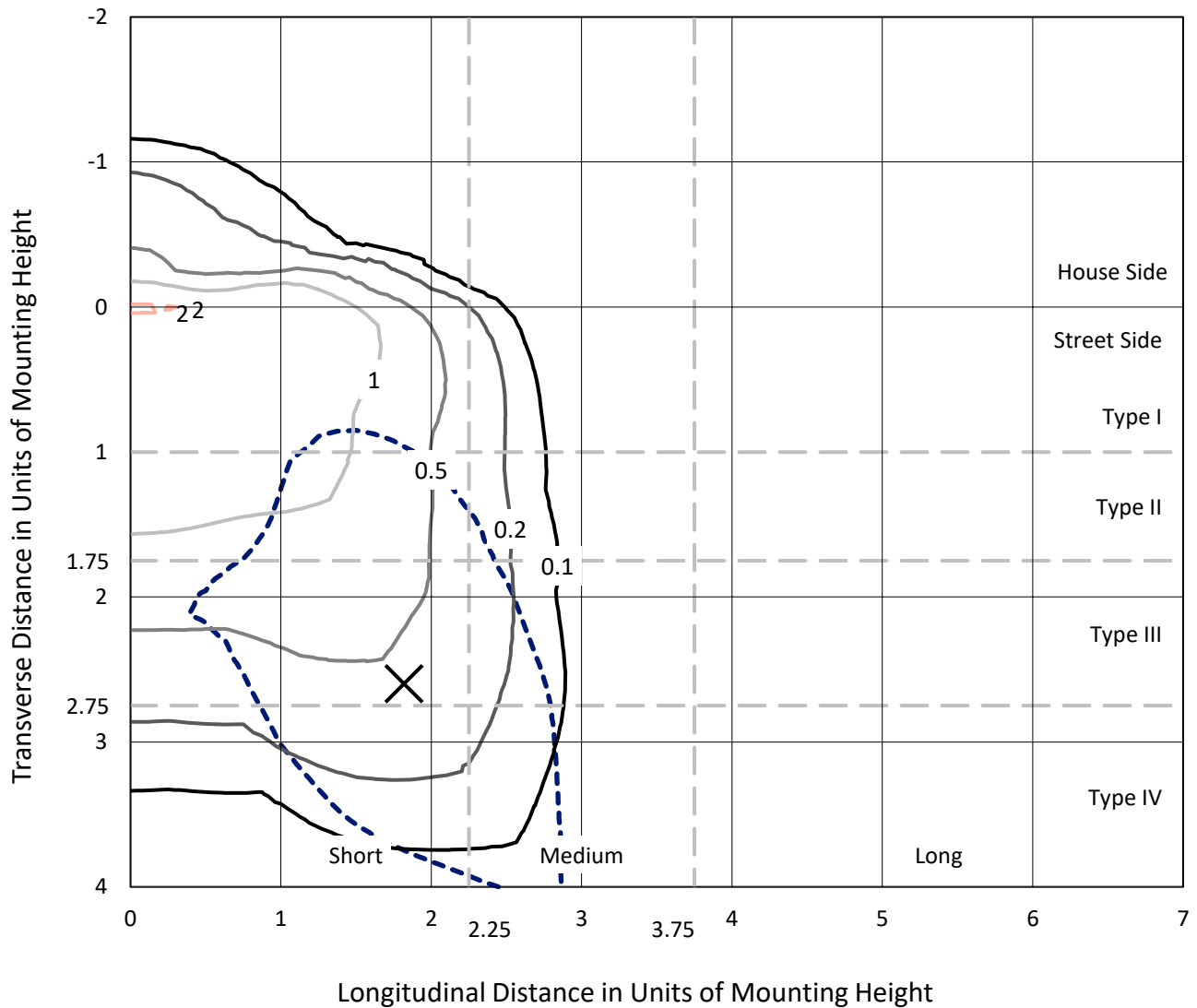
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

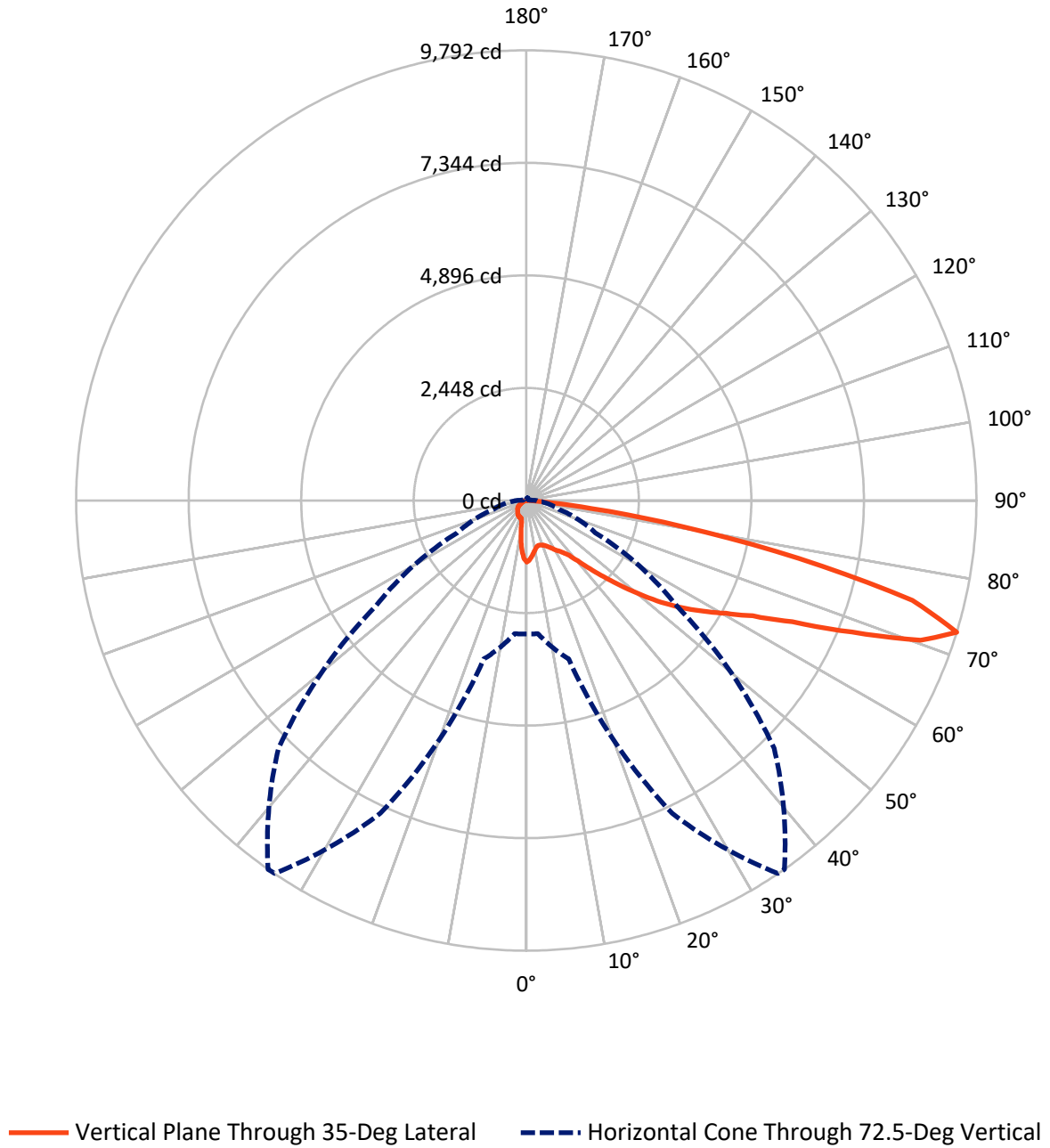
× Max cd
 - - - 1/2 Max cd



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	1039.0	0.0	1039.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	8193.0	0.0	8193.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	9232.0	0.0	9232.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.9	1.2
10°-20°	257.2	2.8
20°-30°	417.8	4.5
30°-40°	697.2	7.6
40°-50°	1319.0	14.3
50°-60°	2096.0	22.7
60°-70°	2592.8	28.1
70°-80°	1611.7	17.5
80°-90°	130.3	1.4
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°	9232.0	100.0
0°-180°	9232.0	100.0

Coefficient of Utilization



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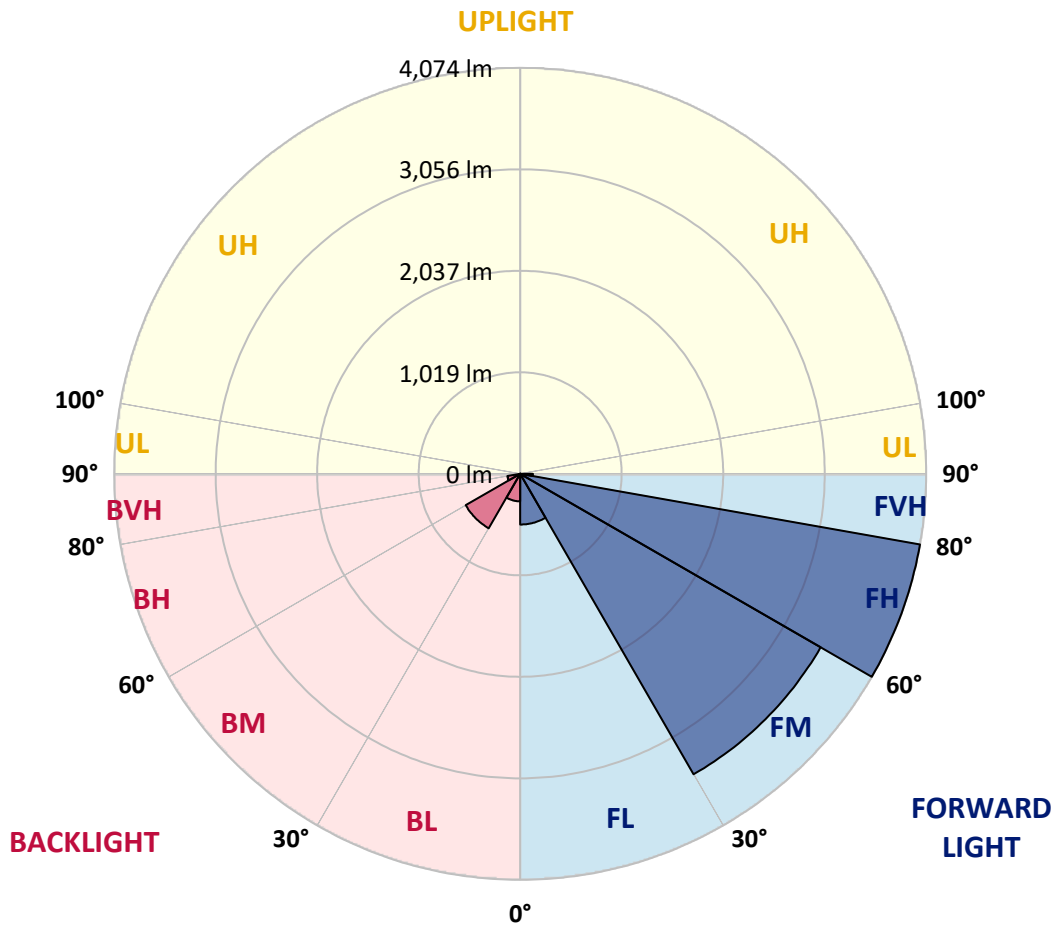
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	508.9	5.5			
FM (30°-60°)	3481.4	37.7			
FH (60°-80°)	4074.2	44.1			G2/5000
FVH (80°-90°)	128.5	1.4			G2/225
BL (0°-30°)	276.1	3.0	B1/500		
BM (30°-60°)	630.8	6.8	B1/1000		
BH (60°-80°)	130.4	1.4	B1/500		G1/500
BVH (80°-90°)	1.8	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°	34°	35°	45°	55°	65°	75°	85°
0°	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0
2.5°	1278.5	1289.3	1291.4	1294.7	1294.7	1298.8	1305.6	1315.0	1330.6	1338.7	1344.1
5°	1178.4	1186.5	1196.6	1204.8	1220.3	1222.4	1248.7	1274.4	1310.3	1337.3	1356.3
7.5°	1077.6	1087.1	1100.6	1120.2	1140.5	1146.6	1186.5	1229.8	1286.6	1337.3	1369.1
10°	1006.6	1007.2	1019.4	1039.0	1071.5	1078.9	1127.6	1189.2	1260.2	1329.2	1381.3
12.5°	966.7	971.4	976.8	991.7	1022.8	1027.5	1079.6	1152.0	1233.9	1324.5	1395.5
15°	966.7	970.0	973.4	980.9	1005.9	1009.9	1055.9	1128.3	1220.3	1326.5	1418.5
17.5°	976.8	982.2	979.5	988.3	1014.7	1017.4	1058.0	1121.6	1219.6	1339.4	1453.7
20°	1001.2	1005.2	999.8	1005.2	1031.6	1037.0	1078.9	1134.4	1231.1	1361.7	1497.7
22.5°	1039.7	1041.7	1028.9	1032.9	1060.0	1066.8	1115.5	1170.9	1258.9	1397.6	1556.5
25°	1088.4	1092.5	1072.9	1077.6	1103.3	1111.4	1167.6	1225.7	1302.9	1446.9	1631.6
27.5°	1144.6	1146.6	1129.7	1129.0	1162.1	1173.6	1230.5	1293.4	1361.7	1509.2	1726.3
30°	1208.8	1214.9	1198.7	1196.0	1237.9	1247.4	1303.5	1376.6	1448.3	1602.5	1860.9
32.5°	1259.6	1264.3	1254.8	1261.6	1304.2	1311.6	1392.1	1494.3	1584.3	1735.1	2044.2
35°	1332.6	1335.3	1313.7	1325.9	1374.6	1393.5	1513.2	1659.3	1755.4	1901.5	2283.7
37.5°	1597.1	1597.1	1505.1	1444.9	1491.6	1508.5	1679.0	1867.0	1966.5	2124.7	2585.4
40°	1963.1	1957.0	1822.4	1699.3	1693.2	1726.3	1915.0	2128.8	2239.1	2392.6	2925.0
42.5°	2353.4	2343.9	2160.6	2038.8	2018.5	2030.0	2187.7	2451.5	2563.8	2719.3	3290.3
45°	2699.7	2697.0	2529.3	2365.6	2329.0	2365.6	2527.9	2828.9	2909.4	3073.1	3654.9
47.5°	2989.9	2989.9	2867.5	2760.6	2741.7	2763.3	2988.6	3247.7	3240.2	3449.9	4010.0
50°	3324.1	3321.4	3205.0	3159.0	3178.7	3209.1	3518.9	3688.7	3582.5	3819.9	4327.3
52.5°	3558.1	3574.4	3534.5	3527.0	3627.1	3679.9	4057.4	4120.3	3888.9	4171.0	4564.7
55°	3743.5	3762.4	3808.4	3860.5	4053.3	4122.3	4578.9	4529.5	4145.3	4475.4	4701.4
57.5°	4006.0	3978.9	4049.9	4152.8	4464.6	4547.8	5084.2	4915.8	4351.6	4722.3	4716.2
60°	4324.6	4328.6	4340.8	4470.7	4875.2	4982.1	5582.1	5281.1	4484.2	4873.9	4551.2
62.5°	4707.4	4713.5	4738.6	4938.1	5426.5	5527.3	6112.4	5580.1	4545.1	4831.2	4125.0
65°	4681.1	4706.8	4986.1	5668.7	6264.6	6364.1	6731.4	5789.8	4453.1	4441.6	3358.6
67.5°	4264.4	4306.3	4773.7	6541.3	7528.3	7639.2	7479.6	5831.0	4056.0	3454.0	2191.0
70°	3717.8	3732.7	4294.8	7326.0	8991.4	9103.7	8149.2	5377.1	3077.9	1926.5	981.5
72.5°	2903.3	2906.7	3566.3	7508.0	9785.6	9791.7	7623.6	3991.8	1655.3	740.0	340.9
75°	2074.0	2053.7	2388.6	6088.8	8609.2	8678.2	5715.4	1872.4	632.5	349.7	169.8
77.5°	1112.1	1134.4	1351.6	3610.9	5947.4	6065.1	3118.5	539.8	322.0	238.1	112.3
80°	343.6	362.6	554.0	1653.3	3368.7	3439.8	1156.1	240.1	224.6	169.8	73.7
82.5°	108.2	112.3	258.4	694.7	1398.2	1430.7	334.8	136.0	153.6	112.3	43.3
85°	31.1	31.8	115.0	259.1	345.7	352.4	94.0	52.8	87.9	69.7	22.3
87.5°	3.4	10.8	43.3	43.3	30.4	29.8	10.1	11.5	25.0	8.8	4.1
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°	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0
2.5°	1340.7	1341.4	1332.6	1317.7	1301.5	1288.0	1271.1	1257.5	1248.1	1245.4	1250.1
5°	1350.2	1345.5	1320.4	1275.1	1221.0	1174.3	1122.2	1081.0	1053.9	1042.4	1046.5
7.5°	1364.4	1350.9	1296.1	1206.8	1103.3	1011.3	917.9	845.6	799.6	776.6	780.0
10°	1376.6	1349.5	1255.5	1108.0	949.7	810.4	684.6	597.3	548.6	525.6	526.3
12.5°	1388.1	1348.8	1202.7	991.0	776.6	606.1	489.1	445.8	432.3	427.5	426.2
15°	1409.7	1350.9	1136.4	857.1	604.1	458.0	415.3	414.7	417.4	416.0	415.3
17.5°	1439.5	1352.9	1061.4	715.0	466.1	403.8	401.8	407.9	412.0	409.9	409.3
20°	1478.1	1361.0	981.5	574.3	400.5	390.3	395.0	400.5	403.8	400.5	399.8
22.5°	1532.2	1375.2	894.3	461.3	379.5	382.2	386.3	392.3	395.7	391.0	390.3
25°	1598.5	1397.6	808.4	401.1	369.3	372.7	378.8	385.6	389.6	384.9	384.2
27.5°	1684.4	1433.4	729.2	387.6	359.2	361.2	370.0	380.2	385.6	379.5	379.5
30°	1808.8	1492.3	660.9	393.7	353.1	348.4	360.6	374.8	380.8	375.4	374.8
32.5°	1973.9	1575.5	619.0	403.2	350.4	333.5	345.0	363.3	373.4	370.0	370.0
35°	2190.4	1702.0	602.7	414.0	348.4	317.9	326.1	345.7	363.3	366.6	366.6
37.5°	2452.8	1877.8	607.5	418.7	342.3	305.1	309.1	326.1	349.1	359.9	362.6
40°	2751.1	2082.8	634.5	414.0	335.5	294.3	294.9	307.8	328.1	344.3	349.7
42.5°	3058.9	2322.3	684.6	396.4	329.4	284.8	282.8	291.6	305.1	316.6	321.3
45°	3351.8	2568.5	734.0	372.0	322.0	275.3	270.6	274.0	276.7	281.4	284.1
47.5°	3607.5	2741.7	719.7	349.7	311.8	264.5	256.4	255.0	246.9	246.2	245.6
50°	3784.1	2779.6	639.2	327.4	297.0	252.3	239.5	231.3	217.1	210.4	211.1
52.5°	3840.2	2630.1	522.2	305.1	272.6	236.1	217.8	205.0	187.4	181.3	180.6
55°	3765.8	2337.1	417.4	278.0	238.8	214.4	194.1	177.2	163.0	155.6	155.6
57.5°	3583.9	1964.4	330.1	246.2	202.9	190.1	169.8	152.9	140.7	133.3	131.9
60°	3282.2	1559.9	261.1	208.3	173.2	163.7	142.7	131.9	121.1	112.3	110.3
62.5°	2824.2	1113.4	205.0	165.1	144.8	133.9	121.8	113.6	100.8	88.6	86.6
65°	2203.9	681.2	158.3	121.1	116.4	110.9	103.5	96.1	80.5	68.3	66.3
67.5°	1390.1	322.7	113.0	91.3	92.0	89.3	85.9	79.8	68.3	57.5	56.1
70°	612.2	156.3	74.4	69.7	68.3	68.3	71.0	69.0	58.2	48.0	46.0
72.5°	208.3	83.9	55.5	52.8	49.4	48.7	59.5	57.5	46.7	37.2	35.2
75°	108.9	56.1	40.6	37.9	29.8	35.9	47.4	44.6	33.1	24.4	22.3
77.5°	71.0	39.9	27.7	24.4	16.9	23.7	35.2	31.1	19.6	12.2	10.8
80°	44.6	26.4	16.2	11.5	8.1	12.9	18.9	13.5	7.4	2.7	2.0
82.5°	23.7	13.5	6.1	4.1	3.4	4.1	4.7	3.4	1.4	0.0	0.0
85°	9.5	4.7	2.0	1.4	0.7	0.0	1.4	0.7	0.0	0.0	0.0
87.5°	3.4	0.7	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)