

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: P882073

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

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882073
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
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: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7665 lumens
Efficiency: N/A
Efficacy: 96.3 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

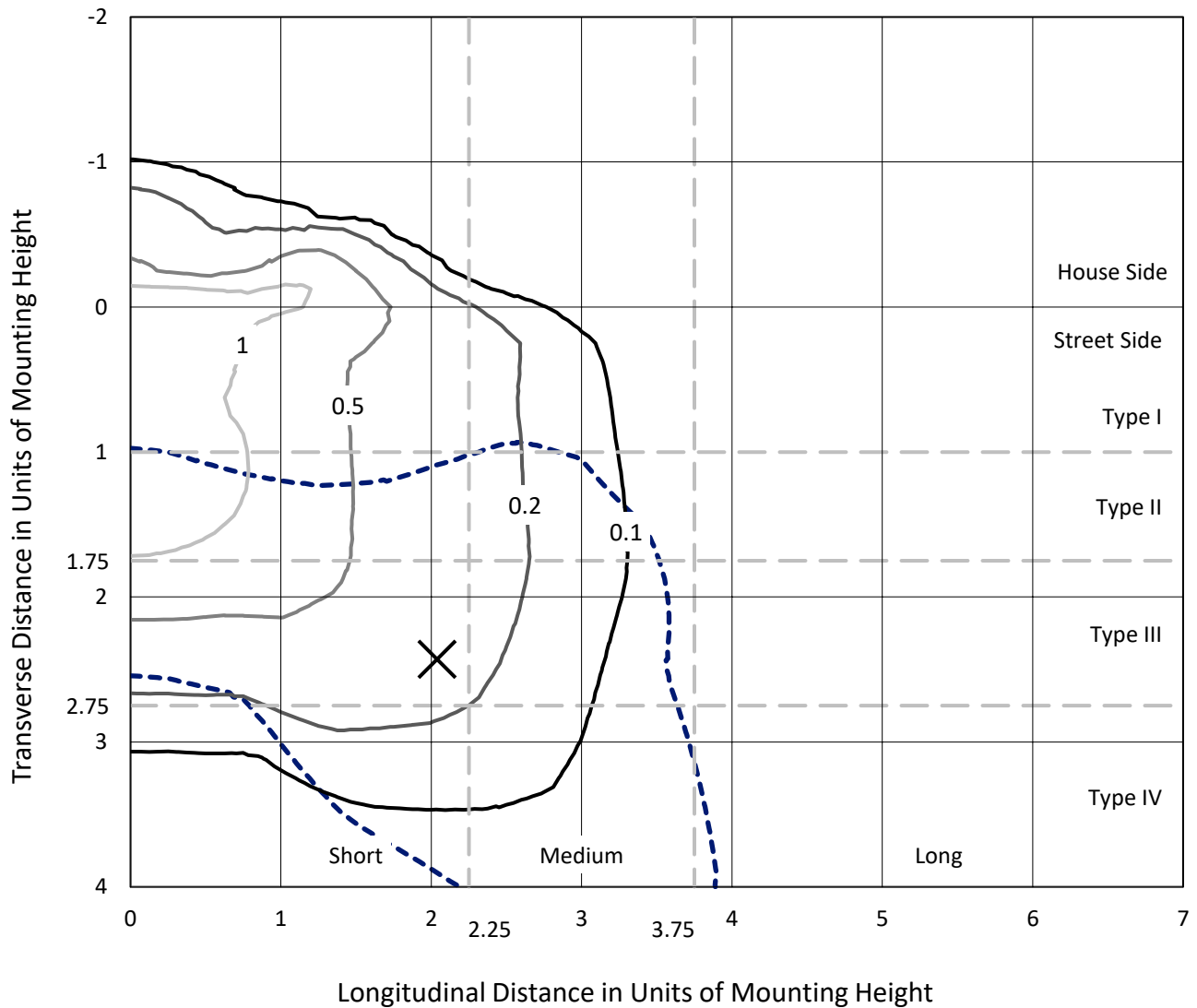
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

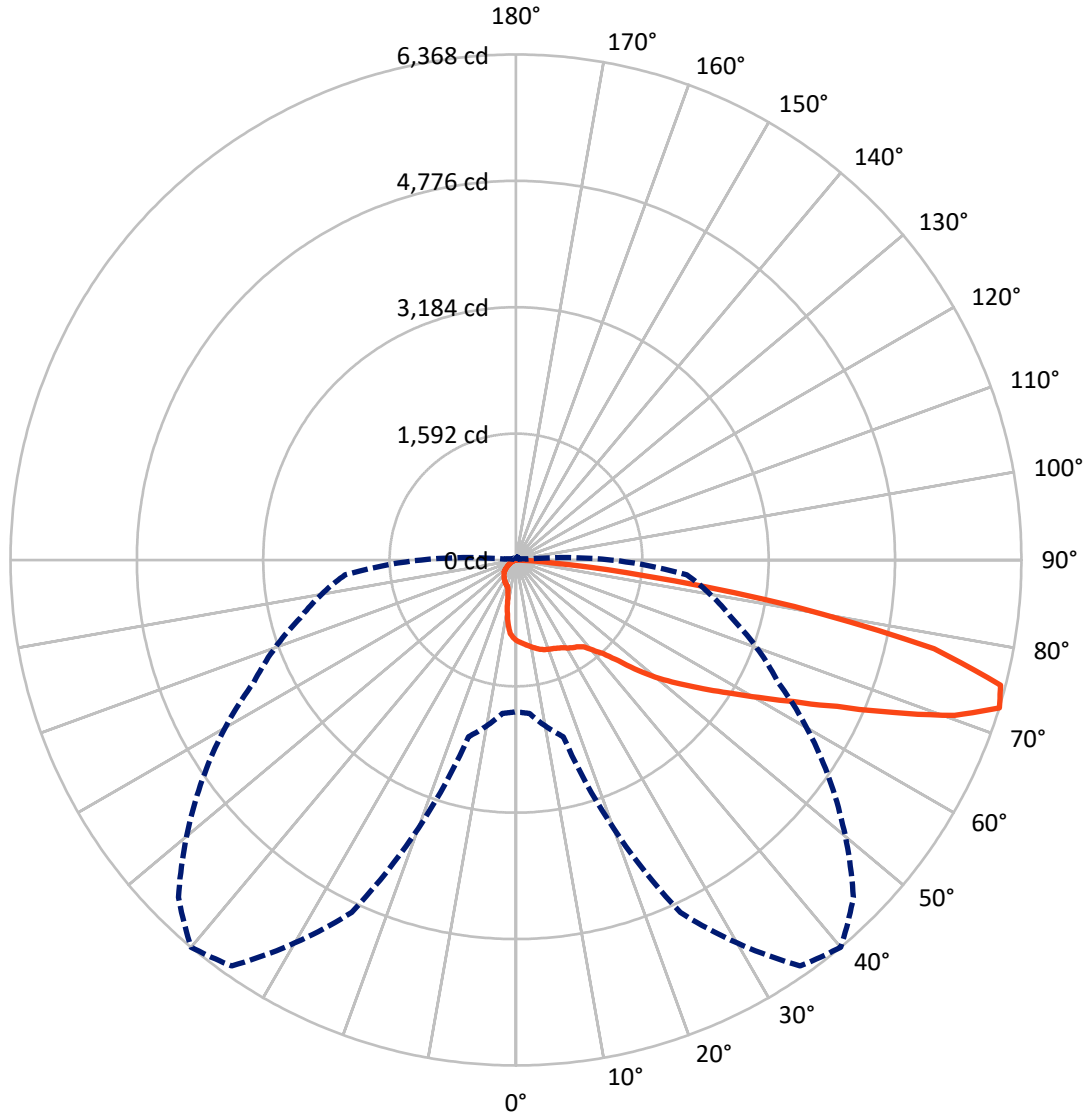
× Max cd
 - - - 1/2 Max cd



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



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	989.9	0.0	989.9
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	6675.2	0.0	6675.2
	% Fixture	87.1	0.0	87.1
Total	Lumens	7665.0	0.0	7665.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	1.2
10°-20°	251.7	3.3
20°-30°	407.3	5.3
30°-40°	601.3	7.8
40°-50°	1012.0	13.2
50°-60°	1571.4	20.5
60°-70°	1966.2	25.7
70°-80°	1609.8	21.0
80°-90°	152.7	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°	7665.0	100.0
0°-180°	7665.0	100.0

Coefficient of Utilization



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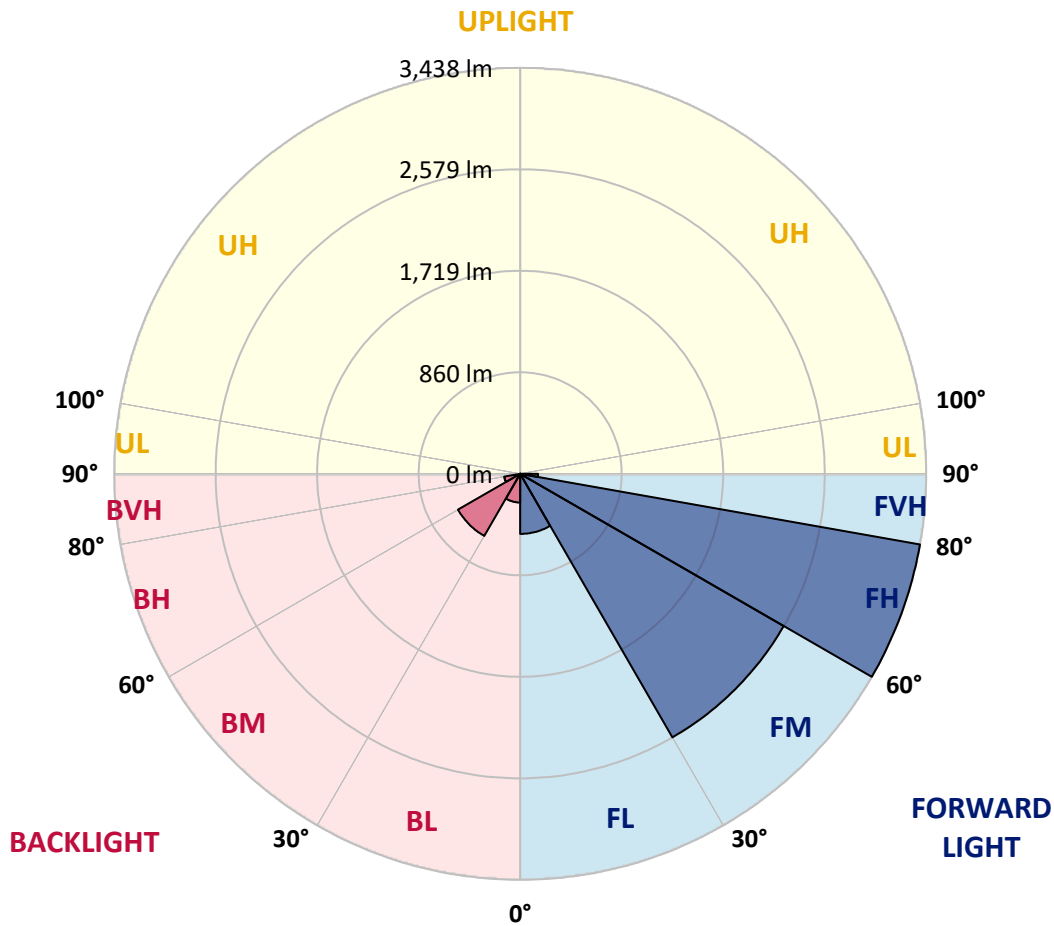
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	508.7	6.6			
FM (30°-60°)	2576.8	33.6			
FH (60°-80°)	3438.1	44.9			G2/5000
FVH (80°-90°)	151.5	2.0			G2/225
BL (0°-30°)	243.0	3.2	B1/500		
BM (30°-60°)	607.8	7.9	B1/1000		
BH (60°-80°)	137.9	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°	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9
2.5°	1045.5	1049.5	1047.2	1042.6	1041.5	1039.2	1036.3	1035.1	1031.1	1027.6	1023.6
5°	1074.9	1079.0	1076.1	1069.8	1066.9	1064.0	1059.9	1056.5	1048.4	1040.9	1031.7
7.5°	1107.3	1110.7	1107.3	1098.0	1093.4	1090.0	1084.2	1079.0	1069.8	1058.8	1047.2
10°	1143.1	1146.0	1140.8	1128.6	1121.1	1115.9	1110.7	1105.0	1096.3	1084.2	1070.3
12.5°	1176.6	1180.0	1171.9	1157.5	1148.8	1143.6	1137.9	1133.3	1124.6	1113.1	1098.6
15°	1207.2	1212.3	1198.5	1182.9	1173.1	1169.0	1163.3	1160.4	1154.6	1146.5	1133.3
17.5°	1230.2	1233.7	1219.3	1200.8	1189.8	1186.9	1182.9	1184.6	1183.5	1179.4	1170.8
20°	1249.9	1252.2	1233.1	1210.6	1198.5	1199.1	1197.9	1203.7	1206.0	1206.0	1205.4
22.5°	1274.1	1274.7	1250.4	1222.2	1207.7	1211.8	1213.5	1219.9	1224.5	1229.1	1239.5
25°	1305.9	1304.7	1275.9	1237.2	1224.5	1230.2	1234.3	1236.6	1241.8	1249.3	1273.0
27.5°	1353.2	1349.7	1312.8	1261.4	1246.4	1251.6	1259.1	1258.0	1255.6	1261.4	1301.3
30°	1413.3	1408.6	1359.6	1295.5	1281.6	1286.2	1288.6	1278.2	1261.4	1266.6	1326.1
32.5°	1508.5	1500.4	1432.3	1333.6	1312.2	1317.4	1314.5	1293.2	1268.3	1273.5	1350.9
35°	1674.2	1654.6	1558.2	1413.3	1346.9	1341.1	1334.2	1313.4	1282.8	1277.6	1371.7
37.5°	2026.4	1991.7	1827.2	1568.5	1425.4	1387.8	1366.5	1345.7	1298.4	1277.6	1395.4
40°	2423.5	2388.3	2198.4	1828.3	1555.8	1492.3	1441.5	1383.8	1314.5	1285.1	1432.3
42.5°	2838.0	2799.4	2604.2	2150.5	1742.3	1611.8	1517.2	1414.4	1341.1	1308.2	1481.4
45°	3301.0	3252.6	2997.4	2486.5	2013.1	1810.4	1639.0	1477.3	1387.3	1349.2	1548.3
47.5°	3789.5	3726.5	3389.4	2812.6	2304.6	2085.2	1861.8	1589.9	1455.4	1410.4	1639.0
50°	4222.4	4160.1	3794.1	3153.8	2577.1	2346.8	2115.8	1745.8	1557.6	1497.0	1760.8
52.5°	4533.6	4486.3	4162.4	3506.0	2860.6	2592.1	2346.2	1927.1	1686.9	1607.8	1904.5
55°	4742.0	4698.7	4423.3	3839.7	3190.2	2862.3	2573.1	2123.9	1842.8	1740.6	2063.3
57.5°	4868.4	4843.6	4612.1	4137.6	3517.0	3157.9	2832.9	2340.4	2026.4	1897.0	2240.5
60°	4913.5	4893.3	4729.3	4421.6	3911.8	3512.9	3138.2	2584.6	2249.2	2074.8	2422.4
62.5°	4793.4	4797.4	4813.6	4758.2	4328.1	3928.6	3504.3	2877.9	2496.3	2276.3	2593.3
65°	4228.2	4261.7	4568.8	5131.1	4879.4	4449.3	3970.1	3235.8	2779.2	2505.5	2728.9
67.5°	3500.8	3549.3	3931.5	5349.3	5467.1	5125.3	4619.0	3691.9	3116.3	2738.8	2780.3
70°	2679.9	2731.8	3194.8	5303.7	6017.3	5864.3	5421.5	4272.1	3465.6	2900.4	2649.3
72.5°	1912.6	1939.2	2304.0	4897.9	6243.0	6367.7	6012.7	4821.7	3644.0	2810.9	2160.9
75°	1344.0	1339.4	1581.2	3944.2	5891.4	6306.5	5805.4	4524.4	3297.6	2233.0	1332.4
77.5°	585.4	586.5	789.8	2395.3	4702.2	5386.3	4825.7	2834.0	2298.8	1183.5	562.3
80°	151.8	156.5	289.8	953.7	2831.1	3555.1	2943.1	1245.8	1062.2	288.7	107.4
82.5°	53.7	57.2	133.4	299.6	1044.4	1630.3	1310.5	398.3	277.1	82.6	28.9
85°	15.6	18.5	71.6	91.8	215.9	460.7	318.1	77.4	68.1	42.7	7.5
87.5°	0.0	2.3	14.4	12.7	12.7	8.7	16.2	8.7	11.0	5.2	2.3
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°	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9	1014.9
2.5°	1020.1	1016.1	1007.4	998.2	989.5	981.4	979.1	970.5	966.4	967.0	966.4
5°	1025.3	1017.8	1001.1	980.8	960.1	936.4	916.8	889.1	865.4	862.5	860.8
7.5°	1039.2	1027.0	999.9	960.6	908.7	843.4	782.8	722.8	688.7	670.3	669.1
10°	1060.5	1044.4	1002.8	927.7	817.5	700.9	609.1	533.4	494.8	476.9	473.4
12.5°	1085.9	1068.0	1007.4	871.7	699.7	546.7	447.4	401.2	393.1	392.0	391.4
15°	1121.7	1102.1	1012.6	796.1	572.1	416.2	370.6	371.2	377.6	381.0	380.4
17.5°	1161.5	1141.9	1005.1	703.7	446.3	355.6	354.5	359.7	368.9	372.4	371.8
20°	1202.0	1183.5	978.5	595.2	360.8	338.9	343.5	349.3	358.5	363.1	363.1
22.5°	1243.5	1227.4	936.4	479.7	325.6	326.8	332.5	338.3	348.7	353.9	353.9
25°	1288.0	1274.1	880.4	384.5	310.6	314.1	321.6	328.5	339.5	345.8	345.8
27.5°	1333.0	1322.6	816.9	321.0	296.7	300.8	309.4	318.7	329.6	337.1	337.7
30°	1382.1	1376.3	766.1	297.3	283.5	286.9	296.7	307.1	319.3	328.5	329.6
32.5°	1432.3	1431.1	741.3	314.6	271.3	273.6	282.3	292.7	307.7	319.3	320.4
35°	1482.0	1484.3	726.8	363.7	267.3	260.9	266.7	276.0	293.8	308.3	310.6
37.5°	1545.5	1551.2	726.3	416.8	277.1	248.2	252.3	258.6	274.2	291.0	293.8
40°	1640.1	1670.7	763.2	462.4	294.4	236.7	237.9	239.0	247.1	260.9	265.6
42.5°	1766.0	1855.5	896.6	493.6	301.4	226.3	222.3	215.9	214.8	222.3	226.3
45°	1922.4	2078.9	1130.9	510.9	294.4	214.8	203.8	187.0	180.7	185.9	185.9
47.5°	2106.6	2323.7	1408.6	515.0	282.9	200.3	180.7	158.8	153.6	155.3	154.7
50°	2286.1	2507.3	1652.8	481.5	263.8	181.9	155.3	136.8	133.4	133.9	133.9
52.5°	2444.9	2570.2	1722.1	402.4	238.4	159.3	133.4	120.7	118.3	118.3	117.8
55°	2550.0	2502.1	1535.6	307.7	206.7	136.2	114.3	108.0	106.8	106.2	105.1
57.5°	2571.9	2280.4	1159.8	222.3	161.6	114.9	101.6	98.1	95.8	93.5	92.4
60°	2493.4	1910.9	738.4	155.3	121.2	98.1	90.1	87.8	83.1	78.5	76.8
62.5°	2323.7	1443.3	408.7	108.0	97.6	83.7	79.7	76.8	68.1	60.6	58.3
65°	2095.6	959.5	180.7	84.3	79.7	70.4	68.1	64.1	53.7	45.0	43.3
67.5°	1866.4	552.5	81.4	67.5	64.1	57.7	56.0	53.1	45.6	37.5	36.4
70°	1604.9	280.0	56.0	53.7	49.6	43.9	45.6	45.0	37.5	30.6	29.4
72.5°	1195.0	139.1	42.1	40.4	35.8	31.2	37.5	36.9	29.4	23.1	21.9
75°	676.6	68.7	30.6	28.3	21.4	23.1	30.0	28.3	20.2	15.0	13.9
77.5°	268.4	35.2	20.2	17.3	12.7	15.6	21.9	19.1	10.4	6.4	5.8
80°	61.8	17.3	10.4	7.5	5.8	9.2	11.5	6.9	2.9	0.6	0.0
82.5°	17.3	7.5	3.5	2.9	2.9	3.5	2.9	1.2	0.0	0.0	0.0
85°	5.8	3.5	1.2	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0
87.5°	2.3	1.2	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)