

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: P882224

Luminaire Tested: **NAV-SB2A-730-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882224
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-730-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8921 lumens
Efficiency: N/A
Efficacy: 155.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

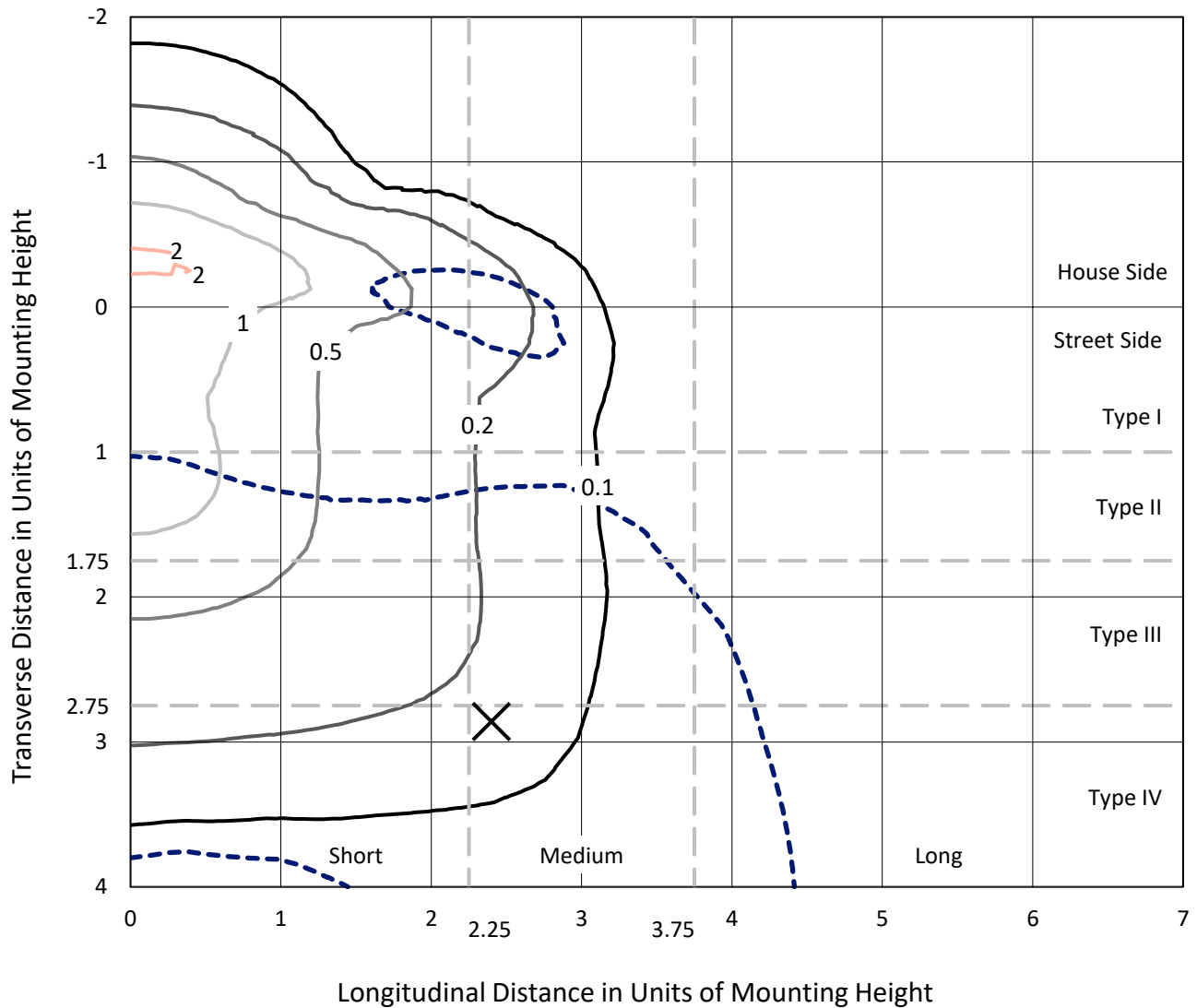
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

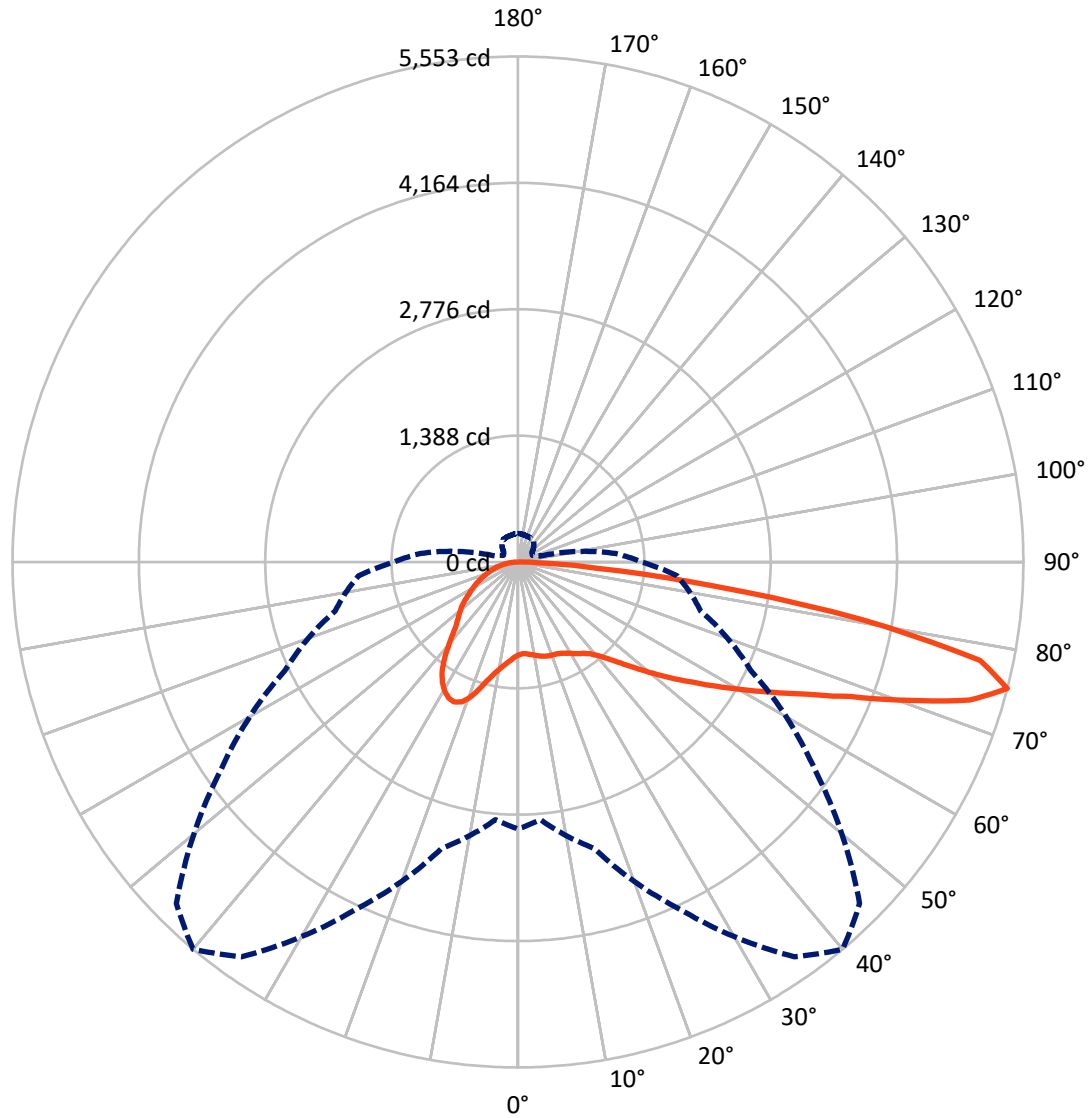
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2764.0	0.0	2764.0
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	6157.0	0.0	6157.0
	% Fixture	69.0	0.0	69.0
Total	Lumens	8921.0	0.0	8921.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.8	1.1
10°-20°	341.9	3.8
20°-30°	624.3	7.0
30°-40°	885.4	9.9
40°-50°	1195.5	13.4
50°-60°	1608.3	18.0
60°-70°	2041.3	22.9
70°-80°	1852.6	20.8
80°-90°	270.0	3.0
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°	8921.0	100.0
0°-180°	8921.0	100.0

Coefficient of Utilization



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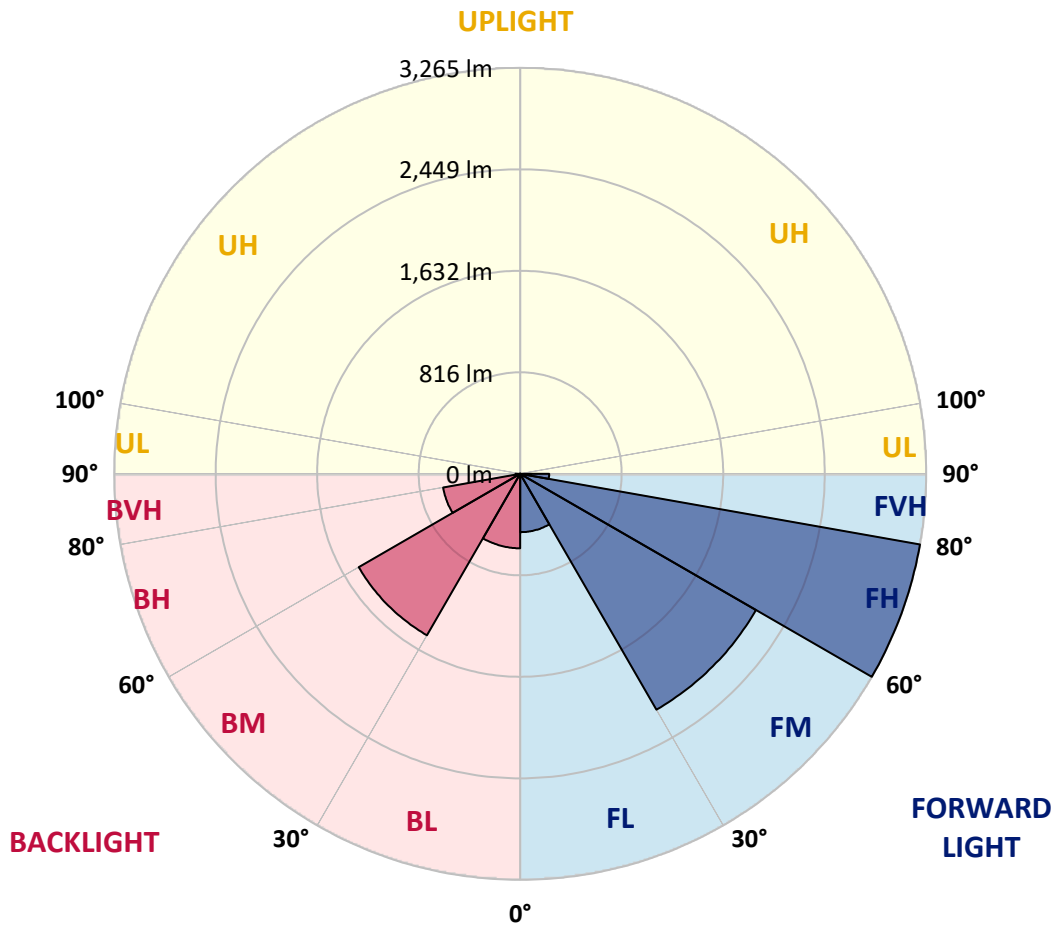
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	469.3	5.3			
FM (30°-60°)	2189.9	24.5			
FH (60°-80°)	3264.9	36.6			G2/5000
FVH (80°-90°)	232.9	2.6			G3/500
BL (0°-30°)	598.7	6.7	B2/1000		
BM (30°-60°)	1499.2	16.8	B2/2500		
BH (60°-80°)	628.9	7.0	B2/1000		G2/1000
BVH (80°-90°)	37.2	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1
2.5°	1004.5	1010.2	1008.8	1006.9	1006.9	1007.4	1006.9	1010.2	1013.5	1016.8	1022.0
5°	1014.9	1020.6	1017.8	1015.4	1013.5	1013.0	1011.6	1011.1	1013.0	1017.3	1024.4
7.5°	1035.3	1040.9	1036.7	1032.4	1028.6	1026.8	1024.9	1022.0	1020.6	1023.0	1032.9
10°	1058.0	1063.7	1058.5	1050.9	1044.7	1042.4	1040.5	1037.6	1035.7	1037.2	1048.0
12.5°	1080.7	1086.4	1079.3	1068.9	1060.8	1059.4	1057.0	1056.1	1055.6	1055.1	1066.0
15°	1102.0	1106.7	1097.7	1085.4	1076.9	1074.5	1072.2	1073.6	1076.0	1078.8	1091.1
17.5°	1118.5	1123.3	1110.0	1093.9	1085.9	1085.0	1083.5	1088.3	1094.9	1102.0	1117.1
20°	1133.7	1138.4	1121.4	1099.6	1090.2	1090.2	1090.6	1100.6	1110.0	1120.4	1141.3
22.5°	1155.0	1158.8	1137.9	1108.1	1094.4	1095.4	1099.1	1109.1	1120.9	1135.1	1164.0
25°	1186.7	1189.5	1164.0	1124.2	1108.6	1111.4	1114.8	1119.5	1130.8	1147.4	1186.2
27.5°	1237.8	1240.1	1206.6	1152.6	1129.0	1133.7	1138.4	1135.1	1140.3	1154.5	1204.2
30°	1309.7	1311.1	1268.5	1197.1	1163.5	1165.9	1166.8	1153.1	1143.1	1154.5	1217.0
32.5°	1394.9	1394.4	1343.8	1251.0	1202.8	1200.4	1192.4	1165.4	1142.2	1152.1	1228.3
35°	1526.9	1521.7	1456.4	1326.7	1247.2	1232.6	1213.6	1179.1	1146.9	1149.8	1238.3
37.5°	1745.5	1729.4	1639.0	1450.7	1313.5	1276.1	1248.2	1201.3	1157.3	1148.8	1250.1
40°	1992.0	1971.6	1872.3	1620.6	1412.8	1352.8	1307.8	1233.0	1174.4	1153.1	1267.6
42.5°	2284.4	2255.5	2148.6	1820.7	1538.7	1451.6	1384.0	1273.3	1199.5	1166.8	1291.2
45°	2643.5	2605.2	2453.8	2046.4	1697.2	1581.3	1490.9	1334.3	1237.8	1193.3	1326.7
47.5°	3006.4	3015.9	2800.6	2304.8	1887.4	1741.2	1624.8	1426.1	1293.6	1235.9	1384.0
50°	3392.1	3398.7	3145.6	2591.0	2103.2	1922.0	1775.3	1528.8	1371.2	1296.5	1469.6
52.5°	3693.0	3693.9	3458.8	2890.5	2327.9	2120.7	1937.6	1646.1	1461.1	1376.9	1583.7
55°	3881.3	3878.9	3678.3	3173.9	2586.3	2329.4	2117.4	1779.5	1570.9	1471.5	1727.0
57.5°	4018.1	4011.0	3829.7	3417.6	2861.7	2575.9	2320.8	1931.0	1700.5	1584.1	1915.8
60°	4070.1	4065.8	3932.4	3628.2	3151.2	2848.4	2555.5	2100.3	1847.7	1717.1	2158.5
62.5°	4090.0	4098.0	4033.2	3832.1	3461.1	3150.3	2813.4	2302.9	2013.3	1867.6	2414.5
65°	4160.0	4174.7	4161.4	4099.0	3811.3	3503.7	3155.5	2543.7	2194.0	2028.9	2681.9
67.5°	4298.6	4313.3	4319.0	4418.3	4239.0	3944.2	3582.3	2843.7	2405.5	2196.4	2883.0
70°	4295.3	4291.1	4391.4	4672.4	4774.6	4554.1	4157.6	3212.7	2657.7	2335.5	2908.5
72.5°	3909.7	3875.6	4112.7	4669.6	5220.4	5191.0	4860.3	3688.7	2875.4	2352.5	2523.8
75°	2933.1	2842.3	3261.0	4208.3	5294.6	5552.5	5306.9	3984.0	2823.8	2078.6	1756.4
77.5°	1254.3	1163.0	1656.5	3115.3	4738.7	5190.5	4897.2	3475.8	2254.1	1374.5	862.6
80°	328.4	327.9	500.6	1412.4	3222.7	3833.1	3362.7	2244.7	1287.9	491.1	238.0
82.5°	135.8	132.5	184.1	549.3	1574.7	2151.0	1755.4	1001.2	465.1	133.0	79.0
85°	50.6	50.2	89.4	189.7	555.5	887.2	642.1	256.0	115.9	64.8	35.5
87.5°	14.2	13.7	19.4	65.8	135.3	205.4	109.8	42.1	32.6	25.6	10.4
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°	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1	1020.1
2.5°	1023.4	1025.8	1030.1	1033.4	1037.6	1042.4	1049.0	1053.2	1057.5	1060.3	1058.5
5°	1027.7	1032.9	1043.8	1054.7	1067.4	1079.3	1093.0	1102.9	1111.0	1113.3	1114.3
7.5°	1037.2	1045.7	1064.1	1082.6	1102.9	1122.3	1142.2	1159.2	1173.0	1178.2	1178.6
10°	1053.7	1065.1	1091.1	1117.1	1144.1	1173.9	1199.5	1224.1	1243.5	1251.5	1252.0
12.5°	1074.5	1088.7	1122.8	1158.8	1196.1	1237.3	1270.4	1300.7	1324.8	1335.7	1335.7
15°	1101.5	1120.0	1163.5	1211.8	1266.6	1323.9	1366.0	1399.6	1426.6	1439.8	1438.9
17.5°	1130.8	1155.5	1210.3	1283.2	1361.7	1437.0	1486.2	1510.8	1538.7	1551.5	1551.0
20°	1159.2	1189.5	1268.1	1374.1	1478.6	1558.6	1598.3	1605.0	1606.8	1608.3	1612.0
22.5°	1188.6	1229.3	1340.5	1488.6	1600.7	1656.1	1661.7	1633.3	1593.6	1575.1	1580.3
25°	1220.7	1274.7	1435.1	1614.9	1705.7	1712.4	1668.8	1599.7	1524.5	1490.0	1495.2
27.5°	1252.0	1327.2	1548.6	1735.5	1781.4	1723.2	1629.6	1531.6	1440.8	1404.3	1408.6
30°	1283.2	1387.3	1674.0	1841.1	1816.0	1696.3	1567.6	1458.3	1367.0	1328.6	1332.9
32.5°	1314.9	1457.3	1818.3	1917.2	1809.8	1639.0	1490.4	1375.9	1295.5	1255.3	1260.5
35°	1350.9	1543.4	1955.1	1958.9	1768.7	1554.8	1388.7	1277.5	1207.5	1175.3	1182.4
37.5°	1397.7	1652.7	2075.7	1969.3	1696.7	1431.3	1262.4	1161.1	1103.4	1088.7	1099.1
40°	1455.9	1784.3	2168.0	1952.7	1590.3	1281.3	1124.2	1043.3	1010.7	1014.0	1025.3
42.5°	1531.6	1931.4	2232.8	1910.1	1442.2	1126.6	1003.1	967.1	982.7	996.0	1008.3
45°	1630.0	2084.3	2273.1	1837.7	1274.7	995.5	931.6	940.2	952.0	953.4	962.9
47.5°	1755.9	2239.0	2299.5	1728.4	1103.9	903.3	886.2	888.1	885.8	875.8	883.4
50°	1913.0	2389.4	2323.2	1583.7	958.6	845.5	822.8	816.2	783.5	751.4	755.6
52.5°	2091.8	2527.6	2333.1	1403.9	845.5	797.3	760.4	718.7	657.7	647.8	651.1
55°	2290.6	2655.4	2307.6	1182.9	750.4	735.3	679.5	629.3	622.7	614.2	615.6
57.5°	2528.1	2793.1	2255.5	936.4	653.0	662.9	608.5	614.2	602.3	589.1	586.7
60°	2787.8	2935.5	2164.2	711.6	552.2	572.5	590.0	589.6	586.2	575.4	571.6
62.5°	3021.6	3029.2	1984.4	545.1	463.7	502.5	550.3	549.8	547.0	540.8	538.5
65°	3160.7	3015.0	1684.4	429.2	390.8	444.8	496.3	500.1	500.6	500.1	500.1
67.5°	3136.1	2848.9	1272.8	341.6	330.7	386.1	442.9	448.1	451.9	452.8	453.8
70°	2857.9	2484.1	829.9	272.5	277.3	334.5	392.2	397.5	400.8	404.5	406.4
72.5°	2227.6	1826.4	475.1	220.5	230.4	290.0	342.1	348.2	350.1	357.2	360.1
75°	1357.5	1074.1	256.5	173.6	189.3	247.9	292.4	299.5	302.8	311.3	312.3
77.5°	645.4	465.1	146.2	135.3	152.4	202.5	247.0	255.0	246.0	250.8	247.0
80°	218.1	172.7	92.3	103.1	116.4	158.0	197.8	205.8	186.9	186.0	184.1
82.5°	76.2	70.0	58.7	68.6	75.2	113.1	149.5	159.9	139.1	138.6	132.0
85°	29.8	28.4	32.6	37.4	44.9	69.6	98.4	103.6	85.6	69.1	68.1
87.5°	6.2	6.6	8.0	8.5	13.7	24.1	35.5	43.5	34.5	29.3	27.0
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)