

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: P882114

Luminaire Tested: **NAV-SB1D-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882114
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-SB1D-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8834 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

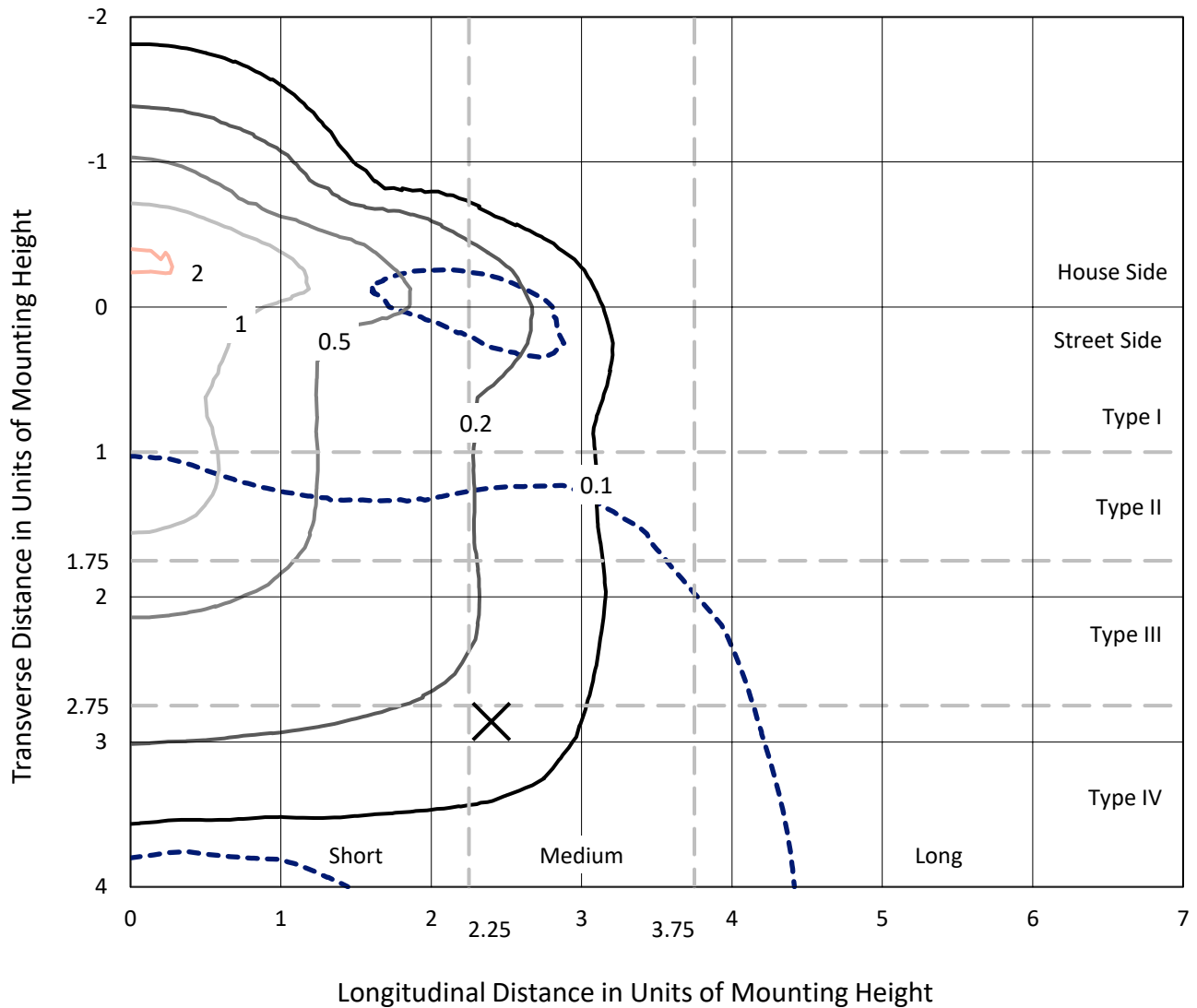
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

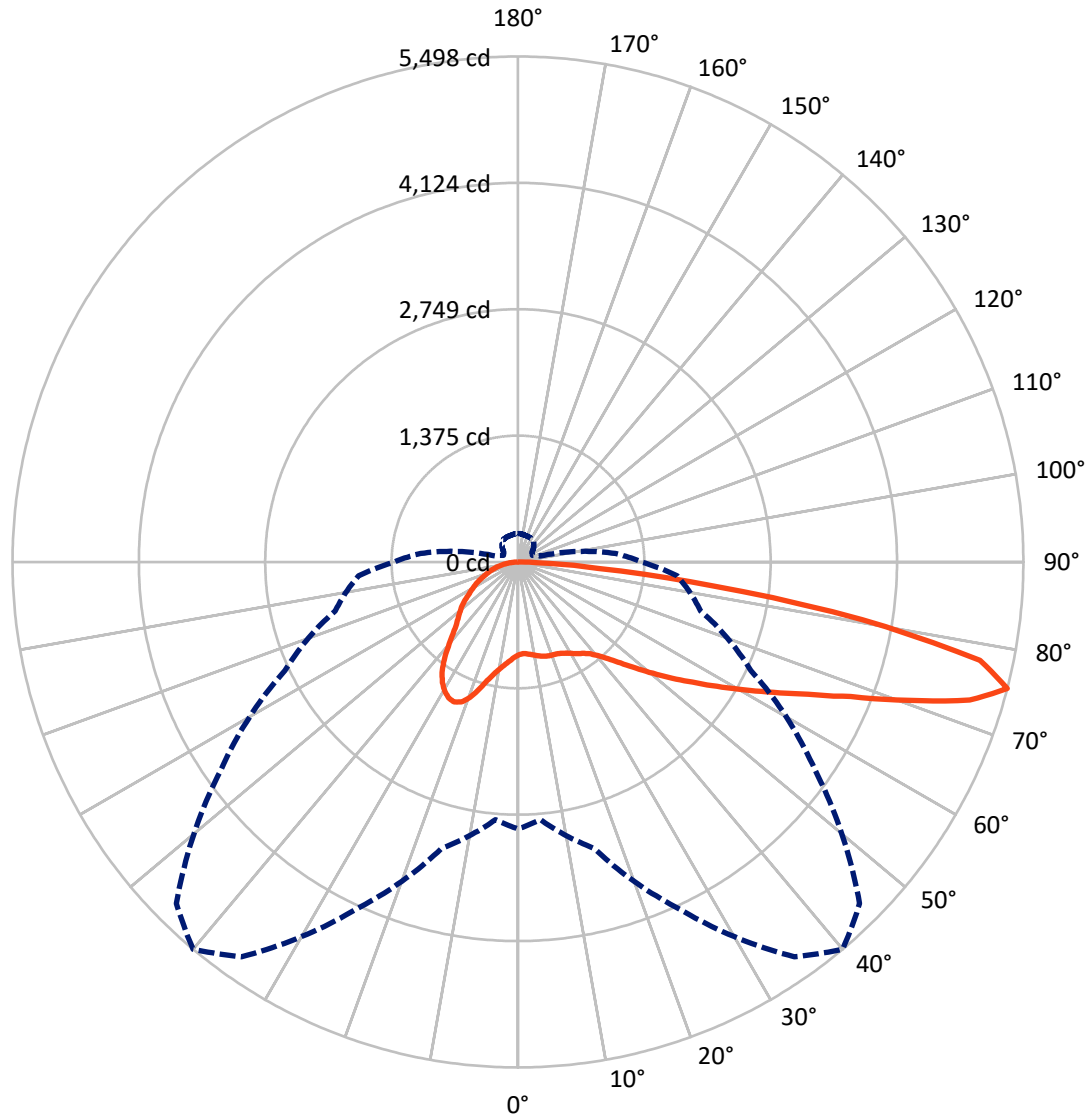
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 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	2737.1	0.0	2737.1
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	6096.9	0.0	6096.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	8834.0	0.0	8834.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	1.1
10°-20°	338.5	3.8
20°-30°	618.2	7.0
30°-40°	876.7	9.9
40°-50°	1183.8	13.4
50°-60°	1592.6	18.0
60°-70°	2021.4	22.9
70°-80°	1834.5	20.8
80°-90°	267.4	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°	8834.0	100.0
0°-180°	8834.0	100.0

Coefficient of Utilization



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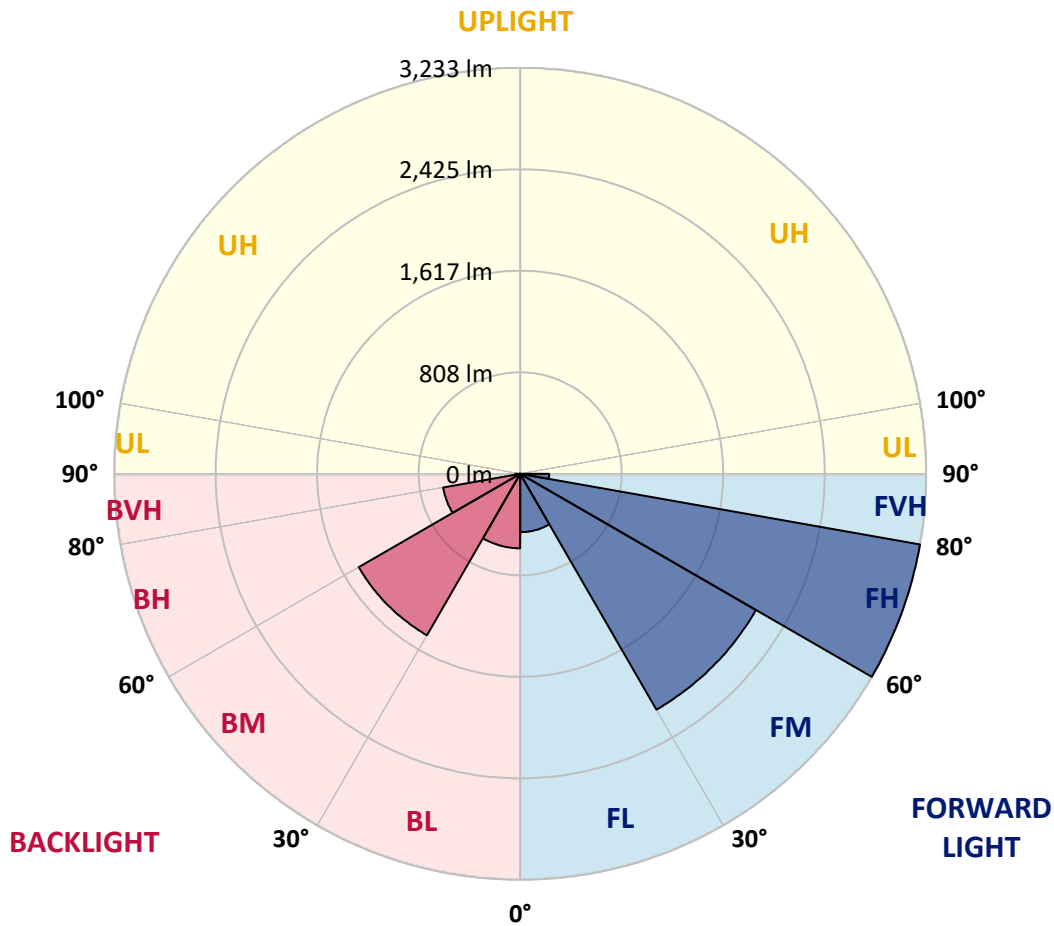
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	464.7	5.3			
FM (30°-60°)	2168.6	24.5			
FH (60°-80°)	3233.1	36.6			G2/5000
FVH (80°-90°)	230.6	2.6			G3/500
BL (0°-30°)	592.9	6.7	B2/1000		
BM (30°-60°)	1484.6	16.8	B2/2500		
BH (60°-80°)	622.8	7.0	B2/1000		G2/1000
BVH (80°-90°)	36.8	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°	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2
2.5°	994.7	1000.3	998.9	997.1	997.1	997.5	997.1	1000.3	1003.6	1006.9	1012.1
5°	1005.0	1010.6	1007.8	1005.5	1003.6	1003.2	1001.7	1001.3	1003.2	1007.4	1014.4
7.5°	1025.2	1030.8	1026.6	1022.4	1018.6	1016.7	1014.9	1012.1	1010.6	1013.0	1022.8
10°	1047.7	1053.3	1048.1	1040.6	1034.5	1032.2	1030.3	1027.5	1025.6	1027.0	1037.8
12.5°	1070.2	1075.8	1068.7	1058.4	1050.5	1049.1	1046.7	1045.8	1045.3	1044.9	1055.6
15°	1091.2	1095.9	1087.0	1074.8	1066.4	1064.1	1061.7	1063.1	1065.5	1068.3	1080.5
17.5°	1107.6	1112.3	1099.2	1083.3	1075.3	1074.4	1073.0	1077.6	1084.2	1091.2	1106.2
20°	1122.6	1127.3	1110.4	1088.9	1079.5	1079.5	1080.0	1089.8	1099.2	1109.5	1130.1
22.5°	1143.7	1147.5	1126.8	1097.3	1083.7	1084.7	1088.4	1098.3	1110.0	1124.0	1152.6
25°	1175.1	1177.9	1152.6	1113.3	1097.8	1100.6	1103.9	1108.6	1119.8	1136.2	1174.6
27.5°	1225.7	1228.1	1194.8	1141.4	1117.9	1122.6	1127.3	1124.0	1129.2	1143.2	1192.4
30°	1296.9	1298.3	1256.2	1185.4	1152.1	1154.5	1155.4	1141.8	1132.0	1143.2	1205.1
32.5°	1381.3	1380.8	1330.7	1238.8	1191.0	1188.7	1180.7	1154.0	1131.1	1140.9	1216.3
35°	1512.0	1506.8	1442.2	1313.8	1235.1	1220.6	1201.8	1167.6	1135.7	1138.6	1226.2
37.5°	1728.5	1712.5	1623.0	1436.6	1300.7	1263.7	1236.0	1189.6	1146.1	1137.6	1237.9
40°	1972.6	1952.4	1854.0	1604.8	1399.1	1339.6	1295.1	1221.0	1162.9	1141.8	1255.2
42.5°	2262.1	2233.5	2127.7	1803.0	1523.7	1437.5	1370.5	1260.9	1187.8	1155.4	1278.7
45°	2617.8	2579.8	2429.9	2026.5	1680.7	1565.9	1476.4	1321.3	1225.7	1181.7	1313.8
47.5°	2977.1	2986.5	2773.3	2282.3	1869.0	1724.2	1609.0	1412.2	1281.0	1223.8	1370.5
50°	3359.0	3365.5	3114.9	2565.7	2082.7	1903.2	1758.0	1513.9	1357.8	1283.8	1455.3
52.5°	3657.0	3657.9	3425.1	2862.3	2305.2	2100.0	1918.7	1630.1	1446.9	1363.5	1568.2
55°	3843.5	3841.1	3642.5	3143.0	2561.1	2306.6	2096.7	1762.2	1555.6	1457.2	1710.2
57.5°	3978.9	3971.8	3792.4	3384.3	2833.8	2550.8	2298.2	1912.1	1683.9	1568.7	1897.1
60°	4030.4	4026.2	3894.1	3592.8	3120.5	2820.6	2530.6	2079.9	1829.7	1700.3	2137.5
62.5°	4050.1	4058.1	3993.9	3794.7	3427.4	3119.6	2786.0	2280.4	1993.7	1849.3	2391.0
65°	4119.4	4134.0	4120.8	4059.0	3774.1	3469.6	3124.7	2518.9	2172.6	2009.1	2655.7
67.5°	4256.7	4271.2	4276.9	4375.3	4197.7	3905.8	3547.3	2815.9	2382.1	2175.0	2854.8
70°	4253.4	4249.2	4348.6	4626.9	4728.1	4509.7	4117.1	3181.4	2631.8	2312.7	2880.1
72.5°	3871.6	3837.8	4072.6	4624.1	5169.4	5140.4	4812.9	3652.8	2847.3	2329.6	2499.2
75°	2904.5	2814.5	3229.2	4167.2	5243.0	5498.4	5255.2	3945.1	2796.3	2058.3	1739.2
77.5°	1242.1	1151.7	1640.4	3084.9	4692.5	5139.9	4849.4	3441.9	2232.1	1361.1	854.2
80°	325.2	324.7	495.7	1398.6	3191.2	3795.7	3329.9	2222.8	1275.4	486.3	235.7
82.5°	134.5	131.2	182.3	544.0	1559.3	2130.0	1738.3	991.4	460.6	131.7	78.2
85°	50.1	49.7	88.6	187.9	550.1	878.5	635.8	253.5	114.8	64.2	35.1
87.5°	14.1	13.6	19.2	65.1	134.0	203.3	108.7	41.7	32.3	25.3	10.3
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°	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2	1010.2
2.5°	1013.5	1015.8	1020.0	1023.3	1027.5	1032.2	1038.8	1043.0	1047.2	1050.0	1048.1
5°	1017.7	1022.8	1033.6	1044.4	1057.0	1068.7	1082.3	1092.2	1100.1	1102.5	1103.4
7.5°	1027.0	1035.5	1053.8	1072.0	1092.2	1111.4	1131.1	1147.9	1161.5	1166.7	1167.1
10°	1043.4	1054.7	1080.5	1106.2	1132.9	1162.5	1187.8	1212.1	1231.3	1239.3	1239.8
12.5°	1064.1	1078.1	1111.9	1147.5	1184.5	1225.2	1258.0	1288.0	1311.9	1322.7	1322.7
15°	1090.8	1109.0	1152.1	1199.9	1254.3	1311.0	1352.7	1386.0	1412.7	1425.8	1424.8
17.5°	1119.8	1144.2	1198.5	1270.7	1348.5	1423.0	1471.7	1496.1	1523.7	1536.4	1535.9
20°	1147.9	1177.9	1255.7	1360.7	1464.2	1543.4	1582.7	1589.3	1591.2	1592.6	1596.3
22.5°	1177.0	1217.3	1327.4	1474.0	1585.1	1639.9	1645.5	1617.4	1578.1	1559.8	1564.9
25°	1208.8	1262.3	1421.1	1599.1	1689.1	1695.7	1652.6	1584.1	1509.6	1475.4	1480.6
27.5°	1239.8	1314.3	1533.5	1718.6	1764.1	1706.4	1613.7	1516.7	1426.7	1390.6	1394.9
30°	1270.7	1373.8	1657.7	1823.1	1798.3	1679.7	1552.3	1444.1	1353.6	1315.7	1319.9
32.5°	1302.1	1443.1	1800.6	1898.5	1792.2	1623.0	1475.9	1362.5	1282.9	1243.0	1248.2
35°	1337.7	1528.4	1936.0	1939.8	1751.4	1539.6	1375.2	1265.1	1195.7	1163.9	1170.9
37.5°	1384.1	1636.6	2055.5	1950.1	1680.2	1417.3	1250.1	1149.8	1092.6	1078.1	1088.4
40°	1441.7	1766.9	2146.9	1933.7	1574.8	1268.8	1113.3	1033.1	1000.8	1004.1	1015.3
42.5°	1516.7	1912.6	2211.1	1891.5	1428.1	1115.6	993.3	957.7	973.2	986.3	998.5
45°	1614.1	2063.9	2250.9	1819.8	1262.3	985.8	922.6	931.0	942.7	944.1	953.5
47.5°	1738.8	2217.1	2277.1	1711.6	1093.1	894.4	877.6	879.5	877.1	867.3	874.8
50°	1894.3	2366.1	2300.5	1568.2	949.3	837.3	814.8	808.2	775.9	744.0	748.3
52.5°	2071.4	2503.0	2310.4	1390.2	837.3	789.5	752.9	711.7	651.3	641.4	644.7
55°	2268.2	2629.5	2285.1	1171.4	743.1	728.1	672.8	623.2	616.6	608.2	609.6
57.5°	2503.4	2765.8	2233.5	927.2	646.6	656.4	602.5	608.2	596.5	583.3	581.0
60°	2760.7	2906.8	2143.1	704.7	546.8	566.9	584.3	583.8	580.5	569.7	566.0
62.5°	2992.1	2999.6	1965.1	539.8	459.2	497.6	544.9	544.4	541.6	535.5	533.2
65°	3129.9	2985.6	1668.0	425.0	387.0	440.4	491.5	495.3	495.7	495.3	495.3
67.5°	3105.5	2821.1	1260.4	338.3	327.5	382.3	438.6	443.7	447.5	448.4	449.3
70°	2830.0	2459.9	821.8	269.9	274.6	331.3	388.4	393.6	396.9	400.6	402.5
72.5°	2205.9	1808.6	470.4	218.3	228.2	287.2	338.8	344.8	346.7	353.8	356.6
75°	1344.3	1063.6	254.0	172.0	187.4	245.5	289.6	296.6	299.9	308.3	309.2
77.5°	639.1	460.6	144.8	134.0	150.9	200.5	244.6	252.5	243.6	248.3	244.6
80°	216.0	171.0	91.4	102.1	115.3	156.5	195.9	203.8	185.1	184.1	182.3
82.5°	75.4	69.3	58.1	67.9	74.5	112.0	148.1	158.4	137.8	137.3	130.7
85°	29.5	28.1	32.3	37.0	44.5	68.9	97.5	102.6	84.8	68.4	67.5
87.5°	6.1	6.6	8.0	8.4	13.6	23.9	35.1	43.1	34.2	29.0	26.7
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)