

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: P882044

Luminaire Tested: **NAV-SB1D-727-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882044
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-727-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 2700K, 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: 9149 lumens
Efficiency: N/A
Efficacy: 114.9 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

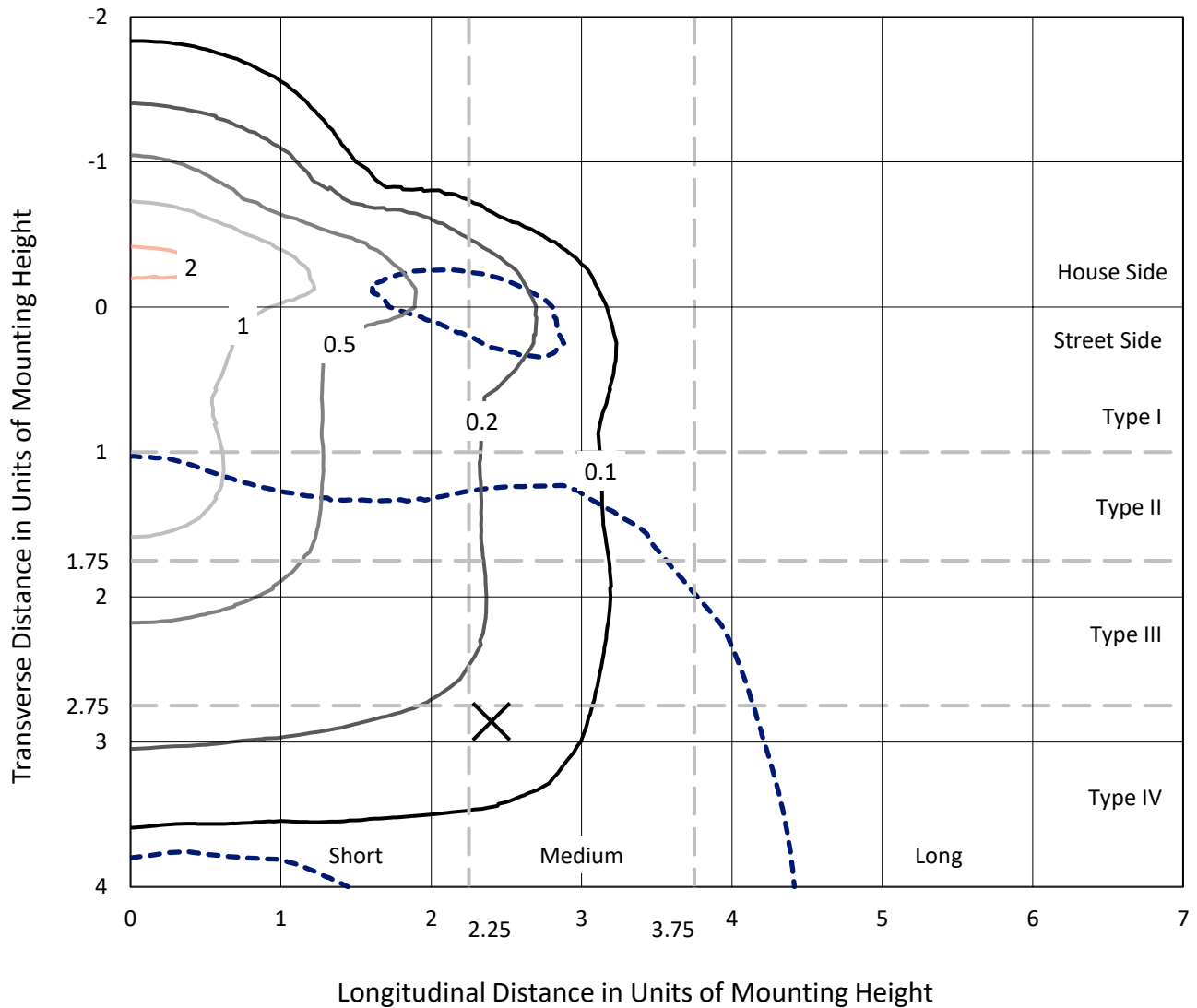
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

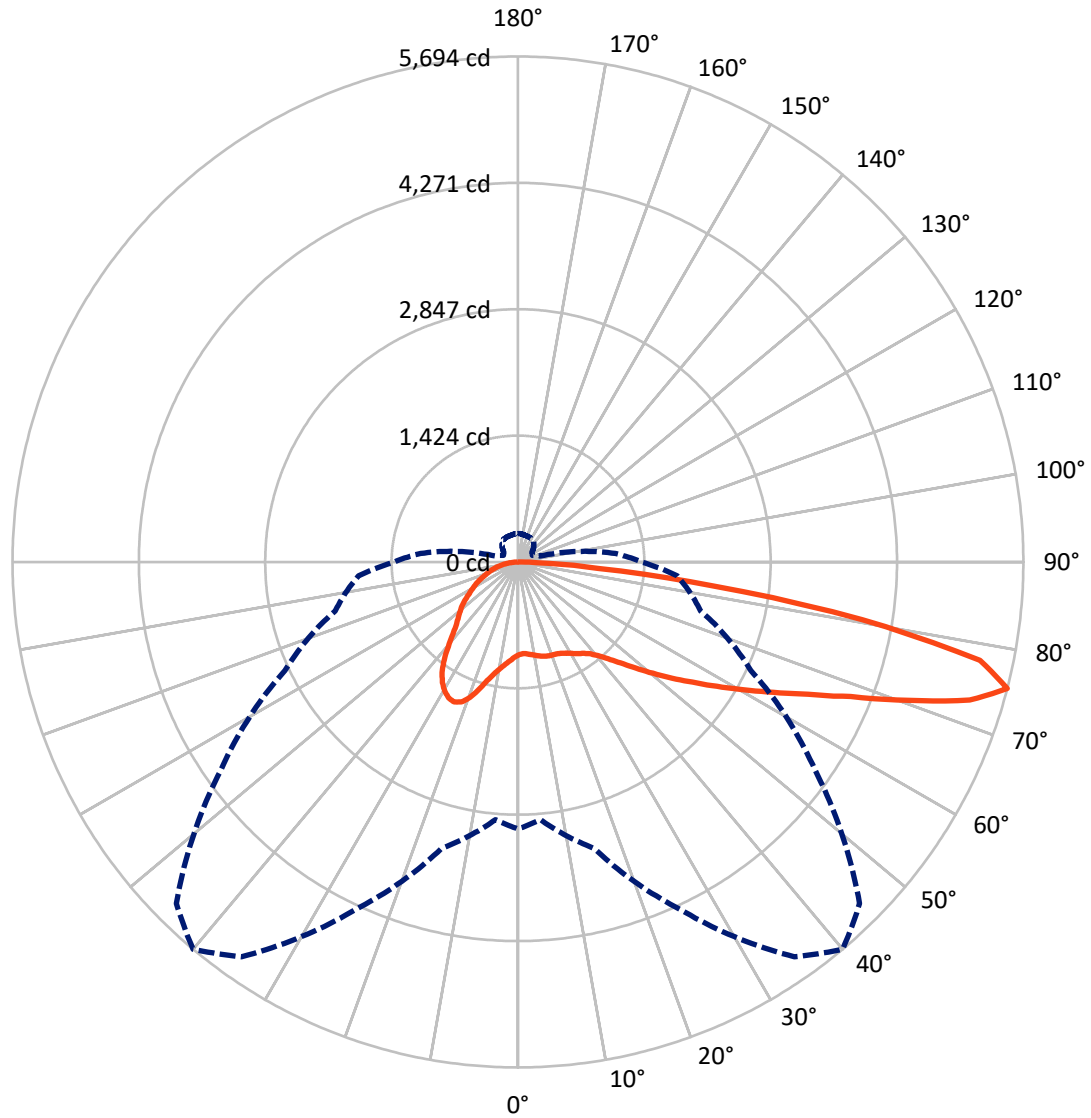
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 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	2834.7	0.0	2834.7
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	6314.3	0.0	6314.3
	% Fixture	69.0	0.0	69.0
Total	Lumens	9149.0	0.0	9149.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	1.1
10°-20°	350.6	3.8
20°-30°	640.2	7.0
30°-40°	908.0	9.9
40°-50°	1226.1	13.4
50°-60°	1649.4	18.0
60°-70°	2093.4	22.9
70°-80°	1899.9	20.8
80°-90°	277.0	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°	9149.0	100.0
0°-180°	9149.0	100.0

Coefficient of Utilization



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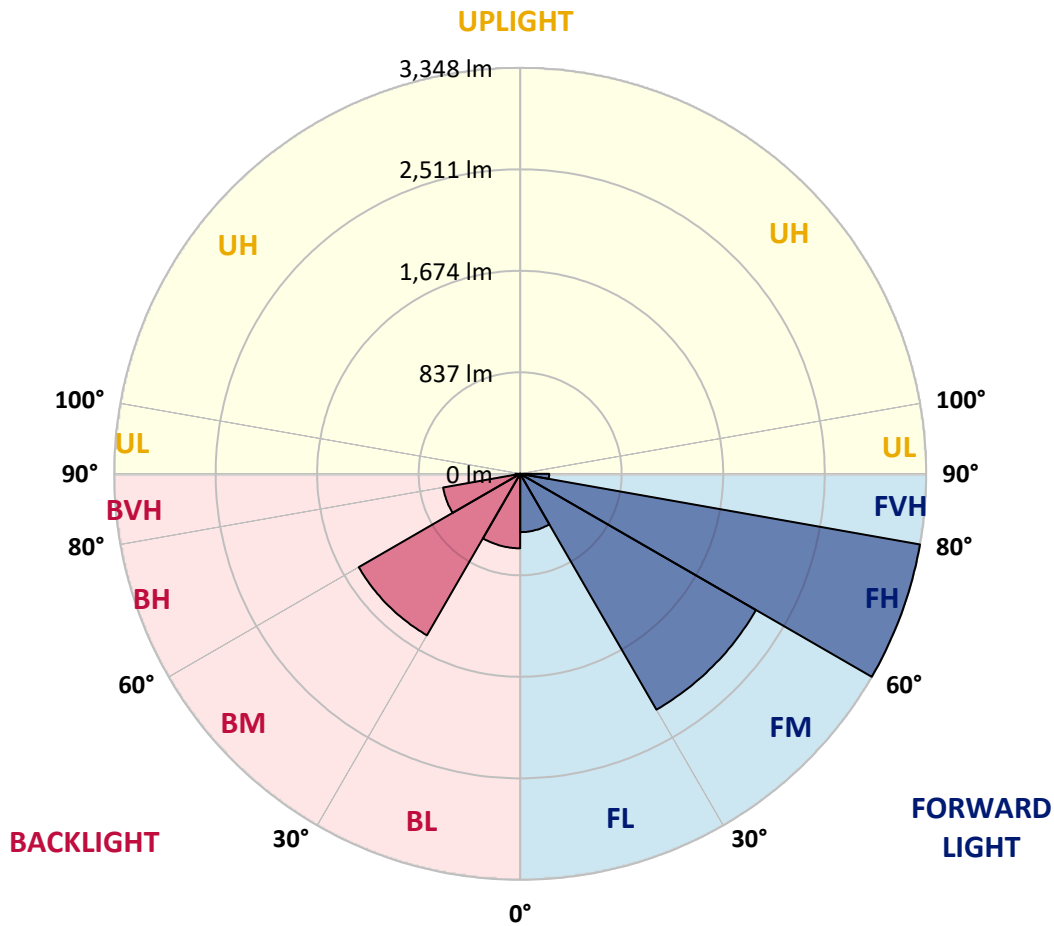
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	481.2	5.3			
FM (30°-60°)	2245.9	24.5			
FH (60°-80°)	3348.4	36.6			G2/5000
FVH (80°-90°)	238.8	2.6			G3/500
BL (0°-30°)	614.0	6.7	B2/1000		
BM (30°-60°)	1537.6	16.8	B2/2500		
BH (60°-80°)	645.0	7.0	B2/1000		G2/1000
BVH (80°-90°)	38.1	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°	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2
2.5°	1030.2	1036.0	1034.6	1032.6	1032.6	1033.1	1032.6	1036.0	1039.4	1042.8	1048.1
5°	1040.9	1046.7	1043.8	1041.3	1039.4	1038.9	1037.5	1037.0	1038.9	1043.3	1050.6
7.5°	1061.7	1067.6	1063.2	1058.8	1054.9	1053.0	1051.1	1048.1	1046.7	1049.1	1059.3
10°	1085.0	1090.8	1085.5	1077.7	1071.4	1069.0	1067.1	1064.2	1062.2	1063.7	1074.8
12.5°	1108.3	1114.1	1106.9	1096.2	1087.9	1086.5	1084.0	1083.1	1082.6	1082.1	1093.3
15°	1130.1	1135.0	1125.8	1113.2	1104.4	1102.0	1099.6	1101.0	1103.5	1106.4	1119.0
17.5°	1147.1	1152.0	1138.4	1121.9	1113.7	1112.7	1111.2	1116.1	1122.9	1130.1	1145.7
20°	1162.7	1167.5	1150.0	1127.7	1118.0	1118.0	1118.5	1128.7	1138.4	1149.1	1170.4
22.5°	1184.5	1188.4	1167.0	1136.5	1122.4	1123.4	1127.2	1137.4	1149.6	1164.1	1193.7
25°	1217.0	1219.9	1193.7	1153.0	1136.9	1139.9	1143.3	1148.1	1159.7	1176.7	1216.5
27.5°	1269.4	1271.8	1237.4	1182.1	1157.8	1162.7	1167.5	1164.1	1169.5	1184.0	1235.0
30°	1343.2	1344.6	1301.0	1227.7	1193.2	1195.7	1196.6	1182.6	1172.4	1184.0	1248.1
32.5°	1430.5	1430.0	1378.1	1283.0	1233.5	1231.1	1222.8	1195.2	1171.4	1181.6	1259.7
35°	1565.9	1560.6	1493.6	1360.6	1279.1	1264.1	1244.7	1209.2	1176.2	1179.2	1269.9
37.5°	1790.1	1773.6	1680.9	1487.8	1347.1	1308.7	1280.1	1232.1	1186.9	1178.2	1282.0
40°	2042.9	2022.0	1920.1	1662.0	1449.0	1387.3	1341.2	1264.6	1204.4	1182.6	1300.0
42.5°	2342.8	2313.2	2203.5	1867.2	1578.0	1488.7	1419.4	1305.8	1230.1	1196.6	1324.2
45°	2711.1	2671.8	2516.5	2098.7	1740.6	1621.7	1529.0	1368.4	1269.4	1223.8	1360.6
47.5°	3083.3	3093.0	2872.2	2363.7	1935.7	1785.7	1666.4	1462.5	1326.7	1267.5	1419.4
50°	3478.8	3485.6	3225.9	2657.2	2156.9	1971.1	1820.7	1567.8	1406.3	1329.6	1507.2
52.5°	3787.4	3788.4	3547.2	2964.4	2387.4	2174.9	1987.1	1688.2	1498.5	1412.1	1624.1
55°	3980.5	3978.1	3772.3	3255.1	2652.4	2388.9	2171.5	1825.0	1611.0	1509.1	1771.2
57.5°	4120.7	4113.5	3927.6	3505.0	2934.8	2641.7	2380.2	1980.3	1744.0	1624.6	1964.8
60°	4174.1	4169.8	4032.9	3720.9	3231.8	2921.2	2620.8	2154.0	1894.9	1761.0	2213.7
62.5°	4194.5	4202.8	4136.3	3930.0	3549.6	3230.8	2885.3	2361.7	2064.7	1915.3	2476.2
65°	4266.3	4281.4	4267.8	4203.7	3908.7	3593.3	3236.1	2608.7	2250.1	2080.8	2750.4
67.5°	4408.5	4423.5	4429.4	4531.3	4347.4	4045.0	3673.8	2916.4	2467.0	2252.5	2956.6
70°	4405.1	4400.7	4503.6	4791.8	4896.7	4670.5	4263.9	3294.9	2725.7	2395.2	2982.8
72.5°	4009.6	3974.7	4217.8	4788.9	5353.8	5323.7	4984.5	3783.0	2948.9	2412.7	2588.3
75°	3008.1	2914.9	3344.3	4315.8	5430.0	5694.4	5442.6	4085.8	2896.0	2131.7	1801.3
77.5°	1286.4	1192.7	1698.9	3194.9	4859.8	5323.2	5022.3	3564.7	2311.7	1409.7	884.6
80°	336.8	336.3	513.4	1448.5	3305.0	3931.0	3448.7	2302.0	1320.9	503.7	244.1
82.5°	139.3	135.9	188.8	563.4	1614.9	2205.9	1800.3	1026.8	477.0	136.4	81.0
85°	51.9	51.4	91.7	194.6	569.7	909.8	658.5	262.5	118.9	66.5	36.4
87.5°	14.6	14.1	19.9	67.4	138.8	210.6	112.6	43.2	33.5	26.2	10.7
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°	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2	1046.2
2.5°	1049.6	1052.0	1056.4	1059.8	1064.2	1069.0	1075.8	1080.2	1084.5	1087.4	1085.5
5°	1054.0	1059.3	1070.5	1081.6	1094.7	1106.9	1120.9	1131.1	1139.4	1141.8	1142.8
7.5°	1063.7	1072.4	1091.3	1110.3	1131.1	1151.0	1171.4	1188.9	1202.9	1208.3	1208.8
10°	1080.7	1092.3	1119.0	1145.7	1173.3	1203.9	1230.1	1255.3	1275.2	1283.5	1284.0
12.5°	1102.0	1116.6	1151.5	1188.4	1226.7	1268.9	1302.9	1334.0	1358.7	1369.9	1369.9
15°	1129.7	1148.6	1193.2	1242.7	1299.0	1357.7	1400.9	1435.4	1463.0	1476.6	1475.6
17.5°	1159.7	1185.0	1241.3	1316.0	1396.6	1473.7	1524.2	1549.4	1578.0	1591.1	1590.7
20°	1188.9	1219.9	1300.5	1409.2	1516.4	1598.4	1639.2	1646.0	1647.9	1649.4	1653.2
22.5°	1218.9	1260.7	1374.7	1526.6	1641.6	1698.4	1704.2	1675.1	1634.3	1615.4	1620.7
25°	1251.9	1307.3	1471.8	1656.2	1749.3	1756.1	1711.5	1640.6	1563.5	1528.1	1533.4
27.5°	1284.0	1361.1	1588.2	1779.9	1827.0	1767.3	1671.2	1570.8	1477.6	1440.2	1444.6
30°	1316.0	1422.8	1716.8	1888.1	1862.4	1739.6	1607.6	1495.5	1401.9	1362.6	1367.0
32.5°	1348.5	1494.6	1864.8	1966.2	1856.1	1680.9	1528.5	1411.1	1328.6	1287.4	1292.7
35°	1385.4	1582.9	2005.1	2008.9	1813.9	1594.5	1424.2	1310.2	1238.4	1205.4	1212.6
37.5°	1433.4	1695.0	2128.8	2019.6	1740.1	1467.9	1294.6	1190.8	1131.6	1116.6	1127.2
40°	1493.1	1829.9	2223.4	2002.6	1630.9	1314.1	1153.0	1070.0	1036.5	1039.9	1051.5
42.5°	1570.8	1980.8	2289.9	1959.0	1479.0	1155.4	1028.7	991.9	1007.9	1021.5	1034.1
45°	1671.7	2137.5	2331.1	1884.7	1307.3	1021.0	955.5	964.2	976.3	977.8	987.5
47.5°	1800.8	2296.2	2358.3	1772.6	1132.1	926.3	908.9	910.8	908.4	898.2	906.0
50°	1961.9	2450.5	2382.6	1624.1	983.1	867.1	843.9	837.1	803.6	770.6	774.9
52.5°	2145.3	2592.2	2392.8	1439.7	867.1	817.6	779.8	737.1	674.5	664.3	667.7
55°	2349.1	2723.2	2366.6	1213.1	769.6	754.1	696.8	645.4	638.6	629.9	631.3
57.5°	2592.7	2864.4	2313.2	960.3	669.6	679.8	624.0	629.9	617.7	604.1	601.7
60°	2859.1	3010.5	2219.5	729.8	566.3	587.2	605.1	604.6	601.2	590.1	586.2
62.5°	3098.8	3106.6	2035.1	559.0	475.5	515.3	564.3	563.9	560.9	554.6	552.2
65°	3241.5	3092.0	1727.5	440.1	400.8	456.1	509.0	512.9	513.4	512.9	512.9
67.5°	3216.2	2921.7	1305.3	350.4	339.2	396.0	454.2	459.5	463.4	464.4	465.4
70°	2930.9	2547.6	851.1	279.5	284.4	343.1	402.3	407.6	411.0	414.9	416.8
72.5°	2284.6	1873.1	487.2	226.1	236.3	297.5	350.8	357.1	359.1	366.4	369.3
75°	1392.2	1101.5	263.0	178.1	194.1	254.3	299.9	307.2	310.6	319.3	320.3
77.5°	661.9	477.0	149.9	138.8	156.3	207.7	253.3	261.6	252.3	257.2	253.3
80°	223.7	177.1	94.6	105.8	119.4	162.1	202.8	211.1	191.7	190.7	188.8
82.5°	78.1	71.8	60.2	70.4	77.2	116.0	153.3	164.0	142.7	142.2	135.4
85°	30.6	29.1	33.5	38.3	46.1	71.3	100.9	106.3	87.8	70.8	69.9
87.5°	6.3	6.8	8.2	8.7	14.1	24.7	36.4	44.6	35.4	30.1	27.7
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)