

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: P960996

Luminaire Tested: **NAV-SB1D-827-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960996
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8993.3 lumens
Efficiency: N/A
Efficacy: 113.0 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): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

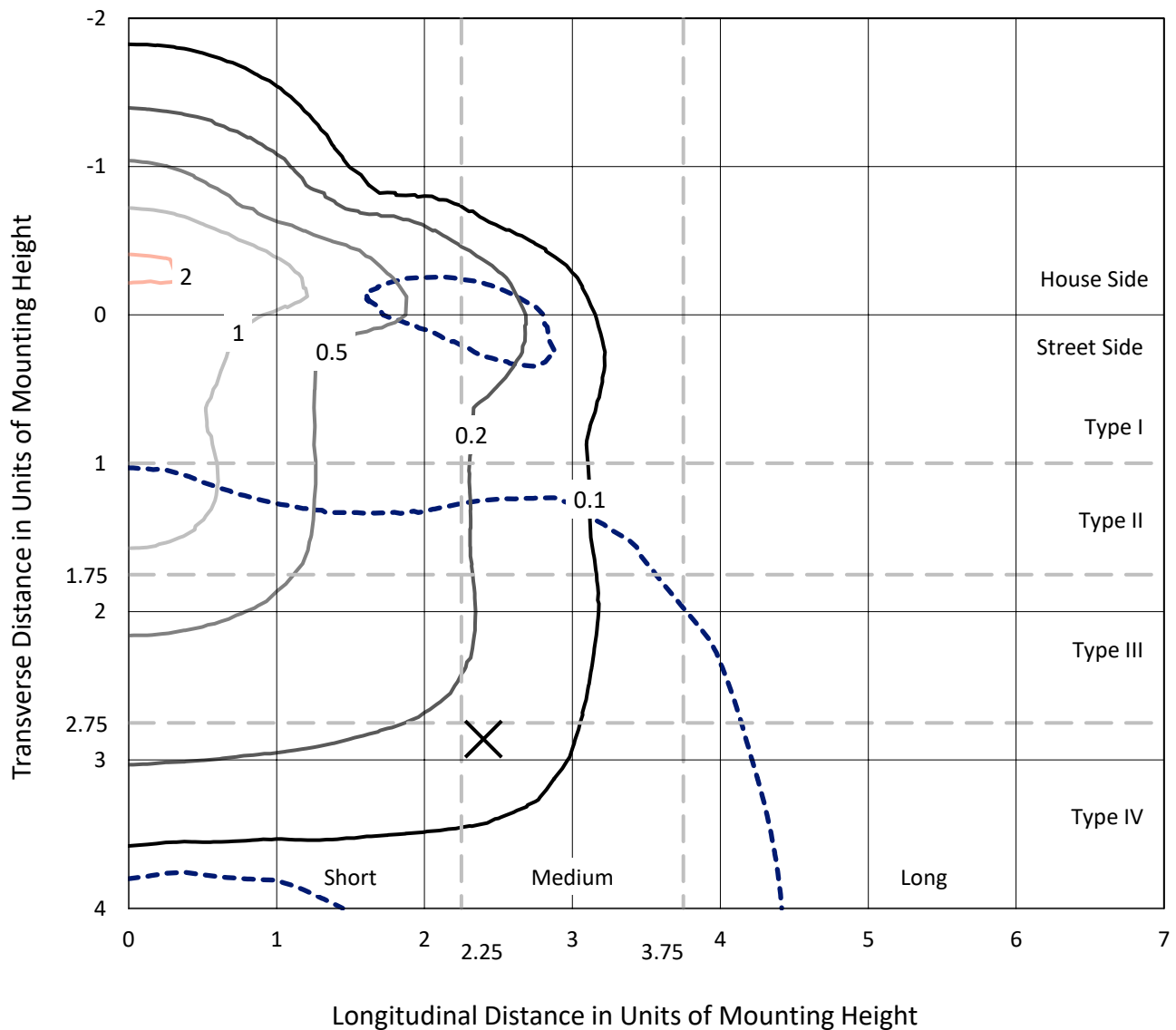


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Iso-Footcandle Lines of Horizontal Illumination

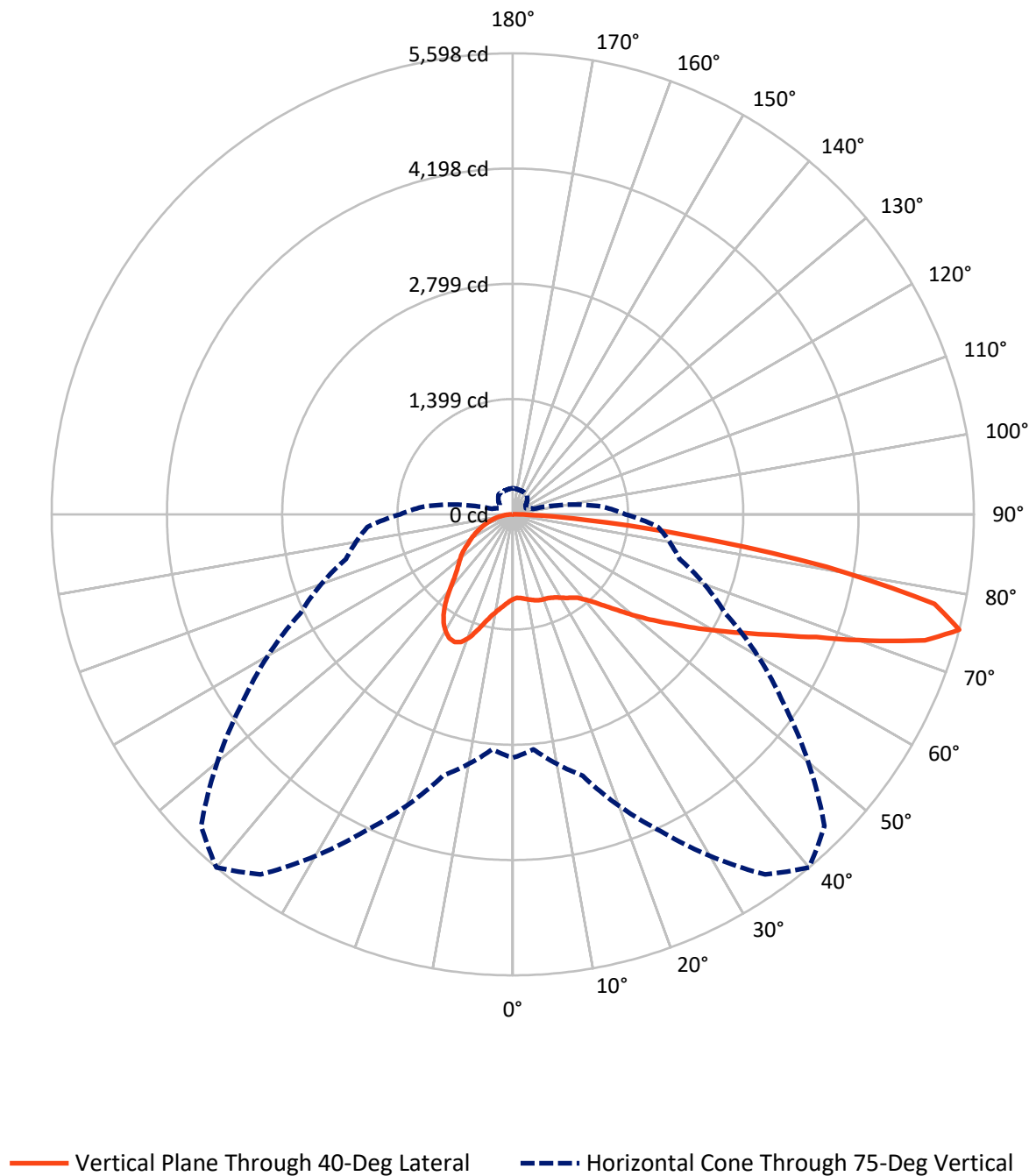
× Max cd
- - - 1/2 Max cd



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



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2786.4	0.0	2786.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	6206.9	0.0	6206.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	8993.3	0.0	8993.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.7	1.1
10°-20°	344.7	3.8
20°-30°	629.3	7.0
30°-40°	892.5	9.9
40°-50°	1205.2	13.4
50°-60°	1621.3	18.0
60°-70°	2057.8	22.9
70°-80°	1867.6	20.8
80°-90°	272.2	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°	8993.3	100.0
0°-180°	8993.3	100.0

Coefficient of Utilization



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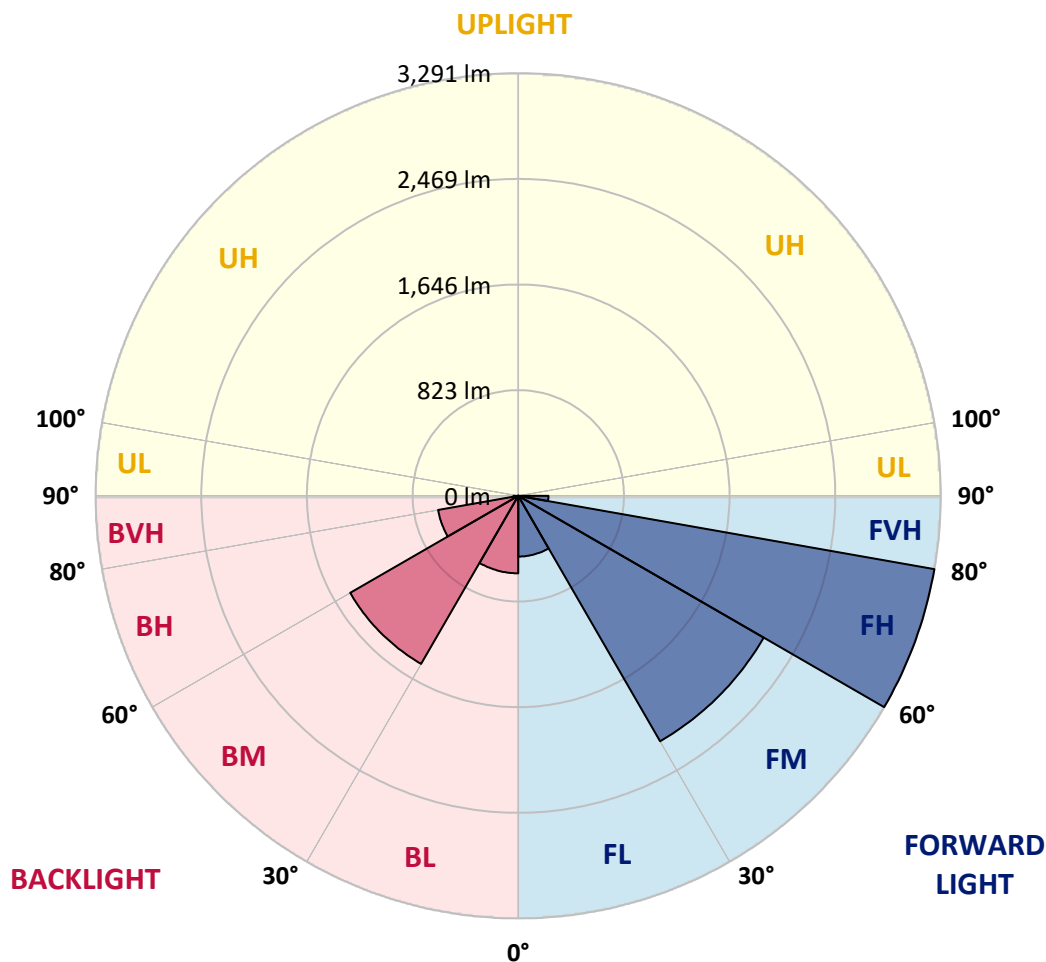
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	473.1	5.3			
FM	(30°-60°)	2207.7	24.5			
FH	(60°-80°)	3291.4	36.6			G2/5000
FVH	(80°-90°)	234.8	2.6			G3/500
BL	(0°-30°)	603.6	6.7	B2/1000		
BM	(30°-60°)	1511.4	16.8	B2/2500		
BH	(60°-80°)	634.0	7.0	B2/1000		G2/1000
BVH	(80°-90°)	37.5	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°	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4
2.5°	1012.7	1018.3	1016.9	1015.1	1015.1	1015.6	1015.1	1018.3	1021.7	1025.1	1030.3
5°	1023.2	1028.9	1026.0	1023.7	1021.7	1021.2	1019.8	1019.4	1021.2	1025.5	1032.7
7.5°	1043.7	1049.4	1045.1	1040.8	1037.0	1035.0	1033.2	1030.3	1028.9	1031.3	1041.3
10°	1066.5	1072.3	1067.0	1059.4	1053.2	1050.8	1048.9	1046.0	1044.2	1045.6	1056.6
12.5°	1089.5	1095.2	1088.0	1077.6	1069.4	1067.9	1065.6	1064.7	1064.2	1063.7	1074.7
15°	1110.9	1115.7	1106.6	1094.2	1085.7	1083.2	1080.9	1082.3	1084.7	1087.5	1099.9
17.5°	1127.6	1132.4	1119.0	1102.8	1094.7	1093.8	1092.3	1097.1	1103.7	1110.9	1126.2
20°	1142.9	1147.7	1130.5	1108.5	1099.0	1099.0	1099.5	1109.5	1119.0	1129.6	1150.6
22.5°	1164.3	1168.2	1147.2	1117.1	1103.3	1104.2	1108.0	1118.1	1130.0	1144.3	1173.4
25°	1196.3	1199.1	1173.4	1133.3	1117.6	1120.4	1123.8	1128.5	1140.0	1156.7	1195.9
27.5°	1247.8	1250.2	1216.4	1161.9	1138.2	1142.9	1147.7	1144.3	1149.5	1163.9	1213.9
30°	1320.3	1321.7	1278.8	1206.8	1172.9	1175.3	1176.3	1162.5	1152.4	1163.9	1226.8
32.5°	1406.2	1405.7	1354.6	1261.2	1212.5	1210.1	1202.0	1174.9	1151.5	1161.5	1238.3
35°	1539.2	1534.0	1468.2	1337.5	1257.4	1242.6	1223.5	1188.7	1156.2	1159.1	1248.3
37.5°	1759.6	1743.4	1652.3	1462.5	1324.1	1286.5	1258.3	1211.1	1166.8	1158.1	1260.2
40°	2008.2	1987.7	1887.4	1633.7	1424.3	1363.8	1318.5	1243.0	1183.9	1162.5	1277.9
42.5°	2303.0	2273.9	2166.0	1835.5	1551.2	1463.4	1395.2	1283.6	1209.2	1176.3	1301.8
45°	2665.0	2626.4	2473.7	2063.0	1711.0	1594.1	1503.1	1345.1	1247.8	1202.9	1337.5
47.5°	3030.8	3040.4	2823.4	2323.5	1902.7	1755.3	1638.1	1437.7	1304.1	1245.9	1395.2
50°	3419.6	3426.3	3171.0	2612.0	2120.2	1937.6	1789.6	1541.2	1382.3	1307.0	1481.5
52.5°	3722.9	3723.9	3486.8	2914.0	2346.8	2137.8	1953.3	1659.5	1472.9	1388.1	1596.5
55°	3912.8	3910.4	3708.1	3199.6	2607.3	2348.3	2134.6	1794.0	1583.6	1483.5	1741.1
57.5°	4050.6	4043.5	3860.8	3445.3	2884.9	2596.7	2339.7	1946.6	1714.3	1596.9	1931.3
60°	4103.1	4098.8	3964.3	3657.6	3176.8	2871.5	2576.2	2117.3	1862.6	1731.0	2176.1
62.5°	4123.2	4131.3	4065.9	3863.2	3489.2	3175.9	2836.2	2321.5	2029.6	1882.7	2434.1
65°	4193.8	4208.5	4195.2	4132.2	3842.2	3532.2	3181.1	2564.3	2211.8	2045.4	2703.6
67.5°	4333.5	4348.3	4354.0	4454.1	4273.4	3976.3	3611.3	2866.7	2425.0	2214.2	2906.3
70°	4330.1	4325.9	4427.0	4710.3	4813.4	4591.1	4191.3	3238.8	2679.2	2354.4	2932.1
72.5°	3941.4	3907.1	4146.0	4707.4	5262.7	5233.1	4899.7	3718.7	2898.7	2371.6	2544.3
75°	2956.9	2865.3	3287.5	4242.4	5337.6	5597.5	5350.0	4016.3	2846.7	2095.4	1770.6
77.5°	1264.5	1172.5	1669.9	3140.5	4777.1	5232.6	4936.9	3504.0	2272.4	1385.7	869.6
80°	331.1	330.6	504.7	1423.8	3248.8	3864.1	3390.0	2262.9	1298.4	495.1	240.0
82.5°	136.9	133.6	185.5	553.8	1587.4	2168.4	1769.7	1009.3	468.8	134.1	79.6
85°	51.0	50.5	90.2	191.3	560.0	894.4	647.3	258.1	116.8	65.4	35.8
87.5°	14.3	13.8	19.6	66.3	136.4	207.0	110.7	42.4	32.9	25.7	10.5
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°	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4	1028.4
2.5°	1031.8	1034.1	1038.4	1041.7	1046.0	1050.8	1057.5	1061.8	1066.1	1069.0	1067.0
5°	1036.1	1041.3	1052.3	1063.2	1076.1	1088.0	1101.9	1111.9	1120.0	1122.4	1123.3
7.5°	1045.6	1054.1	1072.8	1091.3	1111.9	1131.4	1151.5	1168.6	1182.4	1187.7	1188.2
10°	1062.3	1073.7	1099.9	1126.2	1153.3	1183.5	1209.2	1234.0	1253.6	1261.7	1262.1
12.5°	1083.2	1097.6	1131.9	1168.2	1205.8	1247.3	1280.7	1311.3	1335.6	1346.5	1346.5
15°	1110.5	1129.0	1172.9	1221.6	1276.9	1334.7	1377.1	1410.9	1438.2	1451.5	1450.6
17.5°	1140.0	1164.8	1220.2	1293.7	1372.8	1448.6	1498.2	1523.0	1551.2	1564.0	1563.6
20°	1168.6	1199.1	1278.4	1385.2	1490.7	1571.2	1611.3	1618.0	1619.9	1621.3	1625.1
22.5°	1198.2	1239.2	1351.4	1500.6	1613.7	1669.5	1675.2	1646.6	1606.5	1587.9	1593.2
25°	1230.6	1285.0	1446.7	1628.0	1719.5	1726.2	1682.3	1612.7	1536.9	1502.0	1507.3
27.5°	1262.1	1337.9	1561.2	1749.6	1795.9	1737.2	1642.8	1544.1	1452.4	1415.7	1420.0
30°	1293.7	1398.5	1687.6	1856.0	1830.8	1710.0	1580.2	1470.1	1378.0	1339.4	1343.7
32.5°	1325.5	1469.1	1833.1	1932.7	1824.5	1652.3	1502.5	1387.1	1306.1	1265.5	1270.7
35°	1361.8	1555.9	1971.0	1974.8	1783.0	1567.4	1399.9	1287.9	1217.3	1184.9	1192.0
37.5°	1409.1	1666.1	2092.5	1985.2	1710.5	1442.9	1272.6	1170.6	1112.3	1097.6	1108.0
40°	1467.7	1798.8	2185.6	1968.5	1603.2	1291.7	1133.3	1051.8	1018.8	1022.2	1033.6
42.5°	1544.1	1947.1	2250.9	1925.7	1453.9	1135.7	1011.3	975.0	990.8	1004.1	1016.5
45°	1643.3	2101.1	2291.5	1852.7	1285.0	1003.6	939.2	947.8	959.7	961.1	970.7
47.5°	1770.2	2257.2	2318.2	1742.5	1112.8	910.6	893.4	895.3	893.0	882.9	890.5
50°	1928.5	2408.9	2342.0	1596.5	966.4	852.4	829.5	822.8	789.9	757.5	761.8
52.5°	2108.8	2548.1	2352.1	1415.2	852.4	803.7	766.5	724.6	663.1	653.0	656.3
55°	2309.1	2676.9	2326.3	1192.5	756.6	741.3	685.0	634.4	627.7	619.1	620.5
57.5°	2548.6	2815.7	2273.9	943.9	658.3	668.3	613.5	619.1	607.2	593.9	591.4
60°	2810.4	2959.3	2181.8	717.4	556.7	577.2	594.8	594.3	591.0	580.0	576.3
62.5°	3046.1	3053.7	2000.5	549.5	467.5	506.6	554.7	554.2	551.4	545.2	542.8
65°	3186.3	3039.4	1698.1	432.7	394.0	448.3	500.4	504.2	504.7	504.2	504.2
67.5°	3161.5	2871.9	1283.1	344.4	333.4	389.2	446.5	451.7	455.5	456.5	457.5
70°	2881.1	2504.2	836.6	274.7	279.5	337.2	395.4	400.7	404.1	407.8	409.7
72.5°	2245.7	1841.2	478.9	222.3	232.3	292.4	344.9	351.1	353.0	360.1	363.0
75°	1368.5	1082.8	258.5	175.1	190.8	249.9	294.8	302.0	305.2	313.9	314.8
77.5°	650.7	468.8	147.4	136.4	153.5	204.2	249.0	257.1	248.0	252.8	249.0
80°	219.9	174.1	93.0	103.9	117.4	159.3	199.4	207.5	188.4	187.5	185.5
82.5°	76.8	70.6	59.1	69.2	75.8	114.0	150.8	161.2	140.2	139.8	133.0
85°	30.0	28.6	32.9	37.7	45.3	70.1	99.2	104.4	86.3	69.6	68.7
87.5°	6.1	6.7	8.1	8.6	13.8	24.3	35.8	43.9	34.8	29.6	27.2
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)