

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: P882444

Luminaire Tested: **NAV-SB2B-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882444
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-SB2B-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA 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: 9243 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

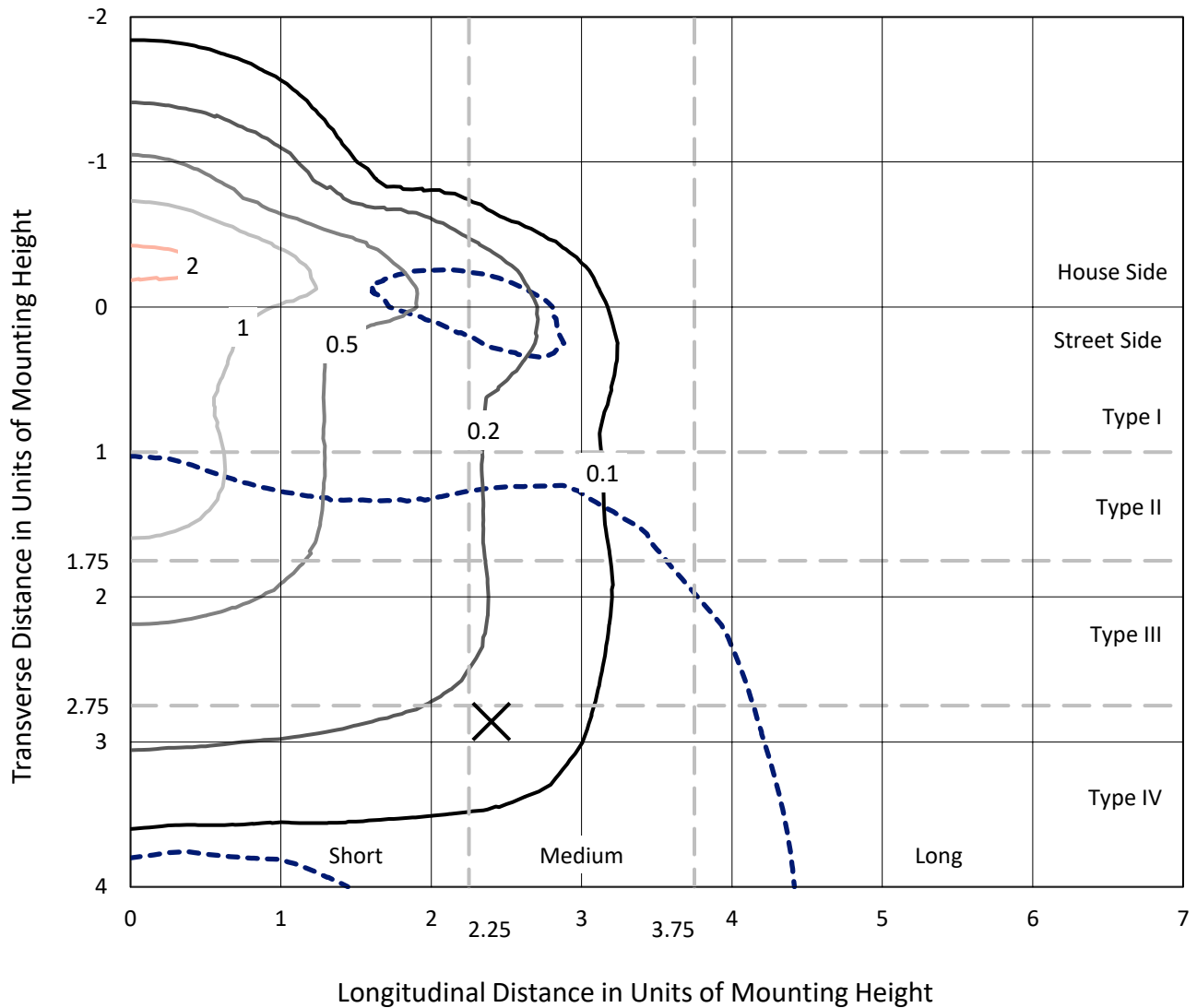
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

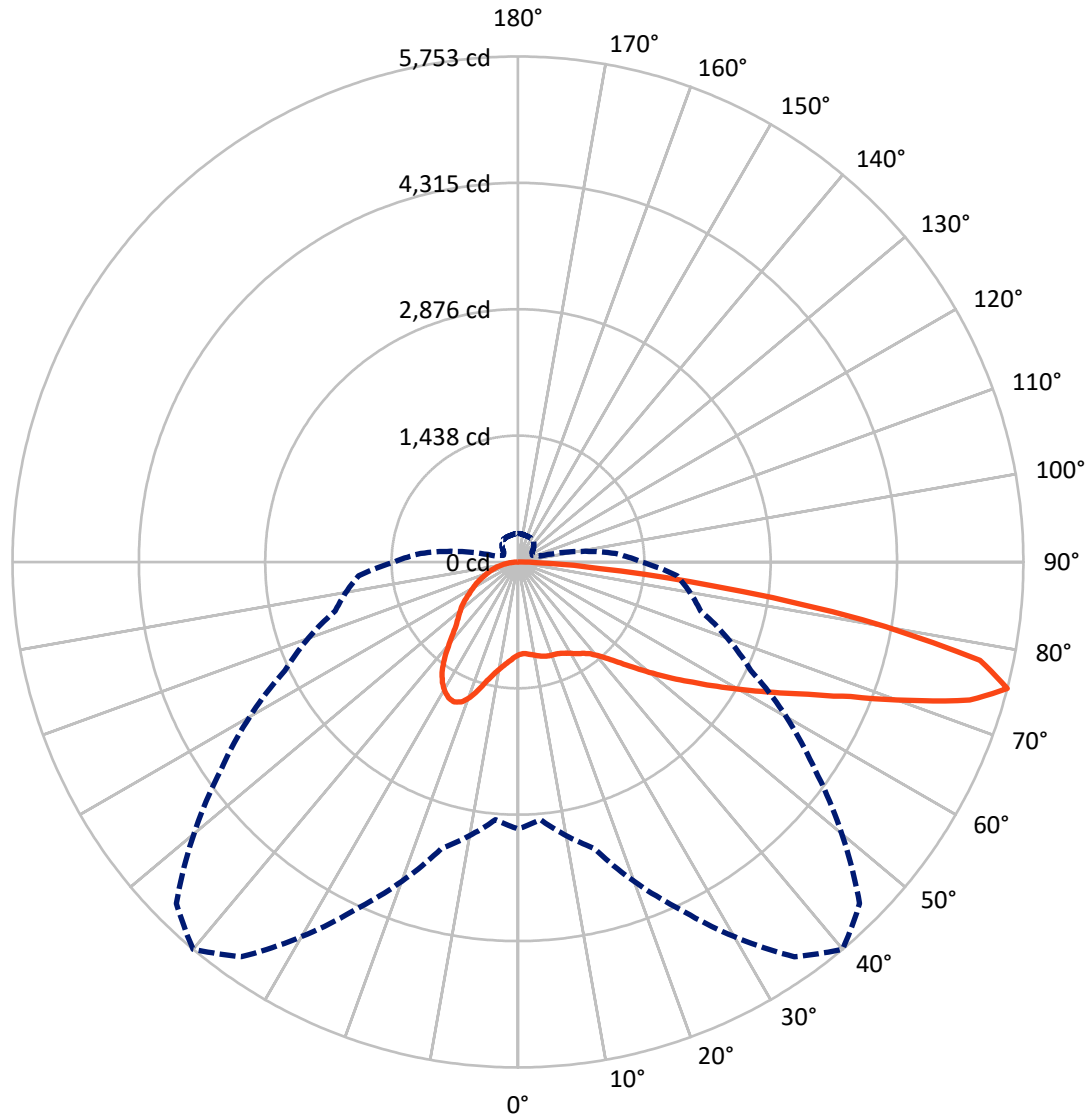
✕ Max cd
 - - - 1/2 Max cd



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	2863.8	0.0	2863.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	6379.2	0.0	6379.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	9243.0	0.0	9243.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.5	1.1
10°-20°	354.2	3.8
20°-30°	646.8	7.0
30°-40°	917.3	9.9
40°-50°	1238.7	13.4
50°-60°	1666.3	18.0
60°-70°	2115.0	22.9
70°-80°	1919.4	20.8
80°-90°	279.8	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°	9243.0	100.0
0°-180°	9243.0	100.0

Coefficient of Utilization



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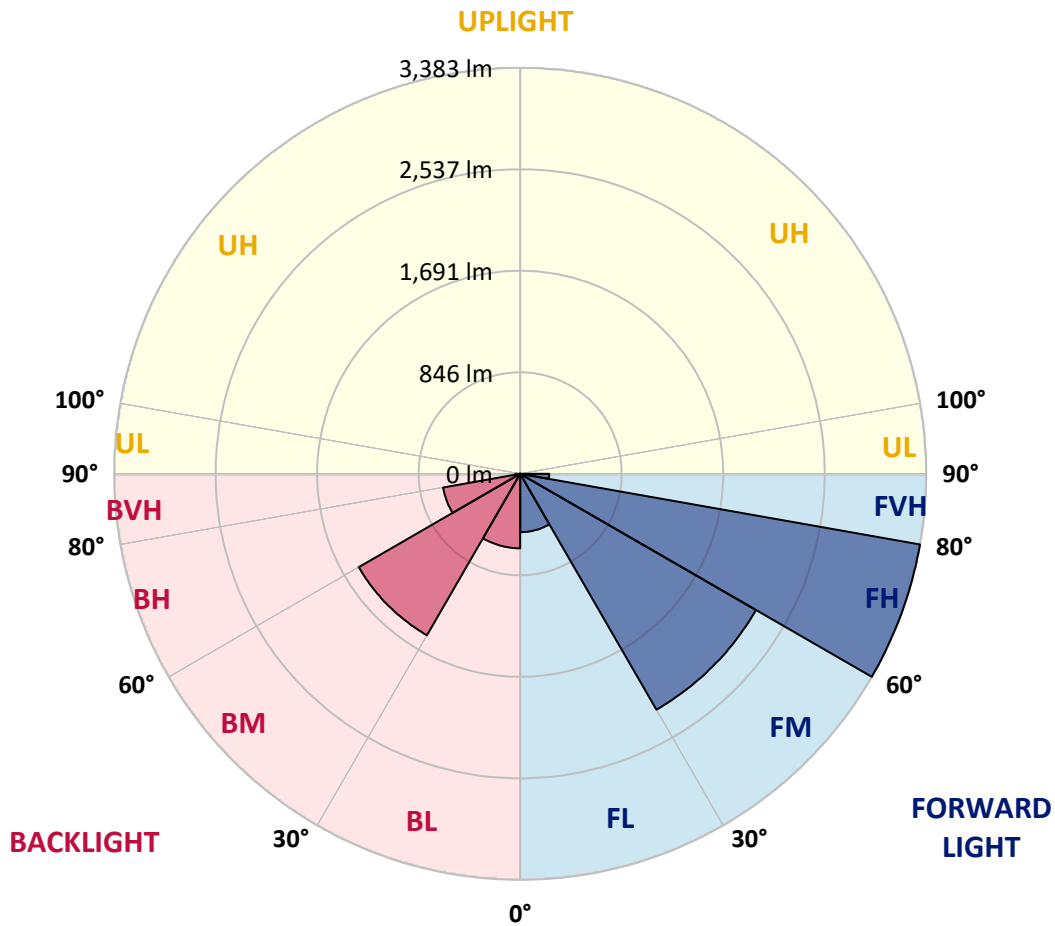
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	486.2	5.3			
FM (30°-60°)	2269.0	24.5			
FH (60°-80°)	3382.8	36.6			G2/5000
FVH (80°-90°)	241.3	2.6			G3/500
BL (0°-30°)	620.3	6.7	B2/1000		
BM (30°-60°)	1553.3	16.8	B2/2500		
BH (60°-80°)	651.6	7.0	B2/1000		G2/1000
BVH (80°-90°)	38.5	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°	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9
2.5°	1040.8	1046.7	1045.2	1043.2	1043.2	1043.7	1043.2	1046.7	1050.1	1053.5	1058.9
5°	1051.6	1057.4	1054.5	1052.0	1050.1	1049.6	1048.1	1047.6	1049.6	1054.0	1061.4
7.5°	1072.6	1078.5	1074.1	1069.7	1065.8	1063.8	1061.9	1058.9	1057.4	1059.9	1070.2
10°	1096.2	1102.1	1096.7	1088.8	1082.4	1080.0	1078.0	1075.1	1073.1	1074.6	1085.9
12.5°	1119.7	1125.6	1118.2	1107.4	1099.1	1097.6	1095.2	1094.2	1093.7	1093.2	1104.5
15°	1141.8	1146.7	1137.3	1124.6	1115.8	1113.3	1110.9	1112.3	1114.8	1117.7	1130.5
17.5°	1158.9	1163.8	1150.1	1133.4	1125.1	1124.1	1122.6	1127.5	1134.4	1141.8	1157.4
20°	1174.6	1179.5	1161.9	1139.3	1129.5	1129.5	1130.0	1140.3	1150.1	1160.9	1182.4
22.5°	1196.7	1200.6	1179.0	1148.1	1133.9	1134.9	1138.8	1149.1	1161.4	1176.1	1206.0
25°	1229.5	1232.5	1206.0	1164.8	1148.6	1151.6	1155.0	1159.9	1171.7	1188.8	1229.0
27.5°	1282.5	1284.9	1250.1	1194.2	1169.7	1174.6	1179.5	1176.1	1181.5	1196.2	1247.7
30°	1357.0	1358.4	1314.3	1240.3	1205.5	1207.9	1208.9	1194.7	1184.4	1196.2	1260.9
32.5°	1445.2	1444.7	1392.3	1296.2	1246.2	1243.7	1235.4	1207.5	1183.4	1193.7	1272.7
35°	1582.0	1576.6	1508.9	1374.6	1292.3	1277.1	1257.5	1221.7	1188.3	1191.3	1282.9
37.5°	1808.5	1791.8	1698.2	1503.1	1360.9	1322.2	1293.2	1244.7	1199.1	1190.3	1295.2
40°	2063.9	2042.8	1939.9	1679.1	1463.8	1401.6	1355.0	1277.6	1216.8	1194.7	1313.3
42.5°	2366.9	2337.0	2226.2	1886.4	1594.2	1504.0	1433.9	1319.2	1242.7	1208.9	1337.9
45°	2738.9	2699.2	2542.4	2120.3	1758.5	1638.4	1544.7	1382.5	1282.5	1236.4	1374.6
47.5°	3115.0	3124.8	2901.7	2387.9	1955.6	1804.1	1683.5	1477.6	1340.3	1280.5	1433.9
50°	3514.5	3521.4	3259.1	2684.5	2179.1	1991.3	1839.4	1584.0	1420.7	1343.2	1522.7
52.5°	3826.3	3827.3	3583.6	2994.9	2412.0	2197.2	2007.5	1705.5	1513.8	1426.6	1640.8
55°	4021.4	4019.0	3811.1	3288.5	2679.6	2413.4	2193.8	1843.8	1627.6	1524.6	1789.4
57.5°	4163.1	4155.7	3968.0	3541.0	2964.9	2668.8	2404.6	2000.7	1761.9	1641.3	1985.0
60°	4217.0	4212.6	4074.4	3759.1	3265.0	2951.2	2647.8	2176.2	1914.4	1779.1	2236.5
62.5°	4237.6	4245.9	4178.8	3970.4	3586.1	3264.0	2914.9	2386.0	2086.0	1935.0	2501.7
65°	4310.2	4325.4	4311.6	4246.9	3948.9	3630.2	3269.4	2635.5	2273.2	2102.1	2778.7
67.5°	4453.8	4469.0	4474.9	4577.8	4392.0	4086.6	3711.6	2946.3	2492.4	2275.7	2987.0
70°	4450.4	4446.0	4549.9	4841.1	4947.0	4718.5	4307.7	3328.7	2753.7	2419.8	3013.5
72.5°	4050.8	4015.5	4261.1	4838.1	5408.8	5378.4	5035.7	3821.9	2979.2	2437.5	2614.9
75°	3039.0	2944.8	3378.7	4360.2	5485.7	5752.9	5498.5	4127.8	2925.7	2153.6	1819.8
77.5°	1299.6	1205.0	1716.3	3227.7	4909.7	5377.9	5073.9	3601.3	2335.5	1424.1	893.7
80°	340.2	339.7	518.7	1463.4	3339.0	3971.4	3484.1	2325.7	1334.4	508.9	246.6
82.5°	140.7	137.3	190.7	569.2	1631.5	2228.6	1818.8	1037.3	481.9	137.8	81.9
85°	52.5	52.0	92.7	196.6	575.5	919.2	665.3	265.2	120.1	67.2	36.8
87.5°	14.7	14.2	20.1	68.1	140.2	212.8	113.7	43.6	33.8	26.5	10.8
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°	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9	1056.9
2.5°	1060.4	1062.8	1067.2	1070.7	1075.1	1080.0	1086.9	1091.3	1095.7	1098.6	1096.7
5°	1064.8	1070.2	1081.5	1092.7	1106.0	1118.2	1132.4	1142.7	1151.1	1153.5	1154.5
7.5°	1074.6	1083.4	1102.5	1121.7	1142.7	1162.8	1183.4	1201.1	1215.3	1220.7	1221.2
10°	1091.8	1103.5	1130.5	1157.4	1185.4	1216.3	1242.7	1268.2	1288.3	1296.7	1297.2
12.5°	1113.3	1128.0	1163.3	1200.6	1239.3	1282.0	1316.3	1347.7	1372.7	1383.9	1383.9
15°	1141.3	1160.4	1205.5	1255.5	1312.4	1371.7	1415.3	1450.1	1478.1	1491.8	1490.8
17.5°	1171.7	1197.2	1254.0	1329.5	1410.9	1488.8	1539.8	1565.3	1594.2	1607.5	1607.0
20°	1201.1	1232.5	1313.8	1423.6	1532.0	1614.8	1656.0	1662.9	1664.8	1666.3	1670.2
22.5°	1231.5	1273.6	1388.8	1542.3	1658.5	1715.8	1721.7	1692.3	1651.1	1632.0	1637.4
25°	1264.8	1320.7	1486.9	1673.2	1767.3	1774.2	1729.1	1657.5	1579.5	1543.8	1549.1
27.5°	1297.2	1375.1	1604.5	1798.2	1845.7	1785.4	1688.4	1586.9	1492.8	1455.0	1459.4
30°	1329.5	1437.4	1734.5	1907.5	1881.5	1757.5	1624.2	1510.9	1416.3	1376.6	1381.0
32.5°	1362.4	1509.9	1884.0	1986.4	1875.2	1698.2	1544.2	1425.6	1342.3	1300.6	1306.0
35°	1399.6	1599.2	2025.7	2029.6	1832.5	1610.9	1438.8	1323.6	1251.1	1217.7	1225.1
37.5°	1448.2	1712.4	2150.7	2040.4	1758.0	1483.0	1308.0	1203.0	1143.2	1128.0	1138.8
40°	1508.5	1848.7	2246.3	2023.2	1647.7	1327.6	1164.8	1081.0	1047.1	1050.6	1062.3
42.5°	1586.9	2001.1	2313.4	1979.1	1494.2	1167.3	1039.3	1002.0	1018.2	1031.9	1044.7
45°	1688.9	2159.5	2355.1	1904.1	1320.7	1031.5	965.3	974.1	986.4	987.8	997.6
47.5°	1819.3	2319.8	2382.5	1790.8	1143.7	935.9	918.2	920.2	917.7	907.4	915.3
50°	1982.0	2475.7	2407.1	1640.8	993.2	876.1	852.5	845.7	811.8	778.5	782.9
52.5°	2167.3	2618.8	2417.4	1454.5	876.1	826.0	787.8	744.7	681.4	671.1	674.6
55°	2373.2	2751.2	2390.9	1225.6	777.5	761.8	704.0	652.0	645.2	636.3	637.8
57.5°	2619.3	2893.9	2337.0	970.2	676.5	686.8	630.4	636.3	624.1	610.3	607.9
60°	2888.5	3041.4	2242.3	737.3	572.1	593.2	611.3	610.8	607.4	596.1	592.2
62.5°	3130.6	3138.5	2056.1	564.8	480.4	520.6	570.1	569.7	566.7	560.3	557.9
65°	3274.8	3123.8	1745.2	444.6	404.9	460.8	514.3	518.2	518.7	518.2	518.2
67.5°	3249.3	2951.7	1318.7	354.0	342.7	400.0	458.9	464.3	468.2	469.2	470.1
70°	2961.0	2573.7	859.9	282.4	287.3	346.6	406.4	411.8	415.2	419.2	421.1
72.5°	2308.0	1892.3	492.2	228.5	238.7	300.5	354.4	360.8	362.8	370.1	373.1
75°	1406.5	1112.8	265.7	179.9	196.1	256.9	303.0	310.3	313.8	322.6	323.6
77.5°	668.7	481.9	151.5	140.2	157.9	209.8	255.9	264.2	254.9	259.8	255.9
80°	226.0	178.9	95.6	106.9	120.6	163.7	204.9	213.3	193.6	192.7	190.7
82.5°	78.9	72.6	60.8	71.1	77.9	117.2	154.9	165.7	144.1	143.6	136.8
85°	30.9	29.4	33.8	38.7	46.6	72.1	102.0	107.4	88.7	71.6	70.6
87.5°	6.4	6.9	8.3	8.8	14.2	25.0	36.8	45.1	35.8	30.4	27.9
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)