

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: P882464

Luminaire Tested: **NAV-SB2B-835-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882464
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-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 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: 9599 lumens
Efficiency: N/A
Efficacy: 129.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

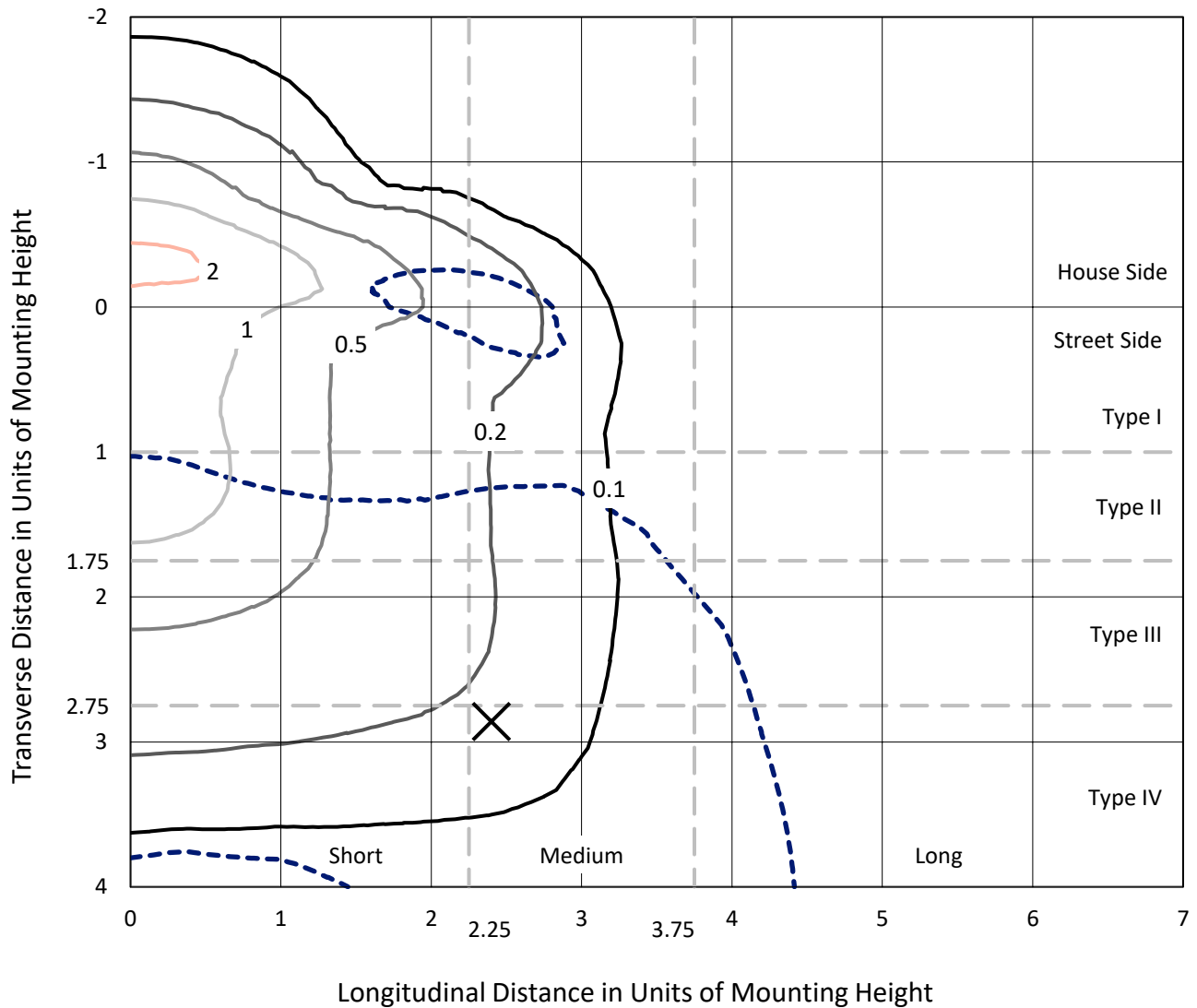
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

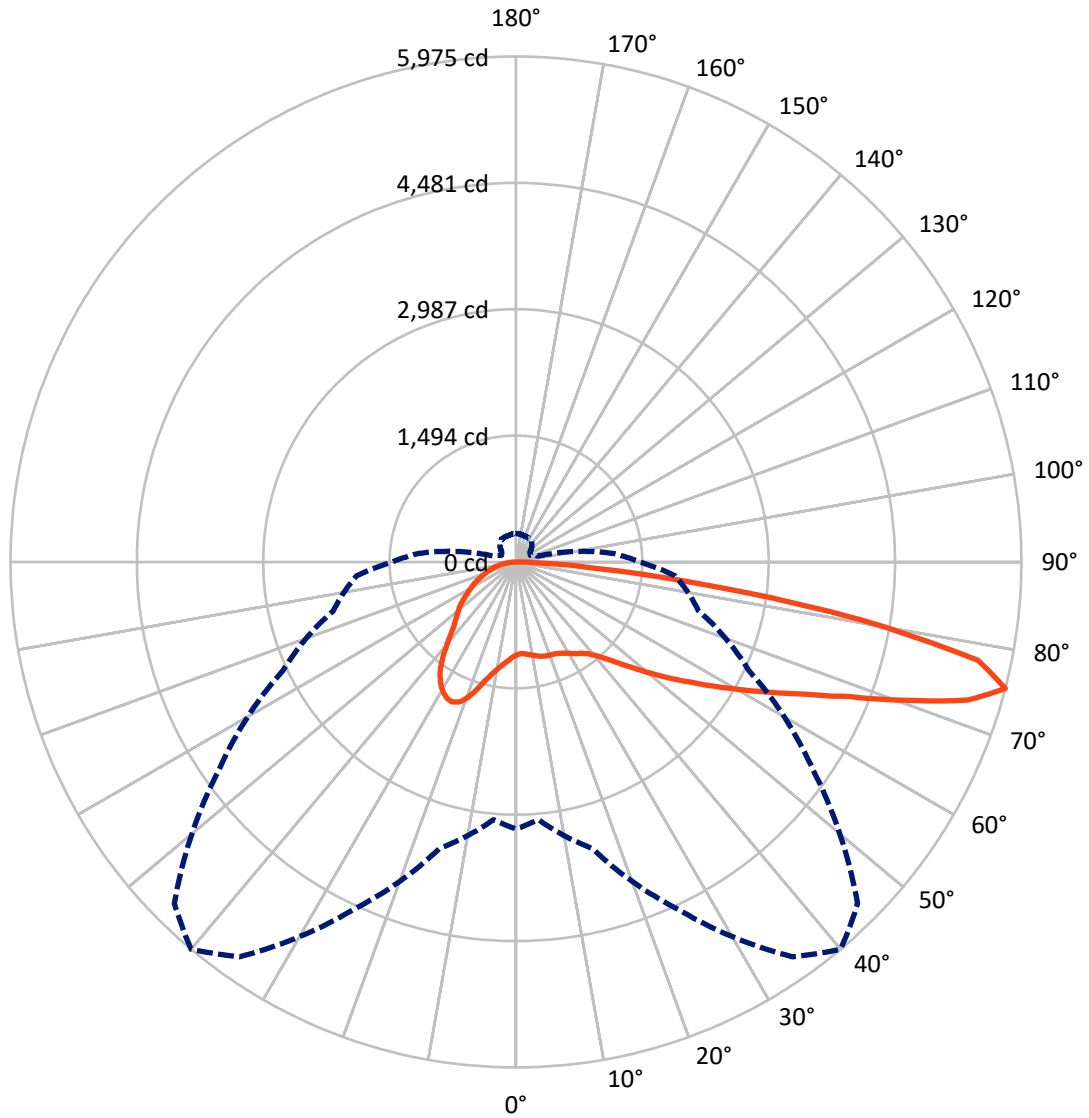
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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	2974.1	0.0	2974.1
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	6624.9	0.0	6624.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	9599.0	0.0	9599.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.6	1.1
10°-20°	367.9	3.8
20°-30°	671.7	7.0
30°-40°	952.7	9.9
40°-50°	1286.4	13.4
50°-60°	1730.5	18.0
60°-70°	2196.4	22.9
70°-80°	1993.4	20.8
80°-90°	290.6	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°	9599.0	100.0
0°-180°	9599.0	100.0

Coefficient of Utilization



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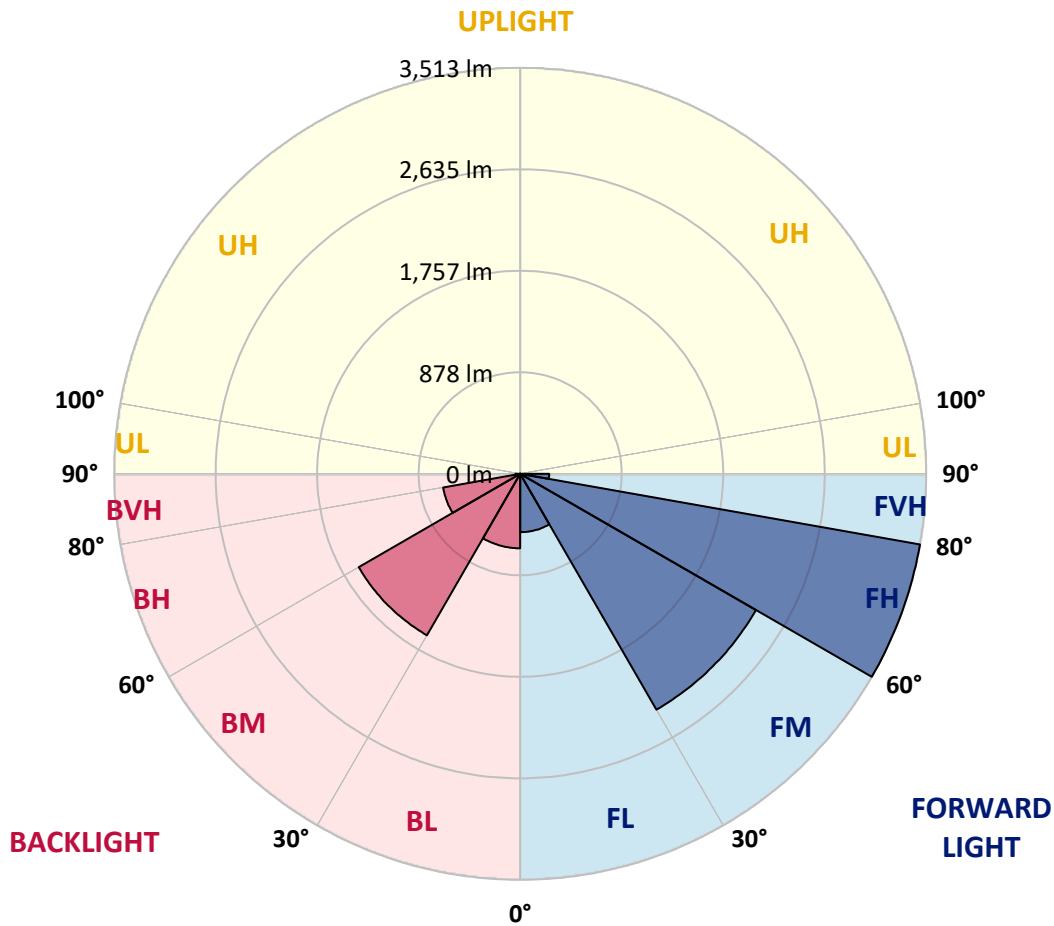
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	504.9	5.3			
FM (30°-60°)	2356.3	24.5			
FH (60°-80°)	3513.1	36.6			G2/5000
FVH (80°-90°)	250.6	2.6			G3/500
BL (0°-30°)	644.2	6.7	B2/1000		
BM (30°-60°)	1613.2	16.8	B2/2500		
BH (60°-80°)	676.7	7.0	B2/1000		G2/1000
BVH (80°-90°)	40.0	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°	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7
2.5°	1080.9	1087.0	1085.4	1083.4	1083.4	1083.4	1083.4	1087.0	1090.5	1094.1	1099.7
5°	1092.1	1098.2	1095.1	1092.6	1090.5	1090.5	1088.5	1088.0	1090.0	1094.6	1102.2
7.5°	1114.0	1120.1	1115.5	1110.9	1106.8	1104.8	1102.7	1099.7	1098.2	1100.7	1111.4
10°	1138.4	1144.5	1138.9	1130.8	1124.1	1121.6	1119.6	1116.5	1114.5	1116.0	1127.7
12.5°	1162.8	1168.9	1161.3	1150.1	1141.4	1139.9	1137.4	1136.4	1135.8	1135.3	1147.0
15°	1185.7	1190.8	1181.2	1167.9	1158.8	1156.2	1153.7	1155.2	1157.7	1160.8	1174.0
17.5°	1203.6	1208.6	1194.4	1177.1	1168.4	1167.4	1165.9	1171.0	1178.1	1185.7	1202.0
20°	1219.8	1224.9	1206.6	1183.2	1173.0	1173.0	1173.5	1184.2	1194.4	1205.6	1228.0
22.5°	1242.8	1246.8	1224.4	1192.4	1177.6	1178.6	1182.7	1193.4	1206.1	1221.4	1252.4
25°	1276.9	1279.9	1252.4	1209.7	1192.9	1195.9	1199.5	1204.6	1216.8	1234.6	1276.4
27.5°	1331.9	1334.4	1298.3	1240.2	1214.8	1219.8	1224.9	1221.4	1227.0	1242.2	1295.7
30°	1409.2	1410.8	1364.9	1288.1	1251.9	1254.5	1255.5	1240.7	1230.0	1242.2	1309.5
32.5°	1500.9	1500.4	1445.9	1346.1	1294.2	1291.6	1283.0	1254.0	1229.0	1239.7	1321.7
35°	1642.9	1637.3	1567.1	1427.6	1342.0	1326.3	1305.9	1268.7	1234.1	1237.2	1332.4
37.5°	1878.1	1860.8	1763.6	1561.0	1413.3	1373.1	1343.1	1292.7	1245.3	1236.1	1345.1
40°	2143.4	2121.5	2014.6	1743.7	1520.2	1455.6	1407.2	1326.8	1263.6	1240.7	1363.9
42.5°	2458.0	2427.0	2311.9	1959.1	1655.7	1562.0	1489.2	1370.0	1290.6	1255.5	1389.4
45°	2844.4	2803.2	2640.3	2201.9	1826.2	1701.5	1604.2	1435.7	1331.9	1284.0	1427.6
47.5°	3234.9	3245.1	3013.5	2479.9	2030.9	1873.6	1748.3	1534.5	1391.9	1329.8	1489.2
50°	3649.9	3657.0	3384.6	2787.9	2263.0	2068.0	1910.2	1645.0	1475.4	1395.0	1581.3
52.5°	3973.7	3974.7	3721.7	3110.2	2504.9	2281.9	2084.8	1771.2	1572.2	1481.5	1704.0
55°	4176.3	4173.7	3957.9	3415.2	2782.8	2506.4	2278.3	1914.8	1690.3	1583.4	1858.3
57.5°	4323.4	4315.8	4120.8	3677.4	3079.1	2771.6	2497.2	2077.7	1829.8	1704.5	2061.4
60°	4379.4	4374.9	4231.3	3903.9	3390.7	3064.9	2749.7	2260.0	1988.1	1847.6	2322.6
62.5°	4400.8	4409.5	4339.7	4123.3	3724.2	3389.7	3027.2	2477.9	2166.3	2009.5	2598.0
65°	4476.2	4491.9	4477.7	4410.5	4100.9	3770.0	3395.3	2737.0	2360.8	2183.1	2885.7
67.5°	4625.3	4641.1	4647.2	4754.1	4561.2	4244.0	3854.5	3059.8	2588.4	2363.3	3102.1
70°	4621.8	4617.2	4725.1	5027.5	5137.5	4900.3	4473.6	3456.9	2859.7	2513.0	3129.5
72.5°	4206.8	4170.2	4425.3	5024.5	5617.1	5585.5	5229.7	3969.1	3093.9	2531.3	2715.6
75°	3156.0	3058.3	3508.8	4528.1	5697.0	5974.5	5710.3	4286.8	3038.4	2236.6	1889.8
77.5°	1349.7	1251.4	1782.4	3352.0	5098.8	5585.0	5269.4	3740.0	2425.4	1479.0	928.1
80°	353.3	352.8	538.6	1519.7	3467.6	4124.4	3618.3	2415.3	1385.8	528.5	256.1
82.5°	146.1	142.6	198.0	591.1	1694.3	2314.5	1888.8	1077.3	500.5	143.1	85.0
85°	54.5	54.0	96.2	204.2	597.7	954.6	690.9	275.4	124.7	69.7	38.2
87.5°	15.3	14.8	20.9	70.8	145.6	221.0	118.1	45.3	35.1	27.5	11.2
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°	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7	1097.7
2.5°	1101.2	1103.8	1108.3	1111.9	1116.5	1121.6	1128.7	1133.3	1137.9	1140.9	1138.9
5°	1105.8	1111.4	1123.1	1134.8	1148.6	1161.3	1176.1	1186.8	1195.4	1198.0	1199.0
7.5°	1116.0	1125.2	1145.0	1164.9	1186.8	1207.6	1229.0	1247.3	1262.1	1267.7	1268.2
10°	1133.8	1146.0	1174.0	1202.0	1231.0	1263.1	1290.6	1317.1	1338.0	1346.6	1347.1
12.5°	1156.2	1171.5	1208.1	1246.8	1287.1	1331.3	1367.0	1399.6	1425.5	1437.2	1437.2
15°	1185.2	1205.1	1251.9	1303.9	1362.9	1424.5	1469.8	1506.0	1535.0	1549.2	1548.2
17.5°	1216.8	1243.3	1302.3	1380.7	1465.2	1546.2	1599.1	1625.6	1655.7	1669.4	1668.9
20°	1247.3	1279.9	1364.4	1478.5	1591.0	1677.0	1719.8	1726.9	1729.0	1730.5	1734.6
22.5°	1278.9	1322.7	1442.3	1601.7	1722.3	1781.9	1788.0	1757.5	1714.7	1694.9	1700.5
25°	1313.5	1371.6	1544.2	1737.6	1835.4	1842.5	1795.7	1721.3	1640.4	1603.2	1608.8
27.5°	1347.1	1428.1	1666.3	1867.4	1916.8	1854.2	1753.4	1648.0	1550.3	1511.1	1515.6
30°	1380.7	1492.7	1801.3	1981.0	1954.0	1825.2	1686.7	1569.1	1470.8	1429.6	1434.2
32.5°	1414.8	1568.1	1956.5	2062.9	1947.4	1763.6	1603.7	1480.5	1394.0	1350.7	1356.3
35°	1453.5	1660.7	2103.7	2107.7	1903.1	1673.0	1494.3	1374.6	1299.3	1264.6	1272.3
37.5°	1503.9	1778.3	2233.5	2118.9	1825.7	1540.1	1358.3	1249.4	1187.3	1171.5	1182.7
40°	1566.6	1919.9	2332.8	2101.1	1711.1	1378.7	1209.7	1122.6	1087.5	1091.0	1103.3
42.5°	1648.0	2078.2	2402.5	2055.3	1551.8	1212.2	1079.3	1040.6	1057.4	1071.7	1084.9
45°	1753.9	2242.7	2445.8	1977.4	1371.6	1071.2	1002.5	1011.6	1024.3	1025.9	1036.1
47.5°	1889.3	2409.1	2474.3	1859.8	1187.8	971.9	953.6	955.6	953.1	942.4	950.5
50°	2058.4	2571.0	2499.8	1704.0	1031.5	909.8	885.4	878.2	843.1	808.5	813.1
52.5°	2250.8	2719.7	2510.5	1510.6	909.8	857.9	818.2	773.4	707.7	697.0	700.5
55°	2464.6	2857.2	2483.0	1272.8	807.5	791.2	731.1	677.1	670.0	660.8	662.4
57.5°	2720.2	3005.3	2427.0	1007.5	702.6	713.3	654.7	660.8	648.1	633.9	631.3
60°	2999.7	3158.6	2328.7	765.7	594.1	616.0	634.9	634.4	630.8	619.1	615.0
62.5°	3251.2	3259.4	2135.2	586.5	498.9	540.7	592.1	591.6	588.5	581.9	579.4
65°	3400.9	3244.1	1812.5	461.8	420.5	478.6	534.1	538.1	538.6	538.1	538.1
67.5°	3374.4	3065.4	1369.5	367.6	355.9	415.4	476.5	482.1	486.2	487.2	488.2
70°	3075.1	2672.9	893.0	293.3	298.3	359.9	422.1	427.7	431.2	435.3	437.3
72.5°	2396.9	1965.2	511.2	237.2	247.9	312.1	368.1	374.7	376.7	384.4	387.4
75°	1460.7	1155.7	275.9	186.8	203.6	266.8	314.6	322.3	325.8	335.0	336.0
77.5°	694.4	500.5	157.3	145.6	163.9	217.9	265.8	274.4	264.7	269.8	265.8
80°	234.7	185.8	99.3	111.0	125.2	170.0	212.8	221.5	201.1	200.1	198.0
82.5°	82.0	75.3	63.1	73.8	80.9	121.7	160.9	172.1	149.7	149.2	142.0
85°	32.1	30.5	35.1	40.2	48.4	74.8	105.9	111.5	92.2	74.3	73.3
87.5°	6.6	7.1	8.7	9.2	14.8	26.0	38.2	46.8	37.2	31.6	29.0
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)