

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: P882954

Luminaire Tested: **NAV-SB3A-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882954
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-SB3A-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 350mA 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: 10837 lumens
Efficiency: N/A
Efficacy: 127.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

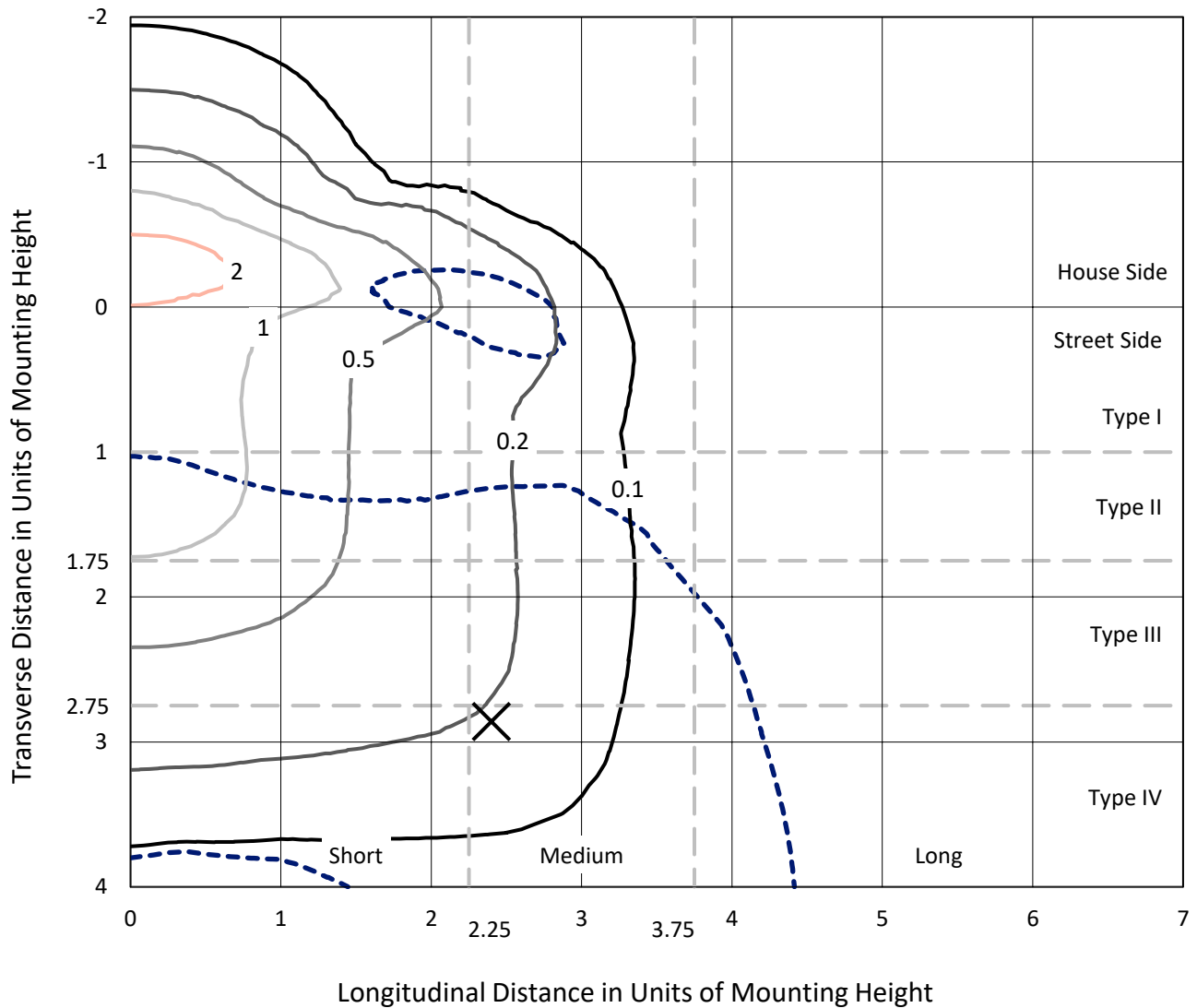
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

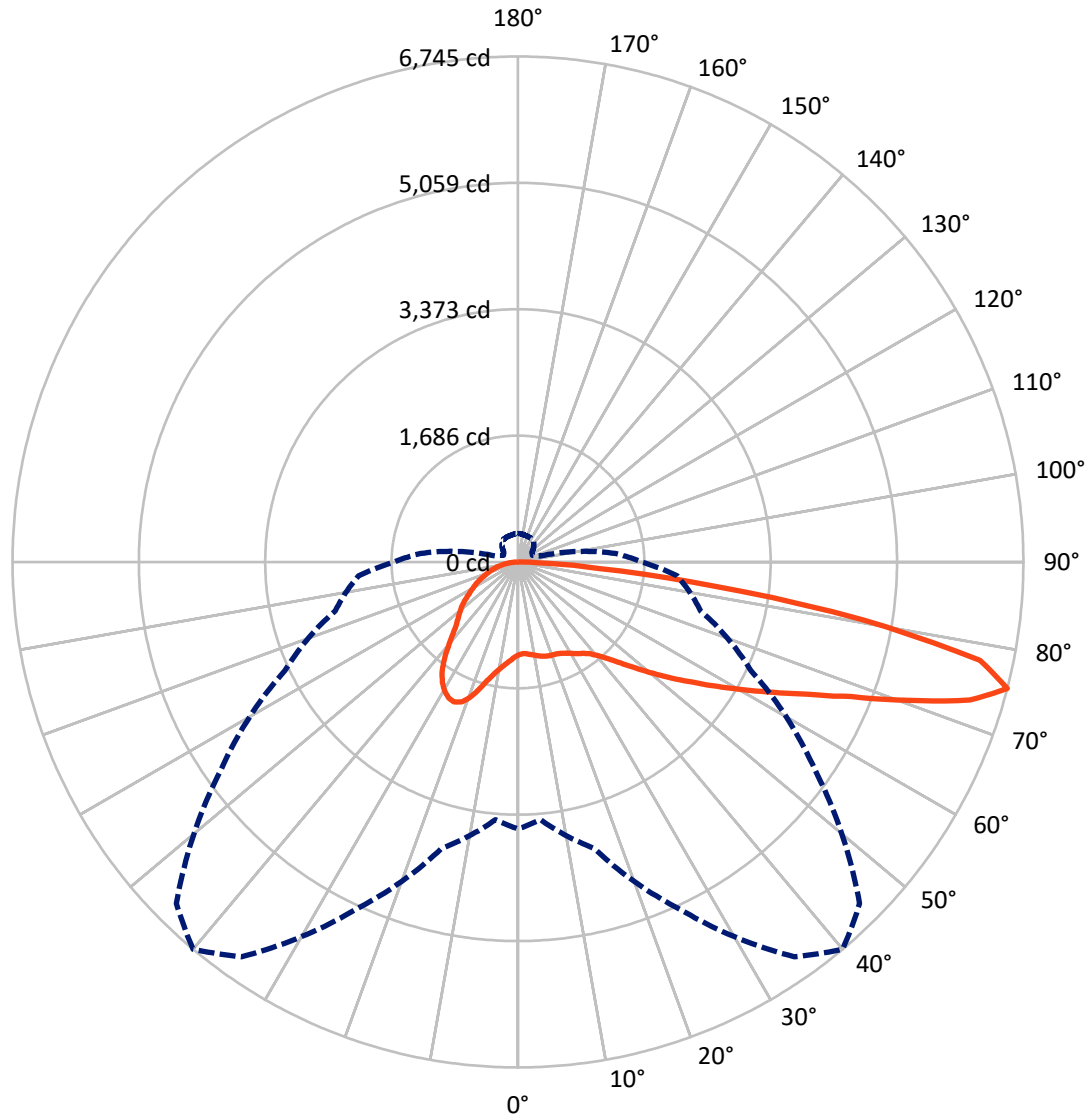
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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	3357.7	0.0	3357.7
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	7479.3	0.0	7479.3
	% Fixture	69.0	0.0	69.0
Total	Lumens	10837.0	0.0	10837.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	1.1
10°-20°	415.3	3.8
20°-30°	758.3	7.0
30°-40°	1075.5	9.9
40°-50°	1452.3	13.4
50°-60°	1953.7	18.0
60°-70°	2479.7	22.9
70°-80°	2250.5	20.8
80°-90°	328.0	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°	10837.0	100.0
0°-180°	10837.0	100.0

Coefficient of Utilization



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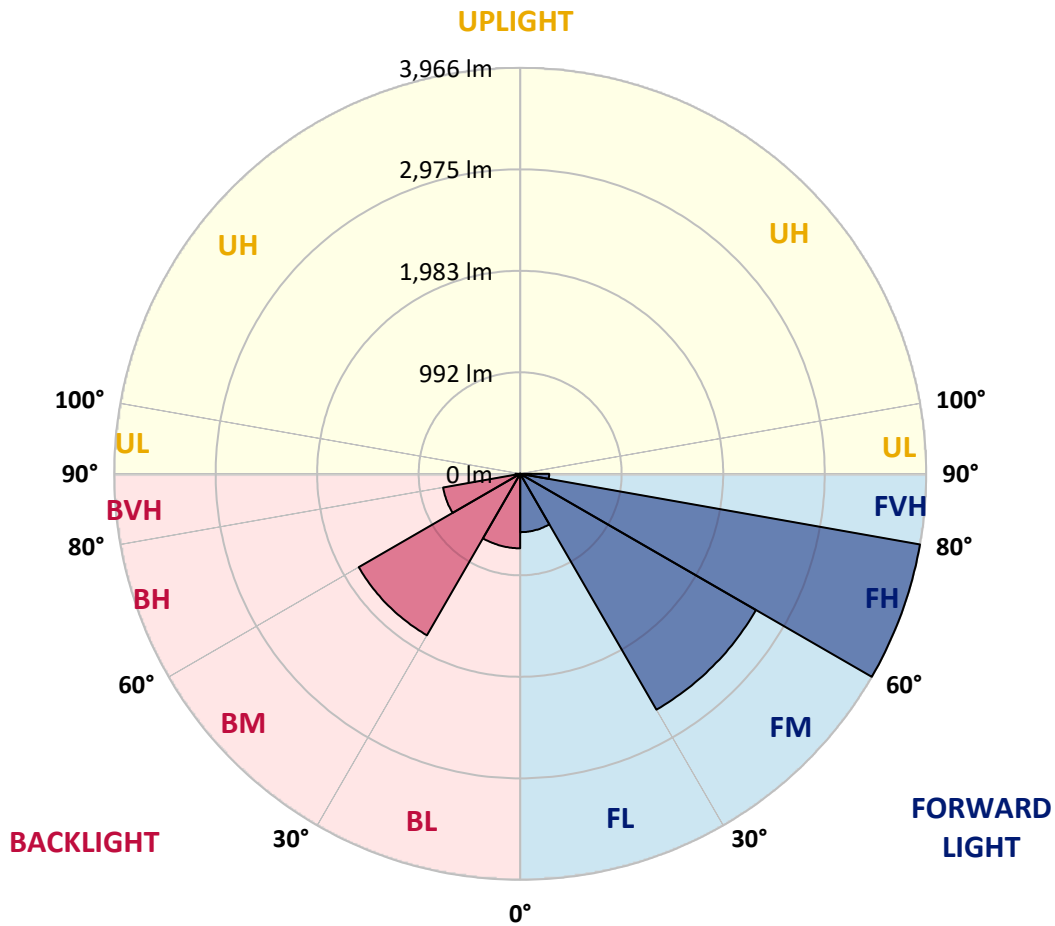
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	570.0	5.3			
FM (30°-60°)	2660.2	24.5			
FH (60°-80°)	3966.2	36.6			G2/5000
FVH (80°-90°)	282.9	2.6			G3/500
BL (0°-30°)	727.3	6.7	B2/1000		
BM (30°-60°)	1821.2	16.8	B2/2500		
BH (60°-80°)	764.0	7.0	B2/1000		G2/1000
BVH (80°-90°)	45.2	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°	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2
2.5°	1220.3	1227.2	1225.4	1223.1	1223.1	1223.7	1223.1	1227.2	1231.2	1235.2	1241.5
5°	1232.9	1239.8	1236.4	1233.5	1231.2	1230.6	1228.9	1228.3	1230.6	1235.8	1244.4
7.5°	1257.6	1264.5	1259.3	1254.2	1249.6	1247.3	1245.0	1241.5	1239.8	1242.7	1254.7
10°	1285.2	1292.1	1285.8	1276.6	1269.1	1266.2	1263.9	1260.5	1258.2	1259.9	1273.1
12.5°	1312.8	1319.7	1311.1	1298.4	1288.7	1286.9	1284.1	1282.9	1282.3	1281.8	1295.0
15°	1338.7	1344.4	1333.5	1318.5	1308.2	1305.3	1302.5	1304.2	1307.0	1310.5	1325.4
17.5°	1358.8	1364.5	1348.4	1328.9	1319.1	1318.0	1316.2	1322.0	1330.0	1338.7	1357.1
20°	1377.2	1382.9	1362.2	1335.8	1324.3	1324.3	1324.9	1336.9	1348.4	1361.1	1386.4
22.5°	1403.0	1407.6	1382.3	1346.1	1329.5	1330.6	1335.2	1347.3	1361.7	1378.9	1414.0
25°	1441.5	1445.0	1414.0	1365.7	1346.7	1350.2	1354.2	1359.9	1373.7	1393.8	1441.0
27.5°	1503.6	1506.5	1465.7	1400.2	1371.4	1377.2	1382.9	1378.9	1385.2	1402.5	1462.8
30°	1591.0	1592.7	1541.0	1454.2	1413.4	1416.3	1417.4	1400.7	1388.7	1402.5	1478.3
32.5°	1694.5	1693.9	1632.4	1519.7	1461.1	1458.2	1448.4	1415.7	1387.5	1399.6	1492.1
35°	1854.8	1848.5	1769.2	1611.7	1515.1	1497.3	1474.3	1432.4	1393.3	1396.7	1504.2
37.5°	2120.4	2100.8	1991.0	1762.3	1595.6	1550.2	1516.3	1459.4	1405.9	1395.6	1518.6
40°	2419.8	2395.1	2274.4	1968.6	1716.3	1643.3	1588.7	1497.9	1426.6	1400.7	1539.8
42.5°	2775.0	2740.0	2610.1	2211.8	1869.2	1763.4	1681.2	1546.7	1457.1	1417.4	1568.6
45°	3211.3	3164.7	2980.8	2485.9	2061.7	1920.9	1811.1	1620.9	1503.6	1449.6	1611.7
47.5°	3652.2	3663.6	3402.1	2799.8	2292.8	2115.2	1973.8	1732.4	1571.4	1501.3	1681.2
50°	4120.6	4128.6	3821.1	3147.5	2554.9	2334.8	2156.6	1857.1	1665.7	1574.9	1785.3
52.5°	4486.2	4487.3	4201.6	3511.3	2827.9	2576.2	2353.7	1999.7	1774.9	1672.6	1923.8
55°	4714.9	4712.0	4468.3	3855.6	3141.7	2829.6	2572.1	2161.7	1908.3	1787.6	2097.9
57.5°	4881.0	4872.4	4652.3	4151.6	3476.3	3129.1	2819.3	2345.7	2065.8	1924.4	2327.3
60°	4944.3	4939.1	4777.0	4407.4	3828.0	3460.2	3104.4	2551.4	2244.5	2085.9	2622.1
62.5°	4968.4	4978.2	4899.4	4655.1	4204.5	3826.9	3417.6	2797.5	2445.7	2268.7	2933.1
65°	5053.5	5071.3	5055.2	4979.3	4629.9	4256.2	3833.2	3090.0	2665.3	2464.7	3257.9
67.5°	5221.9	5239.7	5246.6	5367.3	5149.5	4791.4	4351.7	3454.4	2922.2	2668.1	3502.1
70°	5217.9	5212.7	5334.5	5676.0	5800.1	5532.3	5050.6	3902.8	3228.5	2837.1	3533.2
72.5°	4749.4	4708.0	4996.0	5672.5	6341.5	6305.9	5904.1	4481.0	3492.9	2857.8	3065.9
75°	3563.1	3452.7	3961.4	5112.1	6431.8	6745.0	6446.7	4839.6	3430.3	2525.0	2133.6
77.5°	1523.7	1412.8	2012.3	3784.4	5756.4	6305.3	5949.0	4222.3	2738.3	1669.7	1047.8
80°	398.9	398.3	608.1	1715.7	3914.8	4656.3	4085.0	2726.8	1564.6	596.6	289.1
82.5°	165.0	160.9	223.6	667.3	1912.9	2612.9	2132.4	1216.2	565.0	161.5	96.0
85°	61.5	60.9	108.6	230.5	674.8	1077.7	780.0	311.0	140.8	78.7	43.1
87.5°	17.2	16.7	23.6	79.9	164.4	249.5	133.3	51.2	39.7	31.0	12.6
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°	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2	1239.2
2.5°	1243.2	1246.1	1251.3	1255.3	1260.5	1266.2	1274.3	1279.5	1284.6	1288.1	1285.8
5°	1248.4	1254.7	1268.0	1281.2	1296.7	1311.1	1327.7	1339.8	1349.6	1352.5	1353.6
7.5°	1259.9	1270.3	1292.7	1315.1	1339.8	1363.4	1387.5	1408.2	1424.9	1431.2	1431.8
10°	1280.0	1293.8	1325.4	1357.1	1389.8	1426.0	1457.1	1487.0	1510.5	1520.3	1520.9
12.5°	1305.3	1322.6	1364.0	1407.6	1453.0	1503.0	1543.3	1580.1	1609.4	1622.6	1622.6
15°	1338.1	1360.5	1413.4	1472.0	1538.7	1608.2	1659.4	1700.2	1733.0	1749.1	1747.9
17.5°	1373.7	1403.6	1470.3	1558.8	1654.2	1745.6	1805.4	1835.3	1869.2	1884.7	1884.1
20°	1408.2	1445.0	1540.4	1669.2	1796.2	1893.3	1941.6	1949.7	1952.0	1953.7	1958.3
22.5°	1443.8	1493.3	1628.4	1808.3	1944.5	2011.7	2018.6	1984.1	1935.9	1913.4	1919.8
25°	1482.9	1548.5	1743.3	1961.7	2072.1	2080.1	2027.2	1943.3	1851.9	1810.0	1816.3
27.5°	1520.9	1612.3	1881.3	2108.3	2164.0	2093.3	1979.5	1860.6	1750.2	1705.9	1711.1
30°	1558.8	1685.3	2033.6	2236.5	2206.0	2060.6	1904.2	1771.5	1660.5	1614.0	1619.2
32.5°	1597.3	1770.3	2208.9	2329.0	2198.5	1991.0	1810.6	1671.5	1573.7	1524.9	1531.2
35°	1641.0	1874.9	2375.0	2379.6	2148.5	1888.7	1687.0	1551.9	1466.8	1427.8	1436.4
37.5°	1697.9	2007.7	2521.6	2392.2	2061.2	1738.7	1533.5	1410.5	1340.4	1322.6	1335.2
40°	1768.6	2167.5	2633.6	2372.1	1931.8	1556.5	1365.7	1267.4	1227.7	1231.8	1245.5
42.5°	1860.6	2346.3	2712.4	2320.4	1751.9	1368.6	1218.5	1174.9	1193.8	1209.9	1224.9
45°	1980.1	2531.9	2761.2	2232.4	1548.5	1209.3	1131.7	1142.1	1156.5	1158.2	1169.7
47.5°	2133.0	2719.9	2793.4	2099.7	1341.0	1097.3	1076.6	1078.9	1076.0	1063.9	1073.1
50°	2323.8	2902.6	2822.2	1923.8	1164.5	1027.1	999.5	991.5	951.8	912.8	917.9
52.5°	2541.1	3070.5	2834.2	1705.4	1027.1	968.5	923.7	873.1	798.9	786.9	790.9
55°	2782.5	3225.7	2803.2	1436.9	911.6	893.2	825.4	764.5	756.4	746.1	747.8
57.5°	3071.0	3392.9	2740.0	1137.5	793.2	805.3	739.2	746.1	731.7	715.6	712.7
60°	3386.6	3565.9	2629.0	864.5	670.8	695.5	716.8	716.2	712.2	698.9	694.3
62.5°	3670.5	3679.7	2410.6	662.1	563.3	610.4	668.5	667.9	664.4	657.0	654.1
65°	3839.5	3662.5	2046.2	521.3	474.8	540.3	602.9	607.5	608.1	607.5	607.5
67.5°	3809.6	3460.7	1546.2	415.0	401.8	469.0	538.0	544.3	548.9	550.1	551.2
70°	3471.7	3017.6	1008.2	331.1	336.8	406.4	476.5	482.8	486.8	491.4	493.7
72.5°	2706.1	2218.7	577.1	267.8	279.9	352.3	415.6	423.0	425.3	434.0	437.4
75°	1649.0	1304.8	311.5	210.9	229.9	301.2	355.2	363.8	367.9	378.2	379.4
77.5°	784.0	565.0	177.6	164.4	185.1	246.0	300.0	309.8	298.9	304.6	300.0
80°	265.0	209.8	112.1	125.3	141.4	192.0	240.3	250.0	227.0	225.9	223.6
82.5°	92.5	85.1	71.3	83.3	91.4	137.4	181.6	194.3	169.0	168.4	160.4
85°	36.2	34.5	39.7	45.4	54.6	84.5	119.6	125.9	104.0	83.9	82.8
87.5°	7.5	8.0	9.8	10.3	16.7	29.3	43.1	52.9	42.0	35.6	32.8
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)