

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: P882404

Luminaire Tested: **NAV-SB2B-735-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882404
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-735-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 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: 11376 lumens
Efficiency: N/A
Efficacy: 153.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

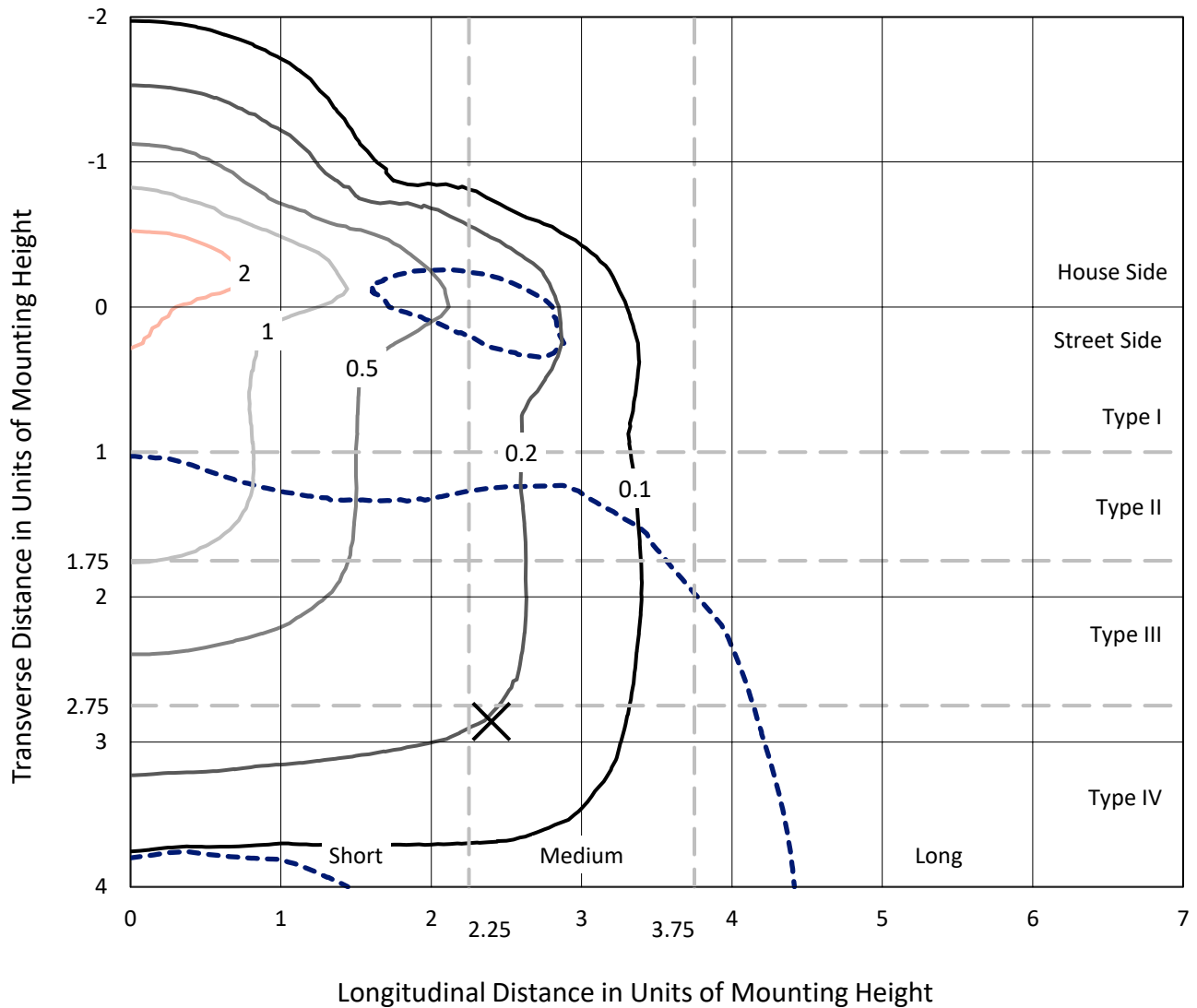
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

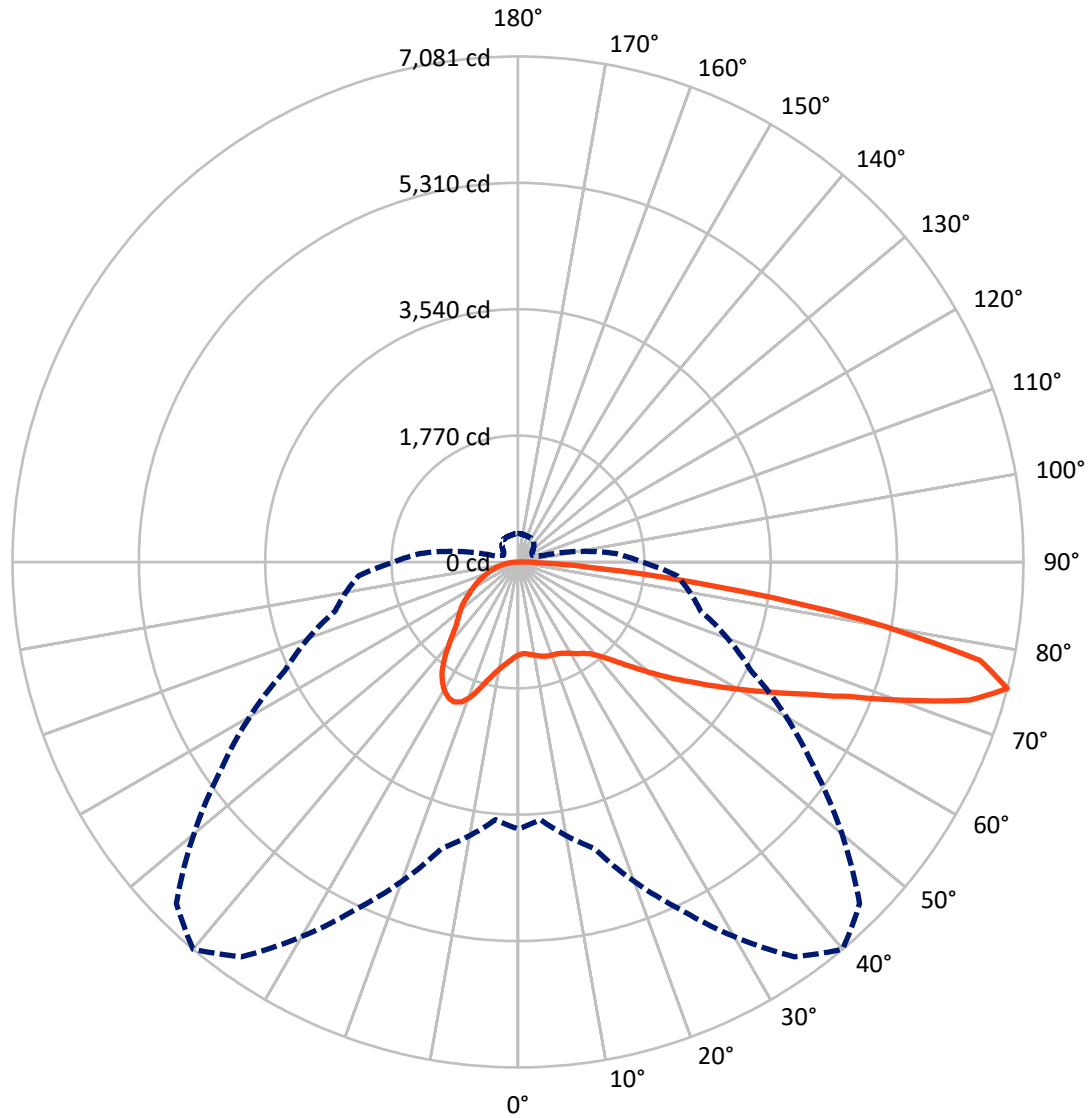
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 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	3524.7	0.0	3524.7
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	7851.3	0.0	7851.3
	% Fixture	69.0	0.0	69.0
Total	Lumens	11376.0	0.0	11376.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.9	1.1
10°-20°	436.0	3.8
20°-30°	796.0	7.0
30°-40°	1129.0	9.9
40°-50°	1524.5	13.4
50°-60°	2050.9	18.0
60°-70°	2603.0	22.9
70°-80°	2362.4	20.8
80°-90°	344.4	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°	11376.0	100.0
0°-180°	11376.0	100.0

Coefficient of Utilization



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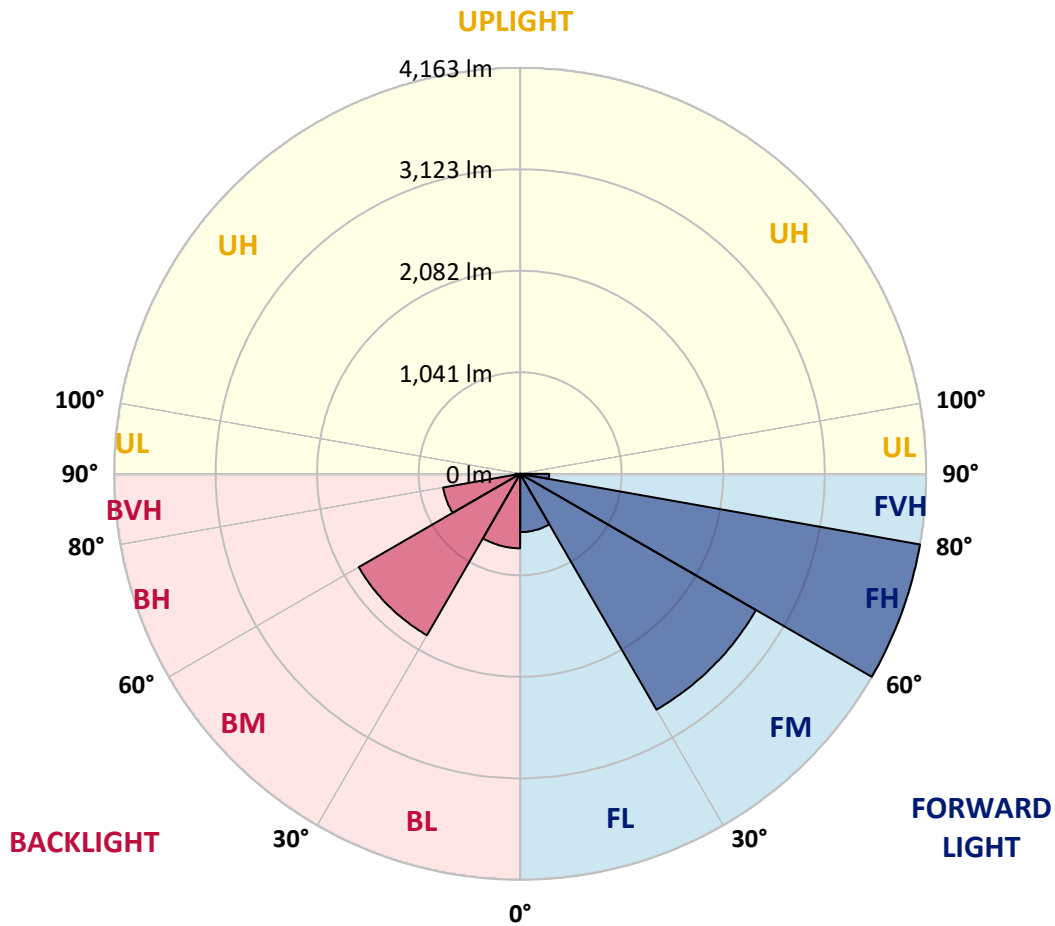
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	598.4	5.3			
FM (30°-60°)	2792.6	24.5			
FH (60°-80°)	4163.4	36.6			G2/5000
FVH (80°-90°)	297.0	2.6			G3/500
BL (0°-30°)	763.5	6.7	B2/1000		
BM (30°-60°)	1911.8	16.8	B2/2500		
BH (60°-80°)	802.0	7.0	B2/1000		G2/1000
BVH (80°-90°)	47.4	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°	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9
2.5°	1280.9	1288.2	1286.4	1284.0	1284.0	1284.6	1284.0	1288.2	1292.4	1296.6	1303.3
5°	1294.2	1301.5	1297.8	1294.8	1292.4	1291.8	1290.0	1289.4	1291.8	1297.2	1306.3
7.5°	1320.2	1327.4	1322.0	1316.5	1311.7	1309.3	1306.9	1303.3	1301.5	1304.5	1317.2
10°	1349.1	1356.4	1349.7	1340.1	1332.2	1329.2	1326.8	1323.2	1320.8	1322.6	1336.5
12.5°	1378.1	1385.3	1376.3	1363.0	1352.8	1350.9	1347.9	1346.7	1346.1	1345.5	1359.4
15°	1405.2	1411.3	1399.8	1384.1	1373.3	1370.2	1367.2	1369.0	1372.1	1375.7	1391.4
17.5°	1426.4	1432.4	1415.5	1395.0	1384.7	1383.5	1381.7	1387.7	1396.2	1405.2	1424.6
20°	1445.7	1451.7	1430.0	1402.2	1390.2	1390.2	1390.8	1403.4	1415.5	1428.8	1455.3
22.5°	1472.8	1477.6	1451.1	1413.1	1395.6	1396.8	1401.6	1414.3	1429.4	1447.5	1484.3
25°	1513.2	1516.9	1484.3	1433.6	1413.7	1417.3	1421.5	1427.6	1442.0	1463.2	1512.6
27.5°	1578.4	1581.4	1538.6	1469.8	1439.6	1445.7	1451.7	1447.5	1454.1	1472.2	1535.6
30°	1670.1	1671.9	1617.6	1526.5	1483.7	1486.7	1487.9	1470.4	1457.7	1472.2	1551.9
32.5°	1778.7	1778.1	1713.6	1595.3	1533.8	1530.7	1520.5	1486.1	1456.5	1469.2	1566.3
35°	1947.1	1940.4	1857.2	1691.8	1590.5	1571.8	1547.6	1503.6	1462.6	1466.2	1579.0
37.5°	2225.8	2205.3	2090.1	1849.9	1674.9	1627.3	1591.7	1532.0	1475.8	1465.0	1594.1
40°	2540.2	2514.2	2387.5	2066.5	1801.7	1725.0	1667.7	1572.4	1497.6	1470.4	1616.4
42.5°	2913.1	2876.3	2739.9	2321.8	1962.2	1851.1	1764.9	1623.7	1529.5	1487.9	1646.6
45°	3371.0	3322.1	3129.1	2609.6	2164.3	2016.5	1901.2	1701.5	1578.4	1521.7	1691.8
47.5°	3833.8	3845.9	3571.3	2939.0	2406.8	2220.4	2072.0	1818.6	1649.6	1576.0	1764.9
50°	4325.5	4334.0	4011.2	3304.0	2682.0	2450.9	2263.8	1949.5	1748.6	1653.2	1874.1
52.5°	4709.3	4710.5	4410.6	3686.0	2968.6	2704.3	2470.8	2099.1	1863.2	1755.8	2019.5
55°	4949.4	4946.4	4690.6	4047.4	3298.0	2970.4	2700.1	2269.3	2003.2	1876.5	2202.3
57.5°	5123.8	5114.7	4883.7	4358.1	3649.2	3284.7	2959.5	2462.3	2168.5	2020.1	2443.0
60°	5190.2	5184.7	5014.6	4626.6	4018.4	3632.3	3258.8	2678.3	2356.2	2189.6	2752.6
62.5°	5215.5	5225.8	5143.1	4886.7	4413.6	4017.2	3587.6	2936.6	2567.3	2381.5	3079.0
65°	5304.8	5323.5	5306.6	5227.0	4860.1	4467.9	4023.9	3243.7	2797.8	2587.2	3419.9
67.5°	5481.6	5500.3	5507.5	5634.2	5405.6	5029.7	4568.1	3626.2	3067.5	2800.8	3676.3
70°	5477.4	5471.9	5599.9	5958.3	6088.6	5807.4	5301.8	4096.9	3389.1	2978.2	3708.9
72.5°	4985.6	4942.2	5244.5	5954.6	6657.0	6619.5	6197.8	4703.9	3666.7	2999.9	3218.4
75°	3740.3	3624.4	4158.4	5366.4	6751.7	7080.5	6767.4	5080.4	3600.9	2650.6	2239.7
77.5°	1599.5	1483.1	2112.4	3972.6	6042.7	6618.9	6244.9	4432.3	2874.4	1752.8	1099.9
80°	418.7	418.1	638.4	1801.1	4109.5	4887.9	4288.1	2862.4	1642.4	626.3	303.5
82.5°	173.2	168.9	234.7	700.5	2008.0	2742.9	2238.5	1276.7	593.1	169.5	100.8
85°	64.6	64.0	114.0	242.0	708.4	1131.3	818.8	326.4	147.8	82.7	45.3
87.5°	18.1	17.5	24.7	83.9	172.6	261.9	140.0	53.7	41.6	32.6	13.3
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°	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9	1300.9
2.5°	1305.1	1308.1	1313.5	1317.8	1323.2	1329.2	1337.7	1343.1	1348.5	1352.1	1349.7
5°	1310.5	1317.2	1331.0	1344.9	1361.2	1376.3	1393.8	1406.5	1416.7	1419.7	1420.9
7.5°	1322.6	1333.4	1357.0	1380.5	1406.5	1431.2	1456.5	1478.3	1495.7	1502.4	1503.0
10°	1343.7	1358.2	1391.4	1424.6	1458.9	1497.0	1529.5	1560.9	1585.7	1595.9	1596.5
12.5°	1370.2	1388.3	1431.8	1477.6	1525.3	1577.8	1620.0	1658.7	1689.4	1703.3	1703.3
15°	1404.6	1428.2	1483.7	1545.2	1615.2	1688.2	1741.9	1784.8	1819.2	1836.0	1834.8
17.5°	1442.0	1473.4	1543.4	1636.3	1736.5	1832.4	1895.2	1926.6	1962.2	1978.4	1977.8
20°	1478.3	1516.9	1617.0	1752.2	1885.5	1987.5	2038.2	2046.6	2049.0	2050.8	2055.7
22.5°	1515.7	1567.5	1709.3	1898.2	2041.2	2111.8	2119.0	2082.8	2032.1	2008.6	2015.2
25°	1556.7	1625.5	1830.0	2059.3	2175.1	2183.6	2128.1	2040.0	1944.1	1900.0	1906.6
27.5°	1596.5	1692.4	1974.8	2213.2	2271.7	2197.5	2078.0	1953.1	1837.3	1790.8	1796.2
30°	1636.3	1769.1	2134.7	2347.7	2315.7	2163.1	1999.0	1859.6	1743.1	1694.3	1699.7
32.5°	1676.8	1858.4	2318.7	2444.8	2307.9	2090.1	1900.6	1754.6	1652.0	1600.7	1607.4
35°	1722.6	1968.2	2493.1	2497.9	2255.4	1982.7	1770.9	1629.1	1539.8	1498.8	1507.8
37.5°	1782.3	2107.6	2647.0	2511.2	2163.7	1825.2	1609.8	1480.7	1407.1	1388.3	1401.6
40°	1856.6	2275.3	2764.6	2490.1	2027.9	1633.9	1433.6	1330.4	1288.8	1293.0	1307.5
42.5°	1953.1	2462.9	2847.3	2435.8	1839.1	1436.6	1279.1	1233.3	1253.2	1270.1	1285.8
45°	2078.6	2657.8	2898.6	2343.5	1625.5	1269.5	1188.0	1198.9	1214.0	1215.8	1227.9
47.5°	2239.1	2855.1	2932.4	2204.1	1407.7	1151.8	1130.1	1132.5	1129.5	1116.8	1126.5
50°	2439.4	3047.0	2962.5	2019.5	1222.4	1078.2	1049.3	1040.8	999.2	958.1	963.6
52.5°	2667.5	3223.2	2975.2	1790.2	1078.2	1016.7	969.6	916.5	838.7	826.0	830.2
55°	2920.9	3386.1	2942.6	1508.4	956.9	937.6	866.4	802.5	794.0	783.2	785.0
57.5°	3223.8	3561.7	2876.3	1194.1	832.6	845.3	775.9	783.2	768.1	751.2	748.2
60°	3555.0	3743.3	2759.8	907.5	704.1	730.1	752.4	751.8	747.6	733.7	728.9
62.5°	3853.1	3862.8	2530.5	695.1	591.3	640.8	701.7	701.1	697.5	689.6	686.6
65°	4030.5	3844.7	2148.0	547.3	498.4	567.2	632.9	637.8	638.4	637.8	637.8
67.5°	3999.1	3632.9	1623.1	435.6	421.8	492.3	564.8	571.4	576.2	577.4	578.6
70°	3644.3	3167.7	1058.3	347.5	353.6	426.6	500.2	506.8	511.1	515.9	518.3
72.5°	2840.7	2329.0	605.8	281.2	293.8	369.9	436.2	444.1	446.5	455.5	459.2
75°	1731.1	1369.6	327.0	221.4	241.3	316.2	372.9	381.9	386.2	397.0	398.2
77.5°	823.0	593.1	186.4	172.6	194.3	258.2	315.0	325.2	313.8	319.8	315.0
80°	278.2	220.2	117.7	131.5	148.4	201.5	252.2	262.5	238.3	237.1	234.7
82.5°	97.1	89.3	74.8	87.5	95.9	144.2	190.7	203.9	177.4	176.8	168.3
85°	38.0	36.2	41.6	47.7	57.3	88.7	125.5	132.1	109.2	88.1	86.9
87.5°	7.8	8.4	10.3	10.9	17.5	30.8	45.3	55.5	44.0	37.4	34.4
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)