

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: P882074

Luminaire Tested: **NAV-SB1D-740-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882074
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-SB1D-740-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10884 lumens
Efficiency: N/A
Efficacy: 136.7 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

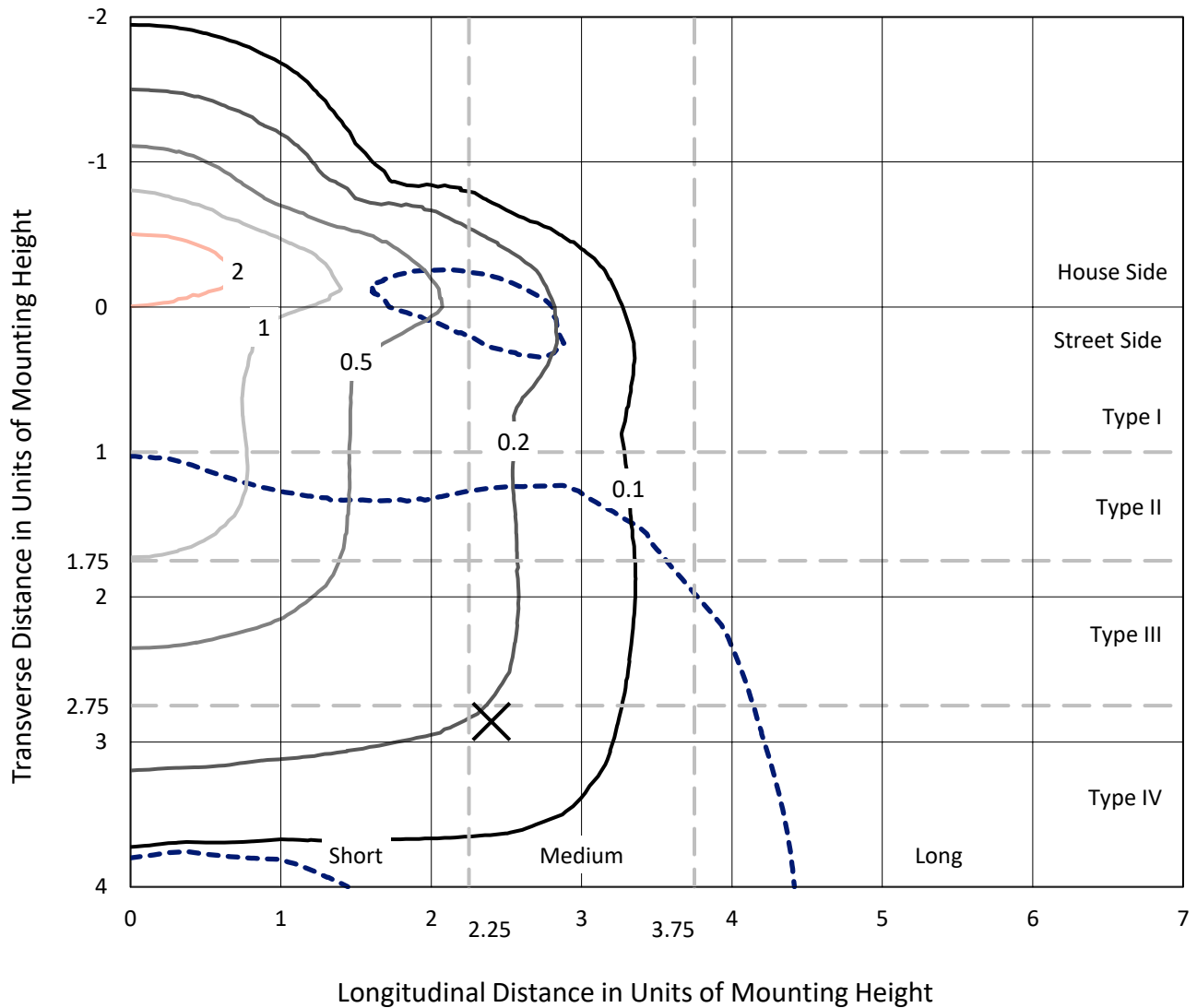
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P882074
 CATALOG NUMBER: NAV-SB1D-740-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

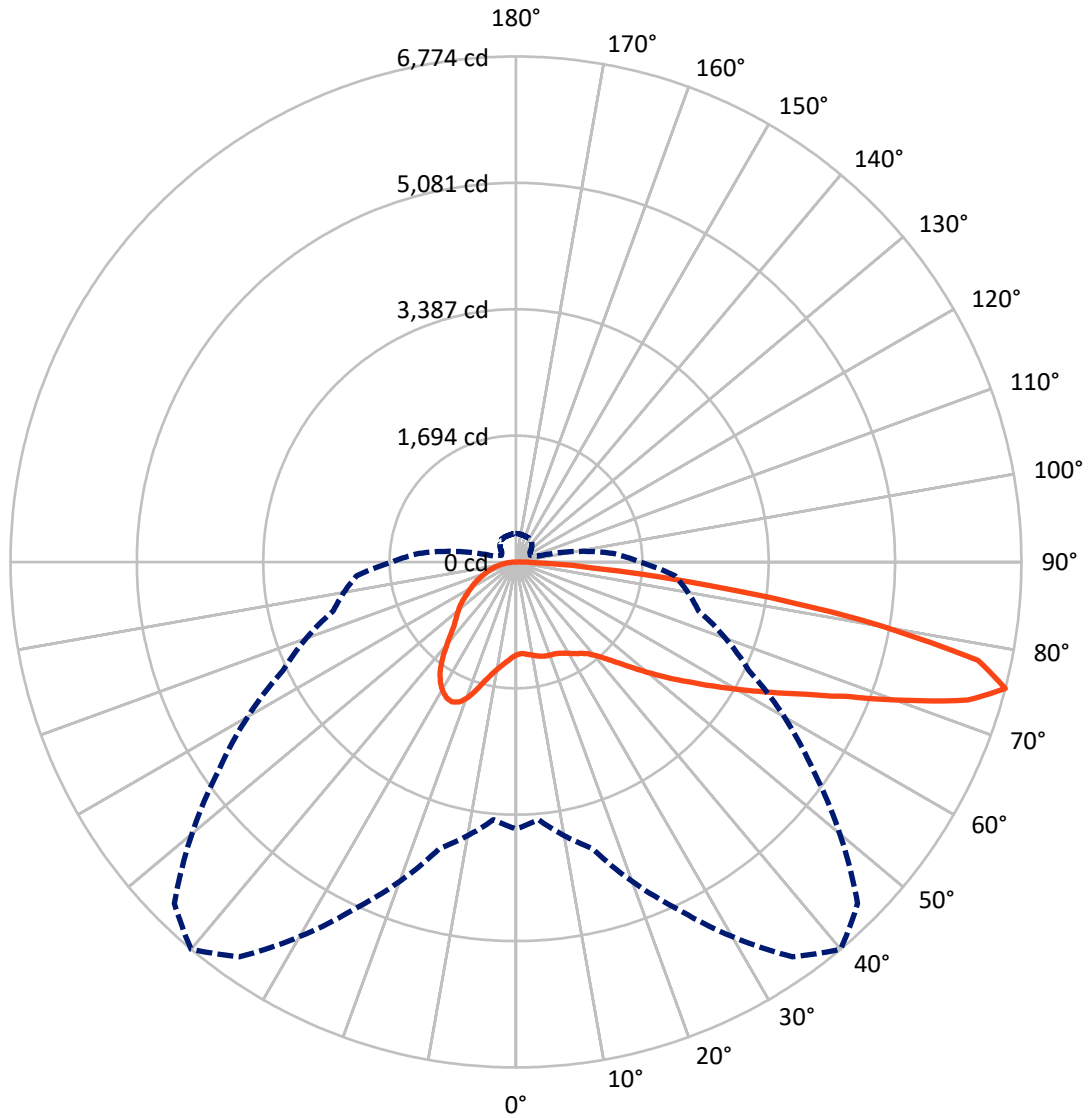
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type IV - Medium - N/A

REPORT NUMBER: P882074
CATALOG NUMBER: NAV-SB1D-740-U-SL4

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P882074

CATALOG NUMBER: NAV-SB1D-740-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3372.2	0.0	3372.2
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	7511.8	0.0	7511.8
	% Fixture	69.0	0.0	69.0
Total	Lumens	10884.0	0.0	10884.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.2	1.1
10°-20°	417.1	3.8
20°-30°	761.6	7.0
30°-40°	1080.2	9.9
40°-50°	1458.6	13.4
50°-60°	1962.2	18.0
60°-70°	2490.4	22.9
70°-80°	2260.2	20.8
80°-90°	329.5	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°	10884.0	100.0
0°-180°	10884.0	100.0

Coefficient of Utilization



REPORT NUMBER: P882074

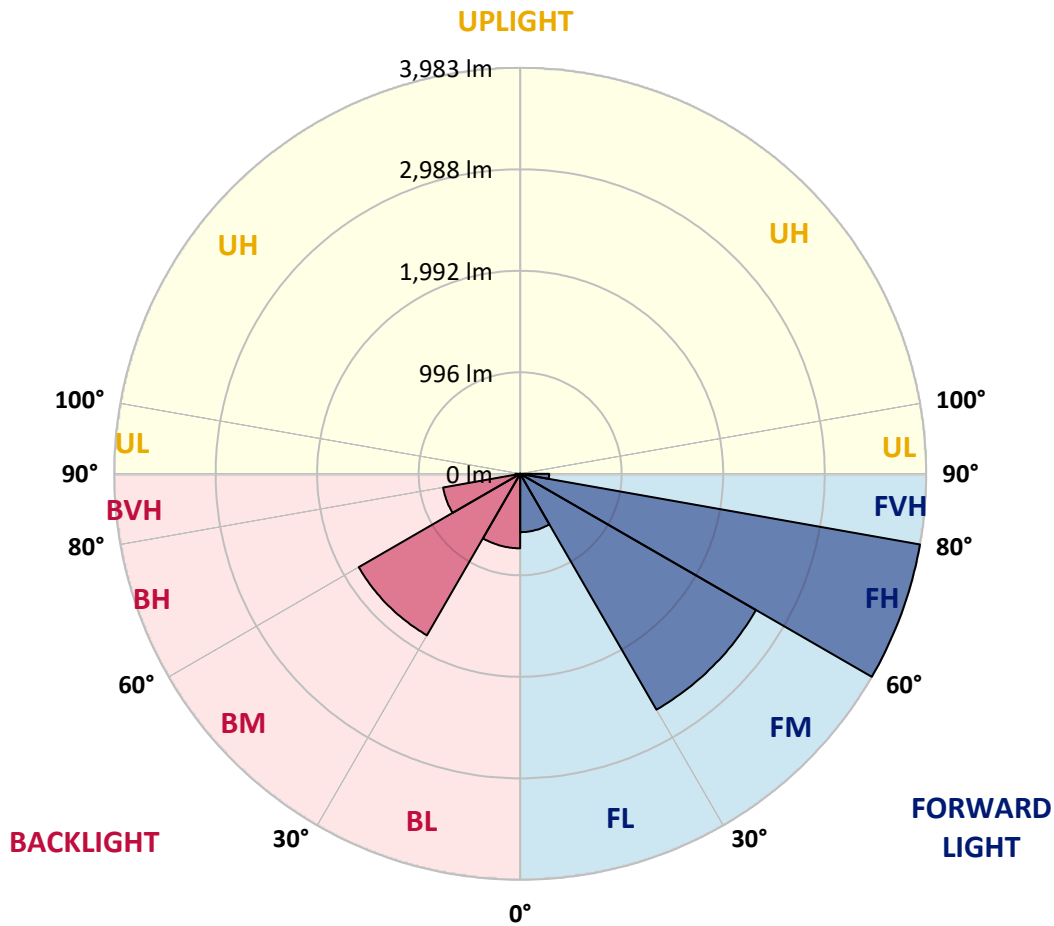
CATALOG NUMBER: NAV-SB1D-740-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	572.5	5.3			
FM (30°-60°)	2671.8	24.5			
FH (60°-80°)	3983.4	36.6			G2/5000
FVH (80°-90°)	284.1	2.6			G3/500
BL (0°-30°)	730.5	6.7	B2/1000		
BM (30°-60°)	1829.1	16.8	B2/2500		
BH (60°-80°)	767.3	7.0	B2/1000		G2/1000
BVH (80°-90°)	45.4	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



REPORT NUMBER: P882074

CATALOG NUMBER: NAV-SB1D-740-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6
2.5°	1225.5	1232.5	1230.7	1228.4	1228.4	1229.0	1228.4	1232.5	1236.5	1240.6	1246.9
5°	1238.2	1245.2	1241.7	1238.8	1236.5	1235.9	1234.2	1233.6	1235.9	1241.1	1249.8
7.5°	1263.1	1270.0	1264.8	1259.6	1255.0	1252.7	1250.4	1246.9	1245.2	1248.1	1260.2
10°	1290.8	1297.7	1291.4	1282.1	1274.6	1271.7	1269.4	1266.0	1263.6	1265.4	1278.7
12.5°	1318.5	1325.4	1316.8	1304.1	1294.2	1292.5	1289.6	1288.5	1287.9	1287.3	1300.6
15°	1344.5	1350.2	1339.3	1324.3	1313.9	1311.0	1308.1	1309.8	1312.7	1316.2	1331.2
17.5°	1364.7	1370.4	1354.3	1334.7	1324.8	1323.7	1322.0	1327.7	1335.8	1344.5	1362.9
20°	1383.1	1388.9	1368.1	1341.6	1330.0	1330.0	1330.6	1342.7	1354.3	1367.0	1392.4
22.5°	1409.1	1413.7	1388.3	1352.0	1335.2	1336.4	1341.0	1353.1	1367.6	1384.9	1420.1
25°	1447.8	1451.3	1420.1	1371.6	1352.5	1356.0	1360.1	1365.8	1379.7	1399.9	1447.2
27.5°	1510.1	1513.0	1472.0	1406.2	1377.4	1383.1	1388.9	1384.9	1391.2	1408.5	1469.2
30°	1597.9	1599.6	1547.7	1460.5	1419.5	1422.4	1423.6	1406.8	1394.7	1408.5	1484.7
32.5°	1701.8	1701.2	1639.5	1526.3	1467.4	1464.5	1454.7	1421.8	1393.5	1405.7	1498.6
35°	1862.9	1856.5	1776.8	1618.7	1521.7	1503.8	1480.7	1438.6	1399.3	1402.8	1510.7
37.5°	2129.6	2109.9	1999.7	1769.9	1602.5	1556.9	1522.8	1465.7	1412.0	1401.6	1525.2
40°	2430.3	2405.5	2284.3	1977.2	1723.7	1650.4	1595.6	1504.4	1432.8	1406.8	1546.5
42.5°	2787.1	2751.9	2621.4	2221.3	1877.3	1771.1	1688.5	1553.4	1463.4	1423.6	1575.4
45°	3225.2	3178.5	2993.7	2496.7	2070.7	1929.2	1819.0	1627.9	1510.1	1455.9	1618.7
47.5°	3668.0	3679.5	3416.9	2811.9	2302.7	2124.4	1982.4	1739.9	1578.3	1507.8	1688.5
50°	4138.5	4146.5	3837.7	3161.1	2566.0	2344.9	2165.9	1865.2	1672.9	1581.7	1793.0
52.5°	4505.6	4506.8	4219.9	3526.6	2840.2	2587.3	2363.9	2008.3	1782.6	1679.9	1932.1
55°	4735.4	4732.5	4487.7	3872.3	3155.4	2841.9	2583.3	2171.1	1916.5	1795.3	2107.0
57.5°	4902.2	4893.5	4672.4	4169.6	3491.3	3142.7	2831.5	2355.8	2074.7	1932.7	2337.4
60°	4965.7	4960.5	4797.7	4426.5	3844.6	3475.2	3117.8	2562.5	2254.2	2094.9	2633.5
62.5°	4989.9	4999.8	4920.7	4675.3	4222.7	3843.5	3432.5	2809.6	2456.3	2278.5	2945.8
65°	5075.4	5093.3	5077.1	5000.9	4649.9	4274.7	3849.8	3103.4	2676.8	2475.3	3272.0
67.5°	5244.5	5262.4	5269.3	5390.6	5171.8	4812.1	4370.5	3469.4	2934.9	2679.7	3517.3
70°	5240.5	5235.3	5357.7	5700.6	5825.3	5556.2	5072.5	3919.7	3242.5	2849.4	3548.5
72.5°	4770.0	4728.4	5017.7	5697.1	6369.0	6333.3	5929.7	4500.4	3508.1	2870.2	3079.2
75°	3578.5	3467.7	3978.6	5134.3	6459.7	6774.3	6474.7	4860.6	3445.2	2536.0	2142.8
77.5°	1530.3	1418.9	2021.0	3800.8	5781.4	6332.7	5974.8	4240.6	2750.1	1677.0	1052.4
80°	400.6	400.0	610.8	1723.2	3931.8	4676.5	4102.7	2738.6	1571.3	599.2	290.4
82.5°	165.7	161.6	224.6	670.2	1921.2	2624.3	2141.7	1221.5	567.5	162.2	96.4
85°	61.8	61.2	109.1	231.5	677.7	1082.4	783.4	312.3	141.4	79.1	43.3
87.5°	17.3	16.7	23.7	80.2	165.1	250.5	133.9	51.4	39.8	31.2	12.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P882074

CATALOG NUMBER: NAV-SB1D-740-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6
2.5°	1248.6	1251.5	1256.7	1260.8	1266.0	1271.7	1279.8	1285.0	1290.2	1293.7	1291.4
5°	1253.8	1260.2	1273.5	1286.7	1302.3	1316.8	1333.5	1345.6	1355.4	1358.3	1359.5
7.5°	1265.4	1275.8	1298.3	1320.8	1345.6	1369.3	1393.5	1414.3	1431.1	1437.4	1438.0
10°	1285.6	1299.4	1331.2	1362.9	1395.8	1432.2	1463.4	1493.4	1517.1	1526.9	1527.5
12.5°	1311.0	1328.3	1369.9	1413.7	1459.3	1509.6	1550.0	1586.9	1616.4	1629.6	1629.6
15°	1343.9	1366.4	1419.5	1478.4	1545.4	1615.2	1666.6	1707.6	1740.5	1756.6	1755.5
17.5°	1379.7	1409.7	1476.7	1565.6	1661.4	1753.2	1813.2	1843.2	1877.3	1892.9	1892.3
20°	1414.3	1451.3	1547.1	1676.4	1804.0	1901.5	1950.0	1958.1	1960.4	1962.1	1966.8
22.5°	1450.1	1499.8	1635.4	1816.1	1952.9	2020.5	2027.4	1992.7	1944.3	1921.7	1928.1
25°	1489.4	1555.2	1750.9	1970.2	2081.1	2089.1	2036.0	1951.8	1860.0	1817.8	1824.2
27.5°	1527.5	1619.2	1889.4	2117.4	2173.4	2102.4	1988.1	1868.6	1757.8	1713.3	1718.5
30°	1565.6	1692.6	2042.4	2246.2	2215.6	2069.5	1912.5	1779.2	1667.7	1621.0	1626.2
32.5°	1604.2	1778.0	2218.5	2339.1	2208.1	1999.7	1818.4	1678.7	1580.6	1531.5	1537.9
35°	1648.1	1883.1	2385.3	2389.9	2157.8	1896.9	1694.3	1558.6	1473.2	1433.9	1442.6
37.5°	1705.3	2016.4	2532.5	2402.6	2070.1	1746.2	1540.2	1416.6	1346.2	1328.3	1341.0
40°	1776.3	2176.9	2645.1	2382.4	1940.2	1563.3	1371.6	1272.9	1233.1	1237.1	1250.9
42.5°	1868.6	2356.4	2724.1	2330.4	1759.5	1374.5	1223.8	1179.9	1199.0	1215.2	1230.2
45°	1988.7	2542.9	2773.2	2242.1	1555.2	1214.6	1136.6	1147.0	1161.5	1163.2	1174.7
47.5°	2142.3	2731.7	2805.5	2108.8	1346.8	1102.0	1081.2	1083.5	1080.7	1068.5	1077.8
50°	2333.9	2915.2	2834.4	1932.1	1169.6	1031.6	1003.9	995.8	956.0	916.7	921.9
52.5°	2552.1	3083.8	2846.5	1712.8	1031.6	972.7	927.7	876.9	802.4	790.3	794.3
55°	2794.6	3239.7	2815.4	1443.2	915.6	897.1	829.0	767.8	759.7	749.3	751.0
57.5°	3084.4	3407.6	2751.9	1142.4	796.6	808.8	742.4	749.3	734.9	718.7	715.8
60°	3401.3	3581.4	2640.4	868.2	673.7	698.5	719.9	719.3	715.2	702.0	697.3
62.5°	3686.5	3695.7	2421.1	665.0	565.7	613.1	671.4	670.8	667.3	659.8	656.9
65°	3856.2	3678.4	2055.1	523.6	476.8	542.6	605.6	610.2	610.8	610.2	610.2
67.5°	3826.2	3475.8	1552.9	416.8	403.5	471.1	540.3	546.7	551.3	552.4	553.6
70°	3486.7	3030.7	1012.5	332.5	338.3	408.1	478.6	484.9	488.9	493.6	495.9
72.5°	2717.8	2228.3	579.6	269.0	281.1	353.9	417.4	424.9	427.2	435.8	439.3
75°	1656.2	1310.4	312.9	211.9	230.9	302.5	356.8	365.4	369.5	379.8	381.0
77.5°	787.4	567.5	178.4	165.1	185.9	247.1	301.3	311.1	300.2	306.0	301.3
80°	266.1	210.7	112.6	125.8	142.0	192.8	241.3	251.1	228.0	226.9	224.6
82.5°	92.9	85.4	71.6	83.7	91.8	138.0	182.4	195.1	169.7	169.1	161.1
85°	36.4	34.6	39.8	45.6	54.8	84.9	120.1	126.4	104.5	84.3	83.1
87.5°	7.5	8.1	9.8	10.4	16.7	29.4	43.3	53.1	42.1	35.8	32.9
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)