

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: P882081

Luminaire Tested: **NAV-SB1D-740-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882081
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10853 lumens
Efficiency: N/A
Efficacy: 136.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

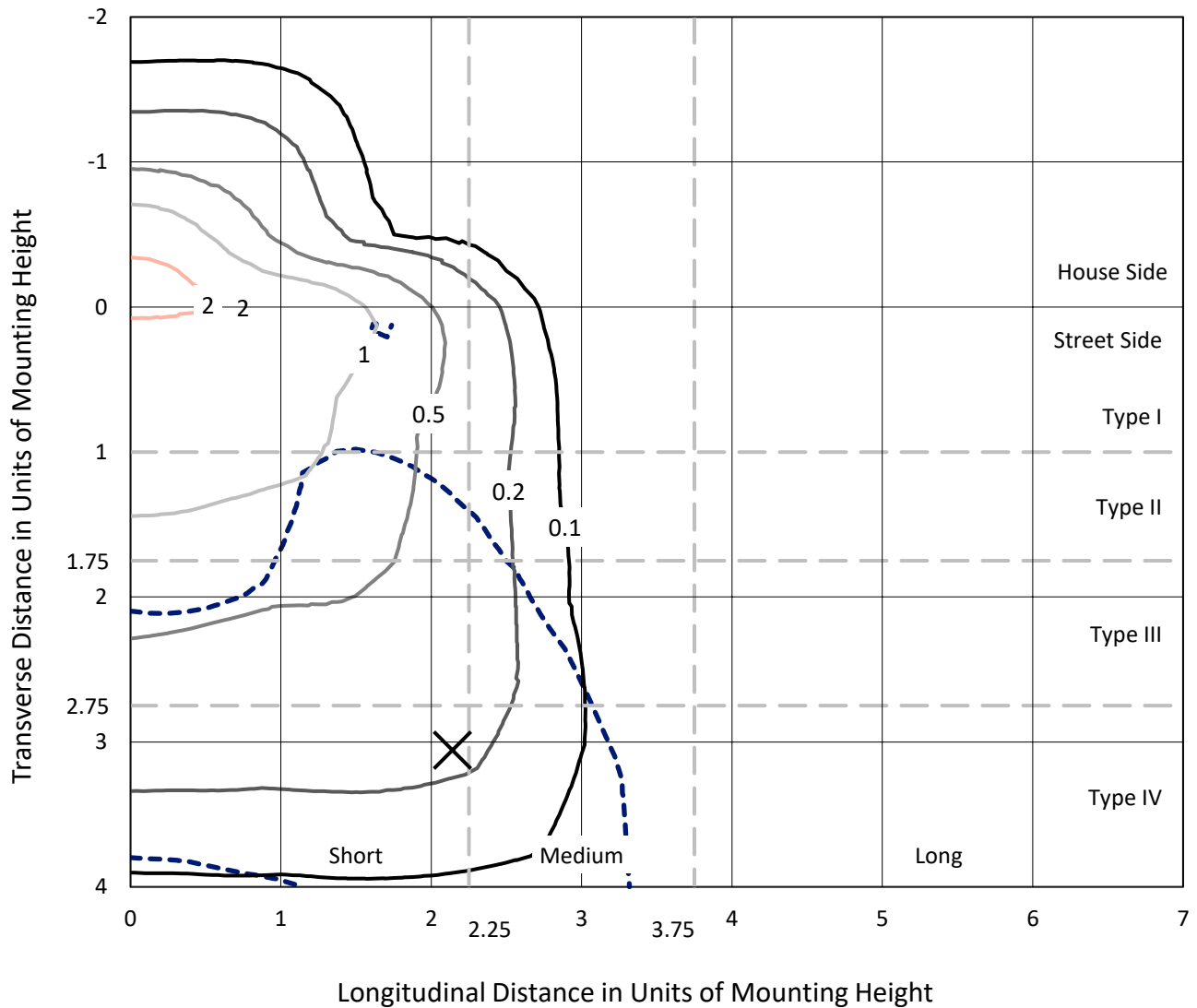
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

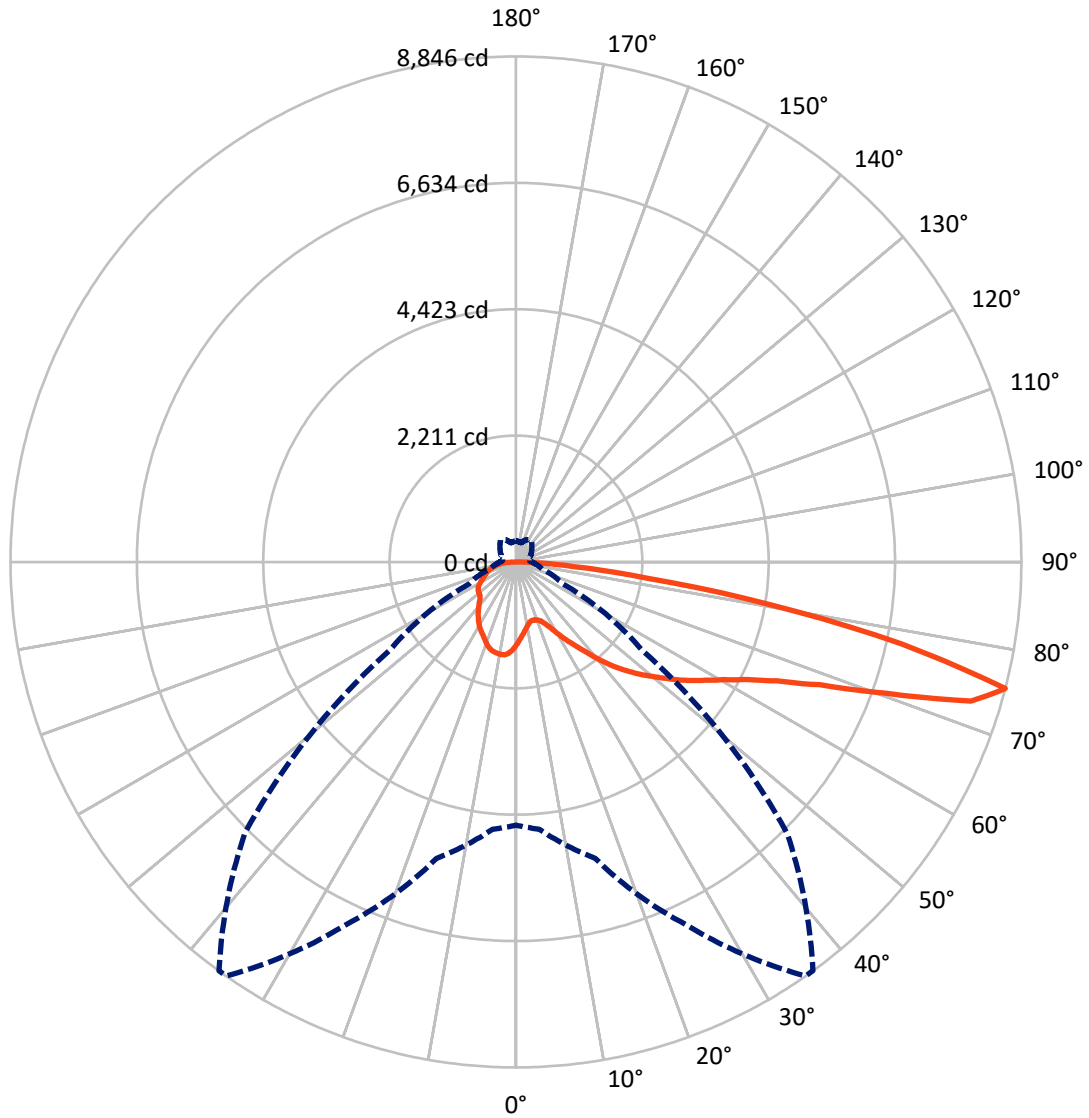
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2582.7	0.0	2582.7
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	8270.3	0.0	8270.3
	% Fixture	76.2	0.0	76.2
Total	Lumens	10853.0	0.0	10853.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.9	1.3
10°-20°	395.0	3.6
20°-30°	663.2	6.1
30°-40°	1030.8	9.5
40°-50°	1530.0	14.1
50°-60°	2112.2	19.5
60°-70°	2562.6	23.6
70°-80°	2117.8	19.5
80°-90°	304.6	2.8
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°	10853.0	100.0
0°-180°	10853.0	100.0

Coefficient of Utilization



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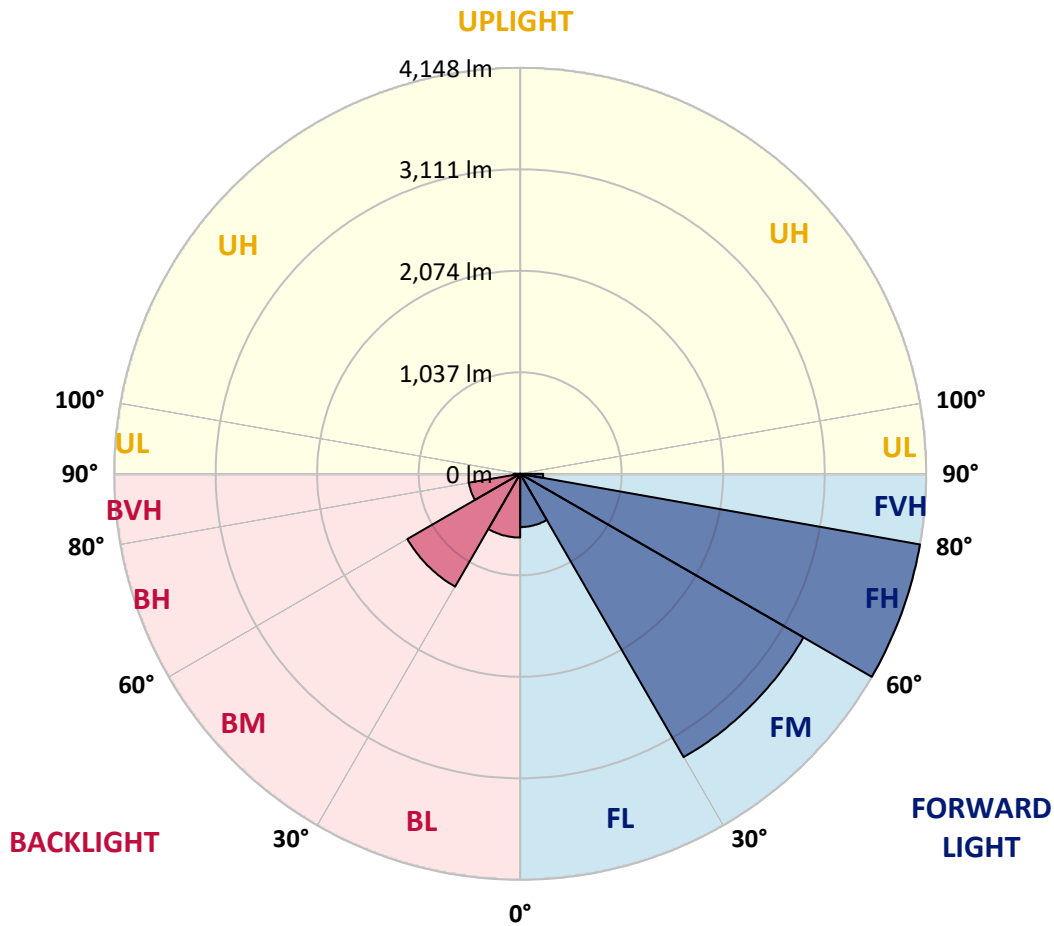
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	544.3	5.0			
FM (30°-60°)	3342.1	30.8			
FH (60°-80°)	4147.9	38.2			G2/5000
FVH (80°-90°)	236.0	2.2			G3/500
BL (0°-30°)	650.9	6.0	B2/1000		
BM (30°-60°)	1330.8	12.3	B2/2500		
BH (60°-80°)	532.5	4.9	B2/1000		G2/1000
BVH (80°-90°)	68.6	0.6			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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2
2.5°	1333.6	1341.8	1345.3	1343.6	1352.4	1351.2	1363.5	1378.8	1399.9	1420.4	1450.3
5°	1230.9	1239.7	1247.3	1254.4	1271.4	1276.7	1296.0	1325.4	1364.1	1403.4	1452.7
7.5°	1135.3	1142.9	1154.6	1167.5	1196.3	1201.6	1233.8	1279.6	1333.6	1391.1	1459.1
10°	1057.2	1064.9	1077.2	1091.9	1127.7	1134.1	1175.2	1236.2	1306.6	1379.4	1466.2
12.5°	1023.8	1026.2	1033.2	1047.9	1079.0	1083.1	1128.2	1198.1	1280.2	1370.6	1476.7
15°	1022.0	1026.7	1027.3	1035.0	1060.8	1062.5	1104.2	1173.4	1263.8	1368.8	1492.6
17.5°	1039.6	1043.2	1037.9	1042.6	1064.3	1067.2	1100.1	1161.7	1258.5	1376.4	1519.6
20°	1086.6	1089.5	1073.7	1067.2	1083.1	1085.4	1117.7	1169.3	1263.8	1392.3	1556.5
22.5°	1186.3	1188.1	1149.4	1123.0	1124.1	1125.3	1153.5	1200.4	1284.3	1421.0	1603.5
25°	1341.8	1340.6	1279.0	1228.0	1198.6	1192.2	1211.0	1250.9	1318.9	1459.1	1663.9
27.5°	1523.7	1514.9	1453.3	1377.0	1313.1	1303.7	1299.6	1316.6	1368.2	1509.6	1737.8
30°	1729.0	1720.8	1654.5	1554.8	1466.2	1450.9	1412.2	1403.4	1441.5	1578.2	1840.5
32.5°	1954.3	1949.0	1869.8	1749.0	1630.5	1612.9	1547.7	1524.3	1554.2	1682.1	1983.7
35°	2143.2	2138.6	2072.8	1948.5	1803.5	1781.8	1715.5	1689.1	1704.4	1815.3	2170.8
37.5°	2314.0	2311.6	2255.3	2157.3	2007.7	1981.3	1906.8	1898.0	1895.1	1990.7	2397.9
40°	2472.4	2466.5	2407.9	2356.2	2245.3	2221.3	2155.6	2147.9	2125.6	2206.6	2654.9
42.5°	2647.8	2632.6	2547.5	2523.4	2493.5	2473.6	2434.3	2435.4	2386.1	2450.1	2927.1
45°	2791.0	2782.2	2694.8	2680.7	2712.9	2704.7	2738.8	2747.6	2651.9	2705.3	3209.9
47.5°	2944.7	2936.5	2862.5	2852.6	2940.0	2942.3	3062.6	3065.6	2911.2	2970.5	3493.3
50°	3134.2	3122.5	3049.1	3061.4	3159.4	3168.2	3388.2	3368.3	3150.0	3239.8	3774.3
52.5°	3259.2	3266.2	3250.4	3270.3	3404.1	3412.3	3708.6	3657.5	3386.5	3505.6	4050.0
55°	3351.3	3365.4	3414.6	3460.4	3662.2	3670.4	4010.7	3932.7	3582.4	3752.0	4309.4
57.5°	3469.8	3449.8	3542.0	3631.1	3907.5	3929.2	4304.7	4197.9	3756.1	3964.4	4487.1
60°	3639.9	3625.9	3697.4	3829.4	4182.1	4216.7	4615.6	4436.7	3883.4	4132.8	4521.8
62.5°	3984.9	3949.7	3960.9	4077.6	4528.2	4574.0	4966.5	4645.0	3946.8	4198.5	4336.4
65°	4500.6	4440.2	4383.9	4464.8	5015.8	5060.9	5362.5	4808.7	3923.3	4071.2	3844.1
67.5°	5150.1	5090.3	5021.0	5097.3	5733.9	5769.7	5851.2	4900.8	3738.5	3580.7	2974.0
70°	5685.8	5663.5	5746.2	6060.1	6880.9	6882.1	6477.8	4824.5	3232.2	2538.7	1720.8
72.5°	5614.8	5601.3	6037.2	7007.6	8326.6	8295.5	7071.0	4247.2	2177.3	1145.3	644.8
75°	4606.2	4693.7	5369.0	6990.6	8845.8	8841.7	6707.8	2700.0	900.6	474.6	333.3
77.5°	2470.0	2608.5	3485.6	5161.3	6905.6	7009.4	4716.0	944.6	386.6	303.9	230.6
80°	805.6	926.4	1389.3	2627.9	4487.1	4467.8	2021.2	370.8	264.6	215.3	159.6
82.5°	342.1	356.1	620.7	1240.9	2302.8	2267.0	643.6	213.0	186.0	147.3	98.6
85°	133.8	149.6	274.0	573.8	997.4	975.7	232.3	105.6	119.1	96.2	58.7
87.5°	44.0	53.4	98.0	196.5	310.4	299.2	56.9	36.4	51.6	44.0	21.1
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°	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2	1446.2
2.5°	1458.6	1467.9	1479.1	1495.5	1509.6	1521.3	1533.7	1541.3	1544.2	1553.0	1552.4
5°	1469.1	1489.7	1517.2	1544.2	1570.6	1586.5	1600.5	1607.6	1614.0	1618.7	1619.9
7.5°	1486.7	1513.1	1556.5	1591.7	1614.0	1626.9	1636.3	1634.0	1636.3	1637.5	1639.3
10°	1502.0	1538.9	1590.6	1624.0	1641.0	1641.6	1639.3	1631.0	1626.9	1627.5	1628.7
12.5°	1520.2	1561.2	1617.0	1645.1	1649.8	1636.9	1626.9	1612.9	1607.6	1605.2	1604.1
15°	1544.8	1591.7	1645.7	1656.3	1644.5	1628.1	1611.1	1588.2	1576.5	1567.1	1570.0
17.5°	1574.7	1626.4	1668.0	1660.4	1635.2	1608.2	1580.6	1546.0	1521.9	1511.9	1512.5
20°	1616.4	1662.7	1685.0	1651.6	1613.4	1572.4	1525.4	1483.2	1460.9	1450.9	1449.8
22.5°	1666.8	1711.4	1701.5	1636.3	1582.4	1516.6	1458.0	1426.9	1415.7	1408.7	1409.9
25°	1727.3	1765.4	1713.2	1614.0	1531.3	1442.7	1397.5	1387.6	1382.3	1377.0	1377.0
27.5°	1805.9	1826.4	1722.0	1581.2	1451.5	1364.1	1347.7	1349.4	1347.7	1338.9	1340.6
30°	1909.7	1905.6	1730.2	1527.8	1360.0	1293.1	1294.3	1301.9	1303.1	1297.2	1300.1
32.5°	2046.4	2004.8	1734.3	1458.6	1272.6	1230.9	1232.1	1240.3	1246.2	1236.2	1240.9
35°	2211.9	2120.4	1727.9	1371.7	1205.1	1171.7	1162.9	1165.2	1167.0	1157.6	1164.0
37.5°	2404.9	2250.0	1699.1	1275.5	1149.4	1113.6	1094.8	1079.0	1069.6	1060.8	1066.6
40°	2616.7	2391.4	1646.3	1181.6	1087.2	1052.0	1023.8	993.9	962.2	950.5	955.7
42.5°	2838.5	2536.9	1582.4	1091.9	1015.6	986.8	956.9	913.5	866.0	841.9	844.9
45°	3068.5	2686.0	1519.6	1003.3	942.3	929.9	895.3	843.1	791.5	761.0	758.6
47.5°	3293.8	2826.8	1427.5	914.1	873.6	887.1	860.1	812.0	754.5	706.4	701.1
50°	3509.1	2958.8	1276.7	823.7	817.9	874.2	848.4	779.1	713.4	651.8	646.6
52.5°	3722.7	3065.6	1083.7	741.6	787.9	870.7	833.1	756.9	676.5	611.9	604.9
55°	3904.0	3120.7	897.7	671.2	744.5	840.8	814.9	730.5	624.3	555.6	549.7
57.5°	4007.2	3076.1	742.8	602.0	684.7	791.5	783.8	674.1	562.1	509.3	502.2
60°	3962.6	2895.4	616.0	541.5	627.8	738.1	729.9	618.4	514.5	464.7	457.6
62.5°	3716.8	2551.0	515.7	488.7	576.1	683.5	675.9	575.6	478.2	430.1	422.4
65°	3221.6	2075.2	437.7	444.7	523.9	617.8	629.0	539.8	449.4	402.5	394.9
67.5°	2457.1	1503.1	376.7	406.6	472.9	553.3	585.5	514.0	425.4	380.8	373.7
70°	1400.5	853.7	325.0	369.6	427.7	493.4	552.1	493.4	399.5	362.6	357.9
72.5°	531.0	391.9	281.0	332.7	384.3	443.0	515.1	461.2	369.6	342.1	337.4
75°	283.4	238.8	236.4	289.2	334.4	393.7	468.8	429.5	347.3	361.4	373.1
77.5°	193.0	169.0	197.7	247.6	279.9	339.1	419.5	381.4	301.0	299.8	276.3
80°	133.8	119.7	160.8	199.5	216.5	285.1	366.1	327.4	245.2	228.8	218.8
82.5°	80.4	78.0	120.3	149.0	153.1	220.0	303.3	274.6	200.7	174.8	176.0
85°	44.0	46.3	76.9	87.4	89.2	153.7	237.6	212.4	154.3	129.7	130.8
87.5°	12.3	15.8	28.2	34.6	42.8	79.8	141.4	126.1	77.4	54.0	54.0
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)