

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: P882411

Luminaire Tested: **NAV-SB2B-735-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882411
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-SB2B-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11343 lumens
Efficiency: N/A
Efficacy: 153.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

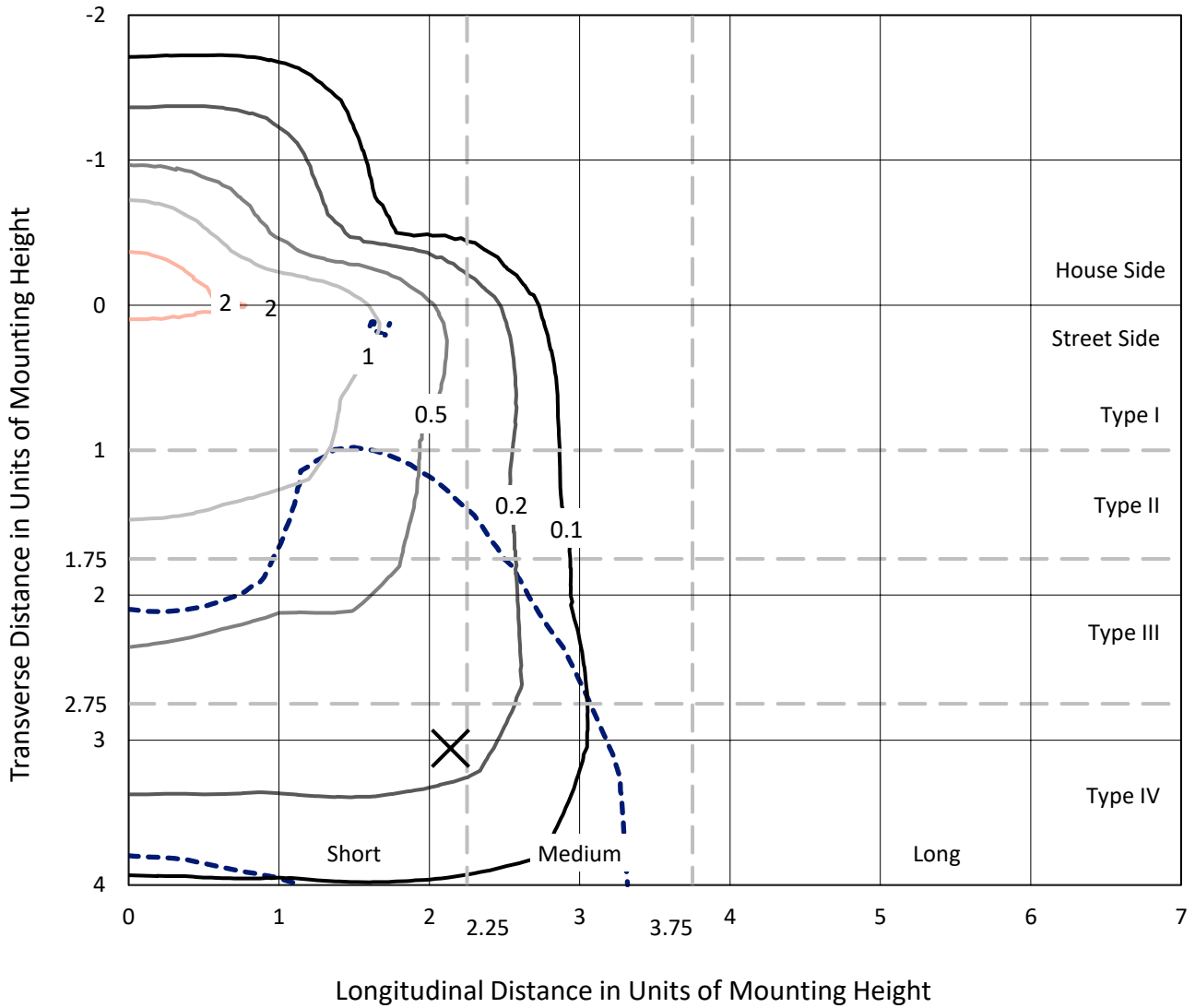
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

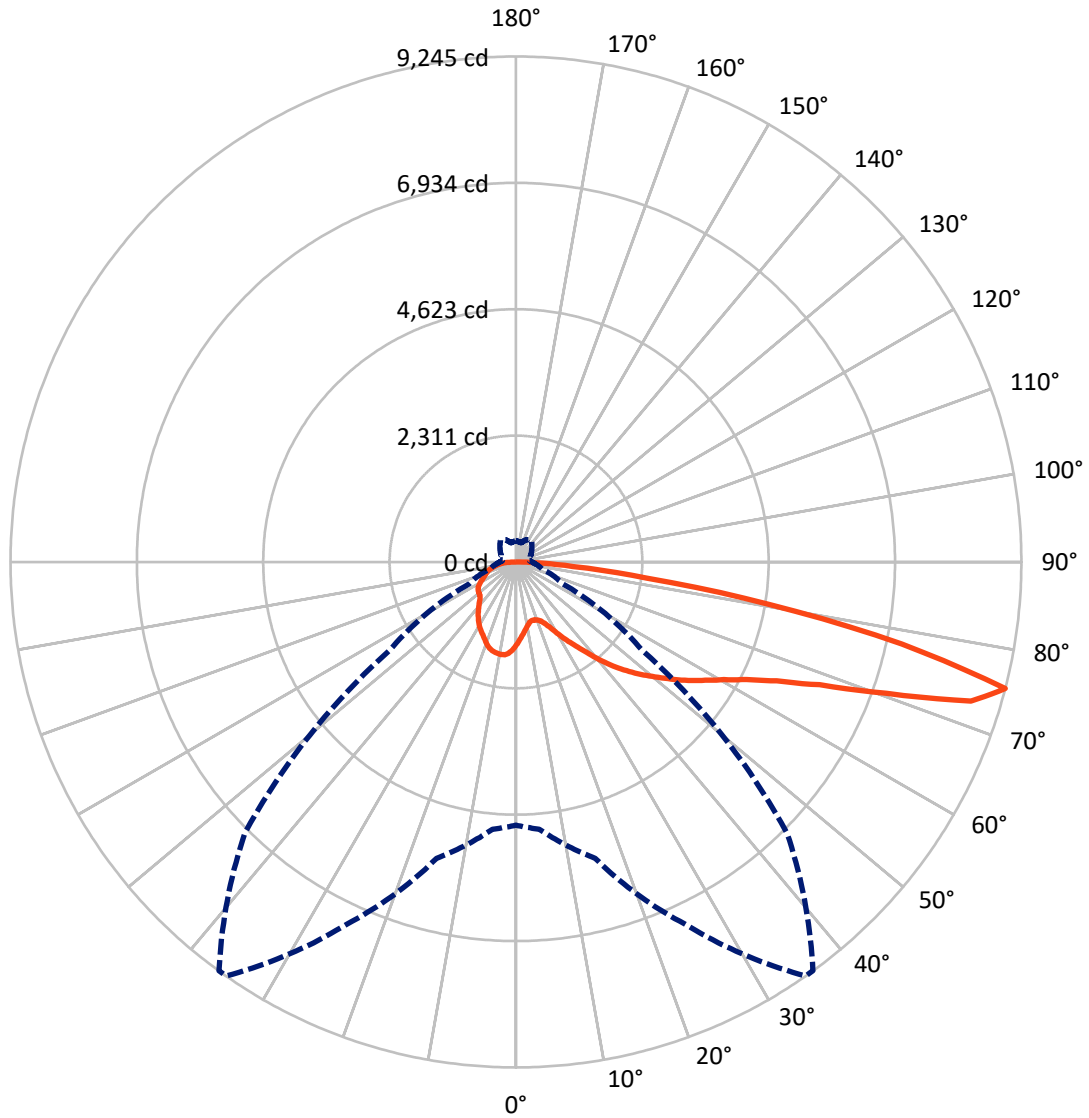
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type IV - 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	2699.3	0.0	2699.3
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	8643.7	0.0	8643.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	11343.0	0.0	11343.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.1	1.3
10°-20°	412.8	3.6
20°-30°	693.2	6.1
30°-40°	1077.3	9.5
40°-50°	1599.0	14.1
50°-60°	2207.6	19.5
60°-70°	2678.3	23.6
70°-80°	2213.4	19.5
80°-90°	318.4	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°	11343.0	100.0
0°-180°	11343.0	100.0

Coefficient of Utilization



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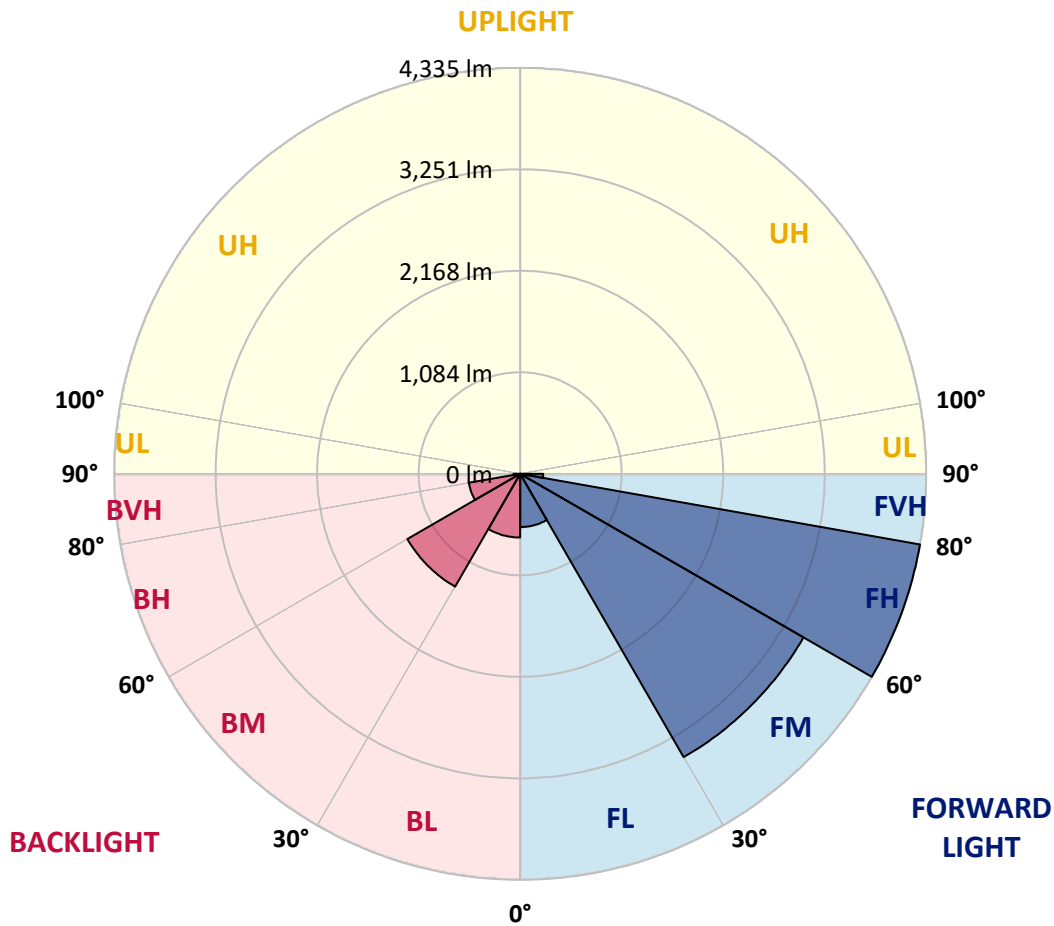
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	568.8	5.0			
FM (30°-60°)	3493.0	30.8			
FH (60°-80°)	4335.1	38.2			G2/5000
FVH (80°-90°)	246.7	2.2			G3/500
BL (0°-30°)	680.3	6.0	B2/1000		
BM (30°-60°)	1390.9	12.3	B2/2500		
BH (60°-80°)	556.5	4.9	B2/1000		G2/1000
BVH (80°-90°)	71.7	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°	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5
2.5°	1393.8	1402.4	1406.1	1404.2	1413.4	1412.2	1425.1	1441.0	1463.1	1484.6	1515.8
5°	1286.5	1295.7	1303.7	1311.0	1328.8	1334.3	1354.6	1385.2	1425.7	1466.8	1518.3
7.5°	1186.5	1194.5	1206.8	1220.3	1250.3	1255.8	1289.6	1337.4	1393.8	1453.9	1525.0
10°	1105.0	1113.0	1125.8	1141.2	1178.6	1185.3	1228.2	1292.0	1365.6	1441.6	1532.4
12.5°	1070.0	1072.5	1079.8	1095.2	1127.7	1132.0	1179.2	1252.1	1338.0	1432.4	1543.4
15°	1068.2	1073.1	1073.7	1081.7	1108.7	1110.5	1154.0	1226.4	1320.8	1430.6	1560.0
17.5°	1086.6	1090.3	1084.7	1089.7	1112.3	1115.4	1149.7	1214.1	1315.3	1438.6	1588.2
20°	1135.6	1138.7	1122.2	1115.4	1132.0	1134.4	1168.1	1222.1	1320.8	1455.1	1626.8
22.5°	1239.9	1241.7	1201.3	1173.7	1174.9	1176.1	1205.5	1254.6	1342.3	1485.2	1675.9
25°	1402.4	1401.2	1336.8	1283.4	1252.8	1246.0	1265.6	1307.3	1378.5	1525.0	1739.0
27.5°	1592.5	1583.3	1518.9	1439.2	1372.3	1362.5	1358.2	1376.0	1430.0	1577.8	1816.3
30°	1807.1	1798.5	1729.2	1625.0	1532.4	1516.4	1476.0	1466.8	1506.6	1649.5	1923.6
32.5°	2042.6	2037.0	1954.3	1827.9	1704.1	1685.7	1617.6	1593.1	1624.4	1758.0	2073.2
35°	2240.0	2235.1	2166.4	2036.4	1885.0	1862.3	1793.0	1765.4	1781.3	1897.2	2268.8
37.5°	2418.5	2416.0	2357.1	2254.7	2098.4	2070.8	1992.9	1983.7	1980.6	2080.6	2506.1
40°	2584.0	2577.9	2516.6	2462.6	2346.7	2321.6	2252.9	2244.9	2221.6	2306.2	2774.7
42.5°	2767.4	2751.4	2662.5	2637.4	2606.1	2585.2	2544.2	2545.4	2493.9	2560.7	3059.2
45°	2917.0	2907.8	2816.4	2801.7	2835.4	2826.8	2862.4	2871.6	2771.7	2827.5	3354.8
47.5°	3077.6	3069.1	2991.8	2981.4	3072.7	3075.2	3200.9	3204.0	3042.7	3104.6	3651.0
50°	3275.7	3263.4	3186.8	3199.7	3302.1	3311.3	3541.2	3520.4	3292.3	3386.1	3944.7
52.5°	3406.3	3413.7	3397.1	3418.0	3557.8	3566.4	3876.0	3822.7	3539.4	3663.9	4232.9
55°	3502.6	3517.3	3568.8	3616.6	3827.6	3836.2	4191.8	4110.3	3744.2	3921.4	4503.9
57.5°	3626.4	3605.6	3701.9	3795.1	4083.9	4106.6	4499.0	4387.4	3925.7	4143.4	4689.7
60°	3804.3	3789.6	3864.4	4002.3	4370.9	4407.0	4824.0	4637.0	4058.8	4319.4	4725.9
62.5°	4164.8	4128.0	4139.7	4261.7	4732.7	4780.5	5190.7	4854.7	4125.0	4388.0	4532.1
65°	4703.8	4640.7	4581.8	4666.4	5242.2	5289.4	5604.6	5025.8	4100.5	4255.0	4017.7
67.5°	5382.6	5320.1	5247.7	5327.5	5992.8	6030.2	6115.4	5122.0	3907.3	3742.3	3108.3
70°	5942.5	5919.2	6005.7	6333.7	7191.6	7192.8	6770.3	5042.3	3378.1	2653.3	1798.5
72.5°	5868.3	5854.2	6309.8	7324.0	8702.5	8670.0	7390.3	4438.9	2275.6	1197.0	673.9
75°	4814.2	4905.6	5611.4	7306.2	9245.2	9240.9	7010.7	2821.9	941.3	496.1	348.3
77.5°	2581.6	2726.3	3643.0	5394.3	7217.3	7325.9	4928.9	987.2	404.1	317.6	241.0
80°	841.9	968.2	1452.1	2746.5	4689.7	4669.5	2112.5	387.5	276.6	225.0	166.8
82.5°	357.5	372.2	648.8	1296.9	2406.8	2369.4	672.7	222.6	194.4	153.9	103.0
85°	139.8	156.4	286.4	599.7	1042.4	1019.7	242.8	110.4	124.5	100.6	61.3
87.5°	46.0	55.8	102.4	205.4	324.4	312.7	59.5	38.0	54.0	46.0	22.1
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°	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5	1511.5
2.5°	1524.4	1534.2	1545.9	1563.0	1577.8	1590.0	1602.9	1610.9	1613.9	1623.1	1622.5
5°	1535.4	1556.9	1585.7	1613.9	1641.5	1658.1	1672.8	1680.2	1686.9	1691.8	1693.0
7.5°	1553.8	1581.4	1626.8	1663.6	1686.9	1700.4	1710.2	1707.8	1710.2	1711.4	1713.3
10°	1569.8	1608.4	1662.4	1697.3	1715.1	1715.7	1713.3	1704.7	1700.4	1701.0	1702.2
12.5°	1588.8	1631.7	1690.0	1719.4	1724.3	1710.8	1700.4	1685.7	1680.2	1677.7	1676.5
15°	1614.5	1663.6	1720.0	1731.1	1718.8	1701.6	1683.8	1659.9	1647.7	1637.9	1640.9
17.5°	1645.8	1699.8	1743.3	1735.3	1709.0	1680.8	1652.0	1615.8	1590.6	1580.2	1580.8
20°	1689.4	1737.8	1761.1	1726.2	1686.3	1643.4	1594.3	1550.2	1526.9	1516.4	1515.2
22.5°	1742.1	1788.7	1778.3	1710.2	1653.8	1585.1	1523.8	1491.3	1479.6	1472.3	1473.5
25°	1805.3	1845.1	1790.5	1686.9	1600.4	1507.9	1460.6	1450.2	1444.7	1439.2	1439.2
27.5°	1887.4	1908.9	1799.7	1652.6	1517.1	1425.7	1408.5	1410.4	1408.5	1399.3	1401.2
30°	1996.0	1991.7	1808.3	1596.8	1421.4	1351.5	1352.7	1360.7	1361.9	1355.8	1358.8
32.5°	2138.8	2095.3	1812.6	1524.4	1330.0	1286.5	1287.7	1296.3	1302.4	1292.0	1296.9
35°	2311.8	2216.1	1805.9	1433.7	1259.5	1224.6	1215.4	1217.8	1219.6	1209.8	1216.6
37.5°	2513.5	2351.6	1775.8	1333.1	1201.3	1163.8	1144.2	1127.7	1117.9	1108.7	1114.8
40°	2734.9	2499.4	1720.6	1235.0	1136.3	1099.5	1070.0	1038.8	1005.6	993.4	998.9
42.5°	2966.6	2651.5	1653.8	1141.2	1061.4	1031.4	1000.1	954.7	905.1	879.9	883.0
45°	3207.0	2807.2	1588.2	1048.6	984.8	971.9	935.7	881.2	827.2	795.3	792.9
47.5°	3442.5	2954.4	1491.9	955.4	913.1	927.2	898.9	848.7	788.6	738.3	732.8
50°	3667.5	3092.4	1334.3	860.9	854.8	913.7	886.7	814.3	745.6	681.3	675.7
52.5°	3890.7	3204.0	1132.6	775.1	823.5	910.0	870.7	791.0	707.0	639.6	632.2
55°	4080.2	3261.6	938.2	701.5	778.1	878.7	851.7	763.4	652.4	580.7	574.6
57.5°	4188.1	3215.0	776.3	629.1	715.6	827.2	819.2	704.6	587.4	532.3	524.9
60°	4141.5	3026.1	643.9	566.0	656.1	771.4	762.8	646.3	537.8	485.7	478.3
62.5°	3884.6	2666.2	539.0	510.8	602.2	714.4	706.4	601.5	499.8	449.5	441.5
65°	3367.1	2168.9	457.4	464.8	547.6	645.7	657.3	564.1	469.7	420.7	412.7
67.5°	2568.1	1571.0	393.7	424.9	494.2	578.2	612.0	537.2	444.6	398.0	390.6
70°	1463.7	892.2	339.7	386.3	447.0	515.7	577.0	515.7	417.6	379.0	374.1
72.5°	554.9	409.6	293.7	347.7	401.6	463.0	538.4	482.0	386.3	357.5	352.6
75°	296.2	249.6	247.1	302.3	349.5	411.5	489.9	448.9	363.0	377.7	390.0
77.5°	201.7	176.6	206.6	258.8	292.5	354.4	438.4	398.6	314.6	313.3	288.8
80°	139.8	125.1	168.0	208.5	226.3	298.0	382.6	342.2	256.3	239.1	228.7
82.5°	84.0	81.6	125.7	155.8	160.0	229.9	317.0	287.0	209.7	182.7	184.0
85°	46.0	48.4	80.3	91.4	93.2	160.7	248.3	222.0	161.3	135.5	136.7
87.5°	12.9	16.6	29.4	36.2	44.8	83.4	147.8	131.8	80.9	56.4	56.4
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)