

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: P882401

Luminaire Tested: **NAV-SB2B-730-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882401
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-730-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3000K, 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: 11166 lumens
Efficiency: N/A
Efficacy: 151.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

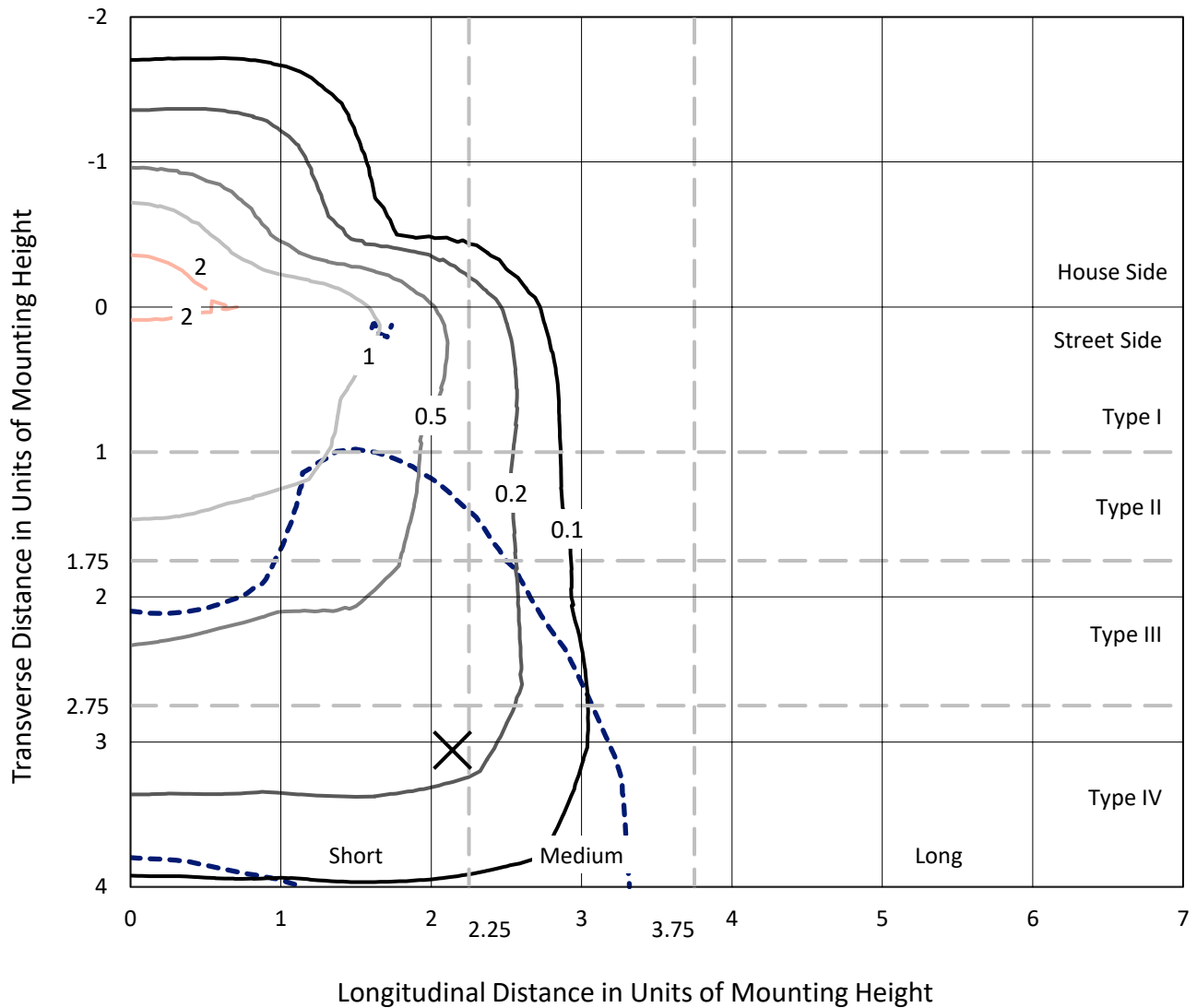
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

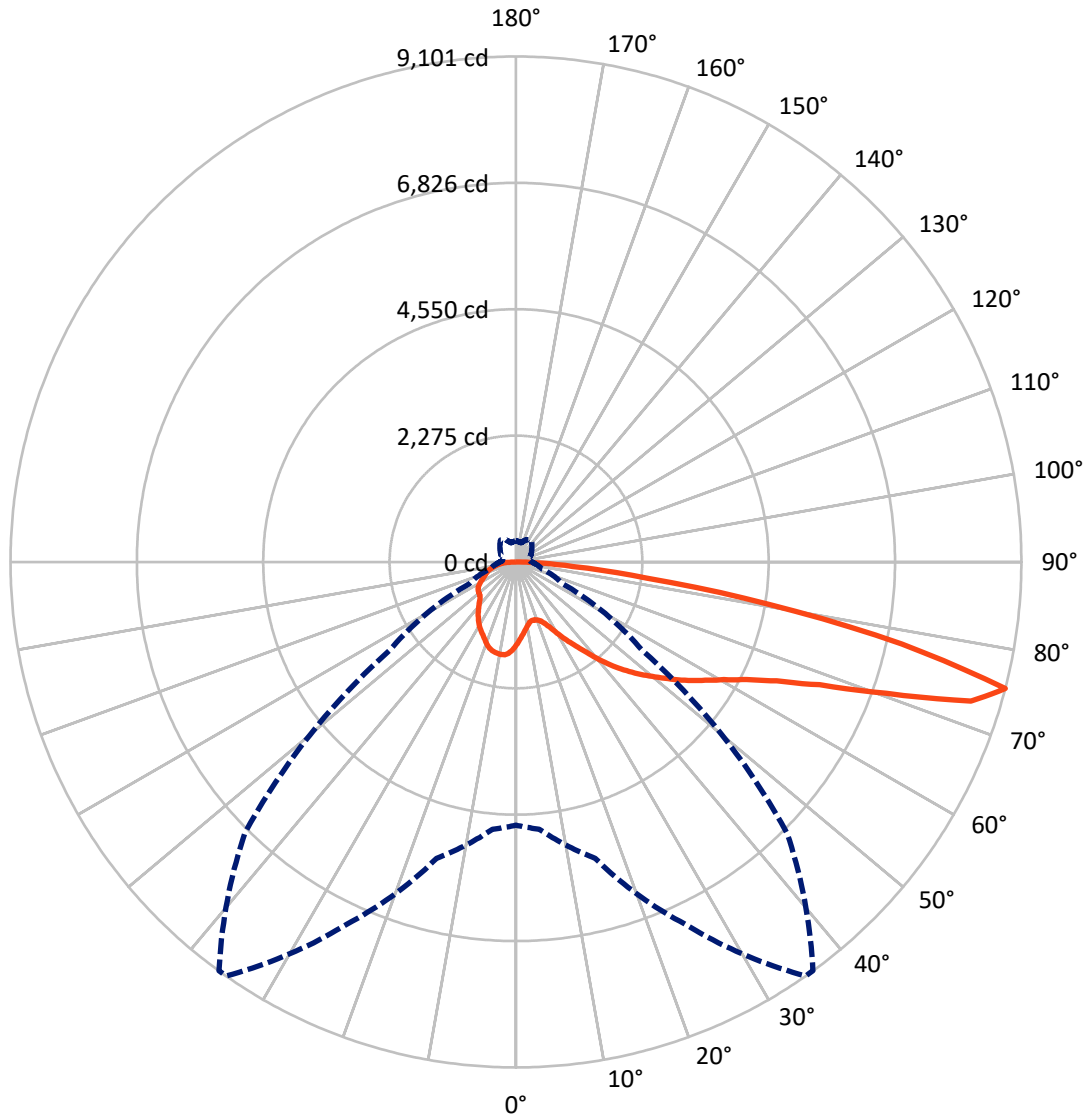
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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	2657.2	0.0	2657.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	8508.8	0.0	8508.8
	% Fixture	76.2	0.0	76.2
Total	Lumens	11166.0	0.0	11166.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.9	1.3
10°-20°	406.4	3.6
20°-30°	682.4	6.1
30°-40°	1060.5	9.5
40°-50°	1574.1	14.1
50°-60°	2173.1	19.5
60°-70°	2636.5	23.6
70°-80°	2178.8	19.5
80°-90°	313.4	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°	11166.0	100.0
0°-180°	11166.0	100.0

Coefficient of Utilization



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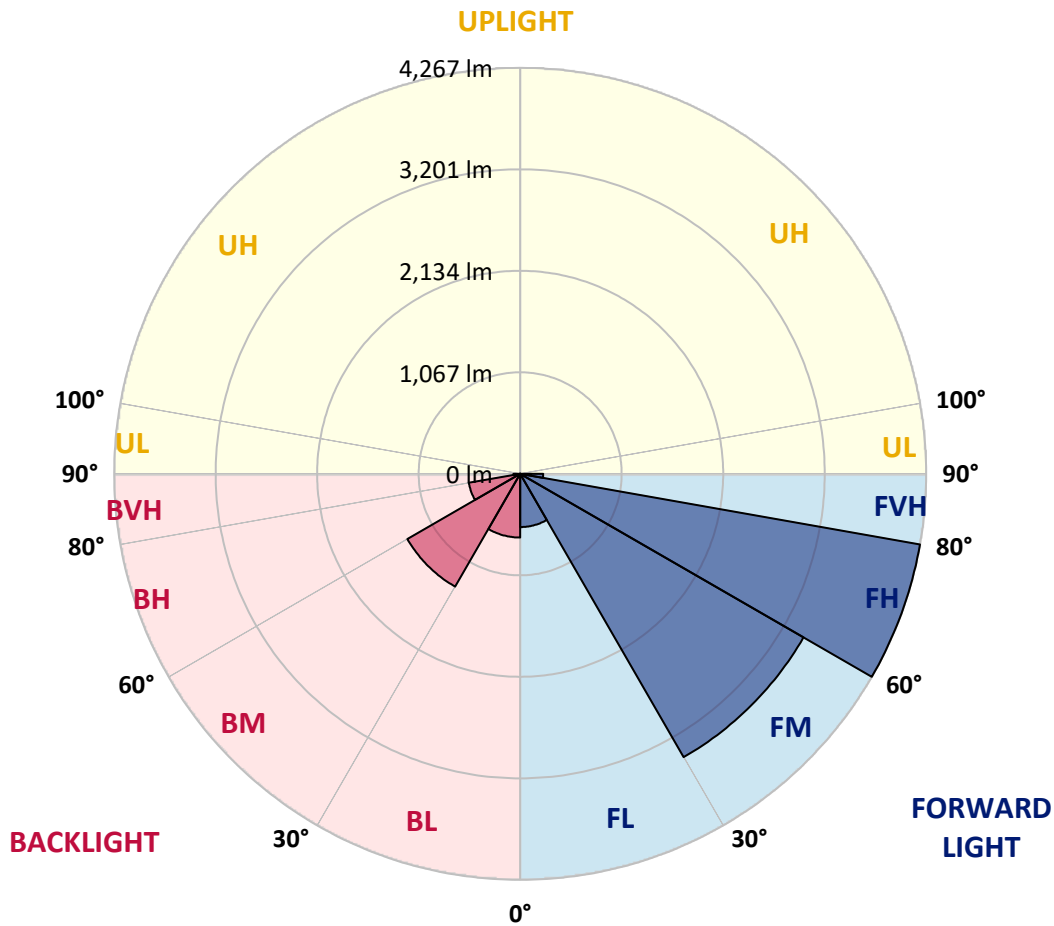
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	560.0	5.0			
FM (30°-60°)	3438.5	30.8			
FH (60°-80°)	4267.5	38.2			G2/5000
FVH (80°-90°)	242.8	2.2			G3/500
BL (0°-30°)	669.7	6.0	B2/1000		
BM (30°-60°)	1369.2	12.3	B2/2500		
BH (60°-80°)	547.8	4.9	B2/1000		G2/1000
BVH (80°-90°)	70.6	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°	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9
2.5°	1372.0	1380.5	1384.1	1382.3	1391.4	1390.2	1402.8	1418.5	1440.3	1461.4	1492.2
5°	1266.4	1275.5	1283.3	1290.6	1308.1	1313.5	1333.4	1363.6	1403.4	1443.9	1494.6
7.5°	1168.0	1175.9	1187.9	1201.2	1230.8	1236.2	1269.4	1316.5	1372.0	1431.2	1501.2
10°	1087.7	1095.6	1108.3	1123.4	1160.2	1166.8	1209.1	1271.8	1344.3	1419.1	1508.5
12.5°	1053.3	1055.7	1063.0	1078.1	1110.1	1114.3	1160.8	1232.6	1317.1	1410.1	1519.3
15°	1051.5	1056.4	1057.0	1064.8	1091.4	1093.2	1136.0	1207.3	1300.2	1408.3	1535.6
17.5°	1069.6	1073.3	1067.8	1072.6	1095.0	1098.0	1131.8	1195.2	1294.8	1416.1	1563.4
20°	1117.9	1120.9	1104.6	1098.0	1114.3	1116.7	1149.9	1203.0	1300.2	1432.4	1601.4
22.5°	1220.5	1222.3	1182.5	1155.3	1156.6	1157.8	1186.7	1235.0	1321.3	1462.0	1649.7
25°	1380.5	1379.3	1315.9	1263.4	1233.2	1226.6	1245.9	1286.9	1357.0	1501.2	1711.9
27.5°	1567.6	1558.6	1495.2	1416.7	1350.9	1341.3	1337.0	1354.5	1407.7	1553.1	1787.9
30°	1778.9	1770.4	1702.2	1599.6	1508.5	1492.8	1452.9	1443.9	1483.1	1623.8	1893.6
32.5°	2010.7	2005.3	1923.8	1799.4	1677.5	1659.4	1592.4	1568.2	1599.0	1730.6	2040.9
35°	2205.1	2200.2	2132.6	2004.7	1855.6	1833.2	1765.0	1737.8	1753.5	1867.6	2233.4
37.5°	2380.7	2378.3	2320.3	2219.5	2065.6	2038.5	1961.8	1952.7	1949.7	2048.1	2467.0
40°	2543.7	2537.7	2477.3	2424.2	2310.1	2285.3	2217.7	2209.9	2186.9	2270.2	2731.4
42.5°	2724.2	2708.5	2621.0	2596.2	2565.4	2544.9	2504.5	2505.7	2455.0	2520.8	3011.5
45°	2871.5	2862.4	2772.5	2758.0	2791.2	2782.7	2817.7	2826.8	2728.4	2783.3	3302.5
47.5°	3029.6	3021.2	2945.1	2934.8	3024.8	3027.2	3150.9	3154.0	2995.2	3056.2	3594.0
50°	3224.6	3212.5	3137.1	3149.7	3250.5	3259.6	3486.0	3465.4	3240.9	3333.2	3883.1
52.5°	3353.2	3360.4	3344.1	3364.6	3502.3	3510.7	3815.5	3763.0	3484.1	3606.7	4166.8
55°	3447.9	3462.4	3513.1	3560.2	3767.9	3776.3	4126.4	4046.1	3685.8	3860.2	4433.7
57.5°	3569.9	3549.3	3644.1	3735.9	4020.2	4042.5	4428.8	4319.0	3864.4	4078.7	4616.6
60°	3744.9	3730.4	3804.1	3939.9	4302.7	4338.3	4748.7	4564.6	3995.4	4252.0	4652.2
62.5°	4099.8	4063.6	4075.1	4195.2	4658.8	4705.9	5109.7	4778.9	4060.6	4319.6	4461.4
65°	4630.4	4568.3	4510.3	4593.6	5160.4	5206.9	5517.2	4947.3	4036.5	4188.6	3955.0
67.5°	5298.7	5237.1	5165.9	5244.3	5899.3	5936.1	6020.0	5042.1	3846.3	3683.9	3059.8
70°	5849.8	5826.8	5911.9	6234.9	7079.4	7080.6	6664.7	4963.6	3325.4	2611.9	1770.4
72.5°	5776.7	5762.8	6211.3	7209.7	8566.7	8534.7	7274.9	4369.7	2240.1	1178.3	663.4
75°	4739.1	4829.0	5523.8	7192.2	9100.9	9096.7	6901.3	2777.9	926.6	488.3	342.9
77.5°	2541.3	2683.7	3586.2	5310.1	7104.7	7211.6	4852.0	971.8	397.8	312.7	237.2
80°	828.8	953.1	1429.4	2703.7	4616.6	4596.6	2079.5	381.5	272.2	221.5	164.2
82.5°	351.9	366.4	638.6	1276.7	2369.2	2332.4	662.2	219.1	191.4	151.5	101.4
85°	137.6	153.9	281.9	590.3	1026.2	1003.8	239.0	108.7	122.5	99.0	60.4
87.5°	45.3	54.9	100.8	202.2	319.3	307.9	58.6	37.4	53.1	45.3	21.7
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°	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9	1487.9
2.5°	1500.6	1510.3	1521.7	1538.6	1553.1	1565.2	1577.9	1585.7	1588.8	1597.8	1597.2
5°	1511.5	1532.6	1561.0	1588.8	1615.9	1632.2	1646.7	1653.9	1660.6	1665.4	1666.6
7.5°	1529.6	1556.8	1601.4	1637.6	1660.6	1673.9	1683.5	1681.1	1683.5	1684.7	1686.5
10°	1545.3	1583.3	1636.4	1670.8	1688.3	1689.0	1686.5	1678.1	1673.9	1674.5	1675.7
12.5°	1564.0	1606.3	1663.6	1692.6	1697.4	1684.1	1673.9	1659.4	1653.9	1651.5	1650.3
15°	1589.4	1637.6	1693.2	1704.0	1692.0	1675.1	1657.6	1634.0	1622.0	1612.3	1615.3
17.5°	1620.1	1673.3	1716.1	1708.3	1682.3	1654.5	1626.2	1590.6	1565.8	1555.6	1556.2
20°	1663.0	1710.7	1733.6	1699.2	1660.0	1617.7	1569.4	1526.0	1503.0	1492.8	1491.6
22.5°	1714.9	1760.8	1750.5	1683.5	1628.0	1560.4	1500.0	1468.0	1456.6	1449.3	1450.5
25°	1777.1	1816.3	1762.6	1660.6	1575.5	1484.3	1437.8	1427.6	1422.1	1416.7	1416.7
27.5°	1858.0	1879.1	1771.7	1626.8	1493.4	1403.4	1386.5	1388.3	1386.5	1377.5	1379.3
30°	1964.8	1960.6	1780.1	1571.8	1399.2	1330.4	1331.6	1339.5	1340.7	1334.6	1337.6
32.5°	2105.5	2062.6	1784.3	1500.6	1309.3	1266.4	1267.6	1276.1	1282.1	1271.8	1276.7
35°	2275.7	2181.5	1777.7	1411.3	1239.9	1205.4	1196.4	1198.8	1200.6	1191.0	1197.6
37.5°	2474.3	2314.9	1748.1	1312.3	1182.5	1145.7	1126.4	1110.1	1100.4	1091.4	1097.4
40°	2692.2	2460.4	1693.8	1215.7	1118.5	1082.3	1053.3	1022.5	990.0	977.9	983.3
42.5°	2920.4	2610.1	1628.0	1123.4	1044.9	1015.3	984.5	939.9	891.0	866.2	869.2
45°	3157.0	2763.4	1563.4	1032.2	969.4	956.8	921.1	867.4	814.3	782.9	780.5
47.5°	3388.8	2908.3	1468.6	940.5	898.8	912.7	884.9	835.4	776.3	726.8	721.3
50°	3610.3	3044.1	1313.5	847.5	841.5	899.4	872.8	801.6	734.0	670.6	665.2
52.5°	3830.0	3154.0	1114.9	763.0	810.7	895.8	857.2	778.7	696.0	629.6	622.3
55°	4016.5	3210.7	923.6	690.6	766.0	865.0	838.4	751.5	642.3	571.6	565.6
57.5°	4122.8	3164.8	764.2	619.3	704.4	814.3	806.4	693.6	578.3	523.9	516.7
60°	4076.9	2978.9	633.8	557.1	645.9	759.4	750.9	636.2	529.4	478.1	470.8
62.5°	3824.0	2624.6	530.6	502.8	592.8	703.2	695.4	592.2	492.0	442.5	434.6
65°	3314.5	2135.0	450.3	457.6	539.0	635.6	647.1	555.3	462.4	414.1	406.2
67.5°	2528.0	1546.5	387.5	418.3	486.5	569.2	602.4	528.8	437.6	391.8	384.5
70°	1440.9	878.3	334.4	380.3	440.0	507.7	568.0	507.7	411.1	373.0	368.2
72.5°	546.3	403.2	289.1	342.3	395.4	455.7	530.0	474.5	380.3	351.9	347.1
75°	291.6	245.7	243.3	297.6	344.1	405.0	482.3	441.9	357.3	371.8	383.9
77.5°	198.6	173.8	203.4	254.7	287.9	348.9	431.6	392.4	309.7	308.5	284.3
80°	137.6	123.1	165.4	205.2	222.7	293.4	376.7	336.8	252.3	235.4	225.2
82.5°	82.7	80.3	123.7	153.3	157.5	226.4	312.1	282.5	206.4	179.9	181.1
85°	45.3	47.7	79.1	89.9	91.8	158.2	244.5	218.5	158.8	133.4	134.6
87.5°	12.7	16.3	29.0	35.6	44.1	82.1	145.5	129.8	79.7	55.5	55.5
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)