

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: STREETWORKS

Report Number: P301086

Luminaire Tested: **GAA-AF-02-LED-U-T3R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301086
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-02-LED-U-T3R-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10780.5 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

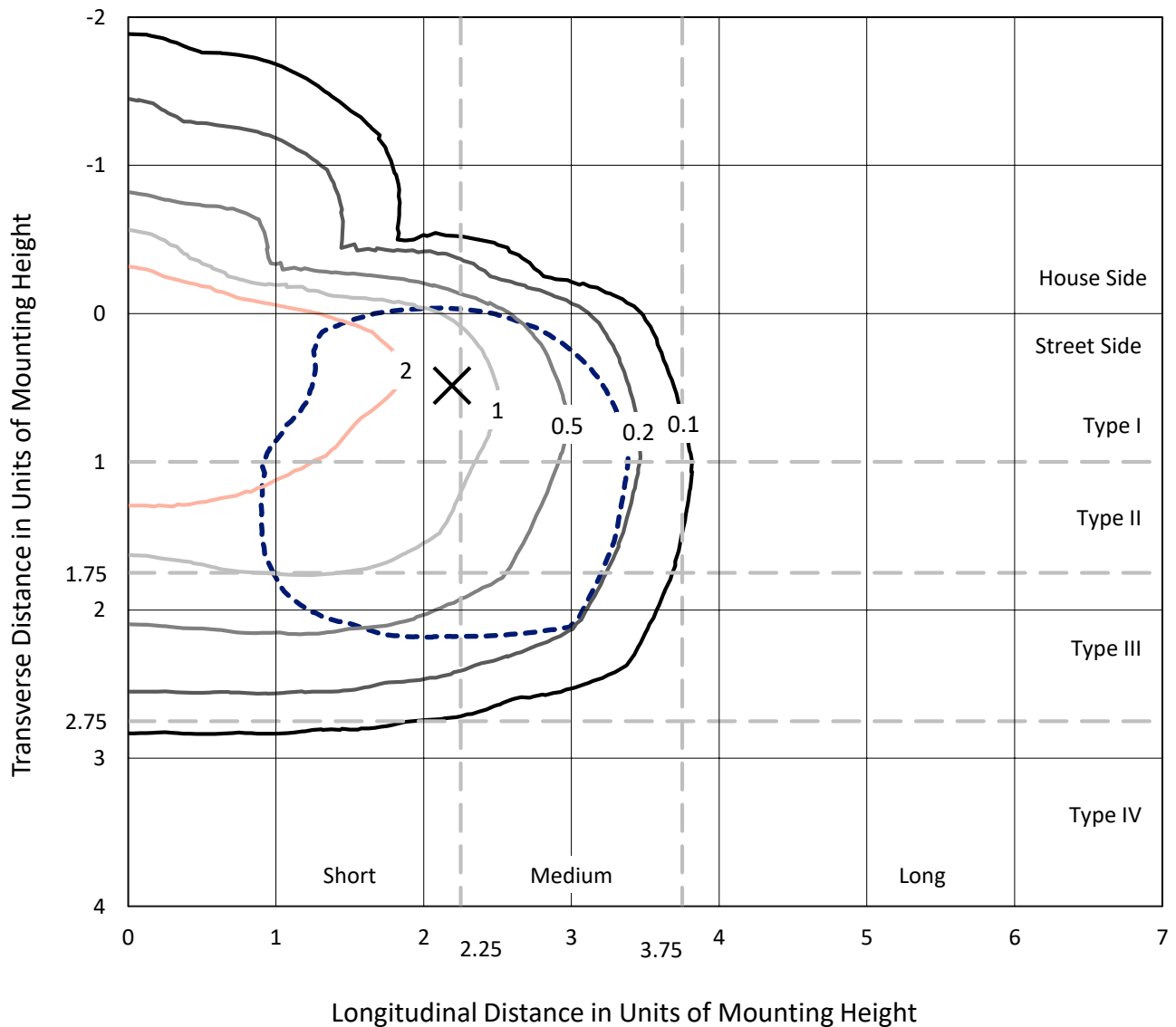
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

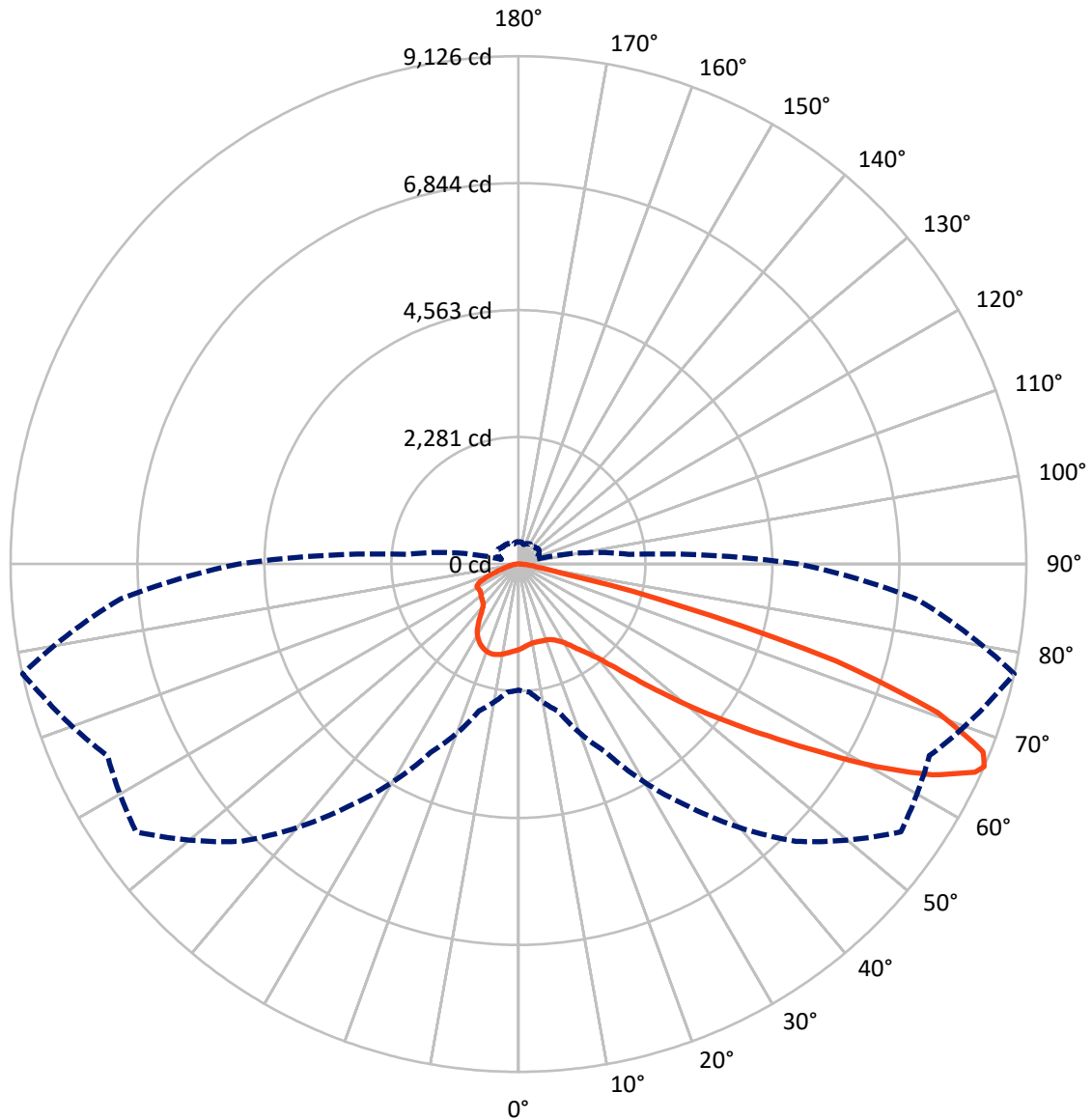
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1841.8	0.0	1841.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	8938.7	0.0	8938.7
	% Fixture	82.9	0.0	82.9
Total	Lumens	10780.5	0.0	10780.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.3	1.3
10°-20°	387.2	3.6
20°-30°	660.8	6.1
30°-40°	1057.9	9.8
40°-50°	1634.3	15.2
50°-60°	2318.1	21.5
60°-70°	3100.9	28.8
70°-80°	1346.7	12.5
80°-90°	137.3	1.3
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°	10780.5	100.0
0°-180°	10780.5	100.0



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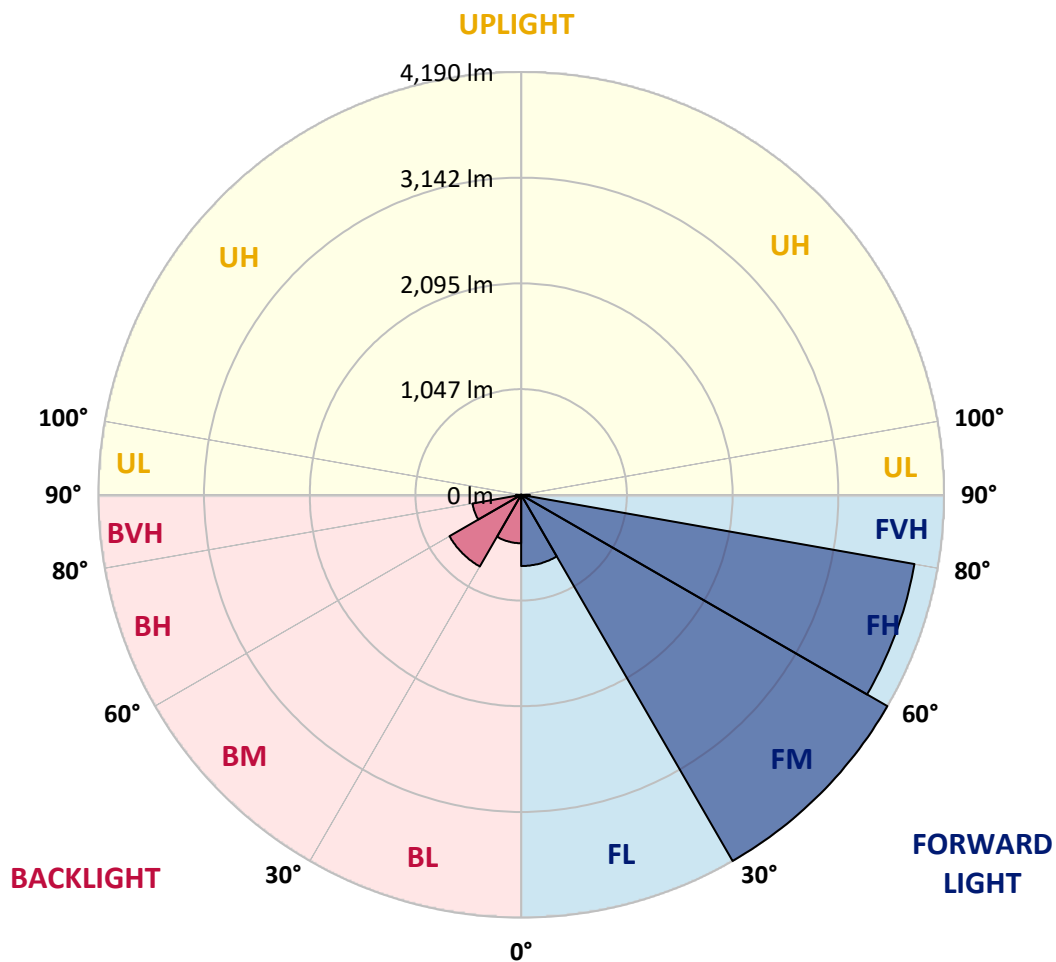
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	705.6	6.5			
FM	(30°-60°)	4189.9	38.9			
FH	(60°-80°)	3957.1	36.7			G2/5000
FVH	(80°-90°)	86.1	0.8			G1/100
BL	(0°-30°)	479.7	4.4	B1/500		
BM	(30°-60°)	820.4	7.6	B1/1000		
BH	(60°-80°)	490.5	4.5	B1/500		G1/500
BVH	(80°-90°)	51.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3
2.5°	1359.1	1368.2	1375.9	1383.0	1397.1	1420.6	1447.6	1469.5	1501.1	1507.3	1524.1
5°	1234.3	1234.3	1240.3	1251.1	1270.4	1305.5	1342.2	1391.1	1459.9	1476.1	1521.0
7.5°	1173.7	1174.1	1177.7	1186.8	1203.6	1235.7	1275.9	1333.6	1426.8	1453.7	1530.1
10°	1196.0	1190.9	1183.2	1178.8	1181.2	1200.0	1238.3	1302.5	1406.4	1440.9	1550.6
12.5°	1321.3	1311.7	1285.2	1250.0	1216.4	1202.7	1225.0	1287.6	1397.8	1438.0	1577.6
15°	1526.1	1522.1	1472.6	1399.8	1318.3	1250.0	1234.7	1282.1	1398.7	1441.6	1609.7
17.5°	1782.9	1777.2	1712.1	1606.1	1473.2	1340.2	1268.8	1286.7	1402.2	1447.6	1640.7
20°	2042.1	2024.7	1954.5	1828.2	1657.5	1462.8	1325.4	1298.4	1406.9	1454.2	1673.4
22.5°	2235.7	2221.3	2158.3	2035.5	1838.9	1605.0	1401.3	1318.8	1421.7	1473.6	1713.5
25°	2405.8	2406.7	2344.1	2225.5	2022.2	1755.9	1499.1	1373.2	1459.3	1513.3	1768.5
27.5°	2616.2	2604.0	2545.4	2427.7	2203.6	1908.1	1617.2	1448.2	1515.4	1569.9	1840.9
30°	2867.7	2859.1	2791.4	2658.0	2404.7	2071.6	1752.2	1535.2	1587.8	1644.2	1935.6
32.5°	3163.7	3159.7	3089.3	2917.7	2637.0	2264.2	1910.7	1650.4	1695.7	1754.3	2071.6
35°	3511.1	3511.6	3428.6	3222.3	2891.1	2488.3	2090.4	1798.6	1827.1	1888.2	2233.7
37.5°	3725.1	3751.0	3720.0	3509.6	3178.9	2738.9	2323.7	1995.2	1976.9	2038.6	2407.3
40°	3770.9	3802.5	3900.7	3793.8	3501.0	3015.0	2530.6	2184.2	2161.3	2236.6	2631.0
42.5°	3706.7	3750.5	3958.4	4033.7	3842.7	3355.2	2808.6	2464.9	2435.9	2537.2	2909.0
45°	3668.5	3701.2	3941.6	4158.6	4139.2	3739.9	3162.7	2817.3	2806.6	2939.6	3230.0
47.5°	3602.3	3631.9	3863.1	4187.6	4313.4	4092.3	3588.1	3248.3	3269.2	3443.4	3592.1
50°	3637.9	3650.1	3775.5	4113.7	4363.9	4350.6	4063.3	3747.4	3818.8	4036.3	4002.2
52.5°	3632.8	3664.4	3765.3	3992.5	4370.5	4510.1	4531.4	4304.2	4454.6	4704.1	4457.0
55°	2937.1	2995.1	3645.6	3962.0	4393.8	4666.3	4948.1	4891.0	5171.1	5462.0	4970.4
57.5°	2804.6	2841.3	3201.9	4026.1	4518.1	4964.9	5411.5	5536.9	6005.5	6343.2	5596.0
60°	2778.6	2823.9	3197.3	4104.6	4770.3	5451.3	6098.8	6318.9	7020.7	7390.6	6321.3
62.5°	2697.6	2746.5	3167.2	4094.3	5128.4	6124.2	6978.5	7150.1	7983.4	8343.1	6928.1
65°	2441.0	2486.8	2922.3	3929.9	5369.9	6842.5	8019.5	7912.2	8743.5	9013.8	7230.5
66°	2265.1	2310.0	2729.2	3736.3	5313.8	7046.2	8388.4	8148.0	8913.6	9125.5	7171.4
67.5°	1943.7	1978.9	2354.3	3302.8	5015.8	7103.3	8698.6	8325.2	8931.3	9006.3	6833.8
70°	1228.1	1238.3	1530.1	2279.9	3796.9	6160.3	8226.3	7885.2	8194.9	7992.1	5728.9
72.5°	532.9	529.3	734.6	1159.8	2149.6	4133.6	6654.5	6506.2	6428.4	5965.8	4010.4
75°	296.4	300.6	381.6	538.4	873.5	2030.4	4353.1	4165.7	3517.2	3001.3	1818.5
77.5°	237.8	243.5	316.3	382.0	392.2	708.1	2037.0	1657.5	997.9	800.7	505.2
80°	188.0	198.2	276.1	297.5	264.3	291.8	658.1	526.2	394.8	362.1	261.9
82.5°	148.7	155.9	236.9	225.2	184.9	196.6	315.2	307.2	256.8	233.8	151.3
85°	107.0	120.1	194.6	169.7	121.2	132.5	209.3	200.6	147.1	120.1	66.8
87.5°	43.8	57.1	137.6	112.6	67.7	61.7	104.4	98.2	69.7	50.9	33.2
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°	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3	1536.3
2.5°	1534.7	1546.9	1562.8	1572.5	1577.6	1581.1	1586.7	1586.2	1587.8	1588.2	1590.2
5°	1544.9	1565.3	1588.2	1594.4	1594.4	1588.7	1583.1	1573.9	1570.3	1569.4	1570.3
7.5°	1571.4	1593.8	1613.7	1606.6	1591.3	1568.8	1539.8	1514.4	1500.6	1496.0	1495.1
10°	1605.0	1632.0	1640.2	1613.2	1568.3	1514.4	1456.8	1415.0	1391.1	1384.5	1382.5
12.5°	1645.8	1671.2	1660.1	1603.0	1519.9	1432.9	1353.3	1286.7	1236.8	1221.0	1219.9
15°	1690.6	1710.5	1671.2	1571.4	1447.6	1319.3	1177.7	1062.6	1000.5	980.6	979.0
17.5°	1732.4	1742.6	1664.6	1516.4	1341.2	1133.4	945.4	856.7	835.5	840.5	841.5
20°	1768.1	1768.1	1642.2	1437.4	1173.7	888.4	769.6	768.2	783.5	798.7	801.8
22.5°	1807.2	1783.8	1603.0	1325.9	936.2	726.9	709.6	723.8	741.1	757.9	760.5
25°	1855.7	1796.6	1548.4	1156.9	736.0	660.1	666.7	678.4	687.1	697.9	699.4
27.5°	1909.6	1812.8	1476.7	924.0	638.8	618.5	623.5	627.6	626.5	630.6	631.6
30°	1974.3	1831.8	1378.3	722.2	598.6	582.7	573.6	570.0	570.0	576.7	579.1
32.5°	2060.9	1859.7	1237.2	618.9	579.1	557.2	527.8	514.5	519.6	542.0	547.0
35°	2156.3	1889.7	1046.3	583.8	575.1	545.5	499.7	475.2	475.8	496.6	503.2
37.5°	2260.0	1928.0	836.8	577.1	584.2	546.1	484.9	451.3	437.5	437.5	440.2
40°	2393.0	1967.2	677.5	581.7	603.6	552.1	477.3	432.5	393.7	394.8	396.8
42.5°	2566.2	2000.8	591.9	591.3	627.1	560.3	476.7	407.5	373.8	396.8	417.6
45°	2758.8	2017.6	554.1	600.1	645.9	565.4	468.7	403.5	376.5	444.6	484.4
47.5°	2980.3	2007.9	533.3	603.0	650.5	565.4	459.4	413.2	394.2	515.0	561.4
50°	3223.4	1980.0	513.0	597.0	649.0	564.3	468.1	422.7	400.8	527.1	559.2
52.5°	3509.1	1956.5	491.5	583.8	638.2	558.8	478.3	418.7	380.0	479.3	501.7
55°	3835.0	1963.2	467.6	564.9	621.4	548.1	474.7	402.4	358.1	422.3	436.0
57.5°	4251.7	2042.1	439.1	541.0	598.6	530.2	462.1	394.8	351.5	383.1	391.3
60°	4716.7	2179.5	403.5	517.0	570.0	501.7	452.3	398.4	354.6	380.0	384.0
62.5°	5058.0	2259.6	372.9	481.8	531.3	470.1	440.2	402.8	362.7	390.7	389.7
65°	5150.7	2128.2	334.7	430.4	478.9	437.1	424.7	407.9	366.3	399.3	394.8
66°	5020.9	1986.6	317.9	406.5	452.3	420.7	417.2	407.5	364.7	400.4	392.7
67.5°	4705.6	1696.2	288.9	371.4	410.1	396.4	405.0	402.8	360.6	399.3	388.7
70°	3837.6	1157.3	247.1	309.2	341.3	348.9	381.6	386.6	347.3	381.6	358.1
72.5°	2681.4	705.0	218.5	240.0	276.1	297.5	349.5	364.1	329.6	333.1	310.8
75°	1295.8	374.5	198.2	186.0	214.4	248.6	310.8	333.6	301.5	278.7	270.5
77.5°	403.9	228.7	168.1	149.8	168.1	200.6	259.7	292.4	268.5	233.3	230.3
80°	217.0	168.1	129.4	120.1	132.9	157.5	204.2	244.0	230.7	209.3	186.9
82.5°	143.1	109.0	95.8	93.2	101.3	120.1	151.8	202.2	202.2	179.4	130.5
85°	73.9	66.8	65.7	65.7	70.8	80.0	103.3	155.9	166.1	94.7	78.5
87.5°	36.7	38.2	35.6	37.2	39.8	39.2	49.4	78.5	93.8	57.5	47.8
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)