

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: P234839

Luminaire Tested: **ARCH-M-AF48-120-D-U-T4W-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234839  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-120-D-U-T4W-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11816 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 122  
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

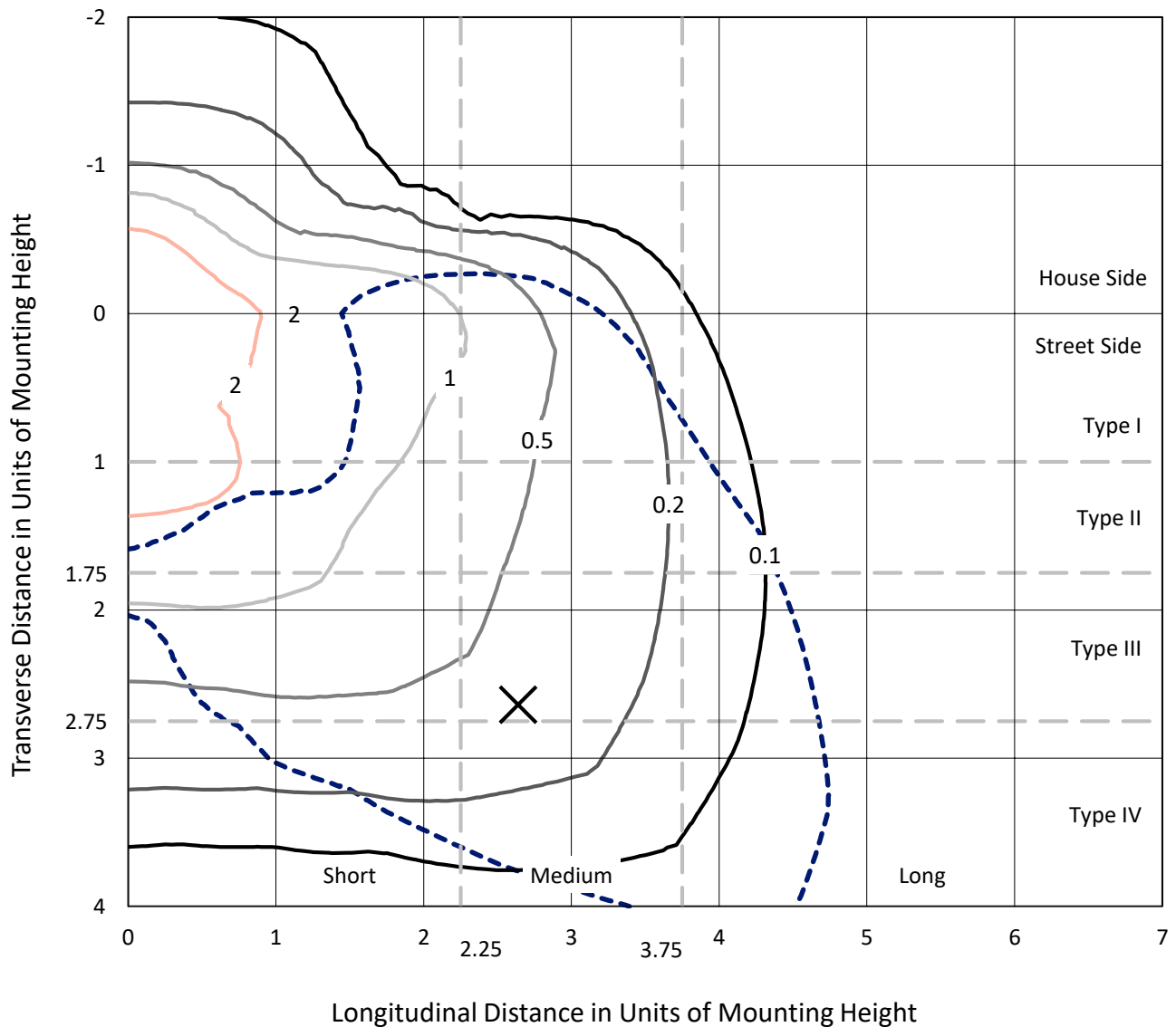


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

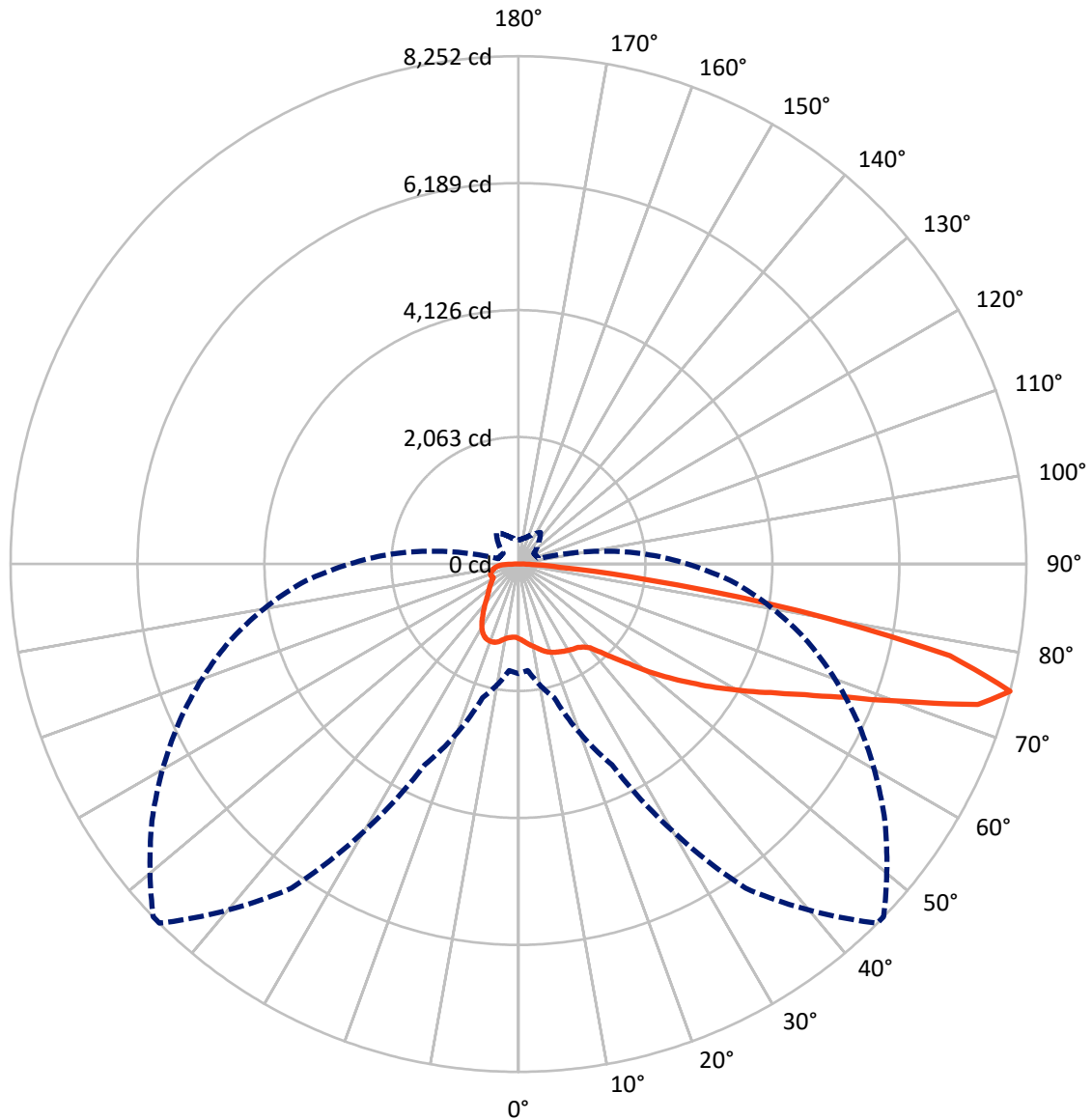


Based on 20 foot mounting height. Maximum calculated value = 3.5 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2737.3	0.0	2737.3
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	9078.7	0.0	9078.7
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	11816.0	0.0	11816.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.0	1.0
10°-20°	389.0	3.3
20°-30°	667.5	5.6
30°-40°	933.6	7.9
40°-50°	1369.5	11.6
50°-60°	2133.3	18.1
60°-70°	3069.7	26.0
70°-80°	2674.0	22.6
80°-90°	459.2	3.9
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°	11816.0	100.0
0°-180°	11816.0	100.0



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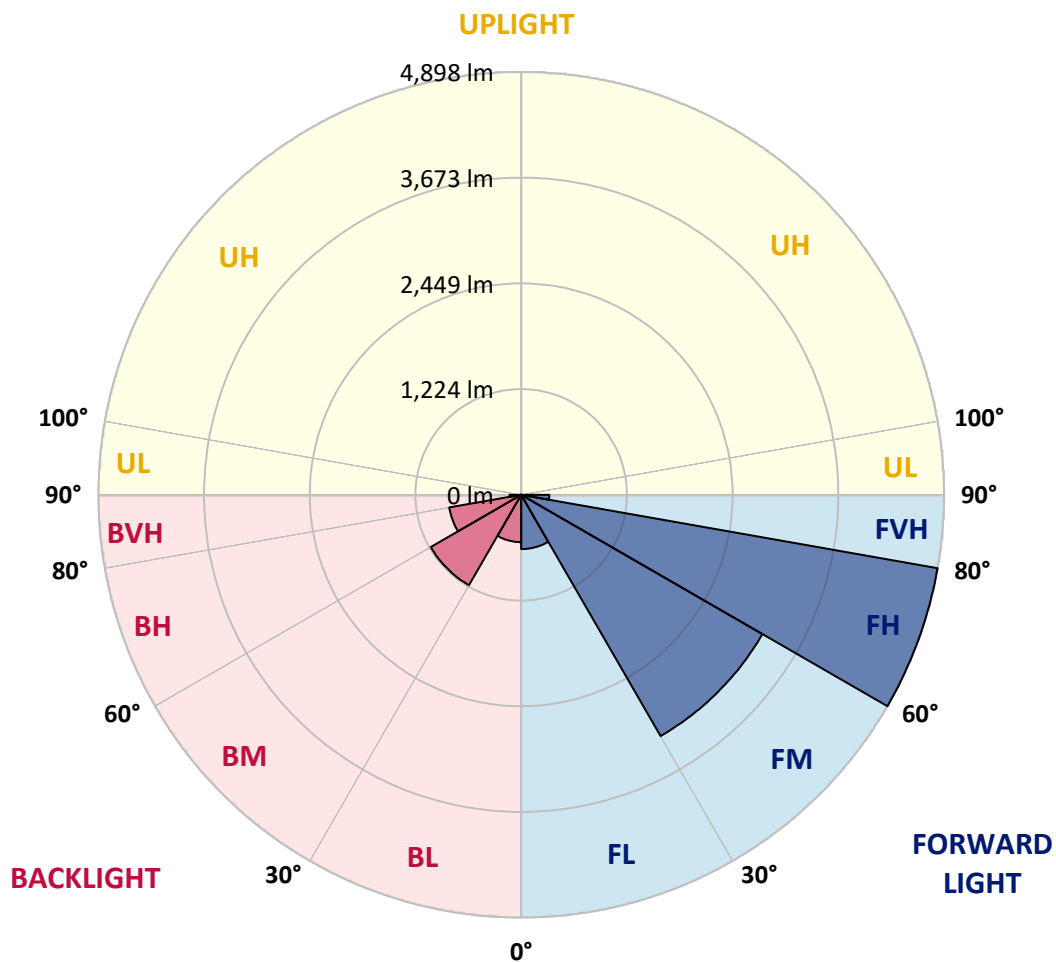
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	628.3	5.3			
FM (30°-60°)	3226.7	27.3			
FH (60°-80°)	4897.8	41.5			G2/5000
FVH (80°-90°)	325.8	2.8			G3/500
BL (0°-30°)	548.2	4.6	B2/1000		
BM (30°-60°)	1209.7	10.2	B2/2500		
BH (60°-80°)	845.9	7.2	B2/1000		G2/1000
BVH (80°-90°)	133.4	1.1			G2/225
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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3
2.5°	1271.1	1261.9	1261.9	1255.0	1255.0	1243.5	1238.9	1236.6	1225.1	1218.2	1211.3
5°	1344.6	1333.1	1330.8	1314.7	1307.8	1282.6	1280.3	1264.2	1243.5	1222.8	1206.7
7.5°	1411.3	1404.4	1392.9	1376.8	1356.1	1323.9	1321.6	1296.4	1261.9	1234.3	1211.3
10°	1459.5	1454.9	1438.9	1418.2	1395.2	1363.0	1360.7	1333.1	1291.8	1259.6	1227.4
12.5°	1517.0	1510.1	1489.4	1461.8	1436.6	1406.7	1404.4	1381.4	1335.4	1294.1	1252.7
15°	1572.2	1563.0	1537.7	1510.1	1482.5	1457.2	1457.2	1432.0	1383.7	1335.4	1287.2
17.5°	1599.8	1595.2	1569.9	1540.0	1517.0	1498.6	1496.3	1473.3	1425.1	1374.5	1321.6
20°	1608.9	1611.2	1588.3	1556.1	1540.0	1530.8	1528.5	1512.4	1459.5	1411.3	1360.7
22.5°	1606.6	1613.5	1595.2	1560.7	1556.1	1556.1	1556.1	1537.7	1496.3	1448.1	1397.5
25°	1615.8	1625.0	1611.2	1569.9	1569.9	1579.1	1579.1	1569.9	1533.1	1491.7	1441.2
27.5°	1648.0	1654.9	1643.4	1586.0	1588.3	1602.1	1599.8	1602.1	1579.1	1540.0	1489.4
30°	1687.1	1696.3	1682.5	1611.2	1608.9	1622.7	1622.7	1634.2	1618.1	1576.8	1535.4
32.5°	1792.8	1790.5	1746.9	1638.8	1631.9	1645.7	1645.7	1657.2	1648.0	1615.8	1576.8
35°	2107.7	2073.2	1976.7	1728.5	1659.5	1666.4	1666.4	1687.1	1691.7	1666.4	1631.9
37.5°	2429.5	2418.0	2344.5	1967.5	1760.6	1710.1	1707.8	1737.7	1758.3	1737.7	1714.7
40°	2753.6	2744.4	2728.3	2287.0	1972.1	1788.2	1781.3	1806.6	1843.4	1829.6	1815.8
42.5°	3054.7	3050.1	3066.2	2601.9	2241.0	1956.0	1935.3	1905.5	1958.3	1953.7	1953.7
45°	3291.4	3302.9	3312.1	2896.1	2532.9	2172.1	2146.8	2045.7	2116.9	2135.3	2149.1
47.5°	3424.8	3434.0	3466.1	3183.4	2824.9	2422.6	2404.2	2238.7	2333.0	2388.1	2427.2
50°	3615.5	3590.3	3617.8	3463.8	3176.5	2749.0	2698.4	2498.5	2618.0	2714.5	2806.5
52.5°	3799.4	3758.0	3781.0	3787.9	3576.5	3068.5	3015.6	2804.2	2953.6	3105.3	3268.5
55°	3964.9	3962.6	3985.6	4102.8	3962.6	3411.0	3351.2	3142.0	3358.1	3521.3	3797.1
57.5°	4098.2	4121.2	4222.3	4468.3	4408.5	3783.3	3716.7	3535.1	3790.2	3953.4	4410.8
60°	4254.5	4291.3	4459.1	4778.6	4815.4	4174.1	4105.1	3974.1	4233.8	4399.3	5121.1
62.5°	4307.4	4360.2	4705.0	5105.0	5240.6	4601.6	4539.5	4452.2	4700.4	4849.8	5829.0
65°	3955.7	4056.8	4840.6	5272.8	5698.0	5116.5	5063.6	4987.7	5164.7	5263.6	6309.4
67.5°	3859.2	3905.1	4576.3	5514.1	6127.8	5778.4	5725.6	5594.5	5599.1	5557.8	6465.7
70°	3723.6	3774.1	4305.1	5695.7	6743.8	6684.0	6619.7	6233.5	5996.8	5746.2	6157.7
72.5°	3171.9	3155.8	3709.8	5206.1	7040.3	7805.7	7729.8	6920.8	6291.0	5583.0	5196.9
75°	1781.3	1735.4	2250.2	3601.7	6428.9	8251.6	8249.3	7267.8	6084.1	4863.6	3537.4
77.5°	517.2	503.4	742.4	1510.1	4328.1	7169.0	7256.4	6555.3	5077.4	3493.7	1942.2
80°	243.6	248.2	319.5	498.8	1848.0	4626.9	4877.4	4316.6	3034.0	1611.2	802.2
82.5°	154.0	156.3	218.4	321.8	781.5	2100.8	2307.7	1942.2	1202.1	696.4	354.0
85°	96.5	96.5	144.8	211.5	466.6	671.2	728.6	662.0	514.9	379.3	193.1
87.5°	52.9	52.9	87.3	121.8	255.1	216.1	223.0	264.3	321.8	232.1	96.5
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°	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3
2.5°	1209.0	1204.4	1197.5	1195.2	1192.9	1190.6	1192.9	1197.5	1192.9	1192.9	1195.2
5°	1202.1	1197.5	1188.3	1188.3	1190.6	1192.9	1204.4	1211.3	1213.6	1213.6	1213.6
7.5°	1202.1	1195.2	1188.3	1190.6	1195.2	1204.4	1222.8	1234.3	1243.5	1245.8	1245.8
10°	1213.6	1204.4	1199.8	1204.4	1218.2	1225.1	1243.5	1261.9	1273.4	1278.0	1278.0
12.5°	1234.3	1225.1	1225.1	1234.3	1252.7	1261.9	1278.0	1291.8	1305.5	1312.4	1312.4
15°	1268.8	1257.3	1259.6	1275.7	1296.4	1305.5	1317.0	1321.6	1333.1	1342.3	1342.3
17.5°	1300.9	1289.5	1294.1	1312.4	1326.2	1330.8	1337.7	1335.4	1340.0	1346.9	1349.2
20°	1337.7	1326.2	1328.5	1340.0	1342.3	1337.7	1337.7	1330.8	1328.5	1340.0	1344.6
22.5°	1374.5	1363.0	1360.7	1353.8	1342.3	1330.8	1323.9	1317.0	1312.4	1323.9	1328.5
25°	1418.2	1402.1	1390.6	1360.7	1330.8	1310.1	1300.9	1296.4	1294.1	1305.5	1310.1
27.5°	1466.4	1450.4	1415.9	1351.5	1303.2	1268.8	1261.9	1261.9	1266.5	1273.4	1278.0
30°	1512.4	1496.3	1434.3	1330.8	1255.0	1204.4	1197.5	1204.4	1215.9	1222.8	1229.7
32.5°	1558.4	1542.3	1445.8	1298.7	1183.7	1119.4	1114.8	1126.3	1144.7	1149.2	1153.8
35°	1620.4	1604.4	1459.5	1252.7	1094.1	1025.1	1020.5	1027.4	1043.5	1050.4	1057.3
37.5°	1707.8	1698.6	1480.2	1202.1	1011.3	935.5	921.7	917.1	926.3	924.0	933.2
40°	1822.7	1829.6	1517.0	1135.5	930.9	852.7	822.9	809.1	799.9	781.5	790.7
42.5°	1990.5	1995.1	1558.4	1059.6	861.9	774.6	735.5	710.2	691.8	662.0	666.6
45°	2236.4	2197.4	1606.6	979.2	799.9	712.5	666.6	636.7	611.4	586.1	588.4
47.5°	2562.8	2443.3	1659.5	912.5	737.8	662.0	620.6	586.1	556.2	535.5	537.8
50°	2965.1	2749.0	1712.4	850.4	675.8	622.9	586.1	549.3	519.5	498.8	496.5
52.5°	3496.0	3116.8	1746.9	781.5	613.7	588.4	556.2	521.8	485.0	459.7	457.4
55°	4047.7	3544.3	1776.7	698.7	553.9	549.3	533.3	494.2	450.5	418.3	413.7
57.5°	4654.5	4001.7	1799.7	618.3	508.0	517.2	512.6	466.6	418.3	388.4	386.1
60°	5206.1	4475.2	1726.2	547.0	466.6	485.0	489.6	450.5	425.2	432.1	434.4
62.5°	5762.3	4840.6	1445.8	494.2	439.0	464.3	503.4	501.1	489.6	501.1	503.4
65°	5962.3	4916.5	1025.1	450.5	411.4	473.5	547.0	542.4	489.6	468.9	464.3
67.5°	5849.7	4691.2	689.5	416.0	390.7	485.0	593.0	542.4	471.2	443.6	434.4
70°	5314.1	4137.3	505.7	381.6	372.4	482.7	618.3	540.1	462.0	432.1	420.6
72.5°	4238.4	3192.6	406.8	349.4	344.8	471.2	632.1	535.5	452.8	420.6	406.8
75°	2744.4	1985.9	342.5	317.2	303.4	452.8	625.2	521.8	441.3	399.9	390.7
77.5°	1273.4	855.0	291.9	280.4	264.3	425.2	604.5	494.2	416.0	377.0	365.5
80°	593.0	404.5	245.9	243.6	236.7	402.2	576.9	462.0	386.1	354.0	335.6
82.5°	317.2	243.6	200.0	200.0	206.9	374.7	542.4	422.9	347.1	331.0	282.7
85°	167.8	140.2	144.8	156.3	177.0	331.0	496.5	381.6	303.4	252.8	245.9
87.5°	85.0	89.6	89.6	105.7	135.6	268.9	409.1	314.9	257.4	206.9	202.3
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)