

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: P231277

Luminaire Tested: **ARCH-M-AF48-110-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231277
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-AF48-110-D-U-T4W-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12544 lumens
Efficiency: N/A
Efficacy: 113.0 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): 111
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

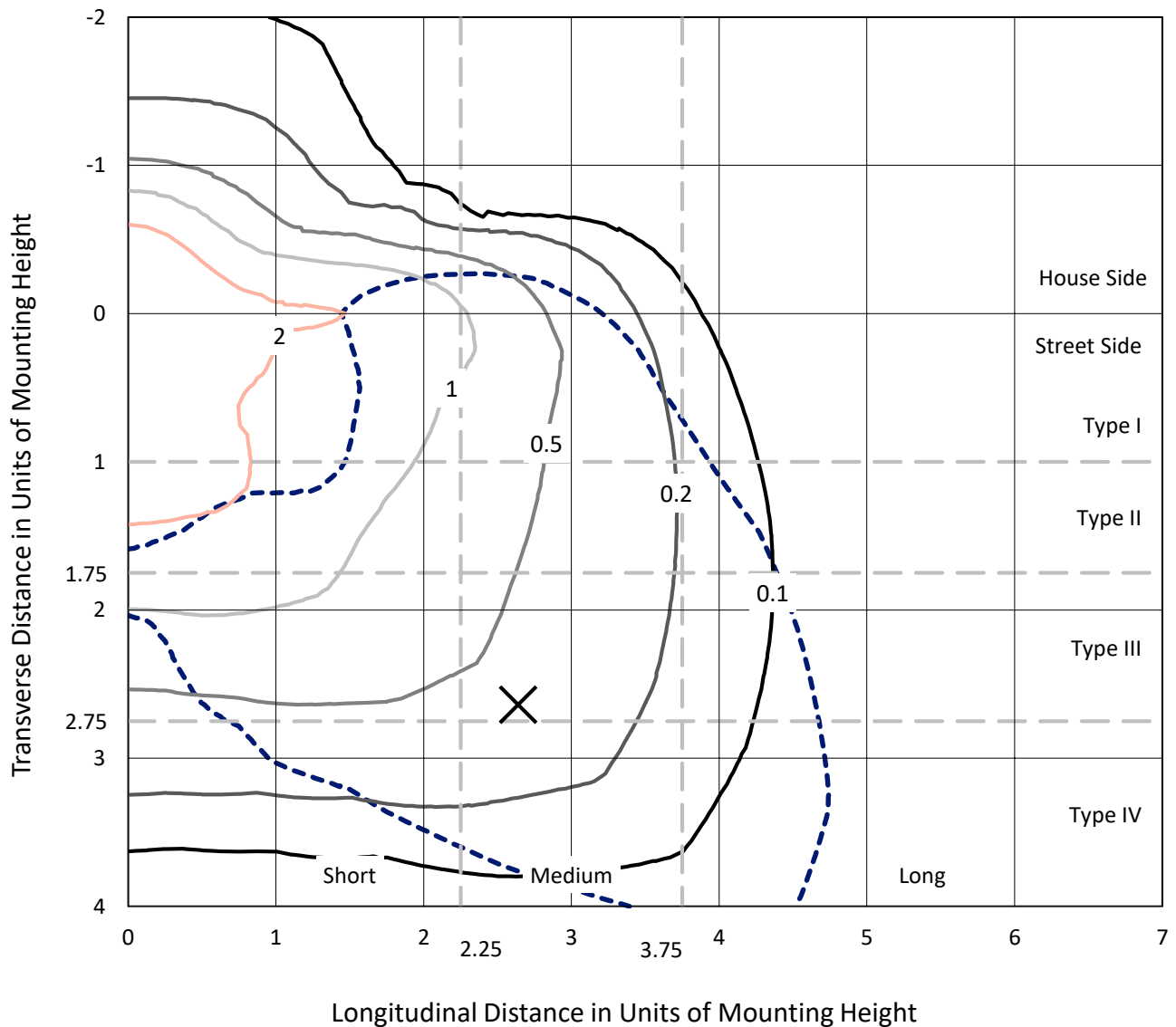


REPORT NUMBER: P231277

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T4W-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

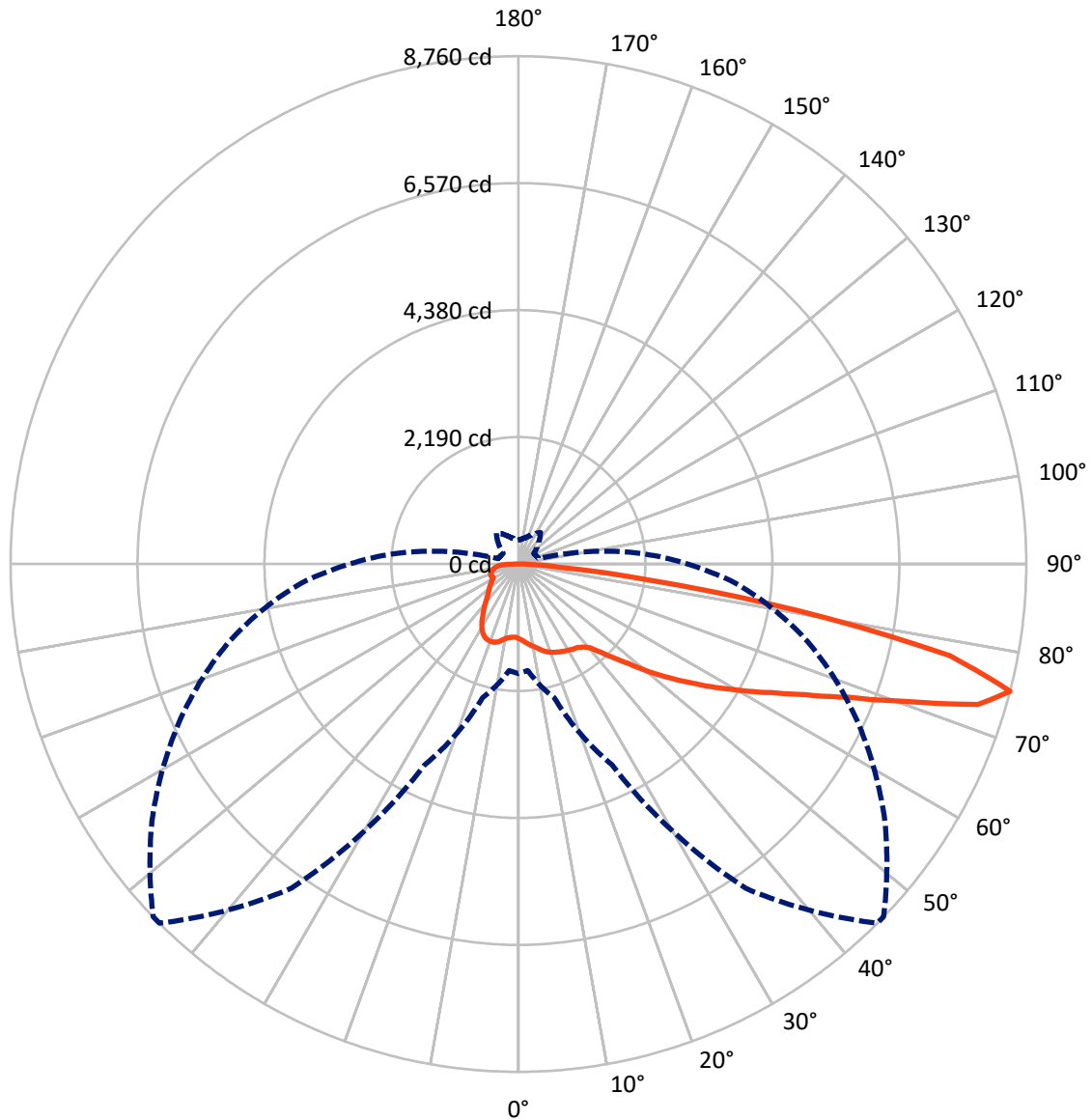


Based on 20 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P231277

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T4W-7030

Luminous Intensity Polar Plot



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



REPORT NUMBER: P231277

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T4W-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2905.9	0.0	2905.9
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	9638.1	0.0	9638.1
	% Fixture	76.8	0.0	76.8
Total	Lumens	12544.0	0.0	12544.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.4	1.0
10°-20°	413.0	3.3
20°-30°	708.7	5.6
30°-40°	991.1	7.9
40°-50°	1453.9	11.6
50°-60°	2264.8	18.1
60°-70°	3258.8	26.0
70°-80°	2838.8	22.6
80°-90°	487.5	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°	12544.0	100.0
0°-180°	12544.0	100.0



REPORT NUMBER: P231277

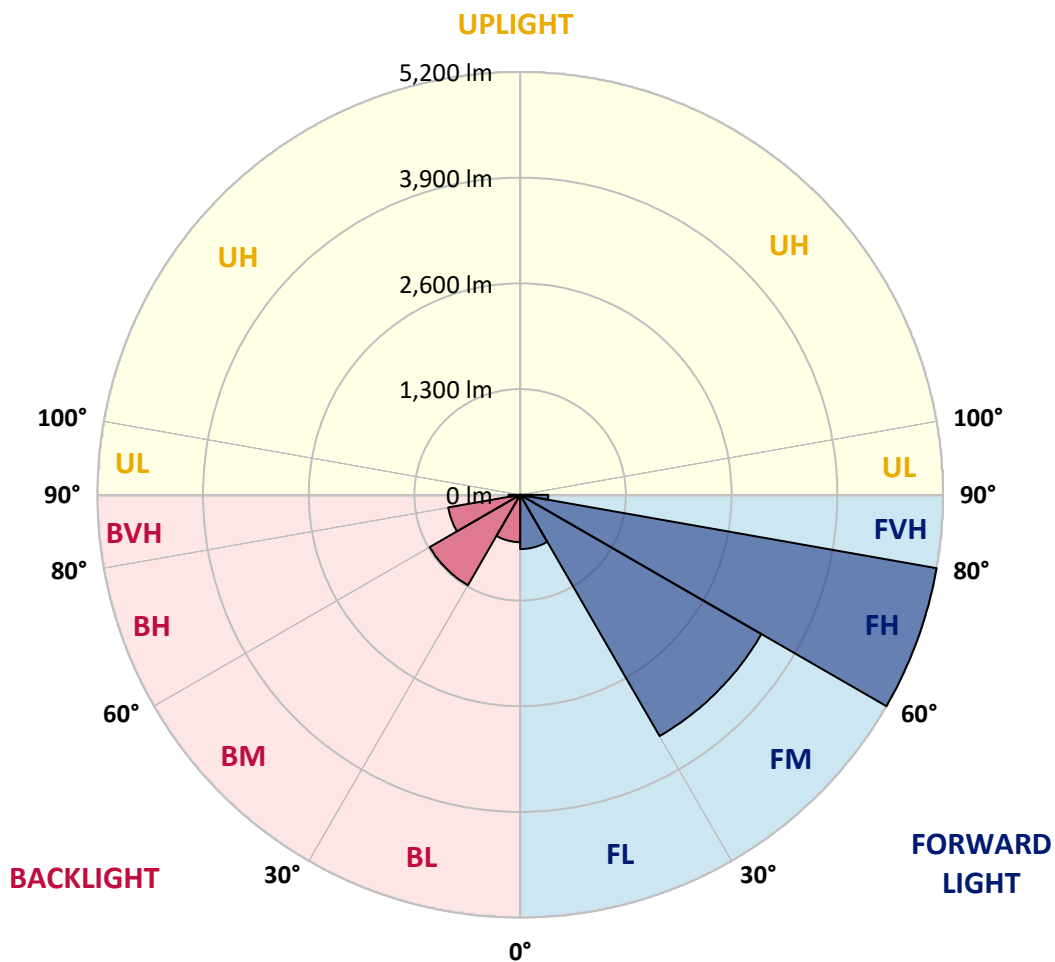
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	667.0	5.3			
FM	(30°-60°)	3425.5	27.3			
FH	(60°-80°)	5199.6	41.5			G3/7500
FVH	(80°-90°)	345.9	2.8			G3/500
BL	(0°-30°)	582.0	4.6	B2/1000		
BM	(30°-60°)	1284.3	10.2	B2/2500		
BH	(60°-80°)	898.0	7.2	B2/1000		G2/1000
BVH	(80°-90°)	141.6	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





REPORT NUMBER: P231277

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T4W-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9
2.5°	1349.4	1339.6	1339.6	1332.3	1332.3	1320.1	1315.2	1312.8	1300.6	1293.3	1285.9
5°	1427.5	1415.3	1412.8	1395.7	1388.4	1361.6	1359.1	1342.1	1320.1	1298.1	1281.1
7.5°	1498.2	1490.9	1478.7	1461.6	1439.7	1405.5	1403.1	1376.2	1339.6	1310.3	1285.9
10°	1549.5	1544.6	1527.5	1505.5	1481.1	1447.0	1444.5	1415.3	1371.3	1337.2	1303.0
12.5°	1610.5	1603.2	1581.2	1551.9	1525.1	1493.3	1490.9	1466.5	1417.7	1373.8	1329.9
15°	1669.0	1659.3	1632.4	1603.2	1573.9	1547.0	1547.0	1520.2	1468.9	1417.7	1366.5
17.5°	1698.3	1693.4	1666.6	1634.9	1610.5	1591.0	1588.5	1564.1	1512.9	1459.2	1403.1
20°	1708.1	1710.5	1686.1	1652.0	1634.9	1625.1	1622.7	1605.6	1549.5	1498.2	1444.5
22.5°	1705.6	1713.0	1693.4	1656.8	1652.0	1652.0	1652.0	1632.4	1588.5	1537.3	1483.6
25°	1715.4	1725.2	1710.5	1666.6	1666.6	1676.4	1676.4	1666.6	1627.6	1583.6	1529.9
27.5°	1749.6	1756.9	1744.7	1683.7	1686.1	1700.8	1698.3	1700.8	1676.4	1634.9	1581.2
30°	1791.0	1800.8	1786.2	1710.5	1708.1	1722.7	1722.7	1734.9	1717.8	1673.9	1630.0
32.5°	1903.3	1900.8	1854.5	1739.8	1732.5	1747.1	1747.1	1759.3	1749.6	1715.4	1673.9
35°	2237.6	2201.0	2098.5	1835.0	1761.8	1769.1	1769.1	1791.0	1795.9	1769.1	1732.5
37.5°	2579.2	2567.0	2488.9	2088.7	1869.1	1815.4	1813.0	1844.7	1866.7	1844.7	1820.3
40°	2923.3	2913.5	2896.4	2427.9	2093.6	1898.4	1891.1	1917.9	1957.0	1942.3	1927.7
42.5°	3242.9	3238.0	3255.1	2762.2	2379.1	2076.5	2054.6	2022.9	2079.0	2074.1	2074.1
45°	3494.2	3506.4	3516.2	3074.5	2689.0	2305.9	2279.1	2171.7	2247.3	2266.9	2281.5
47.5°	3635.8	3645.5	3679.7	3379.6	2998.9	2571.9	2552.4	2376.7	2476.7	2535.3	2576.8
50°	3838.3	3811.5	3840.7	3677.2	3372.2	2918.4	2864.7	2652.4	2779.3	2881.8	2979.4
52.5°	4033.5	3989.6	4014.0	4021.3	3796.8	3257.5	3201.4	2976.9	3135.5	3296.6	3469.8
55°	4209.2	4206.7	4231.2	4355.6	4206.7	3621.1	3557.7	3335.6	3565.0	3738.2	4031.1
57.5°	4350.7	4375.1	4482.5	4743.6	4680.1	4016.4	3945.7	3752.9	4023.7	4197.0	4682.6
60°	4516.6	4555.7	4733.8	5073.0	5112.0	4431.2	4358.0	4219.0	4494.7	4670.4	5436.6
62.5°	4572.8	4628.9	4994.9	5419.5	5563.5	4885.1	4819.2	4726.5	4990.0	5148.6	6188.1
65°	4199.4	4306.8	5138.9	5597.6	6049.0	5431.7	5375.6	5295.0	5482.9	5587.9	6698.1
67.5°	4096.9	4145.7	4858.3	5853.8	6505.3	6134.4	6078.3	5939.2	5944.1	5900.2	6864.0
70°	3953.0	4006.7	4570.3	6046.6	7159.3	7095.8	7027.5	6617.6	6366.2	6100.3	6537.1
72.5°	3367.4	3350.3	3938.3	5526.8	7474.1	8286.6	8206.1	7347.2	6678.6	5927.0	5517.1
75°	1891.1	1842.3	2388.9	3823.7	6825.0	8760.0	8757.6	7715.6	6459.0	5163.3	3755.3
77.5°	549.0	534.4	788.2	1603.2	4594.7	7610.7	7703.4	6959.2	5390.2	3709.0	2061.9
80°	258.7	263.5	339.2	529.5	1961.8	4911.9	5177.9	4582.5	3220.9	1710.5	851.6
82.5°	163.5	165.9	231.8	341.6	829.6	2230.3	2449.9	2061.9	1276.2	739.4	375.8
85°	102.5	102.5	153.7	224.5	495.3	712.5	773.5	702.8	546.6	402.6	205.0
87.5°	56.1	56.1	92.7	129.3	270.9	229.4	236.7	280.6	341.6	246.5	102.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P231277

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T4W-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9
2.5°	1283.5	1278.6	1271.3	1268.9	1266.4	1264.0	1266.4	1271.3	1266.4	1266.4	1268.9
5°	1276.2	1271.3	1261.5	1261.5	1264.0	1266.4	1278.6	1285.9	1288.4	1288.4	1288.4
7.5°	1276.2	1268.9	1261.5	1264.0	1268.9	1278.6	1298.1	1310.3	1320.1	1322.5	1322.5
10°	1288.4	1278.6	1273.7	1278.6	1293.3	1300.6	1320.1	1339.6	1351.8	1356.7	1356.7
12.5°	1310.3	1300.6	1300.6	1310.3	1329.9	1339.6	1356.7	1371.3	1386.0	1393.3	1393.3
15°	1346.9	1334.7	1337.2	1354.3	1376.2	1386.0	1398.2	1403.1	1415.3	1425.0	1425.0
17.5°	1381.1	1368.9	1373.8	1393.3	1407.9	1412.8	1420.1	1417.7	1422.6	1429.9	1432.3
20°	1420.1	1407.9	1410.4	1422.6	1425.0	1420.1	1420.1	1412.8	1410.4	1422.6	1427.5
22.5°	1459.2	1447.0	1444.5	1437.2	1425.0	1412.8	1405.5	1398.2	1393.3	1405.5	1410.4
25°	1505.5	1488.5	1476.3	1444.5	1412.8	1390.9	1381.1	1376.2	1373.8	1386.0	1390.9
27.5°	1556.8	1539.7	1503.1	1434.8	1383.5	1346.9	1339.6	1339.6	1344.5	1351.8	1356.7
30°	1605.6	1588.5	1522.6	1412.8	1332.3	1278.6	1271.3	1278.6	1290.8	1298.1	1305.5
32.5°	1654.4	1637.3	1534.8	1378.7	1256.7	1188.3	1183.5	1195.7	1215.2	1220.1	1224.9
35°	1720.3	1703.2	1549.5	1329.9	1161.5	1088.3	1083.4	1090.7	1107.8	1115.1	1122.5
37.5°	1813.0	1803.2	1571.4	1276.2	1073.6	993.1	978.5	973.6	983.4	980.9	990.7
40°	1935.0	1942.3	1610.5	1205.4	988.2	905.3	873.6	858.9	849.2	829.6	839.4
42.5°	2113.1	2118.0	1654.4	1124.9	915.0	822.3	780.8	754.0	734.5	702.8	707.6
45°	2374.2	2332.7	1705.6	1039.5	849.2	756.4	707.6	675.9	649.1	622.2	624.7
47.5°	2720.7	2593.8	1761.8	968.7	783.3	702.8	658.8	622.2	590.5	568.5	571.0
50°	3147.7	2918.4	1817.9	902.8	717.4	661.3	622.2	583.2	551.5	529.5	527.1
52.5°	3711.4	3308.8	1854.5	829.6	651.5	624.7	590.5	553.9	514.9	488.0	485.6
55°	4297.0	3762.6	1886.2	741.8	588.1	583.2	566.1	524.6	478.3	444.1	439.2
57.5°	4941.2	4248.2	1910.6	656.4	539.3	549.0	544.1	495.3	444.1	412.4	409.9
60°	5526.8	4750.9	1832.5	580.7	495.3	514.9	519.7	478.3	451.4	458.7	461.2
62.5°	6117.4	5138.9	1534.8	524.6	466.1	492.9	534.4	531.9	519.7	531.9	534.4
65°	6329.6	5219.4	1088.3	478.3	436.8	502.7	580.7	575.9	519.7	497.8	492.9
67.5°	6210.1	4980.3	732.0	441.7	414.8	514.9	629.5	575.9	500.2	470.9	461.2
70°	5641.5	4392.2	536.8	405.1	395.3	512.4	656.4	573.4	490.5	458.7	446.5
72.5°	4499.6	3389.3	431.9	370.9	366.0	500.2	671.0	568.5	480.7	446.5	431.9
75°	2913.5	2108.3	363.6	336.7	322.1	480.7	663.7	553.9	468.5	424.6	414.8
77.5°	1351.8	907.7	309.9	297.7	280.6	451.4	641.7	524.6	441.7	400.2	388.0
80°	629.5	429.5	261.1	258.7	251.3	427.0	612.5	490.5	409.9	375.8	356.3
82.5°	336.7	258.7	212.3	212.3	219.6	397.7	575.9	449.0	368.5	351.4	300.1
85°	178.1	148.8	153.7	165.9	187.9	351.4	527.1	405.1	322.1	268.4	261.1
87.5°	90.3	95.2	95.2	112.2	144.0	285.5	434.3	334.3	273.3	219.6	214.7
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)