

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: P231276

Luminaire Tested: **ARCH-M-AF48-100-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231276
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-AF48-100-D-U-T4W-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11727 lumens
Efficiency: N/A
Efficacy: 116.1 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): 101
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

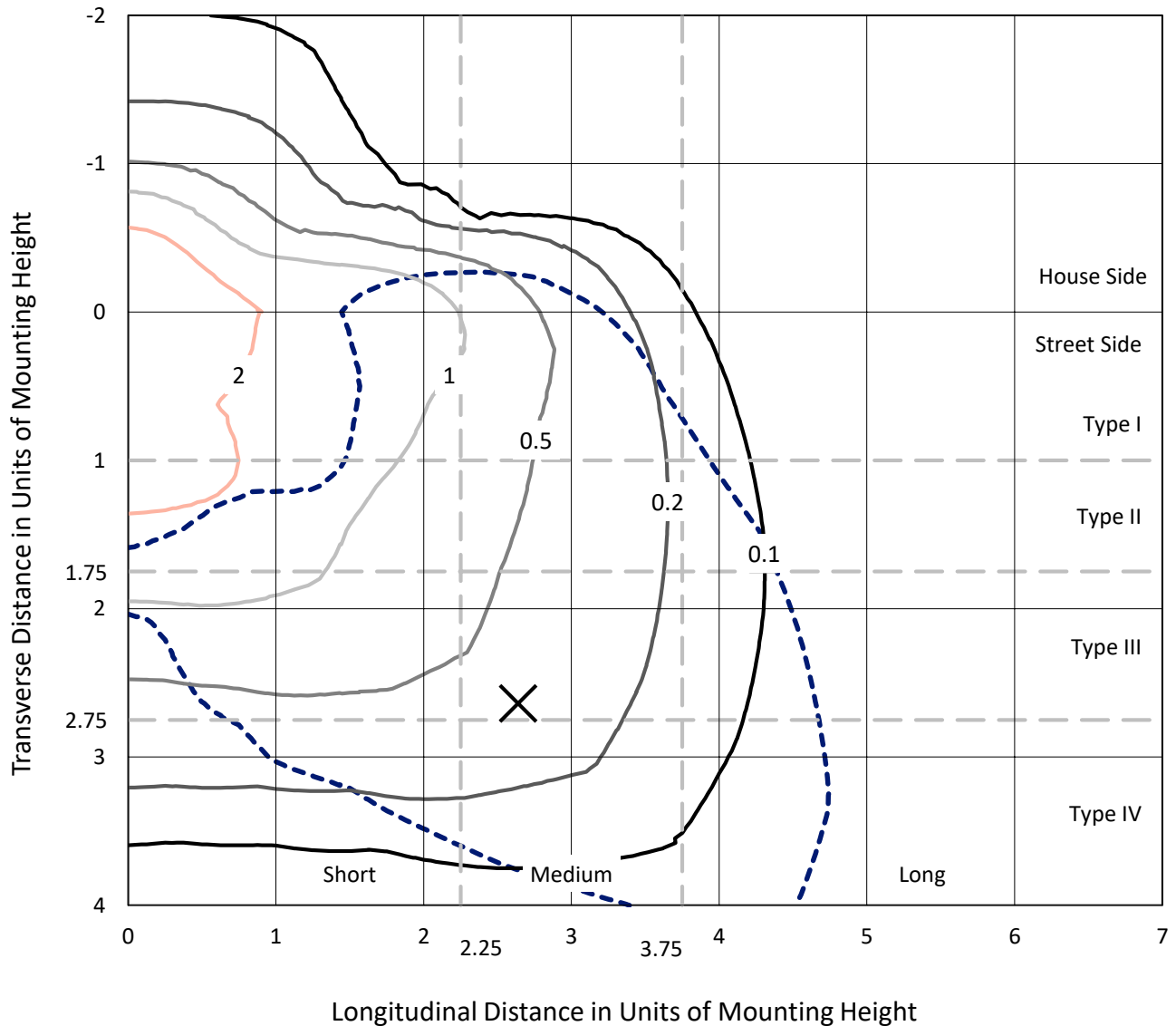


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

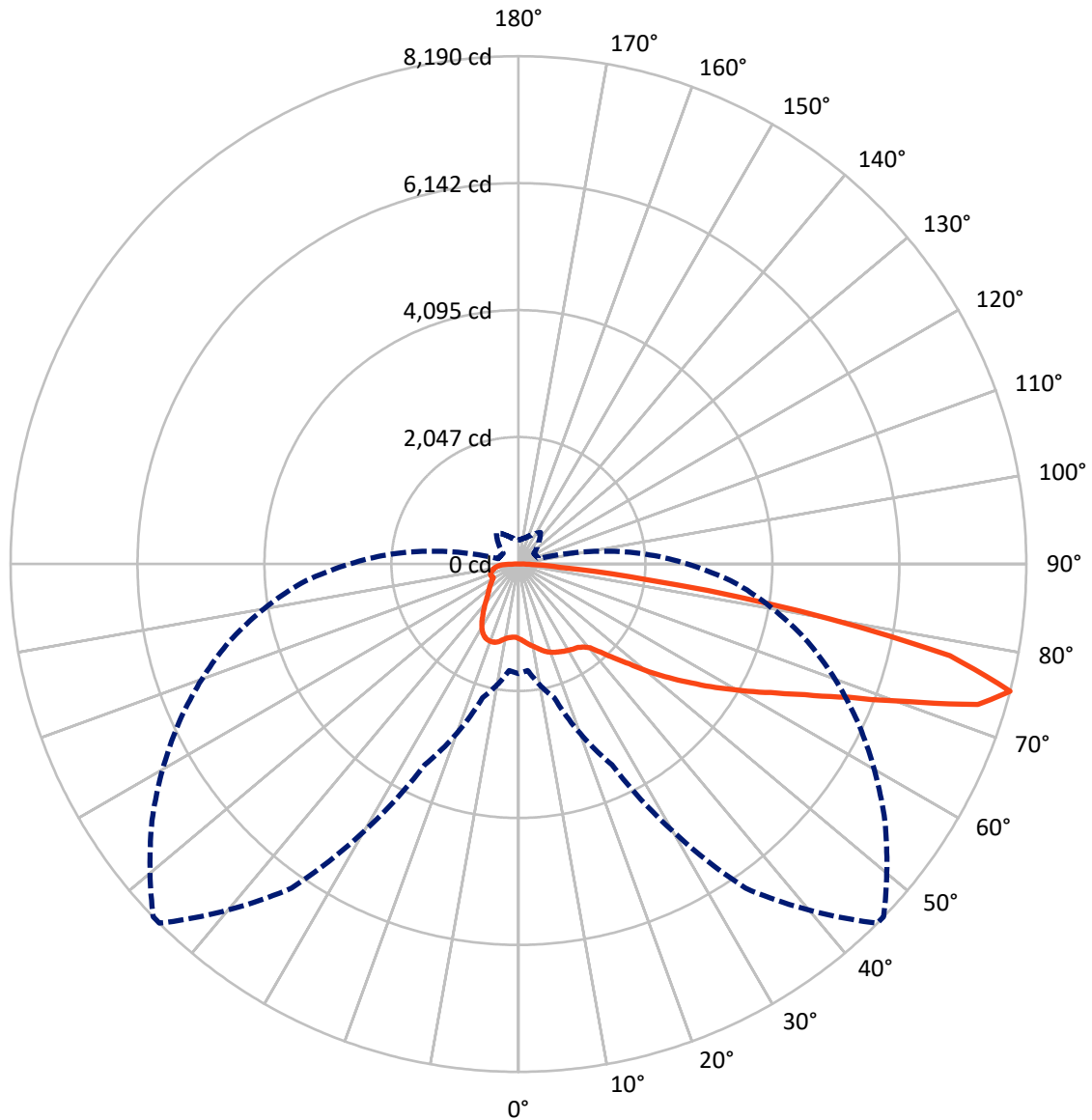


Based on 20 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Medium - Non-Cutoff

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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
House Side	Lumens	2716.7	0.0	2716.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	9010.3	0.0	9010.3
	% Fixture	76.8	0.0	76.8
Total	Lumens	11727.0	0.0	11727.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.1	1.0
10°-20°	386.1	3.3
20°-30°	662.5	5.6
30°-40°	926.6	7.9
40°-50°	1359.2	11.6
50°-60°	2117.3	18.1
60°-70°	3046.6	26.0
70°-80°	2653.9	22.6
80°-90°	455.8	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°	11727.0	100.0
0°-180°	11727.0	100.0

Coefficient of Utilization



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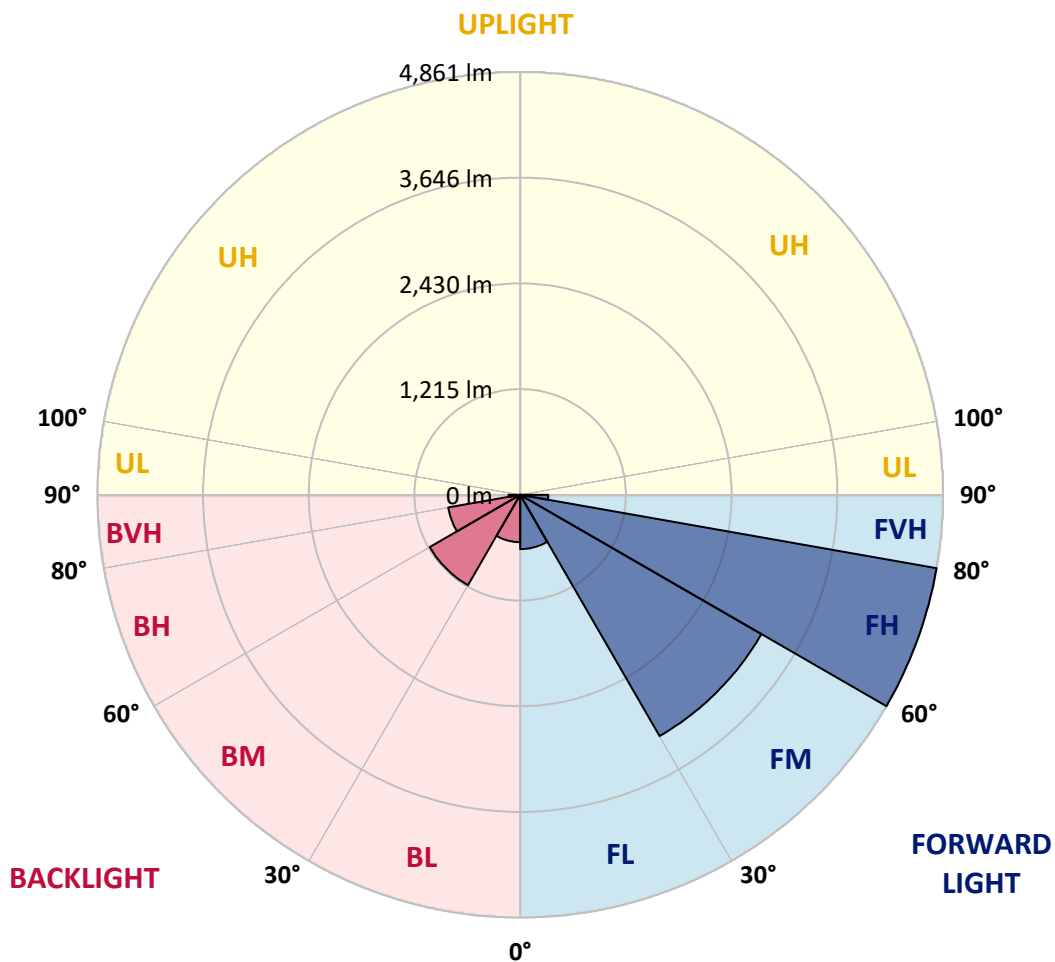
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	623.6	5.3			
FM (30°-60°)	3202.4	27.3			
FH (60°-80°)	4861.0	41.5			G2/5000
FVH (80°-90°)	323.4	2.8			G3/500
BL (0°-30°)	544.1	4.6	B2/1000		
BM (30°-60°)	1200.6	10.2	B2/2500		
BH (60°-80°)	839.5	7.2	B2/1000		G2/1000
BVH (80°-90°)	132.4	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°	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2
2.5°	1261.5	1252.4	1252.4	1245.5	1245.5	1234.1	1229.6	1227.3	1215.9	1209.0	1202.2
5°	1334.5	1323.1	1320.8	1304.8	1298.0	1272.9	1270.6	1254.7	1234.1	1213.6	1197.6
7.5°	1400.6	1393.8	1382.4	1366.4	1345.9	1314.0	1311.7	1286.6	1252.4	1225.0	1202.2
10°	1448.6	1444.0	1428.0	1407.5	1384.7	1352.7	1350.5	1323.1	1282.0	1250.1	1218.2
12.5°	1505.6	1498.7	1478.2	1450.8	1425.7	1396.1	1393.8	1371.0	1325.4	1284.3	1243.2
15°	1560.3	1551.2	1526.1	1498.7	1471.4	1446.3	1446.3	1421.2	1373.3	1325.4	1277.5
17.5°	1587.7	1583.1	1558.0	1528.4	1505.6	1487.3	1485.1	1462.2	1414.3	1364.1	1311.7
20°	1596.8	1599.1	1576.3	1544.4	1528.4	1519.3	1517.0	1501.0	1448.6	1400.6	1350.5
22.5°	1594.5	1601.4	1583.1	1548.9	1544.4	1544.4	1544.4	1526.1	1485.1	1437.1	1387.0
25°	1603.7	1612.8	1599.1	1558.0	1558.0	1567.2	1567.2	1558.0	1521.5	1480.5	1430.3
27.5°	1635.6	1642.5	1631.0	1574.0	1576.3	1590.0	1587.7	1590.0	1567.2	1528.4	1478.2
30°	1674.4	1683.5	1669.8	1599.1	1596.8	1610.5	1610.5	1621.9	1606.0	1564.9	1523.8
32.5°	1779.3	1777.0	1733.7	1626.5	1619.6	1633.3	1633.3	1644.7	1635.6	1603.7	1564.9
35°	2091.8	2057.6	1961.8	1715.5	1647.0	1653.9	1653.9	1674.4	1679.0	1653.9	1619.6
37.5°	2411.2	2399.8	2326.8	1952.7	1747.4	1697.2	1694.9	1724.6	1745.1	1724.6	1701.8
40°	2732.9	2723.7	2707.8	2269.8	1957.3	1774.8	1767.9	1793.0	1829.5	1815.8	1802.1
42.5°	3031.7	3027.1	3043.1	2582.3	2224.2	1941.3	1920.8	1891.1	1943.6	1939.0	1939.0
45°	3266.7	3278.1	3287.2	2874.3	2513.9	2155.7	2130.6	2030.3	2101.0	2119.2	2132.9
47.5°	3399.0	3408.1	3440.0	3159.4	2803.6	2404.4	2386.1	2221.9	2315.4	2370.2	2408.9
50°	3588.3	3563.2	3590.6	3437.7	3152.6	2728.3	2678.1	2479.6	2598.3	2694.1	2785.3
52.5°	3770.8	3729.7	3752.5	3759.4	3549.5	3045.4	2992.9	2783.0	2931.3	3081.9	3243.8
55°	3935.0	3932.8	3955.6	4071.9	3932.8	3385.3	3326.0	3118.4	3332.8	3494.8	3768.5
57.5°	4067.4	4090.2	4190.5	4434.6	4375.3	3754.8	3688.7	3508.5	3761.7	3923.6	4377.6
60°	4222.5	4259.0	4425.5	4742.6	4779.1	4142.6	4074.2	3944.2	4201.9	4366.2	5082.5
62.5°	4274.9	4327.4	4669.6	5066.5	5201.1	4566.9	4505.3	4418.7	4665.0	4813.3	5785.1
65°	3925.9	4026.3	4804.2	5233.0	5655.1	5077.9	5025.4	4950.2	5125.8	5223.9	6261.8
67.5°	3830.1	3875.7	4541.8	5472.6	6081.6	5734.9	5682.4	5552.4	5557.0	5515.9	6417.0
70°	3695.5	3745.7	4272.7	5652.8	6693.0	6633.7	6569.8	6186.6	5951.6	5703.0	6111.3
72.5°	3148.0	3132.1	3681.8	5166.9	6987.3	7746.9	7671.6	6868.6	6243.6	5541.0	5157.8
75°	1767.9	1722.3	2233.3	3574.6	6380.5	8189.5	8187.2	7213.1	6038.3	4827.0	3510.7
77.5°	513.3	499.6	736.8	1498.7	4295.5	7115.0	7201.7	6505.9	5039.1	3467.4	1927.6
80°	241.8	246.4	317.1	495.0	1834.1	4592.0	4840.7	4284.1	3011.2	1599.1	796.1
82.5°	152.8	155.1	216.7	319.4	775.6	2085.0	2290.3	1927.6	1193.1	691.2	351.3
85°	95.8	95.8	143.7	209.9	463.1	666.1	723.1	657.0	511.0	376.4	191.6
87.5°	52.5	52.5	86.7	120.9	253.2	214.4	221.3	262.3	319.4	230.4	95.8
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°	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2	1202.2
2.5°	1199.9	1195.3	1188.5	1186.2	1183.9	1181.7	1183.9	1188.5	1183.9	1183.9	1186.2
5°	1193.1	1188.5	1179.4	1179.4	1181.7	1183.9	1195.3	1202.2	1204.5	1204.5	1204.5
7.5°	1193.1	1186.2	1179.4	1181.7	1186.2	1195.3	1213.6	1225.0	1234.1	1236.4	1236.4
10°	1204.5	1195.3	1190.8	1195.3	1209.0	1215.9	1234.1	1252.4	1263.8	1268.3	1268.3
12.5°	1225.0	1215.9	1215.9	1225.0	1243.2	1252.4	1268.3	1282.0	1295.7	1302.6	1302.6
15°	1259.2	1247.8	1250.1	1266.1	1286.6	1295.7	1307.1	1311.7	1323.1	1332.2	1332.2
17.5°	1291.2	1279.7	1284.3	1302.6	1316.2	1320.8	1327.6	1325.4	1329.9	1336.8	1339.1
20°	1327.6	1316.2	1318.5	1329.9	1332.2	1327.6	1327.6	1320.8	1318.5	1329.9	1334.5
22.5°	1364.1	1352.7	1350.5	1343.6	1332.2	1320.8	1314.0	1307.1	1302.6	1314.0	1318.5
25°	1407.5	1391.5	1380.1	1350.5	1320.8	1300.3	1291.2	1286.6	1284.3	1295.7	1300.3
27.5°	1455.4	1439.4	1405.2	1341.3	1293.4	1259.2	1252.4	1252.4	1256.9	1263.8	1268.3
30°	1501.0	1485.1	1423.5	1320.8	1245.5	1195.3	1188.5	1195.3	1206.7	1213.6	1220.4
32.5°	1546.6	1530.7	1434.9	1288.9	1174.8	1110.9	1106.4	1117.8	1136.0	1140.6	1145.2
35°	1608.2	1592.3	1448.6	1243.2	1085.8	1017.4	1012.8	1019.7	1035.7	1042.5	1049.3
37.5°	1694.9	1685.8	1469.1	1193.1	1003.7	928.4	914.8	910.2	919.3	917.0	926.2
40°	1809.0	1815.8	1505.6	1126.9	923.9	846.3	816.7	803.0	793.9	775.6	784.7
42.5°	1975.5	1980.1	1546.6	1051.6	855.4	768.8	730.0	704.9	686.6	657.0	661.5
45°	2219.6	2180.8	1594.5	971.8	793.9	707.2	661.5	631.9	606.8	581.7	584.0
47.5°	2543.5	2424.9	1647.0	905.6	732.3	657.0	615.9	581.7	552.0	531.5	533.8
50°	2942.7	2728.3	1699.5	844.0	670.7	618.2	581.7	545.2	515.5	495.0	492.7
52.5°	3469.7	3093.3	1733.7	775.6	609.1	584.0	552.0	517.8	481.3	456.2	454.0
55°	4017.2	3517.6	1763.4	693.5	549.8	545.2	529.2	490.5	447.1	415.2	410.6
57.5°	4619.4	3971.5	1786.2	613.6	504.1	513.3	508.7	463.1	415.2	385.5	383.2
60°	5166.9	4441.5	1713.2	542.9	463.1	481.3	485.9	447.1	422.0	428.9	431.1
62.5°	5718.9	4804.2	1434.9	490.5	435.7	460.8	499.6	497.3	485.9	497.3	499.6
65°	5917.4	4879.5	1017.4	447.1	408.3	469.9	542.9	538.4	485.9	465.4	460.8
67.5°	5805.6	4655.9	684.4	412.9	387.8	481.3	588.5	538.4	467.6	440.3	431.1
70°	5274.1	4106.1	501.9	378.7	369.6	479.0	613.6	536.1	458.5	428.9	417.5
72.5°	4206.5	3168.6	403.8	346.7	342.2	467.6	627.3	531.5	449.4	417.5	403.8
75°	2723.7	1970.9	339.9	314.8	301.1	449.4	620.5	517.8	438.0	396.9	387.8
77.5°	1263.8	848.6	289.7	278.3	262.3	422.0	600.0	490.5	412.9	374.1	362.7
80°	588.5	401.5	244.1	241.8	235.0	399.2	572.6	458.5	383.2	351.3	333.1
82.5°	314.8	241.8	198.5	198.5	205.3	371.8	538.4	419.7	344.5	328.5	280.6
85°	166.5	139.2	143.7	155.1	175.7	328.5	492.7	378.7	301.1	250.9	244.1
87.5°	84.4	89.0	89.0	104.9	134.6	266.9	406.1	312.5	255.5	205.3	200.7
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)