

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: P234811

Luminaire Tested: **ARCH-M-AF48-100-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234811
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
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-T3-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10347 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

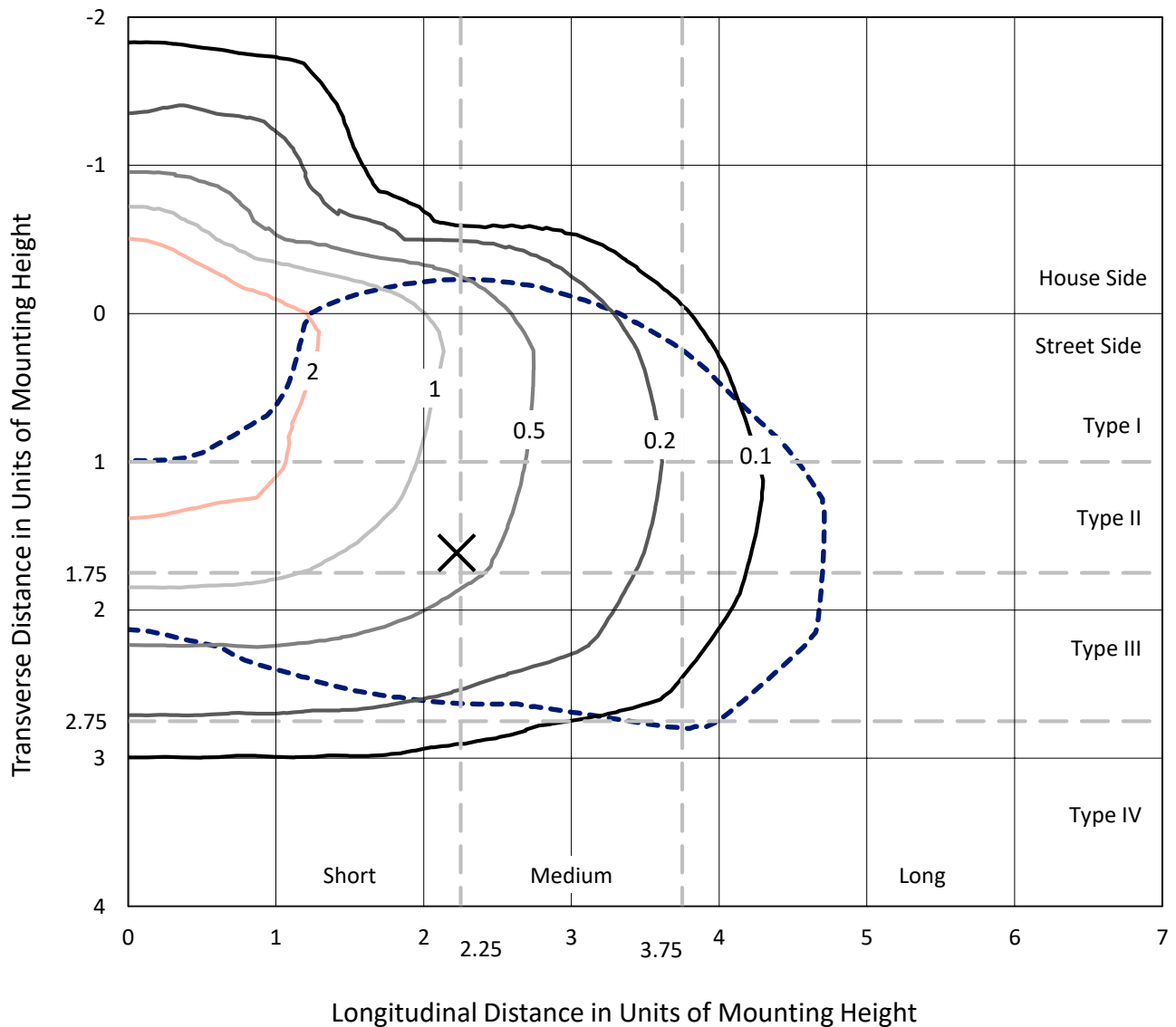
Input Watts (W): 101
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

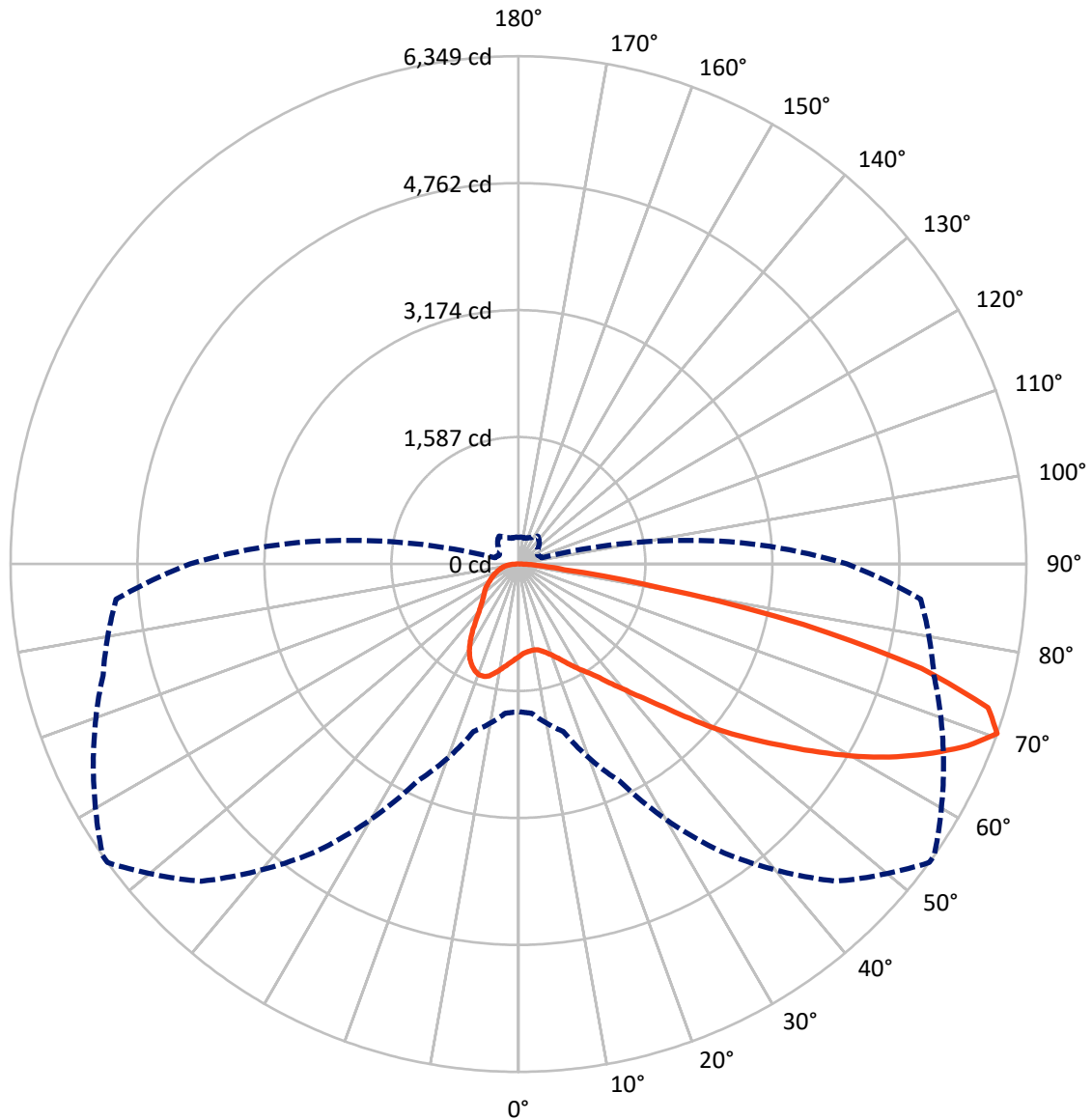
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2346.7	0.0	2346.7
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	8000.3	0.0	8000.3
	% Fixture	77.3	0.0	77.3
Total	Lumens	10347.0	0.0	10347.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.6	1.1
10°-20°	363.0	3.5
20°-30°	630.7	6.1
30°-40°	921.6	8.9
40°-50°	1446.5	14.0
50°-60°	2224.3	21.5
60°-70°	2717.6	26.3
70°-80°	1684.9	16.3
80°-90°	244.8	2.4
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°	10347.0	100.0
0°-180°	10347.0	100.0



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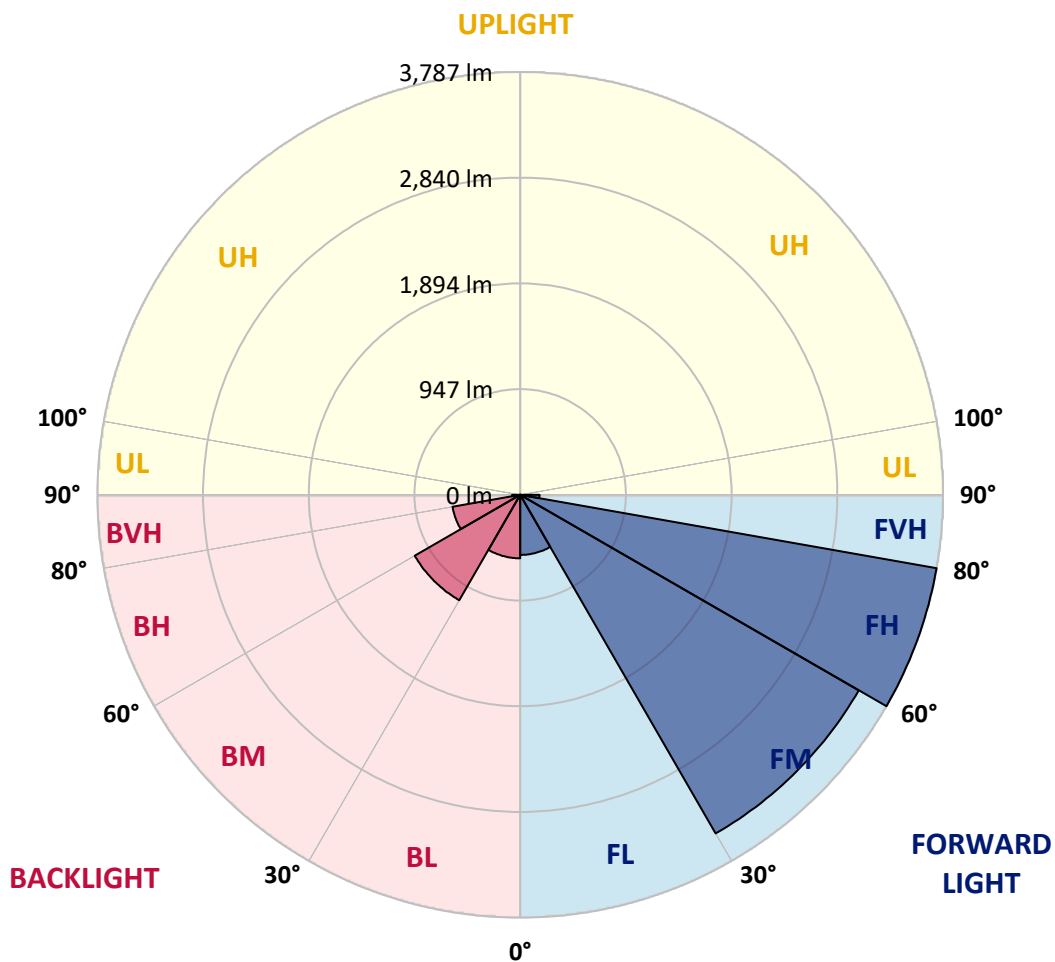
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	538.4	5.2			
FM	(30°-60°)	3502.0	33.8			
FH	(60°-80°)	3787.2	36.6			G2/5000
FVH	(80°-90°)	172.8	1.7			G2/225
BL	(0°-30°)	568.9	5.5	B2/1000		
BM	(30°-60°)	1090.5	10.5	B2/2500		
BH	(60°-80°)	615.4	5.9	B2/1000		G2/1000
BVH	(80°-90°)	71.9	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6
2.5°	1112.1	1108.4	1108.4	1114.0	1115.9	1121.6	1121.6	1123.5	1129.2	1138.7	1150.0
5°	1078.0	1076.2	1078.0	1085.6	1089.4	1100.8	1104.6	1106.5	1117.8	1133.0	1150.0
7.5°	1043.9	1042.0	1045.8	1057.2	1068.6	1085.6	1095.1	1097.0	1114.0	1134.9	1157.6
10°	1032.6	1030.7	1036.4	1045.8	1057.2	1076.2	1091.3	1093.2	1117.8	1142.5	1174.7
12.5°	1047.7	1045.8	1051.5	1061.0	1072.4	1085.6	1102.7	1104.6	1136.8	1169.0	1203.1
15°	1085.6	1085.6	1087.5	1093.2	1104.6	1115.9	1131.1	1133.0	1167.1	1205.0	1239.1
17.5°	1144.4	1140.6	1140.6	1138.7	1146.3	1151.9	1170.9	1172.8	1208.8	1242.9	1277.0
20°	1216.4	1214.5	1206.9	1197.4	1195.5	1199.3	1218.2	1220.1	1256.1	1284.6	1316.8
22.5°	1303.5	1305.4	1288.3	1267.5	1258.0	1263.7	1280.8	1282.7	1309.2	1333.8	1362.2
25°	1419.1	1413.4	1388.8	1358.5	1339.5	1339.5	1356.6	1356.6	1381.2	1396.3	1415.3
27.5°	1529.0	1517.6	1494.9	1451.3	1421.0	1426.7	1443.7	1443.7	1466.4	1472.1	1481.6
30°	1648.3	1637.0	1608.5	1553.6	1513.8	1510.0	1530.9	1529.0	1559.3	1557.4	1549.8
32.5°	1794.2	1788.5	1741.2	1671.1	1618.0	1604.8	1623.7	1625.6	1644.5	1638.9	1614.2
35°	1998.8	1996.9	1953.4	1830.2	1760.1	1735.5	1746.9	1746.9	1760.1	1745.0	1703.3
37.5°	2256.5	2260.3	2222.4	2040.5	1942.0	1900.3	1902.2	1900.3	1904.1	1887.1	1843.5
40°	2514.2	2523.7	2521.8	2302.0	2176.9	2104.9	2078.4	2074.6	2084.1	2076.5	2034.8
42.5°	2853.3	2876.1	2823.0	2624.1	2483.9	2362.6	2290.6	2281.1	2302.0	2311.5	2271.7
45°	3205.7	3198.1	3114.8	2970.8	2843.8	2688.5	2552.1	2536.9	2552.1	2580.5	2538.8
47.5°	3389.5	3383.8	3363.0	3291.0	3272.0	3093.9	2887.4	2874.2	2845.7	2885.5	2836.3
50°	3692.6	3698.3	3613.1	3605.5	3685.1	3586.5	3266.3	3236.0	3184.9	3217.1	3175.4
52.5°	3912.4	3887.8	3834.7	3901.0	4149.2	4096.2	3622.5	3609.3	3561.9	3554.3	3535.4
55°	4001.5	4001.5	4010.9	4164.4	4518.7	4448.6	4009.0	4022.3	3957.9	3904.8	3929.5
57.5°	4028.0	4039.4	4120.8	4374.7	4952.6	4723.3	4435.3	4454.3	4361.4	4255.3	4333.0
60°	3897.3	3931.4	4126.5	4494.1	5197.0	5015.1	4884.4	4890.0	4755.5	4600.2	4736.6
62.5°	3561.9	3603.6	3952.2	4543.3	5157.2	5314.4	5308.8	5322.0	5138.2	4945.0	5115.5
65°	3150.8	3192.5	3563.8	4405.0	5126.9	5528.5	5697.2	5733.2	5496.3	5236.8	5352.3
67.5°	2546.4	2601.3	2953.7	3938.9	4979.1	5704.7	6060.9	6098.8	5772.9	5388.3	5331.5
70°	1845.4	1871.9	2167.5	2993.5	4376.6	5608.1	6348.9	6347.0	5863.9	5377.0	5047.3
72.5°	888.6	909.4	1165.2	1858.6	3129.9	4759.3	6140.5	6176.5	5738.8	5212.1	4397.4
75°	365.7	386.5	471.8	784.4	1642.6	3145.1	5204.6	5289.8	5212.1	4677.8	3440.7
77.5°	227.4	234.9	276.6	405.5	750.3	1468.3	3643.4	3759.0	4130.3	3747.6	2271.7
80°	170.5	176.2	206.5	284.2	473.7	541.9	1809.4	1955.3	2502.8	2150.4	1028.8
82.5°	142.1	144.0	164.8	206.5	322.1	310.7	579.8	646.1	1167.1	820.4	354.3
85°	132.6	136.4	147.8	147.8	204.6	195.1	240.6	252.0	339.1	280.4	123.2
87.5°	68.2	64.4	130.7	115.6	106.1	94.7	102.3	109.9	126.9	134.5	54.9
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°	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6	1157.6
2.5°	1153.8	1159.5	1169.0	1178.5	1189.8	1203.1	1210.7	1220.1	1227.7	1223.9	1222.0
5°	1159.5	1169.0	1189.8	1208.8	1231.5	1258.0	1275.1	1294.0	1309.2	1313.0	1307.3
7.5°	1169.0	1186.0	1214.5	1248.6	1278.9	1313.0	1339.5	1366.0	1385.0	1388.8	1388.8
10°	1191.7	1210.7	1248.6	1294.0	1330.0	1366.0	1396.3	1417.2	1434.2	1441.8	1441.8
12.5°	1223.9	1246.7	1292.1	1347.1	1386.9	1421.0	1438.0	1447.5	1455.1	1462.7	1464.6
15°	1261.8	1286.5	1341.4	1400.1	1441.8	1458.9	1458.9	1457.0	1457.0	1460.8	1464.6
17.5°	1299.7	1326.2	1383.1	1445.6	1472.1	1462.7	1449.4	1443.7	1439.9	1438.0	1443.7
20°	1339.5	1366.0	1422.9	1481.6	1474.0	1434.2	1415.3	1402.0	1390.7	1385.0	1392.6
22.5°	1383.1	1407.7	1466.4	1506.2	1449.4	1388.8	1352.8	1331.9	1313.0	1301.6	1309.2
25°	1434.2	1458.9	1515.7	1513.8	1405.8	1320.6	1263.7	1229.6	1208.8	1197.4	1197.4
27.5°	1494.9	1515.7	1570.7	1494.9	1345.2	1229.6	1146.3	1114.0	1108.4	1098.9	1098.9
30°	1557.4	1574.4	1621.8	1451.3	1261.8	1110.3	1019.3	1004.2	1006.0	996.6	998.5
32.5°	1621.8	1638.9	1652.1	1386.9	1153.8	975.7	915.1	903.7	901.8	894.3	886.7
35°	1712.7	1737.4	1655.9	1299.7	1023.1	864.0	820.4	809.0	797.6	771.1	771.1
37.5°	1851.1	1877.6	1646.4	1191.7	888.6	776.8	737.0	721.9	702.9	676.4	666.9
40°	2040.5	2040.5	1625.6	1070.5	780.6	706.7	668.8	649.9	629.0	602.5	596.8
42.5°	2264.1	2211.0	1593.4	947.3	701.0	659.3	625.2	604.4	579.8	549.4	545.7
45°	2525.5	2381.6	1547.9	837.4	642.3	630.9	610.1	574.1	532.4	500.2	494.5
47.5°	2779.4	2535.0	1504.3	759.7	593.0	619.5	602.5	541.9	485.0	439.6	433.9
50°	3057.9	2671.4	1453.2	695.3	555.1	612.0	593.0	494.5	432.0	399.8	396.0
52.5°	3336.4	2809.7	1398.2	627.1	522.9	596.8	570.3	460.4	430.1	386.5	380.8
55°	3630.1	2970.8	1333.8	551.3	485.0	566.5	540.0	458.5	443.3	386.5	373.2
57.5°	3916.2	3148.9	1229.6	477.4	443.3	521.0	528.6	447.1	414.9	382.7	367.6
60°	4232.6	3338.3	1057.2	414.9	407.3	483.1	513.4	422.5	382.7	371.3	363.8
62.5°	4486.5	3508.9	826.1	371.3	377.0	452.8	494.5	407.3	369.5	360.0	358.1
65°	4596.4	3512.6	593.0	333.5	346.7	424.4	475.6	394.1	358.1	354.3	352.4
67.5°	4480.8	3319.4	416.8	297.5	314.5	397.9	450.9	380.8	346.7	348.6	344.8
70°	4107.6	2912.0	305.0	263.4	284.2	369.5	424.4	363.8	333.5	337.2	331.6
72.5°	3436.9	2269.8	244.4	234.9	259.6	339.1	397.9	344.8	312.6	314.5	303.1
75°	2538.8	1504.3	204.6	210.3	231.1	310.7	363.8	320.2	289.9	282.3	274.7
77.5°	1510.0	773.0	168.6	183.8	206.5	276.6	325.9	289.9	265.2	252.0	246.3
80°	623.3	312.6	138.3	155.4	180.0	246.3	288.0	253.9	236.8	223.6	216.0
82.5°	248.2	153.5	109.9	126.9	151.6	214.1	252.0	223.6	206.5	197.0	176.2
85°	94.7	75.8	73.9	89.0	113.7	164.8	208.4	187.6	174.3	149.7	144.0
87.5°	37.9	34.1	34.1	43.6	64.4	104.2	149.7	130.7	136.4	108.0	109.9
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)