

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: P214749

Luminaire Tested: **ARCH-AF24-100-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214749
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-AF24-100-D-U-T3-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9917 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

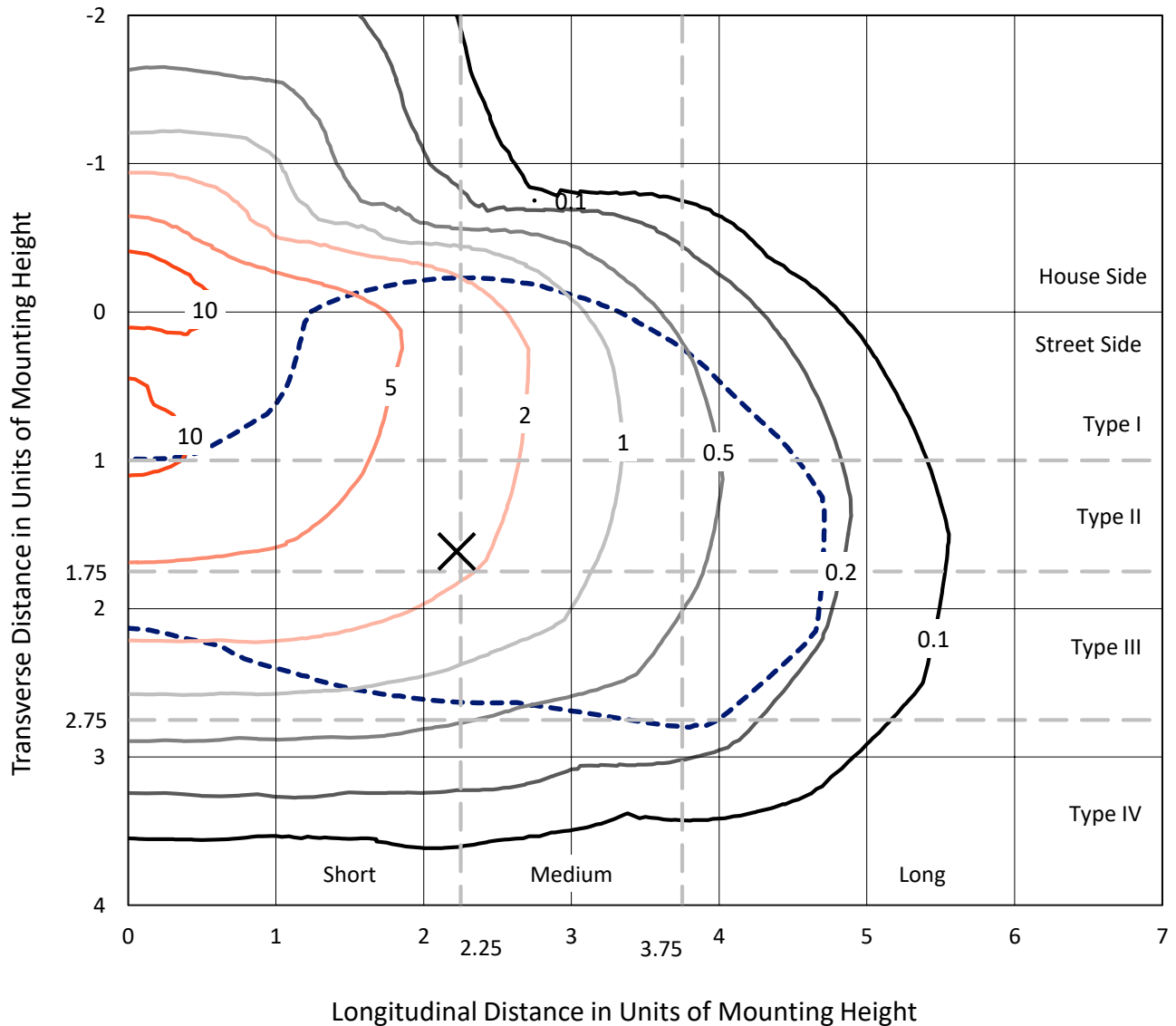
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

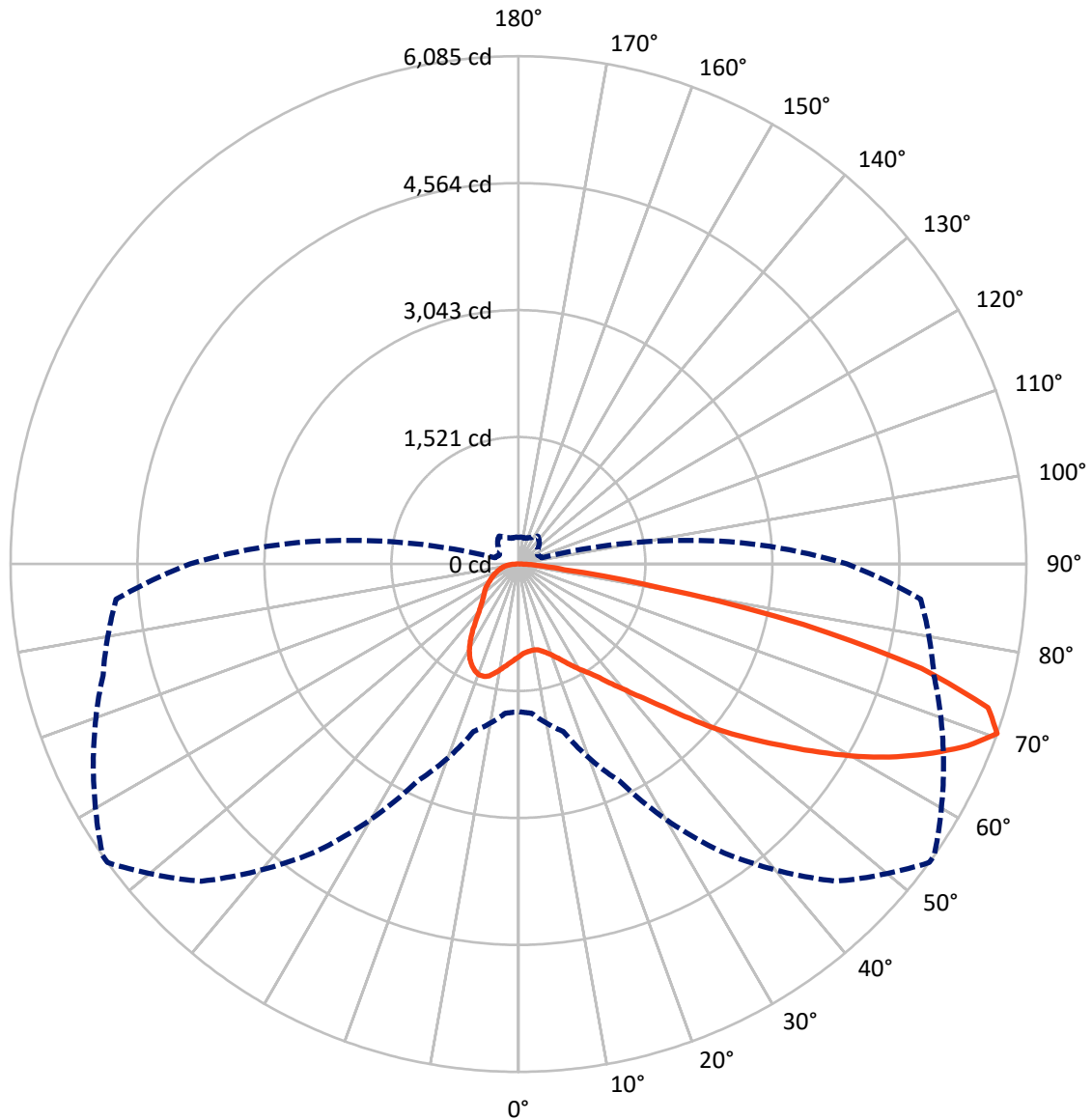
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.9 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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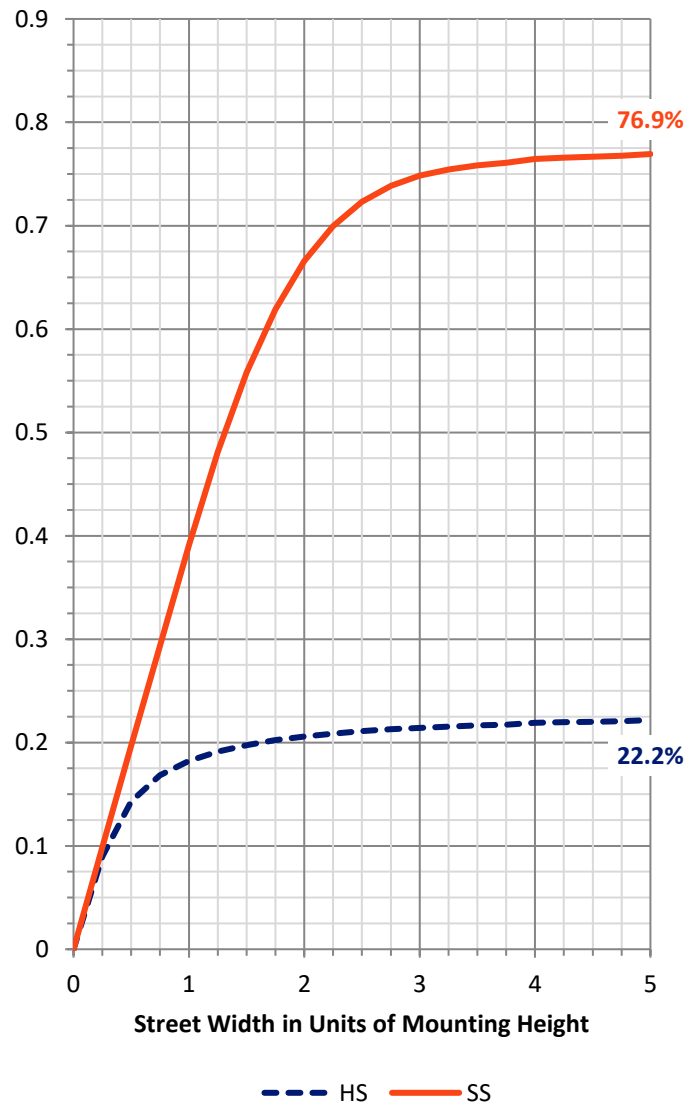
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2249.1	0.0	2249.1
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	7667.9	0.0	7667.9
	% Fixture	77.3	0.0	77.3
Total	Lumens	9917.0	0.0	9917.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.9	1.1
10°-20°	347.9	3.5
20°-30°	604.5	6.1
30°-40°	883.3	8.9
40°-50°	1386.4	14.0
50°-60°	2131.9	21.5
60°-70°	2604.7	26.3
70°-80°	1614.9	16.3
80°-90°	234.6	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°	9917.0	100.0
0°-180°	9917.0	100.0

Coefficient of Utilization



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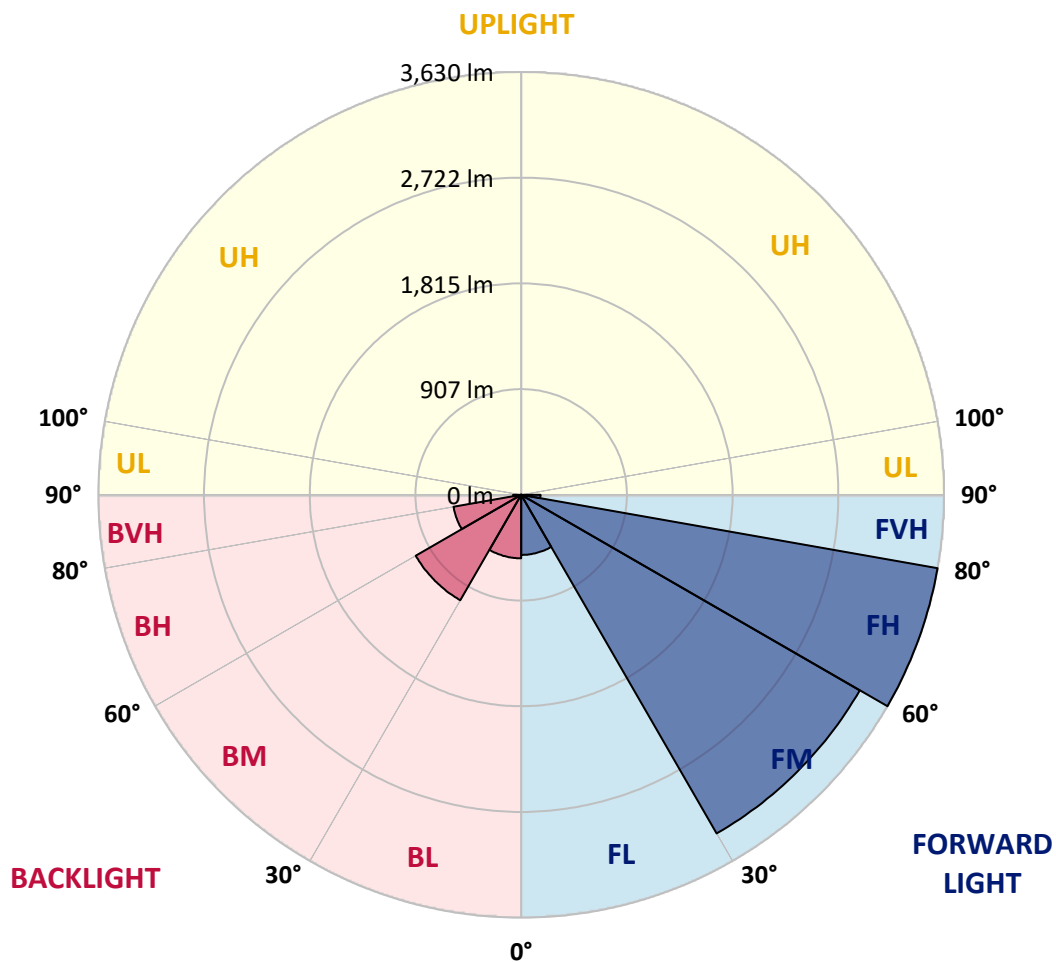
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	516.0	5.2			
FM	(30°-60°)	3356.5	33.8			
FH	(60°-80°)	3629.8	36.6			G2/5000
FVH	(80°-90°)	165.7	1.7			G2/225
BL	(0°-30°)	545.3	5.5	B2/1000		
BM	(30°-60°)	1045.1	10.5	B2/2500		
BH	(60°-80°)	589.8	5.9	B2/1000		G2/1000
BVH	(80°-90°)	68.9	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°	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5
2.5°	1065.9	1062.3	1062.3	1067.7	1069.6	1075.0	1075.0	1076.8	1082.3	1091.4	1102.2
5°	1033.2	1031.4	1033.2	1040.5	1044.1	1055.0	1058.7	1060.5	1071.4	1085.9	1102.2
7.5°	1000.6	998.7	1002.4	1013.3	1024.2	1040.5	1049.6	1051.4	1067.7	1087.7	1109.5
10°	989.7	987.8	993.3	1002.4	1013.3	1031.4	1046.0	1047.8	1071.4	1095.0	1125.9
12.5°	1004.2	1002.4	1007.8	1016.9	1027.8	1040.5	1056.9	1058.7	1089.5	1120.4	1153.1
15°	1040.5	1040.5	1042.3	1047.8	1058.7	1069.6	1084.1	1085.9	1118.6	1154.9	1187.6
17.5°	1096.8	1093.2	1093.2	1091.4	1098.6	1104.1	1122.2	1124.0	1158.5	1191.2	1223.9
20°	1165.8	1164.0	1156.7	1147.6	1145.8	1149.5	1167.6	1169.4	1203.9	1231.2	1262.0
22.5°	1249.3	1251.2	1234.8	1214.8	1205.8	1211.2	1227.5	1229.4	1254.8	1278.4	1305.6
25°	1360.1	1354.7	1331.1	1302.0	1283.8	1283.8	1300.2	1300.2	1323.8	1338.3	1356.5
27.5°	1465.4	1454.5	1432.7	1391.0	1361.9	1367.4	1383.7	1383.7	1405.5	1411.0	1420.0
30°	1579.8	1568.9	1541.7	1489.0	1450.9	1447.3	1467.2	1465.4	1494.5	1492.7	1485.4
32.5°	1719.7	1714.2	1668.8	1601.6	1550.8	1538.1	1556.2	1558.0	1576.2	1570.7	1547.1
35°	1915.8	1914.0	1872.2	1754.2	1687.0	1663.4	1674.3	1674.3	1687.0	1672.4	1632.5
37.5°	2162.7	2166.4	2130.0	1955.7	1861.3	1821.3	1823.2	1821.3	1825.0	1808.6	1766.9
40°	2409.7	2418.8	2417.0	2206.3	2086.5	2017.5	1992.0	1988.4	1997.5	1990.2	1950.3
42.5°	2734.7	2756.5	2705.7	2515.0	2380.6	2264.4	2195.4	2186.3	2206.3	2215.4	2177.3
45°	3072.5	3065.2	2985.3	2847.3	2725.7	2576.8	2446.0	2431.5	2446.0	2473.2	2433.3
47.5°	3248.6	3243.2	3223.2	3154.2	3136.1	2965.4	2767.4	2754.7	2727.5	2765.6	2718.4
50°	3539.2	3544.6	3462.9	3455.6	3531.9	3437.5	3130.6	3101.5	3052.5	3083.4	3043.4
52.5°	3749.8	3726.2	3675.4	3738.9	3976.8	3926.0	3472.0	3459.3	3413.9	3406.6	3388.5
55°	3835.2	3835.2	3844.3	3991.3	4330.9	4263.7	3842.4	3855.1	3793.4	3742.6	3766.2
57.5°	3860.6	3871.5	3949.6	4192.9	4746.8	4527.0	4251.0	4269.2	4180.2	4078.5	4153.0
60°	3735.3	3768.0	3955.0	4307.3	4981.0	4806.7	4681.4	4686.8	4557.9	4409.0	4539.7
62.5°	3413.9	3453.8	3788.0	4354.5	4942.9	5093.6	5088.1	5100.8	4924.7	4739.5	4902.9
65°	3019.8	3059.8	3415.7	4222.0	4913.8	5298.8	5460.4	5494.9	5267.9	5019.1	5129.9
67.5°	2440.6	2493.2	2831.0	3775.2	4772.2	5467.7	5809.0	5845.4	5533.0	5164.4	5109.9
70°	1768.7	1794.1	2077.4	2869.1	4194.7	5375.0	6085.1	6083.2	5620.2	5153.5	4837.5
72.5°	851.7	871.6	1116.8	1781.4	2999.9	4561.5	5885.3	5919.8	5500.3	4995.5	4214.7
75°	350.5	370.4	452.2	751.8	1574.4	3014.4	4988.3	5070.0	4995.5	4483.4	3297.7
77.5°	217.9	225.2	265.1	388.6	719.1	1407.3	3492.0	3602.7	3958.7	3591.8	2177.3
80°	163.4	168.9	197.9	272.4	454.0	519.3	1734.2	1874.0	2398.8	2061.0	986.0
82.5°	136.2	138.0	158.0	197.9	308.7	297.8	555.7	619.2	1118.6	786.3	339.6
85°	127.1	130.7	141.6	141.6	196.1	187.0	230.6	241.5	325.0	268.8	118.0
87.5°	65.4	61.7	125.3	110.8	101.7	90.8	98.1	105.3	121.7	128.9	52.7
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°	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5
2.5°	1105.9	1111.3	1120.4	1129.5	1140.4	1153.1	1160.4	1169.4	1176.7	1173.1	1171.3
5°	1111.3	1120.4	1140.4	1158.5	1180.3	1205.8	1222.1	1240.3	1254.8	1258.4	1253.0
7.5°	1120.4	1136.8	1164.0	1196.7	1225.7	1258.4	1283.8	1309.3	1327.4	1331.1	1331.1
10°	1142.2	1160.4	1196.7	1240.3	1274.8	1309.3	1338.3	1358.3	1374.6	1381.9	1381.9
12.5°	1173.1	1194.9	1238.4	1291.1	1329.2	1361.9	1378.3	1387.3	1394.6	1401.9	1403.7
15°	1209.4	1233.0	1285.7	1341.9	1381.9	1398.2	1398.2	1396.4	1396.4	1400.1	1403.7
17.5°	1245.7	1271.1	1325.6	1385.5	1411.0	1401.9	1389.2	1383.7	1380.1	1378.3	1383.7
20°	1283.8	1309.3	1363.7	1420.0	1412.8	1374.6	1356.5	1343.8	1332.9	1327.4	1334.7
22.5°	1325.6	1349.2	1405.5	1443.6	1389.2	1331.1	1296.5	1276.6	1258.4	1247.5	1254.8
25°	1374.6	1398.2	1452.7	1450.9	1347.4	1265.7	1211.2	1178.5	1158.5	1147.6	1147.6
27.5°	1432.7	1452.7	1505.4	1432.7	1289.3	1178.5	1098.6	1067.7	1062.3	1053.2	1053.2
30°	1492.7	1509.0	1554.4	1391.0	1209.4	1064.1	977.0	962.4	964.2	955.2	957.0
32.5°	1554.4	1570.7	1583.5	1329.2	1105.9	935.2	877.1	866.2	864.4	857.1	849.8
35°	1641.6	1665.2	1587.1	1245.7	980.6	828.0	786.3	775.4	764.5	739.1	739.1
37.5°	1774.1	1799.6	1578.0	1142.2	851.7	744.5	706.4	691.9	673.7	648.3	639.2
40°	1955.7	1955.7	1558.0	1026.0	748.1	677.3	641.0	622.9	602.9	577.5	572.0
42.5°	2170.0	2119.1	1527.2	907.9	671.9	631.9	599.2	579.3	555.7	526.6	523.0
45°	2420.6	2282.6	1483.6	802.6	615.6	604.7	584.7	550.2	510.3	479.4	473.9
47.5°	2663.9	2429.7	1441.8	728.2	568.4	593.8	577.5	519.3	464.9	421.3	415.8
50°	2930.9	2560.4	1392.8	666.4	532.1	586.5	568.4	473.9	414.0	383.2	379.5
52.5°	3197.8	2693.0	1340.1	601.1	501.2	572.0	546.6	441.3	412.2	370.4	365.0
55°	3479.3	2847.3	1278.4	528.4	464.9	543.0	517.5	439.4	424.9	370.4	357.7
57.5°	3753.5	3018.0	1178.5	457.6	424.9	499.4	506.6	428.6	397.7	366.8	352.3
60°	4056.7	3199.6	1013.3	397.7	390.4	463.1	492.1	404.9	366.8	355.9	348.7
62.5°	4300.0	3363.0	791.7	355.9	361.4	434.0	473.9	390.4	354.1	345.0	343.2
65°	4405.4	3366.7	568.4	319.6	332.3	406.8	455.8	377.7	343.2	339.6	337.8
67.5°	4294.6	3181.4	399.5	285.1	301.4	381.3	432.2	365.0	332.3	334.1	330.5
70°	3936.9	2791.0	292.4	252.4	272.4	354.1	406.8	348.7	319.6	323.2	317.8
72.5°	3294.0	2175.4	234.3	225.2	248.8	325.0	381.3	330.5	299.6	301.4	290.5
75°	2433.3	1441.8	196.1	201.6	221.5	297.8	348.7	306.9	277.8	270.6	263.3
77.5°	1447.3	740.9	161.6	176.1	197.9	265.1	312.3	277.8	254.2	241.5	236.1
80°	597.4	299.6	132.6	148.9	172.5	236.1	276.0	243.3	227.0	214.3	207.0
82.5°	237.9	147.1	105.3	121.7	145.3	205.2	241.5	214.3	197.9	188.9	168.9
85°	90.8	72.6	70.8	85.3	109.0	158.0	199.7	179.8	167.1	143.5	138.0
87.5°	36.3	32.7	32.7	41.8	61.7	99.9	143.5	125.3	130.7	103.5	105.3
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)