

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: P214735

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214735
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
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10144.6 lumens
Efficiency: N/A
Efficacy: 105.7 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

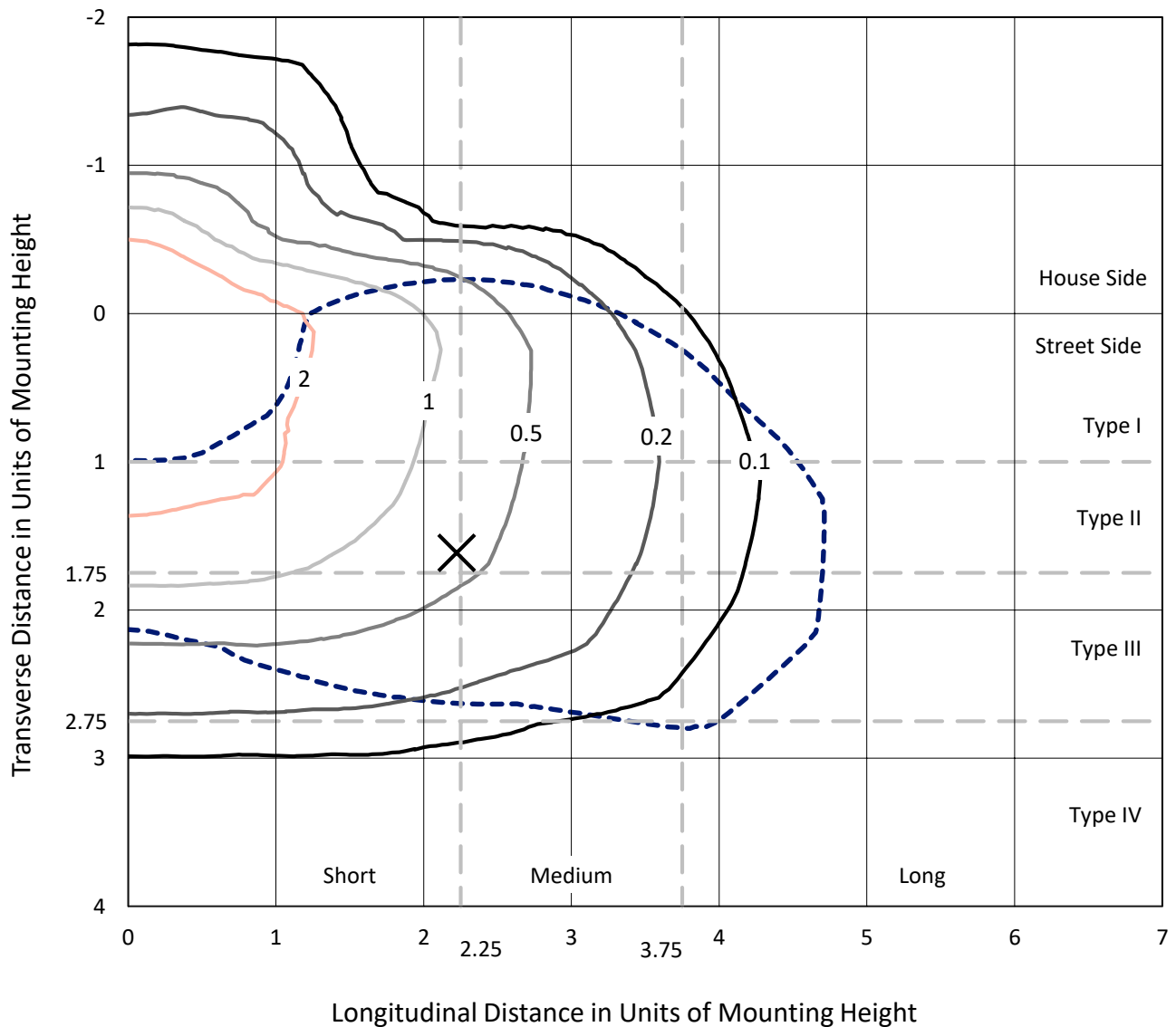
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

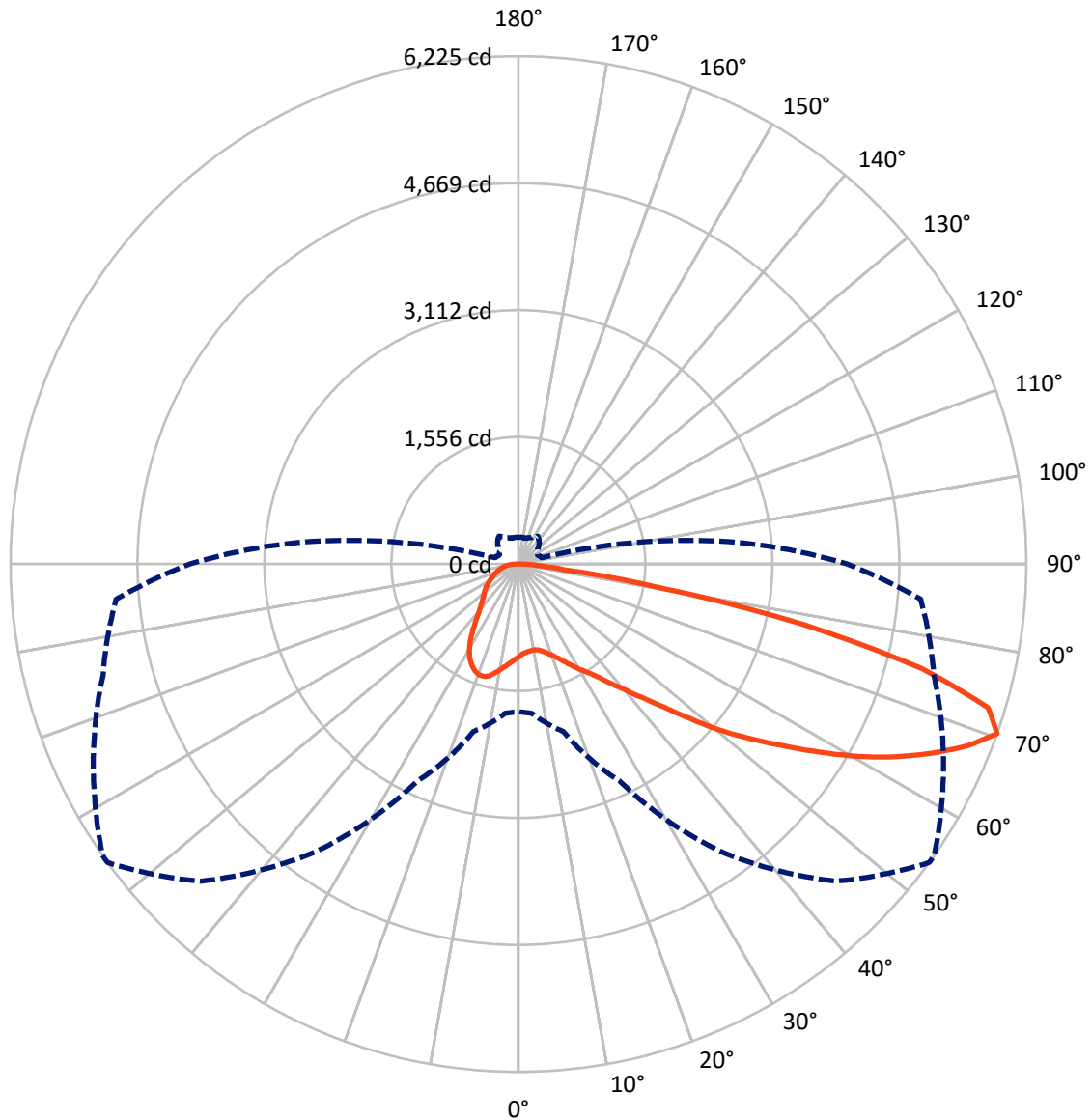


Based on 20 foot mounting height. Maximum calculated value = 3.3 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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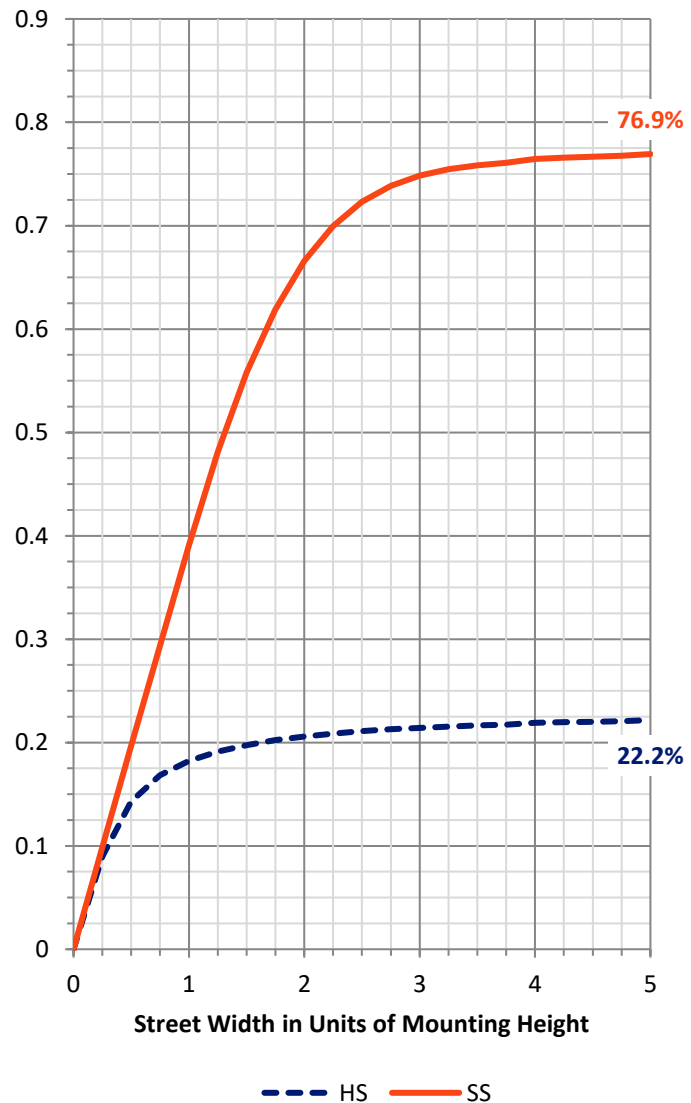
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2300.8	0.0	2300.8
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	7843.8	0.0	7843.8
	% Fixture	77.3	0.0	77.3
Total	Lumens	10144.6	0.0	10144.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.4	1.1
10°-20°	355.9	3.5
20°-30°	618.3	6.1
30°-40°	903.6	8.9
40°-50°	1418.2	14.0
50°-60°	2180.8	21.5
60°-70°	2664.4	26.3
70°-80°	1652.0	16.3
80°-90°	240.0	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°	10144.6	100.0
0°-180°	10144.6	100.0

Coefficient of Utilization



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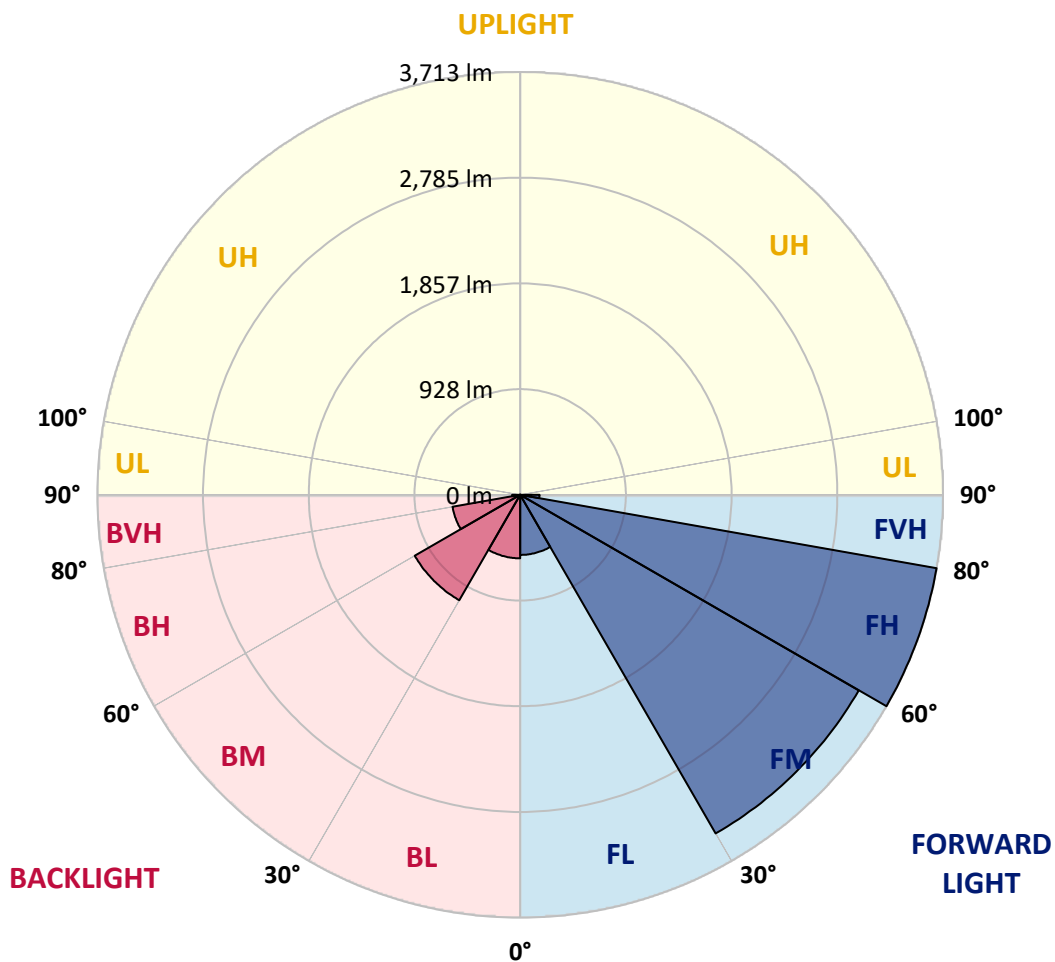
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	527.8	5.2			
FM (30°-60°)	3433.5	33.8			
FH (60°-80°)	3713.1	36.6			G2/5000
FVH (80°-90°)	169.5	1.7			G2/225
BL (0°-30°)	557.8	5.5	B2/1000		
BM (30°-60°)	1069.1	10.5	B2/2500		
BH (60°-80°)	603.3	5.9	B2/1000		G2/1000
BVH (80°-90°)	70.5	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°	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0
2.5°	1090.4	1086.7	1086.7	1092.2	1094.1	1099.7	1099.7	1101.5	1107.1	1116.4	1127.5
5°	1056.9	1055.1	1056.9	1064.4	1068.1	1079.2	1083.0	1084.8	1096.0	1110.8	1127.5
7.5°	1023.6	1021.6	1025.4	1036.6	1047.7	1064.4	1073.7	1075.5	1092.2	1112.7	1135.0
10°	1012.4	1010.5	1016.1	1025.4	1036.6	1055.1	1070.0	1071.8	1096.0	1120.1	1151.7
12.5°	1027.2	1025.4	1030.9	1040.2	1051.4	1064.4	1081.2	1083.0	1114.5	1146.1	1179.6
15°	1064.4	1064.4	1066.2	1071.8	1083.0	1094.1	1109.0	1110.8	1144.3	1181.4	1214.9
17.5°	1122.0	1118.3	1118.3	1116.4	1123.8	1129.4	1148.0	1149.8	1185.1	1218.5	1252.0
20°	1192.6	1190.7	1183.2	1173.9	1172.1	1175.9	1194.4	1196.2	1231.5	1259.5	1291.0
22.5°	1278.0	1279.9	1263.1	1242.7	1233.5	1239.0	1255.7	1257.6	1283.6	1307.7	1335.6
25°	1391.3	1385.8	1361.6	1331.9	1313.3	1313.3	1330.0	1330.0	1354.2	1369.0	1387.6
27.5°	1499.0	1487.9	1465.6	1422.9	1393.2	1398.8	1415.5	1415.5	1437.8	1443.4	1452.6
30°	1616.1	1604.9	1577.1	1523.2	1484.2	1480.5	1500.9	1499.0	1528.8	1527.0	1519.5
32.5°	1759.2	1753.5	1707.1	1638.4	1586.4	1573.4	1591.9	1593.8	1612.4	1606.7	1582.6
35°	1959.8	1957.9	1915.2	1794.5	1725.7	1701.6	1712.7	1712.7	1725.7	1710.8	1670.0
37.5°	2212.3	2216.1	2178.9	2000.6	1904.0	1863.1	1865.0	1863.1	1866.9	1850.1	1807.5
40°	2465.0	2474.3	2472.5	2256.9	2134.4	2063.8	2037.7	2034.0	2043.3	2035.9	1995.1
42.5°	2797.5	2819.8	2767.8	2572.7	2435.2	2316.4	2245.8	2236.5	2256.9	2266.2	2227.3
45°	3143.0	3135.5	3053.8	2912.6	2788.3	2635.9	2502.1	2487.3	2502.1	2530.0	2489.1
47.5°	3323.2	3317.6	3297.2	3226.6	3208.1	3033.5	2830.9	2817.9	2790.1	2829.1	2780.8
50°	3620.4	3626.0	3542.4	3534.9	3613.0	3516.4	3202.4	3172.7	3122.6	3154.2	3113.2
52.5°	3835.9	3811.7	3759.8	3824.7	4068.1	4016.1	3551.7	3538.7	3492.3	3484.8	3466.3
55°	3923.2	3923.2	3932.5	4082.9	4430.3	4361.6	3930.6	3943.6	3880.5	3828.5	3852.6
57.5°	3949.2	3960.4	4040.2	4289.1	4855.7	4630.9	4348.6	4367.2	4276.1	4172.1	4248.3
60°	3821.0	3854.5	4045.8	4406.2	5095.3	4917.0	4788.8	4794.4	4662.5	4510.2	4643.9
62.5°	3492.3	3533.1	3874.9	4454.4	5056.3	5210.5	5204.9	5217.9	5037.7	4848.3	5015.4
65°	3089.1	3130.0	3494.1	4318.9	5026.6	5420.4	5585.7	5621.0	5388.8	5134.3	5247.6
67.5°	2496.6	2550.4	2896.0	3861.8	4881.7	5593.2	5942.3	5979.6	5660.0	5282.9	5227.2
70°	1809.3	1835.3	2125.1	2934.9	4291.0	5498.4	6224.8	6222.8	5749.2	5271.8	4948.5
72.5°	871.2	891.6	1142.4	1822.3	3068.8	4666.2	6020.4	6055.7	5626.5	5110.2	4311.4
75°	358.5	378.9	462.6	769.1	1610.5	3083.6	5102.8	5186.4	5110.2	4586.3	3373.4
77.5°	222.9	230.4	271.2	397.5	735.6	1439.6	3572.1	3685.4	4049.6	3674.2	2227.3
80°	167.2	172.8	202.4	278.7	464.4	531.2	1774.0	1917.0	2453.9	2108.3	1008.6
82.5°	139.3	141.2	161.6	202.4	315.8	304.6	568.5	633.4	1144.3	804.3	347.4
85°	130.0	133.7	144.8	144.8	200.6	191.3	235.9	247.0	332.5	275.0	120.7
87.5°	66.9	63.1	128.2	113.3	104.0	92.9	100.4	107.7	124.5	131.9	53.9
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°	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0
2.5°	1131.3	1136.8	1146.1	1155.4	1166.6	1179.6	1187.0	1196.2	1203.7	1200.0	1198.2
5°	1136.8	1146.1	1166.6	1185.1	1207.4	1233.5	1250.1	1268.8	1283.6	1287.3	1281.8
7.5°	1146.1	1162.9	1190.7	1224.2	1253.8	1287.3	1313.3	1339.3	1357.9	1361.6	1361.6
10°	1168.4	1187.0	1224.2	1268.8	1304.1	1339.3	1369.0	1389.5	1406.1	1413.6	1413.6
12.5°	1200.0	1222.3	1266.8	1320.7	1359.7	1393.2	1409.9	1419.1	1426.6	1434.1	1435.9
15°	1237.2	1261.3	1315.2	1372.7	1413.6	1430.3	1430.3	1428.4	1428.4	1432.2	1435.9
17.5°	1274.3	1300.3	1356.0	1417.3	1443.4	1434.1	1421.1	1415.5	1411.8	1409.9	1415.5
20°	1313.3	1339.3	1395.0	1452.6	1445.2	1406.1	1387.6	1374.6	1363.5	1357.9	1365.3
22.5°	1356.0	1380.2	1437.8	1476.7	1421.1	1361.6	1326.3	1305.9	1287.3	1276.1	1283.6
25°	1406.1	1430.3	1486.0	1484.2	1378.3	1294.7	1239.0	1205.5	1185.1	1173.9	1173.9
27.5°	1465.6	1486.0	1540.0	1465.6	1318.9	1205.5	1123.8	1092.2	1086.7	1077.4	1077.4
30°	1527.0	1543.6	1590.1	1422.9	1237.2	1088.5	999.4	984.5	986.3	977.1	979.0
32.5°	1590.1	1606.7	1619.8	1359.7	1131.3	956.7	897.2	886.1	884.2	876.8	869.3
35°	1679.3	1703.4	1623.5	1274.3	1003.1	847.0	804.3	793.2	782.0	756.1	756.1
37.5°	1814.8	1840.9	1614.2	1168.4	871.2	761.6	722.6	707.8	689.2	663.2	653.9
40°	2000.6	2000.6	1593.8	1049.5	765.3	692.8	655.7	637.2	616.7	590.8	585.1
42.5°	2219.8	2167.7	1562.3	928.7	687.3	646.4	613.0	592.6	568.5	538.7	535.0
45°	2476.2	2335.0	1517.6	821.0	629.7	618.6	598.1	562.8	522.0	490.4	484.8
47.5°	2725.0	2485.5	1474.9	744.9	581.4	607.4	590.8	531.2	475.6	431.0	425.3
50°	2998.2	2619.2	1424.8	681.7	544.3	600.0	581.4	484.8	423.5	392.0	388.2
52.5°	3271.2	2754.8	1370.9	614.9	512.7	585.1	559.1	451.4	421.7	378.9	373.4
55°	3559.2	2912.6	1307.7	540.5	475.6	555.5	529.4	449.5	434.7	378.9	365.9
57.5°	3839.6	3087.3	1205.5	468.1	434.7	510.9	518.2	438.4	406.8	375.2	360.4
60°	4149.8	3273.0	1036.6	406.8	399.4	473.7	503.4	414.2	375.2	364.1	356.7
62.5°	4398.7	3440.2	809.9	364.1	369.7	444.0	484.8	399.4	362.2	352.9	351.1
65°	4506.5	3444.0	581.4	326.9	339.9	416.1	466.3	386.4	351.1	347.4	345.6
67.5°	4393.2	3254.4	408.7	291.6	308.3	390.1	442.1	373.4	339.9	341.8	338.1
70°	4027.3	2855.1	299.1	258.2	278.7	362.2	416.1	356.7	326.9	330.6	325.1
72.5°	3369.6	2225.3	239.7	230.4	254.5	332.5	390.1	338.1	306.5	308.3	297.2
75°	2489.1	1474.9	200.6	206.2	226.6	304.6	356.7	313.9	284.2	276.8	269.3
77.5°	1480.5	757.9	165.3	180.1	202.4	271.2	319.5	284.2	260.0	247.0	241.5
80°	611.1	306.5	135.6	152.3	176.5	241.5	282.3	248.9	232.2	219.2	211.8
82.5°	243.4	150.5	107.7	124.5	148.6	209.9	247.0	219.2	202.4	193.2	172.8
85°	92.9	74.3	72.4	87.3	111.5	161.6	204.3	183.9	170.9	146.8	141.2
87.5°	37.1	33.5	33.5	42.8	63.1	102.2	146.8	128.2	133.7	105.9	107.7
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)