

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: P214733

Luminaire Tested: **ARCH-AF24-80-D-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214733
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-AF24-80-D-U-T3
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9368.2 lumens
Efficiency: N/A
Efficacy: 112.9 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): 83
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

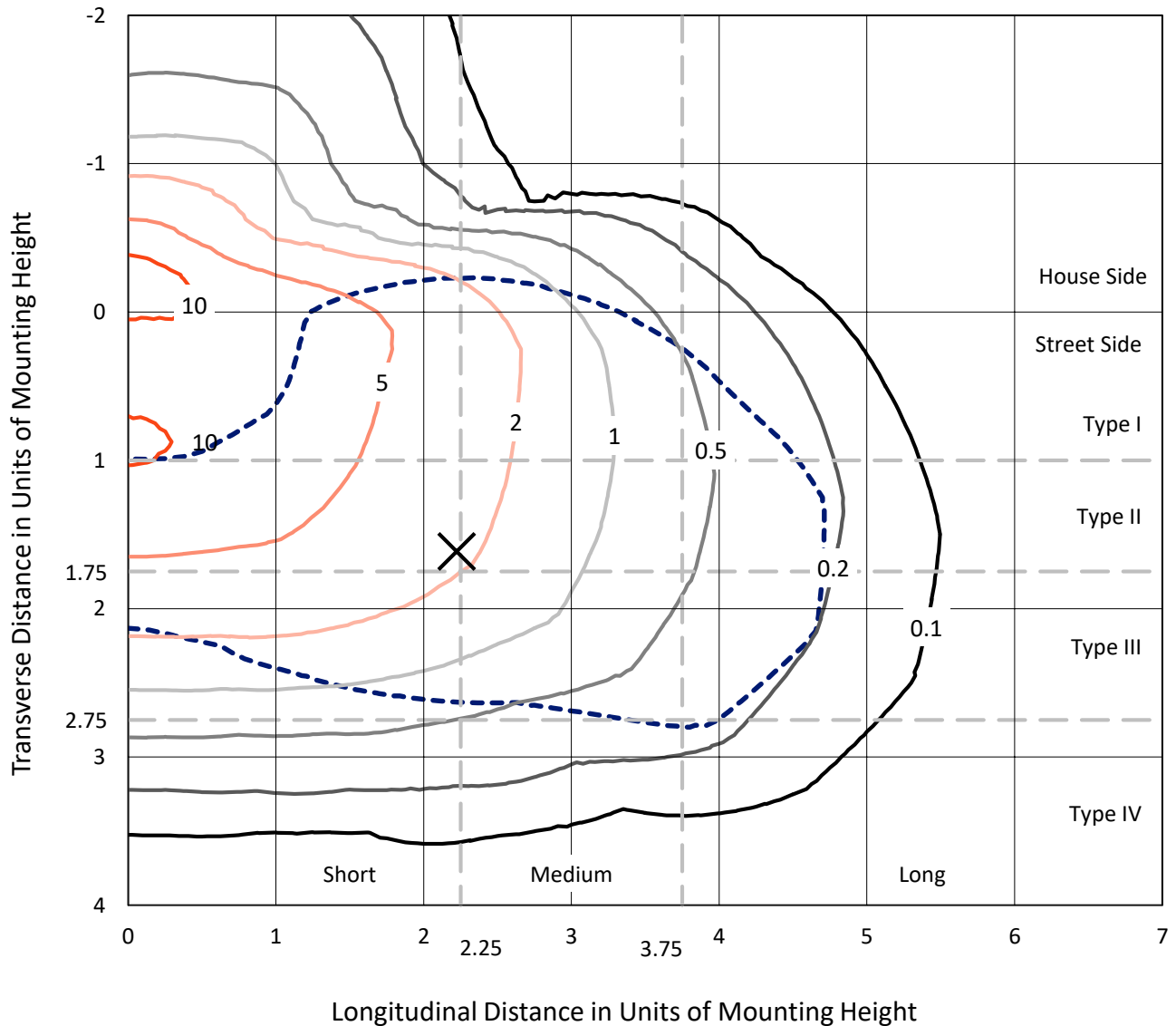


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

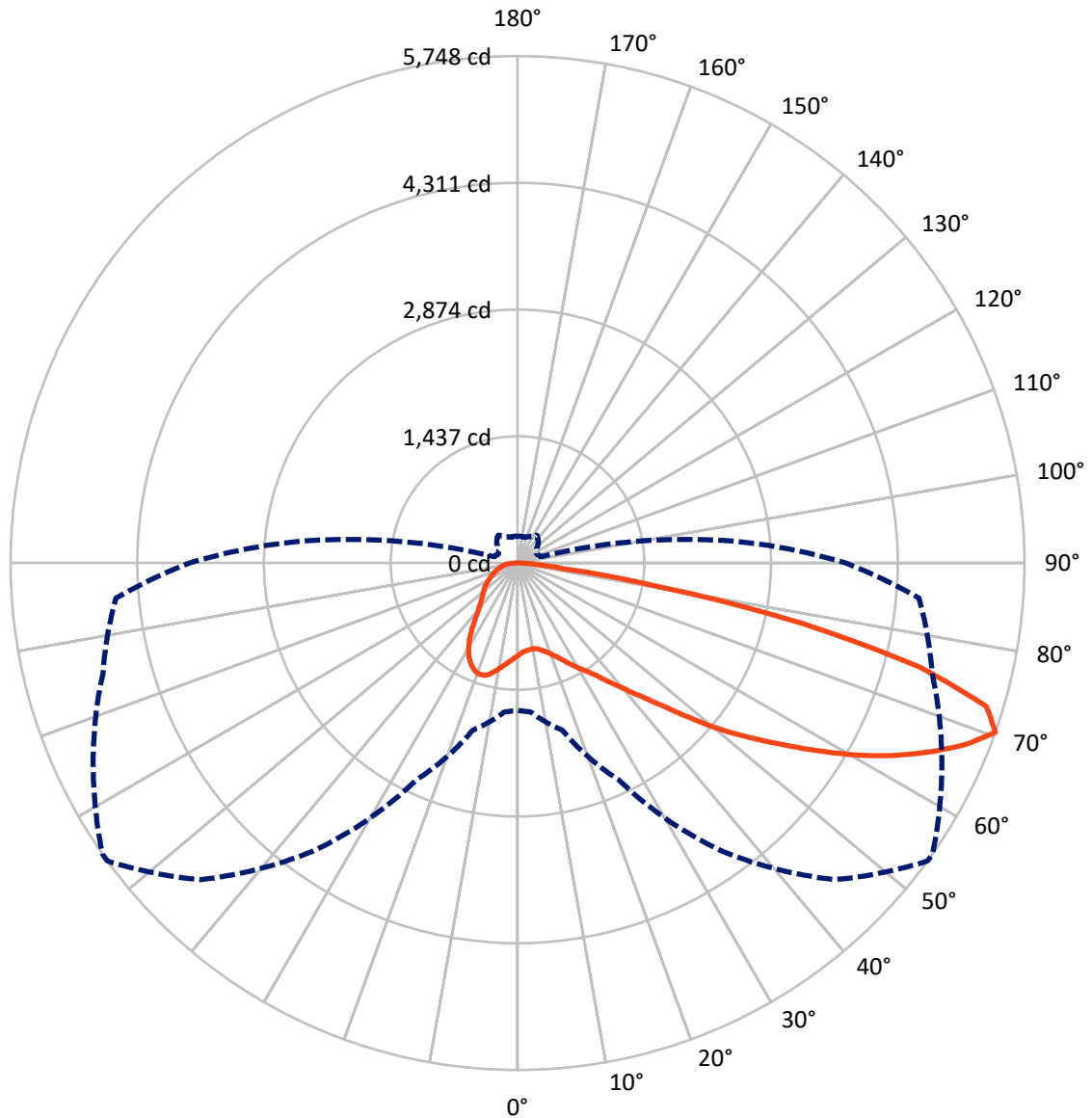


Based on 10 foot mounting height. Maximum calculated value = 12.2 fc
 Type III - Short - Non-Cutoff

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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	2124.7	0.0	2124.7
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	7243.5	0.0	7243.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	9368.2	0.0	9368.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.9	1.1
10°-20°	328.7	3.5
20°-30°	571.0	6.1
30°-40°	834.4	8.9
40°-50°	1309.6	14.0
50°-60°	2013.9	21.5
60°-70°	2460.5	26.3
70°-80°	1525.5	16.3
80°-90°	221.6	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°	9368.2	100.0
0°-180°	9368.2	100.0

Coefficient of Utilization



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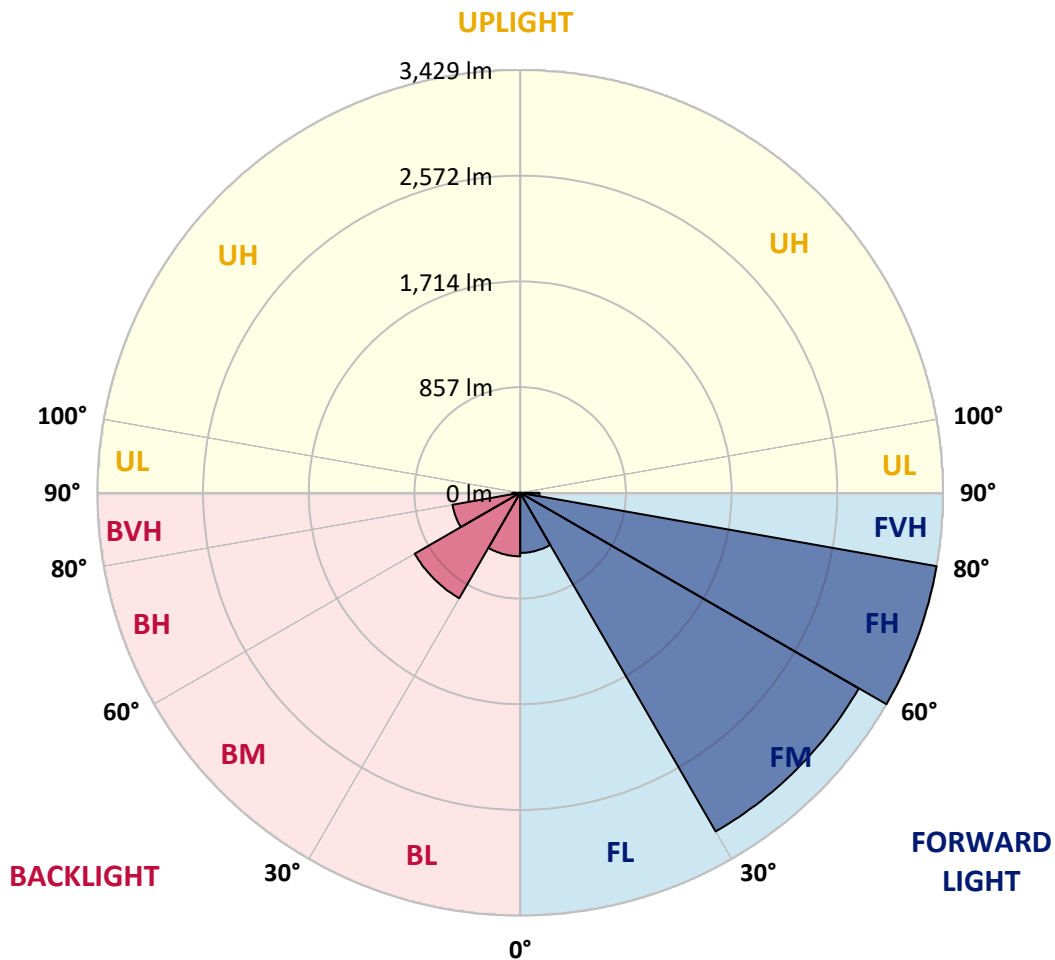
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	487.4	5.2			
FM	(30°-60°)	3170.7	33.8			
FH	(60°-80°)	3428.9	36.6			G2/5000
FVH	(80°-90°)	156.5	1.7			G2/225
BL	(0°-30°)	515.1	5.5	B2/1000		
BM	(30°-60°)	987.3	10.5	B1/1000		
BH	(60°-80°)	557.1	5.9	B2/1000		G2/1000
BVH	(80°-90°)	65.1	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°	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1
2.5°	1006.9	1003.5	1003.5	1008.6	1010.4	1015.5	1015.5	1017.2	1022.3	1030.9	1041.3
5°	976.1	974.4	976.1	983.0	986.3	996.7	1000.0	1001.8	1012.1	1025.8	1041.3
7.5°	945.2	943.5	946.9	957.2	967.5	983.0	991.5	993.2	1008.6	1027.6	1048.1
10°	934.9	933.1	938.4	946.9	957.2	974.4	988.1	989.8	1012.1	1034.4	1063.6
12.5°	948.6	946.9	952.1	960.7	970.9	983.0	998.4	1000.0	1029.2	1058.4	1089.2
15°	983.0	983.0	984.6	989.8	1000.0	1010.4	1024.1	1025.8	1056.7	1091.0	1121.9
17.5°	1036.1	1032.7	1032.7	1030.9	1037.8	1043.0	1060.1	1061.8	1094.5	1125.3	1156.1
20°	1101.3	1099.6	1092.7	1084.1	1082.4	1085.9	1103.0	1104.7	1137.3	1163.0	1192.2
22.5°	1180.2	1181.9	1166.5	1147.6	1139.1	1144.2	1159.6	1161.4	1185.3	1207.6	1233.4
25°	1284.8	1279.7	1257.4	1229.9	1212.8	1212.8	1228.3	1228.3	1250.6	1264.3	1281.5
27.5°	1384.4	1374.0	1353.5	1314.0	1286.6	1291.7	1307.1	1307.1	1327.7	1332.9	1341.4
30°	1492.4	1482.2	1456.4	1406.7	1370.7	1367.2	1386.0	1384.4	1411.8	1410.0	1403.2
32.5°	1624.4	1619.3	1576.5	1512.9	1465.0	1452.9	1470.1	1471.8	1489.0	1483.8	1461.5
35°	1809.7	1808.1	1768.6	1657.1	1593.7	1571.4	1581.6	1581.6	1593.7	1579.8	1542.1
37.5°	2043.0	2046.5	2012.1	1847.4	1758.2	1720.5	1722.2	1720.5	1724.0	1708.5	1669.0
40°	2276.4	2285.0	2283.2	2084.3	1971.0	1905.9	1881.8	1878.3	1886.9	1880.1	1842.3
42.5°	2583.4	2604.0	2555.9	2375.8	2248.9	2139.1	2073.9	2065.3	2084.3	2092.8	2056.7
45°	2902.4	2895.6	2820.1	2689.7	2574.8	2434.1	2310.6	2296.9	2310.6	2336.4	2298.7
47.5°	3068.9	3063.7	3044.8	2979.7	2962.5	2801.2	2614.3	2602.3	2576.5	2612.5	2567.9
50°	3343.3	3348.4	3271.3	3264.4	3336.5	3247.3	2957.4	2929.9	2883.6	2912.8	2875.0
52.5°	3542.3	3520.0	3472.0	3532.0	3756.7	3708.7	3279.9	3267.8	3225.0	3218.1	3200.9
55°	3622.9	3622.9	3631.5	3770.5	4091.2	4027.8	3629.8	3641.8	3583.5	3535.4	3557.7
57.5°	3646.9	3657.3	3731.0	3960.9	4484.1	4276.4	4015.8	4032.9	3948.9	3852.8	3923.1
60°	3528.6	3559.5	3736.1	4068.9	4705.4	4540.7	4422.3	4427.4	4305.7	4165.0	4288.5
62.5°	3225.0	3262.7	3578.3	4113.5	4669.4	4811.7	4806.5	4818.6	4652.2	4477.1	4631.6
65°	2852.7	2890.4	3226.7	3988.3	4641.8	5005.5	5158.2	5190.8	4976.3	4741.4	4846.0
67.5°	2305.5	2355.2	2674.3	3566.3	4508.0	5165.1	5487.6	5521.9	5226.9	4878.6	4827.1
70°	1670.8	1694.8	1962.4	2710.3	3962.6	5077.6	5748.3	5746.6	5309.2	4868.3	4569.8
72.5°	804.6	823.4	1055.0	1682.9	2833.9	4309.1	5559.6	5592.2	5196.0	4719.1	3981.4
75°	331.0	350.0	427.2	710.1	1487.3	2847.6	4712.2	4789.4	4719.1	4235.3	3115.2
77.5°	205.8	212.7	250.4	367.1	679.3	1329.4	3298.7	3403.4	3739.6	3393.0	2056.7
80°	154.4	159.6	187.0	257.3	428.8	490.6	1638.3	1770.3	2266.0	1947.0	931.5
82.5°	128.7	130.3	149.2	187.0	291.6	281.3	524.9	584.9	1056.7	742.8	320.8
85°	120.1	123.5	133.8	133.8	185.3	176.7	217.9	228.1	307.1	253.9	111.5
87.5°	61.8	58.3	118.4	104.6	96.1	85.7	92.7	99.5	115.0	121.8	49.7
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°	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1	1048.1
2.5°	1044.6	1049.9	1058.4	1066.9	1077.3	1089.2	1096.1	1104.7	1111.5	1108.2	1106.4
5°	1049.9	1058.4	1077.3	1094.5	1115.0	1139.1	1154.5	1171.6	1185.3	1188.8	1183.7
7.5°	1058.4	1073.8	1099.6	1130.5	1157.9	1188.8	1212.8	1236.8	1253.9	1257.4	1257.4
10°	1079.0	1096.1	1130.5	1171.6	1204.2	1236.8	1264.3	1283.1	1298.5	1305.4	1305.4
12.5°	1108.2	1128.7	1169.9	1219.7	1255.7	1286.6	1302.0	1310.6	1317.5	1324.3	1326.1
15°	1142.4	1164.7	1214.5	1267.6	1305.4	1320.8	1320.8	1319.1	1319.1	1322.6	1326.1
17.5°	1176.8	1200.7	1252.2	1308.9	1332.9	1324.3	1312.2	1307.1	1303.8	1302.0	1307.1
20°	1212.8	1236.8	1288.3	1341.4	1334.5	1298.5	1281.5	1269.4	1259.2	1253.9	1260.8
22.5°	1252.2	1274.5	1327.7	1363.7	1312.2	1257.4	1224.8	1206.0	1188.8	1178.4	1185.3
25°	1298.5	1320.8	1372.3	1370.7	1272.9	1195.6	1144.2	1113.3	1094.5	1084.1	1084.1
27.5°	1353.5	1372.3	1422.1	1353.5	1217.9	1113.3	1037.8	1008.6	1003.5	994.9	994.9
30°	1410.0	1425.5	1468.3	1314.0	1142.4	1005.3	922.9	909.2	910.8	902.3	904.0
32.5°	1468.3	1483.8	1495.9	1255.7	1044.6	883.4	828.6	818.3	816.5	809.7	802.8
35°	1550.7	1573.0	1499.2	1176.8	926.3	782.3	742.8	732.4	722.2	698.2	698.2
37.5°	1675.9	1699.9	1490.6	1079.0	804.6	703.3	667.3	653.6	636.4	612.4	603.8
40°	1847.4	1847.4	1471.8	969.2	706.8	639.9	605.6	588.4	569.5	545.5	540.3
42.5°	2049.9	2001.9	1442.7	857.7	634.7	597.0	566.1	547.2	524.9	497.5	494.1
45°	2286.6	2156.3	1401.4	758.2	581.5	571.2	552.4	519.8	482.0	452.9	447.7
47.5°	2516.5	2295.2	1362.1	687.8	536.9	561.0	545.5	490.6	439.2	397.9	392.8
50°	2768.6	2418.8	1315.7	629.5	502.6	554.0	536.9	447.7	391.1	361.9	358.5
52.5°	3020.8	2544.0	1266.0	567.8	473.4	540.3	516.4	416.9	389.4	350.0	344.8
55°	3286.7	2689.7	1207.6	499.2	439.2	512.9	488.9	415.1	401.4	350.0	338.0
57.5°	3545.8	2851.0	1113.3	432.3	401.4	471.8	478.6	404.9	375.6	346.5	332.8
60°	3832.2	3022.5	957.2	375.6	368.8	437.4	464.8	382.6	346.5	336.2	329.4
62.5°	4062.0	3176.9	747.9	336.2	341.4	410.0	447.7	368.8	334.5	325.9	324.2
65°	4161.6	3180.4	536.9	301.9	313.9	384.2	430.6	356.8	324.2	320.8	319.1
67.5°	4056.9	3005.4	377.4	269.3	284.8	360.3	408.3	344.8	313.9	315.7	312.2
70°	3719.0	2636.6	276.2	238.4	257.3	334.5	384.2	329.4	301.9	305.4	300.2
72.5°	3111.7	2055.0	221.3	212.7	235.0	307.1	360.3	312.2	283.1	284.8	274.5
75°	2298.7	1362.1	185.3	190.4	209.3	281.3	329.4	289.9	262.5	255.6	248.8
77.5°	1367.2	699.9	152.6	166.4	187.0	250.4	295.0	262.5	240.2	228.1	223.0
80°	564.4	283.1	125.2	140.7	163.0	223.0	260.8	229.9	214.4	202.4	195.6
82.5°	224.7	138.9	99.5	115.0	137.3	193.8	228.1	202.4	187.0	178.4	159.6
85°	85.7	68.6	66.9	80.6	102.9	149.2	188.7	169.8	157.8	135.5	130.3
87.5°	34.3	30.9	30.9	39.5	58.3	94.3	135.5	118.4	123.5	97.8	99.5
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)