

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: P265794

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265794
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-AF48-80-D-U-T4W-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9612.6 lumens
Efficiency: N/A
Efficacy: 115.8 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): 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

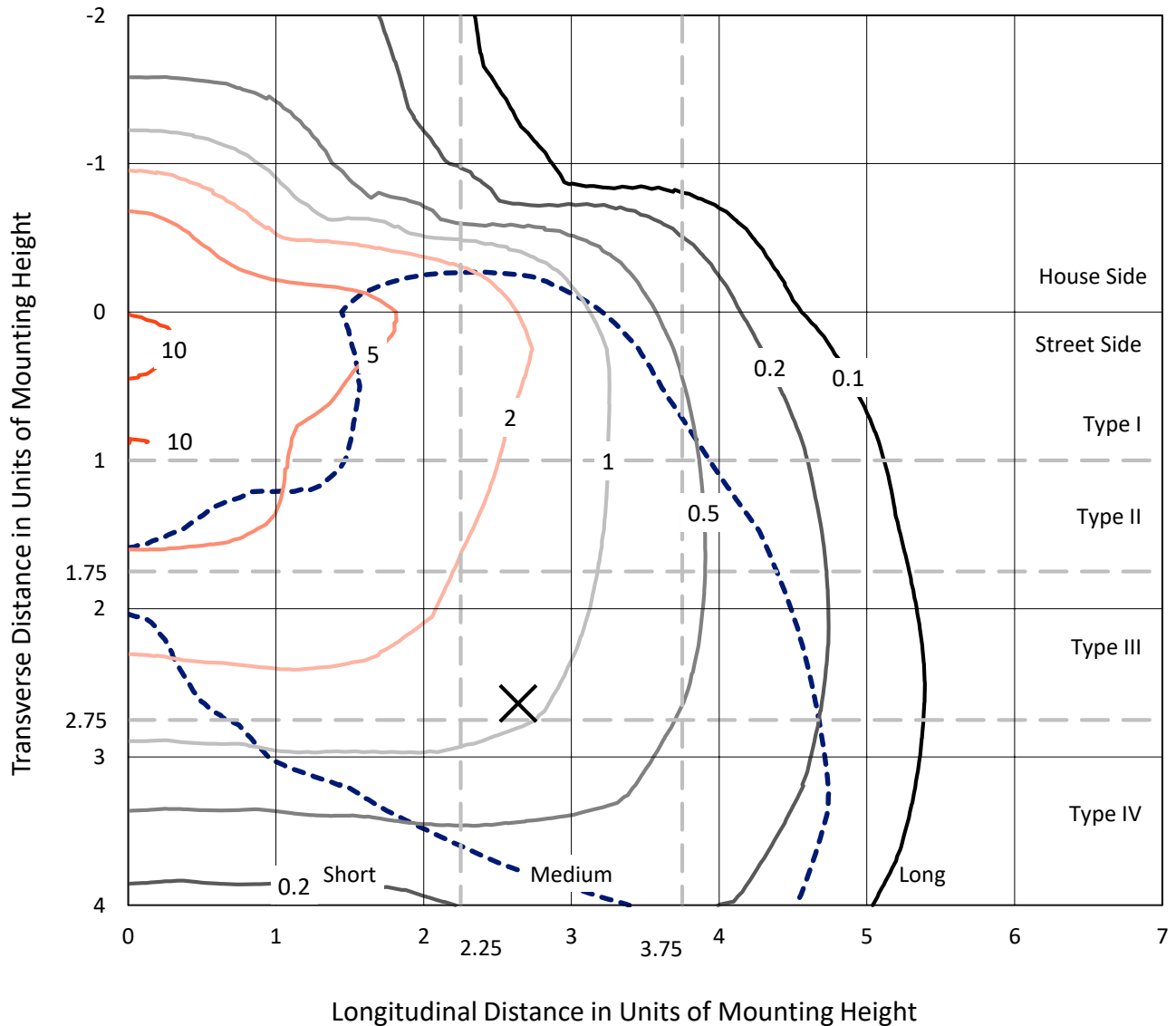


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

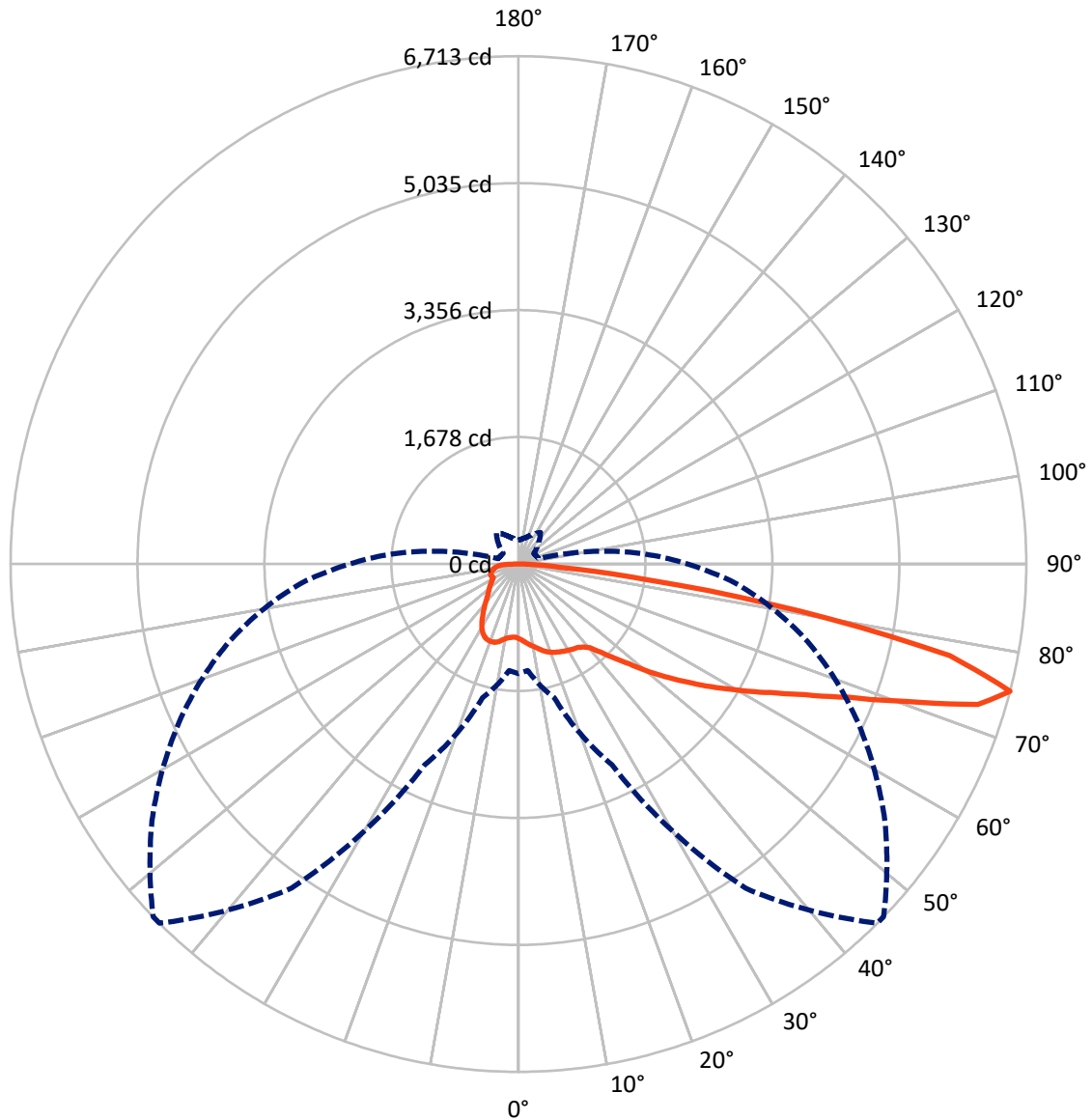


Based on 10 foot mounting height. Maximum calculated value = 11.5 fc
 Type IV - Medium - Non-Cutoff

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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	2226.8	0.0	2226.8
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	7385.8	0.0	7385.8
	% Fixture	76.8	0.0	76.8
Total	Lumens	9612.6	0.0	9612.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.7	1.0
10°-20°	316.5	3.3
20°-30°	543.1	5.6
30°-40°	759.5	7.9
40°-50°	1114.1	11.6
50°-60°	1735.5	18.1
60°-70°	2497.3	26.0
70°-80°	2175.4	22.6
80°-90°	373.6	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°	9612.6	100.0
0°-180°	9612.6	100.0



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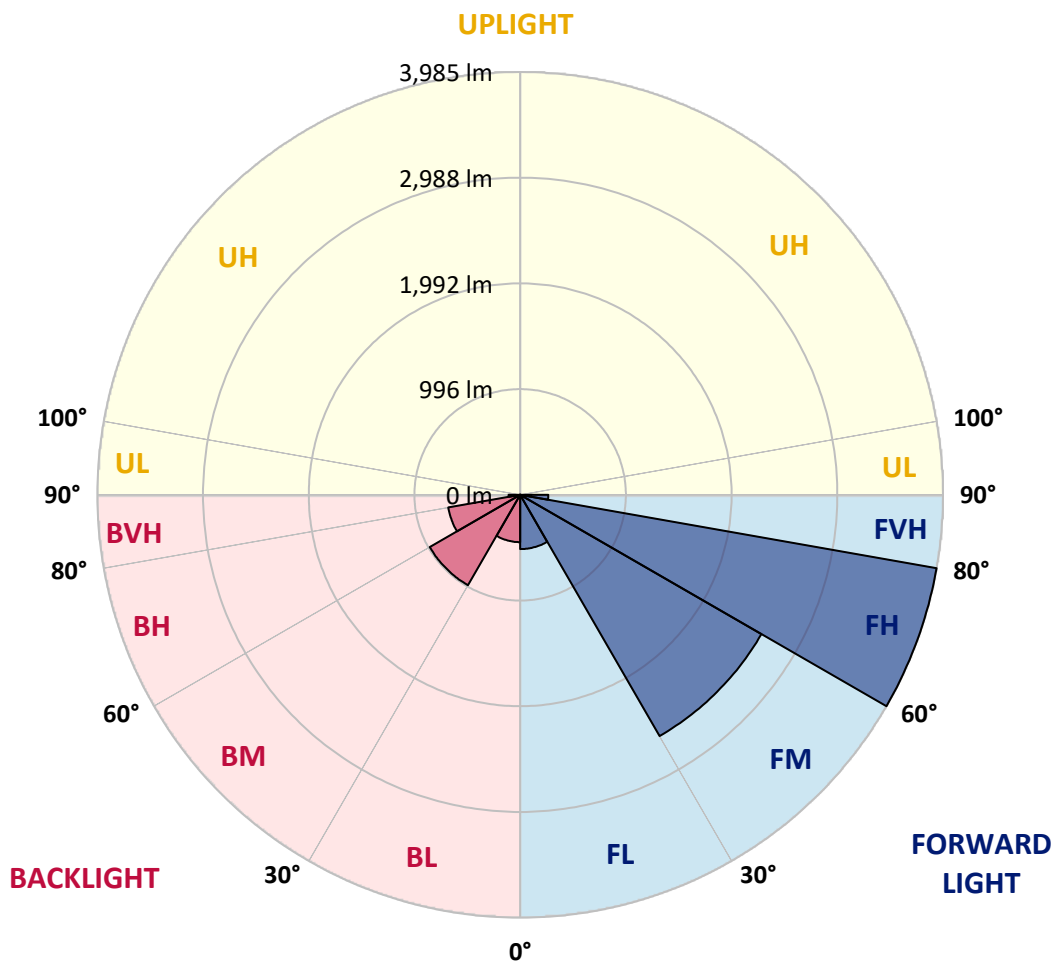
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	511.2	5.3			
FM	(30°-60°)	2625.0	27.3			
FH	(60°-80°)	3984.5	41.5			G2/5000
FVH	(80°-90°)	265.1	2.8			G3/500
BL	(0°-30°)	446.0	4.6	B1/500		
BM	(30°-60°)	984.1	10.2	B1/1000		
BH	(60°-80°)	688.2	7.2	B2/1000		G2/1000
BVH	(80°-90°)	108.5	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°	985.4	985.4	985.4	985.4	985.4	985.4	985.4	985.4	985.4	985.4	985.4
2.5°	1034.0	1026.6	1026.6	1021.0	1021.0	1011.6	1007.9	1006.0	996.7	991.0	985.4
5°	1093.9	1084.6	1082.6	1069.6	1064.0	1043.4	1041.6	1028.4	1011.6	994.8	981.7
7.5°	1148.2	1142.6	1133.1	1120.0	1103.2	1077.1	1075.2	1054.6	1026.6	1004.1	985.4
10°	1187.4	1183.6	1170.5	1153.8	1135.0	1108.9	1107.0	1084.6	1050.8	1024.6	998.6
12.5°	1234.1	1228.5	1211.6	1189.3	1168.7	1144.4	1142.6	1123.8	1086.4	1052.8	1019.0
15°	1278.9	1271.6	1251.0	1228.5	1206.1	1185.6	1185.6	1164.9	1125.7	1086.4	1047.2
17.5°	1301.5	1297.7	1277.1	1252.9	1234.1	1219.2	1217.4	1198.6	1159.4	1118.2	1075.2
20°	1308.9	1310.7	1292.1	1265.9	1252.9	1245.3	1243.4	1230.4	1187.4	1148.2	1107.0
22.5°	1307.0	1312.7	1297.7	1269.7	1265.9	1265.9	1265.9	1251.0	1217.4	1178.0	1136.8
25°	1314.5	1322.0	1310.7	1277.1	1277.1	1284.7	1284.7	1277.1	1247.1	1213.6	1172.4
27.5°	1340.7	1346.3	1336.9	1290.2	1292.1	1303.4	1301.5	1303.4	1284.7	1252.9	1211.6
30°	1372.5	1379.9	1368.7	1310.7	1308.9	1320.1	1320.1	1329.5	1316.3	1282.7	1249.2
32.5°	1458.5	1456.6	1421.1	1333.3	1327.7	1338.8	1338.8	1348.1	1340.7	1314.5	1282.7
35°	1714.7	1686.7	1608.1	1406.1	1350.1	1355.6	1355.6	1372.5	1376.3	1355.6	1327.7
37.5°	1976.5	1967.1	1907.3	1600.6	1432.3	1391.1	1389.3	1413.7	1430.6	1413.7	1395.0
40°	2240.2	2232.6	2219.5	1860.5	1604.4	1454.7	1449.1	1469.7	1499.6	1488.4	1477.3
42.5°	2485.2	2481.4	2494.5	2116.8	1823.1	1591.3	1574.5	1550.1	1593.1	1589.5	1589.5
45°	2677.7	2687.0	2694.5	2356.1	2060.6	1767.1	1746.5	1664.2	1722.2	1737.1	1748.3
47.5°	2786.2	2793.5	2819.8	2589.9	2298.1	1970.8	1955.9	1821.3	1897.8	1942.9	1974.7
50°	2941.3	2920.7	2943.1	2818.0	2584.2	2236.4	2195.3	2032.5	2129.8	2208.4	2283.1
52.5°	3090.9	3057.3	3075.9	3081.5	2909.5	2496.3	2453.4	2281.2	2402.7	2526.3	2659.1
55°	3225.5	3223.7	3242.4	3337.7	3223.7	2775.0	2726.3	2556.1	2731.9	2864.7	3089.0
57.5°	3334.0	3352.7	3434.9	3635.0	3586.5	3077.9	3023.7	2875.8	3083.4	3216.2	3588.3
60°	3461.2	3491.2	3627.5	3887.4	3917.4	3395.8	3339.5	3233.0	3444.3	3578.9	4166.1
62.5°	3504.2	3547.1	3827.7	4153.0	4263.4	3743.4	3693.0	3622.0	3823.9	3945.4	4742.1
65°	3218.1	3300.4	3938.0	4289.5	4635.4	4162.3	4119.4	4057.6	4201.6	4282.0	5132.8
67.5°	3139.5	3176.9	3722.9	4485.9	4985.1	4700.9	4657.9	4551.4	4555.0	4521.3	5259.9
70°	3029.3	3070.3	3502.3	4633.5	5486.3	5437.6	5385.2	5071.1	4878.5	4674.7	5009.4
72.5°	2580.4	2567.4	3017.9	4235.2	5727.5	6350.2	6288.5	5630.2	5117.9	4542.0	4227.9
75°	1449.1	1411.7	1830.7	2930.1	5230.1	6712.9	6711.1	5912.6	4949.7	3956.7	2877.8
77.5°	420.8	409.4	604.0	1228.5	3520.9	5832.2	5903.2	5332.9	4130.5	2842.2	1580.1
80°	198.2	201.9	259.9	405.8	1503.5	3764.1	3968.0	3511.7	2468.3	1310.7	652.6
82.5°	125.3	127.2	177.7	261.8	635.8	1709.0	1877.4	1580.1	978.0	566.7	287.9
85°	78.5	78.5	117.8	172.0	379.5	546.0	592.7	538.5	418.9	308.6	157.1
87.5°	42.9	42.9	71.1	99.2	207.6	175.8	181.4	215.1	261.8	188.9	78.5
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°	985.4	985.4	985.4	985.4	985.4	985.4	985.4	985.4	985.4	985.4	985.4
2.5°	983.6	979.8	974.2	972.3	970.4	968.6	970.4	974.2	970.4	970.4	972.3
5°	978.0	974.2	966.8	966.8	968.6	970.4	979.8	985.4	987.2	987.2	987.2
7.5°	978.0	972.3	966.8	968.6	972.3	979.8	994.8	1004.1	1011.6	1013.5	1013.5
10°	987.2	979.8	976.1	979.8	991.0	996.7	1011.6	1026.6	1035.9	1039.7	1039.7
12.5°	1004.1	996.7	996.7	1004.1	1019.0	1026.6	1039.7	1050.8	1062.1	1067.7	1067.7
15°	1032.2	1022.8	1024.6	1037.8	1054.6	1062.1	1071.5	1075.2	1084.6	1092.0	1092.0
17.5°	1058.4	1049.0	1052.8	1067.7	1079.0	1082.6	1088.2	1086.4	1090.2	1095.8	1097.5
20°	1088.2	1079.0	1080.8	1090.2	1092.0	1088.2	1088.2	1082.6	1080.8	1090.2	1093.9
22.5°	1118.2	1108.9	1107.0	1101.3	1092.0	1082.6	1077.1	1071.5	1067.7	1077.1	1080.8
25°	1153.8	1140.7	1131.2	1107.0	1082.6	1065.7	1058.4	1054.6	1052.8	1062.1	1065.7
27.5°	1192.9	1180.0	1151.8	1099.4	1060.2	1032.2	1026.6	1026.6	1030.3	1035.9	1039.7
30°	1230.4	1217.4	1166.8	1082.6	1021.0	979.8	974.2	979.8	989.2	994.8	1000.4
32.5°	1267.8	1254.8	1176.2	1056.4	963.1	910.6	906.8	916.2	931.3	935.0	938.6
35°	1318.3	1305.1	1187.4	1019.0	890.1	833.9	830.3	835.9	848.9	854.6	860.1
37.5°	1389.3	1381.9	1204.2	978.0	822.8	761.0	749.8	746.1	753.6	751.7	759.2
40°	1482.8	1488.4	1234.1	923.7	757.4	693.8	669.4	658.2	650.7	635.8	643.2
42.5°	1619.4	1623.1	1267.8	862.1	701.1	630.2	598.5	577.8	562.9	538.5	542.2
45°	1819.3	1787.5	1307.0	796.5	650.7	579.6	542.2	518.0	497.4	476.8	478.6
47.5°	2085.0	1987.7	1350.1	742.4	600.2	538.5	504.8	476.8	452.6	435.7	437.6
50°	2412.2	2236.4	1393.1	691.9	549.8	506.7	476.8	446.8	422.7	405.8	403.9
52.5°	2844.2	2535.6	1421.1	635.8	499.3	478.6	452.6	424.4	394.5	374.0	372.1
55°	3292.8	2883.4	1445.5	568.4	450.6	446.8	433.8	402.0	366.5	340.3	336.5
57.5°	3786.5	3255.5	1464.1	503.1	413.2	420.8	417.1	379.5	340.3	316.1	314.1
60°	4235.2	3640.7	1404.3	445.0	379.5	394.5	398.3	366.5	345.9	351.5	353.5
62.5°	4687.9	3938.0	1176.2	402.0	357.2	377.6	409.4	407.7	398.3	407.7	409.4
65°	4850.5	3999.8	833.9	366.5	334.7	385.3	445.0	441.2	398.3	381.5	377.6
67.5°	4759.0	3816.4	561.0	338.4	317.9	394.5	482.4	441.2	383.3	360.8	353.5
70°	4323.3	3365.8	411.3	310.5	302.9	392.6	503.1	439.5	375.9	351.5	342.2
72.5°	3448.1	2597.3	330.9	284.3	280.5	383.3	514.2	435.7	368.3	342.2	330.9
75°	2232.6	1615.6	278.7	258.1	246.9	368.3	508.6	424.4	359.1	325.4	317.9
77.5°	1035.9	695.6	237.5	228.1	215.1	345.9	491.8	402.0	338.4	306.6	297.2
80°	482.4	329.0	200.1	198.2	192.5	327.3	469.4	375.9	314.1	287.9	273.1
82.5°	258.1	198.2	162.7	162.7	168.3	304.7	441.2	344.1	282.3	269.2	230.0
85°	136.5	114.1	117.8	127.2	144.0	269.2	403.9	310.5	246.9	205.7	200.1
87.5°	69.2	72.9	72.9	86.0	110.3	218.7	332.8	256.1	209.5	168.3	164.6
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)