

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: P214873

Luminaire Tested: **ARCH-AF24-80-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214873
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-AF24-80-D-U-T4W
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9308.9 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' 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

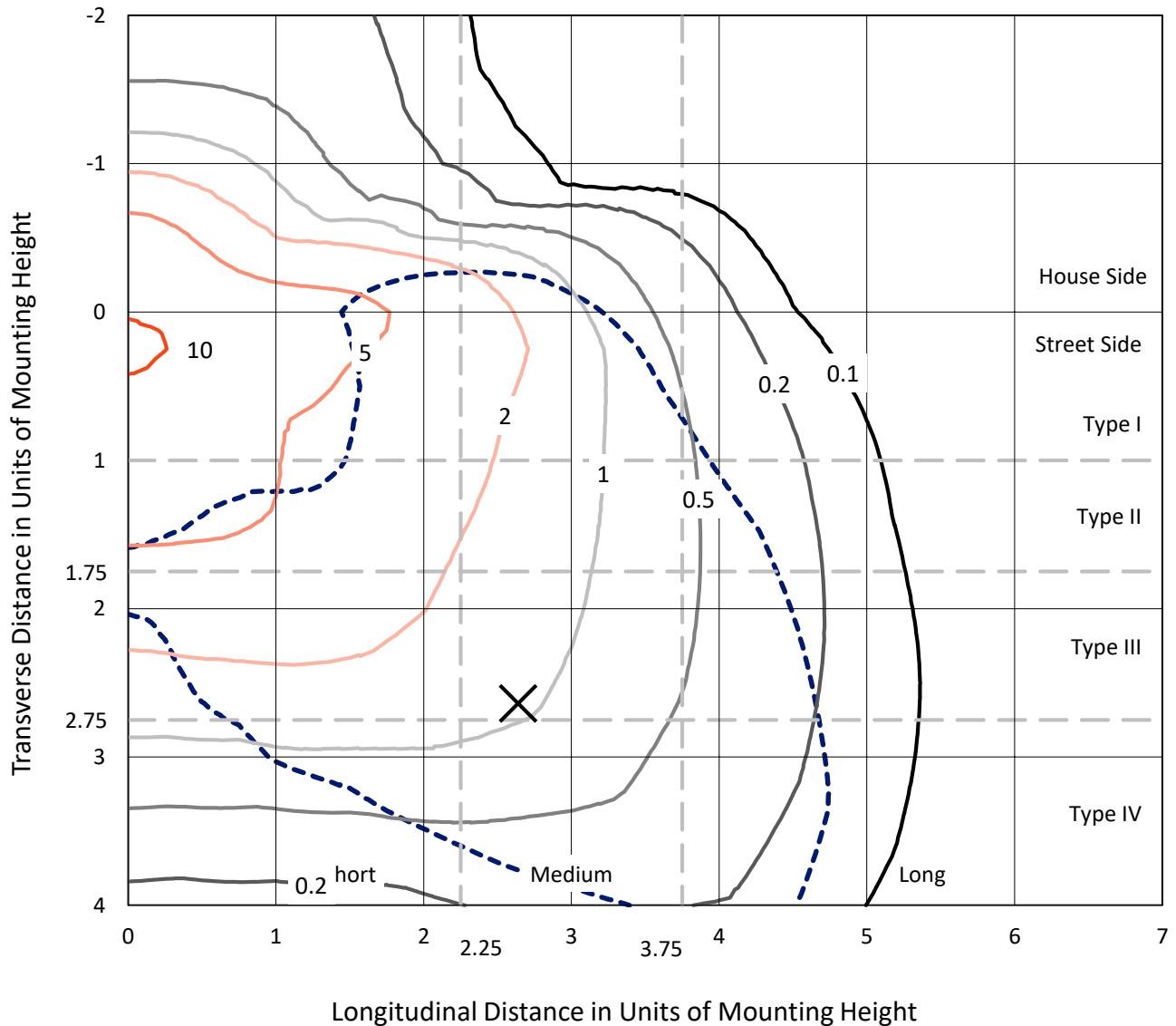


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

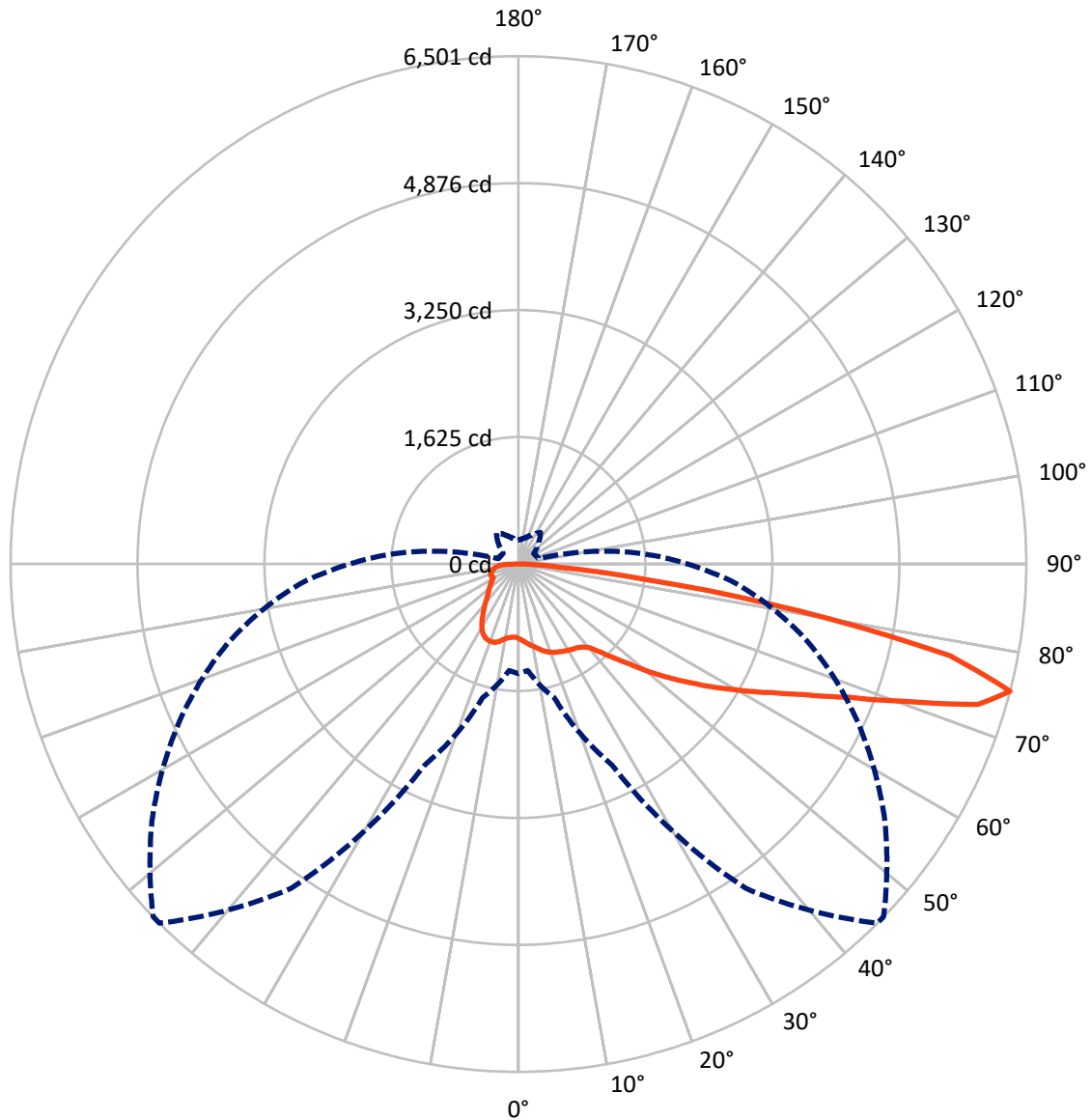


Based on 10 foot mounting height. Maximum calculated value = 11.2 fc
 Type IV - Medium - Non-Cutoff

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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	2156.5	0.0	2156.5
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	7152.4	0.0	7152.4
	% Fixture	76.8	0.0	76.8
Total	Lumens	9308.9	0.0	9308.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.6	1.0
10°-20°	306.5	3.3
20°-30°	525.9	5.6
30°-40°	735.5	7.9
40°-50°	1078.9	11.6
50°-60°	1680.7	18.1
60°-70°	2418.4	26.0
70°-80°	2106.7	22.6
80°-90°	361.8	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°	9308.9	100.0
0°-180°	9308.9	100.0

Coefficient of Utilization



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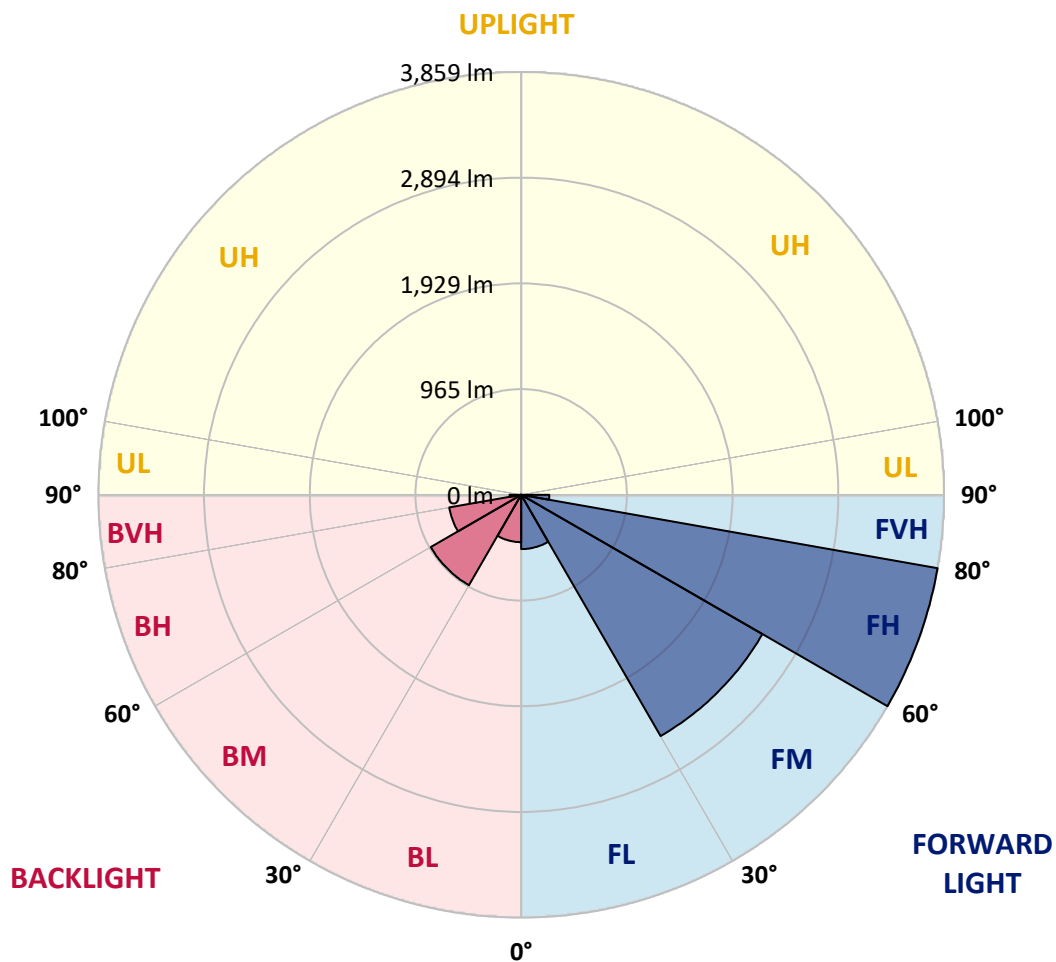
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	495.0	5.3			
FM (30°-60°)	2542.1	27.3			
FH (60°-80°)	3858.6	41.5			G2/5000
FVH (80°-90°)	256.7	2.8			G3/500
BL (0°-30°)	431.9	4.6	B1/500		
BM (30°-60°)	953.0	10.2	B1/1000		
BH (60°-80°)	666.4	7.2	B2/1000		G2/1000
BVH (80°-90°)	105.1	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°	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3
2.5°	1001.4	994.1	994.1	988.7	988.7	979.7	976.0	974.3	965.2	959.7	954.3
5°	1059.3	1050.3	1048.4	1035.7	1030.3	1010.5	1008.6	995.9	979.7	963.3	950.6
7.5°	1111.8	1106.4	1097.3	1084.6	1068.4	1043.0	1041.2	1021.3	994.1	972.4	954.3
10°	1149.9	1146.2	1133.5	1117.3	1099.2	1073.8	1072.0	1050.3	1017.6	992.4	967.0
12.5°	1195.1	1189.7	1173.4	1151.6	1131.8	1108.2	1106.4	1088.3	1052.1	1019.5	986.8
15°	1238.6	1231.3	1211.4	1189.7	1168.0	1148.1	1148.1	1128.1	1090.1	1052.1	1014.1
17.5°	1260.3	1256.7	1236.7	1213.2	1195.1	1180.7	1178.8	1160.7	1122.7	1082.9	1041.2
20°	1267.5	1269.4	1251.3	1225.9	1213.2	1206.0	1204.2	1191.5	1149.9	1111.8	1072.0
22.5°	1265.7	1271.2	1256.7	1229.5	1225.9	1225.9	1225.9	1211.4	1178.8	1140.8	1101.0
25°	1273.0	1280.2	1269.4	1236.7	1236.7	1244.0	1244.0	1236.7	1207.8	1175.2	1135.4
27.5°	1298.3	1303.8	1294.7	1249.4	1251.3	1262.1	1260.3	1262.1	1244.0	1213.2	1173.4
30°	1329.1	1336.4	1325.5	1269.4	1267.5	1278.4	1278.4	1287.5	1274.8	1242.2	1209.6
32.5°	1412.4	1410.6	1376.2	1291.1	1285.6	1296.5	1296.5	1305.6	1298.3	1273.0	1242.2
35°	1660.5	1633.3	1557.2	1361.8	1307.4	1312.9	1312.9	1329.1	1332.7	1312.9	1285.6
37.5°	1914.0	1904.9	1847.0	1550.1	1387.0	1347.2	1345.4	1368.9	1385.3	1368.9	1350.8
40°	2169.4	2162.1	2149.4	1801.7	1553.7	1408.8	1403.4	1423.3	1452.3	1441.4	1430.5
42.5°	2406.6	2402.9	2415.6	2049.8	1765.5	1541.0	1524.7	1501.2	1542.8	1539.1	1539.1
45°	2593.1	2602.1	2609.3	2281.6	1995.5	1711.2	1691.2	1611.7	1667.7	1682.2	1693.1
47.5°	2698.1	2705.3	2730.7	2508.0	2225.4	1908.6	1894.1	1763.7	1837.9	1881.4	1912.2
50°	2848.4	2828.5	2850.1	2728.8	2502.5	2165.7	2125.9	1968.4	2062.5	2138.6	2211.0
52.5°	2993.3	2960.6	2978.7	2984.2	2817.6	2417.4	2375.8	2209.2	2326.9	2446.4	2575.0
55°	3123.6	3121.8	3139.9	3232.3	3121.8	2687.2	2640.1	2475.3	2645.6	2774.1	2991.4
57.5°	3228.6	3246.7	3326.4	3520.2	3473.1	2980.6	2928.1	2785.0	2986.0	3114.6	3475.0
60°	3351.8	3380.8	3512.9	3764.7	3793.6	3288.4	3234.1	3130.8	3335.5	3465.9	4034.4
62.5°	3393.4	3435.1	3706.7	4021.7	4128.6	3625.2	3576.3	3507.5	3703.1	3820.8	4592.1
65°	3116.4	3196.0	3813.6	4154.0	4488.9	4030.8	3989.2	3929.5	4068.9	4146.7	4970.6
67.5°	3040.3	3076.5	3605.3	4344.1	4827.6	4552.3	4510.7	4407.5	4411.1	4378.5	5093.8
70°	2933.5	2973.3	3391.6	4487.2	5312.9	5265.8	5215.1	4910.9	4724.4	4527.0	4851.1
72.5°	2498.9	2486.2	2922.7	4101.4	5546.4	6149.5	6089.7	5452.3	4956.2	4398.4	4094.3
75°	1403.4	1367.2	1772.8	2837.6	5064.8	6500.8	6498.9	5725.8	4793.1	3831.7	2786.8
77.5°	407.4	396.6	584.9	1189.7	3409.7	5647.9	5716.7	5164.4	4000.0	2752.5	1530.1
80°	191.9	195.6	251.7	392.9	1455.9	3645.2	3842.5	3400.7	2390.2	1269.4	632.0
82.5°	121.3	123.2	172.1	253.5	615.7	1655.0	1818.0	1530.1	947.0	548.7	278.9
85°	76.0	76.0	114.1	166.6	367.5	528.8	574.0	521.5	405.6	298.8	152.1
87.5°	41.6	41.6	68.8	96.0	201.0	170.2	175.6	208.3	253.5	182.9	76.0
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°	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3
2.5°	952.5	948.9	943.5	941.6	939.8	937.9	939.8	943.5	939.8	939.8	941.6
5°	947.0	943.5	936.2	936.2	937.9	939.8	948.9	954.3	956.0	956.0	956.0
7.5°	947.0	941.6	936.2	937.9	941.6	948.9	963.3	972.4	979.7	981.4	981.4
10°	956.0	948.9	945.2	948.9	959.7	965.2	979.7	994.1	1003.2	1006.8	1006.8
12.5°	972.4	965.2	965.2	972.4	986.8	994.1	1006.8	1017.6	1028.6	1034.0	1034.0
15°	999.5	990.5	992.4	1004.9	1021.3	1028.6	1037.6	1041.2	1050.3	1057.5	1057.5
17.5°	1024.9	1015.9	1019.5	1034.0	1044.8	1048.4	1053.8	1052.1	1055.7	1061.1	1062.9
20°	1053.8	1044.8	1046.7	1055.7	1057.5	1053.8	1053.8	1048.4	1046.7	1055.7	1059.3
22.5°	1082.9	1073.8	1072.0	1066.5	1057.5	1048.4	1043.0	1037.6	1034.0	1043.0	1046.7
25°	1117.3	1104.6	1095.6	1072.0	1048.4	1032.2	1024.9	1021.3	1019.5	1028.6	1032.2
27.5°	1155.3	1142.6	1115.4	1064.8	1026.7	999.5	994.1	994.1	997.8	1003.2	1006.8
30°	1191.5	1178.8	1130.0	1048.4	988.7	948.9	943.5	948.9	957.9	963.3	968.7
32.5°	1227.7	1215.1	1139.0	1023.1	932.5	881.9	878.2	887.3	901.7	905.4	909.0
35°	1276.6	1264.0	1149.9	986.8	861.9	807.6	804.0	809.5	822.1	827.6	833.0
37.5°	1345.4	1338.2	1166.2	947.0	796.8	737.0	726.1	722.5	729.8	727.9	735.2
40°	1435.9	1441.4	1195.1	894.6	733.4	671.8	648.2	637.4	630.1	615.7	622.9
42.5°	1568.2	1571.8	1227.7	834.7	679.0	610.2	579.5	559.6	545.0	521.5	525.1
45°	1761.9	1731.1	1265.7	771.4	630.1	561.4	525.1	501.6	481.7	461.8	463.6
47.5°	2019.0	1924.9	1307.4	718.9	581.2	521.5	488.9	461.8	438.2	421.9	423.7
50°	2335.9	2165.7	1349.1	670.0	532.3	490.7	461.8	432.8	409.3	392.9	391.2
52.5°	2754.2	2455.4	1376.2	615.7	483.4	463.6	438.2	411.0	382.1	362.1	360.4
55°	3188.8	2792.2	1399.7	550.4	436.4	432.8	420.1	389.3	355.0	329.6	325.9
57.5°	3666.9	3152.6	1417.8	487.1	400.2	407.4	403.8	367.5	329.6	306.1	304.2
60°	4101.4	3525.6	1359.9	431.0	367.5	382.1	385.7	355.0	335.0	340.4	342.3
62.5°	4539.7	3813.6	1139.0	389.3	345.9	365.8	396.6	394.8	385.7	394.8	396.6
65°	4697.2	3873.3	807.6	355.0	324.2	373.1	431.0	427.4	385.7	369.4	365.8
67.5°	4608.5	3695.8	543.3	327.8	307.8	382.1	467.2	427.4	371.2	349.4	342.3
70°	4186.5	3259.4	398.3	300.5	293.4	380.2	487.1	425.5	364.0	340.4	331.3
72.5°	3339.1	2515.2	320.5	275.3	271.6	371.2	498.0	421.9	356.7	331.3	320.5
75°	2162.1	1564.5	269.9	249.9	239.1	356.7	492.6	411.0	347.7	315.1	307.8
77.5°	1003.2	673.6	230.0	221.0	208.3	335.0	476.3	389.3	327.8	297.0	288.0
80°	467.2	318.6	193.7	191.9	186.5	316.9	454.5	364.0	304.2	278.9	264.3
82.5°	249.9	191.9	157.5	157.5	163.0	295.1	427.4	333.2	273.4	260.8	222.7
85°	132.2	110.5	114.1	123.2	139.4	260.8	391.2	300.5	239.1	199.2	193.7
87.5°	67.0	70.6	70.6	83.3	106.8	211.9	322.3	248.1	202.9	163.0	159.4
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)