

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: P234721

Luminaire Tested: **ARCH-AF24-80-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234721
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-T3-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7116 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

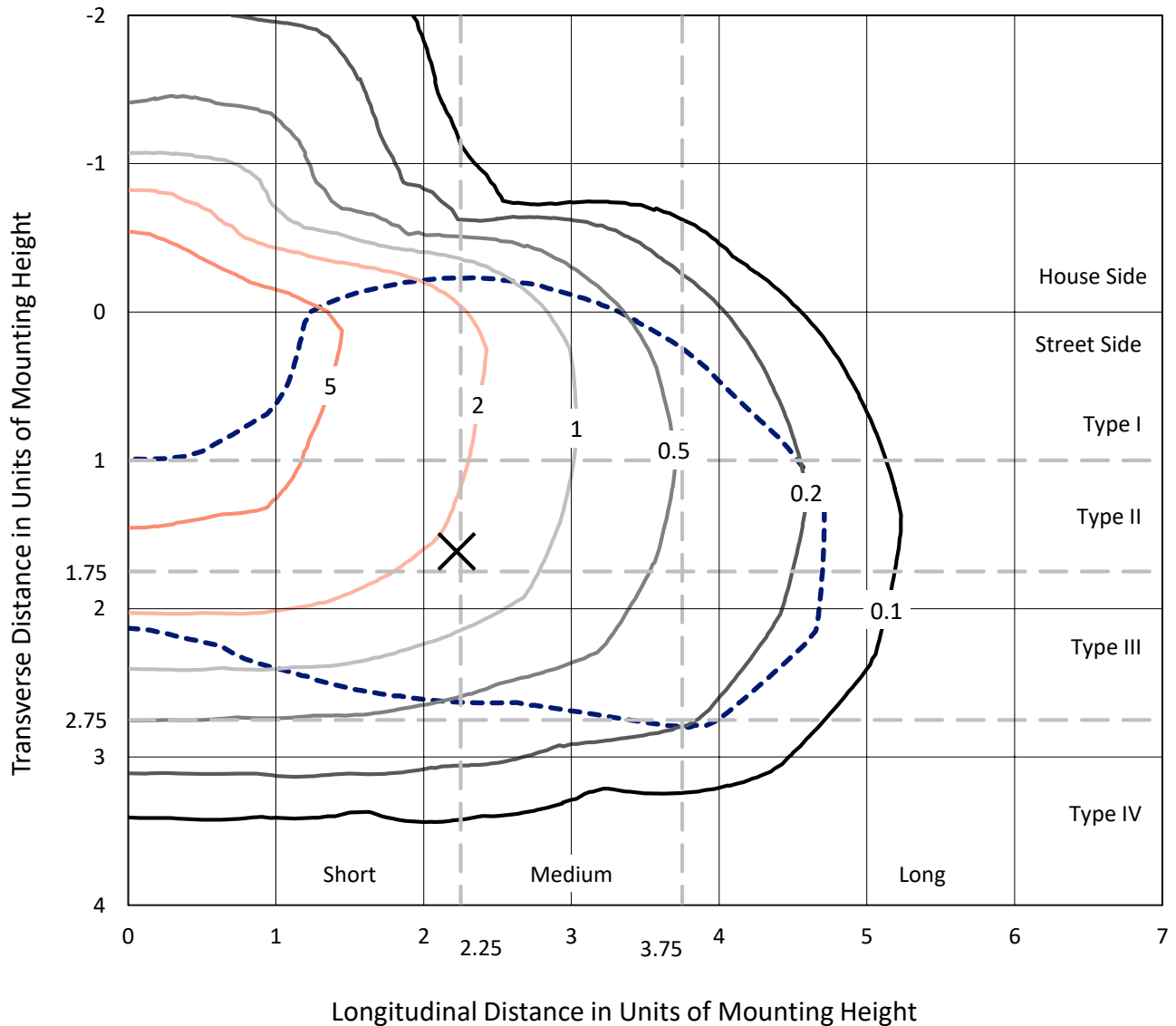
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

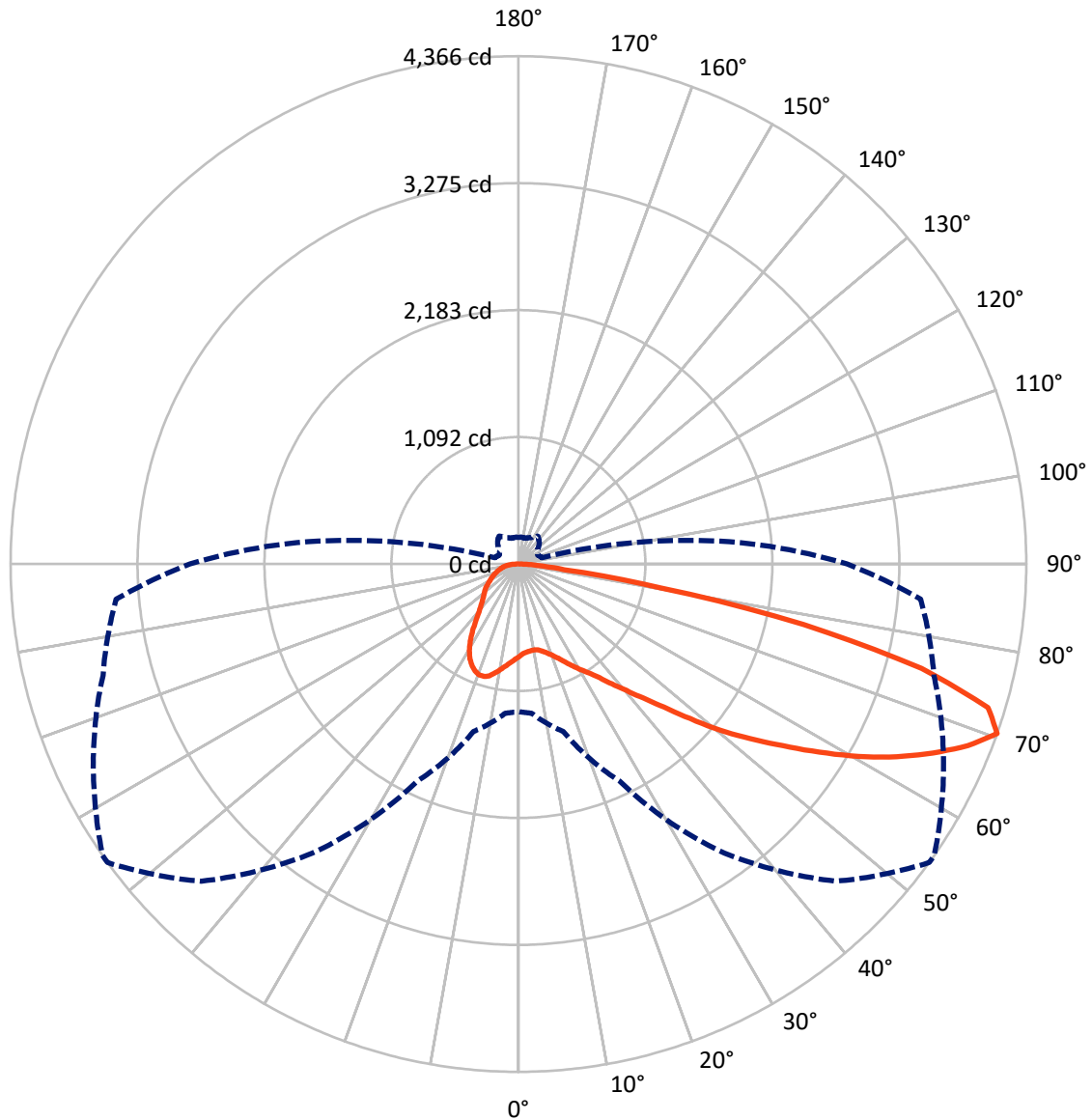


Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type III - Short - Non-Cutoff

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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	1613.9	0.0	1613.9
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	5502.1	0.0	5502.1
	% Fixture	77.3	0.0	77.3
Total	Lumens	7116.0	0.0	7116.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.1	1.1
10°-20°	249.6	3.5
20°-30°	433.7	6.1
30°-40°	633.8	8.9
40°-50°	994.8	14.0
50°-60°	1529.8	21.5
60°-70°	1869.0	26.3
70°-80°	1158.8	16.3
80°-90°	168.3	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°	7116.0	100.0
0°-180°	7116.0	100.0



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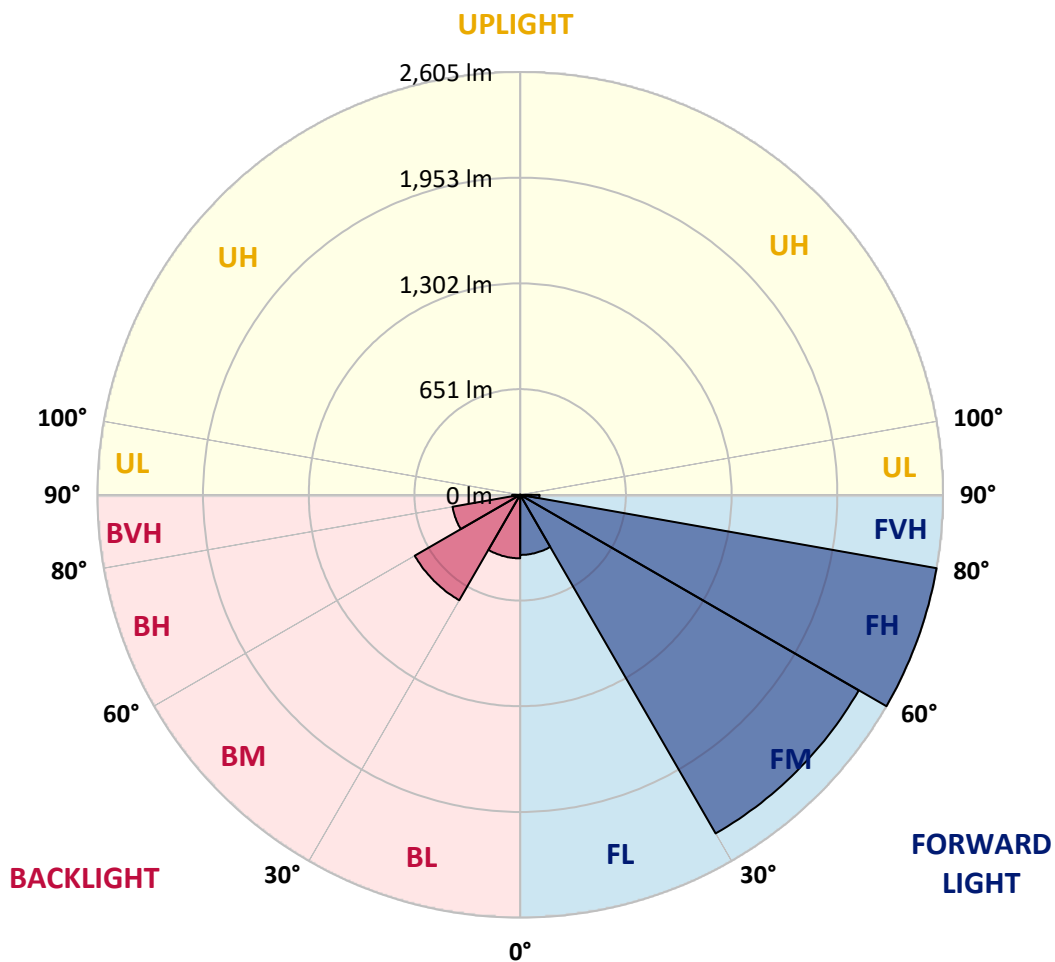
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	370.2	5.2			
FM	(30°-60°)	2408.4	33.8			
FH	(60°-80°)	2604.6	36.6			G2/5000
FVH	(80°-90°)	118.9	1.7			G2/225
BL	(0°-30°)	391.3	5.5	B1/500		
BM	(30°-60°)	749.9	10.5	B1/1000		
BH	(60°-80°)	423.2	5.9	B1/500		G1/500
BVH	(80°-90°)	49.5	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	796.1	796.1	796.1	796.1	796.1	796.1	796.1	796.1	796.1	796.1	796.1
2.5°	764.9	762.3	762.3	766.2	767.5	771.4	771.4	772.7	776.6	783.1	790.9
5°	741.4	740.1	741.4	746.6	749.2	757.0	759.7	761.0	768.8	779.2	790.9
7.5°	718.0	716.7	719.3	727.1	734.9	746.6	753.1	754.4	766.2	780.5	796.1
10°	710.1	708.8	712.7	719.3	727.1	740.1	750.5	751.8	768.8	785.7	807.9
12.5°	720.6	719.3	723.2	729.7	737.5	746.6	758.3	759.7	781.8	804.0	827.4
15°	746.6	746.6	747.9	751.8	759.7	767.5	777.9	779.2	802.7	828.7	852.2
17.5°	787.0	784.4	784.4	783.1	788.3	792.2	805.3	806.6	831.3	854.8	878.2
20°	836.5	835.2	830.0	823.5	822.2	824.8	837.8	839.1	863.9	883.4	905.6
22.5°	896.5	897.8	886.0	871.7	865.2	869.1	880.8	882.1	900.4	917.3	936.9
25°	976.0	972.0	955.1	934.3	921.2	921.2	933.0	933.0	949.9	960.3	973.3
27.5°	1051.5	1043.7	1028.1	998.1	977.3	981.2	992.9	992.9	1008.5	1012.4	1019.0
30°	1133.6	1125.8	1106.3	1068.5	1041.1	1038.5	1052.8	1051.5	1072.4	1071.1	1065.9
32.5°	1233.9	1230.0	1197.5	1149.3	1112.8	1103.6	1116.7	1118.0	1131.0	1127.1	1110.2
35°	1374.7	1373.4	1343.4	1258.7	1210.5	1193.6	1201.4	1201.4	1210.5	1200.1	1171.4
37.5°	1551.9	1554.5	1528.4	1403.3	1335.6	1306.9	1308.2	1306.9	1309.5	1297.8	1267.8
40°	1729.1	1735.6	1734.3	1583.2	1497.2	1447.6	1429.4	1426.8	1433.3	1428.1	1399.4
42.5°	1962.3	1978.0	1941.5	1804.7	1708.2	1624.8	1575.3	1568.8	1583.2	1589.7	1562.3
45°	2204.7	2199.5	2142.1	2043.1	1955.8	1849.0	1755.1	1744.7	1755.1	1774.7	1746.0
47.5°	2331.1	2327.2	2312.8	2263.3	2250.3	2127.8	1985.8	1976.7	1957.1	1984.5	1950.6
50°	2539.6	2543.5	2484.8	2479.6	2534.3	2466.6	2246.4	2225.5	2190.4	2212.5	2183.8
52.5°	2690.7	2673.8	2637.3	2682.9	2853.6	2817.1	2491.3	2482.2	2449.7	2444.4	2431.4
55°	2751.9	2751.9	2758.5	2864.0	3107.7	3059.5	2757.2	2766.3	2722.0	2685.5	2702.4
57.5°	2770.2	2778.0	2834.0	3008.6	3406.1	3248.4	3050.3	3063.4	2999.5	2926.6	2980.0
60°	2680.3	2703.7	2837.9	3090.7	3574.1	3449.1	3359.1	3363.1	3270.5	3163.7	3257.5
62.5°	2449.7	2478.3	2718.1	3124.6	3546.8	3654.9	3651.0	3660.1	3533.8	3400.8	3518.1
65°	2166.9	2195.6	2451.0	3029.5	3525.9	3802.2	3918.1	3942.9	3780.0	3601.5	3681.0
67.5°	1751.2	1789.0	2031.4	2708.9	3424.3	3923.4	4168.3	4194.4	3970.3	3705.7	3666.7
70°	1269.1	1287.4	1490.6	2058.7	3009.9	3856.9	4366.4	4365.1	4032.8	3697.9	3471.2
72.5°	611.1	625.4	801.3	1278.2	2152.6	3273.2	4223.0	4247.8	3946.8	3584.6	3024.3
75°	251.5	265.8	324.4	539.4	1129.7	2163.0	3579.4	3638.0	3584.6	3217.1	2366.3
77.5°	156.4	161.6	190.2	278.8	516.0	1009.8	2505.7	2585.2	2840.6	2577.3	1562.3
80°	117.3	121.2	142.0	195.5	325.8	372.7	1244.4	1344.7	1721.3	1478.9	707.5
82.5°	97.7	99.0	113.4	142.0	221.5	213.7	398.7	444.3	802.7	564.2	243.7
85°	91.2	93.8	101.6	101.6	140.7	134.2	165.5	173.3	233.2	192.8	84.7
87.5°	46.9	44.3	89.9	79.5	73.0	65.2	70.4	75.6	87.3	92.5	37.8
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°	796.1	796.1	796.1	796.1	796.1	796.1	796.1	796.1	796.1	796.1	796.1
2.5°	793.5	797.4	804.0	810.5	818.3	827.4	832.6	839.1	844.3	841.7	840.4
5°	797.4	804.0	818.3	831.3	847.0	865.2	876.9	890.0	900.4	903.0	899.1
7.5°	804.0	815.7	835.2	858.7	879.5	903.0	921.2	939.5	952.5	955.1	955.1
10°	819.6	832.6	858.7	890.0	914.7	939.5	960.3	974.6	986.4	991.6	991.6
12.5°	841.7	857.4	888.7	926.4	953.8	977.3	989.0	995.5	1000.7	1005.9	1007.2
15°	867.8	884.7	922.5	962.9	991.6	1003.3	1003.3	1002.0	1002.0	1004.6	1007.2
17.5°	893.9	912.1	951.2	994.2	1012.4	1005.9	996.8	992.9	990.3	989.0	992.9
20°	921.2	939.5	978.6	1019.0	1013.7	986.4	973.3	964.2	956.4	952.5	957.7
22.5°	951.2	968.1	1008.5	1035.9	996.8	955.1	930.3	916.0	903.0	895.2	900.4
25°	986.4	1003.3	1042.4	1041.1	966.8	908.2	869.1	845.7	831.3	823.5	823.5
27.5°	1028.1	1042.4	1080.2	1028.1	925.1	845.7	788.3	766.2	762.3	755.7	755.7
30°	1071.1	1082.8	1115.4	998.1	867.8	763.6	701.0	690.6	691.9	685.4	686.7
32.5°	1115.4	1127.1	1136.2	953.8	793.5	671.0	629.4	621.5	620.2	615.0	609.8
35°	1177.9	1194.9	1138.8	893.9	703.6	594.2	564.2	556.4	548.6	530.3	530.3
37.5°	1273.0	1291.3	1132.3	819.6	611.1	534.2	506.9	496.4	483.4	465.2	458.7
40°	1403.3	1403.3	1118.0	736.2	536.8	486.0	460.0	446.9	432.6	414.4	410.4
42.5°	1557.1	1520.6	1095.8	651.5	482.1	453.4	430.0	415.7	398.7	377.9	375.3
45°	1736.9	1637.9	1064.6	575.9	441.7	433.9	419.6	394.8	366.1	344.0	340.1
47.5°	1911.5	1743.4	1034.6	522.5	407.8	426.1	414.4	372.7	333.6	302.3	298.4
50°	2103.1	1837.2	999.4	478.2	381.8	420.9	407.8	340.1	297.1	274.9	272.3
52.5°	2294.6	1932.4	961.6	431.3	359.6	410.4	392.2	316.6	295.8	265.8	261.9
55°	2496.6	2043.1	917.3	379.2	333.6	389.6	371.4	315.3	304.9	265.8	256.7
57.5°	2693.3	2165.6	845.7	328.4	304.9	358.3	363.5	307.5	285.4	263.2	252.8
60°	2910.9	2295.9	727.1	285.4	280.1	332.3	353.1	290.6	263.2	255.4	250.2
62.5°	3085.5	2413.2	568.1	255.4	259.3	311.4	340.1	280.1	254.1	247.6	246.3
65°	3161.1	2415.8	407.8	229.3	238.5	291.9	327.1	271.0	246.3	243.7	242.4
67.5°	3081.6	2282.9	286.7	204.6	216.3	273.6	310.1	261.9	238.5	239.8	237.1
70°	2824.9	2002.7	209.8	181.1	195.5	254.1	291.9	250.2	229.3	231.9	228.0
72.5°	2363.7	1561.0	168.1	161.6	178.5	233.2	273.6	237.1	215.0	216.3	208.5
75°	1746.0	1034.6	140.7	144.6	159.0	213.7	250.2	220.2	199.4	194.1	188.9
77.5°	1038.5	531.6	116.0	126.4	142.0	190.2	224.1	199.4	182.4	173.3	169.4
80°	428.7	215.0	95.1	106.8	123.8	169.4	198.1	174.6	162.9	153.8	148.5
82.5°	170.7	105.5	75.6	87.3	104.2	147.2	173.3	153.8	142.0	135.5	121.2
85°	65.2	52.1	50.8	61.2	78.2	113.4	143.3	129.0	119.9	102.9	99.0
87.5°	26.1	23.5	23.5	30.0	44.3	71.7	102.9	89.9	93.8	74.3	75.6
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)