

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: P234740

Luminaire Tested: **ARCH-AF16-40-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234740
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-AF16-40-D-U-T4W-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3688 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 42
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

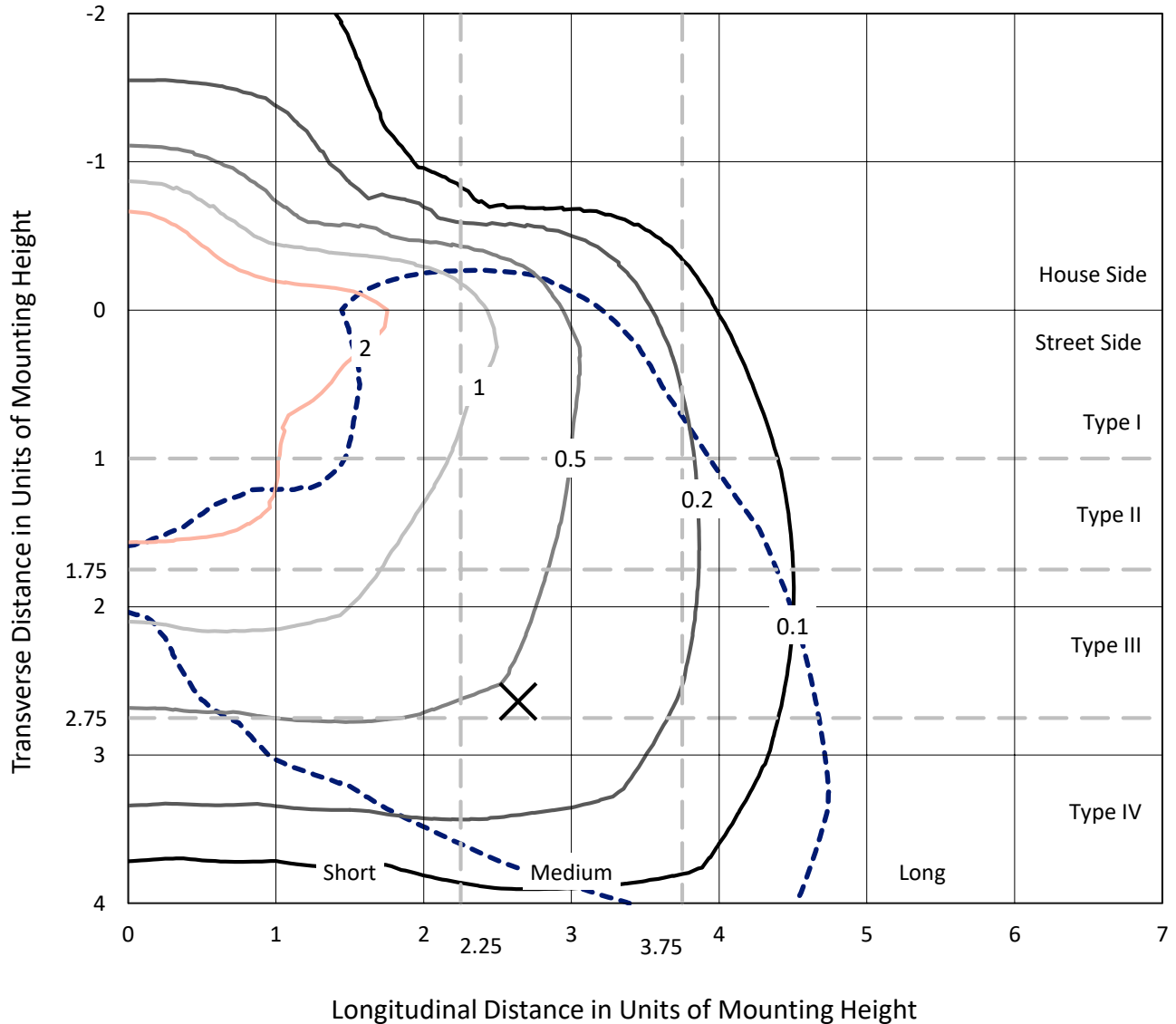


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

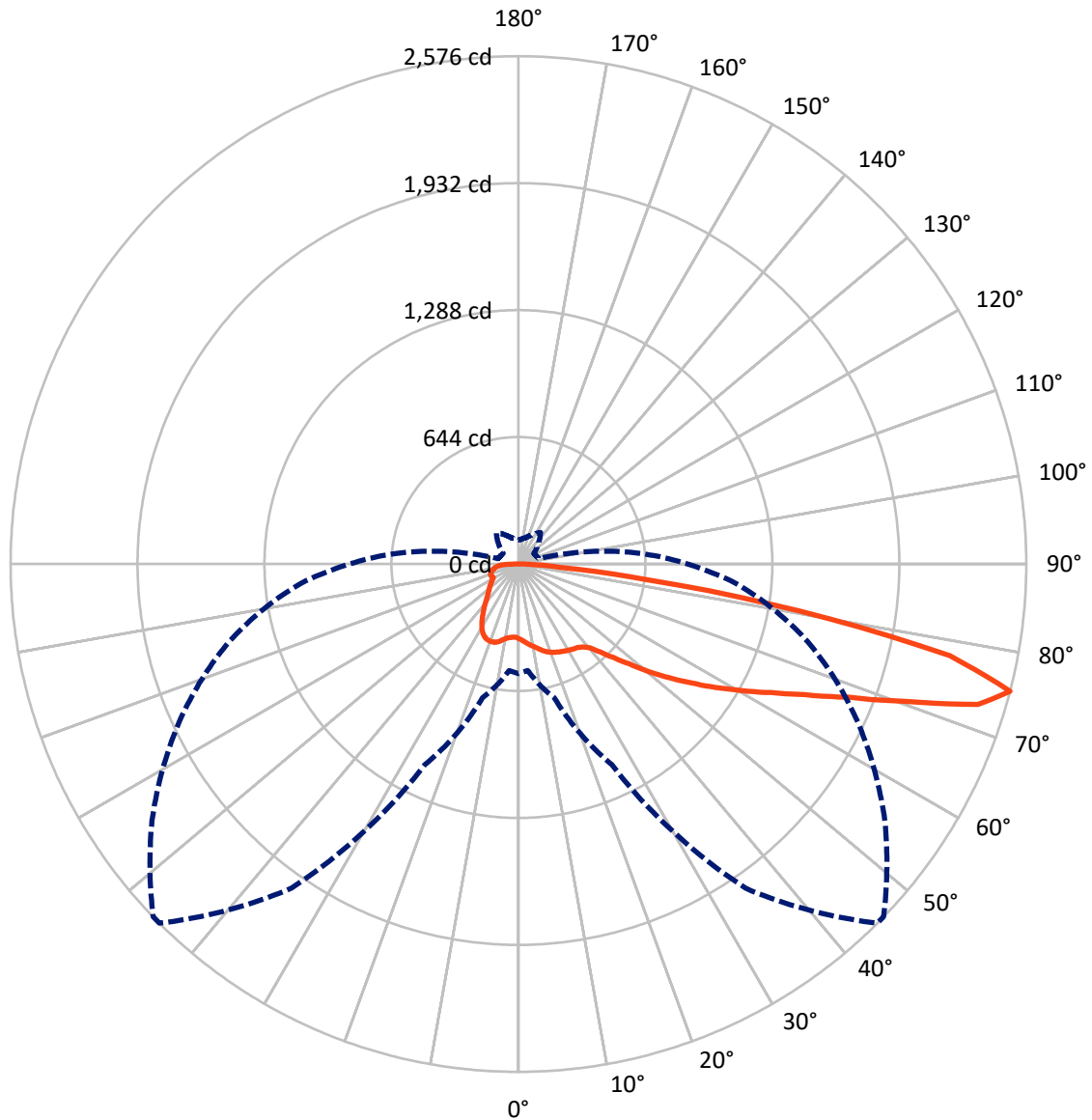


Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Medium - Non-Cutoff

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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	854.4	0.0	854.4
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	2833.6	0.0	2833.6
	% Fixture	76.8	0.0	76.8
Total	Lumens	3688.0	0.0	3688.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.5	1.0
10°-20°	121.4	3.3
20°-30°	208.3	5.6
30°-40°	291.4	7.9
40°-50°	427.5	11.6
50°-60°	665.9	18.1
60°-70°	958.1	26.0
70°-80°	834.6	22.6
80°-90°	143.3	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°	3688.0	100.0
0°-180°	3688.0	100.0

Coefficient of Utilization



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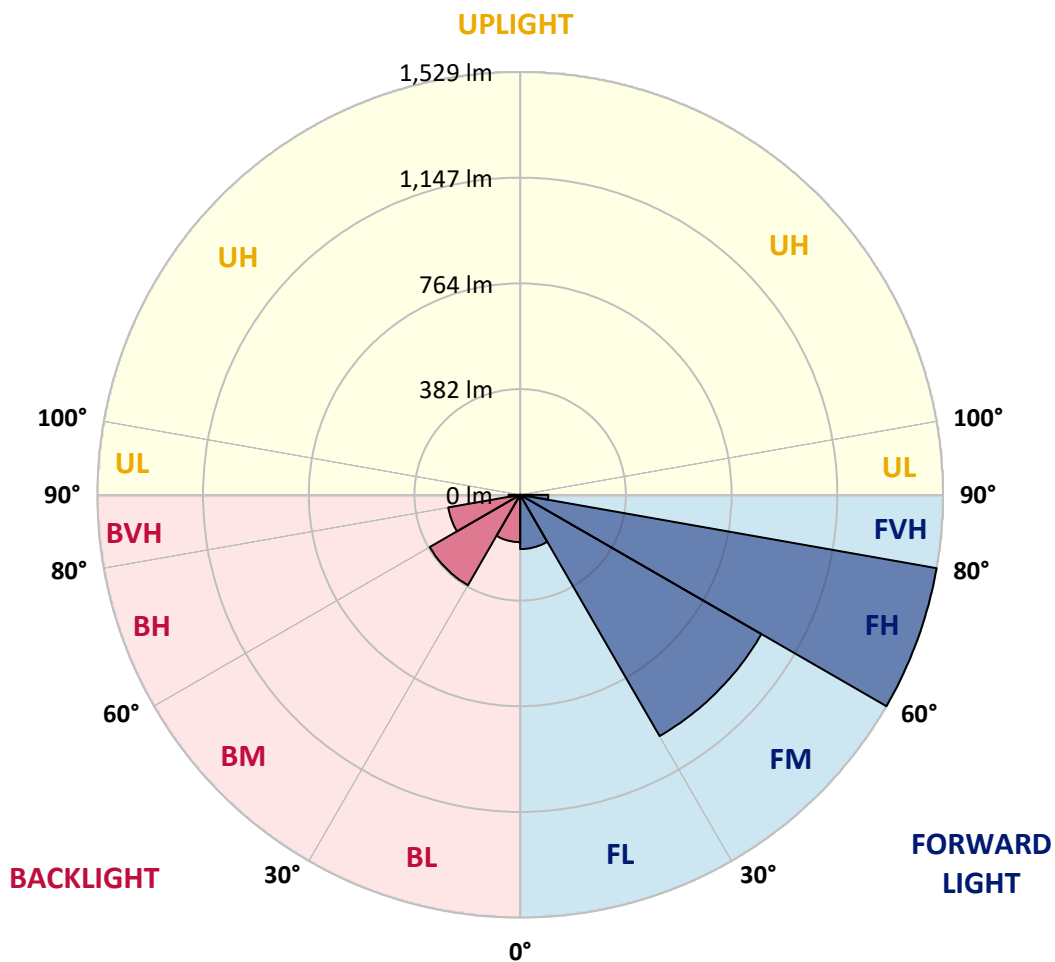
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	196.1	5.3			
FM (30°-60°)	1007.1	27.3			
FH (60°-80°)	1528.7	41.5			G1/1800
FVH (80°-90°)	101.7	2.8			G2/225
BL (0°-30°)	171.1	4.6	B1/500		
BM (30°-60°)	377.6	10.2	B1/1000		
BH (60°-80°)	264.0	7.2	B1/500		G1/500
BVH (80°-90°)	41.6	1.1			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1
2.5°	396.7	393.9	393.9	391.7	391.7	388.1	386.7	386.0	382.4	380.2	378.1
5°	419.7	416.1	415.4	410.4	408.2	400.3	399.6	394.6	388.1	381.7	376.6
7.5°	440.5	438.3	434.7	429.7	423.3	413.2	412.5	404.6	393.9	385.2	378.1
10°	455.6	454.1	449.1	442.6	435.5	425.4	424.7	416.1	403.2	393.1	383.1
12.5°	473.5	471.3	464.9	456.3	448.4	439.1	438.3	431.2	416.8	403.9	391.0
15°	490.7	487.8	479.9	471.3	462.7	454.8	454.8	446.9	431.9	416.8	401.7
17.5°	499.3	497.9	490.0	480.7	473.5	467.7	467.0	459.9	444.8	429.0	412.5
20°	502.2	502.9	495.7	485.7	480.7	477.8	477.1	472.1	455.6	440.5	424.7
22.5°	501.5	503.6	497.9	487.1	485.7	485.7	485.7	479.9	467.0	452.0	436.2
25°	504.3	507.2	502.9	490.0	490.0	492.9	492.9	490.0	478.5	465.6	449.8
27.5°	514.4	516.5	512.9	495.0	495.7	500.0	499.3	500.0	492.9	480.7	464.9
30°	526.6	529.4	525.1	502.9	502.2	506.5	506.5	510.1	505.1	492.1	479.2
32.5°	559.6	558.9	545.2	511.5	509.4	513.7	513.7	517.2	514.4	504.3	492.1
35°	657.9	647.1	617.0	539.5	518.0	520.1	520.1	526.6	528.0	520.1	509.4
37.5°	758.3	754.7	731.8	614.1	549.5	533.7	533.0	542.4	548.8	542.4	535.2
40°	859.5	856.6	851.6	713.8	615.5	558.1	556.0	563.9	575.4	571.1	566.7
42.5°	953.4	952.0	957.0	812.1	699.5	610.5	604.1	594.7	611.2	609.8	609.8
45°	1027.3	1030.9	1033.8	903.9	790.6	677.9	670.1	638.5	660.7	666.5	670.8
47.5°	1068.9	1071.8	1081.8	993.6	881.7	756.1	750.4	698.8	728.2	745.4	757.6
50°	1128.5	1120.6	1129.2	1081.1	991.5	858.0	842.2	779.8	817.1	847.3	876.0
52.5°	1185.9	1173.0	1180.1	1182.3	1116.3	957.7	941.2	875.2	921.9	969.2	1020.1
55°	1237.5	1236.8	1244.0	1280.6	1236.8	1064.6	1046.0	980.7	1048.1	1099.1	1185.2
57.5°	1279.1	1286.3	1317.9	1394.6	1376.0	1180.8	1160.0	1103.4	1183.0	1233.9	1376.7
60°	1327.9	1339.4	1391.8	1491.5	1503.0	1302.8	1281.3	1240.4	1321.5	1373.1	1598.4
62.5°	1344.4	1360.9	1468.5	1593.4	1635.7	1436.2	1416.9	1389.6	1467.1	1513.7	1819.3
65°	1234.7	1266.2	1510.9	1645.7	1778.4	1596.9	1580.4	1556.8	1612.0	1642.9	1969.3
67.5°	1204.5	1218.9	1428.4	1721.1	1912.6	1803.6	1787.1	1746.2	1747.6	1734.7	2018.1
70°	1162.2	1178.0	1343.7	1777.7	2104.9	2086.2	2066.1	1945.6	1871.7	1793.5	1921.9
72.5°	990.0	985.0	1157.9	1624.9	2197.4	2436.3	2412.6	2160.1	1963.5	1742.6	1622.1
75°	556.0	541.6	702.3	1124.2	2006.6	2575.5	2574.8	2268.4	1899.0	1518.0	1104.1
77.5°	161.4	157.1	231.7	471.3	1350.9	2237.6	2264.8	2046.0	1584.7	1090.5	606.2
80°	76.0	77.5	99.7	155.7	576.8	1444.1	1522.3	1347.3	947.0	502.9	250.4
82.5°	48.1	48.8	68.2	100.4	243.9	655.7	720.3	606.2	375.2	217.4	110.5
85°	30.1	30.1	45.2	66.0	145.6	209.5	227.4	206.6	160.7	118.4	60.3
87.5°	16.5	16.5	27.3	38.0	79.6	67.4	69.6	82.5	100.4	72.5	30.1
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°	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1
2.5°	377.4	375.9	373.8	373.1	372.3	371.6	372.3	373.8	372.3	372.3	373.1
5°	375.2	373.8	370.9	370.9	371.6	372.3	375.9	378.1	378.8	378.8	378.8
7.5°	375.2	373.1	370.9	371.6	373.1	375.9	381.7	385.2	388.1	388.8	388.8
10°	378.8	375.9	374.5	375.9	380.2	382.4	388.1	393.9	397.4	398.9	398.9
12.5°	385.2	382.4	382.4	385.2	391.0	393.9	398.9	403.2	407.5	409.6	409.6
15°	396.0	392.4	393.1	398.2	404.6	407.5	411.1	412.5	416.1	419.0	419.0
17.5°	406.1	402.5	403.9	409.6	413.9	415.4	417.5	416.8	418.2	420.4	421.1
20°	417.5	413.9	414.7	418.2	419.0	417.5	417.5	415.4	414.7	418.2	419.7
22.5°	429.0	425.4	424.7	422.6	419.0	415.4	413.2	411.1	409.6	413.2	414.7
25°	442.6	437.6	434.0	424.7	415.4	408.9	406.1	404.6	403.9	407.5	408.9
27.5°	457.7	452.7	441.9	421.8	406.8	396.0	393.9	393.9	395.3	397.4	398.9
30°	472.1	467.0	447.7	415.4	391.7	375.9	373.8	375.9	379.5	381.7	383.8
32.5°	486.4	481.4	451.2	405.3	369.5	349.4	347.9	351.5	357.3	358.7	360.1
35°	505.8	500.7	455.6	391.0	341.5	320.0	318.5	320.7	325.7	327.9	330.0
37.5°	533.0	530.2	462.0	375.2	315.7	292.0	287.7	286.2	289.1	288.4	291.3
40°	568.9	571.1	473.5	354.4	290.5	266.2	256.8	252.5	249.7	243.9	246.8
42.5°	621.3	622.7	486.4	330.7	269.0	241.8	229.6	221.7	215.9	206.6	208.0
45°	698.0	685.8	501.5	305.6	249.7	222.4	208.0	198.7	190.8	182.9	183.7
47.5°	799.9	762.6	518.0	284.8	230.3	206.6	193.7	182.9	173.6	167.2	167.9
50°	925.5	858.0	534.5	265.4	210.9	194.4	182.9	171.5	162.1	155.7	155.0
52.5°	1091.2	972.8	545.2	243.9	191.5	183.7	173.6	162.9	151.4	143.5	142.8
55°	1263.3	1106.2	554.6	218.1	172.9	171.5	166.4	154.2	140.6	130.6	129.1
57.5°	1452.7	1249.0	561.7	193.0	158.5	161.4	160.0	145.6	130.6	121.2	120.5
60°	1624.9	1396.8	538.8	170.7	145.6	151.4	152.8	140.6	132.7	134.9	135.6
62.5°	1798.5	1510.9	451.2	154.2	137.0	144.9	157.1	156.4	152.8	156.4	157.1
65°	1860.9	1534.5	320.0	140.6	128.4	147.8	170.7	169.3	152.8	146.4	144.9
67.5°	1825.8	1464.2	215.2	129.9	122.0	151.4	185.1	169.3	147.1	138.5	135.6
70°	1658.6	1291.3	157.8	119.1	116.2	150.7	193.0	168.6	144.2	134.9	131.3
72.5°	1322.9	996.5	127.0	109.0	107.6	147.1	197.3	167.2	141.3	131.3	127.0
75°	856.6	619.8	106.9	99.0	94.7	141.3	195.1	162.9	137.7	124.8	122.0
77.5°	397.4	266.9	91.1	87.5	82.5	132.7	188.7	154.2	129.9	117.7	114.1
80°	185.1	126.3	76.8	76.0	73.9	125.5	180.1	144.2	120.5	110.5	104.7
82.5°	99.0	76.0	62.4	62.4	64.6	116.9	169.3	132.0	108.3	103.3	88.2
85°	52.4	43.8	45.2	48.8	55.2	103.3	155.0	119.1	94.7	78.9	76.8
87.5°	26.5	28.0	28.0	33.0	42.3	83.9	127.7	98.3	80.3	64.6	63.1
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)