

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: P214876

Luminaire Tested: **ARCH-AF16-20-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214876
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-AF16-20-D-U-T4W-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2972 lumens
Efficiency: N/A
Efficacy: 123.8 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 - G1

Input Watts (W): 24
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

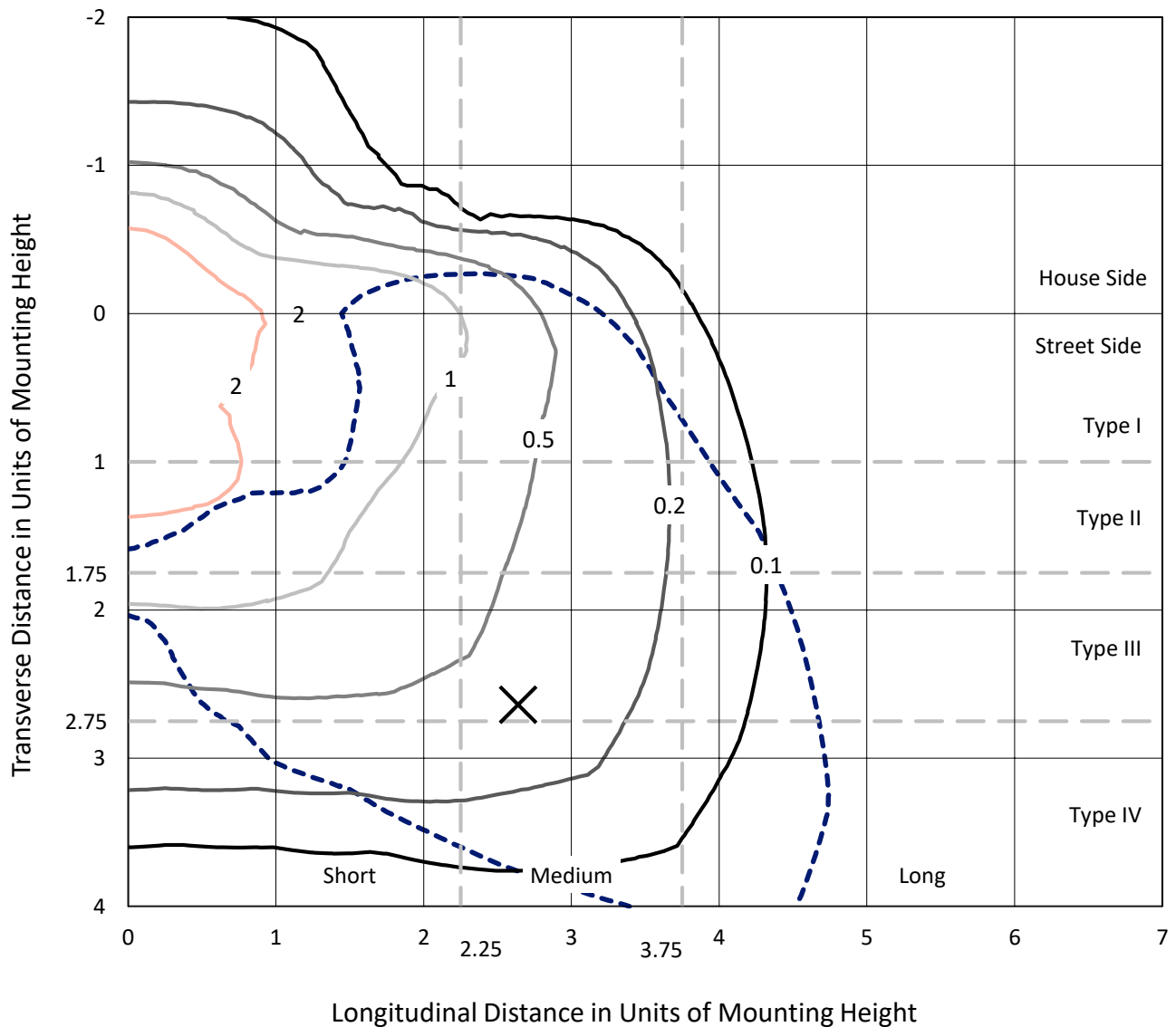


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

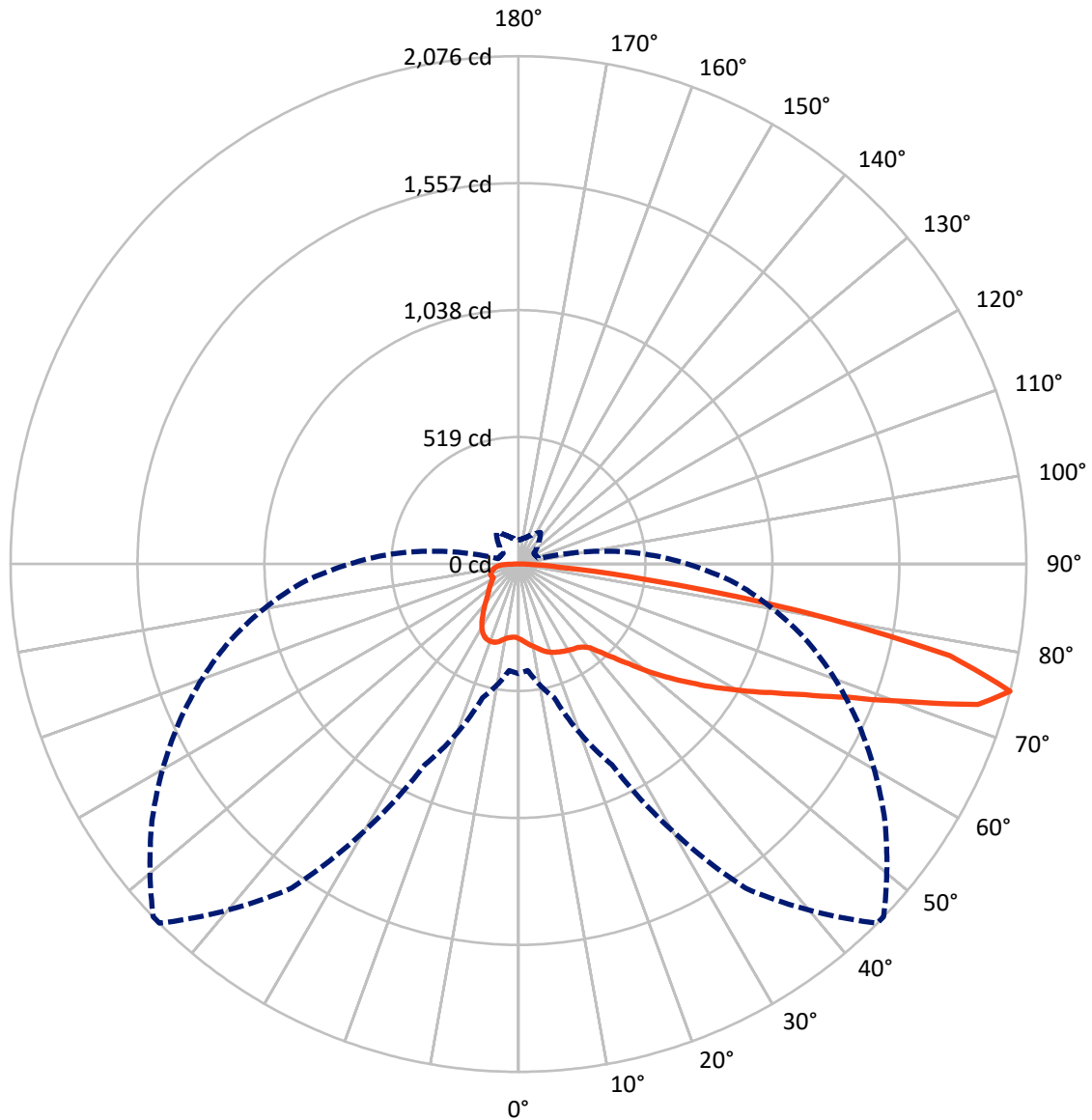


Based on 10 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Medium - Non-Cutoff

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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	688.5	0.0	688.5
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	2283.5	0.0	2283.5
	% Fixture	76.8	0.0	76.8
Total	Lumens	2972.0	0.0	2972.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.2	1.0
10°-20°	97.8	3.3
20°-30°	167.9	5.6
30°-40°	234.8	7.9
40°-50°	344.5	11.6
50°-60°	536.6	18.1
60°-70°	772.1	26.0
70°-80°	672.6	22.6
80°-90°	115.5	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°	2972.0	100.0
0°-180°	2972.0	100.0



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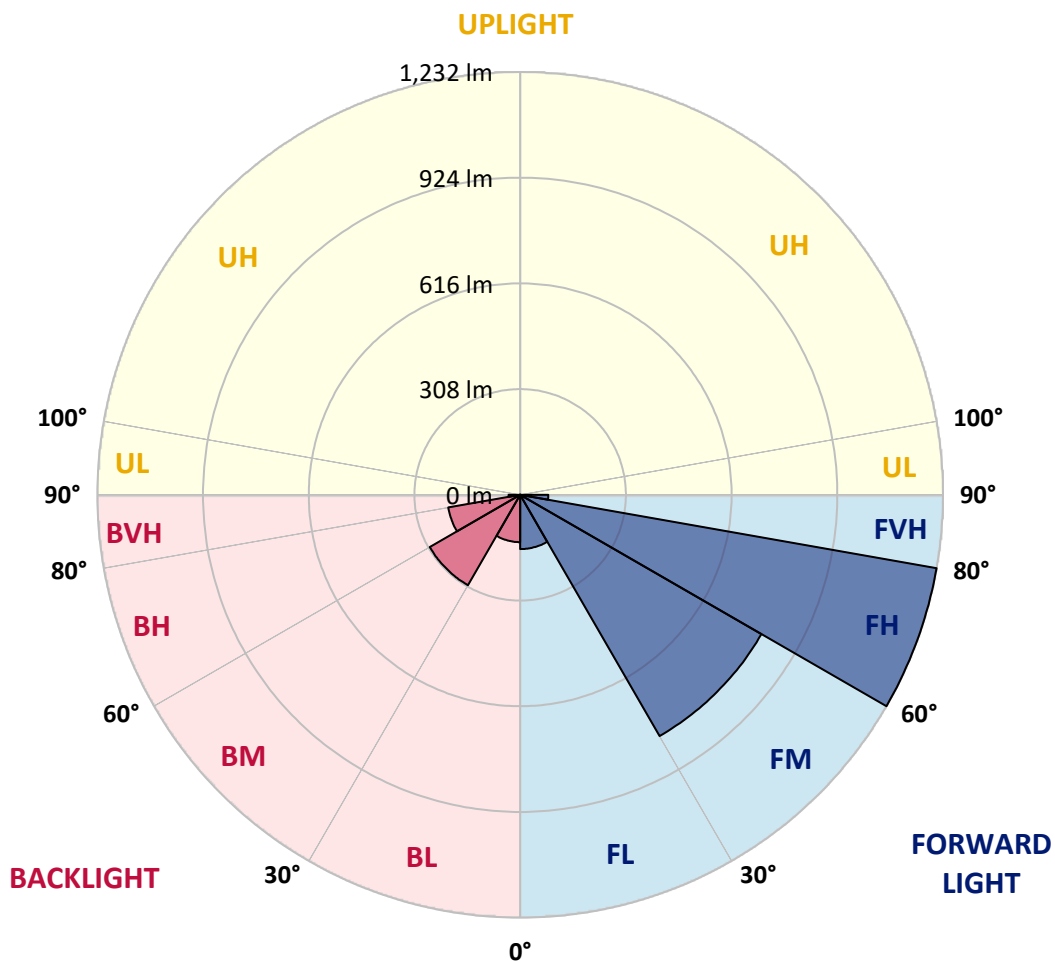
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	158.0	5.3			
FM	(30°-60°)	811.6	27.3			
FH	(60°-80°)	1231.9	41.5			G1/1800
FVH	(80°-90°)	82.0	2.8			G1/100
BL	(0°-30°)	137.9	4.6	B1/500		
BM	(30°-60°)	304.3	10.2	B1/1000		
BH	(60°-80°)	212.8	7.2	B1/500		G1/500
BVH	(80°-90°)	33.6	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-G1

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	304.7	304.7	304.7	304.7	304.7	304.7	304.7	304.7	304.7	304.7	304.7
2.5°	319.7	317.4	317.4	315.7	315.7	312.8	311.6	311.0	308.1	306.4	304.7
5°	338.2	335.3	334.7	330.7	329.0	322.6	322.0	318.0	312.8	307.6	303.5
7.5°	355.0	353.2	350.3	346.3	341.1	333.0	332.4	326.1	317.4	310.5	304.7
10°	367.1	366.0	361.9	356.7	350.9	342.8	342.3	335.3	324.9	316.8	308.7
12.5°	381.6	379.8	374.6	367.7	361.3	353.8	353.2	347.5	335.9	325.5	315.1
15°	395.4	393.1	386.8	379.8	372.9	366.5	366.5	360.2	348.0	335.9	323.8
17.5°	402.4	401.2	394.9	387.3	381.6	376.9	376.4	370.6	358.4	345.7	332.4
20°	404.7	405.3	399.5	391.4	387.3	385.0	384.5	380.4	367.1	355.0	342.3
22.5°	404.1	405.8	401.2	392.5	391.4	391.4	391.4	386.8	376.4	364.2	351.5
25°	406.4	408.7	405.3	394.9	394.9	397.2	397.2	394.9	385.6	375.2	362.5
27.5°	414.5	416.3	413.4	398.9	399.5	403.0	402.4	403.0	397.2	387.3	374.6
30°	424.3	426.7	423.2	405.3	404.7	408.2	408.2	411.0	407.0	396.6	386.2
32.5°	450.9	450.4	439.4	412.2	410.5	413.9	413.9	416.8	414.5	406.4	396.6
35°	530.1	521.5	497.2	434.8	417.4	419.1	419.1	424.3	425.5	419.1	410.5
37.5°	611.1	608.2	589.7	494.9	442.8	430.1	429.5	437.1	442.3	437.1	431.3
40°	692.6	690.3	686.2	575.2	496.0	449.8	448.0	454.4	463.7	460.2	456.7
42.5°	768.3	767.2	771.2	654.4	563.7	492.0	486.8	479.3	492.6	491.4	491.4
45°	827.9	830.8	833.1	728.4	637.1	546.3	540.0	514.5	532.5	537.1	540.5
47.5°	861.4	863.7	871.8	800.7	710.5	609.3	604.7	563.1	586.8	600.7	610.5
50°	909.4	903.0	910.0	871.2	799.0	691.4	678.7	628.4	658.5	682.8	705.9
52.5°	955.6	945.2	951.0	952.8	899.6	771.8	758.5	705.3	742.9	781.0	822.1
55°	997.3	996.7	1002.5	1032.0	996.7	857.9	842.9	790.3	844.6	885.7	955.1
57.5°	1030.8	1036.6	1062.0	1123.9	1108.8	951.6	934.8	889.2	953.3	994.4	1109.4
60°	1070.1	1079.4	1121.6	1201.9	1211.2	1049.9	1032.5	999.6	1064.9	1106.5	1288.1
62.5°	1083.4	1096.7	1183.4	1284.0	1318.1	1157.4	1141.8	1119.8	1182.3	1219.8	1466.1
65°	995.0	1020.4	1217.5	1326.2	1433.2	1286.9	1273.6	1254.5	1299.0	1323.9	1587.0
67.5°	970.7	982.2	1151.0	1386.9	1541.3	1453.4	1440.1	1407.2	1408.3	1397.9	1626.3
70°	936.6	949.3	1082.8	1432.6	1696.2	1681.2	1665.0	1567.9	1508.3	1445.3	1548.8
72.5°	797.8	793.8	933.1	1309.5	1770.8	1963.3	1944.2	1740.7	1582.3	1404.3	1307.1
75°	448.0	436.5	566.0	905.9	1617.0	2075.5	2074.9	1828.0	1530.3	1223.3	889.7
77.5°	130.1	126.6	186.7	379.8	1088.6	1803.2	1825.1	1648.8	1277.1	878.8	488.5
80°	61.3	62.4	80.4	125.5	464.8	1163.8	1226.8	1085.7	763.1	405.3	201.8
82.5°	38.7	39.3	54.9	80.9	196.6	528.4	580.4	488.5	302.4	175.2	89.0
85°	24.3	24.3	36.4	53.2	117.4	168.8	183.3	166.5	129.5	95.4	48.6
87.5°	13.3	13.3	22.0	30.6	64.2	54.3	56.1	66.5	80.9	58.4	24.3
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°	304.7	304.7	304.7	304.7	304.7	304.7	304.7	304.7	304.7	304.7	304.7
2.5°	304.1	302.9	301.2	300.6	300.0	299.5	300.0	301.2	300.0	300.0	300.6
5°	302.4	301.2	298.9	298.9	299.5	300.0	302.9	304.7	305.3	305.3	305.3
7.5°	302.4	300.6	298.9	299.5	300.6	302.9	307.6	310.5	312.8	313.3	313.3
10°	305.3	302.9	301.8	302.9	306.4	308.1	312.8	317.4	320.3	321.4	321.4
12.5°	310.5	308.1	308.1	310.5	315.1	317.4	321.4	324.9	328.4	330.1	330.1
15°	319.1	316.2	316.8	320.9	326.1	328.4	331.3	332.4	335.3	337.6	337.6
17.5°	327.2	324.3	325.5	330.1	333.6	334.7	336.5	335.9	337.0	338.8	339.4
20°	336.5	333.6	334.2	337.0	337.6	336.5	336.5	334.7	334.2	337.0	338.2
22.5°	345.7	342.8	342.3	340.5	337.6	334.7	333.0	331.3	330.1	333.0	334.2
25°	356.7	352.7	349.8	342.3	334.7	329.5	327.2	326.1	325.5	328.4	329.5
27.5°	368.8	364.8	356.1	339.9	327.8	319.1	317.4	317.4	318.5	320.3	321.4
30°	380.4	376.4	360.8	334.7	315.7	302.9	301.2	302.9	305.8	307.6	309.3
32.5°	392.0	387.9	363.6	326.6	297.7	281.5	280.4	283.3	287.9	289.1	290.2
35°	407.6	403.5	367.1	315.1	275.2	257.8	256.7	258.4	262.5	264.2	265.9
37.5°	429.5	427.2	372.3	302.4	254.4	235.3	231.8	230.7	233.0	232.4	234.7
40°	458.5	460.2	381.6	285.6	234.1	214.5	207.0	203.5	201.2	196.6	198.9
42.5°	500.7	501.8	392.0	266.5	216.8	194.8	185.0	178.6	174.0	166.5	167.7
45°	562.5	552.7	404.1	246.3	201.2	179.2	167.7	160.1	153.8	147.4	148.0
47.5°	644.6	614.5	417.4	229.5	185.6	166.5	156.1	147.4	139.9	134.7	135.3
50°	745.8	691.4	430.7	213.9	170.0	156.7	147.4	138.2	130.7	125.5	124.9
52.5°	879.3	783.9	439.4	196.6	154.4	148.0	139.9	131.2	122.0	115.6	115.0
55°	1018.1	891.5	446.9	175.8	139.3	138.2	134.1	124.3	113.3	105.2	104.1
57.5°	1170.7	1006.5	452.7	155.5	127.8	130.1	128.9	117.4	105.2	97.7	97.1
60°	1309.5	1125.6	434.2	137.6	117.4	122.0	123.1	113.3	107.0	108.7	109.3
62.5°	1449.4	1217.5	363.6	124.3	110.4	116.8	126.6	126.0	123.1	126.0	126.6
65°	1499.7	1236.6	257.8	113.3	103.5	119.1	137.6	136.4	123.1	117.9	116.8
67.5°	1471.3	1180.0	173.4	104.6	98.3	122.0	149.2	136.4	118.5	111.6	109.3
70°	1336.6	1040.6	127.2	96.0	93.7	121.4	155.5	135.9	116.2	108.7	105.8
72.5°	1066.1	803.0	102.3	87.9	86.7	118.5	159.0	134.7	113.9	105.8	102.3
75°	690.3	499.5	86.1	79.8	76.3	113.9	157.3	131.2	111.0	100.6	98.3
77.5°	320.3	215.1	73.4	70.5	66.5	107.0	152.0	124.3	104.6	94.8	91.9
80°	149.2	101.8	61.9	61.3	59.5	101.2	145.1	116.2	97.1	89.0	84.4
82.5°	79.8	61.3	50.3	50.3	52.0	94.2	136.4	106.4	87.3	83.3	71.1
85°	42.2	35.3	36.4	39.3	44.5	83.3	124.9	96.0	76.3	63.6	61.9
87.5°	21.4	22.5	22.5	26.6	34.1	67.6	102.9	79.2	64.8	52.0	50.9
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)