

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: P214741

Luminaire Tested: **ARCH-AF24-20-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214741
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-AF24-20-D-U-T3-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2843 lumens
Efficiency: N/A
Efficacy: 135.4 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 - G1

Input Watts (W): 21
Input Voltage (V): NR
Input Current (A_{in}): 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

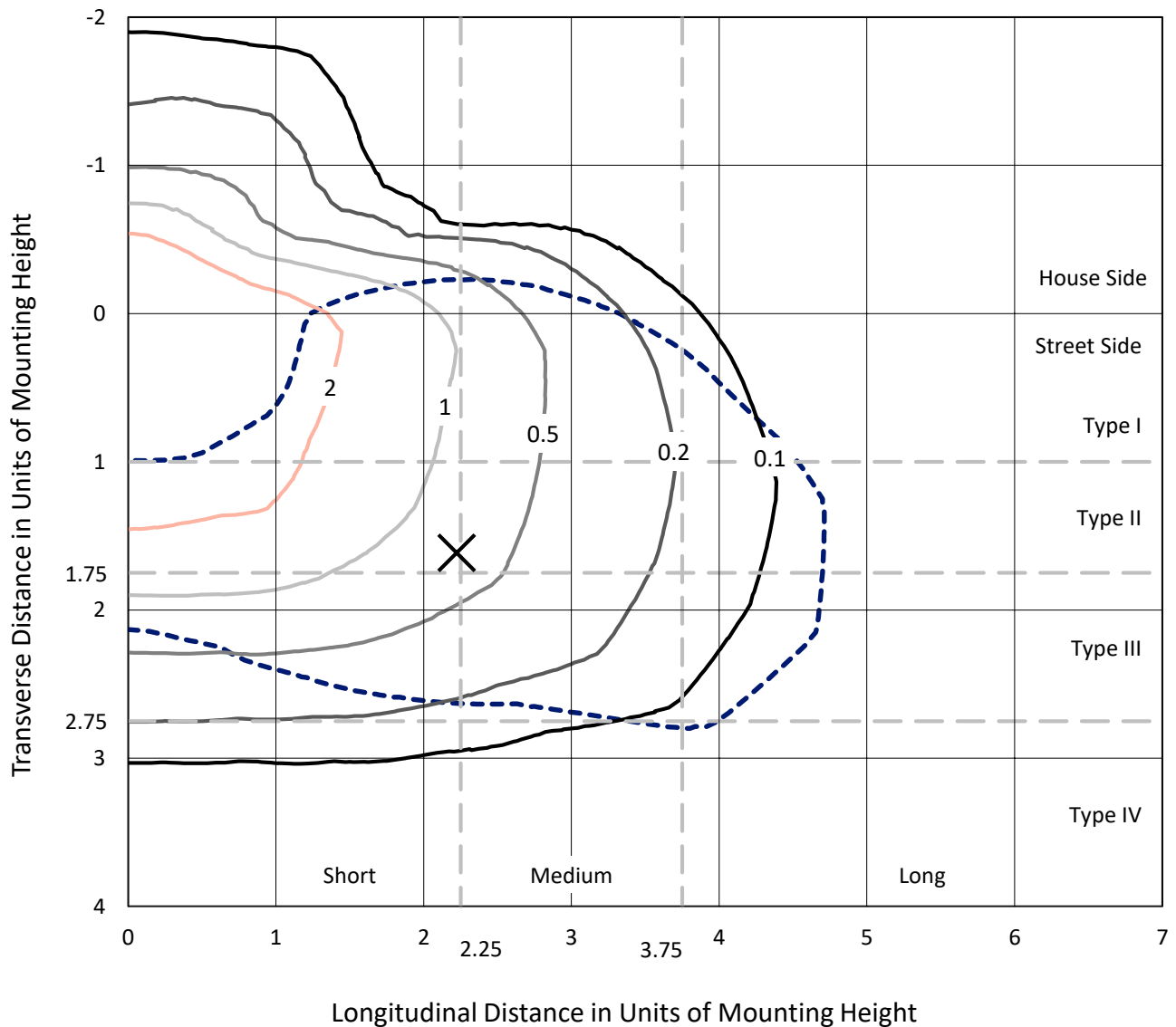




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Iso-Footcandle Lines of Horizontal Illumination

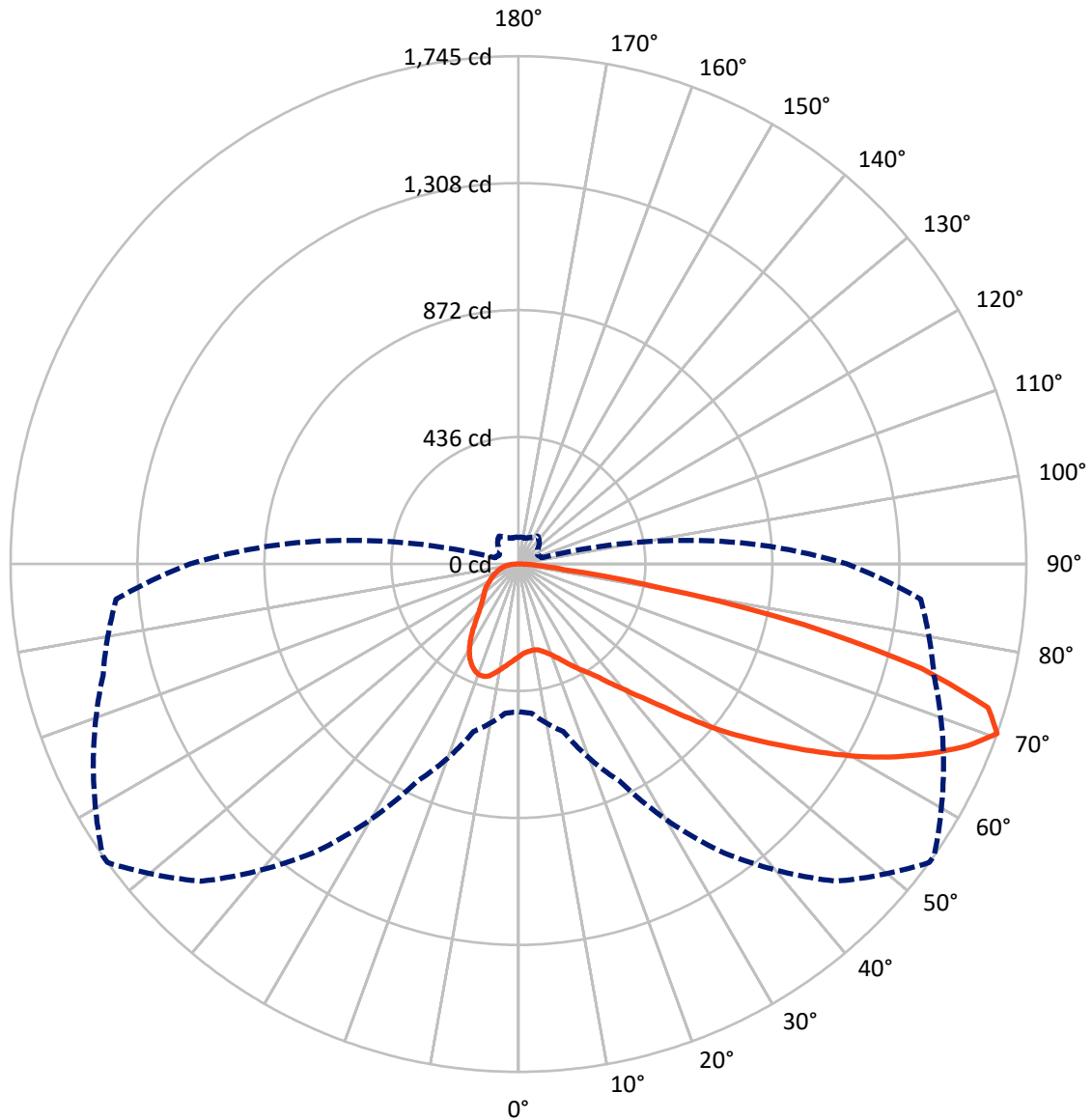
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 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	644.8	0.0	644.8
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	2198.2	0.0	2198.2
	% Fixture	77.3	0.0	77.3
Total	Lumens	2843.0	0.0	2843.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.2	1.1
10°-20°	99.7	3.5
20°-30°	173.3	6.1
30°-40°	253.2	8.9
40°-50°	397.4	14.0
50°-60°	611.2	21.5
60°-70°	746.7	26.3
70°-80°	463.0	16.3
80°-90°	67.3	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°	2843.0	100.0
0°-180°	2843.0	100.0



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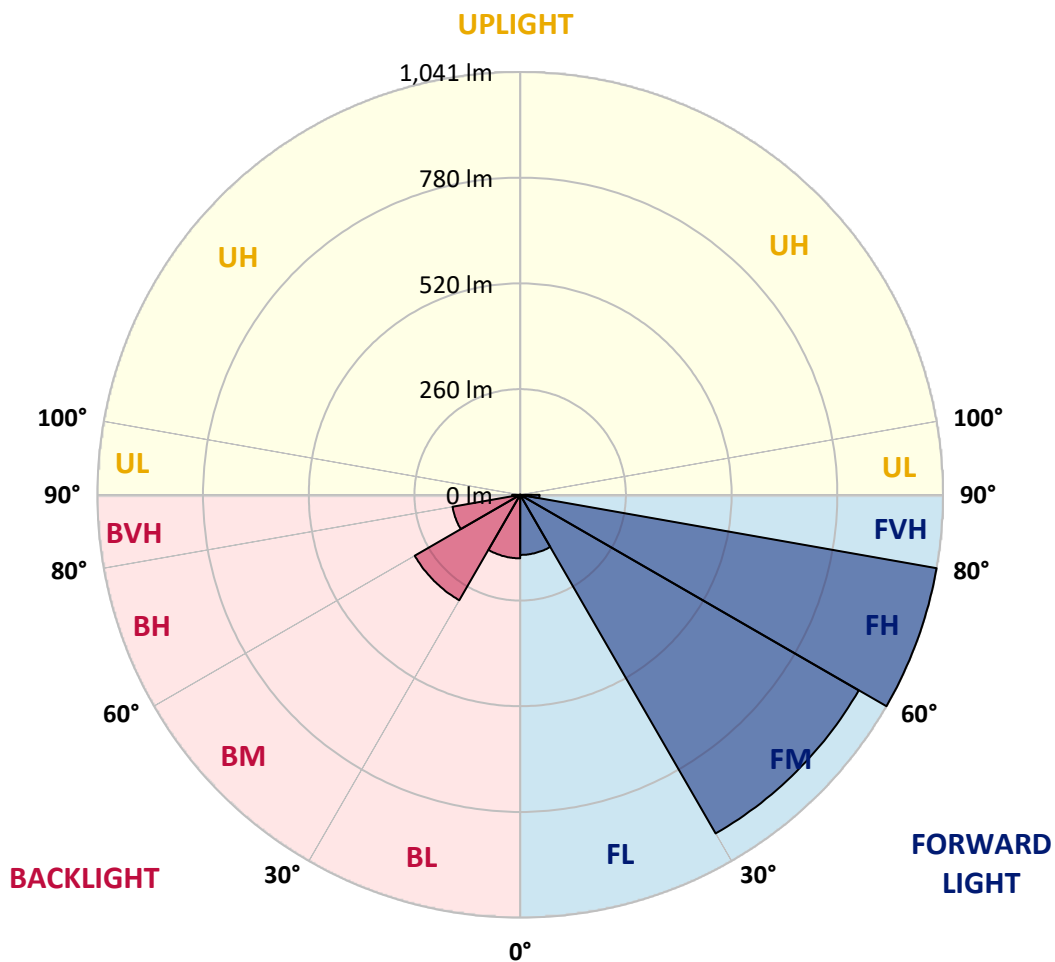
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	147.9	5.2			
FM	(30°-60°)	962.2	33.8			
FH	(60°-80°)	1040.6	36.6			G1/1800
FVH	(80°-90°)	47.5	1.7			G1/100
BL	(0°-30°)	156.3	5.5	B1/500		
BM	(30°-60°)	299.6	10.5	B1/1000		
BH	(60°-80°)	169.1	5.9	B1/500		G1/500
BVH	(80°-90°)	19.8	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-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	318.1	318.1	318.1	318.1	318.1	318.1	318.1	318.1	318.1	318.1	318.1
2.5°	305.6	304.5	304.5	306.1	306.6	308.2	308.2	308.7	310.3	312.9	316.0
5°	296.2	295.7	296.2	298.3	299.3	302.5	303.5	304.0	307.1	311.3	316.0
7.5°	286.8	286.3	287.4	290.5	293.6	298.3	300.9	301.4	306.1	311.8	318.1
10°	283.7	283.2	284.8	287.4	290.5	295.7	299.9	300.4	307.1	313.9	322.8
12.5°	287.9	287.4	288.9	291.5	294.6	298.3	303.0	303.5	312.3	321.2	330.6
15°	298.3	298.3	298.8	300.4	303.5	306.6	310.8	311.3	320.7	331.1	340.5
17.5°	314.4	313.4	313.4	312.9	315.0	316.5	321.7	322.2	332.1	341.5	350.9
20°	334.2	333.7	331.6	329.0	328.5	329.5	334.7	335.3	345.1	353.0	361.8
22.5°	358.2	358.7	354.0	348.3	345.7	347.2	351.9	352.4	359.7	366.5	374.3
25°	389.9	388.4	381.6	373.3	368.0	368.0	372.7	372.7	379.5	383.7	388.9
27.5°	420.1	417.0	410.7	398.8	390.4	392.0	396.7	396.7	402.9	404.5	407.1
30°	452.9	449.8	442.0	426.9	415.9	414.9	420.6	420.1	428.4	427.9	425.8
32.5°	493.0	491.4	478.4	459.2	444.6	440.9	446.1	446.7	451.9	450.3	443.5
35°	549.2	548.7	536.7	502.9	483.6	476.9	480.0	480.0	483.6	479.5	468.0
37.5°	620.0	621.1	610.6	560.7	533.6	522.1	522.7	522.1	523.2	518.5	506.5
40°	690.8	693.4	692.9	632.5	598.1	578.4	571.1	570.0	572.6	570.6	559.1
42.5°	784.0	790.2	775.7	721.0	682.5	649.2	629.4	626.8	632.5	635.1	624.2
45°	880.8	878.7	855.8	816.3	781.4	738.7	701.2	697.1	701.2	709.0	697.6
47.5°	931.3	929.8	924.0	904.2	899.0	850.1	793.4	789.7	781.9	792.8	779.3
50°	1014.6	1016.2	992.7	990.7	1012.5	985.5	897.5	889.2	875.1	883.9	872.5
52.5°	1075.0	1068.2	1053.7	1071.9	1140.1	1125.5	995.3	991.7	978.7	976.6	971.4
55°	1099.5	1099.5	1102.1	1144.2	1241.6	1222.3	1101.5	1105.2	1087.5	1072.9	1079.7
57.5°	1106.8	1109.9	1132.3	1202.0	1360.8	1297.8	1218.7	1223.9	1198.4	1169.2	1190.6
60°	1070.8	1080.2	1133.8	1234.8	1428.0	1378.0	1342.1	1343.6	1306.7	1264.0	1301.4
62.5°	978.7	990.1	1085.9	1248.4	1417.0	1460.2	1458.7	1462.3	1411.8	1358.7	1405.6
65°	865.7	877.2	979.2	1210.3	1408.7	1519.1	1565.4	1575.3	1510.2	1438.9	1470.6
67.5°	699.7	714.8	811.6	1082.3	1368.1	1567.5	1665.3	1675.7	1586.2	1480.5	1464.9
70°	507.0	514.3	595.5	822.5	1202.5	1540.9	1744.5	1743.9	1611.2	1477.4	1386.8
72.5°	244.2	249.9	320.2	510.7	860.0	1307.7	1687.2	1697.1	1576.8	1432.1	1208.3
75°	100.5	106.2	129.6	215.5	451.3	864.2	1430.0	1453.5	1432.1	1285.3	945.4
77.5°	62.5	64.6	76.0	111.4	206.1	403.4	1001.1	1032.8	1134.9	1029.7	624.2
80°	46.9	48.4	56.7	78.1	130.1	148.9	497.2	537.2	687.7	590.9	282.7
82.5°	39.0	39.6	45.3	56.7	88.5	85.4	159.3	177.5	320.7	225.4	97.3
85°	36.4	37.5	40.6	40.6	56.2	53.6	66.1	69.2	93.2	77.0	33.8
87.5°	18.7	17.7	35.9	31.8	29.2	26.0	28.1	30.2	34.9	37.0	15.1
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°	318.1	318.1	318.1	318.1	318.1	318.1	318.1	318.1	318.1	318.1	318.1
2.5°	317.0	318.6	321.2	323.8	326.9	330.6	332.7	335.3	337.3	336.3	335.8
5°	318.6	321.2	326.9	332.1	338.4	345.7	350.4	355.6	359.7	360.8	359.2
7.5°	321.2	325.9	333.7	343.1	351.4	360.8	368.0	375.3	380.5	381.6	381.6
10°	327.4	332.7	343.1	355.6	365.4	375.3	383.7	389.4	394.1	396.2	396.2
12.5°	336.3	342.5	355.0	370.1	381.1	390.4	395.1	397.7	399.8	401.9	402.4
15°	346.7	353.5	368.6	384.7	396.2	400.8	400.8	400.3	400.3	401.4	402.4
17.5°	357.1	364.4	380.0	397.2	404.5	401.9	398.2	396.7	395.6	395.1	396.7
20°	368.0	375.3	391.0	407.1	405.0	394.1	388.9	385.2	382.1	380.5	382.6
22.5°	380.0	386.8	402.9	413.9	398.2	381.6	371.7	366.0	360.8	357.6	359.7
25°	394.1	400.8	416.5	415.9	386.3	362.8	347.2	337.9	332.1	329.0	329.0
27.5°	410.7	416.5	431.6	410.7	369.6	337.9	315.0	306.1	304.5	301.9	301.9
30°	427.9	432.6	445.6	398.8	346.7	305.1	280.1	275.9	276.4	273.8	274.3
32.5°	445.6	450.3	453.9	381.1	317.0	268.1	251.4	248.3	247.8	245.7	243.6
35°	470.6	477.4	455.0	357.1	281.1	237.4	225.4	222.3	219.2	211.9	211.9
37.5°	508.6	515.9	452.4	327.4	244.2	213.4	202.5	198.3	193.1	185.8	183.2
40°	560.7	560.7	446.7	294.1	214.5	194.2	183.8	178.6	172.8	165.5	164.0
42.5°	622.1	607.5	437.8	260.3	192.6	181.2	171.8	166.1	159.3	151.0	149.9
45°	693.9	654.4	425.3	230.1	176.5	173.4	167.6	157.7	146.3	137.4	135.9
47.5°	763.7	696.5	413.3	208.8	162.9	170.2	165.5	148.9	133.3	120.8	119.2
50°	840.2	734.0	399.3	191.1	152.5	168.1	162.9	135.9	118.7	109.8	108.8
52.5°	916.7	772.0	384.2	172.3	143.7	164.0	156.7	126.5	118.2	106.2	104.6
55°	997.4	816.3	366.5	151.5	133.3	155.7	148.4	126.0	121.8	106.2	102.6
57.5°	1076.0	865.2	337.9	131.2	121.8	143.2	145.2	122.9	114.0	105.2	101.0
60°	1163.0	917.3	290.5	114.0	111.9	132.7	141.1	116.1	105.2	102.0	100.0
62.5°	1232.7	964.1	227.0	102.0	103.6	124.4	135.9	111.9	101.5	98.9	98.4
65°	1262.9	965.2	162.9	91.6	95.3	116.6	130.7	108.3	98.4	97.3	96.8
67.5°	1231.2	912.1	114.5	81.7	86.4	109.3	123.9	104.6	95.3	95.8	94.7
70°	1128.6	800.1	83.8	72.4	78.1	101.5	116.6	100.0	91.6	92.7	91.1
72.5°	944.3	623.7	67.2	64.6	71.3	93.2	109.3	94.7	85.9	86.4	83.3
75°	697.6	413.3	56.2	57.8	63.5	85.4	100.0	88.0	79.6	77.6	75.5
77.5°	414.9	212.4	46.3	50.5	56.7	76.0	89.5	79.6	72.9	69.2	67.7
80°	171.3	85.9	38.0	42.7	49.5	67.7	79.1	69.8	65.1	61.4	59.3
82.5°	68.2	42.2	30.2	34.9	41.6	58.8	69.2	61.4	56.7	54.1	48.4
85°	26.0	20.8	20.3	24.5	31.2	45.3	57.3	51.5	47.9	41.1	39.6
87.5°	10.4	9.4	9.4	12.0	17.7	28.6	41.1	35.9	37.5	29.7	30.2
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)