

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: P234717

Luminaire Tested: **ARCH-AF24-40-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234717
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-AF24-40-D-U-T3-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3990 lumens
Efficiency: N/A
Efficacy: 99.8 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

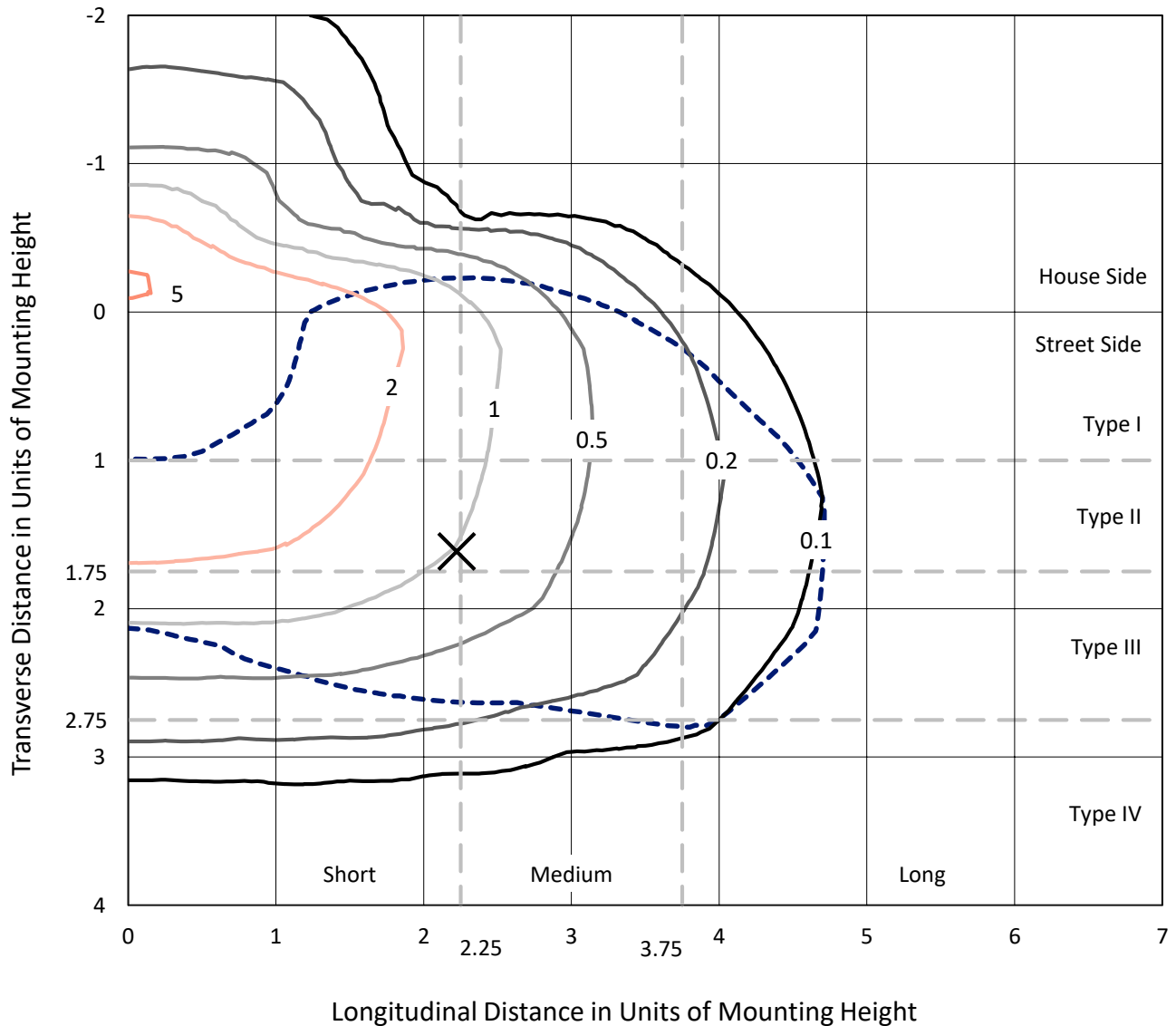
Input Watts (W): 40
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

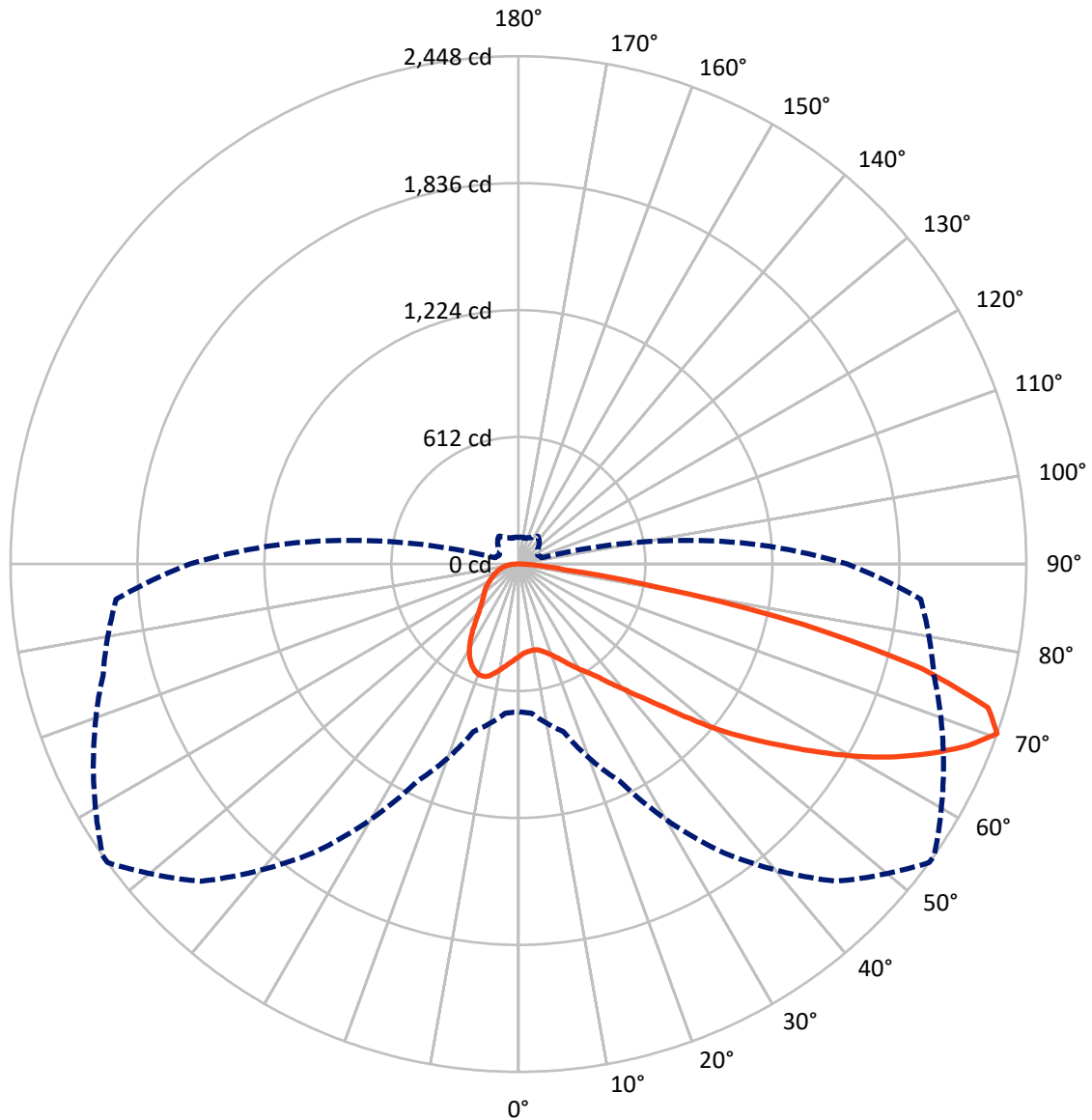


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type III - Short - Non-Cutoff

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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	904.9	0.0	904.9
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	3085.1	0.0	3085.1
	% Fixture	77.3	0.0	77.3
Total	Lumens	3990.0	0.0	3990.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	1.1
10°-20°	140.0	3.5
20°-30°	243.2	6.1
30°-40°	355.4	8.9
40°-50°	557.8	14.0
50°-60°	857.7	21.5
60°-70°	1048.0	26.3
70°-80°	649.7	16.3
80°-90°	94.4	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°	3990.0	100.0
0°-180°	3990.0	100.0



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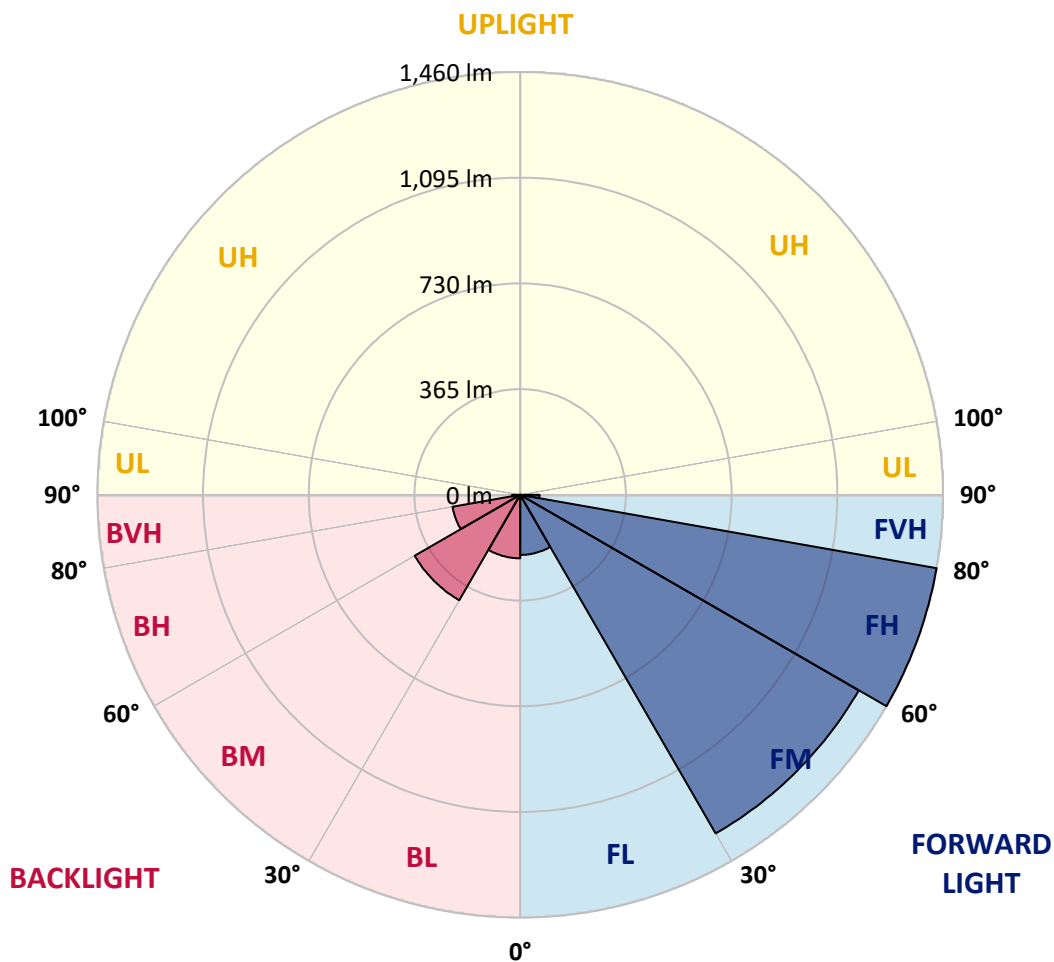
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	207.6	5.2			
FM	(30°-60°)	1350.4	33.8			
FH	(60°-80°)	1460.4	36.6			G1/1800
FVH	(80°-90°)	66.7	1.7			G1/100
BL	(0°-30°)	219.4	5.5	B1/500		
BM	(30°-60°)	420.5	10.5	B1/1000		
BH	(60°-80°)	237.3	5.9	B1/500		G1/500
BVH	(80°-90°)	27.7	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°	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4
2.5°	428.9	427.4	427.4	429.6	430.3	432.5	432.5	433.2	435.4	439.1	443.5
5°	415.7	415.0	415.7	418.6	420.1	424.5	425.9	426.7	431.1	436.9	443.5
7.5°	402.6	401.8	403.3	407.7	412.1	418.6	422.3	423.0	429.6	437.6	446.4
10°	398.2	397.4	399.6	403.3	407.7	415.0	420.8	421.6	431.1	440.6	453.0
12.5°	404.0	403.3	405.5	409.1	413.5	418.6	425.2	425.9	438.4	450.8	463.9
15°	418.6	418.6	419.4	421.6	425.9	430.3	436.2	436.9	450.1	464.7	477.8
17.5°	441.3	439.8	439.8	439.1	442.0	444.2	451.5	452.2	466.1	479.3	492.4
20°	469.0	468.3	465.4	461.7	461.0	462.5	469.8	470.5	484.4	495.4	507.8
22.5°	502.7	503.4	496.8	488.8	485.1	487.3	493.9	494.6	504.8	514.3	525.3
25°	547.2	545.0	535.5	523.8	516.5	516.5	523.1	523.1	532.6	538.5	545.8
27.5°	589.6	585.2	576.4	559.6	548.0	550.1	556.7	556.7	565.5	567.7	571.3
30°	635.6	631.2	620.3	599.1	583.8	582.3	590.3	589.6	601.3	600.6	597.6
32.5°	691.9	689.7	671.4	644.4	623.9	618.8	626.1	626.9	634.2	632.0	622.5
35°	770.8	770.1	753.3	705.8	678.7	669.2	673.6	673.6	678.7	672.9	656.8
37.5°	870.2	871.6	857.0	786.9	748.9	732.8	733.5	732.8	734.3	727.7	710.9
40°	969.5	973.2	972.4	887.7	839.5	811.7	801.5	800.0	803.7	800.7	784.7
42.5°	1100.3	1109.1	1088.6	1011.9	957.8	911.1	883.3	879.6	887.7	891.3	876.0
45°	1236.2	1233.3	1201.1	1145.6	1096.6	1036.7	984.1	978.3	984.1	995.1	979.0
47.5°	1307.1	1304.9	1296.8	1269.1	1261.8	1193.1	1113.4	1108.3	1097.4	1112.7	1093.7
50°	1424.0	1426.1	1393.3	1390.3	1421.0	1383.0	1259.6	1247.9	1228.1	1240.6	1224.5
52.5°	1508.7	1499.2	1478.7	1504.3	1600.0	1579.6	1396.9	1391.8	1373.5	1370.6	1363.3
55°	1543.0	1543.0	1546.7	1605.9	1742.5	1715.5	1546.0	1551.1	1526.2	1505.8	1515.3
57.5°	1553.3	1557.7	1589.1	1687.0	1909.8	1821.4	1710.3	1717.7	1681.9	1640.9	1670.9
60°	1502.9	1516.0	1591.3	1733.0	2004.1	1933.9	1883.5	1885.7	1833.8	1773.9	1826.5
62.5°	1373.5	1389.6	1524.0	1752.0	1988.7	2049.4	2047.2	2052.3	1981.4	1906.9	1972.6
65°	1215.0	1231.1	1374.3	1698.7	1977.0	2131.9	2196.9	2210.8	2119.5	2019.4	2064.0
67.5°	981.9	1003.1	1139.0	1518.9	1920.0	2199.9	2337.2	2351.8	2226.2	2077.8	2055.9
70°	711.6	721.8	835.8	1154.4	1687.7	2162.6	2448.3	2447.5	2261.2	2073.5	1946.3
72.5°	342.7	350.7	449.3	716.7	1207.0	1835.3	2367.9	2381.8	2213.0	2009.9	1695.7
75°	141.0	149.0	181.9	302.5	633.4	1212.8	2007.0	2039.9	2009.9	1803.9	1326.8
77.5°	87.7	90.6	106.7	156.3	289.3	566.2	1405.0	1449.5	1592.7	1445.1	876.0
80°	65.8	67.9	79.6	109.6	182.7	209.0	697.7	754.0	965.1	829.2	396.7
82.5°	54.8	55.5	63.6	79.6	124.2	119.8	223.6	249.1	450.1	316.4	136.6
85°	51.1	52.6	57.0	57.0	78.9	75.3	92.8	97.2	130.8	108.1	47.5
87.5°	26.3	24.8	50.4	44.6	40.9	36.5	39.5	42.4	49.0	51.9	21.2
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°	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4
2.5°	444.9	447.1	450.8	454.4	458.8	463.9	466.9	470.5	473.4	472.0	471.2
5°	447.1	450.8	458.8	466.1	474.9	485.1	491.7	499.0	504.8	506.3	504.1
7.5°	450.8	457.4	468.3	481.5	493.2	506.3	516.5	526.8	534.1	535.5	535.5
10°	459.6	466.9	481.5	499.0	512.9	526.8	538.5	546.5	553.1	556.0	556.0
12.5°	472.0	480.7	498.3	519.5	534.8	548.0	554.5	558.2	561.1	564.0	564.8
15°	486.6	496.1	517.3	539.9	556.0	562.6	562.6	561.8	561.8	563.3	564.8
17.5°	501.2	511.4	533.3	557.5	567.7	564.0	558.9	556.7	555.3	554.5	556.7
20°	516.5	526.8	548.7	571.3	568.4	553.1	545.8	540.6	536.3	534.1	537.0
22.5°	533.3	542.8	565.5	580.8	558.9	535.5	521.7	513.6	506.3	501.9	504.8
25°	553.1	562.6	584.5	583.8	542.1	509.2	487.3	474.2	466.1	461.7	461.7
27.5°	576.4	584.5	605.7	576.4	518.7	474.2	442.0	429.6	427.4	423.8	423.8
30°	600.6	607.1	625.4	559.6	486.6	428.1	393.1	387.2	388.0	384.3	385.0
32.5°	625.4	632.0	637.1	534.8	444.9	376.3	352.9	348.5	347.8	344.8	341.9
35°	660.5	670.0	638.5	501.2	394.5	333.2	316.4	312.0	307.6	297.4	297.4
37.5°	713.8	724.0	634.9	459.6	342.7	299.5	284.2	278.4	271.1	260.8	257.2
40°	786.9	786.9	626.9	412.8	301.0	272.5	257.9	250.6	242.6	232.3	230.1
42.5°	873.1	852.6	614.4	365.3	270.3	254.3	241.1	233.1	223.6	211.9	210.4
45°	973.9	918.4	596.9	322.9	247.7	243.3	235.3	221.4	205.3	192.9	190.7
47.5°	1071.8	977.6	580.1	293.0	228.7	238.9	232.3	209.0	187.0	169.5	167.3
50°	1179.2	1030.2	560.4	268.1	214.1	236.0	228.7	190.7	166.6	154.2	152.7
52.5°	1286.6	1083.5	539.2	241.8	201.6	230.1	219.9	177.5	165.8	149.0	146.9
55°	1399.8	1145.6	514.3	212.6	187.0	218.5	208.2	176.8	171.0	149.0	143.9
57.5°	1510.2	1214.3	474.2	184.1	171.0	200.9	203.8	172.4	160.0	147.6	141.7
60°	1632.2	1287.3	407.7	160.0	157.1	186.3	198.0	162.9	147.6	143.2	140.3
62.5°	1730.1	1353.1	318.5	143.2	145.4	174.6	190.7	157.1	142.5	138.8	138.1
65°	1772.5	1354.5	228.7	128.6	133.7	163.7	183.4	152.0	138.1	136.6	135.9
67.5°	1727.9	1280.0	160.7	114.7	121.3	153.4	173.9	146.9	133.7	134.4	133.0
70°	1584.0	1122.9	117.6	101.6	109.6	142.5	163.7	140.3	128.6	130.0	127.9
72.5°	1325.3	875.3	94.2	90.6	100.1	130.8	153.4	133.0	120.6	121.3	116.9
75°	979.0	580.1	78.9	81.1	89.1	119.8	140.3	123.5	111.8	108.9	105.9
77.5°	582.3	298.1	65.0	70.9	79.6	106.7	125.7	111.8	102.3	97.2	95.0
80°	240.4	120.6	53.3	59.9	69.4	95.0	111.1	97.9	91.3	86.2	83.3
82.5°	95.7	59.2	42.4	49.0	58.4	82.6	97.2	86.2	79.6	76.0	67.9
85°	36.5	29.2	28.5	34.3	43.8	63.6	80.4	72.3	67.2	57.7	55.5
87.5°	14.6	13.2	13.2	16.8	24.8	40.2	57.7	50.4	52.6	41.6	42.4
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)