

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: P234744

Luminaire Tested: **ARCH-AF24-30-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234744
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-AF24-30-D-U-T4W-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3073 lumens
Efficiency: N/A
Efficacy: 99.1 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): 31
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

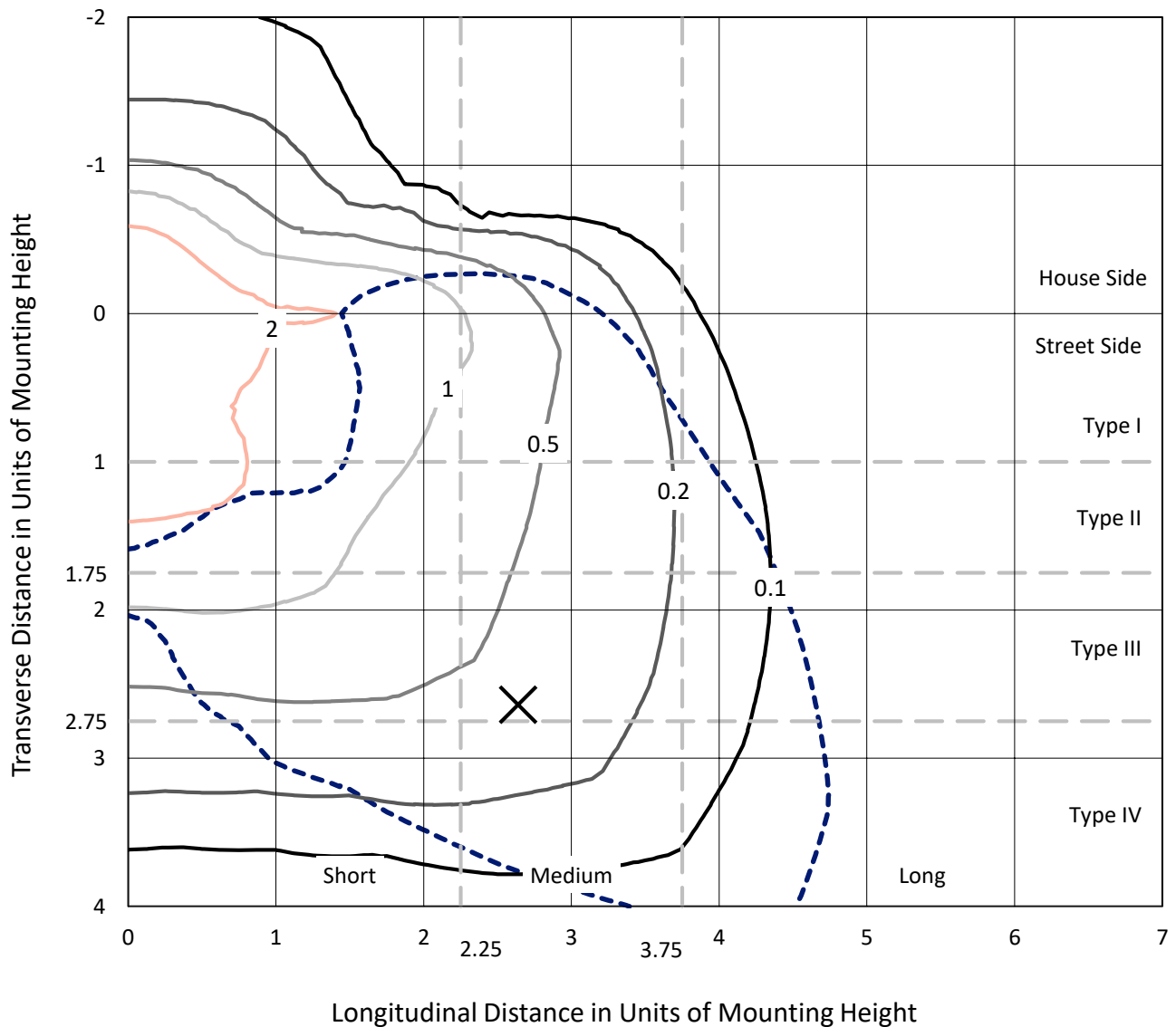


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

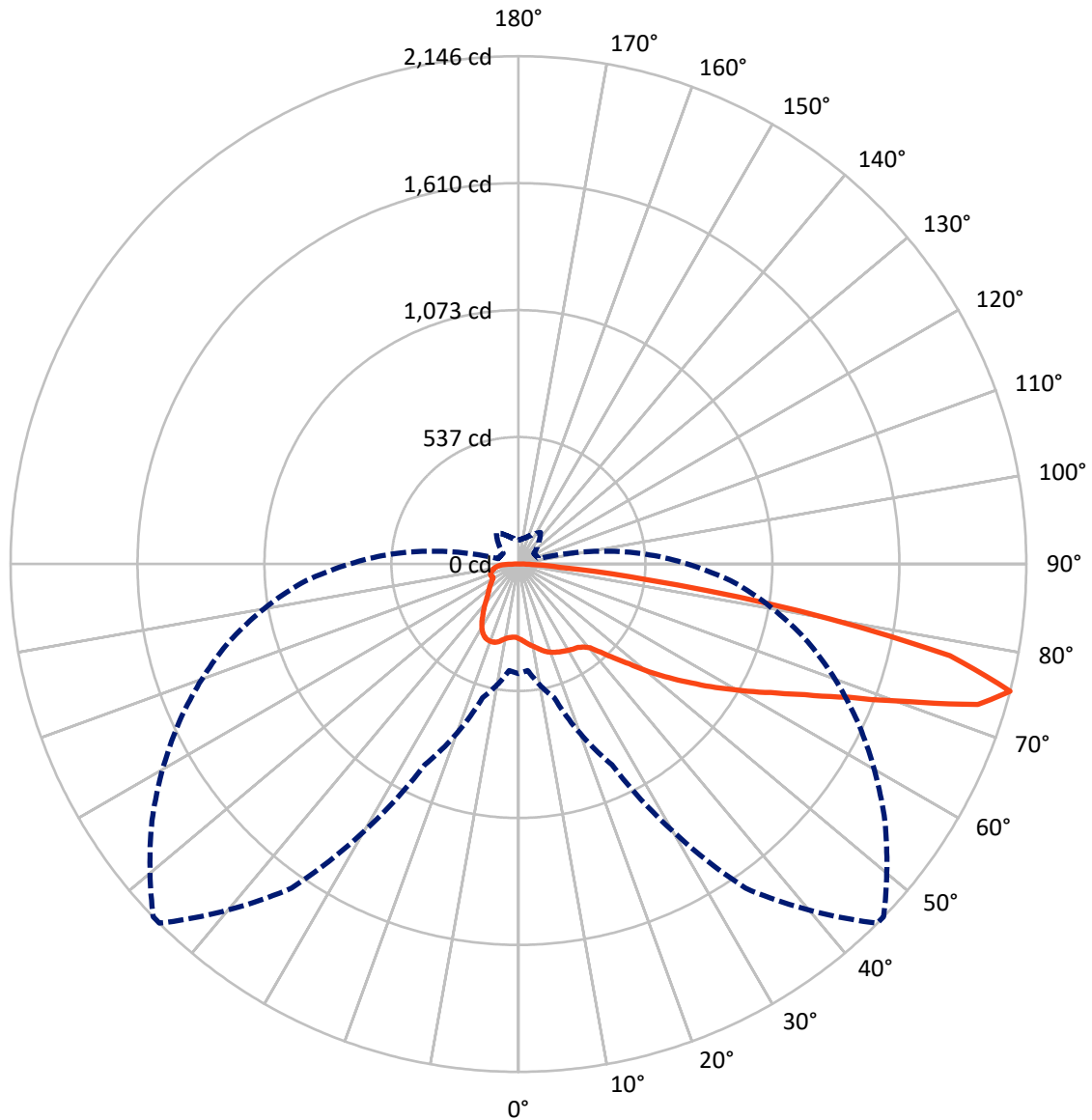


Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Medium - Non-Cutoff

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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	711.9	0.0	711.9
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	2361.1	0.0	2361.1
	% Fixture	76.8	0.0	76.8
Total	Lumens	3073.0	0.0	3073.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.2	1.0
10°-20°	101.2	3.3
20°-30°	173.6	5.6
30°-40°	242.8	7.9
40°-50°	356.2	11.6
50°-60°	554.8	18.1
60°-70°	798.3	26.0
70°-80°	695.4	22.6
80°-90°	119.4	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°	3073.0	100.0
0°-180°	3073.0	100.0



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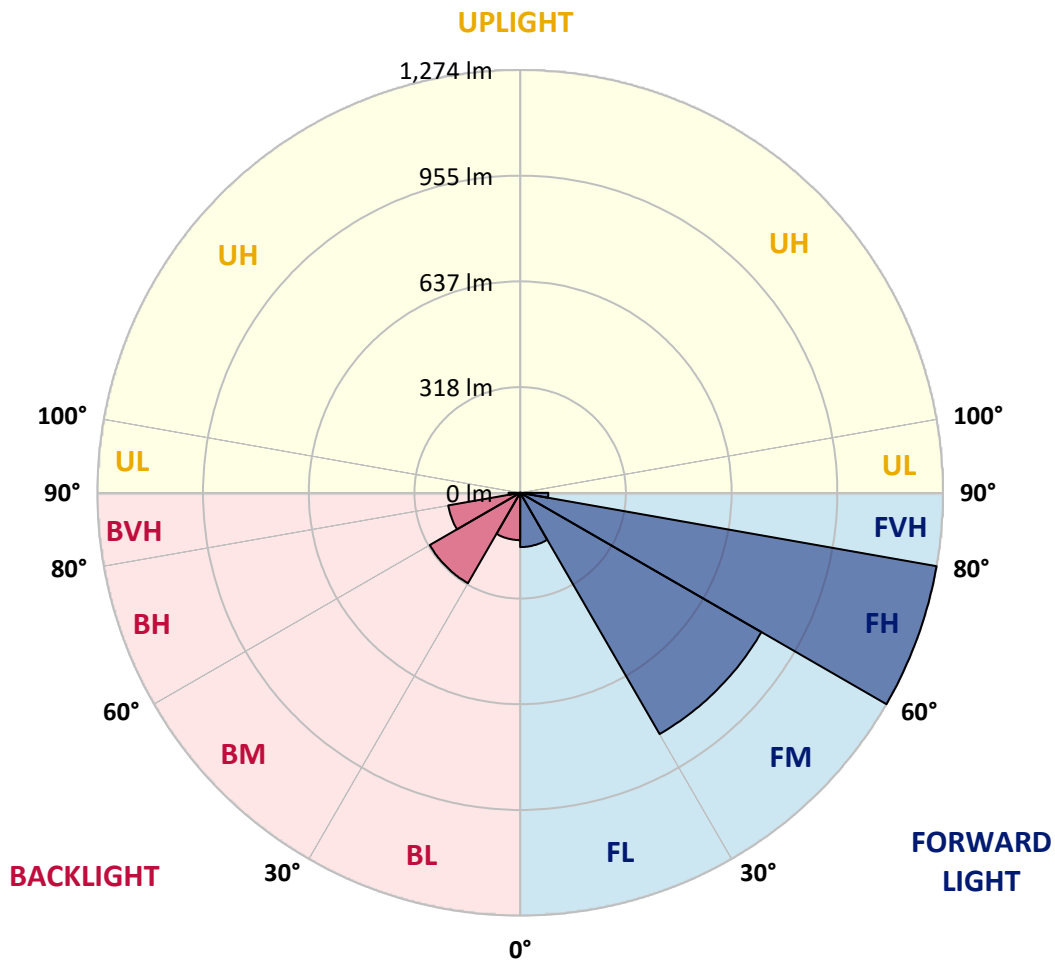
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	163.4	5.3			
FM	(30°-60°)	839.2	27.3			
FH	(60°-80°)	1273.8	41.5			G1/1800
FVH	(80°-90°)	84.7	2.8			G1/100
BL	(0°-30°)	142.6	4.6	B1/500		
BM	(30°-60°)	314.6	10.2	B1/1000		
BH	(60°-80°)	220.0	7.2	B1/500		G1/500
BVH	(80°-90°)	34.7	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°	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0
2.5°	330.6	328.2	328.2	326.4	326.4	323.4	322.2	321.6	318.6	316.8	315.0
5°	349.7	346.7	346.1	341.9	340.1	333.6	333.0	328.8	323.4	318.0	313.8
7.5°	367.0	365.2	362.3	358.1	352.7	344.3	343.7	337.1	328.2	321.0	315.0
10°	379.6	378.4	374.2	368.8	362.8	354.5	353.9	346.7	335.9	327.6	319.2
12.5°	394.5	392.7	387.4	380.2	373.6	365.8	365.2	359.3	347.3	336.5	325.8
15°	408.9	406.5	399.9	392.7	385.6	379.0	379.0	372.4	359.9	347.3	334.8
17.5°	416.0	414.9	408.3	400.5	394.5	389.7	389.1	383.2	370.6	357.5	343.7
20°	418.4	419.0	413.1	404.7	400.5	398.1	397.5	393.3	379.6	367.0	353.9
22.5°	417.8	419.6	414.9	405.9	404.7	404.7	404.7	399.9	389.1	376.6	363.4
25°	420.2	422.6	419.0	408.3	408.3	410.7	410.7	408.3	398.7	388.0	374.8
27.5°	428.6	430.4	427.4	412.5	413.1	416.6	416.0	416.6	410.7	400.5	387.4
30°	438.8	441.2	437.6	419.0	418.4	422.0	422.0	425.0	420.8	410.1	399.3
32.5°	466.3	465.7	454.3	426.2	424.4	428.0	428.0	431.0	428.6	420.2	410.1
35°	548.2	539.2	514.1	449.5	431.6	433.4	433.4	438.8	440.0	433.4	424.4
37.5°	631.8	628.9	609.7	511.7	457.9	444.7	444.1	451.9	457.3	451.9	445.9
40°	716.1	713.7	709.6	594.8	512.9	465.1	463.3	469.8	479.4	475.8	472.2
42.5°	794.4	793.2	797.4	676.7	582.8	508.7	503.3	495.6	509.3	508.1	508.1
45°	856.0	859.0	861.4	753.2	658.7	564.9	558.3	532.0	550.5	555.3	558.9
47.5°	890.7	893.1	901.4	827.9	734.7	630.1	625.3	582.2	606.7	621.1	631.2
50°	940.3	933.7	940.9	900.8	826.1	714.9	701.8	649.8	680.9	706.0	729.9
52.5°	988.1	977.4	983.3	985.1	930.1	798.0	784.3	729.3	768.1	807.6	850.0
55°	1031.2	1030.6	1036.5	1067.0	1030.6	887.1	871.6	817.2	873.3	915.8	987.5
57.5°	1065.8	1071.8	1098.1	1162.1	1146.5	983.9	966.6	919.4	985.7	1028.2	1147.1
60°	1106.5	1116.0	1159.7	1242.8	1252.3	1085.6	1067.6	1033.5	1101.1	1144.1	1331.8
62.5°	1120.2	1134.0	1223.6	1327.7	1362.9	1196.7	1180.6	1157.9	1222.4	1261.3	1516.0
65°	1028.8	1055.1	1258.9	1371.3	1481.9	1330.6	1316.9	1297.2	1343.2	1368.9	1640.9
67.5°	1003.7	1015.6	1190.2	1434.1	1593.7	1502.8	1489.1	1455.0	1456.2	1445.4	1681.5
70°	968.4	981.5	1119.6	1481.3	1753.9	1738.3	1721.6	1621.2	1559.6	1494.4	1601.4
72.5°	824.9	820.7	964.8	1354.0	1831.0	2030.0	2010.3	1799.9	1636.1	1452.0	1351.6
75°	463.3	451.3	585.2	936.7	1672.0	2146.0	2145.4	1890.2	1582.3	1264.9	920.0
77.5°	134.5	130.9	193.1	392.7	1125.6	1864.5	1887.2	1704.8	1320.5	908.6	505.1
80°	63.4	64.6	83.1	129.7	480.6	1203.3	1268.5	1122.6	789.1	419.0	208.6
82.5°	40.1	40.6	56.8	83.7	203.2	546.4	600.2	505.1	312.6	181.1	92.1
85°	25.1	25.1	37.7	55.0	121.3	174.5	189.5	172.2	133.9	98.6	50.2
87.5°	13.7	13.7	22.7	31.7	66.4	56.2	58.0	68.7	83.7	60.4	25.1
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°	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0
2.5°	314.4	313.2	311.4	310.8	310.2	309.6	310.2	311.4	310.2	310.2	310.8
5°	312.6	311.4	309.0	309.0	309.6	310.2	313.2	315.0	315.6	315.6	315.6
7.5°	312.6	310.8	309.0	309.6	310.8	313.2	318.0	321.0	323.4	324.0	324.0
10°	315.6	313.2	312.0	313.2	316.8	318.6	323.4	328.2	331.2	332.4	332.4
12.5°	321.0	318.6	318.6	321.0	325.8	328.2	332.4	335.9	339.5	341.3	341.3
15°	330.0	327.0	327.6	331.8	337.1	339.5	342.5	343.7	346.7	349.1	349.1
17.5°	338.3	335.4	336.5	341.3	344.9	346.1	347.9	347.3	348.5	350.3	350.9
20°	347.9	344.9	345.5	348.5	349.1	347.9	347.9	346.1	345.5	348.5	349.7
22.5°	357.5	354.5	353.9	352.1	349.1	346.1	344.3	342.5	341.3	344.3	345.5
25°	368.8	364.6	361.7	353.9	346.1	340.7	338.3	337.1	336.5	339.5	340.7
27.5°	381.4	377.2	368.2	351.5	338.9	330.0	328.2	328.2	329.4	331.2	332.4
30°	393.3	389.1	373.0	346.1	326.4	313.2	311.4	313.2	316.2	318.0	319.8
32.5°	405.3	401.1	376.0	337.7	307.9	291.1	289.9	292.9	297.7	298.9	300.1
35°	421.4	417.2	379.6	325.8	284.5	266.6	265.4	267.2	271.4	273.2	275.0
37.5°	444.1	441.8	385.0	312.6	263.0	243.3	239.7	238.5	240.9	240.3	242.7
40°	474.0	475.8	394.5	295.3	242.1	221.8	214.0	210.4	208.0	203.2	205.6
42.5°	517.7	518.9	405.3	275.6	224.2	201.4	191.3	184.7	179.9	172.2	173.4
45°	581.6	571.5	417.8	254.7	208.0	185.3	173.4	165.6	159.0	152.4	153.0
47.5°	666.5	635.4	431.6	237.3	191.9	172.2	161.4	152.4	144.7	139.3	139.9
50°	771.1	714.9	445.3	221.2	175.7	162.0	152.4	142.9	135.1	129.7	129.1
52.5°	909.2	810.6	454.3	203.2	159.6	153.0	144.7	135.7	126.1	119.6	119.0
55°	1052.7	921.8	462.1	181.7	144.1	142.9	138.7	128.5	117.2	108.8	107.6
57.5°	1210.5	1040.7	468.1	160.8	132.1	134.5	133.3	121.3	108.8	101.0	100.4
60°	1354.0	1163.9	448.9	142.3	121.3	126.1	127.3	117.2	110.6	112.4	113.0
62.5°	1498.6	1258.9	376.0	128.5	114.2	120.8	130.9	130.3	127.3	130.3	130.9
65°	1550.6	1278.6	266.6	117.2	107.0	123.1	142.3	141.1	127.3	121.9	120.8
67.5°	1521.3	1220.1	179.3	108.2	101.6	126.1	154.2	141.1	122.5	115.4	113.0
70°	1382.1	1076.0	131.5	99.2	96.8	125.5	160.8	140.5	120.2	112.4	109.4
72.5°	1102.3	830.3	105.8	90.9	89.7	122.5	164.4	139.3	117.8	109.4	105.8
75°	713.7	516.5	89.1	82.5	78.9	117.8	162.6	135.7	114.8	104.0	101.6
77.5°	331.2	222.4	75.9	72.9	68.7	110.6	157.2	128.5	108.2	98.0	95.0
80°	154.2	105.2	64.0	63.4	61.6	104.6	150.0	120.2	100.4	92.1	87.3
82.5°	82.5	63.4	52.0	52.0	53.8	97.4	141.1	110.0	90.3	86.1	73.5
85°	43.6	36.5	37.7	40.6	46.0	86.1	129.1	99.2	78.9	65.8	64.0
87.5°	22.1	23.3	23.3	27.5	35.3	69.9	106.4	81.9	67.0	53.8	52.6
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)