

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: P234743

Luminaire Tested: **ARCH-AF24-20-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234743
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-AF24-20-D-U-T4W-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2195 lumens
Efficiency: N/A
Efficacy: 104.5 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): 21
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

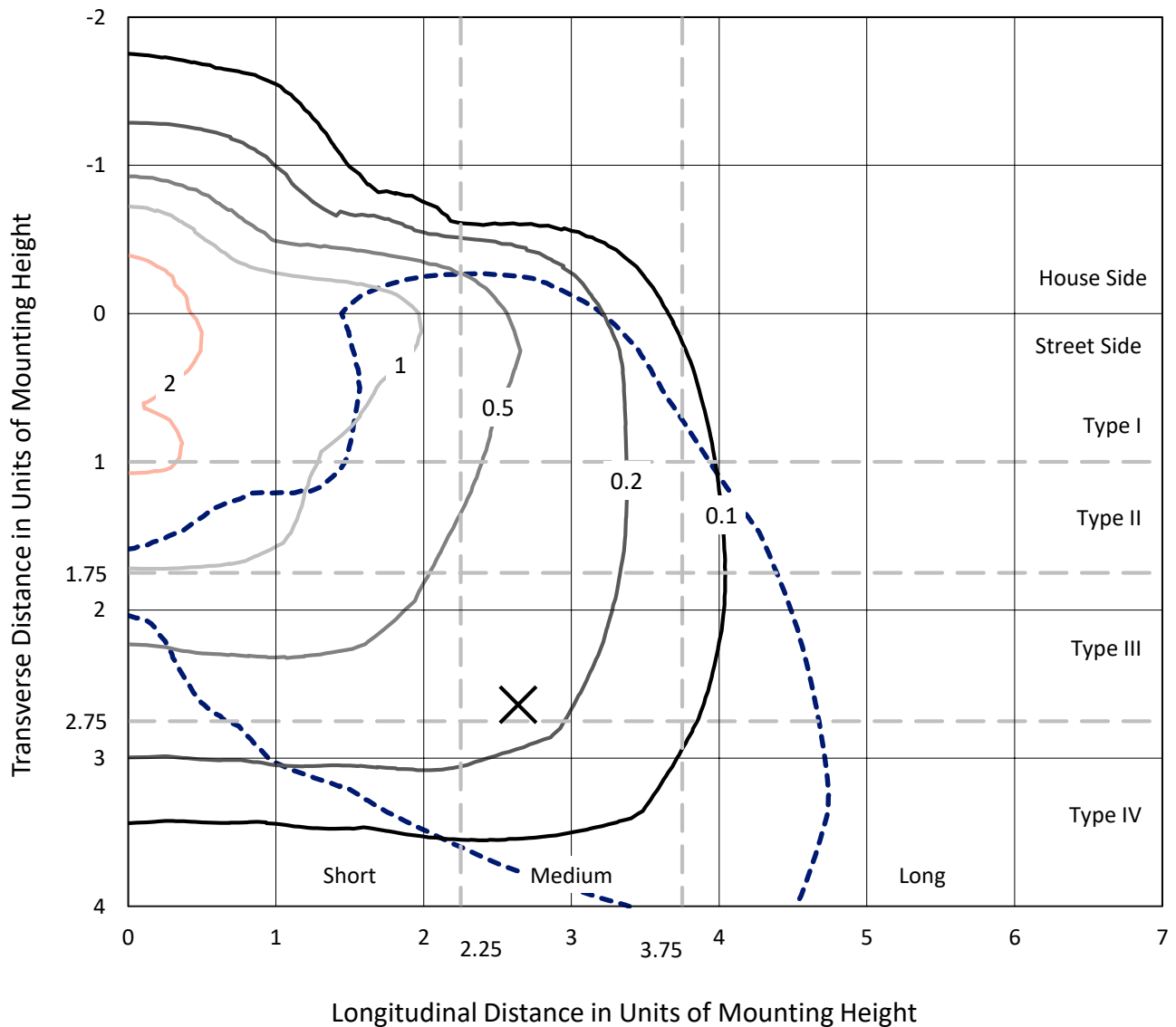


REPORT NUMBER: P234743

CATALOG NUMBER: ARCH-AF24-20-D-U-T4W-8027

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

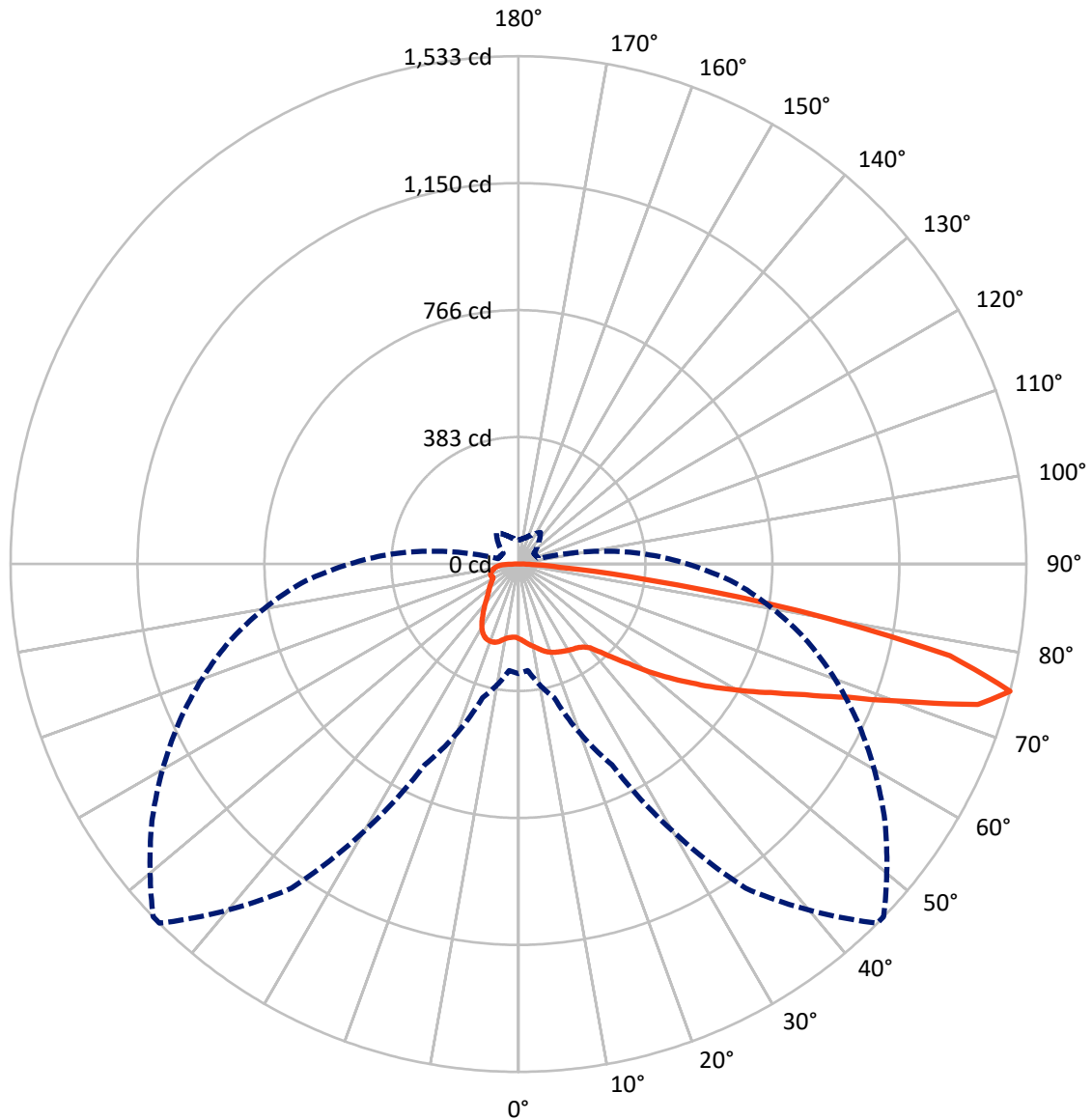


Based on 10 foot mounting height. Maximum calculated value = 2.6 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234743

CATALOG NUMBER: ARCH-AF24-20-D-U-T4W-8027

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



REPORT NUMBER: P234743

CATALOG NUMBER: ARCH-AF24-20-D-U-T4W-8027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	508.5	0.0	508.5
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	1686.5	0.0	1686.5
	% Fixture	76.8	0.0	76.8
Total	Lumens	2195.0	0.0	2195.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.3	1.0
10°-20°	72.3	3.3
20°-30°	124.0	5.6
30°-40°	173.4	7.9
40°-50°	254.4	11.6
50°-60°	396.3	18.1
60°-70°	570.2	26.0
70°-80°	496.7	22.6
80°-90°	85.3	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°	2195.0	100.0
0°-180°	2195.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234743

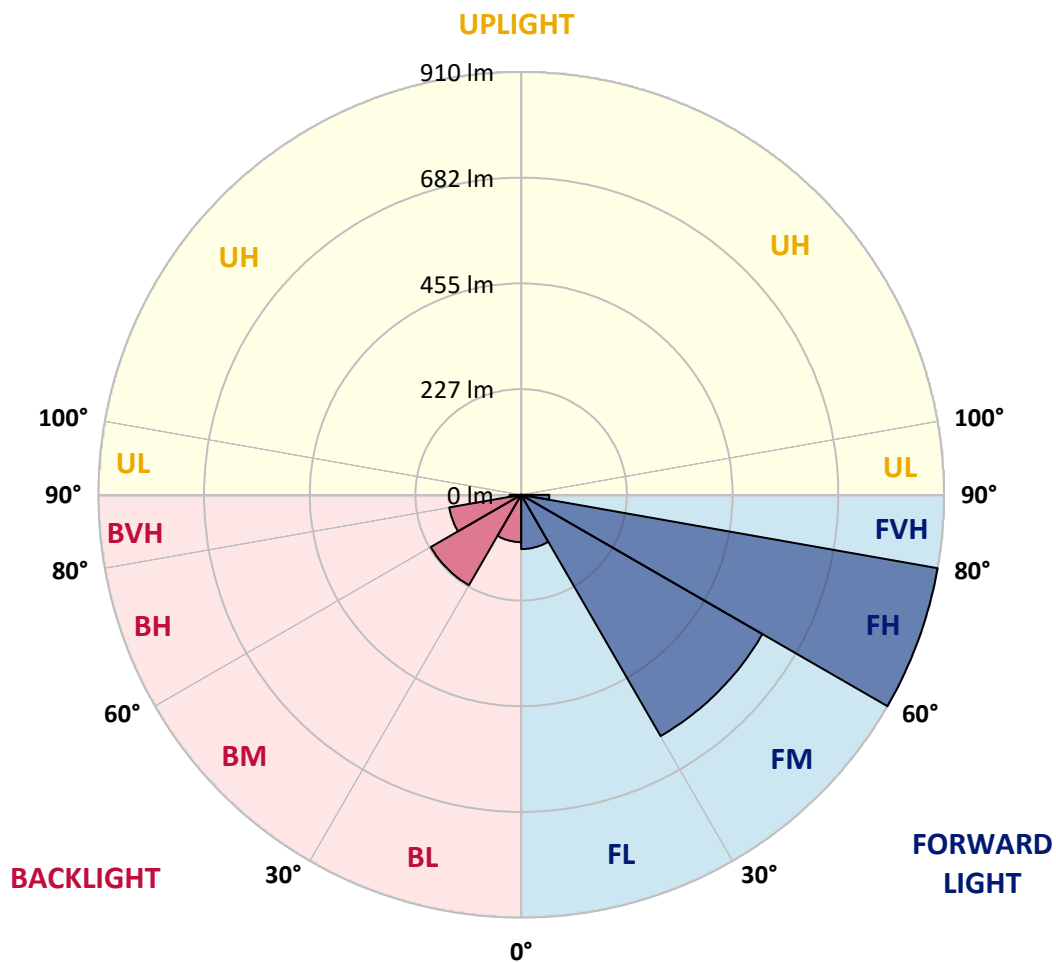
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	116.7	5.3			
FM (30°-60°)	599.4	27.3			
FH (60°-80°)	909.8	41.5			G1/1800
FVH (80°-90°)	60.5	2.8			G1/100
BL (0°-30°)	101.8	4.6	B0/110		
BM (30°-60°)	224.7	10.2	B1/1000		
BH (60°-80°)	157.1	7.2	B1/500		G1/500
BVH (80°-90°)	24.8	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





REPORT NUMBER: P234743

CATALOG NUMBER: ARCH-AF24-20-D-U-T4W-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	225.0	225.0	225.0	225.0	225.0	225.0	225.0	225.0	225.0	225.0	225.0
2.5°	236.1	234.4	234.4	233.1	233.1	231.0	230.1	229.7	227.6	226.3	225.0
5°	249.8	247.6	247.2	244.2	243.0	238.3	237.8	234.8	231.0	227.2	224.2
7.5°	262.2	260.9	258.8	255.8	251.9	245.9	245.5	240.8	234.4	229.3	225.0
10°	271.1	270.3	267.3	263.4	259.2	253.2	252.8	247.6	240.0	234.0	228.0
12.5°	281.8	280.5	276.7	271.6	266.9	261.3	260.9	256.6	248.1	240.4	232.7
15°	292.1	290.3	285.6	280.5	275.4	270.7	270.7	266.0	257.0	248.1	239.1
17.5°	297.2	296.3	291.6	286.1	281.8	278.4	278.0	273.7	264.7	255.3	245.5
20°	298.9	299.3	295.0	289.1	286.1	284.4	283.9	281.0	271.1	262.2	252.8
22.5°	298.5	299.7	296.3	289.9	289.1	289.1	289.1	285.6	278.0	269.0	259.6
25°	300.2	301.9	299.3	291.6	291.6	293.3	293.3	291.6	284.8	277.1	267.7
27.5°	306.1	307.4	305.3	294.6	295.0	297.6	297.2	297.6	293.3	286.1	276.7
30°	313.4	315.1	312.5	299.3	298.9	301.4	301.4	303.6	300.6	292.9	285.2
32.5°	333.0	332.6	324.5	304.4	303.2	305.7	305.7	307.9	306.1	300.2	292.9
35°	391.5	385.1	367.2	321.1	308.3	309.6	309.6	313.4	314.3	309.6	303.2
37.5°	451.3	449.2	435.5	365.5	327.1	317.7	317.2	322.8	326.6	322.8	318.5
40°	511.5	509.8	506.8	424.8	366.3	332.2	330.9	335.6	342.4	339.9	337.3
42.5°	567.5	566.6	569.6	483.3	416.3	363.4	359.5	354.0	363.8	362.9	362.9
45°	611.4	613.6	615.3	538.0	470.5	403.5	398.8	380.0	393.2	396.7	399.2
47.5°	636.2	637.9	643.9	591.4	524.8	450.0	446.6	415.9	433.4	443.6	450.9
50°	671.6	666.9	672.1	643.5	590.1	510.7	501.3	464.1	486.3	504.3	521.3
52.5°	705.8	698.1	702.4	703.7	664.4	570.0	560.2	520.9	548.7	576.9	607.2
55°	736.5	736.1	740.4	762.2	736.1	633.6	622.5	583.7	623.8	654.1	705.4
57.5°	761.3	765.6	784.4	830.0	818.9	702.8	690.4	656.7	704.1	734.4	819.4
60°	790.3	797.2	828.3	887.7	894.5	775.4	762.6	738.2	786.5	817.2	951.3
62.5°	800.2	810.0	874.0	948.3	973.5	854.8	843.3	827.1	873.2	900.9	1082.8
65°	734.8	753.6	899.2	979.5	1058.5	950.5	940.6	926.5	959.4	977.8	1172.1
67.5°	716.9	725.4	850.1	1024.3	1138.3	1073.4	1063.6	1039.3	1040.1	1032.4	1201.1
70°	691.7	701.1	799.7	1058.1	1252.8	1241.7	1229.7	1158.0	1114.0	1067.5	1143.9
72.5°	589.2	586.2	689.1	967.1	1307.8	1450.0	1435.9	1285.6	1168.6	1037.1	965.4
75°	330.9	322.4	418.0	669.1	1194.3	1532.9	1532.4	1350.1	1130.2	903.5	657.1
77.5°	96.1	93.5	137.9	280.5	804.0	1331.8	1348.0	1217.7	943.2	649.0	360.8
80°	45.3	46.1	59.4	92.7	343.3	859.5	906.1	801.9	563.6	299.3	149.0
82.5°	28.6	29.0	40.6	59.8	145.2	390.3	428.7	360.8	223.3	129.4	65.8
85°	17.9	17.9	26.9	39.3	86.7	124.7	135.4	123.0	95.6	70.5	35.9
87.5°	9.8	9.8	16.2	22.6	47.4	40.1	41.4	49.1	59.8	43.1	17.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P234743

CATALOG NUMBER: ARCH-AF24-20-D-U-T4W-8027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	225.0	225.0	225.0	225.0	225.0	225.0	225.0	225.0	225.0	225.0	225.0
2.5°	224.6	223.7	222.5	222.0	221.6	221.2	221.6	222.5	221.6	221.6	222.0
5°	223.3	222.5	220.7	220.7	221.2	221.6	223.7	225.0	225.4	225.4	225.4
7.5°	223.3	222.0	220.7	221.2	222.0	223.7	227.2	229.3	231.0	231.4	231.4
10°	225.4	223.7	222.9	223.7	226.3	227.6	231.0	234.4	236.5	237.4	237.4
12.5°	229.3	227.6	227.6	229.3	232.7	234.4	237.4	240.0	242.5	243.8	243.8
15°	235.7	233.6	234.0	237.0	240.8	242.5	244.7	245.5	247.6	249.4	249.4
17.5°	241.7	239.5	240.4	243.8	246.4	247.2	248.5	248.1	248.9	250.2	250.6
20°	248.5	246.4	246.8	248.9	249.4	248.5	248.5	247.2	246.8	248.9	249.8
22.5°	255.3	253.2	252.8	251.5	249.4	247.2	245.9	244.7	243.8	245.9	246.8
25°	263.4	260.5	258.3	252.8	247.2	243.4	241.7	240.8	240.4	242.5	243.4
27.5°	272.4	269.4	263.0	251.1	242.1	235.7	234.4	234.4	235.3	236.5	237.4
30°	281.0	278.0	266.4	247.2	233.1	223.7	222.5	223.7	225.9	227.2	228.4
32.5°	289.5	286.5	268.6	241.2	219.9	207.9	207.1	209.2	212.6	213.5	214.3
35°	301.0	298.0	271.1	232.7	203.2	190.4	189.6	190.9	193.8	195.1	196.4
37.5°	317.2	315.5	275.0	223.3	187.9	173.8	171.2	170.4	172.1	171.6	173.4
40°	338.6	339.9	281.8	210.9	172.9	158.4	152.9	150.3	148.6	145.2	146.9
42.5°	369.8	370.6	289.5	196.8	160.1	143.9	136.6	131.9	128.5	123.0	123.8
45°	415.5	408.2	298.5	181.9	148.6	132.4	123.8	118.3	113.6	108.9	109.3
47.5°	476.1	453.9	308.3	169.5	137.1	123.0	115.3	108.9	103.3	99.5	99.9
50°	550.8	510.7	318.1	158.0	125.5	115.7	108.9	102.0	96.5	92.7	92.2
52.5°	649.4	579.0	324.5	145.2	114.0	109.3	103.3	96.9	90.1	85.4	85.0
55°	751.9	658.4	330.1	129.8	102.9	102.0	99.1	91.8	83.7	77.7	76.9
57.5°	864.6	743.4	334.3	114.9	94.4	96.1	95.2	86.7	77.7	72.2	71.7
60°	967.1	831.3	320.7	101.6	86.7	90.1	90.9	83.7	79.0	80.3	80.7
62.5°	1070.4	899.2	268.6	91.8	81.6	86.3	93.5	93.1	90.9	93.1	93.5
65°	1107.6	913.3	190.4	83.7	76.4	88.0	101.6	100.8	90.9	87.1	86.3
67.5°	1086.7	871.5	128.1	77.3	72.6	90.1	110.2	100.8	87.5	82.4	80.7
70°	987.2	768.6	93.9	70.9	69.2	89.7	114.9	100.3	85.8	80.3	78.1
72.5°	787.4	593.1	75.6	64.9	64.0	87.5	117.4	99.5	84.1	78.1	75.6
75°	509.8	368.9	63.6	58.9	56.4	84.1	116.1	96.9	82.0	74.3	72.6
77.5°	236.5	158.8	54.2	52.1	49.1	79.0	112.3	91.8	77.3	70.0	67.9
80°	110.2	75.1	45.7	45.3	44.0	74.7	107.2	85.8	71.7	65.8	62.3
82.5°	58.9	45.3	37.1	37.1	38.4	69.6	100.8	78.6	64.5	61.5	52.5
85°	31.2	26.0	26.9	29.0	32.9	61.5	92.2	70.9	56.4	47.0	45.7
87.5°	15.8	16.7	16.7	19.6	25.2	50.0	76.0	58.5	47.8	38.4	37.6
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)