

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: P265873

Luminaire Tested: **ARCH-AF16-20-D-U-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265873
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-AF16-20-D-U-T3-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2591.1 lumens
Efficiency: N/A
Efficacy: 108.0 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

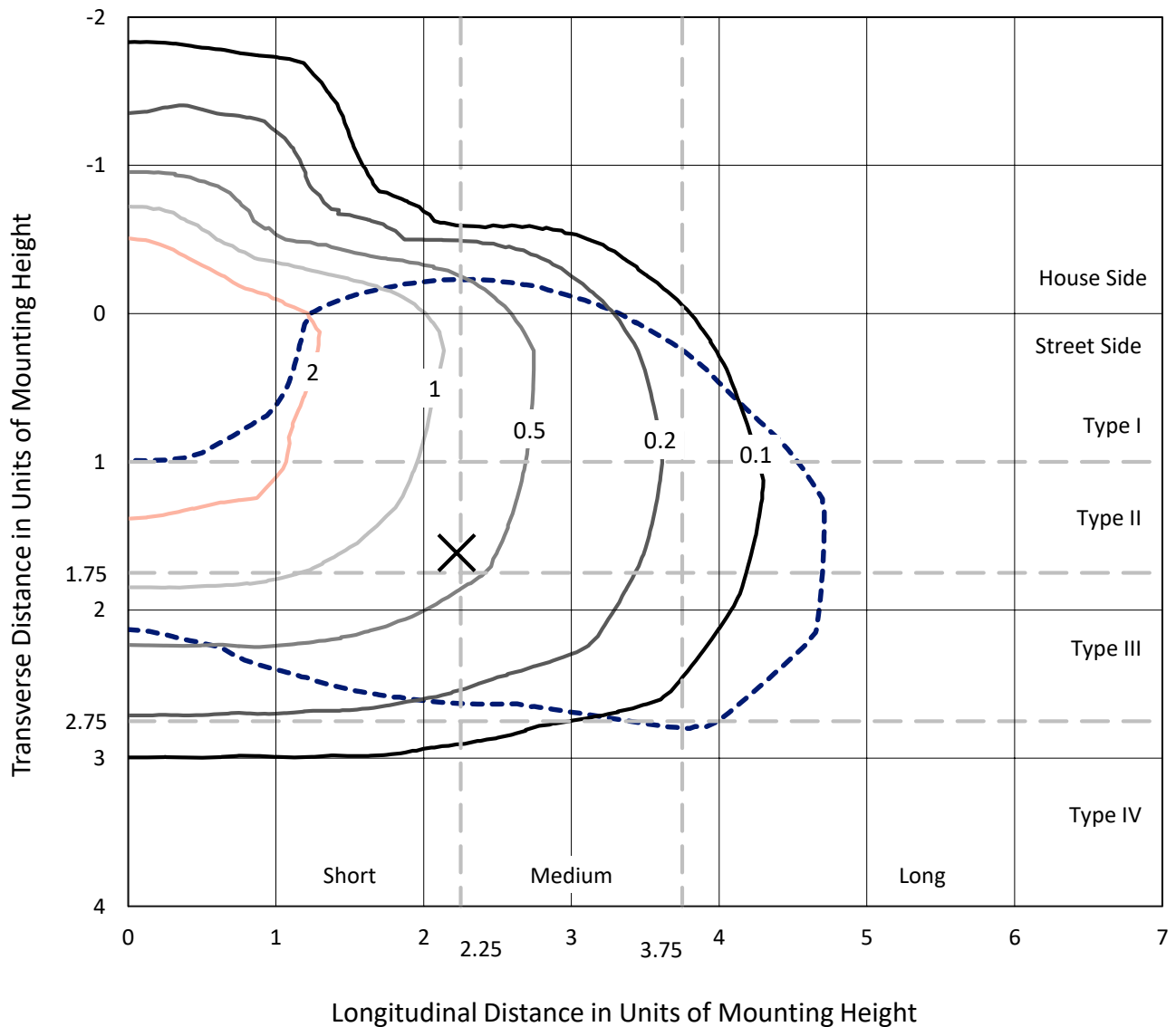
Input Watts (W): 24
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

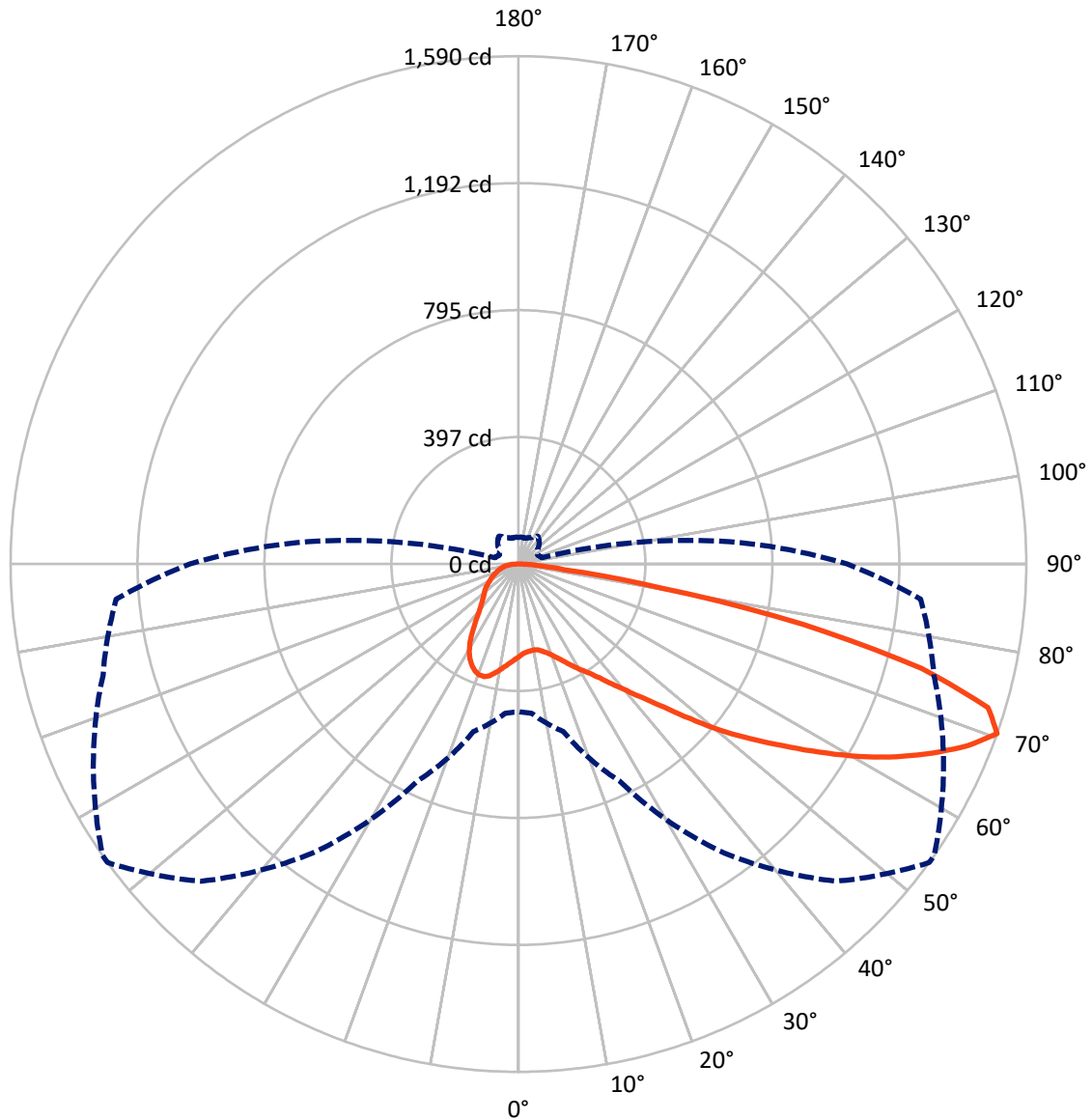


Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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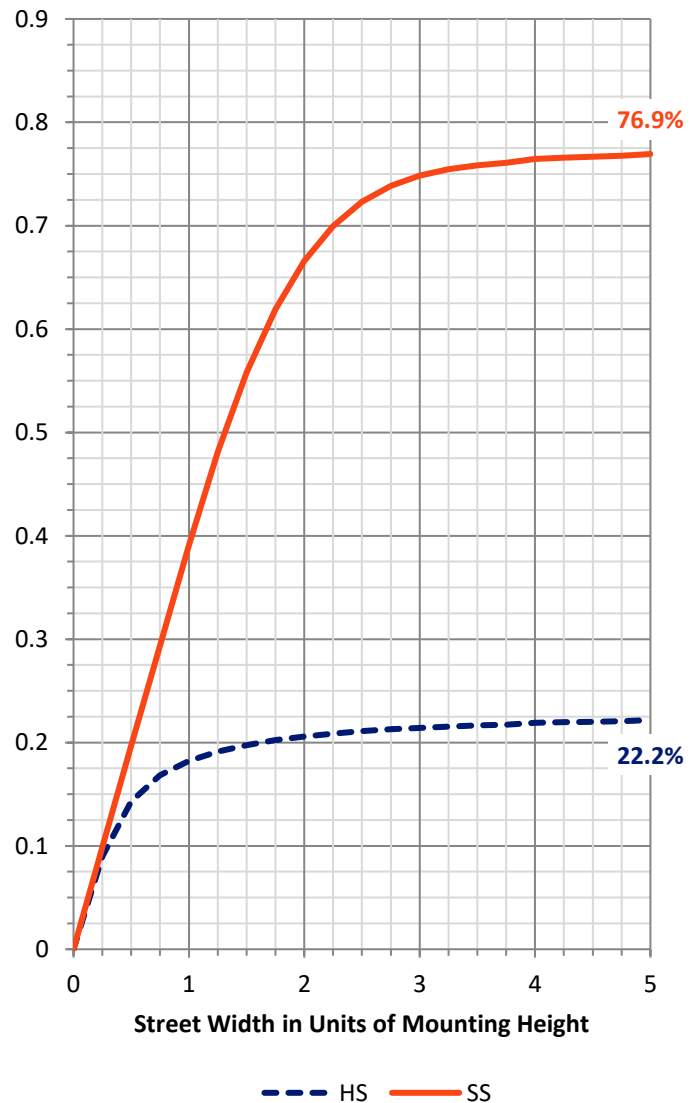
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	587.6	0.0	587.6
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	2003.4	0.0	2003.4
	% Fixture	77.3	0.0	77.3
Total	Lumens	2591.1	0.0	2591.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.4	1.1
10°-20°	90.9	3.5
20°-30°	157.9	6.1
30°-40°	230.8	8.9
40°-50°	362.2	14.0
50°-60°	557.0	21.5
60°-70°	680.5	26.3
70°-80°	421.9	16.3
80°-90°	61.3	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°	2591.1	100.0
0°-180°	2591.1	100.0

Coefficient of Utilization



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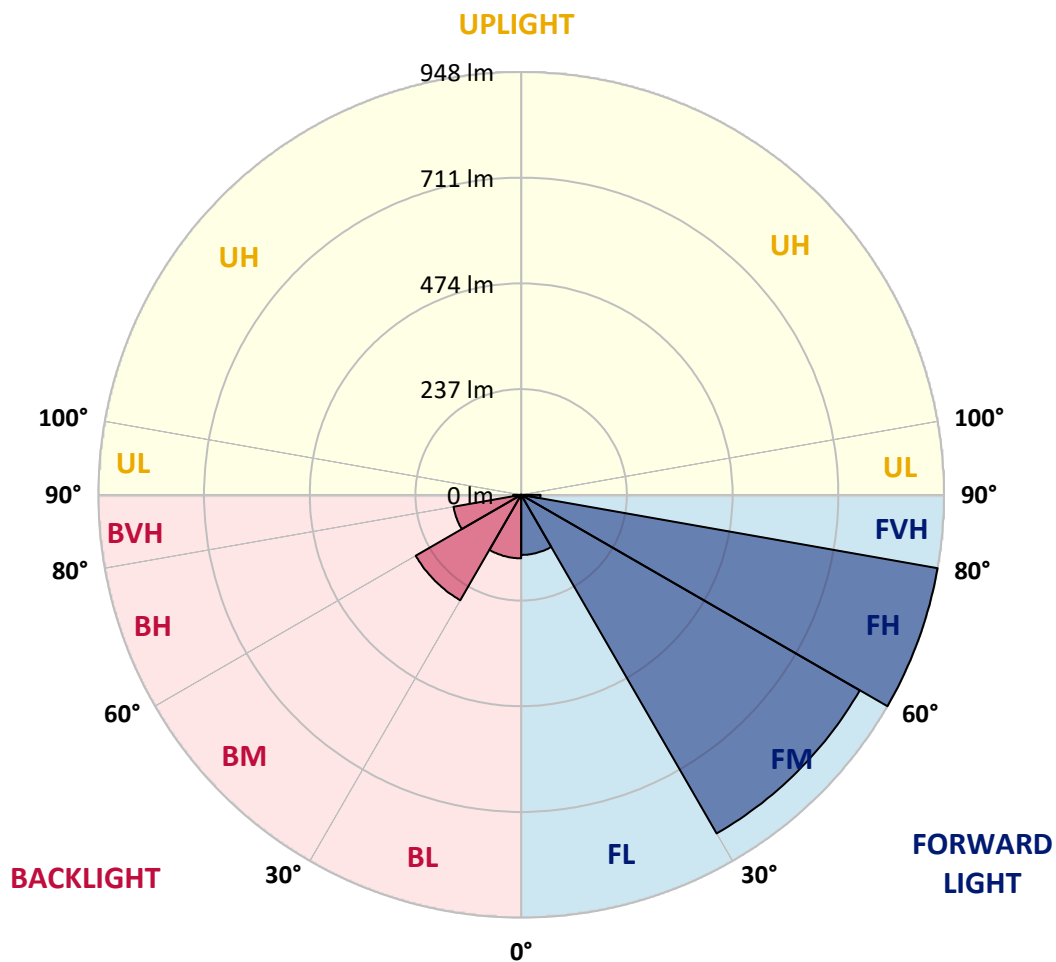
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	134.8	5.2			
FM	(30°-60°)	877.0	33.8			
FH	(60°-80°)	948.4	36.6			G1/1800
FVH	(80°-90°)	43.3	1.7			G1/100
BL	(0°-30°)	142.5	5.5	B1/500		
BM	(30°-60°)	273.1	10.5	B1/1000		
BH	(60°-80°)	154.1	5.9	B1/500		G1/500
BVH	(80°-90°)	18.0	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°	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0
2.5°	278.6	277.5	277.5	279.0	279.5	280.9	280.9	281.3	282.7	285.1	287.9
5°	270.0	269.5	270.0	271.8	272.8	275.7	276.6	277.0	279.9	283.8	287.9
7.5°	261.4	261.0	261.9	264.7	267.5	271.8	274.3	274.7	279.0	284.3	290.0
10°	258.6	258.2	259.5	261.9	264.7	269.5	273.3	273.8	279.9	286.1	294.1
12.5°	262.3	261.9	263.4	265.7	268.6	271.8	276.0	276.6	284.7	292.8	301.3
15°	271.8	271.8	272.4	273.8	276.6	279.5	283.2	283.8	292.3	301.7	310.3
17.5°	286.6	285.7	285.7	285.1	287.1	288.4	293.1	293.7	302.6	311.3	319.7
20°	304.5	304.2	302.2	299.9	299.3	300.4	305.1	305.6	314.5	321.8	329.8
22.5°	326.4	327.0	322.6	317.5	315.0	316.5	320.8	321.2	327.8	334.0	341.1
25°	355.4	353.9	347.7	340.2	335.4	335.4	339.6	339.6	345.8	349.7	354.4
27.5°	382.9	380.1	374.4	363.5	355.9	357.3	361.6	361.6	367.2	368.7	371.0
30°	412.9	409.9	402.8	389.1	379.1	378.1	383.3	382.9	390.5	390.0	388.1
32.5°	449.3	447.9	436.0	418.5	405.1	401.8	406.7	407.1	411.9	410.3	404.2
35°	500.5	500.0	489.1	458.3	440.8	434.6	437.5	437.5	440.8	436.9	426.5
37.5°	565.0	566.0	556.5	511.0	486.3	475.9	476.3	475.9	476.8	472.6	461.6
40°	629.6	632.0	631.5	576.4	545.1	527.1	520.5	519.5	521.8	519.9	509.6
42.5°	714.5	720.3	707.0	657.1	621.9	591.7	573.6	571.2	576.4	578.9	568.8
45°	802.7	800.8	780.0	743.9	712.1	673.3	639.1	635.3	639.1	646.2	635.8
47.5°	848.8	847.5	842.3	824.1	819.3	774.8	723.0	719.7	712.6	722.5	710.3
50°	924.7	926.2	904.9	902.8	922.7	898.1	817.9	810.5	797.5	805.6	795.2
52.5°	979.7	973.7	960.3	976.8	1039.1	1025.8	907.2	903.9	891.9	890.1	885.3
55°	1002.1	1002.1	1004.5	1042.8	1131.5	1114.0	1003.9	1007.3	991.1	977.8	984.1
57.5°	1008.6	1011.5	1032.0	1095.6	1240.2	1182.8	1110.8	1115.4	1092.2	1065.6	1085.2
60°	976.0	984.5	1033.4	1125.3	1301.5	1255.9	1223.1	1224.6	1191.0	1151.9	1186.1
62.5°	891.9	902.3	989.8	1137.8	1291.5	1330.8	1329.4	1332.7	1286.7	1238.4	1281.1
65°	789.0	799.4	892.5	1103.1	1283.9	1384.5	1426.7	1435.8	1376.5	1311.3	1340.4
67.5°	637.6	651.5	739.7	986.3	1246.8	1428.6	1517.7	1527.3	1445.6	1349.3	1335.2
70°	462.1	468.7	542.8	749.6	1096.0	1404.4	1589.9	1589.5	1468.4	1346.5	1263.9
72.5°	222.5	227.7	291.8	465.4	783.9	1191.8	1537.7	1546.7	1437.1	1305.2	1101.2
75°	91.5	96.7	118.1	196.4	411.3	787.6	1303.4	1324.7	1305.2	1171.4	861.7
77.5°	57.0	58.7	69.3	101.5	187.8	367.6	912.4	941.3	1034.3	938.5	568.8
80°	42.7	44.1	51.7	71.1	118.7	135.7	453.1	489.7	626.7	538.5	257.6
82.5°	35.7	36.0	41.3	51.7	80.7	77.9	145.2	161.8	292.3	205.4	88.8
85°	33.1	34.1	37.0	37.0	51.3	48.9	60.2	63.2	84.9	70.2	30.8
87.5°	17.1	16.1	32.8	28.9	26.6	23.7	25.6	27.5	31.8	33.6	13.7
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°	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0
2.5°	289.0	290.3	292.8	295.2	298.0	301.3	303.2	305.6	307.4	306.5	306.1
5°	290.3	292.8	298.0	302.6	308.4	315.0	319.3	324.1	327.8	328.8	327.4
7.5°	292.8	297.0	304.2	312.7	320.2	328.8	335.4	342.1	346.8	347.7	347.7
10°	298.4	303.2	312.7	324.1	333.1	342.1	349.7	354.9	359.1	361.1	361.1
12.5°	306.5	312.3	323.6	337.4	347.4	355.9	360.1	362.5	364.4	366.2	366.8
15°	316.1	322.1	336.0	350.6	361.1	365.3	365.3	364.8	364.8	365.8	366.8
17.5°	325.5	332.2	346.3	361.9	368.7	366.2	362.9	361.6	360.6	360.1	361.6
20°	335.4	342.1	356.3	371.0	369.2	359.1	354.4	351.1	348.3	346.8	348.7
22.5°	346.3	352.6	367.2	377.2	362.9	347.7	338.8	333.5	328.8	325.9	327.8
25°	359.1	365.3	379.5	379.1	352.0	330.7	316.5	307.8	302.6	299.9	299.9
27.5°	374.4	379.5	393.3	374.4	336.9	307.8	287.1	279.0	277.5	275.2	275.2
30°	390.0	394.3	406.2	363.5	316.1	278.0	255.3	251.4	252.0	249.5	250.1
32.5°	406.2	410.3	413.7	347.4	289.0	244.3	229.2	226.4	225.8	223.9	222.1
35°	428.9	435.0	414.7	325.5	256.1	216.3	205.4	202.6	199.8	193.0	193.0
37.5°	463.5	470.3	412.3	298.4	222.5	194.6	184.5	180.7	176.0	169.4	167.1
40°	511.0	511.0	407.1	268.1	195.6	177.0	167.4	162.8	157.6	150.8	149.5
42.5°	567.0	553.6	398.9	237.2	175.6	165.1	156.6	151.4	145.2	137.6	136.6
45°	632.4	596.4	387.6	209.8	160.8	158.0	152.8	143.8	133.3	125.3	123.8
47.5°	696.0	634.8	376.7	190.3	148.5	155.1	150.8	135.7	121.5	110.1	108.7
50°	765.7	669.0	364.0	174.1	139.0	153.3	148.5	123.8	108.2	100.2	99.2
52.5°	835.6	703.6	350.2	157.1	131.0	149.5	142.8	115.3	107.6	96.7	95.4
55°	909.1	743.9	334.0	138.1	121.5	141.8	135.3	114.9	111.0	96.7	93.5
57.5°	980.7	788.5	307.8	119.6	111.0	130.4	132.4	112.0	103.9	95.8	92.0
60°	1059.9	836.1	264.7	103.9	102.0	121.0	128.5	105.8	95.8	93.0	91.1
62.5°	1123.5	878.7	206.9	93.0	94.4	113.4	123.8	102.0	92.5	90.1	89.7
65°	1151.0	879.6	148.5	83.5	86.9	106.3	119.0	98.6	89.7	88.8	88.3
67.5°	1122.2	831.2	104.4	74.5	78.7	99.6	112.9	95.4	86.9	87.2	86.3
70°	1028.6	729.2	76.4	65.9	71.1	92.5	106.3	91.1	83.5	84.4	83.1
72.5°	860.7	568.4	61.3	58.7	64.9	84.9	99.6	86.3	78.3	78.7	75.8
75°	635.8	376.7	51.3	52.7	57.9	77.9	91.1	80.2	72.7	70.6	68.8
77.5°	378.1	193.6	42.2	46.1	51.7	69.3	81.6	72.7	66.5	63.2	61.7
80°	156.0	78.3	34.7	38.8	45.0	61.7	72.1	63.6	59.3	56.0	54.1
82.5°	62.2	38.4	27.5	31.8	38.0	53.5	63.2	56.0	51.7	49.3	44.1
85°	23.7	19.0	18.5	22.3	28.4	41.3	52.2	47.0	43.7	37.5	36.0
87.5°	9.5	8.5	8.5	10.9	16.1	26.1	37.5	32.8	34.1	27.0	27.5
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)