

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: P214778

Luminaire Tested: **ARCH-AF16-20-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
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-T3-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2068.2 lumens  
Efficiency: N/A  
Efficacy: 86.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B0 - 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

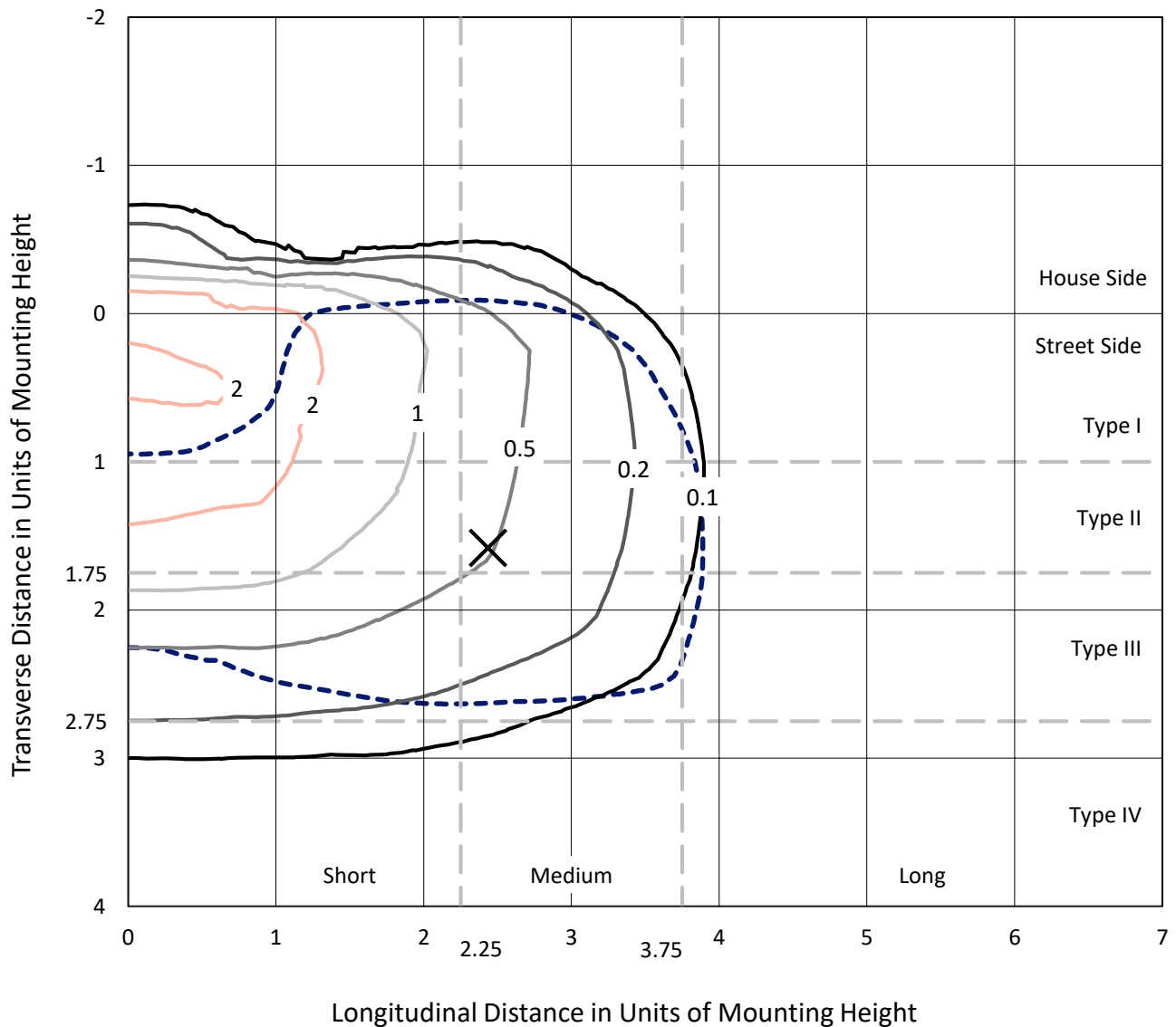


REPORT NUMBER: P214778

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-7030-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

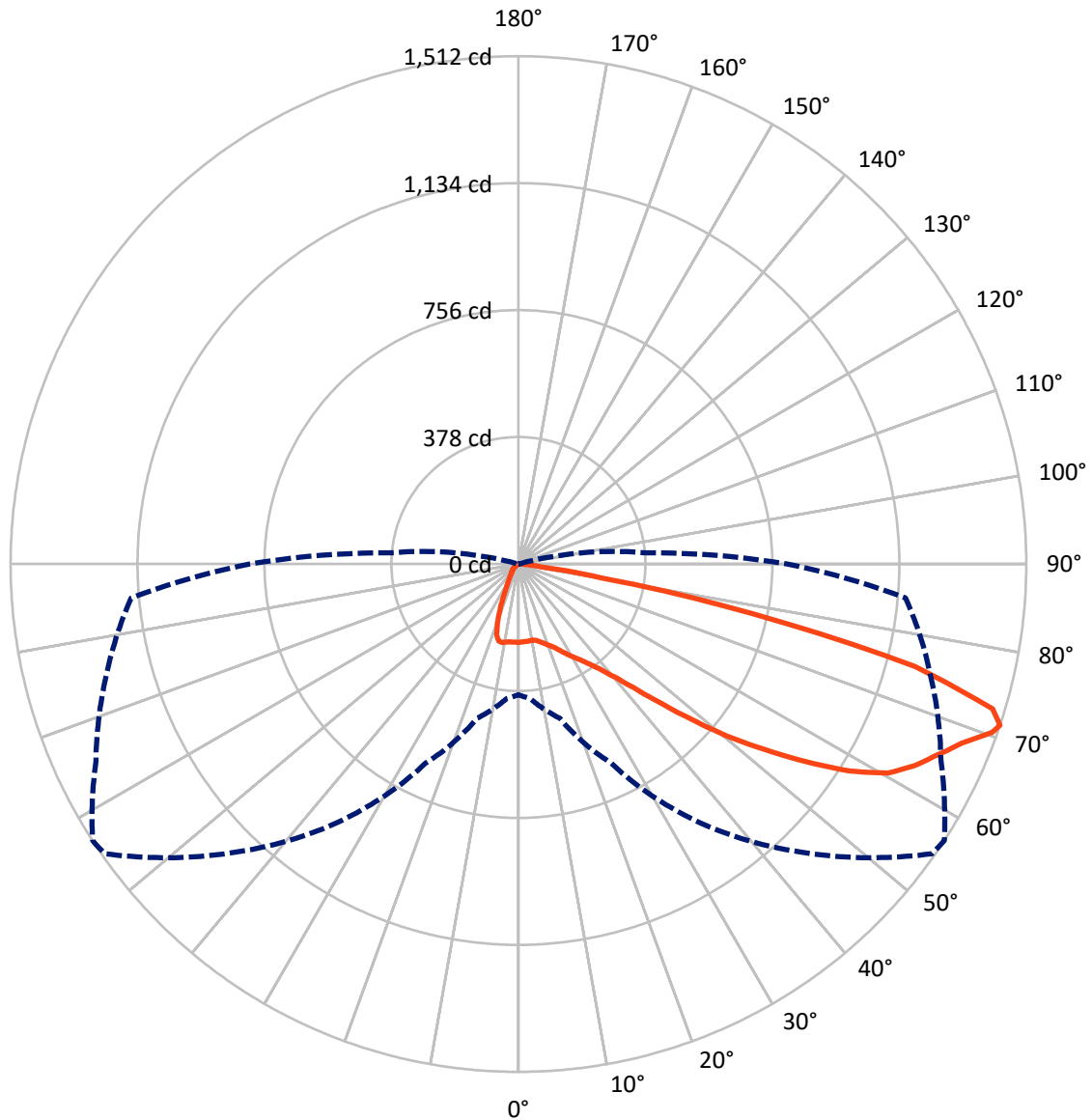


Based on 10 foot mounting height. Maximum calculated value = 2.9 fc  
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P214778

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-7030-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P214778

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-7030-HSS

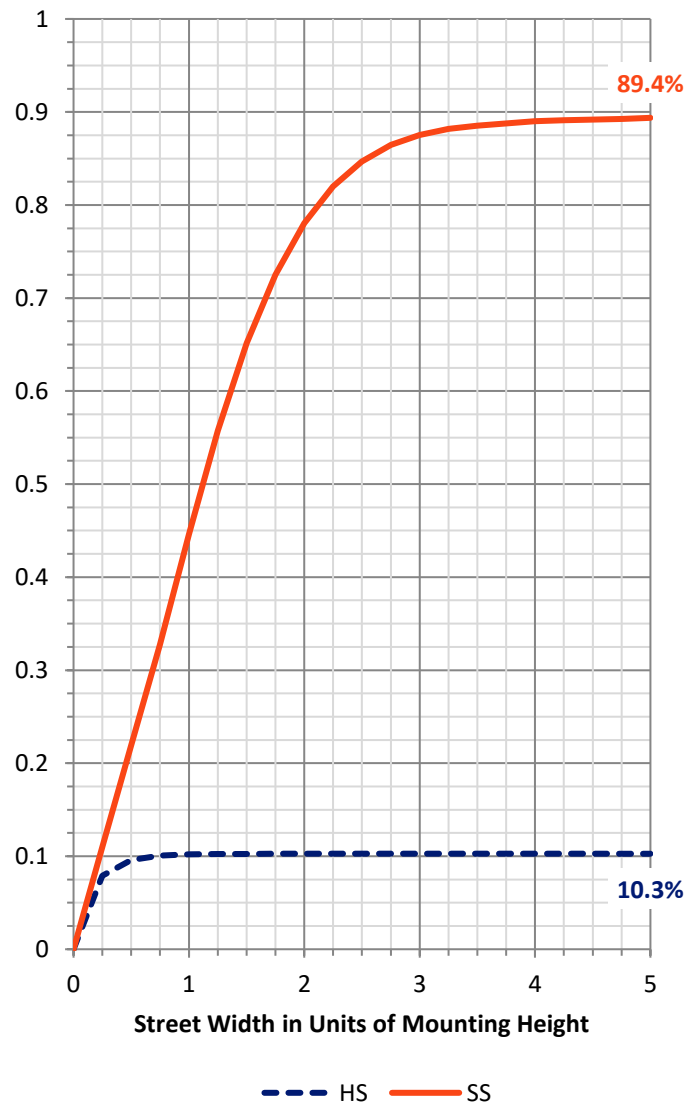
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	214.3	0.0	214.3
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	1853.9	0.0	1853.9
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	2068.2	0.0	2068.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.0	1.1
10°-20°	58.7	2.8
20°-30°	91.6	4.4
30°-40°	154.8	7.5
40°-50°	300.6	14.5
50°-60°	504.8	24.4
60°-70°	602.4	29.1
70°-80°	317.5	15.3
80°-90°	16.1	0.8
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°	2068.2	100.0
0°-180°	2068.2	100.0



REPORT NUMBER: P214778

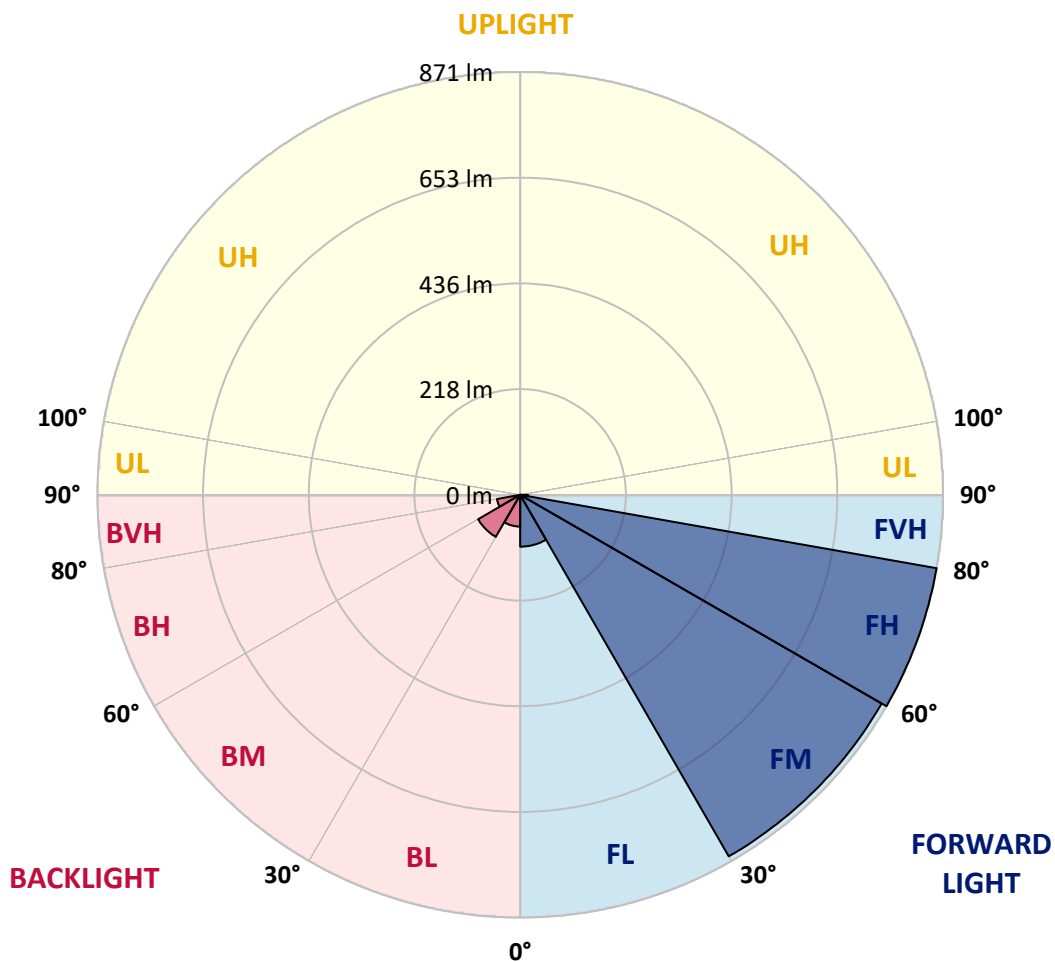
CATALOG NUMBER: ARCH-AF16-20-D-U-T3-7030-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	106.8	5.2			
FM	(30°-60°)	860.0	41.6			
FH	(60°-80°)	871.2	42.1			G1/1800
FVH	(80°-90°)	16.0	0.8			G1/100
BL	(0°-30°)	65.4	3.2	B0/110		
BM	(30°-60°)	100.1	4.8	B0/220		
BH	(60°-80°)	48.7	2.4	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type III Medium





REPORT NUMBER: P214778

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-7030-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	233.7	233.7	233.7	233.7	233.7	233.7	233.7	233.7	233.7	233.7	233.7
2.5°	230.3	230.3	230.3	230.9	231.3	231.3	232.2	231.8	231.8	231.8	232.8
5°	224.1	224.6	225.1	226.0	228.0	229.5	231.8	231.8	232.2	233.3	233.7
7.5°	215.5	215.9	217.3	219.3	223.1	226.5	230.3	231.3	232.8	235.2	236.1
10°	210.1	211.1	213.0	215.5	219.7	224.1	228.9	230.3	234.7	239.1	241.5
12.5°	208.6	209.1	211.1	214.9	220.2	225.5	231.8	233.3	239.5	246.3	250.1
15°	211.1	211.5	212.5	216.9	223.1	229.9	238.0	240.1	247.7	255.4	260.2
17.5°	215.5	215.5	216.5	220.2	227.0	234.7	245.3	248.2	256.9	265.6	270.9
20°	218.3	218.3	219.7	223.7	231.3	241.5	254.0	257.9	267.4	277.1	281.9
22.5°	221.2	221.7	223.1	227.5	236.1	250.1	264.6	268.4	279.4	289.6	294.5
25°	229.5	228.9	229.5	233.3	243.4	260.7	279.0	283.8	295.4	306.5	308.9
27.5°	252.1	251.1	244.8	242.4	250.1	271.8	297.4	302.2	315.6	326.8	326.8
30°	304.1	302.2	286.8	267.0	260.7	281.9	314.6	321.4	338.8	348.4	345.6
32.5°	370.2	365.8	346.1	312.3	287.3	295.4	333.0	340.8	363.0	371.2	364.8
35°	442.4	442.0	417.4	374.0	338.3	323.4	356.6	365.8	393.8	401.0	390.8
37.5°	519.1	520.9	504.6	444.8	402.9	369.2	388.0	398.6	432.7	441.5	431.8
40°	604.4	603.8	597.6	526.7	480.5	434.2	433.3	442.9	484.3	497.9	484.3
42.5°	712.4	711.4	688.7	625.1	574.4	519.1	499.4	502.7	548.9	571.1	551.3
45°	822.1	815.5	789.4	734.4	689.7	624.1	586.5	586.5	626.0	656.4	625.6
47.5°	883.5	876.7	866.1	835.8	822.1	749.0	693.6	686.8	717.7	748.4	705.0
50°	963.8	963.8	937.5	925.9	948.9	897.3	811.6	804.9	819.8	844.3	787.5
52.5°	1027.5	1016.0	997.2	1007.3	1073.3	1049.7	929.7	916.6	928.2	934.5	859.4
55°	1054.1	1043.0	1041.5	1078.6	1180.8	1148.0	1050.6	1039.0	1038.1	1007.3	921.9
57.5°	1059.4	1049.7	1068.0	1133.0	1285.3	1228.5	1171.1	1162.5	1135.5	1058.4	986.1
60°	1014.5	1019.3	1063.6	1162.9	1347.0	1298.3	1272.9	1263.7	1201.6	1101.8	1057.4
62.5°	922.4	934.0	1016.8	1165.8	1324.4	1326.9	1329.2	1322.9	1252.5	1141.2	1129.2
65°	813.6	816.9	916.6	1125.8	1284.9	1318.1	1370.6	1370.2	1291.7	1185.6	1210.1
67.5°	670.5	676.2	762.4	990.9	1205.9	1314.3	1425.2	1423.6	1336.0	1236.2	1258.3
70°	498.8	506.1	575.9	770.6	1029.4	1266.1	1496.5	1497.4	1382.6	1274.7	1225.2
71°	389.0	402.0	475.2	654.5	939.3	1217.3	1503.2	1511.9	1388.0	1269.5	1156.7
72.5°	190.8	206.3	298.3	460.7	773.0	1108.4	1458.8	1475.8	1354.9	1203.4	989.1
75°	49.6	52.6	89.1	188.5	414.5	734.4	1176.4	1219.4	1107.6	916.1	604.4
77.5°	31.3	32.3	41.9	73.2	155.1	279.0	691.1	712.4	632.8	464.2	213.0
80°	22.2	22.6	26.6	47.2	90.5	81.4	248.7	257.9	228.9	122.9	38.0
82.5°	13.5	13.5	19.2	30.4	55.9	44.4	65.5	69.9	61.7	34.2	12.6
85°	7.7	8.2	12.0	20.8	26.6	21.7	24.6	26.0	26.6	22.6	5.4
87.5°	6.2	6.8	10.6	17.4	14.4	10.6	10.6	11.0	11.6	13.5	2.4
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: P214778

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-7030-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	233.7	233.7	233.7	233.7	233.7	233.7	233.7	233.7	233.7	233.7	233.7
2.5°	232.8	232.8	233.3	232.8	232.8	232.8	233.3	233.3	233.3	234.3	234.7
5°	233.7	233.7	233.7	233.3	232.8	232.8	233.7	234.3	234.3	235.7	235.7
7.5°	236.1	236.1	235.2	234.3	233.3	231.8	232.2	232.8	232.2	232.8	232.8
10°	241.5	241.5	240.1	238.0	235.2	230.9	225.1	217.9	211.1	208.6	207.7
12.5°	250.1	249.6	246.7	243.4	237.1	222.3	200.5	175.0	153.7	147.9	146.1
15°	259.8	258.8	255.4	249.6	232.8	193.3	147.9	115.2	94.9	90.1	89.1
17.5°	269.9	268.4	263.7	252.1	213.0	143.6	95.4	72.3	61.1	60.2	60.7
20°	280.5	278.6	271.8	247.3	172.1	95.9	61.7	55.9	54.9	54.9	55.4
22.5°	292.6	290.1	281.1	229.9	125.3	63.6	53.0	52.6	52.0	51.6	51.6
25°	306.5	303.6	289.6	198.6	86.4	52.0	50.6	49.1	48.2	47.2	46.8
27.5°	323.4	319.6	296.4	159.9	59.3	48.7	47.7	45.4	43.3	41.4	41.4
30°	340.3	335.4	294.5	120.5	48.2	45.4	43.3	40.5	37.5	35.6	35.2
32.5°	358.1	353.2	281.9	81.0	43.8	41.4	39.0	34.8	31.3	29.0	28.4
35°	384.6	380.8	257.5	53.5	39.6	36.6	33.3	29.0	24.6	22.2	21.7
37.5°	424.2	419.3	227.0	41.0	34.8	30.4	27.5	22.6	18.3	16.0	15.4
40°	477.1	462.7	190.8	36.2	30.4	25.0	21.2	16.4	13.0	11.6	11.6
42.5°	538.8	504.6	151.8	32.8	27.0	20.8	15.4	11.0	9.2	8.6	8.6
45°	604.4	543.7	112.7	30.4	23.6	16.4	11.0	7.7	6.8	6.2	6.2
47.5°	671.8	575.5	78.5	27.5	19.7	12.6	7.7	5.8	4.8	4.4	4.4
50°	735.0	596.2	55.4	24.6	16.8	9.2	5.8	4.4	3.4	3.4	3.4
52.5°	778.8	594.3	40.0	21.2	13.0	6.2	3.9	2.8	2.8	2.8	2.8
55°	817.4	587.0	31.3	18.3	10.2	4.4	2.8	2.4	2.4	1.9	1.9
57.5°	850.1	575.5	26.6	15.0	7.2	3.4	1.9	1.9	1.4	1.4	1.4
60°	878.1	561.0	22.2	12.6	4.8	2.4	1.4	1.0	1.0	0.4	1.0
62.5°	916.1	551.9	19.2	9.7	3.4	1.4	1.0	0.4	0.4	0.0	0.0
65°	944.1	534.5	16.4	6.8	1.9	1.0	0.4	0.4	0.0	0.0	0.0
67.5°	945.1	503.1	12.0	3.9	1.4	1.0	0.4	0.0	0.0	0.0	0.0
70°	868.9	429.0	7.7	1.9	1.0	0.4	0.4	0.0	0.0	0.0	0.0
71°	799.1	379.7	6.2	1.4	1.0	0.4	0.0	0.0	0.0	0.0	0.0
72.5°	658.4	279.0	4.8	1.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
75°	363.0	101.2	2.4	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	116.2	30.8	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	19.7	4.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.8	1.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)