

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: P214932

Luminaire Tested: **ARCH-AF16-20-D-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214932  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
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-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2155.4 lumens  
Efficiency: N/A  
Efficacy: 89.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1

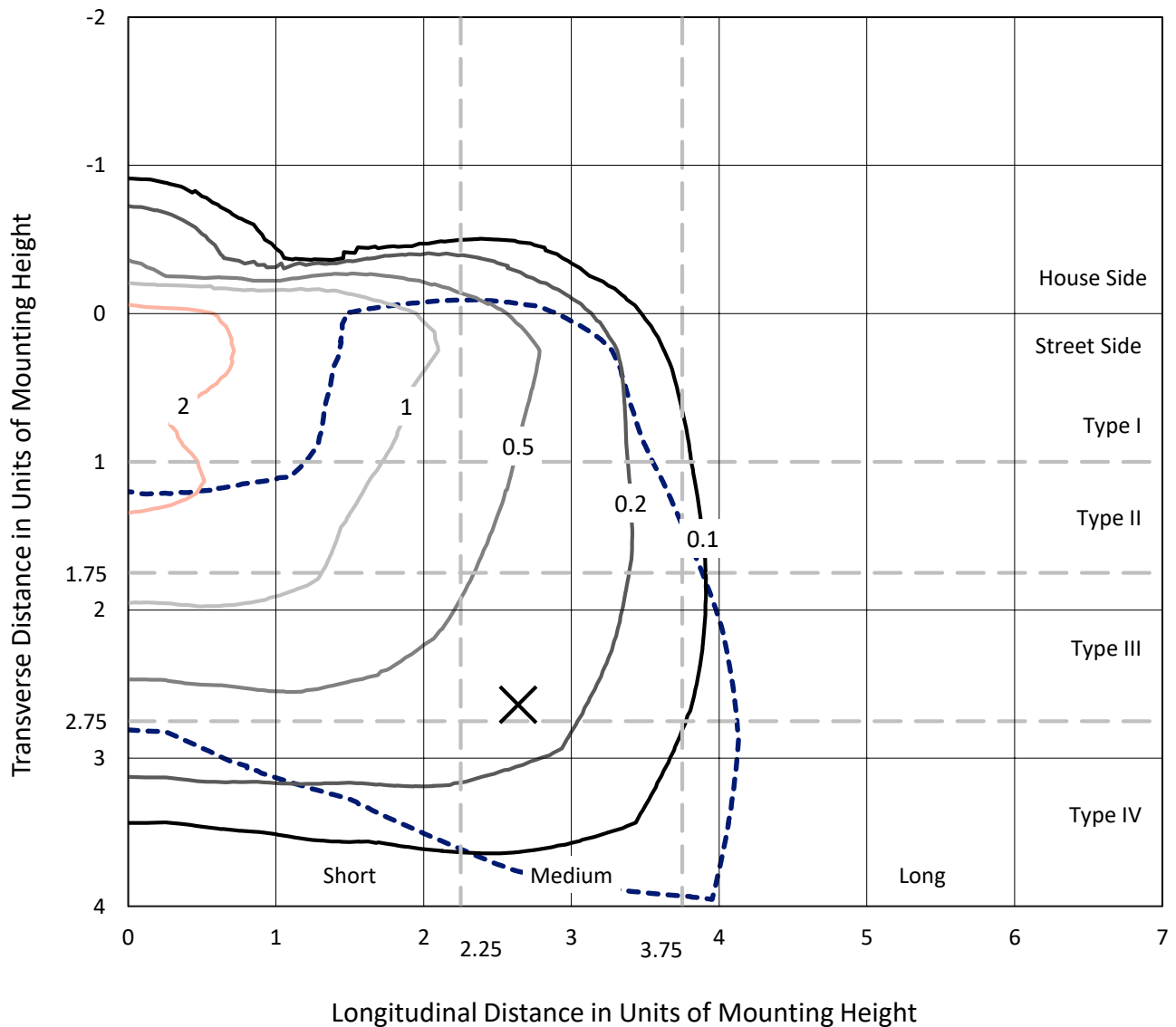
Input Watts (W): 24  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P214932  
 CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

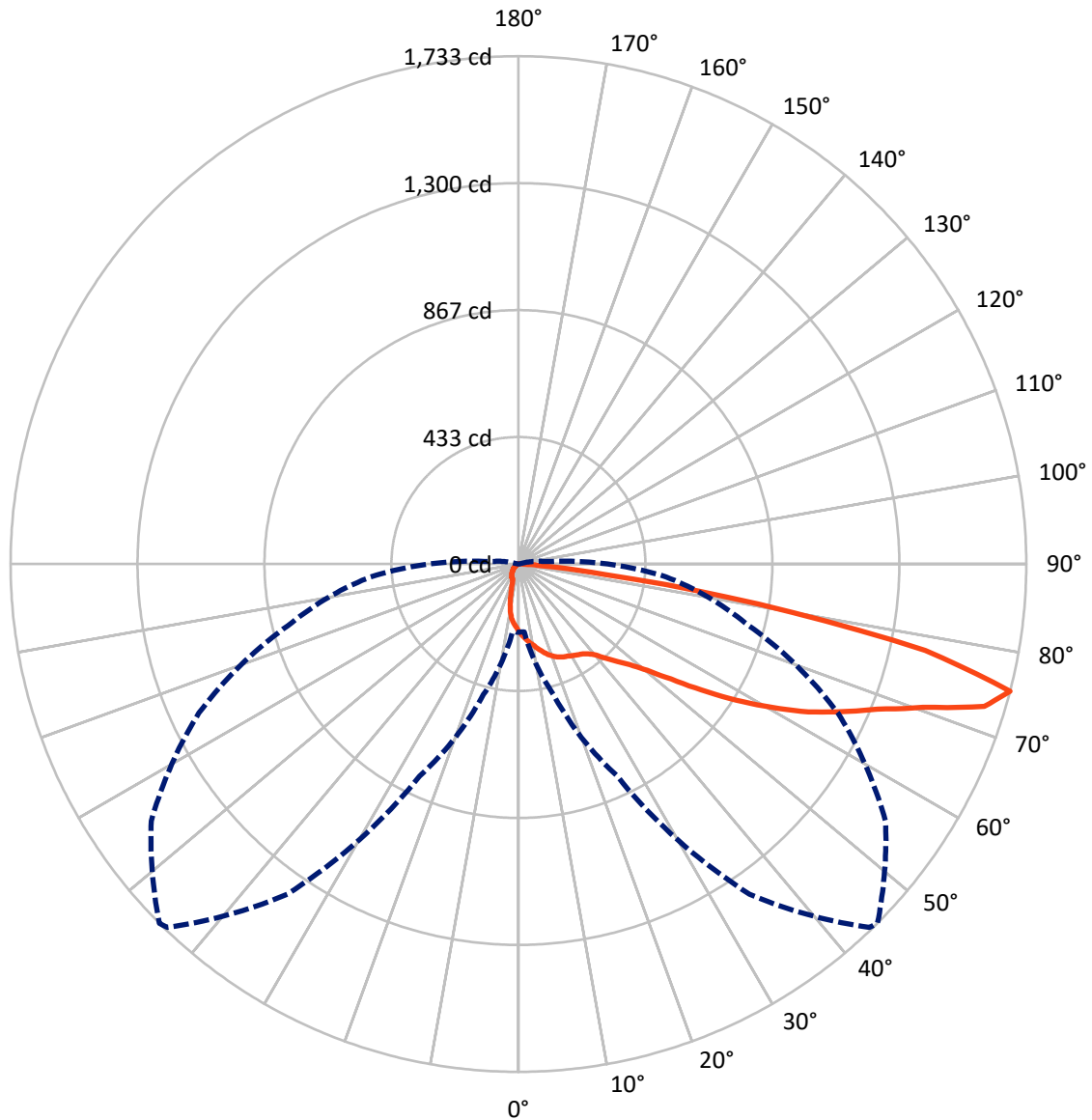
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.1 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P214932  
CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P214932

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-HSS

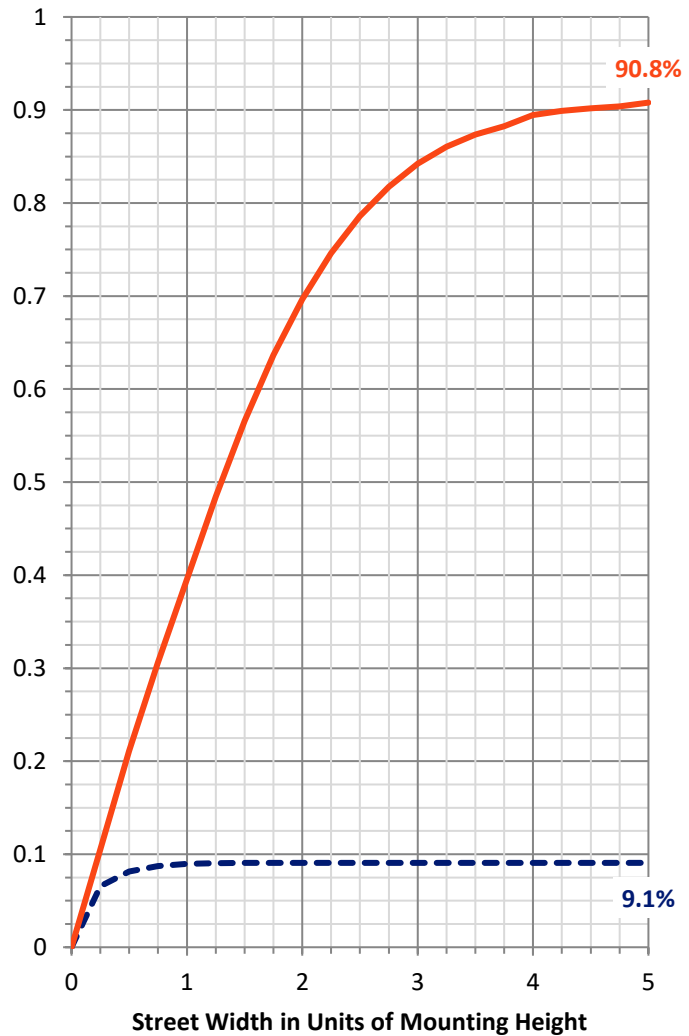
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	197.2	0.0	197.2
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	1958.2	0.0	1958.2
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	2155.4	0.0	2155.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.8	1.0
10°-20°	61.6	2.9
20°-30°	102.1	4.7
30°-40°	147.7	6.9
40°-50°	241.9	11.2
50°-60°	431.0	20.0
60°-70°	633.7	29.4
70°-80°	478.0	22.2
80°-90°	37.5	1.7
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°	2155.4	100.0
0°-180°	2155.4	100.0



REPORT NUMBER: P214932

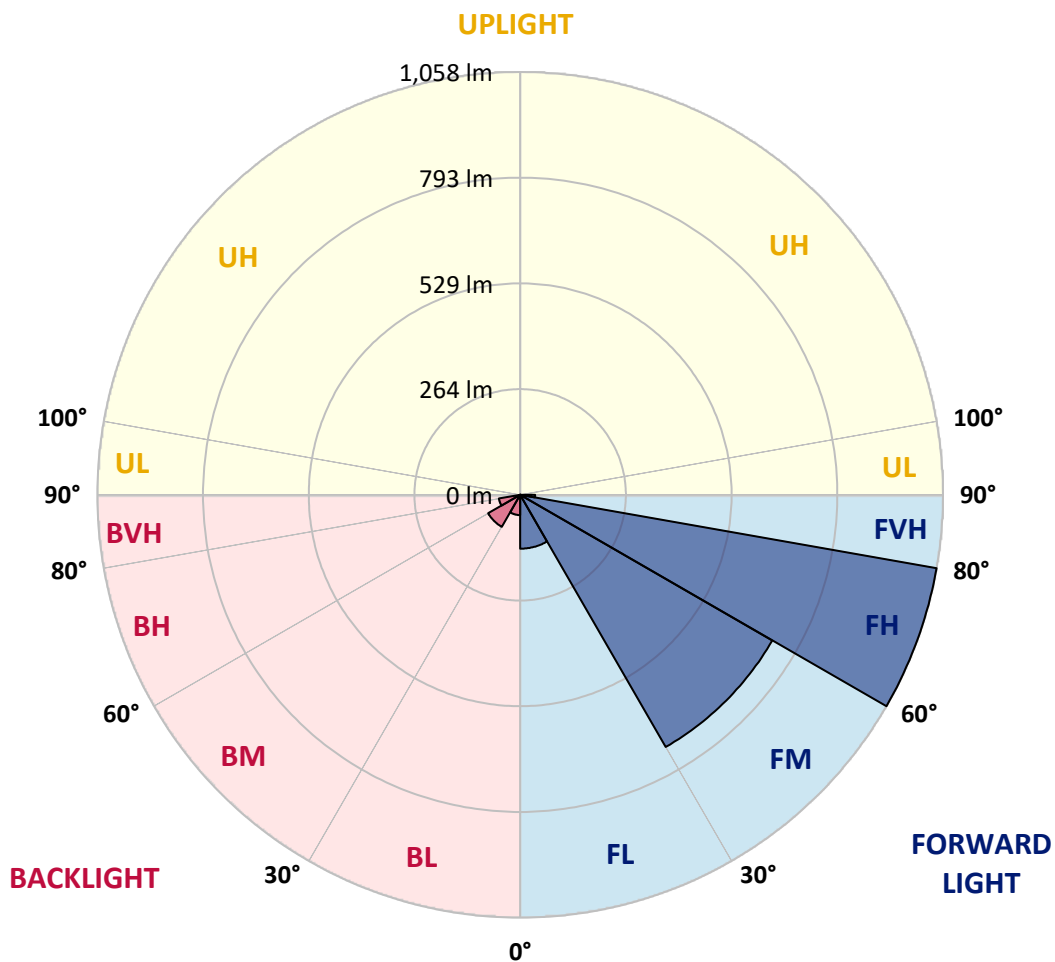
CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	134.8	6.3			
FM	(30°-60°)	728.3	33.8			
FH	(60°-80°)	1057.7	49.1			G1/1800
FVH	(80°-90°)	37.4	1.7			G1/100
BL	(0°-30°)	50.7	2.4	B0/110		
BM	(30°-60°)	92.4	4.3	B0/220		
BH	(60°-80°)	54.0	2.5	B0/110		G0/110
BVH	(80°-90°)	0.1	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 IV Medium





REPORT NUMBER: P214932

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6
2.5°	250.4	250.4	249.9	249.4	246.8	244.3	243.8	242.2	237.6	234.6	231.6
5°	271.3	271.8	270.8	268.2	262.7	257.1	256.6	252.5	243.8	237.6	231.1
7.5°	291.2	292.3	289.7	285.1	278.4	270.3	269.8	262.2	250.9	242.2	232.5
10°	308.0	308.0	304.4	298.9	291.7	283.1	282.0	273.3	260.6	249.9	237.1
12.5°	326.4	325.9	320.8	313.1	304.9	296.9	296.3	285.6	273.3	259.6	243.8
15°	343.2	342.2	335.6	328.5	319.8	311.1	310.6	299.9	287.1	270.8	253.5
17.5°	352.4	351.9	345.8	338.7	331.5	324.9	324.4	313.1	299.4	282.5	263.2
20°	353.9	354.5	349.3	343.2	339.2	335.6	335.6	325.4	310.6	292.8	273.3
22.5°	354.5	356.0	352.4	344.2	343.2	343.7	344.7	336.7	321.3	304.4	284.1
25°	358.0	360.1	357.5	347.8	346.8	350.4	351.4	347.8	334.1	317.2	296.3
27.5°	365.2	367.2	365.2	352.9	351.4	355.0	356.0	358.0	347.8	329.5	309.0
30°	379.4	379.9	375.3	360.1	357.0	361.6	363.1	368.8	360.6	341.2	321.3
32.5°	404.5	399.4	385.6	365.2	362.6	367.8	369.3	375.3	372.4	352.4	334.1
35°	455.4	428.9	397.3	372.4	369.8	374.9	376.9	385.6	387.1	368.3	349.8
37.5°	454.9	431.0	424.8	386.1	382.5	386.1	388.6	399.4	405.5	389.1	372.9
40°	487.0	476.9	476.9	412.0	400.4	405.5	408.1	418.7	429.4	416.6	399.9
42.5°	588.1	581.4	574.3	462.1	425.3	439.7	441.2	447.7	460.5	456.4	436.6
45°	700.7	694.7	667.1	546.8	468.2	470.8	474.3	485.0	503.4	511.1	487.5
47.5°	789.0	782.9	759.4	648.8	535.0	512.6	512.6	533.5	562.0	581.4	558.9
50°	859.9	852.7	838.5	757.4	644.7	572.8	569.7	594.1	636.5	666.6	651.3
52.5°	928.7	907.9	899.2	869.6	768.5	660.0	651.8	669.1	727.8	765.1	752.3
55°	974.7	971.6	962.4	972.6	898.7	766.1	758.9	762.5	836.0	860.9	845.1
57.5°	1017.5	1017.0	1037.4	1084.8	1040.4	887.4	876.2	870.6	940.5	934.4	948.1
60°	1070.5	1061.3	1108.8	1176.6	1170.5	1005.8	993.0	981.8	1020.5	1003.2	1071.5
62.5°	1073.1	1070.5	1166.9	1264.4	1299.6	1126.1	1111.3	1071.0	1090.4	1070.5	1189.4
65°	975.7	988.4	1191.4	1310.7	1407.7	1231.7	1213.8	1151.1	1152.7	1139.4	1328.1
67.5°	953.7	960.3	1124.1	1360.7	1485.6	1338.3	1321.4	1243.4	1225.1	1226.1	1410.2
70°	899.2	909.4	1040.4	1357.1	1547.4	1480.6	1463.7	1379.0	1334.7	1285.2	1346.9
72.5°	687.0	704.3	876.7	1189.9	1530.5	1666.7	1662.1	1551.0	1378.5	1180.2	1019.0
75°	232.5	232.1	460.5	799.2	1375.1	1723.9	1733.1	1529.5	1202.6	814.0	506.0
77.5°	50.0	50.5	94.8	323.9	913.4	1384.2	1419.3	1153.7	775.7	362.6	115.8
80°	24.4	25.0	39.3	85.7	365.2	776.2	831.4	593.1	286.6	72.4	19.3
82.5°	12.3	12.8	20.4	45.4	135.1	275.9	294.8	218.3	82.1	40.8	9.7
85°	4.6	4.6	10.2	27.0	61.7	64.8	79.6	63.2	49.5	33.1	2.6
87.5°	1.0	1.0	5.6	13.3	27.5	20.4	20.4	19.3	30.1	22.4	1.0
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: P214932

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6
2.5°	230.1	228.0	224.4	220.9	218.3	215.2	213.7	212.2	211.6	211.1	212.2
5°	227.5	224.4	217.8	212.2	207.0	203.0	199.9	196.8	195.4	194.4	194.9
7.5°	227.5	222.9	213.2	204.5	196.4	187.7	179.0	172.4	167.3	164.2	164.7
10°	230.1	223.9	211.1	199.4	184.1	165.7	146.9	132.6	123.0	117.3	117.3
12.5°	235.6	227.5	211.6	193.3	167.3	135.1	106.6	89.3	82.1	78.1	78.6
15°	243.3	233.5	214.2	185.2	143.8	100.5	74.5	63.2	63.2	64.2	64.8
17.5°	252.0	241.2	216.3	172.9	113.8	71.9	58.6	57.6	59.1	61.7	61.7
20°	260.6	248.9	217.3	153.5	85.2	57.1	55.5	55.5	56.6	59.1	59.6
22.5°	271.3	258.6	216.3	129.5	63.7	54.0	53.6	53.6	53.6	56.6	56.6
25°	282.5	269.8	212.2	104.0	54.0	52.1	51.6	51.0	51.0	53.6	54.0
27.5°	295.3	281.5	202.4	79.6	51.0	50.0	49.5	48.5	48.5	50.5	50.5
30°	308.0	294.8	187.7	60.1	48.5	48.0	47.0	45.9	44.9	47.0	47.0
32.5°	321.8	308.5	168.3	48.0	44.9	44.9	44.4	42.9	41.8	42.9	43.4
35°	340.1	324.4	146.4	41.8	40.3	40.3	40.3	39.8	37.7	38.8	38.8
37.5°	364.7	346.3	120.9	38.8	36.7	35.7	35.7	35.7	34.2	34.7	34.7
40°	395.8	371.8	96.4	36.2	34.2	31.6	30.6	31.1	30.1	30.1	29.6
42.5°	438.1	399.4	72.4	34.2	32.1	28.5	26.5	26.0	25.0	24.4	24.4
45°	498.8	433.0	52.1	32.1	30.6	25.0	22.9	21.4	18.8	17.4	17.4
47.5°	577.4	471.3	38.8	30.1	29.1	21.9	19.3	16.4	12.8	11.8	11.8
50°	673.2	514.1	32.6	27.0	26.5	19.3	15.3	10.7	7.2	6.1	6.6
52.5°	766.6	554.3	29.1	23.9	23.4	16.9	11.3	5.6	3.1	3.1	3.1
55°	845.1	583.0	26.5	21.4	20.4	13.3	6.1	2.6	1.5	1.5	1.5
57.5°	916.0	599.2	23.9	18.8	16.4	9.2	2.6	1.0	1.0	0.5	0.5
60°	980.8	609.0	20.9	16.4	12.8	5.1	1.0	0.5	0.5	0.0	0.0
62.5°	1044.5	616.1	17.9	13.3	9.7	2.0	0.5	0.5	0.0	0.0	0.0
65°	1092.9	613.6	14.3	10.7	6.1	1.0	0.5	0.0	0.0	0.0	0.0
67.5°	1091.4	578.9	10.7	8.2	3.1	0.5	0.0	0.0	0.0	0.0	0.0
70°	976.2	487.5	7.2	5.1	1.0	0.5	0.0	0.0	0.0	0.0	0.0
72.5°	692.6	312.6	4.6	3.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	304.9	94.8	2.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	59.6	21.9	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	14.3	2.6	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.5	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)