

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: P214653

Luminaire Tested: **ARCH-AF16-30-D-U-T2R-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214653  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-30-D-U-T2R-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 560mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2998.3 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B0 - U0 - G1

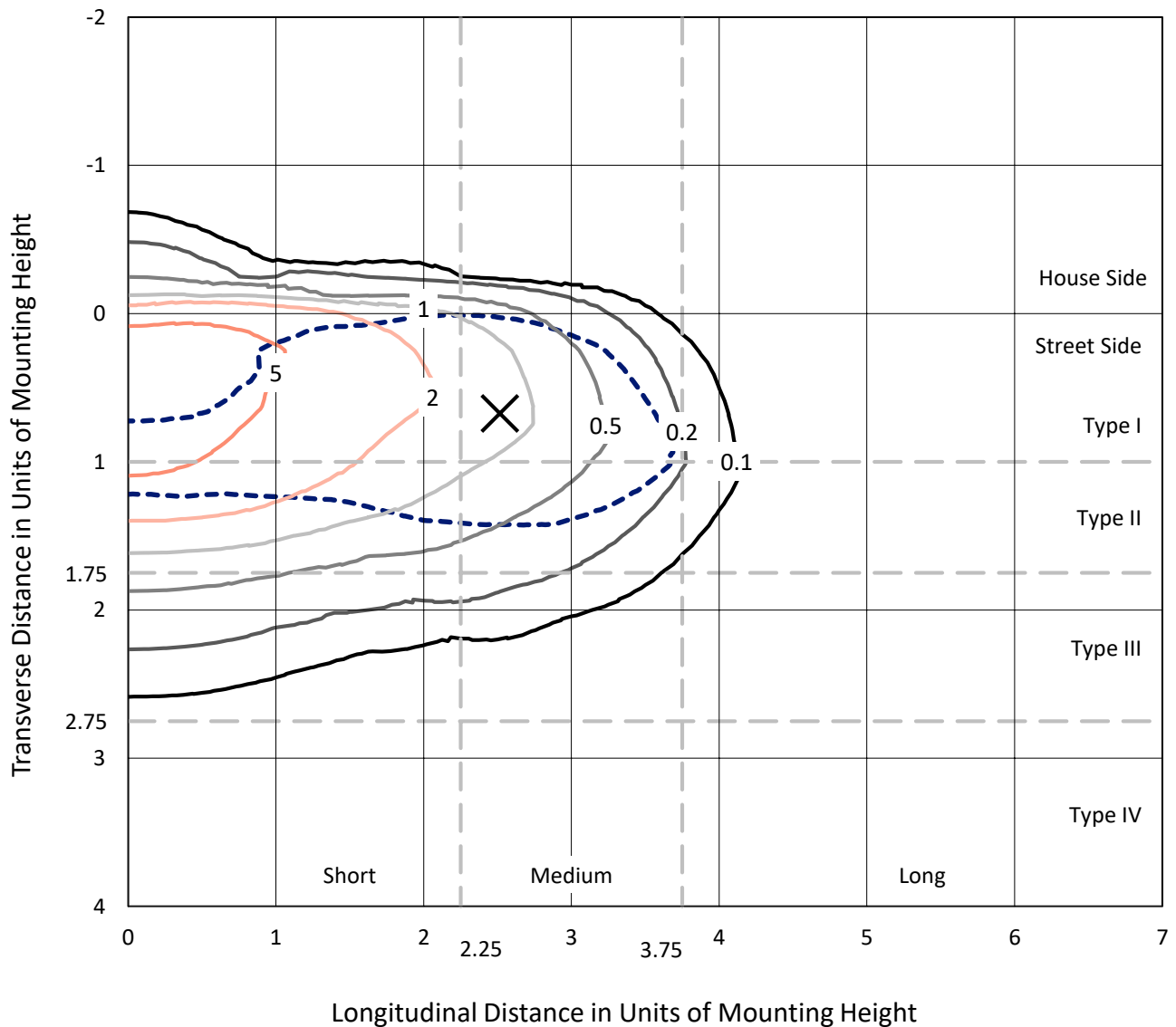
Input Watts (W): 32  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P214653  
 CATALOG NUMBER: ARCH-AF16-30-D-U-T2R-HSS

### Iso-Footcandle Lines of Horizontal Illumination

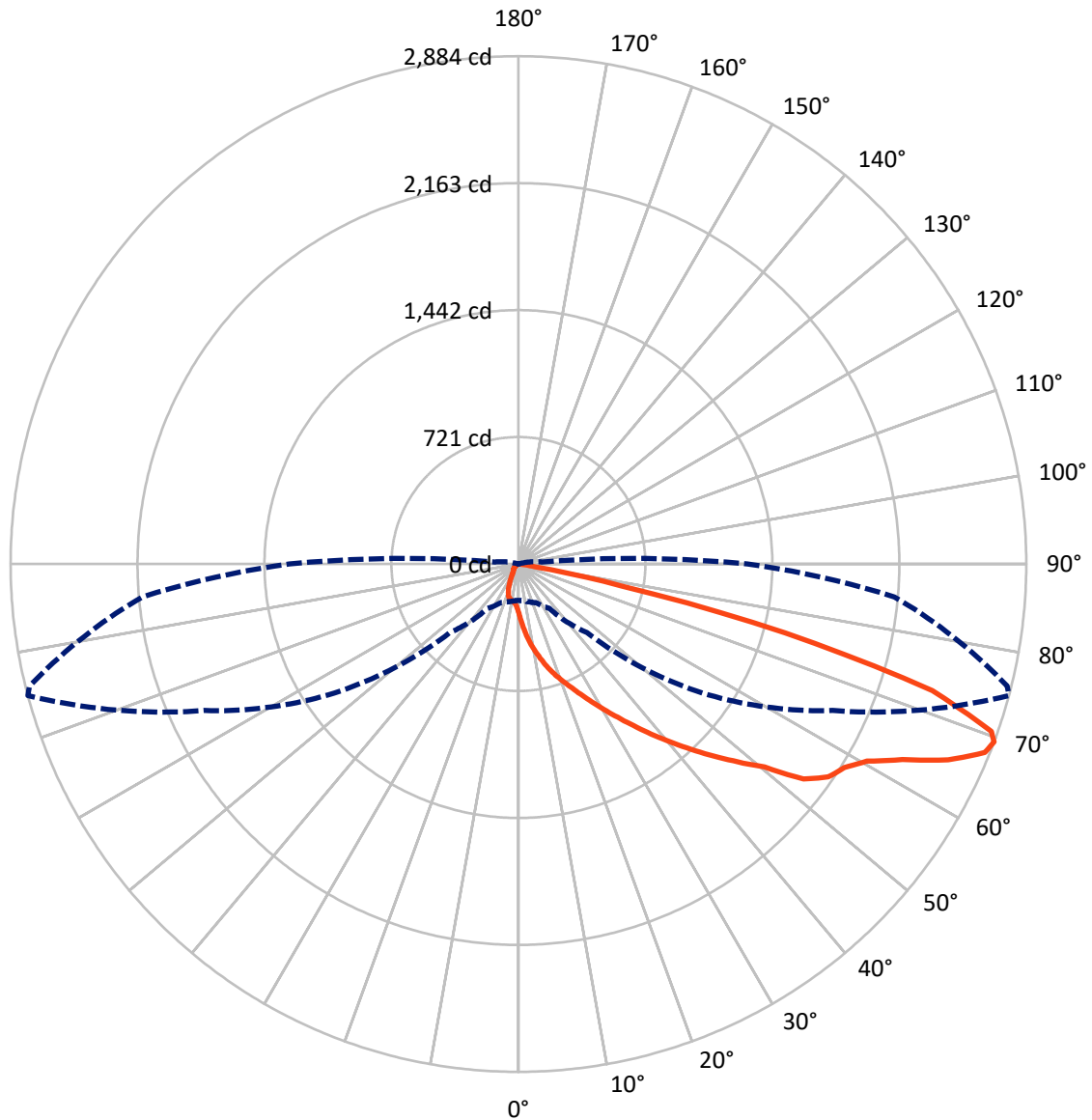
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.6 fc  
 Type II - Medium - Full Cutoff

REPORT NUMBER: P214653  
CATALOG NUMBER: ARCH-AF16-30-D-U-T2R-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P214653

CATALOG NUMBER: ARCH-AF16-30-D-U-T2R-HSS

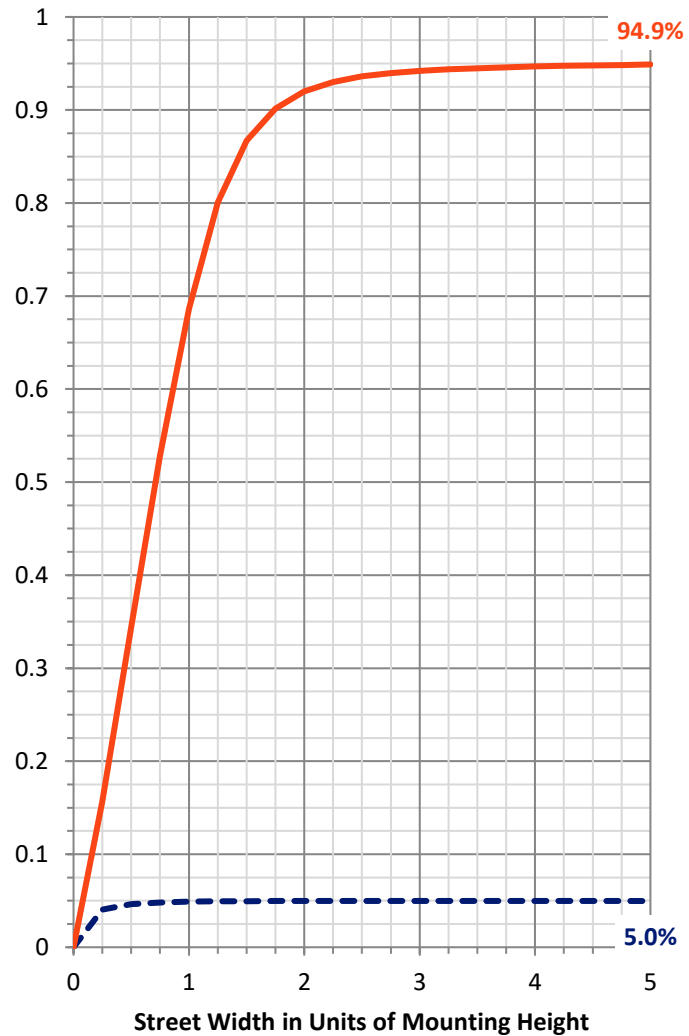
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	149.6	0.0	149.6
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	2848.7	0.0	2848.7
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	2998.3	0.0	2998.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.5	1.1
10°-20°	116.3	3.9
20°-30°	222.0	7.4
30°-40°	398.3	13.3
40°-50°	610.2	20.4
50°-60°	709.2	23.7
60°-70°	628.0	20.9
70°-80°	270.9	9.0
80°-90°	10.8	0.4
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°	2998.3	100.0
0°-180°	2998.3	100.0



--- HS    — SS

REPORT NUMBER: P214653

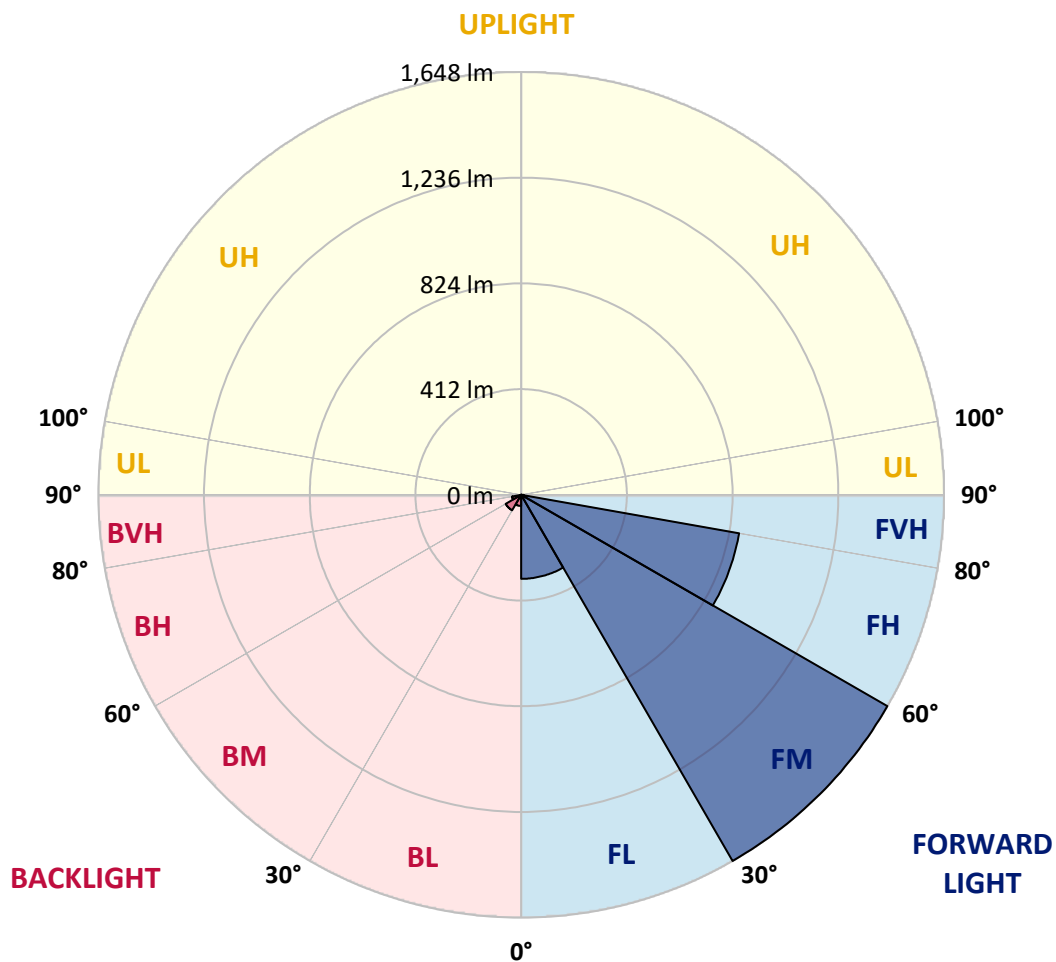
CATALOG NUMBER: ARCH-AF16-30-D-U-T2R-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	327.4	10.9			
FM	(30°-60°)	1647.9	55.0			
FH	(60°-80°)	862.6	28.8			G1/1800
FVH	(80°-90°)	10.7	0.4			G1/100
BL	(0°-30°)	43.4	1.4	B0/110		
BM	(30°-60°)	69.7	2.3	B0/220		
BH	(60°-80°)	36.2	1.2	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 II Medium





REPORT NUMBER: P214653

CATALOG NUMBER: ARCH-AF16-30-D-U-T2R-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0
2.5°	459.6	455.0	450.5	445.4	433.7	413.6	388.4	361.2	327.5	321.7	294.5
5°	558.0	556.1	551.5	544.4	531.4	509.4	481.0	440.8	384.5	374.8	317.2
7.5°	627.3	625.9	622.1	613.7	602.0	580.0	550.2	506.9	441.5	430.5	345.7
10°	689.4	688.8	685.5	677.7	666.0	642.1	610.4	565.1	495.8	483.5	378.7
12.5°	745.7	746.3	745.0	741.1	732.7	710.1	673.8	624.6	548.3	534.7	418.2
15°	778.7	780.6	785.8	793.6	796.2	778.1	740.5	686.1	602.0	590.3	463.5
17.5°	767.7	769.7	785.8	812.3	837.6	840.1	806.5	744.4	655.1	643.4	508.1
20°	741.1	743.8	760.6	796.9	846.0	880.4	866.7	807.8	705.5	691.3	550.9
22.5°	770.9	770.9	776.1	798.1	842.8	896.5	914.6	871.2	757.4	739.9	593.6
25°	873.2	871.2	860.3	851.2	865.4	913.4	950.9	936.0	818.2	798.1	638.9
27.5°	1002.7	1011.7	991.0	958.0	925.7	946.3	983.3	1000.0	885.5	864.8	685.5
30°	1147.6	1151.5	1127.0	1082.9	1026.0	1005.9	1021.4	1055.1	958.6	936.0	734.1
32.5°	1278.4	1275.2	1254.4	1208.5	1137.9	1094.6	1070.6	1099.2	1038.3	1012.4	783.9
35°	1394.3	1396.8	1371.7	1318.6	1249.3	1203.3	1146.4	1149.0	1127.6	1097.8	841.5
37.5°	1498.5	1494.0	1470.0	1417.0	1354.2	1304.4	1244.1	1200.7	1225.4	1194.3	906.2
40°	1583.3	1578.8	1553.6	1501.8	1442.9	1402.1	1354.8	1270.0	1328.3	1292.7	975.5
42.5°	1650.6	1645.4	1624.0	1574.2	1517.2	1481.0	1458.4	1355.4	1438.3	1402.7	1053.1
45°	1683.7	1679.1	1666.2	1628.6	1578.8	1547.0	1558.1	1453.8	1556.1	1526.3	1138.6
47.5°	1644.8	1642.9	1657.8	1651.2	1622.8	1605.9	1644.2	1561.3	1679.8	1650.6	1237.0
50°	1527.0	1530.2	1573.6	1627.3	1640.9	1661.0	1714.7	1674.6	1812.5	1781.4	1350.3
52.5°	1236.3	1258.3	1389.1	1518.6	1618.9	1694.6	1797.5	1836.4	2028.6	1998.2	1527.0
55°	923.0	932.1	1074.5	1295.9	1530.2	1692.1	1859.0	1931.5	2135.4	2104.4	1573.6
57.5°	732.1	735.3	805.9	1031.9	1347.6	1633.8	1891.4	1965.9	2182.1	2156.2	1642.9
60°	574.8	578.7	629.8	785.2	1090.7	1476.5	1844.8	1995.7	2273.3	2252.6	1763.9
62.5°	447.3	451.1	482.2	573.5	818.2	1234.4	1751.0	2043.5	2446.8	2437.1	1962.0
65°	346.3	347.6	369.0	411.6	578.1	972.2	1636.4	2088.3	2681.2	2672.8	2122.5
67.5°	255.6	257.6	272.5	299.0	390.4	698.5	1448.7	2053.9	2857.8	2833.3	2180.7
69°	206.5	208.5	221.4	242.7	308.1	550.2	1277.2	1969.1	2884.4	2861.1	2143.9
70°	176.7	178.0	191.0	209.1	262.8	467.4	1141.2	1895.9	2849.4	2826.8	2059.7
72.5°	113.2	119.8	132.7	144.3	174.1	309.4	770.3	1572.3	2458.5	2419.6	1613.1
75°	62.8	64.8	88.1	102.3	115.9	201.3	428.5	980.7	1563.9	1536.7	862.9
77.5°	51.8	53.1	62.1	77.6	77.6	112.6	161.8	386.5	594.8	536.6	233.6
80°	36.2	37.5	47.3	51.1	55.6	63.4	52.5	84.8	92.0	81.5	35.0
82.5°	25.3	26.5	32.3	42.0	44.7	29.8	19.4	25.3	26.5	26.5	13.6
85°	4.5	6.4	23.9	35.0	26.5	9.1	11.0	9.1	8.4	9.1	3.3
87.5°	0.0	0.0	14.9	16.9	14.2	3.9	4.5	3.3	1.9	2.6	1.3
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: P214653

CATALOG NUMBER: ARCH-AF16-30-D-U-T2R-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0
2.5°	280.9	267.3	244.1	227.2	213.0	201.9	197.4	190.3	185.2	187.7	184.4
5°	288.7	264.7	227.2	203.3	186.4	172.2	160.5	151.5	144.3	143.0	141.8
7.5°	301.0	266.7	217.5	187.7	162.4	140.5	122.3	108.7	98.4	98.4	94.5
10°	317.8	271.9	211.6	172.2	134.6	104.9	86.7	73.8	68.6	67.9	66.7
12.5°	341.2	281.6	207.1	152.1	104.9	76.4	65.4	60.9	58.9	58.3	57.6
15°	372.9	295.8	201.9	127.6	79.6	62.8	58.3	54.4	52.5	51.8	51.1
17.5°	403.2	308.7	191.0	102.3	64.8	57.0	51.8	48.6	45.9	45.3	45.3
20°	431.8	319.8	172.2	79.6	58.3	51.1	45.9	42.0	39.5	38.9	38.9
22.5°	461.6	328.9	148.8	64.8	53.1	45.3	40.1	36.2	33.7	33.0	32.3
25°	493.3	335.3	122.3	57.6	47.9	40.1	34.3	31.1	29.2	28.4	27.8
27.5°	527.5	337.9	97.1	52.5	42.0	35.0	29.8	26.5	25.3	24.6	24.6
30°	558.6	335.3	75.1	46.6	36.9	30.4	25.9	23.3	22.0	21.4	21.4
32.5°	591.0	328.9	60.1	41.4	32.3	25.9	22.0	20.0	19.4	18.8	18.8
35°	625.3	320.4	51.8	36.9	27.8	22.6	19.4	18.1	17.5	16.9	16.9
37.5°	665.4	310.1	47.3	33.0	24.6	20.0	16.9	16.2	15.5	15.5	15.5
40°	710.7	297.1	44.0	29.8	22.0	17.5	14.9	14.2	13.6	13.6	13.6
42.5°	758.6	282.2	40.8	26.5	19.4	14.9	13.0	13.0	12.3	12.3	11.7
45°	812.3	267.3	37.5	23.3	16.9	13.0	11.0	10.3	10.3	9.7	9.7
47.5°	875.9	253.8	34.3	20.7	14.9	11.0	9.7	9.1	8.4	7.8	7.8
50°	965.2	252.5	30.4	18.1	13.6	9.1	7.8	7.2	6.4	5.8	5.8
52.5°	1053.8	240.8	25.9	14.9	11.0	7.8	5.8	5.2	4.5	4.5	3.9
55°	1073.9	221.4	22.6	13.0	8.4	5.8	4.5	3.3	3.3	2.6	2.6
57.5°	1117.9	212.4	19.4	10.3	6.4	4.5	2.6	1.9	1.9	1.9	1.9
60°	1204.6	209.7	16.9	9.1	4.5	3.3	1.9	1.3	1.3	0.6	0.6
62.5°	1324.4	207.1	14.2	7.8	3.3	1.9	1.3	0.6	0.0	0.0	0.0
65°	1390.4	189.7	11.7	5.8	2.6	1.9	0.6	0.0	0.0	0.0	0.0
67.5°	1372.9	156.6	10.3	3.9	1.9	1.3	0.6	0.0	0.0	0.0	0.0
69°	1299.8	132.1	8.4	3.3	1.9	1.3	0.6	0.0	0.0	0.0	0.0
70°	1211.8	114.0	7.8	2.6	1.3	0.6	0.6	0.0	0.0	0.0	0.0
72.5°	860.3	59.5	5.2	1.9	1.3	0.6	0.0	0.0	0.0	0.0	0.0
75°	402.0	26.5	3.3	1.3	0.6	0.6	0.0	0.0	0.0	0.0	0.0
77.5°	88.7	12.3	1.9	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	16.9	4.5	1.3	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.8	1.9	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	0.0	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)