

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: P257689

Luminaire Tested: **ARCH-AF16-40-D-U-T2U-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257689
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-40-D-U-T2U-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3313.3 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

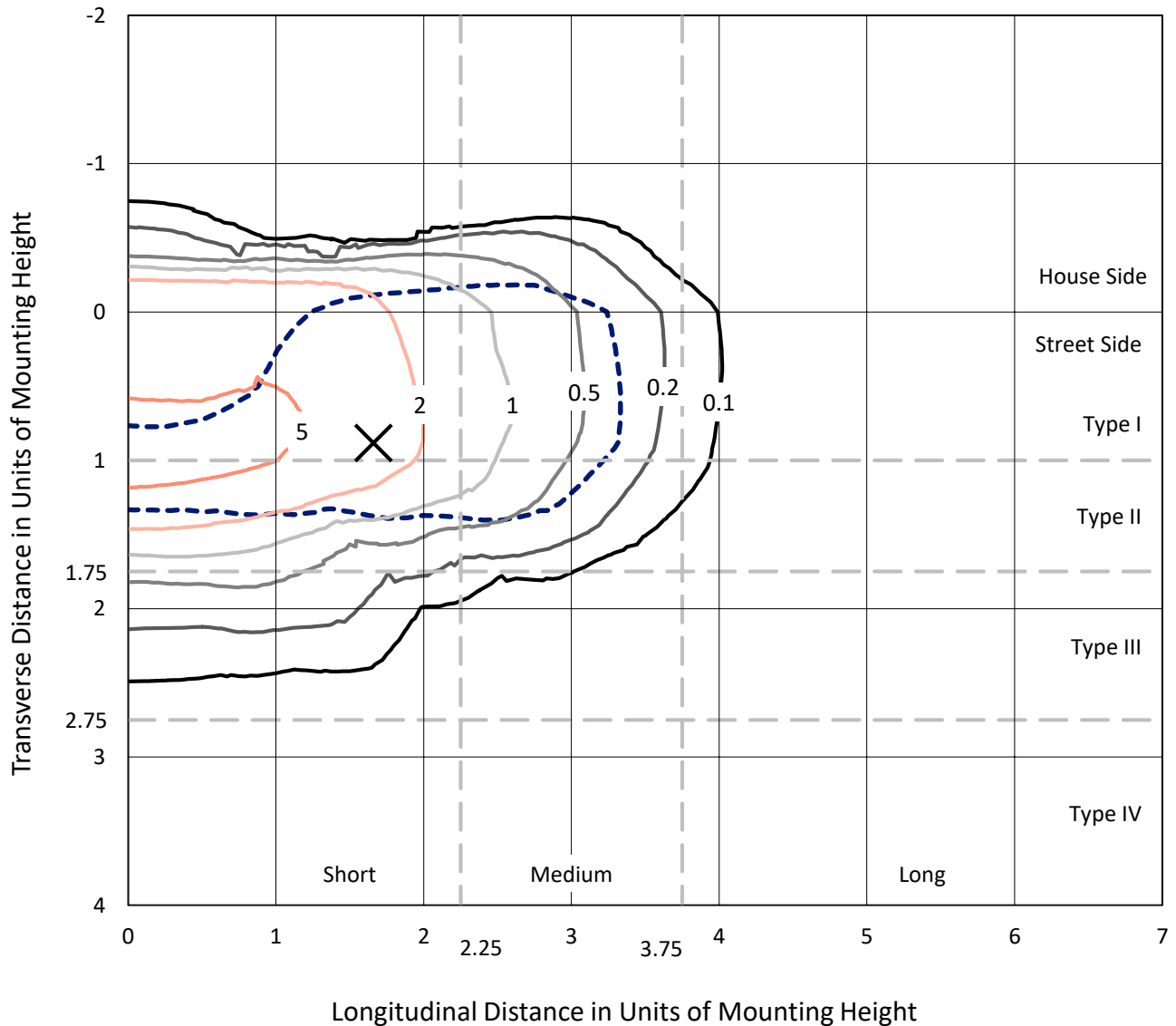
Input Watts (W): 42
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P257689
 CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

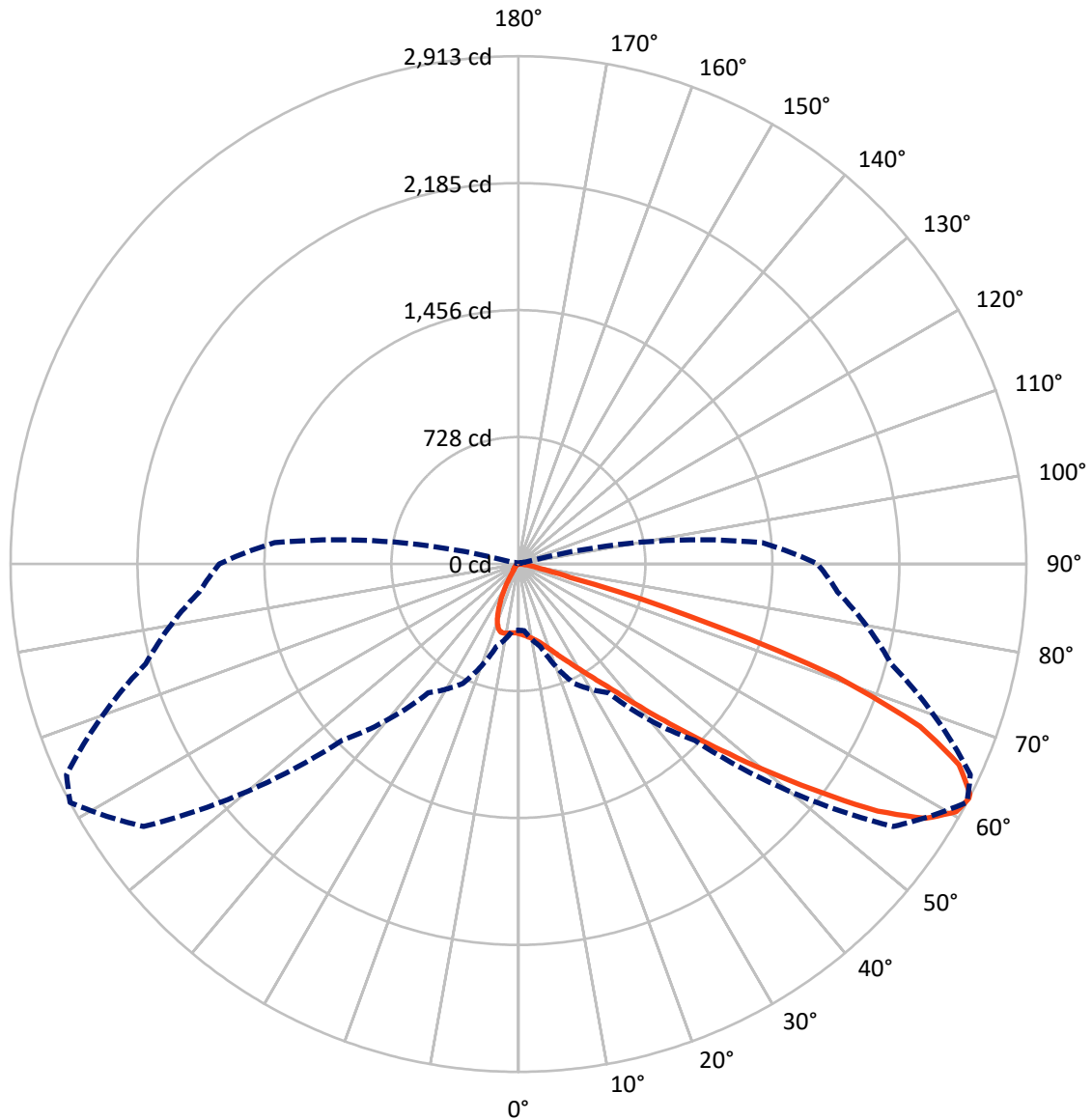
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P257689
CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical



REPORT NUMBER: P257689

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-HSS

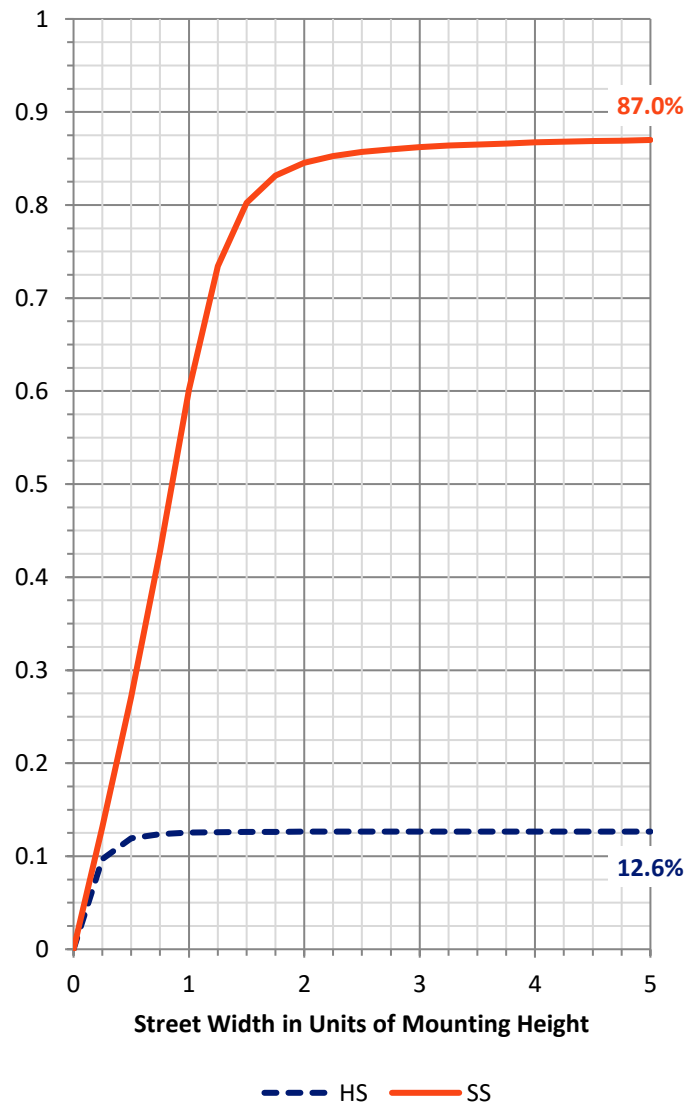
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	423.7	0.0	423.7
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	2889.7	0.0	2889.7
	% Fixture	87.2	0.0	87.2
Total	Lumens	3313.3	0.0	3313.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.4	1.2
10°-20°	107.3	3.2
20°-30°	180.1	5.4
30°-40°	345.3	10.4
40°-50°	705.3	21.3
50°-60°	933.4	28.2
60°-70°	725.1	21.9
70°-80°	261.7	7.9
80°-90°	16.7	0.5
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°	3313.3	100.0
0°-180°	3313.3	100.0



REPORT NUMBER: P257689

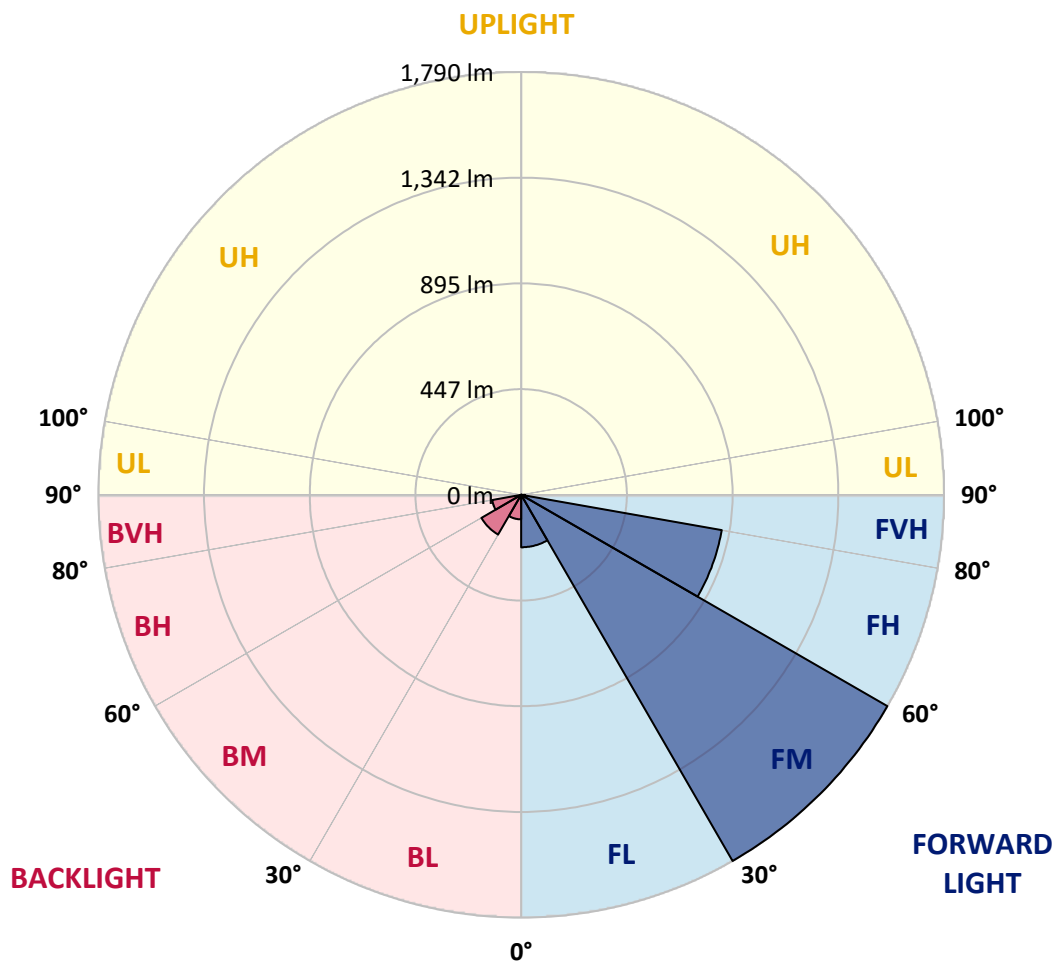
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	222.1	6.7			
FM	(30°-60°)	1789.5	54.0			
FH	(60°-80°)	862.1	26.0			G1/1800
FVH	(80°-90°)	16.0	0.5			G1/100
BL	(0°-30°)	103.7	3.1	B0/110		
BM	(30°-60°)	194.5	5.9	B0/220		
BH	(60°-80°)	124.8	3.8	B1/500		G1/500
BVH	(80°-90°)	0.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





REPORT NUMBER: P257689

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2
2.5°	409.7	408.9	408.1	407.2	407.2	406.4	405.7	404.1	402.4	400.8	400.0
5°	417.1	416.2	415.4	416.2	415.4	415.4	414.6	413.0	411.3	408.9	406.4
7.5°	422.8	422.0	421.1	422.0	422.8	423.6	424.4	422.8	422.0	418.7	416.2
10°	430.0	429.2	428.4	430.0	430.0	434.1	435.0	434.1	433.3	430.9	426.9
12.5°	440.7	441.5	441.5	443.1	444.8	449.6	451.2	448.9	448.9	445.6	440.7
15°	460.2	460.2	460.2	461.9	462.7	469.2	470.9	468.4	470.0	464.3	459.4
17.5°	478.9	479.8	481.4	484.7	484.7	490.4	493.6	493.6	496.8	489.6	483.0
20°	497.7	498.5	500.9	508.3	508.3	515.6	521.3	523.8	527.0	519.7	508.3
22.5°	518.0	518.0	522.1	533.6	531.1	545.7	556.4	560.4	563.6	553.9	536.0
25°	549.0	545.7	549.0	559.6	558.0	578.4	597.9	602.0	606.0	594.6	567.7
27.5°	607.6	602.8	591.4	592.2	592.2	615.8	643.5	649.2	651.6	641.9	608.5
30°	725.0	725.0	682.6	654.1	635.4	656.5	695.6	705.4	708.7	694.0	650.0
32.5°	929.5	929.5	851.2	778.7	707.9	707.9	752.7	770.6	773.9	756.7	705.4
35°	1190.1	1188.5	1071.1	971.8	833.3	781.1	819.5	849.6	859.4	836.6	777.1
37.5°	1467.0	1456.5	1330.1	1216.2	1026.3	898.5	909.9	949.8	958.7	940.0	869.9
40°	1691.9	1679.6	1577.8	1482.5	1275.6	1085.8	1040.2	1076.9	1087.4	1061.4	980.7
42.5°	1895.5	1865.4	1795.3	1726.8	1562.4	1410.0	1213.7	1228.4	1239.7	1212.1	1105.4
45°	2042.9	1996.5	1960.7	1939.5	1852.4	1765.9	1438.5	1409.2	1413.3	1379.0	1241.4
47.5°	2047.0	2014.4	2017.7	2073.0	2108.9	2105.6	1730.9	1626.7	1611.2	1554.2	1386.4
50°	1851.5	1870.3	1929.7	2087.7	2281.6	2398.9	2078.7	1884.1	1837.6	1735.0	1530.5
52.5°	1525.6	1555.0	1666.6	1933.0	2306.9	2592.0	2439.6	2178.2	2095.0	1914.2	1641.3
55°	1195.0	1196.5	1313.9	1585.2	2138.2	2626.9	2728.0	2501.5	2374.5	2050.2	1714.7
57.5°	821.9	866.6	1015.8	1198.2	1757.8	2452.6	2836.3	2752.4	2588.7	2134.2	1765.9
60°	538.4	540.8	714.3	925.4	1196.5	1995.7	2770.4	2885.1	2762.2	2183.8	1801.0
62°	379.6	383.7	491.2	756.0	901.7	1430.4	2624.5	2912.9	2860.0	2213.2	1837.6
62.5°	351.9	355.2	445.6	713.5	847.1	1282.9	2572.4	2906.3	2874.6	2223.0	1850.7
65°	258.2	258.2	291.6	490.4	620.7	693.2	2179.8	2776.8	2855.1	2301.1	1899.5
67.5°	199.6	201.2	212.6	302.2	468.4	420.3	1391.3	2485.3	2651.4	2416.8	1927.2
70°	171.9	171.0	179.2	200.4	338.1	279.4	612.5	1939.5	2220.5	2387.5	1902.0
72.5°	127.1	127.9	146.6	175.9	235.4	181.7	276.9	1029.6	1440.1	1868.6	1630.0
75°	81.4	82.2	103.4	138.5	169.4	119.0	159.7	307.1	589.7	1036.1	997.1
77.5°	54.6	56.2	67.6	97.0	148.2	74.2	100.1	128.7	177.6	388.5	357.6
80°	36.6	36.6	43.2	65.2	93.7	61.9	53.8	85.5	92.1	120.6	60.3
82.5°	24.4	24.4	28.5	43.2	61.1	55.3	32.6	46.4	53.8	60.3	21.2
85°	14.6	14.6	19.5	26.9	39.9	31.0	21.2	26.1	27.7	38.3	11.4
87.5°	9.0	8.2	13.0	18.7	21.2	18.7	13.8	13.8	14.6	21.2	5.7
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: P257689

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2
2.5°	398.3	397.5	396.7	395.1	392.6	391.0	389.3	387.7	386.1	386.1	388.5
5°	405.7	403.2	400.0	396.7	391.8	388.5	386.1	382.9	381.3	381.3	382.1
7.5°	414.6	412.1	406.4	400.8	393.4	387.7	382.1	374.7	369.0	366.5	369.0
10°	424.4	421.1	413.0	404.1	395.9	381.3	362.4	339.7	320.1	311.2	315.3
12.5°	436.6	432.5	422.8	410.5	391.8	356.0	309.5	256.6	223.2	207.8	210.9
15°	454.5	448.9	435.0	416.2	374.7	297.3	221.6	160.5	129.5	116.5	118.2
17.5°	475.7	468.4	449.6	414.6	330.7	214.2	132.0	93.7	80.6	77.3	77.3
20°	498.5	488.8	464.3	402.4	263.9	134.4	82.2	71.7	66.8	64.3	64.3
22.5°	522.1	509.1	476.5	373.9	188.1	83.9	67.6	60.3	54.6	52.2	52.2
25°	550.7	533.6	488.8	324.2	119.8	67.6	57.8	50.5	44.8	41.5	42.4
27.5°	584.0	562.0	499.3	262.3	77.3	58.6	48.1	40.7	35.8	34.2	34.2
30°	619.1	593.0	501.8	196.3	62.7	50.5	39.9	33.3	30.2	28.5	28.5
32.5°	667.2	632.9	494.4	130.3	53.0	42.4	33.3	27.7	25.3	24.4	24.4
35°	730.7	685.1	477.3	80.6	44.8	35.0	27.7	24.4	22.0	21.2	21.2
37.5°	811.3	757.5	447.2	55.3	38.3	28.5	23.6	21.2	19.5	18.7	18.7
40°	918.8	845.5	408.1	48.1	32.6	24.4	20.4	18.7	17.1	17.1	17.1
42.5°	1032.9	952.3	357.6	42.4	27.7	21.2	17.9	16.3	15.4	14.6	14.6
45°	1157.5	1061.4	294.9	37.4	23.6	18.7	16.3	13.8	13.0	13.0	13.0
47.5°	1281.3	1173.7	226.5	32.6	20.4	16.3	13.8	12.2	11.4	10.6	10.6
50°	1408.4	1275.6	166.1	28.5	17.9	14.6	12.2	10.6	9.0	8.2	8.2
52.5°	1500.5	1336.7	121.3	24.4	15.4	12.2	9.8	8.2	6.5	5.7	5.7
55°	1568.0	1374.1	88.8	20.4	13.8	10.6	8.2	6.5	4.9	4.9	4.1
57.5°	1621.0	1392.1	66.8	17.9	12.2	9.0	6.5	4.9	4.1	3.3	3.3
60°	1661.7	1392.8	49.7	14.6	10.6	7.4	4.9	3.3	2.5	2.5	2.5
62°	1715.5	1403.5	40.7	12.2	9.8	6.5	4.1	2.5	1.6	0.8	0.8
62.5°	1730.9	1407.6	39.1	12.2	9.0	5.7	3.3	2.5	1.6	0.8	0.8
65°	1802.6	1414.8	30.2	9.8	7.4	4.9	2.5	1.6	0.0	0.0	0.0
67.5°	1867.8	1403.5	22.0	7.4	5.7	3.3	2.5	0.8	0.0	0.0	0.0
70°	1861.3	1325.3	15.4	4.9	4.1	2.5	1.6	0.0	0.0	0.0	0.0
72.5°	1533.8	992.2	10.6	4.1	2.5	1.6	0.8	0.0	0.0	0.0	0.0
75°	926.2	434.1	7.4	2.5	2.5	1.6	0.8	0.0	0.0	0.0	0.0
77.5°	303.8	157.2	4.9	1.6	1.6	0.8	0.8	0.0	0.0	0.0	0.0
80°	49.7	26.1	2.5	1.6	1.6	0.8	0.8	0.0	0.0	0.0	0.0
82.5°	15.4	6.5	1.6	1.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
85°	5.7	2.5	1.6	1.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	1.6	1.6	1.6	0.8	0.8	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)