

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: P265939

Luminaire Tested: **ARCH-AF24-40-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265939  
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-AF24-40-D-U-T4W-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3142.7 lumens  
Efficiency: N/A  
Efficacy: 78.6 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): 40  
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

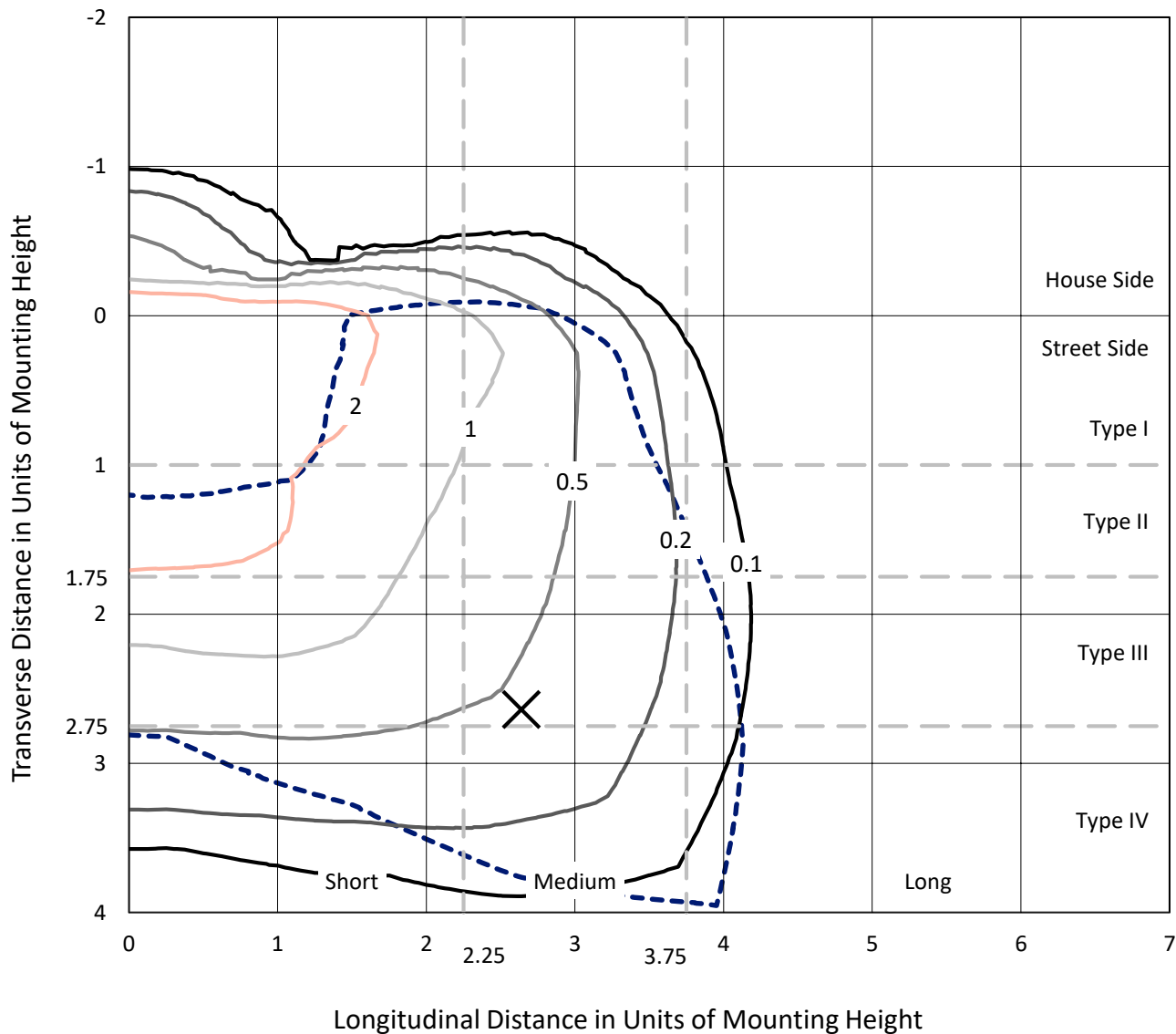


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

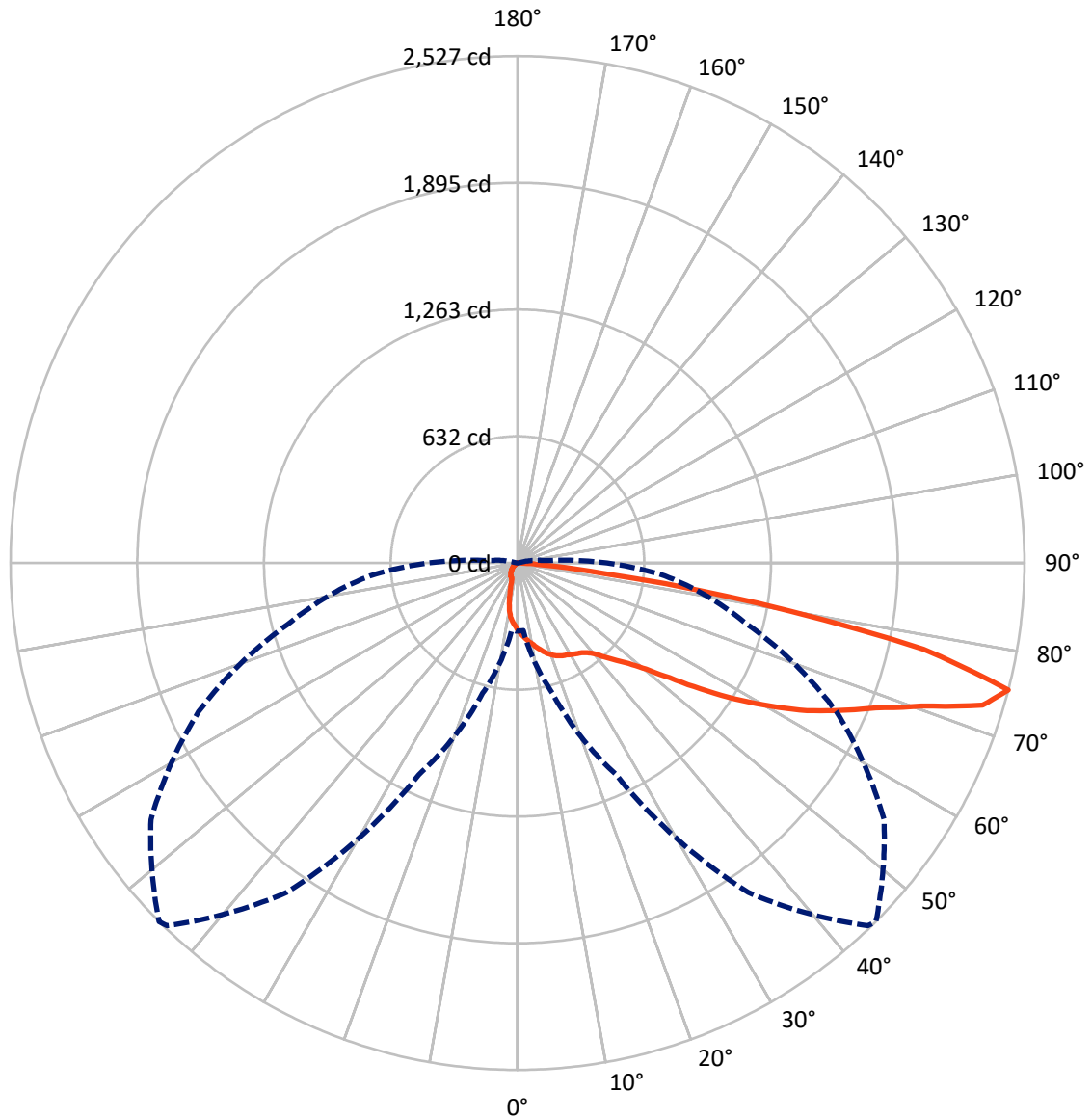


Based on 10 foot mounting height. Maximum calculated value = 4.5 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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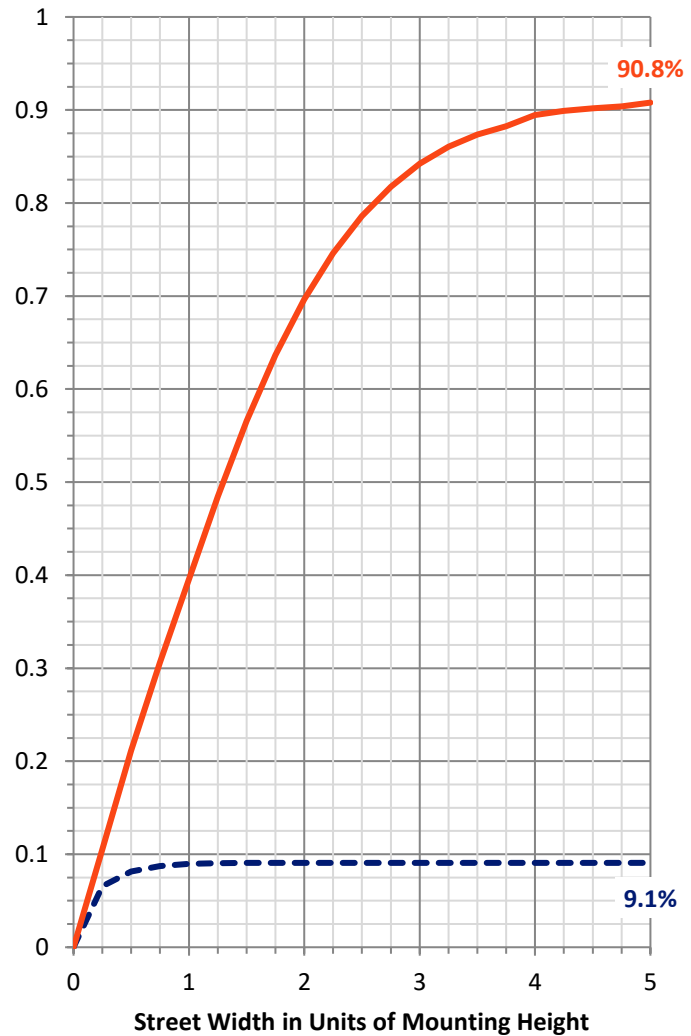
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	287.5	0.0	287.5
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	2855.2	0.0	2855.2
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	3142.7	0.0	3142.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.7	1.0
10°-20°	89.9	2.9
20°-30°	148.8	4.7
30°-40°	215.4	6.9
40°-50°	352.7	11.2
50°-60°	628.5	20.0
60°-70°	923.9	29.4
70°-80°	697.0	22.2
80°-90°	54.7	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°	3142.7	100.0
0°-180°	3142.7	100.0



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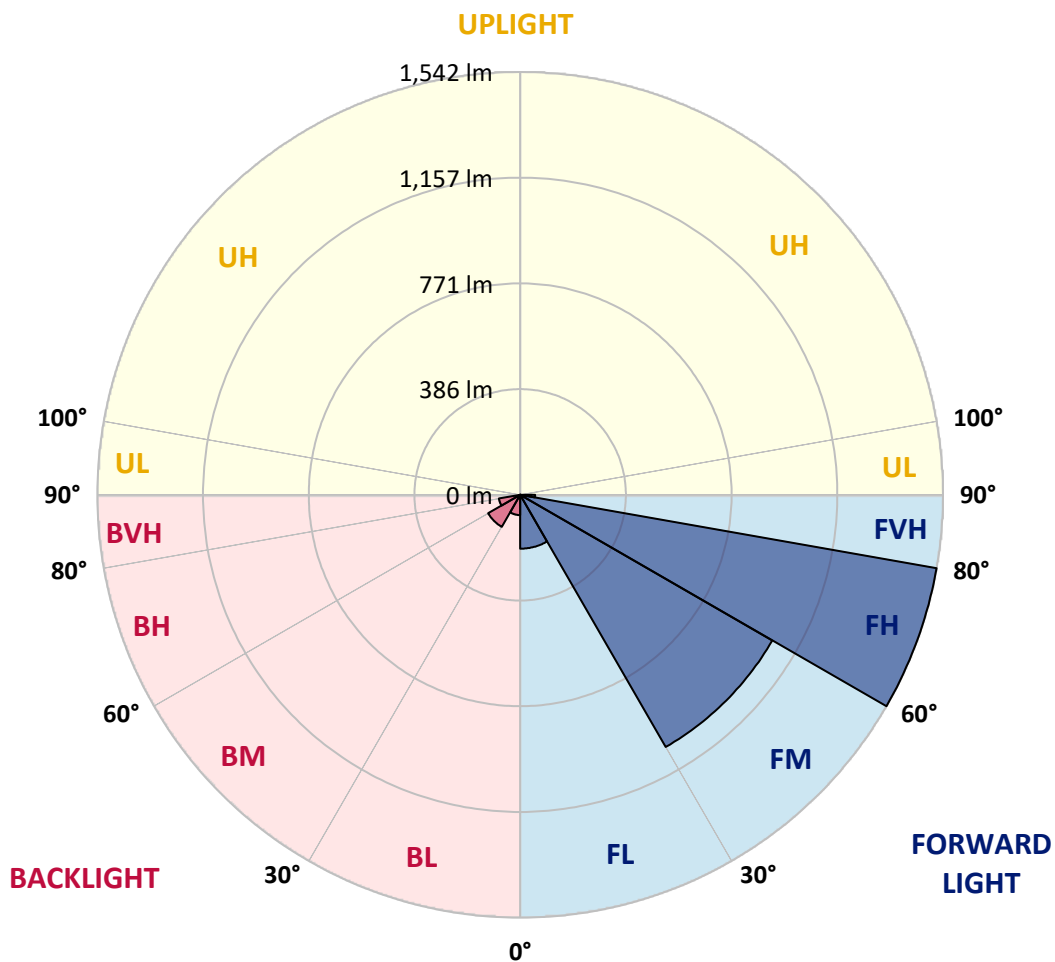
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	196.6	6.3			
FM	(30°-60°)	1061.9	33.8			
FH	(60°-80°)	1542.2	49.1			G1/1800
FVH	(80°-90°)	54.5	1.7			G1/100
BL	(0°-30°)	73.9	2.4	B0/110		
BM	(30°-60°)	134.7	4.3	B0/220		
BH	(60°-80°)	78.7	2.5	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 IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	336.1	336.1	336.1	336.1	336.1	336.1	336.1	336.1	336.1	336.1	336.1
2.5°	365.2	365.2	364.4	363.6	360.0	356.2	355.5	353.3	346.6	342.1	337.7
5°	395.7	396.3	394.9	391.1	382.9	374.9	374.1	368.1	355.5	346.6	336.9
7.5°	424.5	426.2	422.5	415.6	406.0	394.1	393.4	382.1	365.9	353.3	339.1
10°	449.2	449.2	443.9	435.8	425.3	412.7	411.2	398.6	380.1	364.4	345.8
12.5°	475.9	475.3	467.7	456.6	444.8	432.9	432.1	416.5	398.6	378.5	355.5
15°	500.4	499.0	489.3	478.8	466.3	453.6	452.8	437.2	418.7	394.9	369.7
17.5°	513.9	513.1	504.2	493.8	483.4	473.6	473.0	456.6	436.5	412.1	383.8
20°	516.0	516.9	509.3	500.4	494.5	489.3	489.3	474.5	452.8	426.9	398.6
22.5°	516.9	519.1	513.9	502.0	500.4	501.3	502.7	490.8	468.5	443.9	414.2
25°	522.0	525.0	521.2	507.2	505.7	510.9	512.4	507.2	487.2	462.5	432.1
27.5°	532.4	535.4	532.4	514.5	512.4	517.6	519.1	522.0	507.2	480.5	450.7
30°	553.3	554.1	547.3	525.0	520.6	527.2	529.6	537.6	525.8	497.5	468.5
32.5°	589.6	582.3	562.2	532.4	528.7	536.2	538.4	547.3	542.8	513.9	487.2
35°	664.0	625.4	579.2	542.8	539.2	546.6	549.6	562.2	564.5	536.8	510.1
37.5°	663.4	628.4	619.4	563.0	557.8	563.0	566.7	582.3	591.3	567.4	543.7
40°	710.2	695.3	695.3	600.8	583.8	591.3	594.9	610.6	626.2	607.6	583.0
42.5°	857.4	847.8	837.3	673.8	620.2	641.0	643.2	652.9	671.6	665.6	636.5
45°	1021.8	1012.8	972.7	797.2	682.7	686.3	691.5	707.2	733.9	745.1	710.9
47.5°	1150.4	1141.4	1107.3	945.9	780.1	747.4	747.4	777.8	819.6	847.8	815.0
50°	1253.8	1243.3	1222.6	1104.3	939.9	835.2	830.7	866.3	928.0	972.0	949.7
52.5°	1354.1	1323.7	1311.0	1267.9	1120.6	962.3	950.3	975.6	1061.2	1115.4	1096.9
55°	1421.1	1416.6	1403.2	1418.2	1310.3	1117.0	1106.5	1111.7	1218.8	1255.3	1232.3
57.5°	1483.6	1482.8	1512.6	1581.7	1517.1	1294.0	1277.6	1269.5	1371.4	1362.4	1382.4
60°	1561.0	1547.5	1616.7	1715.7	1706.7	1466.5	1447.9	1431.4	1488.0	1462.8	1562.4
62.5°	1564.7	1561.0	1701.5	1843.5	1894.9	1642.0	1620.5	1561.7	1589.9	1561.0	1734.2
65°	1422.6	1441.2	1737.1	1911.1	2052.4	1795.9	1769.9	1678.5	1680.6	1661.3	1936.4
67.5°	1390.7	1400.3	1639.0	1984.0	2166.3	1951.4	1926.8	1813.0	1786.2	1787.7	2056.2
70°	1311.0	1325.9	1517.1	1978.8	2256.3	2158.7	2134.3	2010.9	1946.1	1874.0	1964.0
72.5°	1001.7	1027.0	1278.4	1734.9	2231.7	2430.3	2423.5	2261.5	2010.0	1720.9	1485.7
75°	339.1	338.3	671.6	1165.3	2004.8	2513.5	2526.9	2230.2	1753.5	1186.9	737.7
77.5°	72.9	73.7	138.2	472.1	1331.8	2018.2	2069.5	1682.2	1131.1	528.7	168.8
80°	35.8	36.4	57.2	125.0	532.4	1131.9	1212.2	864.9	417.9	105.6	28.2
82.5°	17.8	18.5	29.7	66.1	197.1	402.4	429.7	318.3	119.7	59.5	14.2
85°	6.6	6.6	14.9	39.4	90.0	94.4	116.1	92.3	72.1	48.2	3.8
87.5°	1.4	1.4	8.2	19.4	40.2	29.7	29.7	28.2	43.8	32.7	1.4
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°	336.1	336.1	336.1	336.1	336.1	336.1	336.1	336.1	336.1	336.1	336.1
2.5°	335.3	332.5	327.3	322.0	318.3	313.8	311.6	309.3	308.6	307.8	309.3
5°	331.7	327.3	317.6	309.3	301.9	296.0	291.5	287.1	284.9	283.3	284.0
7.5°	331.7	324.9	310.9	298.1	286.3	273.7	261.0	251.3	243.9	239.5	240.1
10°	335.3	326.4	307.8	290.8	268.5	241.6	214.2	193.3	179.2	171.0	171.0
12.5°	343.5	331.7	308.6	281.9	243.9	197.1	155.4	130.2	119.7	113.7	114.5
15°	354.7	340.5	312.3	269.9	209.8	146.6	108.5	92.3	92.3	93.8	94.4
17.5°	367.3	351.7	315.3	252.2	165.8	104.8	85.5	84.0	86.2	90.0	90.0
20°	380.1	362.8	316.8	223.9	124.1	83.4	81.0	81.0	82.6	86.2	87.0
22.5°	395.7	377.0	315.3	189.0	93.0	78.8	78.2	78.2	78.2	82.6	82.6
25°	412.1	393.4	309.3	151.8	78.8	75.8	75.1	74.4	74.4	78.2	78.8
27.5°	430.6	410.4	295.3	116.1	74.4	72.9	72.1	70.6	70.6	73.7	73.7
30°	449.2	429.7	273.7	87.8	70.6	69.9	68.5	67.0	65.4	68.5	68.5
32.5°	469.3	450.0	245.3	69.9	65.4	65.4	64.7	62.4	60.9	62.4	63.2
35°	496.0	473.0	213.4	60.9	58.7	58.7	58.7	58.0	55.1	56.6	56.6
37.5°	531.6	504.9	176.2	56.6	53.5	52.0	52.0	52.0	49.9	50.6	50.6
40°	577.2	542.0	140.6	52.8	49.9	46.2	44.6	45.4	43.8	43.8	43.1
42.5°	638.8	582.3	105.6	49.9	46.8	41.6	38.6	37.9	36.4	35.8	35.8
45°	727.3	631.4	75.8	46.8	44.6	36.4	33.4	31.3	27.5	25.3	25.3
47.5°	841.8	687.2	56.6	43.8	42.4	32.0	28.2	23.7	18.5	17.1	17.1
50°	981.6	749.5	47.6	39.4	38.6	28.2	22.3	15.6	10.4	9.0	9.6
52.5°	1117.8	808.4	42.4	34.9	34.2	24.6	16.3	8.2	4.4	4.4	4.4
55°	1232.3	849.9	38.6	31.3	29.7	19.4	9.0	3.8	2.2	2.2	2.2
57.5°	1335.6	873.8	34.9	27.5	23.7	13.4	3.8	1.4	1.4	0.8	0.8
60°	1430.0	888.0	30.5	23.7	18.5	7.5	1.4	0.8	0.8	0.0	0.0
62.5°	1522.9	898.3	26.1	19.4	14.2	3.0	0.8	0.8	0.0	0.0	0.0
65°	1593.7	894.6	20.8	15.6	9.0	1.4	0.8	0.0	0.0	0.0	0.0
67.5°	1591.3	844.0	15.6	11.9	4.4	0.8	0.0	0.0	0.0	0.0	0.0
70°	1423.4	710.9	10.4	7.5	1.4	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1009.9	455.9	6.6	4.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	444.8	138.2	3.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	87.0	32.0	2.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	20.8	3.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	9.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	0.8	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)