

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: P214934

Luminaire Tested: **ARCH-AF16-40-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214934
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-AF16-40-D-U-T4W-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 740mA 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: 3441.2 lumens
Efficiency: N/A
Efficacy: 81.9 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

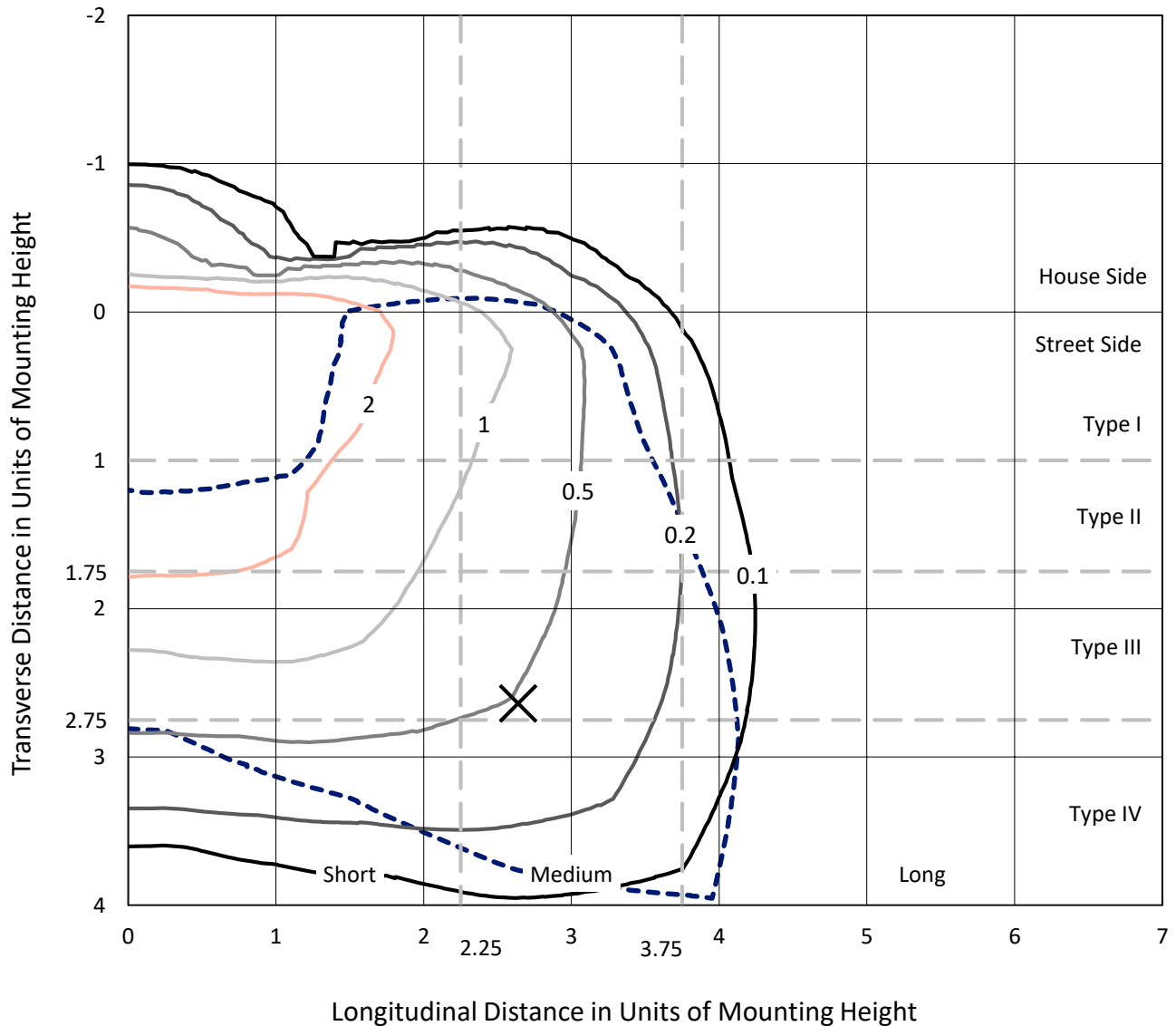
Input Watts (W): 42
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

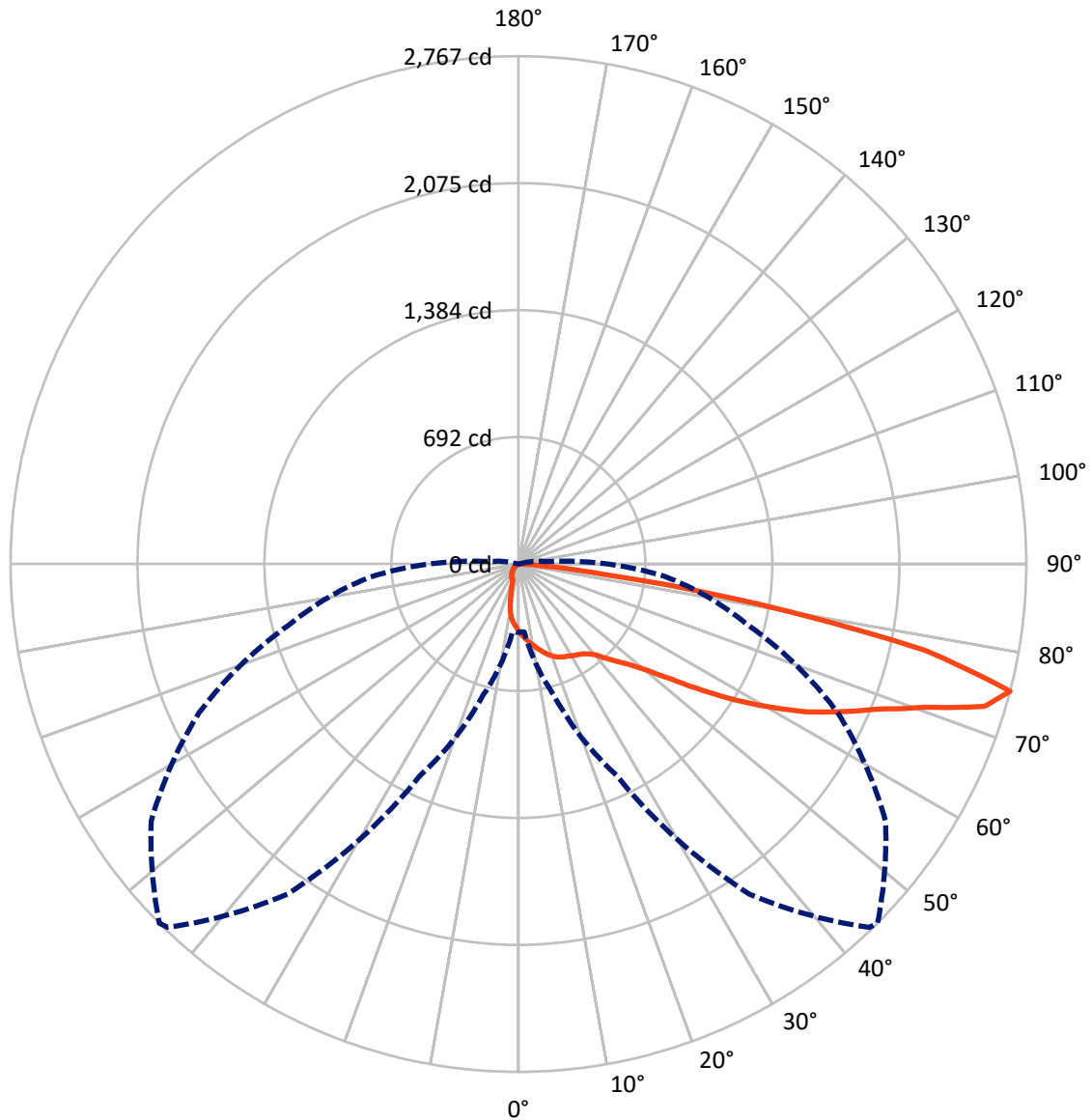
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 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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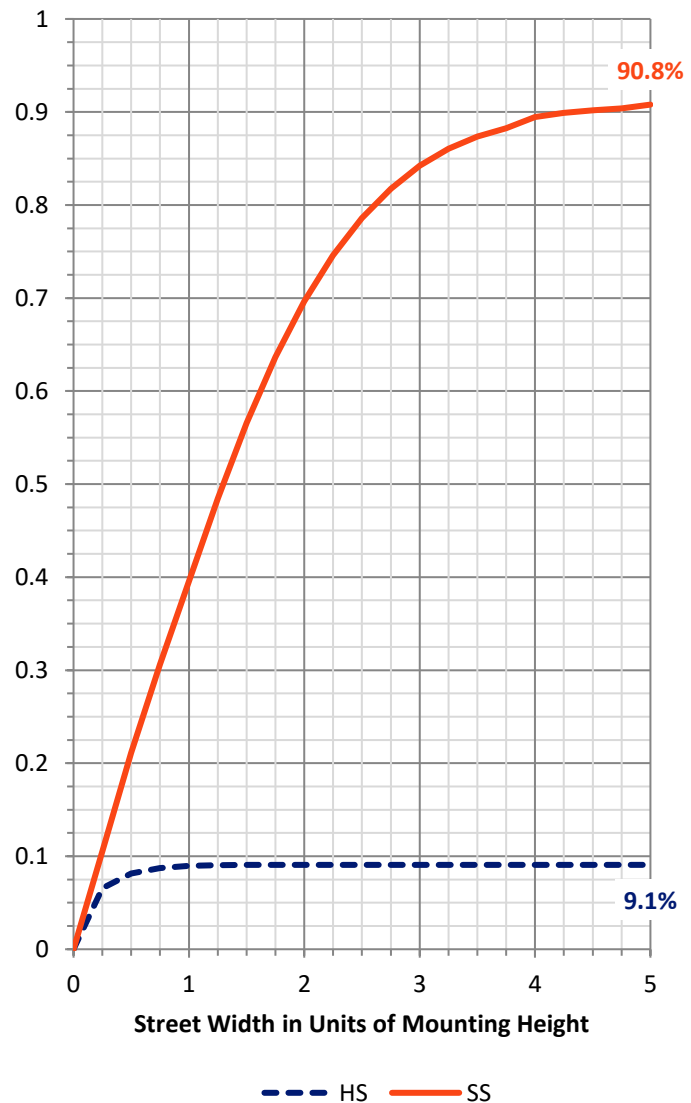
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	314.8	0.0	314.8
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	3126.4	0.0	3126.4
	% Fixture	90.9	0.0	90.9
Total	Lumens	3441.2	0.0	3441.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.7	1.0
10°-20°	98.4	2.9
20°-30°	163.0	4.7
30°-40°	235.9	6.9
40°-50°	386.2	11.2
50°-60°	688.2	20.0
60°-70°	1011.7	29.4
70°-80°	763.2	22.2
80°-90°	59.9	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°	3441.2	100.0
0°-180°	3441.2	100.0

Coefficient of Utilization



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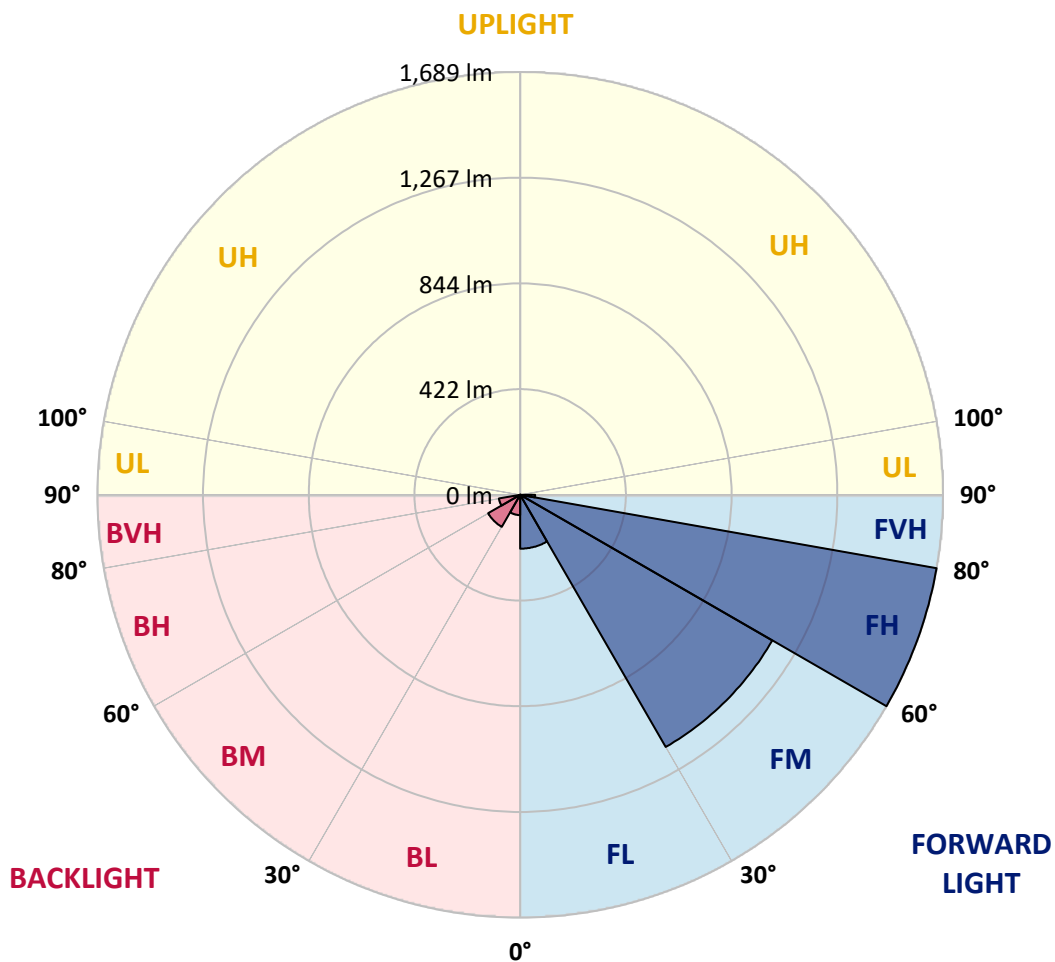
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	215.2	6.3			
FM (30°-60°)	1162.8	33.8			
FH (60°-80°)	1688.7	49.1			G1/1800
FVH (80°-90°)	59.7	1.7			G1/100
BL (0°-30°)	80.9	2.4	B0/110		
BM (30°-60°)	147.5	4.3	B0/220		
BH (60°-80°)	86.2	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°	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1
2.5°	399.8	399.8	399.0	398.2	394.1	390.1	389.2	386.8	379.4	374.6	369.7
5°	433.2	434.0	432.4	428.3	419.3	410.4	409.6	403.0	389.2	379.4	368.9
7.5°	464.9	466.6	462.5	455.2	444.6	431.6	430.8	418.6	400.6	386.8	371.3
10°	491.8	491.8	486.1	477.2	465.7	451.9	450.3	436.5	416.1	399.0	378.6
12.5°	521.1	520.4	512.2	500.0	486.9	473.9	473.1	456.0	436.5	414.5	389.2
15°	548.0	546.4	535.8	524.4	510.6	496.7	495.9	478.8	458.5	432.4	404.7
17.5°	562.6	561.8	552.1	540.7	529.3	518.7	517.9	500.0	478.0	451.1	420.1
20°	565.1	565.9	557.8	548.0	541.4	535.8	535.8	519.6	495.9	467.4	436.5
22.5°	565.9	568.4	562.6	549.6	548.0	548.8	550.4	537.5	513.0	486.1	453.6
25°	571.6	574.9	570.8	555.4	553.7	559.5	561.1	555.4	533.4	506.5	473.1
27.5°	583.0	586.3	583.0	563.4	561.1	566.7	568.4	571.6	555.4	526.0	493.5
30°	605.8	606.6	599.3	574.9	570.0	577.4	579.8	588.7	575.7	544.7	513.0
32.5°	645.7	637.6	615.6	583.0	579.0	587.1	589.5	599.3	594.4	562.6	533.4
35°	727.1	684.8	634.3	594.4	590.3	598.5	601.8	615.6	618.1	587.9	558.6
37.5°	726.3	688.0	678.3	616.4	610.7	616.4	620.5	637.6	647.3	621.3	595.3
40°	777.6	761.4	761.4	658.0	639.2	647.3	651.4	668.5	685.6	665.2	638.4
42.5°	938.9	928.3	916.9	737.8	679.1	701.9	704.4	714.9	735.3	728.8	697.0
45°	1118.8	1109.1	1065.1	872.9	747.5	751.6	757.3	774.4	803.7	815.9	778.5
47.5°	1259.7	1249.9	1212.5	1035.7	854.2	818.4	818.4	851.7	897.3	928.3	892.4
50°	1372.9	1361.4	1338.6	1209.2	1029.3	914.4	909.5	948.7	1016.2	1064.3	1039.8
52.5°	1482.8	1449.4	1435.6	1388.3	1227.1	1053.6	1040.6	1068.4	1162.0	1221.4	1201.0
55°	1556.1	1551.2	1536.6	1552.8	1434.8	1223.0	1211.7	1217.3	1334.6	1374.5	1349.3
57.5°	1624.4	1623.7	1656.3	1732.0	1661.2	1416.9	1399.0	1390.0	1501.5	1491.8	1513.8
60°	1709.1	1694.5	1770.2	1878.5	1868.8	1605.7	1585.4	1567.5	1629.4	1601.7	1710.8
62.5°	1713.2	1709.1	1863.1	2018.6	2074.7	1797.9	1774.3	1710.0	1741.0	1709.1	1898.9
65°	1557.7	1578.1	1902.2	2092.8	2247.4	1966.5	1938.0	1837.8	1840.3	1819.1	2120.4
67.5°	1522.7	1533.3	1794.7	2172.5	2372.0	2136.6	2109.8	1985.2	1955.9	1957.5	2251.5
70°	1435.6	1451.9	1661.2	2166.8	2470.5	2363.8	2337.0	2201.8	2131.0	2052.0	2150.5
72.5°	1096.8	1124.5	1399.7	1899.7	2443.6	2661.1	2653.7	2476.3	2201.0	1884.3	1626.9
75°	371.3	370.5	735.3	1276.0	2195.4	2752.2	2767.0	2442.0	1920.1	1299.6	807.7
77.5°	79.8	80.6	151.5	517.1	1458.4	2210.0	2266.1	1841.9	1238.5	579.0	184.8
80°	39.1	39.9	62.7	136.8	583.0	1239.3	1327.3	947.0	457.7	115.6	30.9
82.5°	19.5	20.4	32.5	72.4	215.7	440.5	470.7	348.5	131.1	65.2	15.4
85°	7.4	7.4	16.3	43.2	98.5	103.4	127.1	101.0	79.0	52.9	4.1
87.5°	1.6	1.6	9.0	21.2	44.0	32.5	32.5	30.9	48.1	35.8	1.6
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°	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1
2.5°	367.2	364.0	358.2	352.6	348.5	343.6	341.2	338.7	337.9	337.1	338.7
5°	363.1	358.2	347.7	338.7	330.6	324.1	319.2	314.4	311.9	310.3	311.1
7.5°	363.1	355.9	340.3	326.5	313.5	299.6	285.8	275.3	267.1	262.2	263.0
10°	367.2	357.4	337.1	318.3	294.0	264.6	234.6	211.8	196.2	187.3	187.3
12.5°	376.2	363.1	337.9	308.6	267.1	215.7	170.2	142.5	131.1	124.6	125.4
15°	388.4	373.0	342.0	295.6	229.7	160.4	118.9	101.0	101.0	102.6	103.4
17.5°	402.2	385.1	345.2	276.0	181.6	114.8	93.6	92.0	94.4	98.5	98.5
20°	416.1	397.4	346.9	245.1	136.0	91.2	88.8	88.8	90.4	94.4	95.2
22.5°	433.2	412.9	345.2	206.8	101.8	86.3	85.5	85.5	85.5	90.4	90.4
25°	451.1	430.8	338.7	166.1	86.3	83.1	82.2	81.4	81.4	85.5	86.3
27.5°	471.5	449.5	323.3	127.1	81.4	79.8	79.0	77.3	77.3	80.6	80.6
30°	491.8	470.7	299.6	96.1	77.3	76.5	74.9	73.2	71.6	74.9	74.9
32.5°	513.8	492.7	268.7	76.5	71.6	71.6	70.9	68.4	66.8	68.4	69.3
35°	543.1	517.9	233.7	66.8	64.3	64.3	64.3	63.5	60.3	61.9	61.9
37.5°	582.2	552.9	193.0	61.9	58.6	57.0	57.0	57.0	54.5	55.3	55.3
40°	631.9	593.6	153.9	57.8	54.5	50.5	48.9	49.7	48.1	48.1	47.3
42.5°	699.5	637.6	115.6	54.5	51.2	45.6	42.4	41.5	39.9	39.1	39.1
45°	796.4	691.3	83.1	51.2	48.9	39.9	36.6	34.2	30.2	27.7	27.7
47.5°	921.8	752.4	61.9	48.1	46.4	35.0	30.9	26.1	20.4	18.7	18.7
50°	1074.8	820.8	52.1	43.2	42.4	30.9	24.4	17.1	11.4	9.8	10.5
52.5°	1223.9	885.2	46.4	38.3	37.4	26.9	17.9	9.0	4.9	4.9	4.9
55°	1349.3	930.7	42.4	34.2	32.5	21.2	9.8	4.1	2.5	2.5	2.5
57.5°	1462.4	956.8	38.3	30.2	26.1	14.6	4.1	1.6	1.6	0.8	0.8
60°	1565.8	972.2	33.3	26.1	20.4	8.2	1.6	0.8	0.8	0.0	0.0
62.5°	1667.6	983.7	28.5	21.2	15.4	3.3	0.8	0.8	0.0	0.0	0.0
65°	1745.1	979.6	22.8	17.1	9.8	1.6	0.8	0.0	0.0	0.0	0.0
67.5°	1742.6	924.2	17.1	13.0	4.9	0.8	0.0	0.0	0.0	0.0	0.0
70°	1558.6	778.5	11.4	8.2	1.6	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1105.8	499.2	7.4	4.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	486.9	151.5	4.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	95.2	35.0	2.5	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	22.8	4.1	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	9.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	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)