

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: P234703

Luminaire Tested: **ARCH-AF24-40-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234703
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-AF24-40-D-U-T2R-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3092 lumens
Efficiency: N/A
Efficacy: 77.3 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): 40
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

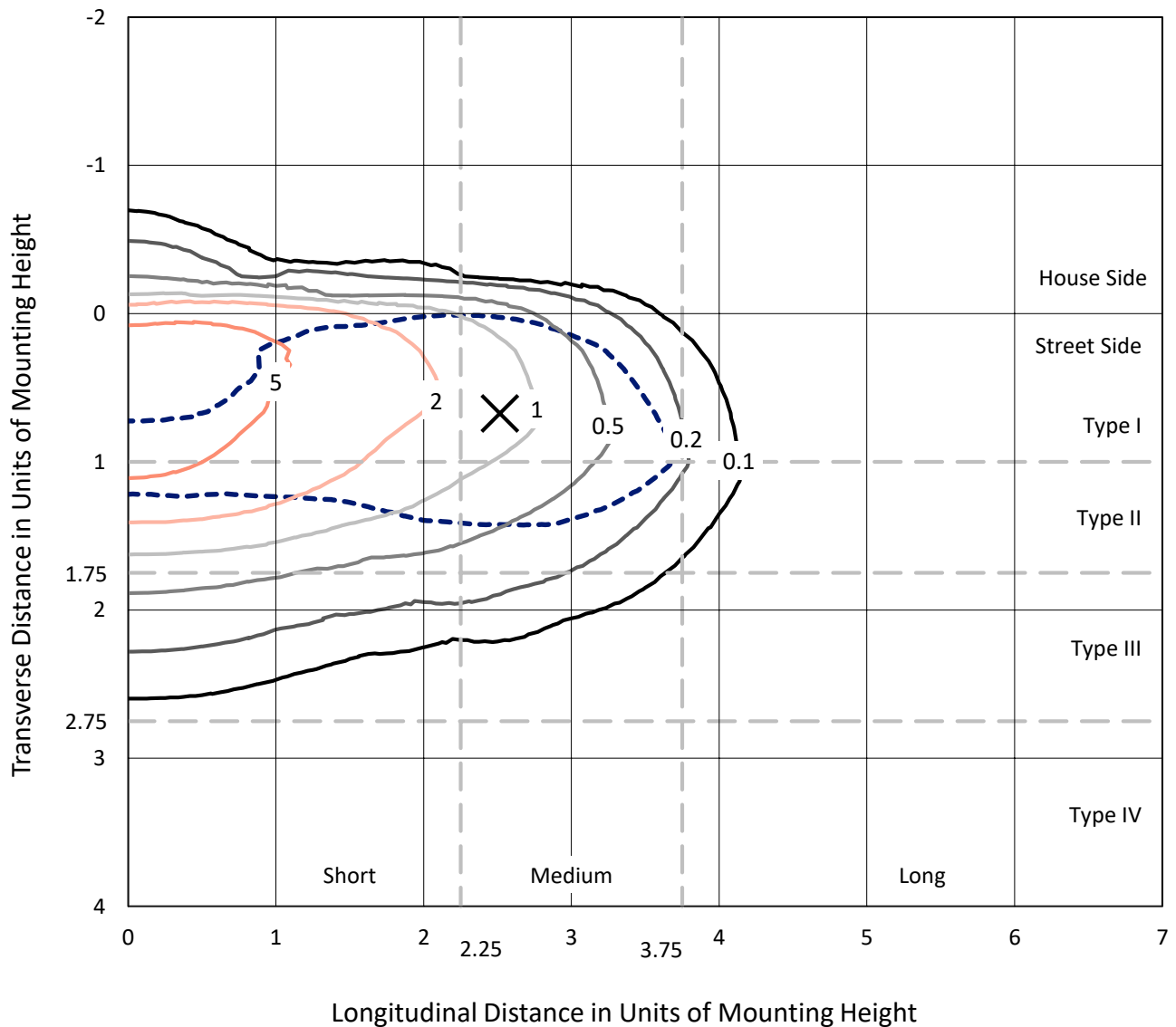


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

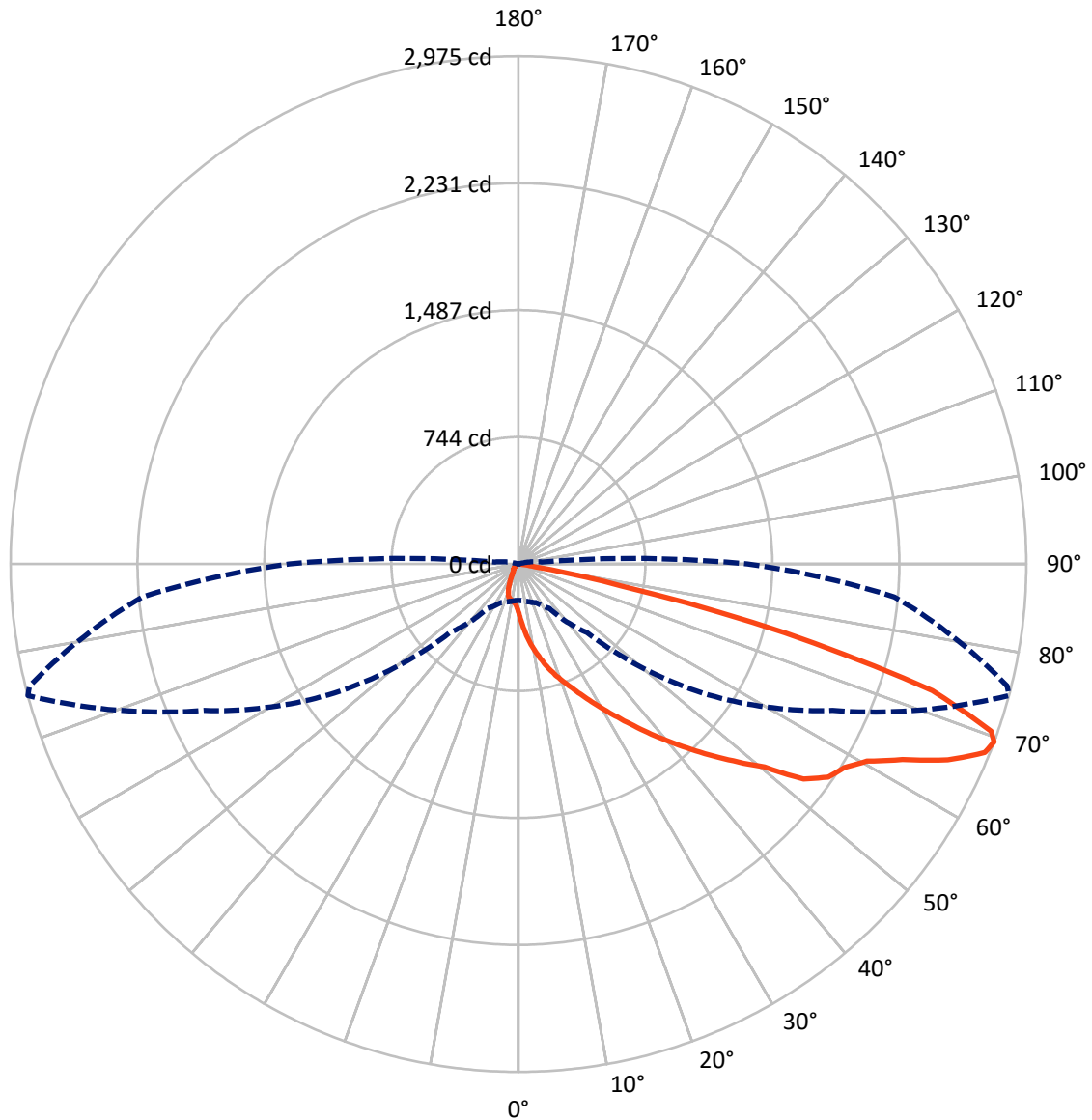


Based on 10 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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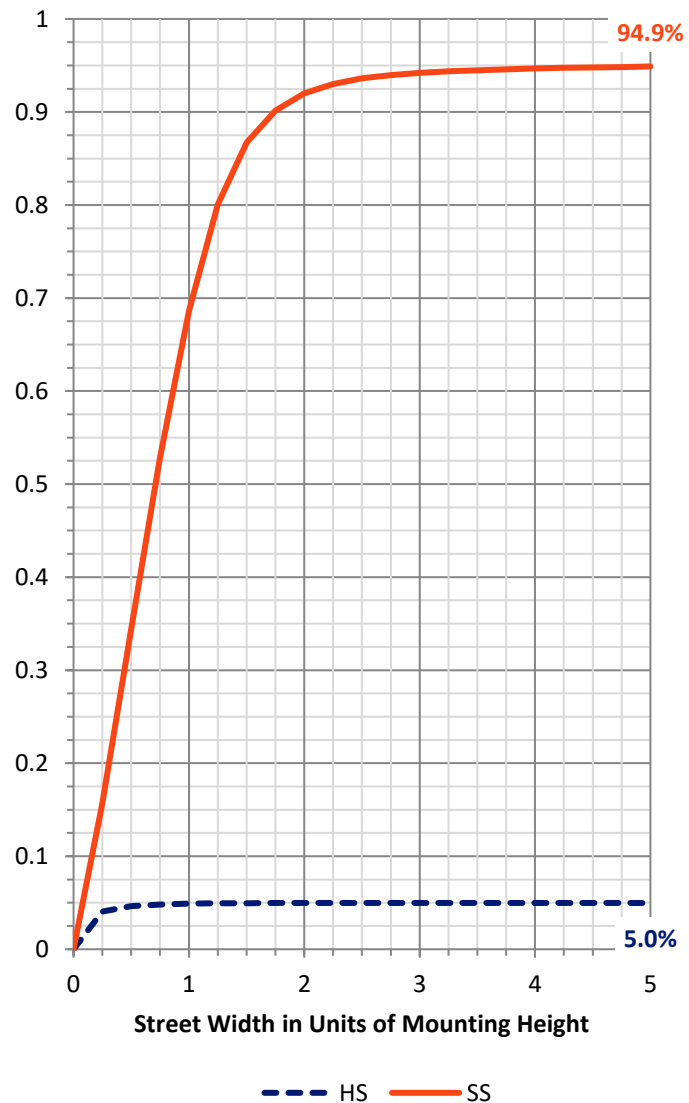
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	154.3	0.0	154.3
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	2937.7	0.0	2937.7
	% Fixture	95.0	0.0	95.0
Total	Lumens	3092.0	0.0	3092.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.5	1.1
10°-20°	119.9	3.9
20°-30°	229.0	7.4
30°-40°	410.7	13.3
40°-50°	629.3	20.4
50°-60°	731.4	23.7
60°-70°	647.6	20.9
70°-80°	279.4	9.0
80°-90°	11.2	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°	3092.0	100.0
0°-180°	3092.0	100.0

Coefficient of Utilization



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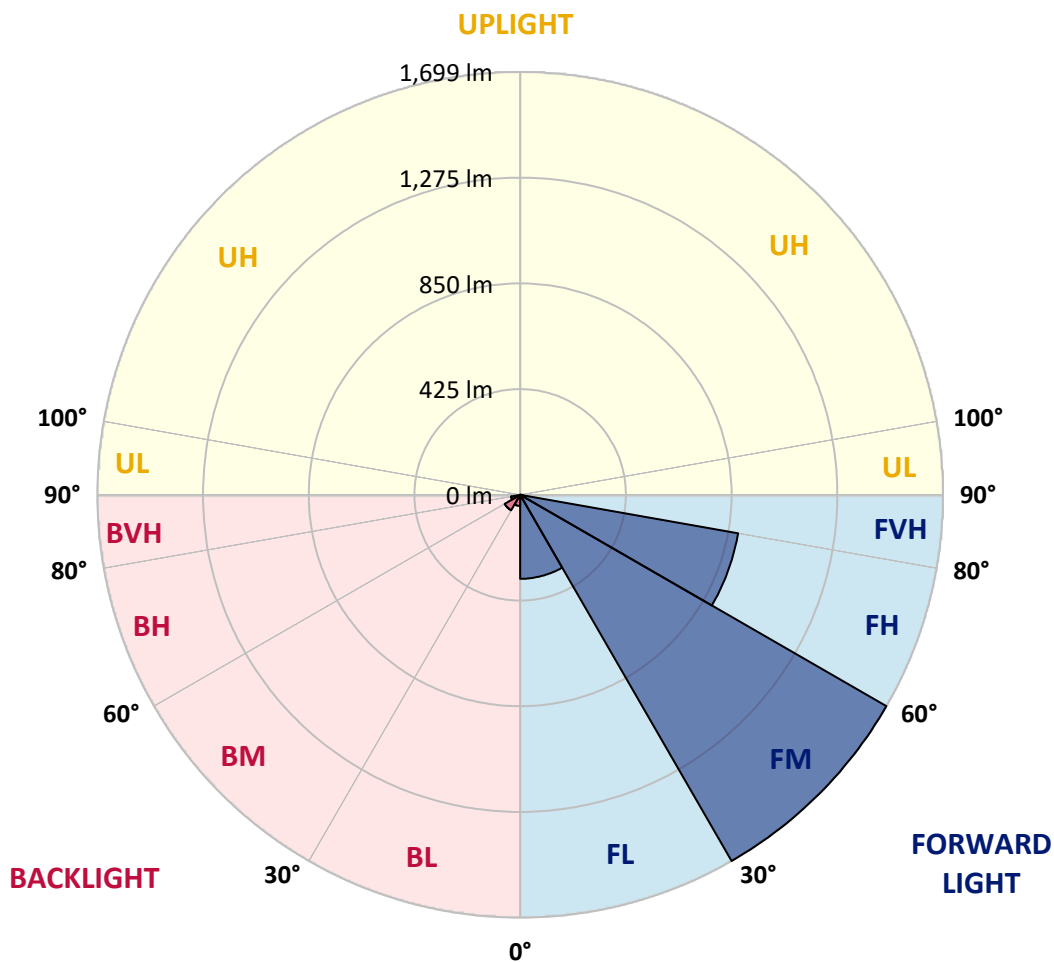
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	337.7	10.9			
FM	(30°-60°)	1699.4	55.0			
FH	(60°-80°)	889.6	28.8			G1/1800
FVH	(80°-90°)	11.0	0.4			G1/100
BL	(0°-30°)	44.8	1.4	B0/110		
BM	(30°-60°)	71.9	2.3	B0/220		
BH	(60°-80°)	37.4	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7
2.5°	474.0	469.3	464.6	459.3	447.3	426.6	400.5	372.5	337.8	331.8	303.7
5°	575.4	573.4	568.7	561.4	548.0	525.4	496.0	454.6	396.5	386.5	327.1
7.5°	646.8	645.5	641.5	632.8	620.8	598.1	567.4	522.7	455.3	443.9	356.5
10°	710.9	710.3	706.9	698.9	686.9	662.2	629.5	582.8	511.3	498.7	390.5
12.5°	769.0	769.7	768.3	764.3	755.7	732.3	694.9	644.2	565.4	551.4	431.2
15°	803.0	805.1	810.4	818.4	821.1	802.4	763.7	707.6	620.8	608.8	478.0
17.5°	791.7	793.7	810.4	837.8	863.8	866.5	831.8	767.7	675.5	663.5	524.0
20°	764.3	767.0	784.4	821.7	872.5	907.9	893.8	833.1	727.6	712.9	568.1
22.5°	795.0	795.0	800.4	823.1	869.1	924.5	943.2	898.5	781.0	763.0	612.1
25°	900.5	898.5	887.2	877.8	892.5	941.9	980.6	965.3	843.8	823.1	658.9
27.5°	1034.0	1043.4	1022.0	988.0	954.6	975.9	1014.0	1031.3	913.2	891.8	706.9
30°	1183.5	1187.6	1162.2	1116.8	1058.0	1037.4	1053.4	1088.1	988.6	965.3	757.0
32.5°	1318.4	1315.1	1293.7	1246.3	1173.5	1128.8	1104.1	1133.5	1070.7	1044.0	808.4
35°	1437.9	1440.5	1414.5	1359.8	1288.4	1241.0	1182.2	1184.9	1162.9	1132.1	867.8
37.5°	1545.4	1540.7	1516.0	1461.2	1396.5	1345.1	1283.0	1238.3	1263.7	1231.6	934.6
40°	1632.8	1628.1	1602.1	1548.7	1487.9	1445.9	1397.2	1309.7	1369.8	1333.1	1006.0
42.5°	1702.2	1696.9	1674.9	1623.5	1564.7	1527.3	1504.0	1397.8	1483.3	1446.6	1086.1
45°	1736.3	1731.6	1718.2	1679.5	1628.1	1595.4	1606.8	1499.3	1604.8	1574.1	1174.2
47.5°	1696.2	1694.2	1709.6	1702.9	1673.5	1656.2	1695.5	1610.1	1732.3	1702.2	1275.7
50°	1574.7	1578.1	1622.8	1678.2	1692.2	1712.9	1768.3	1726.9	1869.1	1837.1	1392.5
52.5°	1275.0	1297.7	1432.5	1566.0	1669.5	1747.6	1853.8	1893.8	2092.1	2060.7	1574.7
55°	951.9	961.3	1108.1	1336.4	1578.1	1744.9	1917.2	1991.9	2202.2	2170.2	1622.8
57.5°	755.0	758.3	831.1	1064.1	1389.8	1684.9	1950.5	2027.3	2250.3	2223.6	1694.2
60°	592.8	596.8	649.5	809.7	1124.8	1522.7	1902.5	2058.0	2344.4	2323.0	1819.0
62.5°	461.3	465.3	497.3	591.4	843.8	1273.0	1805.7	2107.4	2523.3	2513.3	2023.3
65°	357.1	358.5	380.5	424.6	596.1	1002.6	1687.5	2153.5	2764.9	2756.3	2188.9
67.5°	263.7	265.7	281.0	308.4	402.5	720.3	1494.0	2118.1	2947.2	2921.8	2248.9
69°	212.9	214.9	228.3	250.3	317.7	567.4	1317.1	2030.7	2974.6	2950.5	2210.9
70°	182.2	183.6	196.9	215.6	271.0	482.0	1176.9	1955.2	2938.5	2915.1	2124.1
72.5°	116.8	123.5	136.8	148.9	179.6	319.1	794.4	1621.5	2535.3	2495.3	1663.5
75°	64.8	66.8	90.8	105.5	119.5	207.6	441.9	1011.3	1612.8	1584.7	889.8
77.5°	53.4	54.7	64.1	80.1	80.1	116.2	166.9	398.5	613.5	553.4	241.0
80°	37.4	38.7	48.7	52.7	57.4	65.4	54.1	87.4	94.8	84.1	36.0
82.5°	26.0	27.4	33.4	43.4	46.1	30.7	20.0	26.0	27.4	27.4	14.0
85°	4.7	6.7	24.7	36.0	27.4	9.3	11.3	9.3	8.7	9.3	3.3
87.5°	0.0	0.0	15.4	17.4	14.7	4.0	4.7	3.3	2.0	2.7	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7	287.7
2.5°	289.7	275.7	251.7	234.3	219.6	208.3	203.6	196.3	190.9	193.6	190.2
5°	297.7	273.0	234.3	209.6	192.3	177.6	165.5	156.2	148.9	147.5	146.2
7.5°	310.4	275.0	224.3	193.6	167.6	144.9	126.2	112.1	101.5	101.5	97.5
10°	327.8	280.4	218.3	177.6	138.8	108.1	89.5	76.1	70.8	70.1	68.8
12.5°	351.8	290.4	213.6	156.9	108.1	78.8	67.4	62.7	60.7	60.1	59.4
15°	384.5	305.1	208.3	131.5	82.1	64.8	60.1	56.1	54.1	53.4	52.7
17.5°	415.9	318.4	196.9	105.5	66.8	58.7	53.4	50.1	47.4	46.7	46.7
20°	445.2	329.8	177.6	82.1	60.1	52.7	47.4	43.4	40.7	40.1	40.1
22.5°	476.0	339.1	153.5	66.8	54.7	46.7	41.4	37.4	34.7	34.0	33.4
25°	508.7	345.8	126.2	59.4	49.4	41.4	35.4	32.0	30.0	29.4	28.7
27.5°	544.0	348.5	100.1	54.1	43.4	36.0	30.7	27.4	26.0	25.4	25.4
30°	576.1	345.8	77.4	48.1	38.0	31.4	26.7	24.0	22.7	22.0	22.0
32.5°	609.5	339.1	62.1	42.7	33.4	26.7	22.7	20.7	20.0	19.4	19.4
35°	644.8	330.4	53.4	38.0	28.7	23.4	20.0	18.7	18.0	17.4	17.4
37.5°	686.2	319.8	48.7	34.0	25.4	20.7	17.4	16.7	16.0	16.0	16.0
40°	733.0	306.4	45.4	30.7	22.7	18.0	15.4	14.7	14.0	14.0	14.0
42.5°	782.4	291.0	42.1	27.4	20.0	15.4	13.4	13.4	12.7	12.7	12.0
45°	837.8	275.7	38.7	24.0	17.4	13.4	11.3	10.7	10.7	10.0	10.0
47.5°	903.2	261.7	35.4	21.4	15.4	11.3	10.0	9.3	8.7	8.0	8.0
50°	995.3	260.3	31.4	18.7	14.0	9.3	8.0	7.3	6.7	6.0	6.0
52.5°	1086.8	248.3	26.7	15.4	11.3	8.0	6.0	5.3	4.7	4.7	4.0
55°	1107.4	228.3	23.4	13.4	8.7	6.0	4.7	3.3	3.3	2.7	2.7
57.5°	1152.8	219.0	20.0	10.7	6.7	4.7	2.7	2.0	2.0	2.0	2.0
60°	1242.3	216.3	17.4	9.3	4.7	3.3	2.0	1.3	1.3	0.7	0.7
62.5°	1365.8	213.6	14.7	8.0	3.3	2.0	1.3	0.7	0.0	0.0	0.0
65°	1433.9	195.6	12.0	6.0	2.7	2.0	0.7	0.0	0.0	0.0	0.0
67.5°	1415.9	161.5	10.7	4.0	2.0	1.3	0.7	0.0	0.0	0.0	0.0
69°	1340.4	136.2	8.7	3.3	2.0	1.3	0.7	0.0	0.0	0.0	0.0
70°	1249.6	117.5	8.0	2.7	1.3	0.7	0.7	0.0	0.0	0.0	0.0
72.5°	887.2	61.4	5.3	2.0	1.3	0.7	0.0	0.0	0.0	0.0	0.0
75°	414.5	27.4	3.3	1.3	0.7	0.7	0.0	0.0	0.0	0.0	0.0
77.5°	91.5	12.7	2.0	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
80°	17.4	4.7	1.3	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.0	2.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.7	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)