

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: P214652

Luminaire Tested: **ARCH-AF16-20-D-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214652
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-AF16-20-D-U-T2R-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 420mA 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: 2362 lumens
Efficiency: N/A
Efficacy: 98.4 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

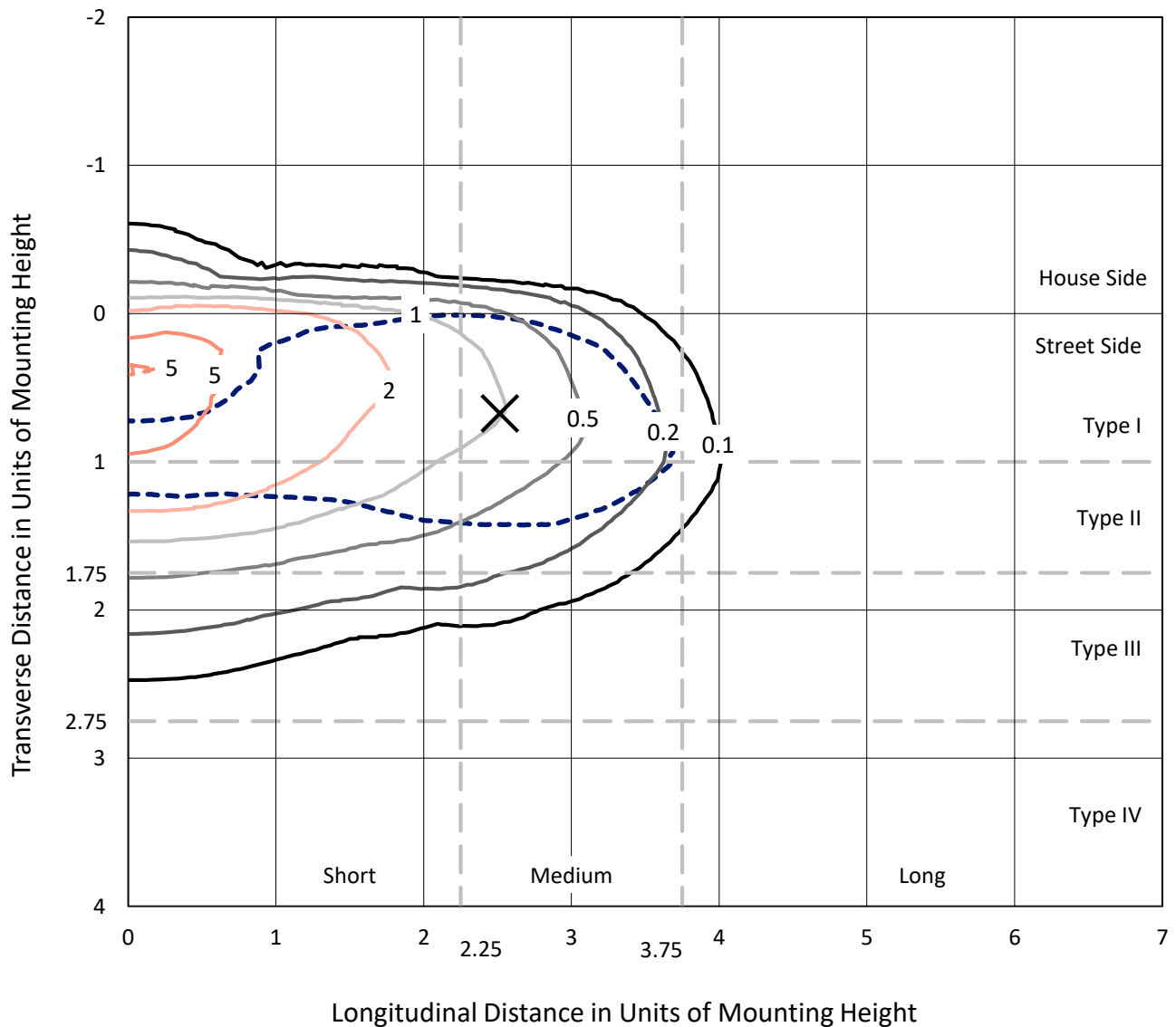
Input Watts (W): 24
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214652
 CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

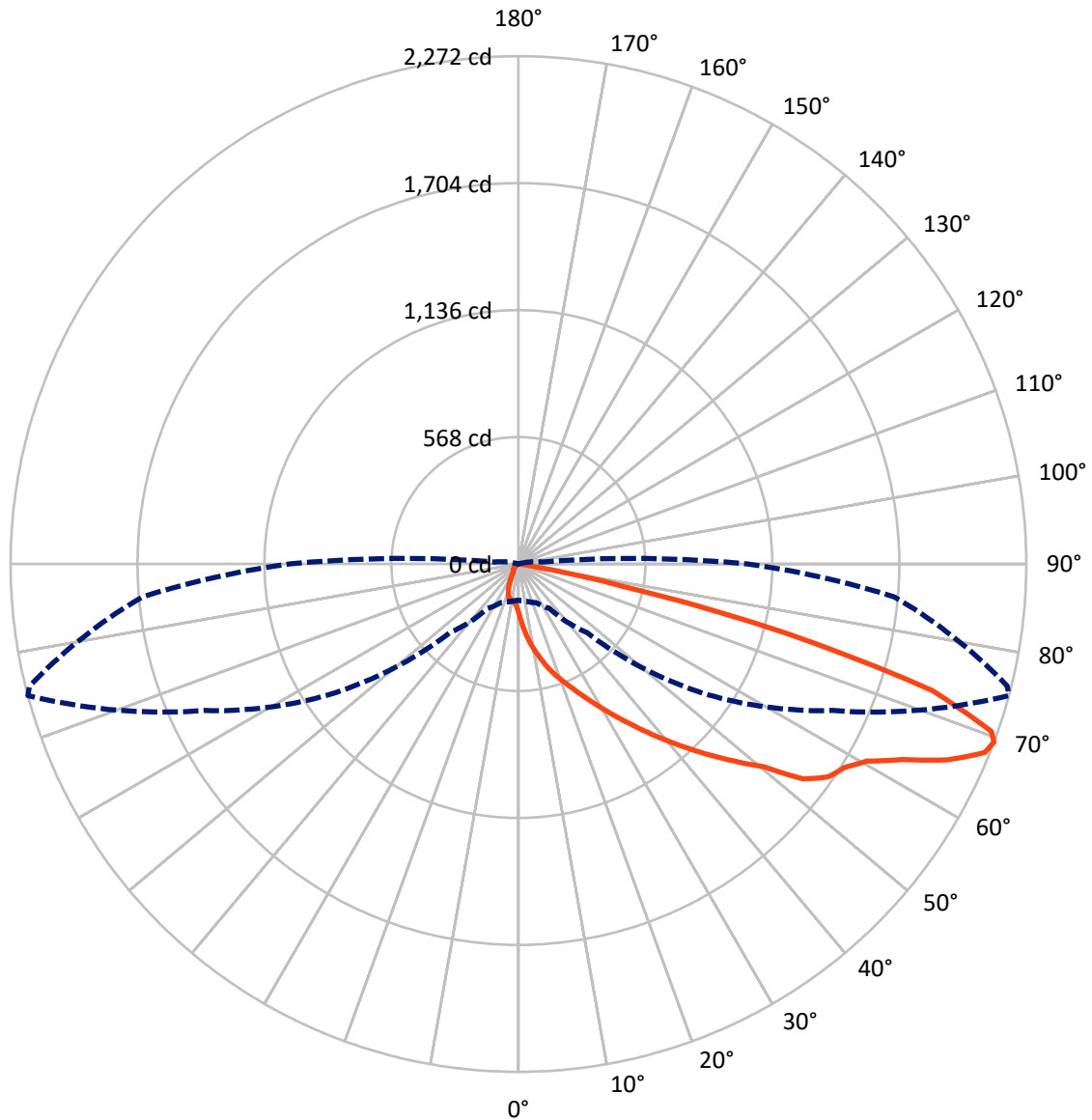
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P214652
CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P214652

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-HSS

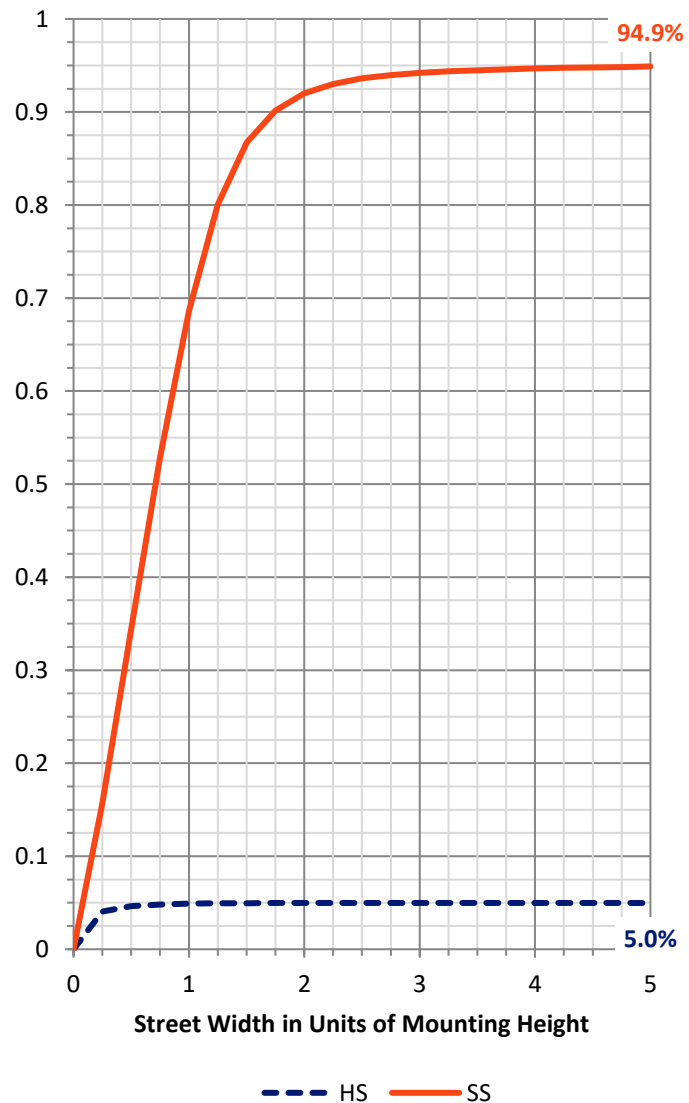
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	117.9	0.0	117.9
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	2244.1	0.0	2244.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	2362.0	0.0	2362.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.6	1.1
10°-20°	91.6	3.9
20°-30°	174.9	7.4
30°-40°	313.8	13.3
40°-50°	480.7	20.4
50°-60°	558.7	23.7
60°-70°	494.7	20.9
70°-80°	213.4	9.0
80°-90°	8.6	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°	2362.0	100.0
0°-180°	2362.0	100.0

Coefficient of Utilization



REPORT NUMBER: P214652

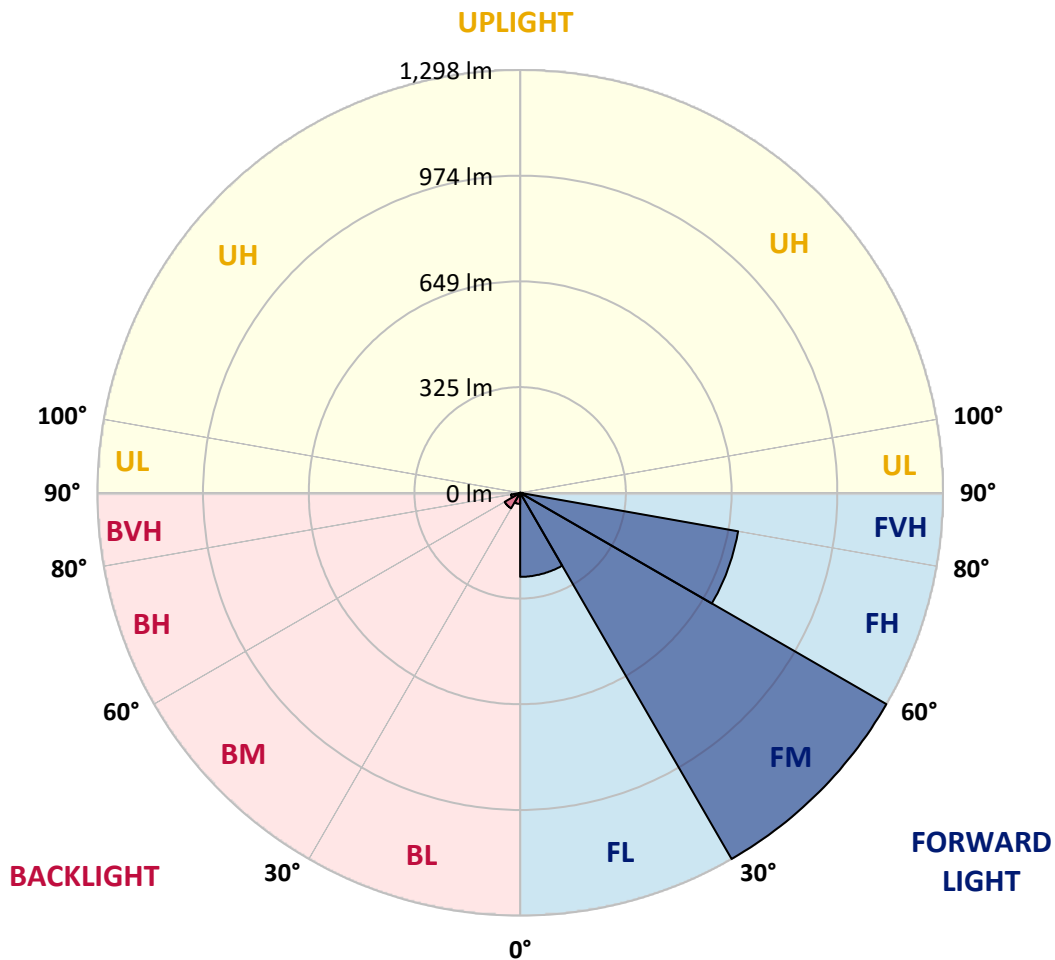
CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	257.9	10.9			
FM	(30°-60°)	1298.2	55.0			
FH	(60°-80°)	679.6	28.8			G1/1800
FVH	(80°-90°)	8.4	0.4			G0/10
BL	(0°-30°)	34.2	1.4	B0/110		
BM	(30°-60°)	55.0	2.3	B0/220		
BH	(60°-80°)	28.6	1.2	B0/110		G0/110
BVH	(80°-90°)	0.1	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: P214652

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	219.8	219.8	219.8	219.8	219.8	219.8	219.8	219.8	219.8	219.8	219.8
2.5°	362.0	358.4	355.0	350.9	341.7	325.8	306.0	284.6	258.0	253.5	232.0
5°	439.6	438.0	434.4	428.8	418.7	401.3	378.9	347.3	302.9	295.2	249.9
7.5°	494.1	493.1	490.1	483.4	474.2	457.0	433.4	399.3	347.8	339.1	272.3
10°	543.1	542.6	540.0	533.9	524.8	505.8	480.9	445.2	390.6	380.9	298.3
12.5°	587.5	588.0	587.0	583.9	577.3	559.3	530.8	492.0	431.9	421.3	329.4
15°	613.5	615.0	619.1	625.2	627.2	613.0	583.4	540.5	474.2	465.0	365.1
17.5°	604.8	606.3	619.1	640.0	659.9	661.8	635.4	586.5	516.1	506.9	400.3
20°	583.9	585.9	599.1	627.7	666.5	693.6	682.8	636.4	555.9	544.6	433.9
22.5°	607.3	607.3	611.4	628.7	663.9	706.2	720.6	686.4	596.6	582.9	467.6
25°	687.9	686.4	677.7	670.5	681.8	719.5	749.1	737.3	644.6	628.7	503.3
27.5°	789.9	797.0	780.7	754.7	729.2	745.5	774.6	787.9	697.6	681.3	540.0
30°	904.1	907.2	887.8	853.1	808.2	792.5	804.7	831.1	755.2	737.3	578.3
32.5°	1007.1	1004.5	988.3	952.1	896.5	862.3	843.4	865.8	818.0	797.5	617.6
35°	1098.4	1100.5	1080.5	1038.7	984.2	948.0	903.1	905.1	888.3	864.8	662.9
37.5°	1180.5	1176.9	1158.1	1116.2	1066.8	1027.6	980.1	945.9	965.4	940.8	713.9
40°	1247.3	1243.7	1223.9	1183.0	1136.6	1104.5	1067.3	1000.4	1046.4	1018.3	768.4
42.5°	1300.4	1296.3	1279.4	1240.1	1195.3	1166.8	1148.9	1067.8	1133.1	1105.0	829.7
45°	1326.4	1322.8	1312.5	1283.0	1243.7	1218.7	1227.4	1145.3	1225.9	1202.5	897.0
47.5°	1295.8	1294.2	1305.9	1300.9	1278.4	1265.2	1295.3	1230.0	1323.3	1300.4	974.5
50°	1203.0	1205.4	1239.6	1282.0	1292.7	1308.5	1350.8	1319.2	1427.8	1403.4	1063.8
52.5°	974.0	991.3	1094.4	1196.3	1275.3	1335.1	1416.1	1446.7	1598.2	1574.2	1203.0
55°	727.2	734.3	846.5	1020.9	1205.4	1333.0	1464.6	1521.6	1682.2	1657.8	1239.6
57.5°	576.7	579.3	634.8	812.8	1061.7	1287.1	1490.0	1548.6	1719.0	1698.6	1294.2
60°	452.9	455.9	496.1	618.6	859.3	1163.2	1453.3	1572.2	1790.9	1774.6	1389.6
62.5°	352.4	355.5	379.9	451.8	644.6	972.4	1379.3	1609.9	1927.5	1919.9	1545.6
65°	272.8	273.8	290.6	324.3	455.4	765.9	1289.1	1645.0	2112.2	2105.5	1672.1
67.5°	201.4	203.0	214.7	235.6	307.5	550.2	1141.2	1618.0	2251.4	2232.0	1717.9
69°	162.6	164.2	174.4	191.2	242.7	433.4	1006.1	1551.2	2272.3	2254.0	1688.9
70°	139.2	140.2	150.5	164.7	207.0	368.2	899.0	1493.6	2244.8	2226.9	1622.6
72.5°	89.2	94.3	104.5	113.8	137.2	243.8	606.8	1238.6	1936.8	1906.2	1270.8
75°	49.5	50.9	69.4	80.6	91.2	158.6	337.6	772.5	1232.0	1210.6	679.8
77.5°	40.8	41.8	49.0	61.2	61.2	88.7	127.5	304.4	468.6	422.8	184.1
80°	28.5	29.6	37.2	40.3	43.9	50.0	41.3	66.8	72.4	64.2	27.5
82.5°	19.8	20.9	25.5	33.1	35.2	23.4	15.3	19.8	20.9	20.9	10.7
85°	3.6	5.1	18.8	27.5	20.9	7.2	8.7	7.2	6.6	7.2	2.6
87.5°	0.0	0.0	11.8	13.3	11.3	3.1	3.6	2.6	1.5	2.0	1.0
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: P214652

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	219.8	219.8	219.8	219.8	219.8	219.8	219.8	219.8	219.8	219.8	219.8
2.5°	221.3	210.6	192.2	179.0	167.8	159.1	155.5	150.0	145.9	147.9	145.4
5°	227.4	208.6	179.0	160.1	146.9	135.6	126.4	119.3	113.8	112.7	111.7
7.5°	237.1	210.1	171.3	147.9	128.0	110.7	96.4	85.6	77.5	77.5	74.5
10°	250.4	214.2	166.7	135.6	106.1	82.7	68.3	58.1	54.0	53.5	52.5
12.5°	268.7	221.8	163.2	119.8	82.7	60.1	51.5	48.0	46.4	45.9	45.4
15°	293.7	233.0	159.1	100.5	62.7	49.5	45.9	42.9	41.3	40.8	40.3
17.5°	317.7	243.3	150.5	80.6	50.9	44.9	40.8	38.3	36.2	35.7	35.7
20°	340.1	252.0	135.6	62.7	45.9	40.3	36.2	33.1	31.1	30.6	30.6
22.5°	363.6	259.0	117.3	50.9	41.8	35.7	31.6	28.5	26.5	26.0	25.5
25°	388.6	264.1	96.4	45.4	37.7	31.6	27.0	24.4	22.9	22.4	21.9
27.5°	415.6	266.2	76.5	41.3	33.1	27.5	23.4	20.9	19.8	19.3	19.3
30°	440.1	264.1	59.1	36.7	29.1	23.9	20.4	18.3	17.3	16.9	16.9
32.5°	465.5	259.0	47.5	32.6	25.5	20.4	17.3	15.9	15.3	14.8	14.8
35°	492.6	252.5	40.8	29.1	21.9	17.8	15.3	14.3	13.8	13.3	13.3
37.5°	524.3	244.3	37.2	26.0	19.3	15.9	13.3	12.8	12.3	12.3	12.3
40°	559.9	234.1	34.7	23.4	17.3	13.8	11.8	11.3	10.7	10.7	10.7
42.5°	597.6	222.3	32.1	20.9	15.3	11.8	10.2	10.2	9.7	9.7	9.2
45°	640.0	210.6	29.6	18.3	13.3	10.2	8.7	8.2	8.2	7.7	7.7
47.5°	690.0	199.9	27.0	16.4	11.8	8.7	7.7	7.2	6.6	6.1	6.1
50°	760.4	198.9	23.9	14.3	10.7	7.2	6.1	5.6	5.1	4.6	4.6
52.5°	830.2	189.7	20.4	11.8	8.7	6.1	4.6	4.1	3.6	3.6	3.1
55°	846.0	174.4	17.8	10.2	6.6	4.6	3.6	2.6	2.6	2.0	2.0
57.5°	880.7	167.3	15.3	8.2	5.1	3.6	2.0	1.5	1.5	1.5	1.5
60°	949.0	165.2	13.3	7.2	3.6	2.6	1.5	1.0	1.0	0.5	0.5
62.5°	1043.3	163.2	11.3	6.1	2.6	1.5	1.0	0.5	0.0	0.0	0.0
65°	1095.4	149.5	9.2	4.6	2.0	1.5	0.5	0.0	0.0	0.0	0.0
67.5°	1081.6	123.4	8.2	3.1	1.5	1.0	0.5	0.0	0.0	0.0	0.0
69°	1024.0	104.0	6.6	2.6	1.5	1.0	0.5	0.0	0.0	0.0	0.0
70°	954.6	89.7	6.1	2.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0
72.5°	677.7	47.0	4.1	1.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0
75°	316.7	20.9	2.6	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0
77.5°	69.9	9.7	1.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	13.3	3.6	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.6	1.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	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)