

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: P234696

Luminaire Tested: **ARCH-AF16-20-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234696
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-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 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: 1794 lumens
Efficiency: N/A
Efficacy: 74.8 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 - G0

Input Watts (W): 24
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

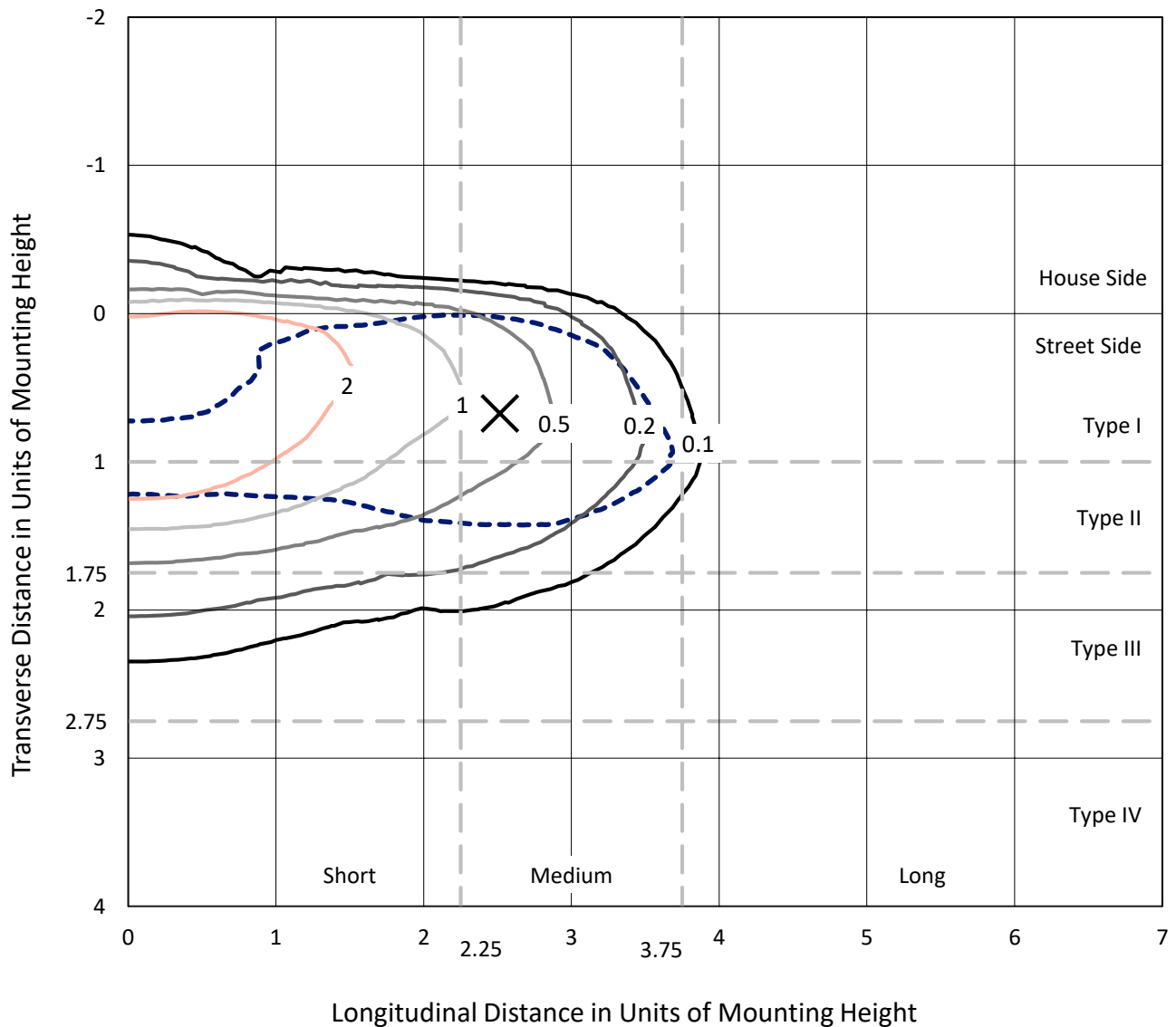


REPORT NUMBER: P234696

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

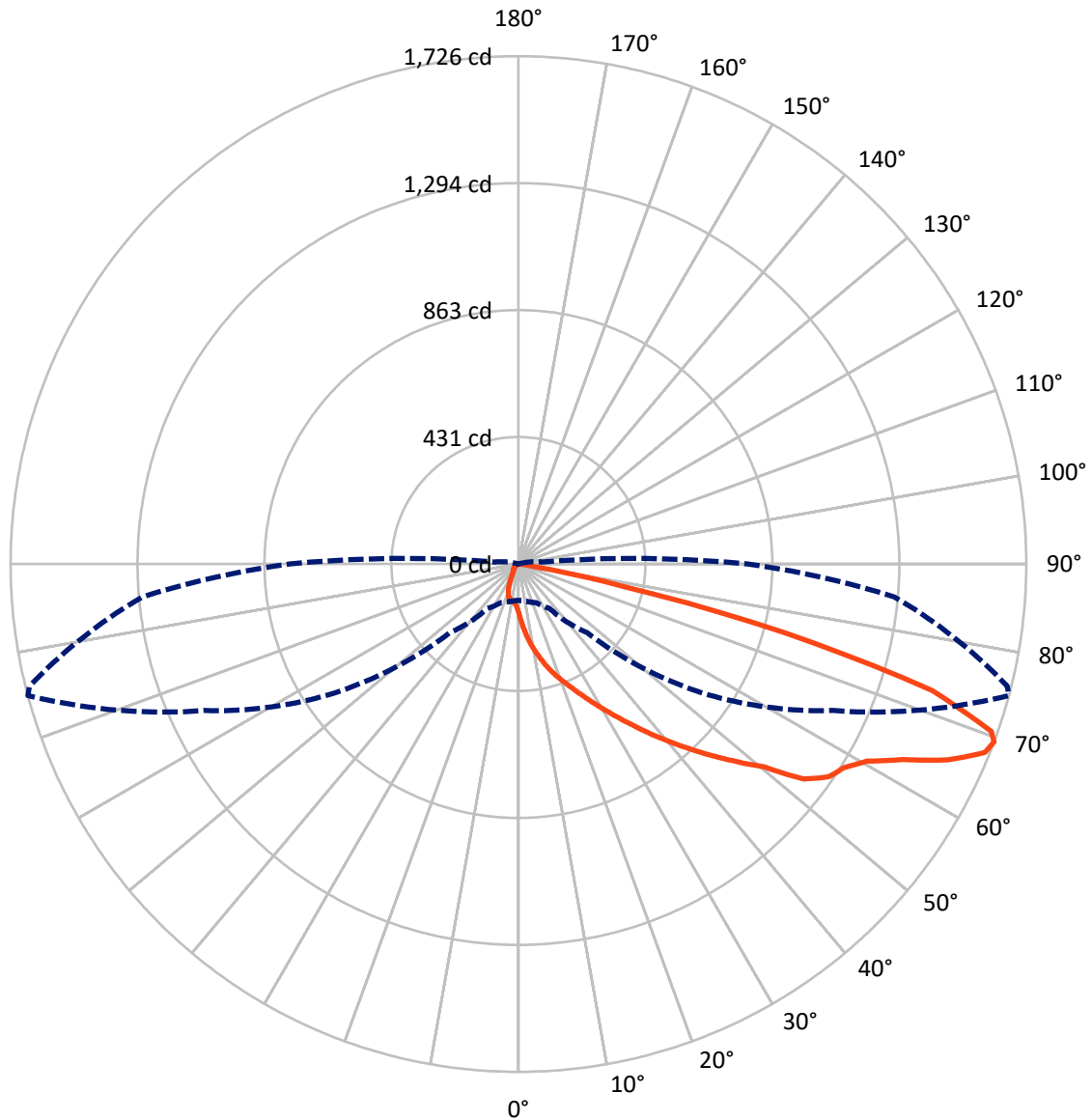


Based on 10 foot mounting height. Maximum calculated value = 4.6 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P234696

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234696

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-8027-HSS

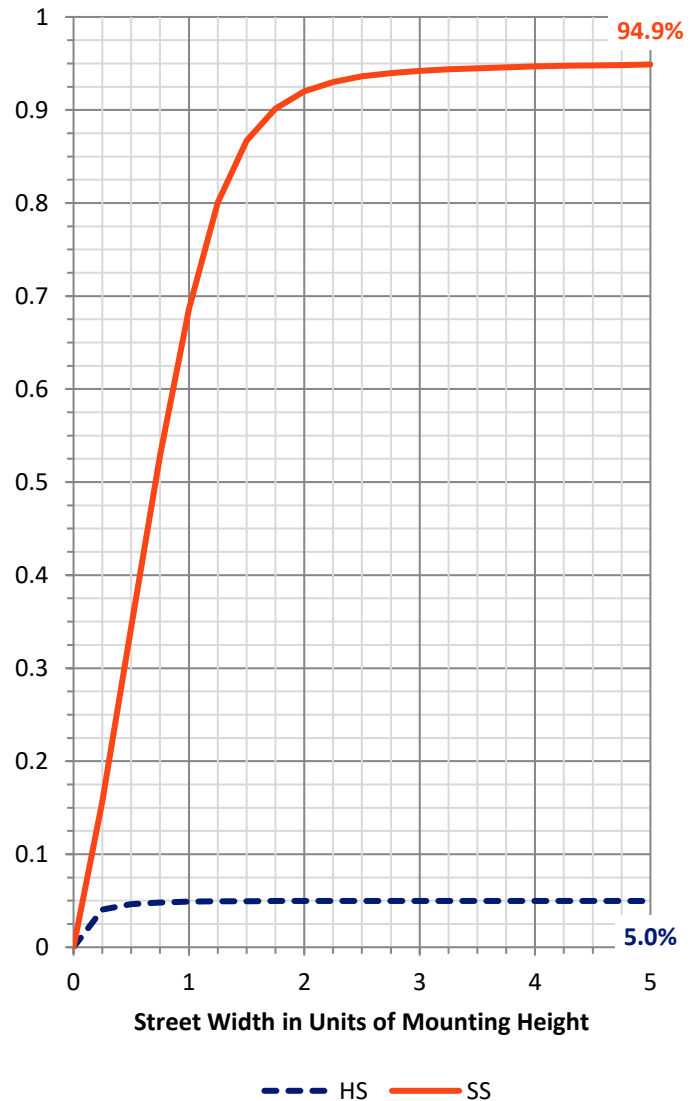
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	89.5	0.0	89.5
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	1704.5	0.0	1704.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	1794.0	0.0	1794.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.5	1.1
10°-20°	69.6	3.9
20°-30°	132.9	7.4
30°-40°	238.3	13.3
40°-50°	365.1	20.4
50°-60°	424.3	23.7
60°-70°	375.8	20.9
70°-80°	162.1	9.0
80°-90°	6.5	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°	1794.0	100.0
0°-180°	1794.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234696

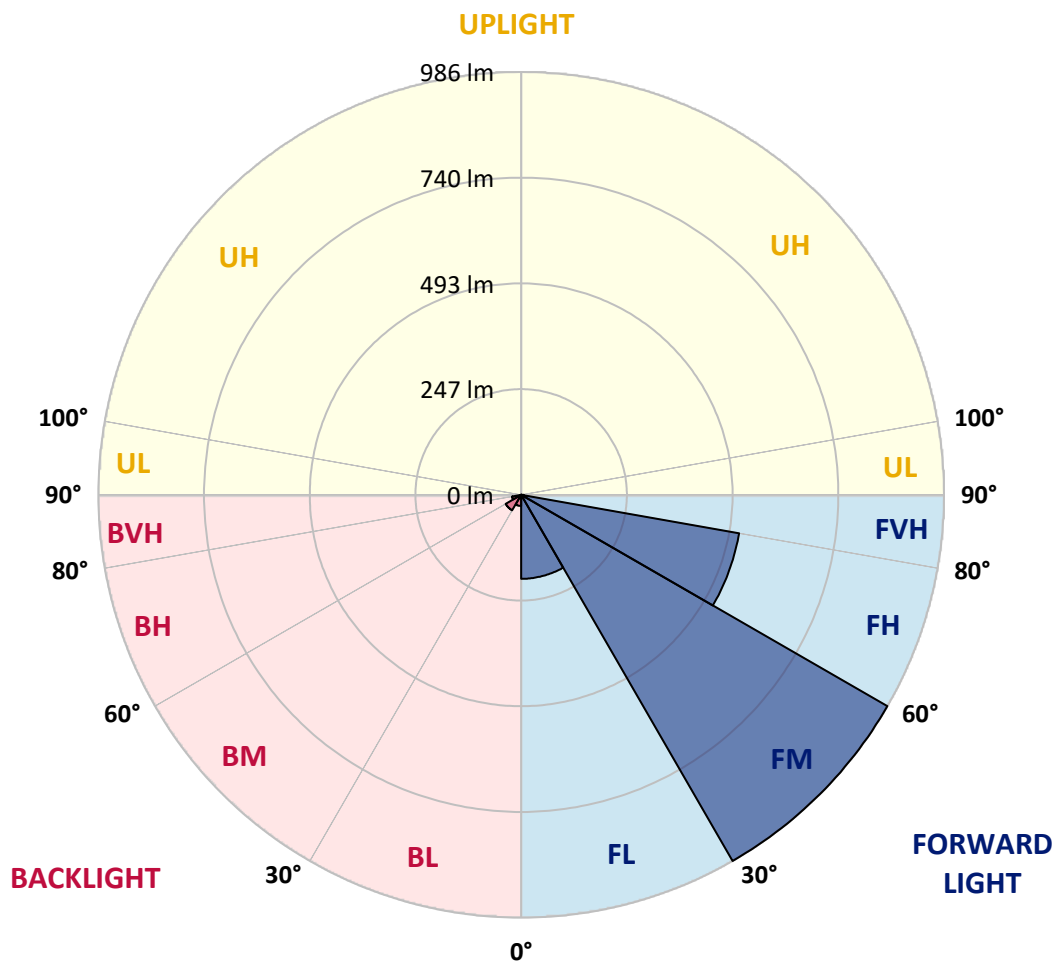
CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	195.9	10.9			
FM (30°-60°)	986.0	55.0			
FH (60°-80°)	516.2	28.8			G0/660
FVH (80°-90°)	6.4	0.4			G0/10
BL (0°-30°)	26.0	1.4	B0/110		
BM (30°-60°)	41.7	2.3	B0/220		
BH (60°-80°)	21.7	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-G0

Type II Medium





REPORT NUMBER: P234696

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	166.9	166.9	166.9	166.9	166.9	166.9	166.9	166.9	166.9	166.9	166.9
2.5°	275.0	272.3	269.6	266.5	259.5	247.5	232.4	216.1	196.0	192.5	176.2
5°	333.9	332.7	330.0	325.7	318.0	304.8	287.8	263.8	230.1	224.3	189.8
7.5°	375.3	374.5	372.2	367.2	360.2	347.0	329.2	303.3	264.1	257.6	206.8
10°	412.5	412.1	410.2	405.5	398.5	384.2	365.2	338.1	296.7	289.3	226.6
12.5°	446.2	446.6	445.8	443.5	438.4	424.9	403.2	373.8	328.1	319.9	250.2
15°	465.9	467.1	470.2	474.8	476.4	465.5	443.1	410.5	360.2	353.2	277.3
17.5°	459.4	460.5	470.2	486.1	501.2	502.7	482.6	445.4	392.0	385.0	304.0
20°	443.5	445.0	455.1	476.8	506.2	526.7	518.6	483.4	422.2	413.6	329.6
22.5°	461.3	461.3	464.4	477.6	504.3	536.4	547.3	521.3	453.2	442.7	355.2
25°	522.5	521.3	514.7	509.3	517.8	546.5	569.0	560.1	489.6	477.6	382.3
27.5°	599.9	605.4	593.0	573.2	553.9	566.2	588.3	598.4	529.8	517.4	410.2
30°	686.7	689.0	674.3	648.0	613.9	601.9	611.2	631.3	573.6	560.1	439.2
32.5°	764.9	763.0	750.6	723.1	680.9	654.9	640.6	657.7	621.2	605.8	469.0
35°	834.3	835.8	820.7	789.0	747.5	720.0	685.9	687.5	674.7	656.9	503.5
37.5°	896.6	893.9	879.6	847.8	810.3	780.4	744.4	718.5	733.2	714.6	542.2
40°	947.4	944.7	929.5	898.6	863.3	838.9	810.6	759.9	794.8	773.5	583.7
42.5°	987.6	984.5	971.8	941.9	907.9	886.2	872.6	811.0	860.6	839.3	630.2
45°	1007.4	1004.7	996.9	974.5	944.7	925.7	932.3	869.9	931.1	913.3	681.3
47.5°	984.2	983.0	991.9	988.0	971.0	960.9	983.8	934.2	1005.1	987.6	740.2
50°	913.7	915.6	941.6	973.7	981.8	993.8	1026.0	1002.0	1084.5	1065.9	807.9
52.5°	739.8	752.9	831.2	908.6	968.7	1014.0	1075.6	1098.8	1213.8	1195.6	913.7
55°	552.3	557.7	642.9	775.4	915.6	1012.4	1112.4	1155.7	1277.7	1259.1	941.6
57.5°	438.0	440.0	482.2	617.4	806.4	977.6	1131.7	1176.3	1305.6	1290.1	983.0
60°	343.9	346.3	376.9	469.8	652.6	883.5	1103.8	1194.1	1360.2	1347.8	1055.4
62.5°	267.6	270.0	288.5	343.2	489.6	738.6	1047.7	1222.7	1464.0	1458.2	1173.9
65°	207.2	208.0	220.8	246.3	345.9	581.7	979.1	1249.5	1604.2	1599.2	1270.0
67.5°	153.0	154.1	163.1	178.9	233.5	417.9	866.8	1228.9	1710.0	1695.3	1304.9
69°	123.6	124.7	132.5	145.2	184.4	329.2	764.2	1178.2	1725.9	1711.9	1282.8
70°	105.7	106.5	114.3	125.1	157.2	279.6	682.8	1134.4	1704.9	1691.4	1232.4
72.5°	67.8	71.7	79.4	86.4	104.2	185.1	460.9	940.8	1471.0	1447.8	965.2
75°	37.6	38.7	52.7	61.2	69.3	120.5	256.4	586.8	935.7	919.5	516.3
77.5°	31.0	31.8	37.2	46.5	46.5	67.4	96.8	231.2	355.9	321.1	139.8
80°	21.7	22.5	28.3	30.6	33.3	38.0	31.4	50.7	55.0	48.8	20.9
82.5°	15.1	15.9	19.4	25.2	26.7	17.8	11.6	15.1	15.9	15.9	8.1
85°	2.7	3.9	14.3	20.9	15.9	5.4	6.6	5.4	5.0	5.4	1.9
87.5°	0.0	0.0	8.9	10.1	8.5	2.3	2.7	1.9	1.2	1.5	0.8
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: P234696

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	166.9	166.9	166.9	166.9	166.9	166.9	166.9	166.9	166.9	166.9	166.9
2.5°	168.1	160.0	146.0	135.9	127.4	120.8	118.1	113.9	110.8	112.3	110.4
5°	172.7	158.4	135.9	121.6	111.5	103.0	96.1	90.6	86.4	85.6	84.8
7.5°	180.1	159.6	130.1	112.3	97.2	84.0	73.2	65.1	58.9	58.9	56.5
10°	190.2	162.7	126.7	103.0	80.6	62.7	51.9	44.2	41.1	40.7	39.9
12.5°	204.1	168.5	123.9	91.0	62.7	45.7	39.1	36.4	35.2	34.9	34.5
15°	223.1	177.0	120.8	76.3	47.6	37.6	34.9	32.5	31.4	31.0	30.6
17.5°	241.3	184.7	114.3	61.2	38.7	34.1	31.0	29.0	27.5	27.1	27.1
20°	258.3	191.3	103.0	47.6	34.9	30.6	27.5	25.2	23.6	23.2	23.2
22.5°	276.2	196.8	89.1	38.7	31.8	27.1	24.0	21.7	20.1	19.8	19.4
25°	295.1	200.6	73.2	34.5	28.7	24.0	20.5	18.6	17.4	17.0	16.7
27.5°	315.7	202.2	58.1	31.4	25.2	20.9	17.8	15.9	15.1	14.7	14.7
30°	334.2	200.6	44.9	27.9	22.1	18.2	15.5	13.9	13.2	12.8	12.8
32.5°	353.6	196.8	36.0	24.8	19.4	15.5	13.2	12.0	11.6	11.2	11.2
35°	374.1	191.7	31.0	22.1	16.7	13.6	11.6	10.8	10.5	10.1	10.1
37.5°	398.2	185.5	28.3	19.8	14.7	12.0	10.1	9.7	9.3	9.3	9.3
40°	425.3	177.8	26.3	17.8	13.2	10.5	8.9	8.5	8.1	8.1	8.1
42.5°	453.9	168.9	24.4	15.9	11.6	8.9	7.7	7.7	7.4	7.4	7.0
45°	486.1	160.0	22.5	13.9	10.1	7.7	6.6	6.2	6.2	5.8	5.8
47.5°	524.0	151.8	20.5	12.4	8.9	6.6	5.8	5.4	5.0	4.6	4.6
50°	577.5	151.1	18.2	10.8	8.1	5.4	4.6	4.3	3.9	3.5	3.5
52.5°	630.5	144.1	15.5	8.9	6.6	4.6	3.5	3.1	2.7	2.7	2.3
55°	642.5	132.5	13.6	7.7	5.0	3.5	2.7	1.9	1.9	1.5	1.5
57.5°	668.9	127.0	11.6	6.2	3.9	2.7	1.5	1.2	1.2	1.2	1.2
60°	720.8	125.5	10.1	5.4	2.7	1.9	1.2	0.8	0.8	0.4	0.4
62.5°	792.4	123.9	8.5	4.6	1.9	1.2	0.8	0.4	0.0	0.0	0.0
65°	831.9	113.5	7.0	3.5	1.5	1.2	0.4	0.0	0.0	0.0	0.0
67.5°	821.5	93.7	6.2	2.3	1.2	0.8	0.4	0.0	0.0	0.0	0.0
69°	777.7	79.0	5.0	1.9	1.2	0.8	0.4	0.0	0.0	0.0	0.0
70°	725.0	68.2	4.6	1.5	0.8	0.4	0.4	0.0	0.0	0.0	0.0
72.5°	514.7	35.6	3.1	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0
75°	240.5	15.9	1.9	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0
77.5°	53.1	7.4	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	10.1	2.7	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.5	1.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.4	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)