

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: P214657

Luminaire Tested: **ARCH-AF24-20-D-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214657
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-AF24-20-D-U-T2R-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 260mA 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: 2253.6 lumens
Efficiency: N/A
Efficacy: 107.3 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 - G0

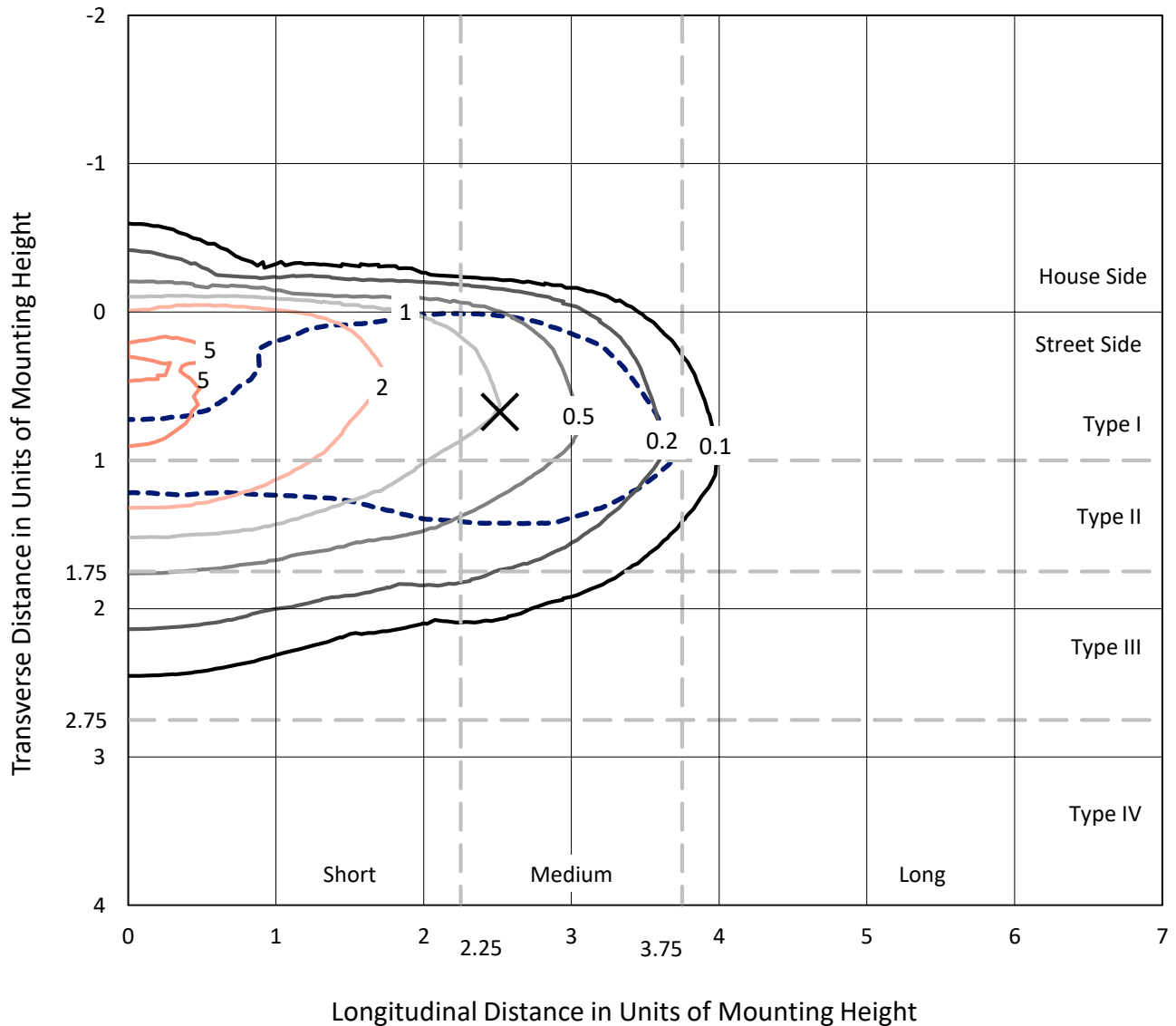
Input Watts (W): 21
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214657
 CATALOG NUMBER: ARCH-AF24-20-D-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

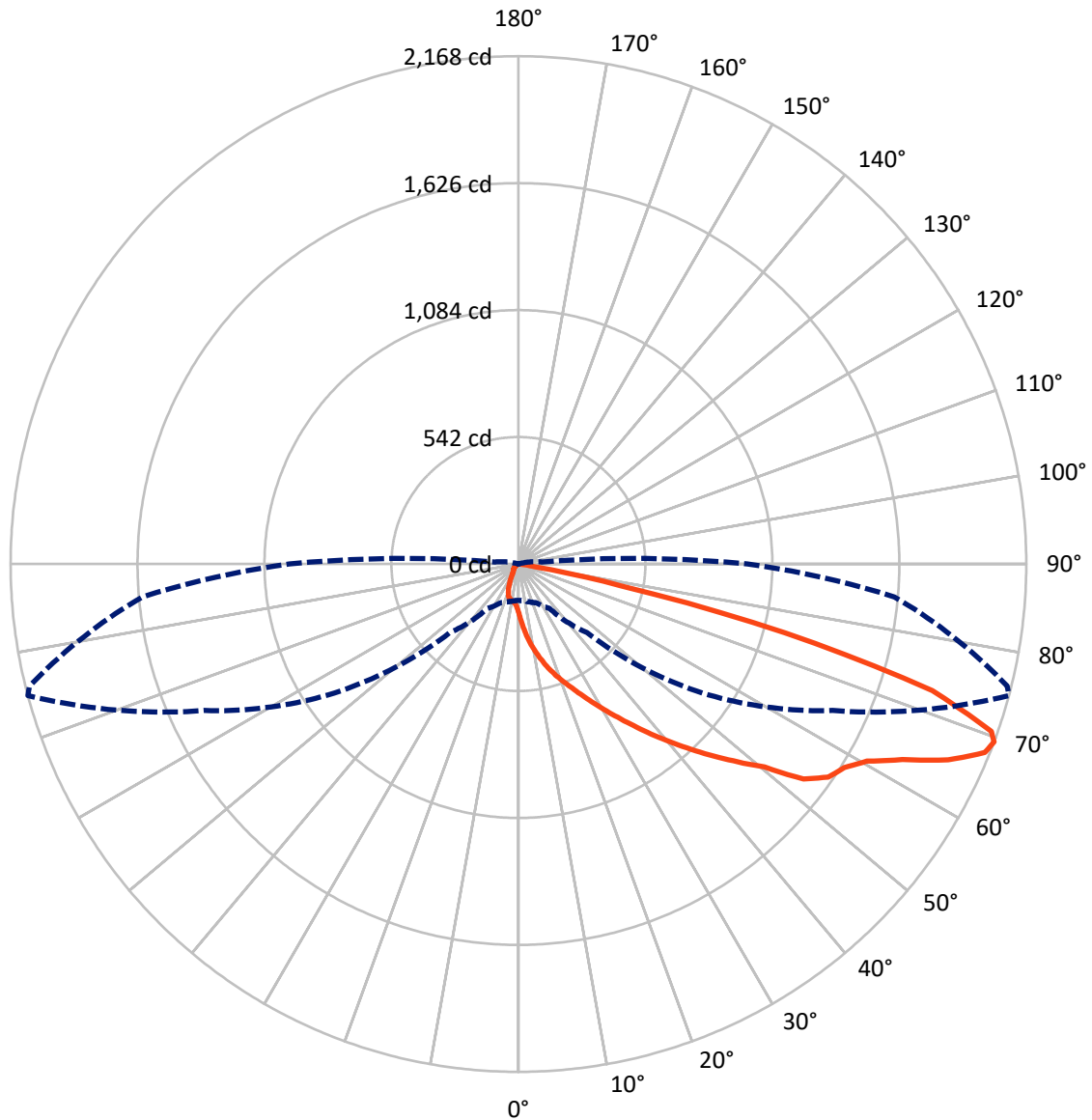
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P214657
CATALOG NUMBER: ARCH-AF24-20-D-U-T2R-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P214657

CATALOG NUMBER: ARCH-AF24-20-D-U-T2R-HSS

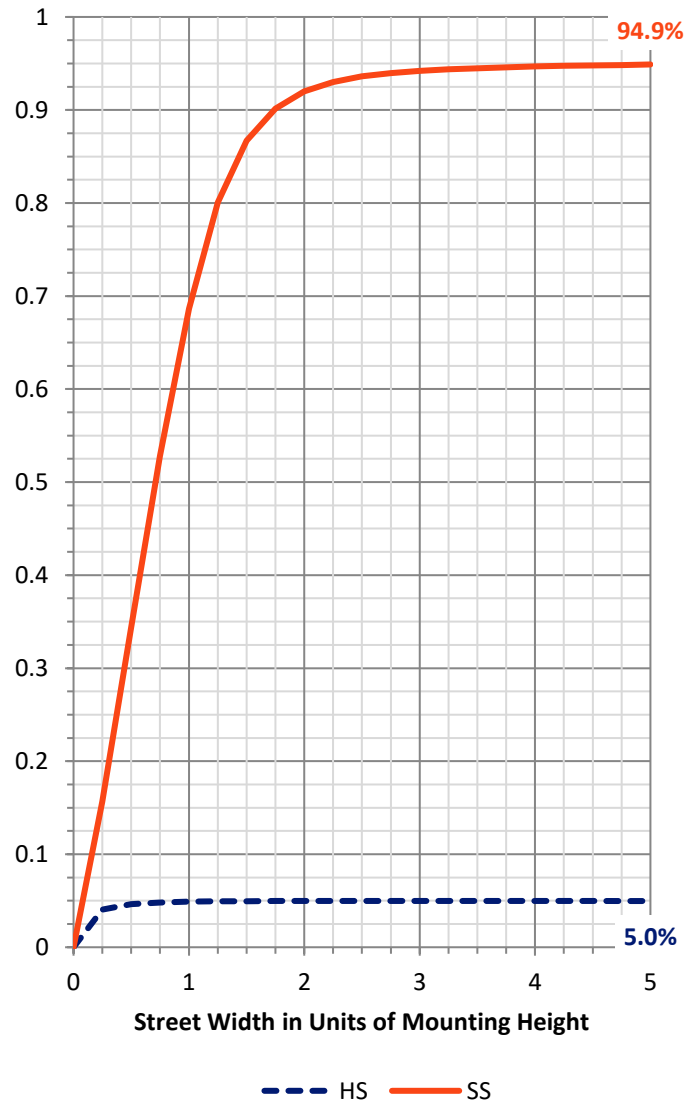
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	112.4	0.0	112.4
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	2141.1	0.0	2141.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	2253.6	0.0	2253.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.5	1.1
10°-20°	87.4	3.9
20°-30°	166.9	7.4
30°-40°	299.4	13.3
40°-50°	458.6	20.4
50°-60°	533.0	23.7
60°-70°	472.0	20.9
70°-80°	203.6	9.0
80°-90°	8.2	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°	2253.6	100.0
0°-180°	2253.6	100.0



REPORT NUMBER: P214657

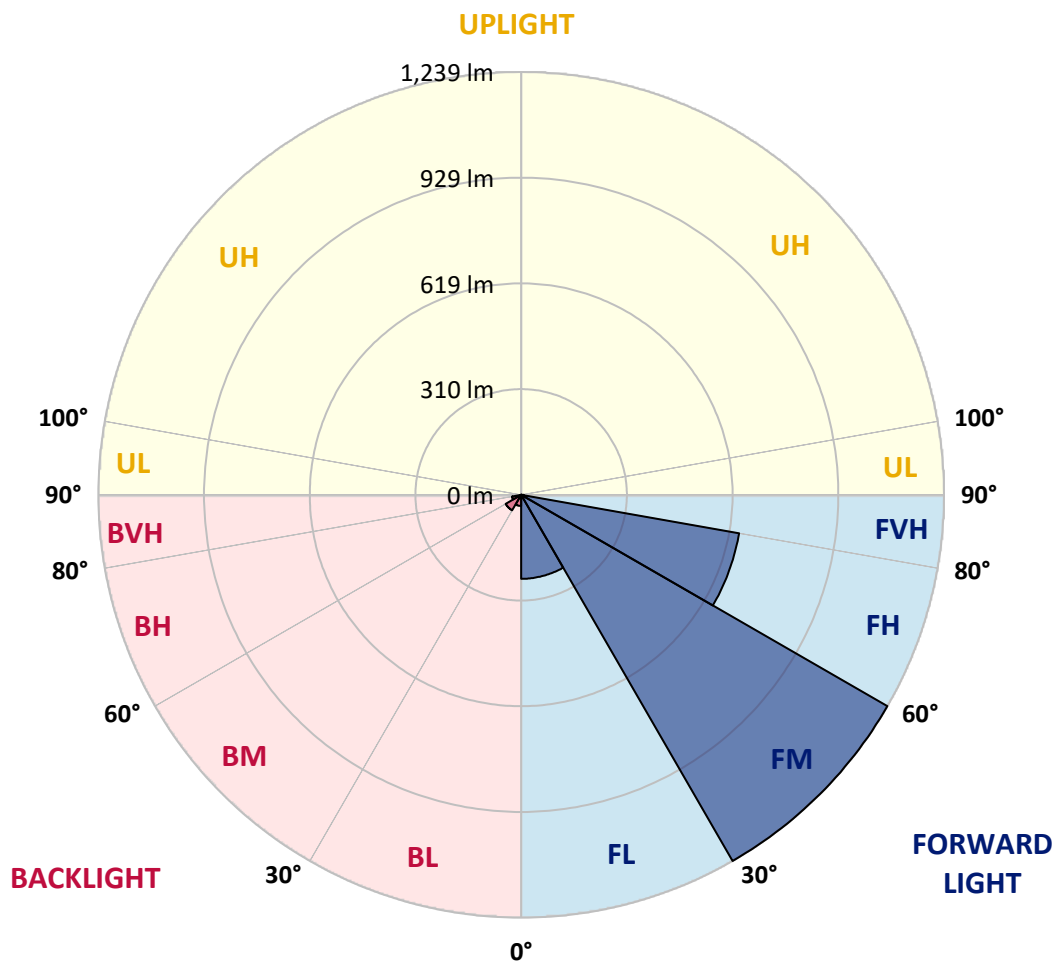
CATALOG NUMBER: ARCH-AF24-20-D-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	246.1	10.9			
FM	(30°-60°)	1238.6	55.0			
FH	(60°-80°)	648.4	28.8			G0/660
FVH	(80°-90°)	8.0	0.4			G0/10
BL	(0°-30°)	32.7	1.4	B0/110		
BM	(30°-60°)	52.4	2.3	B0/220		
BH	(60°-80°)	27.2	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: P214657

CATALOG NUMBER: ARCH-AF24-20-D-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7
2.5°	345.5	342.1	338.6	334.7	326.0	310.9	292.0	271.5	246.2	241.8	221.4
5°	419.4	417.9	414.5	409.2	399.5	382.9	361.5	331.3	289.0	281.7	238.3
7.5°	471.5	470.5	467.6	461.2	452.5	435.9	413.6	380.9	331.8	323.6	259.8
10°	518.1	517.7	515.3	509.4	500.6	482.6	458.8	424.7	372.7	363.5	284.6
12.5°	560.5	561.0	560.0	557.1	550.8	533.7	506.5	469.5	412.0	401.9	314.3
15°	585.3	586.8	590.7	596.5	598.4	584.8	556.6	515.7	452.5	443.8	348.3
17.5°	577.0	578.5	590.7	610.6	629.5	631.5	606.2	559.6	492.3	483.7	382.0
20°	557.1	559.0	571.6	598.9	635.9	661.6	651.4	607.2	530.3	519.7	414.0
22.5°	579.5	579.5	583.4	599.9	633.4	673.8	687.4	654.9	569.3	556.1	446.1
25°	656.3	654.9	646.6	639.8	650.5	686.5	714.7	703.5	615.0	599.9	480.2
27.5°	753.6	760.5	744.9	720.1	695.7	711.3	739.1	751.7	665.5	650.0	515.3
30°	862.7	865.5	847.0	814.0	771.1	756.1	767.7	793.0	720.6	703.5	551.7
32.5°	960.9	958.5	942.9	908.4	855.3	822.8	804.8	826.1	780.4	761.0	589.2
35°	1048.0	1050.0	1030.9	991.0	939.0	904.5	861.6	863.6	847.5	825.1	632.5
37.5°	1126.3	1122.9	1104.9	1065.0	1017.8	980.4	935.1	902.5	921.0	897.6	681.2
40°	1190.0	1186.6	1167.7	1128.7	1084.4	1053.8	1018.3	954.5	998.4	971.6	733.1
42.5°	1240.6	1236.7	1220.7	1183.2	1140.4	1113.2	1096.2	1018.8	1081.1	1054.3	791.6
45°	1265.5	1262.0	1252.3	1224.1	1186.6	1162.8	1171.1	1092.7	1169.6	1147.2	855.8
47.5°	1236.2	1234.8	1246.0	1241.1	1219.8	1207.1	1235.8	1173.5	1262.5	1240.6	929.8
50°	1147.8	1150.1	1182.7	1223.1	1233.4	1248.4	1288.8	1258.6	1362.3	1338.9	1014.9
52.5°	929.2	945.8	1044.1	1141.4	1216.8	1273.7	1351.1	1380.3	1524.8	1501.9	1147.8
55°	693.8	700.6	807.6	974.1	1150.1	1271.7	1397.4	1451.8	1605.0	1581.7	1182.7
57.5°	550.2	552.7	605.7	775.5	1012.9	1228.0	1421.6	1477.6	1640.1	1620.7	1234.8
60°	432.0	435.0	473.4	590.1	819.8	1109.8	1386.6	1500.0	1708.6	1693.1	1325.7
62.5°	336.1	339.1	362.4	431.1	615.0	927.8	1316.0	1536.0	1839.1	1831.8	1474.7
65°	260.3	261.3	277.3	309.4	434.4	730.8	1229.9	1569.5	2015.2	2008.9	1595.3
67.5°	192.2	193.6	204.8	224.7	293.4	525.0	1088.8	1543.7	2148.0	2129.5	1639.1
69°	155.2	156.6	166.4	182.5	231.6	413.6	959.9	1480.0	2167.9	2150.4	1611.4
70°	132.8	133.8	143.5	157.1	197.5	351.3	857.7	1425.1	2141.6	2124.7	1548.1
72.5°	85.1	90.0	99.7	108.5	130.8	232.5	579.0	1181.8	1847.9	1818.6	1212.4
75°	47.2	48.7	66.2	76.8	87.1	151.3	322.1	737.1	1175.5	1155.0	648.6
77.5°	38.9	39.9	46.7	58.4	58.4	84.7	121.6	290.4	447.1	403.3	175.6
80°	27.2	28.2	35.5	38.5	41.8	47.7	39.4	63.7	69.0	61.3	26.3
82.5°	18.9	19.9	24.3	31.6	33.6	22.4	14.6	18.9	19.9	19.9	10.2
85°	3.4	4.9	18.0	26.3	19.9	6.9	8.3	6.9	6.3	6.9	2.5
87.5°	0.0	0.0	11.2	12.7	10.7	3.0	3.4	2.5	1.4	1.9	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: P214657

CATALOG NUMBER: ARCH-AF24-20-D-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7
2.5°	211.1	200.9	183.4	170.7	160.1	151.8	148.4	143.0	139.1	141.1	138.6
5°	217.0	199.0	170.7	152.7	140.1	129.4	120.7	113.9	108.5	107.5	106.6
7.5°	226.3	200.5	163.5	141.1	122.1	105.6	92.0	81.7	74.0	74.0	71.0
10°	238.9	204.4	159.1	129.4	101.2	78.8	65.2	55.4	51.6	51.0	50.1
12.5°	256.4	211.6	155.7	114.4	78.8	57.4	49.1	45.7	44.3	43.8	43.3
15°	280.3	222.4	151.8	95.9	59.8	47.2	43.8	40.9	39.4	38.9	38.5
17.5°	303.1	232.1	143.5	76.8	48.7	42.9	38.9	36.5	34.6	34.1	34.1
20°	324.5	240.4	129.4	59.8	43.8	38.5	34.6	31.6	29.7	29.2	29.2
22.5°	346.9	247.1	111.9	48.7	39.9	34.1	30.2	27.2	25.3	24.9	24.3
25°	370.7	252.1	92.0	43.3	36.0	30.2	25.8	23.3	21.9	21.4	21.0
27.5°	396.5	254.0	72.9	39.4	31.6	26.3	22.4	19.9	18.9	18.5	18.5
30°	419.9	252.1	56.5	35.0	27.7	22.9	19.4	17.5	16.6	16.1	16.1
32.5°	444.2	247.1	45.2	31.1	24.3	19.4	16.6	15.0	14.6	14.1	14.1
35°	469.9	240.8	38.9	27.7	21.0	17.0	14.6	13.6	13.1	12.7	12.7
37.5°	500.1	233.0	35.5	24.9	18.5	15.0	12.7	12.2	11.7	11.7	11.7
40°	534.2	223.3	33.0	22.4	16.6	13.1	11.2	10.7	10.2	10.2	10.2
42.5°	570.2	212.2	30.7	19.9	14.6	11.2	9.7	9.7	9.2	9.2	8.8
45°	610.6	200.9	28.2	17.5	12.7	9.7	8.3	7.8	7.8	7.3	7.3
47.5°	658.3	190.7	25.8	15.5	11.2	8.3	7.3	6.9	6.3	5.8	5.8
50°	725.4	189.8	22.9	13.6	10.2	6.9	5.8	5.3	4.9	4.4	4.4
52.5°	792.1	181.0	19.4	11.2	8.3	5.8	4.4	3.9	3.4	3.4	3.0
55°	807.1	166.4	17.0	9.7	6.3	4.4	3.4	2.5	2.5	1.9	1.9
57.5°	840.3	159.6	14.6	7.8	4.9	3.4	1.9	1.4	1.4	1.4	1.4
60°	905.4	157.6	12.7	6.9	3.4	2.5	1.4	1.0	1.0	0.5	0.5
62.5°	995.4	155.7	10.7	5.8	2.5	1.4	1.0	0.5	0.0	0.0	0.0
65°	1045.0	142.6	8.8	4.4	1.9	1.4	0.5	0.0	0.0	0.0	0.0
67.5°	1032.0	117.7	7.8	3.0	1.4	1.0	0.5	0.0	0.0	0.0	0.0
69°	976.9	99.2	6.3	2.5	1.4	1.0	0.5	0.0	0.0	0.0	0.0
70°	910.7	85.6	5.8	1.9	1.0	0.5	0.5	0.0	0.0	0.0	0.0
72.5°	646.6	44.8	3.9	1.4	1.0	0.5	0.0	0.0	0.0	0.0	0.0
75°	302.2	19.9	2.5	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0
77.5°	66.7	9.2	1.4	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	12.7	3.4	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.4	1.4	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.4	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)