

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: P214918

Luminaire Tested: **ARCH-AF16-20-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214918
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-AF16-20-D-U-T4W-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 420mA 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: 2037.7 lumens
Efficiency: N/A
Efficacy: 84.9 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): 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

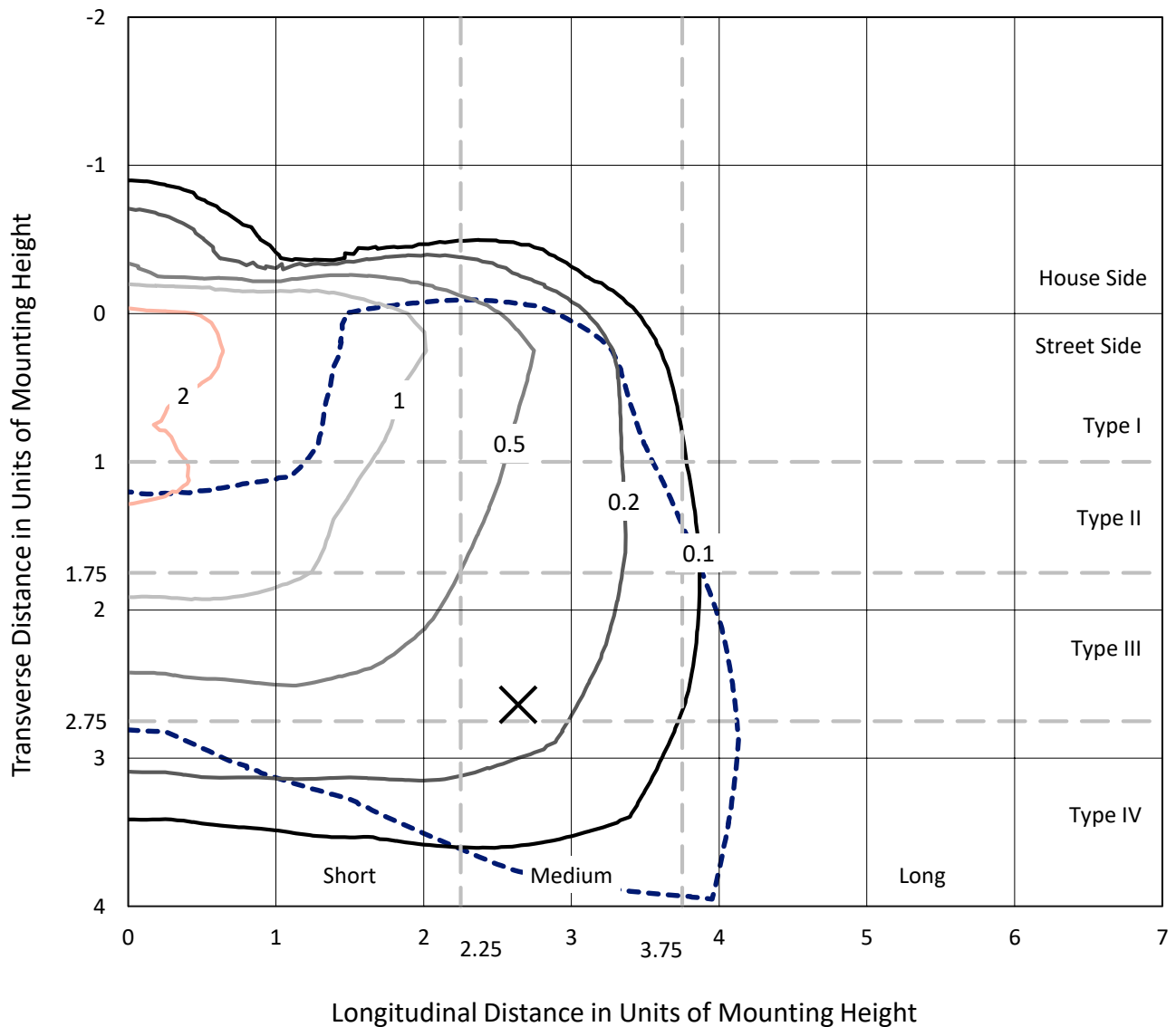


REPORT NUMBER: P214918

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

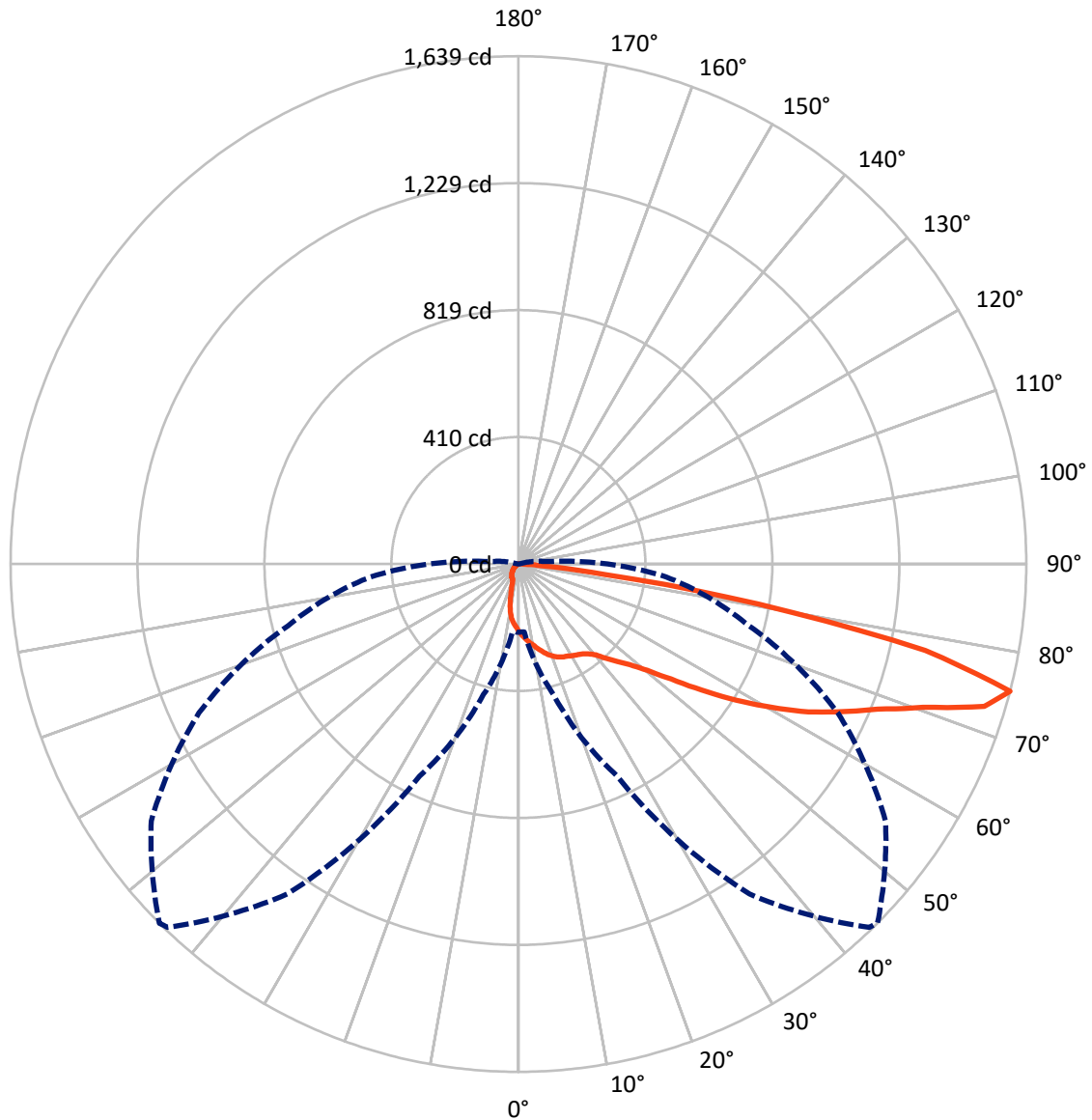


Based on 10 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P214918

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P214918

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030-HSS

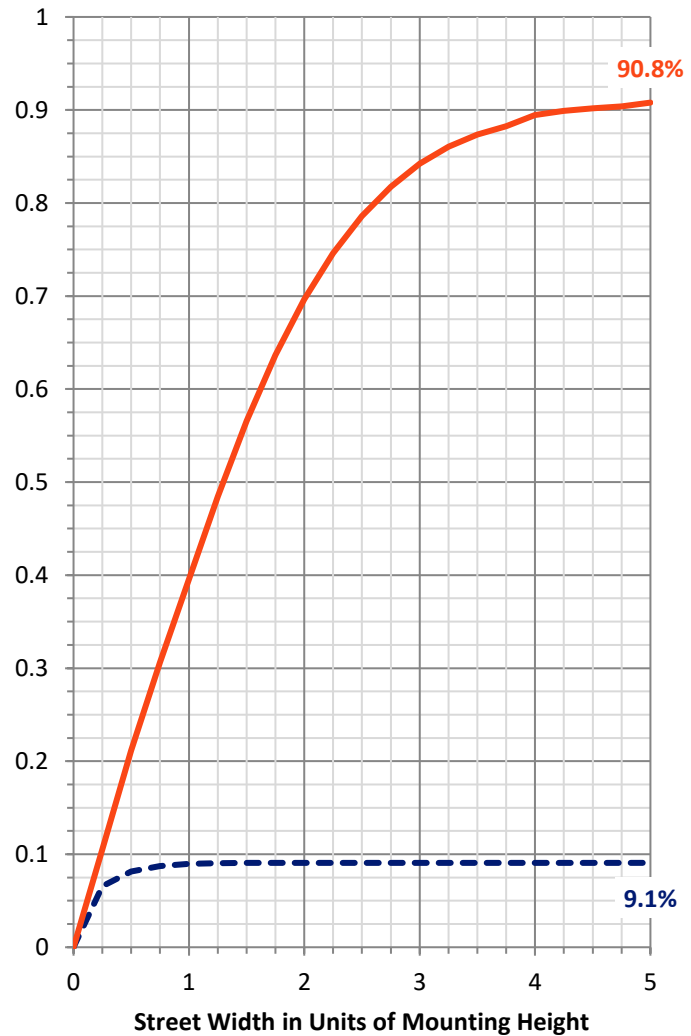
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	186.4	0.0	186.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	1851.3	0.0	1851.3
	% Fixture	90.9	0.0	90.9
Total	Lumens	2037.7	0.0	2037.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.6	1.0
10°-20°	58.3	2.9
20°-30°	96.5	4.7
30°-40°	139.7	6.9
40°-50°	228.7	11.2
50°-60°	407.5	20.0
60°-70°	599.1	29.4
70°-80°	451.9	22.2
80°-90°	35.5	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°	2037.7	100.0
0°-180°	2037.7	100.0



--- HS — SS

REPORT NUMBER: P214918

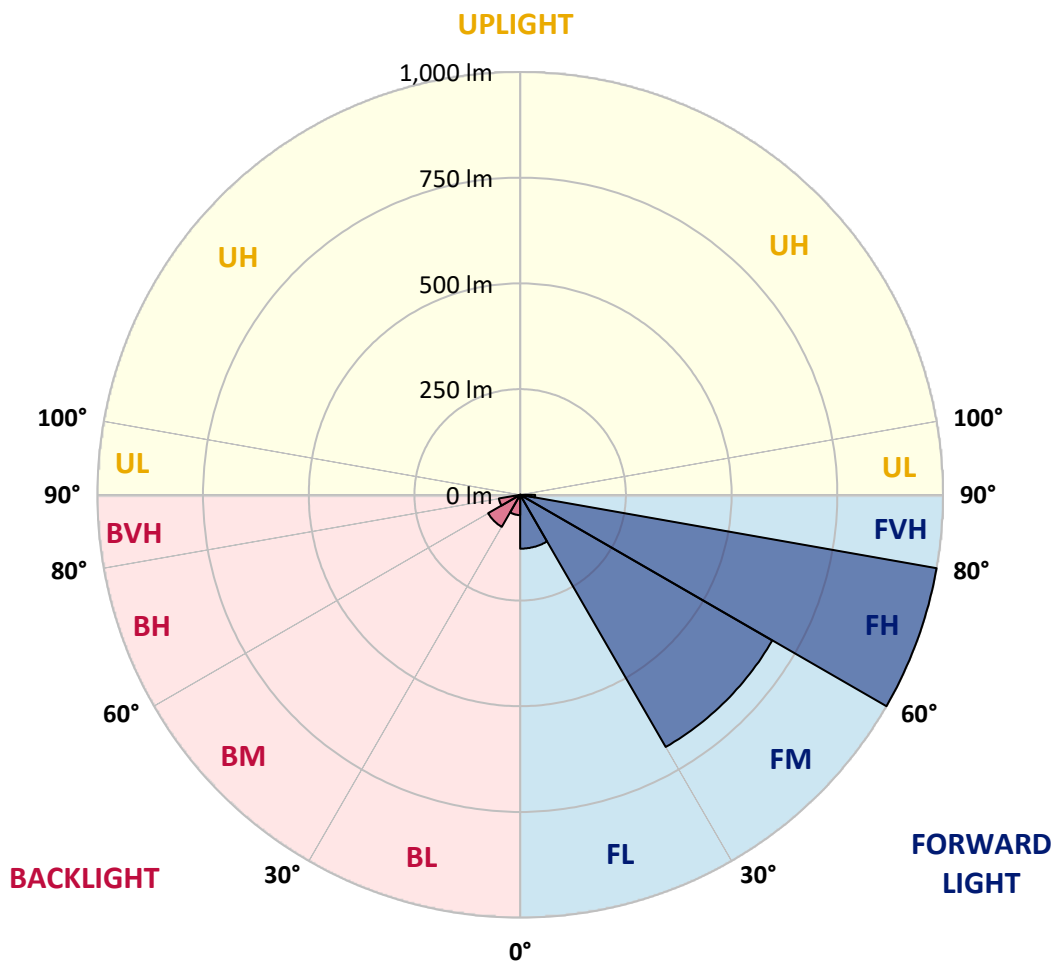
CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	127.5	6.3			
FM	(30°-60°)	688.5	33.8			
FH	(60°-80°)	1000.0	49.1			G1/1800
FVH	(80°-90°)	35.4	1.7			G1/100
BL	(0°-30°)	47.9	2.4	B0/110		
BM	(30°-60°)	87.3	4.3	B0/220		
BH	(60°-80°)	51.0	2.5	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 IV Medium





REPORT NUMBER: P214918

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	218.0	218.0	218.0	218.0	218.0	218.0	218.0	218.0	218.0	218.0	218.0
2.5°	236.8	236.8	236.2	235.8	233.4	231.0	230.4	229.0	224.7	221.8	218.9
5°	256.5	257.0	256.0	253.6	248.3	243.0	242.5	238.6	230.4	224.7	218.4
7.5°	275.4	276.3	273.9	269.6	263.4	255.5	255.1	247.8	237.2	229.0	219.8
10°	291.2	291.2	287.9	282.6	275.8	267.5	266.6	258.4	246.4	236.2	224.2
12.5°	308.5	308.1	303.3	296.1	288.3	280.6	280.1	270.0	258.4	245.4	230.4
15°	324.5	323.5	317.3	310.6	302.3	294.1	293.7	283.5	271.5	256.0	239.6
17.5°	333.1	332.7	326.9	320.1	313.5	307.1	306.7	296.1	283.0	267.1	248.8
20°	334.7	335.1	330.3	324.5	320.6	317.3	317.3	307.7	293.7	276.8	258.4
22.5°	335.1	336.5	333.1	325.5	324.5	324.9	325.9	318.3	303.7	287.9	268.6
25°	338.4	340.5	338.0	328.9	327.9	331.3	332.2	328.9	315.9	299.9	280.1
27.5°	345.3	347.1	345.3	333.7	332.2	335.7	336.5	338.4	328.9	311.5	292.2
30°	358.7	359.3	354.9	340.5	337.5	341.9	343.3	348.6	340.9	322.6	303.7
32.5°	382.4	377.5	364.5	345.3	342.8	347.7	349.1	354.9	352.1	333.1	315.9
35°	430.6	405.5	375.7	352.1	349.5	354.4	356.3	364.5	366.0	348.1	330.7
37.5°	430.1	407.4	401.6	365.0	361.6	365.0	367.4	377.5	383.3	367.8	352.5
40°	460.5	450.8	450.8	389.6	378.5	383.3	385.6	395.8	406.0	393.9	378.0
42.5°	555.9	549.7	542.9	436.8	402.2	415.6	417.1	423.4	435.4	431.6	412.8
45°	662.5	656.7	630.7	516.9	442.6	445.0	448.4	458.6	476.0	483.2	461.0
47.5°	745.9	740.1	718.0	613.3	505.8	484.6	484.6	504.3	531.3	549.7	528.5
50°	812.9	806.3	792.6	715.9	609.4	541.5	538.5	561.7	601.8	630.2	615.7
52.5°	878.0	858.2	850.0	822.0	726.7	624.0	616.2	632.6	688.0	723.3	711.2
55°	921.4	918.6	909.9	919.5	849.6	724.2	717.5	720.9	790.3	813.9	798.9
57.5°	961.9	961.5	980.7	1025.6	983.7	839.0	828.4	823.0	889.2	883.4	896.4
60°	1012.1	1003.4	1048.3	1112.4	1106.6	950.9	938.7	928.1	964.9	948.5	1013.1
62.5°	1014.5	1012.1	1103.2	1195.3	1228.6	1064.6	1050.6	1012.5	1030.9	1012.1	1124.4
65°	922.3	934.5	1126.4	1239.2	1330.8	1164.4	1147.5	1088.2	1089.8	1077.2	1255.6
67.5°	901.6	908.0	1062.6	1286.4	1404.5	1265.2	1249.3	1175.5	1158.1	1159.1	1333.2
70°	850.0	859.8	983.7	1283.0	1462.9	1399.7	1383.9	1303.8	1261.8	1215.1	1273.4
72.5°	649.4	665.8	828.8	1125.0	1447.0	1575.7	1571.3	1466.3	1303.4	1115.7	963.3
75°	219.8	219.4	435.4	755.5	1299.9	1629.7	1638.5	1446.0	1137.0	769.5	478.3
77.5°	47.2	47.7	89.7	306.2	863.5	1308.6	1341.9	1090.6	733.3	342.8	109.5
80°	23.2	23.6	37.1	81.0	345.3	733.9	785.9	560.7	271.0	68.5	18.3
82.5°	11.6	12.0	19.3	42.9	127.8	260.8	278.7	206.4	77.7	38.6	9.2
85°	4.4	4.4	9.7	25.5	58.4	61.1	75.2	59.8	46.8	31.3	2.4
87.5°	1.0	1.0	5.4	12.6	26.0	19.3	19.3	18.3	28.4	21.2	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: P214918

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	218.0	218.0	218.0	218.0	218.0	218.0	218.0	218.0	218.0	218.0	218.0
2.5°	217.4	215.6	212.2	208.8	206.4	203.4	202.0	200.6	200.1	199.6	200.6
5°	215.0	212.2	205.9	200.6	195.8	191.9	189.0	186.1	184.6	183.7	184.2
7.5°	215.0	210.8	201.6	193.4	185.6	177.4	169.3	163.1	158.1	155.2	155.7
10°	217.4	211.6	199.6	188.6	174.0	156.7	138.9	125.3	116.3	110.9	110.9
12.5°	222.8	215.0	200.1	182.8	158.1	127.8	100.7	84.3	77.7	73.8	74.3
15°	230.0	220.8	202.4	175.1	135.9	94.9	70.4	59.8	59.8	60.7	61.1
17.5°	238.1	228.1	204.5	163.5	107.5	68.0	55.5	54.5	55.9	58.4	58.4
20°	246.4	235.4	205.4	145.1	80.6	54.0	52.6	52.6	53.5	55.9	56.4
22.5°	256.5	244.4	204.5	122.5	60.3	51.2	50.6	50.6	50.6	53.5	53.5
25°	267.1	255.1	200.6	98.4	51.2	49.1	48.7	48.2	48.2	50.6	51.2
27.5°	279.1	266.1	191.4	75.2	48.2	47.2	46.8	45.8	45.8	47.7	47.7
30°	291.2	278.7	177.4	57.0	45.8	45.4	44.4	43.3	42.4	44.4	44.4
32.5°	304.3	291.7	159.1	45.4	42.4	42.4	41.9	40.5	39.6	40.5	41.0
35°	321.7	306.7	138.4	39.6	38.1	38.1	38.1	37.5	35.7	36.6	36.6
37.5°	344.7	327.3	114.2	36.6	34.8	33.8	33.8	33.8	32.3	32.8	32.8
40°	374.2	351.5	91.1	34.2	32.3	29.9	29.0	29.4	28.4	28.4	28.0
42.5°	414.2	377.5	68.5	32.3	30.4	27.0	25.0	24.6	23.6	23.2	23.2
45°	471.6	409.4	49.1	30.4	29.0	23.6	21.8	20.2	17.8	16.4	16.4
47.5°	545.9	445.6	36.6	28.4	27.6	20.8	18.3	15.4	12.0	11.2	11.2
50°	636.4	485.9	30.8	25.5	25.0	18.3	14.4	10.2	6.8	5.8	6.2
52.5°	724.7	524.1	27.6	22.6	22.2	16.0	10.6	5.4	2.8	2.8	2.8
55°	798.9	551.1	25.0	20.2	19.3	12.6	5.8	2.4	1.4	1.4	1.4
57.5°	866.0	566.5	22.6	17.8	15.4	8.6	2.4	1.0	1.0	0.4	0.4
60°	927.2	575.7	19.7	15.4	12.0	4.8	1.0	0.4	0.4	0.0	0.0
62.5°	987.4	582.5	16.8	12.6	9.2	1.9	0.4	0.4	0.0	0.0	0.0
65°	1033.3	580.0	13.5	10.2	5.8	1.0	0.4	0.0	0.0	0.0	0.0
67.5°	1031.9	547.3	10.2	7.7	2.8	0.4	0.0	0.0	0.0	0.0	0.0
70°	922.9	461.0	6.8	4.8	1.0	0.4	0.0	0.0	0.0	0.0	0.0
72.5°	654.8	295.5	4.4	2.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	288.3	89.7	2.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	56.4	20.8	1.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	13.5	2.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.4	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)