

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: P234701

Luminaire Tested: **ARCH-AF24-20-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234701
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-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 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: 1712 lumens
Efficiency: N/A
Efficacy: 81.5 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 (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

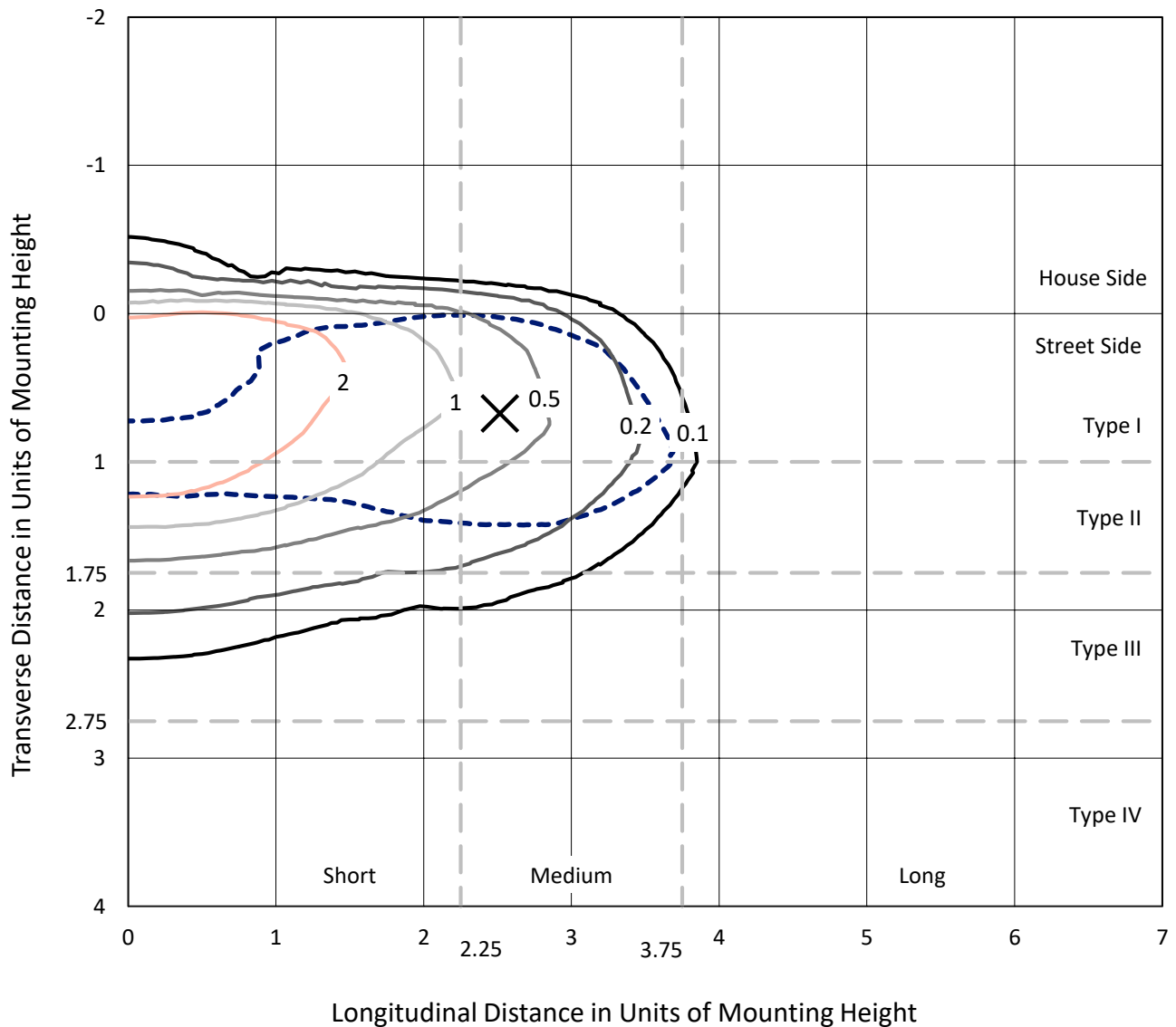


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

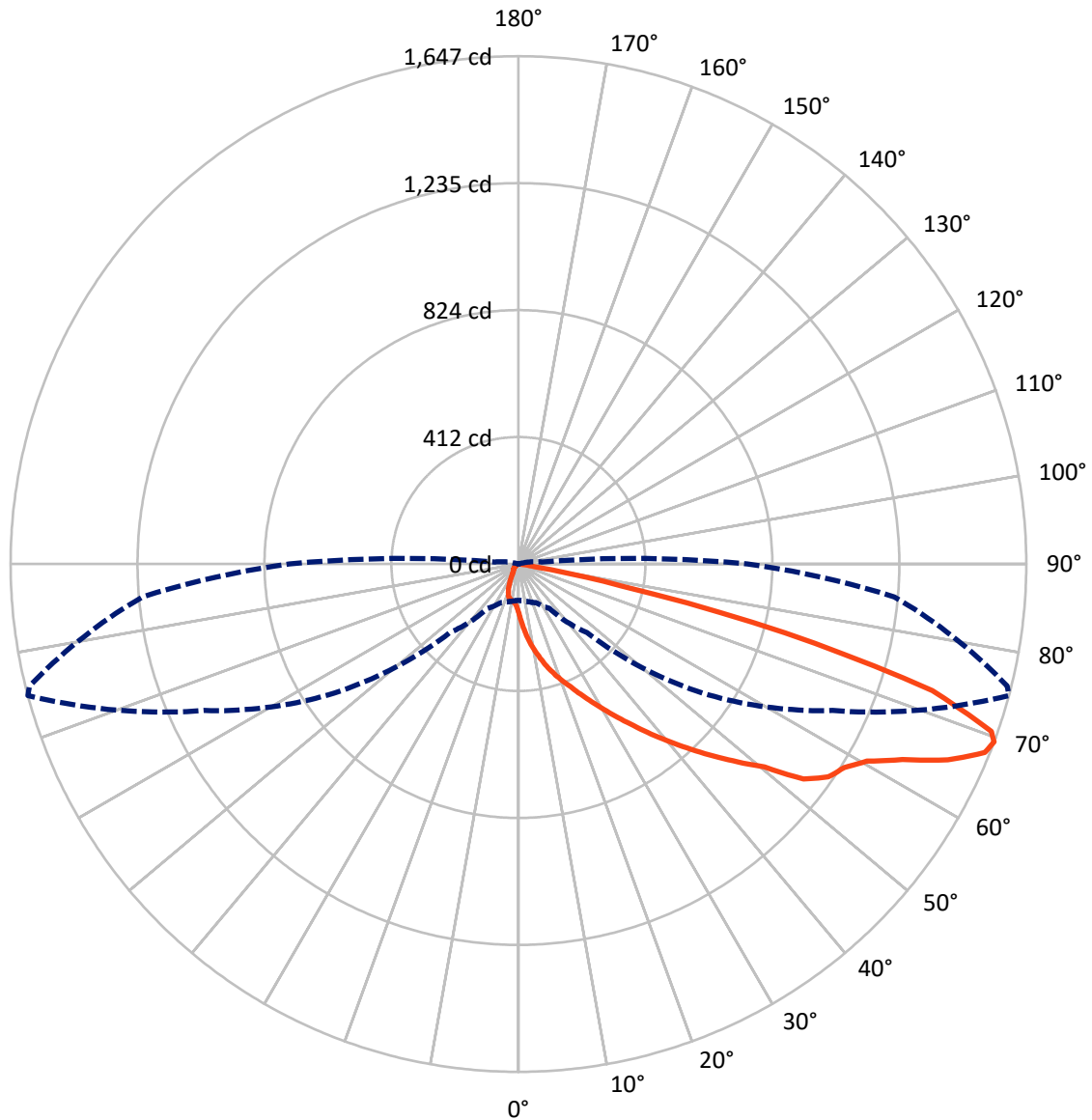


Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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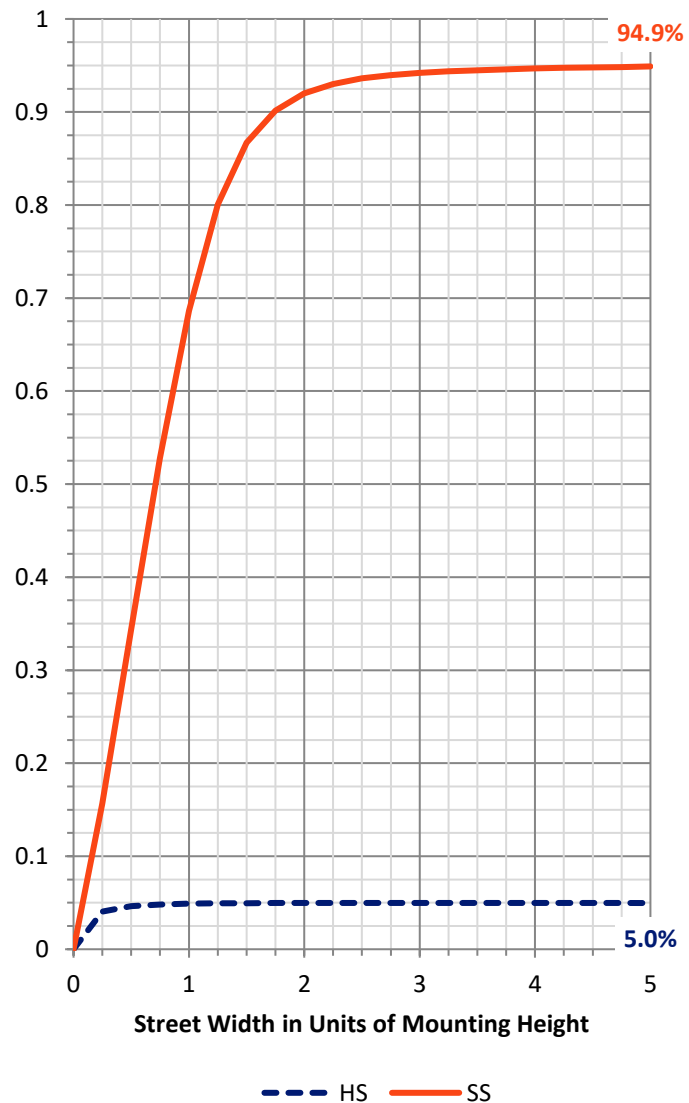
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	85.4	0.0	85.4
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	1626.6	0.0	1626.6
	% Fixture	95.0	0.0	95.0
Total	Lumens	1712.0	0.0	1712.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.6	1.1
10°-20°	66.4	3.9
20°-30°	126.8	7.4
30°-40°	227.4	13.3
40°-50°	348.4	20.4
50°-60°	404.9	23.7
60°-70°	358.6	20.9
70°-80°	154.7	9.0
80°-90°	6.2	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°	1712.0	100.0
0°-180°	1712.0	100.0

Coefficient of Utilization



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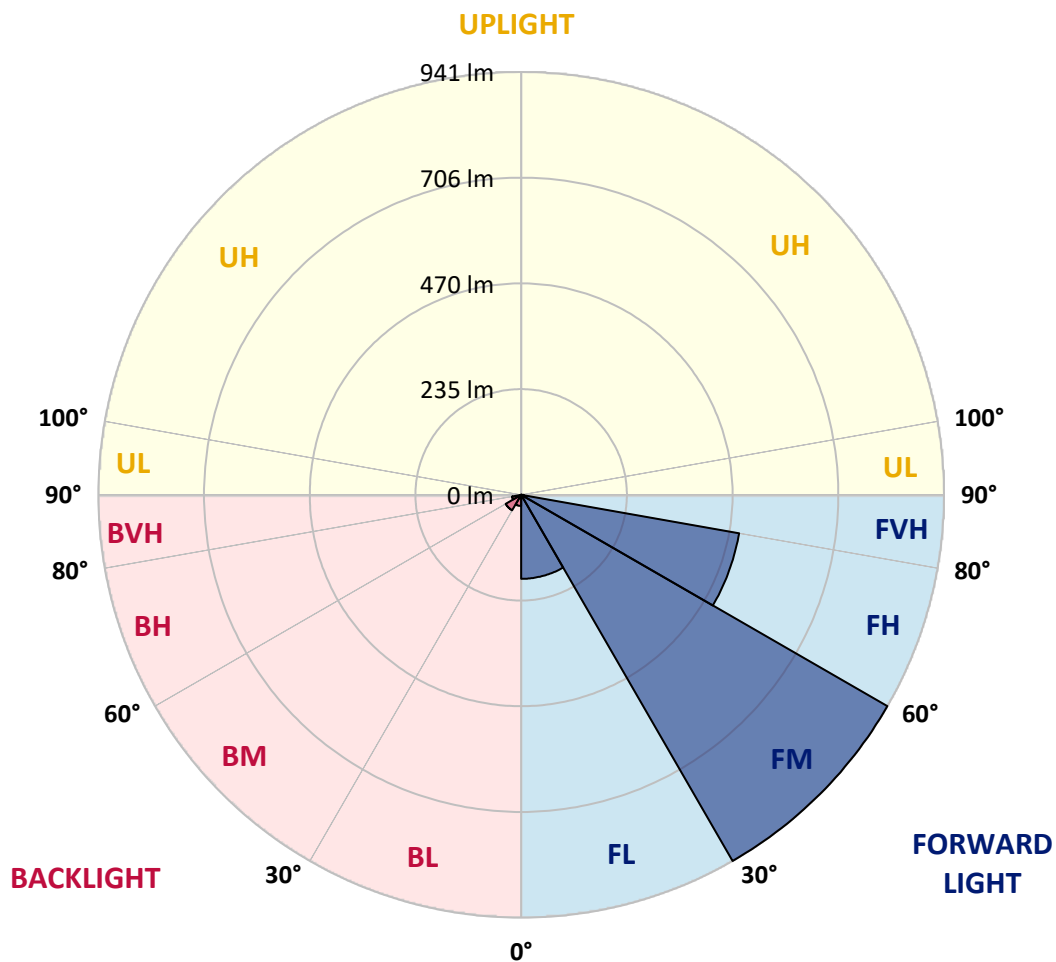
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	187.0	10.9			
FM (30°-60°)	941.0	55.0			
FH (60°-80°)	492.6	28.8			G0/660
FVH (80°-90°)	6.1	0.4			G0/10
BL (0°-30°)	24.8	1.4	B0/110		
BM (30°-60°)	39.8	2.3	B0/220		
BH (60°-80°)	20.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3
2.5°	262.4	259.8	257.2	254.3	247.6	236.2	221.8	206.2	187.0	183.7	168.2
5°	318.6	317.5	314.9	310.8	303.4	290.9	274.6	251.7	219.5	214.0	181.1
7.5°	358.1	357.4	355.2	350.4	343.7	331.2	314.2	289.4	252.1	245.8	197.4
10°	393.6	393.3	391.4	387.0	380.3	366.7	348.5	322.7	283.1	276.1	216.2
12.5°	425.8	426.2	425.4	423.2	418.4	405.5	384.8	356.7	313.1	305.3	238.8
15°	444.6	445.7	448.7	453.1	454.6	444.3	422.8	391.8	343.7	337.1	264.6
17.5°	438.4	439.5	448.7	463.9	478.3	479.8	460.5	425.0	374.0	367.4	290.1
20°	423.2	424.7	434.3	455.0	483.1	502.7	494.9	461.3	402.9	394.7	314.5
22.5°	440.2	440.2	443.2	455.7	481.2	511.9	522.3	497.5	432.4	422.5	338.9
25°	498.6	497.5	491.2	486.0	494.2	521.5	543.0	534.5	467.2	455.7	364.8
27.5°	572.5	577.7	565.9	547.0	528.5	540.4	561.4	571.0	505.6	493.8	391.4
30°	655.3	657.5	643.5	618.4	585.8	574.4	583.2	602.5	547.4	534.5	419.1
32.5°	730.0	728.1	716.3	690.1	649.8	625.0	611.3	627.6	592.9	578.1	447.6
35°	796.1	797.6	783.2	752.9	713.3	687.1	654.6	656.1	643.9	626.9	480.5
37.5°	855.6	853.1	839.4	809.1	773.2	744.8	710.4	685.6	699.7	681.9	517.5
40°	904.1	901.5	887.1	857.5	823.9	800.6	773.6	725.2	758.4	738.1	557.0
42.5°	942.5	939.5	927.3	898.9	866.4	845.7	832.7	774.0	821.3	800.9	601.4
45°	961.3	958.8	951.4	929.9	901.5	883.4	889.6	830.1	888.5	871.5	650.1
47.5°	939.2	938.1	946.6	942.9	926.6	917.0	938.8	891.5	959.1	942.5	706.3
50°	871.9	873.8	898.5	929.2	937.0	948.4	979.1	956.2	1034.9	1017.2	771.0
52.5°	706.0	718.5	793.2	867.1	924.4	967.6	1026.4	1048.6	1158.4	1141.0	871.9
55°	527.1	532.2	613.5	740.0	873.8	966.2	1061.5	1102.9	1219.3	1201.6	898.5
57.5°	418.0	419.9	460.2	589.2	769.5	932.9	1080.0	1122.5	1245.9	1231.2	938.1
60°	328.2	330.4	359.6	448.3	622.8	843.1	1053.4	1139.5	1298.1	1286.2	1007.2
62.5°	255.4	257.6	275.4	327.5	467.2	704.8	999.8	1166.9	1397.1	1391.6	1120.3
65°	197.7	198.5	210.7	235.1	330.1	555.2	934.4	1192.4	1530.9	1526.1	1211.9
67.5°	146.0	147.1	155.6	170.8	222.9	398.8	827.2	1172.8	1631.8	1617.8	1245.2
69°	117.9	119.0	126.4	138.6	175.9	314.2	729.2	1124.3	1647.0	1633.7	1224.1
70°	100.9	101.6	109.0	119.4	150.1	266.9	651.6	1082.6	1627.0	1614.1	1176.1
72.5°	64.7	68.4	75.8	82.4	99.4	176.7	439.8	897.8	1403.8	1381.6	921.1
75°	35.9	37.0	50.3	58.4	66.2	114.9	244.7	560.0	893.0	877.4	492.7
77.5°	29.6	30.3	35.5	44.4	44.4	64.3	92.4	220.7	339.7	306.4	133.4
80°	20.7	21.4	27.0	29.2	31.8	36.2	29.9	48.4	52.5	46.6	20.0
82.5°	14.4	15.2	18.5	24.0	25.5	17.0	11.1	14.4	15.2	15.2	7.8
85°	2.6	3.7	13.7	20.0	15.2	5.2	6.3	5.2	4.8	5.2	1.8
87.5°	0.0	0.0	8.5	9.6	8.1	2.2	2.6	1.8	1.1	1.5	0.7
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°	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3
2.5°	160.4	152.6	139.3	129.7	121.6	115.3	112.7	108.7	105.7	107.2	105.3
5°	164.8	151.2	129.7	116.1	106.4	98.3	91.7	86.5	82.4	81.7	80.9
7.5°	171.9	152.3	124.2	107.2	92.8	80.2	69.9	62.1	56.2	56.2	54.0
10°	181.5	155.2	120.9	98.3	76.9	59.9	49.5	42.1	39.2	38.8	38.1
12.5°	194.8	160.8	118.3	86.9	59.9	43.6	37.3	34.7	33.6	33.3	32.9
15°	212.9	168.9	115.3	72.8	45.5	35.9	33.3	31.0	29.9	29.6	29.2
17.5°	230.3	176.3	109.0	58.4	37.0	32.5	29.6	27.7	26.2	25.9	25.9
20°	246.5	182.6	98.3	45.5	33.3	29.2	26.2	24.0	22.5	22.2	22.2
22.5°	263.5	187.8	85.0	37.0	30.3	25.9	22.9	20.7	19.2	18.8	18.5
25°	281.6	191.5	69.9	32.9	27.4	22.9	19.6	17.7	16.6	16.3	15.9
27.5°	301.2	192.9	55.4	29.9	24.0	20.0	17.0	15.2	14.4	14.0	14.0
30°	319.0	191.5	42.9	26.6	21.1	17.4	14.8	13.3	12.6	12.2	12.2
32.5°	337.5	187.8	34.4	23.7	18.5	14.8	12.6	11.5	11.1	10.7	10.7
35°	357.0	183.0	29.6	21.1	15.9	12.9	11.1	10.3	10.0	9.6	9.6
37.5°	380.0	177.0	27.0	18.8	14.0	11.5	9.6	9.2	8.9	8.9	8.9
40°	405.8	169.6	25.1	17.0	12.6	10.0	8.5	8.1	7.8	7.8	7.8
42.5°	433.2	161.1	23.3	15.2	11.1	8.5	7.4	7.4	7.0	7.0	6.7
45°	463.9	152.6	21.4	13.3	9.6	7.4	6.3	5.9	5.9	5.5	5.5
47.5°	500.1	144.9	19.6	11.8	8.5	6.3	5.5	5.2	4.8	4.4	4.4
50°	551.1	144.1	17.4	10.3	7.8	5.2	4.4	4.1	3.7	3.3	3.3
52.5°	601.7	137.5	14.8	8.5	6.3	4.4	3.3	3.0	2.6	2.6	2.2
55°	613.2	126.4	12.9	7.4	4.8	3.3	2.6	1.8	1.8	1.5	1.5
57.5°	638.3	121.2	11.1	5.9	3.7	2.6	1.5	1.1	1.1	1.1	1.1
60°	687.8	119.8	9.6	5.2	2.6	1.8	1.1	0.7	0.7	0.4	0.4
62.5°	756.2	118.3	8.1	4.4	1.8	1.1	0.7	0.4	0.0	0.0	0.0
65°	793.9	108.3	6.7	3.3	1.5	1.1	0.4	0.0	0.0	0.0	0.0
67.5°	783.9	89.4	5.9	2.2	1.1	0.7	0.4	0.0	0.0	0.0	0.0
69°	742.2	75.4	4.8	1.8	1.1	0.7	0.4	0.0	0.0	0.0	0.0
70°	691.9	65.1	4.4	1.5	0.7	0.4	0.4	0.0	0.0	0.0	0.0
72.5°	491.2	34.0	3.0	1.1	0.7	0.4	0.0	0.0	0.0	0.0	0.0
75°	229.5	15.2	1.8	0.7	0.4	0.4	0.0	0.0	0.0	0.0	0.0
77.5°	50.6	7.0	1.1	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	9.6	2.6	0.7	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.3	1.1	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.1	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)