

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: P234729

Luminaire Tested: **ARCH-AF24-20-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234729
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
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-T3-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1584 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B0 - U0 - G1

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

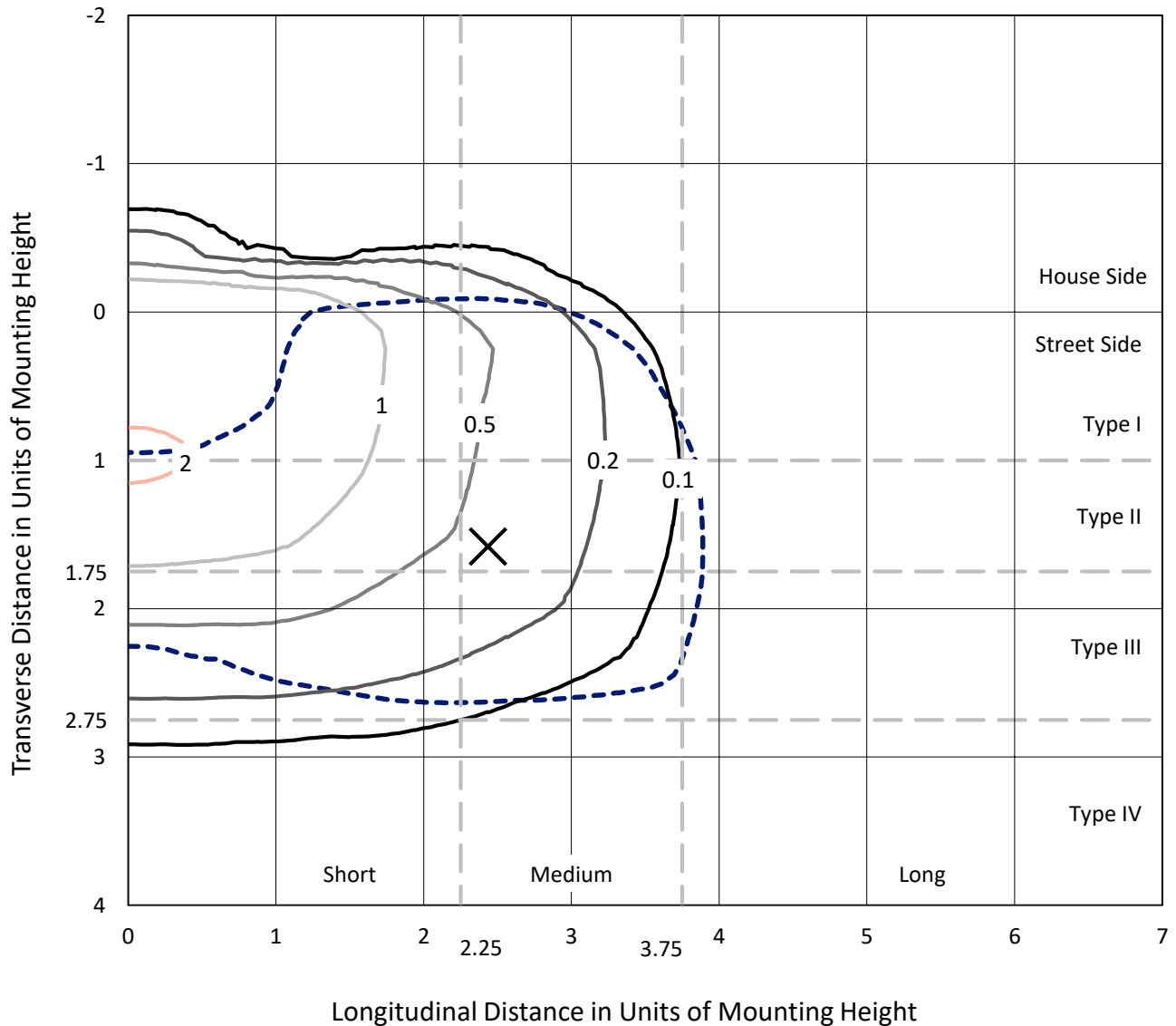


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

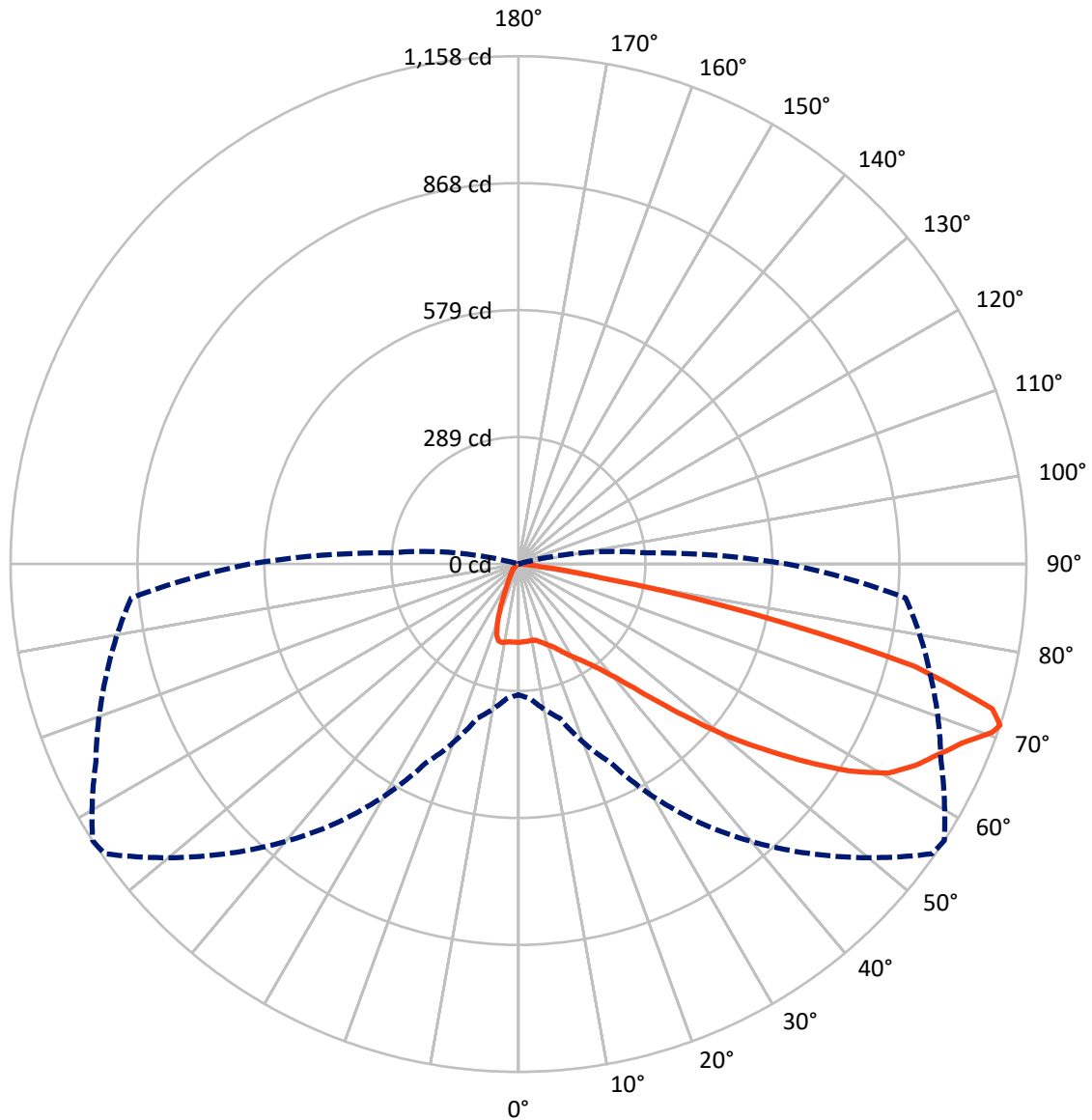


Based on 10 foot mounting height. Maximum calculated value = 2.2 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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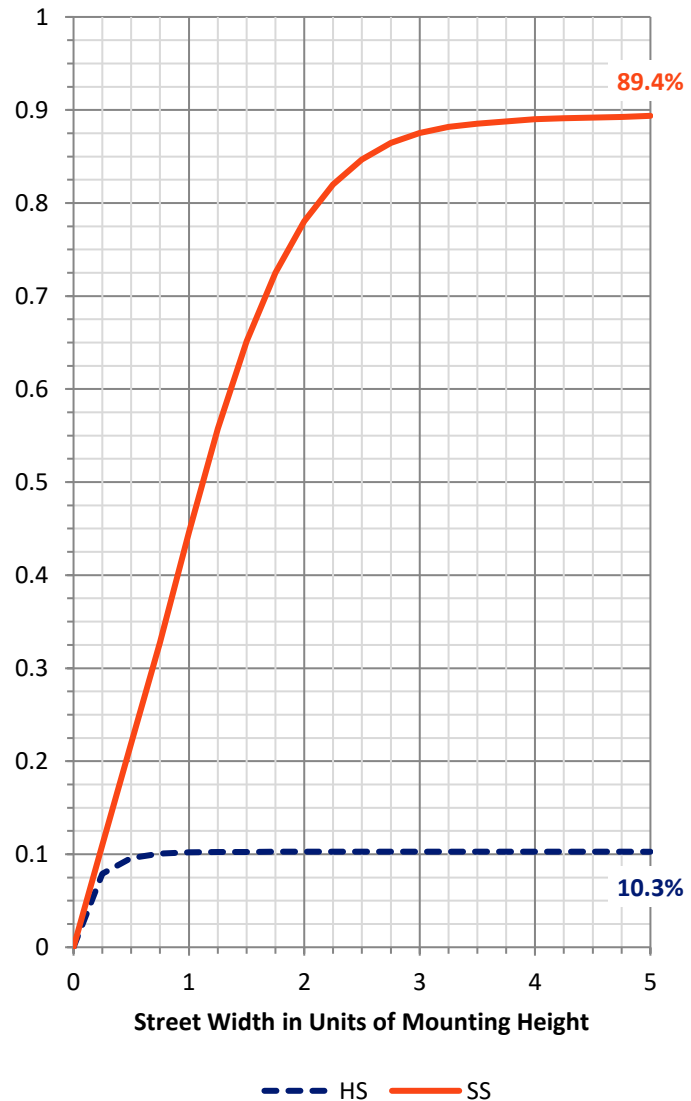
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	164.1	0.0	164.1
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	1419.8	0.0	1419.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	1584.0	0.0	1584.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.8	1.1
10°-20°	44.9	2.8
20°-30°	70.1	4.4
30°-40°	118.5	7.5
40°-50°	230.2	14.5
50°-60°	386.6	24.4
60°-70°	461.3	29.1
70°-80°	243.1	15.3
80°-90°	12.4	0.8
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°	1584.0	100.0
0°-180°	1584.0	100.0



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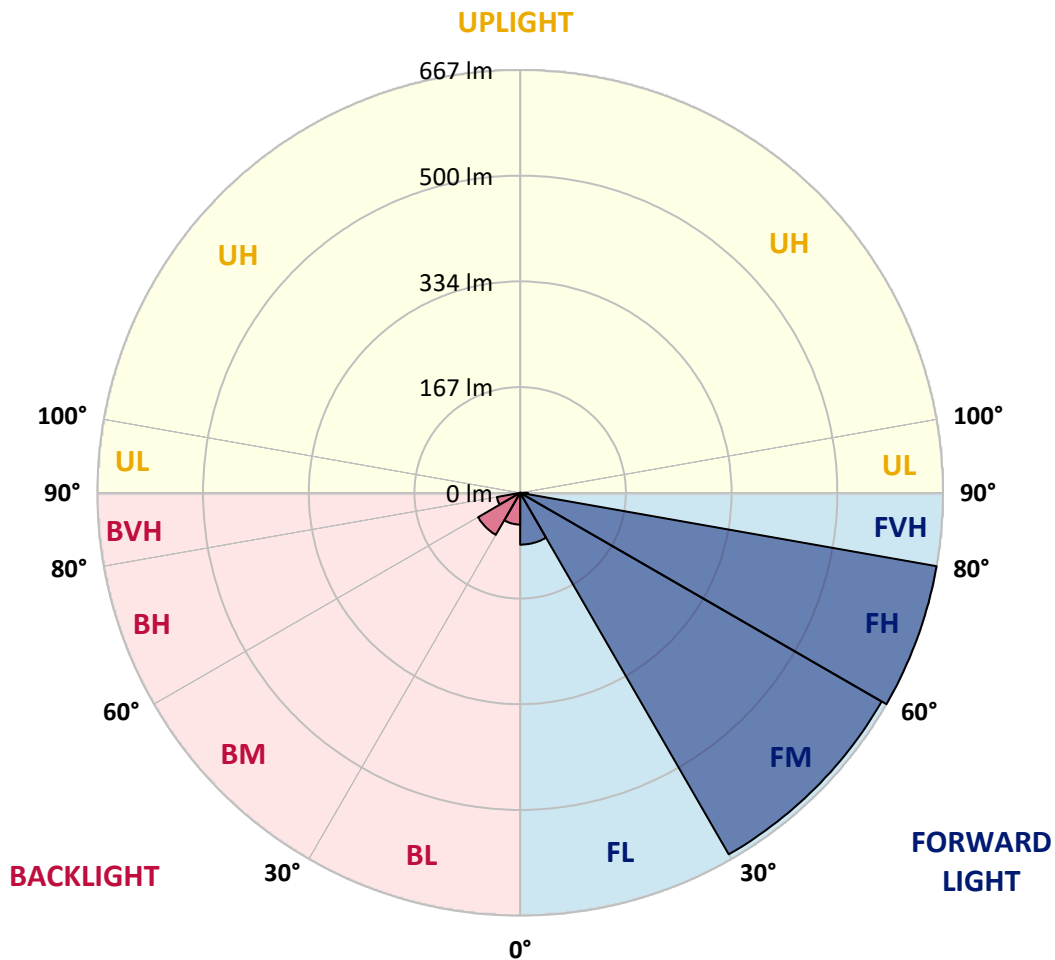
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	81.8	5.2			
FM	(30°-60°)	658.6	41.6			
FH	(60°-80°)	667.2	42.1			G1/1800
FVH	(80°-90°)	12.2	0.8			G1/100
BL	(0°-30°)	50.1	3.2	B0/110		
BM	(30°-60°)	76.6	4.8	B0/220		
BH	(60°-80°)	37.3	2.4	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	179.0	179.0	179.0	179.0	179.0	179.0	179.0	179.0	179.0	179.0	179.0
2.5°	176.4	176.4	176.4	176.8	177.2	177.2	177.9	177.5	177.5	177.5	178.3
5°	171.6	172.0	172.4	173.1	174.6	175.7	177.5	177.5	177.9	178.6	179.0
7.5°	165.0	165.4	166.5	167.9	170.9	173.5	176.4	177.2	178.3	180.1	180.9
10°	160.9	161.7	163.1	165.0	168.3	171.6	175.3	176.4	179.8	183.1	184.9
12.5°	159.8	160.2	161.7	164.6	168.7	172.7	177.5	178.6	183.4	188.6	191.6
15°	161.7	162.0	162.8	166.1	170.9	176.1	182.3	183.8	189.7	195.6	199.3
17.5°	165.0	165.0	165.7	168.7	173.8	179.8	187.9	190.1	196.7	203.4	207.4
20°	167.2	167.2	168.3	171.3	177.2	184.9	194.5	197.5	204.9	212.2	215.9
22.5°	169.4	169.8	170.9	174.2	180.9	191.6	202.6	205.6	214.1	221.8	225.5
25°	175.7	175.3	175.7	178.6	186.4	199.7	213.7	217.4	226.3	234.8	236.6
27.5°	193.0	192.3	187.5	185.7	191.6	208.2	227.7	231.4	241.8	250.3	250.3
30°	232.9	231.4	219.6	204.5	199.7	215.9	241.0	246.2	259.5	266.9	264.6
32.5°	283.5	280.2	265.0	239.2	220.0	226.3	255.1	261.0	277.9	284.2	279.4
35°	338.8	338.5	319.6	286.4	259.1	247.7	273.1	280.2	301.6	307.1	299.3
37.5°	397.5	399.0	386.5	340.7	308.6	282.7	297.1	305.2	331.5	338.1	330.7
40°	462.9	462.5	457.7	403.4	368.0	332.6	331.8	339.2	371.0	381.3	371.0
42.5°	545.5	544.8	527.5	478.7	440.0	397.5	382.4	385.0	420.4	437.4	422.3
45°	629.7	624.5	604.6	562.5	528.2	478.0	449.2	449.2	479.5	502.7	479.1
47.5°	676.6	671.4	663.3	640.0	629.7	573.6	531.1	526.0	549.6	573.2	540.0
50°	738.2	738.2	717.9	709.1	726.8	687.3	621.6	616.4	627.8	646.7	603.1
52.5°	786.9	778.1	763.7	771.4	822.0	803.9	712.0	702.0	710.9	715.7	658.1
55°	807.2	798.7	797.6	826.1	904.3	879.2	804.6	795.8	795.1	771.4	706.1
57.5°	811.3	803.9	817.9	867.8	984.4	940.8	896.9	890.3	869.6	810.6	755.2
60°	777.0	780.7	814.6	890.7	1031.6	994.4	974.8	967.8	920.2	843.8	809.8
62.5°	706.5	715.3	778.8	892.9	1014.3	1016.1	1018.0	1013.2	959.3	874.0	864.8
65°	623.0	625.6	702.0	862.2	984.0	1009.5	1049.7	1049.4	989.2	908.0	926.8
67.5°	513.4	517.9	583.9	758.9	923.5	1006.5	1091.4	1090.3	1023.2	946.8	963.7
70°	382.0	387.6	441.1	590.2	788.4	969.6	1146.1	1146.8	1059.0	976.3	938.3
71°	297.9	307.8	363.9	501.2	719.4	932.4	1151.2	1157.9	1063.0	972.2	885.9
72.5°	146.2	158.0	228.5	352.9	592.0	848.9	1117.3	1130.2	1037.6	921.7	757.4
75°	38.0	40.2	68.3	144.3	317.4	562.5	901.0	933.8	848.2	701.7	462.9
77.5°	24.0	24.7	32.1	56.1	118.9	213.7	529.3	545.5	484.6	355.4	163.1
80°	17.0	17.3	20.3	36.2	69.4	62.4	190.5	197.5	175.3	94.1	29.2
82.5°	10.3	10.3	14.8	23.3	42.8	34.0	50.2	53.5	47.2	26.2	9.6
85°	5.9	6.3	9.2	15.9	20.3	16.6	18.8	19.9	20.3	17.3	4.1
87.5°	4.8	5.2	8.1	13.3	11.1	8.1	8.1	8.5	8.9	10.3	1.8
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°	179.0	179.0	179.0	179.0	179.0	179.0	179.0	179.0	179.0	179.0	179.0
2.5°	178.3	178.3	178.6	178.3	178.3	178.3	178.6	178.6	178.6	179.4	179.8
5°	179.0	179.0	179.0	178.6	178.3	178.3	179.0	179.4	179.4	180.5	180.5
7.5°	180.9	180.9	180.1	179.4	178.6	177.5	177.9	178.3	177.9	178.3	178.3
10°	184.9	184.9	183.8	182.3	180.1	176.8	172.4	166.8	161.7	159.8	159.1
12.5°	191.6	191.2	189.0	186.4	181.6	170.2	153.5	134.0	117.7	113.3	111.8
15°	198.9	198.2	195.6	191.2	178.3	148.0	113.3	88.2	72.7	69.0	68.3
17.5°	206.7	205.6	201.9	193.0	163.1	110.0	73.1	55.4	46.9	46.1	46.5
20°	214.8	213.3	208.2	189.4	131.8	73.5	47.2	42.8	42.1	42.1	42.4
22.5°	224.0	222.2	215.2	176.1	96.0	48.7	40.6	40.2	39.9	39.5	39.5
25°	234.8	232.5	221.8	152.1	66.1	39.9	38.8	37.6	36.9	36.2	35.8
27.5°	247.7	244.7	227.0	122.5	45.4	37.3	36.5	34.7	33.2	31.7	31.7
30°	260.6	256.9	225.5	92.3	36.9	34.7	33.2	31.0	28.8	27.3	26.9
32.5°	274.2	270.6	215.9	62.0	33.6	31.7	29.9	26.6	24.0	22.1	21.8
35°	294.5	291.6	197.1	41.0	30.3	28.1	25.5	22.1	18.8	17.0	16.6
37.5°	324.8	321.1	173.8	31.4	26.6	23.3	21.0	17.3	14.0	12.2	11.8
40°	365.4	354.3	146.2	27.7	23.3	19.2	16.2	12.5	10.0	8.9	8.9
42.5°	412.7	386.5	116.3	25.1	20.7	15.9	11.8	8.5	7.0	6.6	6.6
45°	462.9	416.4	86.4	23.3	18.1	12.5	8.5	5.9	5.2	4.8	4.8
47.5°	514.5	440.7	60.2	21.0	15.1	9.6	5.9	4.4	3.7	3.3	3.3
50°	562.9	456.6	42.4	18.8	12.9	7.0	4.4	3.3	2.6	2.6	2.6
52.5°	596.5	455.1	30.6	16.2	10.0	4.8	3.0	2.2	2.2	2.2	2.2
55°	626.0	449.6	24.0	14.0	7.8	3.3	2.2	1.8	1.8	1.5	1.5
57.5°	651.1	440.7	20.3	11.4	5.5	2.6	1.5	1.5	1.1	1.1	1.1
60°	672.5	429.6	17.0	9.6	3.7	1.8	1.1	0.7	0.7	0.4	0.7
62.5°	701.7	422.6	14.8	7.4	2.6	1.1	0.7	0.4	0.4	0.0	0.0
65°	723.1	409.3	12.5	5.2	1.5	0.7	0.4	0.4	0.0	0.0	0.0
67.5°	723.8	385.3	9.2	3.0	1.1	0.7	0.4	0.0	0.0	0.0	0.0
70°	665.5	328.5	5.9	1.5	0.7	0.4	0.4	0.0	0.0	0.0	0.0
71°	612.0	290.9	4.8	1.1	0.7	0.4	0.0	0.0	0.0	0.0	0.0
72.5°	504.2	213.7	3.7	1.1	0.4	0.4	0.0	0.0	0.0	0.0	0.0
75°	277.9	77.5	1.8	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	89.0	23.6	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	15.1	3.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.2	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.7	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)