

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: P234758

Luminaire Tested: **ARCH-AF24-30-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234758
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-AF24-30-D-U-T4W-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2178 lumens
Efficiency: N/A
Efficacy: 70.3 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): 31
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

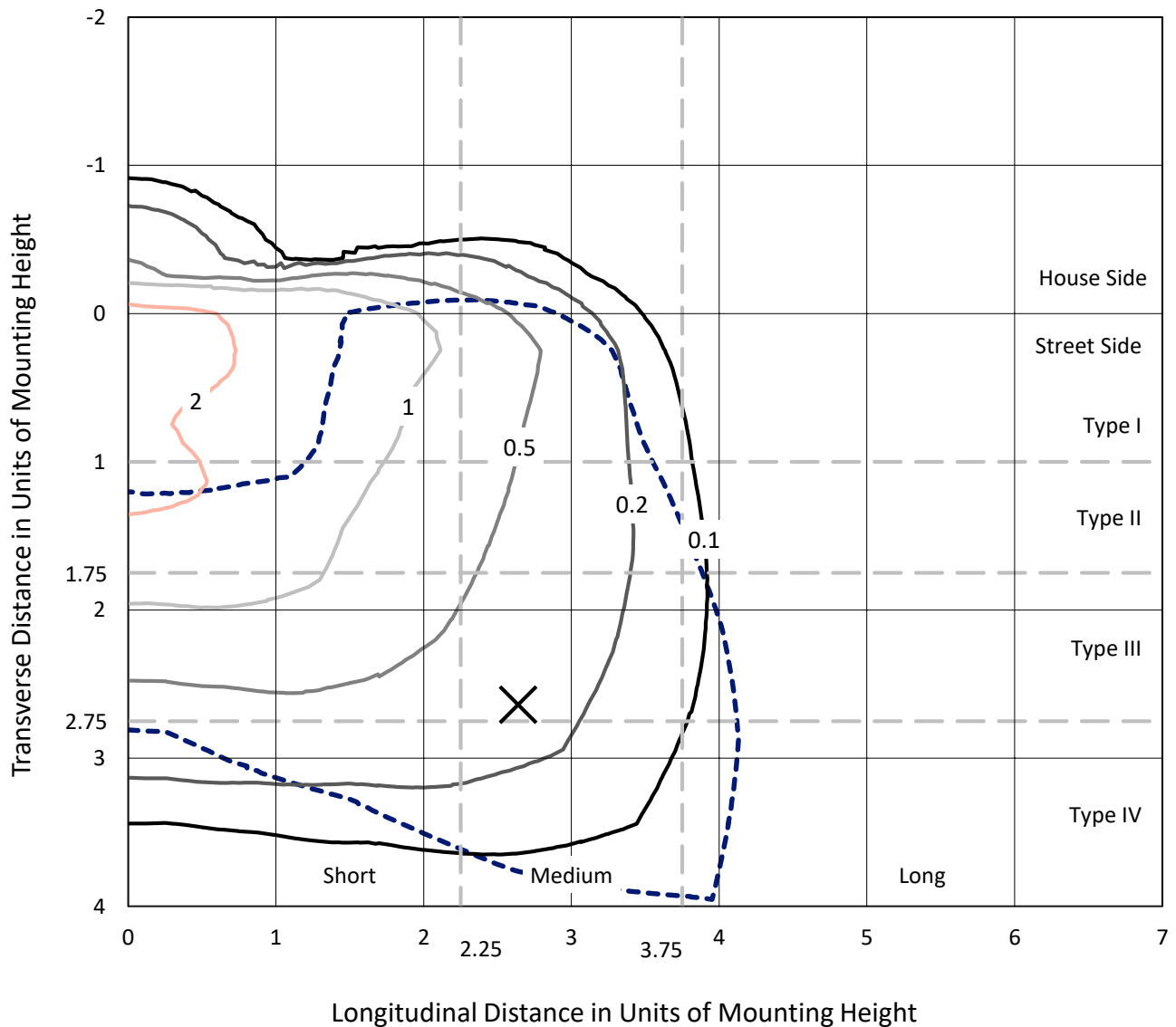


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

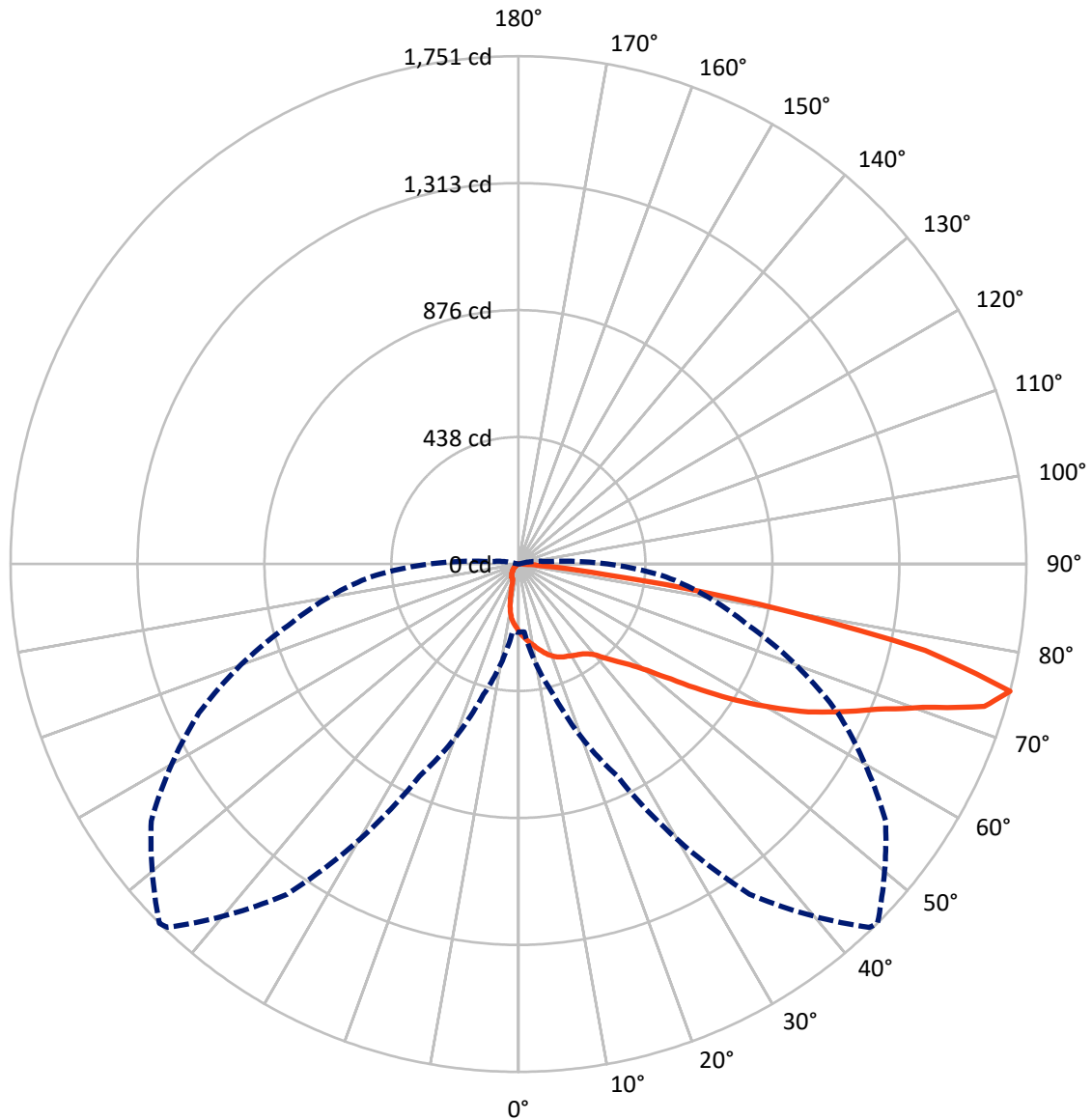


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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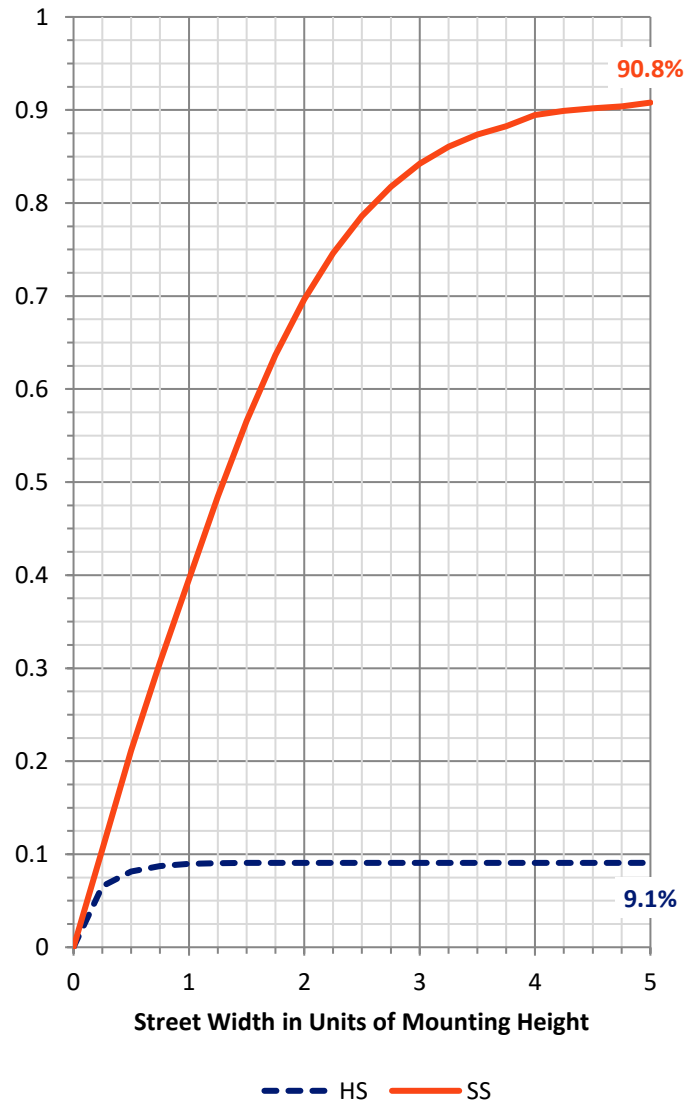
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	199.2	0.0	199.2
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	1978.8	0.0	1978.8
	% Fixture	90.9	0.0	90.9
Total	Lumens	2178.0	0.0	2178.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.0	1.0
10°-20°	62.3	2.9
20°-30°	103.2	4.7
30°-40°	149.3	6.9
40°-50°	244.5	11.2
50°-60°	435.6	20.0
60°-70°	640.3	29.4
70°-80°	483.1	22.2
80°-90°	37.9	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°	2178.0	100.0
0°-180°	2178.0	100.0



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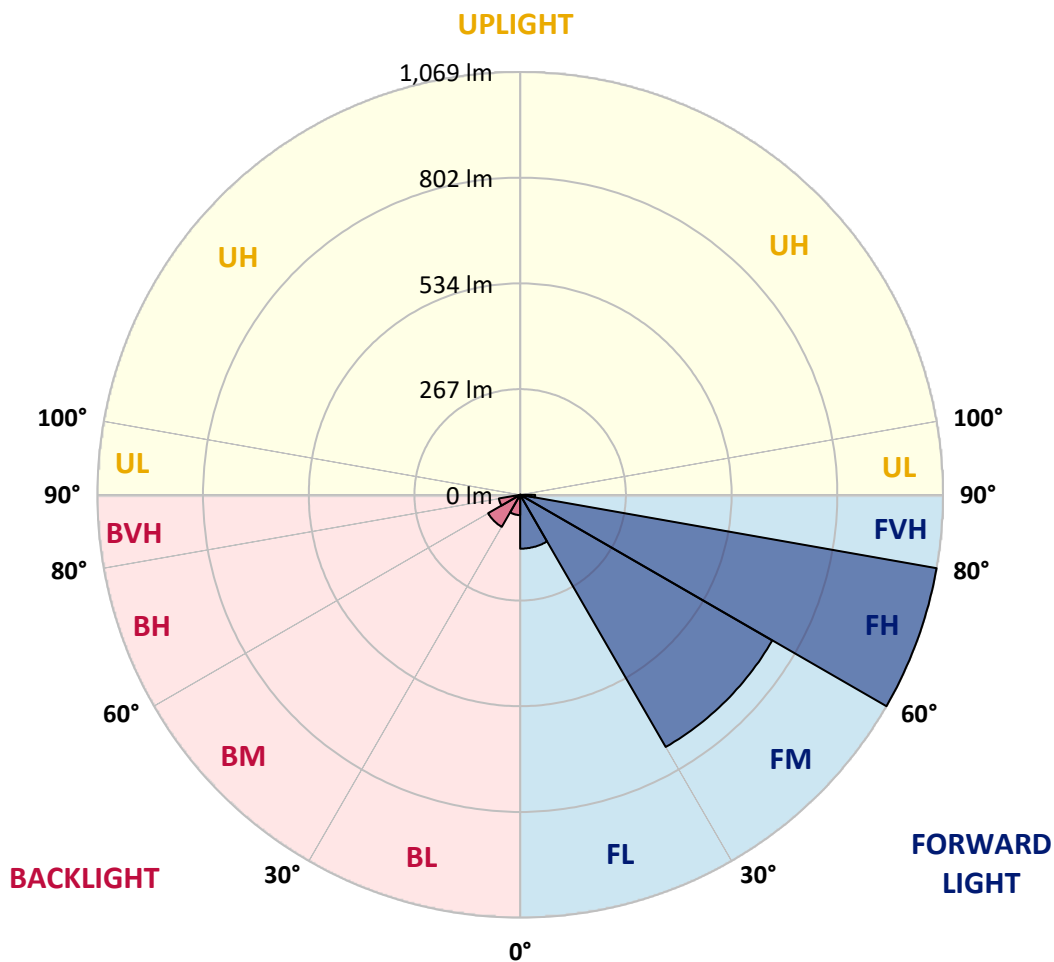
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	136.2	6.3			
FM	(30°-60°)	735.9	33.8			
FH	(60°-80°)	1068.8	49.1			G1/1800
FVH	(80°-90°)	37.8	1.7			G1/100
BL	(0°-30°)	51.2	2.4	B0/110		
BM	(30°-60°)	93.4	4.3	B0/220		
BH	(60°-80°)	54.6	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9
2.5°	253.0	253.0	252.5	252.0	249.4	246.9	246.3	244.8	240.2	237.1	234.0
5°	274.2	274.7	273.7	271.1	265.4	259.7	259.2	255.1	246.3	240.2	233.5
7.5°	294.3	295.3	292.7	288.1	281.4	273.1	272.6	264.9	253.6	244.8	235.0
10°	311.3	311.3	307.7	302.0	294.8	286.0	285.0	276.2	263.4	252.5	239.6
12.5°	329.8	329.3	324.2	316.4	308.2	299.9	299.4	288.6	276.2	262.3	246.3
15°	346.8	345.8	339.1	331.9	323.1	314.4	313.9	303.0	290.2	273.7	256.1
17.5°	356.1	355.6	349.4	342.2	335.0	328.3	327.8	316.4	302.5	285.5	265.9
20°	357.7	358.2	353.0	346.8	342.7	339.1	339.1	328.8	313.9	295.8	276.2
22.5°	358.2	359.7	356.1	347.9	346.8	347.4	348.4	340.1	324.7	307.7	287.1
25°	361.8	363.9	361.3	351.5	350.5	354.1	355.1	351.5	337.6	320.6	299.4
27.5°	369.0	371.1	369.0	356.6	355.1	358.7	359.7	361.8	351.5	332.9	312.3
30°	383.4	384.0	379.3	363.9	360.8	365.4	366.9	372.6	364.4	344.8	324.7
32.5°	408.7	403.5	389.6	369.0	366.4	371.6	373.1	379.3	376.2	356.1	337.6
35°	460.2	433.4	401.5	376.2	373.6	378.8	380.9	389.6	391.2	372.1	353.5
37.5°	459.7	435.5	429.3	390.1	386.5	390.1	392.7	403.5	409.7	393.2	376.7
40°	492.2	481.9	481.9	416.4	404.6	409.7	412.3	423.1	433.9	421.1	404.1
42.5°	594.2	587.5	580.3	466.9	429.8	444.3	445.8	452.5	465.4	461.3	441.2
45°	708.1	701.9	674.1	552.5	473.1	475.7	479.3	490.1	508.7	516.4	492.7
47.5°	797.3	791.1	767.4	655.6	540.6	518.0	518.0	539.1	567.9	587.5	564.8
50°	868.9	861.7	847.3	765.3	651.4	578.8	575.7	600.4	643.2	673.6	658.1
52.5°	938.5	917.4	908.6	878.7	776.7	666.9	658.6	676.2	735.4	773.1	760.2
55°	984.9	981.8	972.5	982.8	908.1	774.1	766.9	770.5	844.7	870.0	854.0
57.5°	1028.2	1027.7	1048.3	1096.2	1051.4	896.8	885.4	879.7	950.3	944.2	958.1
60°	1081.8	1072.5	1120.4	1189.0	1182.8	1016.3	1003.4	992.1	1031.3	1013.7	1082.8
62.5°	1084.3	1081.8	1179.2	1277.6	1313.2	1137.9	1123.0	1082.3	1101.9	1081.8	1201.9
65°	985.9	998.8	1203.9	1324.5	1422.4	1244.6	1226.6	1163.2	1164.7	1151.3	1342.0
67.5°	963.7	970.4	1135.9	1375.0	1501.3	1352.3	1335.3	1256.5	1237.9	1239.0	1425.0
70°	908.6	918.9	1051.4	1371.4	1563.6	1496.1	1479.1	1393.6	1348.7	1298.7	1361.1
72.5°	694.2	711.7	885.9	1202.4	1546.6	1684.2	1679.6	1567.3	1393.1	1192.6	1029.7
75°	235.0	234.5	465.4	807.6	1389.4	1742.0	1751.2	1545.6	1215.3	822.5	511.3
77.5°	50.5	51.0	95.9	327.3	923.0	1398.7	1434.3	1165.8	783.9	366.4	117.0
80°	24.7	25.3	39.7	86.6	369.0	784.4	840.1	599.4	289.6	73.2	19.6
82.5°	12.4	12.9	20.6	45.9	136.6	278.8	297.9	220.6	83.0	41.2	9.8
85°	4.6	4.6	10.3	27.3	62.4	65.5	80.4	63.9	50.0	33.5	2.6
87.5°	1.0	1.0	5.7	13.4	27.8	20.6	20.6	19.6	30.4	22.7	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9
2.5°	232.4	230.4	226.8	223.2	220.6	217.5	215.9	214.4	213.9	213.4	214.4
5°	229.9	226.8	220.1	214.4	209.2	205.1	202.0	198.9	197.4	196.4	196.9
7.5°	229.9	225.2	215.4	206.7	198.4	189.7	180.9	174.2	169.0	166.0	166.5
10°	232.4	226.2	213.4	201.5	186.0	167.5	148.4	134.0	124.2	118.5	118.5
12.5°	238.1	229.9	213.9	195.3	169.0	136.6	107.7	90.2	83.0	78.9	79.4
15°	245.8	236.0	216.5	187.1	145.3	101.5	75.2	63.9	63.9	64.9	65.5
17.5°	254.6	243.8	218.5	174.7	114.9	72.7	59.3	58.2	59.8	62.4	62.4
20°	263.4	251.5	219.5	155.1	86.1	57.7	56.2	56.2	57.2	59.8	60.3
22.5°	274.2	261.3	218.5	130.9	64.4	54.6	54.1	54.1	54.1	57.2	57.2
25°	285.5	272.6	214.4	105.1	54.6	52.6	52.1	51.5	51.5	54.1	54.6
27.5°	298.4	284.5	204.6	80.4	51.5	50.5	50.0	49.0	49.0	51.0	51.0
30°	311.3	297.9	189.7	60.8	49.0	48.4	47.4	46.4	45.4	47.4	47.4
32.5°	325.2	311.8	170.1	48.4	45.4	45.4	44.8	43.3	42.3	43.3	43.8
35°	343.8	327.8	147.9	42.3	40.7	40.7	40.7	40.2	38.1	39.2	39.2
37.5°	368.5	349.9	122.1	39.2	37.1	36.1	36.1	36.1	34.5	35.0	35.0
40°	399.9	375.7	97.4	36.6	34.5	32.0	30.9	31.4	30.4	30.4	29.9
42.5°	442.7	403.5	73.2	34.5	32.5	28.9	26.8	26.3	25.3	24.7	24.7
45°	504.0	437.6	52.6	32.5	30.9	25.3	23.2	21.6	19.1	17.5	17.5
47.5°	583.4	476.2	39.2	30.4	29.4	22.2	19.6	16.5	12.9	11.9	11.9
50°	680.3	519.5	33.0	27.3	26.8	19.6	15.5	10.8	7.2	6.2	6.7
52.5°	774.6	560.2	29.4	24.2	23.7	17.0	11.3	5.7	3.1	3.1	3.1
55°	854.0	589.1	26.8	21.6	20.6	13.4	6.2	2.6	1.5	1.5	1.5
57.5°	925.6	605.6	24.2	19.1	16.5	9.3	2.6	1.0	1.0	0.5	0.5
60°	991.1	615.4	21.1	16.5	12.9	5.2	1.0	0.5	0.5	0.0	0.0
62.5°	1055.5	622.6	18.0	13.4	9.8	2.1	0.5	0.5	0.0	0.0	0.0
65°	1104.4	620.0	14.4	10.8	6.2	1.0	0.5	0.0	0.0	0.0	0.0
67.5°	1102.9	584.9	10.8	8.2	3.1	0.5	0.0	0.0	0.0	0.0	0.0
70°	986.4	492.7	7.2	5.2	1.0	0.5	0.0	0.0	0.0	0.0	0.0
72.5°	699.9	315.9	4.6	3.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	308.2	95.9	2.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	60.3	22.2	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	14.4	2.6	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.5	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)