

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: INVUE

Report Number: P139707

Luminaire Tested: **ENV-F01-LED-E1-BL4-7060**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P139707
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33646)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-F01-LED-E1-BL4-7060
Description: ENTRI LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (7) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2213 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.17' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 25.9
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: 25 FT

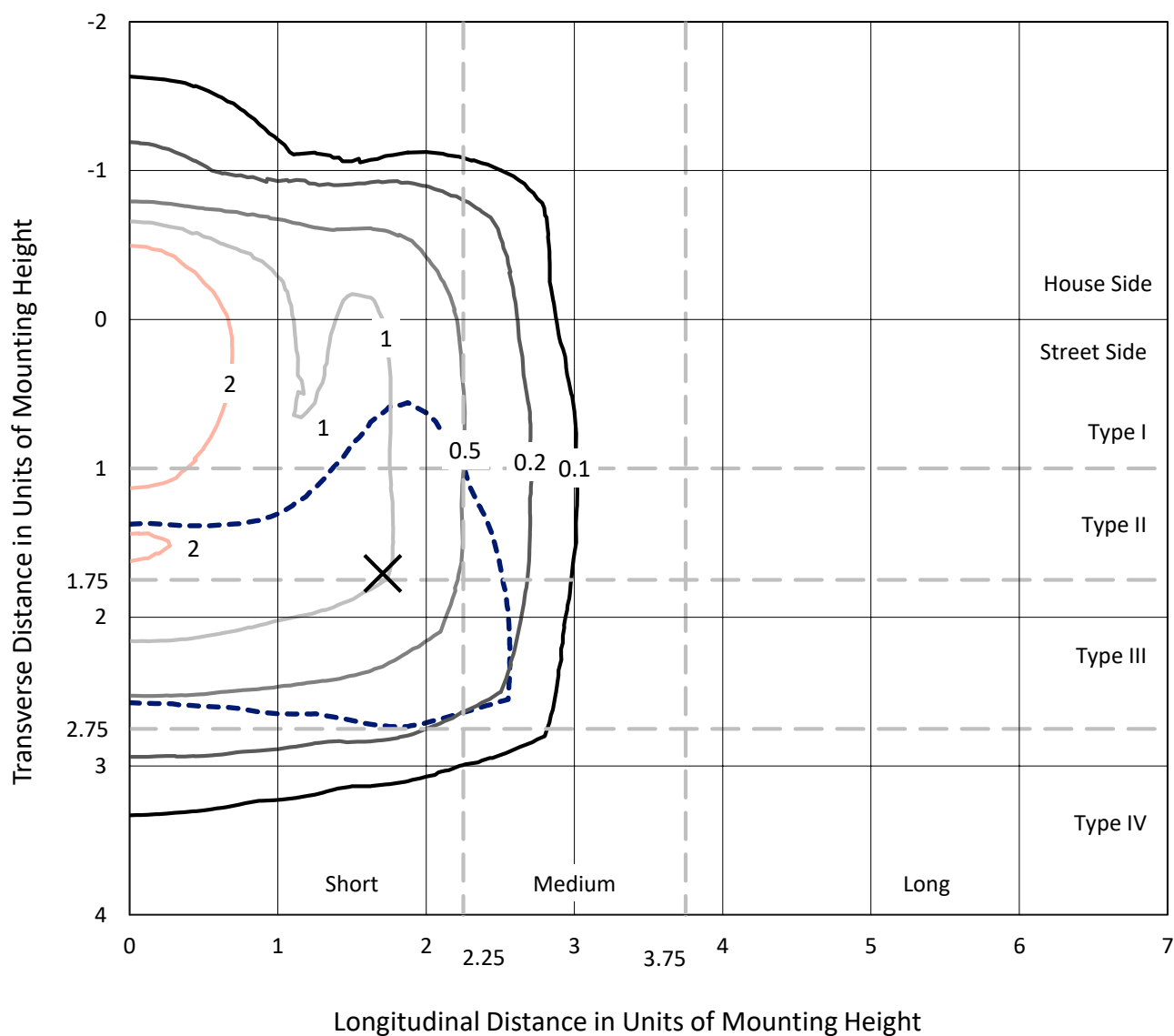


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

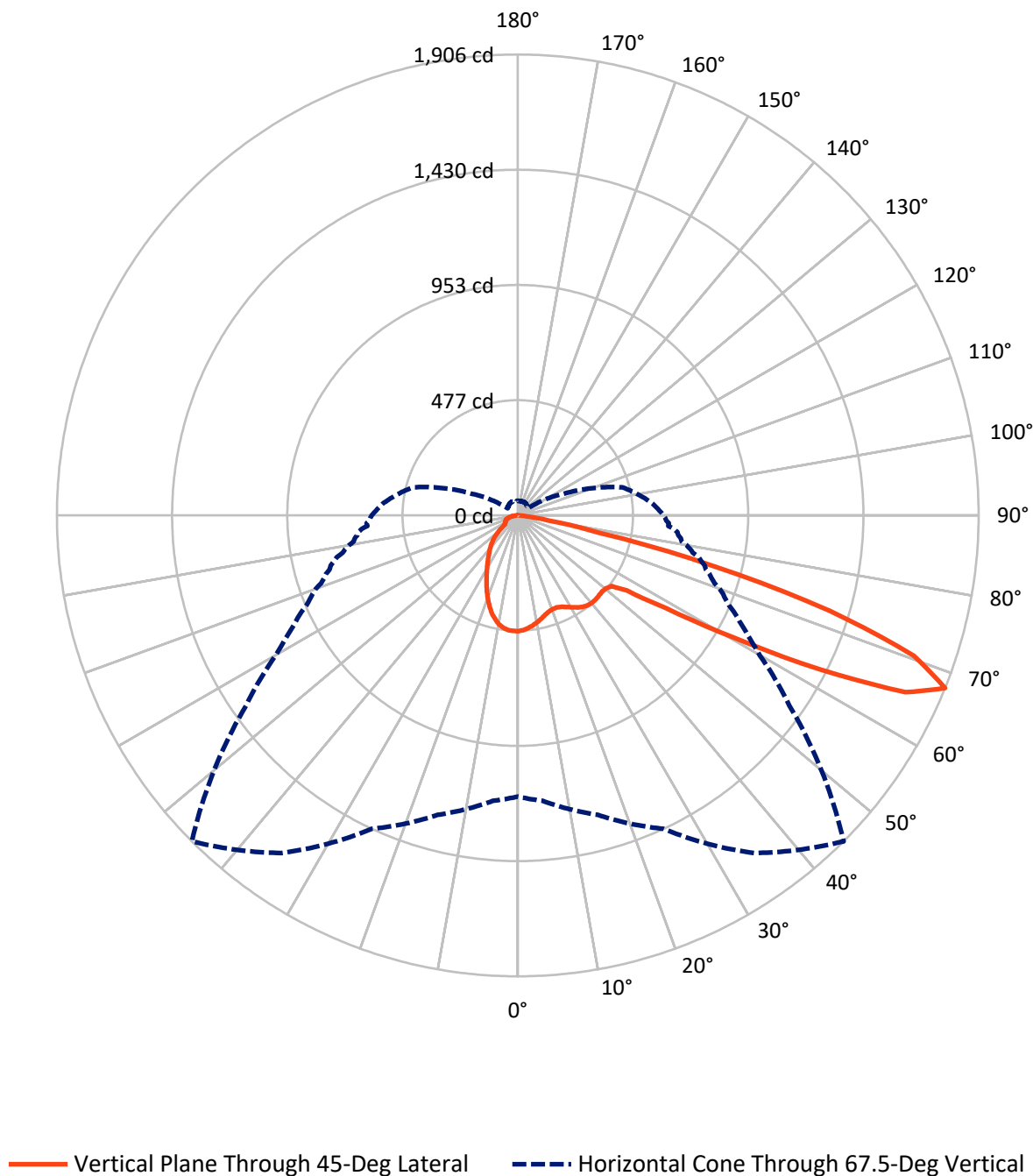


Based on 10 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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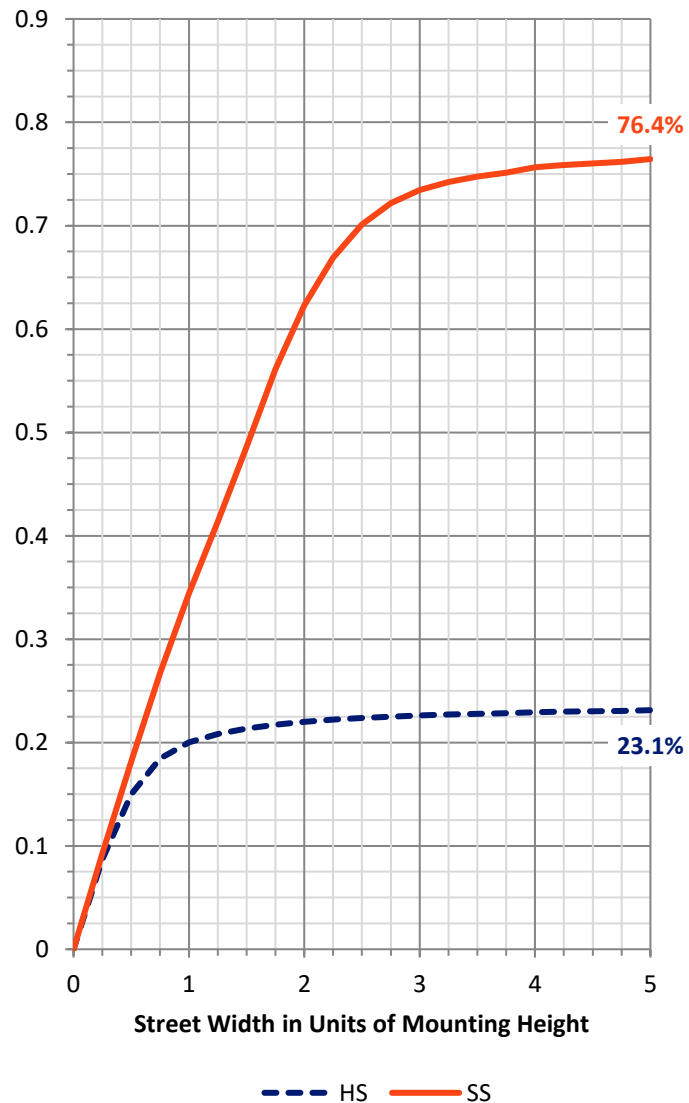
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	518.6	0.0	518.6
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	1694.4	0.0	1694.4
	% Fixture	76.6	0.0	76.6
Total	Lumens	2213.0	0.0	2213.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.4	2.0
10°-20°	119.6	5.4
20°-30°	172.4	7.8
30°-40°	219.9	9.9
40°-50°	259.6	11.7
50°-60°	416.3	18.8
60°-70°	700.6	31.7
70°-80°	260.6	11.8
80°-90°	19.8	0.9
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°	2213.0	100.0
0°-180°	2213.0	100.0

Coefficient of Utilization



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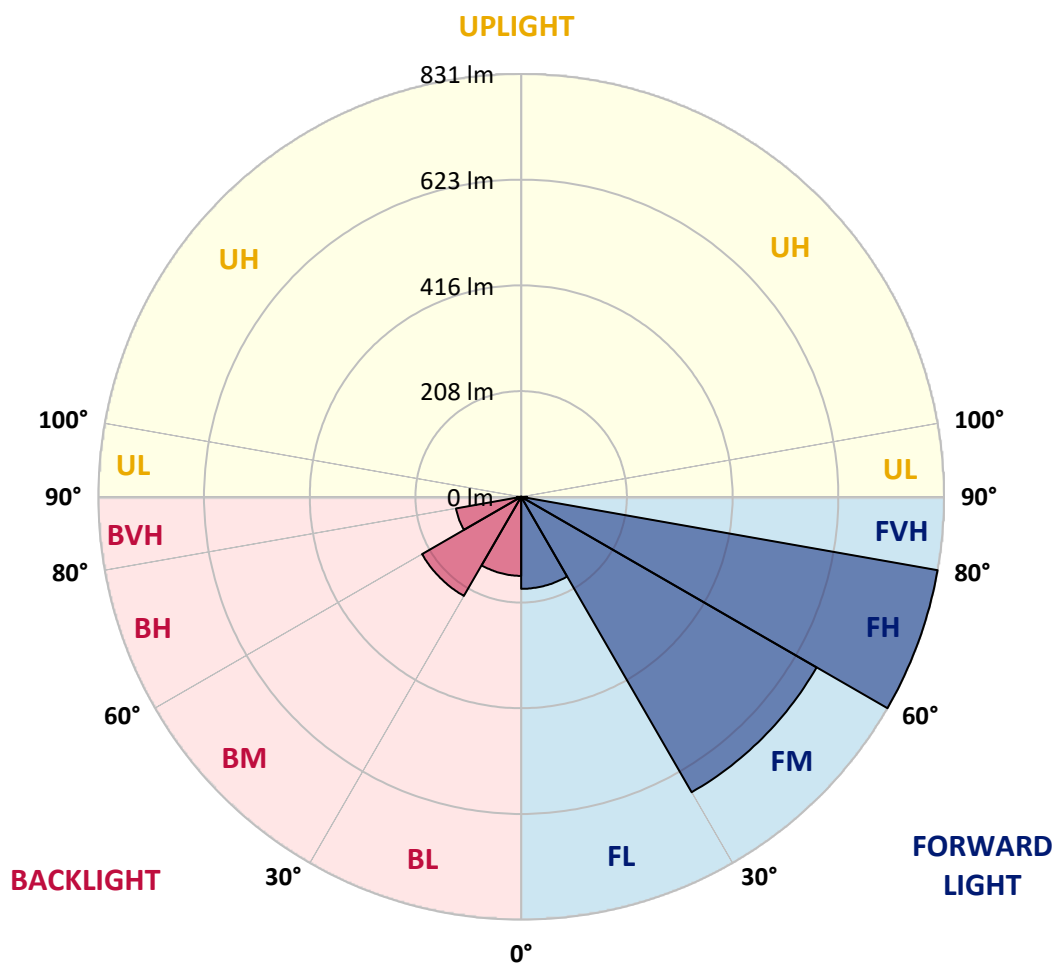
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	180.9	8.2			
FM	(30°-60°)	670.6	30.3			
FH	(60°-80°)	831.2	37.6			G1/1800
FVH	(80°-90°)	11.8	0.5			G1/100
BL	(0°-30°)	155.4	7.0	B1/500		
BM	(30°-60°)	225.1	10.2	B1/1000		
BH	(60°-80°)	130.0	5.9	B1/500		G1/500
BVH	(80°-90°)	8.1	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2
2.5°	471.4	471.4	472.2	472.2	473.5	474.4	473.5	475.2	475.2	474.8	475.6
5°	464.6	464.6	465.0	465.0	465.9	467.2	466.3	468.0	467.6	468.0	468.0
7.5°	456.6	456.6	457.4	457.0	457.4	458.3	456.2	457.4	457.4	457.8	457.4
10°	446.4	447.3	448.1	447.7	447.7	448.1	444.7	446.0	445.6	445.6	445.1
12.5°	437.1	436.2	437.1	437.9	437.5	437.5	434.1	433.3	433.3	433.3	433.7
15°	427.3	428.2	429.5	428.2	427.3	425.7	422.3	421.4	421.4	421.4	421.8
17.5°	425.2	425.2	426.1	424.8	421.4	418.0	411.3	410.0	410.0	409.6	409.6
20°	431.2	430.7	432.0	429.5	421.8	412.9	402.4	400.2	400.2	400.2	399.8
22.5°	443.4	443.4	445.6	442.6	430.3	413.4	397.7	394.3	393.9	393.5	392.6
25°	467.2	466.7	468.0	460.4	442.6	418.9	396.4	391.3	390.9	390.1	389.2
27.5°	494.7	495.5	498.1	486.6	460.4	428.6	401.9	393.5	392.6	391.3	389.7
30°	521.8	524.3	529.0	516.7	480.7	440.9	410.4	400.7	399.0	397.3	394.3
32.5°	556.1	555.3	562.9	544.2	498.5	454.0	419.3	407.4	405.3	402.8	399.0
35°	592.5	594.2	595.9	565.8	513.3	464.6	424.8	411.3	408.7	406.2	400.7
37.5°	629.0	629.4	625.6	583.2	522.2	471.0	427.8	412.1	408.7	404.9	398.5
40°	662.4	661.1	649.7	596.3	527.3	474.4	429.0	410.4	406.2	402.4	395.2
42.5°	681.5	680.2	665.8	602.3	527.7	473.9	429.0	408.7	404.1	399.4	391.3
45°	689.5	688.7	672.2	603.1	524.8	471.4	426.5	407.0	402.4	398.1	389.7
47.5°	690.4	690.4	673.4	601.8	522.2	469.7	426.5	409.1	405.3	401.9	395.6
50°	686.6	687.0	673.8	605.2	524.3	473.5	430.7	414.2	410.4	407.0	399.8
52.5°	731.4	727.2	698.0	620.5	538.3	485.8	445.1	430.3	429.0	426.9	421.4
55°	1074.5	1077.9	918.2	715.8	597.2	548.9	532.0	529.0	538.3	541.7	541.7
57.5°	1364.2	1353.2	1293.1	1044.4	781.0	723.0	729.8	737.0	750.5	756.4	760.7
60°	1434.9	1435.8	1434.1	1363.4	1152.9	1020.7	987.7	956.3	955.1	944.1	935.6
62.5°	1426.5	1433.3	1465.0	1481.1	1501.9	1404.9	1203.3	1116.4	1099.5	1078.8	1049.1
65°	1365.1	1375.2	1426.1	1504.4	1683.1	1762.8	1348.5	1193.1	1166.8	1141.9	1091.9
67.5°	1163.0	1185.1	1282.5	1430.3	1704.7	1906.3	1372.3	1155.8	1121.1	1088.5	1029.2
70°	717.9	729.3	879.7	1154.1	1544.6	1738.2	1246.0	980.9	936.9	895.4	814.5
72.5°	463.4	459.5	485.0	650.1	1135.1	1350.7	856.8	652.2	616.2	583.2	531.1
75°	324.4	324.9	313.4	310.0	526.5	836.5	388.0	278.7	262.6	255.8	244.8
77.5°	211.3	213.9	210.9	219.0	210.9	347.7	178.3	130.9	124.5	120.3	113.5
80°	127.5	136.0	138.5	140.2	142.3	131.3	105.9	77.1	69.5	62.3	51.2
82.5°	22.4	22.0	30.5	41.1	53.8	61.4	44.5	28.0	26.3	25.4	23.3
85°	0.0	0.0	0.4	0.4	0.8	3.0	4.7	5.5	5.1	5.5	5.9
87.5°	0.0	0.0	0.0	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2
2.5°	475.6	475.2	474.8	474.8	475.6	475.6	475.2	475.2	475.6	475.2	476.1
5°	468.4	468.0	468.0	467.6	468.0	468.4	468.0	468.0	468.4	468.0	468.9
7.5°	457.0	457.4	457.0	457.0	457.4	457.8	457.4	457.4	457.4	457.4	457.0
10°	445.1	445.1	444.7	444.7	445.6	445.1	444.7	444.7	445.1	445.6	444.7
12.5°	433.3	434.1	434.1	432.4	432.9	433.3	433.3	432.9	432.9	434.1	432.9
15°	421.4	421.8	421.4	421.8	421.0	420.6	421.0	421.0	420.1	419.7	419.7
17.5°	409.6	409.1	409.1	408.3	407.9	407.9	407.4	407.9	407.0	407.4	406.2
20°	399.0	398.5	398.1	398.1	396.9	396.9	396.9	396.4	395.6	395.6	395.2
22.5°	392.6	392.2	391.8	390.9	390.5	390.1	390.1	389.7	388.8	388.4	388.0
25°	389.2	388.8	388.0	387.1	386.7	386.3	386.3	385.8	385.0	384.1	383.7
27.5°	389.7	388.8	388.0	387.1	386.7	385.8	385.4	385.0	384.1	383.3	382.5
30°	393.5	391.8	390.1	388.8	387.5	386.3	385.4	385.0	383.7	382.5	381.2
32.5°	397.3	395.2	392.6	390.1	388.0	385.8	384.6	383.3	381.6	379.5	378.2
35°	398.5	396.0	392.2	390.1	387.1	384.6	382.5	380.8	377.8	375.3	373.1
37.5°	395.6	392.6	388.8	385.8	382.9	379.5	376.9	374.4	372.3	369.3	367.2
40°	390.9	387.5	383.7	379.5	376.5	373.1	370.6	368.5	365.5	363.0	361.3
42.5°	387.1	383.3	379.1	375.7	372.3	368.9	365.9	363.8	360.9	357.9	355.8
45°	385.8	382.0	378.6	374.4	371.0	368.5	365.9	363.0	360.4	357.9	355.3
47.5°	392.6	389.2	385.8	382.5	379.5	376.5	374.0	371.0	368.1	364.7	362.1
50°	396.4	392.6	389.7	385.8	382.5	379.5	376.9	374.0	371.9	368.5	365.9
52.5°	424.0	418.9	419.7	416.3	416.3	412.9	415.5	411.7	413.8	411.3	415.1
55°	540.4	542.1	552.7	554.4	558.6	558.2	560.8	571.8	567.5	562.0	563.7
57.5°	749.2	753.1	758.6	753.5	757.3	758.1	765.3	762.4	759.8	758.1	752.6
60°	930.5	925.4	917.4	907.6	903.8	899.6	892.4	892.4	883.1	880.1	872.9
62.5°	1036.8	1022.0	1011.8	996.2	985.1	977.5	964.8	955.1	942.4	932.6	921.2
65°	1071.6	1046.6	1028.8	1009.3	991.9	975.4	957.2	943.2	927.5	917.0	898.7
67.5°	1004.2	978.8	948.7	928.0	909.8	889.0	860.6	843.3	829.7	809.4	800.5
70°	781.9	755.2	717.5	707.3	679.4	647.2	618.4	601.0	581.1	567.1	552.3
72.5°	496.0	465.9	449.4	437.1	418.9	392.2	367.2	357.0	339.7	335.9	326.1
75°	232.9	212.6	208.4	205.4	185.5	181.7	174.1	170.7	162.6	158.4	156.7
77.5°	104.2	99.5	91.9	89.8	83.4	77.1	69.5	66.1	61.8	59.3	55.9
80°	47.4	42.8	39.8	37.7	36.8	34.7	33.0	31.8	30.5	30.5	28.4
82.5°	22.9	22.0	21.2	21.2	19.9	19.9	18.6	18.2	17.8	17.4	17.4
85°	6.4	6.4	6.4	6.8	6.8	6.8	6.8	6.8	6.8	7.2	7.2
87.5°	0.8	0.8	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2
2.5°	475.6	475.6	475.6	476.5	476.1	477.3	477.3	477.3	478.2	478.6	478.2
5°	468.9	468.9	468.9	469.3	469.3	470.1	470.1	471.0	471.0	471.4	471.4
7.5°	457.8	458.3	458.3	459.1	458.7	459.1	459.1	460.4	460.4	460.8	460.8
10°	445.1	445.6	445.6	445.6	446.0	446.4	446.4	447.3	447.7	447.7	448.5
12.5°	433.3	432.9	433.3	432.9	434.1	434.1	434.5	434.1	434.5	435.0	435.4
15°	420.1	420.1	419.7	420.1	420.1	419.7	419.3	419.7	420.6	420.6	420.6
17.5°	407.0	405.7	405.7	405.7	405.3	404.5	405.3	404.9	404.9	405.3	404.9
20°	394.7	394.3	393.9	393.5	393.0	391.8	391.8	391.8	391.3	391.3	391.3
22.5°	387.1	386.7	386.3	385.8	384.1	383.3	382.9	382.5	381.6	381.2	380.8
25°	382.9	382.0	381.2	380.3	379.1	377.8	376.5	376.1	375.3	374.4	373.1
27.5°	381.6	380.8	379.1	378.2	376.5	375.3	374.0	372.7	371.4	370.2	368.9
30°	379.5	378.2	376.5	375.3	374.0	371.9	370.2	368.9	366.8	365.5	363.8
32.5°	376.5	374.8	373.1	371.4	369.7	367.6	365.5	363.8	362.1	360.4	358.3
35°	371.4	369.3	366.8	365.1	363.0	360.9	359.2	356.2	354.9	352.8	350.7
37.5°	364.7	362.5	360.4	358.3	355.8	354.1	351.5	349.0	347.7	346.5	343.5
40°	358.7	356.2	354.1	352.4	349.4	348.1	345.6	343.1	341.4	340.1	337.6
42.5°	353.2	350.7	348.6	346.0	343.9	342.2	340.1	337.6	335.9	335.0	332.9
45°	353.2	350.3	347.7	345.6	343.5	341.4	339.7	337.1	335.9	334.2	332.9
47.5°	359.2	355.8	352.8	349.8	346.9	344.8	342.2	339.7	337.6	336.3	334.6
50°	363.4	360.0	358.3	354.9	353.2	350.3	347.3	346.0	343.9	342.6	342.2
52.5°	415.1	412.9	413.4	404.9	403.2	407.4	400.7	406.6	404.9	399.8	399.8
55°	573.5	572.6	576.4	565.8	561.2	569.7	573.0	560.8	563.7	563.7	562.9
57.5°	758.1	752.6	747.1	748.4	741.6	746.7	740.3	732.7	735.7	733.1	724.2
60°	868.3	864.9	856.8	849.2	842.0	835.2	829.3	822.5	819.1	813.2	806.8
62.5°	912.7	903.8	894.1	883.9	872.5	861.5	854.7	845.8	836.5	830.6	823.8
65°	889.0	875.9	865.3	850.5	838.2	824.6	815.7	805.6	797.1	786.9	778.5
67.5°	783.1	767.9	739.9	726.4	708.2	687.0	681.0	668.8	664.1	648.9	623.9
70°	533.2	518.0	501.0	473.5	455.7	437.5	417.6	403.2	401.1	388.8	370.6
72.5°	313.4	302.8	291.8	276.1	263.0	255.8	241.8	227.4	227.0	213.0	205.8
75°	148.2	142.7	131.7	127.9	116.0	115.2	106.3	104.6	106.3	102.1	101.2
77.5°	50.4	49.1	46.6	43.2	40.7	39.8	37.7	36.4	35.6	34.7	33.9
80°	27.5	26.7	26.3	25.0	24.1	23.7	22.4	22.0	21.6	21.2	20.8
82.5°	16.5	16.9	16.1	15.2	15.2	14.4	14.0	13.6	13.1	13.1	13.1
85°	6.8	7.2	6.8	6.4	5.9	6.4	6.4	5.9	5.5	5.9	5.9
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2	478.2
2.5°	477.3	476.9	476.9	476.5	476.1	476.9	477.8	479.0	478.2	479.0	479.4
5°	470.6	470.6	470.6	471.0	470.6	471.8	473.5	476.1	476.5	478.2	479.4
7.5°	459.5	459.5	460.0	460.4	460.0	461.7	464.6	467.6	469.7	472.7	475.2
10°	446.8	446.8	446.8	446.8	447.3	449.4	451.5	454.9	458.3	462.9	466.7
12.5°	435.4	434.1	434.5	435.4	434.5	434.5	436.7	439.2	441.3	447.3	454.0
15°	420.1	420.1	419.3	419.7	417.6	417.2	418.0	419.7	421.4	426.5	433.7
17.5°	404.1	404.1	404.1	402.8	401.1	396.9	396.4	396.4	396.4	400.2	408.7
20°	389.7	389.7	388.8	388.0	384.1	376.9	371.0	368.5	367.6	374.0	377.8
22.5°	379.5	379.1	377.4	376.5	370.6	359.2	349.8	342.6	340.5	342.6	343.9
25°	371.4	370.6	368.9	367.2	359.2	343.5	328.7	316.4	310.5	308.8	304.5
27.5°	366.8	365.5	363.0	361.3	350.7	330.8	311.3	295.2	284.2	276.1	268.5
30°	361.7	359.6	357.0	354.5	342.6	320.6	298.2	278.3	258.8	244.8	233.8
32.5°	355.8	353.7	351.1	348.6	335.4	311.3	287.6	263.0	235.9	216.9	200.3
35°	348.6	346.5	343.9	340.9	327.8	303.7	280.4	248.2	215.6	191.0	169.4
37.5°	341.4	339.3	336.7	333.7	320.6	299.9	276.1	234.2	196.9	166.9	138.5
40°	335.9	333.7	331.2	328.7	316.8	298.2	274.0	222.4	180.4	143.2	110.5
42.5°	331.2	329.1	327.0	324.4	314.3	299.0	269.4	212.2	164.3	119.4	86.8
45°	330.8	329.5	327.0	324.9	315.1	302.8	265.6	203.3	147.8	96.6	73.3
47.5°	333.7	332.1	330.4	328.7	321.0	312.6	263.0	194.0	129.2	77.9	69.9
50°	340.9	339.3	338.4	337.6	332.9	325.7	263.0	184.2	107.6	68.6	69.5
52.5°	399.0	394.3	393.0	396.4	383.7	347.7	264.7	172.4	84.3	65.6	69.9
55°	561.2	565.8	554.0	548.1	526.0	402.4	266.0	154.6	68.6	65.2	69.0
57.5°	725.1	725.1	720.9	711.5	684.4	495.5	271.9	126.2	62.7	64.4	68.2
60°	805.1	800.1	795.8	790.3	749.2	560.3	280.8	93.2	60.1	64.0	67.3
62.5°	819.5	811.5	806.0	798.8	744.2	563.7	284.6	69.9	57.6	64.0	65.2
65°	772.1	763.6	756.4	744.6	678.1	510.4	265.6	57.2	55.9	62.3	63.1
67.5°	625.6	615.4	609.9	604.0	559.9	448.1	214.7	51.2	53.8	59.3	61.0
70°	357.9	346.9	340.5	341.8	315.1	354.5	171.5	47.0	50.8	55.9	58.4
72.5°	192.7	180.9	177.0	164.8	140.6	178.7	132.1	43.2	47.0	50.8	53.4
75°	95.3	91.1	92.3	86.4	73.3	55.1	85.1	38.5	41.9	45.7	47.4
77.5°	33.0	32.2	31.8	31.3	30.5	29.2	39.0	33.0	36.0	39.0	40.7
80°	20.3	19.9	20.3	19.9	19.5	22.4	25.0	26.3	28.8	32.6	33.0
82.5°	12.3	12.3	12.3	12.3	12.3	15.7	17.8	20.3	22.4	25.0	27.1
85°	5.9	5.9	5.9	5.9	6.4	10.6	11.9	14.8	15.7	17.8	19.5
87.5°	1.3	1.3	1.3	1.3	1.7	5.5	7.2	8.9	9.3	9.3	10.6
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):

	165°	175°	180°
0°	478.2	478.2	478.2
2.5°	479.0	478.2	477.8
5°	480.3	479.4	479.0
7.5°	476.9	477.3	476.9
10°	469.7	471.0	471.4
12.5°	458.3	460.8	462.5
15°	439.2	443.0	442.2
17.5°	413.8	418.5	418.5
20°	382.0	384.1	382.9
22.5°	343.1	343.9	342.6
25°	302.0	302.0	300.3
27.5°	263.9	261.7	260.5
30°	227.4	221.9	220.2
32.5°	188.9	179.6	179.6
35°	149.9	142.3	140.2
37.5°	116.5	108.0	105.5
40°	89.4	83.0	82.6
42.5°	75.4	74.1	74.5
45°	72.0	73.7	73.7
47.5°	72.4	74.5	75.0
50°	72.8	75.0	75.4
52.5°	72.8	74.1	74.1
55°	72.0	72.0	72.0
57.5°	70.3	69.9	70.7
60°	69.0	69.0	69.0
62.5°	66.9	66.9	66.9
65°	63.5	64.0	64.0
67.5°	60.1	60.1	60.1
70°	55.9	55.9	56.8
72.5°	51.7	53.4	54.2
75°	48.7	51.7	52.9
77.5°	42.8	45.7	47.4
80°	35.2	35.6	35.6
82.5°	28.0	27.1	25.8
85°	19.9	18.6	18.6
87.5°	10.6	10.2	10.6
90°	0.0	0.0	0.0

(END OF REPORT)