

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: P141224

Luminaire Tested: **ECM-F01-LED-E1-SL4-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141224
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33692)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F01-LED-E1-SL4-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (7) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2128.9 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

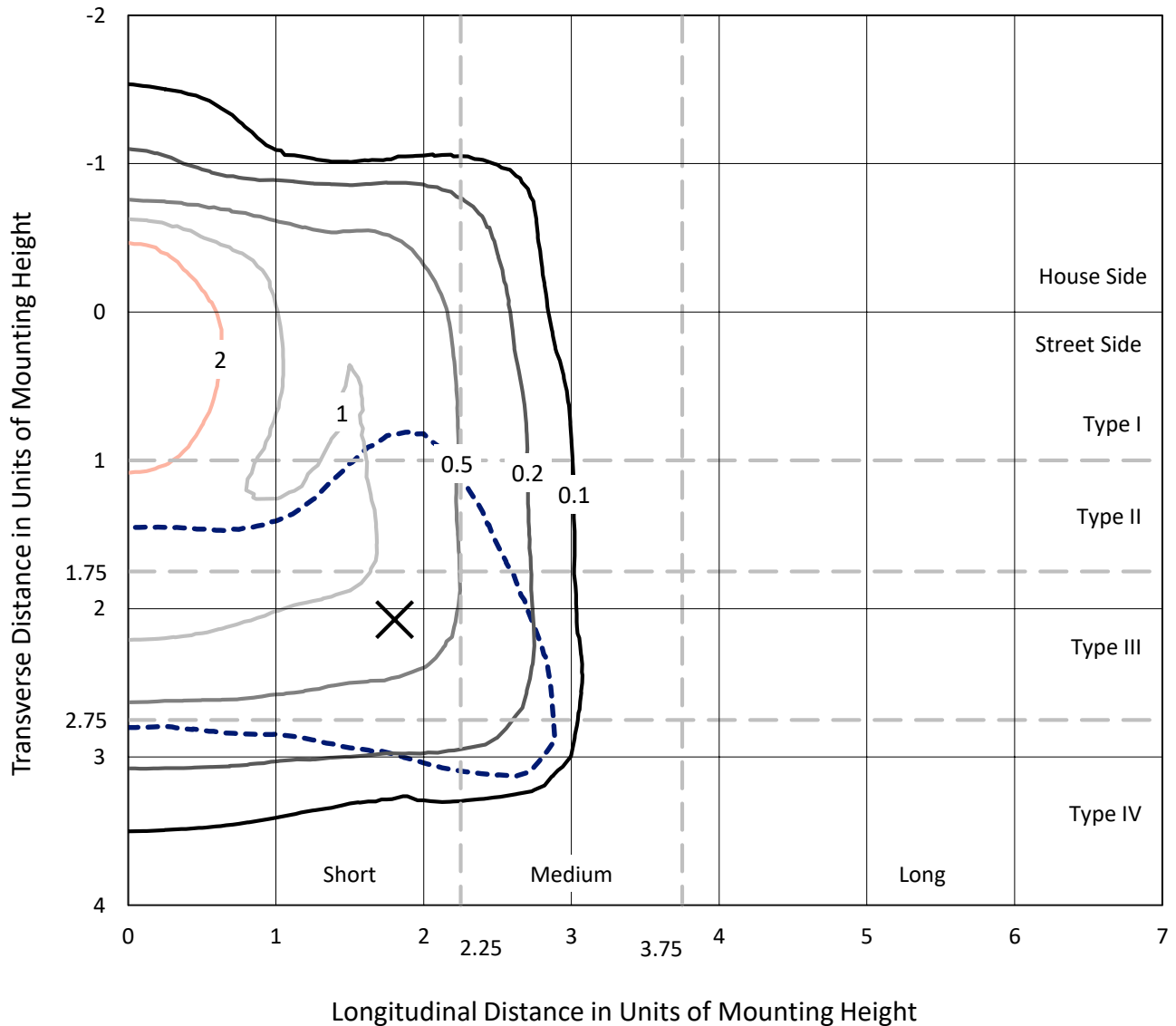
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

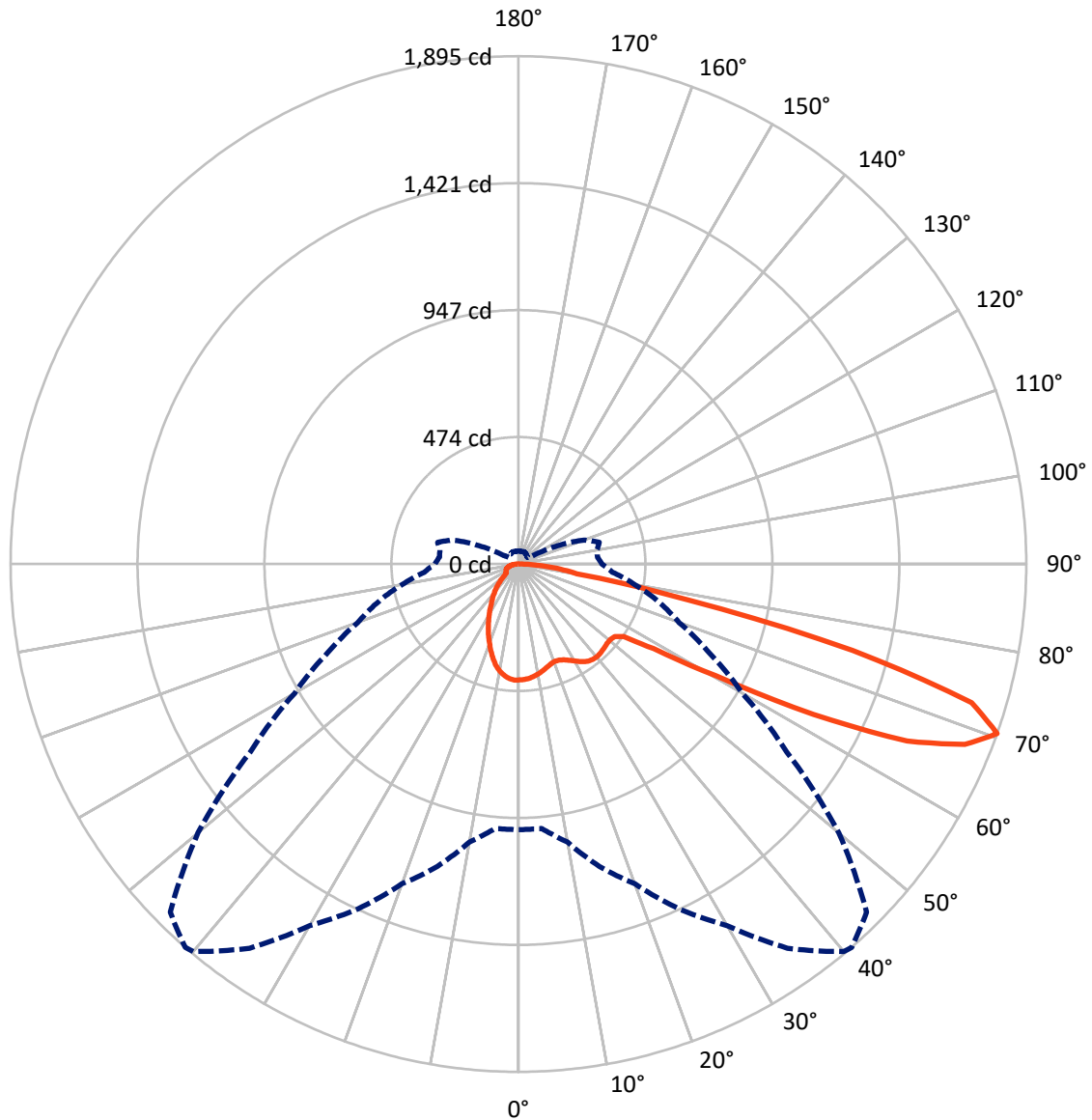
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	456.8	0.0	456.8
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	1672.1	0.0	1672.1
	% Fixture	78.5	0.0	78.5
Total	Lumens	2128.9	0.0	2128.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	1.9
10°-20°	107.9	5.1
20°-30°	156.0	7.3
30°-40°	198.5	9.3
40°-50°	233.9	11.0
50°-60°	358.0	16.8
60°-70°	665.3	31.3
70°-80°	321.1	15.1
80°-90°	48.0	2.3
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°	2128.9	100.0
0°-180°	2128.9	100.0



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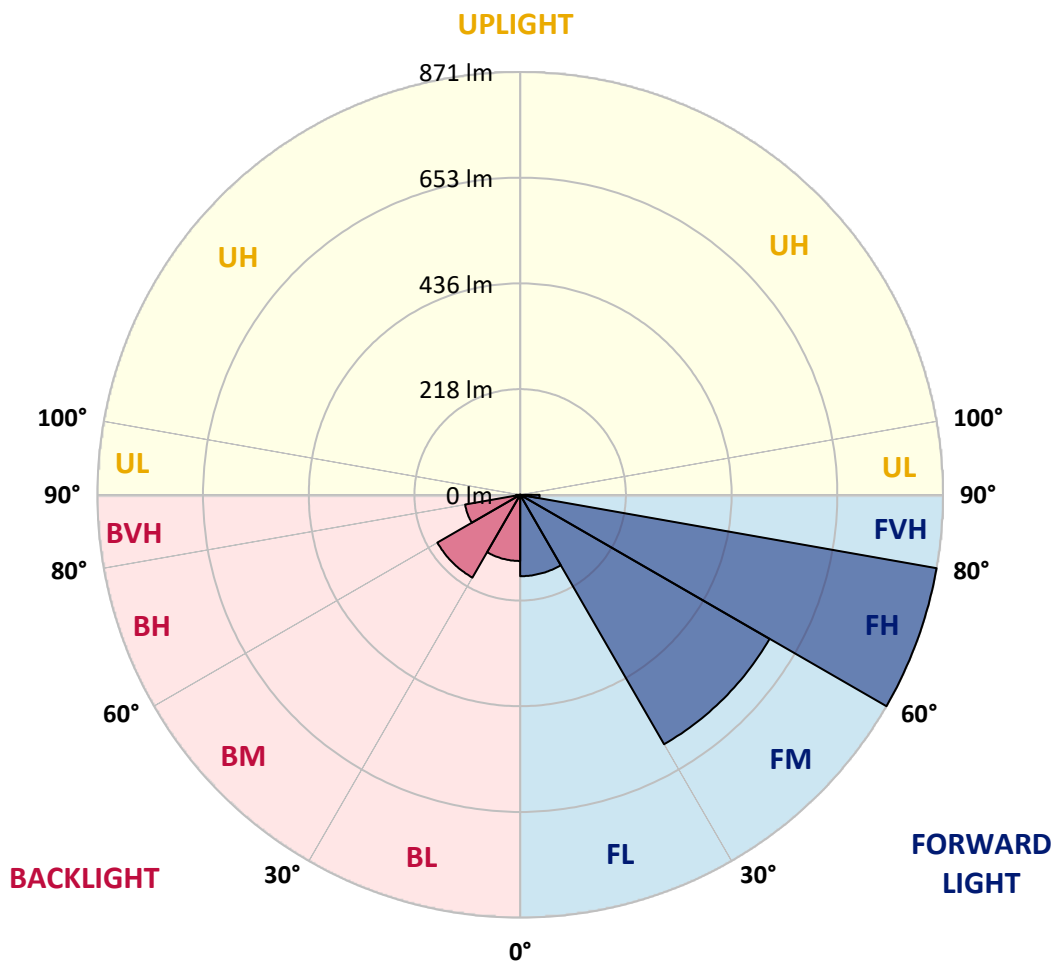
CATALOG NUMBER: ECM-F01-LED-E1-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	167.7	7.9			
FM (30°-60°)	593.4	27.9			
FH (60°-80°)	871.2	40.9			G1/1800
FVH (80°-90°)	39.9	1.9			G1/100
BL (0°-30°)	136.4	6.4	B1/500		
BM (30°-60°)	197.1	9.3	B0/220		
BH (60°-80°)	115.2	5.4	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5
2.5°	432.5	433.0	432.8	432.3	431.8	432.0	431.8	431.5	431.5	431.3	431.0
5°	430.5	431.5	430.8	430.3	429.5	429.5	429.3	428.8	428.3	428.0	427.5
7.5°	426.3	427.3	426.8	426.3	425.5	425.0	424.0	423.5	423.0	422.7	422.0
10°	420.5	421.0	420.5	419.5	419.0	418.7	418.2	417.2	416.2	415.7	414.9
12.5°	412.9	413.2	412.7	412.2	411.4	411.4	410.7	409.9	408.4	407.9	406.2
15°	406.4	405.6	405.1	404.9	404.6	403.4	403.6	402.4	399.9	399.1	397.1
17.5°	404.6	403.9	403.6	402.9	402.4	400.9	399.4	396.9	392.6	391.8	388.8
20°	409.7	409.7	408.9	408.4	407.7	404.9	401.6	396.9	389.1	387.3	383.5
22.5°	421.7	420.5	420.0	420.0	419.7	415.7	409.7	402.1	391.8	389.6	383.0
25°	440.6	438.3	439.1	438.8	438.3	432.5	423.7	412.9	398.9	395.8	387.3
27.5°	463.0	463.5	463.2	462.2	460.7	454.4	441.8	427.3	409.7	406.7	395.6
30°	486.3	486.8	488.3	487.6	486.6	477.0	461.4	445.6	424.2	420.2	406.7
32.5°	513.5	515.2	516.5	516.7	512.7	499.6	481.3	461.2	438.6	434.6	417.7
35°	544.9	543.9	546.1	545.1	538.1	520.3	497.6	473.8	450.6	445.4	427.3
37.5°	576.6	577.8	575.5	571.3	560.2	536.8	508.9	482.1	456.4	451.4	432.5
40°	607.2	606.5	601.2	593.9	577.3	547.4	515.2	485.8	458.4	453.2	433.8
42.5°	630.1	628.1	620.0	608.2	586.9	552.4	517.0	485.8	457.2	451.6	432.0
45°	640.1	638.1	630.3	615.3	589.9	551.4	514.0	481.6	452.9	448.1	428.5
47.5°	640.1	639.4	630.8	616.3	589.1	548.7	509.4	476.3	448.6	443.9	425.5
50°	635.1	634.6	627.1	612.7	586.6	547.1	508.2	475.3	448.4	443.6	426.8
52.5°	652.0	648.7	640.9	624.3	595.9	553.4	514.5	480.3	454.4	449.6	432.3
55°	856.8	854.0	814.6	745.2	672.6	606.2	549.4	510.2	484.1	476.8	464.2
57.5°	1188.0	1184.0	1143.6	1080.5	955.6	813.6	702.2	636.9	600.2	594.9	587.4
60°	1322.5	1321.0	1303.9	1278.3	1231.0	1157.6	1054.1	945.5	861.1	847.5	848.5
62.5°	1399.7	1395.9	1387.6	1381.3	1365.2	1335.3	1316.0	1285.6	1244.6	1235.3	1176.5
65°	1442.9	1442.4	1446.9	1452.2	1451.2	1460.2	1470.0	1528.1	1596.2	1593.2	1531.1
67.5°	1378.6	1382.8	1406.4	1442.6	1480.6	1520.8	1595.7	1712.1	1796.3	1796.3	1741.7
70°	991.0	990.2	1053.1	1167.7	1269.7	1420.0	1558.0	1749.8	1887.5	1894.8	1837.0
72.5°	593.9	607.7	646.4	698.4	785.2	967.1	1223.7	1568.3	1760.6	1768.4	1699.2
75°	417.2	406.9	405.4	408.4	423.2	468.0	609.2	962.6	1276.3	1288.3	1221.5
77.5°	266.9	264.7	265.7	268.9	269.7	274.0	280.7	330.0	591.6	649.4	646.4
80°	230.2	229.5	229.7	225.9	218.7	215.9	224.4	217.7	211.4	220.2	208.1
82.5°	154.3	157.1	161.6	167.6	182.2	187.2	184.5	183.2	163.4	158.8	141.0
85°	114.4	112.8	114.6	114.6	110.8	107.1	109.8	107.1	94.8	88.7	78.4
87.5°	61.8	62.1	67.1	69.1	68.9	58.8	48.5	42.0	38.0	35.2	29.7
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5
2.5°	431.3	430.5	430.8	430.8	430.5	431.0	430.3	430.0	430.3	430.3	430.3
5°	427.0	426.0	426.0	425.8	425.3	425.3	424.2	424.0	423.5	424.2	423.7
7.5°	421.0	419.5	418.2	417.2	416.7	416.0	414.7	414.2	413.7	413.4	412.9
10°	413.7	411.9	409.4	407.4	406.4	404.4	402.9	400.9	400.9	399.9	398.9
12.5°	404.9	402.4	399.9	397.1	395.3	392.6	390.1	387.8	386.0	383.8	382.3
15°	396.1	392.3	389.6	386.8	383.5	379.8	376.7	373.2	370.0	366.4	365.4
17.5°	386.5	383.5	381.0	377.8	374.2	369.7	365.7	359.9	355.9	351.6	348.3
20°	380.3	376.7	374.0	371.0	367.2	361.9	356.6	350.1	344.1	337.8	333.0
22.5°	377.0	371.2	368.7	365.9	362.2	356.4	350.4	342.3	334.8	326.5	318.9
25°	378.3	370.5	365.4	362.4	359.2	353.4	345.6	336.5	328.0	317.4	308.9
27.5°	383.8	373.2	365.4	360.4	356.9	350.9	342.8	332.5	322.2	311.1	300.8
30°	391.1	377.8	367.7	360.4	355.1	348.6	339.8	328.7	317.4	305.1	293.3
32.5°	399.4	383.0	371.0	360.9	352.4	344.1	335.0	323.5	311.7	298.6	287.0
35°	405.9	387.0	373.2	359.9	348.6	338.3	327.7	316.9	305.1	292.8	280.5
37.5°	409.7	389.6	373.2	356.4	342.6	331.8	320.7	310.1	298.8	286.8	276.0
40°	411.2	390.6	371.7	352.4	336.3	324.0	313.7	302.9	292.8	282.2	272.7
42.5°	410.4	389.8	369.7	348.6	331.3	317.9	306.6	296.6	288.3	279.5	271.4
45°	407.4	387.3	367.7	346.8	329.5	315.9	304.4	294.8	287.0	279.0	272.7
47.5°	404.9	386.3	369.0	351.1	334.5	320.7	308.1	297.6	291.0	284.8	280.7
50°	406.9	389.1	371.7	354.9	338.8	324.7	311.9	302.1	298.3	297.3	296.1
52.5°	412.4	394.8	380.3	368.5	361.2	355.9	342.8	340.6	337.3	335.5	331.3
55°	448.4	441.1	454.2	468.5	471.0	486.8	493.1	493.6	488.1	468.5	422.7
57.5°	594.6	612.7	618.3	651.5	660.5	653.5	643.9	643.4	626.3	600.4	533.8
60°	856.0	846.5	834.7	813.1	792.7	770.8	740.7	717.6	695.7	656.0	585.9
62.5°	1129.5	1046.3	985.7	923.6	873.4	829.4	785.7	748.5	713.0	658.0	582.8
65°	1366.7	1197.3	1074.4	981.2	903.3	838.9	780.9	730.1	685.4	616.5	540.4
67.5°	1521.1	1277.5	1093.8	954.6	844.5	762.5	677.1	596.9	552.9	497.4	458.7
70°	1560.5	1221.0	964.6	786.2	637.9	540.1	439.3	351.9	311.4	295.8	297.1
72.5°	1407.7	965.1	683.9	500.1	391.6	310.4	252.3	194.0	151.6	127.2	124.2
75°	919.6	537.1	324.7	226.2	180.0	143.3	112.8	95.0	81.9	66.1	55.3
77.5°	347.6	204.6	145.8	118.9	88.0	61.3	47.8	40.2	36.9	35.9	32.4
80°	178.2	142.0	101.5	66.9	46.7	37.4	31.4	26.6	24.6	23.6	24.1
82.5°	120.1	89.5	56.0	40.2	32.4	27.9	22.1	18.6	16.6	16.3	17.6
85°	66.9	44.7	32.7	27.1	23.9	20.9	16.8	13.8	12.8	13.6	15.8
87.5°	20.9	20.6	14.8	12.1	12.6	10.8	8.0	6.0	6.0	7.8	11.1
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5	432.5
2.5°	430.3	430.8	431.8	431.0	431.3	431.5	432.3	433.3	432.5	432.0	433.5
5°	424.2	424.2	425.5	425.0	426.0	427.0	427.5	429.3	428.8	428.3	430.3
7.5°	413.2	413.4	415.2	414.7	416.7	417.0	419.0	420.5	420.5	421.5	423.2
10°	399.1	399.1	400.6	400.9	402.1	403.1	405.4	408.2	408.7	410.4	412.9
12.5°	383.3	382.8	384.0	384.0	385.0	386.3	388.8	392.1	392.6	395.3	398.6
15°	363.7	362.9	362.4	362.9	363.4	363.7	367.4	370.7	372.7	375.7	379.0
17.5°	344.8	342.1	340.8	340.8	341.1	341.1	342.6	346.3	349.1	353.9	358.6
20°	328.0	323.2	321.5	317.4	316.7	314.9	316.2	320.4	325.5	329.2	333.0
22.5°	312.2	307.1	302.1	297.3	293.6	291.3	293.6	296.3	298.1	301.1	302.1
25°	300.1	291.8	284.8	277.2	273.2	271.2	270.9	270.7	269.2	268.7	268.7
27.5°	290.5	280.7	270.2	261.9	256.4	252.6	248.3	245.3	241.5	236.5	234.0
30°	282.5	271.9	260.4	250.6	243.5	236.3	227.5	220.7	213.9	207.9	202.6
32.5°	275.2	264.4	253.1	242.8	230.7	218.2	207.1	199.1	187.2	179.2	172.4
35°	269.7	258.9	248.3	234.7	218.2	202.1	187.7	175.9	163.9	153.3	144.3
37.5°	265.7	256.6	245.3	227.0	206.1	186.7	171.7	157.6	143.3	128.9	117.6
40°	264.4	256.6	242.3	218.4	194.5	173.7	156.3	139.0	123.2	107.8	96.3
42.5°	265.2	256.9	237.5	210.9	185.0	162.4	142.8	122.6	103.8	87.5	75.9
45°	267.9	256.9	232.5	202.6	176.2	152.1	128.7	104.8	82.9	69.9	64.8
47.5°	276.2	258.6	228.5	196.5	168.4	140.7	112.8	85.7	67.1	61.6	61.6
50°	289.0	263.9	228.0	192.0	159.6	127.7	93.2	67.6	59.3	59.1	60.6
52.5°	310.9	273.2	230.5	189.0	150.3	110.1	72.6	58.3	56.5	58.1	60.3
55°	353.4	289.5	234.0	183.5	134.7	86.2	59.6	55.3	56.0	57.8	59.8
57.5°	431.0	322.5	237.8	171.7	109.1	65.3	54.0	54.3	55.5	57.3	59.1
60°	484.6	363.2	245.3	151.8	81.2	54.0	51.8	53.8	55.3	56.5	58.1
62.5°	489.1	378.0	250.8	129.4	60.3	49.3	49.8	52.8	54.8	55.3	56.0
65°	461.9	358.9	235.0	106.8	50.0	46.7	48.5	51.3	53.3	53.5	54.3
67.5°	402.6	318.9	200.6	81.2	45.7	45.0	47.0	48.8	50.3	51.5	52.5
70°	311.9	260.4	161.4	63.1	42.5	42.2	44.0	46.0	47.5	48.8	50.3
72.5°	164.4	185.0	120.1	50.5	39.0	39.2	41.0	42.7	43.7	45.0	46.5
75°	51.0	78.4	74.1	40.5	34.7	35.7	36.7	38.2	40.0	40.7	41.5
77.5°	30.2	31.9	38.7	31.7	30.2	30.9	32.2	33.4	34.7	35.7	36.4
80°	24.4	24.9	25.1	25.1	25.1	26.1	27.1	28.9	29.9	30.4	30.7
82.5°	19.1	20.4	20.6	20.1	20.9	21.9	22.4	23.4	23.6	24.1	24.6
85°	15.8	15.6	16.1	16.3	15.3	15.3	14.8	14.8	15.8	17.6	17.8
87.5°	12.3	10.8	8.8	8.3	7.8	7.3	6.8	6.8	7.0	8.0	8.8
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):

	160°	165°	170°	175°	180°
0°	432.5	432.5	432.5	432.5	432.5
2.5°	433.5	433.3	433.8	434.6	434.0
5°	430.5	430.5	431.5	432.3	431.8
7.5°	424.5	424.7	426.3	427.3	426.8
10°	414.9	415.5	417.2	418.7	419.5
12.5°	400.6	402.4	404.6	406.2	406.2
15°	382.5	385.3	387.8	390.1	388.8
17.5°	361.9	365.2	368.5	369.7	368.5
20°	337.0	337.3	339.3	340.6	340.1
22.5°	303.1	302.1	303.1	303.6	304.4
25°	268.4	266.7	265.7	267.2	267.9
27.5°	233.0	230.5	231.2	229.5	227.5
30°	198.6	196.3	193.5	192.8	194.0
32.5°	168.1	162.4	160.1	155.8	157.6
35°	136.0	130.2	124.7	123.2	122.1
37.5°	109.6	102.5	95.8	93.5	93.0
40°	85.7	79.9	75.4	74.1	73.6
42.5°	69.6	67.1	66.4	66.4	66.6
45°	63.6	63.8	64.6	65.1	65.3
47.5°	62.3	63.3	64.3	65.3	65.6
50°	62.3	63.1	63.8	64.8	65.1
52.5°	61.8	62.6	62.8	63.3	63.8
55°	61.3	61.6	61.6	61.8	62.3
57.5°	60.1	60.3	59.8	60.1	61.1
60°	58.8	59.1	58.6	59.1	59.3
62.5°	57.1	57.1	56.8	57.1	57.3
65°	55.0	54.3	54.8	54.5	54.8
67.5°	52.5	51.5	51.3	51.3	51.5
70°	49.0	48.3	48.0	48.5	49.0
72.5°	44.7	45.2	46.0	46.7	48.0
75°	41.7	42.5	43.5	46.0	47.8
77.5°	37.4	37.2	38.2	41.0	43.5
80°	31.2	31.4	31.2	31.9	32.4
82.5°	23.9	23.6	22.9	22.9	22.4
85°	16.8	16.1	15.1	14.8	14.6
87.5°	8.5	9.0	8.3	7.5	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)