

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: P142024

Luminaire Tested: **ECM-F01-LED-E1-T4-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P142024
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33685)
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-T4-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4
Light Source: (7) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2168.3 lumens
Efficiency: N/A
Efficacy: 83.7 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

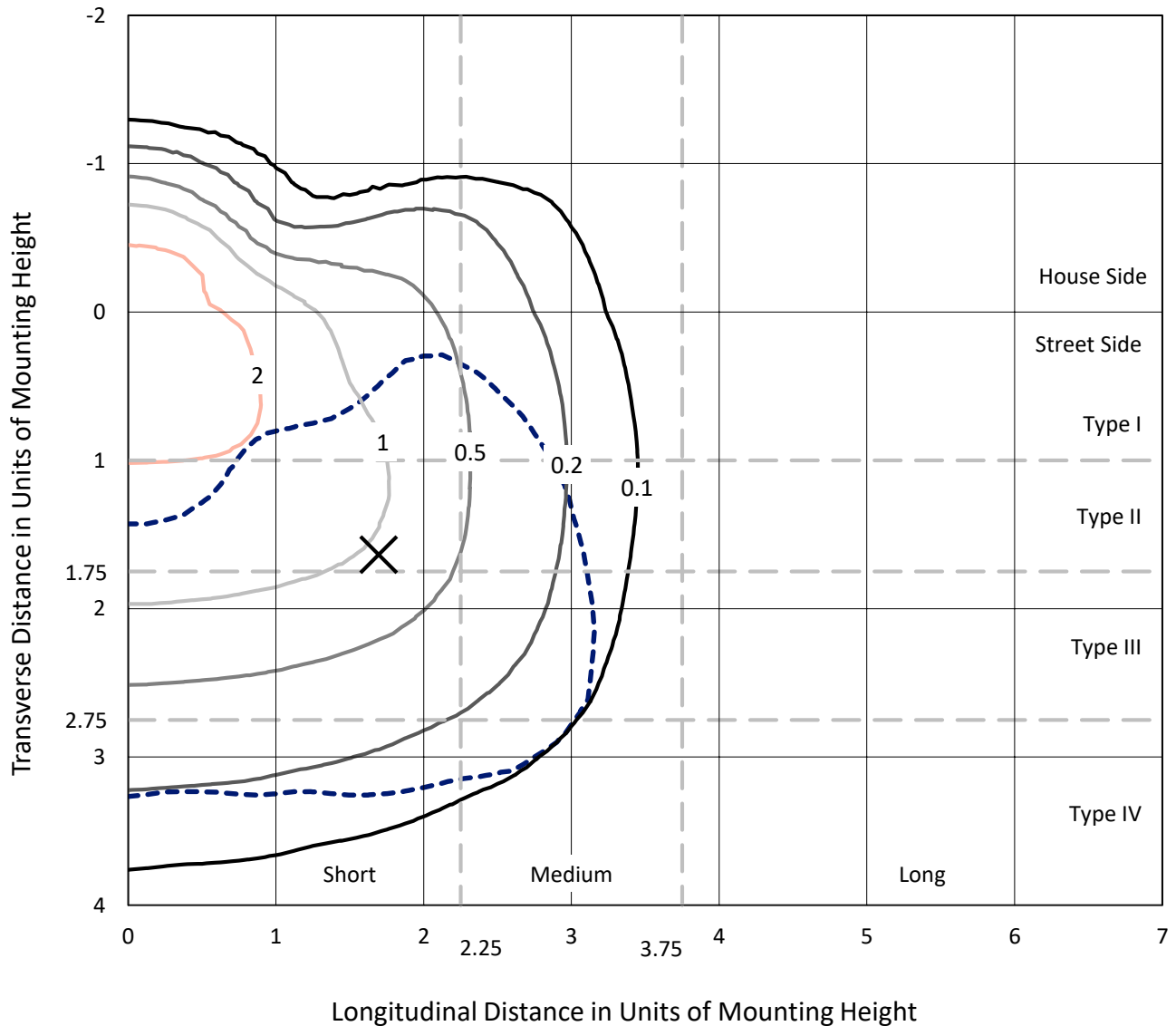


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

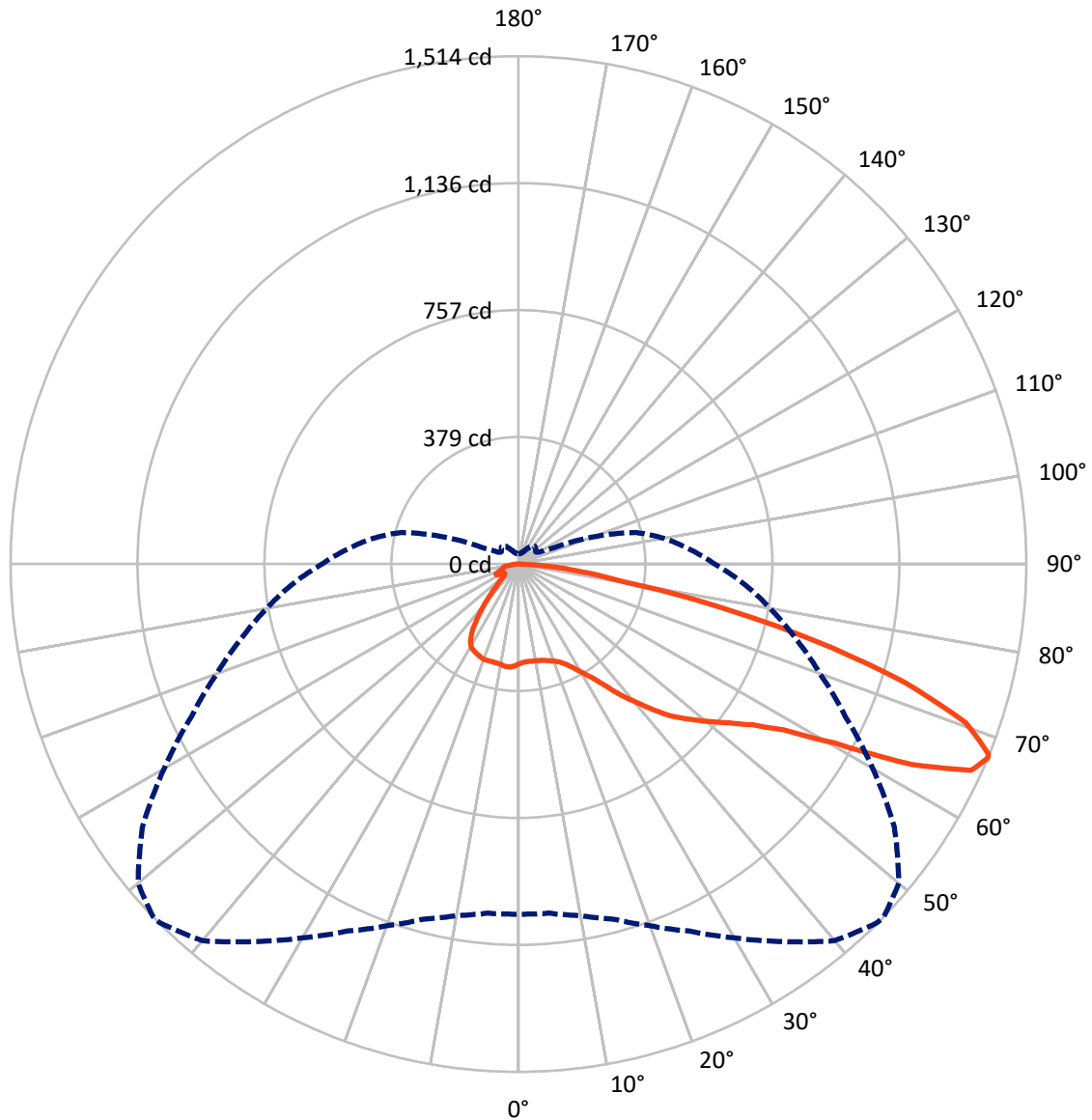


Based on 10 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	430.9	0.0	430.9
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	1737.4	0.0	1737.4
	% Fixture	80.1	0.0	80.1
Total	Lumens	2168.3	0.0	2168.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.6	1.3
10°-20°	85.3	3.9
20°-30°	143.5	6.6
30°-40°	214.6	9.9
40°-50°	279.5	12.9
50°-60°	382.8	17.7
60°-70°	605.1	27.9
70°-80°	375.4	17.3
80°-90°	53.5	2.5
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°	2168.3	100.0
0°-180°	2168.3	100.0



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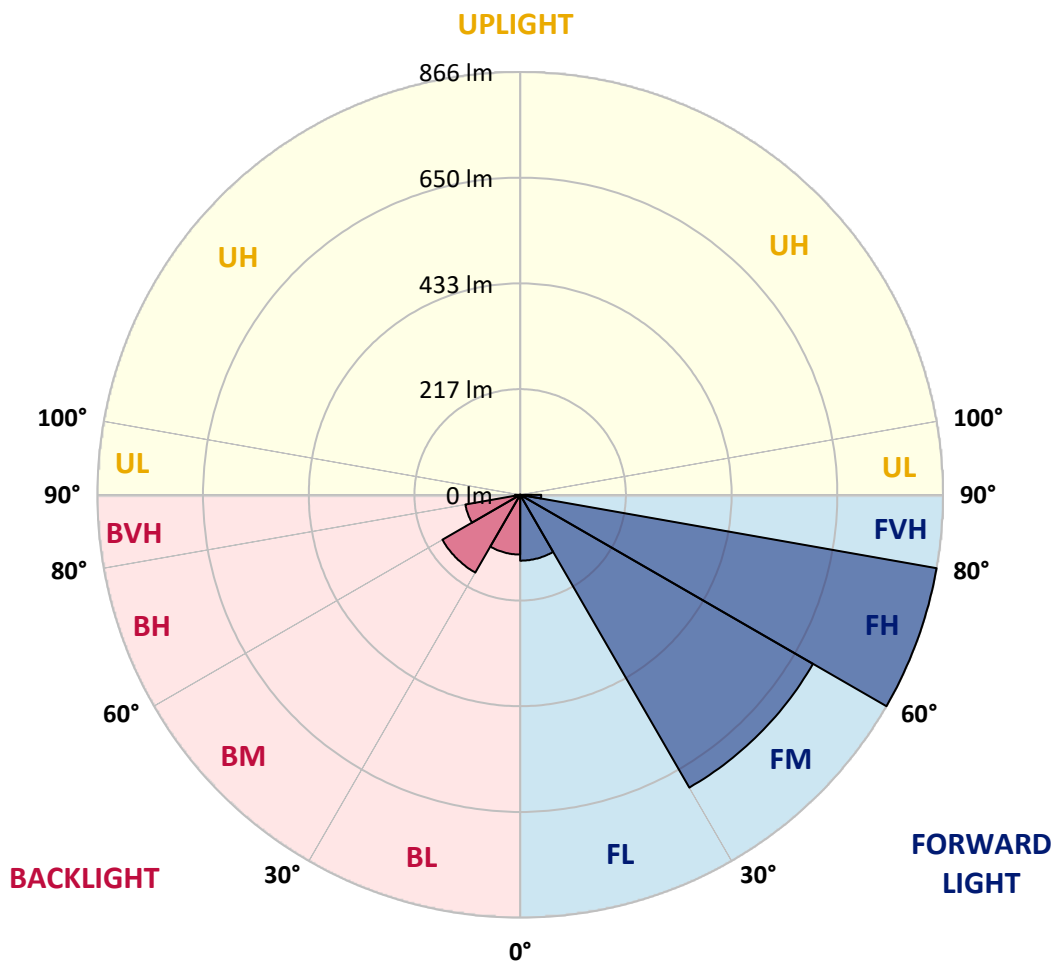
CATALOG NUMBER: ECM-F01-LED-E1-T4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	135.0	6.2			
FM	(30°-60°)	692.9	32.0			
FH	(60°-80°)	866.5	40.0			G1/1800
FVH	(80°-90°)	43.1	2.0			G1/100
BL	(0°-30°)	122.4	5.6	B1/500		
BM	(30°-60°)	184.0	8.5	B0/220		
BH	(60°-80°)	114.1	5.3	B1/500		G1/500
BVH	(80°-90°)	10.4	0.5			G1/100
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°	45°	46°
0°	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1
2.5°	290.5	291.3	291.0	290.8	291.0	291.3	291.5	292.3	292.5	292.8	293.1
5°	285.3	286.0	285.8	286.3	286.5	287.5	288.3	289.5	290.3	291.3	291.8
7.5°	283.8	284.3	284.3	284.8	285.0	286.0	287.3	288.8	290.3	291.8	292.3
10°	287.8	288.0	288.0	287.8	288.0	288.5	289.0	290.3	291.5	292.8	293.3
12.5°	297.3	296.6	296.3	295.6	295.8	294.8	294.8	294.6	294.6	294.8	294.8
15°	307.4	306.9	306.4	305.1	305.1	303.6	303.1	302.1	299.6	298.6	298.3
17.5°	316.4	315.9	314.9	313.9	313.4	311.4	310.9	309.1	306.1	303.9	303.1
20°	327.2	326.0	323.7	323.2	322.0	319.7	318.9	316.7	312.7	309.4	309.1
22.5°	343.8	341.8	339.5	337.8	334.5	332.3	330.2	327.2	322.5	318.7	317.7
25°	360.4	359.7	357.6	355.1	352.9	350.4	347.8	343.3	337.0	332.3	331.3
27.5°	383.8	382.0	379.5	375.5	374.2	370.0	367.9	364.2	357.9	351.9	350.9
30°	408.2	406.4	402.4	398.9	398.1	393.6	392.3	388.3	382.8	376.7	376.0
32.5°	436.1	434.3	431.3	429.3	426.5	424.0	421.0	417.2	410.2	405.1	404.1
35°	471.7	470.2	466.7	468.2	465.7	465.0	463.2	456.9	449.1	443.1	444.1
37.5°	499.9	499.6	500.4	499.6	502.9	506.2	506.2	506.7	502.9	496.4	495.1
40°	526.3	526.0	528.0	530.3	539.1	544.4	550.4	552.7	548.7	543.6	541.9
42.5°	550.9	550.4	553.2	561.5	572.3	582.1	592.4	601.2	603.2	597.7	596.4
45°	575.3	576.1	579.6	588.9	603.2	616.0	633.6	643.9	650.4	647.4	649.4
47.5°	604.7	605.5	609.2	620.3	632.9	648.9	669.5	687.1	694.9	694.9	692.4
50°	639.6	643.2	647.2	654.7	669.3	685.1	710.3	727.9	740.4	739.9	737.9
52.5°	686.1	686.9	693.4	699.5	712.0	728.1	750.7	774.9	790.7	789.2	786.9
55°	748.7	745.7	750.0	755.8	769.3	783.4	808.0	835.9	852.0	847.2	845.7
57.5°	827.6	825.1	828.1	835.2	852.3	863.8	883.7	909.3	931.9	936.0	932.4
60°	941.5	941.5	947.5	962.6	979.9	997.3	1022.7	1053.6	1077.0	1082.7	1082.5
62.5°	1076.5	1085.0	1086.3	1105.9	1139.0	1168.9	1208.4	1262.9	1297.9	1322.8	1316.2
65°	1098.1	1100.8	1111.9	1142.3	1187.3	1240.3	1301.6	1373.3	1445.9	1481.8	1482.9
67°	1043.8	1044.8	1064.1	1096.1	1147.6	1207.4	1286.8	1374.0	1466.0	1512.5	1514.0
67.5°	1026.9	1024.9	1042.3	1075.7	1132.0	1199.4	1274.0	1365.7	1460.7	1510.5	1511.3
70°	914.1	915.1	928.7	965.9	1025.4	1088.5	1172.0	1266.2	1366.2	1411.7	1414.0
72.5°	788.2	781.6	794.0	833.7	862.1	923.6	1000.3	1071.4	1159.4	1202.4	1201.4
75°	601.2	583.1	604.7	627.8	643.7	704.7	752.5	801.5	882.7	915.3	913.6
77.5°	324.0	323.2	346.8	364.9	388.6	443.6	485.6	516.5	584.8	600.9	602.9
80°	175.9	182.5	196.5	216.6	235.7	262.1	286.5	305.9	328.2	317.9	315.7
82.5°	106.1	116.9	138.5	153.8	161.4	173.2	190.5	201.6	210.4	191.3	187.5
85°	16.8	30.4	78.2	93.5	101.5	107.1	110.8	118.1	107.8	101.0	102.8
87.5°	5.5	6.3	12.1	26.6	23.4	16.1	21.1	30.7	14.6	7.8	7.5
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°	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1
2.5°	293.3	293.6	294.3	295.3	295.8	297.1	297.1	298.1	298.1	298.8	299.6
5°	292.5	293.8	294.8	296.3	297.1	298.8	299.6	301.1	301.8	302.9	303.9
7.5°	293.8	295.6	296.8	298.6	299.8	301.6	302.4	303.6	304.4	305.6	306.1
10°	294.8	296.6	298.1	300.1	301.1	302.4	303.1	304.1	304.4	305.1	305.6
12.5°	296.1	296.8	298.1	299.8	300.8	301.6	302.4	303.1	303.9	303.9	303.9
15°	297.8	297.1	297.3	298.8	299.8	300.3	301.1	301.6	301.8	301.8	301.3
17.5°	301.6	299.6	298.3	298.3	298.8	299.3	299.3	298.6	298.1	297.3	296.3
20°	307.1	303.9	301.3	300.1	299.1	297.8	295.8	293.3	291.0	289.0	287.8
22.5°	314.9	311.7	308.6	305.9	302.6	298.3	294.1	288.8	284.5	281.2	280.0
25°	329.5	324.7	322.5	318.2	313.2	306.4	299.8	292.5	287.5	283.0	281.0
27.5°	349.1	345.3	340.3	338.0	331.5	323.7	316.4	307.6	300.6	295.1	291.3
30°	374.0	371.5	367.2	363.4	357.1	350.1	339.3	329.5	317.2	307.4	301.8
32.5°	402.6	398.9	395.1	390.3	385.8	376.5	366.4	351.6	334.5	317.7	307.4
35°	438.6	434.8	432.3	424.7	417.2	407.2	393.6	376.0	352.1	329.5	311.9
37.5°	488.1	480.0	467.7	456.9	443.3	428.0	412.7	391.6	364.9	335.5	311.4
40°	531.1	519.3	505.4	486.8	467.7	447.6	429.5	406.7	375.5	340.6	307.9
42.5°	586.9	566.5	543.1	518.5	492.4	468.2	445.9	419.7	383.3	340.8	299.6
45°	637.1	612.0	581.1	547.7	515.7	486.3	460.7	431.8	389.8	339.8	290.0
47.5°	681.9	652.5	614.8	574.5	536.8	503.7	475.5	445.1	398.4	343.1	286.5
50°	725.1	691.4	648.9	600.2	558.2	522.0	492.6	459.9	412.7	354.1	292.0
52.5°	771.3	730.4	682.4	627.3	581.6	544.1	511.2	477.8	429.8	369.0	302.1
55°	827.9	781.4	726.6	665.8	613.2	571.5	534.3	499.1	450.1	387.3	313.9
57.5°	903.3	856.3	793.2	723.1	668.0	618.5	573.8	534.1	481.0	412.7	331.5
60°	1048.6	990.5	906.6	830.4	770.8	712.5	658.5	604.2	540.4	464.0	376.7
62.5°	1281.8	1200.9	1096.8	990.7	910.3	833.2	761.8	691.2	611.5	525.8	430.5
65°	1443.1	1343.1	1212.4	1079.5	970.6	876.4	791.2	707.2	618.5	536.8	453.9
67°	1480.1	1368.2	1219.5	1075.2	956.8	854.5	761.8	674.3	585.1	511.0	440.1
67.5°	1478.6	1367.0	1213.9	1066.1	947.5	846.7	753.2	661.3	573.5	500.9	433.3
70°	1389.1	1277.0	1123.2	976.2	861.8	761.5	667.3	587.1	497.6	438.8	388.1
72.5°	1177.0	1079.5	955.3	823.1	725.1	635.4	560.0	481.3	403.6	364.4	324.5
75°	895.0	808.5	694.7	597.9	523.3	460.9	385.3	333.5	279.0	252.1	237.8
77.5°	591.4	492.1	413.4	321.2	266.4	217.4	171.4	136.0	113.6	119.4	130.4
80°	312.9	248.3	183.7	142.3	109.8	85.5	67.9	50.8	36.9	43.2	54.3
82.5°	170.4	145.3	107.3	85.5	69.9	57.8	44.5	31.2	23.1	25.6	36.9
85°	97.3	85.5	66.4	51.8	45.2	36.9	25.4	17.1	16.6	17.8	22.9
87.5°	16.1	21.6	17.6	12.1	13.6	13.3	11.8	9.0	6.8	9.6	12.3
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1	297.1
2.5°	300.1	300.8	301.8	302.1	301.8	302.6	303.9	304.9	304.1	303.6	304.9
5°	304.9	305.4	306.6	306.6	306.9	307.4	308.1	308.9	307.9	307.9	308.4
7.5°	306.9	306.9	308.1	307.6	307.6	307.4	308.1	308.4	306.9	306.6	306.9
10°	305.6	305.6	306.1	305.1	304.9	304.6	304.6	304.9	303.4	302.9	303.6
12.5°	303.9	303.9	303.4	302.9	302.4	301.8	302.4	302.6	301.6	301.6	301.8
15°	300.8	300.1	299.8	299.8	300.1	300.3	301.3	302.1	301.3	300.8	300.8
17.5°	295.8	295.3	296.1	297.6	299.3	300.6	302.1	302.6	300.8	298.8	297.3
20°	288.3	289.5	292.3	296.6	300.3	302.4	302.4	300.6	296.6	292.5	290.5
22.5°	280.5	284.0	290.0	296.6	301.1	301.8	299.1	295.3	289.8	285.5	281.7
25°	281.5	285.8	291.8	297.3	300.3	299.1	294.1	289.3	282.7	278.2	272.7
27.5°	292.0	296.1	299.1	300.8	299.8	295.8	290.0	283.5	276.2	269.9	263.4
30°	300.6	302.4	302.1	300.6	296.8	290.5	283.8	276.0	267.2	260.4	251.8
32.5°	302.1	298.8	293.8	288.3	283.3	276.2	268.4	259.4	249.6	240.8	232.2
35°	299.3	287.0	276.0	264.9	257.4	248.6	241.8	231.2	220.4	212.9	206.6
37.5°	289.0	267.7	250.1	234.5	223.4	213.4	203.1	192.8	183.7	180.2	178.4
40°	276.0	243.8	216.9	195.3	183.5	173.7	163.1	154.8	150.5	147.3	146.0
42.5°	256.9	216.6	183.2	160.1	145.0	136.0	125.7	121.1	119.1	119.9	118.9
45°	239.0	188.2	146.3	120.6	110.3	101.8	96.8	94.8	93.7	93.2	94.0
47.5°	226.4	166.4	117.9	91.7	83.2	77.2	75.1	74.4	74.1	73.1	72.9
50°	223.4	153.6	96.5	71.4	64.8	61.6	60.6	59.8	59.3	58.6	56.8
52.5°	227.0	150.0	86.0	61.3	55.8	53.3	52.5	51.3	50.8	48.8	46.5
55°	233.0	151.3	82.7	58.6	53.0	50.3	49.3	48.8	47.0	44.7	42.0
57.5°	245.6	159.1	84.2	59.3	53.5	51.0	50.5	50.0	47.8	44.5	41.0
60°	282.0	181.7	92.0	64.6	57.6	55.8	56.0	55.0	51.8	47.5	42.2
62.5°	338.3	216.9	106.3	71.1	64.1	64.1	65.6	64.8	59.8	52.8	45.2
65°	367.4	238.0	112.3	73.1	66.1	69.4	74.1	73.4	66.1	55.5	45.5
67°	362.9	234.0	108.8	70.1	62.3	66.6	71.4	71.6	63.6	53.0	43.5
67.5°	358.6	231.2	107.1	68.9	61.3	65.6	70.1	69.4	62.6	52.0	43.0
70°	322.2	203.1	95.5	64.3	56.8	58.1	59.3	58.3	53.0	46.0	39.7
72.5°	278.2	168.6	84.2	61.6	54.3	52.3	52.3	50.5	47.0	42.2	37.7
75°	212.1	131.2	73.9	58.6	51.3	48.3	47.8	46.5	43.5	40.0	35.9
77.5°	129.4	94.0	64.1	54.0	47.5	45.0	45.2	44.5	41.5	38.2	34.4
80°	64.8	60.8	53.8	47.0	43.0	40.5	40.7	39.2	36.7	34.2	31.2
82.5°	39.7	42.0	37.7	35.7	33.2	30.4	23.6	27.6	26.9	24.6	23.4
85°	26.4	26.1	23.6	20.9	19.1	16.6	14.8	15.1	16.6	17.1	17.1
87.5°	12.8	12.3	11.3	10.6	10.1	8.3	7.8	8.8	8.8	9.3	9.0
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):

	160°	165°	170°	175°	180°
0°	297.1	297.1	297.1	297.1	297.1
2.5°	305.1	305.6	305.4	306.1	305.4
5°	308.6	308.6	308.9	309.1	308.9
7.5°	306.9	306.6	307.1	307.6	307.4
10°	303.6	303.9	304.4	305.1	305.1
12.5°	302.4	302.6	303.6	304.4	304.4
15°	301.3	301.6	302.1	303.1	302.4
17.5°	296.8	295.8	295.8	296.6	295.8
20°	288.8	287.3	287.3	287.0	286.8
22.5°	279.2	275.5	274.5	273.2	273.4
25°	267.4	262.4	259.6	258.1	257.6
27.5°	257.9	252.1	249.3	247.1	246.3
30°	245.8	239.3	237.0	235.7	235.2
32.5°	228.2	222.4	219.4	218.7	217.2
35°	201.6	199.1	197.8	196.0	196.3
37.5°	174.9	174.2	171.2	172.2	171.2
40°	146.3	146.0	146.5	145.8	147.5
42.5°	119.4	118.6	119.9	119.1	119.9
45°	92.5	94.0	95.8	95.0	96.0
47.5°	70.9	71.1	70.6	71.1	71.6
50°	54.5	54.0	53.5	52.5	53.0
52.5°	45.0	43.2	42.0	41.2	41.0
55°	39.7	38.0	36.9	35.9	35.9
57.5°	38.2	35.9	34.4	33.7	33.4
60°	38.5	35.4	33.4	32.2	31.9
62.5°	39.5	35.4	32.7	31.4	30.9
65°	39.2	34.9	32.2	30.9	30.4
67°	38.0	34.2	31.9	30.7	30.4
67.5°	37.4	33.9	31.9	30.7	30.2
70°	35.7	33.2	31.4	30.2	29.7
72.5°	34.2	32.2	30.2	29.2	28.7
75°	32.7	30.7	28.9	27.9	27.6
77.5°	31.2	28.9	27.6	26.4	25.4
80°	28.4	25.9	24.1	22.1	21.6
82.5°	23.4	21.4	19.6	17.8	17.6
85°	17.3	16.6	15.1	13.6	13.6
87.5°	9.6	10.6	9.3	8.5	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)