

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: P141874

Luminaire Tested: **ECM-F02-LED-E1-T3-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141874
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33683)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F02-LED-E1-T3-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4427.8 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 55
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

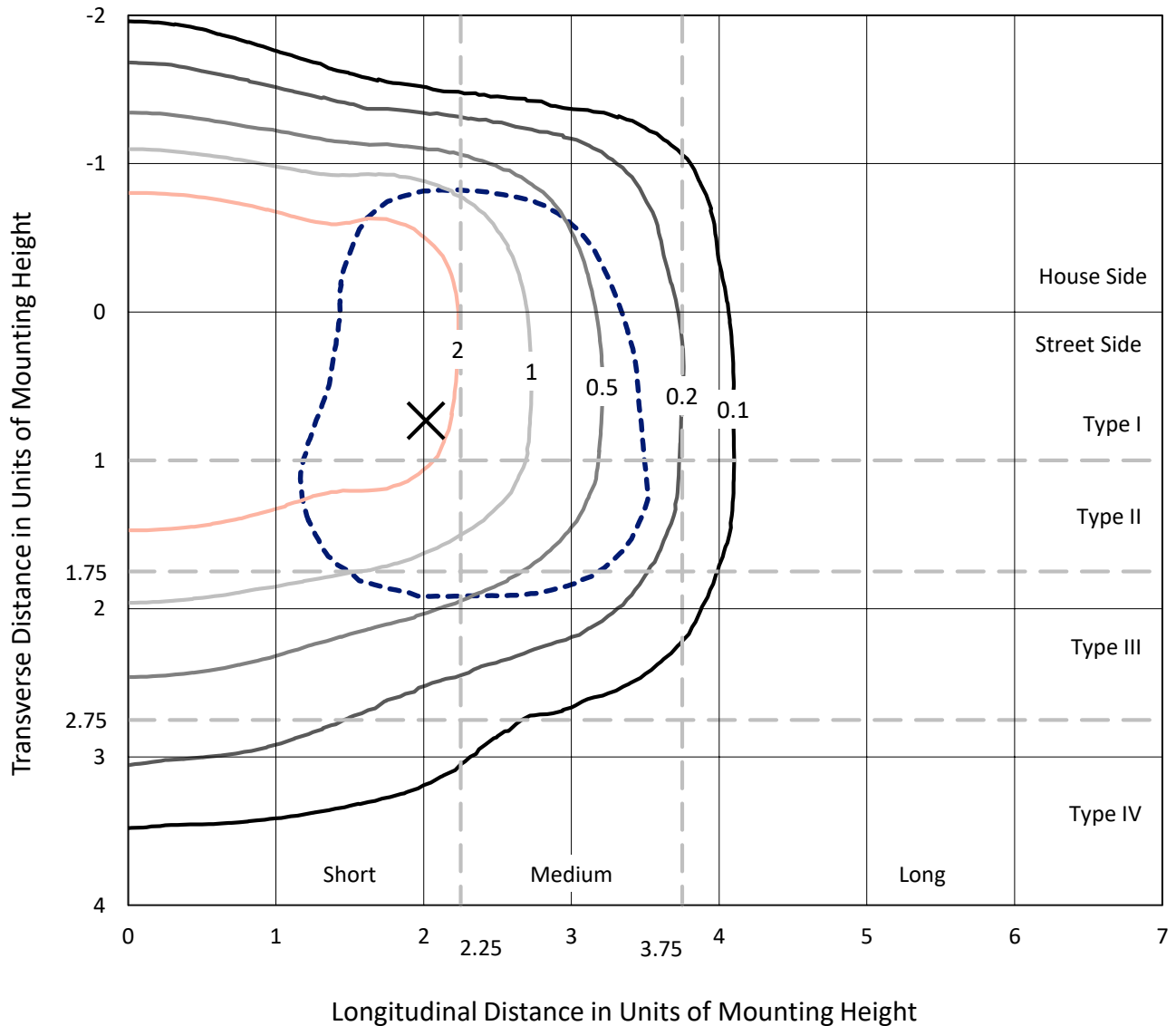


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

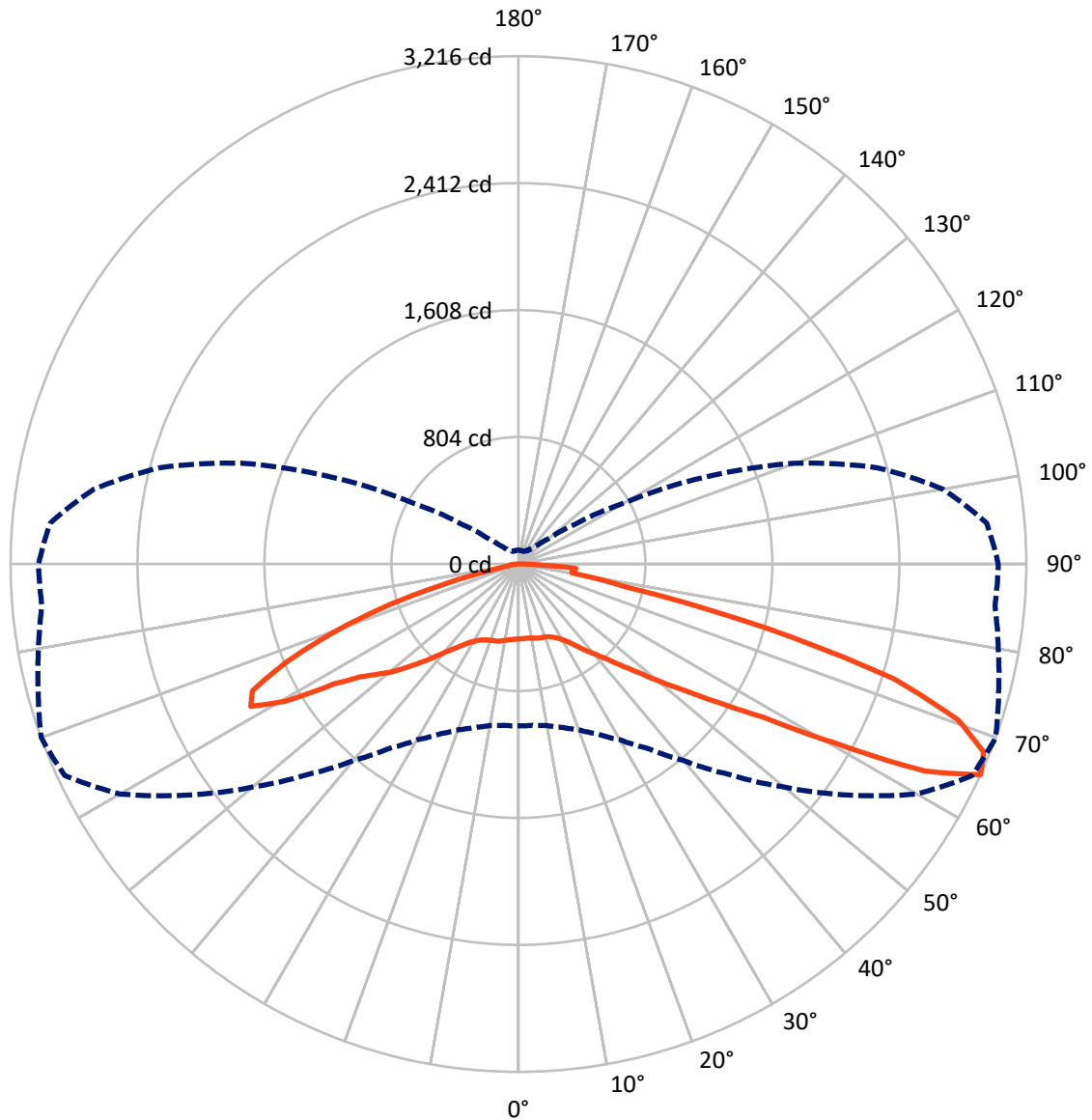


Based on 10 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1494.7	0.0	1494.7
	% Fixture	33.8	0.0	33.8
Street Side	Lumens	2933.1	0.0	2933.1
	% Fixture	66.2	0.0	66.2
Total	Lumens	4427.8	0.0	4427.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.7	1.0
10°-20°	135.3	3.1
20°-30°	232.6	5.3
30°-40°	372.8	8.4
40°-50°	610.4	13.8
50°-60°	955.4	21.6
60°-70°	1342.7	30.3
70°-80°	635.4	14.4
80°-90°	97.6	2.2
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°	4427.8	100.0
0°-180°	4427.8	100.0



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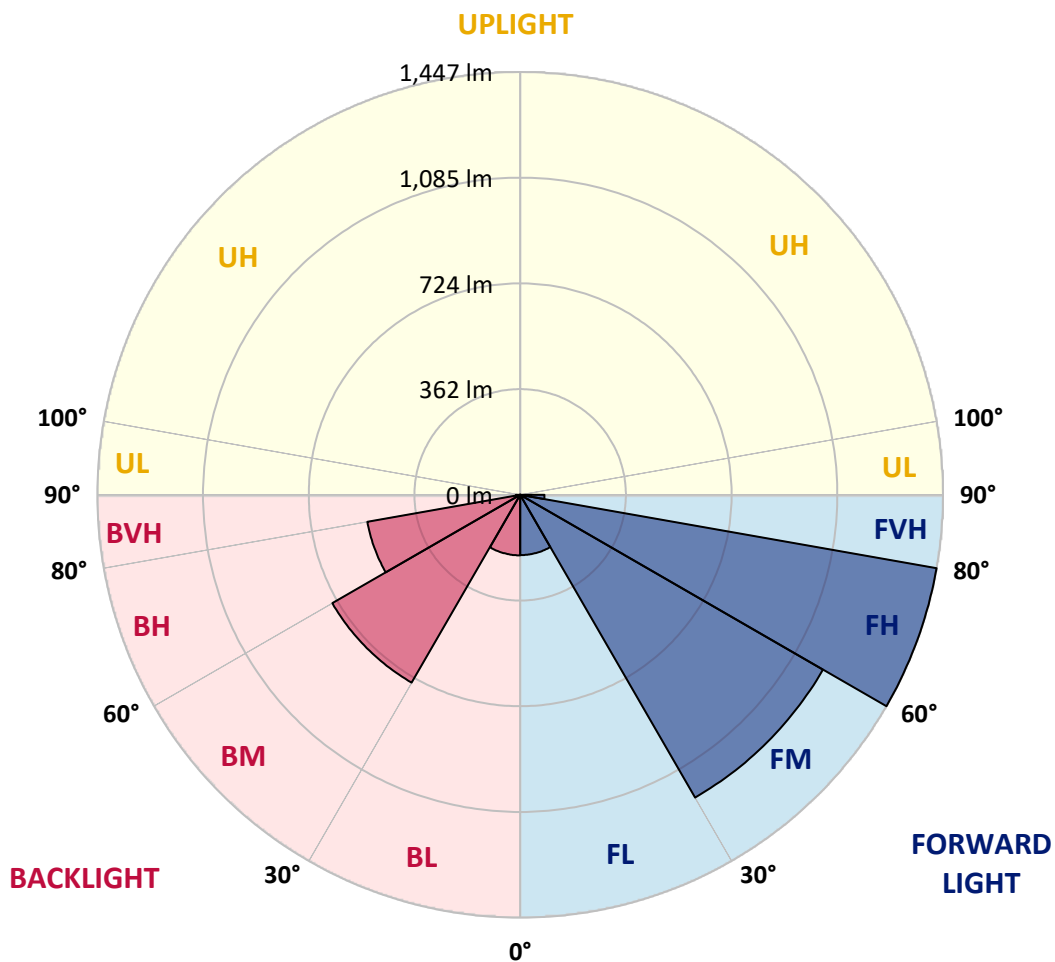
CATALOG NUMBER: ECM-F02-LED-E1-T3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	206.3	4.7			
FM	(30°-60°)	1196.5	27.0			
FH	(60°-80°)	1447.1	32.7			G1/1800
FVH	(80°-90°)	83.2	1.9			G1/100
BL	(0°-30°)	207.3	4.7	B1/500		
BM	(30°-60°)	742.1	16.8	B1/1000		
BH	(60°-80°)	530.9	12.0	B2/1000		G2/1000
BVH	(80°-90°)	14.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5
2.5°	472.0	472.5	472.5	471.5	471.5	472.0	472.0	472.5	472.5	472.5	473.0
5°	472.0	472.5	472.5	472.0	471.5	472.5	472.0	472.5	472.5	472.5	472.5
7.5°	471.0	471.5	471.5	471.0	471.5	472.0	472.0	473.0	473.5	473.5	474.0
10°	466.0	466.5	467.0	467.0	468.0	469.5	470.0	472.0	472.5	474.0	475.0
12.5°	456.9	456.9	457.9	458.9	460.4	463.5	465.0	468.0	470.5	472.5	476.0
15°	448.9	448.9	449.9	450.4	453.4	455.4	458.4	461.9	466.5	470.5	476.0
17.5°	452.9	452.9	452.4	451.9	452.4	452.4	454.9	458.4	462.4	468.0	475.0
20°	468.5	468.0	466.0	465.0	464.5	462.4	460.9	460.4	462.4	466.5	473.5
22.5°	482.1	481.0	480.5	479.5	481.0	480.0	478.0	475.5	472.5	471.0	475.0
25°	490.1	490.6	490.6	490.6	493.6	494.6	495.6	492.6	489.1	484.1	484.6
27.5°	501.2	501.7	500.7	502.7	506.2	508.7	511.2	513.2	511.2	508.2	504.7
30°	524.8	524.8	523.3	524.8	527.8	530.3	533.8	537.3	537.3	534.3	530.8
32.5°	549.4	549.9	549.9	550.9	555.4	557.5	562.5	566.0	568.5	566.5	568.5
35°	579.1	578.6	580.1	580.6	587.6	590.1	600.2	602.7	606.7	607.7	609.2
37.5°	628.3	629.3	626.3	624.3	630.3	630.3	643.4	650.4	649.4	656.5	661.5
40°	707.7	703.2	701.7	700.7	704.2	703.7	703.2	712.8	717.3	718.3	720.8
42.5°	795.7	797.2	795.7	799.2	799.2	796.7	794.7	793.2	801.7	807.3	808.3
45°	898.8	900.8	897.8	895.2	901.8	905.3	905.3	909.3	916.4	918.9	917.4
47.5°	981.2	986.7	984.2	987.7	998.3	1010.4	1026.4	1037.0	1044.5	1051.6	1062.6
50°	1055.6	1058.1	1064.1	1075.7	1091.3	1110.4	1136.5	1162.7	1177.7	1195.3	1208.4
52.5°	1100.8	1108.4	1117.4	1136.5	1162.7	1189.3	1229.5	1272.2	1310.4	1330.0	1345.6
55°	1128.0	1133.5	1145.6	1171.7	1208.4	1248.1	1298.4	1357.2	1408.0	1451.2	1484.9
57.5°	1127.0	1131.5	1148.1	1176.7	1220.5	1270.2	1333.1	1406.4	1481.3	1553.2	1616.6
60°	1105.4	1109.4	1126.0	1156.6	1204.4	1263.7	1339.1	1429.1	1530.6	1638.7	1749.8
62.5°	1072.2	1075.2	1089.8	1120.4	1168.7	1232.0	1320.5	1438.6	1582.9	1753.3	1968.9
65°	1025.4	1025.4	1039.0	1070.7	1116.9	1187.8	1285.3	1424.0	1623.6	1883.0	2196.6
67.5°	956.6	956.6	967.6	993.8	1030.0	1079.2	1176.7	1321.0	1531.6	1842.3	2209.2
70°	826.4	828.4	828.4	844.5	860.6	882.7	928.9	1039.5	1237.1	1540.7	1901.6
72.5°	605.7	569.0	597.7	623.8	641.9	654.0	680.6	715.3	814.8	1042.5	1369.3
75°	381.5	391.1	412.7	442.3	487.1	533.3	584.1	605.7	596.7	623.8	843.5
77.5°	231.2	223.2	244.3	288.5	338.8	401.6	496.6	579.1	626.3	623.3	597.2
80°	100.0	97.5	111.6	132.7	157.3	214.1	301.1	414.2	539.9	612.7	601.7
82.5°	35.7	36.2	45.7	54.3	65.3	83.9	119.1	190.5	302.1	430.3	531.8
85°	10.6	11.6	16.1	22.6	25.6	29.2	40.2	59.8	102.0	162.9	289.5
87.5°	3.0	3.5	4.5	8.0	7.5	7.0	8.0	12.6	9.6	8.0	40.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5
2.5°	472.5	472.5	472.5	473.0	472.5	472.5	473.0	473.0	473.5	474.0	475.0
5°	472.0	472.0	472.5	472.5	472.5	473.0	473.5	474.0	475.0	476.5	478.0
7.5°	473.5	473.5	473.0	473.5	473.5	474.0	475.0	475.5	477.5	479.0	481.6
10°	475.0	475.0	475.5	476.0	476.0	477.0	478.5	479.0	481.0	484.1	486.6
12.5°	477.0	478.5	480.5	481.6	482.6	483.6	485.1	486.1	488.6	492.6	495.6
15°	478.5	482.1	484.1	486.6	488.1	488.6	490.1	492.1	494.6	498.6	502.2
17.5°	478.5	483.1	486.1	488.6	491.1	492.6	494.1	496.1	499.6	503.7	507.2
20°	478.0	484.6	488.6	492.6	497.1	498.6	501.2	503.2	507.2	512.2	514.7
22.5°	480.5	488.1	493.6	500.7	505.7	509.7	512.7	516.2	519.3	522.8	523.8
25°	488.1	495.6	504.7	513.2	520.3	526.3	530.3	533.3	536.8	538.4	536.3
27.5°	500.7	506.2	518.7	531.3	542.4	549.9	554.4	558.5	559.5	562.5	554.9
30°	523.3	525.8	538.9	556.9	569.5	582.1	588.1	592.1	592.6	590.6	577.6
32.5°	560.5	555.9	567.5	591.6	610.7	621.3	630.8	633.4	631.8	625.3	604.2
35°	605.7	598.7	604.2	639.4	660.5	676.1	685.1	687.6	684.1	672.6	643.4
37.5°	661.5	659.0	661.5	695.2	731.9	746.5	750.5	753.5	744.9	723.8	685.6
40°	723.3	723.8	720.8	751.5	797.7	818.8	828.4	821.9	811.3	781.1	738.9
42.5°	808.8	805.8	795.2	822.9	882.2	903.8	912.3	907.3	896.7	858.5	809.3
45°	921.9	911.8	901.8	916.4	973.7	1001.8	1014.4	1010.9	992.3	946.0	899.8
47.5°	1060.1	1049.6	1031.0	1028.4	1086.3	1119.4	1124.0	1118.4	1104.3	1058.1	1001.3
50°	1205.4	1202.4	1193.8	1173.7	1225.5	1258.7	1255.7	1251.6	1236.0	1177.2	1118.9
52.5°	1355.7	1361.7	1356.2	1342.1	1397.4	1411.0	1412.0	1399.9	1381.8	1327.5	1248.1
55°	1513.5	1536.1	1544.7	1555.7	1599.5	1597.5	1585.9	1557.2	1561.8	1499.9	1389.9
57.5°	1680.9	1750.3	1805.1	1829.7	1871.4	1883.5	1854.3	1863.9	1859.9	1796.0	1622.6
60°	1901.6	2067.5	2210.2	2298.2	2354.5	2332.9	2373.6	2375.6	2444.4	2304.2	2033.8
62.5°	2253.4	2558.0	2811.4	2887.3	2901.9	2896.8	2848.6	2896.8	2883.8	2712.9	2362.5
65°	2549.5	2911.9	3169.3	3215.5	3147.7	3085.3	3029.0	3038.6	2976.3	2729.0	2353.0
67.5°	2589.7	2950.6	3189.4	3176.3	3028.0	2912.4	2818.9	2745.5	2618.4	2394.7	2066.9
70°	2271.5	2654.1	2961.7	2951.6	2745.5	2591.2	2439.4	2328.8	2199.1	2026.2	1716.1
72.5°	1766.9	2107.7	2405.7	2483.2	2280.1	2109.7	1970.4	1829.7	1696.0	1531.6	1336.1
75°	1202.9	1459.2	1598.0	1619.1	1433.1	1305.4	1251.6	1136.5	994.8	959.6	814.8
77.5°	698.7	797.2	755.0	698.7	562.5	413.2	315.7	269.9	270.9	311.1	298.1
80°	568.0	540.9	426.8	342.3	232.7	118.6	79.4	68.4	68.9	79.9	77.4
82.5°	585.6	601.2	494.1	345.8	238.3	125.7	60.3	44.7	52.3	56.8	55.8
85°	433.8	568.5	509.7	366.9	255.9	133.7	39.2	24.6	34.7	42.2	45.2
87.5°	121.6	191.0	148.3	98.0	71.4	24.1	15.6	13.1	16.1	22.1	22.1
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5
2.5°	475.5	477.5	477.0	478.0	478.5	480.0	481.0	480.5	480.5	481.6	482.6
5°	479.5	482.1	482.1	483.6	485.1	487.1	488.6	487.6	488.1	489.1	490.1
7.5°	483.6	486.6	487.1	488.6	489.6	490.6	491.6	490.1	489.6	489.6	489.1
10°	488.6	491.6	491.1	491.1	490.6	489.6	487.6	484.1	481.6	480.0	479.0
12.5°	497.1	499.1	496.1	493.1	488.1	484.6	480.0	476.0	473.0	470.5	469.5
15°	504.7	503.7	500.1	494.6	487.6	482.1	477.5	472.0	468.5	465.5	464.0
17.5°	508.7	505.2	500.1	495.1	489.1	484.1	478.5	472.0	466.5	462.4	460.4
20°	512.7	507.2	500.7	495.6	491.1	487.1	483.1	475.0	468.0	461.9	458.9
22.5°	518.7	511.2	504.7	500.1	495.6	491.6	487.6	480.0	472.5	464.5	459.9
25°	527.3	517.2	512.7	508.2	503.2	499.1	493.6	486.6	478.5	469.0	462.4
27.5°	540.9	531.8	526.8	522.3	516.2	509.7	503.7	494.1	486.6	475.5	467.0
30°	560.5	550.9	546.4	541.9	534.8	526.3	517.7	505.7	495.1	482.6	471.5
32.5°	585.1	580.1	574.5	567.0	557.5	546.9	534.3	518.2	503.2	487.6	473.5
35°	623.3	614.8	605.7	598.2	584.1	569.5	550.4	526.8	506.7	487.6	470.5
37.5°	667.0	658.0	645.9	632.3	611.2	588.1	561.5	531.8	505.2	482.1	463.0
40°	719.8	708.3	692.2	666.5	635.4	600.7	565.0	527.8	496.6	470.0	447.9
42.5°	789.7	766.1	734.9	697.2	653.0	605.7	560.5	517.2	482.1	452.9	430.8
45°	868.6	830.9	780.6	724.3	663.0	603.7	550.4	500.1	460.4	428.3	405.1
47.5°	953.6	894.7	820.8	741.4	664.0	592.6	530.8	474.5	429.8	395.6	366.9
50°	1049.6	952.5	849.0	750.0	657.5	573.0	502.7	437.8	391.6	350.9	324.7
52.5°	1132.0	1003.3	868.6	746.5	634.4	538.9	456.4	393.6	339.3	303.1	277.5
55°	1229.5	1052.6	879.2	728.9	597.2	485.6	406.7	336.8	285.5	253.3	231.2
57.5°	1393.9	1136.0	888.2	693.2	535.8	418.7	337.8	272.4	232.2	204.1	188.5
60°	1711.1	1297.9	925.4	639.9	457.9	338.3	260.9	213.1	178.4	159.8	148.8
62.5°	1918.7	1408.0	908.8	558.0	357.9	253.3	191.0	153.8	133.7	120.1	115.1
65°	1865.9	1296.9	771.1	442.3	249.3	168.4	128.2	105.6	96.5	89.5	86.5
67.5°	1602.5	1046.0	559.0	286.0	157.8	102.5	83.9	74.9	70.9	67.9	67.4
70°	1276.8	737.4	332.3	151.8	87.5	67.9	59.8	56.3	54.8	54.8	54.8
72.5°	926.4	424.7	163.4	81.9	58.8	51.8	48.3	47.3	46.7	46.7	47.3
75°	529.3	184.0	83.9	56.3	48.3	44.7	42.7	42.7	42.7	42.7	43.2
77.5°	184.5	83.9	59.3	47.3	41.7	39.7	38.7	39.7	40.2	40.2	40.2
80°	67.4	59.3	50.8	41.2	37.2	35.2	35.2	36.7	37.7	36.7	36.2
82.5°	53.3	46.7	41.2	35.7	32.7	31.7	32.2	33.2	32.7	32.2	30.7
85°	40.7	30.7	28.7	26.6	26.1	26.1	28.1	28.7	26.6	25.6	24.1
87.5°	20.1	16.1	14.6	17.1	16.6	15.1	15.6	15.6	13.1	12.1	12.6
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°	170°	175°	180°
0°	474.5	474.5	474.5	474.5
2.5°	482.6	483.1	484.6	484.1
5°	489.6	490.1	491.1	491.1
7.5°	488.1	488.6	488.6	488.6
10°	476.5	476.5	477.5	477.5
12.5°	467.5	467.0	467.0	466.0
15°	461.9	460.9	461.4	459.9
17.5°	457.9	457.4	457.4	456.4
20°	456.4	455.4	454.9	453.9
22.5°	455.4	454.9	453.9	452.9
25°	457.9	455.4	454.9	453.9
27.5°	460.4	457.9	455.9	455.4
30°	463.0	458.4	455.9	454.9
32.5°	462.4	456.4	452.9	451.4
35°	456.9	449.4	444.9	443.3
37.5°	446.4	437.8	430.8	428.3
40°	431.3	420.2	413.7	410.2
42.5°	413.2	400.6	395.1	392.1
45°	383.5	373.5	366.9	364.4
47.5°	350.4	336.8	330.8	328.2
50°	307.6	296.6	291.5	288.0
52.5°	262.4	252.3	247.8	245.8
55°	218.7	213.6	206.6	205.1
57.5°	177.4	175.9	170.9	170.4
60°	144.3	141.8	138.2	138.2
62.5°	113.6	111.1	109.6	109.6
65°	87.5	87.0	86.0	85.5
67.5°	67.4	68.9	69.4	68.4
70°	56.3	56.8	56.8	56.8
72.5°	48.8	48.8	48.8	48.3
75°	44.2	44.2	43.2	42.7
77.5°	40.7	40.2	40.7	40.2
80°	35.7	35.2	34.2	33.2
82.5°	29.7	29.2	26.6	26.6
85°	23.1	21.6	19.6	17.6
87.5°	13.1	11.6	8.5	6.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)