

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: P141713

Luminaire Tested: **ECM-F02-LED-E1-T2-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141713
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33682)
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-T2-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4108.1 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

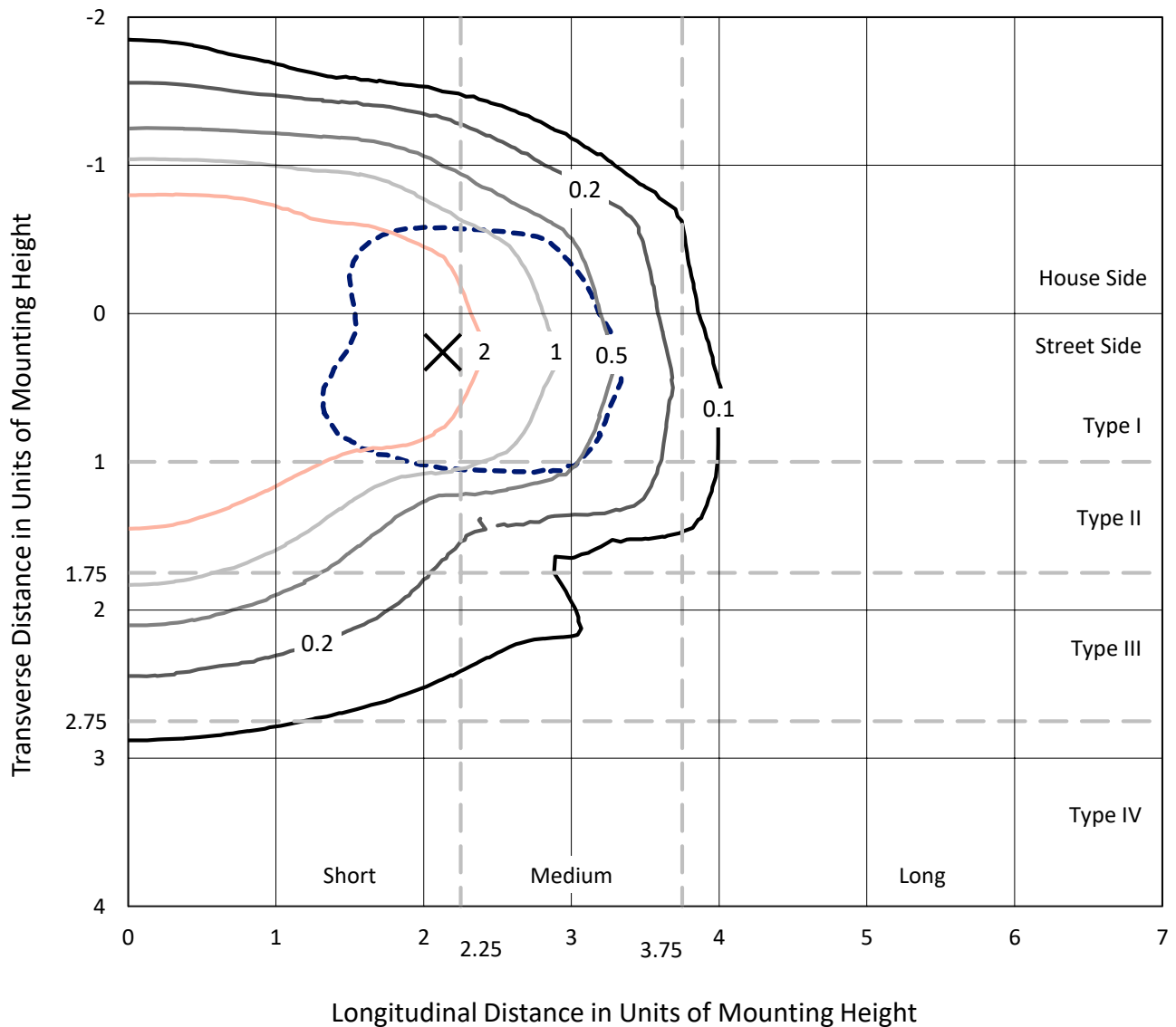
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

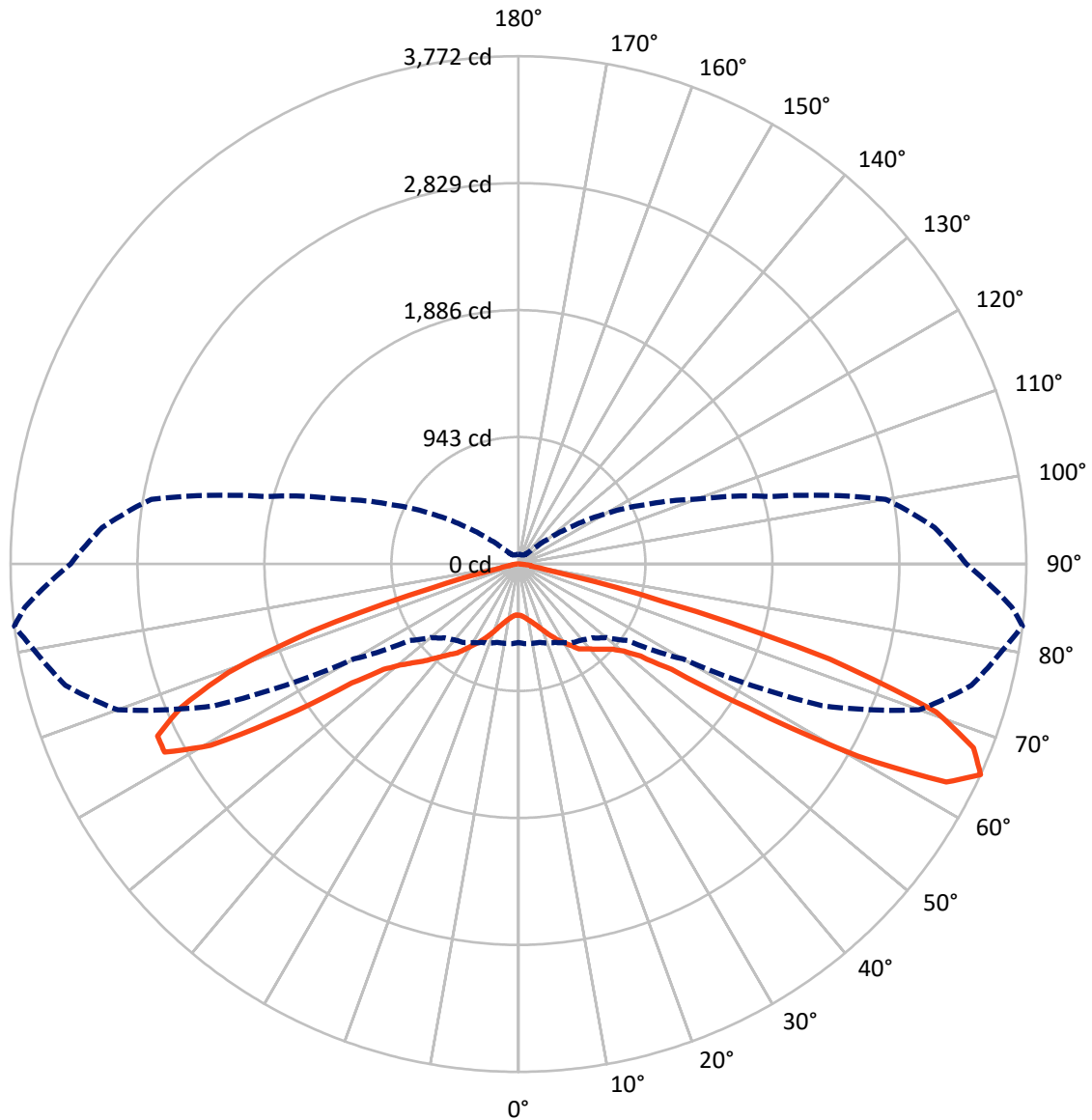
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1523.8	0.0	1523.8
	% Fixture	37.1	0.0	37.1
Street Side	Lumens	2584.3	0.0	2584.3
	% Fixture	62.9	0.0	62.9
Total	Lumens	4108.1	0.0	4108.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.3	0.9
10°-20°	134.1	3.3
20°-30°	264.9	6.4
30°-40°	455.9	11.1
40°-50°	687.8	16.7
50°-60°	957.1	23.3
60°-70°	1104.8	26.9
70°-80°	401.5	9.8
80°-90°	63.8	1.6
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°	4108.1	100.0
0°-180°	4108.1	100.0

Coefficient of Utilization



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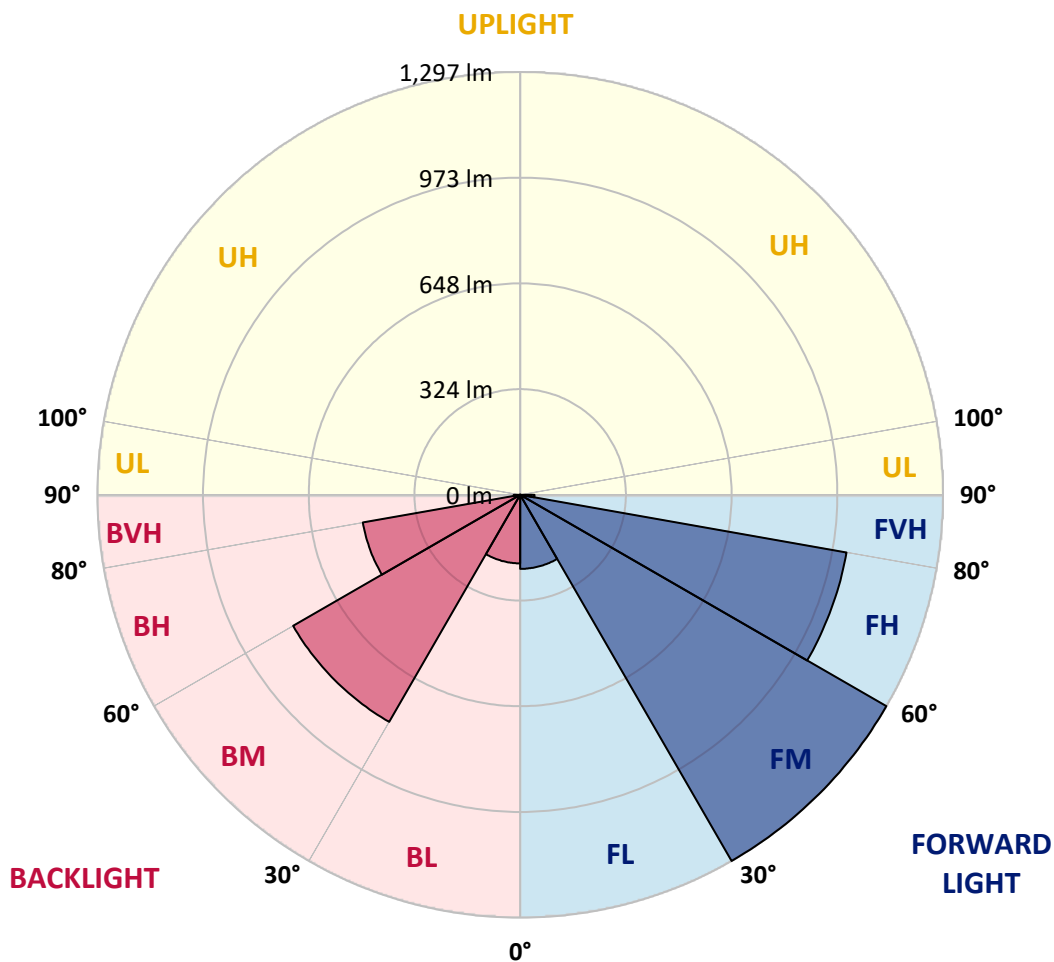
CATALOG NUMBER: ECM-F02-LED-E1-T2-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	227.1	5.5			
FM (30°-60°)	1296.8	31.6			
FH (60°-80°)	1016.3	24.7			G1/1800
FVH (80°-90°)	44.0	1.1			G1/100
BL (0°-30°)	210.2	5.1	B1/500		
BM (30°-60°)	804.0	19.6	B1/1000		
BH (60°-80°)	489.9	11.9	B1/500		G1/500
BVH (80°-90°)	19.7	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4
2.5°	399.0	399.9	399.0	399.0	398.5	398.1	398.1	397.6	396.7	395.7	395.3
5°	420.8	421.3	419.9	419.9	420.4	419.9	418.5	419.0	415.3	413.9	412.9
7.5°	445.0	446.4	444.5	443.6	443.1	442.2	440.8	438.5	435.7	433.4	432.0
10°	472.4	473.8	472.9	471.0	468.2	466.8	465.4	461.7	458.5	454.7	451.9
12.5°	504.9	505.4	504.4	500.7	498.9	494.7	490.0	485.9	481.2	475.6	471.0
15°	537.0	537.4	536.0	532.3	530.0	524.9	518.4	512.8	504.9	498.4	492.4
17.5°	561.6	562.5	559.7	556.9	553.7	547.2	541.1	534.6	526.3	519.3	513.3
20°	569.9	571.3	569.5	568.1	566.2	563.0	556.9	551.4	543.9	538.8	534.2
22.5°	566.2	567.6	566.7	566.7	566.7	566.2	563.4	562.0	557.4	555.1	554.1
25°	560.6	562.0	561.1	562.0	563.9	566.2	566.2	569.0	568.5	572.3	574.6
27.5°	575.0	576.0	573.6	573.6	575.5	579.2	578.3	583.9	584.8	592.2	599.2
30°	625.2	625.2	621.5	617.8	619.2	618.2	617.3	621.0	621.0	628.0	631.2
32.5°	700.0	694.9	694.4	693.9	690.7	693.0	685.6	686.1	682.8	683.7	682.3
35°	782.2	781.7	779.9	779.0	777.6	784.5	779.0	783.6	772.0	767.8	759.9
37.5°	854.2	856.1	857.4	864.4	867.7	881.6	884.9	887.2	875.1	875.6	857.9
40°	926.7	929.0	934.1	946.6	955.9	968.9	975.0	984.7	985.6	987.5	974.5
42.5°	1005.6	1001.9	1008.9	1024.7	1036.3	1049.3	1057.2	1075.3	1085.5	1090.6	1092.5
45°	1069.3	1065.1	1068.3	1077.6	1088.3	1105.0	1122.2	1149.1	1171.0	1194.7	1207.7
47.5°	1102.2	1103.2	1105.5	1111.1	1118.5	1134.7	1158.9	1193.3	1228.6	1266.7	1300.6
50°	1112.9	1113.4	1116.6	1122.2	1129.2	1146.4	1171.4	1210.5	1253.2	1306.6	1358.6
52.5°	1116.2	1114.3	1117.6	1120.4	1125.0	1139.4	1163.1	1204.0	1252.3	1316.8	1393.9
55°	1104.1	1101.8	1107.3	1111.1	1114.8	1126.4	1144.5	1182.1	1232.3	1305.7	1406.5
57.5°	1057.6	1058.1	1066.0	1075.8	1085.5	1101.3	1125.0	1160.8	1210.5	1282.9	1395.8
60°	979.1	977.8	987.5	999.6	1016.3	1041.4	1070.7	1106.9	1148.2	1208.6	1319.6
62.5°	836.5	842.1	845.4	863.5	864.4	900.2	919.2	955.5	990.8	1037.2	1137.1
65°	582.5	594.5	597.8	602.4	624.3	642.9	673.5	711.6	734.8	775.7	850.0
67.5°	362.8	371.6	372.1	384.1	403.2	424.5	448.2	486.8	522.1	528.6	565.7
70°	301.0	301.5	308.0	316.8	331.6	353.5	376.7	403.6	435.7	456.1	452.4
72.5°	249.4	252.2	256.9	265.7	281.9	301.5	331.2	365.6	405.5	446.4	482.6
75°	167.2	171.9	173.3	177.4	185.3	203.0	225.3	257.8	309.4	370.2	447.3
77.5°	88.7	89.6	92.9	96.1	100.3	111.0	125.4	142.1	176.0	228.5	319.1
80°	45.1	46.9	49.2	51.6	51.1	53.9	58.1	65.5	77.1	100.3	144.5
82.5°	16.3	20.9	27.4	30.7	30.7	31.6	33.0	34.4	33.4	37.2	46.4
85°	7.4	8.4	10.7	16.7	17.2	17.2	17.2	18.1	17.2	15.3	18.1
87.5°	0.0	1.4	1.4	4.2	4.6	4.2	4.6	6.0	4.6	3.7	3.3
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):

	55°	60°	65°	70°	75°	80°	83°	85°	90°	95°	100°
0°	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4
2.5°	393.0	392.0	389.7	388.8	386.0	384.1	383.2	382.3	380.9	379.0	377.6
5°	410.1	407.4	404.1	402.2	398.5	394.8	393.4	391.6	388.3	385.5	382.3
7.5°	428.3	425.0	421.3	417.1	413.4	409.2	407.4	405.5	400.9	397.1	392.5
10°	447.8	443.1	438.9	435.2	432.0	427.3	424.1	422.7	418.5	412.9	408.3
12.5°	466.3	461.2	457.1	452.4	449.2	445.4	442.2	440.8	437.5	432.4	428.7
15°	485.9	480.7	476.1	472.9	469.1	466.8	465.0	462.6	461.2	457.1	455.2
17.5°	506.8	502.1	497.9	495.1	493.8	493.3	492.8	491.9	490.5	487.7	486.3
20°	530.4	526.3	524.9	524.4	524.9	525.3	526.3	526.3	526.7	524.9	524.4
22.5°	553.2	553.2	555.5	558.3	561.1	563.0	564.4	562.5	563.0	565.7	568.1
25°	578.3	582.5	588.5	593.2	597.3	600.6	602.4	603.4	604.3	608.5	612.7
27.5°	605.2	611.7	620.6	626.6	634.5	639.6	643.3	642.9	644.2	649.8	657.3
30°	638.7	645.2	654.5	662.8	673.5	680.9	682.3	681.4	683.3	688.4	703.2
32.5°	685.6	687.0	693.0	701.4	713.0	720.4	721.8	724.1	728.3	737.6	755.7
35°	751.5	745.5	745.0	748.8	759.9	774.3	775.7	777.1	779.0	791.0	815.2
37.5°	840.7	816.1	801.2	789.6	791.0	796.1	798.9	799.9	804.5	823.1	864.0
40°	952.7	906.7	873.7	840.7	828.7	829.6	830.5	829.6	838.9	867.7	921.1
42.5°	1075.3	1034.9	977.3	909.0	874.6	863.5	864.9	865.8	880.2	922.0	981.5
45°	1205.4	1179.3	1112.5	1005.6	931.8	903.4	902.5	904.4	928.1	987.0	1049.7
47.5°	1319.6	1326.1	1276.9	1151.5	1024.7	952.7	946.6	949.9	988.4	1051.6	1115.2
50°	1410.2	1452.9	1449.2	1349.8	1175.2	1037.7	1016.3	1020.9	1066.5	1132.0	1189.1
52.5°	1478.5	1565.3	1621.1	1581.6	1429.7	1191.9	1136.6	1128.7	1185.8	1255.1	1290.4
55°	1524.0	1664.7	1811.0	1879.3	1817.6	1524.9	1380.5	1363.3	1425.1	1513.3	1528.6
57.5°	1554.2	1785.5	2100.4	2364.3	2448.3	2197.5	2016.4	1944.4	1989.4	2082.8	2062.8
60°	1504.0	1833.3	2449.7	2922.6	3161.8	3099.5	2898.0	2789.3	2705.2	2698.2	2587.2
62.5°	1311.7	1719.5	2591.4	3188.3	3524.6	3602.1	3566.4	3437.7	3205.0	3075.9	2825.0
65°	989.4	1408.8	2490.6	3167.8	3483.2	3655.1	3771.7	3679.2	3326.2	3102.8	2769.3
67.5°	632.2	909.5	2071.6	2922.1	3218.5	3411.7	3644.9	3602.6	3151.6	2866.4	2503.6
70°	461.7	504.0	1405.5	2473.4	2799.5	2969.5	3290.0	3271.4	2763.7	2443.2	2083.7
72.5°	531.8	375.8	770.6	1847.7	2100.0	2233.7	2417.2	2372.2	1930.9	1708.4	1453.9
75°	599.7	420.4	434.3	1096.2	1173.3	1079.5	1104.6	959.2	748.3	663.3	653.5
77.5°	504.9	527.2	393.9	471.0	433.8	312.6	234.1	183.5	143.5	154.2	171.4
80°	293.6	592.7	521.2	245.3	275.0	218.8	97.5	80.8	66.9	67.8	68.7
82.5°	90.6	370.2	733.4	299.6	272.2	308.4	89.6	54.8	44.1	49.7	56.2
85°	30.2	155.1	588.0	314.5	176.0	164.4	39.5	26.9	22.3	31.1	44.1
87.5°	7.4	37.6	109.2	41.3	26.0	15.8	13.5	9.8	10.7	19.5	27.4
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°	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4
2.5°	376.7	375.3	373.9	373.0	371.6	371.6	370.2	370.2	368.3	367.4	367.4
5°	379.5	376.7	374.4	372.1	369.7	368.8	366.9	366.0	364.2	362.8	361.8
7.5°	388.8	385.1	382.3	379.5	376.7	375.3	373.5	371.6	371.1	370.2	369.3
10°	404.6	399.5	397.1	395.3	391.6	390.6	388.8	387.4	386.0	384.6	385.1
12.5°	425.0	421.3	420.4	416.6	415.7	414.3	411.5	410.6	406.9	404.1	402.7
15°	451.0	449.6	449.6	447.8	445.0	442.7	438.5	436.2	429.7	425.5	420.8
17.5°	485.4	484.0	484.5	482.6	479.4	475.2	470.5	463.6	453.8	446.4	437.1
20°	525.3	524.9	525.8	524.4	520.2	514.7	503.5	493.3	479.8	466.3	456.1
22.5°	569.9	572.3	573.2	569.5	564.8	553.2	541.1	526.3	508.2	490.5	476.1
25°	617.3	622.9	626.1	621.0	615.4	600.6	582.5	562.5	537.0	515.6	496.5
27.5°	663.8	675.4	680.0	677.2	668.4	647.5	623.3	596.9	565.7	537.4	512.8
30°	719.0	734.4	742.7	738.5	721.4	693.9	664.7	628.9	589.4	555.5	525.8
32.5°	777.1	796.1	802.2	793.3	768.3	733.9	695.8	652.1	607.6	568.5	535.1
35°	841.7	859.3	860.7	843.5	810.5	766.9	719.5	667.0	615.9	572.3	535.6
37.5°	897.9	915.5	914.1	888.6	848.6	794.3	733.9	670.3	610.8	561.1	521.2
40°	956.9	976.4	965.7	932.7	881.1	811.9	735.8	659.1	591.3	537.0	493.3
42.5°	1019.1	1027.5	1008.4	967.1	900.6	811.5	720.0	632.6	560.6	500.3	454.3
45°	1076.2	1069.7	1042.3	987.0	899.3	791.5	688.8	599.7	519.8	459.4	414.3
47.5°	1127.3	1106.9	1064.6	987.0	877.4	756.2	648.9	556.9	477.5	416.6	372.1
50°	1182.6	1139.9	1073.9	969.9	837.9	713.5	606.6	514.2	432.4	370.2	321.4
52.5°	1256.0	1179.3	1073.9	938.7	797.1	670.3	562.0	464.5	380.0	314.9	266.6
55°	1427.8	1262.0	1092.5	921.5	760.8	624.7	509.1	400.4	318.2	255.9	216.0
57.5°	1765.5	1443.2	1185.8	953.1	747.4	575.5	440.8	329.3	251.3	199.3	165.8
60°	2046.5	1589.5	1261.6	977.3	725.5	511.9	357.2	252.2	186.7	147.2	125.4
62.5°	2119.0	1591.3	1230.4	914.6	637.3	416.6	263.4	173.7	128.2	106.8	95.2
65°	1937.9	1407.4	1046.5	746.0	485.4	289.4	164.9	105.4	85.5	78.0	73.4
67.5°	1629.0	1121.3	775.7	520.2	306.1	159.3	92.4	72.5	65.0	62.7	60.4
70°	1249.5	787.8	504.9	304.7	160.2	82.7	66.0	59.5	56.2	54.8	53.0
72.5°	770.1	465.4	274.5	146.3	79.9	63.2	59.0	56.7	52.5	50.6	48.8
75°	327.0	199.7	113.8	74.3	64.1	60.4	57.1	54.3	51.1	48.3	46.4
77.5°	110.1	76.2	67.4	65.0	64.1	60.4	56.2	52.5	49.2	46.0	44.1
80°	66.9	60.8	62.2	61.8	64.1	59.9	54.3	50.2	46.4	43.2	40.9
82.5°	58.1	57.6	59.0	60.4	63.6	57.6	51.1	45.1	40.4	37.2	34.8
85°	50.2	51.1	52.0	53.0	54.8	48.8	41.3	35.8	32.0	27.9	26.0
87.5°	33.4	36.2	38.1	38.6	37.2	23.2	13.5	15.8	16.3	13.9	12.5
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):

	160°	165°	170°	175°	180°
0°	380.4	380.4	380.4	380.4	380.4
2.5°	366.0	365.6	366.9	365.6	365.6
5°	361.4	360.9	360.9	360.9	360.0
7.5°	368.8	368.3	367.9	367.9	367.4
10°	383.2	382.7	382.7	382.3	382.3
12.5°	400.4	398.5	398.1	397.1	397.6
15°	417.1	412.0	410.6	409.2	407.8
17.5°	430.1	424.1	420.8	418.0	418.0
20°	446.4	438.5	434.3	430.1	430.1
22.5°	465.0	454.3	448.7	444.1	442.2
25°	480.3	466.8	458.9	453.3	451.9
27.5°	491.9	474.7	464.5	458.0	456.1
30°	501.2	481.7	469.6	462.6	459.8
32.5°	507.2	485.9	472.9	465.9	463.1
35°	504.0	481.2	465.4	457.1	455.2
37.5°	487.7	463.6	445.0	436.2	432.9
40°	458.0	432.0	412.5	401.8	399.9
42.5°	419.0	393.0	374.4	363.2	358.1
45°	377.2	350.2	332.6	322.4	316.3
47.5°	332.1	305.6	287.5	277.3	273.1
50°	284.7	259.2	243.9	232.7	228.5
52.5°	235.5	212.7	197.4	188.1	183.5
55°	188.6	170.0	157.0	151.0	147.7
57.5°	147.2	135.2	127.7	124.0	121.7
60°	114.3	108.2	105.4	102.7	103.1
62.5°	89.2	87.8	86.9	85.5	85.9
65°	72.0	71.1	71.5	71.1	71.5
67.5°	59.0	59.5	60.4	60.4	60.8
70°	52.0	52.5	53.4	53.4	53.4
72.5°	48.3	49.2	50.2	49.7	49.7
75°	45.5	47.8	49.7	47.8	46.0
77.5°	42.7	48.3	53.4	49.2	44.1
80°	39.0	51.1	57.1	49.7	42.3
82.5°	37.2	49.2	50.2	43.2	37.2
85°	34.4	55.7	58.1	39.5	28.3
87.5°	17.7	33.4	38.6	26.5	14.4
90°	0.0	0.0	0.0	0.0	0.0

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