

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: P142021

Luminaire Tested: **ECM-E01-LED-E1-T4-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P142021
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-E01-LED-E1-T4-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2950.8 lumens
Efficiency: N/A
Efficacy: 119.5 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

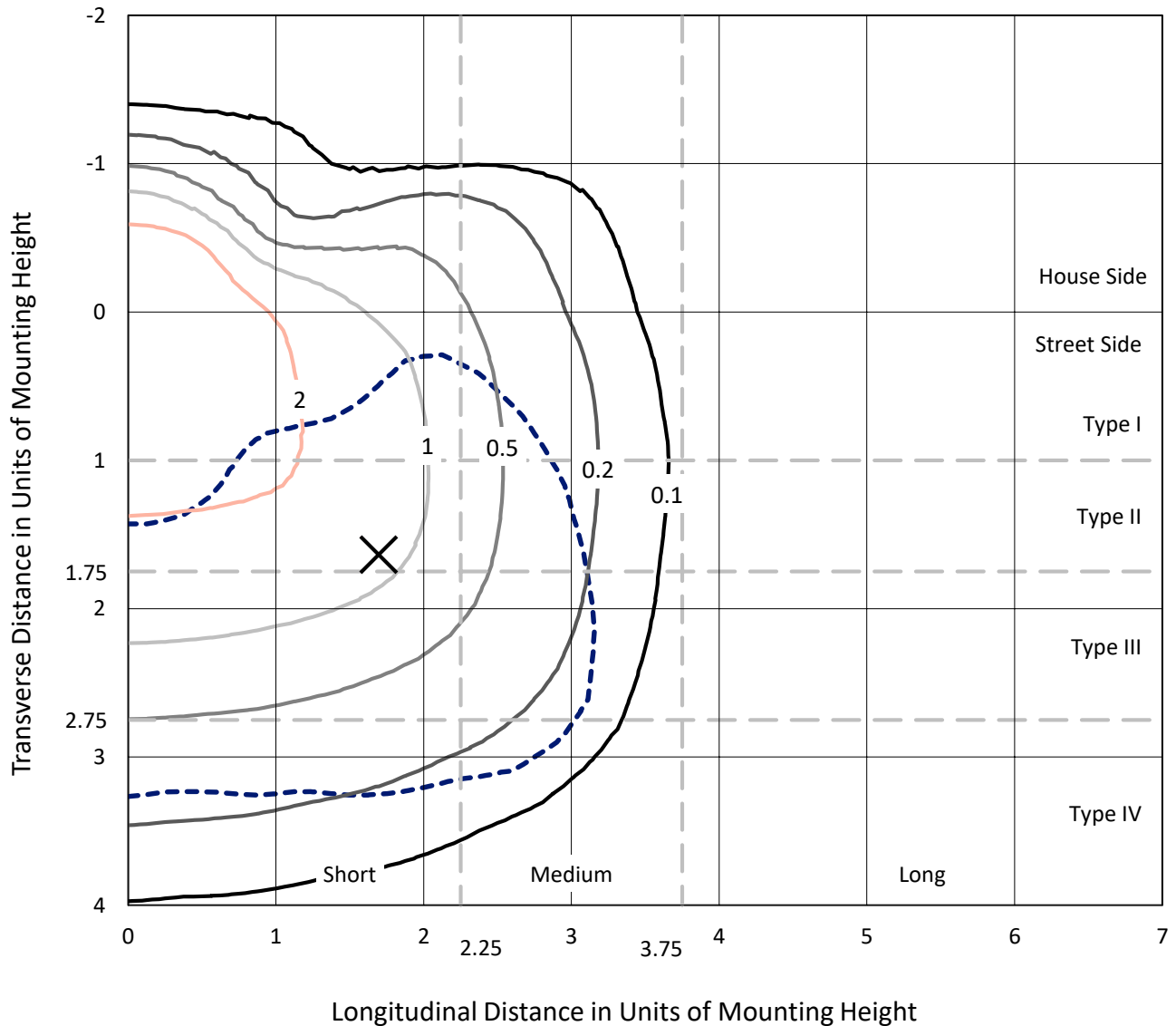
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

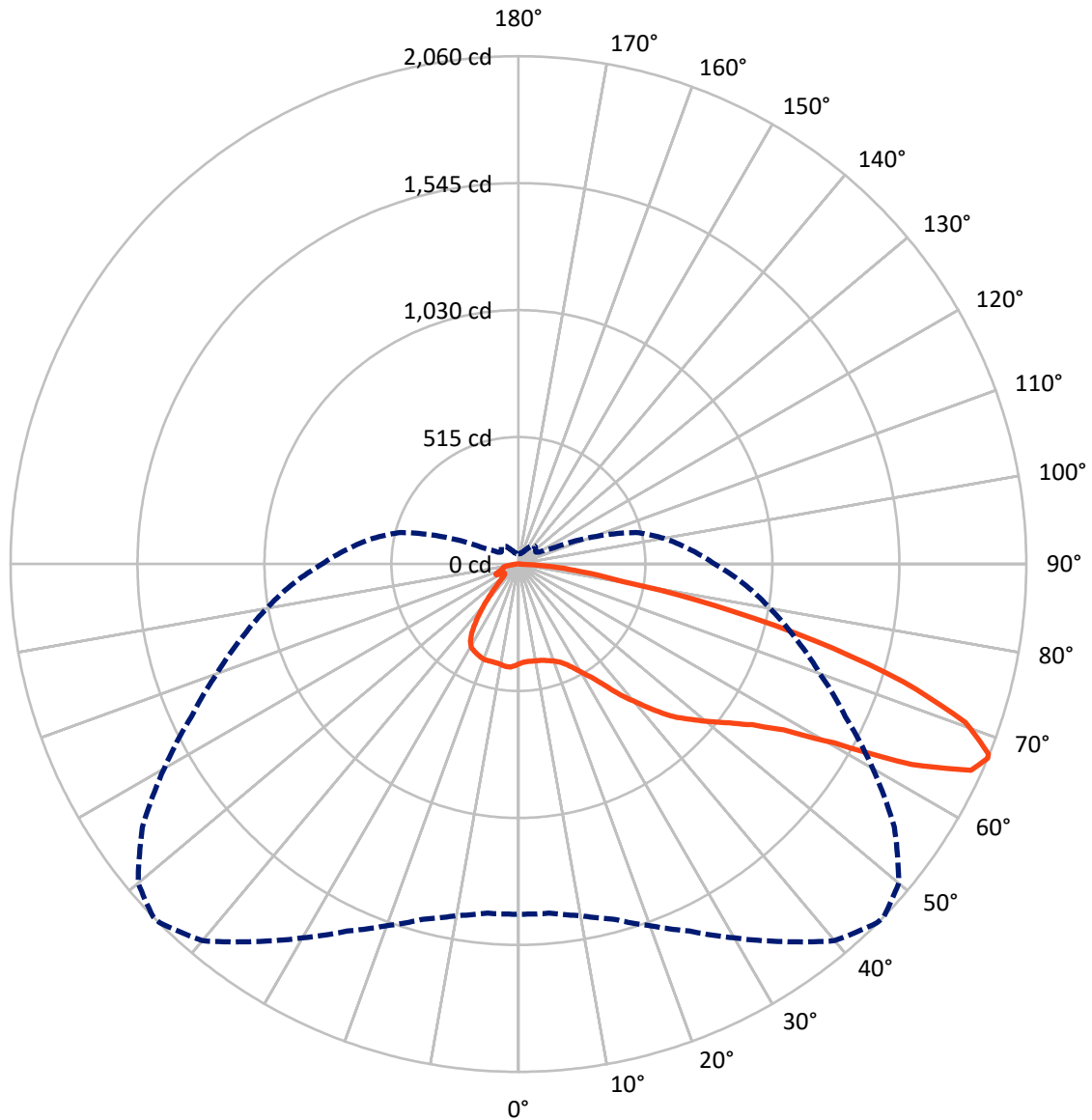
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 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	586.4	0.0	586.4
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	2364.4	0.0	2364.4
	% Fixture	80.1	0.0	80.1
Total	Lumens	2950.8	0.0	2950.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	1.3
10°-20°	116.1	3.9
20°-30°	195.3	6.6
30°-40°	292.0	9.9
40°-50°	380.4	12.9
50°-60°	520.9	17.7
60°-70°	823.5	27.9
70°-80°	510.8	17.3
80°-90°	72.8	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°	2950.8	100.0
0°-180°	2950.8	100.0



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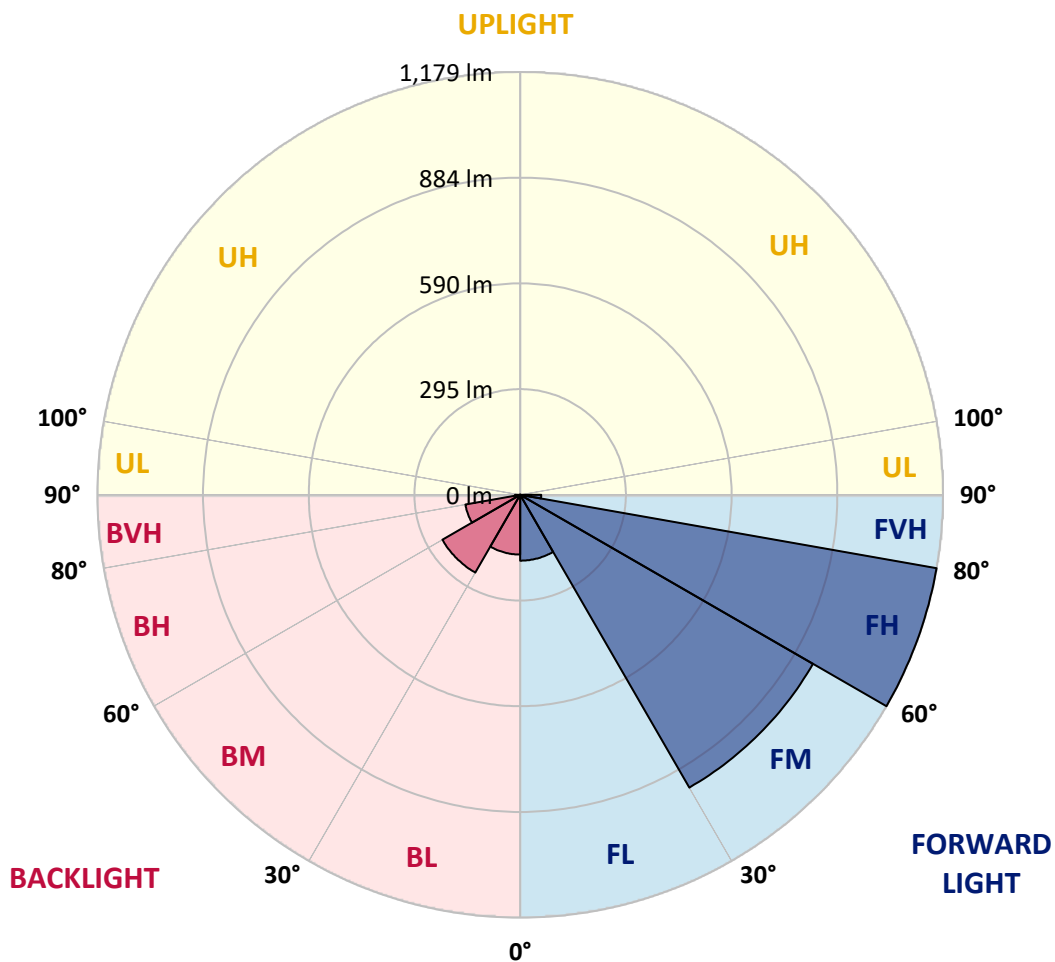
CATALOG NUMBER: ECM-E01-LED-E1-T4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	183.8	6.2			
FM (30°-60°)	942.9	32.0			
FH (60°-80°)	1179.2	40.0			G1/1800
FVH (80°-90°)	58.6	2.0			G1/100
BL (0°-30°)	166.6	5.6	B1/500		
BM (30°-60°)	250.4	8.5	B1/1000		
BH (60°-80°)	155.2	5.3	B1/500		G1/500
BVH (80°-90°)	14.2	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°	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3
2.5°	395.4	396.4	396.1	395.7	396.1	396.4	396.8	397.8	398.1	398.5	398.8
5°	388.2	389.2	388.9	389.6	389.9	391.3	392.3	394.0	395.1	396.4	397.1
7.5°	386.2	386.8	386.8	387.5	387.9	389.2	390.9	393.0	395.1	397.1	397.8
10°	391.6	392.0	392.0	391.6	392.0	392.7	393.3	395.1	396.8	398.5	399.2
12.5°	404.6	403.6	403.3	402.2	402.6	401.2	401.2	400.9	400.9	401.2	401.2
15°	418.3	417.6	416.9	415.2	415.2	413.2	412.5	411.1	407.7	406.3	406.0
17.5°	430.6	429.9	428.6	427.2	426.5	423.8	423.1	420.7	416.6	413.5	412.5
20°	445.3	443.6	440.5	439.9	438.1	435.1	434.0	431.0	425.5	421.0	420.7
22.5°	467.9	465.2	462.1	459.7	455.2	452.2	449.4	445.3	438.8	433.7	432.3
25°	490.5	489.5	486.7	483.3	480.2	476.8	473.4	467.2	458.7	452.2	450.8
27.5°	522.3	519.9	516.5	511.0	509.3	503.5	500.7	495.6	487.1	478.8	477.5
30°	555.5	553.1	547.6	542.8	541.8	535.6	533.9	528.4	520.9	512.7	511.7
32.5°	593.4	591.0	586.9	584.2	580.4	577.0	572.9	567.8	558.2	551.4	550.0
35°	642.0	639.9	635.2	637.2	633.8	632.8	630.4	621.8	611.2	603.0	604.4
37.5°	680.3	680.0	681.0	680.0	684.4	688.9	688.9	689.5	684.4	675.5	673.8
40°	716.2	715.9	718.6	721.7	733.7	740.8	749.1	752.1	746.7	739.8	737.4
42.5°	749.7	749.1	752.8	764.1	778.8	792.2	806.2	818.1	820.9	813.4	811.6
45°	782.9	783.9	788.7	801.4	820.9	838.3	862.3	876.3	885.2	881.1	883.8
47.5°	822.9	824.0	829.1	844.1	861.2	883.1	911.2	935.1	945.7	945.7	942.3
50°	870.5	875.3	880.7	891.0	910.8	932.4	966.6	990.5	1007.6	1007.0	1004.2
52.5°	933.8	934.8	943.7	951.9	969.0	990.9	1021.7	1054.5	1076.0	1074.0	1070.9
55°	1018.9	1014.8	1020.6	1028.5	1047.0	1066.1	1099.6	1137.6	1159.5	1153.0	1150.9
57.5°	1126.3	1122.9	1127.0	1136.6	1159.8	1175.6	1202.6	1237.5	1268.3	1273.7	1269.0
60°	1281.3	1281.3	1289.5	1310.0	1333.6	1357.2	1391.7	1433.8	1465.6	1473.5	1473.1
62.5°	1464.9	1476.6	1478.3	1505.0	1550.1	1590.8	1644.5	1718.7	1766.3	1800.1	1791.2
65°	1494.4	1498.1	1513.2	1554.5	1615.8	1687.9	1771.4	1868.9	1967.7	2016.6	2018.0
67°	1420.5	1421.8	1448.2	1491.6	1561.7	1643.1	1751.2	1869.9	1995.1	2058.4	2060.4
67.5°	1397.6	1394.8	1418.4	1463.9	1540.5	1632.2	1733.8	1858.6	1987.9	2055.6	2056.7
70°	1244.0	1245.3	1263.8	1314.4	1395.5	1481.4	1594.9	1723.2	1859.3	1921.2	1924.3
72.5°	1072.6	1063.7	1080.5	1134.5	1173.2	1257.0	1361.3	1458.1	1577.8	1636.3	1634.9
75°	818.1	793.5	822.9	854.4	876.0	959.1	1024.1	1090.8	1201.2	1245.7	1243.3
77.5°	440.9	439.9	472.0	496.6	528.8	603.7	660.8	702.9	795.9	817.8	820.5
80°	239.4	248.3	267.5	294.8	320.8	356.7	389.9	416.3	446.7	432.7	429.6
82.5°	144.3	159.0	188.5	209.3	219.6	235.7	259.3	274.3	286.3	260.3	255.2
85°	22.9	41.4	106.4	127.2	138.2	145.7	150.8	160.8	146.7	137.5	139.9
87.5°	7.5	8.6	16.4	36.3	31.8	21.9	28.7	41.7	19.8	10.6	10.3
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3
2.5°	399.2	399.5	400.5	401.9	402.6	404.3	404.3	405.7	405.7	406.7	407.7
5°	398.1	399.8	401.2	403.3	404.3	406.7	407.7	409.8	410.8	412.2	413.5
7.5°	399.8	402.2	403.9	406.3	408.0	410.4	411.5	413.2	414.2	415.9	416.6
10°	401.2	403.6	405.7	408.4	409.8	411.5	412.5	413.9	414.2	415.2	415.9
12.5°	402.9	403.9	405.7	408.0	409.4	410.4	411.5	412.5	413.5	413.5	413.5
15°	405.3	404.3	404.6	406.7	408.0	408.7	409.8	410.4	410.8	410.8	410.1
17.5°	410.4	407.7	406.0	406.0	406.7	407.4	407.4	406.3	405.7	404.6	403.3
20°	418.0	413.5	410.1	408.4	407.0	405.3	402.6	399.2	396.1	393.3	391.6
22.5°	428.6	424.1	420.0	416.3	411.8	406.0	400.2	393.0	387.2	382.7	381.0
25°	448.4	441.9	438.8	433.0	426.2	416.9	408.0	398.1	391.3	385.1	382.4
27.5°	475.1	470.0	463.1	460.0	451.1	440.5	430.6	418.7	409.1	401.5	396.4
30°	508.9	505.5	499.7	494.6	486.0	476.5	461.7	448.4	431.6	418.3	410.8
32.5°	547.9	542.8	537.7	531.2	525.0	512.4	498.7	478.5	455.2	432.3	418.3
35°	596.9	591.7	588.3	578.0	567.8	554.1	535.6	511.7	479.2	448.4	424.5
37.5°	664.2	653.3	636.5	621.8	603.4	582.5	561.6	532.9	496.6	456.6	423.8
40°	722.7	706.6	687.8	662.5	636.5	609.2	584.5	553.4	511.0	463.5	419.0
42.5°	798.7	770.9	739.1	705.6	670.0	637.2	606.8	571.2	521.6	463.8	407.7
45°	867.1	832.9	790.8	745.3	701.9	661.8	627.0	587.6	530.5	462.4	394.7
47.5°	927.9	887.9	836.6	781.9	730.6	685.4	647.1	605.7	542.1	466.9	389.9
50°	986.8	940.9	883.1	816.8	759.7	710.4	670.4	625.9	561.6	481.9	397.4
52.5°	1049.7	994.0	928.6	853.7	791.5	740.5	695.7	650.2	584.9	502.1	411.1
55°	1126.7	1063.4	988.8	906.1	834.6	777.8	727.2	679.3	612.6	527.1	427.2
57.5°	1229.3	1165.3	1079.5	984.0	909.1	841.7	780.9	726.8	654.7	561.6	451.1
60°	1427.0	1348.0	1233.7	1130.1	1049.0	969.7	896.1	822.3	735.4	631.4	512.7
62.5°	1744.4	1634.2	1492.6	1348.3	1238.9	1133.8	1036.7	940.6	832.2	715.5	585.9
65°	1964.0	1827.8	1650.0	1469.0	1320.9	1192.7	1076.7	962.5	841.7	730.6	617.7
67°	2014.2	1862.0	1659.6	1463.2	1302.1	1162.9	1036.7	917.7	796.3	695.4	598.9
67.5°	2012.2	1860.3	1652.0	1450.9	1289.5	1152.3	1025.1	899.9	780.5	681.7	589.7
70°	1890.4	1737.9	1528.6	1328.5	1172.8	1036.4	908.1	799.0	677.2	597.2	528.1
72.5°	1601.8	1469.0	1300.1	1120.2	986.8	864.7	762.1	655.0	549.3	496.0	441.6
75°	1218.0	1100.3	945.4	813.7	712.1	627.3	524.3	453.9	379.7	343.1	323.6
77.5°	804.8	669.7	562.6	437.1	362.6	295.9	233.3	185.0	154.6	162.5	177.5
80°	425.8	337.9	250.0	193.6	149.5	116.3	92.3	69.1	50.3	58.8	73.9
82.5°	231.9	197.7	146.0	116.3	95.1	78.7	60.5	42.4	31.5	34.9	50.3
85°	132.4	116.3	90.3	70.5	61.6	50.3	34.5	23.3	22.6	24.3	31.1
87.5°	21.9	29.4	23.9	16.4	18.5	18.1	16.1	12.3	9.2	13.0	16.8
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3
2.5°	408.4	409.4	410.8	411.1	410.8	411.8	413.5	414.9	413.9	413.2	414.9
5°	414.9	415.6	417.3	417.3	417.6	418.3	419.3	420.4	419.0	419.0	419.7
7.5°	417.6	417.6	419.3	418.7	418.7	418.3	419.3	419.7	417.6	417.3	417.6
10°	415.9	415.9	416.6	415.2	414.9	414.5	414.5	414.9	412.8	412.2	413.2
12.5°	413.5	413.5	412.8	412.2	411.5	410.8	411.5	411.8	410.4	410.4	410.8
15°	409.4	408.4	408.0	408.0	408.4	408.7	410.1	411.1	410.1	409.4	409.4
17.5°	402.6	401.9	402.9	405.0	407.4	409.1	411.1	411.8	409.4	406.7	404.6
20°	392.3	394.0	397.8	403.6	408.7	411.5	411.5	409.1	403.6	398.1	395.4
22.5°	381.7	386.5	394.7	403.6	409.8	410.8	407.0	401.9	394.4	388.6	383.4
25°	383.1	388.9	397.1	404.6	408.7	407.0	400.2	393.7	384.8	378.6	371.1
27.5°	397.4	402.9	407.0	409.4	408.0	402.6	394.7	385.8	375.9	367.3	358.5
30°	409.1	411.5	411.1	409.1	403.9	395.4	386.2	375.6	363.6	354.3	342.7
32.5°	411.1	406.7	399.8	392.3	385.5	375.9	365.3	353.0	339.6	327.7	316.0
35°	407.4	390.6	375.6	360.5	350.2	338.3	329.0	314.7	300.0	289.7	281.2
37.5°	393.3	364.3	340.3	319.1	304.1	290.4	276.4	262.3	250.0	245.2	242.8
40°	375.6	331.8	295.2	265.8	249.7	236.3	222.0	210.7	204.9	200.4	198.7
42.5°	349.6	294.8	249.3	217.9	197.4	185.0	171.0	164.9	162.1	163.2	161.8
45°	325.3	256.2	199.1	164.2	150.2	138.5	131.7	128.9	127.6	126.9	127.9
47.5°	308.2	226.4	160.4	124.8	113.2	105.0	102.3	101.2	100.9	99.5	99.2
50°	304.1	209.0	131.3	97.1	88.2	83.8	82.4	81.4	80.7	79.7	77.3
52.5°	308.9	204.2	117.0	83.5	75.9	72.5	71.5	69.8	69.1	66.4	63.3
55°	317.1	205.9	112.5	79.7	72.2	68.4	67.0	66.4	64.0	60.9	57.1
57.5°	334.2	216.5	114.6	80.7	72.9	69.4	68.7	68.1	65.0	60.5	55.8
60°	383.8	247.3	125.2	87.9	78.3	75.9	76.3	74.9	70.5	64.6	57.5
62.5°	460.4	295.2	144.7	96.8	87.2	87.2	89.3	88.2	81.4	71.8	61.6
65°	500.1	323.9	152.9	99.5	90.0	94.4	100.9	99.9	90.0	75.6	61.9
67°	493.9	318.4	148.1	95.4	84.8	90.6	97.1	97.5	86.5	72.2	59.2
67.5°	488.1	314.7	145.7	93.7	83.5	89.3	95.4	94.4	85.2	70.8	58.5
70°	438.5	276.4	130.0	87.6	77.3	79.0	80.7	79.4	72.2	62.6	54.0
72.5°	378.6	229.5	114.6	83.8	73.9	71.1	71.1	68.7	64.0	57.5	51.3
75°	288.7	178.5	100.6	79.7	69.8	65.7	65.0	63.3	59.2	54.4	48.9
77.5°	176.1	127.9	87.2	73.5	64.6	61.2	61.6	60.5	56.4	52.0	46.9
80°	88.2	82.8	73.2	64.0	58.5	55.1	55.4	53.4	49.9	46.5	42.4
82.5°	54.0	57.1	51.3	48.6	45.1	41.4	32.2	37.6	36.6	33.5	31.8
85°	35.9	35.6	32.2	28.4	26.0	22.6	20.2	20.5	22.6	23.3	23.3
87.5°	17.4	16.8	15.4	14.4	13.7	11.3	10.6	12.0	12.0	12.7	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):

	160°	165°	170°	175°	180°
0°	404.3	404.3	404.3	404.3	404.3
2.5°	415.2	415.9	415.6	416.6	415.6
5°	420.0	420.0	420.4	420.7	420.4
7.5°	417.6	417.3	418.0	418.7	418.3
10°	413.2	413.5	414.2	415.2	415.2
12.5°	411.5	411.8	413.2	414.2	414.2
15°	410.1	410.4	411.1	412.5	411.5
17.5°	403.9	402.6	402.6	403.6	402.6
20°	393.0	390.9	390.9	390.6	390.3
22.5°	380.0	374.9	373.5	371.8	372.1
25°	363.9	357.1	353.3	351.3	350.6
27.5°	350.9	343.1	339.3	336.2	335.2
30°	334.5	325.6	322.5	320.8	320.1
32.5°	310.6	302.7	298.6	297.6	295.5
35°	274.3	270.9	269.2	266.8	267.1
37.5°	238.1	237.0	232.9	234.3	232.9
40°	199.1	198.7	199.4	198.4	200.8
42.5°	162.5	161.4	163.2	162.1	163.2
45°	125.9	127.9	130.3	129.3	130.7
47.5°	96.5	96.8	96.1	96.8	97.5
50°	74.2	73.5	72.9	71.5	72.2
52.5°	61.2	58.8	57.1	56.1	55.8
55°	54.0	51.6	50.3	48.9	48.9
57.5°	52.0	48.9	46.9	45.8	45.5
60°	52.3	48.2	45.5	43.8	43.4
62.5°	53.7	48.2	44.5	42.8	42.1
65°	53.4	47.5	43.8	42.1	41.4
67°	51.6	46.5	43.4	41.7	41.4
67.5°	51.0	46.2	43.4	41.7	41.0
70°	48.6	45.1	42.8	41.0	40.4
72.5°	46.5	43.8	41.0	39.7	39.0
75°	44.5	41.7	39.3	38.0	37.6
77.5°	42.4	39.3	37.6	35.9	34.5
80°	38.6	35.2	32.8	30.1	29.4
82.5°	31.8	29.1	26.7	24.3	23.9
85°	23.6	22.6	20.5	18.5	18.5
87.5°	13.0	14.4	12.7	11.6	10.9
90°	0.0	0.0	0.0	0.0	0.0

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