

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: P401636

Luminaire Tested: **ENV-SA1E-730-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401636
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1E-730-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5665 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

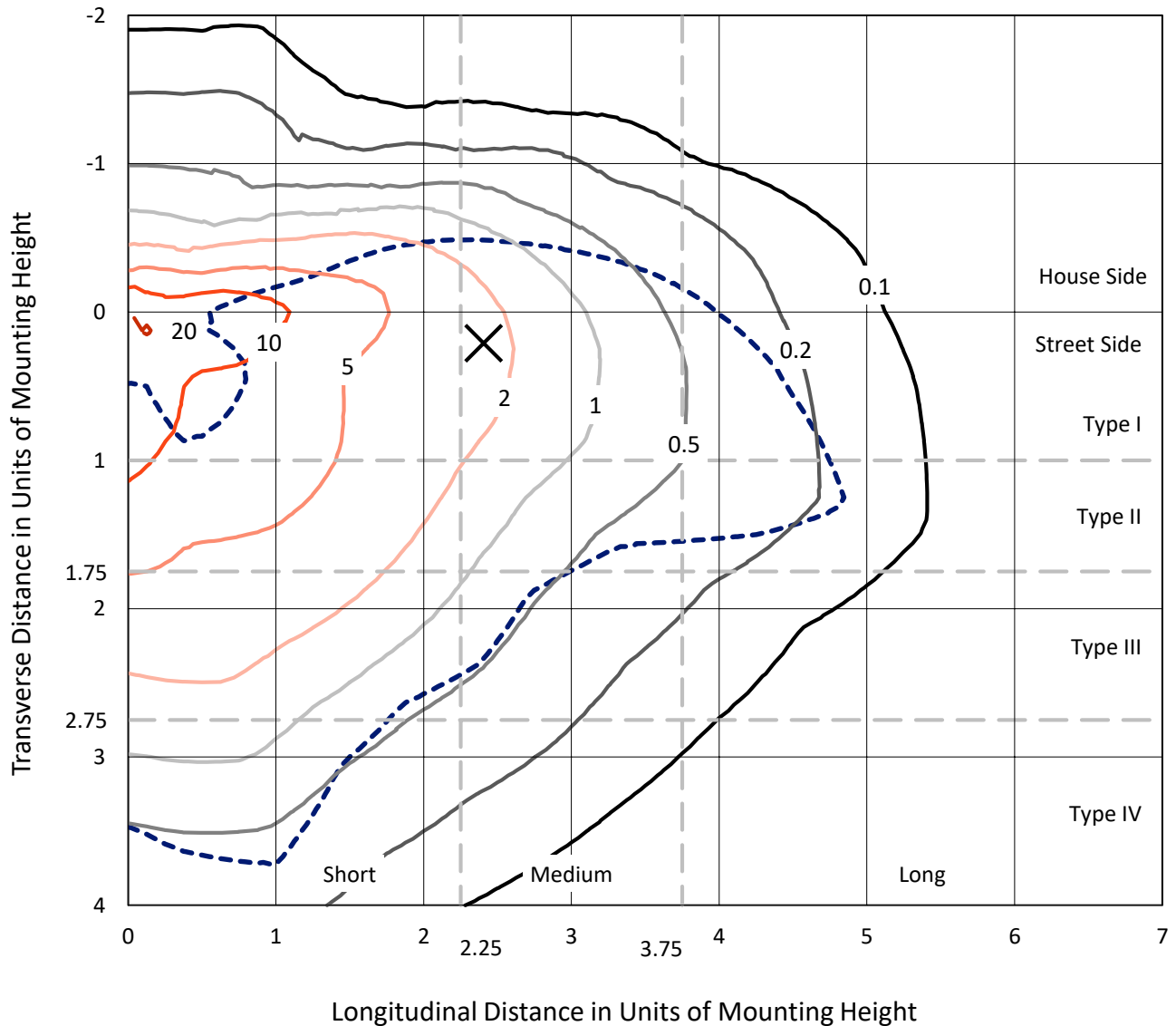
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

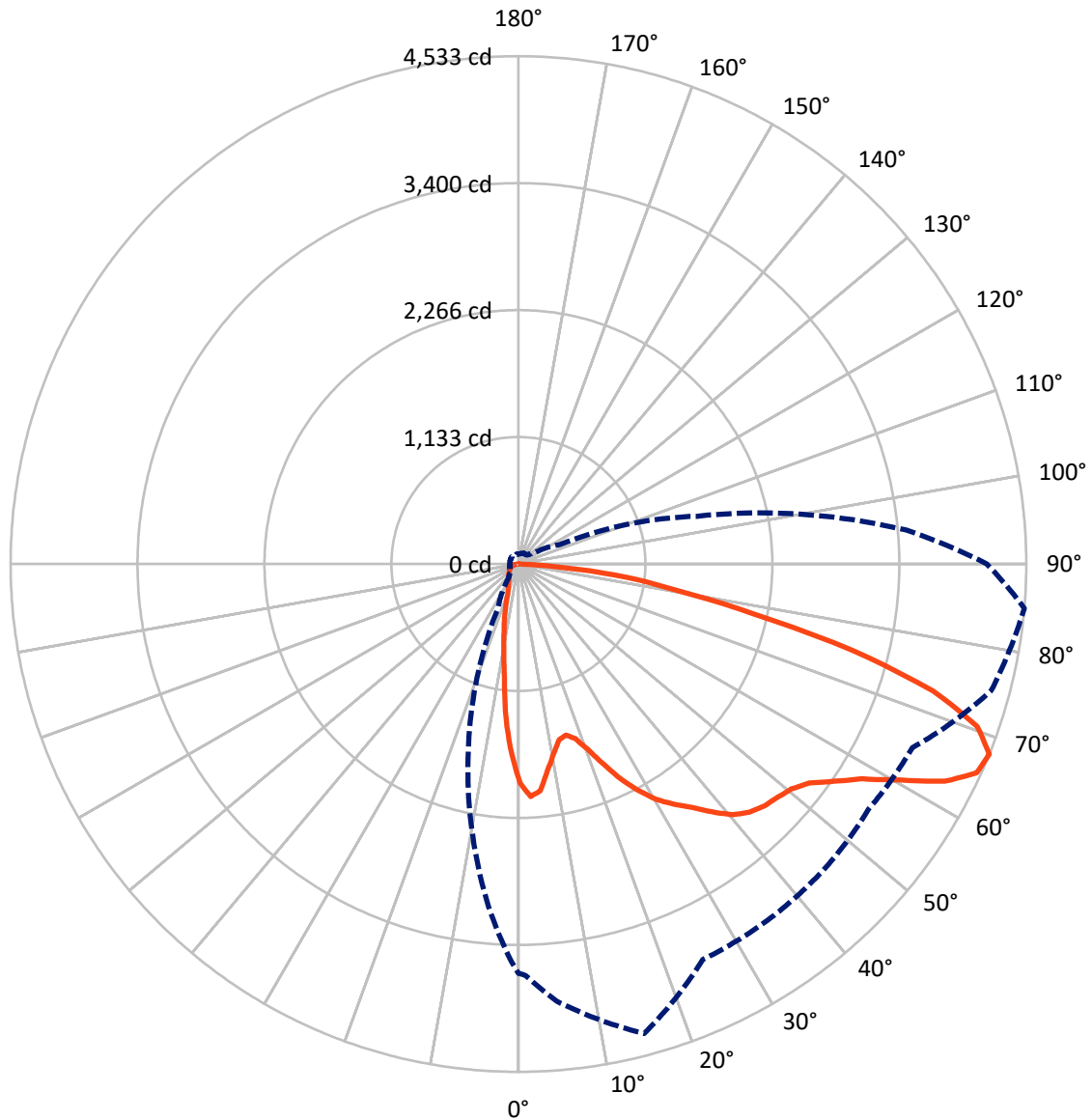
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1141.4	0.0	1141.4
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	4523.6	0.0	4523.6
	% Fixture	79.9	0.0	79.9
Total	Lumens	5665.0	0.0	5665.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.8	2.6
10°-20°	293.5	5.2
20°-30°	410.0	7.2
30°-40°	578.0	10.2
40°-50°	800.9	14.1
50°-60°	1125.4	19.9
60°-70°	1375.9	24.3
70°-80°	808.6	14.3
80°-90°	123.8	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°	5665.0	100.0
0°-180°	5665.0	100.0



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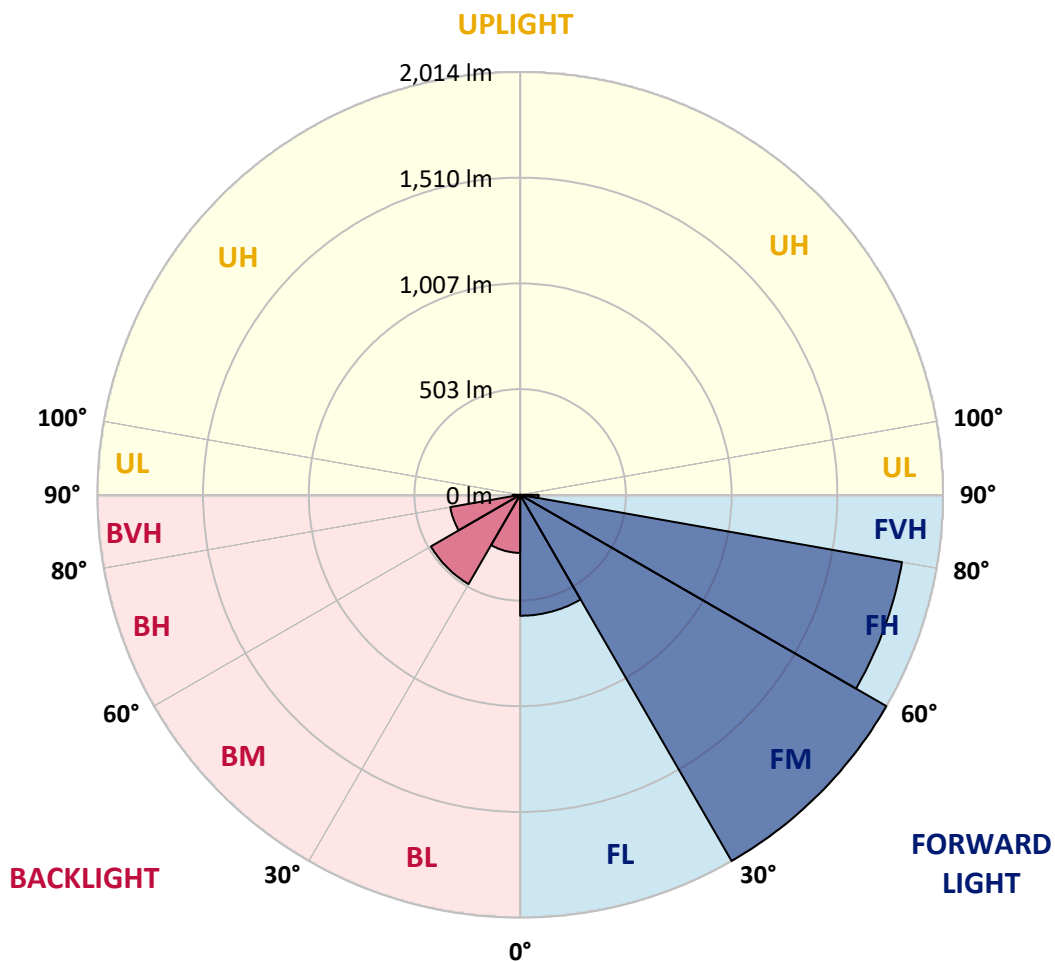
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	575.9	10.2			
FM	(30°-60°)	2013.7	35.5			
FH	(60°-80°)	1846.4	32.6			G2/5000
FVH	(80°-90°)	87.6	1.5			G1/100
BL	(0°-30°)	276.4	4.9	B1/500		
BM	(30°-60°)	490.7	8.7	B1/1000		
BH	(60°-80°)	338.1	6.0	B1/500		G1/500
BVH	(80°-90°)	36.2	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2
2.5°	2010.9	2001.8	2032.7	2078.3	2109.2	2131.1	2138.4	2137.5	2131.1	2113.8	2077.4
5°	1921.6	1913.4	1976.3	2077.4	2165.7	2229.5	2247.7	2222.2	2190.3	2122.9	2033.7
7.5°	1752.2	1765.0	1845.1	1987.2	2129.3	2230.4	2255.0	2214.9	2149.3	2011.8	1861.5
10°	1623.8	1630.2	1720.4	1891.6	2042.8	2146.6	2189.4	2153.9	2068.3	1894.3	1720.4
12.5°	1544.6	1551.0	1638.4	1796.9	1958.1	2039.1	2051.9	2051.0	1979.9	1811.4	1610.2
15°	1555.5	1563.7	1651.1	1782.3	1873.4	1908.9	1909.8	1919.8	1898.9	1770.5	1583.8
17.5°	1661.2	1661.2	1745.0	1824.2	1803.2	1777.7	1796.9	1815.1	1851.5	1795.0	1637.5
20°	1827.8	1835.1	1912.5	1898.9	1771.4	1707.6	1684.8	1716.7	1829.6	1868.8	1764.1
22.5°	2008.2	2027.3	2108.3	2008.2	1765.9	1642.0	1616.5	1651.1	1832.4	1985.4	1938.0
25°	2207.6	2231.3	2285.9	2135.7	1782.3	1605.6	1588.3	1621.1	1839.7	2092.8	2125.6
27.5°	2389.7	2391.6	2445.3	2243.1	1825.1	1609.3	1580.1	1622.9	1859.7	2177.5	2291.4
30°	2519.1	2519.1	2542.7	2297.8	1877.9	1632.0	1587.4	1650.2	1887.9	2224.0	2441.7
32.5°	2637.5	2643.8	2632.0	2355.1	1928.0	1664.8	1604.7	1704.9	1932.6	2262.2	2557.3
35°	2787.7	2786.8	2734.0	2400.7	1974.5	1700.3	1647.5	1774.1	1997.2	2318.7	2667.5
37.5°	2973.5	2964.4	2852.4	2441.7	2030.9	1761.3	1728.6	1868.8	2083.7	2385.2	2806.9
40°	3142.0	3127.4	2960.8	2479.9	2075.5	1879.7	1860.6	1986.3	2193.0	2468.1	2942.6
42.5°	3273.2	3251.3	3052.8	2507.2	2142.9	2065.5	2081.9	2197.6	2303.2	2541.8	3027.3
45°	3383.3	3360.6	3122.0	2520.9	2306.0	2330.5	2362.4	2459.0	2420.7	2561.9	3079.2
47.5°	3462.6	3425.2	3152.0	2561.0	2526.4	2640.2	2738.6	2744.9	2586.5	2561.0	3111.0
50°	3509.0	3468.0	3180.3	2660.2	2782.3	2991.7	3096.5	3047.3	2758.6	2577.4	3156.6
52.5°	3602.8	3560.0	3297.7	2821.4	3044.6	3347.8	3404.3	3325.1	2937.1	2662.1	3247.6
55°	3838.7	3819.6	3525.4	3038.2	3302.3	3635.6	3661.1	3581.9	3123.8	2808.7	3421.6
57.5°	4105.6	4063.7	3833.2	3310.5	3549.1	3860.6	3901.6	3792.3	3319.6	3014.5	3615.6
60°	4180.2	4172.0	4093.7	3628.3	3804.1	4101.0	4103.7	3964.4	3548.2	3259.5	3911.6
62.5°	4070.9	4097.4	4202.1	3922.5	4018.1	4262.2	4239.4	4094.6	3787.7	3649.3	4271.3
65°	3880.6	3917.9	4128.3	4200.3	4067.3	4230.3	4182.1	4090.1	3938.9	4069.1	4494.4
67.5°	3652.0	3672.0	3917.0	4338.7	3895.2	3879.7	3856.9	3815.0	3878.8	4367.8	4532.7
70°	3414.3	3431.6	3657.5	4148.4	3378.8	3201.2	3182.1	3145.6	3394.3	4364.2	4345.1
72.5°	2877.9	2867.0	3075.5	3462.6	2580.1	2338.7	2500.9	2421.6	2745.8	3920.7	3870.6
75°	1787.8	1847.9	2109.2	2428.0	1767.7	1602.0	1826.0	1806.0	2229.5	3376.1	3081.9
77.5°	1089.2	1101.1	1248.6	1513.6	1064.6	1110.2	1173.9	1297.8	1653.0	2736.7	2148.4
80°	570.1	530.0	638.4	830.6	632.0	745.0	860.6	997.2	1049.2	1784.1	1436.2
82.5°	164.8	163.9	215.8	347.9	299.6	366.1	434.4	626.6	687.6	1061.0	983.6
85°	0.9	0.9	0.9	1.8	2.7	4.6	19.1	161.2	213.1	491.8	404.4
87.5°	0.0	0.0	0.9	1.8	1.8	3.6	5.5	7.3	9.1	10.9	40.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2
2.5°	2065.5	2051.9	2022.7	1983.6	1956.2	1908.9	1898.9	1868.8	1838.8	1814.2	1815.1
5°	1990.8	1944.4	1873.4	1791.4	1713.1	1643.0	1629.3	1588.3	1576.5	1564.6	1531.8
7.5°	1795.0	1740.4	1641.1	1520.0	1421.6	1355.2	1284.1	1241.3	1203.1	1159.4	1170.3
10°	1644.8	1566.4	1429.8	1287.8	1164.8	1075.6	997.2	957.2	901.6	861.5	856.1
12.5°	1529.1	1444.4	1280.5	1113.8	998.2	946.2	896.2	833.3	771.4	718.6	691.2
15°	1490.9	1395.2	1204.9	1039.1	948.1	885.2	815.1	743.2	667.6	611.1	589.2
17.5°	1535.5	1422.6	1204.0	1007.3	893.4	801.4	714.0	633.0	543.7	487.2	469.9
20°	1658.4	1517.3	1229.5	977.2	826.9	702.2	579.2	491.8	400.7	360.6	342.4
22.5°	1829.6	1645.7	1268.6	940.8	753.2	581.0	442.6	332.4	287.8	267.8	263.2
25°	2005.4	1808.7	1324.2	909.8	672.1	462.6	317.8	265.9	245.0	235.9	235.9
27.5°	2198.5	1971.7	1384.3	872.5	588.3	344.3	258.6	234.1	223.1	217.7	216.8
30°	2355.1	2104.7	1452.6	828.8	512.7	282.3	229.5	213.1	203.1	200.4	200.4
32.5°	2468.1	2204.0	1524.6	785.0	443.5	255.0	213.1	198.5	187.6	185.8	185.8
35°	2600.1	2298.7	1557.3	760.5	401.6	237.7	201.3	186.7	176.7	172.1	172.1
37.5°	2758.6	2411.6	1575.6	736.8	383.4	221.3	193.1	176.7	166.7	161.2	161.2
40°	2959.9	2540.0	1594.7	713.1	372.5	207.6	184.0	167.6	159.4	153.0	153.0
42.5°	3103.8	2658.4	1609.3	693.1	353.4	201.3	176.7	161.2	151.2	145.7	144.8
45°	3179.3	2768.6	1615.6	681.2	331.5	206.7	171.2	155.7	143.9	138.4	137.5
47.5°	3230.3	2859.7	1623.8	672.1	314.2	196.7	170.3	150.3	138.4	131.1	131.1
50°	3311.4	2979.9	1644.8	654.8	304.2	184.0	184.0	147.5	132.1	125.7	124.8
52.5°	3456.2	3152.0	1701.2	635.7	293.3	171.2	189.4	148.4	127.5	120.2	118.4
55°	3674.8	3426.2	1795.0	608.4	277.8	155.7	176.7	149.4	122.9	116.6	113.8
57.5°	3958.9	3757.7	1904.3	586.5	251.4	143.0	161.2	144.8	117.5	112.0	110.2
60°	4150.2	3979.0	1973.5	558.3	214.0	134.8	138.4	140.3	112.0	105.6	104.7
62.5°	4253.1	3982.6	1974.5	519.1	179.4	127.5	123.9	143.0	107.5	99.3	98.4
65°	4260.4	3788.6	1875.2	469.0	167.6	119.3	113.8	126.6	102.9	94.7	93.8
67.5°	4181.1	3472.6	1648.4	411.6	172.1	112.9	105.6	106.6	97.4	90.2	89.3
70°	3897.0	3063.7	1322.4	366.1	173.0	104.7	99.3	96.5	92.0	85.6	83.8
72.5°	3362.4	2560.1	1001.8	351.5	175.8	98.4	92.0	89.3	85.6	80.1	78.3
75°	2537.3	1997.2	752.3	327.9	177.6	91.1	83.8	82.0	78.3	72.9	71.9
77.5°	1753.1	1480.8	522.8	276.9	158.5	82.9	75.6	73.8	71.0	65.6	64.7
80°	1183.9	1015.5	320.6	207.6	120.2	72.9	65.6	65.6	62.8	57.4	57.4
82.5°	824.2	758.6	184.9	135.7	87.4	60.1	57.4	57.4	54.6	49.2	48.3
85°	344.3	459.0	82.9	73.8	61.0	47.4	47.4	48.3	45.5	41.0	40.1
87.5°	11.8	49.2	32.8	34.6	36.4	32.8	36.4	36.4	35.5	31.9	31.0
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2
2.5°	1788.7	1776.8	1740.4	1735.8	1708.5	1706.7	1718.5	1698.5	1700.3	1724.9	1721.3
5°	1539.1	1511.8	1510.9	1480.8	1447.1	1438.9	1409.8	1398.9	1394.3	1384.3	1420.7
7.5°	1204.0	1191.2	1202.2	1198.5	1167.6	1150.2	1088.3	1041.0	1017.3	1027.3	1030.0
10°	856.1	875.2	904.4	932.6	910.7	853.4	826.9	788.7	784.1	781.4	799.6
12.5°	678.5	656.6	670.3	680.3	659.4	634.8	623.8	607.5	616.6	637.5	649.3
15°	563.7	525.5	508.2	496.3	501.8	487.2	492.7	487.2	493.6	500.0	521.8
17.5°	445.3	431.7	398.9	383.4	384.3	378.0	379.8	378.9	375.2	389.8	407.1
20°	335.1	331.5	324.2	313.3	315.1	310.6	307.8	292.3	286.0	290.5	305.1
22.5°	261.4	265.9	270.5	269.6	274.1	262.3	251.4	237.7	235.9	236.8	240.4
25°	234.1	235.9	239.5	244.1	246.8	235.9	220.4	212.2	211.3	213.1	213.1
27.5°	217.7	215.8	220.4	225.9	229.5	215.8	203.1	195.8	194.0	192.2	191.3
30°	200.4	200.4	204.0	209.5	212.2	200.4	189.4	182.1	177.6	174.9	173.9
32.5°	187.6	188.5	190.3	194.0	198.5	186.7	177.6	171.2	163.0	160.3	158.5
35°	173.0	176.7	179.4	180.3	184.0	175.8	166.7	156.6	149.4	146.6	146.6
37.5°	161.2	163.9	168.5	167.6	170.3	164.8	154.8	143.9	140.3	139.3	138.4
40°	152.1	152.1	155.7	159.4	163.0	153.0	141.2	135.7	133.0	131.1	132.1
42.5°	143.9	143.0	143.0	149.4	155.7	141.2	131.1	127.5	126.6	124.8	125.7
45°	136.6	135.7	133.0	135.7	144.8	129.3	122.9	120.2	119.3	119.3	119.3
47.5°	130.2	128.4	124.8	125.7	132.1	120.2	114.8	113.8	112.9	112.9	113.8
50°	122.9	121.1	118.4	117.5	119.3	113.8	109.3	107.5	107.5	107.5	109.3
52.5°	116.6	115.7	112.0	111.1	112.0	108.4	103.8	102.9	102.9	102.9	105.6
55°	112.0	110.2	108.4	106.6	108.4	103.8	100.2	98.4	98.4	100.2	102.0
57.5°	107.5	105.6	104.7	102.9	104.7	100.2	96.5	94.7	95.6	96.5	96.5
60°	102.9	101.1	100.2	98.4	101.1	96.5	92.9	92.0	92.0	91.1	91.1
62.5°	98.4	97.4	95.6	93.8	97.4	92.0	89.3	87.4	86.5	86.5	86.5
65°	92.9	92.0	91.1	90.2	92.0	87.4	84.7	83.8	82.0	81.1	82.0
67.5°	88.3	88.3	86.5	84.7	87.4	82.0	80.1	79.2	76.5	75.6	76.5
70°	82.9	82.9	81.1	80.1	83.8	76.5	74.7	73.8	71.9	71.0	71.0
72.5°	77.4	77.4	75.6	74.7	79.2	71.0	69.2	68.3	65.6	64.7	64.7
75°	71.9	71.0	70.1	69.2	74.7	65.6	62.8	61.0	58.3	57.4	56.5
77.5°	65.6	64.7	62.8	63.8	67.4	58.3	54.6	53.7	51.0	50.1	49.2
80°	57.4	56.5	55.6	57.4	57.4	51.0	46.4	44.6	41.9	40.1	39.2
82.5°	49.2	48.3	48.3	50.1	47.4	44.6	39.2	35.5	31.0	28.2	27.3
85°	40.1	41.9	40.1	41.9	35.5	35.5	27.3	20.9	14.6	11.8	10.9
87.5°	31.0	31.9	31.0	31.9	24.6	23.7	12.8	7.3	0.9	0.0	0.0
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2	1957.2
2.5°	1748.6	1750.4	1789.6	1828.7	1852.4	1911.6	1940.8	1973.5	1990.8	2010.9
5°	1403.4	1438.0	1469.9	1548.2	1588.3	1682.1	1750.4	1859.7	1894.3	1921.6
7.5°	1060.1	1112.0	1151.2	1248.6	1324.2	1440.8	1560.1	1690.3	1727.6	1752.2
10°	842.4	889.8	963.5	1040.0	1124.7	1265.9	1395.2	1530.0	1595.6	1623.8
12.5°	707.6	783.2	869.7	940.8	1008.2	1112.0	1275.9	1446.2	1514.5	1544.6
15°	583.8	668.5	756.8	844.2	928.0	1045.5	1217.6	1438.9	1525.5	1555.5
17.5°	463.6	532.8	622.0	727.7	849.7	999.1	1228.6	1516.4	1622.0	1661.2
20°	329.7	397.1	488.1	618.4	763.2	950.8	1254.1	1632.9	1783.2	1827.8
22.5°	248.6	286.0	369.8	498.2	685.8	912.5	1294.1	1792.3	1968.1	2008.2
25°	218.6	231.3	274.1	398.0	608.4	877.9	1347.0	1950.8	2163.9	2207.6
27.5°	194.0	201.3	223.1	319.7	551.0	842.4	1409.8	2122.0	2332.4	2389.7
30°	174.9	184.0	202.2	267.8	495.4	791.4	1467.2	2275.9	2475.4	2519.1
32.5°	160.3	170.3	186.7	242.3	448.1	753.2	1500.0	2390.7	2597.4	2637.5
35°	150.3	159.4	175.8	219.5	406.2	726.8	1510.0	2504.5	2746.8	2787.7
37.5°	141.2	150.3	164.8	196.7	377.0	692.2	1525.5	2640.2	2919.8	2973.5
40°	134.8	142.1	155.7	181.2	337.0	654.8	1543.7	2798.7	3088.3	3142.0
42.5°	128.4	136.6	148.4	182.1	296.9	622.9	1555.5	2920.7	3222.1	3273.2
45°	122.9	132.1	145.7	178.5	266.8	593.8	1550.1	3022.7	3344.2	3383.3
47.5°	117.5	128.4	153.0	171.2	257.7	567.4	1554.6	3121.1	3431.6	3462.6
50°	113.8	127.5	163.9	160.3	259.6	555.5	1598.3	3238.5	3497.2	3509.0
52.5°	111.1	130.2	154.8	144.8	259.6	550.1	1682.1	3428.0	3611.0	3602.8
55°	106.6	129.3	144.8	131.1	248.6	552.8	1761.3	3678.4	3884.2	3838.7
57.5°	102.9	123.9	130.2	121.1	223.1	553.7	1878.8	3889.7	4099.2	4105.6
60°	98.4	133.0	112.9	112.9	191.3	549.2	1982.7	3886.1	4138.3	4180.2
62.5°	93.8	130.2	101.1	104.7	169.4	531.9	2045.5	3659.3	3993.5	4070.9
65°	88.3	102.9	92.9	97.4	160.3	489.1	1956.2	3377.9	3797.7	3880.6
67.5°	82.0	84.7	84.7	90.2	156.6	424.4	1731.3	3067.3	3551.8	3652.0
70°	74.7	75.6	77.4	85.6	145.7	365.2	1409.8	2736.7	3287.7	3414.3
72.5°	67.4	68.3	68.3	77.4	136.6	315.1	998.2	2168.4	2744.9	2877.9
75°	59.2	60.1	59.2	67.4	119.3	235.9	592.9	1371.6	1637.5	1787.8
77.5°	50.1	50.1	48.3	52.8	82.0	149.4	324.2	833.3	996.3	1089.2
80°	41.0	37.3	31.0	31.9	44.6	85.6	144.8	478.1	546.4	570.1
82.5°	27.3	20.9	12.8	11.8	14.6	23.7	33.7	189.4	173.9	164.8
85°	5.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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