

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: P401654

Luminaire Tested: **ENV-SA1E-735-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401654
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-735-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 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: 5843 lumens
Efficiency: N/A
Efficacy: 102.2 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

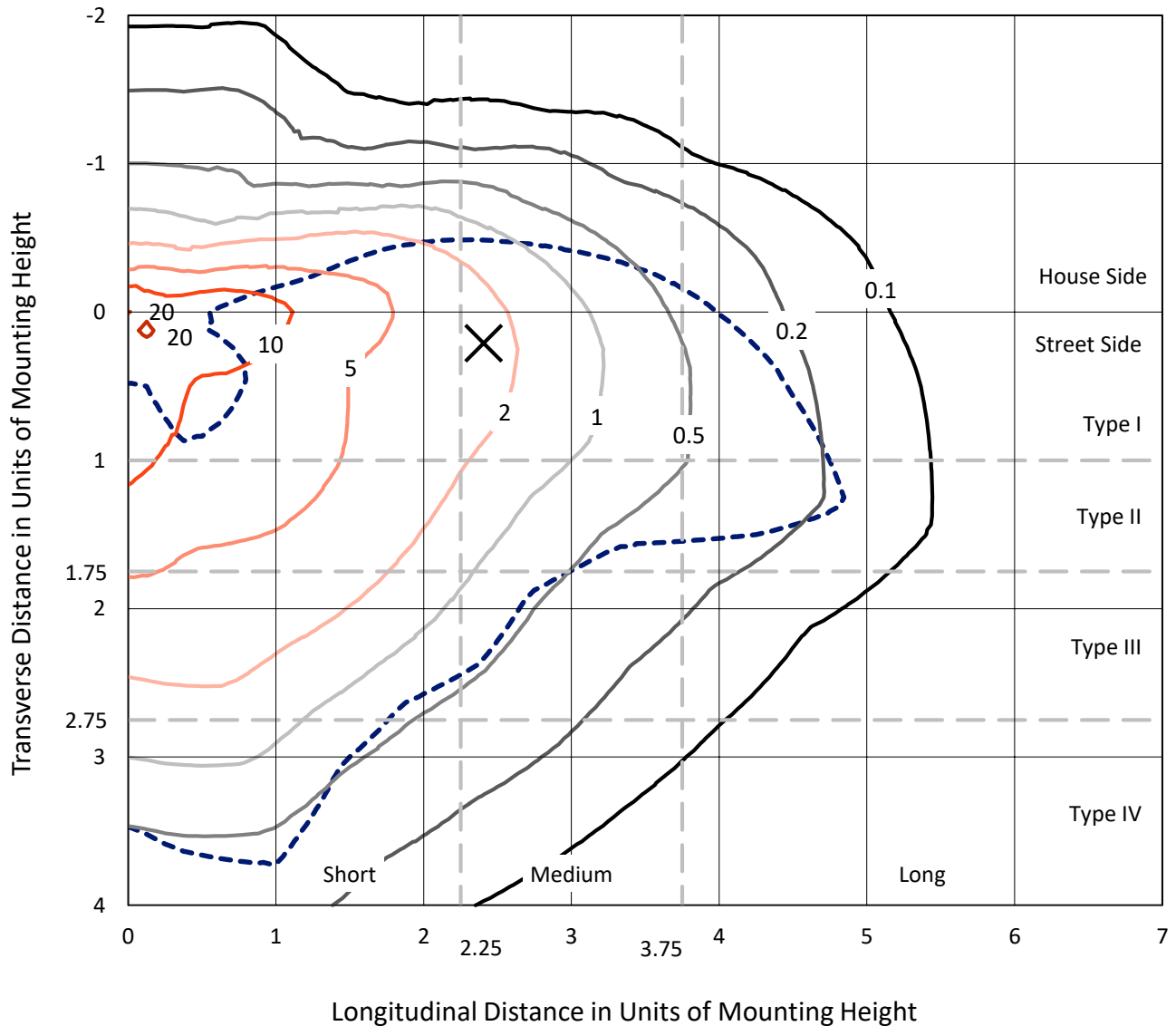


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Iso-Footcandle Lines of Horizontal Illumination

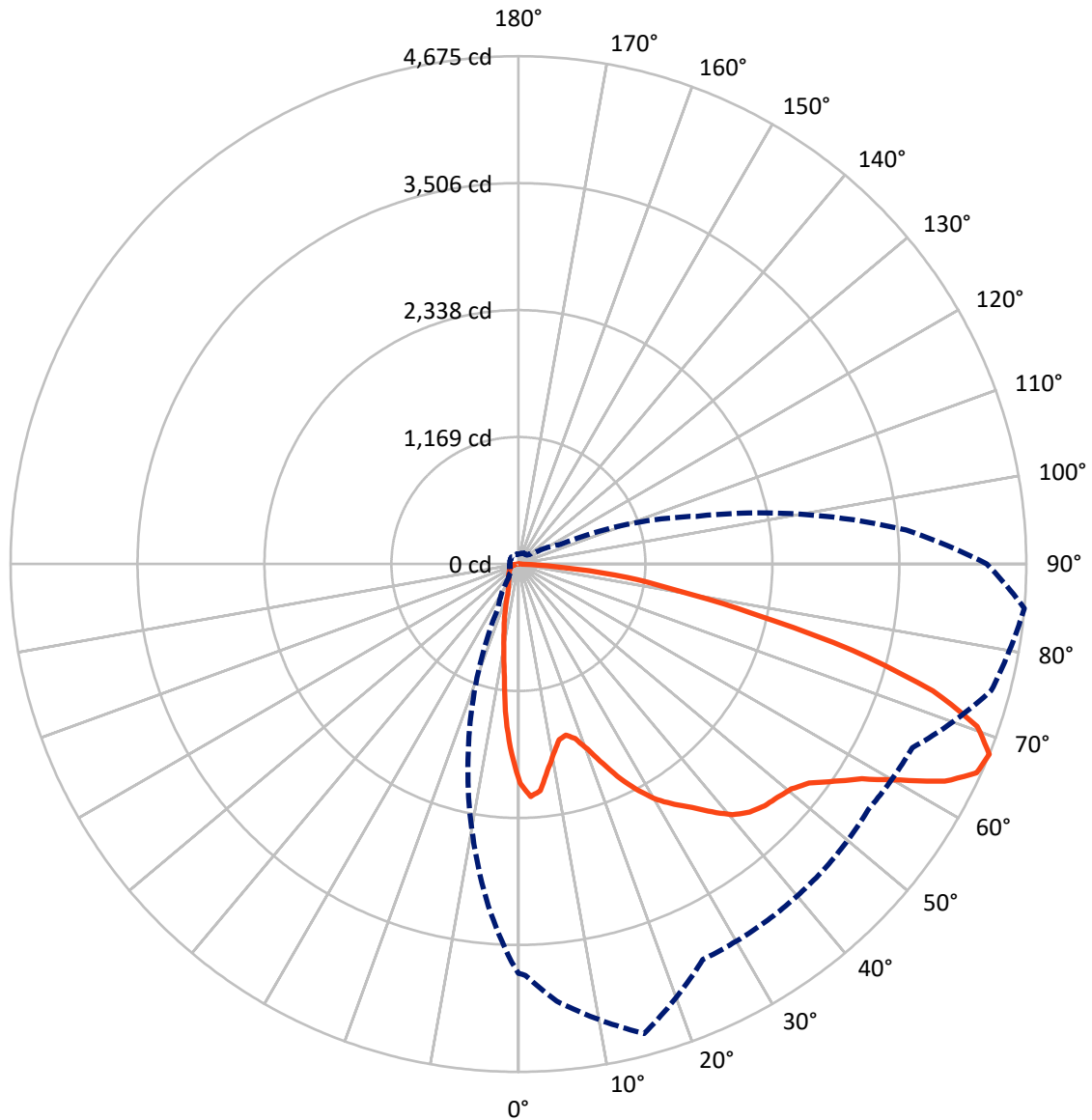
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.5 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	1177.3	0.0	1177.3
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	4665.7	0.0	4665.7
	% Fixture	79.9	0.0	79.9
Total	Lumens	5843.0	0.0	5843.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.5	2.6
10°-20°	302.7	5.2
20°-30°	422.9	7.2
30°-40°	596.2	10.2
40°-50°	826.1	14.1
50°-60°	1160.8	19.9
60°-70°	1419.1	24.3
70°-80°	834.0	14.3
80°-90°	127.7	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°	5843.0	100.0
0°-180°	5843.0	100.0



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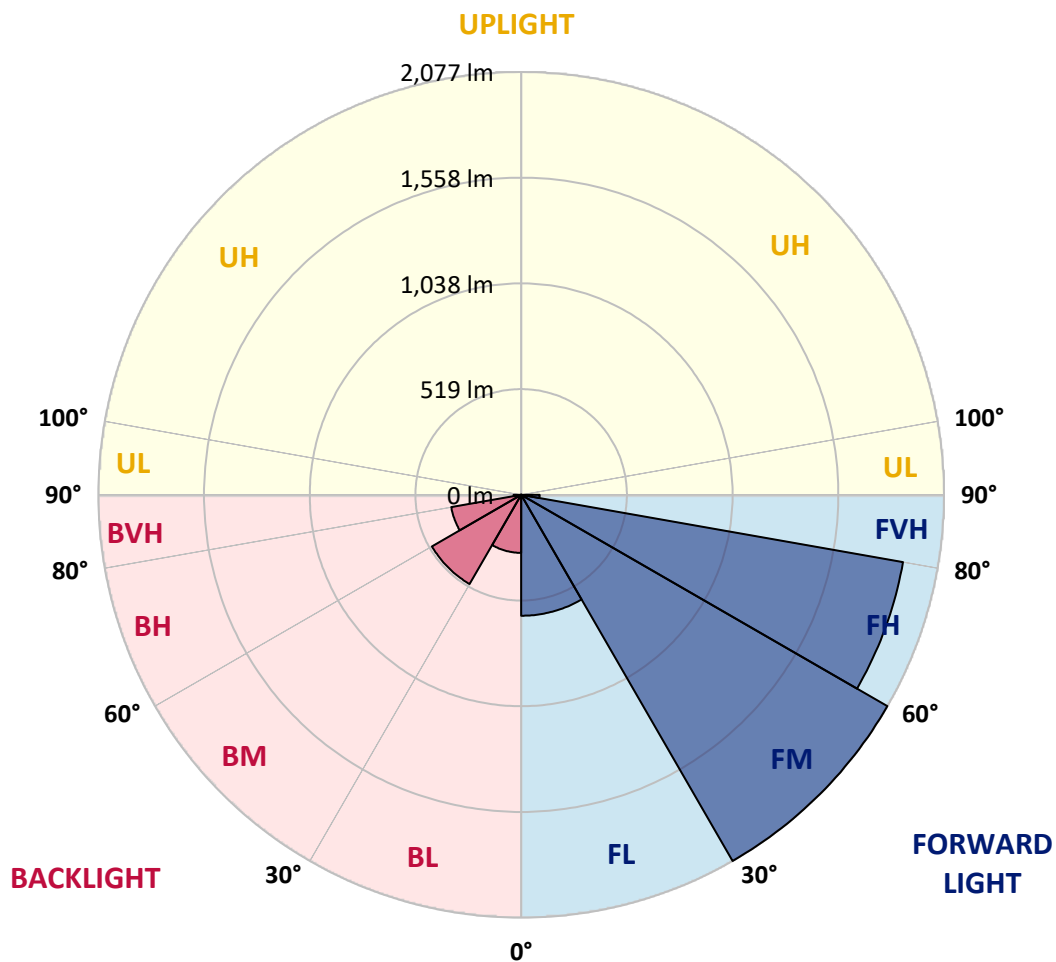
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	594.0	10.2			
FM	(30°-60°)	2077.0	35.5			
FH	(60°-80°)	1904.4	32.6			G2/5000
FVH	(80°-90°)	90.4	1.5			G1/100
BL	(0°-30°)	285.1	4.9	B1/500		
BM	(30°-60°)	506.1	8.7	B1/1000		
BH	(60°-80°)	348.7	6.0	B1/500		G1/500
BVH	(80°-90°)	37.3	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°	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6
2.5°	2074.1	2064.7	2096.6	2143.6	2175.5	2198.1	2205.6	2204.6	2198.1	2180.2	2142.6
5°	1982.0	1973.6	2038.4	2142.6	2233.8	2299.5	2318.3	2292.0	2259.1	2189.6	2097.6
7.5°	1807.3	1820.4	1903.1	2049.6	2196.2	2300.4	2325.8	2284.5	2216.8	2075.0	1920.0
10°	1674.8	1681.4	1774.4	1951.0	2106.9	2214.0	2258.2	2221.5	2133.2	1953.8	1774.4
12.5°	1593.1	1599.7	1689.9	1853.3	2019.6	2103.2	2116.3	2115.4	2042.1	1868.4	1660.8
15°	1604.4	1612.9	1703.0	1838.3	1932.2	1968.9	1969.8	1980.1	1958.5	1826.1	1633.5
17.5°	1713.4	1713.4	1799.8	1881.5	1859.9	1833.6	1853.3	1872.1	1909.7	1851.4	1688.9
20°	1885.3	1892.8	1972.6	1958.5	1827.0	1761.3	1737.8	1770.7	1887.1	1927.5	1819.5
22.5°	2071.2	2091.0	2174.6	2071.2	1821.4	1693.6	1667.3	1703.0	1890.0	2047.8	1998.9
25°	2277.0	2301.4	2357.7	2202.8	1838.3	1656.1	1638.2	1672.0	1897.5	2158.6	2192.4
27.5°	2464.8	2466.7	2522.1	2313.6	1882.4	1659.8	1629.8	1673.9	1918.1	2246.0	2363.4
30°	2598.2	2598.2	2622.6	2370.0	1936.9	1683.3	1637.3	1702.1	1947.3	2293.9	2518.4
32.5°	2720.3	2726.9	2714.7	2429.1	1988.6	1717.1	1655.1	1758.4	1993.3	2333.3	2637.7
35°	2875.3	2874.4	2819.9	2476.1	2036.5	1753.8	1699.3	1829.8	2060.0	2391.6	2751.3
37.5°	3067.0	3057.6	2942.0	2518.4	2094.7	1816.7	1782.9	1927.5	2149.2	2460.1	2895.1
40°	3240.7	3225.7	3053.8	2557.8	2140.8	1938.8	1919.1	2048.7	2261.9	2545.6	3035.0
42.5°	3376.0	3353.5	3148.7	2586.0	2210.3	2130.4	2147.3	2266.6	2375.6	2621.7	3122.4
45°	3489.7	3466.2	3220.1	2600.1	2378.4	2403.8	2436.7	2536.2	2496.8	2642.4	3175.9
47.5°	3571.4	3532.9	3251.1	2641.4	2605.7	2723.2	2824.6	2831.2	2667.7	2641.4	3208.8
50°	3619.3	3577.0	3280.2	2743.8	2869.7	3085.7	3193.8	3143.0	2845.3	2658.3	3255.8
52.5°	3716.0	3671.9	3401.4	2910.1	3140.2	3453.0	3511.3	3429.5	3029.4	2745.7	3349.7
55°	3959.3	3939.6	3636.2	3133.6	3406.1	3749.9	3776.2	3694.4	3221.9	2896.9	3529.1
57.5°	4234.6	4191.3	3953.7	3414.5	3660.6	3981.9	4024.1	3911.4	3423.9	3109.2	3729.2
60°	4311.6	4303.1	4222.3	3742.3	3923.6	4229.9	4232.7	4089.0	3659.7	3361.9	4034.5
62.5°	4198.9	4226.1	4334.1	4045.7	4144.4	4396.1	4372.6	4223.3	3906.7	3763.9	4405.5
65°	4002.5	4041.1	4258.0	4332.2	4195.1	4363.2	4313.5	4218.6	4062.7	4197.0	4635.7
67.5°	3766.8	3787.4	4040.1	4475.0	4017.6	4001.6	3978.1	3934.9	4000.7	4505.1	4675.1
70°	3521.6	3539.4	3772.4	4278.7	3485.0	3301.8	3282.1	3244.5	3500.9	4501.3	4481.6
72.5°	2968.3	2957.0	3172.2	3571.4	2661.2	2412.2	2579.4	2497.7	2832.1	4043.9	3992.2
75°	1843.9	1905.9	2175.5	2504.3	1823.3	1652.3	1883.4	1862.7	2299.5	3482.1	3178.7
77.5°	1123.5	1135.7	1287.8	1561.2	1098.1	1145.1	1210.8	1338.6	1704.9	2822.7	2215.9
80°	588.0	546.7	658.5	856.7	651.9	768.4	887.7	1028.6	1082.1	1840.2	1481.3
82.5°	170.0	169.1	222.6	358.8	309.0	377.6	448.1	646.3	709.2	1094.3	1014.5
85°	0.9	0.9	0.9	1.9	2.8	4.7	19.7	166.3	219.8	507.2	417.1
87.5°	0.0	0.0	0.9	1.9	1.9	3.8	5.6	7.5	9.4	11.3	41.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6
2.5°	2130.4	2116.3	2086.3	2045.9	2017.7	1968.9	1958.5	1927.5	1896.5	1871.2	1872.1
5°	2053.4	2005.5	1932.2	1847.7	1766.9	1694.6	1680.5	1638.2	1626.0	1613.8	1580.0
7.5°	1851.4	1795.1	1692.7	1567.8	1466.3	1397.7	1324.5	1280.3	1240.9	1195.8	1207.1
10°	1696.5	1615.7	1474.8	1328.2	1201.4	1109.4	1028.6	987.2	929.9	888.6	883.0
12.5°	1577.2	1489.8	1320.7	1148.8	1029.5	976.0	924.3	859.5	795.6	741.1	713.0
15°	1537.7	1439.1	1242.7	1071.8	977.9	913.0	840.7	766.5	688.5	630.3	607.8
17.5°	1583.7	1467.3	1241.8	1038.9	921.5	826.6	736.4	652.8	560.8	502.5	484.7
20°	1710.5	1564.9	1268.1	1007.9	852.9	724.2	597.4	507.2	413.3	372.0	353.2
22.5°	1887.1	1697.4	1308.5	970.3	776.8	599.3	456.5	342.9	296.8	276.2	271.5
25°	2068.4	1865.5	1365.8	938.4	693.2	477.2	327.8	274.3	252.7	243.3	243.3
27.5°	2267.6	2033.7	1427.8	899.9	606.8	355.1	266.8	241.4	230.1	224.5	223.6
30°	2429.1	2170.8	1498.3	854.8	528.8	291.2	236.7	219.8	209.5	206.7	206.7
32.5°	2545.6	2273.2	1572.5	809.7	457.5	263.0	219.8	204.8	193.5	191.6	191.6
35°	2681.8	2370.9	1606.3	784.4	414.2	245.2	207.6	192.6	182.2	177.5	177.5
37.5°	2845.3	2487.4	1625.1	759.9	395.5	228.3	199.1	182.2	171.9	166.3	166.3
40°	3052.9	2619.8	1644.8	735.5	384.2	214.2	189.7	172.8	164.4	157.8	157.8
42.5°	3201.3	2741.9	1659.8	714.8	364.5	207.6	182.2	166.3	155.9	150.3	149.4
45°	3279.2	2855.6	1666.4	702.6	341.9	213.2	176.6	160.6	148.4	142.8	141.8
47.5°	3331.8	2949.5	1674.8	693.2	324.1	202.9	175.7	155.0	142.8	135.3	135.3
50°	3415.4	3073.5	1696.5	675.4	313.7	189.7	189.7	152.2	136.2	129.6	128.7
52.5°	3564.8	3251.1	1754.7	655.7	302.5	176.6	195.4	153.1	131.5	124.0	122.1
55°	3790.2	3533.8	1851.4	627.5	286.5	160.6	182.2	154.1	126.8	120.2	117.4
57.5°	4083.3	3875.7	1964.2	604.9	259.3	147.5	166.3	149.4	121.2	115.5	113.7
60°	4280.6	4104.0	2035.6	575.8	220.7	139.0	142.8	144.7	115.5	109.0	108.0
62.5°	4386.7	4107.7	2036.5	535.4	185.1	131.5	127.8	147.5	110.8	102.4	101.4
65°	4394.2	3907.7	1934.1	483.8	172.8	123.1	117.4	130.6	106.1	97.7	96.8
67.5°	4312.5	3581.7	1700.2	424.6	177.5	116.5	109.0	109.9	100.5	93.0	92.1
70°	4019.4	3159.9	1363.9	377.6	178.5	108.0	102.4	99.6	94.9	88.3	86.4
72.5°	3468.1	2640.5	1033.3	362.6	181.3	101.4	94.9	92.1	88.3	82.7	80.8
75°	2617.0	2060.0	775.9	338.2	183.2	93.9	86.4	84.5	80.8	75.1	74.2
77.5°	1808.2	1527.4	539.2	285.6	163.4	85.5	78.0	76.1	73.3	67.6	66.7
80°	1221.1	1047.4	330.6	214.2	124.0	75.1	67.6	67.6	64.8	59.2	59.2
82.5°	850.1	782.5	190.7	140.0	90.2	62.0	59.2	59.2	56.4	50.7	49.8
85°	355.1	473.4	85.5	76.1	62.9	48.8	48.8	49.8	47.0	42.3	41.3
87.5°	12.2	50.7	33.8	35.7	37.6	33.8	37.6	37.6	36.6	32.9	31.9
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°	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6
2.5°	1844.9	1832.7	1795.1	1790.4	1762.2	1760.3	1772.5	1751.9	1753.8	1779.1	1775.4
5°	1587.5	1559.3	1558.4	1527.4	1492.6	1484.2	1454.1	1442.8	1438.1	1427.8	1465.4
7.5°	1241.8	1228.7	1239.9	1236.2	1204.2	1186.4	1122.5	1073.7	1049.2	1059.6	1062.4
10°	883.0	902.7	932.8	961.9	939.3	880.2	852.9	813.5	808.8	806.0	824.7
12.5°	699.8	677.3	691.4	701.7	680.1	654.7	643.4	626.5	635.9	657.5	669.8
15°	581.5	542.0	524.2	511.9	517.6	502.5	508.2	502.5	509.1	515.7	538.2
17.5°	459.3	445.2	411.4	395.5	396.4	389.8	391.7	390.8	387.0	402.0	419.9
20°	345.7	341.9	334.4	323.1	325.0	320.3	317.5	301.5	295.0	299.7	314.7
22.5°	269.6	274.3	279.0	278.0	282.7	270.5	259.3	245.2	243.3	244.2	248.0
25°	241.4	243.3	247.0	251.7	254.6	243.3	227.3	218.9	217.9	219.8	219.8
27.5°	224.5	222.6	227.3	233.0	236.7	222.6	209.5	202.0	200.1	198.2	197.3
30°	206.7	206.7	210.4	216.0	218.9	206.7	195.4	187.9	183.2	180.4	179.4
32.5°	193.5	194.4	196.3	200.1	204.8	192.6	183.2	176.6	168.1	165.3	163.4
35°	178.5	182.2	185.1	186.0	189.7	181.3	171.9	161.6	154.1	151.2	151.2
37.5°	166.3	169.1	173.8	172.8	175.7	170.0	159.7	148.4	144.7	143.7	142.8
40°	156.9	156.9	160.6	164.4	168.1	157.8	145.6	140.0	137.1	135.3	136.2
42.5°	148.4	147.5	147.5	154.1	160.6	145.6	135.3	131.5	130.6	128.7	129.6
45°	140.9	140.0	137.1	140.0	149.4	133.4	126.8	124.0	123.1	123.1	123.1
47.5°	134.3	132.4	128.7	129.6	136.2	124.0	118.4	117.4	116.5	116.5	117.4
50°	126.8	124.9	122.1	121.2	123.1	117.4	112.7	110.8	110.8	110.8	112.7
52.5°	120.2	119.3	115.5	114.6	115.5	111.8	107.1	106.1	106.1	106.1	109.0
55°	115.5	113.7	111.8	109.9	111.8	107.1	103.3	101.4	101.4	103.3	105.2
57.5°	110.8	109.0	108.0	106.1	108.0	103.3	99.6	97.7	98.6	99.6	99.6
60°	106.1	104.3	103.3	101.4	104.3	99.6	95.8	94.9	94.9	93.9	93.9
62.5°	101.4	100.5	98.6	96.8	100.5	94.9	92.1	90.2	89.2	89.2	89.2
65°	95.8	94.9	93.9	93.0	94.9	90.2	87.4	86.4	84.5	83.6	84.5
67.5°	91.1	91.1	89.2	87.4	90.2	84.5	82.7	81.7	78.9	78.0	78.9
70°	85.5	85.5	83.6	82.7	86.4	78.9	77.0	76.1	74.2	73.3	73.3
72.5°	79.8	79.8	78.0	77.0	81.7	73.3	71.4	70.5	67.6	66.7	66.7
75°	74.2	73.3	72.3	71.4	77.0	67.6	64.8	62.9	60.1	59.2	58.2
77.5°	67.6	66.7	64.8	65.8	69.5	60.1	56.4	55.4	52.6	51.7	50.7
80°	59.2	58.2	57.3	59.2	59.2	52.6	47.9	46.0	43.2	41.3	40.4
82.5°	50.7	49.8	49.8	51.7	48.8	46.0	40.4	36.6	31.9	29.1	28.2
85°	41.3	43.2	41.3	43.2	36.6	36.6	28.2	21.6	15.0	12.2	11.3
87.5°	31.9	32.9	31.9	32.9	25.4	24.4	13.2	7.5	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°	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6	2018.6
2.5°	1803.5	1805.4	1845.8	1886.2	1910.6	1971.7	2001.7	2035.6	2053.4	2074.1
5°	1447.5	1483.2	1516.1	1596.9	1638.2	1735.0	1805.4	1918.1	1953.8	1982.0
7.5°	1093.4	1146.9	1187.3	1287.8	1365.8	1486.0	1609.1	1743.4	1781.9	1807.3
10°	868.9	917.7	993.8	1072.7	1160.1	1305.7	1439.1	1578.1	1645.7	1674.8
12.5°	729.9	807.8	897.1	970.3	1039.9	1146.9	1316.0	1491.7	1562.1	1593.1
15°	602.1	689.5	780.6	870.8	957.2	1078.4	1255.9	1484.2	1573.4	1604.4
17.5°	478.1	549.5	641.6	750.5	876.4	1030.5	1267.2	1564.0	1673.0	1713.4
20°	340.0	409.6	503.5	637.8	787.2	980.7	1293.5	1684.2	1839.2	1885.3
22.5°	256.4	295.0	381.4	513.8	707.3	941.2	1334.8	1848.6	2029.9	2071.2
25°	225.4	238.6	282.7	410.5	627.5	905.5	1389.3	2012.1	2231.9	2277.0
27.5°	200.1	207.6	230.1	329.7	568.3	868.9	1454.1	2188.7	2405.7	2464.8
30°	180.4	189.7	208.5	276.2	511.0	816.3	1513.3	2347.4	2553.1	2598.2
32.5°	165.3	175.7	192.6	249.9	462.2	776.8	1547.1	2465.8	2679.0	2720.3
35°	155.0	164.4	181.3	226.4	418.9	749.6	1557.4	2583.2	2833.1	2875.3
37.5°	145.6	155.0	170.0	202.9	388.9	713.9	1573.4	2723.2	3011.5	3067.0
40°	139.0	146.5	160.6	186.9	347.6	675.4	1592.2	2886.6	3185.3	3240.7
42.5°	132.4	140.9	153.1	187.9	306.2	642.5	1604.4	3012.5	3323.4	3376.0
45°	126.8	136.2	150.3	184.1	275.2	612.5	1598.8	3117.7	3449.3	3489.7
47.5°	121.2	132.4	157.8	176.6	265.8	585.2	1603.5	3219.1	3539.4	3571.4
50°	117.4	131.5	169.1	165.3	267.7	573.0	1648.5	3340.3	3607.1	3619.3
52.5°	114.6	134.3	159.7	149.4	267.7	567.4	1735.0	3535.7	3724.5	3716.0
55°	109.9	133.4	149.4	135.3	256.4	570.2	1816.7	3794.0	4006.3	3959.3
57.5°	106.1	127.8	134.3	124.9	230.1	571.1	1937.9	4011.9	4228.0	4234.6
60°	101.4	137.1	116.5	116.5	197.3	566.4	2044.9	4008.2	4268.4	4311.6
62.5°	96.8	134.3	104.3	108.0	174.7	548.6	2109.8	3774.3	4119.0	4198.9
65°	91.1	106.1	95.8	100.5	165.3	504.4	2017.7	3484.0	3917.1	4002.5
67.5°	84.5	87.4	87.4	93.0	161.6	437.7	1785.7	3163.7	3663.4	3766.8
70°	77.0	78.0	79.8	88.3	150.3	376.7	1454.1	2822.7	3391.0	3521.6
72.5°	69.5	70.5	70.5	79.8	140.9	325.0	1029.5	2236.6	2831.2	2968.3
75°	61.1	62.0	61.1	69.5	123.1	243.3	611.5	1414.6	1688.9	1843.9
77.5°	51.7	51.7	49.8	54.5	84.5	154.1	334.4	859.5	1027.6	1123.5
80°	42.3	38.5	31.9	32.9	46.0	88.3	149.4	493.2	563.6	588.0
82.5°	28.2	21.6	13.2	12.2	15.0	24.4	34.8	195.4	179.4	170.0
85°	5.6	1.9	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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