

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: P401818

Luminaire Tested: **ENV-SA1F-730-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401818
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1F-730-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6270 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 66.1
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

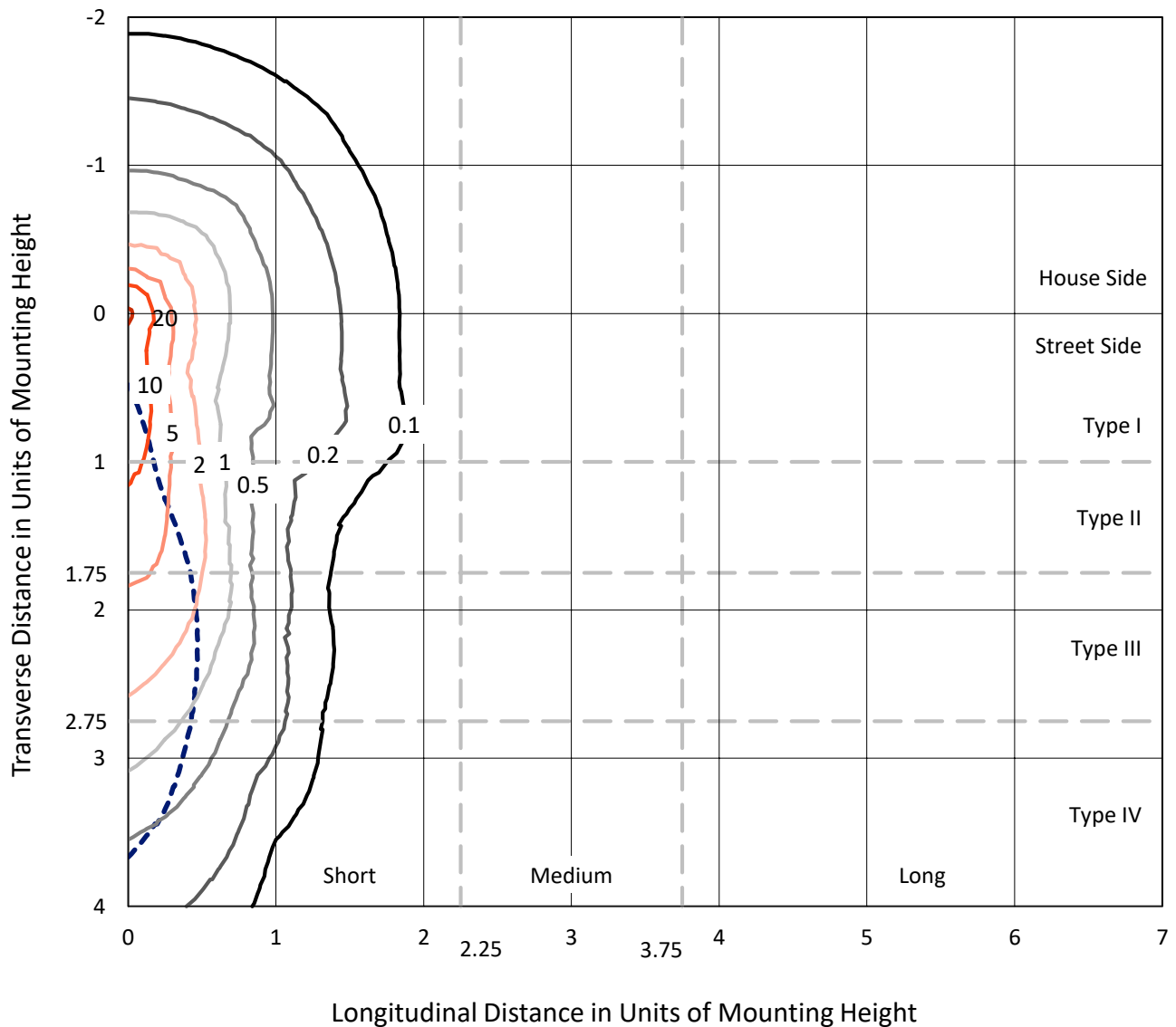


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Iso-Footcandle Lines of Horizontal Illumination

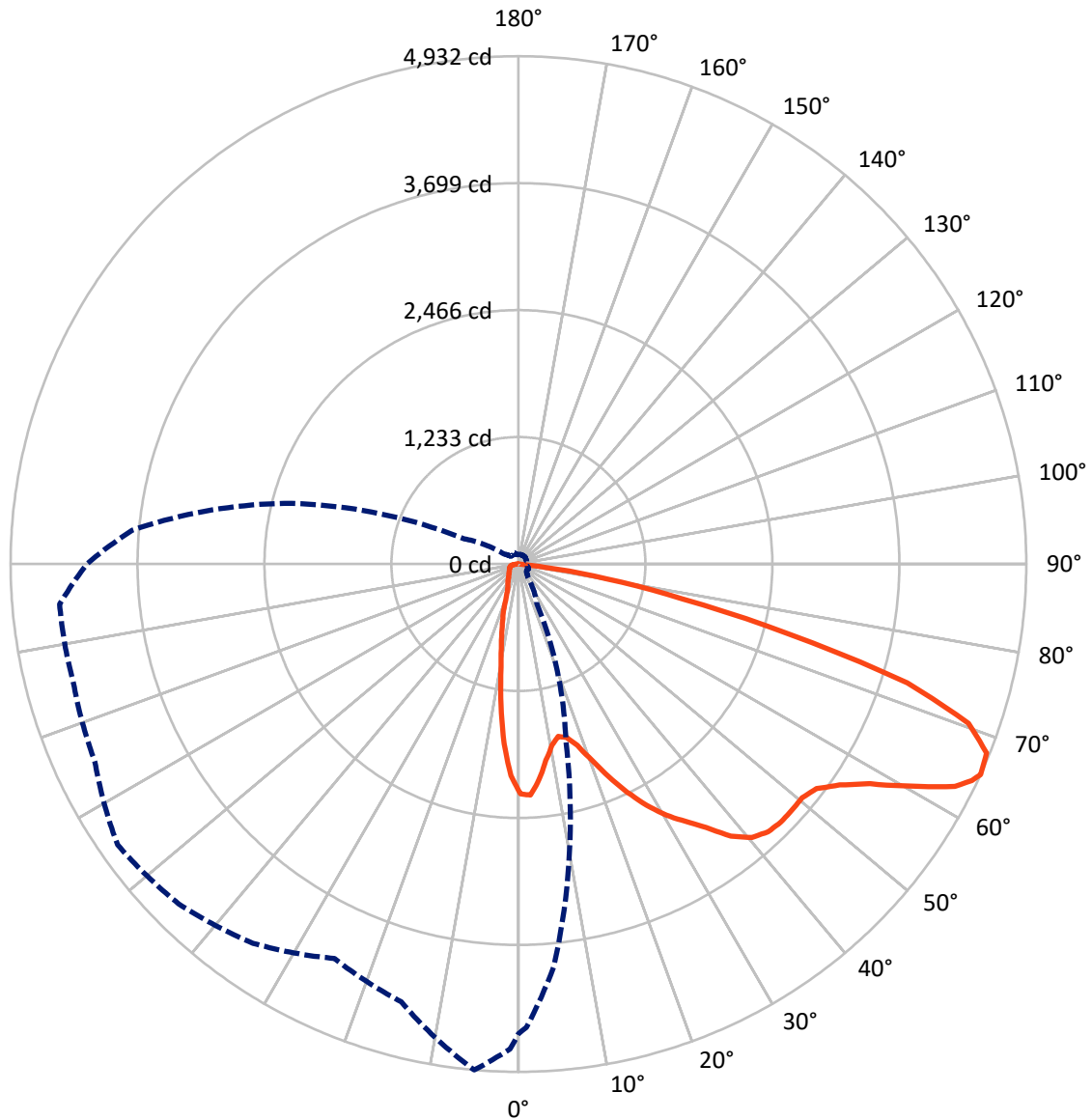
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 22.3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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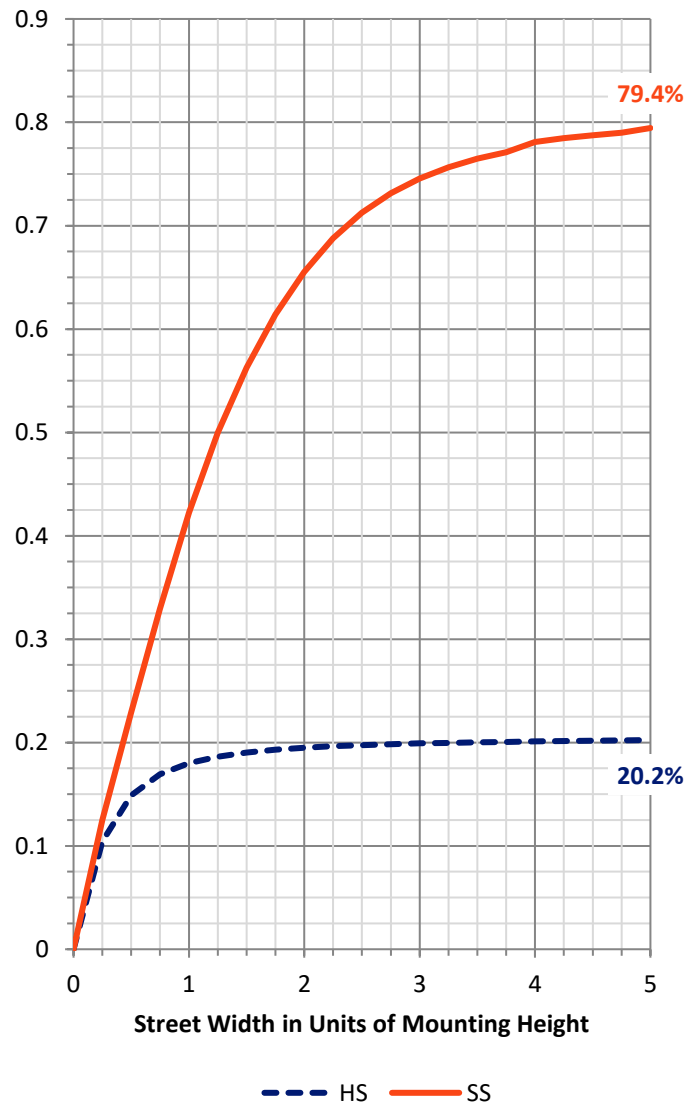
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1286.5	0.0	1286.5
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	4983.5	0.0	4983.5
	% Fixture	79.5	0.0	79.5
Total	Lumens	6270.0	0.0	6270.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.2	2.7
10°-20°	339.0	5.4
20°-30°	470.1	7.5
30°-40°	657.1	10.5
40°-50°	894.2	14.3
50°-60°	1222.7	19.5
60°-70°	1495.0	23.8
70°-80°	902.6	14.4
80°-90°	119.0	1.9
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°	6270.0	100.0
0°-180°	6270.0	100.0



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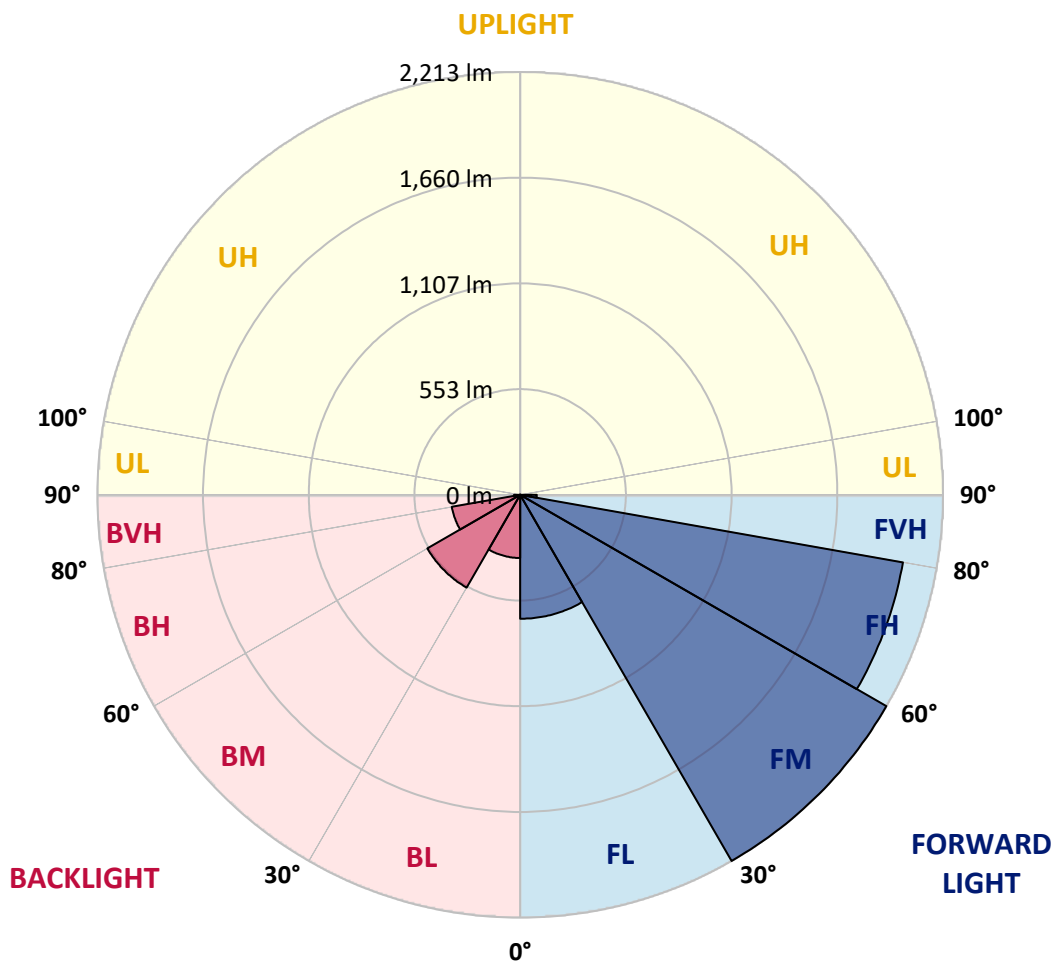
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	648.7	10.3			
FM	(30°-60°)	2213.2	35.3			
FH	(60°-80°)	2034.6	32.4			G2/5000
FVH	(80°-90°)	87.0	1.4			G1/100
BL	(0°-30°)	330.6	5.3	B1/500		
BM	(30°-60°)	560.8	8.9	B1/1000		
BH	(60°-80°)	363.1	5.8	B1/500		G1/500
BVH	(80°-90°)	32.0	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2
2.5°	2225.9	2219.7	2203.9	2162.0	2116.9	2063.4	2054.0	1996.3	2002.6	1985.8	1990.0
5°	2033.0	2024.6	1981.6	1897.8	1783.5	1717.4	1666.1	1635.6	1610.5	1597.9	1613.6
7.5°	1845.3	1833.8	1782.4	1634.6	1507.7	1402.9	1319.0	1267.6	1217.3	1177.5	1158.6
10°	1693.3	1689.1	1621.0	1454.3	1294.9	1167.0	1112.4	1057.9	1014.9	958.3	912.2
12.5°	1616.8	1604.2	1523.5	1329.5	1174.3	1095.7	1044.3	975.1	916.4	847.2	787.4
15°	1619.9	1605.2	1504.6	1301.2	1132.4	1037.0	958.3	875.5	789.5	719.3	658.5
17.5°	1710.1	1699.6	1576.9	1327.4	1096.7	964.6	841.9	735.0	640.6	552.6	498.0
20°	1862.1	1846.4	1676.5	1358.8	1051.6	881.8	715.1	568.3	466.6	389.0	346.0
22.5°	2060.3	2030.9	1818.1	1397.6	1006.6	787.4	577.7	414.2	324.0	285.2	273.7
25°	2272.1	2249.0	1989.0	1446.9	958.3	684.7	427.8	300.9	269.5	253.7	245.3
27.5°	2467.1	2429.4	2172.5	1501.4	894.4	581.9	325.0	259.0	238.0	230.7	225.4
30°	2606.6	2574.0	2299.3	1564.3	838.8	475.0	277.9	234.9	218.1	206.6	204.5
32.5°	2739.7	2693.6	2391.6	1593.7	792.7	417.3	256.9	218.1	202.4	190.8	186.6
35°	2897.0	2850.8	2497.5	1597.9	758.1	393.2	237.0	205.5	188.7	178.2	173.0
37.5°	3082.6	3019.7	2617.0	1601.0	723.5	383.7	220.2	195.0	178.2	166.7	162.5
40°	3258.7	3210.5	2739.7	1595.8	700.4	370.1	209.7	183.5	167.8	157.3	152.0
42.5°	3391.9	3340.5	2844.6	1580.1	686.8	347.1	213.9	175.1	160.4	148.9	142.6
45°	3460.0	3413.9	2940.0	1565.4	679.4	327.1	209.7	172.0	155.2	141.5	135.3
47.5°	3511.4	3466.3	3037.5	1559.1	666.8	312.5	192.9	183.5	149.9	134.2	127.9
50°	3594.2	3555.4	3169.6	1594.8	646.9	303.0	177.2	196.1	147.8	127.9	120.6
52.5°	3743.1	3718.0	3387.7	1677.6	625.9	287.3	161.5	187.7	149.9	123.7	115.3
55°	4021.0	4005.2	3687.5	1786.6	606.0	267.4	144.7	169.9	148.9	116.4	110.1
57.5°	4320.8	4316.6	4051.4	1882.0	576.7	233.8	134.2	143.6	141.5	110.1	102.8
60°	4522.1	4508.5	4219.1	1935.5	538.9	192.9	125.8	121.6	144.7	103.8	95.4
62.5°	4591.3	4546.3	4168.8	1915.6	482.3	166.7	116.4	111.1	134.2	97.5	88.1
64°	4587.2	4521.1	4037.7	1840.1	445.6	161.5	111.1	103.8	118.5	93.3	84.9
65°	4563.0	4500.1	3928.7	1781.4	425.7	161.5	108.0	100.7	108.0	91.2	82.8
67.5°	4408.9	4326.1	3556.5	1508.8	374.3	163.6	100.7	92.3	90.2	83.9	77.6
70°	4057.7	3949.7	3045.9	1186.9	347.1	164.6	92.3	83.9	80.7	76.5	71.3
72.5°	3258.7	3114.0	2424.1	848.2	318.7	161.5	83.9	76.5	73.4	69.2	64.0
75°	2185.1	2026.7	1786.6	558.8	261.1	144.7	72.3	66.1	65.0	60.8	56.6
77.5°	1232.0	1165.9	1054.8	307.2	180.3	99.6	57.7	53.5	54.5	52.4	48.2
80°	643.8	613.4	564.1	148.9	87.0	48.2	36.7	36.7	41.9	41.9	39.8
82.5°	227.5	228.6	221.2	33.6	17.8	14.7	12.6	17.8	24.1	29.4	29.4
85°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	4.2	7.3
87.5°	0.0	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	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2
2.5°	1954.4	1960.7	1977.5	1974.3	1991.1	1983.7	2005.8	2017.3	2023.6	2056.1	2071.8
5°	1601.0	1603.1	1662.9	1675.5	1706.9	1690.2	1729.0	1714.3	1745.7	1749.9	1802.4
7.5°	1176.4	1180.6	1210.0	1279.2	1347.3	1375.6	1387.2	1405.0	1390.3	1385.1	1392.4
10°	894.4	897.5	900.7	949.9	1009.7	1069.5	1069.5	1070.5	1044.3	1018.1	1012.8
12.5°	764.4	744.4	713.0	714.0	756.0	784.3	806.3	783.2	779.0	791.6	805.2
15°	629.1	609.2	588.2	563.0	564.1	584.0	595.5	594.5	615.5	624.9	653.2
17.5°	488.6	460.3	461.3	446.7	426.7	439.3	442.5	461.3	488.6	501.2	506.4
20°	328.2	328.2	336.6	354.4	345.0	353.3	354.4	369.1	381.7	374.3	381.7
22.5°	271.6	270.5	273.7	285.2	294.6	302.0	304.1	303.0	290.4	285.2	295.7
25°	246.4	245.3	246.4	252.7	263.2	272.6	268.4	262.1	247.4	246.4	248.5
27.5°	225.4	226.5	228.6	232.8	239.1	250.6	246.4	233.8	226.5	224.4	224.4
30°	207.6	207.6	211.8	216.0	223.3	233.8	226.5	216.0	208.6	206.6	205.5
32.5°	189.8	192.9	196.1	200.3	206.6	217.0	210.7	201.3	194.0	189.8	186.6
35°	172.0	174.0	180.3	186.6	191.9	200.3	196.1	187.7	180.3	170.9	166.7
37.5°	161.5	161.5	164.6	174.0	178.2	184.5	182.4	175.1	163.6	156.2	155.2
40°	152.0	152.0	153.1	158.3	165.7	173.0	168.8	157.3	149.9	146.8	145.7
42.5°	142.6	142.6	143.6	143.6	153.1	165.7	155.2	143.6	140.5	138.4	137.4
45°	134.2	134.2	134.2	133.2	138.4	154.1	142.6	133.2	131.1	131.1	130.0
47.5°	127.9	126.9	125.8	123.7	126.9	139.4	130.0	124.8	123.7	124.8	123.7
50°	119.5	118.5	117.4	116.4	118.5	123.7	121.6	116.4	117.4	117.4	118.5
52.5°	112.2	111.1	110.1	109.0	111.1	115.3	115.3	111.1	111.1	112.2	113.2
55°	108.0	105.9	104.8	104.8	105.9	111.1	110.1	106.9	106.9	109.0	110.1
57.5°	101.7	99.6	99.6	98.6	100.7	106.9	105.9	102.8	102.8	103.8	105.9
60°	95.4	94.4	93.3	95.4	96.5	102.8	101.7	99.6	98.6	101.7	101.7
62.5°	88.1	88.1	88.1	90.2	91.2	98.6	97.5	96.5	96.5	97.5	96.5
64°	83.9	83.9	84.9	86.0	88.1	94.4	94.4	94.4	94.4	94.4	93.3
65°	81.8	81.8	83.9	84.9	86.0	93.3	92.3	93.3	94.4	93.3	91.2
67.5°	76.5	76.5	79.7	79.7	80.7	89.1	88.1	90.2	92.3	90.2	88.1
70°	70.2	71.3	74.4	73.4	75.5	84.9	81.8	86.0	90.2	87.0	84.9
72.5°	64.0	65.0	69.2	67.1	68.2	79.7	75.5	79.7	86.0	83.9	81.8
75°	57.7	58.7	61.9	60.8	62.9	73.4	69.2	73.4	79.7	79.7	78.6
77.5°	49.3	51.4	53.5	52.4	56.6	66.1	61.9	65.0	70.2	74.4	72.3
80°	39.8	43.0	44.0	45.1	49.3	56.6	53.5	54.5	59.8	62.9	64.0
82.5°	27.3	32.5	34.6	35.6	41.9	44.0	45.1	44.0	47.2	51.4	48.2
85°	8.4	10.5	19.9	25.2	31.5	31.5	36.7	34.6	36.7	32.5	27.3
87.5°	0.0	0.0	0.0	7.3	18.9	18.9	26.2	24.1	25.2	18.9	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2
2.5°	2075.0	2092.8	2132.6	2178.8	2203.9	2258.5	2292.0	2327.7	2363.3	2370.6	2382.2
5°	1812.8	1833.8	1878.9	1940.8	2002.6	2075.0	2158.8	2248.0	2346.5	2388.5	2429.4
7.5°	1412.3	1416.5	1480.5	1592.7	1647.2	1749.9	1869.5	2006.8	2158.8	2237.5	2321.4
10°	1043.2	1086.2	1134.5	1227.8	1365.1	1483.6	1631.5	1791.9	1950.2	2064.5	2151.5
12.5°	819.9	874.4	954.1	1056.9	1160.7	1272.9	1443.8	1615.7	1810.7	1913.5	2020.4
15°	675.2	744.4	848.2	956.2	1052.7	1152.3	1304.3	1515.1	1764.6	1869.5	1964.9
17.5°	534.7	611.3	722.4	835.6	951.0	1072.6	1248.8	1509.8	1813.9	1935.5	2034.1
20°	410.0	469.7	563.0	677.3	812.6	979.3	1204.7	1549.7	1959.6	2111.7	2176.7
22.5°	304.1	338.7	412.1	531.6	691.0	896.5	1160.7	1606.3	2140.0	2318.2	2367.5
25°	251.6	261.1	294.6	398.4	563.0	803.1	1127.1	1679.7	2320.3	2520.6	2556.2
27.5°	226.5	231.7	247.4	286.2	440.4	726.6	1083.1	1764.6	2510.1	2720.8	2717.7
30°	204.5	205.5	214.9	242.2	357.5	658.5	1031.7	1859.0	2678.9	2864.5	2855.0
32.5°	184.5	184.5	197.1	218.1	305.1	596.6	969.9	1927.1	2825.7	2981.9	2951.5
35°	166.7	169.9	181.4	202.4	270.5	527.4	912.2	1952.3	2951.5	3123.5	3037.5
37.5°	154.1	158.3	169.9	189.8	241.2	476.0	865.0	1981.6	3106.7	3294.4	3133.9
40°	145.7	148.9	159.4	176.1	218.1	433.0	813.6	2001.6	3260.8	3476.8	3235.6
42.5°	137.4	140.5	151.0	166.7	207.6	382.7	764.4	2013.1	3421.2	3635.1	3320.6
45°	130.0	134.2	144.7	159.4	208.6	337.6	723.5	2008.9	3517.7	3749.4	3386.6
47.5°	124.8	129.0	140.5	159.4	202.4	311.4	688.9	1994.2	3589.0	3823.8	3417.0
50°	119.5	123.7	137.4	176.1	191.9	304.1	662.6	1992.1	3663.4	3838.5	3417.0
52.5°	114.3	121.6	138.4	177.2	176.1	300.9	641.7	2047.7	3766.2	3863.7	3447.4
55°	111.1	117.4	142.6	163.6	154.1	290.4	629.1	2124.2	3939.2	4002.1	3600.5
57.5°	106.9	112.2	140.5	153.1	137.4	266.3	618.6	2197.6	4166.7	4259.0	3905.6
60°	101.7	108.0	136.3	131.1	124.8	226.5	612.3	2258.5	4251.6	4424.6	4233.8
62.5°	96.5	103.8	148.9	114.3	115.3	188.7	600.8	2317.2	4072.3	4384.8	4444.6
64°	93.3	100.7	138.4	106.9	110.1	172.0	589.3	2320.3	3914.0	4290.4	4484.4
65°	91.2	97.5	129.0	102.8	105.9	167.8	578.8	2276.3	3765.1	4189.8	4472.9
67.5°	88.1	92.3	99.6	95.4	98.6	160.4	507.5	2082.3	3448.5	3930.8	4293.6
70°	83.9	87.0	88.1	87.0	92.3	155.2	428.8	1806.6	3102.5	3659.2	4014.7
72.5°	79.7	79.7	79.7	78.6	84.9	147.8	385.8	1459.5	2681.0	3302.7	3667.6
75°	76.5	73.4	72.3	70.2	77.6	143.6	348.1	1095.7	2071.8	2751.2	3073.1
77.5°	70.2	67.1	64.0	61.9	69.2	127.9	290.4	773.8	1527.7	2001.6	2371.7
80°	60.8	58.7	54.5	51.4	57.7	100.7	220.2	478.1	1117.7	1351.5	1556.0
82.5°	49.3	48.2	44.0	39.8	41.9	72.3	149.9	243.3	745.5	733.9	869.2
85°	30.4	37.7	32.5	26.2	28.3	41.9	60.8	77.6	228.6	137.4	212.8
87.5°	17.8	24.1	19.9	13.6	10.5	18.9	16.8	15.7	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	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2
2.5°	2409.4	2423.1	2430.4	2403.1	2373.8	2347.6	2297.2	2246.9	2220.7	2225.9
5°	2508.0	2531.1	2537.4	2497.5	2414.7	2329.7	2207.1	2101.2	2037.2	2033.0
7.5°	2470.2	2545.7	2558.3	2515.3	2396.9	2238.5	2071.8	1924.0	1860.0	1845.3
10°	2336.0	2451.4	2489.1	2474.4	2359.1	2177.7	1975.4	1787.7	1723.7	1693.3
12.5°	2198.7	2319.3	2342.3	2357.0	2286.8	2133.7	1911.4	1718.5	1641.9	1616.8
15°	2108.5	2191.3	2197.6	2211.3	2196.6	2112.7	1940.8	1746.8	1654.5	1619.9
17.5°	2095.9	2066.6	2046.7	2075.0	2092.8	2113.8	2017.3	1852.7	1754.1	1710.1
20°	2098.0	2006.8	1950.2	1948.1	2024.6	2141.0	2172.5	2030.9	1903.0	1862.1
22.5°	2174.6	1975.4	1881.0	1869.5	1962.8	2187.2	2330.8	2242.7	2114.8	2060.3
25°	2288.9	1956.5	1831.7	1834.9	1928.2	2217.6	2466.1	2454.5	2342.3	2272.1
27.5°	2398.9	1987.9	1825.4	1833.8	1939.7	2237.5	2578.2	2653.7	2527.9	2467.1
30°	2487.0	2058.2	1844.3	1851.6	1975.4	2264.7	2633.8	2830.9	2678.9	2606.6
32.5°	2563.6	2124.2	1872.6	1877.8	2032.0	2303.5	2686.2	2979.8	2825.7	2739.7
35°	2632.8	2180.9	1915.6	1933.4	2104.3	2359.1	2739.7	3141.3	3005.0	2897.0
37.5°	2693.6	2250.1	2000.5	2029.9	2210.2	2439.8	2808.9	3354.1	3205.2	3082.6
40°	2728.2	2311.9	2126.3	2170.4	2347.6	2544.7	2897.0	3492.5	3397.1	3258.7
42.5°	2754.4	2396.9	2328.7	2408.4	2560.4	2643.2	2938.9	3554.4	3510.4	3391.9
45°	2768.0	2564.6	2632.8	2707.2	2800.5	2751.2	2915.9	3575.4	3561.7	3460.0
47.5°	2829.9	2817.3	2985.1	3087.8	3082.6	2913.8	2871.8	3573.3	3595.3	3511.4
50°	2955.7	3111.9	3346.8	3447.4	3408.6	3065.8	2863.4	3570.1	3662.4	3594.2
52.5°	3105.6	3406.5	3737.9	3779.8	3698.0	3219.9	2926.3	3624.6	3788.2	3743.1
55°	3302.7	3683.4	4045.1	4058.7	3943.4	3369.9	3060.5	3785.1	4023.1	4021.0
57.5°	3577.5	3931.8	4303.0	4286.2	4123.7	3577.5	3276.5	4025.2	4284.1	4320.8
60°	3876.3	4194.0	4511.7	4502.2	4329.2	3816.5	3573.3	4380.6	4512.7	4522.1
62.5°	4162.5	4437.2	4713.0	4667.9	4472.9	4064.0	3984.3	4758.1	4661.6	4591.3
64°	4349.1	4519.0	4764.3	4693.0	4507.5	4182.4	4221.2	4880.7	4703.5	4587.2
65°	4472.9	4538.9	4752.8	4666.8	4495.9	4226.5	4400.5	4932.1	4710.9	4563.0
67.5°	4695.1	4424.6	4440.4	4372.2	4219.1	4185.6	4694.1	4903.8	4630.1	4408.9
70°	4633.3	3964.3	3748.4	3705.4	3521.9	3710.6	4657.4	4637.5	4327.1	4057.7
72.5°	4104.8	3183.2	2872.9	2834.1	2579.3	2812.1	4018.9	3949.7	3482.0	3258.7
75°	3382.4	2412.6	2051.9	2084.4	1890.4	2105.4	3196.9	2706.2	2318.2	2185.1
77.5°	2625.4	1704.8	1417.6	1378.8	1340.0	1363.0	2197.6	1625.2	1354.7	1232.0
80°	1673.4	1071.6	1063.2	972.0	940.5	792.7	1129.2	865.0	680.5	643.8
82.5°	889.1	617.6	701.4	562.0	451.9	325.0	382.7	256.9	217.0	227.5
85°	243.3	127.9	35.6	0.0	0.0	0.0	0.0	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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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