

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: P401782

Luminaire Tested: **ENV-SA1F-722-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401782
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-722-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2200K, 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: 5061 lumens
Efficiency: N/A
Efficacy: 76.6 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 - G1

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

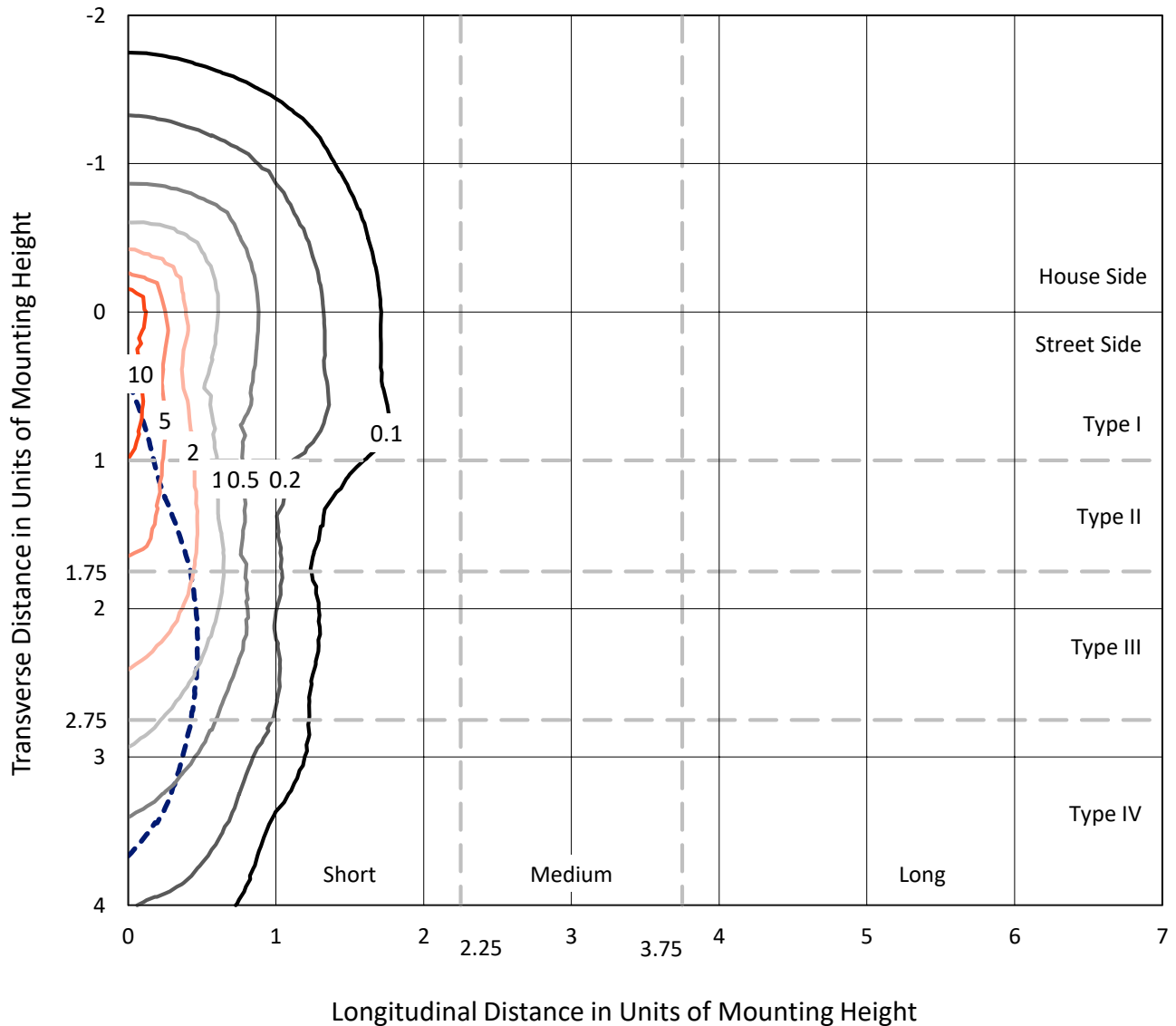


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Iso-Footcandle Lines of Horizontal Illumination

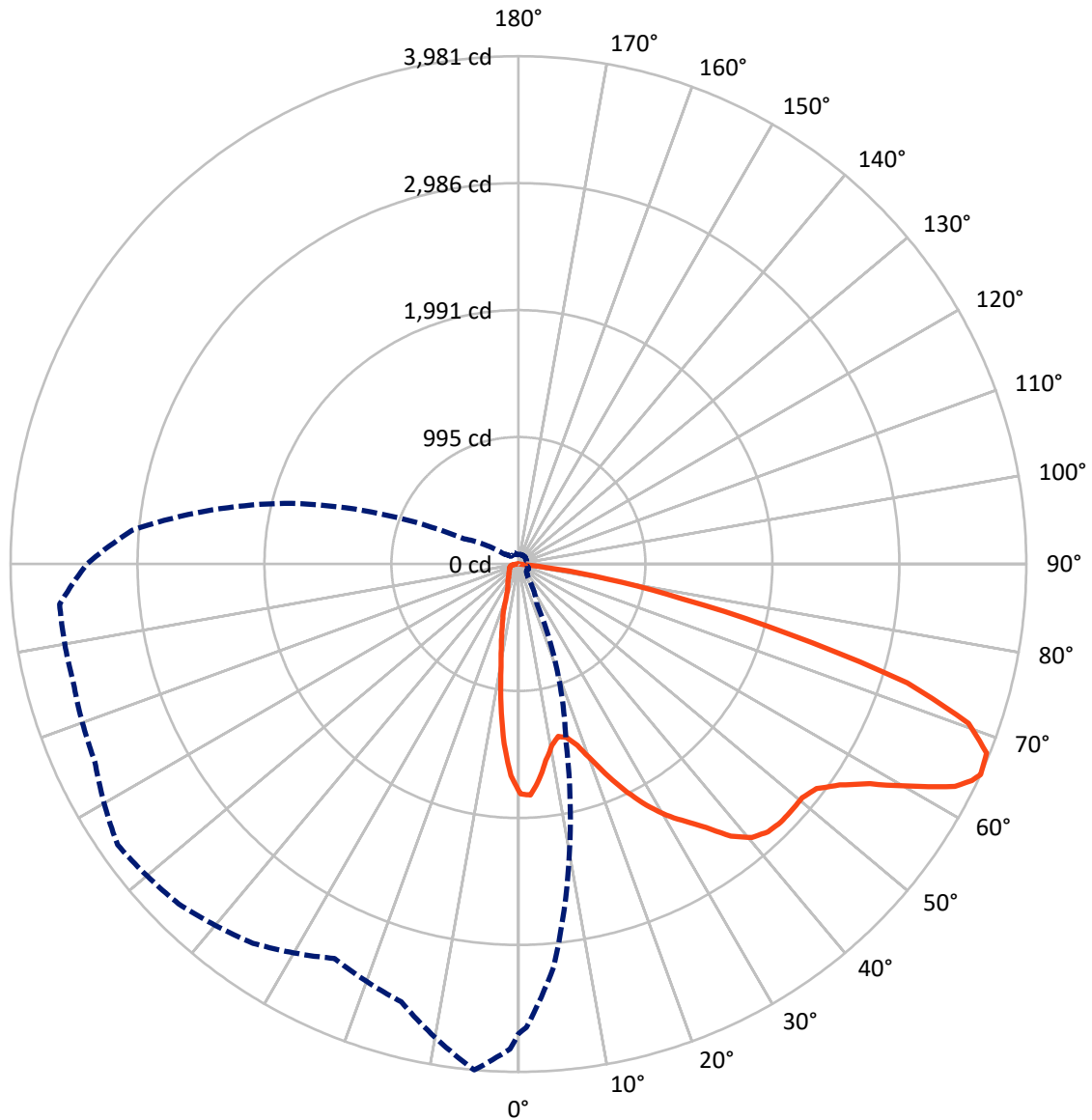
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18 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	1038.4	0.0	1038.4
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	4022.6	0.0	4022.6
	% Fixture	79.5	0.0	79.5
Total	Lumens	5061.0	0.0	5061.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.4	2.7
10°-20°	273.6	5.4
20°-30°	379.4	7.5
30°-40°	530.4	10.5
40°-50°	721.7	14.3
50°-60°	987.0	19.5
60°-70°	1206.8	23.8
70°-80°	728.6	14.4
80°-90°	96.1	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°	5061.0	100.0
0°-180°	5061.0	100.0



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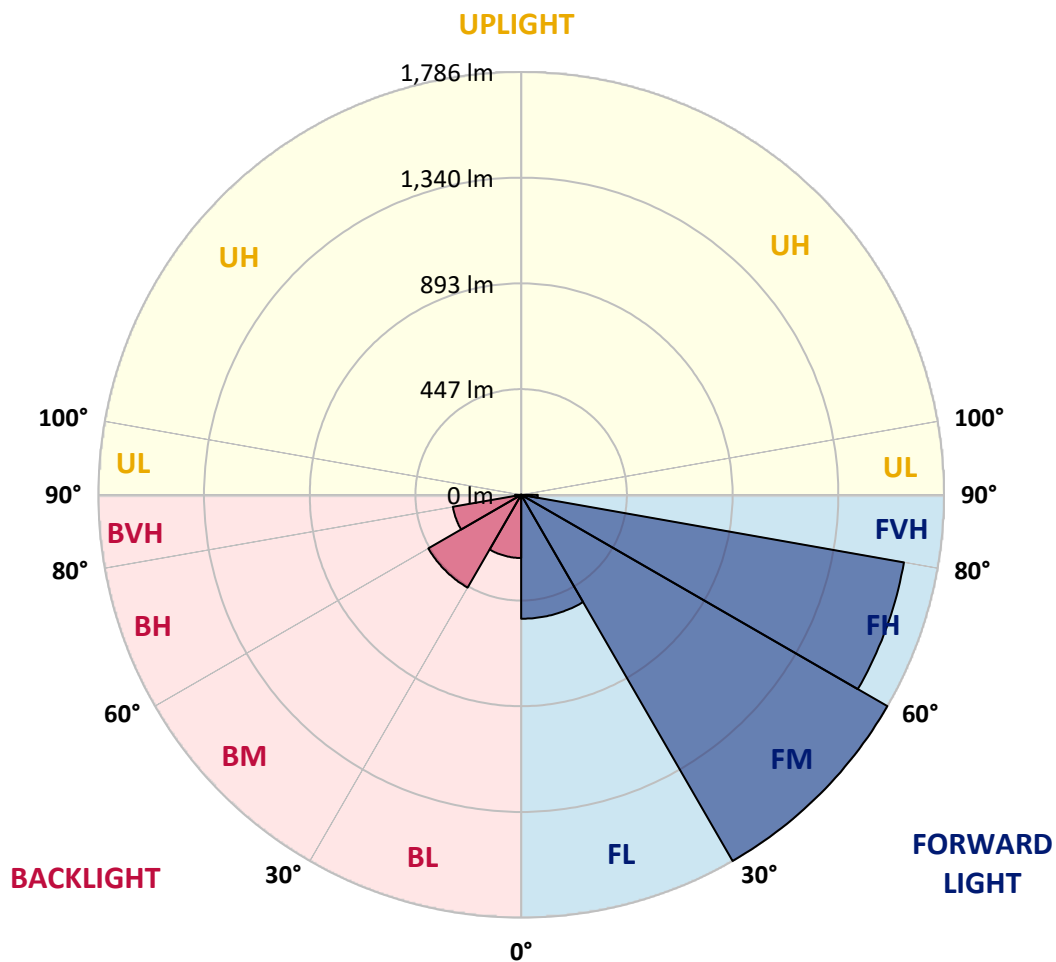
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	523.6	10.3			
FM	(30°-60°)	1786.5	35.3			
FH	(60°-80°)	1642.2	32.4			G1/1800
FVH	(80°-90°)	70.2	1.4			G1/100
BL	(0°-30°)	266.8	5.3	B1/500		
BM	(30°-60°)	452.7	8.9	B1/1000		
BH	(60°-80°)	293.1	5.8	B1/500		G1/500
BVH	(80°-90°)	25.9	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°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0
2.5°	1796.7	1791.7	1779.0	1745.1	1708.7	1665.6	1657.9	1611.4	1616.5	1602.9	1606.3
5°	1641.0	1634.2	1599.5	1531.8	1439.6	1386.3	1344.8	1320.3	1299.9	1289.8	1302.5
7.5°	1489.5	1480.2	1438.7	1319.4	1217.0	1132.4	1064.7	1023.2	982.6	950.4	935.2
10°	1366.8	1363.4	1308.4	1173.8	1045.2	942.0	897.9	853.9	819.2	773.5	736.3
12.5°	1305.0	1294.9	1229.7	1073.1	947.9	884.4	842.9	787.1	739.7	683.8	635.6
15°	1307.6	1295.7	1214.5	1050.3	914.0	837.0	773.5	706.7	637.3	580.6	531.5
17.5°	1380.3	1371.9	1272.9	1071.4	885.2	778.6	679.6	593.3	517.1	446.0	402.0
20°	1503.1	1490.4	1353.3	1096.8	848.9	711.8	577.2	458.7	376.6	314.0	279.3
22.5°	1663.0	1639.3	1467.5	1128.1	812.5	635.6	466.3	334.3	261.5	230.2	220.9
25°	1834.0	1815.4	1605.5	1167.9	773.5	552.6	345.3	242.9	217.5	204.8	198.0
27.5°	1991.4	1960.9	1753.6	1211.9	721.9	469.7	262.4	209.0	192.1	186.2	182.0
30°	2103.9	2077.7	1856.0	1262.7	677.1	383.4	224.3	189.6	176.0	166.7	165.0
32.5°	2211.4	2174.2	1930.5	1286.4	639.8	336.8	207.3	176.0	163.3	154.0	150.6
35°	2338.4	2301.1	2015.9	1289.8	611.9	317.4	191.3	165.9	152.3	143.9	139.6
37.5°	2488.2	2437.4	2112.4	1292.3	584.0	309.8	177.7	157.4	143.9	134.6	131.2
40°	2630.4	2591.4	2211.4	1288.1	565.3	298.8	169.3	148.1	135.4	126.9	122.7
42.5°	2737.8	2696.4	2296.1	1275.4	554.3	280.1	172.6	141.3	129.5	120.2	115.1
45°	2792.9	2755.6	2373.1	1263.6	548.4	264.1	169.3	138.8	125.3	114.3	109.2
47.5°	2834.3	2797.9	2451.8	1258.5	538.3	252.2	155.7	148.1	121.0	108.3	103.3
50°	2901.2	2869.9	2558.4	1287.3	522.2	244.6	143.0	158.3	119.3	103.3	97.3
52.5°	3021.4	3001.0	2734.5	1354.1	505.3	231.9	130.3	151.5	121.0	99.9	93.1
55°	3245.6	3232.9	2976.5	1442.1	489.2	215.8	116.8	137.1	120.2	93.9	88.9
57.5°	3487.7	3484.3	3270.2	1519.1	465.5	188.7	108.3	115.9	114.3	88.9	82.9
60°	3650.2	3639.2	3405.6	1562.3	435.0	155.7	101.6	98.2	116.8	83.8	77.0
62.5°	3706.0	3669.6	3365.0	1546.2	389.3	134.6	93.9	89.7	108.3	78.7	71.1
64°	3702.6	3649.3	3259.2	1485.3	359.7	130.3	89.7	83.8	95.6	75.3	68.6
65°	3683.2	3632.4	3171.2	1437.9	343.6	130.3	87.2	81.2	87.2	73.6	66.9
67.5°	3558.8	3491.9	2870.7	1217.9	302.1	132.0	81.2	74.5	72.8	67.7	62.6
70°	3275.3	3188.1	2458.6	958.0	280.1	132.9	74.5	67.7	65.2	61.8	57.5
72.5°	2630.4	2513.6	1956.7	684.7	257.3	130.3	67.7	61.8	59.2	55.9	51.6
75°	1763.7	1635.9	1442.1	451.1	210.7	116.8	58.4	53.3	52.5	49.1	45.7
77.5°	994.4	941.1	851.4	248.0	145.6	80.4	46.5	43.2	44.0	42.3	38.9
80°	519.6	495.1	455.3	120.2	70.2	38.9	29.6	29.6	33.9	33.9	32.2
82.5°	183.7	184.5	178.6	27.1	14.4	11.8	10.2	14.4	19.5	23.7	23.7
85°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4	5.9
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°	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0
2.5°	1577.5	1582.6	1596.2	1593.6	1607.2	1601.2	1619.0	1628.3	1633.4	1659.6	1672.3
5°	1292.3	1294.0	1342.3	1352.4	1377.8	1364.3	1395.6	1383.7	1409.1	1412.5	1454.8
7.5°	949.6	953.0	976.7	1032.5	1087.5	1110.4	1119.7	1134.1	1122.2	1118.0	1123.9
10°	721.9	724.4	727.0	766.8	815.0	863.2	863.2	864.1	842.9	821.8	817.5
12.5°	617.0	600.9	575.5	576.3	610.2	633.0	650.8	632.2	628.8	639.0	650.0
15°	507.8	491.7	474.8	454.5	455.3	471.4	480.7	479.9	496.8	504.4	527.3
17.5°	394.4	371.5	372.4	360.5	344.5	354.6	357.1	372.4	394.4	404.5	408.8
20°	264.9	264.9	271.7	286.1	278.4	285.2	286.1	297.9	308.1	302.1	308.1
22.5°	219.2	218.4	220.9	230.2	237.8	243.7	245.4	244.6	234.4	230.2	238.7
25°	198.9	198.0	198.9	204.0	212.4	220.0	216.7	211.6	199.7	198.9	200.6
27.5°	182.0	182.8	184.5	187.9	193.0	202.3	198.9	188.7	182.8	181.1	181.1
30°	167.6	167.6	171.0	174.3	180.3	188.7	182.8	174.3	168.4	166.7	165.9
32.5°	153.2	155.7	158.3	161.6	166.7	175.2	170.1	162.5	156.6	153.2	150.6
35°	138.8	140.5	145.6	150.6	154.9	161.6	158.3	151.5	145.6	137.9	134.6
37.5°	130.3	130.3	132.9	140.5	143.9	149.0	147.3	141.3	132.0	126.1	125.3
40°	122.7	122.7	123.6	127.8	133.7	139.6	136.3	126.9	121.0	118.5	117.6
42.5°	115.1	115.1	115.9	115.9	123.6	133.7	125.3	115.9	113.4	111.7	110.9
45°	108.3	108.3	108.3	107.5	111.7	124.4	115.1	107.5	105.8	105.8	104.9
47.5°	103.3	102.4	101.6	99.9	102.4	112.6	104.9	100.7	99.9	100.7	99.9
50°	96.5	95.6	94.8	93.9	95.6	99.9	98.2	93.9	94.8	94.8	95.6
52.5°	90.6	89.7	88.9	88.0	89.7	93.1	93.1	89.7	89.7	90.6	91.4
55°	87.2	85.5	84.6	84.6	85.5	89.7	88.9	86.3	86.3	88.0	88.9
57.5°	82.1	80.4	80.4	79.6	81.2	86.3	85.5	82.9	82.9	83.8	85.5
60°	77.0	76.2	75.3	77.0	77.9	82.9	82.1	80.4	79.6	82.1	82.1
62.5°	71.1	71.1	71.1	72.8	73.6	79.6	78.7	77.9	77.9	78.7	77.9
64°	67.7	67.7	68.6	69.4	71.1	76.2	76.2	76.2	76.2	76.2	75.3
65°	66.0	66.0	67.7	68.6	69.4	75.3	74.5	75.3	76.2	75.3	73.6
67.5°	61.8	61.8	64.3	64.3	65.2	71.9	71.1	72.8	74.5	72.8	71.1
70°	56.7	57.5	60.1	59.2	60.9	68.6	66.0	69.4	72.8	70.2	68.6
72.5°	51.6	52.5	55.9	54.2	55.0	64.3	60.9	64.3	69.4	67.7	66.0
75°	46.5	47.4	49.9	49.1	50.8	59.2	55.9	59.2	64.3	64.3	63.5
77.5°	39.8	41.5	43.2	42.3	45.7	53.3	49.9	52.5	56.7	60.1	58.4
80°	32.2	34.7	35.5	36.4	39.8	45.7	43.2	44.0	48.2	50.8	51.6
82.5°	22.0	26.2	27.9	28.8	33.9	35.5	36.4	35.5	38.1	41.5	38.9
85°	6.8	8.5	16.1	20.3	25.4	25.4	29.6	27.9	29.6	26.2	22.0
87.5°	0.0	0.0	0.0	5.9	15.2	15.2	21.2	19.5	20.3	15.2	13.5
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0
2.5°	1674.9	1689.3	1721.4	1758.6	1779.0	1823.0	1850.1	1878.8	1907.6	1913.5	1922.8
5°	1463.3	1480.2	1516.6	1566.5	1616.5	1674.9	1742.6	1814.5	1894.1	1927.9	1960.9
7.5°	1140.0	1143.4	1195.0	1285.6	1329.6	1412.5	1509.0	1619.9	1742.6	1806.0	1873.7
10°	842.1	876.8	915.7	991.0	1101.9	1197.5	1316.9	1446.4	1574.2	1666.4	1736.6
12.5°	661.8	705.8	770.1	853.1	936.9	1027.4	1165.4	1304.2	1461.6	1544.5	1630.9
15°	545.0	600.9	684.7	771.8	849.7	930.1	1052.8	1222.9	1424.4	1509.0	1586.0
17.5°	431.6	493.4	583.1	674.5	767.6	865.8	1008.0	1218.7	1464.1	1562.3	1641.9
20°	330.9	379.2	454.5	546.7	655.9	790.5	972.4	1250.9	1581.8	1704.5	1757.0
22.5°	245.4	273.4	332.6	429.1	557.7	723.6	936.9	1296.6	1727.3	1871.2	1911.0
25°	203.1	210.7	237.8	321.6	454.5	648.3	909.8	1355.8	1872.9	2034.5	2063.3
27.5°	182.8	187.0	199.7	231.0	355.5	586.5	874.2	1424.4	2026.1	2196.2	2193.7
30°	165.0	165.9	173.5	195.5	288.6	531.5	832.8	1500.5	2162.3	2312.1	2304.5
32.5°	149.0	149.0	159.1	176.0	246.3	481.6	782.8	1555.5	2280.8	2406.9	2382.4
35°	134.6	137.1	146.4	163.3	218.4	425.7	736.3	1575.8	2382.4	2521.2	2451.8
37.5°	124.4	127.8	137.1	153.2	194.7	384.2	698.2	1599.5	2507.6	2659.1	2529.6
40°	117.6	120.2	128.6	142.2	176.0	349.5	656.7	1615.6	2632.1	2806.4	2611.7
42.5°	110.9	113.4	121.9	134.6	167.6	308.9	617.0	1624.9	2761.5	2934.2	2680.3
45°	104.9	108.3	116.8	128.6	168.4	272.5	584.0	1621.5	2839.4	3026.4	2733.6
47.5°	100.7	104.1	113.4	128.6	163.3	251.4	556.0	1609.7	2896.9	3086.5	2758.2
50°	96.5	99.9	110.9	142.2	154.9	245.4	534.9	1608.0	2957.0	3098.4	2758.2
52.5°	92.2	98.2	111.7	143.0	142.2	242.9	517.9	1652.9	3040.0	3118.7	2782.7
55°	89.7	94.8	115.1	132.0	124.4	234.4	507.8	1714.6	3179.6	3230.4	2906.3
57.5°	86.3	90.6	113.4	123.6	110.9	215.0	499.3	1773.9	3363.3	3437.7	3152.5
60°	82.1	87.2	110.0	105.8	100.7	182.8	494.2	1823.0	3431.8	3571.5	3417.4
62.5°	77.9	83.8	120.2	92.2	93.1	152.3	484.9	1870.4	3287.1	3539.3	3587.5
64°	75.3	81.2	111.7	86.3	88.9	138.8	475.6	1872.9	3159.3	3463.1	3619.7
65°	73.6	78.7	104.1	82.9	85.5	135.4	467.2	1837.4	3039.1	3381.9	3610.4
67.5°	71.1	74.5	80.4	77.0	79.6	129.5	409.6	1680.8	2783.5	3172.8	3465.7
70°	67.7	70.2	71.1	70.2	74.5	125.3	346.1	1458.2	2504.3	2953.7	3240.6
72.5°	64.3	64.3	64.3	63.5	68.6	119.3	311.4	1178.1	2164.0	2665.9	2960.4
75°	61.8	59.2	58.4	56.7	62.6	115.9	281.0	884.4	1672.3	2220.7	2480.6
77.5°	56.7	54.2	51.6	49.9	55.9	103.3	234.4	624.6	1233.1	1615.6	1914.4
80°	49.1	47.4	44.0	41.5	46.5	81.2	177.7	385.9	902.2	1090.9	1255.9
82.5°	39.8	38.9	35.5	32.2	33.9	58.4	121.0	196.3	601.7	592.4	701.6
85°	24.5	30.5	26.2	21.2	22.9	33.9	49.1	62.6	184.5	110.9	171.8
87.5°	14.4	19.5	16.1	11.0	8.5	15.2	13.5	12.7	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°	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0
2.5°	1944.8	1955.8	1961.8	1939.8	1916.1	1894.9	1854.3	1813.7	1792.5	1796.7
5°	2024.4	2043.0	2048.1	2015.9	1949.1	1880.5	1781.5	1696.0	1644.4	1641.0
7.5°	1993.9	2054.9	2065.0	2030.3	1934.7	1806.9	1672.3	1553.0	1501.4	1489.5
10°	1885.6	1978.7	2009.2	1997.3	1904.2	1757.8	1594.5	1443.0	1391.3	1366.8
12.5°	1774.7	1872.1	1890.7	1902.5	1845.8	1722.3	1542.8	1387.1	1325.3	1305.0
15°	1701.9	1768.8	1773.9	1784.9	1773.0	1705.3	1566.5	1410.0	1335.5	1307.6
17.5°	1691.8	1668.1	1652.0	1674.9	1689.3	1706.2	1628.3	1495.4	1415.9	1380.3
20°	1693.5	1619.9	1574.2	1572.5	1634.2	1728.2	1753.6	1639.3	1536.1	1503.1
22.5°	1755.3	1594.5	1518.3	1509.0	1584.3	1765.4	1881.4	1810.3	1707.0	1663.0
25°	1847.5	1579.2	1478.5	1481.1	1556.4	1790.0	1990.5	1981.2	1890.7	1834.0
27.5°	1936.4	1604.6	1473.4	1480.2	1565.7	1806.0	2081.1	2142.0	2040.5	1991.4
30°	2007.5	1661.3	1488.7	1494.6	1594.5	1828.0	2126.0	2285.1	2162.3	2103.9
32.5°	2069.2	1714.6	1511.5	1515.8	1640.2	1859.4	2168.3	2405.2	2280.8	2211.4
35°	2125.1	1760.3	1546.2	1560.6	1698.6	1904.2	2211.4	2535.6	2425.5	2338.4
37.5°	2174.2	1816.2	1614.8	1638.5	1784.0	1969.4	2267.3	2707.4	2587.2	2488.2
40°	2202.1	1866.1	1716.3	1751.9	1894.9	2054.0	2338.4	2819.1	2742.1	2630.4
42.5°	2223.3	1934.7	1879.7	1944.0	2066.7	2133.6	2372.2	2869.0	2833.5	2737.8
45°	2234.3	2070.1	2125.1	2185.2	2260.5	2220.7	2353.6	2885.9	2874.9	2792.9
47.5°	2284.2	2274.1	2409.5	2492.4	2488.2	2351.9	2318.1	2884.3	2902.0	2834.3
50°	2385.8	2511.9	2701.4	2782.7	2751.4	2474.6	2311.3	2881.7	2956.2	2901.2
52.5°	2506.8	2749.7	3017.1	3051.0	2985.0	2599.0	2362.1	2925.7	3057.7	3021.4
55°	2665.9	2973.1	3265.1	3276.1	3183.0	2720.1	2470.4	3055.2	3247.3	3245.6
57.5°	2887.6	3173.7	3473.3	3459.7	3328.6	2887.6	2644.7	3249.0	3458.1	3487.7
60°	3128.8	3385.3	3641.7	3634.1	3494.4	3080.6	2884.3	3535.9	3642.6	3650.2
62.5°	3359.9	3581.6	3804.2	3767.8	3610.4	3280.3	3216.0	3840.6	3762.7	3706.0
64°	3510.5	3647.6	3845.7	3788.1	3638.3	3376.0	3407.3	3939.6	3796.6	3702.6
65°	3610.4	3663.7	3836.4	3767.0	3629.0	3411.5	3552.0	3981.1	3802.5	3683.2
67.5°	3789.8	3571.5	3584.2	3529.1	3405.6	3378.5	3789.0	3958.2	3737.3	3558.8
70°	3739.9	3199.9	3025.6	2990.9	2842.8	2995.1	3759.3	3743.3	3492.8	3275.3
72.5°	3313.3	2569.4	2318.9	2287.6	2081.9	2269.8	3243.9	3188.1	2810.6	2630.4
75°	2730.2	1947.4	1656.2	1682.5	1525.9	1699.4	2580.4	2184.3	1871.2	1763.7
77.5°	2119.2	1376.1	1144.2	1112.9	1081.6	1100.2	1773.9	1311.8	1093.4	994.4
80°	1350.7	864.9	858.2	784.5	759.1	639.8	911.5	698.2	549.3	519.6
82.5°	717.7	498.5	566.2	453.6	364.8	262.4	308.9	207.3	175.2	183.7
85°	196.3	103.3	28.8	0.0	0.0	0.0	0.0	0.8	0.8	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	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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