

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: P401655

Luminaire Tested: **ENV-SA1E-735-U-SLR-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401655  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1E-735-U-SLR-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT  
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4968 lumens  
Efficiency: N/A  
Efficacy: 86.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

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

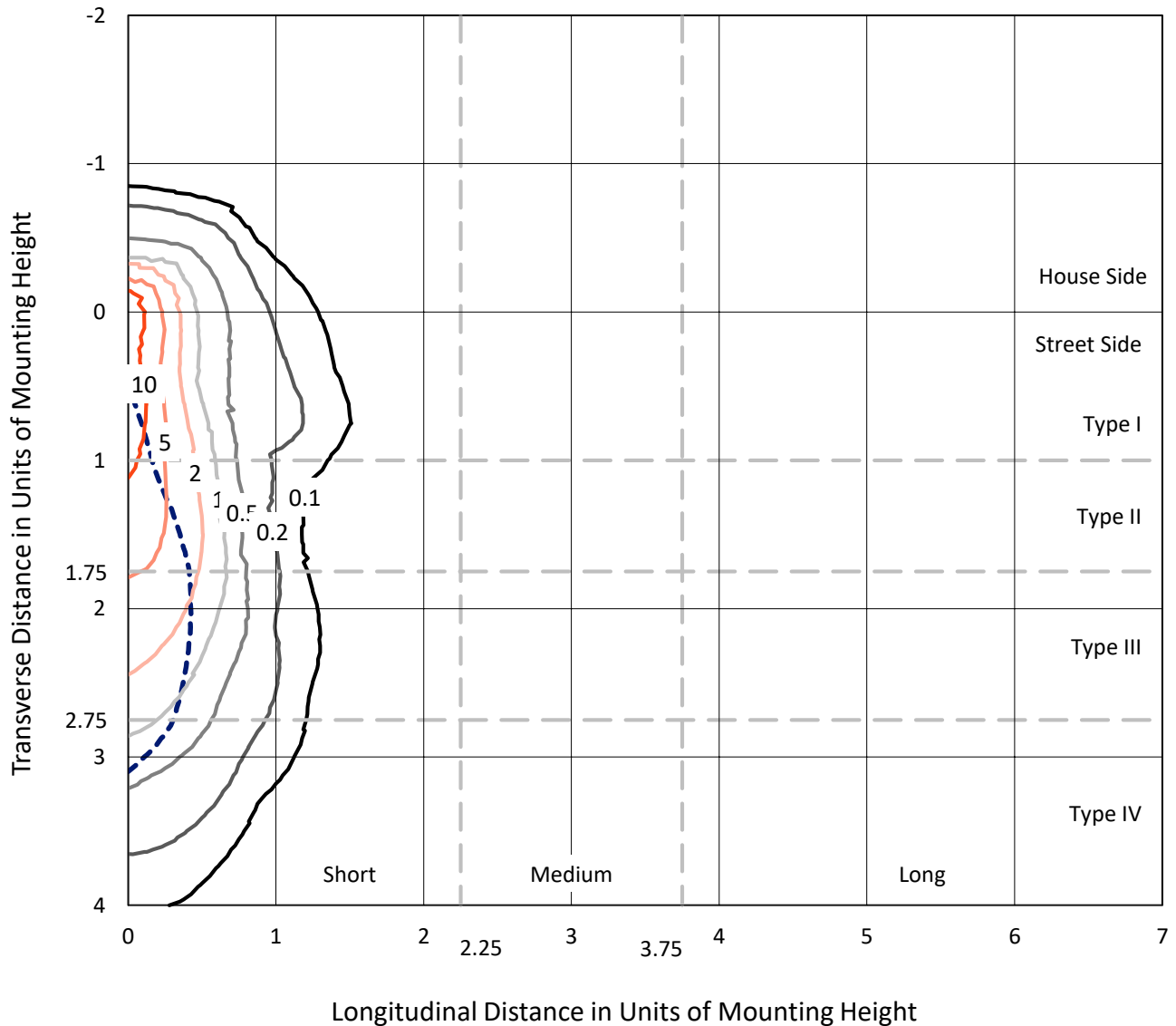


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### Iso-Footcandle Lines of Horizontal Illumination

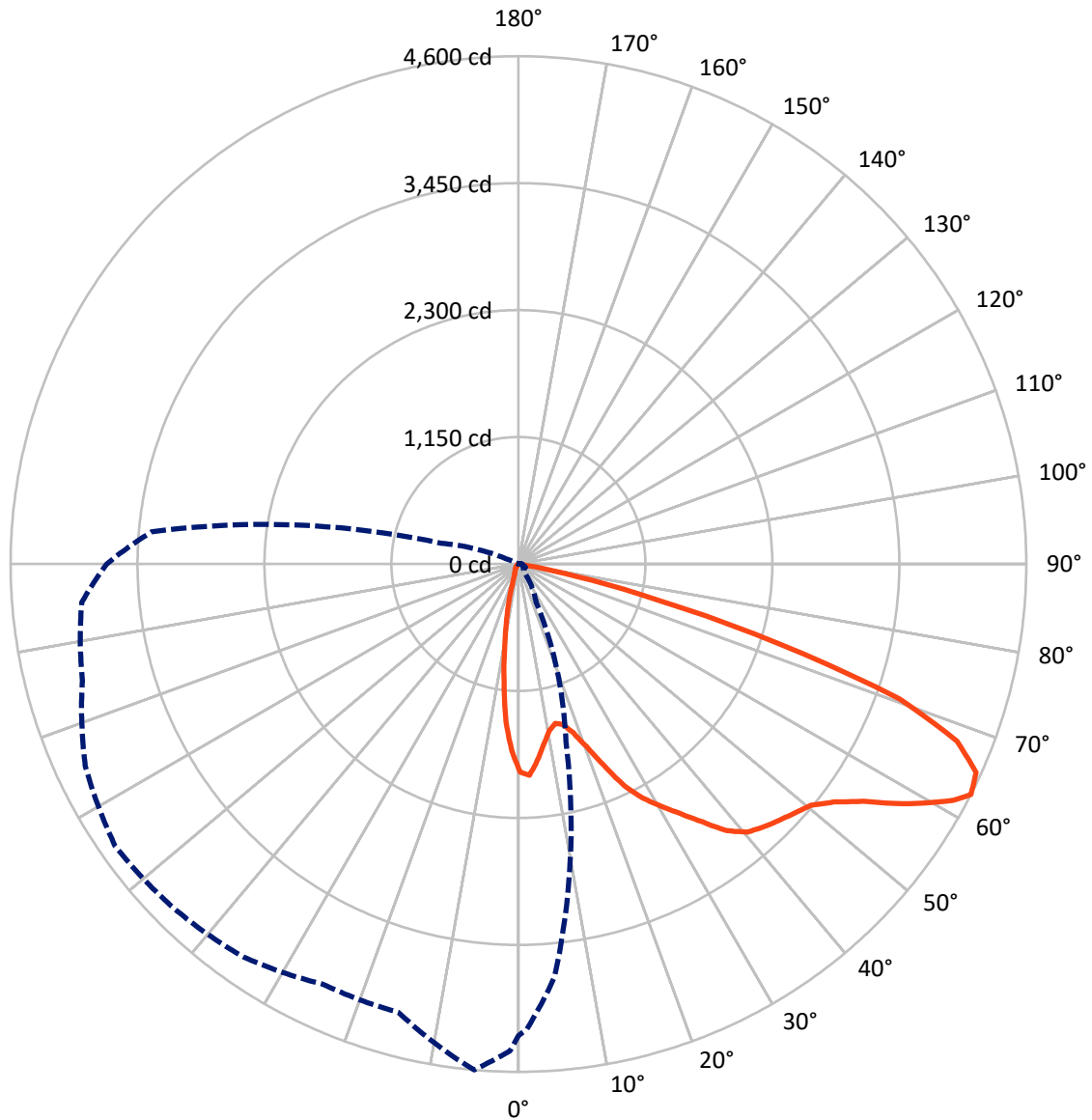
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.8 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	698.8	0.0	698.8
	% Fixture	14.1	0.0	14.1
<b>Street Side</b>	Lumens	4269.2	0.0	4269.2
	% Fixture	85.9	0.0	85.9
<b>Total</b>	Lumens	4968.0	0.0	4968.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.3	2.8
10°-20°	268.6	5.4
20°-30°	373.8	7.5
30°-40°	540.5	10.9
40°-50°	775.1	15.6
50°-60°	1124.4	22.6
60°-70°	1216.5	24.5
70°-80°	491.3	9.9
80°-90°	36.4	0.7
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°	4968.0	100.0
0°-180°	4968.0	100.0



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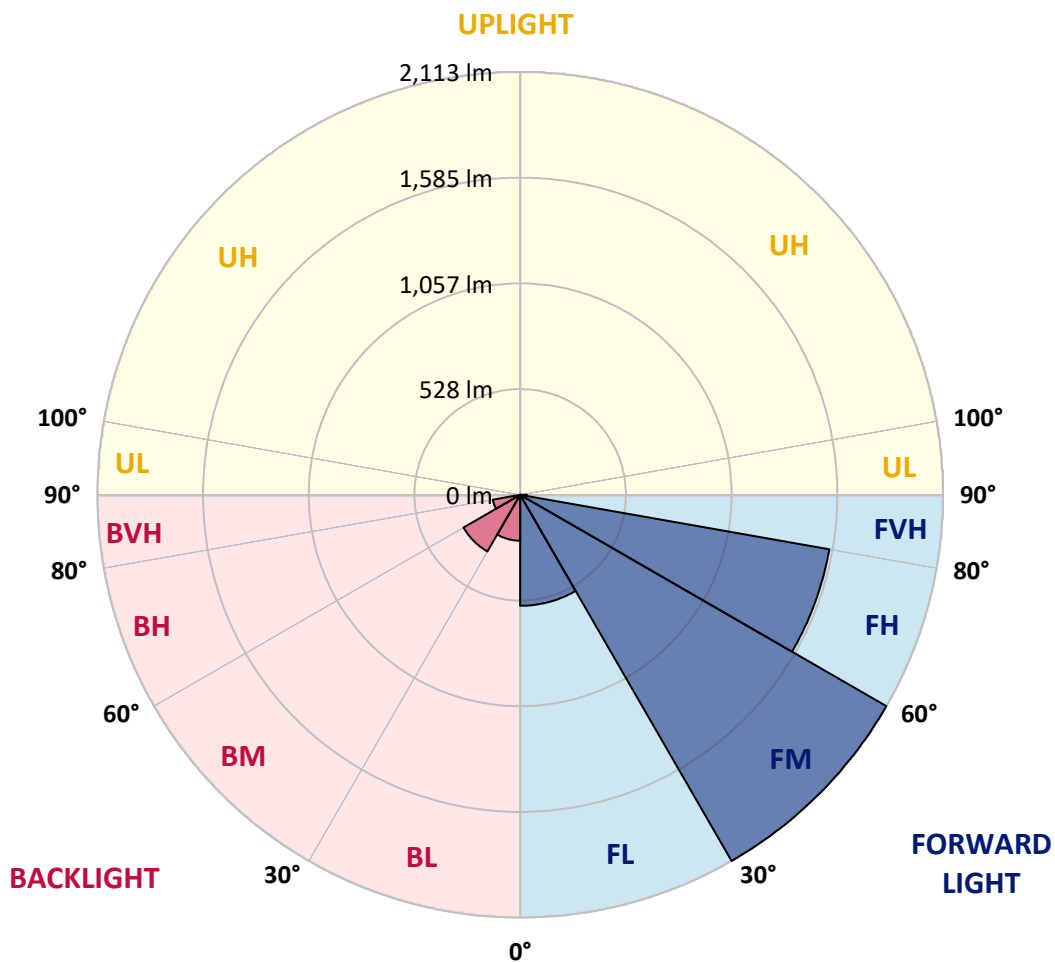
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	554.6	11.2			
FM	(30°-60°)	2113.0	42.5			
FH	(60°-80°)	1568.9	31.6			G1/1800
FVH	(80°-90°)	32.7	0.7			G1/100
BL	(0°-30°)	229.1	4.6	B1/500		
BM	(30°-60°)	327.0	6.6	B1/1000		
BH	(60°-80°)	139.0	2.8	B1/500		G1/500
BVH	(80°-90°)	3.7	0.1			G0/10
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°	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5
2.5°	1892.3	1884.5	1866.8	1828.4	1773.4	1738.0	1715.4	1685.9	1655.4	1645.6	1625.9
5°	1727.2	1714.4	1689.8	1593.5	1507.0	1420.5	1358.5	1299.6	1279.9	1240.6	1264.2
7.5°	1567.9	1562.0	1505.0	1380.2	1242.5	1131.5	1060.7	974.2	948.6	908.3	875.9
10°	1443.1	1438.2	1369.4	1206.2	1057.7	965.3	909.3	853.3	797.2	740.2	695.0
12.5°	1380.2	1369.4	1289.7	1113.8	976.1	899.5	840.5	765.8	705.8	629.1	574.1
15°	1390.0	1380.2	1288.8	1099.0	936.8	830.7	743.2	654.7	570.2	494.5	440.4
17.5°	1468.6	1464.7	1353.6	1111.8	889.6	749.1	632.1	513.1	412.9	331.3	285.1
20°	1622.0	1610.2	1449.0	1139.3	840.5	654.7	494.5	348.0	264.4	208.4	188.7
22.5°	1811.7	1785.2	1599.4	1179.6	793.3	553.4	357.8	234.0	188.7	167.1	153.4
25°	2034.9	2035.9	1786.2	1233.7	746.1	459.1	250.7	185.8	159.3	143.5	131.7
27.5°	2215.7	2202.0	1954.3	1287.8	695.0	376.5	210.4	162.2	139.6	122.9	116.0
30°	2349.4	2328.8	2065.3	1325.1	629.1	318.5	188.7	154.3	131.7	113.0	104.2
32.5°	2487.1	2461.5	2165.6	1345.8	589.8	291.0	167.1	134.7	118.0	110.1	98.3
35°	2648.3	2625.7	2276.7	1343.8	569.2	275.2	151.4	121.9	100.3	87.5	79.6
37.5°	2828.2	2782.0	2391.7	1335.0	554.4	267.4	137.6	113.0	93.4	79.6	69.8
40°	2982.5	2936.3	2497.9	1323.2	544.6	259.5	129.8	107.2	88.5	73.7	63.9
42.5°	3103.4	3059.2	2597.2	1308.4	539.7	242.8	133.7	103.2	84.5	69.8	59.0
45°	3207.6	3162.4	2715.1	1306.4	537.7	231.0	131.7	102.2	82.6	64.9	55.0
47.5°	3328.5	3304.9	2870.4	1338.9	529.9	222.2	120.9	110.1	81.6	62.9	52.1
50°	3507.4	3486.8	3073.9	1435.2	518.1	213.3	110.1	120.9	81.6	60.9	49.2
52.5°	3758.1	3734.5	3394.4	1561.0	507.2	203.5	99.3	117.0	82.6	58.0	47.2
55°	4017.6	4013.7	3697.2	1694.7	497.4	181.9	87.5	105.2	80.6	54.1	44.2
57.5°	4221.1	4218.2	3924.3	1785.2	478.7	146.5	79.6	87.5	74.7	49.2	40.3
60°	4304.7	4280.1	3948.8	1785.2	435.5	120.9	72.7	68.8	75.7	44.2	35.4
61°	4304.7	4273.2	3904.6	1758.6	413.9	115.0	68.8	63.9	77.7	42.3	33.4
62.5°	4271.3	4219.2	3753.2	1663.3	379.4	115.0	62.9	57.0	70.8	40.3	30.5
65°	4122.8	4037.3	3398.3	1446.0	344.1	118.0	54.1	48.2	51.1	34.4	26.5
67.5°	3756.2	3659.8	2938.3	1144.2	315.6	124.8	45.2	42.3	39.3	30.5	23.6
70°	3094.6	3013.0	2397.6	857.2	292.9	126.8	39.3	35.4	33.4	26.5	20.6
72.5°	1977.9	1843.2	1497.2	581.0	234.9	110.1	32.4	33.4	30.5	21.6	16.7
75°	955.5	992.9	871.0	292.9	158.3	71.8	25.6	27.5	24.6	19.7	14.7
77.5°	427.6	419.8	415.8	74.7	40.3	24.6	15.7	18.7	19.7	17.7	12.8
80°	44.2	60.0	35.4	22.6	14.7	10.8	8.8	9.8	11.8	12.8	6.9
82.5°	2.0	1.0	1.0	2.9	2.9	2.0	0.0	0.0	2.0	2.0	1.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5
2.5°	1608.2	1634.8	1623.0	1620.0	1635.8	1627.9	1651.5	1652.5	1670.2	1693.8	1708.5
5°	1264.2	1243.5	1284.8	1312.3	1346.7	1335.9	1377.2	1372.3	1394.9	1432.3	1417.5
7.5°	877.8	880.8	902.4	927.0	1019.4	1038.1	1051.8	1062.7	1061.7	1070.5	1086.2
10°	671.4	654.7	640.0	674.4	710.7	751.0	756.9	771.7	731.4	748.1	755.9
12.5°	549.5	529.9	497.4	479.7	488.6	512.2	522.0	530.8	507.2	508.2	525.9
15°	416.8	390.3	377.5	353.9	345.0	343.1	348.0	335.2	332.3	321.5	328.3
17.5°	271.3	263.5	256.6	251.7	244.8	242.8	225.1	194.6	176.9	173.0	173.0
20°	180.9	175.0	175.0	184.8	181.9	174.0	150.4	124.8	112.1	108.1	110.1
22.5°	148.4	144.5	138.6	138.6	142.5	136.6	115.0	96.3	87.5	87.5	87.5
25°	128.8	126.8	120.9	115.0	117.0	112.1	93.4	81.6	75.7	74.7	75.7
27.5°	113.0	112.1	105.2	99.3	99.3	95.4	80.6	69.8	65.9	63.9	64.9
30°	102.2	100.3	92.4	87.5	86.5	82.6	68.8	60.9	57.0	56.0	56.0
32.5°	94.4	90.4	83.6	78.6	75.7	69.8	60.0	52.1	48.2	47.2	47.2
35°	75.7	75.7	72.7	69.8	65.9	57.0	50.1	43.3	39.3	38.3	38.3
37.5°	65.9	61.9	57.0	58.0	56.0	48.2	41.3	34.4	31.5	30.5	30.5
40°	60.0	55.0	48.2	45.2	46.2	42.3	34.4	26.5	22.6	23.6	22.6
42.5°	54.1	50.1	42.3	35.4	34.4	35.4	26.5	18.7	15.7	15.7	15.7
45°	50.1	46.2	37.4	29.5	24.6	27.5	20.6	12.8	9.8	9.8	9.8
47.5°	47.2	43.3	33.4	24.6	17.7	18.7	14.7	7.9	5.9	3.9	4.9
50°	45.2	40.3	30.5	19.7	12.8	10.8	9.8	3.9	1.0	1.0	0.0
52.5°	42.3	38.3	27.5	16.7	9.8	6.9	4.9	1.0	0.0	0.0	0.0
55°	40.3	35.4	24.6	14.7	7.9	3.9	1.0	0.0	0.0	0.0	0.0
57.5°	36.4	32.4	21.6	11.8	5.9	2.0	0.0	0.0	0.0	0.0	0.0
60°	32.4	29.5	18.7	8.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0
61°	30.5	27.5	17.7	7.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	28.5	25.6	15.7	5.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	24.6	21.6	13.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	21.6	19.7	11.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	18.7	16.7	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	15.7	14.7	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	13.8	11.8	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	10.8	9.8	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	5.9	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5
2.5°	1722.3	1756.7	1789.1	1830.4	1853.0	1914.9	1959.2	1996.5	2026.0	2031.9	2055.5
5°	1456.8	1505.0	1536.5	1623.0	1671.1	1774.4	1854.0	1948.4	2032.9	2079.1	2121.4
7.5°	1097.1	1120.7	1174.7	1261.2	1375.3	1464.7	1599.4	1718.3	1870.7	1954.3	2032.9
10°	774.6	796.3	875.9	966.3	1070.5	1220.9	1384.1	1540.4	1694.7	1801.9	1894.3
12.5°	544.6	615.4	694.0	809.0	911.3	1021.4	1195.4	1378.2	1570.9	1673.1	1773.4
15°	357.8	420.7	529.9	674.4	802.2	909.3	1071.5	1285.8	1530.6	1644.6	1740.0
17.5°	176.9	223.1	319.5	474.8	644.9	813.9	1009.6	1269.1	1582.7	1711.5	1800.9
20°	111.1	124.8	160.2	268.4	464.0	713.7	963.4	1302.5	1724.2	1866.8	1924.8
22.5°	89.5	93.4	107.2	142.5	283.1	589.8	923.1	1347.7	1879.6	2053.5	2113.5
25°	76.7	79.6	87.5	105.2	164.2	442.4	873.9	1427.4	2060.4	2270.8	2285.5
27.5°	65.9	68.8	75.7	89.5	117.0	297.9	803.1	1520.7	2276.7	2461.5	2451.7
30°	56.0	60.0	66.8	76.7	92.4	201.5	671.4	1615.1	2435.9	2584.4	2568.7
32.5°	48.2	51.1	57.0	65.9	76.7	138.6	504.3	1677.0	2568.7	2700.4	2666.0
35°	39.3	42.3	47.2	55.0	61.9	98.3	381.4	1679.0	2705.3	2843.9	2757.4
37.5°	31.5	33.4	38.3	45.2	51.1	76.7	280.2	1646.6	2874.4	3030.7	2861.6
40°	23.6	26.5	31.5	37.4	43.3	64.9	209.4	1567.9	3039.5	3217.5	2987.4
42.5°	15.7	19.7	24.6	30.5	41.3	52.1	147.5	1437.2	3173.2	3383.6	3110.3
45°	9.8	12.8	18.7	25.6	42.3	41.3	98.3	1280.9	3268.6	3510.4	3193.9
47.5°	4.9	7.9	13.8	24.6	37.4	30.5	60.9	1131.5	3355.1	3584.1	3232.2
50°	1.0	2.9	9.8	30.5	31.5	22.6	40.3	1038.1	3400.3	3565.4	3228.3
52.5°	0.0	0.0	6.9	29.5	22.6	17.7	31.5	1024.3	3471.1	3590.0	3296.1
55°	0.0	0.0	2.9	12.8	12.8	14.7	27.5	1005.6	3596.9	3736.5	3500.6
57.5°	0.0	0.0	0.0	5.9	7.9	11.8	25.6	956.5	3729.6	3891.8	3749.3
60°	0.0	0.0	0.0	2.9	4.9	9.8	22.6	844.4	3607.7	3892.8	3955.7
61°	0.0	0.0	0.0	2.9	3.9	8.8	20.6	805.1	3498.6	3829.9	3981.3
62.5°	0.0	0.0	0.0	1.0	2.9	6.9	17.7	727.4	3335.4	3728.6	3969.5
65°	0.0	0.0	0.0	0.0	1.0	3.9	13.8	587.9	3063.1	3474.0	3833.8
67.5°	0.0	0.0	0.0	0.0	0.0	1.0	8.8	413.9	2671.9	3186.0	3543.8
70°	0.0	0.0	0.0	0.0	0.0	0.0	3.9	239.9	2152.8	2697.4	3035.6
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	109.1	1396.9	2083.0	2394.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.2	860.2	1505.0	1789.1
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.6	582.9	1001.7	1204.2
80°	0.0	2.0	1.0	0.0	0.0	0.0	0.0	7.9	358.8	625.2	679.3
82.5°	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	185.8	441.4	450.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.7	93.4
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):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5	1884.5
2.5°	2077.1	2083.0	2087.0	2080.1	2037.8	2014.2	1967.0	1914.9	1897.2	1892.3
5°	2198.1	2231.5	2225.6	2180.4	2106.6	2016.2	1904.1	1788.1	1743.9	1727.2
7.5°	2174.5	2261.9	2278.7	2231.5	2106.6	1948.4	1786.2	1648.5	1584.6	1567.9
10°	2054.5	2164.6	2217.7	2203.0	2086.0	1903.1	1703.6	1534.5	1464.7	1443.1
12.5°	1938.5	2044.7	2078.1	2089.9	2026.0	1867.8	1662.3	1480.4	1407.7	1380.2
15°	1860.9	1926.7	1924.8	1946.4	1941.5	1854.0	1688.8	1508.0	1426.4	1390.0
17.5°	1835.3	1815.7	1790.1	1807.8	1842.2	1857.9	1775.3	1606.3	1510.9	1468.6
20°	1851.0	1754.7	1698.7	1697.7	1770.4	1890.4	1902.2	1768.5	1679.0	1622.0
22.5°	1931.7	1724.2	1637.7	1639.7	1729.1	1938.5	2048.6	1980.8	1882.5	1811.7
25°	2050.6	1730.1	1614.1	1625.9	1725.2	1980.8	2206.9	2222.6	2096.8	2034.9
27.5°	2171.5	1781.2	1615.1	1627.9	1741.9	2003.4	2297.3	2400.6	2292.4	2215.7
30°	2256.1	1844.2	1632.8	1646.6	1768.5	2021.1	2331.7	2547.0	2435.0	2349.4
32.5°	2335.7	1909.0	1661.3	1675.1	1821.6	2057.5	2396.6	2694.5	2571.6	2487.1
35°	2413.3	1972.9	1714.4	1739.0	1907.1	2123.3	2462.5	2867.5	2765.3	2648.3
37.5°	2480.2	2043.7	1805.8	1857.9	2023.1	2224.6	2551.9	3064.1	2958.9	2828.2
40°	2536.2	2127.3	1994.6	2052.6	2200.0	2331.7	2651.2	3192.9	3123.1	2982.5
42.5°	2581.4	2274.7	2264.9	2346.5	2449.7	2454.6	2679.7	3254.8	3228.3	3103.4
45°	2657.1	2539.2	2619.8	2753.5	2746.6	2602.1	2671.9	3311.8	3313.8	3207.6
47.5°	2781.0	2870.4	3103.4	3193.9	3147.7	2803.6	2679.7	3367.9	3412.1	3328.5
50°	2957.9	3246.0	3550.7	3670.6	3536.0	3006.1	2749.5	3434.7	3568.4	3507.4
52.5°	3109.3	3530.1	3963.6	4070.7	3886.9	3222.4	2912.7	3579.2	3777.8	3758.1
55°	3325.6	3774.8	4257.5	4340.1	4192.6	3467.1	3131.9	3791.5	4007.8	4017.6
57.5°	3546.8	3996.0	4449.2	4532.7	4420.7	3771.9	3443.5	4096.3	4224.1	4221.1
60°	3792.5	4202.4	4535.7	4581.9	4518.0	4076.6	3778.8	4375.5	4372.5	4304.7
61°	3933.1	4268.3	4529.8	4543.6	4481.6	4166.1	3951.8	4482.6	4394.1	4304.7
62.5°	4088.4	4328.3	4457.1	4410.8	4344.0	4197.5	4202.4	4599.6	4408.9	4271.3
65°	4245.7	4177.9	4121.8	3900.7	3837.7	3908.5	4413.8	4555.4	4319.4	4122.8
67.5°	3976.4	3580.2	3459.3	3237.1	2988.4	3277.4	4213.3	4285.0	4017.6	3756.2
70°	3249.9	2630.6	2487.1	2479.2	2300.3	2617.8	3715.8	3663.7	3334.4	3094.6
72.5°	2547.0	1795.0	1599.4	1644.6	1609.2	1951.3	3039.5	2458.6	2138.1	1977.9
75°	1996.5	1276.0	1101.0	1093.1	1054.8	1329.1	2225.6	1295.6	1069.5	955.5
77.5°	1317.3	919.1	916.2	846.4	816.9	720.6	998.8	519.0	423.7	427.6
80°	758.9	563.3	660.6	524.0	524.9	422.7	404.0	75.7	60.9	44.2
82.5°	435.5	270.3	204.5	80.6	169.1	169.1	32.4	1.0	1.0	2.0
85°	42.3	12.8	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
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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