

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: P141711

Luminaire Tested: **ECM-E02-LED-E1-T2-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141711  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33682)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-E02-LED-E1-T2-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2  
Light Source: (42) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6050.1 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

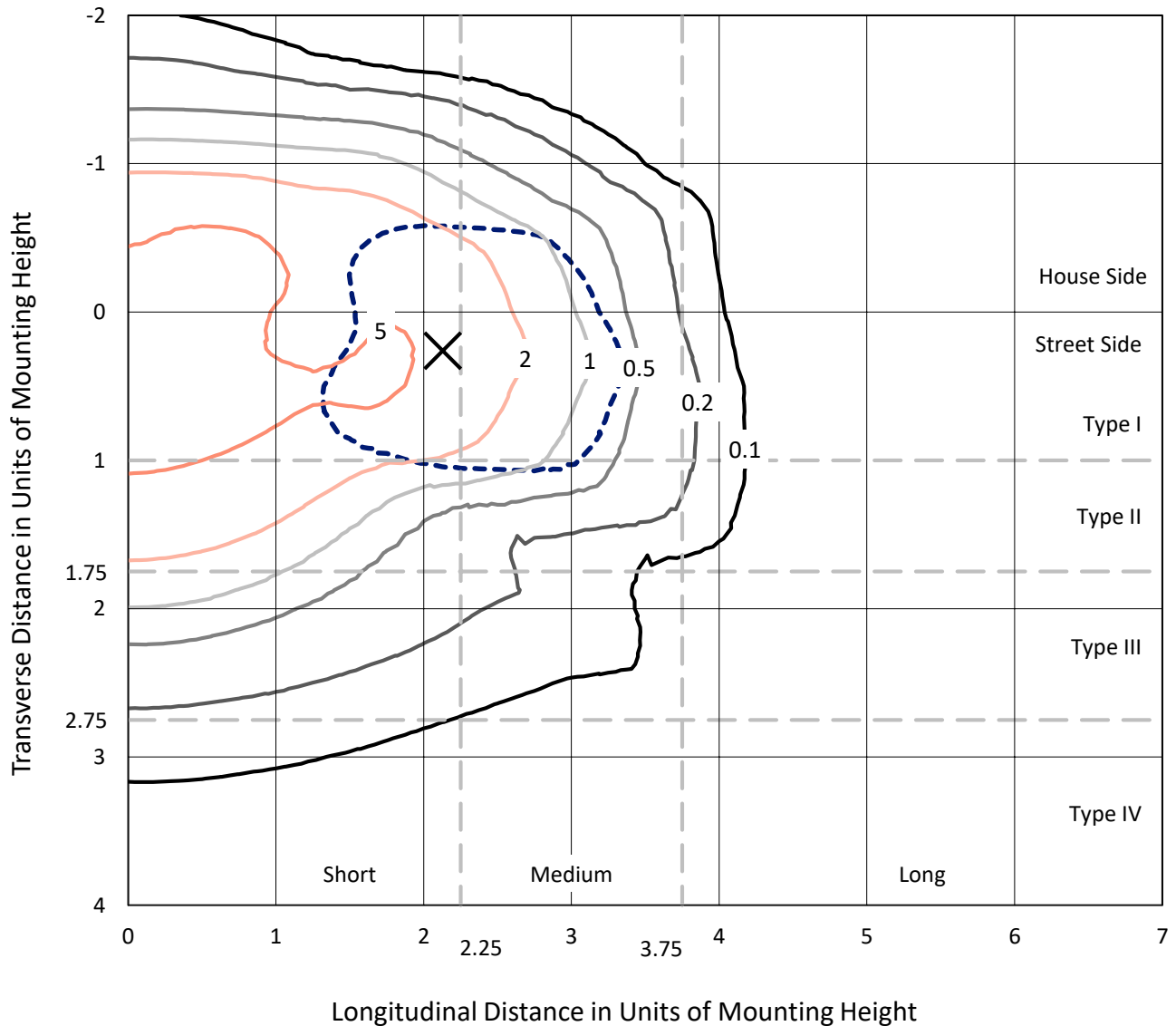
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

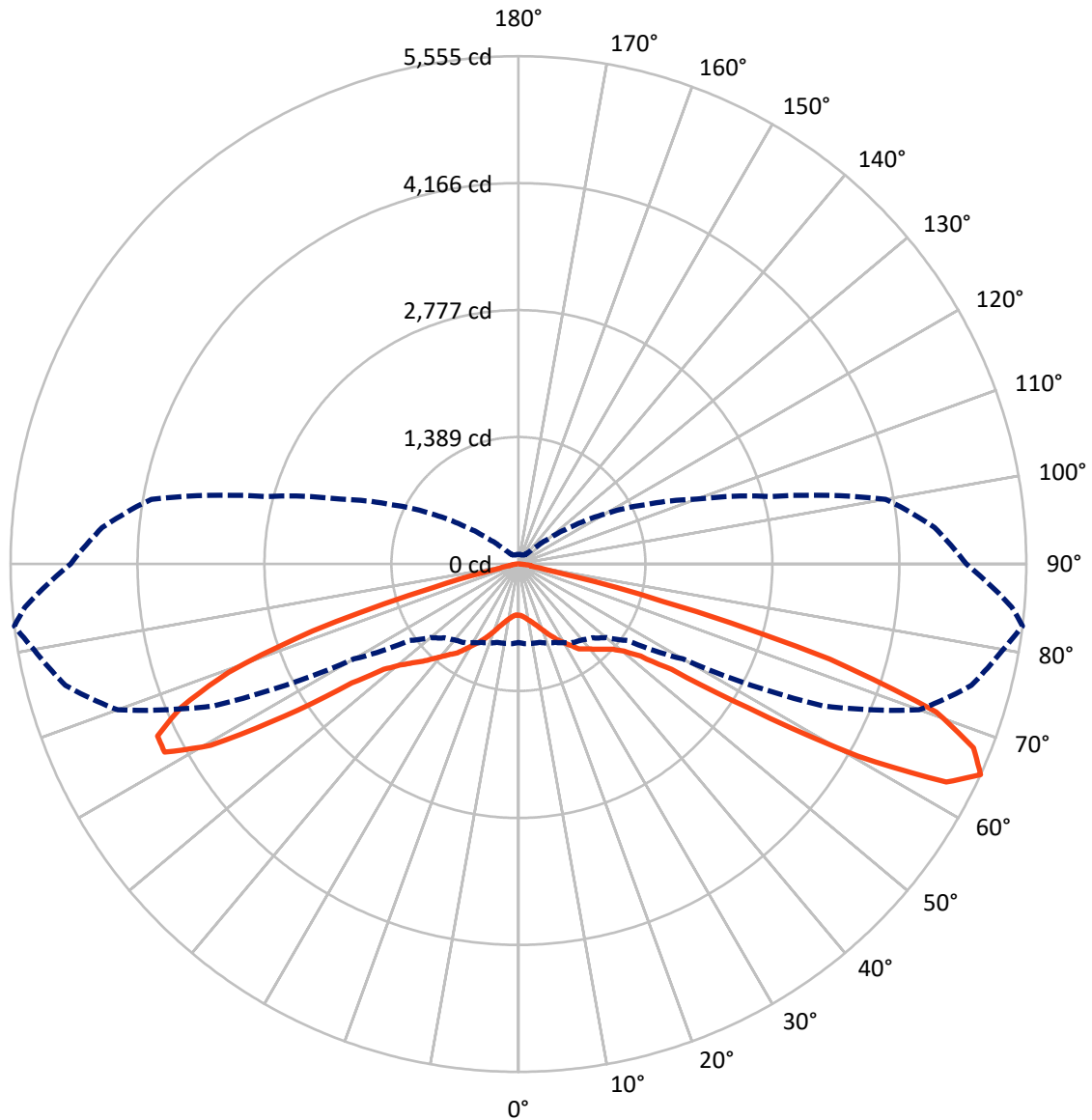
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.1 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2244.1	0.0	2244.1
	% Fixture	37.1	0.0	37.1
<b>Street Side</b>	Lumens	3805.9	0.0	3805.9
	% Fixture	62.9	0.0	62.9
<b>Total</b>	Lumens	6050.1	0.0	6050.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	0.9
10°-20°	197.5	3.3
20°-30°	390.1	6.4
30°-40°	671.4	11.1
40°-50°	1012.9	16.7
50°-60°	1409.6	23.3
60°-70°	1627.0	26.9
70°-80°	591.3	9.8
80°-90°	93.9	1.6
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°	6050.1	100.0
0°-180°	6050.1	100.0



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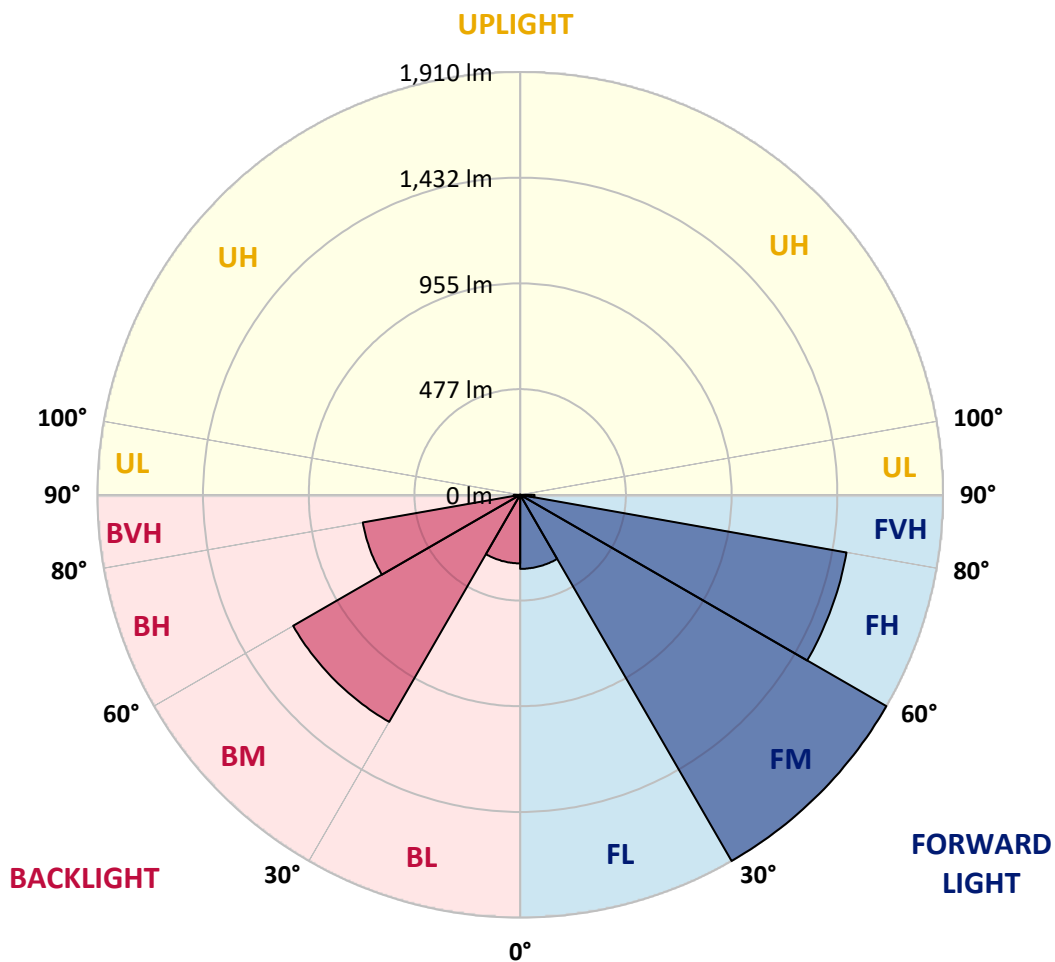
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	334.5	5.5			
FM	(30°-60°)	1909.9	31.6			
FH	(60°-80°)	1496.8	24.7			G1/1800
FVH	(80°-90°)	64.9	1.1			G1/100
BL	(0°-30°)	309.5	5.1	B1/500		
BM	(30°-60°)	1184.1	19.6	B2/2500		
BH	(60°-80°)	721.5	11.9	B2/1000		G2/1000
BVH	(80°-90°)	29.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3
2.5°	587.6	589.0	587.6	587.6	586.9	586.2	586.2	585.6	584.2	582.8	582.1
5°	619.8	620.5	618.4	618.4	619.1	618.4	616.3	617.0	611.6	609.5	608.1
7.5°	655.3	657.4	654.7	653.3	652.6	651.2	649.2	645.8	641.7	638.2	636.2
10°	695.7	697.8	696.4	693.6	689.5	687.5	685.4	680.0	675.2	669.7	665.6
12.5°	743.6	744.3	742.9	737.4	734.7	728.5	721.7	715.5	708.7	700.5	693.6
15°	790.8	791.5	789.4	783.9	780.5	773.0	763.4	755.2	743.6	734.0	725.1
17.5°	827.0	828.4	824.3	820.2	815.4	805.8	796.9	787.4	775.1	764.8	755.9
20°	839.4	841.4	838.7	836.6	833.9	829.1	820.2	812.0	801.0	793.5	786.7
22.5°	833.9	835.9	834.6	834.6	834.6	833.9	829.8	827.7	820.9	817.5	816.1
25°	825.7	827.7	826.4	827.7	830.5	833.9	833.9	838.0	837.3	842.8	846.2
27.5°	846.9	848.2	844.8	844.8	847.6	853.0	851.7	859.9	861.2	872.2	882.5
30°	920.8	920.8	915.3	909.8	911.9	910.5	909.1	914.6	914.6	924.9	929.7
32.5°	1030.9	1023.4	1022.7	1022.0	1017.2	1020.6	1009.7	1010.4	1005.6	1007.0	1004.9
35°	1152.0	1151.3	1148.6	1147.2	1145.1	1155.4	1147.2	1154.0	1136.9	1130.8	1119.1
37.5°	1258.0	1260.7	1262.8	1273.1	1277.8	1298.4	1303.2	1306.6	1288.8	1289.5	1263.5
40°	1364.7	1368.1	1375.7	1394.1	1407.8	1427.0	1435.9	1450.2	1451.6	1454.3	1435.2
42.5°	1481.0	1475.5	1485.8	1509.1	1526.2	1545.3	1556.9	1583.6	1598.7	1606.2	1608.9
45°	1574.7	1568.6	1573.4	1587.0	1602.8	1627.4	1652.7	1692.4	1724.5	1759.4	1778.6
47.5°	1623.3	1624.7	1628.1	1636.3	1647.2	1671.2	1706.8	1757.4	1809.4	1865.5	1915.4
50°	1639.0	1639.7	1644.5	1652.7	1663.0	1688.3	1725.2	1782.7	1845.6	1924.3	2000.9
52.5°	1643.8	1641.1	1645.9	1650.0	1656.8	1678.0	1712.9	1773.1	1844.3	1939.3	2052.9
55°	1626.0	1622.6	1630.8	1636.3	1641.8	1658.9	1685.5	1741.0	1814.8	1922.9	2071.4
57.5°	1557.6	1558.3	1569.9	1584.3	1598.7	1621.9	1656.8	1709.5	1782.7	1889.4	2055.6
60°	1442.0	1440.0	1454.3	1472.1	1496.7	1533.7	1576.8	1630.1	1691.0	1780.0	1943.4
62.5°	1232.0	1240.2	1245.0	1271.7	1273.1	1325.7	1353.8	1407.1	1459.1	1527.5	1674.6
65°	857.8	875.6	880.4	887.2	919.4	946.8	991.9	1048.0	1082.2	1142.4	1251.8
67.5°	534.3	547.3	547.9	565.7	593.8	625.2	660.1	716.9	768.9	778.5	833.2
70°	443.3	444.0	453.5	466.5	488.4	520.6	554.8	594.5	641.7	671.8	666.3
72.5°	367.3	371.5	378.3	391.3	415.2	444.0	487.7	538.4	597.2	657.4	710.7
75°	246.3	253.1	255.2	261.3	272.9	298.9	331.8	379.7	455.6	545.2	658.8
77.5°	130.7	132.0	136.8	141.6	147.8	163.5	184.7	209.3	259.3	336.6	470.0
80°	66.4	69.1	72.5	75.9	75.2	79.4	85.5	96.5	113.6	147.8	212.7
82.5°	23.9	30.8	40.4	45.1	45.1	46.5	48.6	50.6	49.3	54.7	68.4
85°	10.9	12.3	15.7	24.6	25.3	25.3	25.3	26.7	25.3	22.6	26.7
87.5°	0.0	2.1	2.1	6.2	6.8	6.2	6.8	8.9	6.8	5.5	4.8
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):**

	55°	60°	65°	70°	75°	80°	83°	85°	90°	95°	100°
0°	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3
2.5°	578.7	577.4	573.9	572.6	568.5	565.7	564.4	563.0	560.9	558.2	556.1
5°	604.0	599.9	595.1	592.4	586.9	581.5	579.4	576.7	571.9	567.8	563.0
7.5°	630.7	625.9	620.5	614.3	608.8	602.7	599.9	597.2	590.4	584.9	578.0
10°	659.4	652.6	646.4	641.0	636.2	629.3	624.6	622.5	616.3	608.1	601.3
12.5°	686.8	679.3	673.1	666.3	661.5	656.0	651.2	649.2	644.4	636.9	631.4
15°	715.5	708.0	701.2	696.4	690.9	687.5	684.8	681.3	679.3	673.1	670.4
17.5°	746.3	739.5	733.3	729.2	727.2	726.5	725.8	724.4	722.4	718.3	716.2
20°	781.2	775.1	773.0	772.3	773.0	773.7	775.1	775.1	775.7	773.0	772.3
22.5°	814.7	814.7	818.1	822.3	826.4	829.1	831.1	828.4	829.1	833.2	836.6
25°	851.7	857.8	866.7	873.6	879.7	884.5	887.2	888.6	890.0	896.1	902.3
27.5°	891.3	900.9	913.9	922.8	934.4	942.0	947.4	946.8	948.8	957.0	968.0
30°	940.6	950.2	963.9	976.2	991.9	1002.8	1004.9	1003.5	1006.3	1013.8	1035.7
32.5°	1009.7	1011.7	1020.6	1032.9	1050.0	1061.0	1063.0	1066.5	1072.6	1086.3	1113.0
35°	1106.8	1097.9	1097.2	1102.7	1119.1	1140.3	1142.4	1144.4	1147.2	1165.0	1200.5
37.5°	1238.2	1201.9	1180.0	1162.9	1165.0	1172.5	1176.6	1178.0	1184.8	1212.2	1272.4
40°	1403.0	1335.3	1286.7	1238.2	1220.4	1221.7	1223.1	1221.7	1235.4	1277.8	1356.5
42.5°	1583.6	1524.1	1439.3	1338.7	1288.1	1271.7	1273.7	1275.1	1296.3	1357.9	1445.4
45°	1775.2	1736.9	1638.3	1481.0	1372.2	1330.5	1329.1	1331.9	1366.8	1453.6	1546.0
47.5°	1943.4	1953.0	1880.5	1695.8	1509.1	1403.0	1394.1	1398.9	1455.7	1548.7	1642.5
50°	2076.8	2139.8	2134.3	1987.9	1730.7	1528.2	1496.7	1503.6	1570.6	1667.1	1751.2
52.5°	2177.4	2305.3	2387.4	2329.3	2105.6	1755.3	1673.9	1662.3	1746.4	1848.4	1900.3
55°	2244.4	2451.7	2667.2	2767.7	2676.8	2245.8	2033.1	2007.7	2098.7	2228.7	2251.3
57.5°	2288.9	2629.6	3093.4	3481.9	3605.7	3236.3	2969.5	2863.5	2929.9	3067.4	3038.0
60°	2215.0	2700.0	3607.8	4304.2	4656.5	4564.8	4267.9	4107.8	3984.0	3973.8	3810.3
62.5°	1931.8	2532.4	3816.4	4695.5	5190.7	5305.0	5252.3	5062.8	4720.1	4529.9	4160.5
65°	1457.1	2074.8	3668.0	4665.4	5129.8	5382.9	5554.7	5418.5	4898.6	4569.6	4078.4
67.5°	931.0	1339.4	3051.0	4303.5	4739.9	5024.5	5367.9	5305.6	4641.4	4221.4	3687.1
70°	680.0	742.2	2070.0	3642.7	4122.9	4373.3	4845.3	4817.9	4070.2	3598.2	3068.7
72.5°	783.3	553.4	1134.9	2721.2	3092.7	3289.7	3559.9	3493.5	2843.7	2516.0	2141.1
75°	883.1	619.1	639.6	1614.4	1728.0	1589.8	1626.7	1412.6	1102.0	976.9	962.5
77.5°	743.6	776.4	580.1	693.6	638.9	460.4	344.8	270.2	211.4	227.1	252.4
80°	432.3	872.9	767.5	361.2	405.0	322.2	143.7	119.0	98.5	99.9	101.2
82.5°	133.4	545.2	1080.1	441.2	400.9	454.2	132.0	80.7	65.0	73.2	82.8
85°	44.5	228.5	866.0	463.1	259.3	242.2	58.1	39.7	32.8	45.8	65.0
87.5°	10.9	55.4	160.8	60.9	38.3	23.3	19.8	14.4	15.7	28.7	40.4
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3
2.5°	554.8	552.7	550.7	549.3	547.3	547.3	545.2	545.2	542.5	541.1	541.1
5°	558.9	554.8	551.4	547.9	544.5	543.2	540.4	539.0	536.3	534.3	532.9
7.5°	572.6	567.1	563.0	558.9	554.8	552.7	550.0	547.3	546.6	545.2	543.8
10°	595.8	588.3	584.9	582.1	576.7	575.3	572.6	570.5	568.5	566.4	567.1
12.5°	625.9	620.5	619.1	613.6	612.2	610.2	606.1	604.7	599.2	595.1	593.1
15°	664.2	662.2	662.2	659.4	655.3	651.9	645.8	642.3	632.8	626.6	619.8
17.5°	714.9	712.8	713.5	710.7	706.0	699.8	693.0	682.7	668.3	657.4	643.7
20°	773.7	773.0	774.4	772.3	766.2	757.9	741.5	726.5	706.6	686.8	671.8
22.5°	839.4	842.8	844.1	838.7	831.8	814.7	796.9	775.1	748.4	722.4	701.2
25°	909.1	917.3	922.1	914.6	906.4	884.5	857.8	828.4	790.8	759.3	731.3
27.5°	977.5	994.6	1001.5	997.4	984.4	953.6	918.0	879.0	833.2	791.5	755.2
30°	1058.9	1081.5	1093.8	1087.7	1062.4	1022.0	978.9	926.2	868.1	818.1	774.4
32.5°	1144.4	1172.5	1181.4	1168.4	1131.5	1080.8	1024.7	960.4	894.8	837.3	788.0
35°	1239.5	1265.5	1267.6	1242.3	1193.7	1129.4	1059.6	982.3	907.1	842.8	788.7
37.5°	1322.3	1348.3	1346.3	1308.6	1249.8	1169.8	1080.8	987.1	899.6	826.4	767.5
40°	1409.2	1437.9	1422.2	1373.6	1297.7	1195.8	1083.6	970.7	870.8	790.8	726.5
42.5°	1500.9	1513.2	1485.1	1424.2	1326.4	1195.1	1060.3	931.7	825.7	736.7	669.0
45°	1585.0	1575.4	1535.1	1453.6	1324.4	1165.7	1014.5	883.1	765.5	676.5	610.2
47.5°	1660.2	1630.1	1567.9	1453.6	1292.2	1113.7	955.6	820.2	703.2	613.6	547.9
50°	1741.6	1678.7	1581.6	1428.3	1234.1	1050.7	893.4	757.3	636.9	545.2	473.4
52.5°	1849.7	1736.9	1581.6	1382.5	1173.9	987.1	827.7	684.1	559.6	463.8	392.7
55°	2102.8	1858.6	1608.9	1357.2	1120.5	920.1	749.7	589.7	468.6	376.9	318.1
57.5°	2600.2	2125.4	1746.4	1403.7	1100.7	847.6	649.2	485.0	370.1	293.5	244.2
60°	3014.0	2340.9	1857.9	1439.3	1068.5	753.8	526.1	371.5	275.0	216.9	184.7
62.5°	3120.7	2343.6	1812.1	1346.9	938.5	613.6	387.9	255.8	188.8	157.3	140.2
65°	2853.9	2072.7	1541.2	1098.6	714.9	426.2	242.8	155.3	125.9	114.9	108.1
67.5°	2399.0	1651.3	1142.4	766.2	450.8	234.6	136.1	106.7	95.8	92.3	88.9
70°	1840.1	1160.2	743.6	448.8	236.0	121.8	97.1	87.6	82.8	80.7	78.0
72.5°	1134.2	685.4	404.3	215.5	117.7	93.0	86.9	83.5	77.3	74.6	71.8
75°	481.6	294.2	167.6	109.5	94.4	88.9	84.1	80.0	75.2	71.1	68.4
77.5°	162.1	112.2	99.2	95.8	94.4	88.9	82.8	77.3	72.5	67.7	65.0
80°	98.5	89.6	91.7	91.0	94.4	88.2	80.0	73.9	68.4	63.6	60.2
82.5°	85.5	84.8	86.9	88.9	93.7	84.8	75.2	66.4	59.5	54.7	51.3
85°	73.9	75.2	76.6	78.0	80.7	71.8	60.9	52.7	47.2	41.0	38.3
87.5°	49.3	53.4	56.1	56.8	54.7	34.2	19.8	23.3	23.9	20.5	18.5
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):**

	160°	165°	170°	175°	180°
0°	560.3	560.3	560.3	560.3	560.3
2.5°	539.0	538.4	540.4	538.4	538.4
5°	532.2	531.5	531.5	531.5	530.2
7.5°	543.2	542.5	541.8	541.8	541.1
10°	564.4	563.7	563.7	563.0	563.0
12.5°	589.7	586.9	586.2	584.9	585.6
15°	614.3	606.8	604.7	602.7	600.6
17.5°	633.4	624.6	619.8	615.7	615.7
20°	657.4	645.8	639.6	633.4	633.4
22.5°	684.8	669.0	660.8	654.0	651.2
25°	707.3	687.5	675.9	667.7	665.6
27.5°	724.4	699.1	684.1	674.5	671.8
30°	738.1	709.4	691.6	681.3	677.2
32.5°	747.0	715.5	696.4	686.1	682.0
35°	742.2	708.7	685.4	673.1	670.4
37.5°	718.3	682.7	655.3	642.3	637.6
40°	674.5	636.2	607.5	591.7	589.0
42.5°	617.0	578.7	551.4	534.9	527.4
45°	555.5	515.8	489.8	474.7	465.9
47.5°	489.1	450.1	423.4	408.4	402.2
50°	419.3	381.7	359.1	342.7	336.6
52.5°	346.8	313.3	290.7	277.0	270.2
55°	277.7	250.4	231.2	222.3	217.5
57.5°	216.9	199.1	188.1	182.6	179.2
60°	168.3	159.4	155.3	151.2	151.9
62.5°	131.3	129.3	127.9	125.9	126.6
65°	106.0	104.7	105.3	104.7	105.3
67.5°	86.9	87.6	88.9	88.9	89.6
70°	76.6	77.3	78.7	78.7	78.7
72.5°	71.1	72.5	73.9	73.2	73.2
75°	67.0	70.5	73.2	70.5	67.7
77.5°	62.9	71.1	78.7	72.5	65.0
80°	57.5	75.2	84.1	73.2	62.3
82.5°	54.7	72.5	73.9	63.6	54.7
85°	50.6	82.1	85.5	58.1	41.7
87.5°	26.0	49.3	56.8	39.0	21.2
90°	0.0	0.0	0.0	0.0	0.0

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