

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: P141885

Luminaire Tested: **ECM-F03-LED-E1-T3**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141885  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33683)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-F03-LED-E1-T3  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 3  
Light Source: (21) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7271.9 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

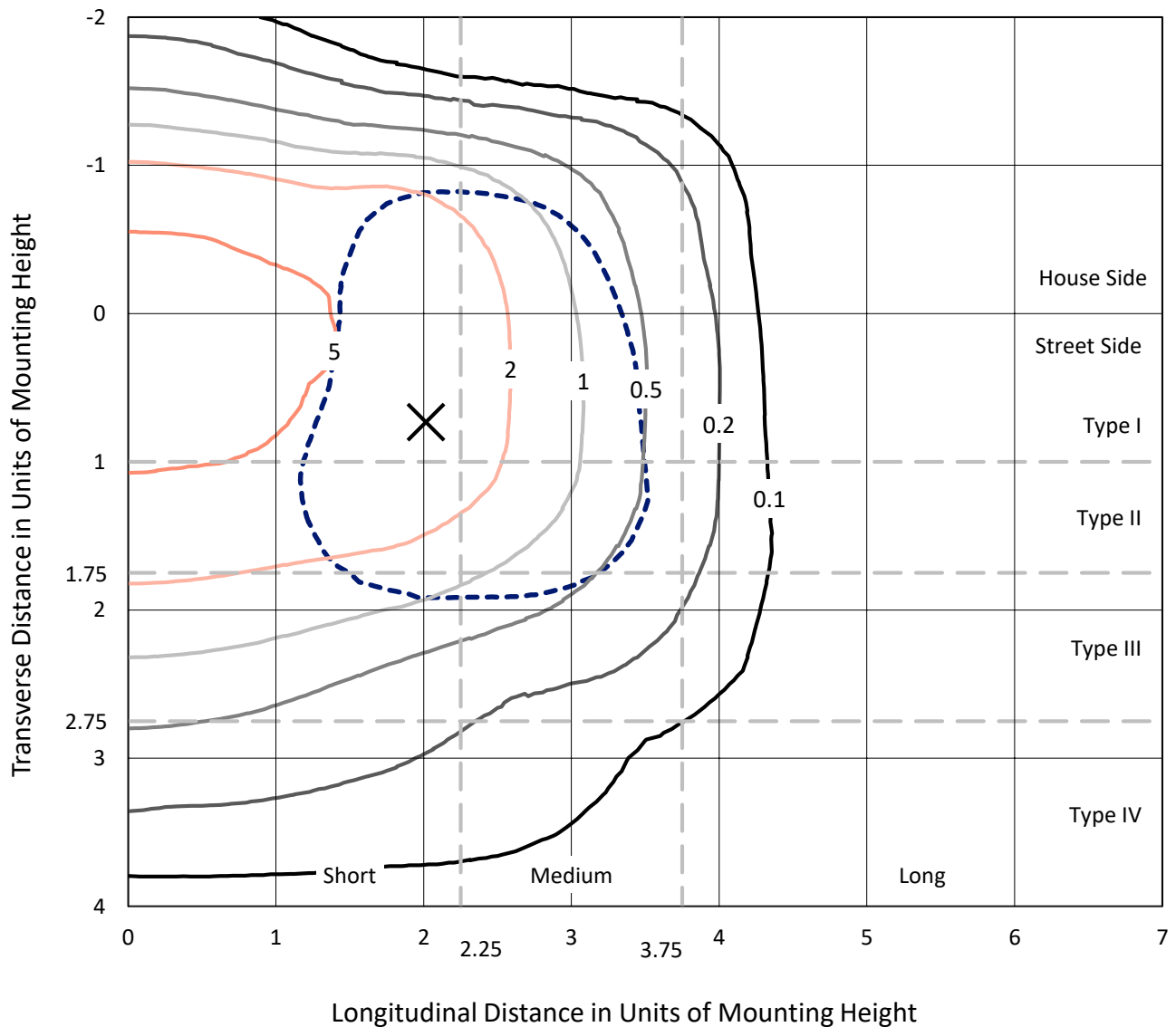
Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

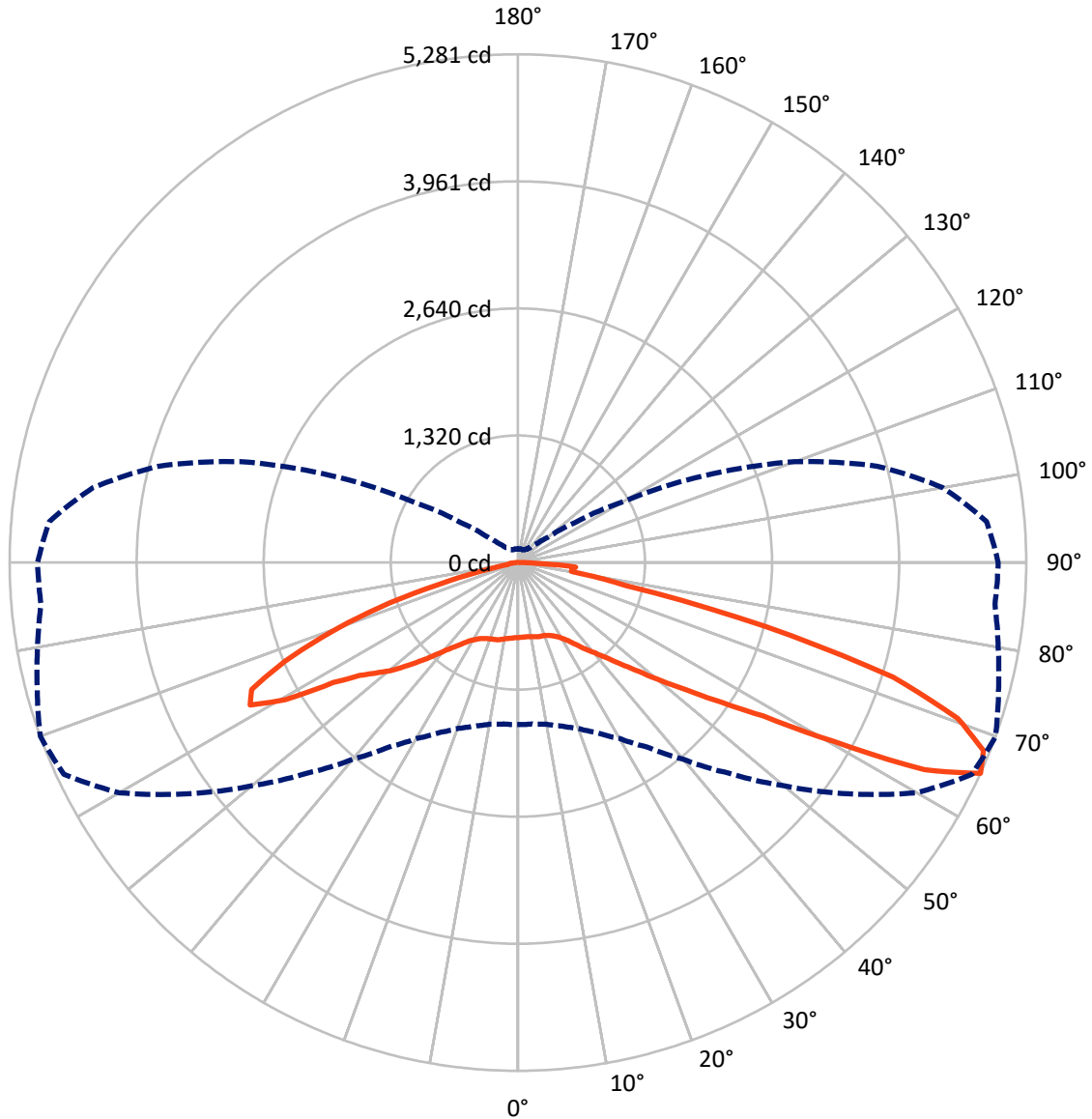
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.8 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2454.8	0.0	2454.8
	% Fixture	33.8	0.0	33.8
<b>Street Side</b>	Lumens	4817.1	0.0	4817.1
	% Fixture	66.2	0.0	66.2
<b>Total</b>	Lumens	7271.9	0.0	7271.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.0	1.0
10°-20°	222.2	3.1
20°-30°	382.0	5.3
30°-40°	612.3	8.4
40°-50°	1002.4	13.8
50°-60°	1569.1	21.6
60°-70°	2205.1	30.3
70°-80°	1043.5	14.4
80°-90°	160.3	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°	7271.9	100.0
0°-180°	7271.9	100.0



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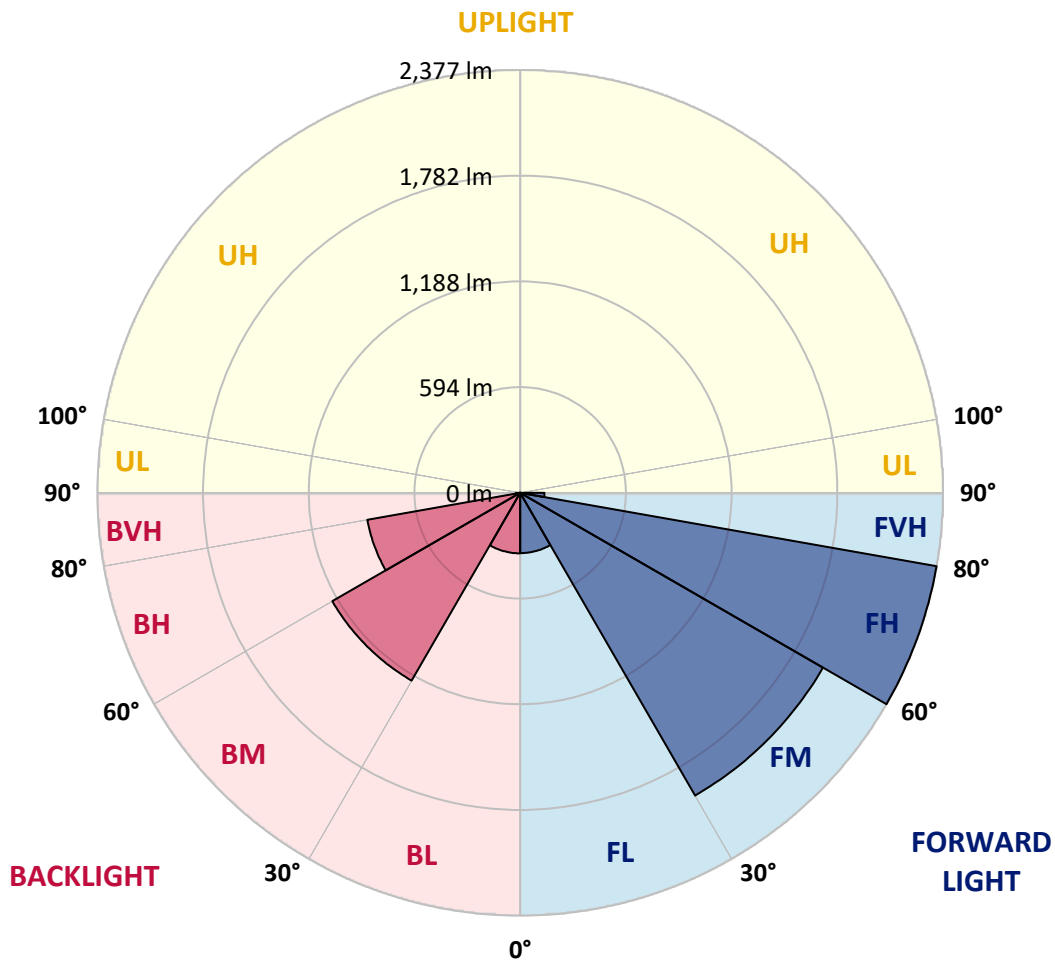
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	338.8	4.7			
FM	(30°-60°)	1965.0	27.0			
FH	(60°-80°)	2376.6	32.7			G2/5000
FVH	(80°-90°)	136.6	1.9			G2/225
BL	(0°-30°)	340.4	4.7	B1/500		
BM	(30°-60°)	1218.7	16.8	B2/2500		
BH	(60°-80°)	872.0	12.0	B2/1000		G2/1000
BVH	(80°-90°)	23.7	0.3			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3
2.5°	775.2	776.0	776.0	774.3	774.3	775.2	775.2	776.0	776.0	776.0	776.8
5°	775.2	776.0	776.0	775.2	774.3	776.0	775.2	776.0	776.0	776.0	776.0
7.5°	773.5	774.3	774.3	773.5	774.3	775.2	775.2	776.8	777.6	777.6	778.5
10°	765.3	766.1	766.9	766.9	768.6	771.0	771.9	775.2	776.0	778.5	780.1
12.5°	750.4	750.4	752.1	753.7	756.2	761.1	763.6	768.6	772.7	776.0	781.8
15°	737.2	737.2	738.8	739.7	744.6	747.9	752.9	758.7	766.1	772.7	781.8
17.5°	743.8	743.8	743.0	742.1	743.0	743.0	747.1	752.9	759.5	768.6	780.1
20°	769.4	768.6	765.3	763.6	762.8	759.5	757.0	756.2	759.5	766.1	777.6
22.5°	791.7	790.0	789.2	787.6	790.0	788.4	785.1	780.9	776.0	773.5	780.1
25°	804.9	805.7	805.7	805.7	810.7	812.3	814.0	809.0	803.2	795.0	795.8
27.5°	823.0	823.9	822.2	825.5	831.3	835.4	839.6	842.9	839.6	834.6	828.8
30°	861.8	861.8	859.4	861.8	866.8	870.9	876.7	882.5	882.5	877.5	871.8
32.5°	902.3	903.1	903.1	904.8	912.2	915.5	923.8	929.5	933.7	930.4	933.7
35°	951.0	950.2	952.7	953.5	965.0	969.2	985.7	989.8	996.4	998.1	1000.5
37.5°	1031.9	1033.6	1028.6	1025.3	1035.2	1035.2	1056.7	1068.2	1066.6	1078.1	1086.4
40°	1162.3	1154.9	1152.4	1150.8	1156.6	1155.7	1154.9	1170.6	1178.0	1179.7	1183.8
42.5°	1306.8	1309.3	1306.8	1312.6	1312.6	1308.5	1305.2	1302.7	1316.7	1325.8	1327.4
45°	1476.0	1479.3	1474.4	1470.3	1481.0	1486.8	1486.8	1493.4	1504.9	1509.1	1506.6
47.5°	1611.4	1620.5	1616.4	1622.2	1639.5	1659.3	1685.7	1703.1	1715.4	1727.0	1745.2
50°	1733.6	1737.7	1747.6	1766.6	1792.2	1823.6	1866.5	1909.4	1934.2	1963.1	1984.6
52.5°	1807.9	1820.3	1835.1	1866.5	1909.4	1953.2	2019.2	2089.4	2152.1	2184.3	2209.9
55°	1852.5	1861.6	1881.4	1924.3	1984.6	2049.8	2132.3	2228.9	2312.3	2383.3	2438.6
57.5°	1850.8	1858.3	1885.5	1932.6	2004.4	2086.1	2189.3	2309.8	2432.8	2550.9	2654.9
60°	1815.3	1821.9	1849.2	1899.5	1978.0	2075.4	2199.2	2347.0	2513.7	2691.2	2873.7
62.5°	1760.8	1765.8	1789.7	1840.1	1919.3	2023.4	2168.7	2362.7	2599.6	2879.4	3233.6
65°	1684.1	1684.1	1706.4	1758.4	1834.3	1950.7	2110.9	2338.7	2666.4	3092.4	3607.5
67.5°	1571.0	1571.0	1589.1	1632.1	1691.5	1772.4	1932.6	2169.5	2515.4	3025.5	3628.2
70°	1357.2	1360.5	1360.5	1386.9	1413.3	1449.6	1525.6	1707.2	2031.6	2530.2	3123.0
72.5°	994.8	934.5	981.5	1024.5	1054.2	1074.0	1117.8	1174.7	1338.2	1712.1	2248.7
75°	626.6	642.3	677.8	726.5	799.9	875.9	959.3	994.8	979.9	1024.5	1385.2
77.5°	379.7	366.5	401.2	473.9	556.4	659.6	815.6	951.0	1028.6	1023.7	980.7
80°	164.3	160.2	183.3	217.9	258.4	351.7	494.5	680.2	886.6	1006.3	988.2
82.5°	58.6	59.4	75.1	89.2	107.3	137.9	195.6	312.9	496.1	706.6	873.4
85°	17.3	19.0	26.4	37.1	42.1	47.9	66.0	98.2	167.6	267.5	475.5
87.5°	5.0	5.8	7.4	13.2	12.4	11.6	13.2	20.6	15.7	13.2	66.0
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3
2.5°	776.0	776.0	776.0	776.8	776.0	776.0	776.8	776.8	777.6	778.5	780.1
5°	775.2	775.2	776.0	776.0	776.0	776.8	777.6	778.5	780.1	782.6	785.1
7.5°	777.6	777.6	776.8	777.6	777.6	778.5	780.1	780.9	784.2	786.7	790.9
10°	780.1	780.1	780.9	781.8	781.8	783.4	785.9	786.7	790.0	795.0	799.1
12.5°	783.4	785.9	789.2	790.9	792.5	794.2	796.6	798.3	802.4	809.0	814.0
15°	785.9	791.7	795.0	799.1	801.6	802.4	804.9	808.2	812.3	818.9	824.7
17.5°	785.9	793.3	798.3	802.4	806.5	809.0	811.5	814.8	820.6	827.2	833.0
20°	785.1	795.8	802.4	809.0	816.4	818.9	823.0	826.4	833.0	841.2	845.3
22.5°	789.2	801.6	810.7	822.2	830.5	837.1	842.0	847.8	852.8	858.5	860.2
25°	801.6	814.0	828.8	842.9	854.4	864.3	870.9	875.9	881.7	884.1	880.8
27.5°	822.2	831.3	851.9	872.6	890.7	903.1	910.6	917.2	918.8	923.8	911.4
30°	859.4	863.5	885.0	914.7	935.3	956.0	965.9	972.5	973.3	970.0	948.5
32.5°	920.5	913.0	932.0	971.6	1003.0	1020.3	1036.0	1040.2	1037.7	1027.0	992.3
35°	994.8	983.2	992.3	1050.1	1084.7	1110.3	1125.2	1129.3	1123.5	1104.6	1056.7
37.5°	1086.4	1082.3	1086.4	1141.7	1202.0	1225.9	1232.5	1237.5	1223.4	1188.8	1126.0
40°	1187.9	1188.8	1183.8	1234.2	1310.1	1344.8	1360.5	1349.7	1332.4	1282.9	1213.5
42.5°	1328.3	1323.3	1306.0	1351.4	1448.8	1484.3	1498.3	1490.1	1472.7	1410.0	1329.1
45°	1514.0	1497.5	1481.0	1504.9	1599.0	1645.3	1665.9	1660.1	1629.6	1553.6	1477.7
47.5°	1741.0	1723.7	1693.2	1689.0	1784.0	1838.4	1845.9	1836.8	1813.7	1737.7	1644.4
50°	1979.6	1974.7	1960.6	1927.6	2012.6	2067.1	2062.2	2055.6	2030.0	1933.4	1837.6
52.5°	2226.4	2236.3	2227.3	2204.2	2295.0	2317.2	2318.9	2299.1	2269.4	2180.2	2049.8
55°	2485.7	2522.8	2536.8	2555.0	2626.8	2623.5	2604.5	2557.5	2564.9	2463.4	2282.6
57.5°	2760.6	2874.5	2964.5	3004.9	3073.4	3093.2	3045.4	3061.0	3054.4	2949.6	2664.8
60°	3123.0	3395.4	3629.8	3774.3	3866.8	3831.3	3898.1	3901.4	4014.5	3784.2	3340.1
62.5°	3700.8	4201.1	4617.2	4741.8	4765.8	4757.5	4678.2	4757.5	4736.0	4455.4	3880.0
65°	4187.1	4782.3	5204.9	5280.9	5169.4	5067.1	4974.6	4990.3	4887.9	4481.8	3864.3
67.5°	4253.1	4845.8	5238.0	5216.5	4973.0	4783.1	4629.5	4509.0	4300.2	3932.8	3394.6
70°	3730.5	4358.8	4864.0	4847.5	4509.0	4255.6	4006.3	3824.7	3611.7	3327.7	2818.3
72.5°	2901.7	3461.4	3951.0	4078.1	3744.6	3464.7	3236.1	3004.9	2785.3	2515.4	2194.2
75°	1975.5	2396.5	2624.3	2659.0	2353.6	2143.9	2055.6	1866.5	1633.7	1575.9	1338.2
77.5°	1147.5	1309.3	1239.9	1147.5	923.8	678.6	518.4	443.3	445.0	511.0	489.5
80°	932.8	888.3	700.9	562.2	382.2	194.8	130.4	112.3	113.1	131.3	127.1
82.5°	961.7	987.3	811.5	568.0	391.3	206.4	99.1	73.5	85.9	93.3	91.6
85°	712.4	933.7	837.1	602.6	420.2	219.6	64.4	40.5	57.0	69.3	74.3
87.5°	199.8	313.7	243.5	161.0	117.2	39.6	25.6	21.5	26.4	36.3	36.3
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3	779.3
2.5°	780.9	784.2	783.4	785.1	785.9	788.4	790.0	789.2	789.2	790.9	792.5
5°	787.6	791.7	791.7	794.2	796.6	799.9	802.4	800.8	801.6	803.2	804.9
7.5°	794.2	799.1	799.9	802.4	804.1	805.7	807.4	804.9	804.1	804.1	803.2
10°	802.4	807.4	806.5	806.5	805.7	804.1	800.8	795.0	790.9	788.4	786.7
12.5°	816.4	819.7	814.8	809.8	801.6	795.8	788.4	781.8	776.8	772.7	771.0
15°	828.8	827.2	821.4	812.3	800.8	791.7	784.2	775.2	769.4	764.4	762.0
17.5°	835.4	829.7	821.4	813.1	803.2	795.0	785.9	775.2	766.1	759.5	756.2
20°	842.0	833.0	822.2	814.0	806.5	799.9	793.3	780.1	768.6	758.7	753.7
22.5°	851.9	839.6	828.8	821.4	814.0	807.4	800.8	788.4	776.0	762.8	755.4
25°	866.0	849.5	842.0	834.6	826.4	819.7	810.7	799.1	785.9	770.2	759.5
27.5°	888.3	873.4	865.2	857.7	847.8	837.1	827.2	811.5	799.1	780.9	766.9
30°	920.5	904.8	897.3	889.9	878.4	864.3	850.3	830.5	813.1	792.5	774.3
32.5°	960.9	952.7	943.6	931.2	915.5	898.2	877.5	851.1	826.4	800.8	777.6
35°	1023.7	1009.6	994.8	982.4	959.3	935.3	903.9	865.2	832.1	800.8	772.7
37.5°	1095.5	1080.6	1060.8	1038.5	1003.8	965.9	922.1	873.4	829.7	791.7	760.3
40°	1182.2	1163.2	1136.7	1094.6	1043.5	986.5	927.9	866.8	815.6	771.9	735.5
42.5°	1296.9	1258.1	1206.9	1145.0	1072.4	994.8	920.5	849.5	791.7	743.8	707.5
45°	1426.5	1364.6	1282.0	1189.6	1088.9	991.5	903.9	821.4	756.2	703.3	665.4
47.5°	1566.0	1469.4	1348.1	1217.6	1090.5	973.3	871.8	779.3	705.8	649.7	602.6
50°	1723.7	1564.4	1394.3	1231.7	1079.8	941.1	825.5	719.0	643.1	576.2	533.3
52.5°	1859.1	1647.7	1426.5	1225.9	1041.8	885.0	749.6	646.4	557.2	497.8	455.7
55°	2019.2	1728.6	1443.8	1197.0	980.7	797.5	667.8	553.1	468.9	416.1	379.7
57.5°	2289.2	1865.7	1458.7	1138.4	880.0	687.7	554.8	447.4	381.4	335.2	309.6
60°	2810.1	2131.5	1519.8	1050.9	752.1	555.6	428.4	350.0	293.1	262.5	244.4
62.5°	3151.0	2312.3	1492.5	916.3	587.8	416.1	313.7	252.6	219.6	197.3	189.0
65°	3064.3	2129.9	1266.4	726.5	409.5	276.6	210.5	173.4	158.5	146.9	142.0
67.5°	2631.8	1717.9	918.0	469.7	259.2	168.4	137.9	123.0	116.4	111.4	110.6
70°	2096.8	1211.0	545.7	249.3	143.6	111.4	98.2	92.5	90.0	90.0	90.0
72.5°	1521.4	697.6	268.3	134.6	96.6	85.0	79.3	77.6	76.8	76.8	77.6
75°	869.3	302.1	137.9	92.5	79.3	73.5	70.2	70.2	70.2	70.2	71.0
77.5°	303.0	137.9	97.4	77.6	68.5	65.2	63.6	65.2	66.0	66.0	66.0
80°	110.6	97.4	83.4	67.7	61.1	57.8	57.8	60.3	61.9	60.3	59.4
82.5°	87.5	76.8	67.7	58.6	53.7	52.0	52.8	54.5	53.7	52.8	50.4
85°	66.9	50.4	47.1	43.8	42.9	42.9	46.2	47.1	43.8	42.1	39.6
87.5°	33.0	26.4	23.9	28.1	27.2	24.8	25.6	25.6	21.5	19.8	20.6
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):**

	165°	170°	175°	180°
0°	779.3	779.3	779.3	779.3
2.5°	792.5	793.3	795.8	795.0
5°	804.1	804.9	806.5	806.5
7.5°	801.6	802.4	802.4	802.4
10°	782.6	782.6	784.2	784.2
12.5°	767.7	766.9	766.9	765.3
15°	758.7	757.0	757.8	755.4
17.5°	752.1	751.2	751.2	749.6
20°	749.6	747.9	747.1	745.4
22.5°	747.9	747.1	745.4	743.8
25°	752.1	747.9	747.1	745.4
27.5°	756.2	752.1	748.8	747.9
30°	760.3	752.9	748.8	747.1
32.5°	759.5	749.6	743.8	741.3
35°	750.4	738.0	730.6	728.1
37.5°	733.1	719.0	707.5	703.3
40°	708.3	690.1	679.4	673.6
42.5°	678.6	657.9	648.9	643.9
45°	629.9	613.4	602.6	598.5
47.5°	575.4	553.1	543.2	539.1
50°	505.2	487.1	478.8	473.0
52.5°	430.9	414.4	407.0	403.7
55°	359.1	350.8	339.3	336.8
57.5°	291.4	288.9	280.7	279.9
60°	236.9	232.8	227.0	227.0
62.5°	186.6	182.4	180.0	180.0
65°	143.6	142.8	141.2	140.3
67.5°	110.6	113.1	113.9	112.3
70°	92.5	93.3	93.3	93.3
72.5°	80.1	80.1	80.1	79.3
75°	72.6	72.6	71.0	70.2
77.5°	66.9	66.0	66.9	66.0
80°	58.6	57.8	56.1	54.5
82.5°	48.7	47.9	43.8	43.8
85°	38.0	35.5	32.2	28.9
87.5°	21.5	19.0	14.0	9.9
90°	0.0	0.0	0.0	0.0

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