

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: P142044

Luminaire Tested: **ECM-F03-LED-E1-T4-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P142044  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33685)  
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-T4-7030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (21) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6504.9 lumens  
Efficiency: N/A  
Efficacy: 83.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - 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

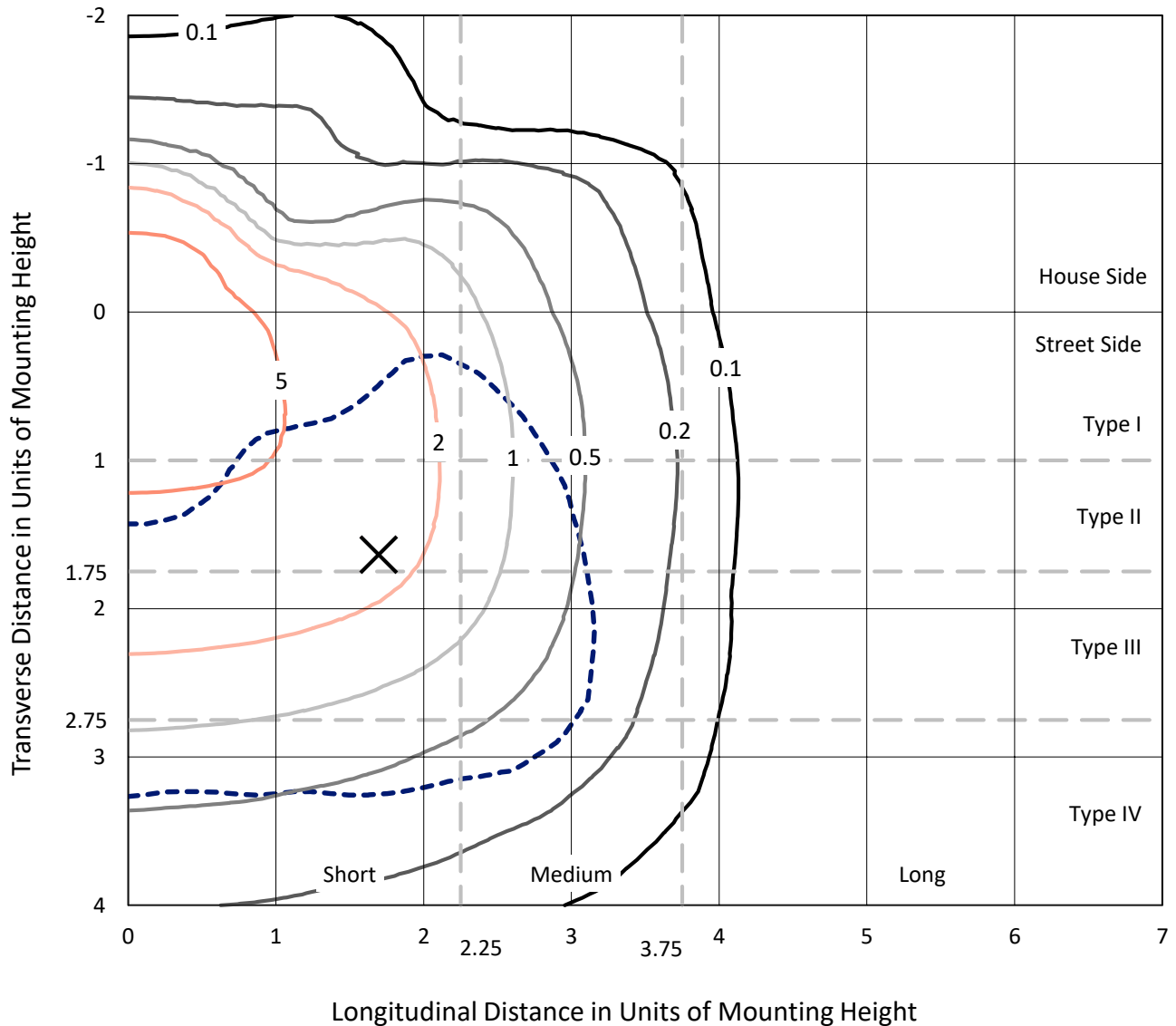


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

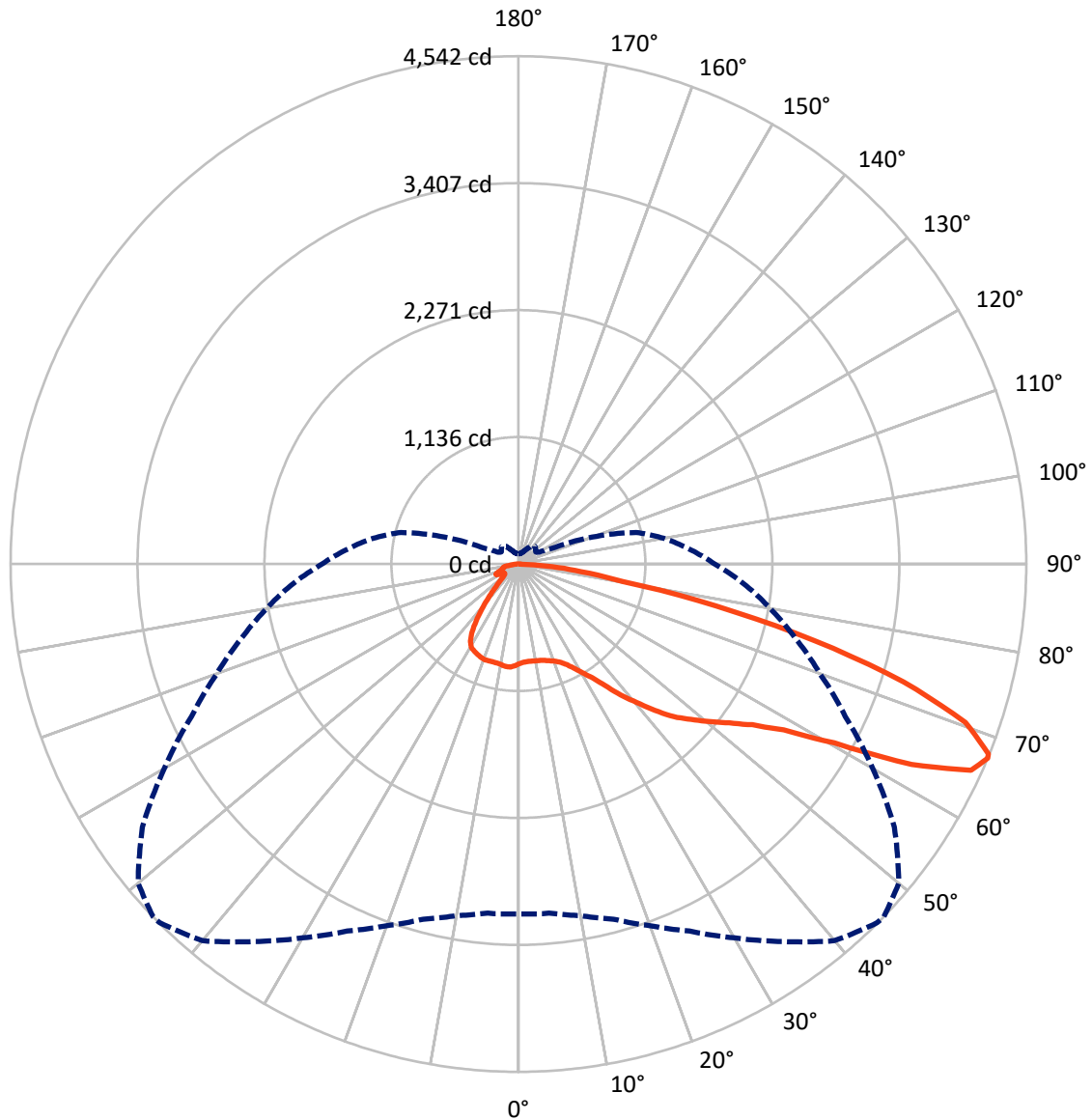


Based on 10 foot mounting height. Maximum calculated value = 9 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1292.7	0.0	1292.7
	% Fixture	19.9	0.0	19.9
<b>Street Side</b>	Lumens	5212.3	0.0	5212.3
	% Fixture	80.1	0.0	80.1
<b>Total</b>	Lumens	6504.9	0.0	6504.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.8	1.3
10°-20°	256.0	3.9
20°-30°	430.5	6.6
30°-40°	643.7	9.9
40°-50°	838.5	12.9
50°-60°	1148.4	17.7
60°-70°	1815.5	27.9
70°-80°	1126.1	17.3
80°-90°	160.5	2.5
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°	6504.9	100.0
0°-180°	6504.9	100.0



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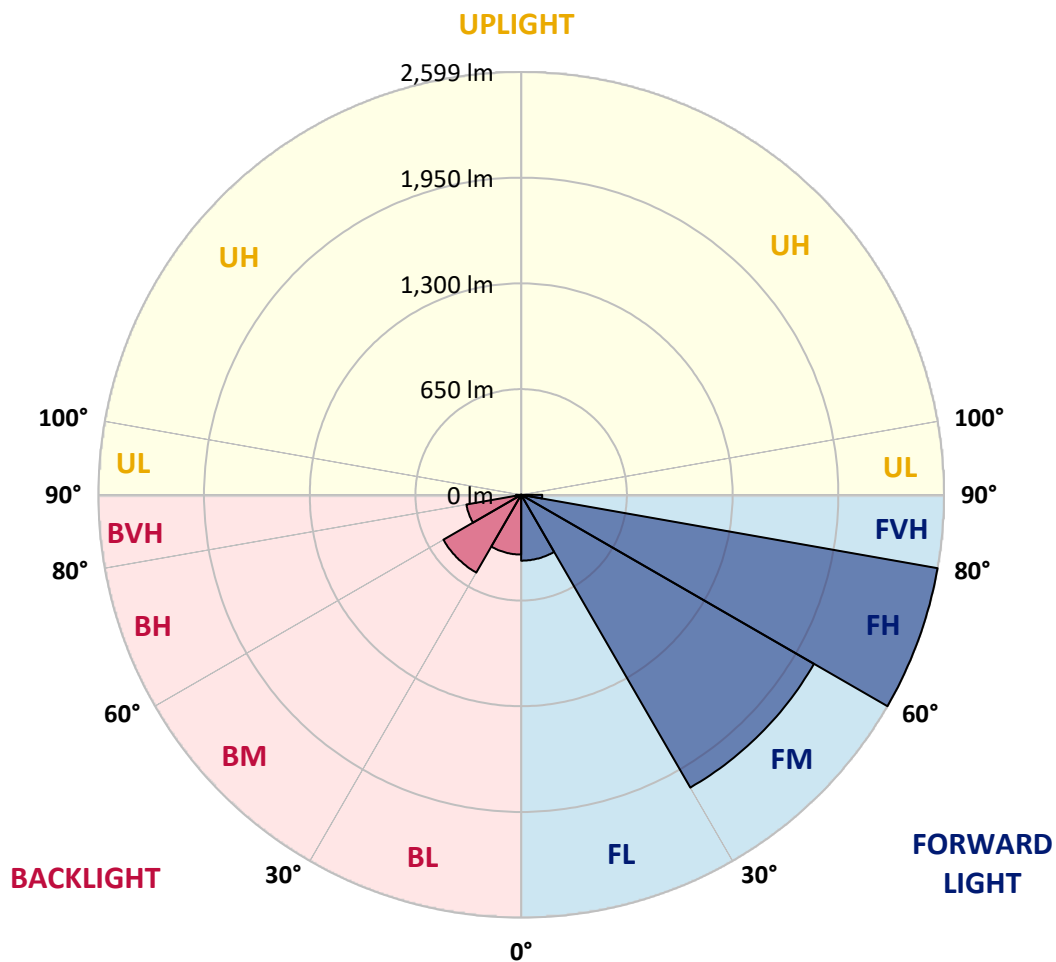
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	405.1	6.2			
FM	(30°-60°)	2078.6	32.0			
FH	(60°-80°)	2599.4	40.0			G2/5000
FVH	(80°-90°)	129.2	2.0			G2/225
BL	(0°-30°)	367.2	5.6	B1/500		
BM	(30°-60°)	552.0	8.5	B1/1000		
BH	(60°-80°)	342.2	5.3	B1/500		G1/500
BVH	(80°-90°)	31.2	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°	5°	10°	15°	20°	25°	30°	35°	40°	45°	46°
0°	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	871.6	873.9	873.1	872.4	873.1	873.9	874.6	876.9	877.6	878.4	879.2
5°	855.8	858.0	857.3	858.8	859.6	862.6	864.8	868.6	870.9	873.9	875.4
7.5°	851.3	852.8	852.8	854.3	855.0	858.0	861.8	866.3	870.9	875.4	876.9
10°	863.3	864.1	864.1	863.3	864.1	865.6	867.1	870.9	874.6	878.4	879.9
12.5°	892.0	889.7	889.0	886.7	887.5	884.4	884.4	883.7	883.7	884.4	884.4
15°	922.1	920.6	919.1	915.3	915.3	910.8	909.3	906.3	898.8	895.7	895.0
17.5°	949.3	947.8	944.8	941.7	940.2	934.2	932.7	927.4	918.4	911.6	909.3
20°	981.7	977.9	971.1	969.6	965.9	959.1	956.8	950.0	938.0	928.2	927.4
22.5°	1031.5	1025.4	1018.6	1013.4	1003.6	996.8	990.7	981.7	967.4	956.1	953.0
25°	1081.2	1079.0	1072.9	1065.4	1058.6	1051.1	1043.5	1030.0	1011.1	996.8	993.8
27.5°	1151.3	1146.1	1138.5	1126.5	1122.7	1109.9	1103.8	1092.5	1073.7	1055.6	1052.6
30°	1224.5	1219.2	1207.1	1196.6	1194.3	1180.8	1177.0	1164.9	1148.3	1130.2	1128.0
32.5°	1308.2	1302.9	1293.9	1287.8	1279.5	1272.0	1262.9	1251.6	1230.5	1215.4	1212.4
35°	1415.2	1410.7	1400.2	1404.7	1397.1	1394.9	1389.6	1370.8	1347.4	1329.3	1332.3
37.5°	1499.7	1498.9	1501.2	1498.9	1508.7	1518.5	1518.5	1520.1	1508.7	1489.1	1485.4
40°	1578.9	1578.1	1584.1	1590.9	1617.3	1633.1	1651.2	1658.0	1646.0	1630.9	1625.6
42.5°	1652.8	1651.2	1659.5	1684.4	1716.8	1746.2	1777.2	1803.6	1809.6	1793.0	1789.2
45°	1725.9	1728.2	1738.7	1766.6	1809.6	1848.0	1900.8	1931.7	1951.3	1942.3	1948.3
47.5°	1814.1	1816.4	1827.7	1860.9	1898.6	1946.8	2008.6	2061.4	2084.8	2084.8	2077.3
50°	1918.9	1929.5	1941.5	1964.2	2007.9	2055.4	2130.8	2183.6	2221.3	2219.8	2213.7
52.5°	2058.4	2060.7	2080.3	2098.4	2136.1	2184.3	2252.2	2324.6	2372.1	2367.5	2360.8
55°	2246.1	2237.1	2249.9	2267.3	2308.0	2350.2	2424.1	2507.8	2556.0	2541.7	2537.2
57.5°	2482.9	2475.4	2484.4	2505.5	2556.8	2591.5	2651.0	2727.9	2795.8	2807.9	2797.3
60°	2824.5	2824.5	2842.6	2887.8	2939.8	2991.8	3068.0	3160.7	3230.9	3248.2	3247.4
62.5°	3229.4	3255.0	3258.8	3317.6	3417.1	3506.8	3625.2	3788.8	3893.6	3968.3	3948.7
65°	3294.2	3302.5	3335.7	3426.9	3561.9	3721.0	3904.9	4119.8	4337.7	4445.5	4448.6
67°	3131.3	3134.4	3192.4	3288.2	3442.7	3622.2	3860.4	4122.1	4398.0	4537.5	4542.1
67.5°	3080.8	3074.8	3126.8	3227.1	3396.0	3598.1	3822.0	4097.2	4382.2	4531.5	4533.8
70°	2742.3	2745.3	2786.0	2897.6	3076.3	3265.5	3515.9	3798.6	4098.7	4235.2	4242.0
72.5°	2364.5	2344.9	2381.9	2501.0	2586.2	2770.9	3000.9	3214.3	3478.2	3607.1	3604.1
75°	1803.6	1749.3	1814.1	1883.5	1931.0	2114.2	2257.5	2404.5	2648.0	2746.0	2740.8
77.5°	971.9	969.6	1040.5	1094.8	1165.7	1330.8	1456.7	1549.5	1754.5	1802.8	1808.8
80°	527.8	547.4	589.6	649.9	707.2	786.4	859.6	917.6	984.7	953.8	947.0
82.5°	318.2	350.6	415.5	461.4	484.1	519.5	571.5	604.7	631.1	573.8	562.5
85°	50.5	91.2	234.5	280.5	304.6	321.2	332.5	354.4	323.5	303.1	308.4
87.5°	16.6	18.8	36.2	79.9	70.1	48.3	63.3	92.0	43.7	23.4	22.6
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):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	879.9	880.7	882.9	885.9	887.5	891.2	891.2	894.2	894.2	896.5	898.8
5°	877.6	881.4	884.4	889.0	891.2	896.5	898.8	903.3	905.5	908.6	911.6
7.5°	881.4	886.7	890.5	895.7	899.5	904.8	907.1	910.8	913.1	916.9	918.4
10°	884.4	889.7	894.2	900.3	903.3	907.1	909.3	912.3	913.1	915.3	916.9
12.5°	888.2	890.5	894.2	899.5	902.5	904.8	907.1	909.3	911.6	911.6	911.6
15°	893.5	891.2	892.0	896.5	899.5	901.0	903.3	904.8	905.5	905.5	904.0
17.5°	904.8	898.8	895.0	895.0	896.5	898.0	898.0	895.7	894.2	892.0	889.0
20°	921.4	911.6	904.0	900.3	897.3	893.5	887.5	879.9	873.1	867.1	863.3
22.5°	944.8	935.0	925.9	917.6	907.8	895.0	882.2	866.3	853.5	843.7	839.9
25°	988.5	974.2	967.4	954.6	939.5	919.1	899.5	877.6	862.6	849.0	843.0
27.5°	1047.3	1036.0	1020.9	1014.1	994.5	971.1	949.3	922.9	901.8	885.2	873.9
30°	1121.9	1114.4	1101.6	1090.3	1071.4	1050.3	1017.9	988.5	951.5	922.1	905.5
32.5°	1207.9	1196.6	1185.3	1171.0	1157.4	1129.5	1099.3	1054.8	1003.6	953.0	922.1
35°	1315.7	1304.4	1296.9	1274.2	1251.6	1221.5	1180.8	1128.0	1056.3	988.5	935.7
37.5°	1464.3	1440.1	1403.2	1370.8	1330.0	1284.1	1238.1	1174.7	1094.8	1006.6	934.2
40°	1593.2	1557.8	1516.3	1460.5	1403.2	1342.9	1288.6	1220.0	1126.5	1021.7	923.6
42.5°	1760.6	1699.5	1629.4	1555.5	1477.1	1404.7	1337.6	1259.2	1149.8	1022.4	898.8
45°	1911.4	1836.0	1743.2	1643.0	1547.2	1459.0	1382.1	1295.4	1169.4	1019.4	870.1
47.5°	2045.6	1957.4	1844.3	1723.6	1610.5	1511.0	1426.6	1335.3	1195.1	1029.2	859.6
50°	2175.3	2074.2	1946.8	1800.5	1674.6	1566.0	1477.8	1379.8	1238.1	1062.4	876.1
52.5°	2314.0	2191.1	2047.1	1882.0	1744.7	1632.4	1533.6	1433.3	1289.3	1106.9	906.3
55°	2483.7	2344.2	2179.8	1997.3	1839.7	1714.6	1603.0	1497.4	1350.4	1161.9	941.7
57.5°	2709.9	2568.9	2379.6	2169.2	2004.1	1855.6	1721.4	1602.2	1443.1	1238.1	994.5
60°	3145.7	2971.5	2719.7	2491.2	2312.5	2137.6	1975.5	1812.6	1621.1	1391.9	1130.2
62.5°	3845.4	3602.6	3290.4	2972.2	2731.0	2499.5	2285.4	2073.5	1834.5	1577.4	1291.6
65°	4329.4	4029.3	3637.3	3238.4	2911.9	2629.2	2373.6	2121.7	1855.6	1610.5	1361.7
67°	4440.3	4104.7	3658.4	3225.6	2870.5	2563.6	2285.4	2023.0	1755.3	1532.9	1320.2
67.5°	4435.7	4101.0	3641.8	3198.4	2842.6	2540.2	2259.7	1983.8	1720.6	1502.7	1299.9
70°	4167.3	3831.0	3369.6	2928.5	2585.4	2284.6	2001.9	1761.3	1492.9	1316.5	1164.2
72.5°	3531.0	3238.4	2865.9	2469.3	2175.3	1906.1	1679.9	1443.9	1210.9	1093.3	973.4
75°	2685.0	2425.6	2084.0	1793.8	1569.8	1382.8	1155.9	1000.5	836.9	756.3	713.3
77.5°	1774.1	1476.3	1240.3	963.6	799.2	652.2	514.2	407.9	340.8	358.1	391.3
80°	938.7	744.9	551.2	426.8	329.5	256.4	203.6	152.3	110.8	129.7	162.9
82.5°	511.2	435.8	322.0	256.4	209.6	173.4	133.5	93.5	69.4	76.9	110.8
85°	291.8	256.4	199.1	155.3	135.7	110.8	76.2	51.3	49.8	53.5	68.6
87.5°	48.3	64.8	52.8	36.2	40.7	40.0	35.4	27.1	20.4	28.7	36.9
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°	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	900.3	902.5	905.5	906.3	905.5	907.8	911.6	914.6	912.3	910.8	914.6
5°	914.6	916.1	919.9	919.9	920.6	922.1	924.4	926.7	923.6	923.6	925.1
7.5°	920.6	920.6	924.4	922.9	922.9	922.1	924.4	925.1	920.6	919.9	920.6
10°	916.9	916.9	918.4	915.3	914.6	913.8	913.8	914.6	910.1	908.6	910.8
12.5°	911.6	911.6	910.1	908.6	907.1	905.5	907.1	907.8	904.8	904.8	905.5
15°	902.5	900.3	899.5	899.5	900.3	901.0	904.0	906.3	904.0	902.5	902.5
17.5°	887.5	885.9	888.2	892.7	898.0	901.8	906.3	907.8	902.5	896.5	892.0
20°	864.8	868.6	876.9	889.7	901.0	907.1	907.1	901.8	889.7	877.6	871.6
22.5°	841.5	852.0	870.1	889.7	903.3	905.5	897.3	885.9	869.4	856.5	845.2
25°	844.5	857.3	875.4	892.0	901.0	897.3	882.2	867.8	848.2	834.7	818.1
27.5°	876.1	888.2	897.3	902.5	899.5	887.5	870.1	850.5	828.6	809.8	790.2
30°	901.8	907.1	906.3	901.8	890.5	871.6	851.3	827.9	801.5	781.1	755.5
32.5°	906.3	896.5	881.4	864.8	849.8	828.6	805.3	778.1	748.7	722.3	696.7
35°	898.0	861.1	827.9	794.7	772.1	745.7	725.3	693.7	661.3	638.6	619.8
37.5°	867.1	803.0	750.2	703.5	670.3	640.1	609.2	578.3	551.2	540.6	535.3
40°	827.9	731.4	650.7	585.9	550.4	521.0	489.3	464.5	451.6	441.8	438.1
42.5°	770.6	649.9	549.7	480.3	435.1	407.9	377.0	363.4	357.4	359.7	356.6
45°	717.0	564.7	438.8	361.9	331.0	305.4	290.3	284.3	281.2	279.7	282.0
47.5°	679.3	499.1	353.6	275.2	249.6	231.5	225.4	223.2	222.4	219.4	218.7
50°	670.3	460.7	289.5	214.1	194.5	184.7	181.7	179.5	177.9	175.7	170.4
52.5°	680.9	450.1	257.9	184.0	167.4	159.8	157.6	153.8	152.3	146.3	139.5
55°	699.0	453.9	248.1	175.7	159.1	150.8	147.8	146.3	141.0	134.2	125.9
57.5°	736.7	477.3	252.6	177.9	160.6	153.1	151.6	150.0	143.3	133.5	122.9
60°	846.0	545.1	276.0	193.8	172.7	167.4	168.1	165.1	155.3	142.5	126.7
62.5°	1014.9	650.7	318.9	213.4	192.3	192.3	196.8	194.5	179.5	158.3	135.7
65°	1102.3	714.0	337.0	219.4	198.3	208.1	222.4	220.2	198.3	166.6	136.5
67°	1088.8	702.0	326.5	210.4	187.0	199.8	214.1	214.9	190.8	159.1	130.4
67.5°	1075.9	693.7	321.2	206.6	184.0	196.8	210.4	208.1	187.7	156.1	128.9
70°	966.6	609.2	286.5	193.0	170.4	174.2	177.9	174.9	159.1	138.0	119.1
72.5°	834.7	505.9	252.6	184.7	162.9	156.8	156.8	151.6	141.0	126.7	113.1
75°	636.4	393.6	221.7	175.7	153.8	144.8	143.3	139.5	130.4	119.9	107.8
77.5°	388.3	282.0	192.3	162.1	142.5	135.0	135.7	133.5	124.4	114.6	103.3
80°	194.5	182.5	161.4	141.0	128.9	121.4	122.1	117.6	110.1	102.5	93.5
82.5°	119.1	125.9	113.1	107.1	99.5	91.2	70.9	82.9	80.7	73.9	70.1
85°	79.2	78.4	70.9	62.6	57.3	49.8	44.5	45.2	49.8	51.3	51.3
87.5°	38.5	36.9	33.9	31.7	30.2	24.9	23.4	26.4	26.4	27.9	27.1
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°	891.2	891.2	891.2	891.2	891.2
2.5°	915.3	916.9	916.1	918.4	916.1
5°	925.9	925.9	926.7	927.4	926.7
7.5°	920.6	919.9	921.4	922.9	922.1
10°	910.8	911.6	913.1	915.3	915.3
12.5°	907.1	907.8	910.8	913.1	913.1
15°	904.0	904.8	906.3	909.3	907.1
17.5°	890.5	887.5	887.5	889.7	887.5
20°	866.3	861.8	861.8	861.1	860.3
22.5°	837.7	826.4	823.4	819.6	820.3
25°	802.2	787.2	778.9	774.4	772.8
27.5°	773.6	756.3	748.0	741.2	738.9
30°	737.4	717.8	711.0	707.2	705.7
32.5°	684.6	667.3	658.2	656.0	651.5
35°	604.7	597.2	593.4	588.1	588.9
37.5°	524.8	522.5	513.5	516.5	513.5
40°	438.8	438.1	439.6	437.3	442.6
42.5°	358.1	355.9	359.7	357.4	359.7
45°	277.5	282.0	287.3	285.0	288.0
47.5°	212.6	213.4	211.9	213.4	214.9
50°	163.6	162.1	160.6	157.6	159.1
52.5°	135.0	129.7	125.9	123.7	122.9
55°	119.1	113.9	110.8	107.8	107.8
57.5°	114.6	107.8	103.3	101.0	100.3
60°	115.4	106.3	100.3	96.5	95.8
62.5°	118.4	106.3	98.0	94.2	92.7
65°	117.6	104.8	96.5	92.7	91.2
67°	113.9	102.5	95.8	92.0	91.2
67.5°	112.3	101.8	95.8	92.0	90.5
70°	107.1	99.5	94.2	90.5	89.0
72.5°	102.5	96.5	90.5	87.5	86.0
75°	98.0	92.0	86.7	83.7	82.9
77.5°	93.5	86.7	82.9	79.2	76.2
80°	85.2	77.7	72.4	66.4	64.8
82.5°	70.1	64.1	58.8	53.5	52.8
85°	52.0	49.8	45.2	40.7	40.7
87.5°	28.7	31.7	27.9	25.6	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)