

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: P142031

Luminaire Tested: **ECM-E02-LED-E1-T4-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P142031  
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-E02-LED-E1-T4-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (42) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5901.7 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

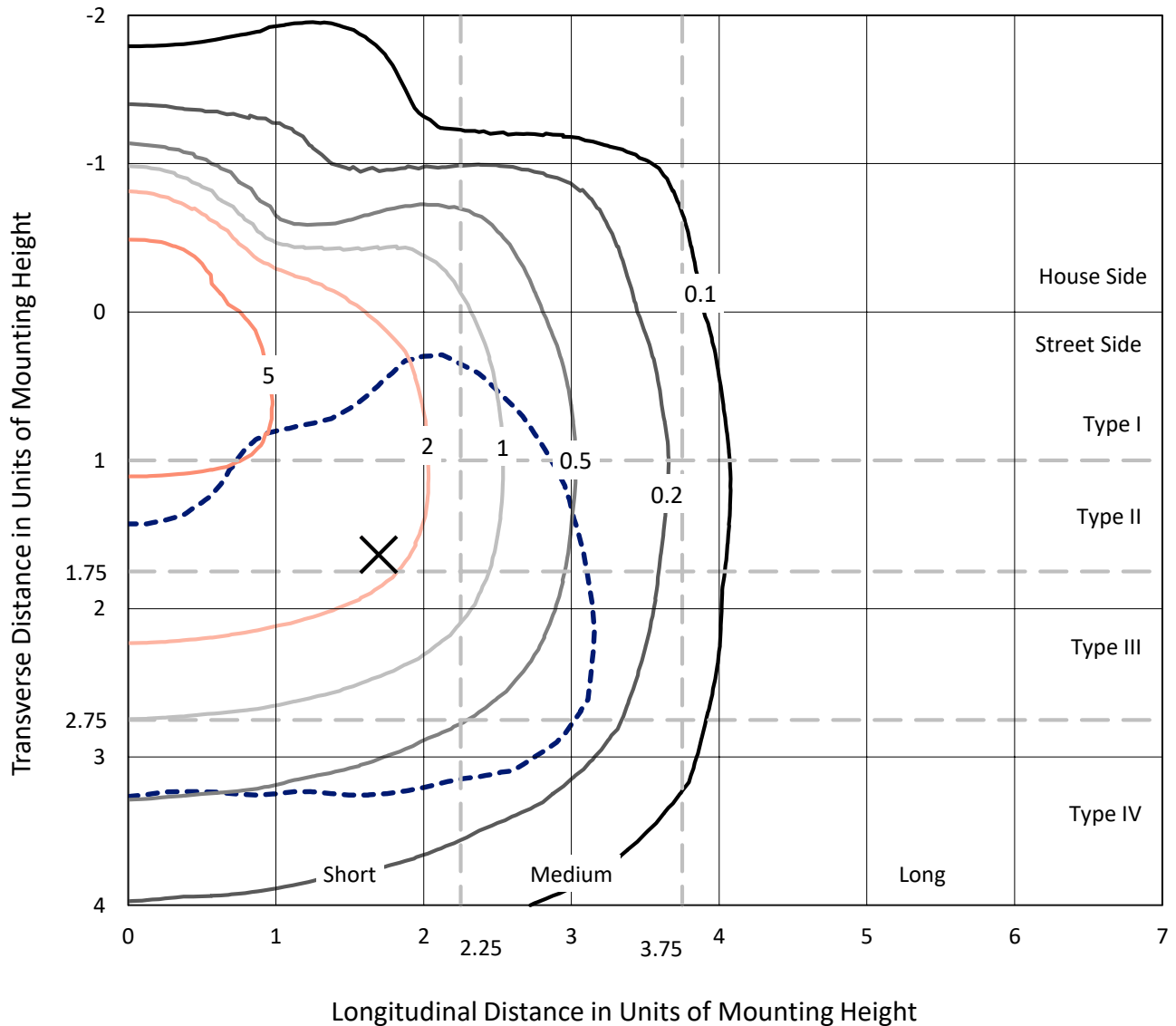
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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 CATALOG NUMBER: ECM-E02-LED-E1-T4-7050

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

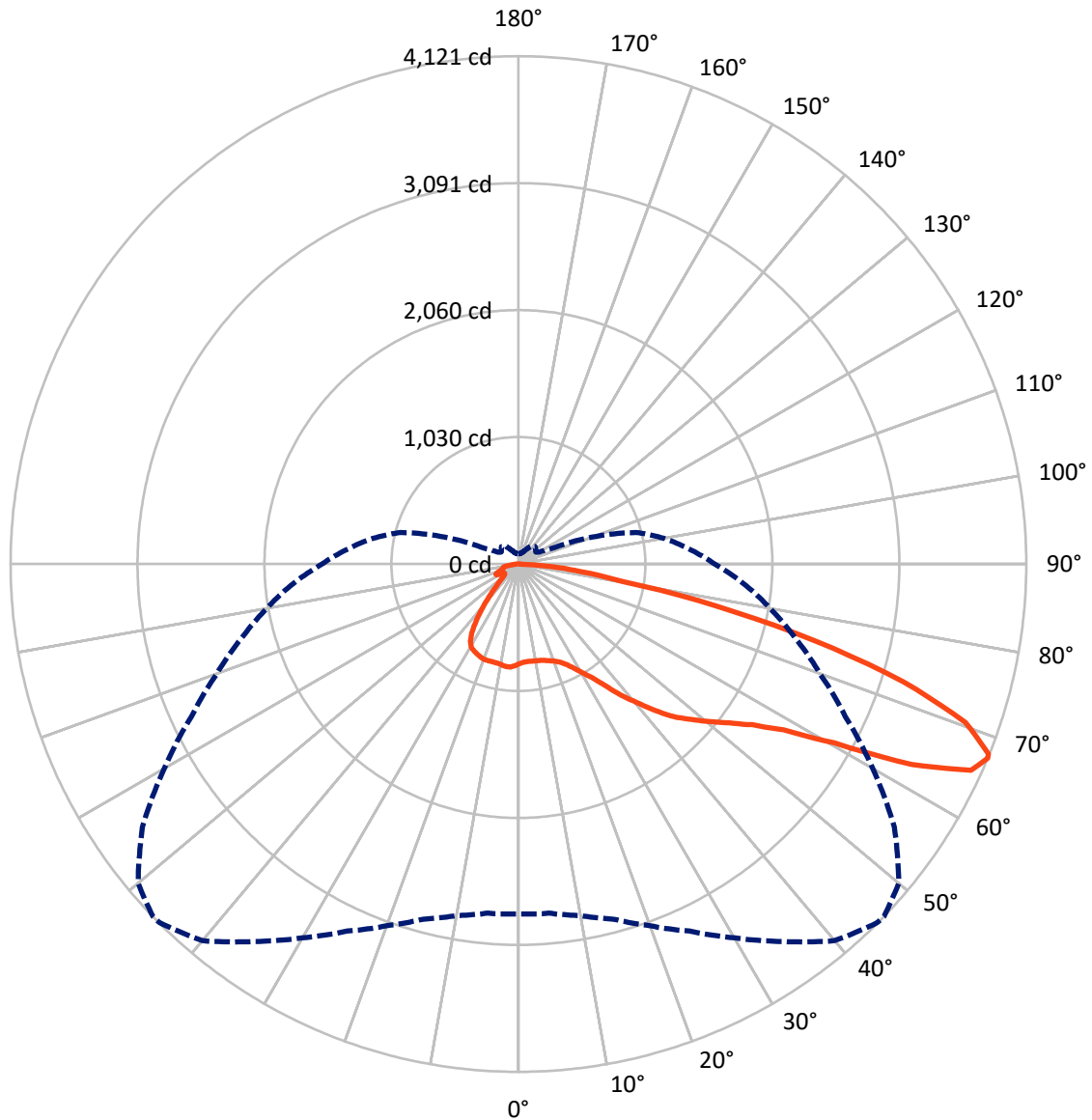


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc  
 Type IV - Short - Semi-Cutoff

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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	1172.8	0.0	1172.8
	% Fixture	19.9	0.0	19.9
<b>Street Side</b>	Lumens	4728.9	0.0	4728.9
	% Fixture	80.1	0.0	80.1
<b>Total</b>	Lumens	5901.7	0.0	5901.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.8	1.3
10°-20°	232.3	3.9
20°-30°	390.5	6.6
30°-40°	584.0	9.9
40°-50°	760.7	12.9
50°-60°	1041.9	17.7
60°-70°	1647.1	27.9
70°-80°	1021.7	17.3
80°-90°	145.6	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°	5901.7	100.0
0°-180°	5901.7	100.0



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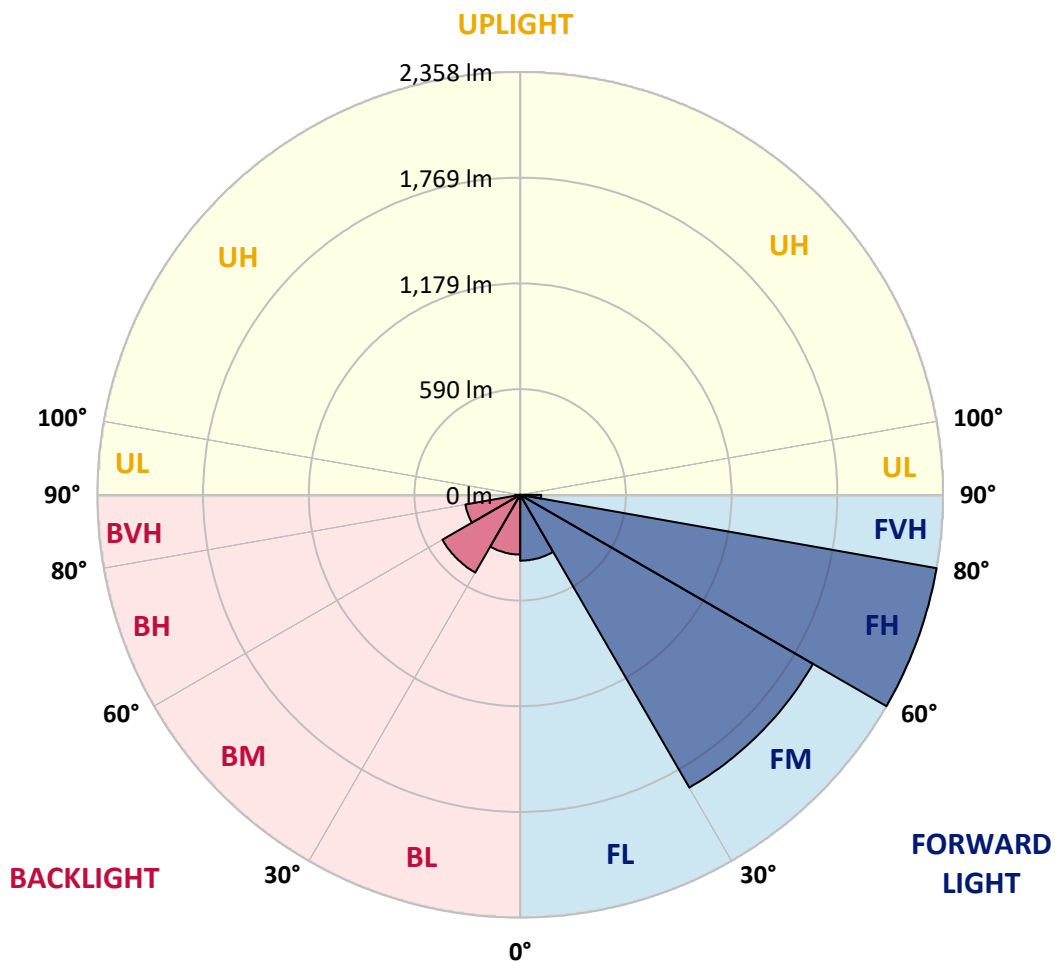
CATALOG NUMBER: ECM-E02-LED-E1-T4-7050

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	367.5	6.2			
FM	(30°-60°)	1885.8	32.0			
FH	(60°-80°)	2358.3	40.0			G2/5000
FVH	(80°-90°)	117.3	2.0			G2/225
BL	(0°-30°)	333.1	5.6	B1/500		
BM	(30°-60°)	500.9	8.5	B1/1000		
BH	(60°-80°)	310.5	5.3	B1/500		G1/500
BVH	(80°-90°)	28.3	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°	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6
2.5°	790.8	792.8	792.2	791.5	792.2	792.8	793.5	795.6	796.3	796.9	797.6
5°	776.4	778.5	777.8	779.2	779.8	782.6	784.6	788.0	790.1	792.8	794.2
7.5°	772.3	773.7	773.7	775.1	775.7	778.5	781.9	786.0	790.1	794.2	795.6
10°	783.3	783.9	783.9	783.3	783.9	785.3	786.7	790.1	793.5	796.9	798.3
12.5°	809.3	807.2	806.5	804.5	805.2	802.4	802.4	801.7	801.7	802.4	802.4
15°	836.6	835.2	833.9	830.5	830.5	826.4	825.0	822.3	815.4	812.7	812.0
17.5°	861.2	859.9	857.1	854.4	853.0	847.6	846.2	841.4	833.2	827.0	825.0
20°	890.7	887.2	881.1	879.7	876.3	870.1	868.1	861.9	851.0	842.1	841.4
22.5°	935.8	930.3	924.2	919.4	910.5	904.3	898.9	890.7	877.7	867.4	864.7
25°	981.0	978.9	973.4	966.6	960.4	953.6	946.8	934.4	917.3	904.3	901.6
27.5°	1044.6	1039.8	1032.9	1022.0	1018.6	1007.0	1001.5	991.2	974.1	957.7	955.0
30°	1110.9	1106.1	1095.2	1085.6	1083.6	1071.3	1067.8	1056.9	1041.8	1025.4	1023.4
32.5°	1186.9	1182.1	1173.9	1168.4	1160.9	1154.0	1145.8	1135.6	1116.4	1102.7	1100.0
35°	1284.0	1279.9	1270.3	1274.4	1267.6	1265.5	1260.7	1243.6	1222.4	1206.0	1208.8
37.5°	1360.6	1359.9	1362.0	1359.9	1368.8	1377.7	1377.7	1379.1	1368.8	1351.0	1347.6
40°	1432.4	1431.8	1437.2	1443.4	1467.3	1481.7	1498.1	1504.3	1493.3	1479.6	1474.9
42.5°	1499.5	1498.1	1505.6	1528.2	1557.6	1584.3	1612.4	1636.3	1641.8	1626.7	1623.3
45°	1565.8	1567.9	1577.5	1602.8	1641.8	1676.7	1724.5	1752.6	1770.4	1762.2	1767.6
47.5°	1645.9	1647.9	1658.2	1688.3	1722.5	1766.3	1822.4	1870.2	1891.5	1891.5	1884.6
50°	1741.0	1750.5	1761.5	1782.0	1821.7	1864.8	1933.2	1981.1	2015.3	2013.9	2008.4
52.5°	1867.5	1869.6	1887.3	1903.8	1938.0	1981.8	2043.3	2109.0	2152.1	2148.0	2141.8
55°	2037.8	2029.6	2041.3	2057.0	2093.9	2132.2	2199.3	2275.2	2319.0	2306.0	2301.9
57.5°	2252.6	2245.8	2254.0	2273.2	2319.7	2351.1	2405.2	2475.0	2536.5	2547.5	2537.9
60°	2562.5	2562.5	2578.9	2620.0	2667.2	2714.4	2783.5	2867.6	2931.2	2947.0	2946.3
62.5°	2929.9	2953.1	2956.6	3009.9	3100.2	3181.6	3289.0	3437.5	3532.5	3600.3	3582.5
65°	2988.7	2996.2	3026.3	3109.1	3231.5	3375.9	3542.8	3737.8	3935.5	4033.3	4036.0
67°	2840.9	2843.7	2896.4	2983.2	3123.5	3286.3	3502.4	3739.8	3990.2	4116.7	4120.8
67.5°	2795.1	2789.6	2836.8	2927.8	3081.1	3264.4	3467.6	3717.2	3975.8	4111.3	4113.3
70°	2488.0	2490.7	2527.6	2628.9	2791.0	2962.7	3189.8	3446.3	3718.6	3842.4	3848.6
72.5°	2145.2	2127.5	2161.0	2269.1	2346.4	2514.0	2722.6	2916.2	3155.6	3272.6	3269.9
75°	1636.3	1587.0	1645.9	1708.8	1751.9	1918.1	2048.1	2181.5	2402.5	2491.4	2486.6
77.5°	881.8	879.7	944.0	993.3	1057.6	1207.4	1321.6	1405.8	1591.8	1635.6	1641.1
80°	478.8	496.6	534.9	589.7	641.7	713.5	779.8	832.5	893.4	865.3	859.2
82.5°	288.7	318.1	376.9	418.7	439.2	471.3	518.5	548.6	572.6	520.6	510.3
85°	45.8	82.8	212.7	254.5	276.4	291.4	301.7	321.5	293.5	275.0	279.8
87.5°	15.0	17.1	32.8	72.5	63.6	43.8	57.5	83.5	39.7	21.2	20.5
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):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6
2.5°	798.3	799.0	801.0	803.8	805.2	808.6	808.6	811.3	811.3	813.4	815.4
5°	796.3	799.7	802.4	806.5	808.6	813.4	815.4	819.5	821.6	824.3	827.0
7.5°	799.7	804.5	807.9	812.7	816.1	820.9	822.9	826.4	828.4	831.8	833.2
10°	802.4	807.2	811.3	816.8	819.5	822.9	825.0	827.7	828.4	830.5	831.8
12.5°	805.8	807.9	811.3	816.1	818.8	820.9	822.9	825.0	827.0	827.0	827.0
15°	810.6	808.6	809.3	813.4	816.1	817.5	819.5	820.9	821.6	821.6	820.2
17.5°	820.9	815.4	812.0	812.0	813.4	814.7	814.7	812.7	811.3	809.3	806.5
20°	835.9	827.0	820.2	816.8	814.0	810.6	805.2	798.3	792.2	786.7	783.3
22.5°	857.1	848.2	840.0	832.5	823.6	812.0	800.4	786.0	774.4	765.5	762.1
25°	896.8	883.8	877.7	866.0	852.4	833.9	816.1	796.3	782.6	770.3	764.8
27.5°	950.2	939.9	926.2	920.1	902.3	881.1	861.2	837.3	818.1	803.1	792.8
30°	1017.9	1011.1	999.4	989.2	972.1	952.9	923.5	896.8	863.3	836.6	821.6
32.5°	1095.9	1085.6	1075.4	1062.4	1050.0	1024.7	997.4	957.0	910.5	864.7	836.6
35°	1193.7	1183.4	1176.6	1156.1	1135.6	1108.2	1071.3	1023.4	958.4	896.8	848.9
37.5°	1328.5	1306.6	1273.1	1243.6	1206.7	1165.0	1123.2	1065.8	993.3	913.2	847.6
40°	1445.4	1413.3	1375.7	1325.0	1273.1	1218.3	1169.1	1106.8	1022.0	926.9	838.0
42.5°	1597.3	1541.9	1478.3	1411.2	1340.1	1274.4	1213.5	1142.4	1043.2	927.6	815.4
45°	1734.1	1665.7	1581.6	1490.6	1403.7	1323.7	1253.9	1175.2	1061.0	924.9	789.4
47.5°	1855.9	1775.8	1673.2	1563.8	1461.2	1370.9	1294.3	1211.5	1084.3	933.8	779.8
50°	1973.5	1881.9	1766.3	1633.6	1519.3	1420.8	1340.8	1251.8	1123.2	963.9	794.9
52.5°	2099.4	1987.9	1857.3	1707.4	1582.9	1481.0	1391.4	1300.4	1169.8	1004.2	822.3
55°	2253.3	2126.8	1977.6	1812.1	1669.1	1555.6	1454.3	1358.6	1225.2	1054.2	854.4
57.5°	2458.5	2330.6	2158.9	1968.1	1818.3	1683.5	1561.7	1453.6	1309.3	1123.2	902.3
60°	2853.9	2695.9	2467.4	2260.2	2098.0	1939.3	1792.3	1644.5	1470.8	1262.8	1025.4
62.5°	3488.8	3268.5	2985.3	2696.6	2477.7	2267.7	2073.4	1881.2	1664.3	1431.1	1171.8
65°	3927.9	3655.7	3300.0	2938.1	2641.9	2385.4	2153.5	1925.0	1683.5	1461.2	1235.4
67°	4028.5	3724.1	3319.1	2926.5	2604.3	2325.8	2073.4	1835.4	1592.5	1390.7	1197.8
67.5°	4024.4	3720.7	3304.1	2901.8	2578.9	2304.6	2050.2	1799.8	1561.0	1363.4	1179.3
70°	3780.9	3475.8	3057.1	2656.9	2345.7	2072.7	1816.2	1598.0	1354.5	1194.4	1056.2
72.5°	3203.5	2938.1	2600.2	2240.3	1973.5	1729.3	1524.1	1310.0	1098.6	991.9	883.1
75°	2436.0	2200.7	1890.8	1627.4	1424.2	1254.6	1048.7	907.8	759.3	686.1	647.1
77.5°	1609.6	1339.4	1125.3	874.2	725.1	591.7	466.5	370.1	309.2	324.9	355.0
80°	851.7	675.9	500.1	387.2	298.9	232.6	184.7	138.2	100.6	117.7	147.8
82.5°	463.8	395.4	292.1	232.6	190.2	157.3	121.1	84.8	62.9	69.8	100.6
85°	264.7	232.6	180.6	140.9	123.1	100.6	69.1	46.5	45.1	48.6	62.3
87.5°	43.8	58.8	47.9	32.8	36.9	36.3	32.2	24.6	18.5	26.0	33.5
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6	808.6
2.5°	816.8	818.8	821.6	822.3	821.6	823.6	827.0	829.8	827.7	826.4	829.8
5°	829.8	831.1	834.6	834.6	835.2	836.6	838.7	840.7	838.0	838.0	839.4
7.5°	835.2	835.2	838.7	837.3	837.3	836.6	838.7	839.4	835.2	834.6	835.2
10°	831.8	831.8	833.2	830.5	829.8	829.1	829.1	829.8	825.7	824.3	826.4
12.5°	827.0	827.0	825.7	824.3	822.9	821.6	822.9	823.6	820.9	820.9	821.6
15°	818.8	816.8	816.1	816.1	816.8	817.5	820.2	822.3	820.2	818.8	818.8
17.5°	805.2	803.8	805.8	809.9	814.7	818.1	822.3	823.6	818.8	813.4	809.3
20°	784.6	788.0	795.6	807.2	817.5	822.9	822.9	818.1	807.2	796.3	790.8
22.5°	763.4	773.0	789.4	807.2	819.5	821.6	814.0	803.8	788.7	777.1	766.8
25°	766.2	777.8	794.2	809.3	817.5	814.0	800.4	787.4	769.6	757.3	742.2
27.5°	794.9	805.8	814.0	818.8	816.1	805.2	789.4	771.6	751.8	734.7	716.9
30°	818.1	822.9	822.3	818.1	807.9	790.8	772.3	751.1	727.2	708.7	685.4
32.5°	822.3	813.4	799.7	784.6	770.9	751.8	730.6	706.0	679.3	655.3	632.1
35°	814.7	781.2	751.1	721.0	700.5	676.5	658.1	629.3	599.9	579.4	562.3
37.5°	786.7	728.5	680.6	638.2	608.1	580.8	552.7	524.7	500.1	490.5	485.7
40°	751.1	663.5	590.4	531.5	499.4	472.7	444.0	421.4	409.8	400.9	397.4
42.5°	699.1	589.7	498.7	435.8	394.7	370.1	342.0	329.7	324.2	326.3	323.6
45°	650.6	512.4	398.1	328.4	300.3	277.0	263.4	257.9	255.2	253.8	255.8
47.5°	616.3	452.9	320.8	249.7	226.4	210.0	204.5	202.5	201.8	199.1	198.4
50°	608.1	418.0	262.7	194.3	176.5	167.6	164.9	162.8	161.4	159.4	154.6
52.5°	617.7	408.4	234.0	166.9	151.9	145.0	143.0	139.6	138.2	132.7	126.6
55°	634.1	411.8	225.1	159.4	144.3	136.8	134.1	132.7	127.9	121.8	114.2
57.5°	668.3	433.0	229.2	161.4	145.7	138.9	137.5	136.1	130.0	121.1	111.5
60°	767.5	494.6	250.4	175.8	156.7	151.9	152.5	149.8	140.9	129.3	114.9
62.5°	920.8	590.4	289.4	193.6	174.4	174.4	178.5	176.5	162.8	143.7	123.1
65°	1000.1	647.8	305.8	199.1	179.9	188.8	201.8	199.7	179.9	151.2	123.8
67°	987.8	636.9	296.2	190.9	169.6	181.3	194.3	195.0	173.1	144.3	118.3
67.5°	976.2	629.3	291.4	187.4	166.9	178.5	190.9	188.8	170.3	141.6	117.0
70°	877.0	552.7	259.9	175.1	154.6	158.0	161.4	158.7	144.3	125.2	108.1
72.5°	757.3	459.0	229.2	167.6	147.8	142.3	142.3	137.5	127.9	114.9	102.6
75°	577.4	357.1	201.1	159.4	139.6	131.3	130.0	126.6	118.3	108.8	97.8
77.5°	352.3	255.8	174.4	147.1	129.3	122.4	123.1	121.1	112.9	104.0	93.7
80°	176.5	165.5	146.4	127.9	117.0	110.1	110.8	106.7	99.9	93.0	84.8
82.5°	108.1	114.2	102.6	97.1	90.3	82.8	64.3	75.2	73.2	67.0	63.6
85°	71.8	71.1	64.3	56.8	52.0	45.1	40.4	41.0	45.1	46.5	46.5
87.5°	34.9	33.5	30.8	28.7	27.4	22.6	21.2	23.9	23.9	25.3	24.6
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):**

	160°	165°	170°	175°	180°
0°	808.6	808.6	808.6	808.6	808.6
2.5°	830.5	831.8	831.1	833.2	831.1
5°	840.0	840.0	840.7	841.4	840.7
7.5°	835.2	834.6	835.9	837.3	836.6
10°	826.4	827.0	828.4	830.5	830.5
12.5°	822.9	823.6	826.4	828.4	828.4
15°	820.2	820.9	822.3	825.0	822.9
17.5°	807.9	805.2	805.2	807.2	805.2
20°	786.0	781.9	781.9	781.2	780.5
22.5°	760.0	749.7	747.0	743.6	744.3
25°	727.9	714.2	706.6	702.5	701.2
27.5°	701.9	686.1	678.6	672.4	670.4
30°	669.0	651.2	645.1	641.7	640.3
32.5°	621.1	605.4	597.2	595.1	591.0
35°	548.6	541.8	538.4	533.6	534.3
37.5°	476.1	474.1	465.9	468.6	465.9
40°	398.1	397.4	398.8	396.8	401.5
42.5°	324.9	322.9	326.3	324.2	326.3
45°	251.7	255.8	260.6	258.6	261.3
47.5°	192.9	193.6	192.2	193.6	195.0
50°	148.4	147.1	145.7	143.0	144.3
52.5°	122.4	117.7	114.2	112.2	111.5
55°	108.1	103.3	100.6	97.8	97.8
57.5°	104.0	97.8	93.7	91.7	91.0
60°	104.7	96.5	91.0	87.6	86.9
62.5°	107.4	96.5	88.9	85.5	84.1
65°	106.7	95.1	87.6	84.1	82.8
67°	103.3	93.0	86.9	83.5	82.8
67.5°	101.9	92.3	86.9	83.5	82.1
70°	97.1	90.3	85.5	82.1	80.7
72.5°	93.0	87.6	82.1	79.4	78.0
75°	88.9	83.5	78.7	75.9	75.2
77.5°	84.8	78.7	75.2	71.8	69.1
80°	77.3	70.5	65.7	60.2	58.8
82.5°	63.6	58.1	53.4	48.6	47.9
85°	47.2	45.1	41.0	36.9	36.9
87.5°	26.0	28.7	25.3	23.3	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)