

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: P141933

Luminaire Tested: **EMM-F04-LED-E1-T3-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141933
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: EMM-F04-LED-E1-T3-8030
Description: EPIC MODERN MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (28) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8183.2 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

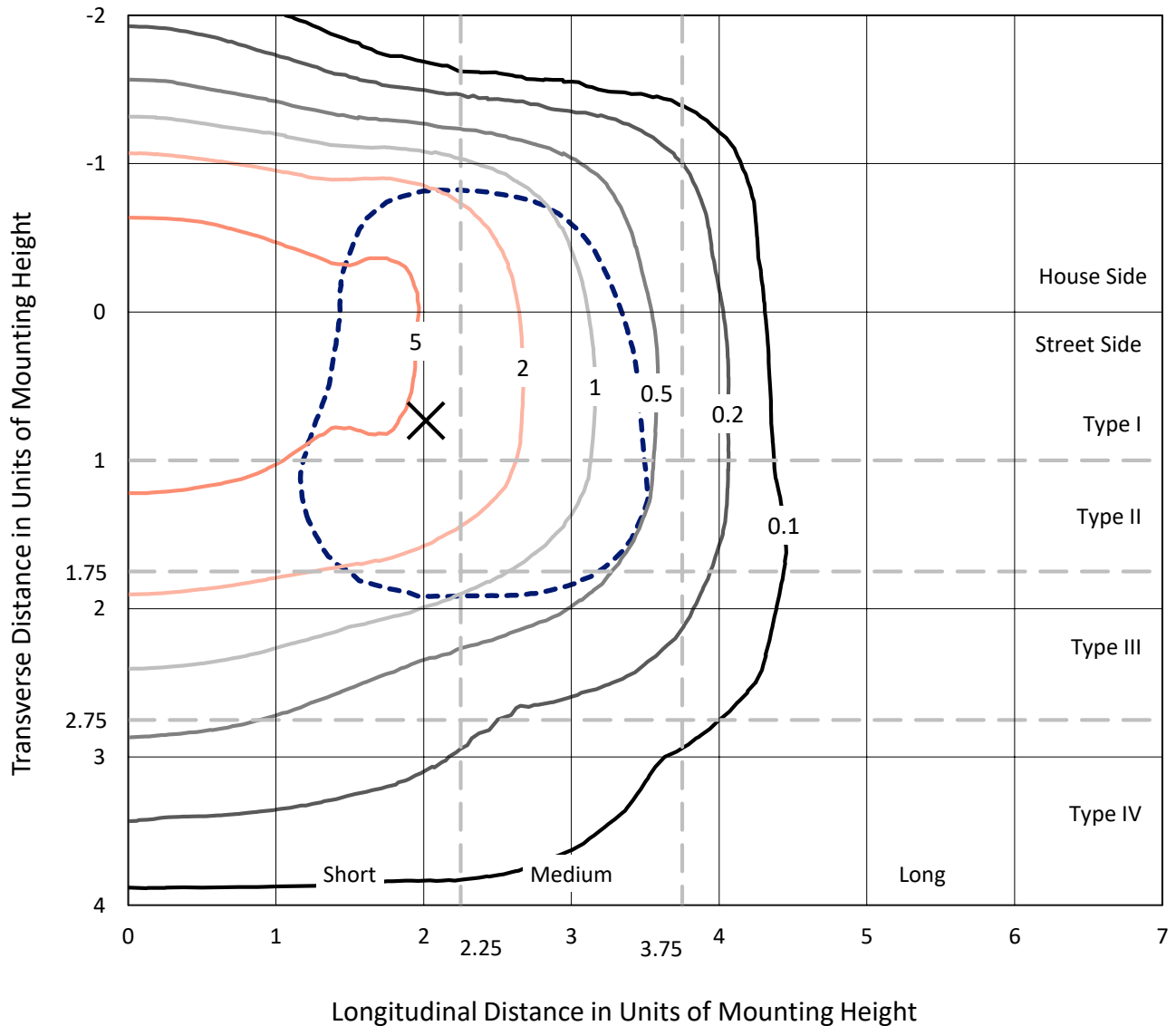
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

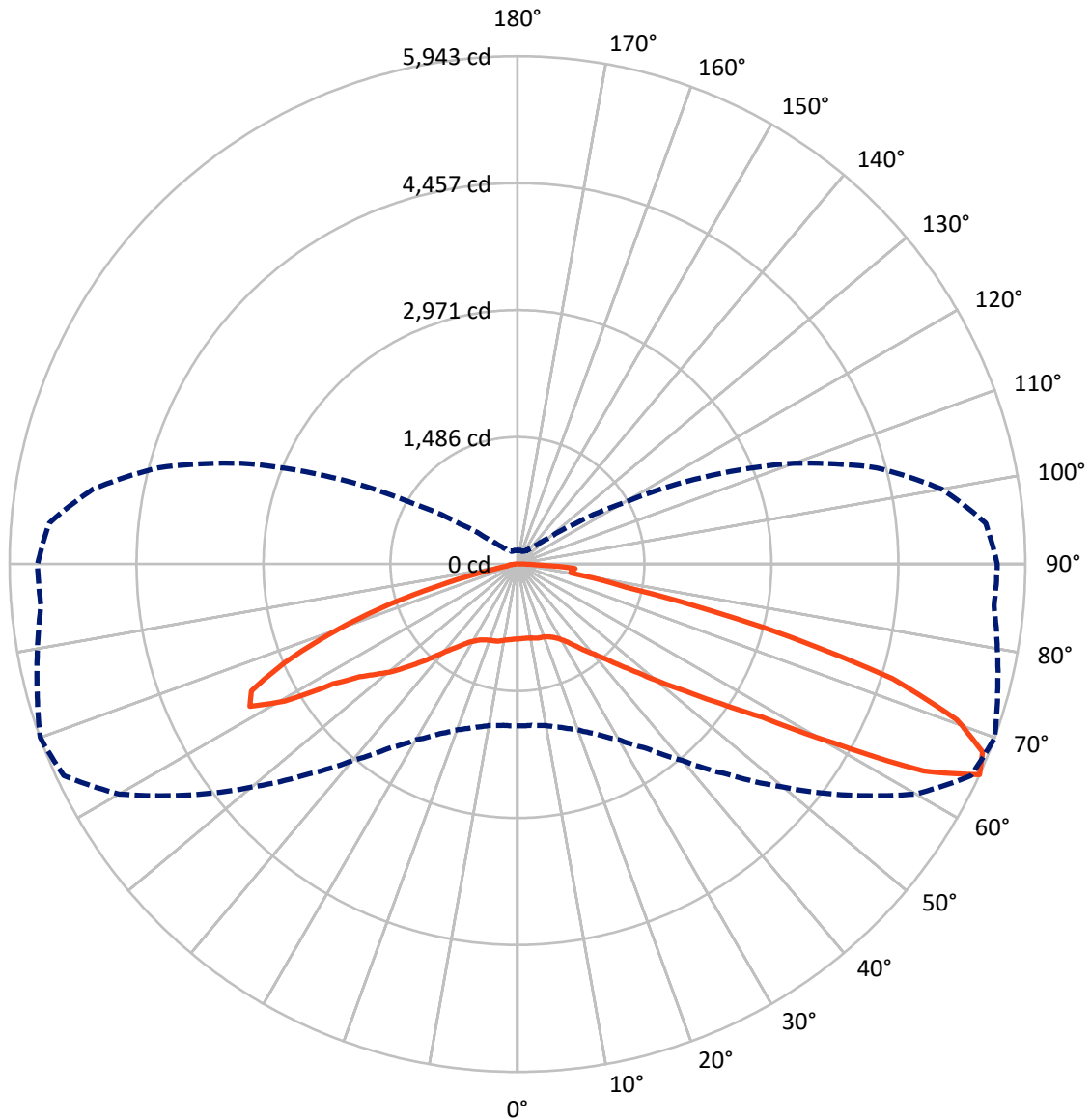
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 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
House Side	Lumens	2762.4	0.0	2762.4
	% Fixture	33.8	0.0	33.8
Street Side	Lumens	5420.8	0.0	5420.8
	% Fixture	66.2	0.0	66.2
Total	Lumens	8183.2	0.0	8183.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.4	1.0
10°-20°	250.0	3.1
20°-30°	429.8	5.3
30°-40°	689.0	8.4
40°-50°	1128.1	13.8
50°-60°	1765.7	21.6
60°-70°	2481.4	30.3
70°-80°	1174.3	14.4
80°-90°	180.4	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°	8183.2	100.0
0°-180°	8183.2	100.0

Coefficient of Utilization



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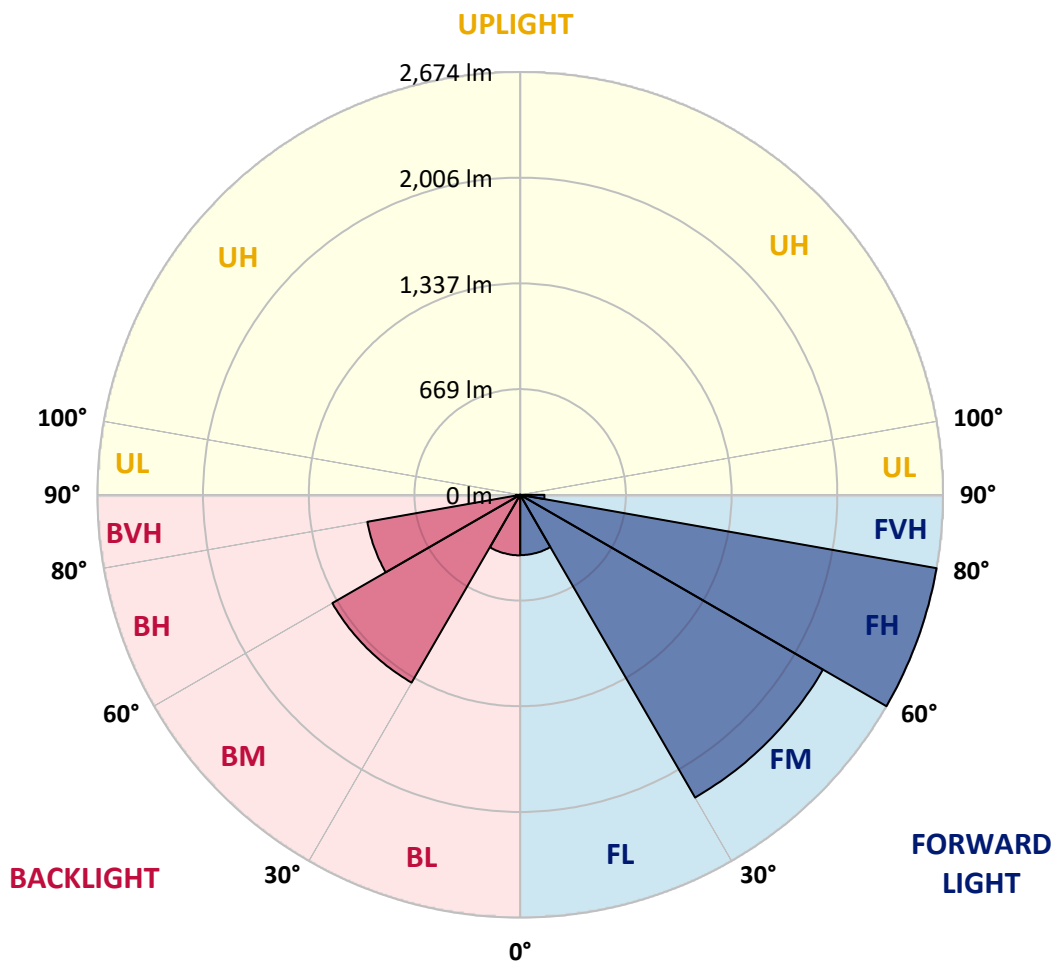
CATALOG NUMBER: EMM-F04-LED-E1-T3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	381.2	4.7			
FM	(30°-60°)	2211.3	27.0			
FH	(60°-80°)	2674.5	32.7			G2/5000
FVH	(80°-90°)	153.8	1.9			G2/225
BL	(0°-30°)	383.0	4.7	B1/500		
BM	(30°-60°)	1371.5	16.8	B2/2500		
BH	(60°-80°)	981.3	12.0	B2/1000		G2/1000
BVH	(80°-90°)	26.7	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°	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0
2.5°	872.3	873.2	873.2	871.4	871.4	872.3	872.3	873.2	873.2	873.2	874.2
5°	872.3	873.2	873.2	872.3	871.4	873.2	872.3	873.2	873.2	873.2	873.2
7.5°	870.5	871.4	871.4	870.5	871.4	872.3	872.3	874.2	875.1	875.1	876.0
10°	861.2	862.1	863.0	863.0	864.9	867.7	868.6	872.3	873.2	876.0	877.9
12.5°	844.4	844.4	846.3	848.2	850.9	856.5	859.3	864.9	869.5	873.2	879.7
15°	829.6	829.6	831.4	832.4	837.9	841.7	847.2	853.7	862.1	869.5	879.7
17.5°	837.0	837.0	836.1	835.2	836.1	836.1	840.7	847.2	854.7	864.9	877.9
20°	865.8	864.9	861.2	859.3	858.4	854.7	851.9	850.9	854.7	862.1	875.1
22.5°	890.9	889.0	888.1	886.2	889.0	887.2	883.5	878.8	873.2	870.5	877.9
25°	905.8	906.7	906.7	906.7	912.3	914.1	916.0	910.4	903.9	894.6	895.5
27.5°	926.2	927.1	925.3	929.0	935.5	940.1	944.8	948.5	944.8	939.2	932.7
30°	969.9	969.9	967.1	969.9	975.4	980.1	986.6	993.1	993.1	987.5	981.0
32.5°	1015.4	1016.3	1016.3	1018.2	1026.5	1030.2	1039.5	1046.0	1050.7	1047.0	1050.7
35°	1070.2	1069.3	1072.0	1073.0	1086.0	1090.6	1109.2	1113.8	1121.3	1123.1	1125.9
37.5°	1161.2	1163.1	1157.5	1153.8	1164.9	1164.9	1189.1	1202.1	1200.2	1213.2	1222.5
40°	1308.0	1299.6	1296.9	1295.0	1301.5	1300.6	1299.6	1317.3	1325.7	1327.5	1332.2
42.5°	1470.6	1473.4	1470.6	1477.1	1477.1	1472.4	1468.7	1465.9	1481.7	1491.9	1493.8
45°	1661.0	1664.7	1659.2	1654.5	1666.6	1673.1	1673.1	1680.5	1693.5	1698.2	1695.4
47.5°	1813.4	1823.6	1818.9	1825.4	1845.0	1867.3	1897.0	1916.5	1930.4	1943.4	1963.9
50°	1950.9	1955.5	1966.7	1988.0	2016.8	2052.1	2100.4	2148.7	2176.6	2209.1	2233.3
52.5°	2034.5	2048.4	2065.1	2100.4	2148.7	2198.0	2272.3	2351.3	2421.9	2458.1	2486.9
55°	2084.6	2094.9	2117.1	2165.5	2233.3	2306.7	2399.6	2508.2	2602.1	2682.0	2744.2
57.5°	2082.8	2091.1	2121.8	2174.7	2255.6	2347.5	2463.7	2599.3	2737.7	2870.6	2987.6
60°	2042.8	2050.3	2080.9	2137.6	2225.8	2335.5	2474.8	2641.1	2828.7	3028.5	3233.8
62.5°	1981.5	1987.1	2014.0	2070.7	2159.9	2276.9	2440.4	2658.7	2925.4	3240.3	3638.8
65°	1895.1	1895.1	1920.2	1978.7	2064.2	2195.2	2375.4	2631.8	3000.6	3480.0	4059.6
67.5°	1767.9	1767.9	1788.3	1836.6	1903.5	1994.5	2174.7	2441.4	2830.6	3404.7	4082.9
70°	1527.2	1531.0	1531.0	1560.7	1590.4	1631.3	1716.8	1921.1	2286.2	2847.3	3514.3
72.5°	1119.4	1051.6	1104.6	1152.9	1186.3	1208.6	1257.8	1321.9	1505.9	1926.7	2530.5
75°	705.1	722.7	762.7	817.5	900.2	985.6	1079.5	1119.4	1102.7	1152.9	1558.8
77.5°	427.3	412.5	451.5	533.2	626.1	742.3	917.8	1070.2	1157.5	1151.9	1103.6
80°	184.9	180.2	206.2	245.3	290.8	395.7	556.5	765.5	997.7	1132.4	1112.0
82.5°	66.0	66.9	84.5	100.3	120.8	155.1	220.2	352.1	558.3	795.2	982.9
85°	19.5	21.4	29.7	41.8	47.4	53.9	74.3	110.5	188.6	301.0	535.1
87.5°	5.6	6.5	8.4	14.9	13.9	13.0	14.9	23.2	17.7	14.9	74.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0
2.5°	873.2	873.2	873.2	874.2	873.2	873.2	874.2	874.2	875.1	876.0	877.9
5°	872.3	872.3	873.2	873.2	873.2	874.2	875.1	876.0	877.9	880.7	883.5
7.5°	875.1	875.1	874.2	875.1	875.1	876.0	877.9	878.8	882.5	885.3	890.0
10°	877.9	877.9	878.8	879.7	879.7	881.6	884.4	885.3	889.0	894.6	899.3
12.5°	881.6	884.4	888.1	890.0	891.8	893.7	896.5	898.3	903.0	910.4	916.0
15°	884.4	890.9	894.6	899.3	902.0	903.0	905.8	909.5	914.1	921.5	928.1
17.5°	884.4	892.8	898.3	903.0	907.6	910.4	913.2	916.9	923.4	930.8	937.3
20°	883.5	895.5	903.0	910.4	918.8	921.5	926.2	929.9	937.3	946.6	951.3
22.5°	888.1	902.0	912.3	925.3	934.6	942.0	947.6	954.1	959.6	966.1	968.0
25°	902.0	916.0	932.7	948.5	961.5	972.6	980.1	985.6	992.2	994.9	991.2
27.5°	925.3	935.5	958.7	981.9	1002.4	1016.3	1024.7	1032.1	1034.0	1039.5	1025.6
30°	967.1	971.7	995.9	1029.3	1052.5	1075.8	1086.9	1094.3	1095.3	1091.6	1067.4
32.5°	1035.8	1027.5	1048.8	1093.4	1128.7	1148.2	1165.9	1170.5	1167.7	1155.7	1116.6
35°	1119.4	1106.4	1116.6	1181.7	1220.7	1249.5	1266.2	1270.8	1264.3	1243.0	1189.1
37.5°	1222.5	1217.9	1222.5	1284.8	1352.6	1379.5	1387.0	1392.5	1376.7	1337.7	1267.1
40°	1336.8	1337.7	1332.2	1388.8	1474.3	1513.3	1531.0	1518.9	1499.4	1443.6	1365.6
42.5°	1494.7	1489.2	1469.6	1520.7	1630.4	1670.3	1686.1	1676.8	1657.3	1586.7	1495.7
45°	1703.8	1685.2	1666.6	1693.5	1799.4	1851.5	1874.7	1868.2	1833.8	1748.3	1662.9
47.5°	1959.2	1939.7	1905.3	1900.7	2007.5	2068.8	2077.2	2067.0	2041.0	1955.5	1850.5
50°	2227.7	2222.1	2206.3	2169.2	2264.9	2326.2	2320.6	2313.2	2284.4	2175.7	2067.9
52.5°	2505.5	2516.6	2506.4	2480.4	2582.6	2607.6	2609.5	2587.2	2553.8	2453.4	2306.7
55°	2797.2	2839.0	2854.8	2875.2	2956.0	2952.3	2930.9	2878.0	2886.3	2772.1	2568.6
57.5°	3106.5	3234.7	3336.0	3381.5	3458.6	3480.9	3427.0	3444.7	3437.2	3319.2	2998.7
60°	3514.3	3820.9	4084.7	4247.3	4351.3	4311.4	4386.6	4390.4	4517.6	4258.4	3758.7
62.5°	4164.6	4727.6	5195.8	5336.1	5363.0	5353.7	5264.5	5353.7	5329.6	5013.7	4366.2
65°	4711.8	5381.6	5857.2	5942.7	5817.3	5702.1	5598.0	5615.7	5500.5	5043.4	4348.6
67.5°	4786.1	5453.1	5894.4	5870.2	5596.2	5382.5	5209.7	5074.1	4839.1	4425.7	3820.0
70°	4198.1	4905.0	5473.6	5455.0	5074.1	4788.9	4508.3	4304.0	4064.3	3744.7	3171.5
72.5°	3265.4	3895.2	4446.1	4589.2	4213.9	3898.9	3641.6	3381.5	3134.4	2830.6	2469.2
75°	2223.1	2696.8	2953.2	2992.2	2648.5	2412.6	2313.2	2100.4	1838.5	1773.4	1505.9
77.5°	1291.3	1473.4	1395.3	1291.3	1039.5	763.6	583.4	498.9	500.7	575.0	550.9
80°	1049.7	999.6	788.7	632.6	430.1	219.2	146.8	126.3	127.3	147.7	143.1
82.5°	1082.3	1111.1	913.2	639.1	440.3	232.2	111.5	82.7	96.6	105.0	103.1
85°	801.7	1050.7	942.0	678.2	472.9	247.1	72.5	45.5	64.1	78.0	83.6
87.5°	224.8	353.0	274.0	181.2	131.9	44.6	28.8	24.2	29.7	40.9	40.9
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0
2.5°	878.8	882.5	881.6	883.5	884.4	887.2	889.0	888.1	888.1	890.0	891.8
5°	886.2	890.9	890.9	893.7	896.5	900.2	903.0	901.1	902.0	903.9	905.8
7.5°	893.7	899.3	900.2	903.0	904.8	906.7	908.5	905.8	904.8	904.8	903.9
10°	903.0	908.5	907.6	907.6	906.7	904.8	901.1	894.6	890.0	887.2	885.3
12.5°	918.8	922.5	916.9	911.3	902.0	895.5	887.2	879.7	874.2	869.5	867.7
15°	932.7	930.8	924.3	914.1	901.1	890.9	882.5	872.3	865.8	860.2	857.4
17.5°	940.1	933.6	924.3	915.0	903.9	894.6	884.4	872.3	862.1	854.7	850.9
20°	947.6	937.3	925.3	916.0	907.6	900.2	892.8	877.9	864.9	853.7	848.2
22.5°	958.7	944.8	932.7	924.3	916.0	908.5	901.1	887.2	873.2	858.4	850.0
25°	974.5	955.9	947.6	939.2	929.9	922.5	912.3	899.3	884.4	866.7	854.7
27.5°	999.6	982.9	973.6	965.2	954.1	942.0	930.8	913.2	899.3	878.8	863.0
30°	1035.8	1018.2	1009.8	1001.4	988.4	972.6	956.9	934.6	915.0	891.8	871.4
32.5°	1081.3	1072.0	1061.8	1047.9	1030.2	1010.7	987.5	957.8	929.9	901.1	875.1
35°	1151.9	1136.1	1119.4	1105.5	1079.5	1052.5	1017.2	973.6	936.4	901.1	869.5
37.5°	1232.8	1216.0	1193.7	1168.7	1129.6	1086.9	1037.7	982.9	933.6	890.9	855.6
40°	1330.3	1308.9	1279.2	1231.8	1174.2	1110.1	1044.2	975.4	917.8	868.6	827.7
42.5°	1459.4	1415.8	1358.2	1288.5	1206.7	1119.4	1035.8	955.9	890.9	837.0	796.1
45°	1605.3	1535.6	1442.7	1338.7	1225.3	1115.7	1017.2	924.3	850.9	791.5	748.8
47.5°	1762.3	1653.6	1517.0	1370.2	1227.2	1095.3	981.0	877.0	794.3	731.1	678.2
50°	1939.7	1760.4	1569.0	1386.0	1215.1	1059.0	929.0	809.1	723.7	648.4	600.1
52.5°	2092.1	1854.2	1605.3	1379.5	1172.4	995.9	843.5	727.4	627.1	560.2	512.8
55°	2272.3	1945.3	1624.8	1347.0	1103.6	897.4	751.5	622.4	527.7	468.2	427.3
57.5°	2576.1	2099.5	1641.5	1281.1	990.3	773.8	624.3	503.5	429.2	377.2	348.4
60°	3162.3	2398.6	1710.3	1182.6	846.3	625.2	482.1	393.9	329.8	295.4	275.0
62.5°	3545.9	2602.1	1679.6	1031.2	661.4	468.2	353.0	284.3	247.1	222.0	212.7
65°	3448.4	2396.8	1425.1	817.5	460.8	311.2	236.9	195.1	178.4	165.4	159.8
67.5°	2961.6	1933.2	1033.0	528.6	291.7	189.5	155.1	138.4	131.0	125.4	124.5
70°	2359.6	1362.8	614.1	280.6	161.6	125.4	110.5	104.0	101.3	101.3	101.3
72.5°	1712.1	785.0	301.9	151.4	108.7	95.7	89.2	87.3	86.4	86.4	87.3
75°	978.2	340.0	155.1	104.0	89.2	82.7	79.0	79.0	79.0	79.0	79.9
77.5°	340.9	155.1	109.6	87.3	77.1	73.4	71.5	73.4	74.3	74.3	74.3
80°	124.5	109.6	93.8	76.2	68.7	65.0	65.0	67.8	69.7	67.8	66.9
82.5°	98.5	86.4	76.2	66.0	60.4	58.5	59.5	61.3	60.4	59.5	56.7
85°	75.2	56.7	53.0	49.2	48.3	48.3	52.0	53.0	49.2	47.4	44.6
87.5°	37.2	29.7	26.9	31.6	30.7	27.9	28.8	28.8	24.2	22.3	23.2
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°	877.0	877.0	877.0	877.0
2.5°	891.8	892.8	895.5	894.6
5°	904.8	905.8	907.6	907.6
7.5°	902.0	903.0	903.0	903.0
10°	880.7	880.7	882.5	882.5
12.5°	864.0	863.0	863.0	861.2
15°	853.7	851.9	852.8	850.0
17.5°	846.3	845.4	845.4	843.5
20°	843.5	841.7	840.7	838.9
22.5°	841.7	840.7	838.9	837.0
25°	846.3	841.7	840.7	838.9
27.5°	850.9	846.3	842.6	841.7
30°	855.6	847.2	842.6	840.7
32.5°	854.7	843.5	837.0	834.2
35°	844.4	830.5	822.1	819.4
37.5°	824.9	809.1	796.1	791.5
40°	797.1	776.6	764.6	758.0
42.5°	763.6	740.4	730.2	724.6
45°	708.8	690.2	678.2	673.5
47.5°	647.5	622.4	611.3	606.6
50°	568.5	548.1	538.8	532.3
52.5°	484.9	466.3	458.0	454.3
55°	404.1	394.8	381.8	379.0
57.5°	327.9	325.1	315.9	314.9
60°	266.6	262.0	255.5	255.5
62.5°	209.9	205.3	202.5	202.5
65°	161.6	160.7	158.9	157.9
67.5°	124.5	127.3	128.2	126.3
70°	104.0	105.0	105.0	105.0
72.5°	90.1	90.1	90.1	89.2
75°	81.8	81.8	79.9	79.0
77.5°	75.2	74.3	75.2	74.3
80°	66.0	65.0	63.2	61.3
82.5°	54.8	53.9	49.2	49.2
85°	42.7	39.9	36.2	32.5
87.5°	24.2	21.4	15.8	11.1
90°	0.0	0.0	0.0	0.0

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