

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: P141709

Luminaire Tested: **ECM-E02-LED-E1-T2-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141709
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-T2-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5385.3 lumens
Efficiency: N/A
Efficacy: 103.4 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

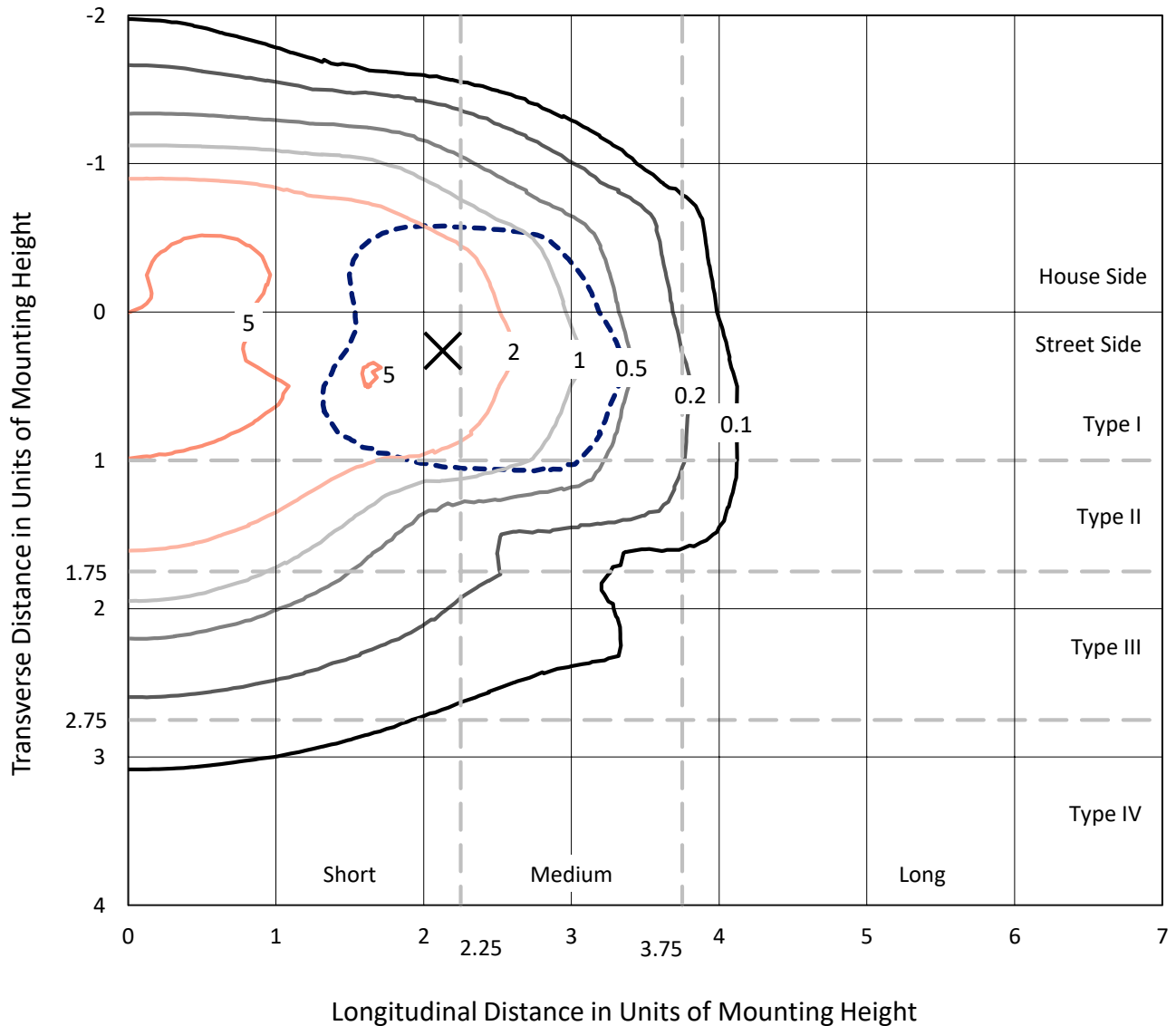
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

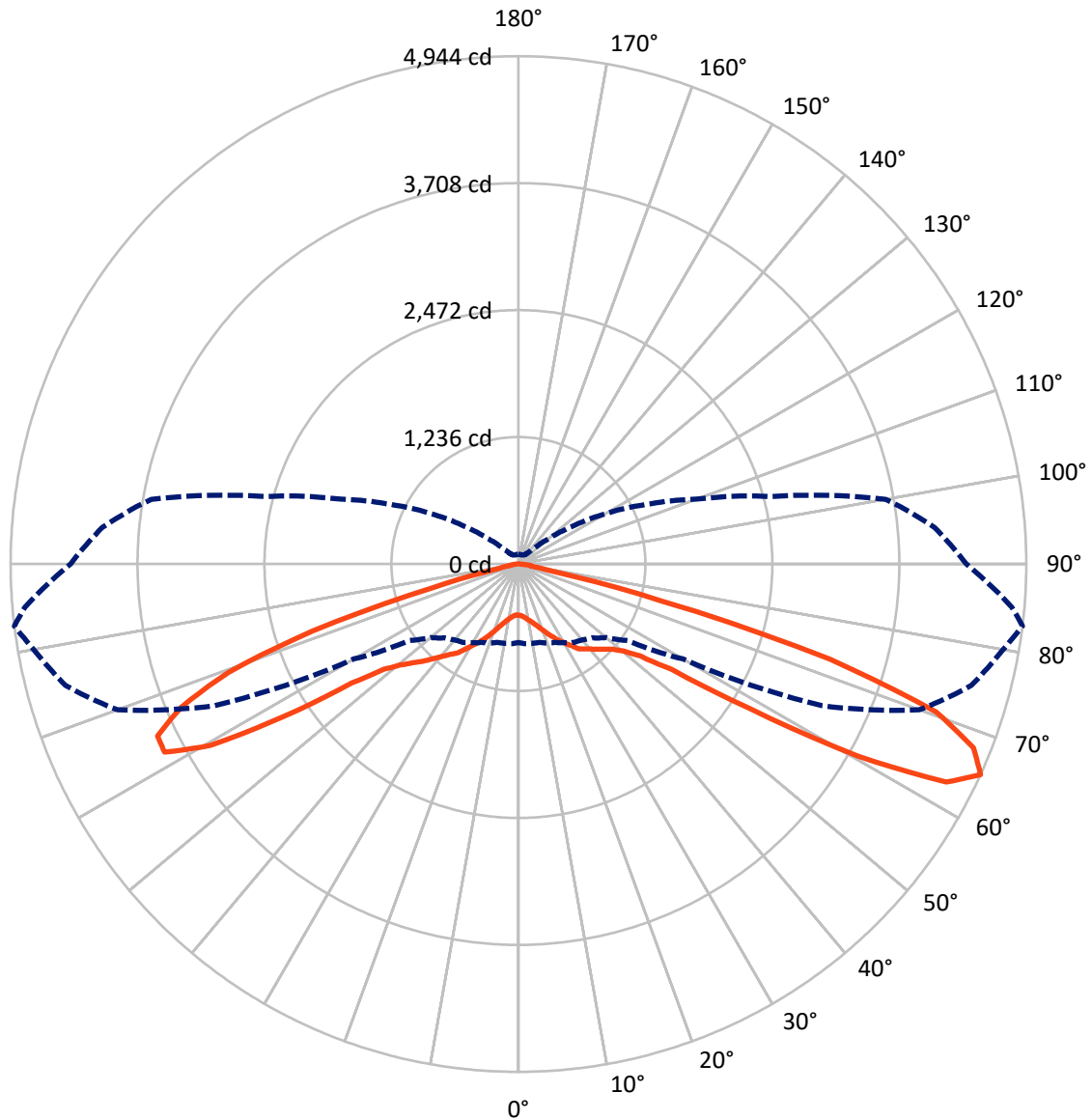


Based on 10 foot mounting height. Maximum calculated value = 6.3 fc
 Type II - Short - Semi-Cutoff

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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
House Side	Lumens	1997.6	0.0	1997.6
	% Fixture	37.1	0.0	37.1
Street Side	Lumens	3387.7	0.0	3387.7
	% Fixture	62.9	0.0	62.9
Total	Lumens	5385.3	0.0	5385.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.2	0.9
10°-20°	175.8	3.3
20°-30°	347.3	6.4
30°-40°	597.6	11.1
40°-50°	901.6	16.7
50°-60°	1254.7	23.3
60°-70°	1448.2	26.9
70°-80°	526.3	9.8
80°-90°	83.6	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°	5385.3	100.0
0°-180°	5385.3	100.0

Coefficient of Utilization



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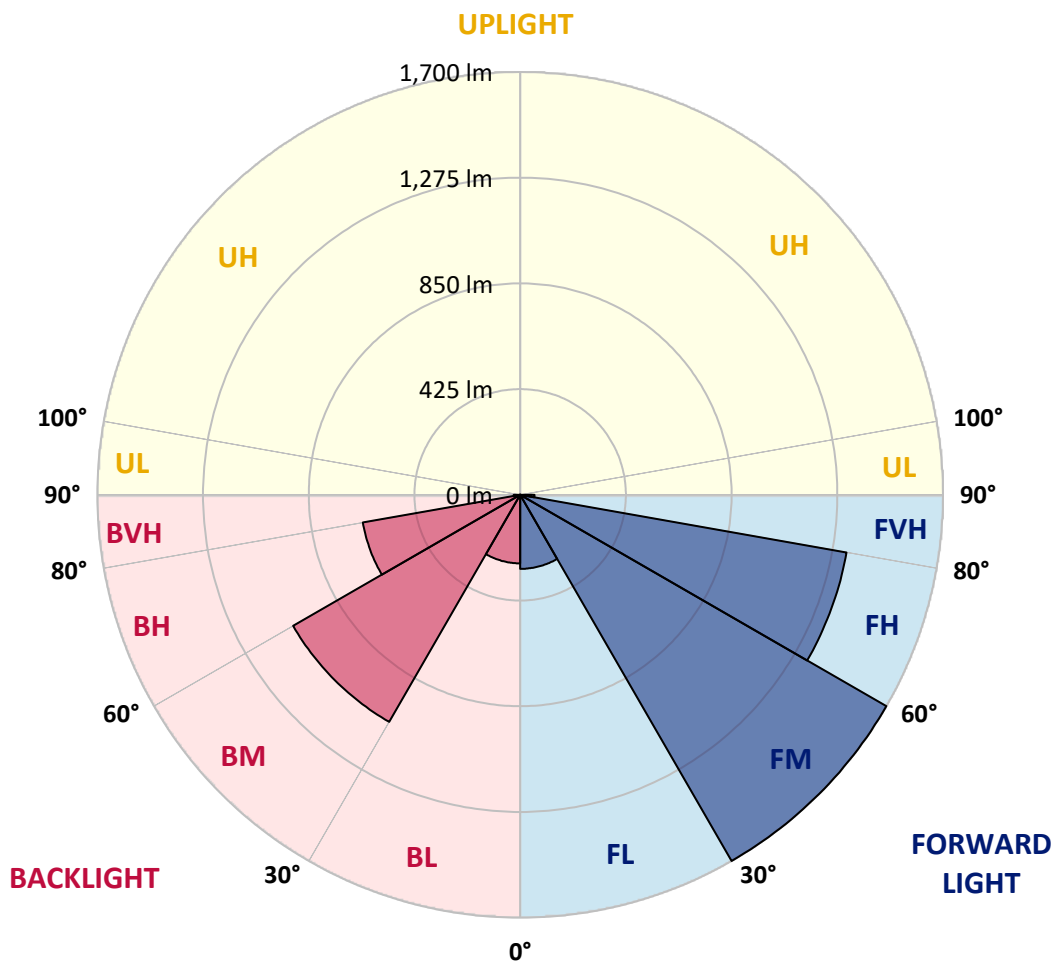
CATALOG NUMBER: ECM-E02-LED-E1-T2-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	297.7	5.5			
FM	(30°-60°)	1700.0	31.6			
FH	(60°-80°)	1332.3	24.7			G1/1800
FVH	(80°-90°)	57.7	1.1			G1/100
BL	(0°-30°)	275.5	5.1	B1/500		
BM	(30°-60°)	1054.0	19.6	B2/2500		
BH	(60°-80°)	642.3	11.9	B2/1000		G2/1000
BVH	(80°-90°)	25.8	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°	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7
2.5°	523.0	524.3	523.0	523.0	522.4	521.8	521.8	521.2	520.0	518.8	518.2
5°	551.7	552.3	550.4	550.4	551.1	550.4	548.6	549.2	544.4	542.5	541.3
7.5°	583.3	585.2	582.7	581.5	580.9	579.7	577.8	574.8	571.1	568.1	566.3
10°	619.3	621.1	619.9	617.4	613.8	611.9	610.1	605.2	601.0	596.1	592.5
12.5°	661.9	662.5	661.3	656.4	654.0	648.5	642.4	636.9	630.8	623.5	617.4
15°	703.9	704.5	702.7	697.8	694.8	688.1	679.5	672.2	661.9	653.3	645.4
17.5°	736.2	737.4	733.7	730.1	725.8	717.3	709.4	700.8	689.9	680.8	672.8
20°	747.1	748.9	746.5	744.7	742.2	738.0	730.1	722.8	713.0	706.3	700.2
22.5°	742.2	744.1	742.9	742.9	742.9	742.2	738.6	736.8	730.7	727.6	726.4
25°	734.9	736.8	735.6	736.8	739.2	742.2	742.2	745.9	745.3	750.2	753.2
27.5°	753.8	755.0	752.0	752.0	754.4	759.3	758.1	765.4	766.6	776.3	785.5
30°	819.6	819.6	814.7	809.8	811.7	810.4	809.2	814.1	814.1	823.2	827.5
32.5°	917.6	910.9	910.3	909.7	905.4	908.5	898.7	899.3	895.1	896.3	894.5
35°	1025.4	1024.8	1022.3	1021.1	1019.3	1028.4	1021.1	1027.2	1012.0	1006.5	996.2
37.5°	1119.8	1122.2	1124.0	1133.2	1137.4	1155.7	1160.0	1163.0	1147.2	1147.8	1124.6
40°	1214.8	1217.8	1224.5	1240.9	1253.1	1270.2	1278.1	1290.9	1292.1	1294.5	1277.5
42.5°	1318.3	1313.4	1322.5	1343.2	1358.5	1375.5	1385.9	1409.6	1423.0	1429.7	1432.1
45°	1401.7	1396.2	1400.5	1412.6	1426.7	1448.6	1471.1	1506.4	1535.0	1566.1	1583.1
47.5°	1444.9	1446.1	1449.2	1456.5	1466.2	1487.5	1519.2	1564.3	1610.5	1660.5	1704.9
50°	1458.9	1459.5	1463.8	1471.1	1480.2	1502.8	1535.6	1586.8	1642.8	1712.8	1781.0
52.5°	1463.2	1460.8	1465.0	1468.7	1474.8	1493.6	1524.7	1578.3	1641.6	1726.2	1827.3
55°	1447.4	1444.3	1451.6	1456.5	1461.4	1476.6	1500.3	1549.7	1615.4	1711.6	1843.7
57.5°	1386.5	1387.1	1397.4	1410.2	1423.0	1443.7	1474.8	1521.6	1586.8	1681.8	1829.7
60°	1283.6	1281.7	1294.5	1310.4	1332.3	1365.2	1403.5	1451.0	1505.2	1584.4	1729.9
62.5°	1096.6	1103.9	1108.2	1131.9	1133.2	1180.0	1205.0	1252.5	1298.8	1359.7	1490.6
65°	763.6	779.4	783.7	789.7	818.4	842.7	882.9	932.8	963.3	1016.9	1114.3
67.5°	475.6	487.1	487.7	503.6	528.5	556.5	587.6	638.1	684.4	692.9	741.6
70°	394.6	395.2	403.7	415.3	434.8	463.4	493.8	529.1	571.1	597.9	593.1
72.5°	327.0	330.6	336.7	348.3	369.6	395.2	434.1	479.2	531.6	585.2	632.6
75°	219.2	225.3	227.1	232.6	243.0	266.1	295.3	337.9	405.5	485.3	586.4
77.5°	116.3	117.5	121.8	126.0	131.5	145.5	164.4	186.3	230.8	299.6	418.3
80°	59.1	61.5	64.5	67.6	67.0	70.6	76.1	85.9	101.1	131.5	189.4
82.5°	21.3	27.4	35.9	40.2	40.2	41.4	43.2	45.1	43.8	48.7	60.9
85°	9.7	11.0	14.0	21.9	22.5	22.5	22.5	23.7	22.5	20.1	23.7
87.5°	0.0	1.8	1.8	5.5	6.1	5.5	6.1	7.9	6.1	4.9	4.3
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°	83°	85°	90°	95°	100°
0°	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7
2.5°	515.1	513.9	510.9	509.6	506.0	503.6	502.3	501.1	499.3	496.9	495.0
5°	537.7	534.0	529.7	527.3	522.4	517.6	515.7	513.3	509.0	505.4	501.1
7.5°	561.4	557.1	552.3	546.8	541.9	536.4	534.0	531.6	525.5	520.6	514.5
10°	587.0	580.9	575.4	570.5	566.3	560.2	555.9	554.1	548.6	541.3	535.2
12.5°	611.3	604.6	599.2	593.1	588.8	583.9	579.7	577.8	573.6	566.9	562.0
15°	636.9	630.2	624.1	619.9	615.0	611.9	609.5	606.5	604.6	599.2	596.7
17.5°	664.3	658.2	652.7	649.1	647.3	646.7	646.0	644.8	643.0	639.3	637.5
20°	695.4	689.9	688.1	687.4	688.1	688.7	689.9	689.9	690.5	688.1	687.4
22.5°	725.2	725.2	728.2	731.9	735.6	738.0	739.8	737.4	738.0	741.6	744.7
25°	758.1	763.6	771.5	777.6	783.0	787.3	789.7	791.0	792.2	797.7	803.1
27.5°	793.4	801.9	813.5	821.4	831.8	838.5	843.3	842.7	844.5	851.9	861.6
30°	837.2	845.8	857.9	868.9	882.9	892.6	894.5	893.3	895.7	902.4	921.9
32.5°	898.7	900.6	908.5	919.4	934.7	944.4	946.2	949.3	954.8	966.9	990.7
35°	985.2	977.3	976.7	981.5	996.2	1015.0	1016.9	1018.7	1021.1	1037.0	1068.6
37.5°	1102.1	1069.8	1050.4	1035.1	1037.0	1043.7	1047.3	1048.5	1054.6	1079.0	1132.6
40°	1248.9	1188.6	1145.3	1102.1	1086.3	1087.5	1088.7	1087.5	1099.7	1137.4	1207.4
42.5°	1409.6	1356.6	1281.1	1191.6	1146.6	1131.9	1133.8	1135.0	1153.9	1208.7	1286.6
45°	1580.1	1546.0	1458.3	1318.3	1221.5	1184.3	1183.1	1185.5	1216.6	1293.9	1376.1
47.5°	1729.9	1738.4	1673.9	1509.5	1343.2	1248.9	1240.9	1245.2	1295.7	1378.6	1462.0
50°	1848.6	1904.6	1899.8	1769.5	1540.5	1360.3	1332.3	1338.4	1398.0	1483.9	1558.8
52.5°	1938.1	2052.0	2125.1	2073.3	1874.2	1562.4	1490.0	1479.6	1554.5	1645.2	1691.5
55°	1997.8	2182.3	2374.1	2463.6	2382.6	1999.0	1809.7	1787.1	1868.1	1983.8	2003.9
57.5°	2037.4	2340.6	2753.4	3099.3	3209.5	2880.7	2643.2	2548.9	2607.9	2730.3	2704.1
60°	1971.6	2403.3	3211.3	3831.2	4144.8	4063.2	3798.9	3656.4	3546.2	3537.1	3391.6
62.5°	1719.5	2254.1	3397.1	4179.5	4620.3	4722.0	4675.1	4506.5	4201.4	4032.1	3703.3
65°	1297.0	1846.8	3264.9	4152.7	4566.1	4791.4	4944.3	4823.1	4360.3	4067.5	3630.3
67.5°	828.7	1192.2	2715.7	3830.6	4219.1	4472.4	4778.0	4722.6	4131.4	3757.5	3282.0
70°	605.2	660.7	1842.5	3242.4	3669.8	3892.7	4312.8	4288.5	3623.0	3202.8	2731.5
72.5°	697.2	492.6	1010.2	2422.2	2752.8	2928.2	3168.7	3109.7	2531.2	2239.5	1905.9
75°	786.1	551.1	569.3	1437.0	1538.1	1415.1	1448.0	1257.4	980.9	869.5	856.7
77.5°	661.9	691.1	516.3	617.4	568.7	409.8	306.9	240.5	188.2	202.2	224.7
80°	384.8	777.0	683.2	321.5	360.5	286.8	127.9	105.9	87.7	88.9	90.1
82.5°	118.7	485.3	961.5	392.7	356.8	404.3	117.5	71.9	57.8	65.2	73.7
85°	39.6	203.4	770.9	412.2	230.8	215.6	51.8	35.3	29.2	40.8	57.8
87.5°	9.7	49.3	143.1	54.2	34.1	20.7	17.7	12.8	14.0	25.6	35.9
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°	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7	498.7
2.5°	493.8	492.0	490.2	488.9	487.1	487.1	485.3	485.3	482.9	481.6	481.6
5°	497.5	493.8	490.8	487.7	484.7	483.5	481.0	479.8	477.4	475.6	474.3
7.5°	509.6	504.8	501.1	497.5	493.8	492.0	489.6	487.1	486.5	485.3	484.1
10°	530.4	523.7	520.6	518.2	513.3	512.1	509.6	507.8	506.0	504.2	504.8
12.5°	557.1	552.3	551.1	546.2	545.0	543.1	539.5	538.3	533.4	529.7	527.9
15°	591.2	589.4	589.4	587.0	583.3	580.3	574.8	571.8	563.2	557.8	551.7
17.5°	636.3	634.5	635.1	632.6	628.4	622.9	616.8	607.7	594.9	585.2	573.0
20°	688.7	688.1	689.3	687.4	682.0	674.7	660.0	646.7	629.0	611.3	597.9
22.5°	747.1	750.2	751.4	746.5	740.4	725.2	709.4	689.9	666.1	643.0	624.1
25°	809.2	816.5	820.8	814.1	806.8	787.3	763.6	737.4	703.9	675.9	650.9
27.5°	870.1	885.3	891.4	887.8	876.2	848.8	817.1	782.4	741.6	704.5	672.2
30°	942.6	962.7	973.6	968.2	945.6	909.7	871.3	824.5	772.7	728.2	689.3
32.5°	1018.7	1043.7	1051.6	1040.0	1007.1	962.1	912.1	854.9	796.4	745.3	701.5
35°	1103.3	1126.5	1128.3	1105.8	1062.5	1005.3	943.2	874.4	807.4	750.2	702.1
37.5°	1177.0	1200.1	1198.3	1164.8	1112.5	1041.2	962.1	878.6	800.7	735.6	683.2
40°	1254.3	1279.9	1265.9	1222.7	1155.1	1064.4	964.5	864.0	775.1	703.9	646.7
42.5°	1335.9	1346.9	1321.9	1267.7	1180.7	1063.7	943.8	829.3	734.9	655.8	595.5
45°	1410.8	1402.3	1366.4	1293.9	1178.8	1037.6	903.0	786.1	681.4	602.2	543.1
47.5°	1477.8	1451.0	1395.6	1293.9	1150.2	991.3	850.6	730.1	625.9	546.2	487.7
50°	1550.3	1494.2	1407.8	1271.4	1098.5	935.3	795.2	674.1	566.9	485.3	421.4
52.5°	1646.5	1546.0	1407.8	1230.6	1044.9	878.6	736.8	608.9	498.1	412.8	349.5
55°	1871.8	1654.4	1432.1	1208.1	997.4	819.0	667.4	524.9	417.1	335.5	283.1
57.5°	2314.4	1891.9	1554.5	1249.5	979.7	754.4	577.8	431.7	329.4	261.2	217.4
60°	2682.8	2083.7	1653.8	1281.1	951.1	671.0	468.2	330.6	244.8	193.0	164.4
62.5°	2777.8	2086.1	1613.0	1198.9	835.4	546.2	345.2	227.7	168.1	140.0	124.8
65°	2540.3	1845.0	1371.9	977.9	636.3	379.3	216.2	138.2	112.0	102.3	96.2
67.5°	2135.4	1469.9	1016.9	682.0	401.3	208.9	121.2	95.0	85.2	82.2	79.2
70°	1637.9	1032.7	661.9	399.4	210.1	108.4	86.5	77.9	73.7	71.9	69.4
72.5°	1009.6	610.1	359.9	191.8	104.7	82.8	77.3	74.3	68.8	66.4	63.9
75°	428.7	261.8	149.2	97.4	84.0	79.2	74.9	71.2	67.0	63.3	60.9
77.5°	144.3	99.9	88.3	85.2	84.0	79.2	73.7	68.8	64.5	60.3	57.8
80°	87.7	79.8	81.6	81.0	84.0	78.5	71.2	65.8	60.9	56.6	53.6
82.5°	76.1	75.5	77.3	79.2	83.4	75.5	67.0	59.1	53.0	48.7	45.7
85°	65.8	67.0	68.2	69.4	71.9	63.9	54.2	46.9	42.0	36.5	34.1
87.5°	43.8	47.5	49.9	50.5	48.7	30.4	17.7	20.7	21.3	18.3	16.4
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):

	160°	165°	170°	175°	180°
0°	498.7	498.7	498.7	498.7	498.7
2.5°	479.8	479.2	481.0	479.2	479.2
5°	473.7	473.1	473.1	473.1	471.9
7.5°	483.5	482.9	482.2	482.2	481.6
10°	502.3	501.7	501.7	501.1	501.1
12.5°	524.9	522.4	521.8	520.6	521.2
15°	546.8	540.1	538.3	536.4	534.6
17.5°	563.8	555.9	551.7	548.0	548.0
20°	585.2	574.8	569.3	563.8	563.8
22.5°	609.5	595.5	588.2	582.1	579.7
25°	629.6	611.9	601.6	594.3	592.5
27.5°	644.8	622.3	608.9	600.4	597.9
30°	657.0	631.4	615.6	606.5	602.8
32.5°	664.9	636.9	619.9	610.7	607.1
35°	660.7	630.8	610.1	599.2	596.7
37.5°	639.3	607.7	583.3	571.8	567.5
40°	600.4	566.3	540.7	526.7	524.3
42.5°	549.2	515.1	490.8	476.2	469.5
45°	494.4	459.1	436.0	422.6	414.7
47.5°	435.4	400.7	376.9	363.5	358.0
50°	373.3	339.8	319.7	305.1	299.6
52.5°	308.7	278.9	258.8	246.6	240.5
55°	247.2	222.9	205.8	197.9	193.6
57.5°	193.0	177.2	167.4	162.6	159.5
60°	149.8	141.9	138.2	134.6	135.2
62.5°	116.9	115.1	113.9	112.0	112.6
65°	94.4	93.2	93.8	93.2	93.8
67.5°	77.3	77.9	79.2	79.2	79.8
70°	68.2	68.8	70.0	70.0	70.0
72.5°	63.3	64.5	65.8	65.2	65.2
75°	59.7	62.7	65.2	62.7	60.3
77.5°	56.0	63.3	70.0	64.5	57.8
80°	51.1	67.0	74.9	65.2	55.4
82.5°	48.7	64.5	65.8	56.6	48.7
85°	45.1	73.1	76.1	51.8	37.1
87.5°	23.1	43.8	50.5	34.7	18.9
90°	0.0	0.0	0.0	0.0	0.0

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