

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: P401324

Luminaire Tested: **ENT-SA1C-740-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401324
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1C-740-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3989 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 33.3
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

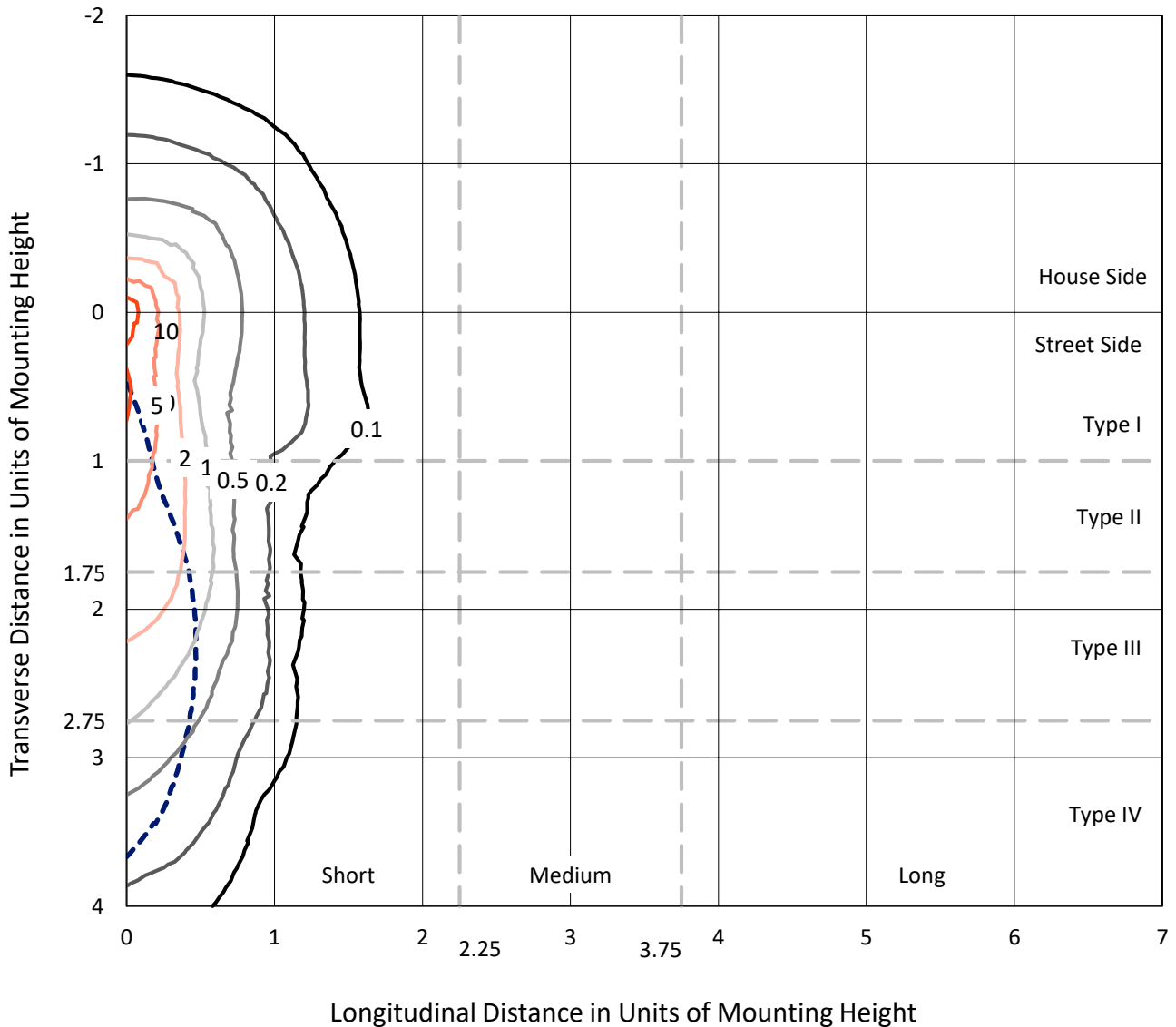


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

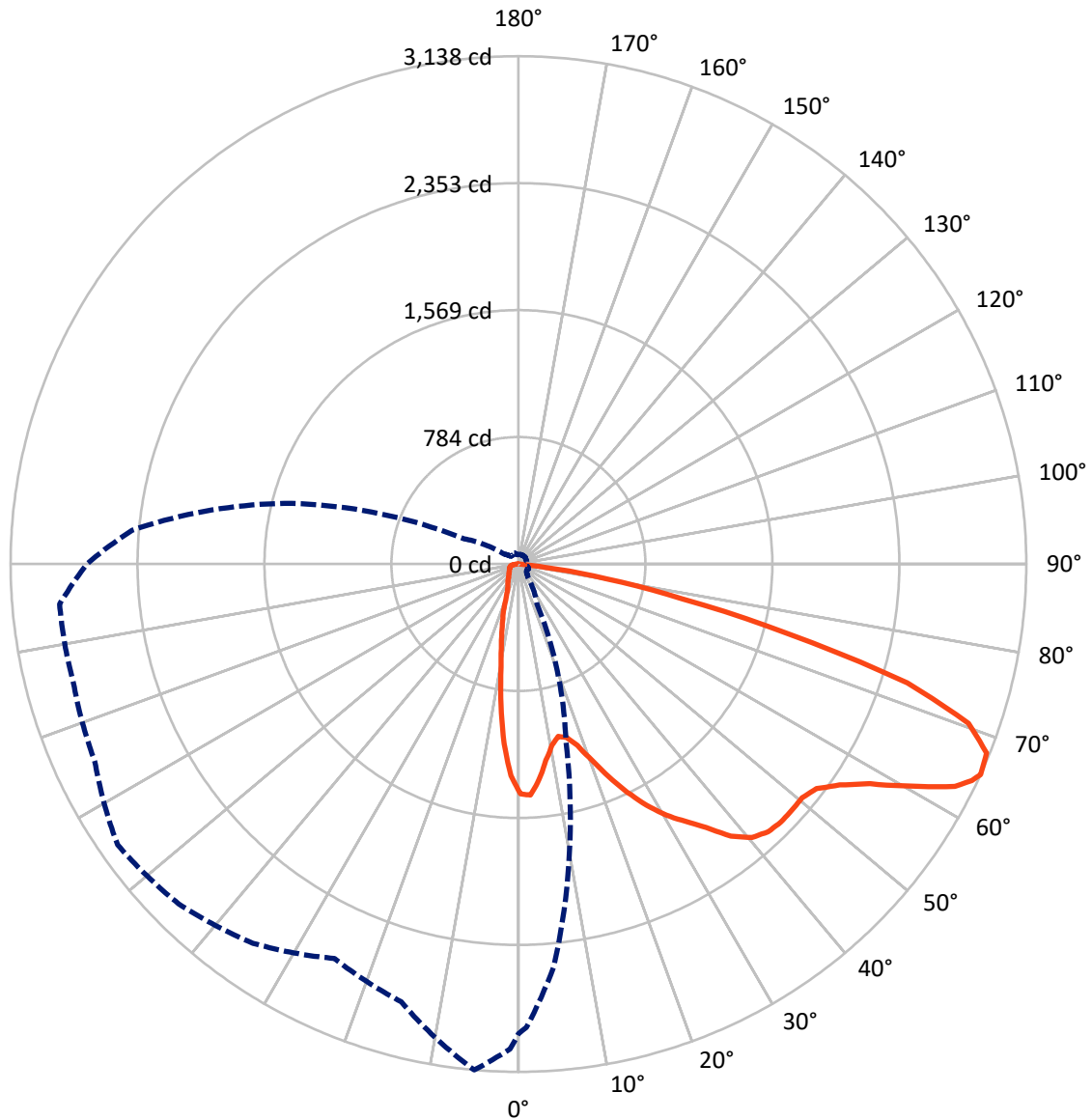


Based on 10 foot mounting height. Maximum calculated value = 14.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	818.5	0.0	818.5
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	3170.5	0.0	3170.5
	% Fixture	79.5	0.0	79.5
Total	Lumens	3989.0	0.0	3989.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	2.7
10°-20°	215.7	5.4
20°-30°	299.1	7.5
30°-40°	418.1	10.5
40°-50°	568.9	14.3
50°-60°	777.9	19.5
60°-70°	951.1	23.8
70°-80°	574.2	14.4
80°-90°	75.7	1.9
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°	3989.0	100.0
0°-180°	3989.0	100.0



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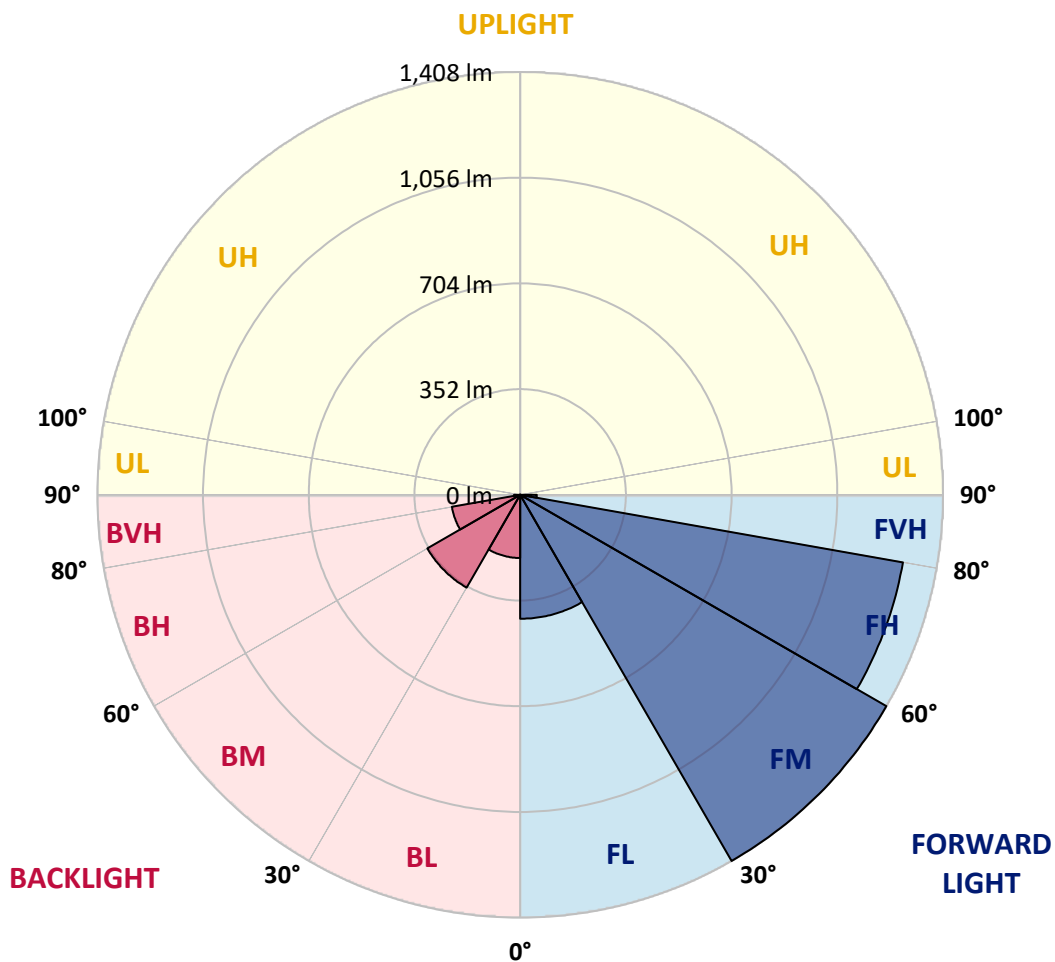
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	412.7	10.3			
FM	(30°-60°)	1408.1	35.3			
FH	(60°-80°)	1294.4	32.4			G1/1800
FVH	(80°-90°)	55.3	1.4			G1/100
BL	(0°-30°)	210.3	5.3	B1/500		
BM	(30°-60°)	356.8	8.9	B1/1000		
BH	(60°-80°)	231.0	5.8	B1/500		G1/500
BVH	(80°-90°)	20.4	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-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5
2.5°	1416.2	1412.2	1402.1	1375.5	1346.8	1312.8	1306.8	1270.1	1274.1	1263.4	1266.1
5°	1293.4	1288.1	1260.7	1207.4	1134.7	1092.6	1060.0	1040.6	1024.6	1016.6	1026.6
7.5°	1174.0	1166.7	1134.0	1039.9	959.2	892.5	839.2	806.5	774.5	749.1	737.1
10°	1077.3	1074.6	1031.3	925.2	823.8	742.4	707.7	673.1	645.7	609.7	580.3
12.5°	1028.6	1020.6	969.2	845.8	747.1	697.1	664.4	620.4	583.0	539.0	501.0
15°	1030.6	1021.3	957.2	827.8	720.4	659.7	609.7	557.0	502.3	457.6	418.9
17.5°	1088.0	1081.3	1003.3	844.5	697.7	613.7	535.6	467.6	407.6	351.5	316.9
20°	1184.7	1174.7	1066.6	864.5	669.1	561.0	454.9	361.5	296.8	247.5	220.1
22.5°	1310.8	1292.1	1156.7	889.2	640.4	501.0	367.5	263.5	206.1	181.4	174.1
25°	1445.5	1430.8	1265.4	920.5	609.7	435.6	272.2	191.4	171.4	161.4	156.1
27.5°	1569.6	1545.6	1382.1	955.2	569.0	370.2	206.8	164.8	151.4	146.8	143.4
30°	1658.3	1637.6	1462.9	995.2	533.6	302.2	176.8	149.4	138.7	131.4	130.1
32.5°	1743.0	1713.7	1521.6	1013.9	504.3	265.5	163.4	138.7	128.7	121.4	118.7
35°	1843.1	1813.7	1588.9	1016.6	482.3	250.1	150.8	130.7	120.1	113.4	110.1
37.5°	1961.1	1921.1	1665.0	1018.6	460.3	244.1	140.1	124.1	113.4	106.1	103.4
40°	2073.2	2042.5	1743.0	1015.3	445.6	235.5	133.4	116.7	106.7	100.1	96.7
42.5°	2157.9	2125.2	1809.7	1005.3	436.9	220.8	136.1	111.4	102.1	94.7	90.7
45°	2201.3	2171.9	1870.4	995.9	432.3	208.1	133.4	109.4	98.7	90.1	86.1
47.5°	2234.0	2205.3	1932.5	991.9	424.2	198.8	122.7	116.7	95.4	85.4	81.4
50°	2286.7	2262.0	2016.5	1014.6	411.6	192.8	112.7	124.7	94.1	81.4	76.7
52.5°	2381.4	2365.4	2155.3	1067.3	398.2	182.8	102.7	119.4	95.4	78.7	73.4
55°	2558.2	2548.1	2346.0	1136.7	385.6	170.1	92.1	108.1	94.7	74.0	70.0
57.5°	2748.9	2746.3	2577.5	1197.4	366.9	148.8	85.4	91.4	90.1	70.0	65.4
60°	2877.0	2868.3	2684.2	1231.4	342.9	122.7	80.0	77.4	92.1	66.0	60.7
62.5°	2921.0	2892.3	2652.2	1218.7	306.8	106.1	74.0	70.7	85.4	62.0	56.0
64°	2918.4	2876.3	2568.8	1170.7	283.5	102.7	70.7	66.0	75.4	59.4	54.0
65°	2903.0	2863.0	2499.5	1133.3	270.8	102.7	68.7	64.0	68.7	58.0	52.7
67.5°	2805.0	2752.3	2262.6	959.9	238.1	104.1	64.0	58.7	57.4	53.4	49.4
70°	2581.5	2512.8	1937.8	755.1	220.8	104.7	58.7	53.4	51.4	48.7	45.4
72.5°	2073.2	1981.2	1542.2	539.6	202.8	102.7	53.4	48.7	46.7	44.0	40.7
75°	1390.1	1289.4	1136.7	355.5	166.1	92.1	46.0	42.0	41.4	38.7	36.0
77.5°	783.8	741.8	671.1	195.4	114.7	63.4	36.7	34.0	34.7	33.4	30.7
80°	409.6	390.2	358.9	94.7	55.4	30.7	23.3	23.3	26.7	26.7	25.3
82.5°	144.8	145.4	140.7	21.3	11.3	9.3	8.0	11.3	15.3	18.7	18.7
85°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.7	4.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5
2.5°	1243.4	1247.4	1258.1	1256.1	1266.7	1262.1	1276.1	1283.4	1287.4	1308.1	1318.1
5°	1018.6	1019.9	1057.9	1066.0	1086.0	1075.3	1100.0	1090.6	1110.6	1113.3	1146.7
7.5°	748.4	751.1	769.8	813.8	857.2	875.2	882.5	893.9	884.5	881.2	885.8
10°	569.0	571.0	573.0	604.4	642.4	680.4	680.4	681.1	664.4	647.7	644.4
12.5°	486.3	473.6	453.6	454.3	480.9	499.0	513.0	498.3	495.6	503.6	512.3
15°	400.2	387.6	374.2	358.2	358.9	371.5	378.9	378.2	391.6	397.6	415.6
17.5°	310.8	292.8	293.5	284.2	271.5	279.5	281.5	293.5	310.8	318.9	322.2
20°	208.8	208.8	214.1	225.5	219.5	224.8	225.5	234.8	242.8	238.1	242.8
22.5°	172.8	172.1	174.1	181.4	187.4	192.1	193.4	192.8	184.8	181.4	188.1
25°	156.8	156.1	156.8	160.8	167.4	173.4	170.8	166.8	157.4	156.8	158.1
27.5°	143.4	144.1	145.4	148.1	152.1	159.4	156.8	148.8	144.1	142.7	142.7
30°	132.1	132.1	134.7	137.4	142.1	148.8	144.1	137.4	132.7	131.4	130.7
32.5°	120.7	122.7	124.7	127.4	131.4	138.1	134.1	128.1	123.4	120.7	118.7
35°	109.4	110.7	114.7	118.7	122.1	127.4	124.7	119.4	114.7	108.7	106.1
37.5°	102.7	102.7	104.7	110.7	113.4	117.4	116.1	111.4	104.1	99.4	98.7
40°	96.7	96.7	97.4	100.7	105.4	110.1	107.4	100.1	95.4	93.4	92.7
42.5°	90.7	90.7	91.4	91.4	97.4	105.4	98.7	91.4	89.4	88.1	87.4
45°	85.4	85.4	85.4	84.7	88.1	98.1	90.7	84.7	83.4	83.4	82.7
47.5°	81.4	80.7	80.0	78.7	80.7	88.7	82.7	79.4	78.7	79.4	78.7
50°	76.0	75.4	74.7	74.0	75.4	78.7	77.4	74.0	74.7	74.7	75.4
52.5°	71.4	70.7	70.0	69.4	70.7	73.4	73.4	70.7	70.7	71.4	72.0
55°	68.7	67.4	66.7	66.7	67.4	70.7	70.0	68.0	68.0	69.4	70.0
57.5°	64.7	63.4	63.4	62.7	64.0	68.0	67.4	65.4	65.4	66.0	67.4
60°	60.7	60.0	59.4	60.7	61.4	65.4	64.7	63.4	62.7	64.7	64.7
62.5°	56.0	56.0	56.0	57.4	58.0	62.7	62.0	61.4	61.4	62.0	61.4
64°	53.4	53.4	54.0	54.7	56.0	60.0	60.0	60.0	60.0	60.0	59.4
65°	52.0	52.0	53.4	54.0	54.7	59.4	58.7	59.4	60.0	59.4	58.0
67.5°	48.7	48.7	50.7	50.7	51.4	56.7	56.0	57.4	58.7	57.4	56.0
70°	44.7	45.4	47.4	46.7	48.0	54.0	52.0	54.7	57.4	55.4	54.0
72.5°	40.7	41.4	44.0	42.7	43.4	50.7	48.0	50.7	54.7	53.4	52.0
75°	36.7	37.4	39.4	38.7	40.0	46.7	44.0	46.7	50.7	50.7	50.0
77.5°	31.4	32.7	34.0	33.4	36.0	42.0	39.4	41.4	44.7	47.4	46.0
80°	25.3	27.3	28.0	28.7	31.4	36.0	34.0	34.7	38.0	40.0	40.7
82.5°	17.3	20.7	22.0	22.7	26.7	28.0	28.7	28.0	30.0	32.7	30.7
85°	5.3	6.7	12.7	16.0	20.0	20.0	23.3	22.0	23.3	20.7	17.3
87.5°	0.0	0.0	0.0	4.7	12.0	12.0	16.7	15.3	16.0	12.0	10.7
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5
2.5°	1320.1	1331.4	1356.8	1386.1	1402.1	1436.8	1458.2	1480.9	1503.5	1508.2	1515.5
5°	1153.3	1166.7	1195.4	1234.7	1274.1	1320.1	1373.5	1430.2	1492.9	1519.6	1545.6
7.5°	898.5	901.2	941.9	1013.3	1047.9	1113.3	1189.4	1276.7	1373.5	1423.5	1476.9
10°	663.7	691.1	721.8	781.1	868.5	943.9	1037.9	1140.0	1240.7	1313.4	1368.8
12.5°	521.6	556.3	607.0	672.4	738.4	809.8	918.5	1027.9	1152.0	1217.4	1285.4
15°	429.6	473.6	539.6	608.4	669.7	733.1	829.8	963.9	1122.7	1189.4	1250.1
17.5°	340.2	388.9	459.6	531.6	605.0	682.4	794.5	960.6	1154.0	1231.4	1294.1
20°	260.8	298.8	358.2	430.9	517.0	623.0	766.4	985.9	1246.7	1343.4	1384.8
22.5°	193.4	215.5	262.2	338.2	439.6	570.3	738.4	1021.9	1361.5	1474.9	1506.2
25°	160.1	166.1	187.4	253.5	358.2	511.0	717.1	1068.6	1476.2	1603.6	1626.3
27.5°	144.1	147.4	157.4	182.1	280.2	462.3	689.1	1122.7	1596.9	1731.0	1729.0
30°	130.1	130.7	136.7	154.1	227.5	418.9	656.4	1182.7	1704.3	1822.4	1816.4
32.5°	117.4	117.4	125.4	138.7	194.1	379.6	617.0	1226.0	1797.7	1897.1	1877.8
35°	106.1	108.1	115.4	128.7	172.1	335.5	580.3	1242.1	1877.8	1987.2	1932.5
37.5°	98.1	100.7	108.1	120.7	153.4	302.8	550.3	1260.7	1976.5	2095.9	1993.8
40°	92.7	94.7	101.4	112.1	138.7	275.5	517.6	1273.4	2074.5	2212.0	2058.5
42.5°	87.4	89.4	96.1	106.1	132.1	243.5	486.3	1280.7	2176.6	2312.7	2112.6
45°	82.7	85.4	92.1	101.4	132.7	214.8	460.3	1278.1	2238.0	2385.4	2154.6
47.5°	79.4	82.0	89.4	101.4	128.7	198.1	438.3	1268.7	2283.3	2432.7	2173.9
50°	76.0	78.7	87.4	112.1	122.1	193.4	421.6	1267.4	2330.7	2442.1	2173.9
52.5°	72.7	77.4	88.1	112.7	112.1	191.4	408.2	1302.8	2396.1	2458.1	2193.3
55°	70.7	74.7	90.7	104.1	98.1	184.8	400.2	1351.5	2506.1	2546.1	2290.7
57.5°	68.0	71.4	89.4	97.4	87.4	169.4	393.6	1398.1	2650.9	2709.6	2484.8
60°	64.7	68.7	86.7	83.4	79.4	144.1	389.6	1436.8	2704.9	2815.0	2693.6
62.5°	61.4	66.0	94.7	72.7	73.4	120.1	382.2	1474.2	2590.8	2789.6	2827.6
64°	59.4	64.0	88.1	68.0	70.0	109.4	374.9	1476.2	2490.1	2729.6	2853.0
65°	58.0	62.0	82.0	65.4	67.4	106.7	368.2	1448.2	2395.4	2665.6	2845.7
67.5°	56.0	58.7	63.4	60.7	62.7	102.1	322.9	1324.8	2193.9	2500.8	2731.6
70°	53.4	55.4	56.0	55.4	58.7	98.7	272.8	1149.3	1973.8	2328.0	2554.2
72.5°	50.7	50.7	50.7	50.0	54.0	94.1	245.5	928.5	1705.7	2101.2	2333.4
75°	48.7	46.7	46.0	44.7	49.4	91.4	221.5	697.1	1318.1	1750.4	1955.1
77.5°	44.7	42.7	40.7	39.4	44.0	81.4	184.8	492.3	971.9	1273.4	1508.9
80°	38.7	37.4	34.7	32.7	36.7	64.0	140.1	304.2	711.1	859.8	989.9
82.5°	31.4	30.7	28.0	25.3	26.7	46.0	95.4	154.8	474.3	466.9	553.0
85°	19.3	24.0	20.7	16.7	18.0	26.7	38.7	49.4	145.4	87.4	135.4
87.5°	11.3	15.3	12.7	8.7	6.7	12.0	10.7	10.0	0.0	0.0	0.0
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5	1419.5
2.5°	1532.9	1541.6	1546.2	1528.9	1510.2	1493.5	1461.5	1429.5	1412.8	1416.2
5°	1595.6	1610.3	1614.3	1588.9	1536.2	1482.2	1404.2	1336.8	1296.1	1293.4
7.5°	1571.6	1619.6	1627.6	1600.3	1524.9	1424.2	1318.1	1224.0	1183.4	1174.0
10°	1486.2	1559.6	1583.6	1574.2	1500.9	1385.5	1256.7	1137.3	1096.6	1077.3
12.5°	1398.8	1475.5	1490.2	1499.5	1454.8	1357.5	1216.0	1093.3	1044.6	1028.6
15°	1341.4	1394.1	1398.1	1406.8	1397.5	1344.1	1234.7	1111.3	1052.6	1030.6
17.5°	1333.4	1314.8	1302.1	1320.1	1331.4	1344.8	1283.4	1178.7	1116.0	1088.0
20°	1334.8	1276.7	1240.7	1239.4	1288.1	1362.1	1382.1	1292.1	1210.7	1184.7
22.5°	1383.5	1256.7	1196.7	1189.4	1248.7	1391.5	1482.9	1426.8	1345.4	1310.8
25°	1456.2	1244.7	1165.3	1167.3	1226.7	1410.8	1568.9	1561.6	1490.2	1445.5
27.5°	1526.2	1264.7	1161.3	1166.7	1234.1	1423.5	1640.3	1688.3	1608.3	1569.6
30°	1582.3	1309.4	1173.3	1178.0	1256.7	1440.8	1675.6	1801.0	1704.3	1658.3
32.5°	1630.9	1351.5	1191.4	1194.7	1292.8	1465.5	1709.0	1895.8	1797.7	1743.0
35°	1675.0	1387.5	1218.7	1230.0	1338.8	1500.9	1743.0	1998.5	1911.8	1843.1
37.5°	1713.7	1431.5	1272.7	1291.4	1406.2	1552.2	1787.0	2133.9	2039.2	1961.1
40°	1735.7	1470.9	1352.8	1380.8	1493.5	1618.9	1843.1	2222.0	2161.3	2073.2
42.5°	1752.4	1524.9	1481.5	1532.2	1628.9	1681.6	1869.8	2261.3	2233.3	2157.9
45°	1761.0	1631.6	1675.0	1722.3	1781.7	1750.4	1855.1	2274.7	2266.0	2201.3
47.5°	1800.4	1792.4	1899.1	1964.5	1961.1	1853.7	1827.1	2273.3	2287.3	2234.0
50°	1880.4	1979.8	2129.2	2193.3	2168.6	1950.5	1821.7	2271.3	2330.0	2286.7
52.5°	1975.8	2167.3	2378.1	2404.7	2352.7	2048.5	1861.7	2306.0	2410.1	2381.4
55°	2101.2	2343.4	2573.5	2582.2	2508.8	2143.9	1947.1	2408.1	2559.5	2558.2
57.5°	2276.0	2501.5	2737.6	2726.9	2623.5	2276.0	2084.5	2560.8	2725.6	2748.9
60°	2466.1	2668.2	2870.3	2864.3	2754.3	2428.1	2273.3	2787.0	2871.0	2877.0
62.5°	2648.2	2823.0	2998.4	2969.7	2845.7	2585.5	2534.8	3027.1	2965.7	2921.0
64°	2766.9	2875.0	3031.1	2985.7	2867.7	2660.9	2685.6	3105.1	2992.4	2918.4
65°	2845.7	2887.7	3023.8	2969.1	2860.3	2688.9	2799.6	3137.8	2997.1	2903.0
67.5°	2987.1	2815.0	2825.0	2781.6	2684.2	2662.9	2986.4	3119.8	2945.7	2805.0
70°	2947.7	2522.1	2384.7	2357.4	2240.6	2360.7	2963.1	2950.4	2752.9	2581.5
72.5°	2611.5	2025.2	1827.7	1803.0	1641.0	1789.0	2556.8	2512.8	2215.3	2073.2
75°	2151.9	1534.9	1305.4	1326.1	1202.7	1339.4	2033.9	1721.7	1474.9	1390.1
77.5°	1670.3	1084.6	901.9	877.2	852.5	867.2	1398.1	1033.9	861.8	783.8
80°	1064.6	681.7	676.4	618.4	598.3	504.3	718.4	550.3	432.9	409.6
82.5°	565.7	392.9	446.3	357.5	287.5	206.8	243.5	163.4	138.1	144.8
85°	154.8	81.4	22.7	0.0	0.0	0.0	0.0	0.7	0.7	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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