

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: P401116

Luminaire Tested: **ENV-SA1B-735-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401116
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: ENV-SA1B-735-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 450mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2847 lumens
Efficiency: N/A
Efficacy: 112.1 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): 25.4
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

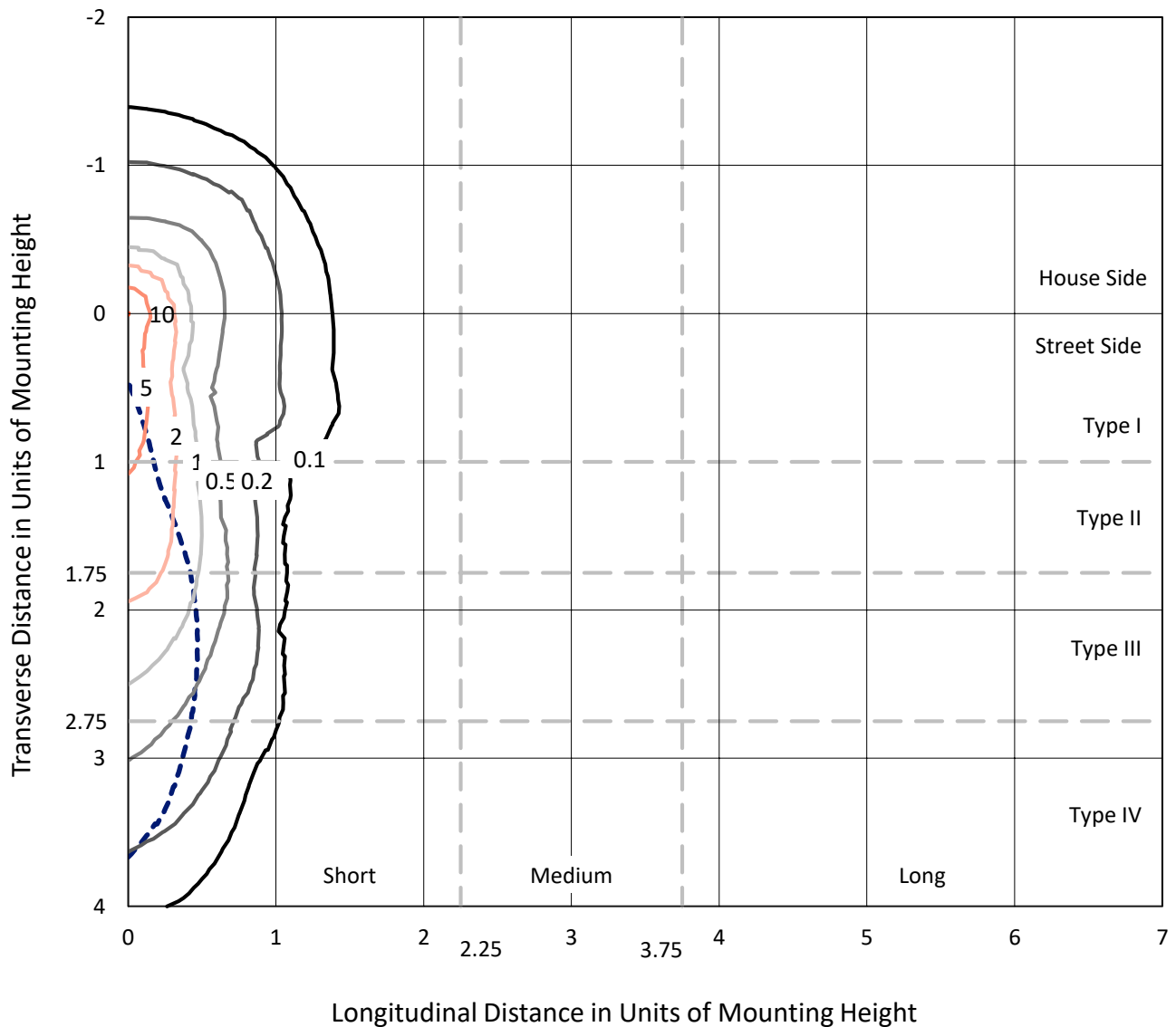


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Iso-Footcandle Lines of Horizontal Illumination

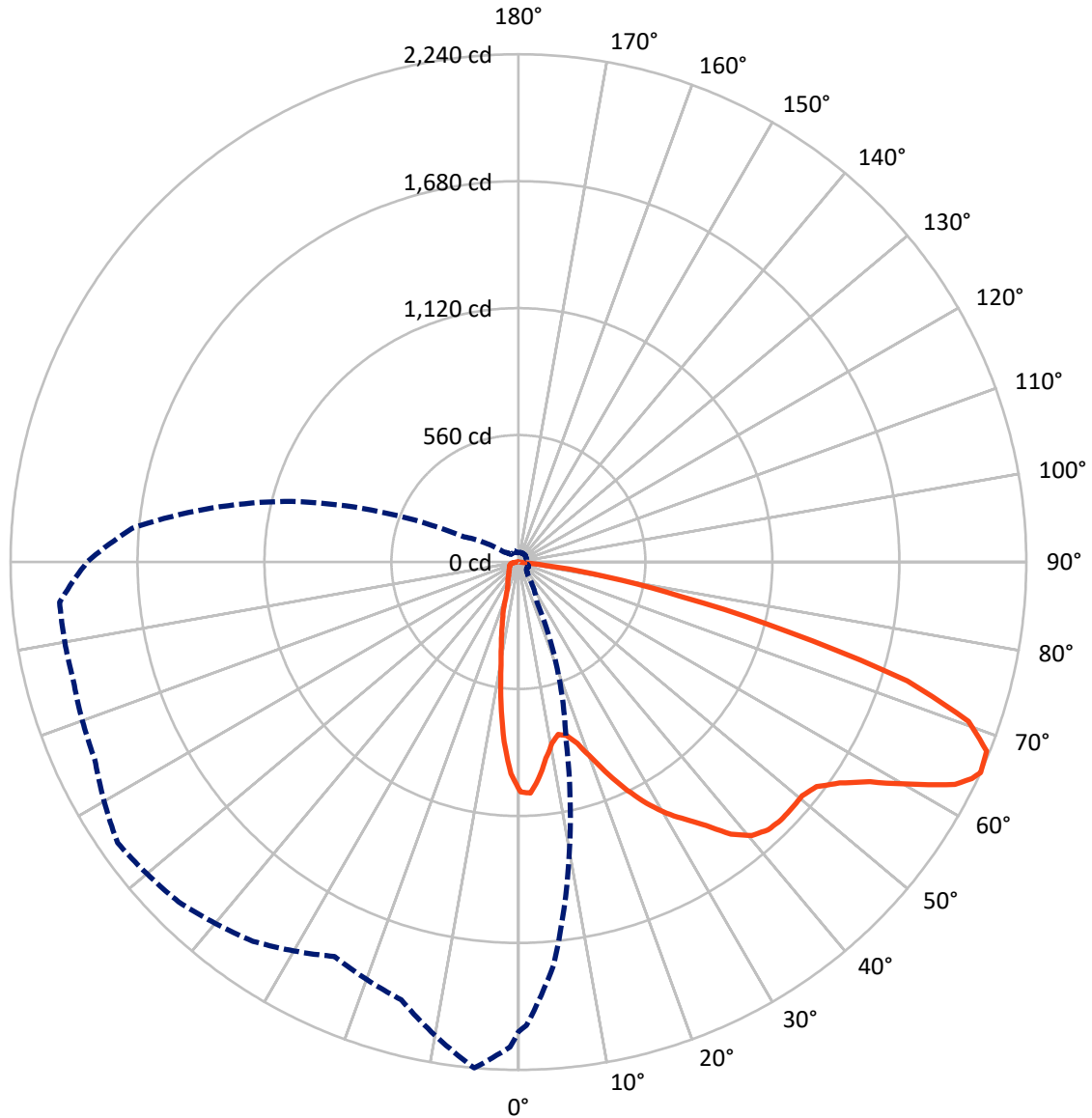
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.1 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	584.2	0.0	584.2
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	2262.8	0.0	2262.8
	% Fixture	79.5	0.0	79.5
Total	Lumens	2847.0	0.0	2847.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	2.7
10°-20°	153.9	5.4
20°-30°	213.5	7.5
30°-40°	298.4	10.5
40°-50°	406.0	14.3
50°-60°	555.2	19.5
60°-70°	678.8	23.8
70°-80°	409.8	14.4
80°-90°	54.0	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°	2847.0	100.0
0°-180°	2847.0	100.0



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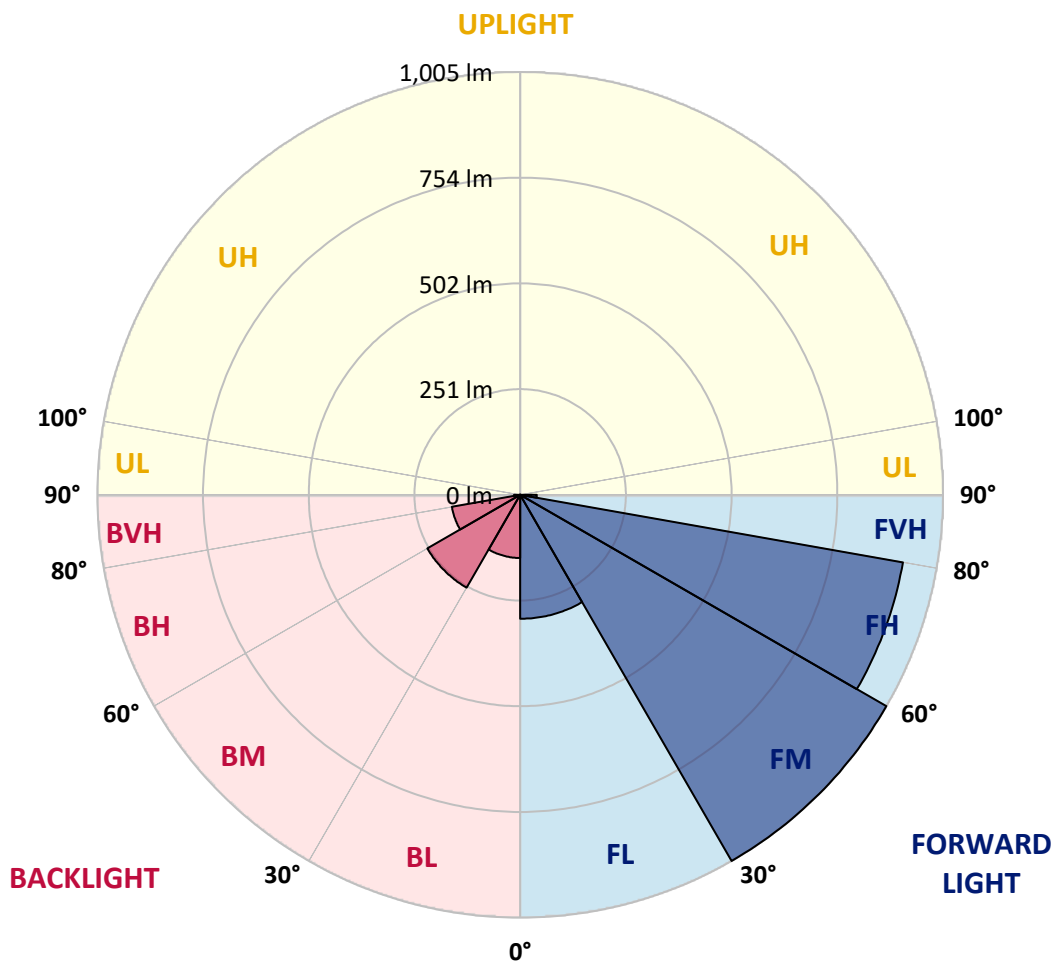
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	294.6	10.3			
FM	(30°-60°)	1004.9	35.3			
FH	(60°-80°)	923.8	32.4			G1/1800
FVH	(80°-90°)	39.5	1.4			G1/100
BL	(0°-30°)	150.1	5.3	B1/500		
BM	(30°-60°)	254.6	8.9	B1/1000		
BH	(60°-80°)	164.9	5.8	B1/500		G1/500
BVH	(80°-90°)	14.5	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°	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1
2.5°	1010.7	1007.9	1000.7	981.7	961.2	936.9	932.7	906.5	909.3	901.7	903.6
5°	923.1	919.3	899.8	861.7	809.8	779.8	756.5	742.7	731.3	725.6	732.7
7.5°	837.9	832.7	809.3	742.2	684.6	637.0	598.9	575.6	552.7	534.6	526.1
10°	768.9	767.0	736.0	660.3	588.0	529.9	505.1	480.4	460.9	435.1	414.2
12.5°	734.1	728.4	691.8	603.7	533.2	497.5	474.2	442.8	416.1	384.7	357.5
15°	735.6	728.9	683.2	590.8	514.2	470.8	435.1	397.5	358.5	326.6	299.0
17.5°	776.5	771.7	716.0	602.7	498.0	438.0	382.3	333.7	290.9	250.9	226.1
20°	845.5	838.4	761.3	617.0	477.5	400.4	324.7	258.0	211.9	176.6	157.1
22.5°	935.5	922.2	825.5	634.6	457.0	357.5	262.3	188.1	147.1	129.5	124.3
25°	1031.7	1021.2	903.1	657.0	435.1	310.9	194.2	136.6	122.4	115.2	111.4
27.5°	1120.2	1103.1	986.4	681.8	406.1	264.2	147.6	117.6	108.1	104.7	102.4
30°	1183.5	1168.8	1044.1	710.3	380.9	215.7	126.2	106.6	99.0	93.8	92.8
32.5°	1244.0	1223.1	1086.0	723.6	359.9	189.5	116.6	99.0	91.9	86.6	84.7
35°	1315.4	1294.5	1134.0	725.6	344.2	178.5	107.6	93.3	85.7	80.9	78.6
37.5°	1399.7	1371.1	1188.3	727.0	328.5	174.2	100.0	88.6	80.9	75.7	73.8
40°	1479.7	1457.8	1244.0	724.6	318.0	168.1	95.2	83.3	76.2	71.4	69.0
42.5°	1540.1	1516.8	1291.6	717.5	311.8	157.6	97.1	79.5	72.8	67.6	64.7
45°	1571.1	1550.1	1334.9	710.8	308.5	148.5	95.2	78.1	70.5	64.3	61.4
47.5°	1594.4	1573.9	1379.2	707.9	302.8	141.9	87.6	83.3	68.1	60.9	58.1
50°	1632.0	1614.4	1439.2	724.1	293.7	137.6	80.5	89.0	67.1	58.1	54.7
52.5°	1699.6	1688.2	1538.2	761.7	284.2	130.4	73.3	85.2	68.1	56.2	52.4
55°	1825.8	1818.6	1674.4	811.2	275.2	121.4	65.7	77.1	67.6	52.8	50.0
57.5°	1961.9	1960.0	1839.6	854.6	261.8	106.2	60.9	65.2	64.3	50.0	46.7
60°	2053.4	2047.2	1915.8	878.9	244.7	87.6	57.1	55.2	65.7	47.1	43.3
62.5°	2084.8	2064.3	1892.9	869.8	219.0	75.7	52.8	50.5	60.9	44.3	40.0
64°	2082.9	2052.9	1833.4	835.5	202.3	73.3	50.5	47.1	53.8	42.4	38.6
65°	2071.9	2043.4	1783.9	808.9	193.3	73.3	49.0	45.7	49.0	41.4	37.6
67.5°	2001.9	1964.3	1614.9	685.1	170.0	74.3	45.7	41.9	40.9	38.1	35.2
70°	1842.5	1793.4	1383.0	538.9	157.6	74.7	41.9	38.1	36.7	34.8	32.4
72.5°	1479.7	1414.0	1100.7	385.2	144.7	73.3	38.1	34.8	33.3	31.4	29.0
75°	992.2	920.3	811.2	253.8	118.5	65.7	32.8	30.0	29.5	27.6	25.7
77.5°	559.4	529.4	478.9	139.5	81.9	45.2	26.2	24.3	24.8	23.8	21.9
80°	292.3	278.5	256.1	67.6	39.5	21.9	16.7	16.7	19.0	19.0	18.1
82.5°	103.3	103.8	100.5	15.2	8.1	6.7	5.7	8.1	10.9	13.3	13.3
85°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.9	3.3
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°	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1
2.5°	887.4	890.3	897.9	896.5	904.1	900.8	910.8	916.0	918.8	933.6	940.7
5°	727.0	727.9	755.1	760.8	775.1	767.4	785.1	778.4	792.7	794.6	818.4
7.5°	534.2	536.1	549.4	580.8	611.8	624.6	629.9	638.0	631.3	628.9	632.2
10°	406.1	407.5	409.0	431.3	458.5	485.6	485.6	486.1	474.2	462.3	459.9
12.5°	347.1	338.0	323.7	324.2	343.3	356.1	366.1	355.6	353.7	359.4	365.6
15°	285.7	276.6	267.1	255.7	256.1	265.2	270.4	269.9	279.5	283.7	296.6
17.5°	221.9	209.0	209.5	202.8	193.8	199.5	200.9	209.5	221.9	227.6	229.9
20°	149.0	149.0	152.8	160.9	156.6	160.4	160.9	167.6	173.3	170.0	173.3
22.5°	123.3	122.8	124.3	129.5	133.8	137.1	138.1	137.6	131.9	129.5	134.3
25°	111.9	111.4	111.9	114.7	119.5	123.8	121.9	119.0	112.4	111.9	112.8
27.5°	102.4	102.8	103.8	105.7	108.5	113.8	111.9	106.2	102.8	101.9	101.9
30°	94.3	94.3	96.2	98.1	101.4	106.2	102.8	98.1	94.7	93.8	93.3
32.5°	86.2	87.6	89.0	90.9	93.8	98.5	95.7	91.4	88.1	86.2	84.7
35°	78.1	79.0	81.9	84.7	87.1	90.9	89.0	85.2	81.9	77.6	75.7
37.5°	73.3	73.3	74.7	79.0	80.9	83.8	82.8	79.5	74.3	70.9	70.5
40°	69.0	69.0	69.5	71.9	75.2	78.6	76.6	71.4	68.1	66.7	66.2
42.5°	64.7	64.7	65.2	65.2	69.5	75.2	70.5	65.2	63.8	62.8	62.4
45°	60.9	60.9	60.9	60.5	62.8	70.0	64.7	60.5	59.5	59.5	59.0
47.5°	58.1	57.6	57.1	56.2	57.6	63.3	59.0	56.7	56.2	56.7	56.2
50°	54.3	53.8	53.3	52.8	53.8	56.2	55.2	52.8	53.3	53.3	53.8
52.5°	50.9	50.5	50.0	49.5	50.5	52.4	52.4	50.5	50.5	50.9	51.4
55°	49.0	48.1	47.6	47.6	48.1	50.5	50.0	48.6	48.6	49.5	50.0
57.5°	46.2	45.2	45.2	44.8	45.7	48.6	48.1	46.7	46.7	47.1	48.1
60°	43.3	42.8	42.4	43.3	43.8	46.7	46.2	45.2	44.8	46.2	46.2
62.5°	40.0	40.0	40.0	40.9	41.4	44.8	44.3	43.8	43.8	44.3	43.8
64°	38.1	38.1	38.6	39.0	40.0	42.8	42.8	42.8	42.8	42.8	42.4
65°	37.1	37.1	38.1	38.6	39.0	42.4	41.9	42.4	42.8	42.4	41.4
67.5°	34.8	34.8	36.2	36.2	36.7	40.5	40.0	40.9	41.9	40.9	40.0
70°	31.9	32.4	33.8	33.3	34.3	38.6	37.1	39.0	40.9	39.5	38.6
72.5°	29.0	29.5	31.4	30.5	30.9	36.2	34.3	36.2	39.0	38.1	37.1
75°	26.2	26.7	28.1	27.6	28.6	33.3	31.4	33.3	36.2	36.2	35.7
77.5°	22.4	23.3	24.3	23.8	25.7	30.0	28.1	29.5	31.9	33.8	32.8
80°	18.1	19.5	20.0	20.5	22.4	25.7	24.3	24.8	27.1	28.6	29.0
82.5°	12.4	14.8	15.7	16.2	19.0	20.0	20.5	20.0	21.4	23.3	21.9
85°	3.8	4.8	9.0	11.4	14.3	14.3	16.7	15.7	16.7	14.8	12.4
87.5°	0.0	0.0	0.0	3.3	8.6	8.6	11.9	10.9	11.4	8.6	7.6
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1
2.5°	942.2	950.3	968.4	989.3	1000.7	1025.5	1040.7	1056.9	1073.1	1076.4	1081.7
5°	823.2	832.7	853.1	881.2	909.3	942.2	980.3	1020.7	1065.5	1084.5	1103.1
7.5°	641.3	643.2	672.2	723.2	747.9	794.6	848.9	911.2	980.3	1016.0	1054.1
10°	473.7	493.2	515.1	557.5	619.9	673.7	740.8	813.6	885.5	937.4	976.9
12.5°	372.3	397.1	433.2	479.9	527.0	578.0	655.6	733.6	822.2	868.9	917.4
15°	306.6	338.0	385.2	434.2	478.0	523.2	592.3	687.9	801.3	848.9	892.2
17.5°	242.8	277.6	328.0	379.4	431.8	487.0	567.0	685.6	823.6	878.9	923.6
20°	186.1	213.3	255.7	307.6	369.0	444.7	547.0	703.7	889.8	958.8	988.4
22.5°	138.1	153.8	187.1	241.4	313.7	407.1	527.0	729.4	971.7	1052.6	1075.0
25°	114.3	118.5	133.8	180.9	255.7	364.7	511.8	762.7	1053.6	1144.5	1160.7
27.5°	102.8	105.2	112.4	130.0	200.0	329.9	491.8	801.3	1139.7	1235.4	1234.0
30°	92.8	93.3	97.6	110.0	162.3	299.0	468.5	844.1	1216.4	1300.7	1296.4
32.5°	83.8	83.8	89.5	99.0	138.5	270.9	440.4	875.0	1283.1	1354.0	1340.2
35°	75.7	77.1	82.4	91.9	122.8	239.5	414.2	886.5	1340.2	1418.3	1379.2
37.5°	70.0	71.9	77.1	86.2	109.5	216.1	392.8	899.8	1410.6	1495.9	1423.0
40°	66.2	67.6	72.4	80.0	99.0	196.6	369.4	908.8	1480.6	1578.7	1469.2
42.5°	62.4	63.8	68.6	75.7	94.3	173.8	347.1	914.1	1553.5	1650.6	1507.8
45°	59.0	60.9	65.7	72.4	94.7	153.3	328.5	912.2	1597.3	1702.5	1537.8
47.5°	56.7	58.6	63.8	72.4	91.9	141.4	312.8	905.5	1629.6	1736.3	1551.6
50°	54.3	56.2	62.4	80.0	87.1	138.1	300.9	904.6	1663.4	1742.9	1551.6
52.5°	51.9	55.2	62.8	80.5	80.0	136.6	291.4	929.8	1710.1	1754.4	1565.4
55°	50.5	53.3	64.7	74.3	70.0	131.9	285.7	964.5	1788.7	1817.2	1634.9
57.5°	48.6	50.9	63.8	69.5	62.4	120.9	280.9	997.9	1892.0	1933.9	1773.4
60°	46.2	49.0	61.9	59.5	56.7	102.8	278.0	1025.5	1930.5	2009.1	1922.4
62.5°	43.8	47.1	67.6	51.9	52.4	85.7	272.8	1052.1	1849.1	1991.0	2018.1
64°	42.4	45.7	62.8	48.6	50.0	78.1	267.6	1053.6	1777.2	1948.1	2036.2
65°	41.4	44.3	58.6	46.7	48.1	76.2	262.8	1033.6	1709.6	1902.4	2031.0
67.5°	40.0	41.9	45.2	43.3	44.8	72.8	230.4	945.5	1565.8	1784.8	1949.6
70°	38.1	39.5	40.0	39.5	41.9	70.5	194.7	820.3	1408.7	1661.5	1822.9
72.5°	36.2	36.2	36.2	35.7	38.6	67.1	175.2	662.7	1217.4	1499.7	1665.3
75°	34.8	33.3	32.8	31.9	35.2	65.2	158.1	497.5	940.7	1249.2	1395.4
77.5°	31.9	30.5	29.0	28.1	31.4	58.1	131.9	351.4	693.7	908.8	1076.9
80°	27.6	26.7	24.8	23.3	26.2	45.7	100.0	217.1	507.5	613.7	706.5
82.5°	22.4	21.9	20.0	18.1	19.0	32.8	68.1	110.5	338.5	333.3	394.7
85°	13.8	17.1	14.8	11.9	12.9	19.0	27.6	35.2	103.8	62.4	96.6
87.5°	8.1	10.9	9.0	6.2	4.8	8.6	7.6	7.1	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°	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1
2.5°	1094.0	1100.2	1103.6	1091.2	1077.9	1066.0	1043.1	1020.3	1008.3	1010.7
5°	1138.8	1149.3	1152.1	1134.0	1096.4	1057.9	1002.2	954.1	925.0	923.1
7.5°	1121.7	1155.9	1161.6	1142.1	1088.3	1016.4	940.7	873.6	844.6	837.9
10°	1060.7	1113.1	1130.2	1123.6	1071.2	988.8	896.9	811.7	782.7	768.9
12.5°	998.4	1053.1	1063.6	1070.2	1038.3	968.8	867.9	780.3	745.5	734.1
15°	957.4	995.0	997.9	1004.1	997.4	959.3	881.2	793.2	751.3	735.6
17.5°	951.7	938.4	929.3	942.2	950.3	959.8	916.0	841.2	796.5	776.5
20°	952.6	911.2	885.5	884.6	919.3	972.2	986.4	922.2	864.1	845.5
22.5°	987.4	896.9	854.1	848.9	891.2	993.1	1058.3	1018.3	960.3	935.5
25°	1039.3	888.4	831.7	833.1	875.5	1006.9	1119.8	1114.5	1063.6	1031.7
27.5°	1089.3	902.7	828.9	832.7	880.8	1016.0	1170.7	1205.0	1147.8	1120.2
30°	1129.3	934.6	837.4	840.8	896.9	1028.3	1195.9	1285.4	1216.4	1183.5
32.5°	1164.0	964.5	850.3	852.7	922.7	1046.0	1219.7	1353.0	1283.1	1244.0
35°	1195.5	990.3	869.8	877.9	955.5	1071.2	1244.0	1426.4	1364.5	1315.4
37.5°	1223.1	1021.7	908.4	921.7	1003.6	1107.9	1275.4	1523.0	1455.4	1399.7
40°	1238.8	1049.8	965.5	985.5	1066.0	1155.5	1315.4	1585.8	1542.5	1479.7
42.5°	1250.7	1088.3	1057.4	1093.6	1162.6	1200.2	1334.5	1613.9	1593.9	1540.1
45°	1256.9	1164.5	1195.5	1229.3	1271.6	1249.2	1324.0	1623.5	1617.3	1571.1
47.5°	1285.0	1279.2	1355.4	1402.1	1399.7	1323.0	1304.0	1622.5	1632.5	1594.4
50°	1342.1	1413.0	1519.7	1565.4	1547.8	1392.1	1300.2	1621.1	1663.0	1632.0
52.5°	1410.2	1546.8	1697.2	1716.3	1679.2	1462.1	1328.8	1645.8	1720.1	1699.6
55°	1499.7	1672.5	1836.7	1842.9	1790.6	1530.1	1389.7	1718.7	1826.7	1825.8
57.5°	1624.4	1785.3	1953.9	1946.2	1872.4	1624.4	1487.8	1827.7	1945.3	1961.9
60°	1760.1	1904.3	2048.6	2044.3	1965.8	1733.0	1622.5	1989.1	2049.1	2053.4
62.5°	1890.1	2014.8	2140.0	2119.5	2031.0	1845.3	1809.1	2160.5	2116.7	2084.8
64°	1974.8	2051.9	2163.3	2131.0	2046.7	1899.1	1916.7	2216.2	2135.7	2082.9
65°	2031.0	2061.0	2158.1	2119.1	2041.5	1919.1	1998.1	2239.5	2139.1	2071.9
67.5°	2131.9	2009.1	2016.2	1985.3	1915.8	1900.5	2131.4	2226.7	2102.4	2001.9
70°	2103.8	1800.1	1702.0	1682.5	1599.2	1684.9	2114.8	2105.7	1964.8	1842.5
72.5°	1863.9	1445.4	1304.5	1286.9	1171.2	1276.9	1824.8	1793.4	1581.1	1479.7
75°	1535.9	1095.5	931.7	946.5	858.4	956.0	1451.6	1228.8	1052.6	992.2
77.5°	1192.1	774.1	643.7	626.1	608.4	618.9	997.9	737.9	615.1	559.4
80°	759.8	486.6	482.8	441.3	427.0	359.9	512.7	392.8	309.0	292.3
82.5°	403.7	280.4	318.5	255.2	205.2	147.6	173.8	116.6	98.5	103.3
85°	110.5	58.1	16.2	0.0	0.0	0.0	0.0	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	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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