

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: P401098

Luminaire Tested: **ENT-SA1B-730-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401098
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-SA1B-730-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 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: 2761 lumens
Efficiency: N/A
Efficacy: 108.7 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

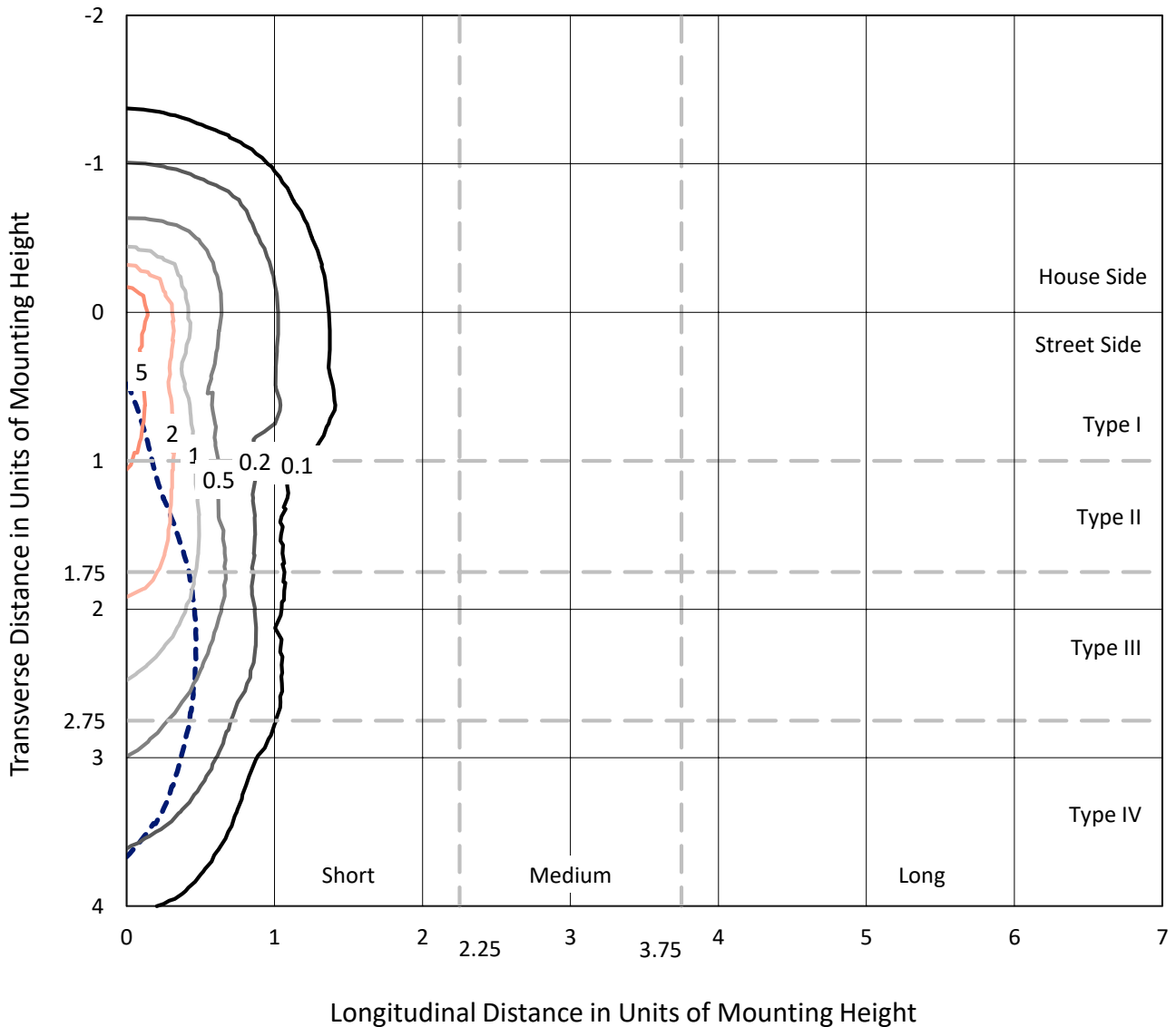


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Iso-Footcandle Lines of Horizontal Illumination

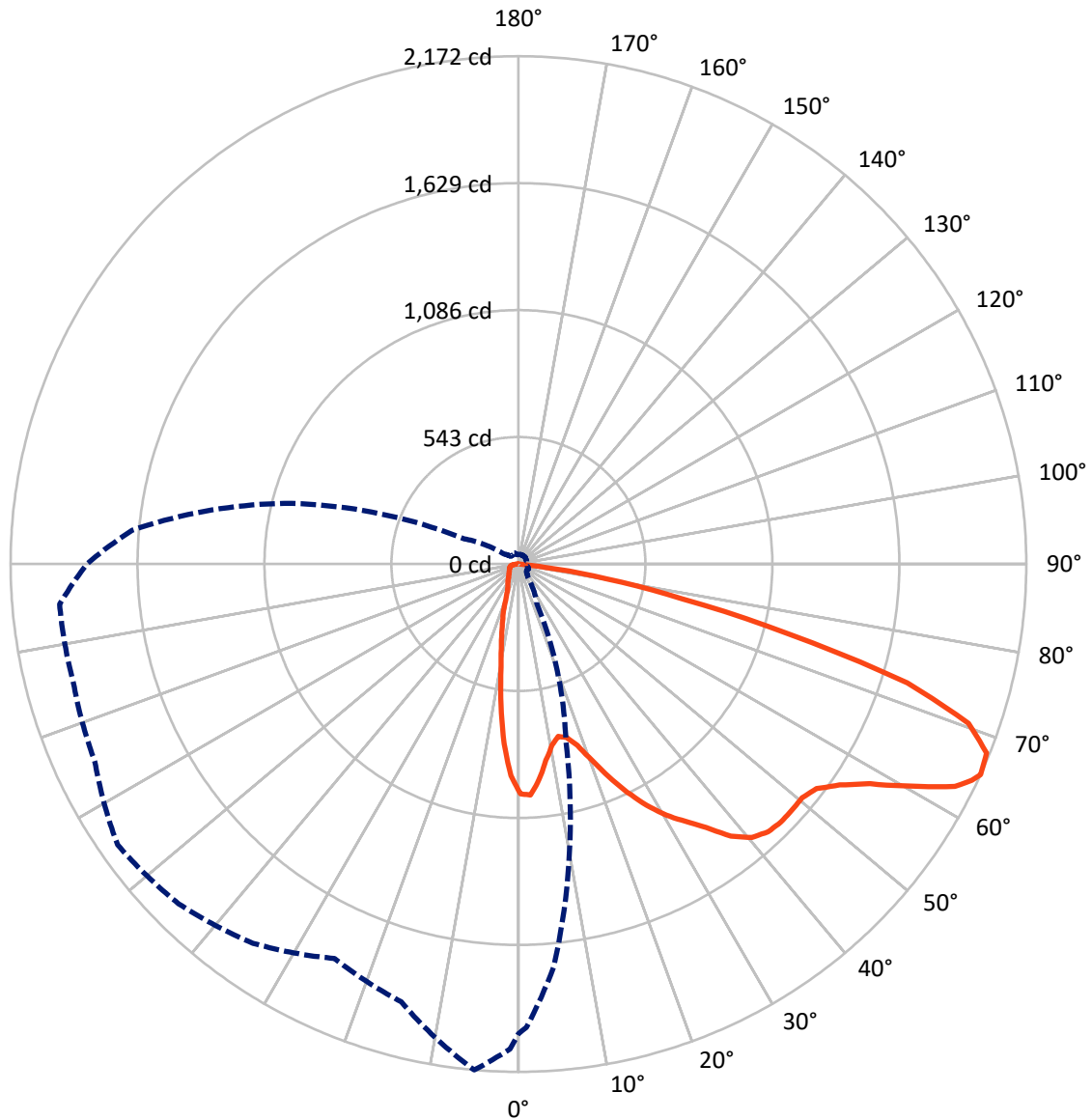
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.8 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	566.5	0.0	566.5
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	2194.5	0.0	2194.5
	% Fixture	79.5	0.0	79.5
Total	Lumens	2761.0	0.0	2761.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.0	2.7
10°-20°	149.3	5.4
20°-30°	207.0	7.5
30°-40°	289.4	10.5
40°-50°	393.7	14.3
50°-60°	538.4	19.5
60°-70°	658.3	23.8
70°-80°	397.5	14.4
80°-90°	52.4	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°	2761.0	100.0
0°-180°	2761.0	100.0



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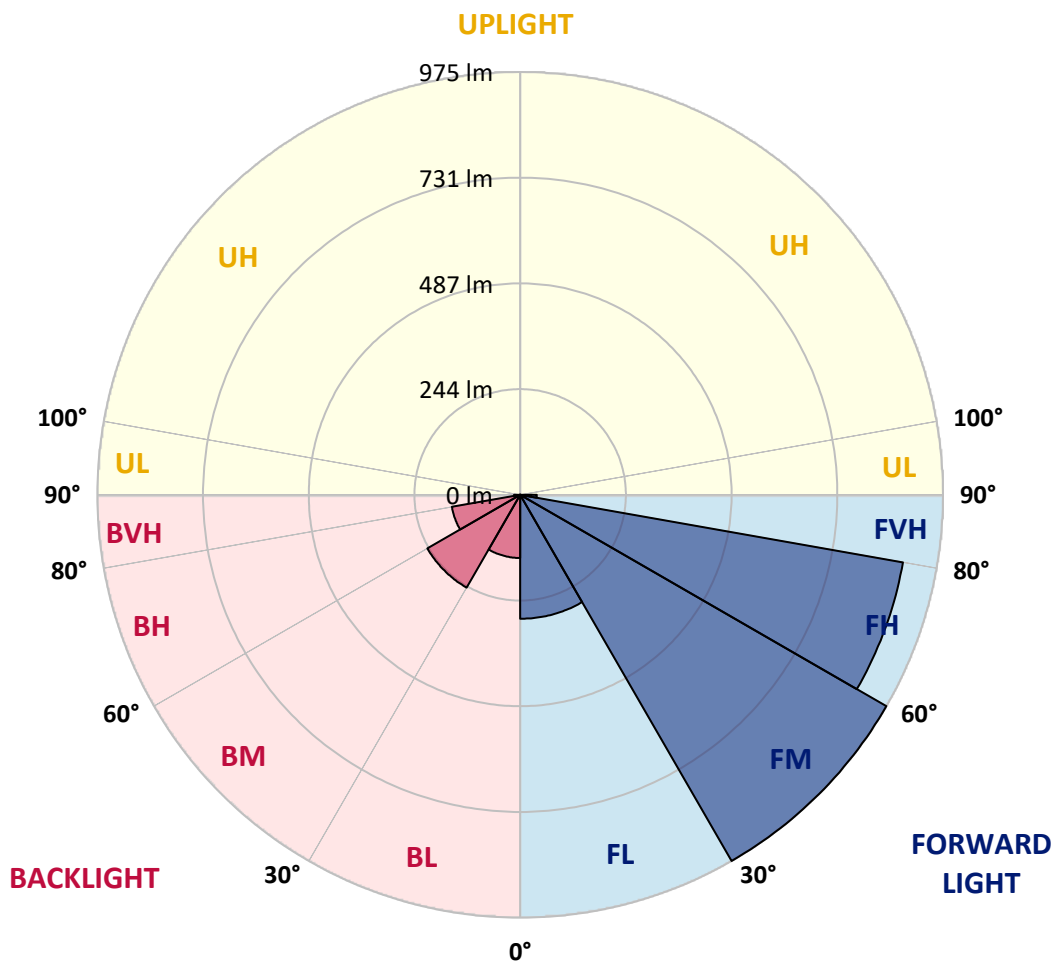
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	285.7	10.3			
FM	(30°-60°)	974.6	35.3			
FH	(60°-80°)	895.9	32.4			G1/1800
FVH	(80°-90°)	38.3	1.4			G1/100
BL	(0°-30°)	145.6	5.3	B1/500		
BM	(30°-60°)	246.9	8.9	B1/1000		
BH	(60°-80°)	159.9	5.8	B1/500		G1/500
BVH	(80°-90°)	14.1	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°	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5
2.5°	980.2	977.4	970.5	952.0	932.2	908.6	904.5	879.1	881.9	874.5	876.3
5°	895.2	891.6	872.6	835.7	785.4	756.3	733.6	720.3	709.2	703.6	710.6
7.5°	812.6	807.5	784.9	719.8	663.9	617.8	580.8	558.2	536.0	518.5	510.2
10°	745.7	743.8	713.8	640.4	570.2	513.9	489.9	465.9	446.9	422.0	401.7
12.5°	711.9	706.4	670.9	585.4	517.1	482.5	459.9	429.4	403.5	373.1	346.7
15°	713.3	706.9	662.5	573.0	498.6	456.6	422.0	385.5	347.7	316.7	290.0
17.5°	753.0	748.4	694.4	584.5	482.9	424.8	370.7	323.7	282.1	243.3	219.3
20°	820.0	813.1	738.3	598.4	463.1	388.3	314.9	250.2	205.5	171.3	152.4
22.5°	907.2	894.3	800.6	615.5	443.2	346.7	254.4	182.4	142.7	125.6	120.5
25°	1000.5	990.4	875.9	637.2	422.0	301.5	188.4	132.5	118.7	111.7	108.0
27.5°	1086.4	1069.8	956.7	661.2	393.8	256.2	143.1	114.0	104.8	101.6	99.3
30°	1147.8	1133.5	1012.5	688.9	369.4	209.2	122.4	103.4	96.0	91.0	90.0
32.5°	1206.4	1186.1	1053.1	701.8	349.0	183.8	113.1	96.0	89.1	84.0	82.2
35°	1275.7	1255.4	1099.8	703.6	333.8	173.1	104.3	90.5	83.1	78.5	76.2
37.5°	1357.4	1329.7	1152.4	705.0	318.6	169.0	97.0	85.9	78.5	73.4	71.6
40°	1435.0	1413.7	1206.4	702.7	308.4	163.0	92.3	80.8	73.9	69.3	66.9
42.5°	1493.6	1471.0	1252.6	695.8	302.4	152.8	94.2	77.1	70.6	65.6	62.8
45°	1523.6	1503.3	1294.6	689.3	299.2	144.1	92.3	75.7	68.3	62.3	59.6
47.5°	1546.2	1526.4	1337.6	686.6	293.6	137.6	85.0	80.8	66.0	59.1	56.3
50°	1582.7	1565.6	1395.7	702.3	284.9	133.4	78.0	86.3	65.1	56.3	53.1
52.5°	1648.3	1637.2	1491.8	738.7	275.6	126.5	71.1	82.6	66.0	54.5	50.8
55°	1770.6	1763.7	1623.8	786.7	266.9	117.7	63.7	74.8	65.6	51.2	48.5
57.5°	1902.7	1900.8	1784.0	828.8	253.9	103.0	59.1	63.3	62.3	48.5	45.2
60°	1991.3	1985.3	1857.9	852.3	237.3	85.0	55.4	53.6	63.7	45.7	42.0
62.5°	2021.8	2001.9	1835.7	843.5	212.4	73.4	51.2	48.9	59.1	42.9	38.8
64°	2020.0	1990.9	1778.0	810.3	196.2	71.1	48.9	45.7	52.2	41.1	37.4
65°	2009.3	1981.6	1730.0	784.4	187.5	71.1	47.6	44.3	47.6	40.2	36.5
67.5°	1941.5	1905.0	1566.1	664.4	164.8	72.0	44.3	40.6	39.7	36.9	34.2
70°	1786.8	1739.2	1341.3	522.6	152.8	72.5	40.6	36.9	35.6	33.7	31.4
72.5°	1435.0	1371.3	1067.5	373.5	140.4	71.1	36.9	33.7	32.3	30.5	28.2
75°	962.2	892.5	786.7	246.1	115.0	63.7	31.9	29.1	28.6	26.8	24.9
77.5°	542.5	513.4	464.5	135.3	79.4	43.9	25.4	23.5	24.0	23.1	21.2
80°	283.5	270.1	248.4	65.6	38.3	21.2	16.2	16.2	18.5	18.5	17.5
82.5°	100.2	100.7	97.4	14.8	7.8	6.5	5.5	7.8	10.6	12.9	12.9
85°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	3.2
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°	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5
2.5°	860.6	863.4	870.8	869.4	876.8	873.5	883.2	888.3	891.1	905.4	912.3
5°	705.0	705.9	732.3	737.8	751.7	744.3	761.4	754.9	768.7	770.6	793.7
7.5°	518.0	519.9	532.8	563.3	593.3	605.8	610.8	618.7	612.2	609.9	613.1
10°	393.8	395.2	396.6	418.3	444.6	470.9	470.9	471.4	459.9	448.3	446.0
12.5°	336.6	327.8	314.0	314.4	332.9	345.4	355.1	344.9	343.0	348.6	354.6
15°	277.0	268.3	259.0	247.9	248.4	257.2	262.2	261.8	271.0	275.2	287.6
17.5°	215.2	202.7	203.1	196.7	187.9	193.5	194.8	203.1	215.2	220.7	223.0
20°	144.5	144.5	148.2	156.1	151.9	155.6	156.1	162.5	168.1	164.8	168.1
22.5°	119.6	119.1	120.5	125.6	129.7	133.0	133.9	133.4	127.9	125.6	130.2
25°	108.5	108.0	108.5	111.3	115.9	120.0	118.2	115.4	109.0	108.5	109.4
27.5°	99.3	99.7	100.7	102.5	105.3	110.3	108.5	103.0	99.7	98.8	98.8
30°	91.4	91.4	93.3	95.1	98.3	103.0	99.7	95.1	91.9	91.0	90.5
32.5°	83.6	85.0	86.3	88.2	91.0	95.6	92.8	88.6	85.4	83.6	82.2
35°	75.7	76.6	79.4	82.2	84.5	88.2	86.3	82.6	79.4	75.3	73.4
37.5°	71.1	71.1	72.5	76.6	78.5	81.3	80.3	77.1	72.0	68.8	68.3
40°	66.9	66.9	67.4	69.7	72.9	76.2	74.3	69.3	66.0	64.6	64.2
42.5°	62.8	62.8	63.3	63.3	67.4	72.9	68.3	63.3	61.9	60.9	60.5
45°	59.1	59.1	59.1	58.6	60.9	67.9	62.8	58.6	57.7	57.7	57.3
47.5°	56.3	55.9	55.4	54.5	55.9	61.4	57.3	54.9	54.5	54.9	54.5
50°	52.6	52.2	51.7	51.2	52.2	54.5	53.6	51.2	51.7	51.7	52.2
52.5°	49.4	48.9	48.5	48.0	48.9	50.8	50.8	48.9	48.9	49.4	49.9
55°	47.6	46.6	46.2	46.2	46.6	48.9	48.5	47.1	47.1	48.0	48.5
57.5°	44.8	43.9	43.9	43.4	44.3	47.1	46.6	45.2	45.2	45.7	46.6
60°	42.0	41.6	41.1	42.0	42.5	45.2	44.8	43.9	43.4	44.8	44.8
62.5°	38.8	38.8	38.8	39.7	40.2	43.4	42.9	42.5	42.5	42.9	42.5
64°	36.9	36.9	37.4	37.9	38.8	41.6	41.6	41.6	41.6	41.6	41.1
65°	36.0	36.0	36.9	37.4	37.9	41.1	40.6	41.1	41.6	41.1	40.2
67.5°	33.7	33.7	35.1	35.1	35.6	39.2	38.8	39.7	40.6	39.7	38.8
70°	30.9	31.4	32.8	32.3	33.2	37.4	36.0	37.9	39.7	38.3	37.4
72.5°	28.2	28.6	30.5	29.5	30.0	35.1	33.2	35.1	37.9	36.9	36.0
75°	25.4	25.9	27.2	26.8	27.7	32.3	30.5	32.3	35.1	35.1	34.6
77.5°	21.7	22.6	23.5	23.1	24.9	29.1	27.2	28.6	30.9	32.8	31.9
80°	17.5	18.9	19.4	19.9	21.7	24.9	23.5	24.0	26.3	27.7	28.2
82.5°	12.0	14.3	15.2	15.7	18.5	19.4	19.9	19.4	20.8	22.6	21.2
85°	3.7	4.6	8.8	11.1	13.9	13.9	16.2	15.2	16.2	14.3	12.0
87.5°	0.0	0.0	0.0	3.2	8.3	8.3	11.5	10.6	11.1	8.3	7.4
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5
2.5°	913.7	921.6	939.1	959.4	970.5	994.5	1009.3	1025.0	1040.7	1043.9	1049.0
5°	798.3	807.5	827.4	854.6	881.9	913.7	950.6	989.9	1033.3	1051.8	1069.8
7.5°	621.9	623.8	651.9	701.3	725.3	770.6	823.2	883.7	950.6	985.3	1022.2
10°	459.4	478.3	499.6	540.7	601.1	653.3	718.4	789.1	858.8	909.1	947.4
12.5°	361.1	385.1	420.2	465.4	511.1	560.5	635.8	711.5	797.4	842.6	889.7
15°	297.3	327.8	373.5	421.1	463.6	507.4	574.4	667.2	777.0	823.2	865.2
17.5°	235.5	269.2	318.1	368.0	418.8	472.3	549.9	664.9	798.7	852.3	895.7
20°	180.5	206.8	247.9	298.3	357.8	431.2	530.5	682.4	862.9	929.9	958.5
22.5°	133.9	149.1	181.4	234.1	304.3	394.8	511.1	707.3	942.3	1020.8	1042.5
25°	110.8	115.0	129.7	175.4	247.9	353.7	496.3	739.7	1021.8	1109.9	1125.6
27.5°	99.7	102.0	109.0	126.0	193.9	320.0	476.9	777.0	1105.3	1198.1	1196.7
30°	90.0	90.5	94.6	106.7	157.4	290.0	454.3	818.6	1179.7	1261.4	1257.2
32.5°	81.3	81.3	86.8	96.0	134.4	262.7	427.1	848.6	1244.3	1313.1	1299.7
35°	73.4	74.8	79.9	89.1	119.1	232.2	401.7	859.7	1299.7	1375.4	1337.6
37.5°	67.9	69.7	74.8	83.6	106.2	209.6	380.9	872.6	1368.0	1450.7	1380.0
40°	64.2	65.6	70.2	77.6	96.0	190.7	358.3	881.4	1435.9	1531.0	1424.8
42.5°	60.5	61.9	66.5	73.4	91.4	168.5	336.6	886.5	1506.5	1600.7	1462.2
45°	57.3	59.1	63.7	70.2	91.9	148.7	318.6	884.6	1549.0	1651.1	1491.3
47.5°	54.9	56.8	61.9	70.2	89.1	137.1	303.3	878.2	1580.4	1683.8	1504.7
50°	52.6	54.5	60.5	77.6	84.5	133.9	291.8	877.2	1613.2	1690.3	1504.7
52.5°	50.3	53.6	60.9	78.0	77.6	132.5	282.6	901.7	1658.4	1701.4	1518.1
55°	48.9	51.7	62.8	72.0	67.9	127.9	277.0	935.4	1734.6	1762.3	1585.5
57.5°	47.1	49.4	61.9	67.4	60.5	117.3	272.4	967.7	1834.8	1875.4	1719.8
60°	44.8	47.6	60.0	57.7	54.9	99.7	269.6	994.5	1872.2	1948.4	1864.4
62.5°	42.5	45.7	65.6	50.3	50.8	83.1	264.6	1020.4	1793.3	1930.8	1957.2
64°	41.1	44.3	60.9	47.1	48.5	75.7	259.5	1021.8	1723.5	1889.3	1974.7
65°	40.2	42.9	56.8	45.2	46.6	73.9	254.9	1002.4	1658.0	1845.0	1969.6
67.5°	38.8	40.6	43.9	42.0	43.4	70.6	223.5	916.9	1518.5	1730.9	1890.7
70°	36.9	38.3	38.8	38.3	40.6	68.3	188.8	795.5	1366.2	1611.3	1767.9
72.5°	35.1	35.1	35.1	34.6	37.4	65.1	169.9	642.7	1180.6	1454.4	1615.0
75°	33.7	32.3	31.9	30.9	34.2	63.3	153.3	482.5	912.3	1211.5	1353.3
77.5°	30.9	29.5	28.2	27.2	30.5	56.3	127.9	340.7	672.7	881.4	1044.4
80°	26.8	25.9	24.0	22.6	25.4	44.3	97.0	210.5	492.2	595.1	685.2
82.5°	21.7	21.2	19.4	17.5	18.5	31.9	66.0	107.1	328.3	323.2	382.8
85°	13.4	16.6	14.3	11.5	12.5	18.5	26.8	34.2	100.7	60.5	93.7
87.5°	7.8	10.6	8.8	6.0	4.6	8.3	7.4	6.9	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°	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5	982.5
2.5°	1061.0	1067.0	1070.2	1058.2	1045.3	1033.8	1011.6	989.4	977.9	980.2
5°	1104.4	1114.6	1117.3	1099.8	1063.3	1025.9	971.9	925.3	897.1	895.2
7.5°	1087.8	1121.0	1126.6	1107.6	1055.5	985.7	912.3	847.2	819.1	812.6
10°	1028.7	1079.5	1096.1	1089.6	1038.8	959.0	869.9	787.2	759.0	745.7
12.5°	968.2	1021.3	1031.4	1037.9	1007.0	939.6	841.7	756.7	723.0	711.9
15°	928.5	965.0	967.7	973.7	967.3	930.3	854.6	769.2	728.6	713.3
17.5°	922.9	910.0	901.2	913.7	921.6	930.8	888.3	815.8	772.4	753.0
20°	923.9	883.7	858.8	857.8	891.6	942.8	956.7	894.3	838.0	820.0
22.5°	957.6	869.9	828.3	823.2	864.3	963.1	1026.4	987.6	931.3	907.2
25°	1007.9	861.5	806.6	808.0	849.1	976.5	1085.9	1080.8	1031.4	1000.5
27.5°	1056.4	875.4	803.8	807.5	854.2	985.3	1135.3	1168.6	1113.2	1086.4
30°	1095.2	906.3	812.1	815.4	869.9	997.3	1159.8	1246.6	1179.7	1147.8
32.5°	1128.9	935.4	824.6	826.9	894.8	1014.4	1182.9	1312.2	1244.3	1206.4
35°	1159.3	960.3	843.5	851.4	926.6	1038.8	1206.4	1383.3	1323.2	1275.7
37.5°	1186.1	990.8	880.9	893.9	973.3	1074.4	1236.9	1477.0	1411.4	1357.4
40°	1201.4	1018.1	936.3	955.7	1033.8	1120.6	1275.7	1537.9	1495.9	1435.0
42.5°	1212.9	1055.5	1025.4	1060.5	1127.5	1164.0	1294.2	1565.2	1545.8	1493.6
45°	1218.9	1129.3	1159.3	1192.1	1233.2	1211.5	1284.0	1574.4	1568.4	1523.6
47.5°	1246.1	1240.6	1314.5	1359.7	1357.4	1283.1	1264.6	1573.5	1583.2	1546.2
50°	1301.5	1370.3	1473.8	1518.1	1501.0	1350.0	1260.9	1572.1	1612.7	1582.7
52.5°	1367.6	1500.1	1646.0	1664.4	1628.4	1417.9	1288.6	1596.1	1668.1	1648.3
55°	1454.4	1622.0	1781.3	1787.3	1736.5	1483.9	1347.7	1666.8	1771.6	1770.6
57.5°	1575.3	1731.4	1894.8	1887.4	1815.9	1575.3	1442.8	1772.5	1886.5	1902.7
60°	1706.9	1846.8	1986.7	1982.6	1906.4	1680.6	1573.5	1929.0	1987.2	1991.3
62.5°	1833.0	1953.9	2075.4	2055.5	1969.6	1789.6	1754.5	2095.2	2052.7	2021.8
64°	1915.1	1989.9	2098.0	2066.6	1984.9	1841.7	1858.8	2149.2	2071.2	2020.0
65°	1969.6	1998.7	2092.9	2055.0	1979.8	1861.1	1937.8	2171.9	2074.4	2009.3
67.5°	2067.5	1948.4	1955.3	1925.3	1857.9	1843.1	2067.0	2159.4	2038.9	1941.5
70°	2040.3	1745.7	1650.6	1631.7	1550.9	1634.0	2050.9	2042.1	1905.5	1786.8
72.5°	1807.6	1401.7	1265.1	1248.0	1135.8	1238.3	1769.7	1739.2	1533.3	1435.0
75°	1489.5	1062.4	903.6	917.9	832.5	927.1	1407.7	1191.7	1020.8	962.2
77.5°	1156.1	750.7	624.2	607.1	590.1	600.2	967.7	715.6	596.5	542.5
80°	736.9	471.9	468.2	428.0	414.1	349.0	497.3	380.9	299.6	283.5
82.5°	391.5	271.9	308.9	247.5	199.0	143.1	168.5	113.1	95.6	100.2
85°	107.1	56.3	15.7	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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