

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: P401385

Luminaire Tested: **ENV-SA1C-827-U-SLR-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401385
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1C-827-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2493 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-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

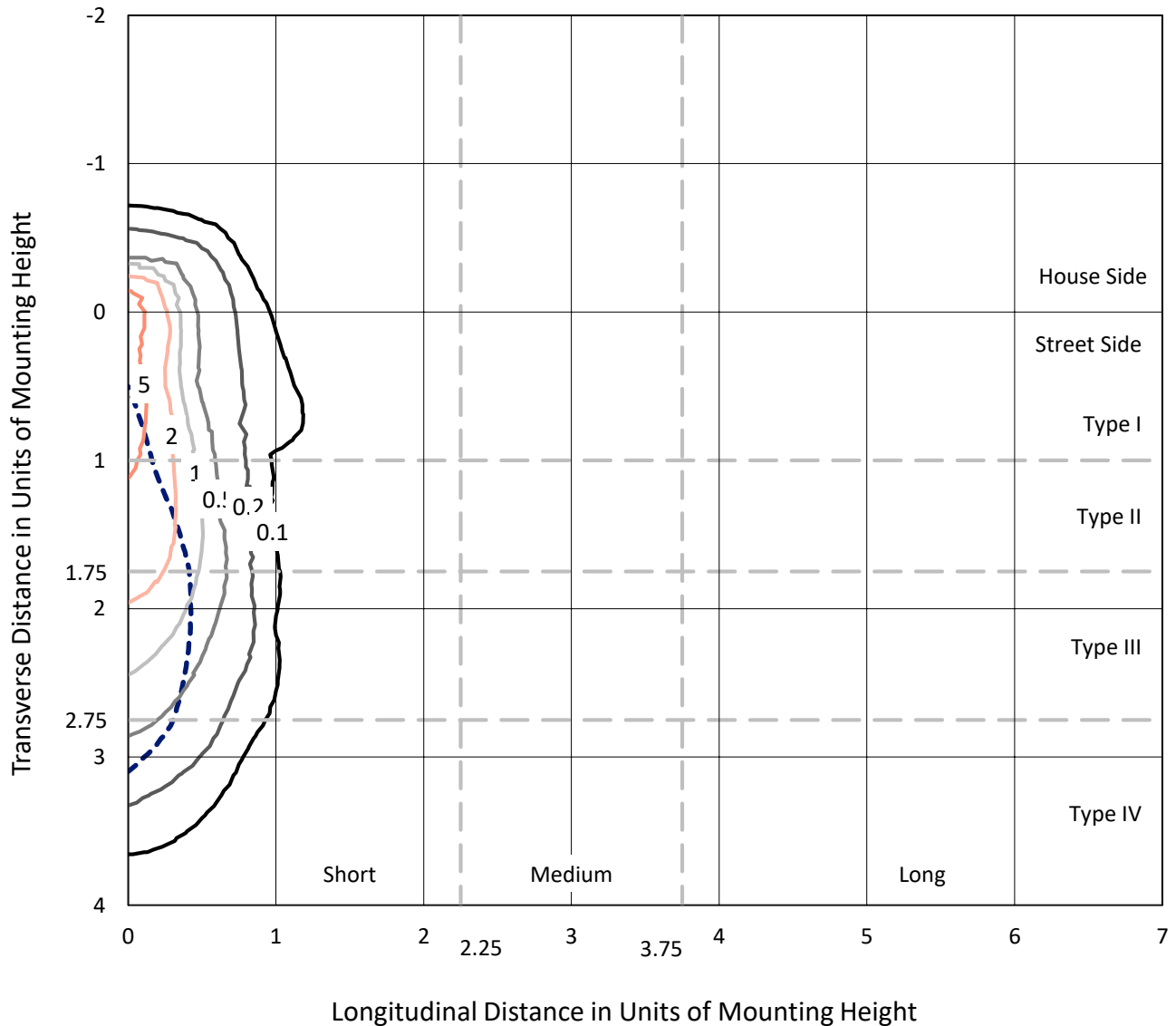


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

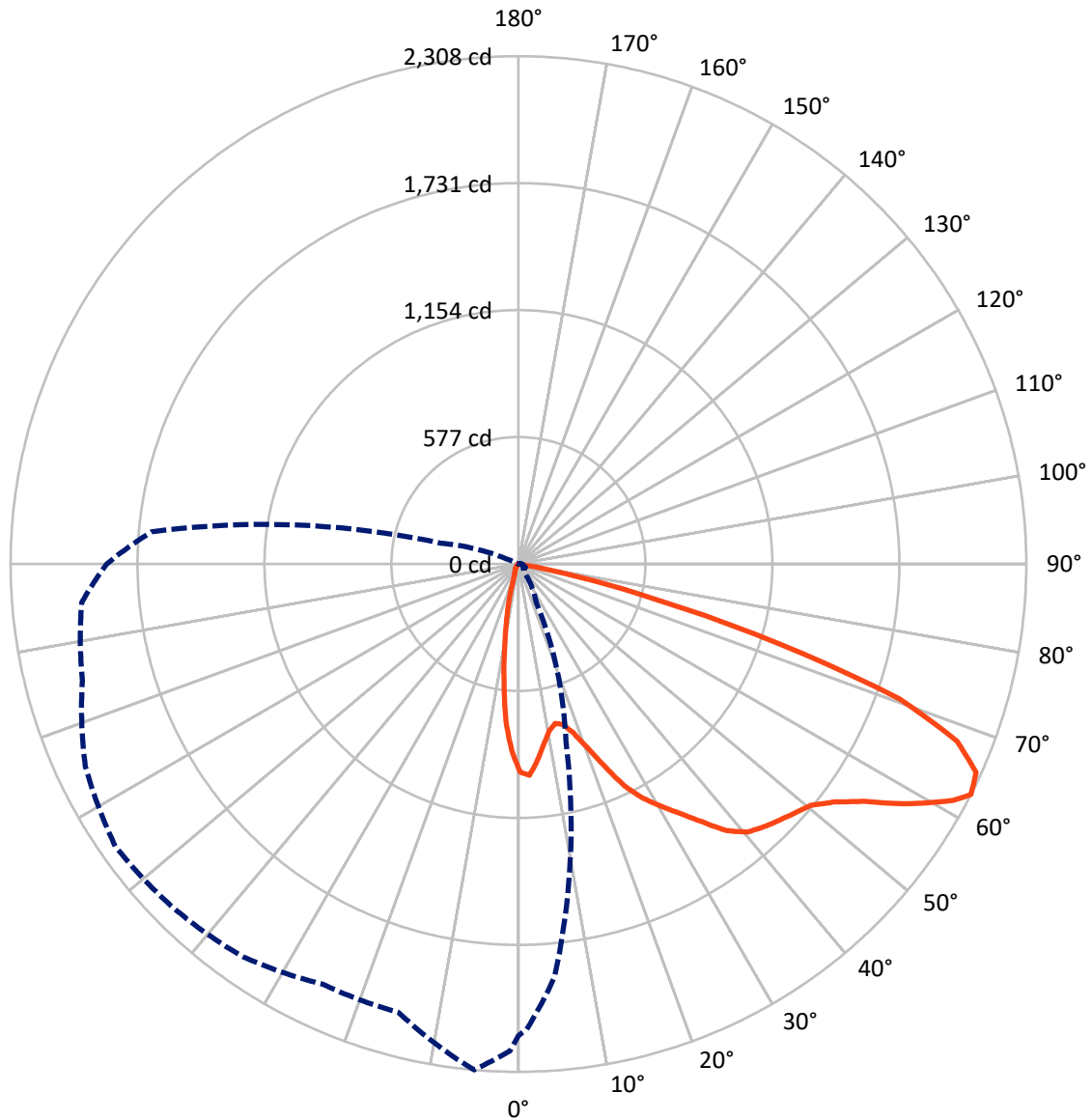


Based on 10 foot mounting height. Maximum calculated value = 9.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	350.7	0.0	350.7
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	2142.3	0.0	2142.3
	% Fixture	85.9	0.0	85.9
Total	Lumens	2493.0	0.0	2493.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.9	2.8
10°-20°	134.8	5.4
20°-30°	187.6	7.5
30°-40°	271.3	10.9
40°-50°	388.9	15.6
50°-60°	564.2	22.6
60°-70°	610.5	24.5
70°-80°	246.6	9.9
80°-90°	18.3	0.7
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°	2493.0	100.0
0°-180°	2493.0	100.0



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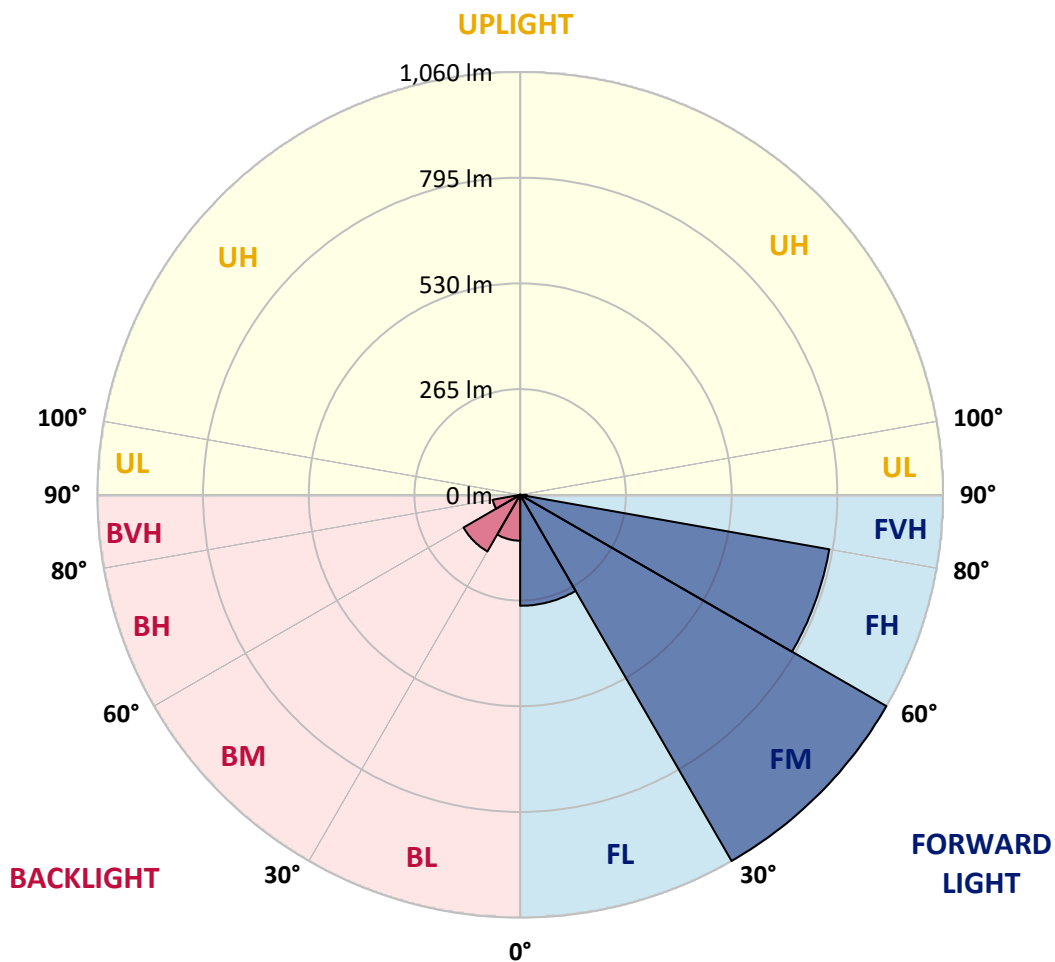
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	278.3	11.2			
FM	(30°-60°)	1060.3	42.5			
FH	(60°-80°)	787.3	31.6			G1/1800
FVH	(80°-90°)	16.4	0.7			G1/100
BL	(0°-30°)	115.0	4.6	B1/500		
BM	(30°-60°)	164.1	6.6	B0/220		
BH	(60°-80°)	69.7	2.8	B0/110		G0/110
BVH	(80°-90°)	1.9	0.1			G0/10
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°	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6
2.5°	949.6	945.6	936.8	917.5	889.9	872.1	860.8	846.0	830.7	825.8	815.9
5°	866.7	860.3	848.0	799.6	756.2	712.8	681.7	652.1	642.3	622.5	634.4
7.5°	786.8	783.8	755.2	692.6	623.5	567.8	532.3	488.9	476.0	455.8	439.5
10°	724.2	721.7	687.2	605.3	530.8	484.4	456.3	428.2	400.1	371.5	348.8
12.5°	692.6	687.2	647.2	558.9	489.8	451.4	421.8	384.3	354.2	315.7	288.1
15°	697.5	692.6	646.7	551.5	470.1	416.8	372.9	328.5	286.1	248.1	221.0
17.5°	737.0	735.0	679.3	557.9	446.4	375.9	317.2	257.5	207.2	166.2	143.1
20°	813.9	808.0	727.1	571.7	421.8	328.5	248.1	174.6	132.7	104.6	94.7
22.5°	909.1	895.8	802.6	592.0	398.1	277.7	179.6	117.4	94.7	83.9	77.0
25°	1021.1	1021.6	896.3	619.1	374.4	230.4	125.8	93.2	79.9	72.0	66.1
27.5°	1111.9	1105.0	980.7	646.2	348.8	188.9	105.6	81.4	70.0	61.7	58.2
30°	1179.0	1168.6	1036.4	665.0	315.7	159.8	94.7	77.4	66.1	56.7	52.3
32.5°	1248.0	1235.2	1086.7	675.3	296.0	146.0	83.9	67.6	59.2	55.2	49.3
35°	1328.9	1317.6	1142.5	674.3	285.6	138.1	76.0	61.2	50.3	43.9	40.0
37.5°	1419.2	1396.0	1200.2	669.9	278.2	134.2	69.1	56.7	46.9	40.0	35.0
40°	1496.7	1473.5	1253.5	664.0	273.3	130.2	65.1	53.8	44.4	37.0	32.1
42.5°	1557.3	1535.1	1303.3	656.6	270.8	121.8	67.1	51.8	42.4	35.0	29.6
45°	1609.6	1586.9	1362.5	655.6	269.8	115.9	66.1	51.3	41.4	32.6	27.6
47.5°	1670.3	1658.5	1440.4	671.9	265.9	111.5	60.7	55.2	40.9	31.6	26.1
50°	1760.1	1749.7	1542.5	720.2	260.0	107.0	55.2	60.7	40.9	30.6	24.7
52.5°	1885.9	1874.0	1703.3	783.4	254.5	102.1	49.8	58.7	41.4	29.1	23.7
55°	2016.1	2014.1	1855.3	850.4	249.6	91.3	43.9	52.8	40.5	27.1	22.2
57.5°	2118.2	2116.7	1969.2	895.8	240.2	73.5	40.0	43.9	37.5	24.7	20.2
60°	2160.1	2147.8	1981.6	895.8	218.5	60.7	36.5	34.5	38.0	22.2	17.8
61°	2160.1	2144.4	1959.4	882.5	207.7	57.7	34.5	32.1	39.0	21.2	16.8
62.5°	2143.4	2117.2	1883.4	834.7	190.4	57.7	31.6	28.6	35.5	20.2	15.3
65°	2068.9	2026.0	1705.3	725.6	172.7	59.2	27.1	24.2	25.7	17.3	13.3
67.5°	1884.9	1836.5	1474.5	574.2	158.3	62.6	22.7	21.2	19.7	15.3	11.8
70°	1552.9	1511.9	1203.1	430.2	147.0	63.6	19.7	17.8	16.8	13.3	10.4
72.5°	992.5	924.9	751.3	291.5	117.9	55.2	16.3	16.8	15.3	10.9	8.4
75°	479.5	498.2	437.1	147.0	79.4	36.0	12.8	13.8	12.3	9.9	7.4
77.5°	214.6	210.6	208.7	37.5	20.2	12.3	7.9	9.4	9.9	8.9	6.4
80°	22.2	30.1	17.8	11.3	7.4	5.4	4.4	4.9	5.9	6.4	3.5
82.5°	1.0	0.5	0.5	1.5	1.5	1.0	0.0	0.0	1.0	1.0	0.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6
2.5°	807.0	820.3	814.4	813.0	820.8	816.9	828.7	829.2	838.1	849.9	857.3
5°	634.4	624.0	644.7	658.5	675.8	670.4	691.1	688.6	700.0	718.7	711.3
7.5°	440.5	442.0	452.8	465.2	511.5	520.9	527.8	533.3	532.8	537.2	545.1
10°	336.9	328.5	321.1	338.4	356.7	376.9	379.8	387.2	367.0	375.4	379.3
12.5°	275.8	265.9	249.6	240.7	245.2	257.0	261.9	266.4	254.5	255.0	263.9
15°	209.2	195.8	189.4	177.6	173.1	172.2	174.6	168.2	166.7	161.3	164.8
17.5°	136.1	132.2	128.8	126.3	122.8	121.8	113.0	97.7	88.8	86.8	86.8
20°	90.8	87.8	87.8	92.7	91.3	87.3	75.5	62.6	56.2	54.3	55.2
22.5°	74.5	72.5	69.6	69.6	71.5	68.6	57.7	48.3	43.9	43.9	43.9
25°	64.6	63.6	60.7	57.7	58.7	56.2	46.9	40.9	38.0	37.5	38.0
27.5°	56.7	56.2	52.8	49.8	49.8	47.8	40.5	35.0	33.1	32.1	32.6
30°	51.3	50.3	46.4	43.9	43.4	41.4	34.5	30.6	28.6	28.1	28.1
32.5°	47.4	45.4	41.9	39.5	38.0	35.0	30.1	26.1	24.2	23.7	23.7
35°	38.0	38.0	36.5	35.0	33.1	28.6	25.2	21.7	19.7	19.2	19.2
37.5°	33.1	31.1	28.6	29.1	28.1	24.2	20.7	17.3	15.8	15.3	15.3
40°	30.1	27.6	24.2	22.7	23.2	21.2	17.3	13.3	11.3	11.8	11.3
42.5°	27.1	25.2	21.2	17.8	17.3	17.8	13.3	9.4	7.9	7.9	7.9
45°	25.2	23.2	18.7	14.8	12.3	13.8	10.4	6.4	4.9	4.9	4.9
47.5°	23.7	21.7	16.8	12.3	8.9	9.4	7.4	3.9	3.0	2.0	2.5
50°	22.7	20.2	15.3	9.9	6.4	5.4	4.9	2.0	0.5	0.5	0.0
52.5°	21.2	19.2	13.8	8.4	4.9	3.5	2.5	0.5	0.0	0.0	0.0
55°	20.2	17.8	12.3	7.4	3.9	2.0	0.5	0.0	0.0	0.0	0.0
57.5°	18.3	16.3	10.9	5.9	3.0	1.0	0.0	0.0	0.0	0.0	0.0
60°	16.3	14.8	9.4	4.4	2.0	0.0	0.0	0.0	0.0	0.0	0.0
61°	15.3	13.8	8.9	3.9	1.5	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	14.3	12.8	7.9	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	12.3	10.9	6.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	10.9	9.9	5.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	9.4	8.4	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	7.9	7.4	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.9	5.9	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.4	4.9	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	3.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6
2.5°	864.3	881.5	897.8	918.5	929.9	960.9	983.1	1001.9	1016.7	1019.6	1031.5
5°	731.1	755.2	771.0	814.4	838.6	890.4	930.4	977.7	1020.1	1043.3	1064.5
7.5°	550.5	562.4	589.5	632.9	690.1	735.0	802.6	862.3	938.7	980.7	1020.1
10°	388.7	399.6	439.5	484.9	537.2	612.7	694.6	773.0	850.4	904.2	950.6
12.5°	273.3	308.8	348.3	406.0	457.3	512.5	599.8	691.6	788.3	839.6	889.9
15°	179.6	211.1	265.9	338.4	402.5	456.3	537.7	645.2	768.1	825.3	873.1
17.5°	88.8	112.0	160.3	238.3	323.6	408.4	506.6	636.8	794.2	858.8	903.7
20°	55.7	62.6	80.4	134.7	232.8	358.1	483.4	653.6	865.2	936.8	965.9
22.5°	44.9	46.9	53.8	71.5	142.1	296.0	463.2	676.3	943.2	1030.5	1060.6
25°	38.5	40.0	43.9	52.8	82.4	222.0	438.5	716.3	1033.9	1139.5	1146.9
27.5°	33.1	34.5	38.0	44.9	58.7	149.5	403.0	763.1	1142.5	1235.2	1230.3
30°	28.1	30.1	33.5	38.5	46.4	101.1	336.9	810.5	1222.4	1296.9	1289.0
32.5°	24.2	25.7	28.6	33.1	38.5	69.6	253.1	841.6	1289.0	1355.1	1337.8
35°	19.7	21.2	23.7	27.6	31.1	49.3	191.4	842.5	1357.5	1427.1	1383.7
37.5°	15.8	16.8	19.2	22.7	25.7	38.5	140.6	826.3	1442.4	1520.8	1436.0
40°	11.8	13.3	15.8	18.7	21.7	32.6	105.1	786.8	1525.3	1614.6	1499.1
42.5°	7.9	9.9	12.3	15.3	20.7	26.1	74.0	721.2	1592.4	1697.9	1560.8
45°	4.9	6.4	9.4	12.8	21.2	20.7	49.3	642.8	1640.2	1761.6	1602.7
47.5°	2.5	3.9	6.9	12.3	18.7	15.3	30.6	567.8	1683.6	1798.6	1622.0
50°	0.5	1.5	4.9	15.3	15.8	11.3	20.2	520.9	1706.3	1789.2	1620.0
52.5°	0.0	0.0	3.5	14.8	11.3	8.9	15.8	514.0	1741.8	1801.5	1654.0
55°	0.0	0.0	1.5	6.4	6.4	7.4	13.8	504.6	1805.0	1875.0	1756.6
57.5°	0.0	0.0	0.0	3.0	3.9	5.9	12.8	480.0	1871.6	1953.0	1881.4
60°	0.0	0.0	0.0	1.5	2.5	4.9	11.3	423.7	1810.4	1953.4	1985.0
61°	0.0	0.0	0.0	1.5	2.0	4.4	10.4	404.0	1755.6	1921.9	1997.8
62.5°	0.0	0.0	0.0	0.5	1.5	3.5	8.9	365.0	1673.8	1871.1	1991.9
65°	0.0	0.0	0.0	0.0	0.5	2.0	6.9	295.0	1537.1	1743.3	1923.9
67.5°	0.0	0.0	0.0	0.0	0.0	0.5	4.4	207.7	1340.8	1598.8	1778.3
70°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	120.4	1080.3	1353.6	1523.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	54.8	701.0	1045.3	1201.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	431.6	755.2	897.8
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	292.5	502.7	604.3
80°	0.0	1.0	0.5	0.0	0.0	0.0	0.0	3.9	180.1	313.7	340.9
82.5°	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	93.2	221.5	225.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	46.9
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6	945.6
2.5°	1042.3	1045.3	1047.3	1043.8	1022.6	1010.8	987.1	960.9	952.1	949.6
5°	1103.0	1119.8	1116.8	1094.1	1057.1	1011.7	955.5	897.3	875.1	866.7
7.5°	1091.2	1135.1	1143.5	1119.8	1057.1	977.7	896.3	827.3	795.2	786.8
10°	1031.0	1086.2	1112.9	1105.5	1046.8	955.0	854.9	770.0	735.0	724.2
12.5°	972.8	1026.1	1042.8	1048.7	1016.7	937.3	834.2	742.9	706.4	692.6
15°	933.8	966.9	965.9	976.7	974.3	930.4	847.5	756.7	715.8	697.5
17.5°	921.0	911.1	898.3	907.2	924.4	932.3	890.9	806.0	758.2	737.0
20°	928.9	880.5	852.4	851.9	888.4	948.6	954.5	887.4	842.5	813.9
22.5°	969.3	865.2	821.8	822.8	867.7	972.8	1028.0	994.0	944.7	909.1
25°	1029.0	868.2	810.0	815.9	865.7	994.0	1107.4	1115.3	1052.2	1021.1
27.5°	1089.7	893.9	810.5	816.9	874.1	1005.3	1152.8	1204.6	1150.4	1111.9
30°	1132.1	925.4	819.4	826.3	887.4	1014.2	1170.1	1278.1	1221.9	1179.0
32.5°	1172.1	958.0	833.7	840.6	914.1	1032.5	1202.7	1352.1	1290.5	1248.0
35°	1211.0	990.0	860.3	872.6	957.0	1065.5	1235.7	1438.9	1387.6	1328.9
37.5°	1244.6	1025.6	906.2	932.3	1015.2	1116.3	1280.6	1537.6	1484.8	1419.2
40°	1272.7	1067.5	1000.9	1030.0	1104.0	1170.1	1330.4	1602.2	1567.2	1496.7
42.5°	1295.4	1141.5	1136.6	1177.5	1229.3	1231.8	1344.7	1633.3	1620.0	1557.3
45°	1333.4	1274.2	1314.6	1381.7	1378.3	1305.8	1340.8	1661.9	1662.9	1609.6
47.5°	1395.5	1440.4	1557.3	1602.7	1579.5	1406.9	1344.7	1690.0	1712.2	1670.3
50°	1484.3	1628.9	1781.8	1842.0	1774.4	1508.5	1379.7	1723.6	1790.7	1760.1
52.5°	1560.3	1771.4	1989.0	2042.7	1950.5	1617.0	1461.6	1796.1	1895.7	1885.9
55°	1668.8	1894.3	2136.5	2177.9	2103.9	1739.9	1571.6	1902.6	2011.2	2016.1
57.5°	1779.8	2005.2	2232.7	2274.6	2218.3	1892.8	1728.0	2055.6	2119.7	2118.2
60°	1903.1	2108.8	2276.1	2299.2	2267.2	2045.7	1896.2	2195.7	2194.2	2160.1
61°	1973.7	2141.9	2273.1	2280.0	2248.9	2090.6	1983.0	2249.4	2205.0	2160.1
62.5°	2051.6	2172.0	2236.6	2213.4	2179.9	2106.4	2108.8	2308.1	2212.4	2143.4
65°	2130.5	2096.5	2068.4	1957.4	1925.8	1961.3	2214.9	2285.9	2167.5	2068.9
67.5°	1995.4	1796.6	1735.9	1624.4	1499.6	1644.6	2114.3	2150.3	2016.1	1884.9
70°	1630.8	1320.1	1248.0	1244.1	1154.3	1313.6	1864.7	1838.5	1673.3	1552.9
72.5°	1278.1	900.8	802.6	825.3	807.5	979.2	1525.3	1233.7	1072.9	992.5
75°	1001.9	640.3	552.5	548.5	529.3	666.9	1116.8	650.2	536.7	479.5
77.5°	661.0	461.2	459.8	424.7	409.9	361.6	501.2	260.5	212.6	214.6
80°	380.8	282.7	331.5	262.9	263.4	212.1	202.7	38.0	30.6	22.2
82.5°	218.5	135.7	102.6	40.5	84.8	84.8	16.3	0.5	0.5	1.0
85°	21.2	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
87.5°	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

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