

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: P401097

Luminaire Tested: **ENV-SA1B-730-U-SLR-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401097
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-SA1B-730-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 450mA 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: 2347 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - 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

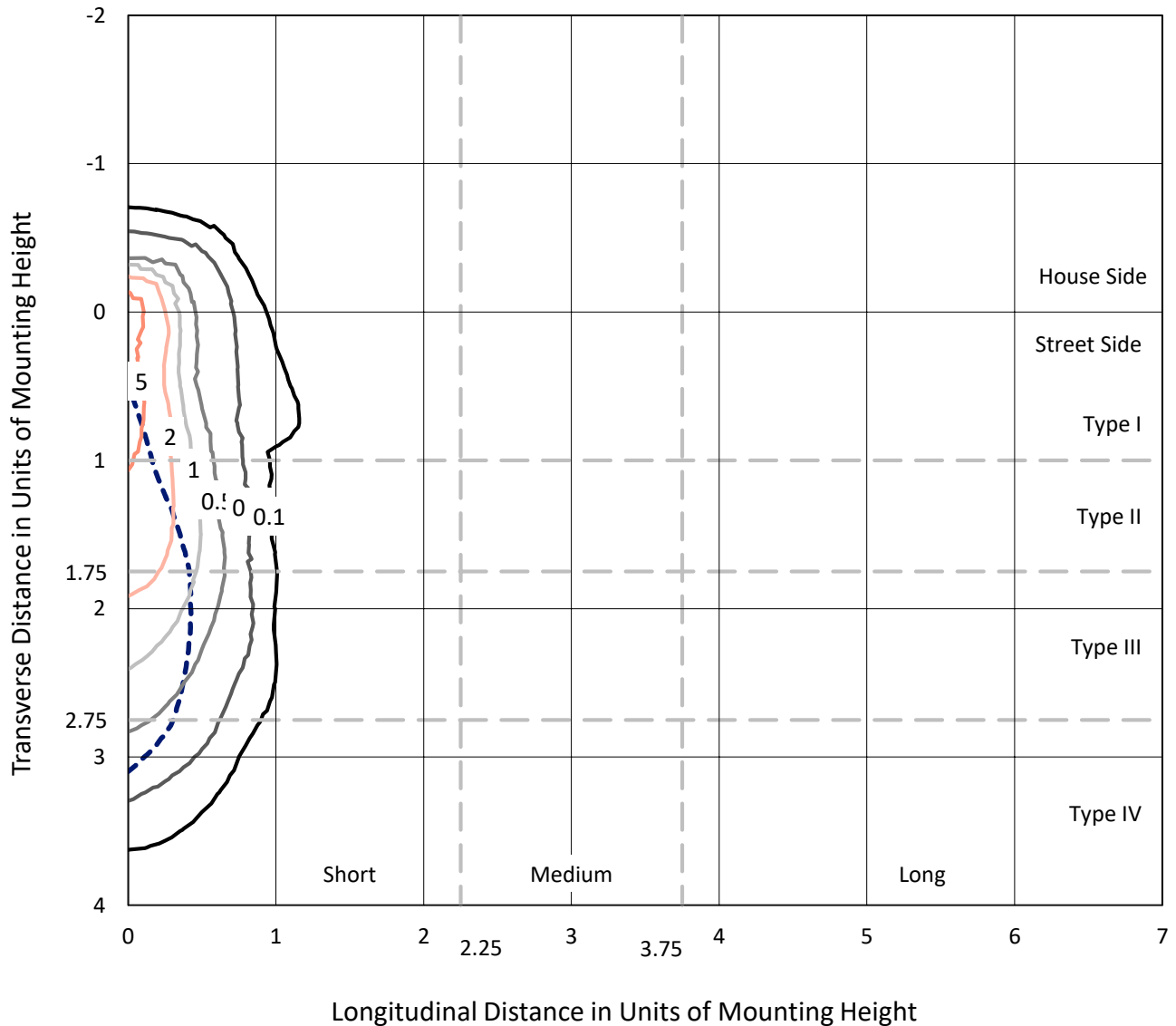


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

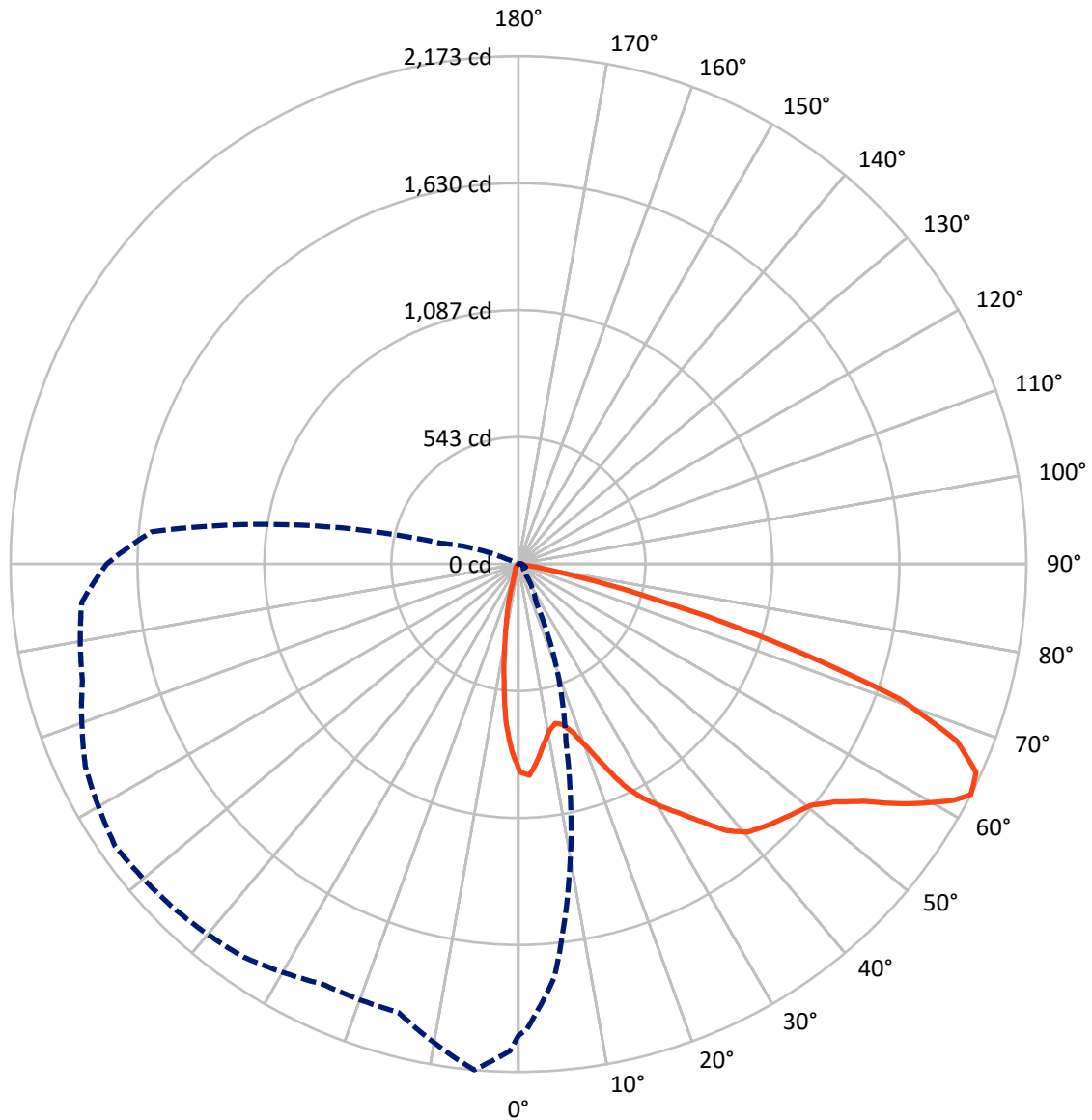


Based on 10 foot mounting height. Maximum calculated value = 8.9 fc
 Type IV - Short - Semi-Cutoff

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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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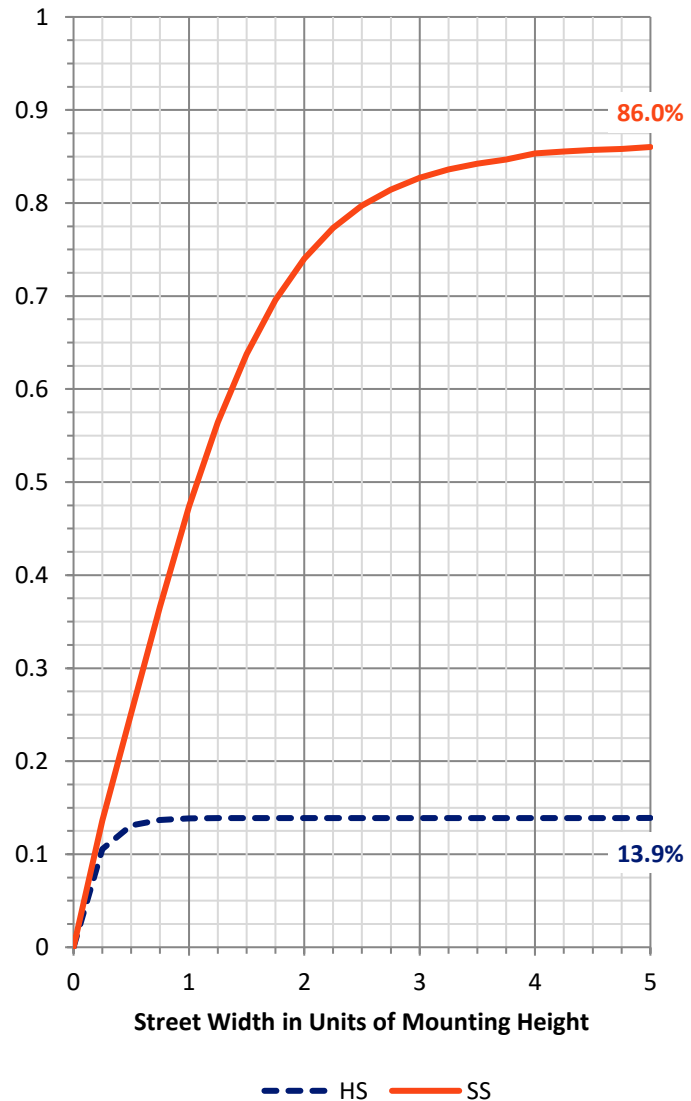
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	330.1	0.0	330.1
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	2016.9	0.0	2016.9
	% Fixture	85.9	0.0	85.9
Total	Lumens	2347.0	0.0	2347.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	2.8
10°-20°	126.9	5.4
20°-30°	176.6	7.5
30°-40°	255.4	10.9
40°-50°	366.2	15.6
50°-60°	531.2	22.6
60°-70°	574.7	24.5
70°-80°	232.1	9.9
80°-90°	17.2	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°	2347.0	100.0
0°-180°	2347.0	100.0



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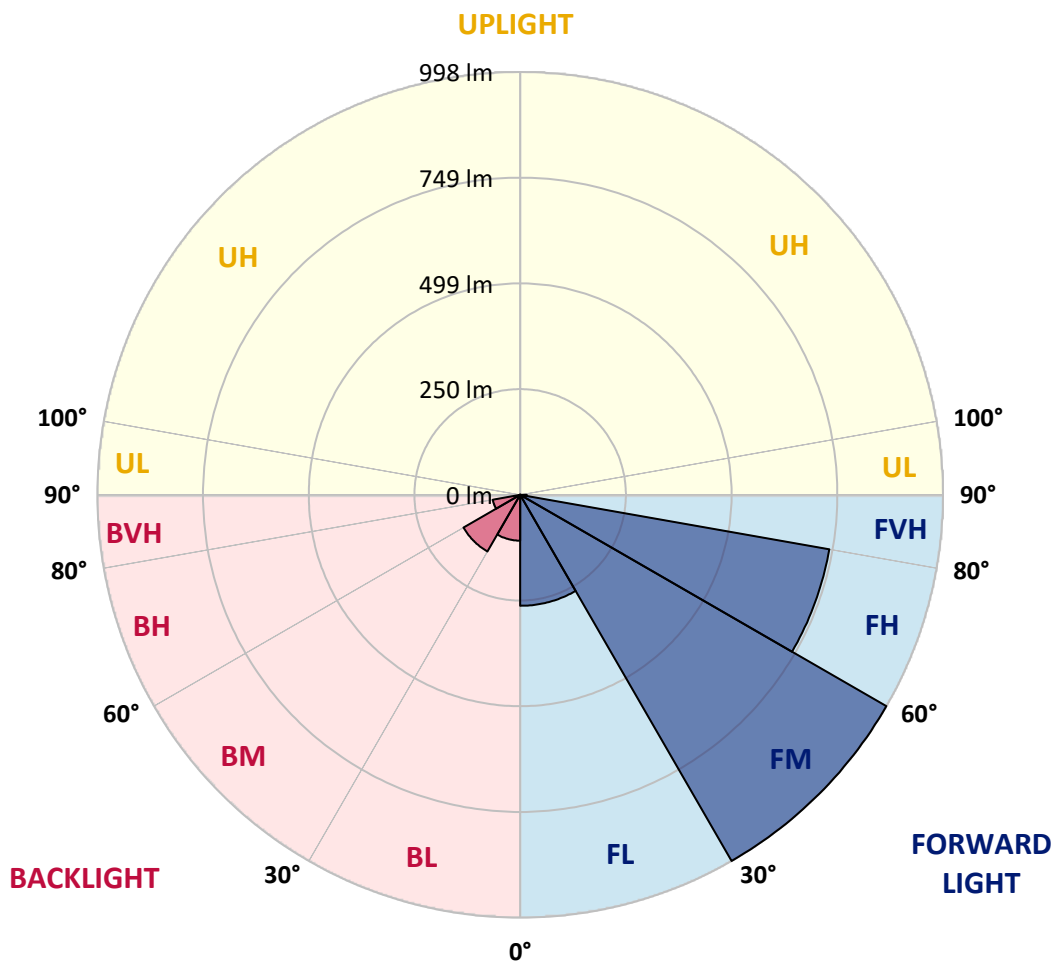
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	262.0	11.2			
FM	(30°-60°)	998.2	42.5			
FH	(60°-80°)	741.2	31.6			G1/1800
FVH	(80°-90°)	15.4	0.7			G1/100
BL	(0°-30°)	108.2	4.6	B0/110		
BM	(30°-60°)	154.5	6.6	B0/220		
BH	(60°-80°)	65.7	2.8	B0/110		G0/110
BVH	(80°-90°)	1.8	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3
2.5°	894.0	890.3	881.9	863.8	837.8	821.1	810.4	796.5	782.1	777.4	768.1
5°	816.0	809.9	798.3	752.8	711.9	671.1	641.8	613.9	604.7	586.1	597.2
7.5°	740.7	737.9	711.0	652.0	587.0	534.5	501.1	460.2	448.2	429.1	413.8
10°	681.7	679.4	646.9	569.8	499.7	456.0	429.6	403.1	376.6	349.7	328.3
12.5°	652.0	646.9	609.3	526.2	461.2	424.9	397.1	361.8	333.4	297.2	271.2
15°	656.7	652.0	608.8	519.2	442.6	392.4	351.1	309.3	269.4	233.6	208.1
17.5°	693.8	692.0	639.5	525.2	420.3	353.9	298.6	242.4	195.1	156.5	134.7
20°	766.3	760.7	684.5	538.2	397.1	309.3	233.6	164.4	124.9	98.5	89.2
22.5°	855.9	843.4	755.6	557.3	374.8	261.5	169.0	110.5	89.2	78.9	72.4
25°	961.3	961.8	843.8	582.8	352.5	216.9	118.4	87.8	75.2	67.8	62.2
27.5°	1046.8	1040.3	923.2	608.4	328.3	177.9	99.4	76.6	65.9	58.1	54.8
30°	1109.9	1100.2	975.7	626.0	297.2	150.5	89.2	72.9	62.2	53.4	49.2
32.5°	1174.9	1162.9	1023.1	635.8	278.6	137.5	78.9	63.6	55.7	52.0	46.4
35°	1251.1	1240.4	1075.6	634.8	268.9	130.0	71.5	57.6	47.4	41.3	37.6
37.5°	1336.1	1314.3	1129.9	630.7	261.9	126.3	65.0	53.4	44.1	37.6	33.0
40°	1409.0	1387.2	1180.1	625.1	257.3	122.6	61.3	50.6	41.8	34.8	30.2
42.5°	1466.1	1445.2	1227.0	618.1	255.0	114.7	63.2	48.8	39.9	33.0	27.9
45°	1515.4	1494.0	1282.7	617.2	254.0	109.1	62.2	48.3	39.0	30.7	26.0
47.5°	1572.5	1561.3	1356.1	632.5	250.3	105.0	57.1	52.0	38.5	29.7	24.6
50°	1657.0	1647.2	1452.2	678.0	244.7	100.8	52.0	57.1	38.5	28.8	23.2
52.5°	1775.4	1764.3	1603.6	737.5	239.6	96.1	46.9	55.3	39.0	27.4	22.3
55°	1898.0	1896.2	1746.6	800.6	235.0	85.9	41.3	49.7	38.1	25.5	20.9
57.5°	1994.2	1992.8	1853.9	843.4	226.2	69.2	37.6	41.3	35.3	23.2	19.0
60°	2033.6	2022.0	1865.5	843.4	205.7	57.1	34.4	32.5	35.8	20.9	16.7
61°	2033.6	2018.8	1844.6	830.8	195.5	54.3	32.5	30.2	36.7	20.0	15.8
62.5°	2017.8	1993.2	1773.1	785.8	179.3	54.3	29.7	26.9	33.4	19.0	14.4
65°	1947.7	1907.3	1605.5	683.1	162.5	55.7	25.5	22.8	24.1	16.3	12.5
67.5°	1774.5	1729.0	1388.1	540.6	149.1	59.0	21.4	20.0	18.6	14.4	11.1
70°	1461.9	1423.4	1132.7	405.0	138.4	59.9	18.6	16.7	15.8	12.5	9.8
72.5°	934.4	870.8	707.3	274.5	111.0	52.0	15.3	15.8	14.4	10.2	7.9
75°	451.4	469.0	411.5	138.4	74.8	33.9	12.1	13.0	11.6	9.3	7.0
77.5°	202.0	198.3	196.4	35.3	19.0	11.6	7.4	8.8	9.3	8.4	6.0
80°	20.9	28.3	16.7	10.7	7.0	5.1	4.2	4.6	5.6	6.0	3.3
82.5°	0.9	0.5	0.5	1.4	1.4	0.9	0.0	0.0	0.9	0.9	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°	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3
2.5°	759.8	772.3	766.7	765.3	772.8	769.1	780.2	780.7	789.0	800.2	807.1
5°	597.2	587.5	607.0	620.0	636.2	631.1	650.6	648.3	659.0	676.6	669.7
7.5°	414.7	416.1	426.3	437.9	481.6	490.4	496.9	502.0	501.6	505.7	513.2
10°	317.2	309.3	302.3	318.6	335.8	354.8	357.6	364.6	345.5	353.4	357.1
12.5°	259.6	250.3	235.0	226.6	230.8	242.0	246.6	250.8	239.6	240.1	248.5
15°	196.9	184.4	178.3	167.2	163.0	162.1	164.4	158.4	157.0	151.9	155.1
17.5°	128.2	124.5	121.2	118.9	115.6	114.7	106.3	92.0	83.6	81.7	81.7
20°	85.5	82.7	82.7	87.3	85.9	82.2	71.1	59.0	52.9	51.1	52.0
22.5°	70.1	68.3	65.5	65.5	67.3	64.6	54.3	45.5	41.3	41.3	41.3
25°	60.8	59.9	57.1	54.3	55.3	52.9	44.1	38.5	35.8	35.3	35.8
27.5°	53.4	52.9	49.7	46.9	46.9	45.0	38.1	33.0	31.1	30.2	30.7
30°	48.3	47.4	43.7	41.3	40.9	39.0	32.5	28.8	26.9	26.5	26.5
32.5°	44.6	42.7	39.5	37.2	35.8	33.0	28.3	24.6	22.8	22.3	22.3
35°	35.8	35.8	34.4	33.0	31.1	26.9	23.7	20.4	18.6	18.1	18.1
37.5°	31.1	29.3	26.9	27.4	26.5	22.8	19.5	16.3	14.9	14.4	14.4
40°	28.3	26.0	22.8	21.4	21.8	20.0	16.3	12.5	10.7	11.1	10.7
42.5°	25.5	23.7	20.0	16.7	16.3	16.7	12.5	8.8	7.4	7.4	7.4
45°	23.7	21.8	17.6	13.9	11.6	13.0	9.8	6.0	4.6	4.6	4.6
47.5°	22.3	20.4	15.8	11.6	8.4	8.8	7.0	3.7	2.8	1.9	2.3
50°	21.4	19.0	14.4	9.3	6.0	5.1	4.6	1.9	0.5	0.5	0.0
52.5°	20.0	18.1	13.0	7.9	4.6	3.3	2.3	0.5	0.0	0.0	0.0
55°	19.0	16.7	11.6	7.0	3.7	1.9	0.5	0.0	0.0	0.0	0.0
57.5°	17.2	15.3	10.2	5.6	2.8	0.9	0.0	0.0	0.0	0.0	0.0
60°	15.3	13.9	8.8	4.2	1.9	0.0	0.0	0.0	0.0	0.0	0.0
61°	14.4	13.0	8.4	3.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	13.5	12.1	7.4	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0
65°	11.6	10.2	6.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	10.2	9.3	5.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	8.8	7.9	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	7.4	7.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.5	5.6	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.1	4.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.8	2.3	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°	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3
2.5°	813.6	829.9	845.2	864.7	875.4	904.7	925.6	943.2	957.1	959.9	971.1
5°	688.2	711.0	725.9	766.7	789.5	838.3	875.9	920.5	960.4	982.2	1002.2
7.5°	518.3	529.4	555.0	595.8	649.7	692.0	755.6	811.8	883.8	923.2	960.4
10°	366.0	376.2	413.8	456.5	505.7	576.8	653.9	727.7	800.6	851.3	894.9
12.5°	257.3	290.7	327.9	382.2	430.5	482.5	564.7	651.1	742.1	790.4	837.8
15°	169.0	198.8	250.3	318.6	379.0	429.6	506.2	607.4	723.1	777.0	822.0
17.5°	83.6	105.4	150.9	224.3	304.7	384.5	476.9	599.5	747.7	808.5	850.8
20°	52.5	59.0	75.7	126.8	219.2	337.2	455.1	615.3	814.6	881.9	909.3
22.5°	42.3	44.1	50.6	67.3	133.7	278.6	436.1	636.7	887.9	970.1	998.5
25°	36.2	37.6	41.3	49.7	77.6	209.0	412.9	674.3	973.4	1072.8	1079.7
27.5°	31.1	32.5	35.8	42.3	55.3	140.7	379.4	718.4	1075.6	1162.9	1158.2
30°	26.5	28.3	31.6	36.2	43.7	95.2	317.2	763.0	1150.8	1220.9	1213.5
32.5°	22.8	24.1	26.9	31.1	36.2	65.5	238.2	792.3	1213.5	1275.7	1259.5
35°	18.6	20.0	22.3	26.0	29.3	46.4	180.2	793.2	1278.0	1343.5	1302.7
37.5°	14.9	15.8	18.1	21.4	24.1	36.2	132.4	777.9	1357.9	1431.8	1351.9
40°	11.1	12.5	14.9	17.6	20.4	30.7	98.9	740.7	1435.9	1520.0	1411.3
42.5°	7.4	9.3	11.6	14.4	19.5	24.6	69.7	679.0	1499.1	1598.5	1469.4
45°	4.6	6.0	8.8	12.1	20.0	19.5	46.4	605.1	1544.1	1658.4	1508.9
47.5°	2.3	3.7	6.5	11.6	17.6	14.4	28.8	534.5	1585.0	1693.2	1527.0
50°	0.5	1.4	4.6	14.4	14.9	10.7	19.0	490.4	1606.4	1684.4	1525.1
52.5°	0.0	0.0	3.3	13.9	10.7	8.4	14.9	483.9	1639.8	1696.0	1557.2
55°	0.0	0.0	1.4	6.0	6.0	7.0	13.0	475.1	1699.3	1765.2	1653.7
57.5°	0.0	0.0	0.0	2.8	3.7	5.6	12.1	451.9	1762.0	1838.6	1771.2
60°	0.0	0.0	0.0	1.4	2.3	4.6	10.7	398.9	1704.4	1839.0	1868.8
61°	0.0	0.0	0.0	1.4	1.9	4.2	9.8	380.3	1652.8	1809.3	1880.8
62.5°	0.0	0.0	0.0	0.5	1.4	3.3	8.4	343.7	1575.7	1761.5	1875.3
65°	0.0	0.0	0.0	0.0	0.5	1.9	6.5	277.7	1447.1	1641.2	1811.2
67.5°	0.0	0.0	0.0	0.0	0.0	0.5	4.2	195.5	1262.3	1505.1	1674.2
70°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	113.3	1017.0	1274.3	1434.1
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	51.5	659.9	984.1	1131.3
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.8	406.4	711.0	845.2
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	275.4	473.2	568.9
80°	0.0	0.9	0.5	0.0	0.0	0.0	0.0	3.7	169.5	295.4	320.9
82.5°	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	87.8	208.5	212.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.7	44.1
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°	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3	890.3
2.5°	981.3	984.1	985.9	982.7	962.7	951.6	929.3	904.7	896.3	894.0
5°	1038.4	1054.2	1051.4	1030.1	995.2	952.5	899.6	844.8	823.9	816.0
7.5°	1027.3	1068.6	1076.5	1054.2	995.2	920.5	843.8	778.8	748.6	740.7
10°	970.6	1022.6	1047.7	1040.7	985.5	899.1	804.8	724.9	692.0	681.7
12.5°	915.8	966.0	981.8	987.3	957.1	882.4	785.3	699.4	665.0	652.0
15°	879.1	910.2	909.3	919.5	917.2	875.9	797.8	712.4	673.9	656.7
17.5°	867.0	857.8	845.7	854.0	870.3	877.7	838.7	758.8	713.8	693.8
20°	874.5	829.0	802.5	802.0	836.4	893.1	898.6	835.5	793.2	766.3
22.5°	912.6	814.6	773.7	774.6	816.9	915.8	967.8	935.8	889.3	855.9
25°	968.8	817.4	762.6	768.1	815.0	935.8	1042.6	1050.0	990.6	961.3
27.5°	1025.9	841.5	763.0	769.1	822.9	946.5	1085.3	1134.1	1083.0	1046.8
30°	1065.8	871.2	771.4	777.9	835.5	954.8	1101.6	1203.3	1150.3	1109.9
32.5°	1103.4	901.9	784.8	791.3	860.5	972.0	1132.2	1272.9	1214.9	1174.9
35°	1140.1	932.1	809.9	821.5	900.9	1003.1	1163.3	1354.7	1306.4	1251.1
37.5°	1171.7	965.5	853.1	877.7	955.7	1051.0	1205.6	1447.6	1397.9	1336.1
40°	1198.2	1005.0	942.3	969.7	1039.3	1101.6	1252.5	1508.4	1475.4	1409.0
42.5°	1219.5	1074.6	1070.0	1108.5	1157.3	1159.6	1266.0	1537.6	1525.1	1466.1
45°	1255.3	1199.6	1237.6	1300.8	1297.6	1229.3	1262.3	1564.6	1565.5	1515.4
47.5°	1313.8	1356.1	1466.1	1508.9	1487.0	1324.5	1266.0	1591.1	1612.0	1572.5
50°	1397.4	1533.5	1677.4	1734.1	1670.5	1420.2	1298.9	1622.6	1685.8	1657.0
52.5°	1468.9	1667.7	1872.5	1923.1	1836.3	1522.3	1376.0	1690.9	1784.7	1775.4
55°	1571.1	1783.3	2011.3	2050.4	1980.7	1638.0	1479.6	1791.2	1893.4	1898.0
57.5°	1675.6	1887.8	2101.9	2141.4	2088.4	1781.9	1626.8	1935.2	1995.6	1994.2
60°	1791.7	1985.3	2142.8	2164.6	2134.4	1925.9	1785.2	2067.1	2065.7	2033.6
61°	1858.1	2016.5	2140.0	2146.5	2117.2	1968.2	1866.9	2117.7	2075.9	2033.6
62.5°	1931.5	2044.8	2105.6	2083.8	2052.2	1983.0	1985.3	2173.0	2082.9	2017.8
65°	2005.8	1973.7	1947.3	1842.8	1813.0	1846.5	2085.2	2152.1	2040.6	1947.7
67.5°	1878.5	1691.4	1634.2	1529.3	1411.8	1548.3	1990.4	2024.3	1898.0	1774.5
70°	1535.3	1242.8	1174.9	1171.2	1086.7	1236.7	1755.5	1730.8	1575.3	1461.9
72.5°	1203.3	848.0	755.6	777.0	760.2	921.8	1435.9	1161.5	1010.1	934.4
75°	943.2	602.8	520.1	516.4	498.3	627.9	1051.4	612.1	505.3	451.4
77.5°	622.3	434.2	432.8	399.9	385.9	340.4	471.8	245.2	200.2	202.0
80°	358.5	266.1	312.1	247.5	248.0	199.7	190.9	35.8	28.8	20.9
82.5°	205.7	127.7	96.6	38.1	79.9	79.9	15.3	0.5	0.5	0.9
85°	20.0	6.0	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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