

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: P401682

Luminaire Tested: **ENT-SA1E-740-U-SLR-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401682
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: ENT-SA1E-740-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 1050mA 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: 5289 lumens
Efficiency: N/A
Efficacy: 92.5 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): 57.2
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

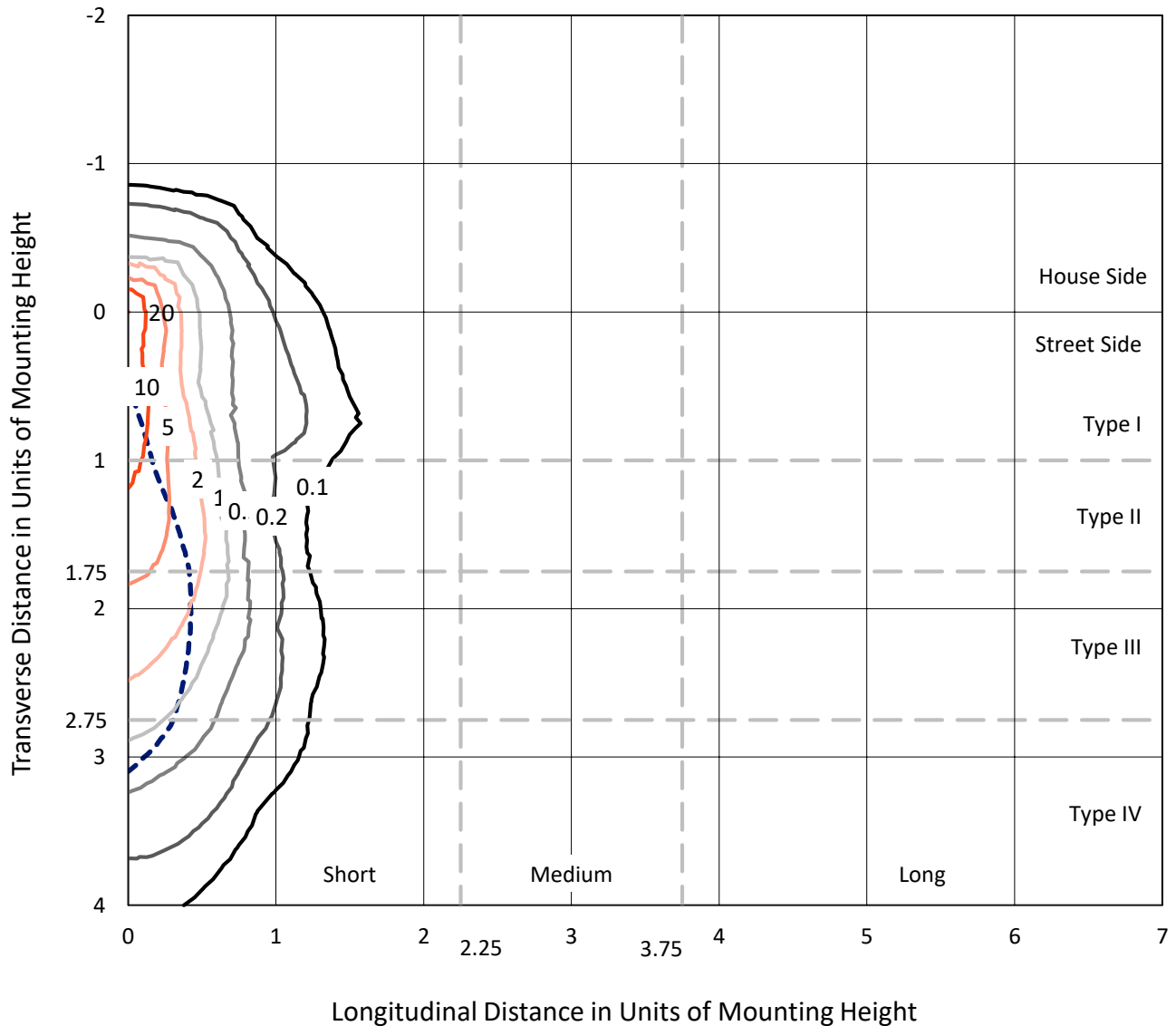


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

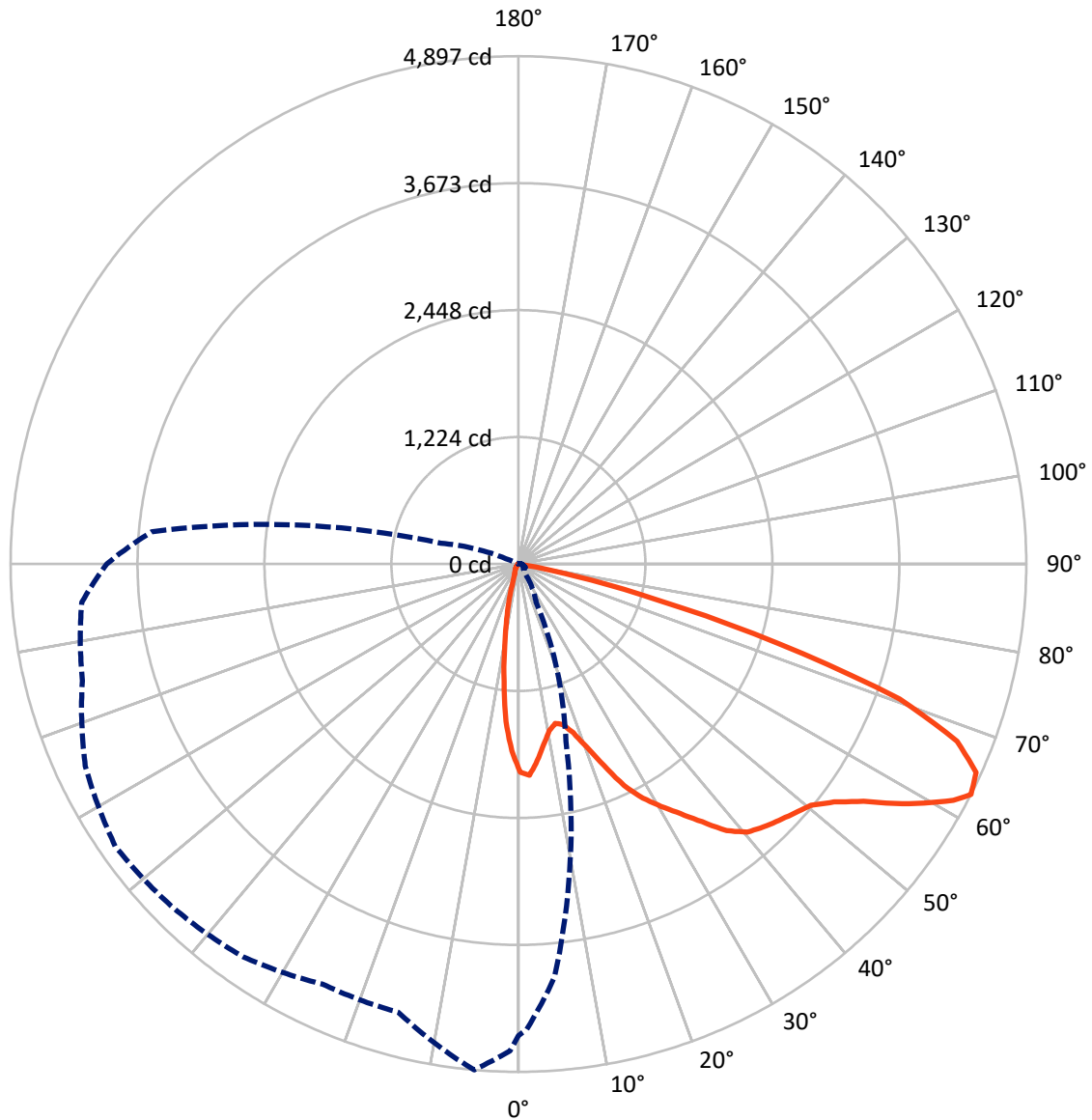


Based on 10 foot mounting height. Maximum calculated value = 20.1 fc
 Type IV - Short - Semi-Cutoff

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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	744.0	0.0	744.0
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	4545.0	0.0	4545.0
	% Fixture	85.9	0.0	85.9
Total	Lumens	5289.0	0.0	5289.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.5	2.8
10°-20°	286.0	5.4
20°-30°	397.9	7.5
30°-40°	575.5	10.9
40°-50°	825.1	15.6
50°-60°	1197.1	22.6
60°-70°	1295.1	24.5
70°-80°	523.1	9.9
80°-90°	38.7	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°	5289.0	100.0
0°-180°	5289.0	100.0



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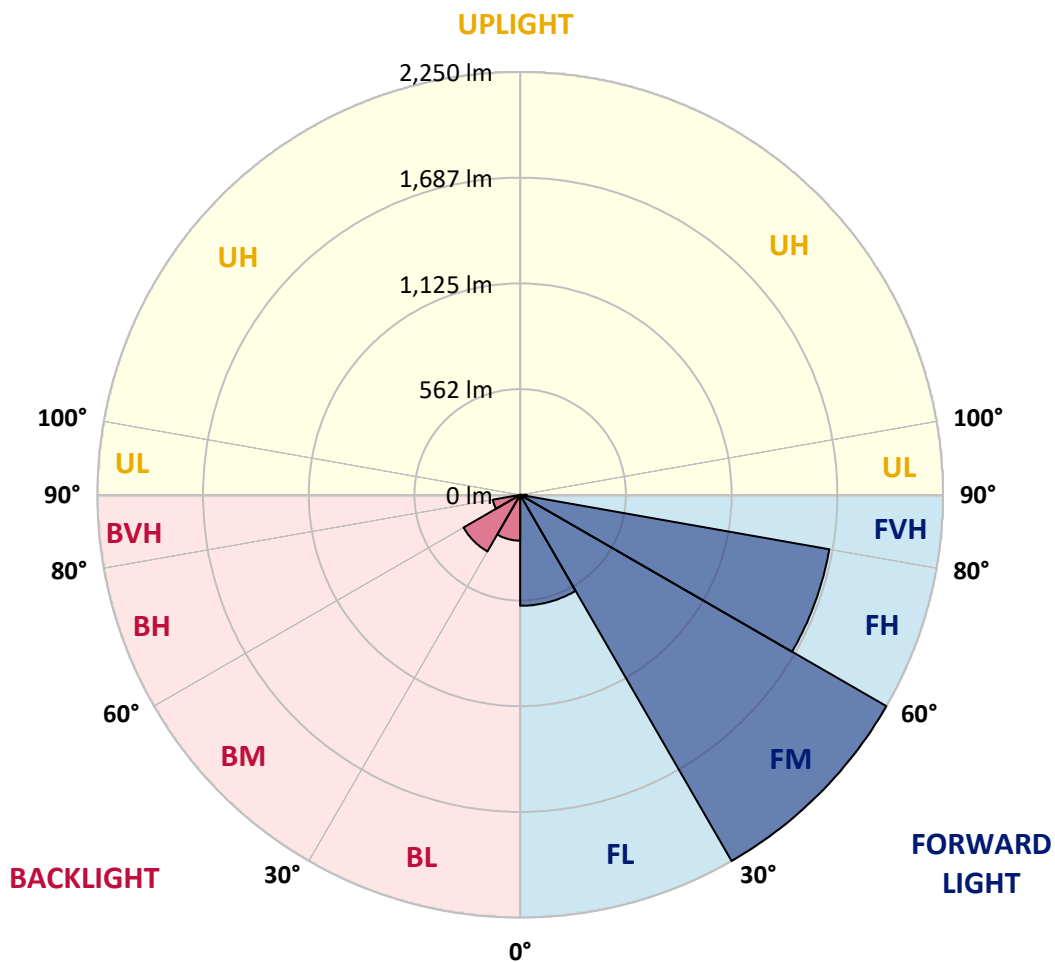
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	590.4	11.2			
FM	(30°-60°)	2249.6	42.5			
FH	(60°-80°)	1670.3	31.6			G1/1800
FVH	(80°-90°)	34.8	0.7			G1/100
BL	(0°-30°)	243.9	4.6	B1/500		
BM	(30°-60°)	348.1	6.6	B1/1000		
BH	(60°-80°)	148.0	2.8	B1/500		G1/500
BVH	(80°-90°)	3.9	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°	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2
2.5°	2014.6	2006.2	1987.4	1946.6	1888.0	1850.3	1826.2	1794.8	1762.4	1751.9	1731.0
5°	1838.8	1825.2	1799.0	1696.5	1604.4	1512.3	1446.3	1383.5	1362.6	1320.7	1345.9
7.5°	1669.2	1663.0	1602.3	1469.4	1322.8	1204.6	1129.2	1037.1	1009.9	967.0	932.5
10°	1536.3	1531.1	1457.8	1284.1	1126.1	1027.7	968.1	908.4	848.7	788.0	739.9
12.5°	1469.4	1457.8	1373.1	1185.7	1039.2	957.6	894.8	815.3	751.4	669.8	611.2
15°	1479.8	1469.4	1372.0	1170.0	997.4	884.3	791.2	697.0	607.0	526.4	468.9
17.5°	1563.5	1559.4	1441.1	1183.6	947.1	797.5	672.9	546.3	439.5	352.7	303.5
20°	1726.8	1714.2	1542.6	1212.9	894.8	697.0	526.4	370.5	281.5	221.9	200.9
22.5°	1928.8	1900.5	1702.7	1255.9	844.6	589.2	380.9	249.1	200.9	177.9	163.3
25°	2166.3	2167.4	1901.6	1313.4	794.3	488.7	266.9	197.8	169.5	152.8	140.2
27.5°	2358.9	2344.3	2080.5	1371.0	739.9	400.8	224.0	172.7	148.6	130.8	123.5
30°	2501.2	2479.3	2198.8	1410.7	669.8	339.1	200.9	164.3	140.2	120.4	110.9
32.5°	2647.8	2620.6	2305.5	1432.7	627.9	309.8	177.9	143.4	125.6	117.2	104.7
35°	2819.4	2795.3	2423.8	1430.6	605.9	293.0	161.2	129.8	106.7	93.1	84.8
37.5°	3010.9	2961.7	2546.2	1421.2	590.3	284.7	146.5	120.4	99.4	84.8	74.3
40°	3175.2	3126.0	2659.3	1408.7	579.8	276.3	138.1	114.1	94.2	78.5	68.0
42.5°	3303.9	3256.9	2765.0	1393.0	574.6	258.5	142.3	109.9	90.0	74.3	62.8
45°	3414.9	3366.7	2890.6	1390.9	572.5	245.9	140.2	108.8	87.9	69.1	58.6
47.5°	3543.6	3518.5	3055.9	1425.4	564.1	236.5	128.7	117.2	86.9	67.0	55.5
50°	3734.1	3712.1	3272.5	1528.0	551.5	227.1	117.2	128.7	86.9	64.9	52.3
52.5°	4000.9	3975.8	3613.7	1661.9	540.0	216.6	105.7	124.5	87.9	61.7	50.2
55°	4277.2	4273.0	3936.1	1804.2	529.6	193.6	93.1	112.0	85.8	57.6	47.1
57.5°	4493.9	4490.7	4177.8	1900.5	509.7	155.9	84.8	93.1	79.5	52.3	42.9
60°	4582.8	4556.7	4204.0	1900.5	463.6	128.7	77.4	73.3	80.6	47.1	37.7
61°	4582.8	4549.3	4156.9	1872.3	440.6	122.4	73.3	68.0	82.7	45.0	35.6
62.5°	4547.2	4491.8	3995.7	1770.8	404.0	122.4	67.0	60.7	75.4	42.9	32.4
65°	4389.2	4298.2	3617.9	1539.5	366.3	125.6	57.6	51.3	54.4	36.6	28.3
67.5°	3998.9	3896.3	3128.1	1218.2	335.9	132.9	48.1	45.0	41.9	32.4	25.1
70°	3294.5	3207.7	2552.5	912.6	311.9	135.0	41.9	37.7	35.6	28.3	22.0
72.5°	2105.6	1962.3	1593.9	618.5	250.1	117.2	34.5	35.6	32.4	23.0	17.8
75°	1017.2	1057.0	927.2	311.9	168.5	76.4	27.2	29.3	26.2	20.9	15.7
77.5°	455.2	446.9	442.7	79.5	42.9	26.2	16.7	19.9	20.9	18.8	13.6
80°	47.1	63.8	37.7	24.1	15.7	11.5	9.4	10.5	12.6	13.6	7.3
82.5°	2.1	1.0	1.0	3.1	3.1	2.1	0.0	0.0	2.1	2.1	1.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2
2.5°	1712.1	1740.4	1727.8	1724.7	1741.5	1733.1	1758.2	1759.2	1778.1	1803.2	1818.9
5°	1345.9	1323.9	1367.8	1397.1	1433.8	1422.3	1466.2	1461.0	1485.0	1524.8	1509.1
7.5°	934.6	937.7	960.7	986.9	1085.3	1105.2	1119.8	1131.3	1130.3	1139.7	1156.4
10°	714.8	697.0	681.3	717.9	756.7	799.6	805.8	821.5	778.6	796.4	804.8
12.5°	585.0	564.1	529.6	510.7	520.1	545.3	555.7	565.1	540.0	541.1	559.9
15°	443.7	415.5	401.9	376.8	367.3	365.2	370.5	356.9	353.7	342.2	349.5
17.5°	288.8	280.5	273.1	267.9	260.6	258.5	239.7	207.2	188.4	184.2	184.2
20°	192.6	186.3	186.3	196.8	193.6	185.2	160.1	132.9	119.3	115.1	117.2
22.5°	158.0	153.8	147.6	147.6	151.7	145.5	122.4	102.6	93.1	93.1	93.1
25°	137.1	135.0	128.7	122.4	124.5	119.3	99.4	86.9	80.6	79.5	80.6
27.5°	120.4	119.3	112.0	105.7	105.7	101.5	85.8	74.3	70.1	68.0	69.1
30°	108.8	106.7	98.4	93.1	92.1	87.9	73.3	64.9	60.7	59.7	59.7
32.5°	100.5	96.3	89.0	83.7	80.6	74.3	63.8	55.5	51.3	50.2	50.2
35°	80.6	80.6	77.4	74.3	70.1	60.7	53.4	46.0	41.9	40.8	40.8
37.5°	70.1	65.9	60.7	61.7	59.7	51.3	44.0	36.6	33.5	32.4	32.4
40°	63.8	58.6	51.3	48.1	49.2	45.0	36.6	28.3	24.1	25.1	24.1
42.5°	57.6	53.4	45.0	37.7	36.6	37.7	28.3	19.9	16.7	16.7	16.7
45°	53.4	49.2	39.8	31.4	26.2	29.3	22.0	13.6	10.5	10.5	10.5
47.5°	50.2	46.0	35.6	26.2	18.8	19.9	15.7	8.4	6.3	4.2	5.2
50°	48.1	42.9	32.4	20.9	13.6	11.5	10.5	4.2	1.0	1.0	0.0
52.5°	45.0	40.8	29.3	17.8	10.5	7.3	5.2	1.0	0.0	0.0	0.0
55°	42.9	37.7	26.2	15.7	8.4	4.2	1.0	0.0	0.0	0.0	0.0
57.5°	38.7	34.5	23.0	12.6	6.3	2.1	0.0	0.0	0.0	0.0	0.0
60°	34.5	31.4	19.9	9.4	4.2	0.0	0.0	0.0	0.0	0.0	0.0
61°	32.4	29.3	18.8	8.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	30.3	27.2	16.7	6.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0
65°	26.2	23.0	14.7	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	23.0	20.9	12.6	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	19.9	17.8	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	16.7	15.7	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	14.7	12.6	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	11.5	10.5	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	6.3	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.0	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°	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2
2.5°	1833.5	1870.2	1904.7	1948.7	1972.7	2038.7	2085.8	2125.5	2156.9	2163.2	2188.3
5°	1551.0	1602.3	1635.8	1727.8	1779.1	1889.0	1973.8	2074.3	2164.3	2213.4	2258.4
7.5°	1167.9	1193.1	1250.6	1342.7	1464.1	1559.4	1702.7	1829.4	1991.6	2080.5	2164.3
10°	824.7	847.7	932.5	1028.8	1139.7	1299.8	1473.5	1639.9	1804.2	1918.3	2016.7
12.5°	579.8	655.1	738.9	861.3	970.1	1087.4	1272.6	1467.3	1672.4	1781.2	1888.0
15°	380.9	447.9	564.1	717.9	854.0	968.1	1140.7	1368.9	1629.5	1750.9	1852.4
17.5°	188.4	237.6	340.1	505.5	686.5	866.5	1074.8	1351.1	1684.9	1822.0	1917.3
20°	118.3	132.9	170.6	285.7	494.0	759.8	1025.6	1386.7	1835.6	1987.4	2049.1
22.5°	95.2	99.4	114.1	151.7	301.4	627.9	982.7	1434.8	2001.0	2186.2	2250.1
25°	81.6	84.8	93.1	112.0	174.8	470.9	930.4	1519.6	2193.6	2417.5	2433.2
27.5°	70.1	73.3	80.6	95.2	124.5	317.1	855.0	1619.0	2423.8	2620.6	2610.1
30°	59.7	63.8	71.2	81.6	98.4	214.5	714.8	1719.5	2593.3	2751.4	2734.6
32.5°	51.3	54.4	60.7	70.1	81.6	147.6	536.9	1785.4	2734.6	2874.9	2838.2
35°	41.9	45.0	50.2	58.6	65.9	104.7	406.1	1787.5	2880.1	3027.7	2935.6
37.5°	33.5	35.6	40.8	48.1	54.4	81.6	298.3	1753.0	3060.1	3226.5	3046.5
40°	25.1	28.3	33.5	39.8	46.0	69.1	222.9	1669.2	3235.9	3425.3	3180.5
42.5°	16.7	20.9	26.2	32.4	44.0	55.5	157.0	1530.0	3378.2	3602.2	3311.3
45°	10.5	13.6	19.9	27.2	45.0	44.0	104.7	1363.6	3479.8	3737.2	3400.2
47.5°	5.2	8.4	14.7	26.2	39.8	32.4	64.9	1204.6	3571.9	3815.7	3441.0
50°	1.0	3.1	10.5	32.4	33.5	24.1	42.9	1105.2	3620.0	3795.8	3436.9
52.5°	0.0	0.0	7.3	31.4	24.1	18.8	33.5	1090.5	3695.4	3822.0	3509.1
55°	0.0	0.0	3.1	13.6	13.6	15.7	29.3	1070.6	3829.3	3977.9	3726.7
57.5°	0.0	0.0	0.0	6.3	8.4	12.6	27.2	1018.3	3970.6	4143.3	3991.5
60°	0.0	0.0	0.0	3.1	5.2	10.5	24.1	899.0	3840.8	4144.3	4211.3
61°	0.0	0.0	0.0	3.1	4.2	9.4	22.0	857.1	3724.7	4077.3	4238.5
62.5°	0.0	0.0	0.0	1.0	3.1	7.3	18.8	774.4	3550.9	3969.5	4226.0
65°	0.0	0.0	0.0	0.0	1.0	4.2	14.7	625.8	3261.0	3698.5	4081.5
67.5°	0.0	0.0	0.0	0.0	0.0	1.0	9.4	440.6	2844.5	3391.9	3772.8
70°	0.0	0.0	0.0	0.0	0.0	0.0	4.2	255.4	2291.9	2871.7	3231.7
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.1	116.2	1487.1	2217.6	2549.4
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.2	915.7	1602.3	1904.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	620.6	1066.4	1282.0
80°	0.0	2.1	1.0	0.0	0.0	0.0	0.0	8.4	382.0	665.6	723.2
82.5°	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	197.8	469.9	479.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82.7	99.4
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°	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2	2006.2
2.5°	2211.4	2217.6	2221.8	2214.5	2169.5	2144.4	2094.1	2038.7	2019.8	2014.6
5°	2340.1	2375.7	2369.4	2321.2	2242.7	2146.5	2027.2	1903.7	1856.6	1838.8
7.5°	2315.0	2408.1	2425.9	2375.7	2242.7	2074.3	1901.6	1755.1	1687.0	1669.2
10°	2187.3	2304.5	2361.0	2345.3	2220.8	2026.1	1813.7	1633.7	1559.4	1536.3
12.5°	2063.8	2176.8	2212.4	2225.0	2156.9	1988.4	1769.7	1576.1	1498.7	1469.4
15°	1981.1	2051.2	2049.1	2072.2	2066.9	1973.8	1798.0	1605.4	1518.5	1479.8
17.5°	1953.9	1933.0	1905.8	1924.6	1961.2	1978.0	1890.1	1710.1	1608.5	1563.5
20°	1970.6	1868.1	1808.4	1807.4	1884.8	2012.5	2025.1	1882.7	1787.5	1726.8
22.5°	2056.5	1835.6	1743.5	1745.6	1840.9	2063.8	2181.0	2108.8	2004.1	1928.8
25°	2183.1	1841.9	1718.4	1731.0	1836.7	2108.8	2349.5	2366.2	2232.3	2166.3
27.5°	2311.8	1896.3	1719.5	1733.1	1854.5	2132.9	2445.8	2555.7	2440.5	2358.9
30°	2401.8	1963.3	1738.3	1753.0	1882.7	2151.7	2482.4	2711.6	2592.3	2501.2
32.5°	2486.6	2032.4	1768.7	1783.3	1939.2	2190.4	2551.5	2868.6	2737.8	2647.8
35°	2569.3	2100.4	1825.2	1851.3	2030.3	2260.5	2621.6	3052.8	2943.9	2819.4
37.5°	2640.4	2175.8	1922.5	1978.0	2153.8	2368.3	2716.8	3262.1	3150.1	3010.9
40°	2700.1	2264.7	2123.4	2185.2	2342.2	2482.4	2822.5	3399.2	3324.9	3175.2
42.5°	2748.2	2421.7	2411.2	2498.1	2608.0	2613.2	2852.9	3465.1	3436.9	3303.9
45°	2828.8	2703.2	2789.0	2931.4	2924.0	2770.2	2844.5	3525.8	3527.9	3414.9
47.5°	2960.7	3055.9	3303.9	3400.2	3351.0	2984.7	2852.9	3585.5	3632.6	3543.6
50°	3149.1	3455.7	3780.1	3907.8	3764.4	3200.3	2927.2	3656.6	3799.0	3734.1
52.5°	3310.2	3758.1	4219.7	4333.7	4138.0	3430.6	3100.9	3810.5	4021.9	4000.9
55°	3540.5	4018.7	4532.6	4620.5	4463.5	3691.2	3334.3	4036.5	4266.8	4277.2
57.5°	3775.9	4254.2	4736.7	4825.6	4706.3	4015.6	3666.0	4361.0	4497.0	4493.9
60°	4037.6	4474.0	4828.8	4877.9	4809.9	4340.0	4022.9	4658.2	4655.0	4582.8
61°	4187.2	4544.1	4822.5	4837.1	4771.2	4435.3	4207.1	4772.2	4678.1	4582.8
62.5°	4352.6	4607.9	4745.0	4695.9	4624.7	4468.8	4474.0	4896.8	4693.8	4547.2
65°	4520.0	4447.8	4388.2	4152.7	4085.7	4161.1	4699.0	4849.7	4598.5	4389.2
67.5°	4233.3	3811.5	3682.8	3446.3	3181.5	3489.2	4485.5	4561.9	4277.2	3998.9
70°	3459.9	2800.6	2647.8	2639.4	2448.9	2787.0	3955.9	3900.5	3549.9	3294.5
72.5°	2711.6	1911.0	1702.7	1750.9	1713.2	2077.4	3235.9	2617.4	2276.2	2105.6
75°	2125.5	1358.4	1172.1	1163.8	1122.9	1414.9	2369.4	1379.3	1138.6	1017.2
77.5°	1402.4	978.5	975.4	901.1	869.7	767.1	1063.3	552.6	451.1	455.2
80°	807.9	599.7	703.3	557.8	558.9	450.0	430.1	80.6	64.9	47.1
82.5°	463.6	287.8	217.7	85.8	180.0	180.0	34.5	1.0	1.0	2.1
85°	45.0	13.6	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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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