

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: P401638

Luminaire Tested: **ENT-SA1E-730-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401638
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-SA1E-730-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5665 lumens
Efficiency: N/A
Efficacy: 99.0 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 - G2

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

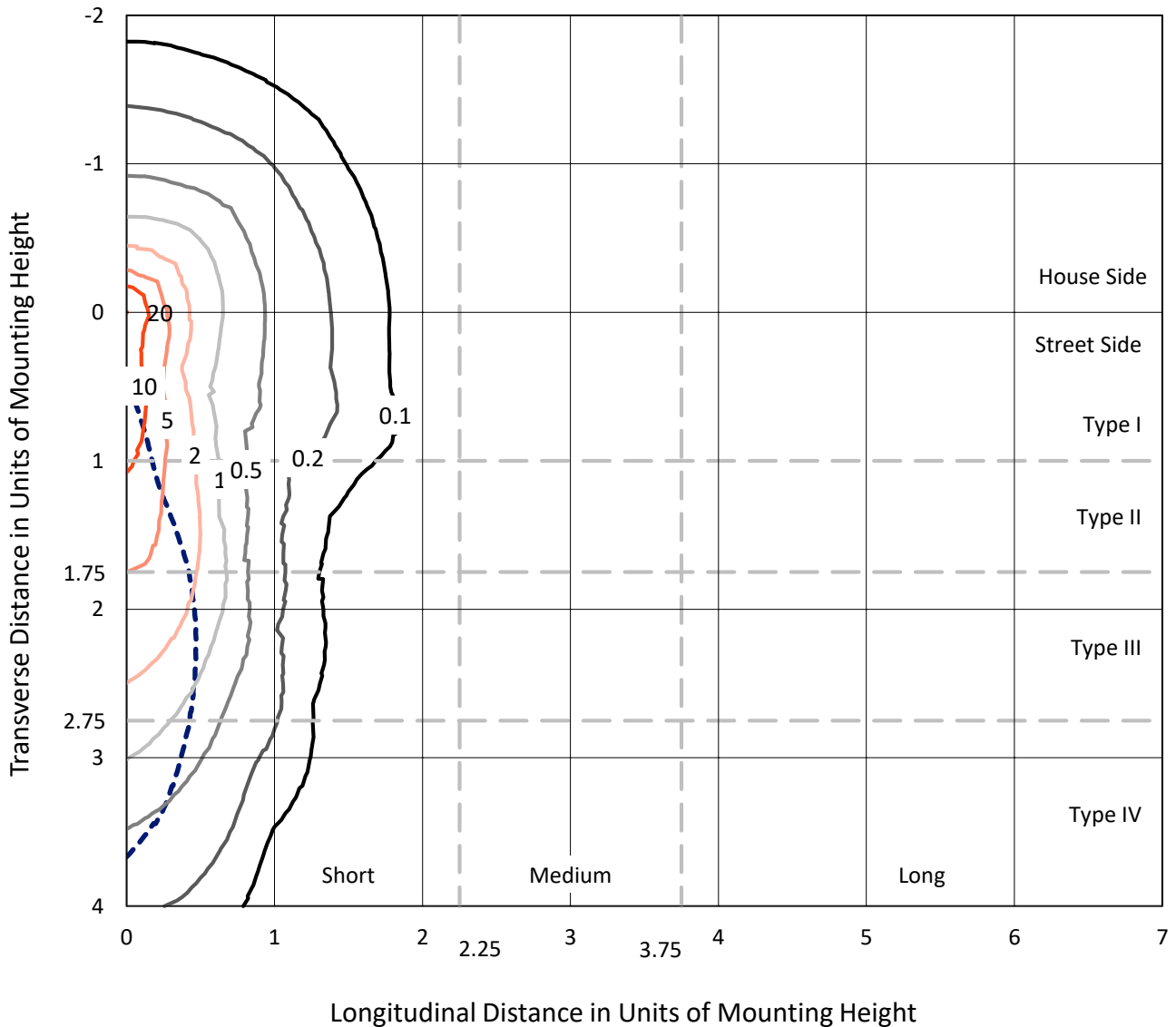


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Iso-Footcandle Lines of Horizontal Illumination

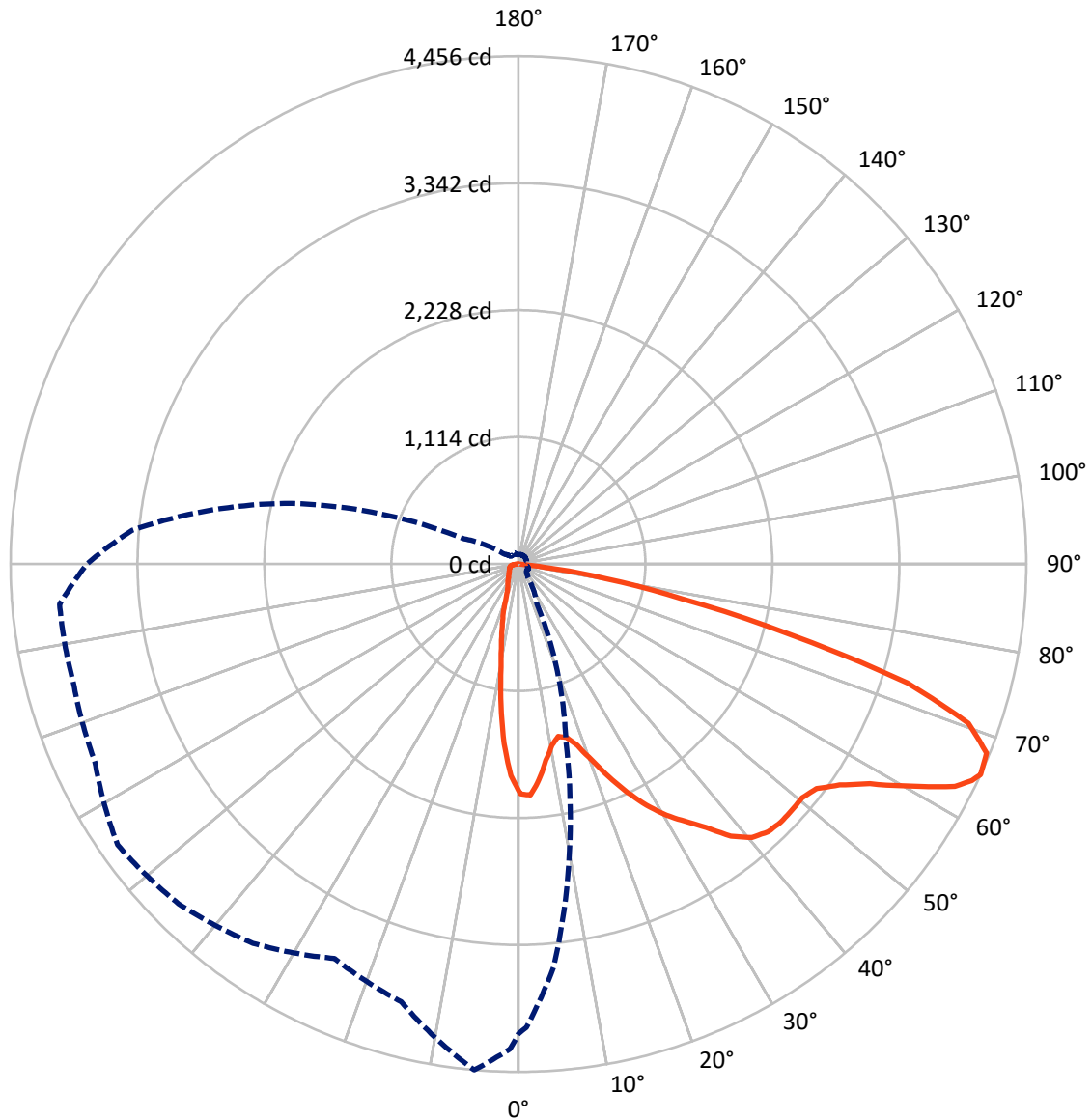
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.2 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	1162.4	0.0	1162.4
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	4502.6	0.0	4502.6
	% Fixture	79.5	0.0	79.5
Total	Lumens	5665.0	0.0	5665.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.8	2.7
10°-20°	306.3	5.4
20°-30°	424.7	7.5
30°-40°	593.7	10.5
40°-50°	807.9	14.3
50°-60°	1104.8	19.5
60°-70°	1350.8	23.8
70°-80°	815.5	14.4
80°-90°	107.5	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°	5665.0	100.0
0°-180°	5665.0	100.0



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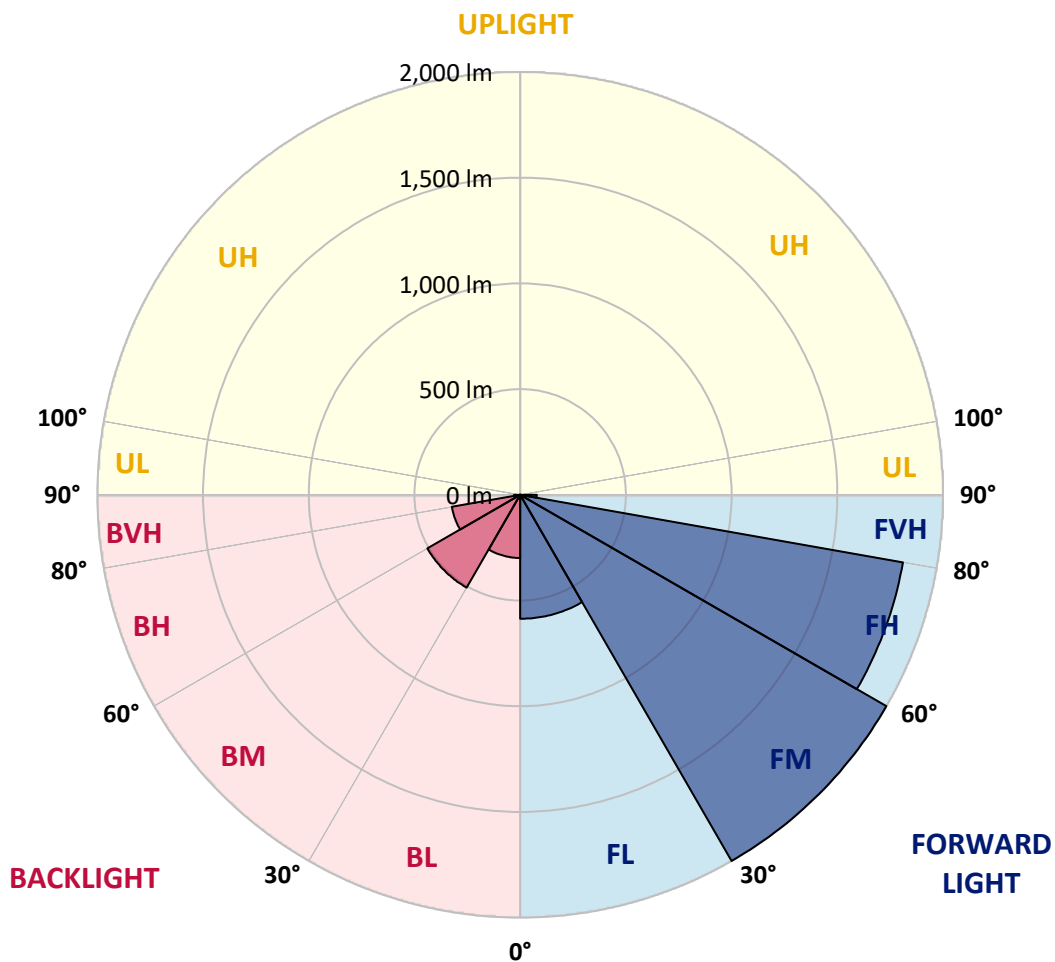
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	586.1	10.3			
FM	(30°-60°)	1999.7	35.3			
FH	(60°-80°)	1838.2	32.4			G2/5000
FVH	(80°-90°)	78.6	1.4			G1/100
BL	(0°-30°)	298.7	5.3	B1/500		
BM	(30°-60°)	506.7	8.9	B1/1000		
BH	(60°-80°)	328.0	5.8	B1/500		G1/500
BVH	(80°-90°)	29.0	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9
2.5°	2011.2	2005.5	1991.3	1953.4	1912.6	1864.3	1855.8	1803.7	1809.4	1794.2	1798.0
5°	1836.9	1829.3	1790.4	1714.7	1611.4	1551.7	1505.3	1477.8	1455.1	1443.7	1457.9
7.5°	1667.3	1656.9	1610.4	1476.9	1362.2	1267.5	1191.7	1145.3	1099.8	1063.8	1046.8
10°	1529.9	1526.1	1464.6	1313.9	1169.9	1054.4	1005.1	955.8	917.0	865.9	824.2
12.5°	1460.8	1449.4	1376.5	1201.2	1061.0	990.0	943.5	881.0	828.0	765.4	711.4
15°	1463.6	1450.3	1359.4	1175.6	1023.1	936.9	865.9	791.0	713.3	649.9	594.9
17.5°	1545.1	1535.6	1424.8	1199.3	990.9	871.5	760.7	664.1	578.8	499.2	450.0
20°	1682.4	1668.2	1514.8	1227.7	950.2	796.7	646.1	513.4	421.6	351.5	312.6
22.5°	1861.5	1835.0	1642.7	1262.8	909.4	711.4	522.0	374.2	292.7	257.7	247.3
25°	2052.8	2032.0	1797.1	1307.3	865.9	618.6	386.5	271.9	243.5	229.3	221.7
27.5°	2229.0	2194.9	1962.9	1356.6	808.1	525.8	293.7	234.0	215.0	208.4	203.7
30°	2355.0	2325.7	2077.5	1413.4	757.9	429.1	251.0	212.2	197.0	186.6	184.7
32.5°	2475.4	2433.7	2160.8	1439.9	716.2	377.0	232.1	197.0	182.8	172.4	168.6
35°	2617.4	2575.8	2256.5	1443.7	684.9	355.2	214.1	185.7	170.5	161.0	156.3
37.5°	2785.1	2728.3	2364.5	1446.6	653.7	346.7	198.9	176.2	161.0	150.6	146.8
40°	2944.3	2900.7	2475.4	1441.8	632.8	334.4	189.5	165.8	151.6	142.1	137.4
42.5°	3064.6	3018.2	2570.1	1427.6	620.5	313.6	193.3	158.2	144.9	134.5	128.8
45°	3126.2	3084.5	2656.3	1414.4	613.9	295.6	189.5	155.4	140.2	127.9	122.2
47.5°	3172.6	3131.8	2744.4	1408.7	602.5	282.3	174.3	165.8	135.5	121.3	115.6
50°	3247.4	3212.4	2863.8	1440.9	584.5	273.8	160.1	177.1	133.6	115.6	108.9
52.5°	3381.9	3359.2	3060.8	1515.7	565.6	259.6	145.9	169.6	135.5	111.8	104.2
55°	3633.0	3618.8	3331.7	1614.2	547.6	241.6	130.7	153.5	134.5	105.2	99.5
57.5°	3903.9	3900.1	3660.5	1700.4	521.0	211.3	121.3	129.8	127.9	99.5	92.8
60°	4085.8	4073.5	3812.0	1748.8	486.9	174.3	113.7	109.9	130.7	93.8	86.2
62.5°	4148.3	4107.6	3766.6	1730.8	435.8	150.6	105.2	100.4	121.3	88.1	79.6
64°	4144.5	4084.9	3648.1	1662.5	402.6	145.9	100.4	93.8	107.0	84.3	76.7
65°	4122.7	4065.9	3549.6	1609.5	384.6	145.9	97.6	90.9	97.6	82.4	74.8
67.5°	3983.5	3908.6	3213.3	1363.2	338.2	147.8	90.9	83.4	81.5	75.8	70.1
70°	3666.1	3568.6	2752.0	1072.4	313.6	148.7	83.4	75.8	72.9	69.2	64.4
72.5°	2944.3	2813.5	2190.2	766.4	288.0	145.9	75.8	69.2	66.3	62.5	57.8
75°	1974.2	1831.2	1614.2	504.9	235.9	130.7	65.4	59.7	58.7	54.9	51.2
77.5°	1113.1	1053.4	953.0	277.6	162.9	90.0	52.1	48.3	49.3	47.4	43.6
80°	581.7	554.2	509.7	134.5	78.6	43.6	33.2	33.2	37.9	37.9	36.0
82.5°	205.6	206.5	199.9	30.3	16.1	13.3	11.4	16.1	21.8	26.5	26.5
85°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.8	6.6
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°	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9
2.5°	1765.8	1771.5	1786.6	1783.8	1799.0	1792.3	1812.2	1822.6	1828.3	1857.7	1871.9
5°	1446.6	1448.5	1502.5	1513.8	1542.2	1527.1	1562.1	1548.9	1577.3	1581.1	1628.4
7.5°	1062.9	1066.7	1093.2	1155.7	1217.3	1242.9	1253.3	1269.4	1256.1	1251.4	1258.0
10°	808.1	810.9	813.7	858.3	912.3	966.3	966.3	967.2	943.5	919.8	915.1
12.5°	690.6	672.6	644.2	645.1	683.0	708.6	728.5	707.6	703.9	715.2	727.5
15°	568.4	550.4	531.4	508.7	509.7	527.7	538.1	537.1	556.1	564.6	590.2
17.5°	441.5	415.9	416.8	403.6	385.6	396.9	399.8	416.8	441.5	452.8	457.6
20°	296.5	296.5	304.1	320.2	311.7	319.2	320.2	333.5	344.8	338.2	344.8
22.5°	245.4	244.4	247.3	257.7	266.2	272.8	274.7	273.8	262.4	257.7	267.1
25°	222.6	221.7	222.6	228.3	237.8	246.3	242.5	236.8	223.6	222.6	224.5
27.5°	203.7	204.6	206.5	210.3	216.0	226.4	222.6	211.3	204.6	202.7	202.7
30°	187.6	187.6	191.4	195.1	201.8	211.3	204.6	195.1	188.5	186.6	185.7
32.5°	171.5	174.3	177.1	180.9	186.6	196.1	190.4	181.9	175.3	171.5	168.6
35°	155.4	157.3	162.9	168.6	173.4	180.9	177.1	169.6	162.9	154.4	150.6
37.5°	145.9	145.9	148.7	157.3	161.0	166.7	164.8	158.2	147.8	141.2	140.2
40°	137.4	137.4	138.3	143.0	149.7	156.3	152.5	142.1	135.5	132.6	131.7
42.5°	128.8	128.8	129.8	129.8	138.3	149.7	140.2	129.8	126.9	125.0	124.1
45°	121.3	121.3	121.3	120.3	125.0	139.3	128.8	120.3	118.4	118.4	117.5
47.5°	115.6	114.6	113.7	111.8	114.6	126.0	117.5	112.7	111.8	112.7	111.8
50°	108.0	107.0	106.1	105.2	107.0	111.8	109.9	105.2	106.1	106.1	107.0
52.5°	101.4	100.4	99.5	98.5	100.4	104.2	104.2	100.4	100.4	101.4	102.3
55°	97.6	95.7	94.7	94.7	95.7	100.4	99.5	96.6	96.6	98.5	99.5
57.5°	91.9	90.0	90.0	89.0	90.9	96.6	95.7	92.8	92.8	93.8	95.7
60°	86.2	85.3	84.3	86.2	87.2	92.8	91.9	90.0	89.0	91.9	91.9
62.5°	79.6	79.6	79.6	81.5	82.4	89.0	88.1	87.2	87.2	88.1	87.2
64°	75.8	75.8	76.7	77.7	79.6	85.3	85.3	85.3	85.3	85.3	84.3
65°	73.9	73.9	75.8	76.7	77.7	84.3	83.4	84.3	85.3	84.3	82.4
67.5°	69.2	69.2	72.0	72.0	72.9	80.5	79.6	81.5	83.4	81.5	79.6
70°	63.5	64.4	67.3	66.3	68.2	76.7	73.9	77.7	81.5	78.6	76.7
72.5°	57.8	58.7	62.5	60.6	61.6	72.0	68.2	72.0	77.7	75.8	73.9
75°	52.1	53.1	55.9	54.9	56.8	66.3	62.5	66.3	72.0	72.0	71.0
77.5°	44.5	46.4	48.3	47.4	51.2	59.7	55.9	58.7	63.5	67.3	65.4
80°	36.0	38.8	39.8	40.7	44.5	51.2	48.3	49.3	54.0	56.8	57.8
82.5°	24.6	29.4	31.3	32.2	37.9	39.8	40.7	39.8	42.6	46.4	43.6
85°	7.6	9.5	18.0	22.7	28.4	28.4	33.2	31.3	33.2	29.4	24.6
87.5°	0.0	0.0	0.0	6.6	17.1	17.1	23.7	21.8	22.7	17.1	15.2
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°	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9
2.5°	1874.7	1890.9	1926.9	1968.5	1991.3	2040.5	2070.8	2103.1	2135.3	2141.9	2152.3
5°	1637.9	1656.9	1697.6	1753.5	1809.4	1874.7	1950.5	2031.1	2120.1	2158.0	2194.9
7.5°	1276.0	1279.8	1337.6	1439.0	1488.2	1581.1	1689.1	1813.2	1950.5	2021.6	2097.4
10°	942.6	981.4	1025.0	1109.3	1233.4	1340.5	1474.0	1619.0	1762.0	1865.3	1943.9
12.5°	740.8	790.1	862.1	954.9	1048.7	1150.0	1304.5	1459.8	1636.0	1728.9	1825.5
15°	610.1	672.6	766.4	864.0	951.1	1041.1	1178.5	1368.9	1594.3	1689.1	1775.3
17.5°	483.1	552.3	652.7	755.0	859.2	969.1	1128.3	1364.1	1638.9	1748.8	1837.8
20°	370.4	424.4	508.7	612.0	734.2	884.8	1088.5	1400.1	1770.5	1907.9	1966.6
22.5°	274.7	306.0	372.3	480.3	624.3	810.0	1048.7	1451.3	1933.5	2094.5	2139.1
25°	227.4	235.9	266.2	360.0	508.7	725.6	1018.4	1517.6	2096.4	2277.4	2309.6
27.5°	204.6	209.4	223.6	258.6	397.9	656.5	978.6	1594.3	2267.9	2458.3	2455.5
30°	184.7	185.7	194.2	218.8	323.0	594.9	932.2	1679.6	2420.4	2588.1	2579.6
32.5°	166.7	166.7	178.1	197.0	275.7	539.0	876.3	1741.2	2553.0	2694.2	2666.7
35°	150.6	153.5	163.9	182.8	244.4	476.5	824.2	1763.9	2666.7	2822.1	2744.4
37.5°	139.3	143.0	153.5	171.5	217.9	430.1	781.5	1790.4	2806.9	2976.5	2831.5
40°	131.7	134.5	144.0	159.2	197.0	391.2	735.1	1808.4	2946.2	3141.3	2923.4
42.5°	124.1	126.9	136.4	150.6	187.6	345.8	690.6	1818.9	3091.1	3284.4	3000.2
45°	117.5	121.3	130.7	144.0	188.5	305.0	653.7	1815.1	3178.3	3387.6	3059.8
47.5°	112.7	116.5	126.9	144.0	182.8	281.4	622.4	1801.8	3242.7	3454.9	3087.3
50°	108.0	111.8	124.1	159.2	173.4	274.7	598.7	1799.9	3309.9	3468.1	3087.3
52.5°	103.3	109.9	125.0	160.1	159.2	271.9	579.8	1850.1	3402.8	3490.9	3114.8
55°	100.4	106.1	128.8	147.8	139.3	262.4	568.4	1919.3	3559.1	3615.9	3253.1
57.5°	96.6	101.4	126.9	138.3	124.1	240.6	558.9	1985.6	3764.7	3848.0	3528.8
60°	91.9	97.6	123.2	118.4	112.7	204.6	553.2	2040.5	3841.4	3997.7	3825.3
62.5°	87.2	93.8	134.5	103.3	104.2	170.5	542.8	2093.6	3679.4	3961.7	4015.7
64°	84.3	90.9	125.0	96.6	99.5	155.4	532.4	2096.4	3536.4	3876.4	4051.7
65°	82.4	88.1	116.5	92.8	95.7	151.6	522.9	2056.6	3401.8	3785.5	4041.3
67.5°	79.6	83.4	90.0	86.2	89.0	144.9	458.5	1881.4	3115.7	3551.5	3879.3
70°	75.8	78.6	79.6	78.6	83.4	140.2	387.5	1632.2	2803.1	3306.2	3627.3
72.5°	72.0	72.0	72.0	71.0	76.7	133.6	348.6	1318.7	2422.3	2984.1	3313.7
75°	69.2	66.3	65.4	63.5	70.1	129.8	314.5	990.0	1871.9	2485.8	2776.6
77.5°	63.5	60.6	57.8	55.9	62.5	115.6	262.4	699.1	1380.2	1808.4	2142.8
80°	54.9	53.1	49.3	46.4	52.1	90.9	198.9	432.0	1009.8	1221.1	1405.8
82.5°	44.5	43.6	39.8	36.0	37.9	65.4	135.5	219.8	673.5	663.1	785.3
85°	27.5	34.1	29.4	23.7	25.6	37.9	54.9	70.1	206.5	124.1	192.3
87.5°	16.1	21.8	18.0	12.3	9.5	17.1	15.2	14.2	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°	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9	2015.9
2.5°	2176.9	2189.3	2195.9	2171.3	2144.7	2121.1	2075.6	2030.1	2006.4	2011.2
5°	2266.0	2286.8	2292.5	2256.5	2181.7	2104.9	1994.1	1898.4	1840.6	1836.9
7.5°	2231.9	2300.1	2311.5	2272.6	2165.6	2022.5	1871.9	1738.3	1680.5	1667.3
10°	2110.6	2214.8	2248.9	2235.7	2131.5	1967.6	1784.8	1615.2	1557.4	1529.9
12.5°	1986.5	2095.5	2116.3	2129.6	2066.1	1927.8	1727.0	1552.7	1483.5	1460.8
15°	1905.1	1979.9	1985.6	1997.9	1984.6	1908.9	1753.5	1578.2	1494.9	1463.6
17.5°	1893.7	1867.2	1849.2	1874.7	1890.9	1909.8	1822.6	1673.9	1584.9	1545.1
20°	1895.6	1813.2	1762.0	1760.1	1829.3	1934.4	1962.9	1835.0	1719.4	1682.4
22.5°	1964.7	1784.8	1699.5	1689.1	1773.4	1976.1	2105.9	2026.3	1910.7	1861.5
25°	2068.0	1767.7	1655.0	1657.8	1742.1	2003.6	2228.1	2217.7	2116.3	2052.8
27.5°	2167.5	1796.1	1649.3	1656.9	1752.5	2021.6	2329.5	2397.7	2284.0	2229.0
30°	2247.0	1859.6	1666.3	1673.0	1784.8	2046.2	2379.7	2557.8	2420.4	2355.0
32.5°	2316.2	1919.3	1691.9	1696.7	1835.9	2081.3	2427.0	2692.3	2553.0	2475.4
35°	2378.7	1970.4	1730.8	1746.9	1901.3	2131.5	2475.4	2838.2	2715.0	2617.4
37.5°	2433.7	2033.0	1807.5	1834.0	1997.0	2204.4	2537.9	3030.5	2896.0	2785.1
40°	2464.9	2088.8	1921.2	1961.0	2121.1	2299.1	2617.4	3155.5	3069.3	2944.3
42.5°	2488.6	2165.6	2104.0	2176.0	2313.4	2388.2	2655.3	3211.4	3171.6	3064.6
45°	2500.9	2317.1	2378.7	2446.0	2530.3	2485.8	2634.5	3230.4	3218.1	3126.2
47.5°	2556.8	2545.5	2697.0	2789.9	2785.1	2632.6	2594.7	3228.5	3248.4	3172.6
50°	2670.5	2811.7	3023.9	3114.8	3079.7	2770.0	2587.1	3225.6	3309.0	3247.4
52.5°	2806.0	3077.8	3377.2	3415.1	3341.2	2909.2	2644.0	3274.9	3422.7	3381.9
55°	2984.1	3327.9	3654.8	3667.1	3562.9	3044.7	2765.2	3419.8	3634.9	3633.0
57.5°	3232.3	3552.5	3887.8	3872.7	3725.8	3232.3	2960.4	3636.8	3870.8	3903.9
60°	3502.2	3789.3	4076.3	4067.8	3911.5	3448.3	3228.5	3957.9	4077.3	4085.8
62.5°	3760.9	4009.1	4258.2	4217.5	4041.3	3671.8	3599.8	4298.9	4211.8	4148.3
64°	3929.5	4083.0	4304.6	4240.2	4072.5	3778.9	3813.9	4409.8	4249.7	4144.5
65°	4041.3	4101.0	4294.2	4216.5	4062.1	3818.7	3975.9	4456.2	4256.3	4122.7
67.5°	4242.1	3997.7	4011.9	3950.3	3812.0	3781.7	4241.2	4430.6	4183.4	3983.5
70°	4186.2	3581.8	3386.7	3347.8	3182.1	3352.6	4208.0	4190.0	3909.6	3666.1
72.5°	3708.8	2876.1	2595.7	2560.6	2330.4	2540.7	3631.1	3568.6	3146.1	2944.3
75°	3056.1	2179.8	1853.9	1883.3	1708.0	1902.2	2888.4	2445.0	2094.5	1974.2
77.5°	2372.1	1540.3	1280.8	1245.7	1210.7	1231.5	1985.6	1468.3	1223.9	1113.1
80°	1511.9	968.2	960.6	878.2	849.7	716.2	1020.3	781.5	614.8	581.7
82.5°	803.3	558.0	633.8	507.8	408.3	293.7	345.8	232.1	196.1	205.6
85°	219.8	115.6	32.2	0.0	0.0	0.0	0.0	0.9	0.9	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	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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