

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: P401680

Luminaire Tested: **ENT-SA1E-740-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401680
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-740-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6220 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 III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

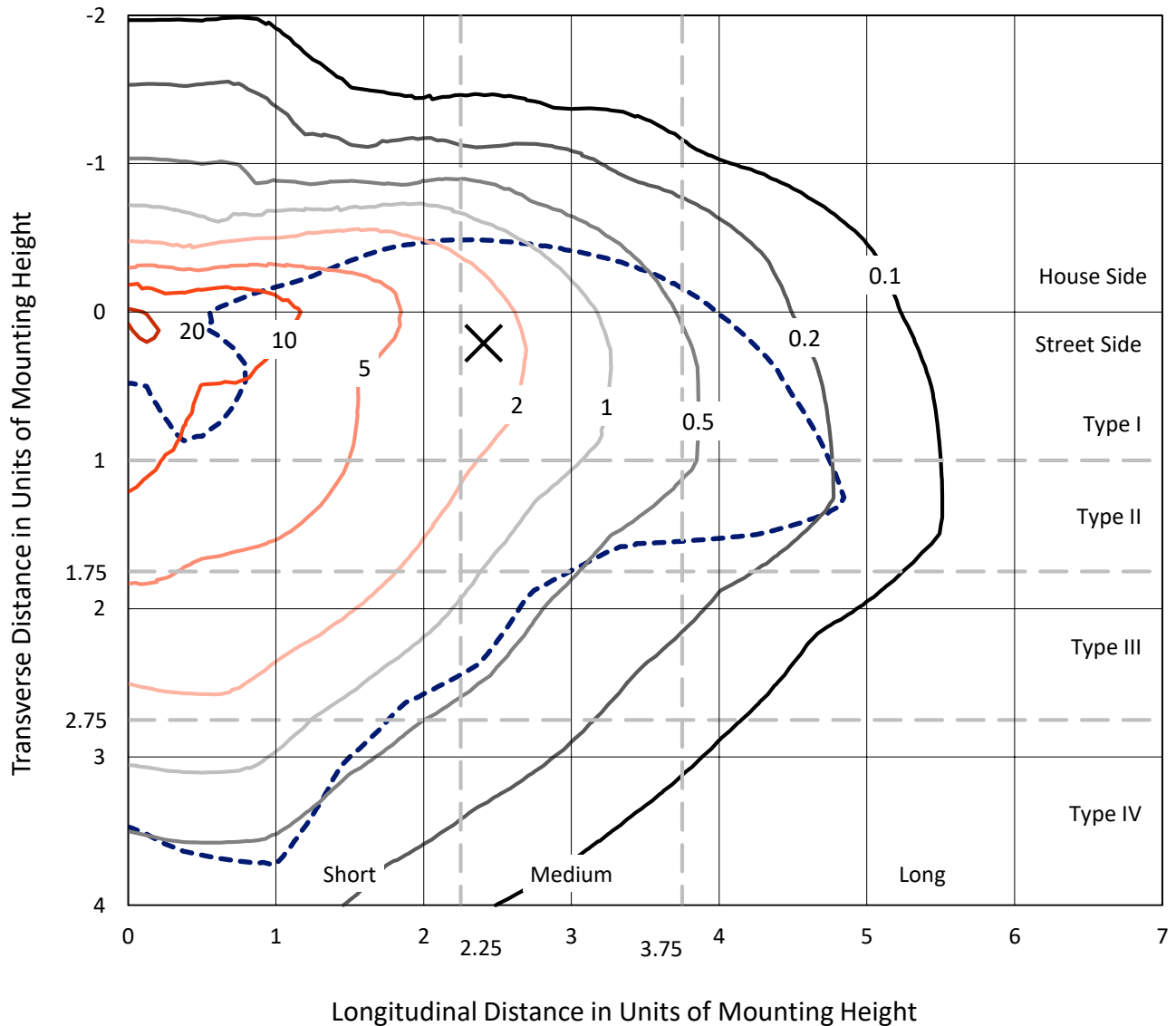
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

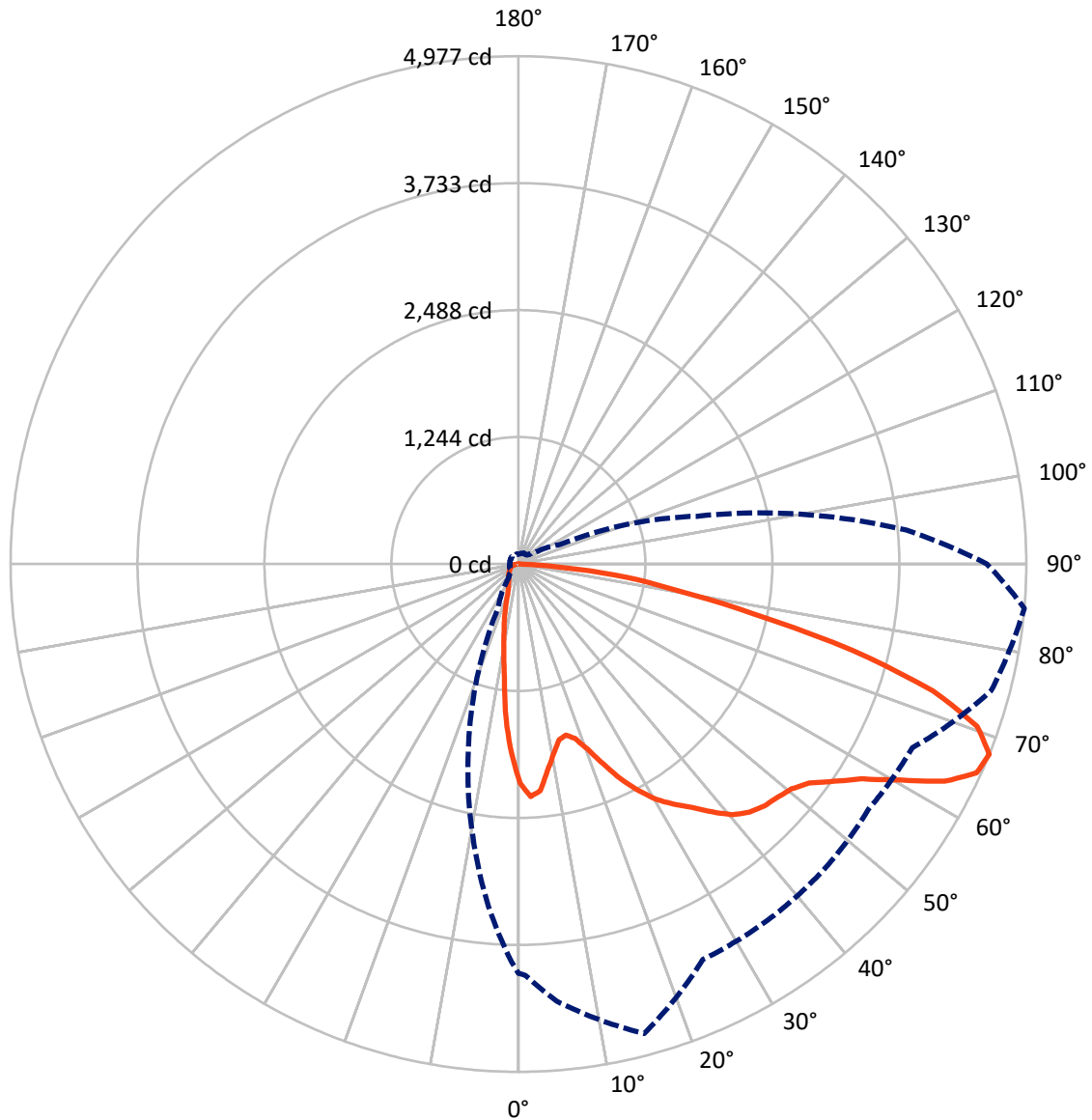
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 22.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1253.3	0.0	1253.3
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	4966.8	0.0	4966.8
	% Fixture	79.9	0.0	79.9
Total	Lumens	6220.0	0.0	6220.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.4	2.6
10°-20°	322.3	5.2
20°-30°	450.2	7.2
30°-40°	634.6	10.2
40°-50°	879.4	14.1
50°-60°	1235.7	19.9
60°-70°	1510.7	24.3
70°-80°	887.8	14.3
80°-90°	136.0	2.2
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°	6220.0	100.0
0°-180°	6220.0	100.0



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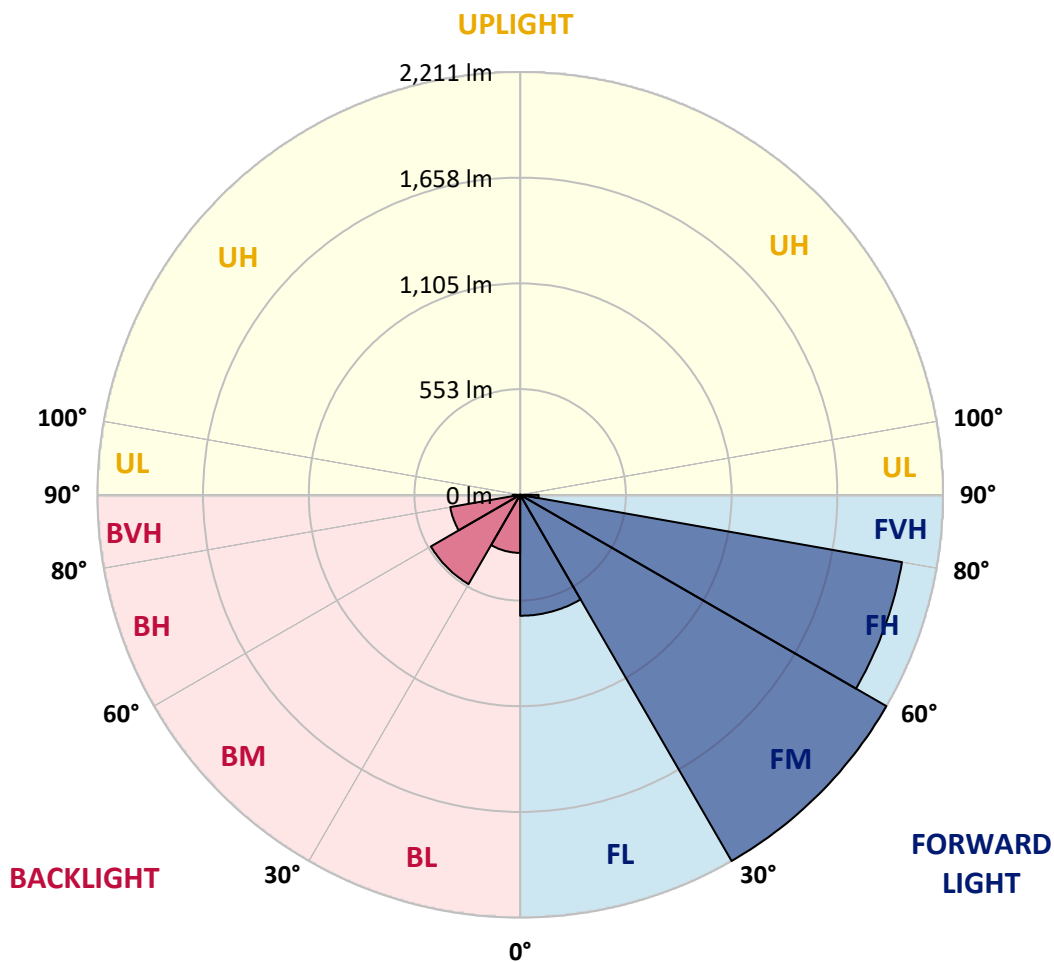
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	632.3	10.2			
FM	(30°-60°)	2211.0	35.5			
FH	(60°-80°)	2027.3	32.6			G2/5000
FVH	(80°-90°)	96.2	1.5			G1/100
BL	(0°-30°)	303.5	4.9	B1/500		
BM	(30°-60°)	538.8	8.7	B1/1000		
BH	(60°-80°)	371.2	6.0	B1/500		G1/500
BVH	(80°-90°)	39.7	0.6			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9
2.5°	2207.9	2197.9	2231.9	2281.9	2315.9	2339.9	2347.9	2346.9	2339.9	2320.9	2280.9
5°	2109.9	2100.9	2169.9	2280.9	2377.9	2447.9	2467.9	2439.9	2404.9	2330.9	2232.9
7.5°	1923.9	1937.9	2025.9	2181.9	2337.9	2448.9	2475.9	2431.9	2359.9	2208.9	2043.9
10°	1782.9	1789.9	1888.9	2076.9	2242.9	2356.9	2403.9	2364.9	2270.9	2079.9	1888.9
12.5°	1695.9	1702.9	1798.9	1972.9	2149.9	2238.9	2252.9	2251.9	2173.9	1988.9	1767.9
15°	1707.9	1716.9	1812.9	1956.9	2056.9	2095.9	2096.9	2107.9	2084.9	1943.9	1738.9
17.5°	1823.9	1823.9	1915.9	2002.9	1979.9	1951.9	1972.9	1992.9	2032.9	1970.9	1797.9
20°	2006.9	2014.9	2099.9	2084.9	1944.9	1874.9	1849.9	1884.9	2008.9	2051.9	1936.9
22.5°	2204.9	2225.9	2314.9	2204.9	1938.9	1802.9	1774.9	1812.9	2011.9	2179.9	2127.9
25°	2423.9	2449.9	2509.9	2344.9	1956.9	1762.9	1743.9	1779.9	2019.9	2297.9	2333.9
27.5°	2623.9	2625.9	2684.9	2462.9	2003.9	1766.9	1734.9	1781.9	2041.9	2390.9	2515.9
30°	2765.9	2765.9	2791.9	2522.9	2061.9	1791.9	1742.9	1811.9	2072.9	2441.9	2680.9
32.5°	2895.9	2902.9	2889.9	2585.9	2116.9	1827.9	1761.9	1871.9	2121.9	2483.9	2807.9
35°	3060.8	3059.8	3001.9	2635.9	2167.9	1866.9	1808.9	1947.9	2192.9	2545.9	2928.9
37.5°	3264.8	3254.8	3131.8	2680.9	2229.9	1933.9	1897.9	2051.9	2287.9	2618.9	3081.8
40°	3449.8	3433.8	3250.8	2722.9	2278.9	2063.9	2042.9	2180.9	2407.9	2709.9	3230.8
42.5°	3593.8	3569.8	3351.8	2752.9	2352.9	2267.9	2285.9	2412.9	2528.9	2790.9	3323.8
45°	3714.8	3689.8	3427.8	2767.9	2531.9	2558.9	2593.9	2699.9	2657.9	2812.9	3380.8
47.5°	3801.8	3760.8	3460.8	2811.9	2773.9	2898.9	3006.9	3013.8	2839.9	2811.9	3415.8
50°	3852.8	3807.8	3491.8	2920.9	3054.8	3284.8	3399.8	3345.8	3028.8	2829.9	3465.8
52.5°	3955.8	3908.8	3620.8	3097.8	3342.8	3675.8	3737.8	3650.8	3224.8	2922.9	3565.8
55°	4214.8	4193.8	3870.8	3335.8	3625.8	3991.8	4019.8	3932.8	3429.8	3083.8	3756.8
57.5°	4507.8	4461.8	4208.8	3634.8	3896.8	4238.8	4283.8	4163.8	3644.8	3309.8	3969.8
60°	4589.8	4580.8	4494.8	3983.8	4176.8	4502.8	4505.8	4352.8	3895.8	3578.8	4294.8
62.5°	4469.8	4498.8	4613.8	4306.8	4411.8	4679.8	4654.8	4495.8	4158.8	4006.8	4689.8
65°	4260.8	4301.8	4532.8	4611.8	4465.8	4644.8	4591.8	4490.8	4324.8	4467.8	4934.8
67.5°	4009.8	4031.8	4300.8	4763.8	4276.8	4259.8	4234.8	4188.8	4258.8	4795.8	4976.8
70°	3748.8	3767.8	4015.8	4554.8	3709.8	3514.8	3493.8	3453.8	3726.8	4791.8	4770.8
72.5°	3159.8	3147.8	3376.8	3801.8	2832.9	2567.9	2745.9	2658.9	3014.8	4304.8	4249.8
75°	1962.9	2028.9	2315.9	2665.9	1940.9	1758.9	2004.9	1982.9	2447.9	3706.8	3383.8
77.5°	1195.9	1208.9	1370.9	1661.9	1168.9	1218.9	1288.9	1424.9	1814.9	3004.9	2358.9
80°	626.0	582.0	701.0	912.0	694.0	818.0	945.0	1094.9	1151.9	1958.9	1576.9
82.5°	181.0	180.0	237.0	382.0	329.0	402.0	477.0	688.0	755.0	1164.9	1079.9
85°	1.0	1.0	1.0	2.0	3.0	5.0	21.0	177.0	234.0	540.0	444.0
87.5°	0.0	0.0	1.0	2.0	2.0	4.0	6.0	8.0	10.0	12.0	44.0
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°	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9
2.5°	2267.9	2252.9	2220.9	2177.9	2147.9	2095.9	2084.9	2051.9	2018.9	1991.9	1992.9
5°	2185.9	2134.9	2056.9	1966.9	1880.9	1803.9	1788.9	1743.9	1730.9	1717.9	1681.9
7.5°	1970.9	1910.9	1801.9	1668.9	1560.9	1487.9	1409.9	1362.9	1320.9	1272.9	1284.9
10°	1805.9	1719.9	1569.9	1413.9	1278.9	1180.9	1094.9	1050.9	990.0	946.0	940.0
12.5°	1678.9	1585.9	1405.9	1222.9	1095.9	1038.9	984.0	915.0	847.0	789.0	759.0
15°	1636.9	1531.9	1322.9	1140.9	1040.9	972.0	895.0	816.0	733.0	671.0	647.0
17.5°	1685.9	1561.9	1321.9	1105.9	981.0	880.0	784.0	695.0	597.0	535.0	516.0
20°	1820.9	1665.9	1349.9	1072.9	908.0	771.0	636.0	540.0	440.0	396.0	376.0
22.5°	2008.9	1806.9	1392.9	1032.9	827.0	638.0	486.0	365.0	316.0	294.0	289.0
25°	2201.9	1985.9	1453.9	999.0	738.0	508.0	349.0	292.0	269.0	259.0	259.0
27.5°	2413.9	2164.9	1519.9	958.0	646.0	378.0	284.0	257.0	245.0	239.0	238.0
30°	2585.9	2310.9	1594.9	910.0	563.0	310.0	252.0	234.0	223.0	220.0	220.0
32.5°	2709.9	2419.9	1673.9	862.0	487.0	280.0	234.0	218.0	206.0	204.0	204.0
35°	2854.9	2523.9	1709.9	835.0	441.0	261.0	221.0	205.0	194.0	189.0	189.0
37.5°	3028.8	2647.9	1729.9	809.0	421.0	243.0	212.0	194.0	183.0	177.0	177.0
40°	3249.8	2788.9	1750.9	783.0	409.0	228.0	202.0	184.0	175.0	168.0	168.0
42.5°	3407.8	2918.9	1766.9	761.0	388.0	221.0	194.0	177.0	166.0	160.0	159.0
45°	3490.8	3039.8	1773.9	748.0	364.0	227.0	188.0	171.0	158.0	152.0	151.0
47.5°	3546.8	3139.8	1782.9	738.0	345.0	216.0	187.0	165.0	152.0	144.0	144.0
50°	3635.8	3271.8	1805.9	719.0	334.0	202.0	202.0	162.0	145.0	138.0	137.0
52.5°	3794.8	3460.8	1867.9	698.0	322.0	188.0	208.0	163.0	140.0	132.0	130.0
55°	4034.8	3761.8	1970.9	668.0	305.0	171.0	194.0	164.0	135.0	128.0	125.0
57.5°	4346.8	4125.8	2090.9	644.0	276.0	157.0	177.0	159.0	129.0	123.0	121.0
60°	4556.8	4368.8	2166.9	613.0	235.0	148.0	152.0	154.0	123.0	116.0	115.0
62.5°	4669.8	4372.8	2167.9	570.0	197.0	140.0	136.0	157.0	118.0	109.0	108.0
65°	4677.8	4159.8	2058.9	515.0	184.0	131.0	125.0	139.0	113.0	104.0	103.0
67.5°	4590.8	3812.8	1809.9	452.0	189.0	124.0	116.0	117.0	107.0	99.0	98.0
70°	4278.8	3363.8	1451.9	402.0	190.0	115.0	109.0	106.0	101.0	94.0	92.0
72.5°	3691.8	2810.9	1099.9	386.0	193.0	108.0	101.0	98.0	94.0	88.0	86.0
75°	2785.9	2192.9	826.0	360.0	195.0	100.0	92.0	90.0	86.0	80.0	79.0
77.5°	1924.9	1625.9	574.0	304.0	174.0	91.0	83.0	81.0	78.0	72.0	71.0
80°	1299.9	1114.9	352.0	228.0	132.0	80.0	72.0	72.0	69.0	63.0	63.0
82.5°	905.0	833.0	203.0	149.0	96.0	66.0	63.0	63.0	60.0	54.0	53.0
85°	378.0	504.0	91.0	81.0	67.0	52.0	52.0	53.0	50.0	45.0	44.0
87.5°	13.0	54.0	36.0	38.0	40.0	36.0	40.0	40.0	39.0	35.0	34.0
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°	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9
2.5°	1963.9	1950.9	1910.9	1905.9	1875.9	1873.9	1886.9	1864.9	1866.9	1893.9	1889.9
5°	1689.9	1659.9	1658.9	1625.9	1588.9	1579.9	1547.9	1535.9	1530.9	1519.9	1559.9
7.5°	1321.9	1307.9	1319.9	1315.9	1281.9	1262.9	1194.9	1142.9	1116.9	1127.9	1130.9
10°	940.0	961.0	993.0	1023.9	1000.0	937.0	908.0	866.0	861.0	858.0	878.0
12.5°	745.0	721.0	736.0	747.0	724.0	697.0	685.0	667.0	677.0	700.0	713.0
15°	619.0	577.0	558.0	545.0	551.0	535.0	541.0	535.0	542.0	549.0	573.0
17.5°	489.0	474.0	438.0	421.0	422.0	415.0	417.0	416.0	412.0	428.0	447.0
20°	368.0	364.0	356.0	344.0	346.0	341.0	338.0	321.0	314.0	319.0	335.0
22.5°	287.0	292.0	297.0	296.0	301.0	288.0	276.0	261.0	259.0	260.0	264.0
25°	257.0	259.0	263.0	268.0	271.0	259.0	242.0	233.0	232.0	234.0	234.0
27.5°	239.0	237.0	242.0	248.0	252.0	237.0	223.0	215.0	213.0	211.0	210.0
30°	220.0	220.0	224.0	230.0	233.0	220.0	208.0	200.0	195.0	192.0	191.0
32.5°	206.0	207.0	209.0	213.0	218.0	205.0	195.0	188.0	179.0	176.0	174.0
35°	190.0	194.0	197.0	198.0	202.0	193.0	183.0	172.0	164.0	161.0	161.0
37.5°	177.0	180.0	185.0	184.0	187.0	181.0	170.0	158.0	154.0	153.0	152.0
40°	167.0	167.0	171.0	175.0	179.0	168.0	155.0	149.0	146.0	144.0	145.0
42.5°	158.0	157.0	157.0	164.0	171.0	155.0	144.0	140.0	139.0	137.0	138.0
45°	150.0	149.0	146.0	149.0	159.0	142.0	135.0	132.0	131.0	131.0	131.0
47.5°	143.0	141.0	137.0	138.0	145.0	132.0	126.0	125.0	124.0	124.0	125.0
50°	135.0	133.0	130.0	129.0	131.0	125.0	120.0	118.0	118.0	118.0	120.0
52.5°	128.0	127.0	123.0	122.0	123.0	119.0	114.0	113.0	113.0	113.0	116.0
55°	123.0	121.0	119.0	117.0	119.0	114.0	110.0	108.0	108.0	110.0	112.0
57.5°	118.0	116.0	115.0	113.0	115.0	110.0	106.0	104.0	105.0	106.0	106.0
60°	113.0	111.0	110.0	108.0	111.0	106.0	102.0	101.0	101.0	100.0	100.0
62.5°	108.0	107.0	105.0	103.0	107.0	101.0	98.0	96.0	95.0	95.0	95.0
65°	102.0	101.0	100.0	99.0	101.0	96.0	93.0	92.0	90.0	89.0	90.0
67.5°	97.0	97.0	95.0	93.0	96.0	90.0	88.0	87.0	84.0	83.0	84.0
70°	91.0	91.0	89.0	88.0	92.0	84.0	82.0	81.0	79.0	78.0	78.0
72.5°	85.0	85.0	83.0	82.0	87.0	78.0	76.0	75.0	72.0	71.0	71.0
75°	79.0	78.0	77.0	76.0	82.0	72.0	69.0	67.0	64.0	63.0	62.0
77.5°	72.0	71.0	69.0	70.0	74.0	64.0	60.0	59.0	56.0	55.0	54.0
80°	63.0	62.0	61.0	63.0	63.0	56.0	51.0	49.0	46.0	44.0	43.0
82.5°	54.0	53.0	53.0	55.0	52.0	49.0	43.0	39.0	34.0	31.0	30.0
85°	44.0	46.0	44.0	46.0	39.0	39.0	30.0	23.0	16.0	13.0	12.0
87.5°	34.0	35.0	34.0	35.0	27.0	26.0	14.0	8.0	1.0	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°	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9	2148.9
2.5°	1919.9	1921.9	1964.9	2007.9	2033.9	2098.9	2130.9	2166.9	2185.9	2207.9
5°	1540.9	1578.9	1613.9	1699.9	1743.9	1846.9	1921.9	2041.9	2079.9	2109.9
7.5°	1163.9	1220.9	1263.9	1370.9	1453.9	1581.9	1712.9	1855.9	1896.9	1923.9
10°	925.0	977.0	1057.9	1141.9	1234.9	1389.9	1531.9	1679.9	1751.9	1782.9
12.5°	777.0	860.0	955.0	1032.9	1106.9	1220.9	1400.9	1587.9	1662.9	1695.9
15°	641.0	734.0	831.0	927.0	1018.9	1147.9	1336.9	1579.9	1674.9	1707.9
17.5°	509.0	585.0	683.0	799.0	933.0	1096.9	1348.9	1664.9	1780.9	1823.9
20°	362.0	436.0	536.0	679.0	838.0	1043.9	1376.9	1792.9	1957.9	2006.9
22.5°	273.0	314.0	406.0	547.0	753.0	1002.0	1420.9	1967.9	2160.9	2204.9
25°	240.0	254.0	301.0	437.0	668.0	964.0	1478.9	2141.9	2375.9	2423.9
27.5°	213.0	221.0	245.0	351.0	605.0	925.0	1547.9	2329.9	2560.9	2623.9
30°	192.0	202.0	222.0	294.0	544.0	869.0	1610.9	2498.9	2717.9	2765.9
32.5°	176.0	187.0	205.0	266.0	492.0	827.0	1646.9	2624.9	2851.9	2895.9
35°	165.0	175.0	193.0	241.0	446.0	798.0	1657.9	2749.9	3015.8	3060.8
37.5°	155.0	165.0	181.0	216.0	414.0	760.0	1674.9	2898.9	3205.8	3264.8
40°	148.0	156.0	171.0	199.0	370.0	719.0	1694.9	3072.8	3390.8	3449.8
42.5°	141.0	150.0	163.0	200.0	326.0	684.0	1707.9	3206.8	3537.8	3593.8
45°	135.0	145.0	160.0	196.0	293.0	652.0	1701.9	3318.8	3671.8	3714.8
47.5°	129.0	141.0	168.0	188.0	283.0	623.0	1706.9	3426.8	3767.8	3801.8
50°	125.0	140.0	180.0	176.0	285.0	610.0	1754.9	3555.8	3839.8	3852.8
52.5°	122.0	143.0	170.0	159.0	285.0	604.0	1846.9	3763.8	3964.8	3955.8
55°	117.0	142.0	159.0	144.0	273.0	607.0	1933.9	4038.8	4264.8	4214.8
57.5°	113.0	136.0	143.0	133.0	245.0	608.0	2062.9	4270.8	4500.8	4507.8
60°	108.0	146.0	124.0	124.0	210.0	603.0	2176.9	4266.8	4543.8	4589.8
62.5°	103.0	143.0	111.0	115.0	186.0	584.0	2245.9	4017.8	4384.8	4469.8
65°	97.0	113.0	102.0	107.0	176.0	537.0	2147.9	3708.8	4169.8	4260.8
67.5°	90.0	93.0	93.0	99.0	172.0	466.0	1900.9	3367.8	3899.8	4009.8
70°	82.0	83.0	85.0	94.0	160.0	401.0	1547.9	3004.9	3609.8	3748.8
72.5°	74.0	75.0	75.0	85.0	150.0	346.0	1095.9	2380.9	3013.8	3159.8
75°	65.0	66.0	65.0	74.0	131.0	259.0	651.0	1505.9	1797.9	1962.9
77.5°	55.0	55.0	53.0	58.0	90.0	164.0	356.0	915.0	1093.9	1195.9
80°	45.0	41.0	34.0	35.0	49.0	94.0	159.0	525.0	600.0	626.0
82.5°	30.0	23.0	14.0	13.0	16.0	26.0	37.0	208.0	191.0	181.0
85°	6.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
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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