

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: P401656

Luminaire Tested: **ENT-SA1E-735-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401656
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-735-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 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: 5843 lumens
Efficiency: N/A
Efficacy: 102.2 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

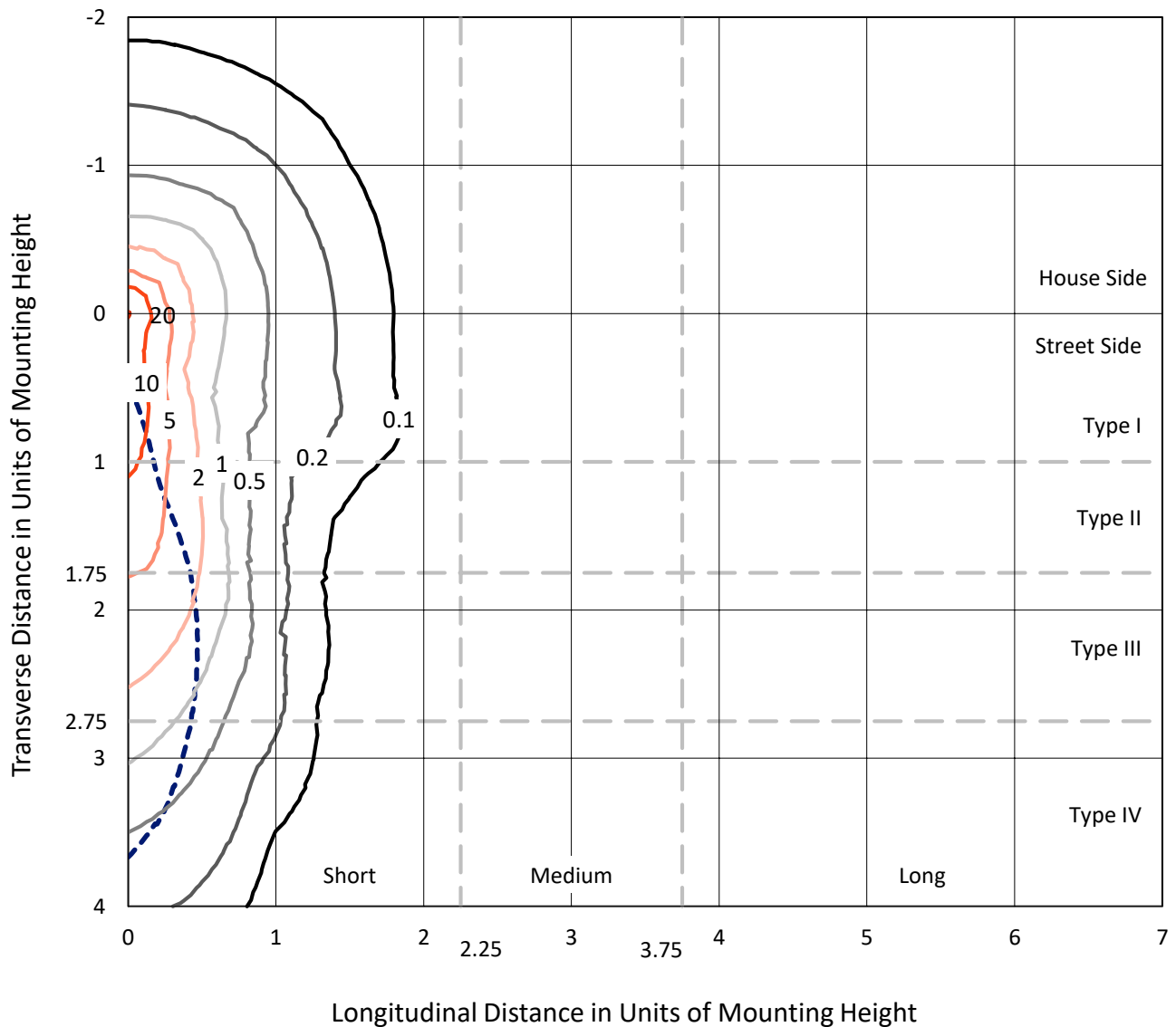


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Iso-Footcandle Lines of Horizontal Illumination

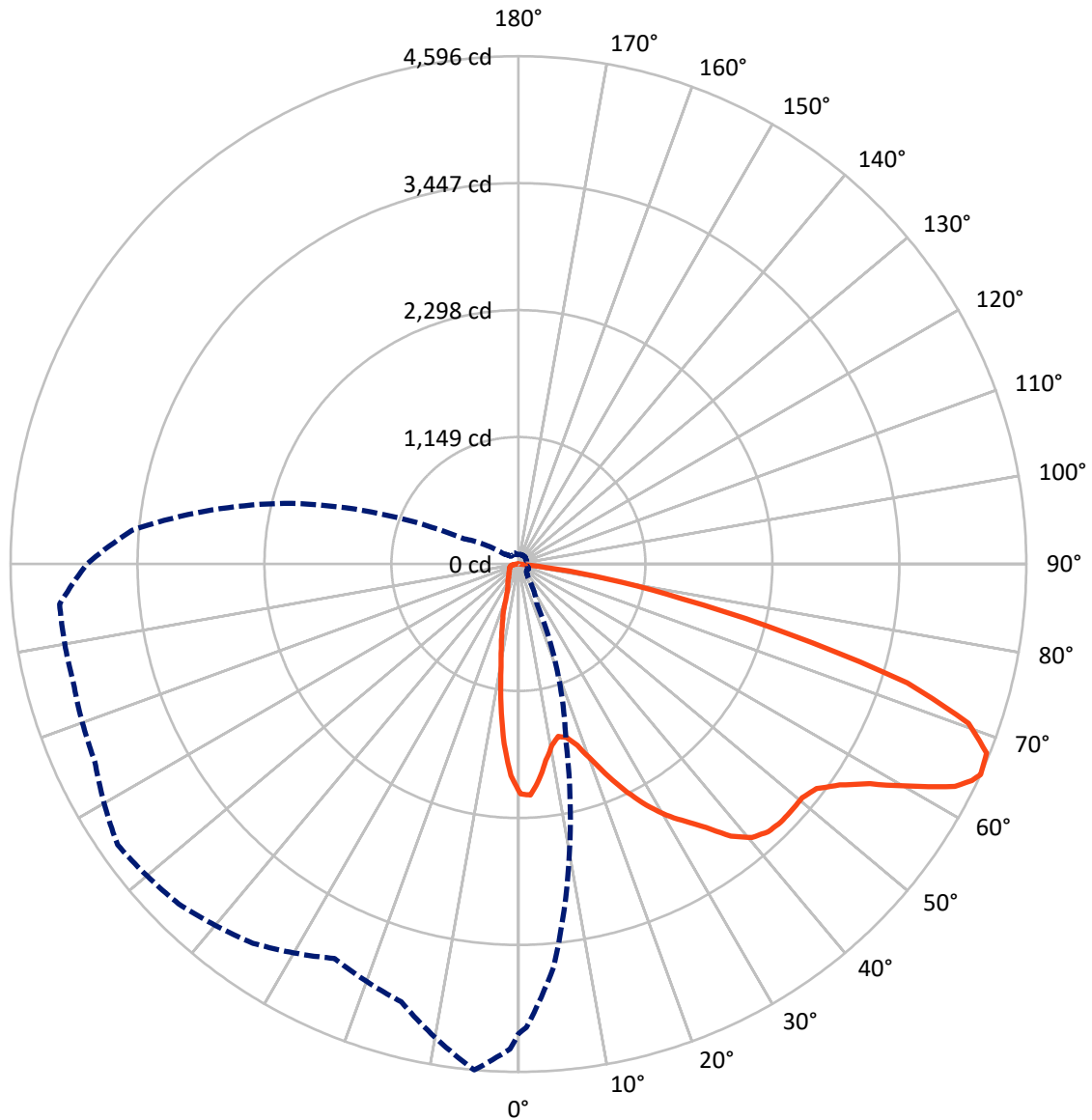
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.8 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	1198.9	0.0	1198.9
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	4644.1	0.0	4644.1
	% Fixture	79.5	0.0	79.5
Total	Lumens	5843.0	0.0	5843.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.6	2.7
10°-20°	315.9	5.4
20°-30°	438.1	7.5
30°-40°	612.4	10.5
40°-50°	833.3	14.3
50°-60°	1139.5	19.5
60°-70°	1393.2	23.8
70°-80°	841.1	14.4
80°-90°	110.9	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°	5843.0	100.0
0°-180°	5843.0	100.0



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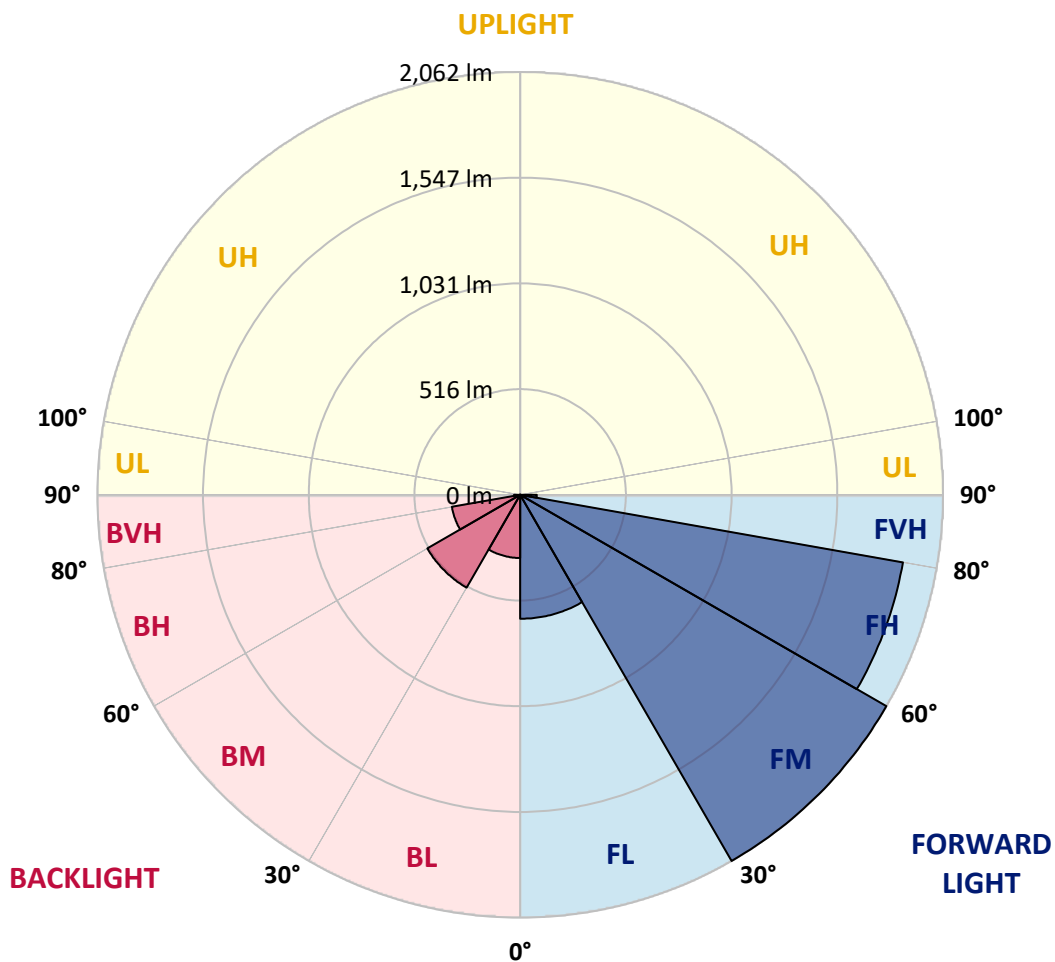
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	604.6	10.3			
FM	(30°-60°)	2062.5	35.3			
FH	(60°-80°)	1896.0	32.4			G2/5000
FVH	(80°-90°)	81.1	1.4			G1/100
BL	(0°-30°)	308.1	5.3	B1/500		
BM	(30°-60°)	522.6	8.9	B1/1000		
BH	(60°-80°)	338.4	5.8	B1/500		G1/500
BVH	(80°-90°)	29.9	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°	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2
2.5°	2074.4	2068.5	2053.8	2014.8	1972.7	1922.9	1914.1	1860.4	1866.2	1850.6	1854.5
5°	1894.6	1886.8	1846.7	1768.5	1662.0	1600.5	1552.6	1524.3	1500.8	1489.1	1503.7
7.5°	1719.7	1708.9	1661.0	1523.3	1405.1	1307.3	1229.2	1181.3	1134.4	1097.3	1079.7
10°	1578.0	1574.1	1510.6	1355.2	1206.7	1087.5	1036.7	985.9	945.8	893.1	850.1
12.5°	1506.7	1494.9	1419.7	1238.9	1094.3	1021.1	973.2	908.7	854.0	789.5	733.8
15°	1509.6	1495.9	1402.1	1212.6	1055.3	966.3	893.1	815.9	735.7	670.3	613.6
17.5°	1593.6	1583.9	1469.5	1237.0	1022.0	898.9	784.6	684.9	597.0	514.9	464.1
20°	1735.3	1720.7	1562.4	1266.3	980.0	821.7	666.4	529.6	434.8	362.5	322.4
22.5°	1920.0	1892.6	1694.3	1302.5	938.0	733.8	538.4	385.9	301.9	265.8	255.0
25°	2117.3	2095.9	1853.5	1348.4	893.1	638.0	398.7	280.4	251.1	236.5	228.6
27.5°	2299.1	2263.9	2024.5	1399.2	833.5	542.3	302.9	241.3	221.8	215.0	210.1
30°	2429.0	2398.7	2142.8	1457.8	781.7	442.6	258.9	218.9	203.2	192.5	190.5
32.5°	2553.1	2510.1	2228.7	1485.2	738.7	388.9	239.4	203.2	188.6	177.8	173.9
35°	2699.7	2656.7	2327.4	1489.1	706.4	366.4	220.8	191.5	175.9	166.1	161.2
37.5°	2872.6	2814.0	2438.8	1492.0	674.2	357.6	205.2	181.7	166.1	155.4	151.4
40°	3036.8	2991.8	2553.1	1487.1	652.7	344.9	195.4	171.0	156.3	146.6	141.7
42.5°	3160.9	3113.0	2650.8	1472.5	640.0	323.4	199.3	163.2	149.5	138.7	132.9
45°	3224.4	3181.4	2739.8	1458.8	633.2	304.9	195.4	160.2	144.6	131.9	126.0
47.5°	3272.3	3230.3	2830.6	1452.9	621.4	291.2	179.8	171.0	139.7	125.1	119.2
50°	3349.5	3313.3	2953.7	1486.1	602.9	282.4	165.1	182.7	137.8	119.2	112.4
52.5°	3488.2	3464.8	3157.0	1563.3	583.3	267.7	150.5	174.9	139.7	115.3	107.5
55°	3747.1	3732.5	3436.4	1665.0	564.8	249.2	134.8	158.3	138.7	108.5	102.6
57.5°	4026.6	4022.7	3775.5	1753.9	537.4	217.9	125.1	133.9	131.9	102.6	95.8
60°	4214.2	4201.5	3931.8	1803.7	502.2	179.8	117.3	113.3	134.8	96.7	88.9
62.5°	4278.7	4236.7	3884.9	1785.1	449.5	155.4	108.5	103.6	125.1	90.9	82.1
64°	4274.8	4213.2	3762.8	1714.8	415.3	150.5	103.6	96.7	110.4	87.0	79.1
65°	4252.3	4193.7	3661.1	1660.1	396.7	150.5	100.6	93.8	100.6	85.0	77.2
67.5°	4108.7	4031.5	3314.3	1406.0	348.8	152.4	93.8	86.0	84.0	78.2	72.3
70°	3781.3	3680.7	2838.4	1106.1	323.4	153.4	86.0	78.2	75.2	71.3	66.4
72.5°	3036.8	2901.9	2259.0	790.5	297.0	150.5	78.2	71.3	68.4	64.5	59.6
75°	2036.2	1888.7	1665.0	520.8	243.3	134.8	67.4	61.6	60.6	56.7	52.8
77.5°	1148.1	1086.5	982.9	286.3	168.1	92.8	53.7	49.8	50.8	48.9	44.9
80°	599.9	571.6	525.7	138.7	81.1	44.9	34.2	34.2	39.1	39.1	37.1
82.5°	212.0	213.0	206.2	31.3	16.6	13.7	11.7	16.6	22.5	27.4	27.4
85°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.9	6.8
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°	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2
2.5°	1821.3	1827.2	1842.8	1839.9	1855.5	1848.6	1869.2	1879.9	1885.8	1916.1	1930.7
5°	1492.0	1494.0	1549.7	1561.4	1590.7	1575.1	1611.2	1597.5	1626.9	1630.8	1679.6
7.5°	1096.3	1100.2	1127.6	1192.0	1255.6	1281.9	1292.7	1309.3	1295.6	1290.7	1297.6
10°	833.5	836.4	839.3	885.2	940.9	996.6	996.6	997.6	973.2	948.8	943.9
12.5°	712.3	693.7	664.4	665.4	704.5	730.9	751.4	729.9	726.0	737.7	750.4
15°	586.3	567.7	548.1	524.7	525.7	544.2	555.0	554.0	573.6	582.3	608.7
17.5°	455.3	428.9	429.9	416.2	397.7	409.4	412.3	429.9	455.3	467.0	471.9
20°	305.8	305.8	313.6	330.3	321.5	329.3	330.3	343.9	355.7	348.8	355.7
22.5°	253.1	252.1	255.0	265.8	274.6	281.4	283.4	282.4	270.7	265.8	275.5
25°	229.6	228.6	229.6	235.5	245.2	254.0	250.1	244.3	230.6	229.6	231.6
27.5°	210.1	211.1	213.0	216.9	222.8	233.5	229.6	217.9	211.1	209.1	209.1
30°	193.5	193.5	197.4	201.3	208.1	217.9	211.1	201.3	194.4	192.5	191.5
32.5°	176.9	179.8	182.7	186.6	192.5	202.3	196.4	187.6	180.8	176.9	173.9
35°	160.2	162.2	168.1	173.9	178.8	186.6	182.7	174.9	168.1	159.3	155.4
37.5°	150.5	150.5	153.4	162.2	166.1	172.0	170.0	163.2	152.4	145.6	144.6
40°	141.7	141.7	142.7	147.5	154.4	161.2	157.3	146.6	139.7	136.8	135.8
42.5°	132.9	132.9	133.9	133.9	142.7	154.4	144.6	133.9	130.9	129.0	128.0
45°	125.1	125.1	125.1	124.1	129.0	143.6	132.9	124.1	122.1	122.1	121.2
47.5°	119.2	118.2	117.3	115.3	118.2	130.0	121.2	116.3	115.3	116.3	115.3
50°	111.4	110.4	109.4	108.5	110.4	115.3	113.3	108.5	109.4	109.4	110.4
52.5°	104.5	103.6	102.6	101.6	103.6	107.5	107.5	103.6	103.6	104.5	105.5
55°	100.6	98.7	97.7	97.7	98.7	103.6	102.6	99.7	99.7	101.6	102.6
57.5°	94.8	92.8	92.8	91.8	93.8	99.7	98.7	95.8	95.8	96.7	98.7
60°	88.9	87.9	87.0	88.9	89.9	95.8	94.8	92.8	91.8	94.8	94.8
62.5°	82.1	82.1	82.1	84.0	85.0	91.8	90.9	89.9	89.9	90.9	89.9
64°	78.2	78.2	79.1	80.1	82.1	87.9	87.9	87.9	87.9	87.9	87.0
65°	76.2	76.2	78.2	79.1	80.1	87.0	86.0	87.0	87.9	87.0	85.0
67.5°	71.3	71.3	74.3	74.3	75.2	83.1	82.1	84.0	86.0	84.0	82.1
70°	65.5	66.4	69.4	68.4	70.4	79.1	76.2	80.1	84.0	81.1	79.1
72.5°	59.6	60.6	64.5	62.5	63.5	74.3	70.4	74.3	80.1	78.2	76.2
75°	53.7	54.7	57.6	56.7	58.6	68.4	64.5	68.4	74.3	74.3	73.3
77.5°	45.9	47.9	49.8	48.9	52.8	61.6	57.6	60.6	65.5	69.4	67.4
80°	37.1	40.1	41.0	42.0	45.9	52.8	49.8	50.8	55.7	58.6	59.6
82.5°	25.4	30.3	32.2	33.2	39.1	41.0	42.0	41.0	44.0	47.9	44.9
85°	7.8	9.8	18.6	23.5	29.3	29.3	34.2	32.2	34.2	30.3	25.4
87.5°	0.0	0.0	0.0	6.8	17.6	17.6	24.4	22.5	23.5	17.6	15.6
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°	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2
2.5°	1933.7	1950.3	1987.4	2030.4	2053.8	2104.6	2135.9	2169.1	2202.4	2209.2	2219.9
5°	1689.4	1708.9	1750.9	1808.6	1866.2	1933.7	2011.8	2094.9	2186.7	2225.8	2263.9
7.5°	1316.1	1320.0	1379.6	1484.2	1535.0	1630.8	1742.1	1870.1	2011.8	2085.1	2163.3
10°	972.2	1012.3	1057.2	1144.2	1272.2	1382.6	1520.3	1669.8	1817.4	1923.9	2005.0
12.5°	764.1	814.9	889.1	984.9	1081.6	1186.2	1345.4	1505.7	1687.4	1783.2	1882.8
15°	629.2	693.7	790.5	891.1	981.0	1073.8	1215.5	1411.9	1644.4	1742.1	1831.1
17.5°	498.3	569.6	673.2	778.7	886.2	999.6	1163.7	1407.0	1690.4	1803.7	1895.5
20°	382.0	437.7	524.7	631.2	757.2	912.6	1122.7	1444.1	1826.2	1967.9	2028.4
22.5°	283.4	315.6	384.0	495.4	643.9	835.4	1081.6	1496.9	1994.2	2160.3	2206.3
25°	234.5	243.3	274.6	371.3	524.7	748.4	1050.4	1565.3	2162.3	2348.9	2382.1
27.5°	211.1	215.9	230.6	266.7	410.4	677.1	1009.3	1644.4	2339.1	2535.5	2532.6
30°	190.5	191.5	200.3	225.7	333.2	613.6	961.5	1732.4	2496.5	2669.4	2660.6
32.5°	172.0	172.0	183.7	203.2	284.3	556.0	903.8	1795.9	2633.3	2778.8	2750.5
35°	155.4	158.3	169.0	188.6	252.1	491.5	850.1	1819.3	2750.5	2910.7	2830.6
37.5°	143.6	147.5	158.3	176.9	224.7	443.6	806.1	1846.7	2895.1	3070.0	2920.5
40°	135.8	138.7	148.5	164.2	203.2	403.5	758.2	1865.3	3038.7	3240.0	3015.3
42.5°	128.0	130.9	140.7	155.4	193.5	356.6	712.3	1876.0	3188.2	3387.6	3094.4
45°	121.2	125.1	134.8	148.5	194.4	314.6	674.2	1872.1	3278.1	3494.1	3156.0
47.5°	116.3	120.2	130.9	148.5	188.6	290.2	641.9	1858.4	3344.6	3563.4	3184.3
50°	111.4	115.3	128.0	164.2	178.8	283.4	617.5	1856.5	3413.9	3577.1	3184.3
52.5°	106.5	113.3	129.0	165.1	164.2	280.4	598.0	1908.3	3509.7	3600.6	3212.7
55°	103.6	109.4	132.9	152.4	143.6	270.7	586.3	1979.6	3670.9	3729.5	3355.3
57.5°	99.7	104.5	130.9	142.7	128.0	248.2	576.5	2048.0	3882.9	3968.9	3639.7
60°	94.8	100.6	127.0	122.1	116.3	211.1	570.6	2104.6	3962.1	4123.3	3945.5
62.5°	89.9	96.7	138.7	106.5	107.5	175.9	559.9	2159.4	3795.0	4086.2	4141.9
64°	87.0	93.8	129.0	99.7	102.6	160.2	549.1	2162.3	3647.5	3998.2	4179.0
65°	85.0	90.9	120.2	95.8	98.7	156.3	539.4	2121.3	3508.7	3904.4	4168.3
67.5°	82.1	86.0	92.8	88.9	91.8	149.5	472.9	1940.5	3213.6	3663.1	4001.2
70°	78.2	81.1	82.1	81.1	86.0	144.6	399.6	1683.5	2891.2	3410.0	3741.3
72.5°	74.3	74.3	74.3	73.3	79.1	137.8	359.6	1360.1	2498.4	3077.8	3417.9
75°	71.3	68.4	67.4	65.5	72.3	133.9	324.4	1021.1	1930.7	2563.9	2863.8
77.5°	65.5	62.5	59.6	57.6	64.5	119.2	270.7	721.1	1423.6	1865.3	2210.2
80°	56.7	54.7	50.8	47.9	53.7	93.8	205.2	445.6	1041.6	1259.5	1450.0
82.5°	45.9	44.9	41.0	37.1	39.1	67.4	139.7	226.7	694.7	684.0	810.0
85°	28.3	35.2	30.3	24.4	26.4	39.1	56.7	72.3	213.0	128.0	198.3
87.5°	16.6	22.5	18.6	12.7	9.8	17.6	15.6	14.7	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°	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2	2079.2
2.5°	2245.3	2258.0	2264.9	2239.5	2212.1	2187.7	2140.8	2093.9	2069.5	2074.4
5°	2337.2	2358.7	2364.6	2327.4	2250.2	2171.1	2056.8	1958.1	1898.5	1894.6
7.5°	2302.0	2372.4	2384.1	2344.0	2233.6	2086.1	1930.7	1793.0	1733.4	1719.7
10°	2177.0	2284.4	2319.6	2305.9	2198.4	2029.4	1840.8	1665.9	1606.3	1578.0
12.5°	2049.0	2161.3	2182.8	2196.5	2131.0	1988.4	1781.2	1601.4	1530.1	1506.7
15°	1964.9	2042.1	2048.0	2060.7	2047.0	1968.8	1808.6	1627.8	1541.8	1509.6
17.5°	1953.2	1925.8	1907.3	1933.7	1950.3	1969.8	1879.9	1726.5	1634.7	1593.6
20°	1955.2	1870.1	1817.4	1815.4	1886.8	1995.2	2024.5	1892.6	1773.4	1735.3
22.5°	2026.5	1840.8	1752.9	1742.1	1829.1	2038.2	2172.1	2090.0	1970.8	1920.0
25°	2133.0	1823.2	1707.0	1709.9	1796.9	2066.5	2298.1	2287.4	2182.8	2117.3
27.5°	2235.6	1852.6	1701.1	1708.9	1807.6	2085.1	2402.7	2473.0	2355.8	2299.1
30°	2317.7	1918.0	1718.7	1725.5	1840.8	2110.5	2454.4	2638.1	2496.5	2429.0
32.5°	2389.0	1979.6	1745.1	1750.0	1893.6	2146.7	2503.3	2776.9	2633.3	2553.1
35°	2453.5	2032.3	1785.1	1801.7	1961.0	2198.4	2553.1	2927.4	2800.3	2699.7
37.5°	2510.1	2096.8	1864.3	1891.6	2059.7	2273.7	2617.6	3125.7	2987.0	2872.6
40°	2542.4	2154.5	1981.5	2022.6	2187.7	2371.4	2699.7	3254.7	3165.8	3036.8
42.5°	2566.8	2233.6	2170.1	2244.4	2386.0	2463.2	2738.8	3312.3	3271.3	3160.9
45°	2579.5	2390.0	2453.5	2522.8	2609.8	2563.9	2717.3	3331.9	3319.2	3224.4
47.5°	2637.2	2625.4	2781.8	2877.5	2872.6	2715.3	2676.2	3329.9	3350.4	3272.3
50°	2754.4	2900.0	3118.9	3212.7	3176.5	2857.0	2668.4	3327.0	3413.0	3349.5
52.5°	2894.1	3174.6	3483.3	3522.4	3446.2	3000.6	2727.1	3377.8	3530.2	3488.2
55°	3077.8	3432.5	3769.6	3782.3	3674.8	3140.4	2852.1	3527.3	3749.1	3747.1
57.5°	3333.8	3664.1	4010.0	3994.3	3842.9	3333.8	3053.4	3751.0	3992.4	4026.6
60°	3612.3	3908.3	4204.4	4195.6	4034.4	3556.6	3329.9	4082.3	4205.4	4214.2
62.5°	3879.0	4135.0	4392.0	4350.0	4168.3	3787.2	3712.9	4434.0	4344.1	4278.7
64°	4053.0	4211.2	4439.9	4373.4	4200.5	3897.6	3933.8	4548.3	4383.2	4274.8
65°	4168.3	4229.8	4429.1	4349.0	4189.8	3938.6	4100.8	4596.2	4390.1	4252.3
67.5°	4375.4	4123.3	4138.0	4074.5	3931.8	3900.5	4374.4	4569.8	4314.8	4108.7
70°	4317.7	3694.4	3493.1	3453.0	3282.0	3457.9	4340.2	4321.7	4032.4	3781.3
72.5°	3825.3	2966.4	2677.2	2641.1	2403.6	2620.5	3745.2	3680.7	3244.9	3036.8
75°	3152.1	2248.3	1912.2	1942.4	1761.7	1962.0	2979.1	2521.9	2160.3	2036.2
77.5°	2446.6	1588.7	1321.0	1284.9	1248.7	1270.2	2048.0	1514.5	1262.4	1148.1
80°	1559.4	998.6	990.8	905.8	876.4	738.7	1052.3	806.1	634.1	599.9
82.5°	828.6	575.5	653.7	523.7	421.1	302.9	356.6	239.4	202.3	212.0
85°	226.7	119.2	33.2	0.0	0.0	0.0	0.0	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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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