

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: McGRAW-EDISON

Report Number: P591193

Luminaire Tested: **CTN-CA10-210-727-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591193  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-210-727-U-T1-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25121 lumens  
Efficiency: N/A  
Efficacy: 118.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B5 - U0 - G5

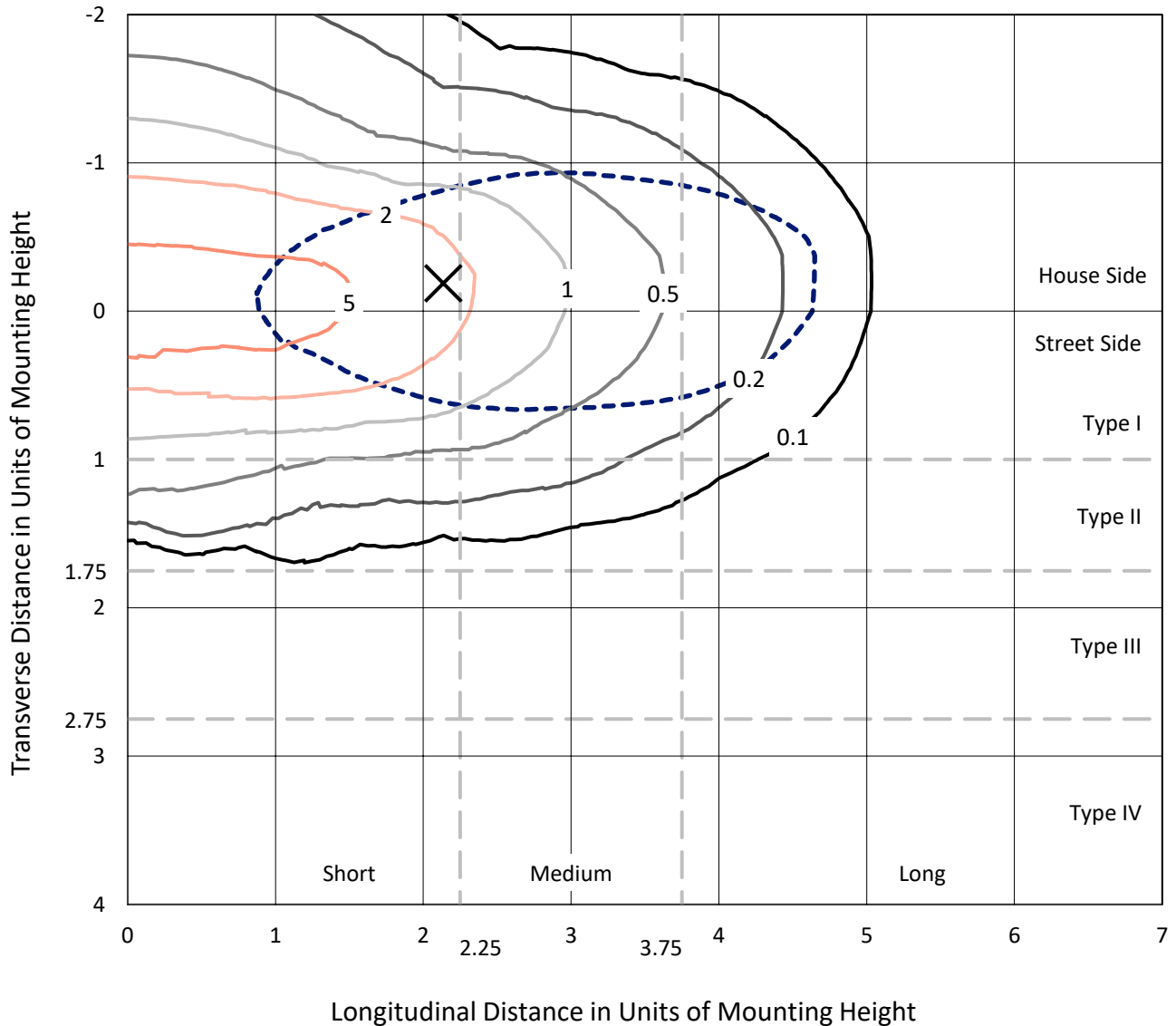
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

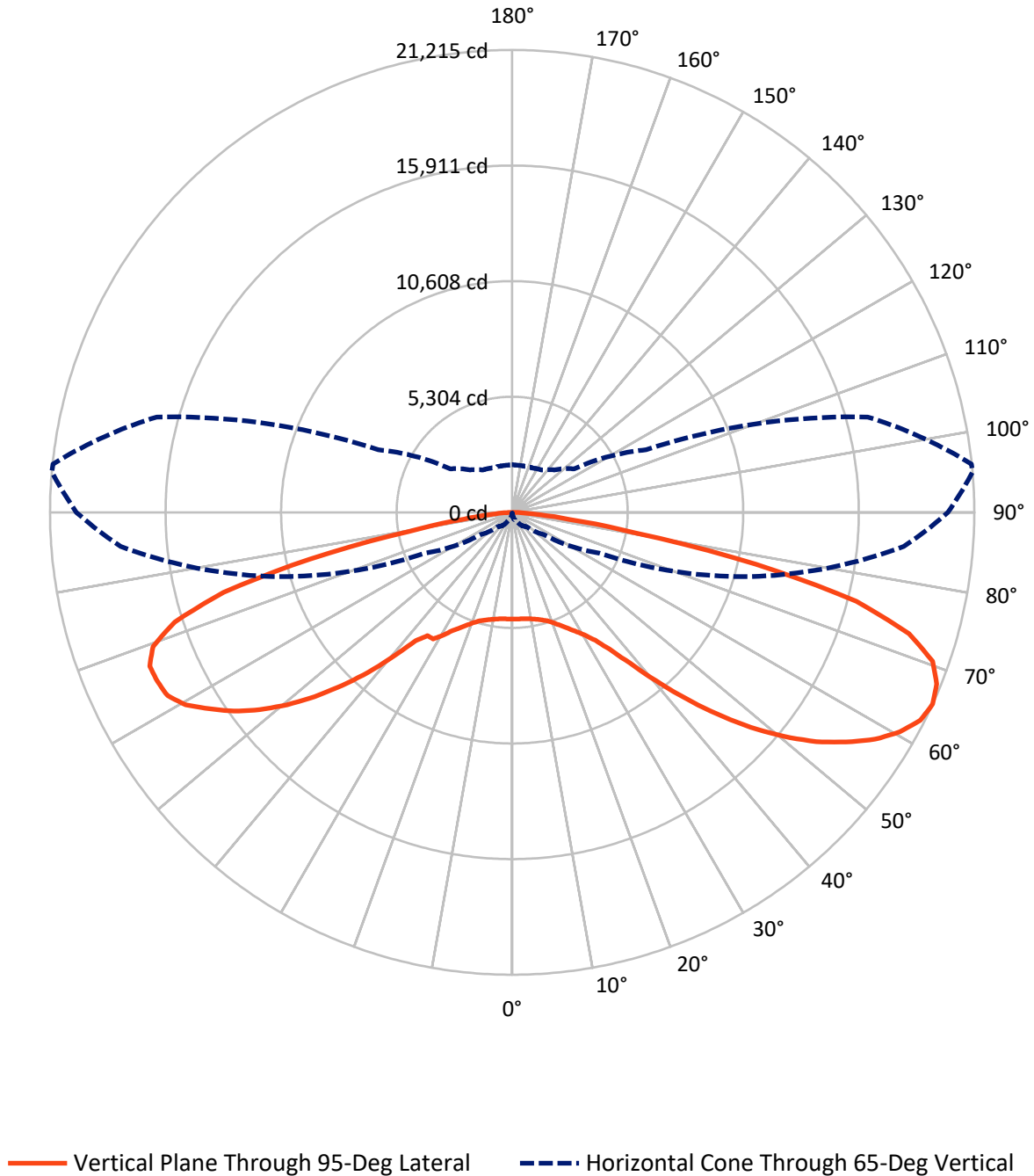
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



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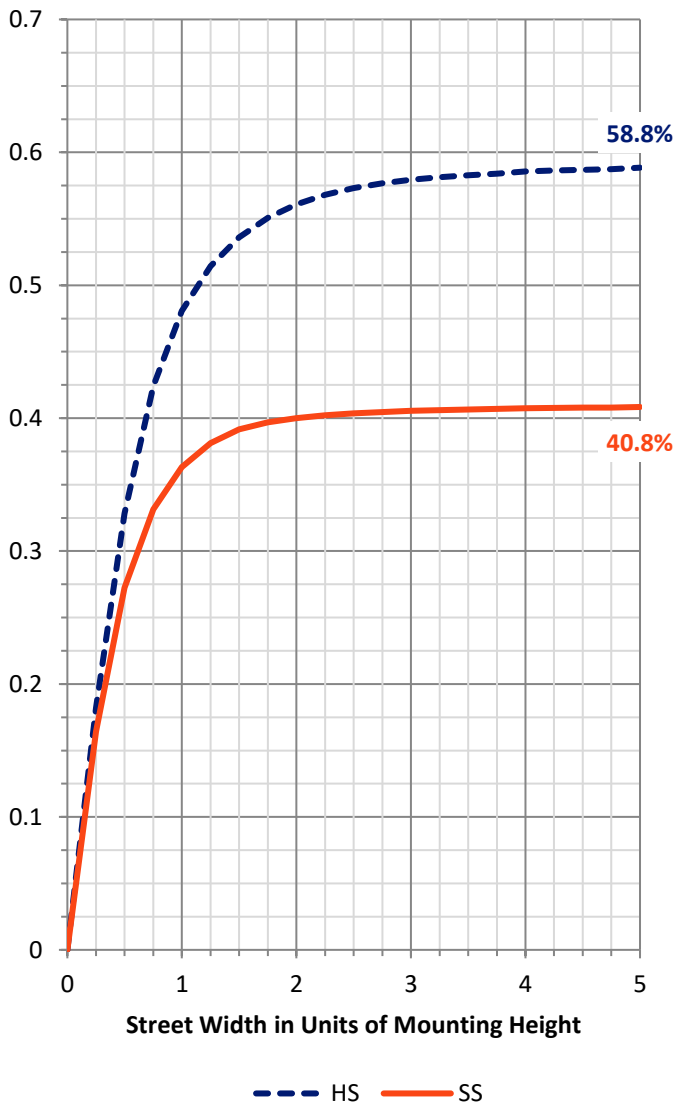
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14895.3	0.0	14895.3
	% Fixture	59.3	0.0	59.3
<b>Street Side</b>	Lumens	10225.7	0.0	10225.7
	% Fixture	40.7	0.0	40.7
<b>Total</b>	Lumens	25121.0	0.0	25121.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	466.1	1.9
10°-20°	1342.2	5.3
20°-30°	2017.3	8.0
30°-40°	2812.6	11.2
40°-50°	4038.1	16.1
50°-60°	5147.6	20.5
60°-70°	5359.7	21.3
70°-80°	3451.3	13.7
80°-90°	486.1	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°	25121.0	100.0
0°-180°	25121.0	100.0

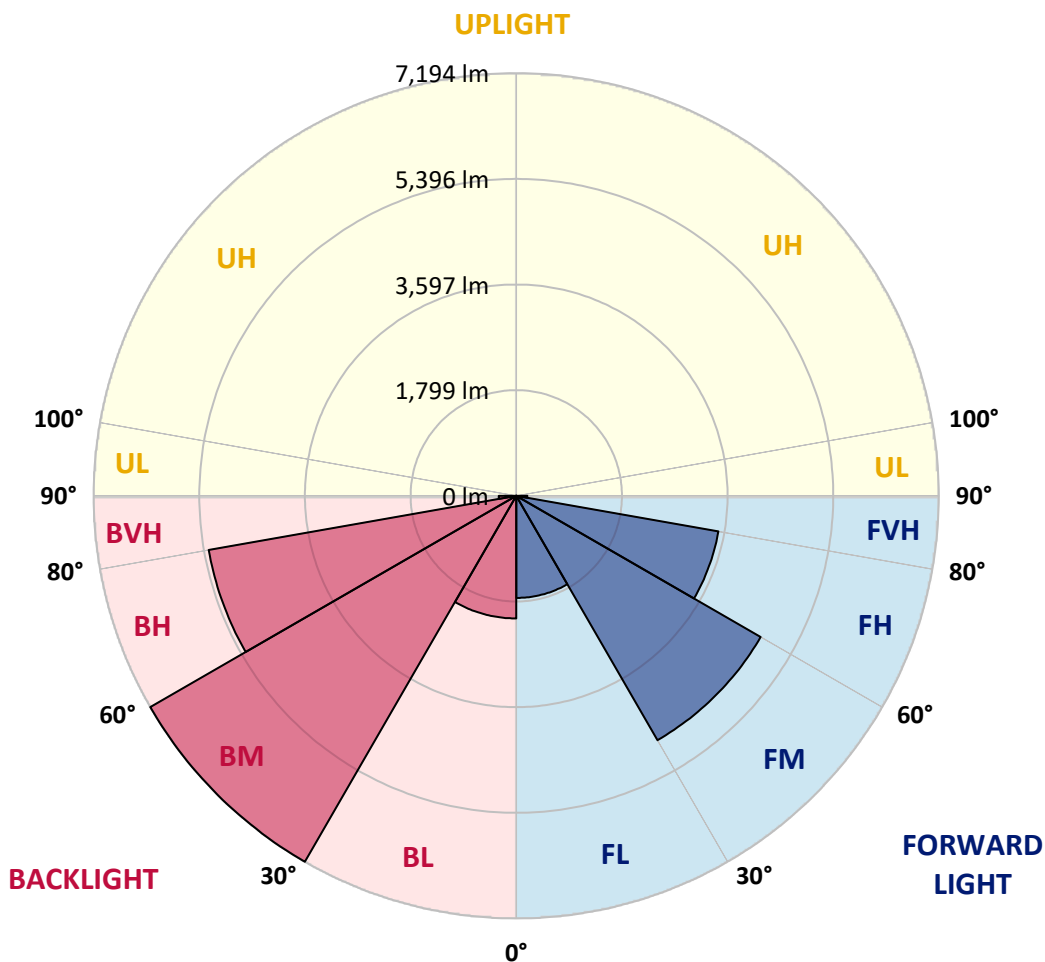


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1738.4	6.9			
FM (30°-60°)	4804.1	19.1			
FH (60°-80°)	3494.3	13.9			G2/5000
FVH (80°-90°)	189.0	0.8			G2/225
BL (0°-30°)	2087.2	8.3	B3/2500		
BM (30°-60°)	7194.2	28.6	B4/8500		
BH (60°-80°)	5316.8	21.2	B5		G5
BVH (80°-90°)	297.0	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**  
 Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0
2.5°	4910.6	4870.4	4878.6	4917.9	4845.7	4885.0	4855.8	4903.3	4891.4	4895.1	4917.9
5°	4869.5	4828.4	4843.9	4892.3	4824.7	4872.2	4850.3	4889.6	4885.9	4899.6	4914.3
7.5°	4832.0	4788.2	4808.3	4843.9	4807.4	4848.5	4836.6	4885.9	4884.1	4924.3	4934.3
10°	4790.0	4749.8	4767.2	4811.0	4780.9	4830.2	4840.3	4898.7	4917.9	4972.7	4977.3
12.5°	4716.0	4676.8	4685.0	4740.7	4745.3	4820.2	4854.9	4947.1	4967.2	5030.3	5033.0
15°	4451.1	4442.0	4519.6	4609.2	4645.7	4757.1	4873.1	4999.2	5029.3	5108.8	5117.0
17.5°	3705.8	3614.4	3477.4	3586.1	3825.4	4133.3	4829.3	5076.8	5132.6	5212.0	5236.7
20°	2485.4	2568.6	2878.2	3017.1	3229.9	3748.7	4818.3	5160.9	5281.4	5377.4	5423.9
22.5°	2053.4	2048.8	2419.7	2887.4	3054.5	3292.9	4429.2	5260.4	5460.5	5585.6	5644.1
25°	1907.2	1909.1	1976.7	2567.7	2981.4	3233.5	4068.4	5129.8	5656.9	5835.9	5905.3
27.5°	1791.2	1798.5	1856.1	2056.1	2919.3	3220.8	4078.5	4756.2	5864.2	6103.5	6183.9
30°	1699.0	1695.3	1764.7	1931.9	2429.7	3225.3	4126.0	4831.1	5671.5	6483.5	6528.3
32.5°	1622.3	1612.2	1682.5	1850.6	2121.9	3189.7	4197.2	5041.2	5535.4	6848.9	7023.4
35°	1548.3	1544.6	1606.7	1772.1	2048.8	2648.9	4280.3	5301.5	5977.5	6860.8	7703.0
37.5°	1490.7	1488.0	1537.3	1693.5	1983.1	2413.3	4348.8	5629.5	6552.9	7367.7	8265.6
40°	1444.1	1436.8	1476.1	1624.1	1908.2	2374.0	3788.0	5972.0	7255.4	8550.6	9628.5
42.5°	1404.9	1394.8	1433.2	1555.6	1836.0	2330.2	3517.6	6317.3	8081.1	9867.8	10953.8
45°	1351.0	1350.0	1389.3	1503.5	1759.3	2266.2	3543.2	5740.9	9009.2	11128.3	12345.9
47.5°	1323.6	1317.2	1346.4	1455.1	1687.1	2169.4	3518.5	5494.3	9719.8	12393.4	13702.4
50°	1280.6	1275.1	1303.5	1399.4	1615.9	2047.0	3429.0	5645.9	9134.3	13591.8	14977.5
52.5°	1203.9	991.1	1261.4	1352.8	1539.1	1914.5	3259.1	5729.9	9361.7	14702.6	16165.0
55°	473.2	634.8	1207.6	1294.3	1460.6	1790.3	3001.5	5706.2	10114.4	15697.3	17188.0
57.5°	412.0	413.8	802.0	1080.6	1367.4	1660.6	2687.3	5571.0	10778.5	16548.6	18184.6
60°	58.5	59.4	406.5	454.9	897.0	1180.2	2367.6	5328.9	11172.2	17399.9	19044.1
62.5°	39.3	41.1	369.9	412.9	818.4	1046.8	2070.7	4898.7	11362.1	17916.9	19663.4
65°	28.3	29.2	335.2	373.6	728.9	929.0	1794.9	4431.0	11379.5	18036.6	20003.2
67.5°	26.5	27.4	308.7	344.4	663.1	824.8	1556.5	4019.1	10900.0	18072.2	19989.5
70°	27.4	27.4	281.3	311.5	588.2	715.2	1291.6	3609.0	9690.6	17606.4	19540.1
72.5°	27.4	28.3	245.7	274.0	507.0	605.6	1058.7	2933.9	7848.2	16287.4	18454.9
75°	27.4	28.3	193.6	226.5	421.1	485.9	868.7	2365.8	6044.2	13745.3	16146.7
77.5°	28.3	28.3	142.5	173.6	325.2	365.4	659.5	1817.7	4453.9	9528.0	11241.6
80°	28.3	30.1	100.5	127.9	240.2	264.0	478.6	1160.1	2398.7	4832.0	5581.1
82.5°	29.2	30.1	74.9	95.9	166.2	190.0	292.3	570.9	1108.9	2236.1	2532.9
85°	27.4	28.3	61.2	66.7	95.0	114.2	181.8	283.2	390.0	879.6	914.3
87.5°	19.2	18.3	19.2	21.9	31.1	50.2	85.9	95.9	94.1	236.6	274.9
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):**

	95°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0	4896.0
2.5°	4904.2	4906.0	4898.7	4927.0	4898.7	4914.3	4873.1	4937.1	4930.7	4913.3	4935.3
5°	4903.3	4907.9	4906.0	4931.6	4896.0	4908.8	4867.7	4935.3	4912.4	4896.9	4923.4
7.5°	4925.2	4931.6	4928.9	4946.2	4905.1	4904.2	4864.0	4914.3	4892.3	4859.4	4892.3
10°	4973.6	4973.6	4965.4	4975.5	4916.1	4909.7	4842.1	4899.6	4862.2	4833.0	4873.1
12.5°	5035.7	5041.2	5020.2	5018.4	4936.2	4917.0	4832.0	4860.4	4806.5	4779.1	4818.3
15°	5127.1	5130.7	5103.3	5086.0	4985.5	4943.5	4806.5	4801.0	4726.1	4699.6	4727.9
17.5°	5233.0	5232.1	5193.8	5186.5	5068.6	4970.9	4785.5	4728.8	4632.9	4602.8	4627.4
20°	5402.9	5392.9	5350.9	5308.9	5137.1	4988.2	4755.3	4636.6	4503.2	4460.3	4480.4
22.5°	5631.3	5627.6	5561.9	5440.4	5210.2	5004.7	4704.2	4524.2	4347.0	4269.4	4282.2
25°	5881.6	5878.8	5784.7	5603.0	5274.1	5016.6	4644.8	4398.2	4158.8	4041.0	4038.3
27.5°	6172.0	6164.7	6037.8	5778.4	5362.7	5020.2	4580.8	4264.8	3972.5	3825.4	3831.8
30°	6525.5	6512.8	6339.2	5972.9	5475.1	5031.2	4526.0	4115.0	3799.0	3642.8	3639.1
32.5°	6994.1	6975.9	6706.4	6228.7	5620.3	5058.6	4460.3	3967.0	3637.3	3480.2	3466.5
35°	7707.5	7670.1	7224.3	6555.7	5782.0	5076.8	4355.2	3826.4	3481.1	3333.1	3322.1
37.5°	8763.4	8700.4	7876.5	6899.1	5942.8	5073.2	4235.6	3674.7	3354.1	3210.7	3208.0
40°	10155.5	10056.9	8659.3	7267.2	6097.1	5053.1	4106.8	3539.5	3248.2	3124.8	3134.0
42.5°	11678.2	11574.1	9587.4	7641.8	6213.1	4991.0	3968.9	3411.7	3150.4	3051.8	3052.7
45°	13212.8	13115.9	10655.2	7994.3	6270.7	4874.1	3825.4	3290.2	3047.2	2961.3	2971.4
47.5°	14740.9	14669.7	11712.9	8292.1	6242.4	4690.5	3652.8	3175.1	2944.9	2874.6	2897.4
50°	16162.2	16086.4	12840.1	8538.7	6099.9	4434.7	3475.6	3061.8	2861.8	2800.6	2819.8
52.5°	17479.4	17378.0	14047.6	8681.2	5843.2	4165.2	3319.4	2962.3	2781.4	2720.2	2740.3
55°	18598.3	18593.8	15152.9	8693.1	5442.2	3889.4	3168.7	2847.2	2702.8	2652.6	2657.2
57.5°	19646.0	19687.1	16103.8	8548.8	4967.2	3633.6	2996.0	2728.4	2612.4	2560.3	2564.9
60°	20446.2	20497.4	16748.6	8128.6	4461.2	3351.4	2810.6	2602.4	2500.1	2450.7	2465.3
62.5°	21020.8	20955.0	17090.3	7525.7	3954.2	3048.1	2609.7	2441.6	2360.3	2330.2	2331.1
65°	21215.3	21194.3	16890.2	6783.1	3475.6	2749.4	2372.2	2241.6	2191.3	2170.3	2185.8
67.5°	21016.2	21029.0	16111.1	6151.9	3020.7	2412.4	2105.5	2021.4	1995.8	1994.9	2011.4
70°	20470.9	20370.4	14495.2	5647.7	2594.1	2037.9	1818.6	1778.4	1770.2	1790.3	1804.0
72.5°	19045.9	18899.8	12020.7	4844.8	1991.3	1498.9	1377.5	1432.3	1430.4	1441.4	1454.2
75°	16316.6	15932.0	9415.6	3857.4	1475.2	1060.5	918.9	917.1	914.3	1007.5	1041.3
77.5°	11436.1	11179.5	6951.2	2937.6	981.0	634.8	630.3	679.6	687.8	626.6	638.5
80°	5737.3	5849.6	4011.8	1815.0	652.2	447.6	469.5	462.2	468.6	475.9	480.5
82.5°	2644.4	2701.0	1920.0	884.2	420.2	339.8	321.5	349.8	362.6	361.7	359.0
85°	938.1	943.6	607.4	379.1	257.6	221.0	224.7	261.2	275.9	263.1	256.7
87.5°	272.2	258.5	124.2	112.4	118.7	117.8	121.5	128.8	138.8	137.0	127.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)