

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: P579381

Luminaire Tested: **CTN-CA10-210-722-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579381  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: CTN-CA10-210-722-U-T5N-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24229 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U2 - G3

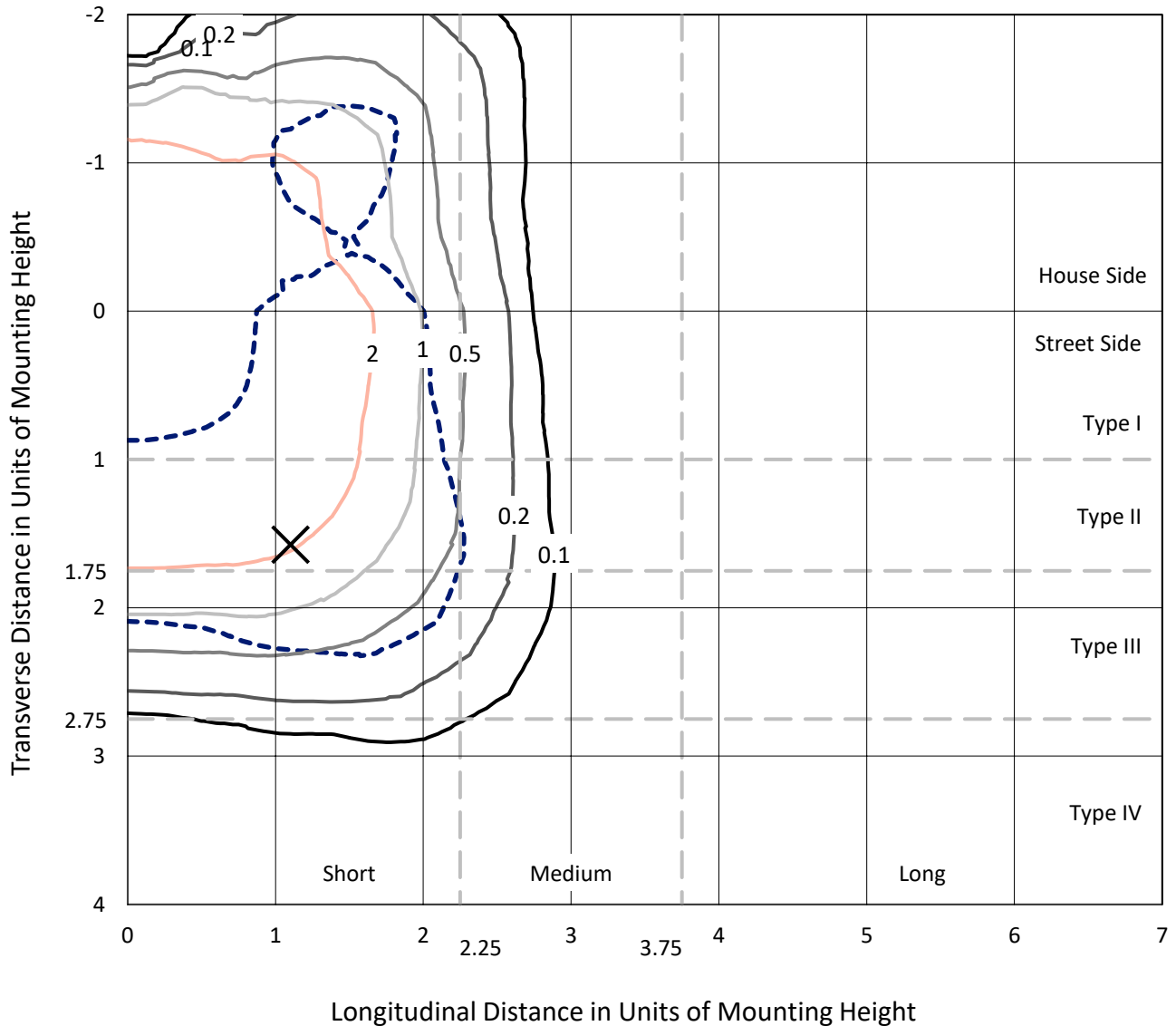
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

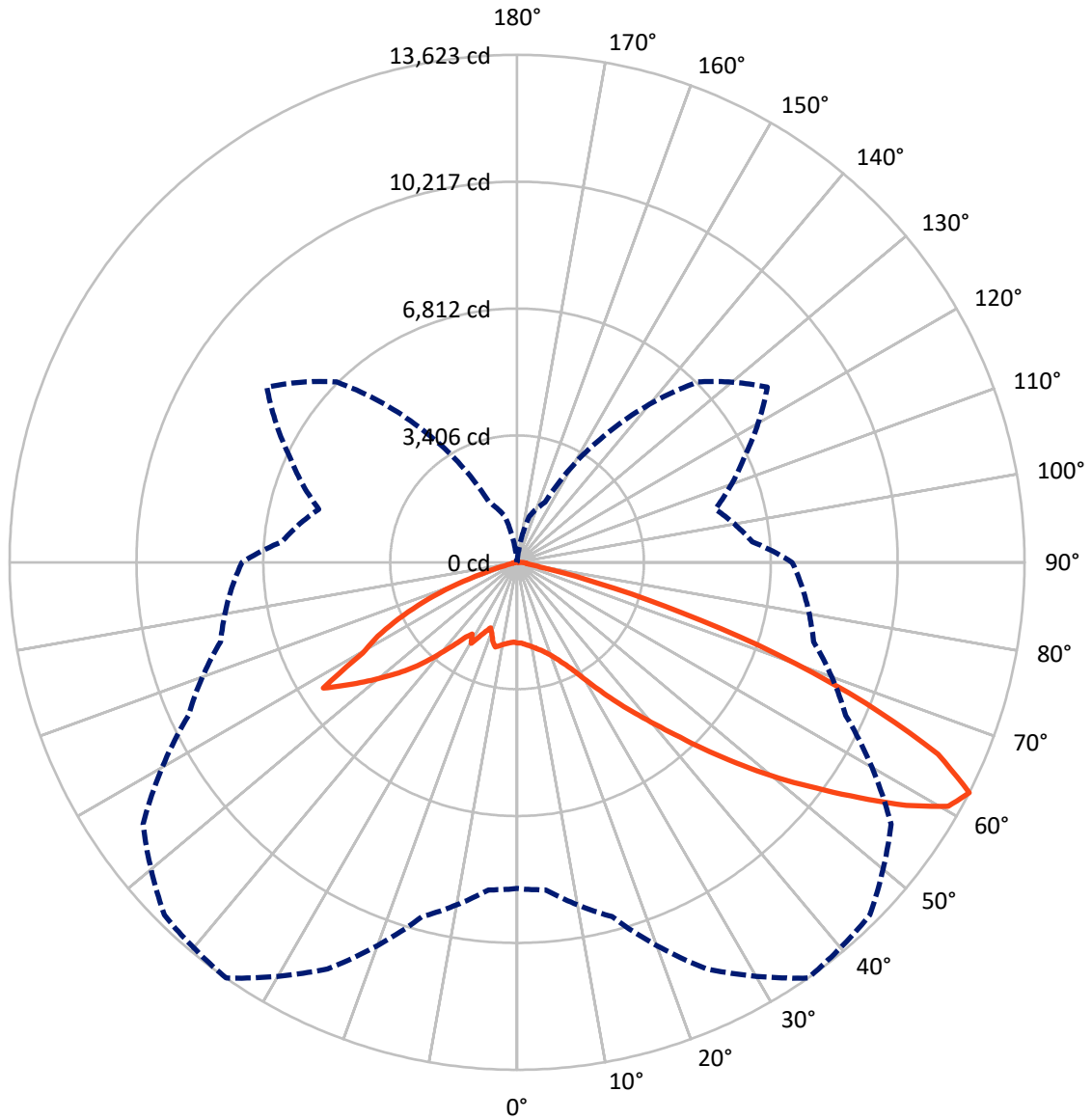
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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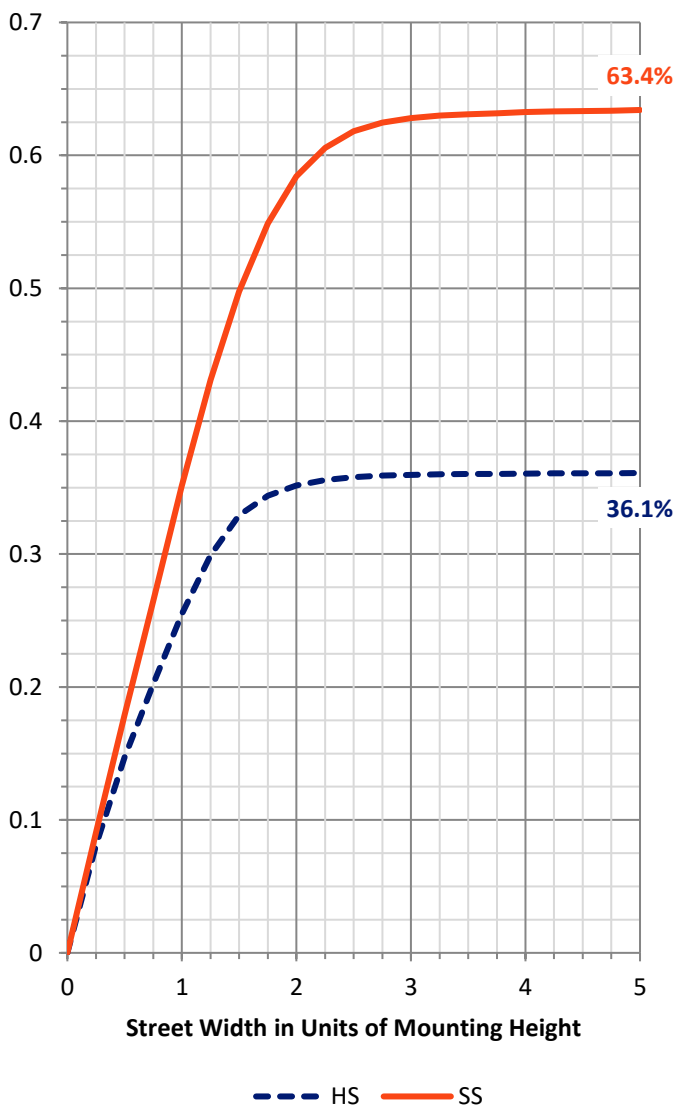
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8794.5	0.0	8794.6
	% Fixture	36.3	0.0	36.3
<b>Street Side</b>	Lumens	15423.0	11.5	15434.4
	% Fixture	63.7	0.0	63.7
<b>Total</b>	Lumens	24217.5	11.5	24229.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	213.1	0.9
10°-20°	688.8	2.8
20°-30°	1325.2	5.5
30°-40°	2643.7	10.9
40°-50°	4827.3	19.9
50°-60°	7213.6	29.8
60°-70°	6044.3	24.9
70°-80°	1131.1	4.7
80°-90°	130.2	0.5
90°-100°	10.4	0.0
100°-110°	1.1	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°	24217.5	100.0
0°-180°	24229.0	100.0

**Coefficient of Utilization**



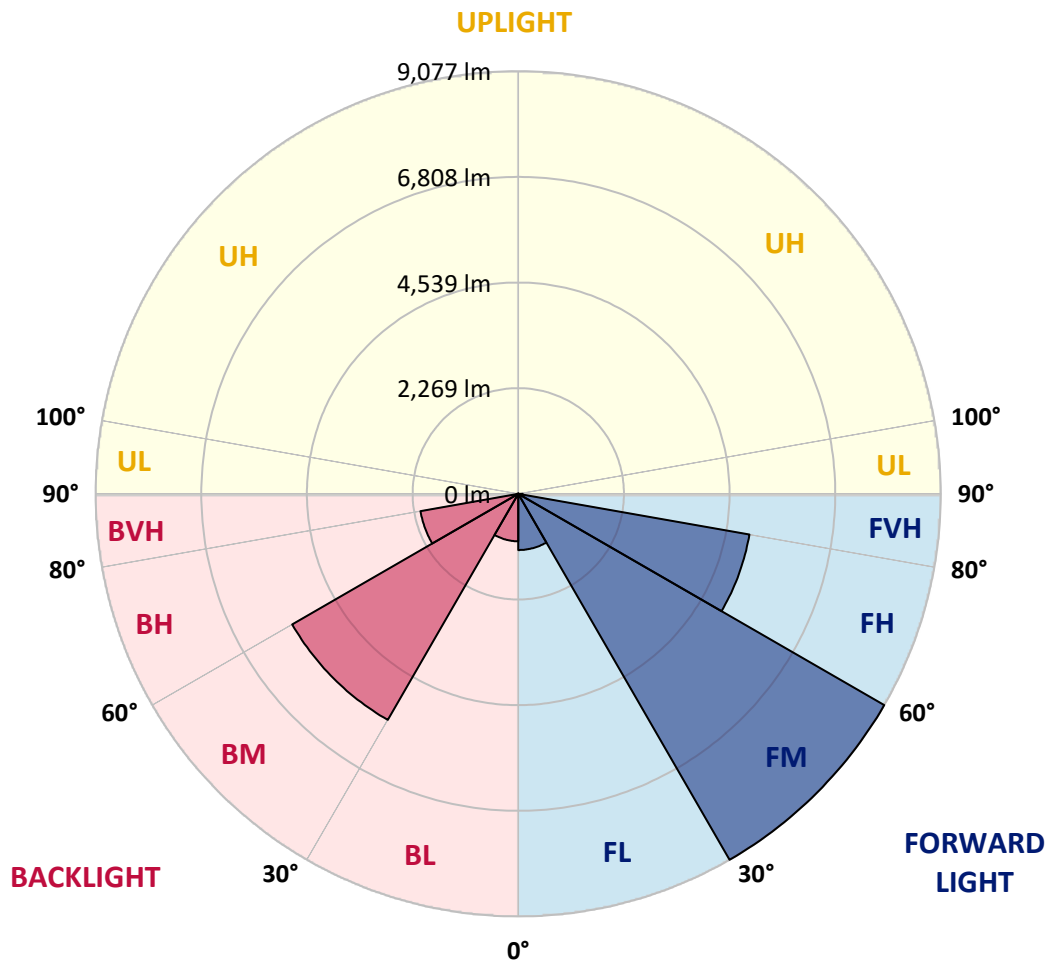
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1208.1	5.0			
FM (30°-60°)	9077.3	37.5			
FH (60°-80°)	5042.7	20.8			G3/7500
FVH (80°-90°)	94.8	0.4			G1/100
BL (0°-30°)	1019.1	4.2	B3/2500		
BM (30°-60°)	5607.3	23.1	B4/8500		
BH (60°-80°)	2132.7	8.8	B3/2500		G3/2500
BVH (80°-90°)	35.4	0.1			G1/100
UL (90°-100°)	10.4	0.0		U2/50	
UH (100°-180°)	1.1	0.0		U1/10	

**BUG Rating: B4-U2-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9
2.5°	2214.2	2196.1	2198.8	2211.5	2171.6	2187.9	2170.7	2187.0	2181.5	2188.8	2194.3
5°	2246.0	2223.3	2225.1	2239.7	2208.8	2222.4	2205.2	2216.1	2207.0	2217.0	2217.9
7.5°	2289.6	2270.6	2267.8	2282.4	2256.0	2267.8	2250.6	2256.0	2246.9	2258.7	2255.1
10°	2347.8	2330.5	2326.0	2335.9	2315.1	2321.4	2303.3	2310.5	2296.9	2310.5	2304.2
12.5°	2412.2	2389.5	2390.4	2401.3	2380.5	2385.0	2370.5	2378.6	2362.3	2376.8	2372.3
15°	2488.5	2455.8	2462.2	2474.0	2454.0	2467.6	2450.4	2462.2	2446.8	2462.2	2456.7
17.5°	2587.5	2550.3	2554.8	2573.9	2557.6	2579.4	2559.4	2573.9	2566.6	2576.6	2574.8
20°	2712.9	2688.3	2683.8	2707.4	2683.8	2711.0	2700.1	2725.6	2727.4	2737.4	2741.9
22.5°	2880.0	2863.6	2852.7	2869.1	2848.2	2867.3	2882.7	2926.3	2942.6	2969.0	2970.8
25°	3102.5	3101.6	3077.1	3078.0	3051.6	3077.1	3120.7	3188.8	3232.4	3266.0	3253.3
27.5°	3403.1	3408.6	3371.3	3356.8	3325.9	3364.1	3454.0	3538.4	3617.4	3664.7	3664.7
30°	3795.5	3800.9	3746.4	3717.4	3689.2	3755.5	3862.7	3972.6	4085.2	4153.3	4137.9
32.5°	4315.0	4297.7	4219.6	4166.9	4118.8	4195.1	4318.6	4443.0	4596.5	4694.6	4682.8
35°	4945.3	4882.6	4804.5	4706.4	4602.9	4662.8	4779.1	4935.3	5148.7	5295.8	5258.6
37.5°	5677.3	5615.5	5482.0	5313.1	5132.4	5139.6	5231.4	5502.0	5769.0	5888.9	5863.5
40°	6437.5	6389.3	6266.7	6049.7	5722.7	5647.3	5798.1	6124.1	6379.4	6530.1	6487.4
42.5°	7212.2	7163.1	7070.5	6852.5	6419.3	6237.7	6394.8	6749.9	7022.4	7170.4	7121.4
45°	7985.1	7928.8	7855.2	7662.7	7249.4	6983.3	7071.4	7397.5	7646.3	7814.3	7713.5
47.5°	8664.4	8627.2	8577.3	8499.1	8137.7	7843.4	7837.0	8052.3	8224.0	8334.8	8211.2
50°	9255.7	9229.4	9257.5	9241.2	9109.5	8841.5	8677.2	8662.6	8718.0	8798.9	8622.7
52.5°	9786.1	9739.8	9844.2	9974.1	10071.3	10016.8	9484.6	9185.8	9124.9	9152.2	8952.3
55°	10220.2	10198.4	10373.7	10699.8	11149.3	11269.2	10313.8	9694.4	9470.0	9455.5	9228.4
57.5°	10485.4	10516.3	10866.9	11488.1	12312.8	12350.9	11331.9	10238.4	9806.1	9649.9	9388.3
60°	10063.1	10182.1	10780.6	12062.1	13300.0	13323.6	12079.4	10338.3	9386.5	9036.8	8712.6
62.5°	8757.1	8827.9	9846.0	12043.0	13623.3	13392.6	12257.4	9735.2	8241.2	7683.6	7383.8
65°	6168.6	6301.2	7392.0	10835.1	12414.5	12443.6	11244.7	8417.4	6581.0	5964.3	5770.8
67.5°	3725.5	3852.7	5014.3	7821.6	10092.2	10418.2	9380.1	6373.0	4719.1	3939.9	3744.6
70°	1209.8	1347.8	2285.1	4610.1	7423.8	8205.8	7058.7	4147.9	2471.3	1731.1	1521.3
72.5°	459.6	501.3	743.8	2013.5	4623.8	5478.4	4365.8	2080.7	765.6	455.9	400.5
75°	298.8	305.2	347.8	705.7	2229.7	3016.2	2104.4	609.4	307.0	272.5	252.5
77.5°	257.0	261.6	279.7	351.5	710.2	1153.4	604.0	311.5	256.1	227.1	213.4
80°	242.5	244.3	256.1	297.9	332.4	385.1	290.6	260.7	223.4	213.4	203.4
82.5°	229.8	236.1	242.5	270.7	269.7	277.0	233.4	204.4	189.8	199.8	196.2
85°	214.3	218.0	222.5	241.6	219.8	186.2	179.8	140.8	137.1	146.2	137.1
87.5°	150.8	159.8	154.4	162.6	152.6	119.0	100.8	79.9	63.6	52.7	50.9
90°	61.8	62.7	59.0	54.5	48.1	40.0	31.8	20.0	9.1	4.5	1.8
92.5°	48.1	48.1	46.3	41.8	36.3	30.0	22.7	12.7	6.4	2.7	0.9
95°	30.0	30.9	29.1	26.3	22.7	18.2	13.6	7.3	4.5	1.8	0.9
97.5°	19.1	19.1	17.3	15.4	12.7	9.1	6.4	5.4	3.6	1.8	0.0
100°	10.9	10.9	10.0	8.2	6.4	4.5	4.5	3.6	2.7	0.9	0.0
102.5°	6.4	6.4	4.5	3.6	2.7	2.7	2.7	2.7	1.8	0.9	0.0
105°	2.7	2.7	1.8	1.8	0.9	0.9	1.8	1.8	1.8	0.9	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	1.8	0.9	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	0.9	0.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9	2167.9
2.5°	2190.6	2174.3	2177.0	2161.6	2158.8	2143.4	2174.3	2177.9	2168.8	2177.0
5°	2216.1	2196.1	2202.4	2185.2	2182.5	2161.6	2188.8	2187.0	2179.7	2187.9
7.5°	2254.2	2233.3	2237.0	2217.9	2214.2	2191.5	2217.0	2208.8	2201.5	2211.5
10°	2307.8	2284.2	2286.0	2261.5	2264.2	2234.2	2265.1	2250.6	2241.5	2255.1
12.5°	2372.3	2345.9	2346.8	2321.4	2320.5	2291.4	2318.7	2310.5	2296.9	2317.8
15°	2455.8	2425.9	2423.1	2389.5	2380.5	2347.8	2373.2	2357.7	2348.7	2378.6
17.5°	2573.0	2539.4	2529.4	2488.5	2318.7	2220.6	2356.8	2403.2	2346.8	2337.8
20°	2729.2	2701.1	2678.3	2616.6	2331.4	2025.3	1799.2	1801.0	2039.0	2148.9
22.5°	2940.8	2907.2	2864.5	2776.4	2138.9	1897.3	1898.2	1895.5	1626.6	1513.1
25°	3230.5	3189.7	3102.5	2604.8	2270.6	2047.1	2041.7	1775.6	1627.5	1635.7
27.5°	3622.0	3538.4	3028.0	2821.8	2504.9	2241.5	2110.7	1787.4	1805.5	1818.3
30°	4119.7	3783.7	3272.3	3149.7	2786.4	2499.4	1951.8	1996.3	2032.6	2040.8
32.5°	4630.1	3794.6	3662.9	3533.0	3133.4	2274.2	2199.7	2284.2	2322.3	2326.9
35°	4625.6	4259.6	4089.7	3943.5	3454.9	2433.1	2480.4	2610.2	2707.4	2702.9
37.5°	4895.3	4772.7	4570.2	4384.9	3109.8	2741.0	2825.5	2972.6	3090.7	3087.0
40°	5459.3	5317.6	5103.3	4714.6	3443.1	3093.4	3211.5	3369.5	3453.1	3457.6
42.5°	5992.5	5875.3	5656.4	4404.9	3859.9	3517.5	3624.7	3731.0	3782.7	3799.1
45°	6522.9	6439.3	5710.9	4868.1	4364.0	3944.4	4015.3	4035.2	4089.7	4083.4
47.5°	6953.3	6860.7	5491.1	5449.3	4975.2	4349.5	4344.0	4317.7	4337.7	4342.2
50°	7346.6	6230.4	5932.5	6071.5	5616.4	4762.7	4659.2	4605.6	4578.3	4566.5
52.5°	7657.2	6232.2	6344.8	6714.5	6340.3	5211.4	4988.9	4838.1	4235.9	4707.3
55°	7921.5	6489.2	6735.4	7402.0	6964.2	5680.9	5286.8	5017.9	2827.3	2266.9
57.5°	8073.2	6684.5	7122.3	8045.9	7509.2	6203.2	4867.2	4208.7	1598.5	1596.7
60°	7487.4	6333.9	7111.4	8383.8	7352.1	4811.8	1981.7	1658.4	302.4	310.6
62.5°	6338.5	5510.2	6744.5	8198.5	6847.1	4233.2	1777.4	1277.0	10.0	8.2
65°	4910.8	4395.8	5679.1	7211.3	6229.5	3532.1	1325.1	920.0	2.7	0.0
67.5°	3212.4	3097.9	4190.5	5979.7	5080.6	2736.5	889.1	440.5	1.8	0.0
70°	1369.6	1586.7	2654.7	4335.9	3889.0	1882.7	428.7	158.9	0.9	0.0
72.5°	383.3	507.7	1181.6	2540.3	2445.8	990.0	167.1	67.2	0.9	0.0
75°	227.1	195.3	338.8	1013.6	1190.7	347.8	77.2	51.8	0.9	0.0
77.5°	188.9	152.6	194.4	258.8	360.6	125.3	65.4	46.3	0.0	0.0
80°	177.1	135.3	168.0	180.7	178.0	104.4	64.5	46.3	0.0	0.0
82.5°	168.0	118.1	139.0	139.0	148.9	96.3	60.9	45.4	0.0	0.0
85°	126.2	82.6	92.6	119.9	107.2	68.1	44.5	36.3	0.0	0.0
87.5°	48.1	30.0	36.3	38.1	30.9	15.4	3.6	3.6	0.0	0.0
90°	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	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°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)