

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: P579402

Luminaire Tested: **CTN-CA6-230-722-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579402  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA6-230-722-U-T5-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (6) 2200K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22670 lumens  
Efficiency: N/A  
Efficacy: 99.5 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G4

Input Watts (W): 227.8  
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

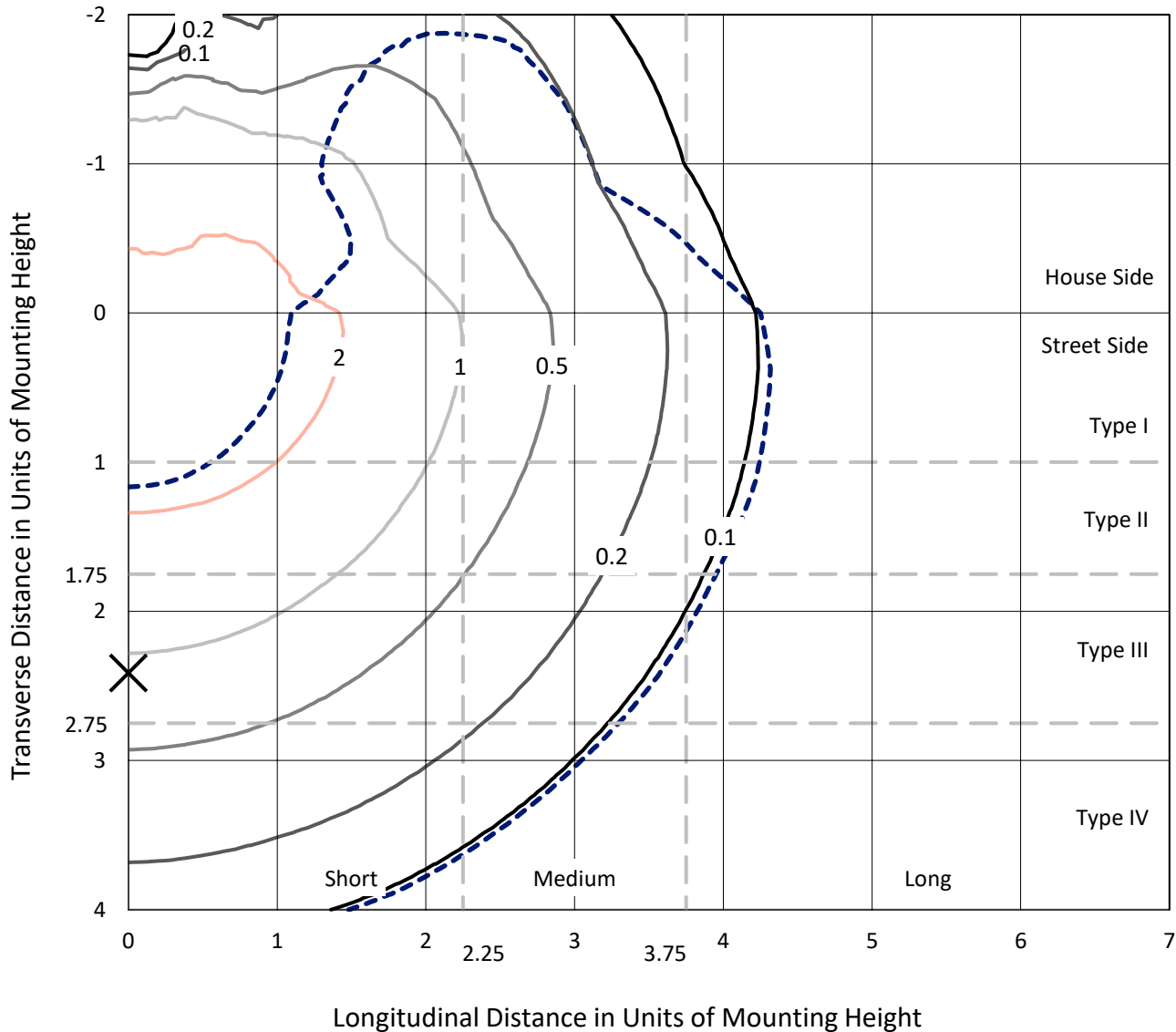




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### Iso-Footcandle Lines of Horizontal Illumination

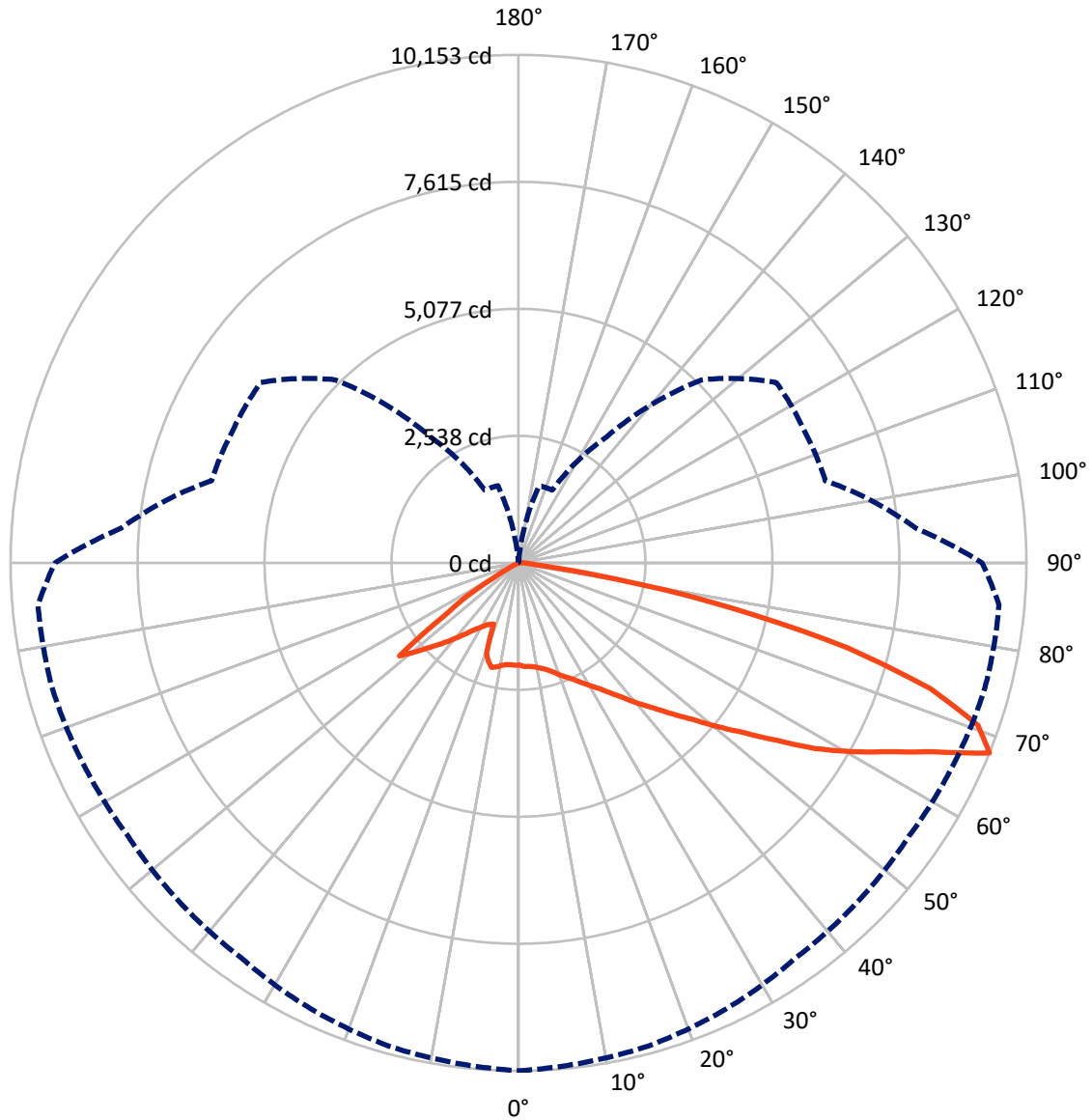
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc  
Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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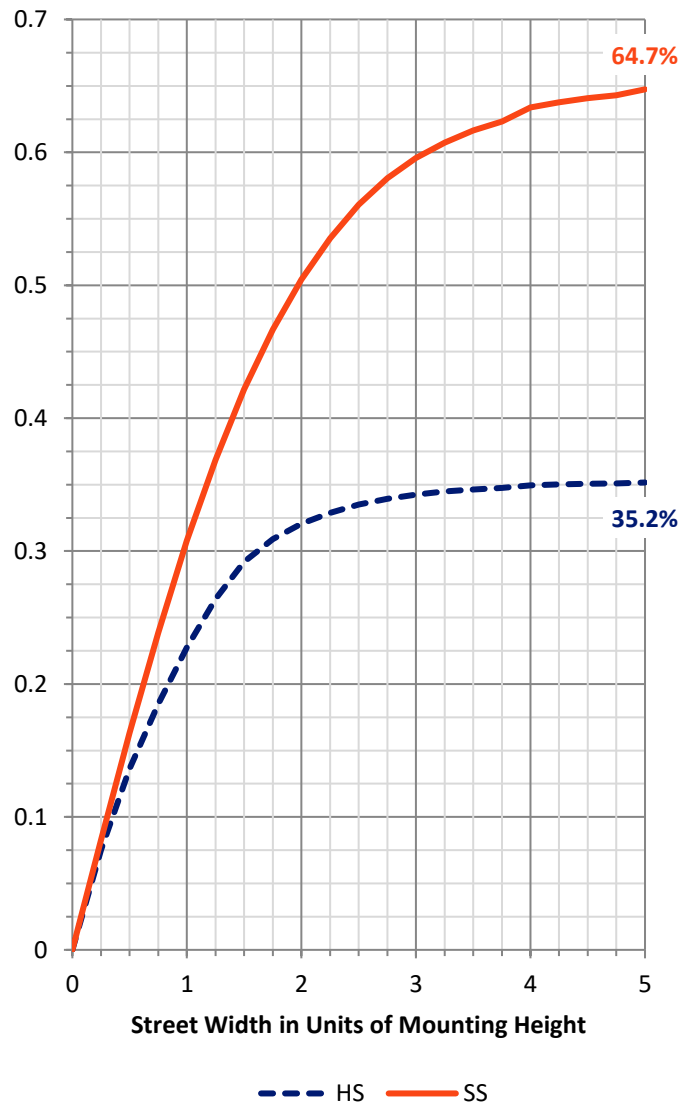
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7979.8	0.5	7980.3
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	14673.7	16.0	14689.7
	% Fixture	64.7	0.1	64.8
<b>Total</b>	Lumens	22653.5	16.5	22670.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.5	0.9
10°-20°	610.6	2.7
20°-30°	1058.6	4.7
30°-40°	1736.9	7.7
40°-50°	2897.2	12.8
50°-60°	4688.8	20.7
60°-70°	6472.0	28.5
70°-80°	4669.3	20.6
80°-90°	323.6	1.4
90°-100°	14.0	0.1
100°-110°	2.4	0.0
110°-120°	0.1	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°	22653.5	99.9
0°-180°	22670.0	100.0

**Coefficient of Utilization**

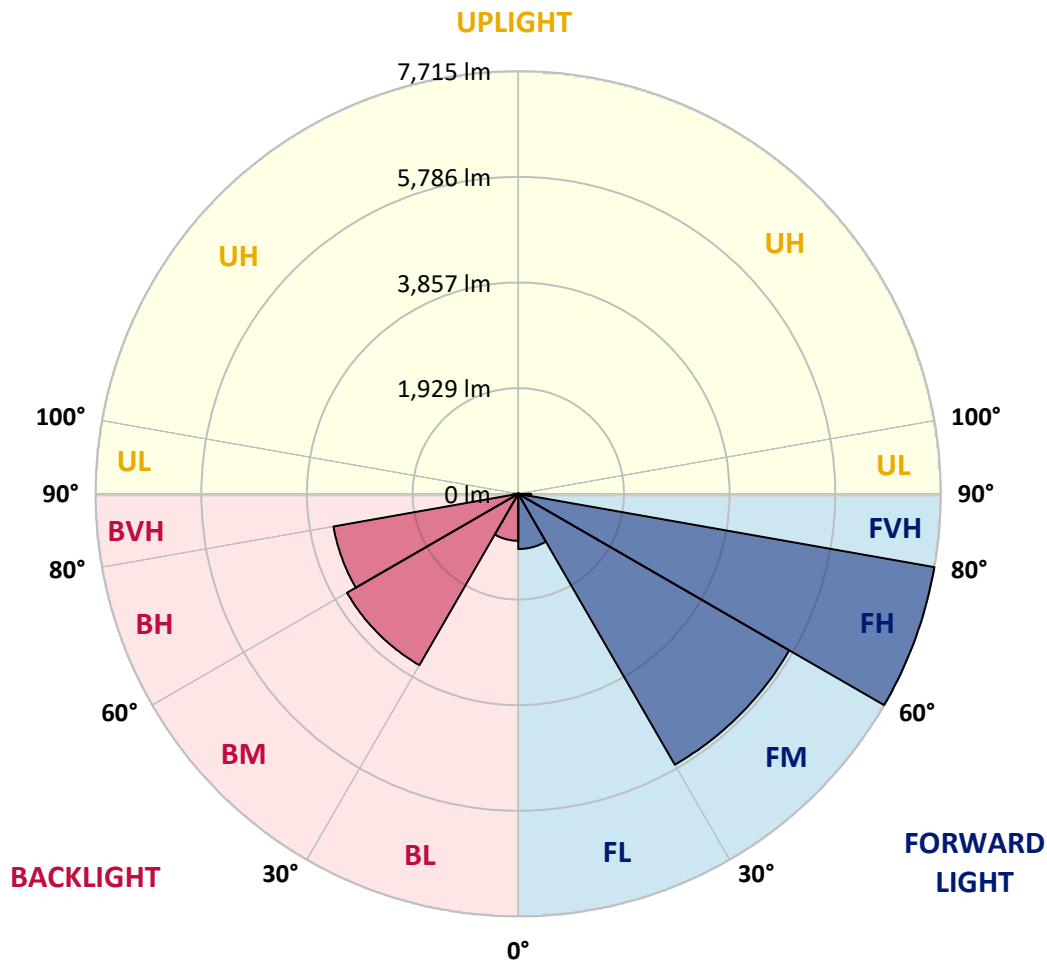


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1008.1	4.4			
FM	(30°-60°)	5712.3	25.2			
FH	(60°-80°)	7714.9	34.0			G4/12000
FVH	(80°-90°)	238.5	1.1			G3/500
BL	(0°-30°)	857.5	3.8	B2/1000		
BM	(30°-60°)	3610.7	15.9	B3/5000		
BH	(60°-80°)	3426.4	15.1	B4/5000		G4/5000
BVH	(80°-90°)	85.2	0.4			G1/100
UL	(90°-100°)	14.0	0.1		U2/50	
UH	(100°-180°)	2.4	0.0		U1/10	

**BUG Rating: B4-U2-G4**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0
2.5°	2074.2	2062.1	2062.9	2075.1	2042.1	2054.2	2040.4	2052.5	2046.4	2050.8	2056.0
5°	2080.3	2065.5	2067.3	2082.0	2056.0	2065.5	2049.0	2056.0	2050.8	2056.0	2056.8
7.5°	2095.9	2081.1	2082.0	2093.3	2066.4	2073.3	2057.7	2061.2	2052.5	2062.1	2059.5
10°	2128.9	2115.0	2109.8	2119.3	2095.9	2096.8	2078.5	2082.0	2069.0	2082.0	2076.8
12.5°	2173.1	2154.1	2155.8	2161.0	2132.4	2134.1	2112.4	2117.6	2095.9	2114.1	2108.1
15°	2227.0	2203.5	2206.1	2214.8	2187.0	2184.4	2164.5	2164.5	2145.4	2159.3	2153.2
17.5°	2301.6	2275.6	2273.8	2279.9	2257.3	2257.3	2234.8	2232.2	2213.1	2224.3	2222.6
20°	2398.8	2369.3	2364.1	2375.4	2346.7	2350.2	2321.5	2318.9	2298.1	2305.1	2305.9
22.5°	2486.4	2463.0	2462.1	2479.5	2445.7	2450.0	2424.0	2417.0	2399.7	2409.2	2411.8
25°	2587.1	2583.6	2581.0	2587.1	2553.3	2553.3	2535.0	2529.0	2517.7	2524.6	2531.6
27.5°	2713.8	2712.1	2705.1	2706.0	2677.4	2681.7	2661.8	2658.3	2653.1	2652.2	2648.7
30°	2853.6	2845.7	2836.2	2842.3	2829.3	2833.6	2816.2	2805.0	2803.2	2804.1	2798.9
32.5°	3008.9	2998.5	2992.4	3002.8	3008.0	3020.2	3019.3	2988.1	2988.1	3001.1	2977.7
35°	3201.6	3185.1	3190.3	3204.2	3214.6	3245.8	3240.6	3218.9	3225.9	3231.9	3204.2
37.5°	3428.1	3416.8	3440.2	3466.3	3467.1	3511.4	3501.0	3506.2	3505.3	3497.5	3479.3
40°	3699.7	3681.5	3705.8	3725.8	3713.6	3766.6	3764.8	3788.2	3803.9	3830.8	3820.4
42.5°	3969.6	3955.7	3979.2	4022.6	4015.6	4076.4	4085.1	4121.5	4143.2	4184.9	4160.6
45°	4302.0	4294.2	4315.9	4349.8	4373.2	4453.9	4486.0	4501.6	4556.3	4606.6	4550.2
47.5°	4674.3	4684.8	4681.3	4742.9	4795.0	4893.0	4906.1	4956.4	5004.1	5059.7	5005.0
50°	5137.8	5120.4	5136.0	5195.1	5280.1	5351.3	5418.1	5490.1	5537.0	5594.3	5493.6
52.5°	5636.8	5651.6	5686.3	5777.4	5839.9	5924.1	5984.8	6070.7	6116.7	6166.2	6035.2
55°	6266.0	6278.2	6316.4	6410.1	6454.3	6549.8	6591.5	6677.4	6721.6	6743.3	6575.8
57.5°	7003.7	6962.9	6994.2	7042.8	7111.3	7214.6	7225.9	7306.6	7306.6	7334.4	7120.9
60°	7662.4	7634.6	7667.6	7737.1	7764.0	7857.7	7848.1	7914.1	7931.5	7910.6	7655.5
62.5°	8311.6	8316.8	8359.3	8381.9	8371.5	8427.0	8449.6	8519.0	8490.4	8497.3	8203.1
65°	9099.6	9111.8	9107.4	9065.8	8972.0	9081.4	9075.3	9185.5	9192.5	9255.0	8913.0
67.5°	10153.2	10099.4	10001.3	9833.8	9648.1	9583.9	9527.5	9582.1	9652.4	9641.2	9266.2
70°	9743.6	9655.9	9604.7	9458.9	9210.7	9082.2	8965.1	8974.6	9077.0	9086.6	8703.0
72.5°	8613.6	8569.3	8372.3	8244.8	8074.7	7975.7	7834.3	7866.4	8000.0	8022.6	7717.1
75°	6794.5	6753.8	6575.8	6534.2	6450.0	6498.6	6463.9	6476.9	6584.5	6485.6	6302.5
77.5°	4397.5	4407.0	4379.3	4473.9	4470.4	4473.0	4599.7	4612.7	4717.7	4657.0	4479.9
80°	1971.8	2000.4	2068.1	2205.3	2121.9	2167.1	2215.7	2200.9	2306.8	2067.3	2153.2
82.5°	399.2	413.1	389.7	407.0	380.1	394.0	414.0	383.6	380.1	352.4	327.2
85°	205.7	208.3	207.4	203.1	178.8	164.9	158.8	133.7	120.6	118.0	109.4
87.5°	133.7	135.4	131.0	130.2	114.6	105.0	93.7	79.0	66.0	46.0	38.2
90°	81.6	81.6	77.2	72.9	65.1	58.1	46.9	33.8	20.0	7.8	4.3
92.5°	54.7	54.7	52.9	50.3	45.1	39.1	30.4	20.0	9.5	3.5	1.7
95°	34.7	34.7	33.8	33.0	29.5	25.2	19.1	12.2	6.1	2.6	0.9
97.5°	22.6	22.6	22.6	21.7	20.0	17.4	13.0	7.8	4.3	1.7	0.9
100°	13.9	14.8	13.9	13.9	13.0	11.3	8.7	5.2	3.5	1.7	0.9
102.5°	7.8	7.8	8.7	8.7	7.8	6.9	5.2	4.3	2.6	1.7	0.9
105°	3.5	3.5	4.3	4.3	4.3	3.5	3.5	2.6	1.7	1.7	0.9
107.5°	0.9	0.9	0.9	1.7	2.6	2.6	2.6	2.6	1.7	0.9	0.9
110°	0.0	0.0	0.0	0.9	0.9	1.7	1.7	1.7	1.7	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°	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0
2.5°	2050.8	2040.4	2048.2	2035.2	2031.7	2020.4	2042.1	2045.6	2043.8	2047.3
5°	2052.5	2039.5	2049.0	2036.0	2035.2	2023.0	2045.6	2046.4	2040.4	2043.0
7.5°	2057.7	2045.6	2052.5	2037.8	2039.5	2024.7	2050.8	2049.9	2046.4	2052.5
10°	2076.8	2062.9	2065.5	2049.9	2054.2	2038.6	2070.7	2072.5	2069.0	2080.3
12.5°	2109.8	2090.7	2096.8	2078.5	2082.0	2066.4	2105.5	2108.1	2108.1	2126.3
15°	2154.9	2135.0	2148.0	2124.5	2125.4	2102.0	2131.5	2131.5	2135.0	2160.1
17.5°	2220.9	2196.6	2213.9	2192.2	2056.8	2005.6	2106.3	2167.9	2065.5	2056.8
20°	2302.5	2291.2	2300.7	2265.1	2045.6	1811.2	1629.0	1619.4	1821.7	1922.3
22.5°	2402.3	2391.0	2395.3	2350.2	1826.0	1661.1	1658.5	1641.1	1388.6	1319.2
25°	2519.4	2513.3	2503.8	2125.4	1887.6	1729.7	1708.8	1482.3	1337.4	1350.4
27.5°	2645.3	2627.0	2305.1	2207.9	1982.2	1798.2	1680.2	1384.3	1379.0	1391.2
30°	2785.9	2689.5	2359.7	2326.8	2092.4	1883.3	1462.4	1445.0	1445.0	1464.1
32.5°	2964.6	2511.6	2511.6	2494.3	2228.7	1653.3	1539.6	1529.2	1541.3	1549.1
35°	2937.7	2701.7	2729.4	2721.6	2413.5	1683.7	1663.7	1646.3	1649.0	1649.0
37.5°	2946.4	2956.0	2988.9	2955.1	2105.5	1815.6	1783.5	1780.0	1782.6	1788.7
40°	3218.9	3224.1	3236.3	3161.6	2262.5	1969.2	1924.9	1916.3	1924.9	1938.0
42.5°	3512.3	3527.0	3540.9	2875.2	2482.1	2143.6	2099.4	2082.9	2098.5	2112.4
45°	3859.4	3882.0	3669.3	3129.5	2730.3	2342.4	2295.5	2275.6	2285.1	2297.2
47.5°	4250.0	4285.5	3460.2	3453.3	3021.9	2577.6	2523.8	2485.6	2500.3	2499.5
50°	4690.8	4095.5	3823.0	3818.6	3347.4	2839.7	2784.1	2749.4	2760.7	2752.0
52.5°	5167.3	4207.4	4216.1	4215.2	3687.6	3121.7	3070.5	3027.1	2937.7	3020.2
55°	5655.0	4594.5	4627.5	4622.3	4044.3	3413.3	3358.7	3317.9	2167.9	1831.2
57.5°	6140.2	4998.9	5009.3	5021.5	4414.0	3694.5	3454.1	3172.9	1236.7	1230.6
60°	6619.2	5384.3	5405.1	5412.0	4613.6	3058.4	1412.0	1438.1	374.1	447.0
62.5°	7115.7	5764.4	5783.5	5777.4	4812.3	2844.0	1483.2	1453.7	34.7	32.1
65°	7749.2	6240.8	6213.9	6194.0	5125.6	3034.9	1593.4	1585.6	11.3	7.8
67.5°	7971.4	6349.3	6294.7	6287.7	5170.8	3075.7	1602.1	1596.0	11.3	7.8
70°	7468.0	5937.1	5843.4	5846.0	4811.5	2877.0	1494.5	1485.8	10.4	7.8
72.5°	6540.3	5243.7	5204.6	4998.1	4166.6	2530.7	1325.2	1292.3	10.4	6.9
75°	5369.5	4236.1	4149.3	3917.6	3316.1	2011.7	1040.6	998.0	9.5	6.1
77.5°	3727.5	2970.7	2805.0	2568.9	2218.3	1333.9	699.5	644.8	8.7	6.1
80°	1689.7	1219.4	1225.4	939.0	752.4	452.2	222.2	201.3	7.8	5.2
82.5°	294.2	217.0	203.9	197.0	164.0	111.1	67.7	58.1	6.9	3.5
85°	102.4	82.4	91.1	107.6	95.5	66.8	41.7	39.9	4.3	1.7
87.5°	34.7	36.5	42.5	51.2	45.1	26.0	15.6	11.3	0.9	0.0
90°	3.5	4.3	4.3	4.3	2.6	0.0	0.0	0.0	0.0	0.0
92.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.9	0.9	0.9	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)