

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: P579408

Luminaire Tested: **CTN-CA8-230-722-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579408
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-CA8-230-722-U-T5-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2200K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23585 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G4

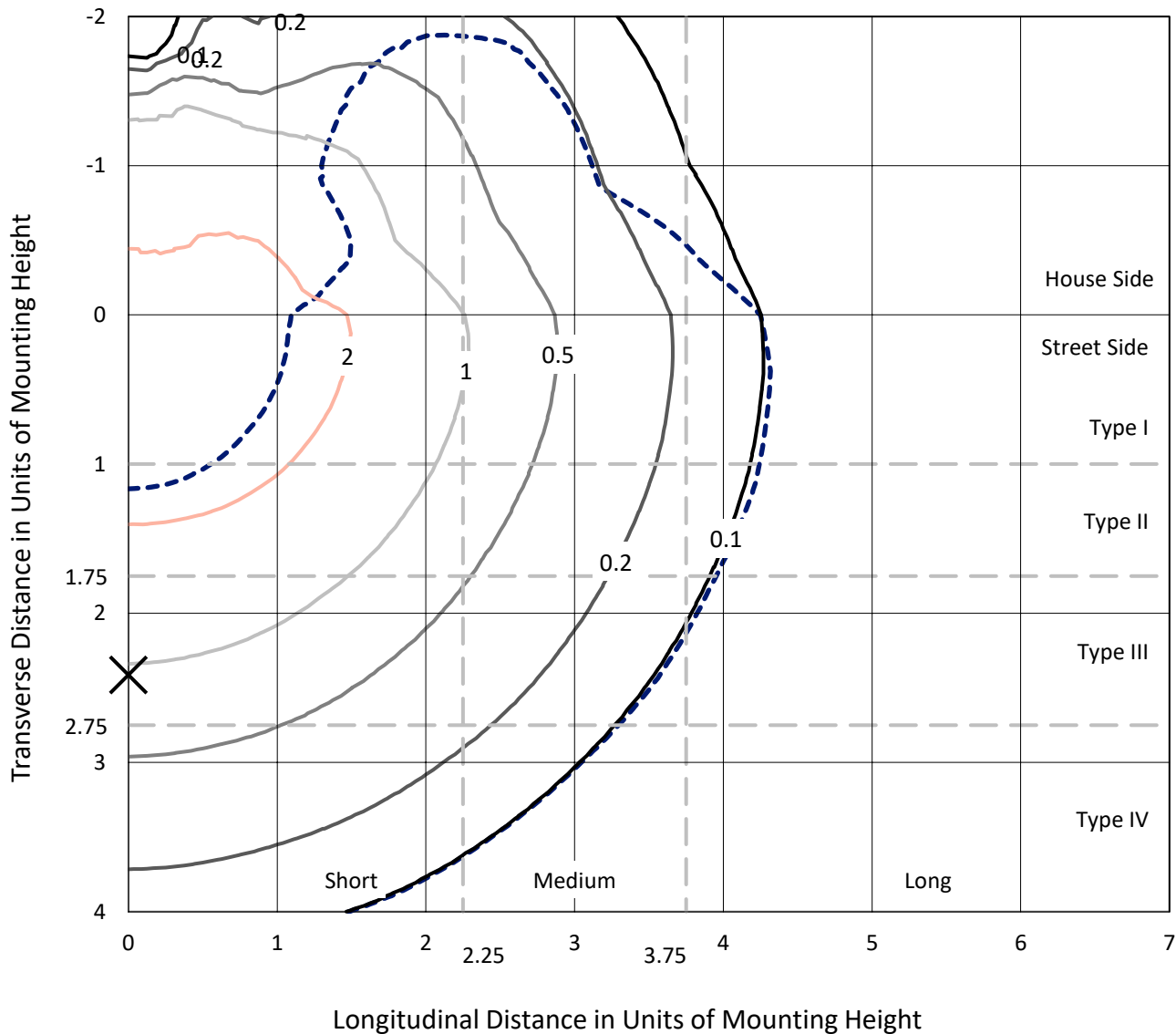
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

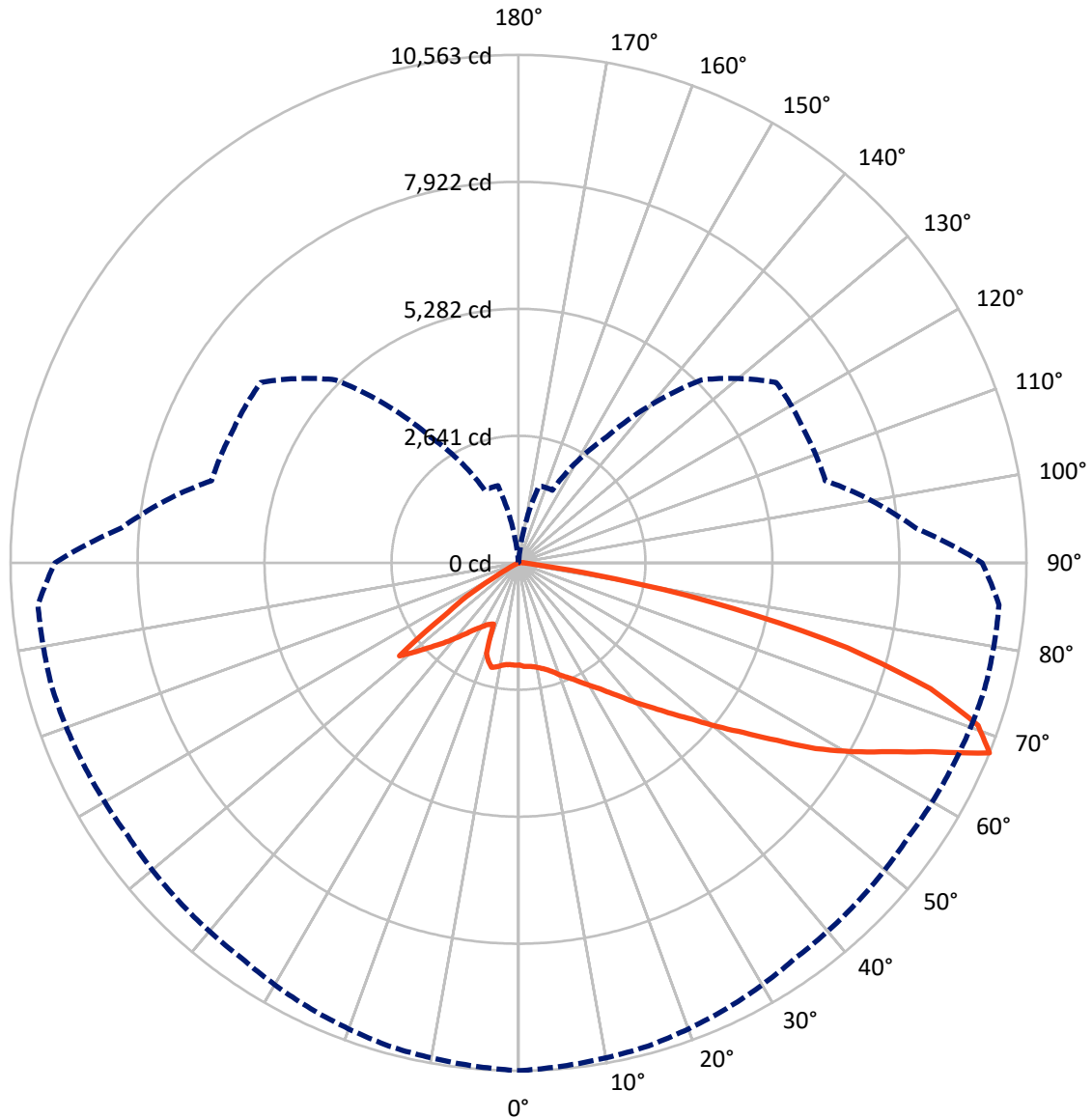
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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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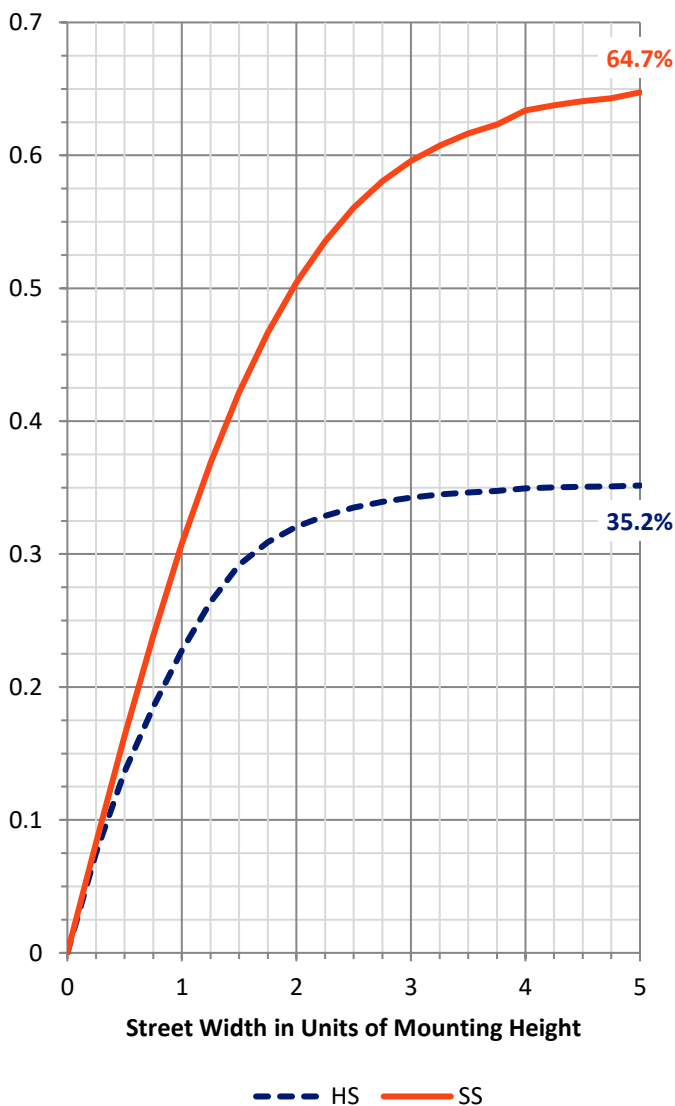
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8301.9	0.5	8302.4
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	15266.0	16.6	15282.6
	% Fixture	64.7	0.1	64.8
Total	Lumens	23567.9	17.1	23585.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.5	0.9
10°-20°	635.2	2.7
20°-30°	1101.3	4.7
30°-40°	1807.0	7.7
40°-50°	3014.2	12.8
50°-60°	4878.0	20.7
60°-70°	6733.2	28.5
70°-80°	4857.8	20.6
80°-90°	336.7	1.4
90°-100°	14.6	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°	23567.9	99.9
0°-180°	23585.0	100.0

Coefficient of Utilization

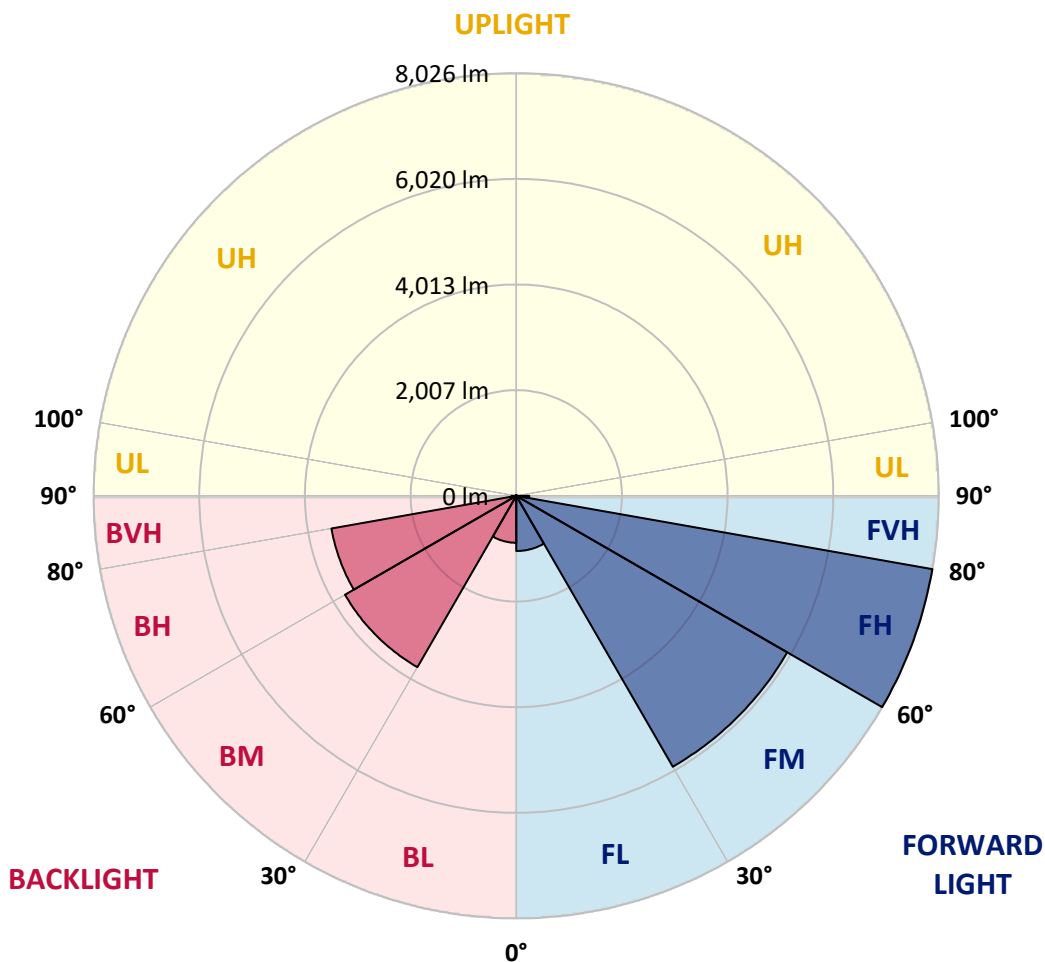


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1048.8	4.4			
FM	(30°-60°)	5942.8	25.2			
FH	(60°-80°)	8026.3	34.0			G4/12000
FVH	(80°-90°)	248.1	1.1			G3/500
BL	(0°-30°)	892.1	3.8	B2/1000		
BM	(30°-60°)	3756.4	15.9	B3/5000		
BH	(60°-80°)	3564.7	15.1	B4/5000		G4/5000
BVH	(80°-90°)	88.6	0.4			G1/100
UL	(90°-100°)	14.6	0.1		U2/50	
UH	(100°-180°)	2.5	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°	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4
2.5°	2157.9	2145.3	2146.2	2158.8	2124.5	2137.2	2122.7	2135.4	2129.0	2133.5	2139.0
5°	2164.2	2148.9	2150.7	2166.1	2139.0	2148.9	2131.7	2139.0	2133.5	2139.0	2139.9
7.5°	2180.5	2165.1	2166.1	2177.8	2149.8	2157.0	2140.8	2144.4	2135.4	2145.3	2142.6
10°	2214.8	2200.4	2194.9	2204.9	2180.5	2181.4	2162.4	2166.1	2152.5	2166.1	2160.6
12.5°	2260.9	2241.0	2242.8	2248.2	2218.4	2220.2	2197.7	2203.1	2180.5	2199.5	2193.1
15°	2316.8	2292.5	2295.2	2304.2	2275.3	2272.6	2251.8	2251.8	2232.0	2246.4	2240.1
17.5°	2394.5	2367.4	2365.6	2371.9	2348.4	2348.4	2325.0	2322.3	2302.4	2314.1	2312.3
20°	2495.6	2464.9	2459.5	2471.2	2441.4	2445.0	2415.3	2412.5	2390.9	2398.1	2399.0
22.5°	2586.8	2562.4	2561.5	2579.6	2544.4	2548.9	2521.8	2514.6	2496.5	2506.4	2509.2
25°	2691.5	2687.9	2685.2	2691.5	2656.3	2656.3	2637.4	2631.0	2619.3	2626.5	2633.8
27.5°	2823.4	2821.6	2814.3	2815.2	2785.4	2790.0	2769.2	2765.6	2760.2	2759.3	2755.6
30°	2968.7	2960.6	2950.7	2957.0	2943.4	2948.0	2929.9	2918.2	2916.4	2917.3	2911.8
32.5°	3130.3	3119.5	3113.2	3124.0	3129.4	3142.1	3141.2	3108.7	3108.7	3122.2	3097.8
35°	3330.8	3313.6	3319.1	3333.5	3344.3	3376.8	3371.4	3348.8	3356.1	3362.4	3333.5
37.5°	3566.4	3554.7	3579.1	3606.2	3607.1	3653.1	3642.3	3647.7	3646.8	3638.7	3619.7
40°	3849.1	3830.1	3855.4	3876.1	3863.5	3918.6	3916.8	3941.1	3957.4	3985.4	3974.6
42.5°	4129.9	4115.4	4139.8	4184.9	4177.7	4240.9	4249.9	4287.9	4310.4	4353.8	4328.5
45°	4475.7	4467.5	4490.1	4525.3	4549.7	4633.7	4667.1	4683.3	4740.2	4792.6	4733.9
47.5°	4863.0	4873.8	4870.2	4934.3	4988.5	5090.5	5104.1	5156.4	5206.1	5263.9	5207.0
50°	5345.2	5327.1	5343.3	5404.7	5493.2	5567.3	5636.8	5711.7	5760.5	5820.1	5715.3
52.5°	5864.3	5879.7	5915.8	6010.6	6075.6	6163.2	6226.4	6315.8	6363.6	6415.1	6278.8
55°	6518.9	6531.6	6571.3	6668.8	6714.8	6814.2	6857.5	6946.9	6992.9	7015.5	6841.3
57.5°	7286.4	7243.9	7276.5	7327.0	7398.3	7505.8	7517.5	7601.5	7601.5	7630.4	7408.3
60°	7971.7	7942.8	7977.1	8049.3	8077.3	8174.8	8164.9	8233.5	8251.6	8229.9	7964.5
62.5°	8647.1	8652.5	8696.7	8720.2	8709.4	8767.1	8790.6	8862.8	8833.0	8840.3	8534.2
65°	9466.9	9479.5	9475.0	9431.7	9334.2	9447.9	9441.6	9556.3	9563.5	9628.5	9272.8
67.5°	10563.0	10507.0	10405.0	10230.7	10037.5	9970.7	9912.0	9968.9	10042.0	10030.3	9640.2
70°	10136.8	10045.6	9992.4	9840.7	9582.5	9448.8	9326.9	9336.9	9443.4	9453.3	9054.3
72.5°	8961.3	8915.2	8710.3	8577.5	8400.6	8297.6	8150.5	8183.9	8322.9	8346.4	8028.6
75°	7068.8	7026.3	6841.3	6797.9	6710.3	6760.9	6724.8	6738.3	6850.3	6747.4	6556.8
77.5°	4575.0	4584.9	4556.0	4654.4	4650.8	4653.5	4785.4	4798.9	4908.2	4844.9	4660.8
80°	2051.4	2081.2	2151.6	2294.3	2207.6	2254.5	2305.1	2289.7	2399.9	2150.7	2240.1
82.5°	415.3	429.8	405.4	423.5	395.5	409.9	430.7	399.1	395.5	366.6	340.4
85°	214.0	216.7	215.8	211.3	186.0	171.6	165.2	139.0	125.5	122.8	113.8
87.5°	139.0	140.9	136.3	135.4	119.2	109.3	97.5	82.2	68.6	47.9	39.7
90°	84.9	84.9	80.4	75.8	67.7	60.5	48.8	35.2	20.8	8.1	4.5
92.5°	56.9	56.9	55.1	52.4	47.0	40.6	31.6	20.8	9.9	3.6	1.8
95°	36.1	36.1	35.2	34.3	30.7	26.2	19.9	12.6	6.3	2.7	0.9
97.5°	23.5	23.5	23.5	22.6	20.8	18.1	13.5	8.1	4.5	1.8	0.9
100°	14.4	15.3	14.4	14.4	13.5	11.7	9.0	5.4	3.6	1.8	0.9
102.5°	8.1	8.1	9.0	9.0	8.1	7.2	5.4	4.5	2.7	1.8	0.9
105°	3.6	3.6	4.5	4.5	4.5	3.6	3.6	2.7	1.8	1.8	0.9
107.5°	0.9	0.9	0.9	1.8	2.7	2.7	2.7	2.7	1.8	0.9	0.9
110°	0.0	0.0	0.0	0.9	0.9	1.8	1.8	1.8	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°	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4	2125.4
2.5°	2133.5	2122.7	2130.8	2117.3	2113.7	2101.9	2124.5	2128.1	2126.3	2129.9
5°	2135.4	2121.8	2131.7	2118.2	2117.3	2104.7	2128.1	2129.0	2122.7	2125.4
7.5°	2140.8	2128.1	2135.4	2120.0	2121.8	2106.5	2133.5	2132.6	2129.0	2135.4
10°	2160.6	2146.2	2148.9	2132.6	2137.2	2120.9	2154.3	2156.1	2152.5	2164.2
12.5°	2194.9	2175.1	2181.4	2162.4	2166.1	2149.8	2190.4	2193.1	2193.1	2212.1
15°	2241.9	2221.1	2234.7	2210.3	2211.2	2186.8	2217.5	2217.5	2221.1	2247.3
17.5°	2310.5	2285.2	2303.3	2280.7	2139.9	2086.6	2191.3	2255.4	2148.9	2139.9
20°	2395.4	2383.6	2393.6	2356.6	2128.1	1884.3	1694.7	1684.8	1895.2	1999.9
22.5°	2499.2	2487.5	2492.0	2445.0	1899.7	1728.1	1725.4	1707.4	1444.6	1372.4
25°	2621.1	2614.8	2604.9	2211.2	1963.8	1799.5	1777.8	1542.1	1391.4	1404.9
27.5°	2752.0	2733.1	2398.1	2297.0	2062.2	1870.8	1748.0	1440.1	1434.7	1447.3
30°	2898.3	2798.1	2455.0	2420.7	2176.9	1959.3	1521.4	1503.3	1503.3	1523.2
32.5°	3084.3	2613.0	2613.0	2594.9	2318.6	1720.0	1601.7	1590.9	1603.5	1611.7
35°	3056.3	2810.7	2839.6	2831.5	2511.0	1751.6	1730.9	1712.8	1715.5	1715.5
37.5°	3065.3	3075.3	3109.6	3074.4	2190.4	1888.9	1855.5	1851.8	1854.6	1860.9
40°	3348.8	3354.3	3366.9	3289.3	2353.9	2048.7	2002.6	1993.6	2002.6	2016.2
42.5°	3654.0	3669.4	3683.8	2991.3	2582.3	2230.2	2184.1	2167.0	2183.2	2197.7
45°	4015.2	4038.7	3817.5	3255.8	2840.5	2436.9	2388.2	2367.4	2377.3	2390.0
47.5°	4421.5	4458.5	3599.9	3592.6	3143.9	2681.6	2625.6	2585.9	2601.2	2600.3
50°	4880.2	4260.8	3977.3	3972.7	3482.5	2954.3	2896.5	2860.4	2872.1	2863.1
52.5°	5375.9	4377.2	4386.3	4385.4	3836.4	3247.7	3194.5	3149.3	3056.3	3142.1
55°	5883.3	4779.9	4814.3	4808.8	4207.5	3551.1	3494.2	3451.8	2255.4	1905.1
57.5°	6388.0	5200.7	5211.5	5224.2	4592.1	3843.6	3593.5	3301.0	1286.6	1280.3
60°	6886.4	5601.6	5623.2	5630.5	4799.8	3181.8	1469.0	1496.1	389.1	465.0
62.5°	7402.9	5997.0	6016.9	6010.6	5006.6	2958.8	1543.1	1512.4	36.1	33.4
65°	8062.0	6492.7	6464.7	6444.0	5332.5	3157.4	1657.7	1649.6	11.7	8.1
67.5°	8293.1	6605.6	6548.7	6541.5	5379.5	3199.9	1666.7	1660.4	11.7	8.1
70°	7769.4	6176.7	6079.2	6081.9	5005.7	2993.1	1554.8	1545.8	10.8	8.1
72.5°	6804.2	5455.3	5414.7	5199.8	4334.8	2632.8	1378.7	1344.4	10.8	7.2
75°	5586.2	4407.0	4316.8	4075.7	3450.0	2092.9	1082.6	1038.3	9.9	6.3
77.5°	3877.9	3090.6	2918.2	2672.6	2307.8	1387.8	727.7	670.9	9.0	6.3
80°	1757.9	1268.6	1274.9	976.9	782.8	470.4	231.1	209.5	8.1	5.4
82.5°	306.1	225.7	212.2	205.0	170.6	115.6	70.4	60.5	7.2	3.6
85°	106.5	85.8	94.8	112.0	99.3	69.5	43.3	41.5	4.5	1.8
87.5°	36.1	37.9	44.2	53.3	47.0	27.1	16.3	11.7	0.9	0.0
90°	3.6	4.5	4.5	4.5	2.7	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)