

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: P579621

Luminaire Tested: **CTN-CA10-210-727-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579621
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-CA10-210-727-U-T5N-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24368 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G3

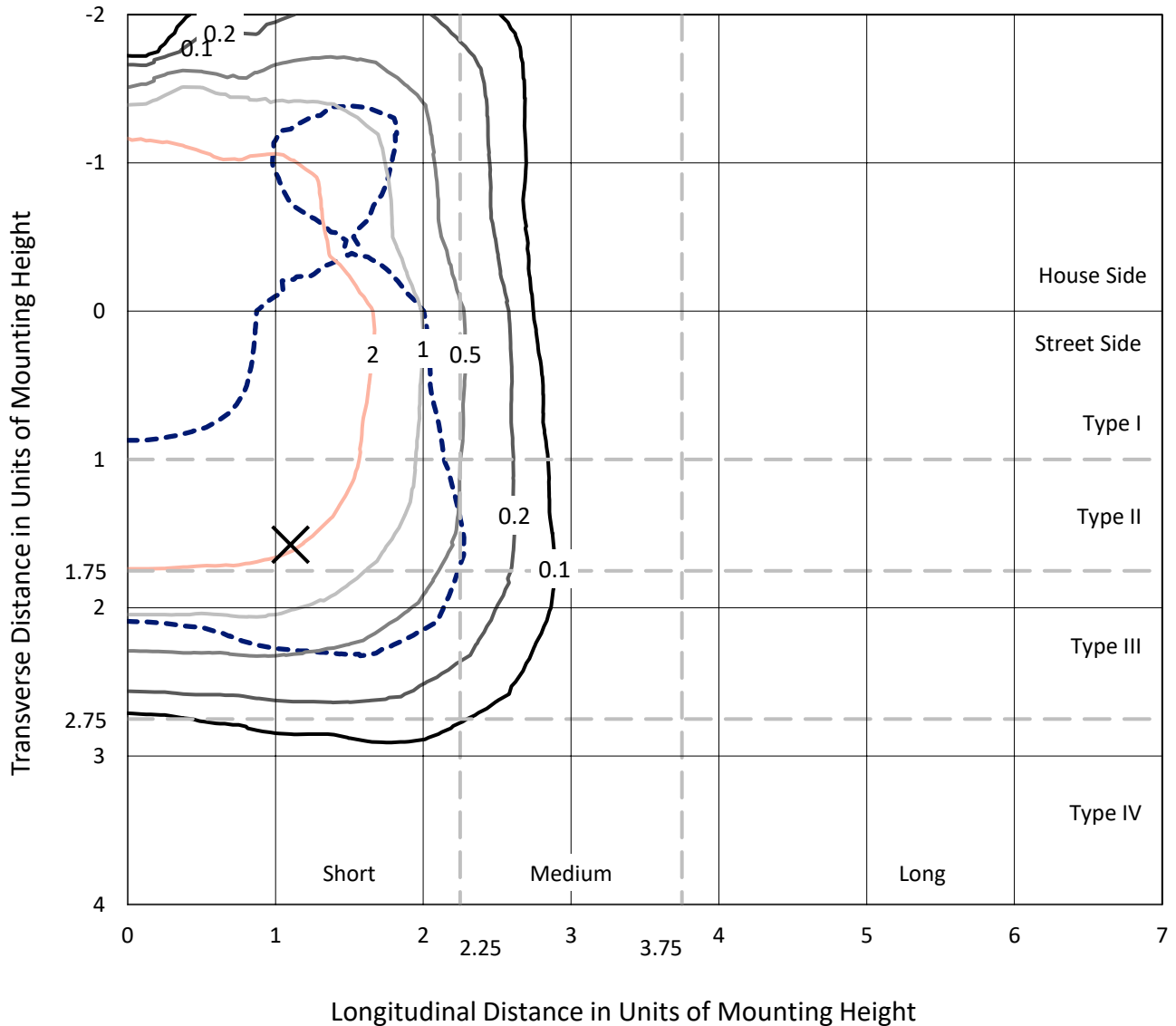
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

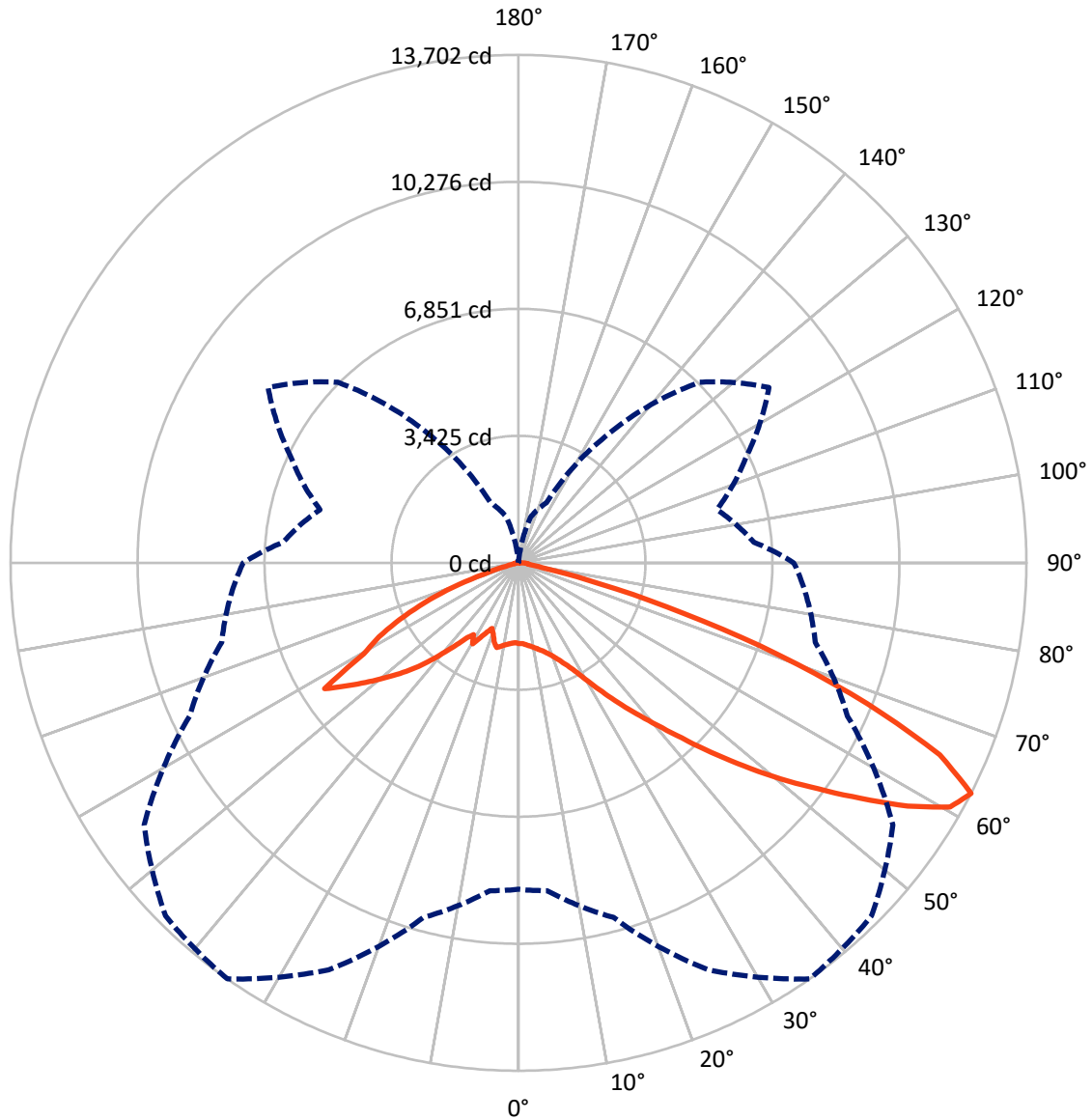
✕ Max cd
 - - - 1/2 Max cd



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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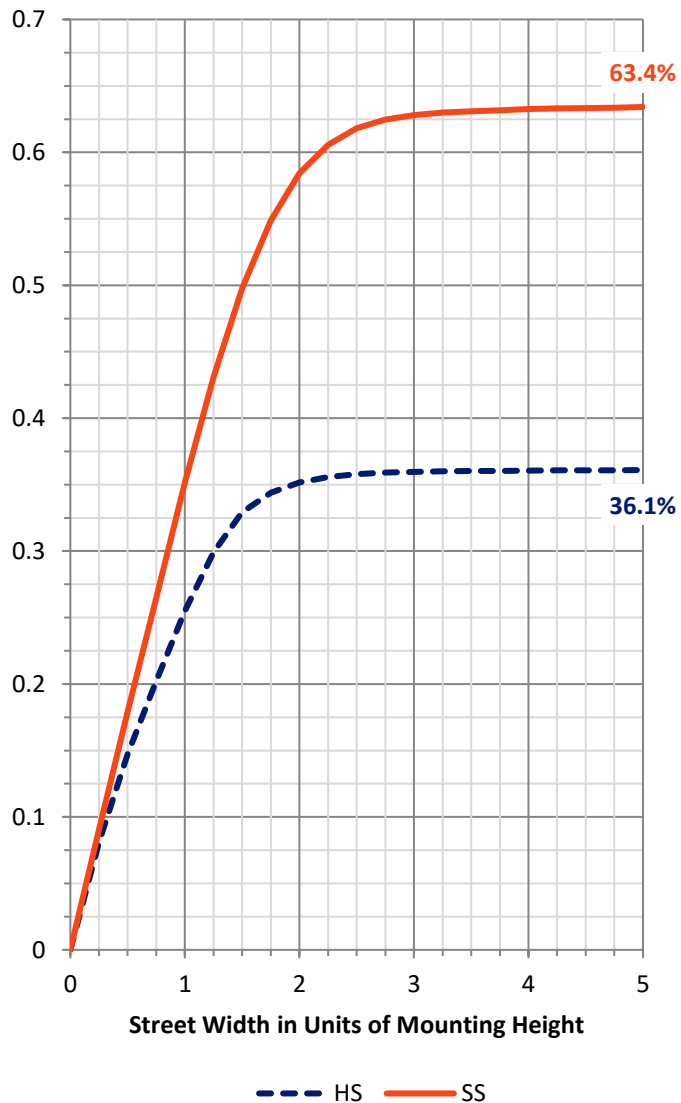
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8845.0	0.0	8845.0
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	15511.4	11.5	15523.0
	% Fixture	63.7	0.0	63.7
Total	Lumens	24356.4	11.6	24368.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.4	0.9
10°-20°	692.8	2.8
20°-30°	1332.8	5.5
30°-40°	2658.9	10.9
40°-50°	4855.0	19.9
50°-60°	7255.0	29.8
60°-70°	6079.0	24.9
70°-80°	1137.6	4.7
80°-90°	131.0	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°	24356.4	100.0
0°-180°	24368.0	100.0

Coefficient of Utilization

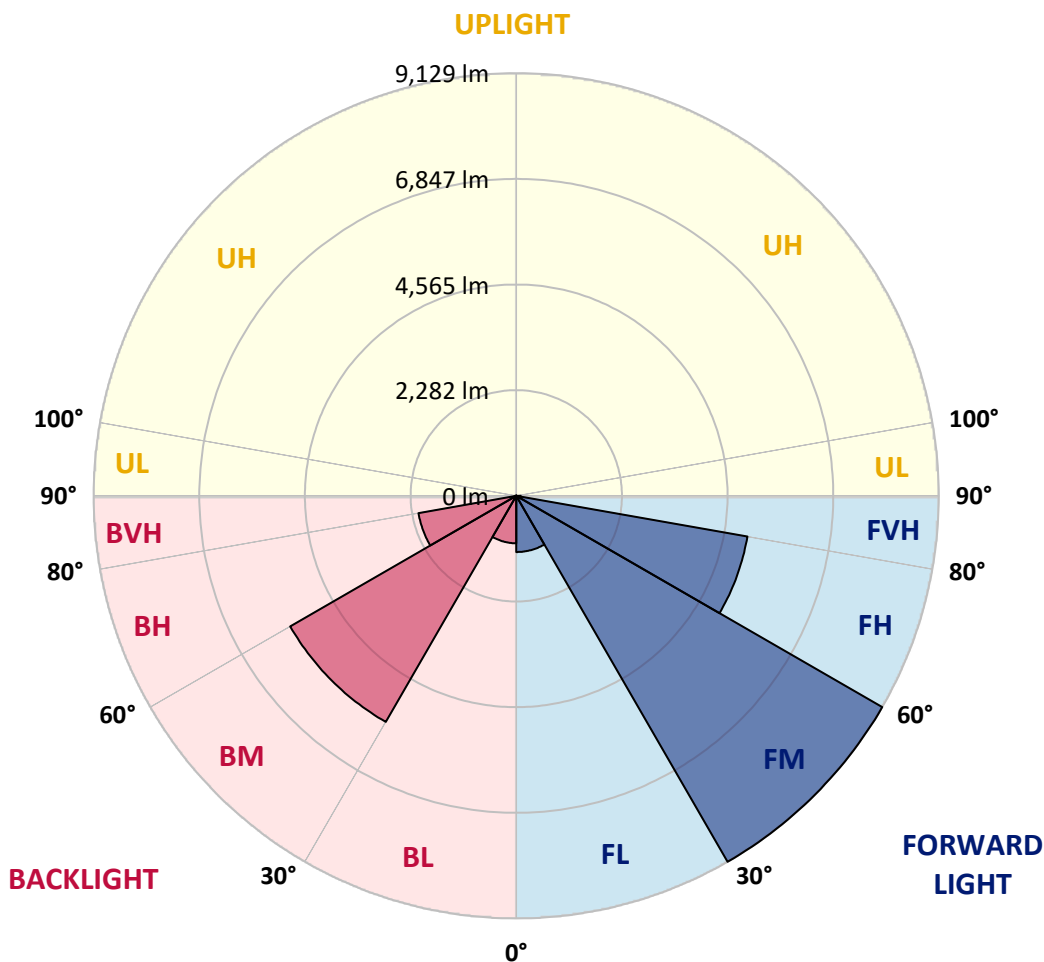


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1215.0	5.0			
FM (30°-60°)	9129.4	37.5			
FH (60°-80°)	5071.7	20.8			G3/7500
FVH (80°-90°)	95.4	0.4			G1/100
BL (0°-30°)	1025.0	4.2	B3/2500		
BM (30°-60°)	5639.5	23.1	B4/8500		
BH (60°-80°)	2145.0	8.8	B3/2500		G3/2500
BVH (80°-90°)	35.6	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°	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4
2.5°	2226.9	2208.7	2211.4	2224.2	2184.0	2200.5	2183.1	2199.5	2194.1	2201.4	2206.9
5°	2258.9	2236.1	2237.9	2252.5	2221.5	2235.2	2217.8	2228.8	2219.6	2229.7	2230.6
7.5°	2302.8	2283.6	2280.8	2295.5	2269.0	2280.8	2263.5	2269.0	2259.8	2271.7	2268.1
10°	2361.2	2343.9	2339.3	2349.3	2328.3	2334.7	2316.5	2323.8	2310.1	2323.8	2317.4
12.5°	2426.1	2403.2	2404.2	2415.1	2394.1	2398.7	2384.1	2392.3	2375.8	2390.5	2385.9
15°	2502.8	2469.9	2476.3	2488.2	2468.1	2481.8	2464.4	2476.3	2460.8	2476.3	2470.8
17.5°	2602.4	2564.9	2569.5	2588.7	2572.2	2594.1	2574.1	2588.7	2581.4	2591.4	2589.6
20°	2728.4	2703.8	2699.2	2722.9	2699.2	2726.6	2715.6	2741.2	2743.0	2753.1	2757.7
22.5°	2896.5	2880.1	2869.1	2885.5	2864.5	2883.7	2899.2	2943.1	2959.5	2986.0	2987.8
25°	3120.3	3119.4	3094.7	3095.6	3069.1	3094.7	3138.6	3207.1	3250.9	3284.7	3271.9
27.5°	3422.6	3428.1	3390.7	3376.0	3345.0	3383.4	3473.8	3558.7	3638.2	3685.7	3685.7
30°	3817.2	3822.7	3767.9	3738.7	3710.4	3777.0	3884.8	3995.4	4108.6	4177.1	4161.6
32.5°	4339.7	4322.4	4243.8	4190.8	4142.4	4219.1	4343.4	4468.5	4622.9	4721.5	4709.7
35°	4973.6	4910.6	4832.1	4733.4	4629.3	4689.6	4806.5	4963.6	5178.2	5326.2	5288.8
37.5°	5709.9	5647.8	5513.5	5343.6	5161.8	5169.1	5261.4	5533.6	5802.1	5922.7	5897.1
40°	6474.4	6426.0	6302.7	6084.4	5755.5	5679.7	5831.4	6159.3	6416.0	6567.6	6524.6
42.5°	7253.6	7204.2	7111.1	6891.8	6456.1	6273.5	6431.5	6788.6	7062.7	7211.6	7162.2
45°	8030.9	7974.3	7900.3	7706.6	7291.0	7023.4	7112.0	7439.9	7690.2	7859.2	7757.8
47.5°	8714.1	8676.7	8626.5	8547.9	8184.4	7888.4	7882.0	8098.5	8271.1	8382.6	8258.3
50°	9308.8	9282.3	9310.6	9294.2	9161.7	8892.3	8726.9	8712.3	8768.0	8849.3	8672.1
52.5°	9842.2	9795.7	9900.7	10031.3	10129.1	10074.2	9539.0	9238.5	9177.3	9204.7	9003.7
55°	10278.9	10256.9	10433.2	10761.2	11213.3	11333.9	10372.9	9750.0	9524.4	9509.7	9281.4
57.5°	10545.6	10576.6	10929.2	11554.0	12383.4	12421.8	11396.9	10297.1	9862.3	9705.2	9442.2
60°	10120.8	10240.5	10842.4	12131.3	13376.3	13400.1	12148.7	10397.6	9440.3	9088.7	8762.6
62.5°	8807.3	8878.6	9902.5	12112.1	13701.5	13469.5	12327.7	9791.1	8288.5	7727.6	7426.2
65°	6204.0	6337.4	7434.4	10897.3	12485.7	12514.9	11309.2	8465.7	6618.7	5998.5	5804.0
67.5°	3746.9	3874.8	5043.1	7866.5	10150.1	10478.0	9433.9	6409.6	4746.2	3962.5	3766.1
70°	1216.7	1355.5	2298.2	4636.6	7466.4	8252.9	7099.2	4171.6	2485.5	1741.0	1530.0
72.5°	462.2	504.2	748.1	2025.1	4650.3	5509.8	4390.9	2092.7	770.0	458.5	402.8
75°	300.5	306.9	349.8	709.7	2242.5	3033.5	2116.4	612.9	308.7	274.0	253.9
77.5°	258.5	263.1	281.3	353.5	714.3	1160.1	607.4	313.3	257.6	228.4	214.7
80°	243.9	245.7	257.6	299.6	334.3	387.3	292.3	262.2	224.7	214.7	204.6
82.5°	231.1	237.5	243.9	272.2	271.3	278.6	234.8	205.5	190.9	201.0	197.3
85°	215.6	219.2	223.8	243.0	221.1	187.3	180.9	141.6	137.9	147.1	137.9
87.5°	151.6	160.8	155.3	163.5	153.5	119.7	101.4	80.4	63.9	53.0	51.2
90°	62.1	63.0	59.4	54.8	48.4	40.2	32.0	20.1	9.1	4.6	1.8
92.5°	48.4	48.4	46.6	42.0	36.5	30.1	22.8	12.8	6.4	2.7	0.9
95°	30.1	31.1	29.2	26.5	22.8	18.3	13.7	7.3	4.6	1.8	0.9
97.5°	19.2	19.2	17.4	15.5	12.8	9.1	6.4	5.5	3.7	1.8	0.0
100°	11.0	11.0	10.0	8.2	6.4	4.6	4.6	3.7	2.7	0.9	0.0
102.5°	6.4	6.4	4.6	3.7	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°	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4
2.5°	2203.2	2186.8	2189.5	2174.0	2171.2	2155.7	2186.8	2190.4	2181.3	2189.5
5°	2228.8	2208.7	2215.1	2197.7	2195.0	2174.0	2201.4	2199.5	2192.2	2200.5
7.5°	2267.1	2246.1	2249.8	2230.6	2226.9	2204.1	2229.7	2221.5	2214.2	2224.2
10°	2321.0	2297.3	2299.1	2274.4	2277.2	2247.0	2278.1	2263.5	2254.4	2268.1
12.5°	2385.9	2359.4	2360.3	2334.7	2333.8	2304.6	2332.0	2323.8	2310.1	2331.1
15°	2469.9	2439.8	2437.0	2403.2	2394.1	2361.2	2386.8	2371.3	2362.1	2392.3
17.5°	2587.8	2554.0	2543.9	2502.8	2332.0	2233.3	2370.4	2416.9	2360.3	2351.2
20°	2744.9	2716.5	2693.7	2631.6	2344.8	2037.0	1809.5	1811.3	2050.7	2161.2
22.5°	2957.7	2923.9	2881.0	2792.4	2151.1	1908.2	1909.1	1906.3	1636.0	1521.8
25°	3249.1	3208.0	3120.3	2619.7	2283.6	2058.9	2053.4	1785.8	1636.9	1645.1
27.5°	3642.8	3558.7	3045.4	2838.0	2519.2	2254.4	2122.8	1797.6	1815.9	1828.7
30°	4143.3	3805.4	3291.1	3167.8	2802.4	2513.8	1963.0	2007.7	2044.3	2052.5
32.5°	4656.7	3816.3	3683.9	3553.3	3151.3	2287.2	2212.3	2297.3	2335.6	2340.2
35°	4652.1	4284.0	4113.2	3966.1	3474.7	2447.1	2494.6	2625.2	2722.9	2718.4
37.5°	4923.4	4800.1	4596.4	4410.1	3127.6	2756.7	2841.7	2989.7	3108.4	3104.8
40°	5490.6	5348.1	5132.6	4741.6	3462.8	3111.2	3229.9	3388.8	3472.9	3477.4
42.5°	6026.8	5909.0	5688.9	4430.1	3882.1	3537.7	3645.5	3752.4	3804.4	3820.9
45°	6560.3	6476.2	5743.7	4896.0	4389.0	3967.0	4038.3	4058.4	4113.2	4106.8
47.5°	6993.2	6900.1	5522.6	5480.6	5003.8	4374.4	4368.9	4342.5	4362.6	4367.1
50°	7388.8	6266.1	5966.5	6106.3	5648.7	4790.0	4685.9	4632.0	4604.6	4592.7
52.5°	7701.2	6268.0	6381.2	6753.0	6376.7	5241.3	5017.5	4865.9	4260.3	4734.3
55°	7967.0	6526.5	6774.0	7444.5	7004.2	5713.5	5317.1	5046.7	2843.5	2279.9
57.5°	8119.5	6722.9	7163.1	8092.1	7552.3	6238.7	4895.1	4232.8	1607.6	1605.8
60°	7530.3	6370.3	7152.2	8431.9	7394.2	4839.4	1993.1	1667.9	304.2	312.4
62.5°	6374.8	5541.8	6783.2	8245.6	6886.4	4257.5	1787.6	1284.3	10.0	8.2
65°	4938.9	4421.0	5711.7	7252.7	6265.2	3552.3	1332.7	925.3	2.7	0.0
67.5°	3230.8	3115.7	4214.6	6014.0	5109.7	2752.2	894.3	443.0	1.8	0.0
70°	1377.5	1595.8	2670.0	4360.7	3911.3	1893.5	431.1	159.9	0.9	0.0
72.5°	385.5	510.6	1188.4	2554.9	2459.9	995.6	168.1	67.6	0.9	0.0
75°	228.4	196.4	340.7	1019.4	1197.5	349.8	77.6	52.1	0.9	0.0
77.5°	190.0	153.5	195.5	260.3	362.6	126.1	65.8	46.6	0.0	0.0
80°	178.1	136.1	169.0	181.8	179.0	105.0	64.9	46.6	0.0	0.0
82.5°	169.0	118.7	139.8	139.8	149.8	96.8	61.2	45.7	0.0	0.0
85°	127.0	83.1	93.2	120.6	107.8	68.5	44.8	36.5	0.0	0.0
87.5°	48.4	30.1	36.5	38.4	31.1	15.5	3.7	3.7	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)