

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: P579620

Luminaire Tested: **CTN-CA10-210-727-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579620
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)
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-EX180
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: 20019 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U2 - G2

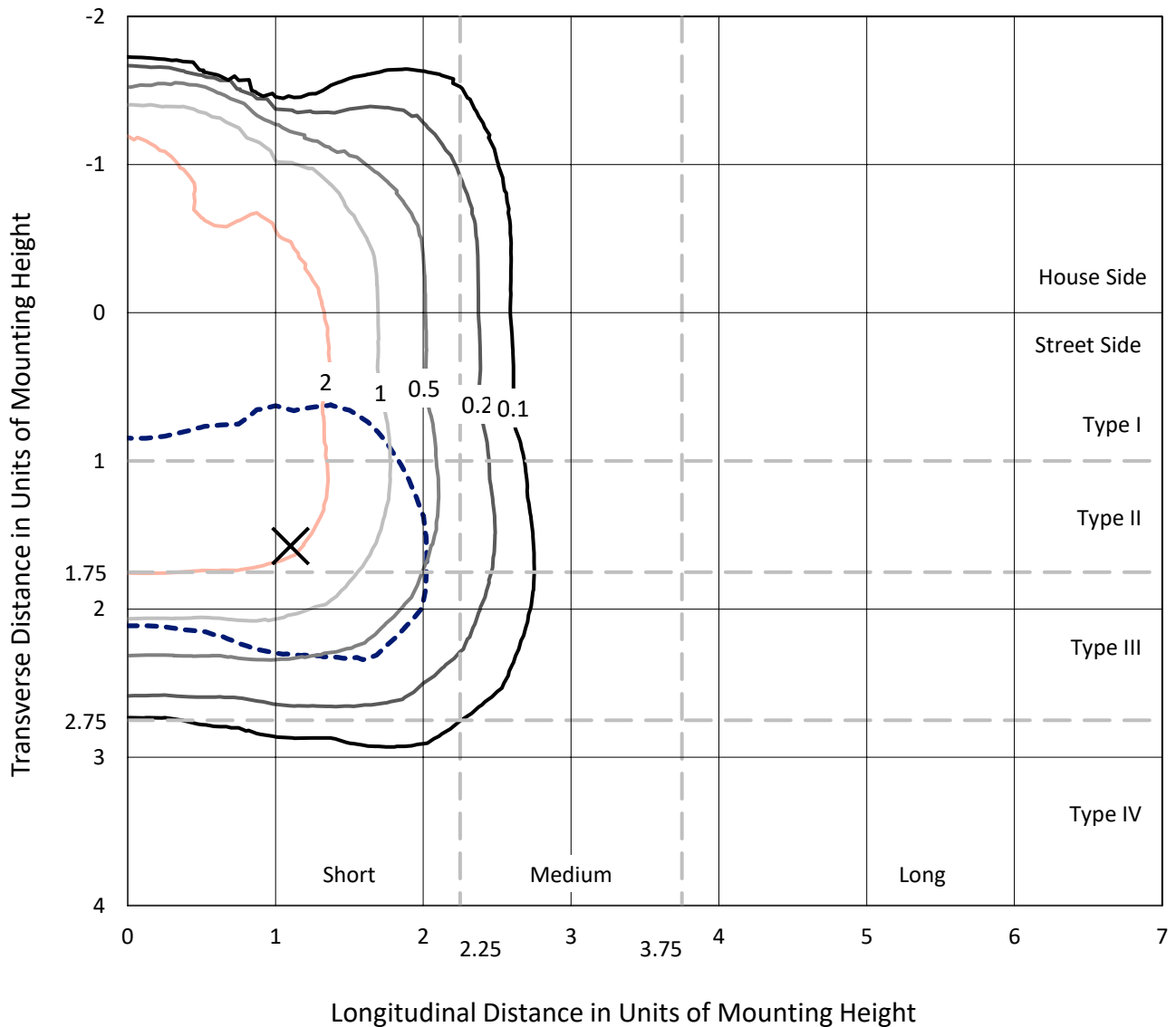
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

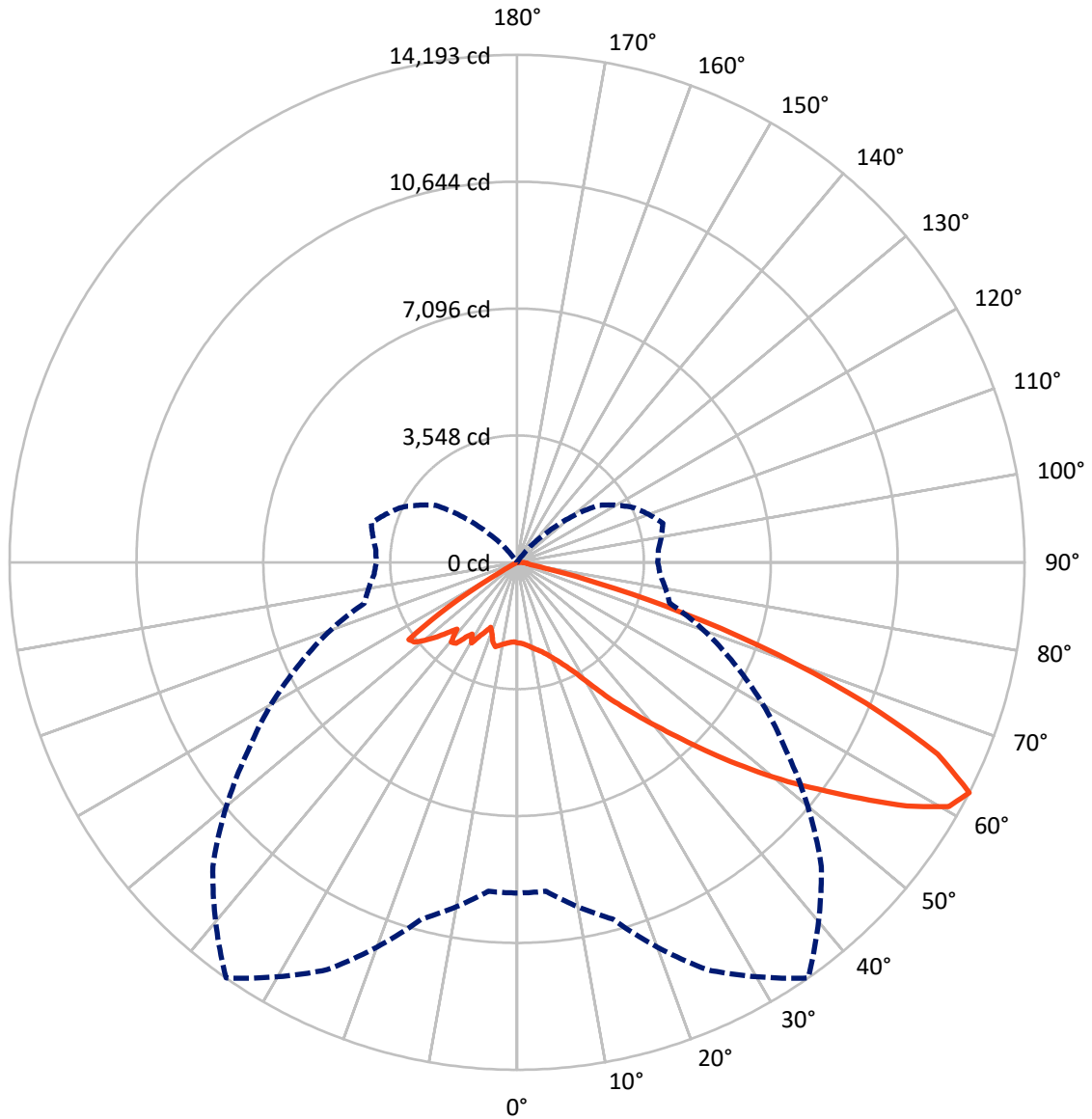
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 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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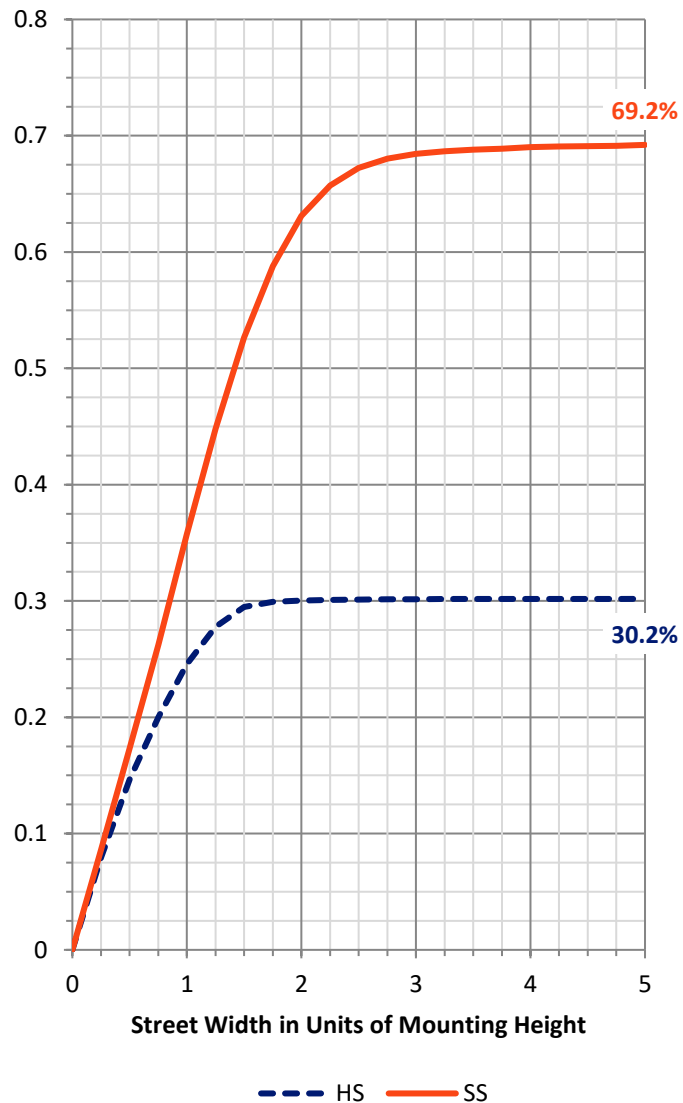
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6075.8	0.0	6075.8
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	13925.8	17.4	13943.1
	% Fixture	69.6	0.1	69.6
Total	Lumens	20001.6	17.4	20019.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.4	1.1
10°-20°	713.9	3.6
20°-30°	1304.8	6.5
30°-40°	2486.5	12.4
40°-50°	4267.9	21.3
50°-60°	5725.4	28.6
60°-70°	4352.5	21.7
70°-80°	824.1	4.1
80°-90°	104.1	0.5
90°-100°	15.3	0.1
100°-110°	2.1	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°	20001.6	99.9
0°-180°	20019.0	100.0

Coefficient of Utilization



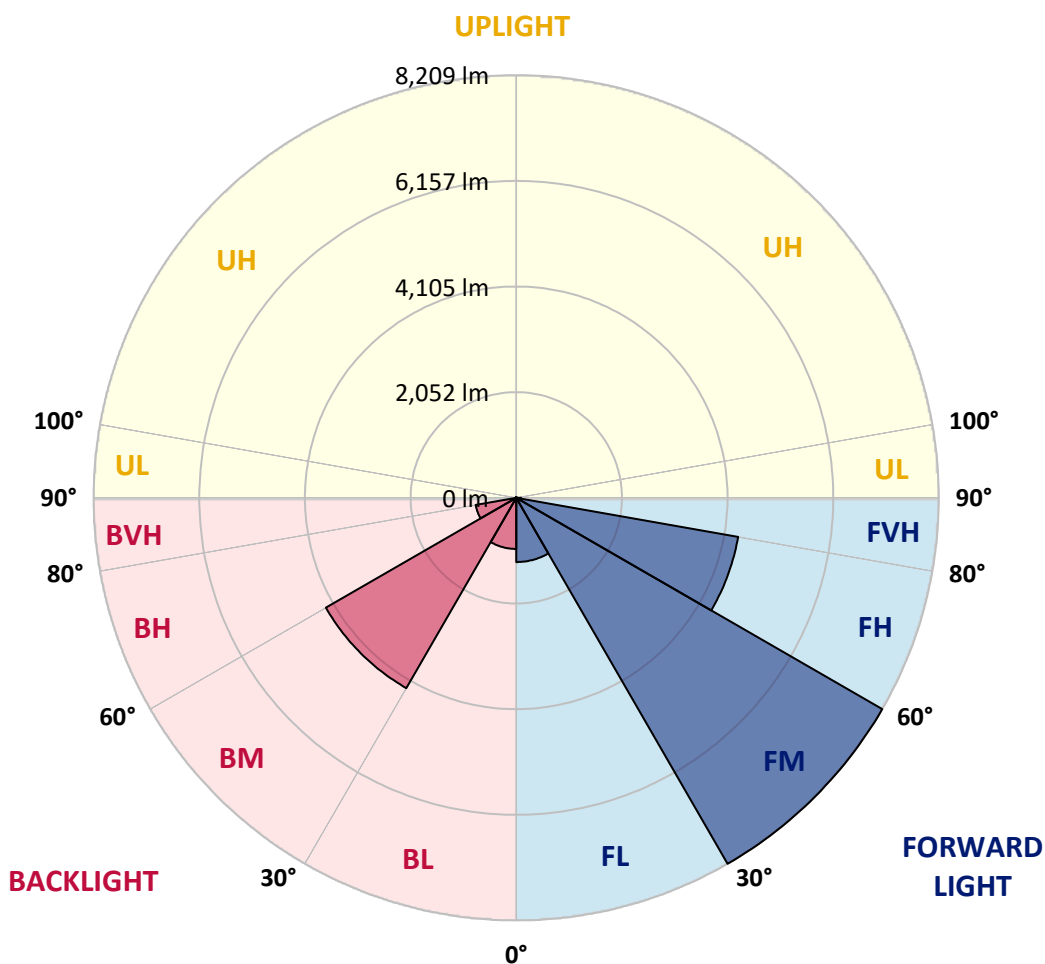
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1247.9	6.2			
FM (30°-60°)	8209.5	41.0			
FH (60°-80°)	4376.5	21.9			G2/5000
FVH (80°-90°)	91.9	0.5			G1/100
BL (0°-30°)	993.2	5.0	B2/1000		
BM (30°-60°)	4270.4	21.3	B3/5000		
BH (60°-80°)	800.1	4.0	B2/1000		G2/1000
BVH (80°-90°)	12.2	0.1			G1/100
UL (90°-100°)	15.3	0.1		U2/50	
UH (100°-180°)	2.1	0.0		U1/10	

BUG Rating: B3-U2-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4
2.5°	2310.1	2293.1	2294.0	2309.1	2265.7	2281.8	2262.9	2281.8	2271.4	2278.9	2282.7
5°	2350.6	2333.7	2331.8	2347.8	2311.0	2322.3	2303.5	2316.7	2302.5	2311.9	2311.9
7.5°	2412.0	2395.0	2389.3	2401.6	2367.6	2376.1	2356.3	2363.8	2347.8	2360.1	2353.5
10°	2484.6	2465.8	2459.2	2465.8	2436.5	2441.2	2417.6	2426.1	2402.5	2416.7	2407.3
12.5°	2562.0	2537.5	2537.5	2543.1	2512.0	2512.9	2491.2	2496.0	2472.4	2487.5	2476.1
15°	2646.0	2618.6	2622.4	2628.1	2595.0	2600.7	2578.1	2585.6	2561.1	2576.2	2564.8
17.5°	2757.4	2728.1	2724.3	2741.3	2710.2	2720.5	2695.1	2704.5	2682.8	2687.5	2681.9
20°	2911.2	2874.4	2865.9	2888.5	2853.6	2861.2	2842.3	2861.2	2838.5	2804.5	2709.2
22.5°	3095.2	3063.1	3048.9	3064.0	3022.5	3035.7	3034.8	3065.0	3002.7	2788.5	2693.2
25°	3337.7	3316.0	3288.6	3290.5	3240.5	3260.3	3296.2	3319.8	3054.6	2866.8	2868.7
27.5°	3661.4	3639.7	3601.9	3587.8	3515.1	3563.2	3618.9	3388.7	3180.1	3228.2	3201.8
30°	4074.7	4070.9	3994.5	3969.9	3890.7	3951.1	3902.9	3508.5	3580.2	3647.2	3606.6
32.5°	4624.8	4598.4	4488.0	4443.7	4360.6	4395.5	3970.9	3914.3	4020.9	4111.5	4069.0
35°	5290.1	5209.9	5097.6	5009.8	4865.5	4671.1	4229.4	4339.9	4499.3	4623.9	4418.2
37.5°	6063.0	5976.1	5800.6	5643.0	5415.6	4809.8	4619.2	4840.0	5040.0	4905.1	4430.4
40°	6858.5	6781.1	6615.9	6413.1	6029.0	5240.1	5091.9	5356.2	5583.6	4810.7	4574.8
42.5°	7648.3	7582.2	7449.2	7249.1	6754.7	5752.5	5610.0	5894.1	5679.8	4994.8	4987.2
45°	8444.7	8411.7	8260.7	8089.9	7614.3	6408.3	6190.4	6412.1	5465.6	5435.4	5417.5
47.5°	9090.2	9095.9	9043.0	8954.3	8531.6	7128.3	6844.3	6186.6	5726.1	5759.1	5767.6
50°	9755.5	9713.0	9710.2	9715.8	9539.4	8056.0	7289.7	6084.7	6066.7	6063.9	6056.4
52.5°	10288.6	10234.9	10346.2	10434.9	10539.7	9091.1	7222.7	6430.0	6327.2	6291.3	6071.5
55°	10722.7	10702.0	10883.1	11183.2	11649.4	10187.7	7815.3	6766.9	6561.2	5723.3	5162.7
57.5°	10986.0	11016.2	11389.9	11979.7	12852.5	11096.4	8505.1	7108.5	5617.6	5041.0	5005.1
60°	10482.1	10641.6	11277.6	12572.3	13869.8	11951.4	9018.5	7177.4	5055.1	4746.6	4674.9
62.5°	9248.7	9233.6	10326.4	12572.3	14192.5	12036.3	9180.8	6689.6	4416.3	4014.3	3934.1
65°	6546.1	6585.7	7753.0	11329.5	12929.0	11195.5	8468.3	5687.4	3522.7	3153.7	3045.2
67.5°	4051.1	4048.3	5191.0	8343.8	10524.6	9373.3	7129.3	4359.7	2445.0	2096.8	1978.8
70°	1399.4	1439.1	2334.6	4882.5	7747.4	7343.5	5335.4	2752.6	1289.0	919.1	775.7
72.5°	556.8	570.0	838.0	2177.0	4840.0	4906.0	3242.4	1337.2	386.0	245.3	230.3
75°	364.2	366.1	402.0	786.1	2348.8	2639.4	1506.1	384.1	179.3	164.2	160.4
77.5°	314.2	315.2	334.1	398.2	765.3	1026.7	428.4	227.4	150.0	134.9	131.2
80°	291.6	292.5	302.0	342.5	369.0	350.1	228.4	183.1	126.4	119.8	118.9
82.5°	275.5	279.3	284.0	308.6	298.2	263.3	189.7	148.2	97.2	103.8	106.6
85°	253.8	257.6	260.4	274.6	249.1	192.5	147.2	111.4	62.3	67.9	67.0
87.5°	190.6	192.5	188.7	186.8	173.6	134.9	97.2	70.8	24.5	22.6	20.8
90°	91.5	90.6	86.8	80.2	69.8	54.7	40.6	22.6	10.4	4.7	1.9
92.5°	72.7	71.7	69.8	63.2	54.7	40.6	29.3	16.0	9.4	3.8	0.9
95°	49.1	47.2	45.3	40.6	34.0	24.5	17.0	11.3	7.5	2.8	0.9
97.5°	32.1	31.1	28.3	24.5	18.9	13.2	10.4	8.5	6.6	2.8	0.9
100°	19.8	19.8	17.9	14.2	9.4	7.5	6.6	6.6	4.7	1.9	0.0
102.5°	12.3	11.3	10.4	6.6	4.7	4.7	4.7	4.7	3.8	1.9	0.0
105°	6.6	6.6	4.7	3.8	2.8	1.9	2.8	3.8	2.8	0.9	0.0
107.5°	1.9	1.9	1.9	0.9	0.9	0.0	0.9	1.9	1.9	0.9	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.9	0.9	0.0



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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°	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4	2254.4
2.5°	2278.0	2260.0	2264.8	2246.8	2244.0	2225.1	2257.2	2259.1	2250.6	2260.0
5°	2307.2	2285.5	2294.0	2272.3	2268.5	2244.0	2269.5	2266.7	2260.0	2267.6
7.5°	2348.8	2327.0	2331.8	2306.3	2301.6	2274.2	2298.7	2289.3	2280.8	2291.2
10°	2406.3	2381.8	2385.6	2355.4	2351.6	2319.5	2347.8	2333.7	2321.4	2335.5
12.5°	2477.1	2445.0	2441.2	2409.1	2406.3	2376.1	2405.4	2391.2	2378.9	2401.6
15°	2558.2	2515.8	2510.1	2469.5	2464.8	2433.7	2462.0	2441.2	2431.8	2461.0
17.5°	2666.8	2516.7	2432.7	2373.3	2339.3	2322.3	2373.3	2442.2	2421.4	2422.4
20°	2622.4	2461.0	2348.8	2297.8	2261.0	2096.8	1870.3	1935.4	2067.5	2132.7
22.5°	2609.2	2552.6	2506.3	2420.5	2055.3	1962.8	1976.0	1960.9	1711.8	1616.5
25°	2862.1	2797.0	2697.0	2246.8	2141.1	2120.4	2127.9	1867.5	1679.7	1707.1
27.5°	3185.8	3118.8	2625.2	2373.3	2352.5	2325.2	2176.1	1850.5	1876.0	1902.4
30°	3593.4	3241.4	2737.5	2660.2	2621.5	2593.2	2040.2	2066.6	2109.1	2142.1
32.5°	3990.7	3231.1	3059.3	2963.1	2914.9	2365.7	2305.3	2366.7	2410.1	2435.6
35°	3995.4	3601.0	3419.8	3296.2	2990.4	2543.1	2598.8	2701.7	2808.3	2828.1
37.5°	4103.9	4020.0	3812.4	3656.7	2224.2	2838.5	2961.2	3079.1	3185.8	3192.4
40°	4536.1	4445.5	4251.2	3908.6	2456.3	2895.1	3360.3	3493.4	3583.0	3578.3
42.5°	4967.4	4905.1	4703.2	3473.6	2767.7	2508.2	3779.3	3867.1	3923.7	3963.3
45°	5401.5	5339.2	4656.9	3814.2	3138.6	2747.0	3677.4	4174.7	4237.0	4256.8
47.5°	5740.2	5586.4	4267.2	4266.3	3601.9	3052.7	3036.7	4452.2	4506.9	4492.7
50°	6053.5	4987.2	4612.6	4414.4	4081.3	3340.5	3229.2	3746.3	4751.3	4730.5
52.5°	5508.1	4840.0	4908.9	4015.2	4466.3	3626.5	3446.2	3359.4	4317.2	4873.0
55°	4925.9	5020.2	5211.8	4411.6	3240.5	3718.9	3630.2	3457.5	2913.1	2451.6
57.5°	5026.8	5167.4	5176.9	4778.7	3353.7	2323.3	2975.3	2604.5	1645.7	1649.5
60°	4690.0	4873.0	3784.0	3185.8	1803.3	484.1	47.2	41.5	286.9	349.2
62.5°	3965.2	4220.0	3612.3	2775.3	1156.9	17.9	4.7	0.9	0.0	0.0
65°	3070.6	3377.3	3052.7	2395.0	1026.7	5.7	0.0	0.0	0.0	0.0
67.5°	2025.1	2301.6	2319.5	2003.4	855.9	2.8	0.0	0.0	0.0	0.0
70°	848.3	1194.7	1443.8	1489.1	672.8	0.9	0.0	0.0	0.0	0.0
72.5°	245.3	379.3	694.5	894.6	427.5	0.0	0.0	0.0	0.0	0.0
75°	163.3	174.6	201.0	402.9	213.3	0.0	0.0	0.0	0.0	0.0
77.5°	134.9	137.8	115.1	110.4	61.3	0.0	0.0	0.0	0.0	0.0
80°	122.7	120.8	92.5	65.1	22.6	0.0	0.0	0.0	0.0	0.0
82.5°	113.2	107.6	67.0	34.0	15.1	0.0	0.0	0.0	0.0	0.0
85°	76.4	75.5	30.2	20.8	2.8	0.0	0.0	0.0	0.0	0.0
87.5°	20.8	26.4	6.6	2.8	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	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)