

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: P579651

Luminaire Tested: **CTN-CA8-230-727-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579651
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-CA8-230-727-U-T5N-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25027 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G3

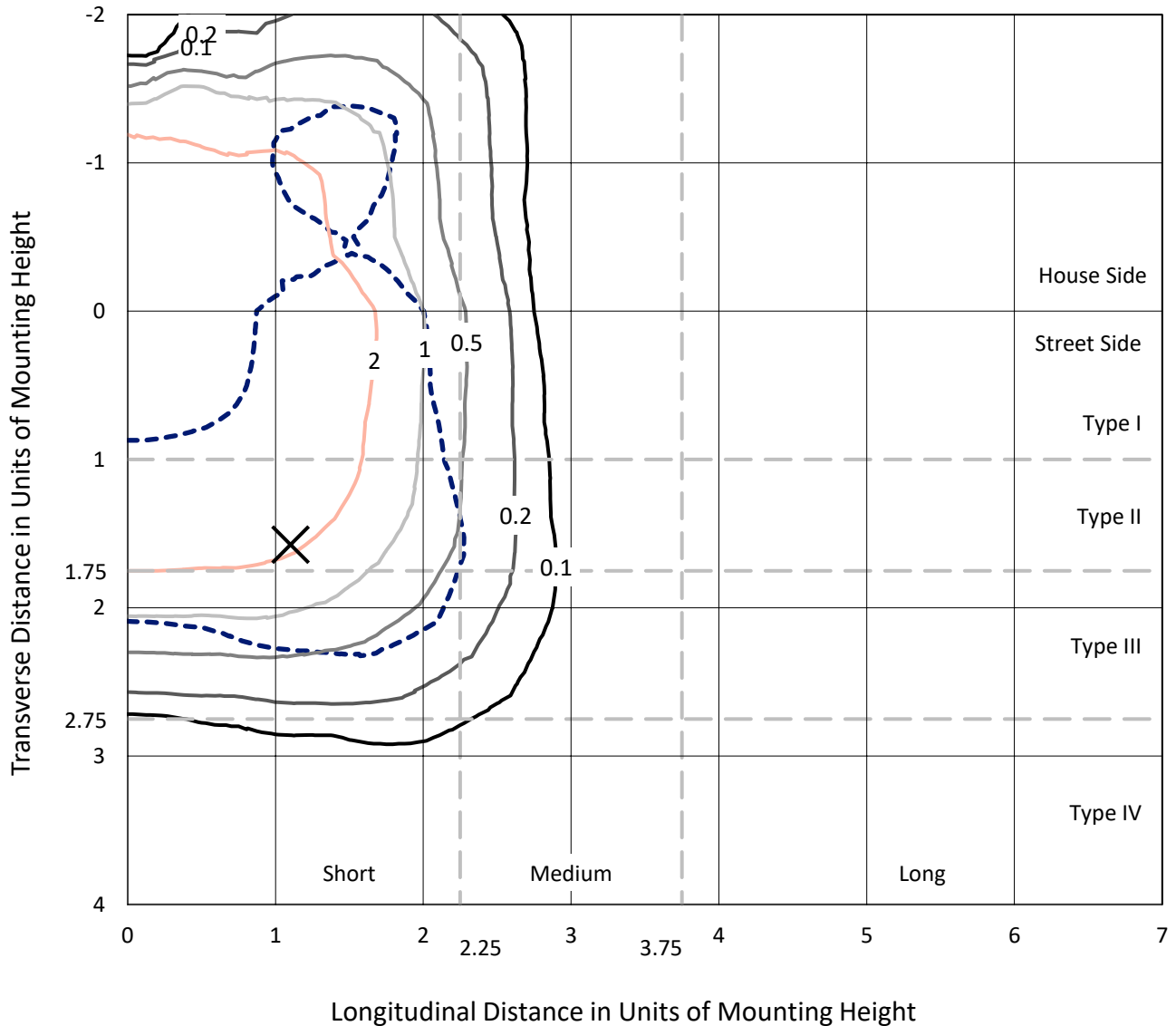
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

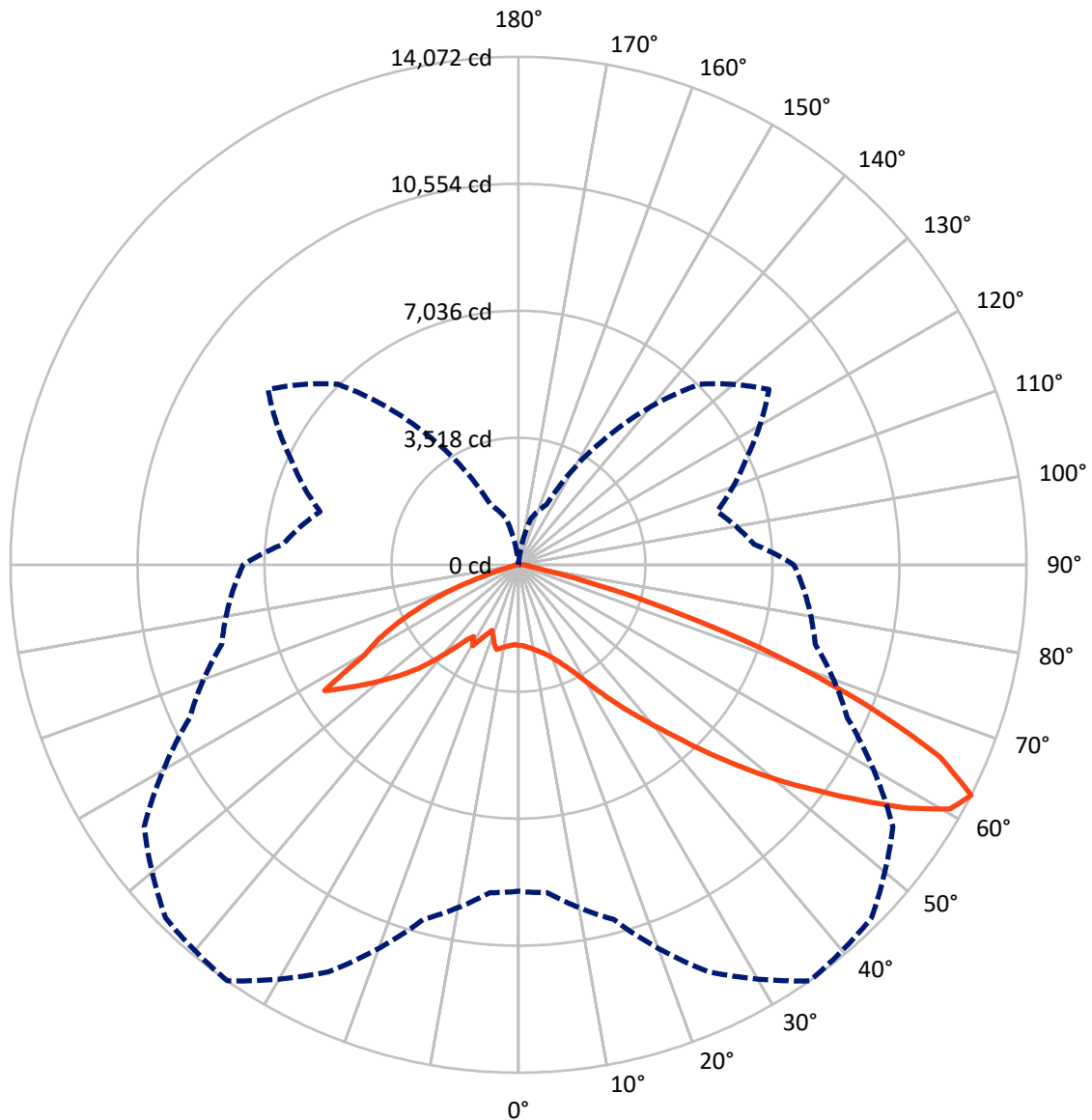
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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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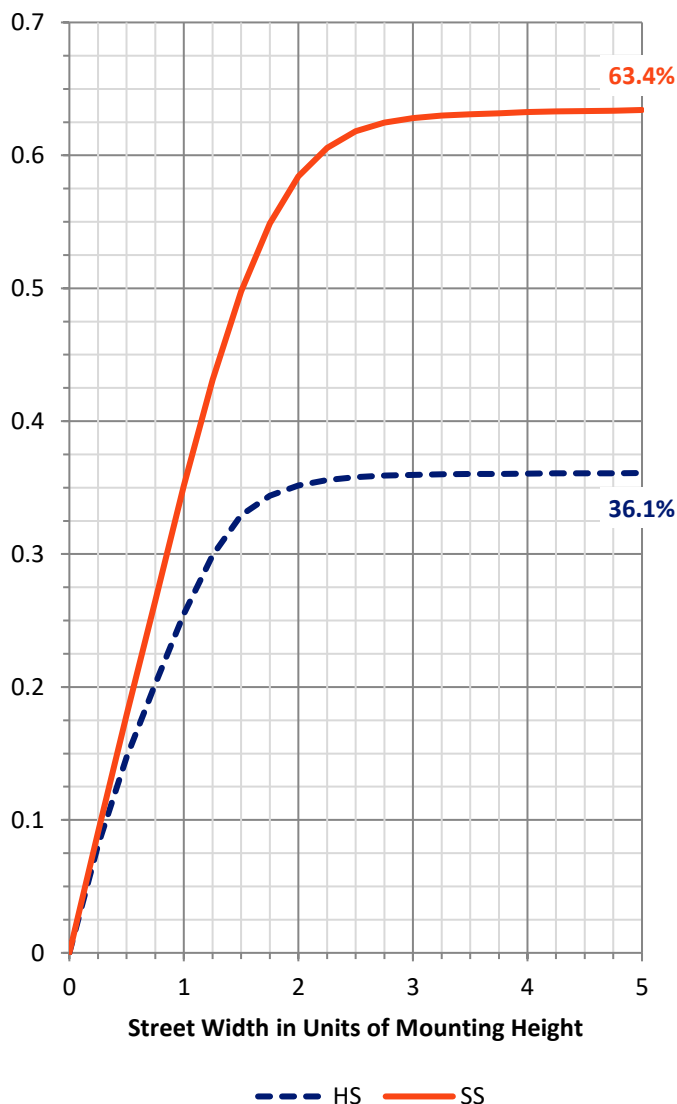
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9084.2	0.0	9084.2
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	15930.9	11.9	15942.8
	% Fixture	63.7	0.0	63.7
Total	Lumens	25015.1	11.9	25027.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.2	0.9
10°-20°	711.5	2.8
20°-30°	1368.9	5.5
30°-40°	2730.8	10.9
40°-50°	4986.3	19.9
50°-60°	7451.2	29.8
60°-70°	6243.4	24.9
70°-80°	1168.4	4.7
80°-90°	134.5	0.5
90°-100°	10.7	0.0
100°-110°	1.2	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°	25015.1	100.0
0°-180°	25027.0	100.0

Coefficient of Utilization



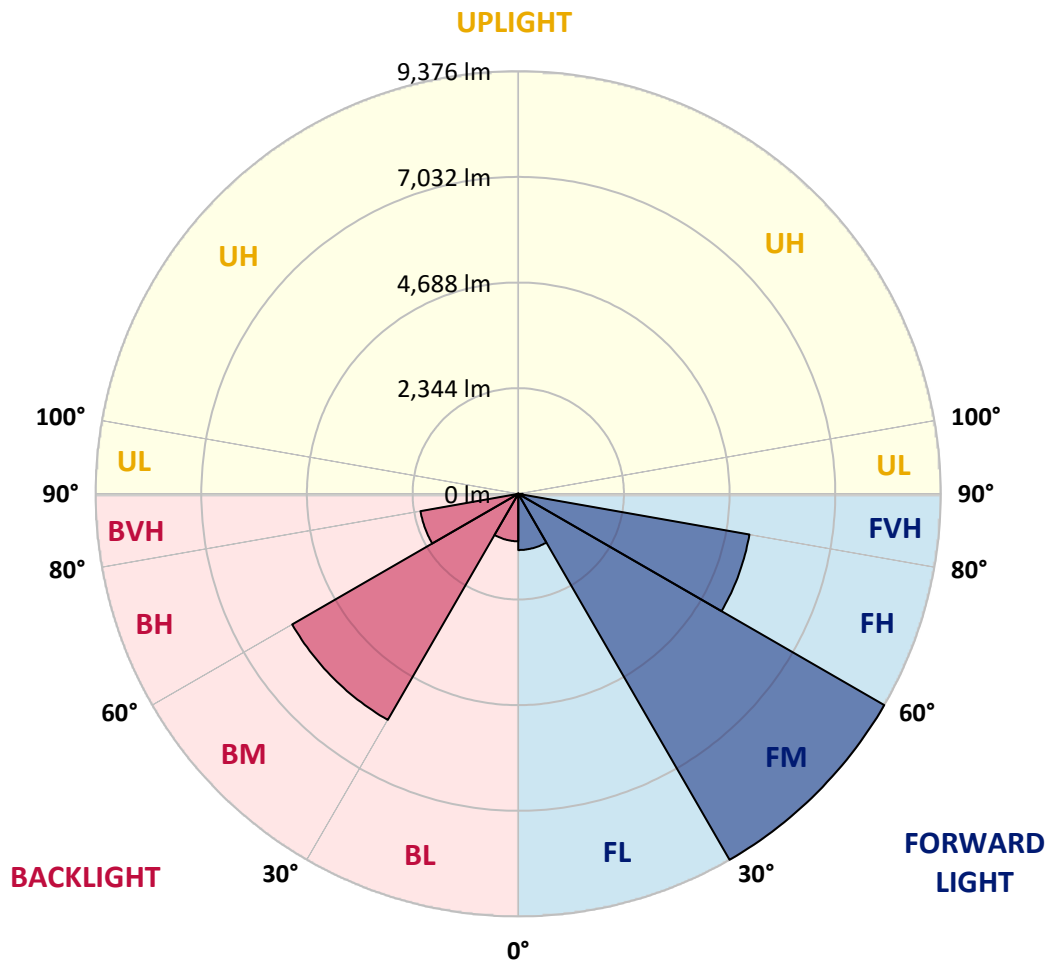
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1247.9	5.0			
FM (30°-60°)	9376.3	37.5			
FH (60°-80°)	5208.8	20.8			G3/7500
FVH (80°-90°)	97.9	0.4			G1/100
BL (0°-30°)	1052.7	4.2	B3/2500		
BM (30°-60°)	5792.0	23.1	B4/8500		
BH (60°-80°)	2203.0	8.8	B3/2500		G3/2500
BVH (80°-90°)	36.6	0.1			G1/100
UL (90°-100°)	10.7	0.0		U2/50	
UH (100°-180°)	1.2	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°	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3
2.5°	2287.2	2268.4	2271.2	2284.4	2243.1	2260.0	2242.1	2259.0	2253.4	2260.9	2266.5
5°	2320.0	2296.6	2298.4	2313.4	2281.5	2295.6	2277.8	2289.0	2279.7	2290.0	2290.9
7.5°	2365.0	2345.3	2342.5	2357.5	2330.3	2342.5	2324.7	2330.3	2320.9	2333.1	2329.4
10°	2425.1	2407.3	2402.6	2412.9	2391.3	2397.9	2379.1	2386.6	2372.5	2386.6	2380.0
12.5°	2491.7	2468.2	2469.2	2480.4	2458.9	2463.5	2448.5	2457.0	2440.1	2455.1	2450.4
15°	2570.5	2536.7	2543.3	2555.5	2534.8	2548.9	2531.1	2543.3	2527.3	2543.3	2537.7
17.5°	2672.7	2634.3	2639.0	2658.7	2641.8	2664.3	2643.7	2658.7	2651.2	2661.5	2659.6
20°	2802.2	2776.9	2772.2	2796.6	2772.2	2800.3	2789.1	2815.3	2817.2	2827.5	2832.2
22.5°	2974.8	2957.9	2946.7	2963.6	2942.0	2961.7	2977.6	3022.7	3039.6	3066.8	3068.6
25°	3204.7	3203.7	3178.4	3179.3	3152.1	3178.4	3223.4	3293.8	3338.8	3373.5	3360.4
27.5°	3515.2	3520.8	3482.4	3467.3	3435.5	3474.9	3567.7	3655.0	3736.6	3785.4	3785.4
30°	3920.5	3926.1	3869.8	3839.8	3810.7	3879.2	3989.9	4103.4	4219.7	4290.1	4274.1
32.5°	4457.1	4439.3	4358.6	4304.2	4254.4	4333.2	4460.8	4589.4	4747.9	4849.2	4837.0
35°	5108.1	5043.4	4962.7	4861.4	4754.5	4816.4	4936.5	5097.8	5318.3	5470.3	5431.8
37.5°	5864.3	5800.5	5662.6	5488.1	5301.4	5308.9	5403.7	5683.2	5959.0	6082.9	6056.6
40°	6649.5	6599.8	6473.1	6248.9	5911.2	5833.3	5989.1	6325.8	6589.5	6745.2	6701.1
42.5°	7449.7	7399.1	7303.4	7078.2	6630.7	6443.1	6605.4	6972.2	7253.7	7406.6	7355.9
45°	8248.1	8189.9	8113.9	7915.0	7488.2	7213.3	7304.3	7641.1	7898.2	8071.7	7967.6
47.5°	8949.8	8911.3	8859.7	8779.1	8405.7	8101.7	8095.2	8317.5	8494.8	8609.3	8481.7
50°	9560.5	9533.3	9562.4	9545.5	9409.5	9132.7	8962.9	8947.9	9005.2	9088.7	8906.7
52.5°	10108.4	10060.6	10168.4	10302.6	10403.0	10346.7	9796.9	9488.3	9425.4	9453.6	9247.2
55°	10556.8	10534.3	10715.4	11052.2	11516.5	11640.4	10653.5	10013.7	9781.9	9766.9	9532.4
57.5°	10830.8	10862.7	11224.8	11866.5	12718.3	12757.7	11705.1	10575.6	10129.0	9967.7	9697.5
60°	10394.5	10517.4	11135.7	12459.4	13738.1	13762.4	12477.2	10678.8	9695.6	9334.4	8999.5
62.5°	9045.5	9118.7	10170.3	12439.7	14072.0	13833.7	12661.1	10055.9	8512.6	7936.6	7627.0
65°	6371.8	6508.8	7635.5	11192.0	12823.4	12853.4	11615.1	8694.6	6797.7	6160.7	5960.9
67.5°	3848.2	3979.6	5179.4	8079.2	10424.6	10761.3	9689.1	6582.9	4874.6	4069.6	3867.9
70°	1249.6	1392.2	2360.3	4762.0	7668.3	8476.1	7291.2	4284.5	2552.7	1788.1	1571.4
72.5°	474.7	517.9	768.3	2079.8	4776.0	5658.8	4509.6	2149.3	790.8	470.9	413.7
75°	308.6	315.2	359.3	728.9	2303.1	3115.5	2173.7	629.5	317.1	281.4	260.8
77.5°	265.5	270.2	288.9	363.1	733.6	1191.4	623.9	321.8	264.6	234.5	220.5
80°	250.5	252.4	264.6	307.7	343.4	397.8	300.2	269.2	230.8	220.5	210.1
82.5°	237.3	243.9	250.5	279.6	278.6	286.1	241.1	211.1	196.1	206.4	202.6
85°	221.4	225.2	229.8	249.5	227.0	192.3	185.8	145.4	141.7	151.0	141.7
87.5°	155.7	165.1	159.5	167.9	157.6	122.9	104.1	82.6	65.7	54.4	52.5
90°	63.8	64.7	61.0	56.3	49.7	41.3	32.8	20.6	9.4	4.7	1.9
92.5°	49.7	49.7	47.8	43.2	37.5	31.0	23.5	13.1	6.6	2.8	0.9
95°	31.0	31.9	30.0	27.2	23.5	18.8	14.1	7.5	4.7	1.9	0.9
97.5°	19.7	19.7	17.8	15.9	13.1	9.4	6.6	5.6	3.8	1.9	0.0
100°	11.3	11.3	10.3	8.4	6.6	4.7	4.7	3.8	2.8	0.9	0.0
102.5°	6.6	6.6	4.7	3.8	2.8	2.8	2.8	2.8	1.9	0.9	0.0
105°	2.8	2.8	1.9	1.9	0.9	0.9	1.9	1.9	1.9	0.9	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	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	0.9



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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°	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3	2239.3
2.5°	2262.8	2245.9	2248.7	2232.8	2229.9	2214.0	2245.9	2249.6	2240.3	2248.7
5°	2289.0	2268.4	2275.0	2257.2	2254.3	2232.8	2260.9	2259.0	2251.5	2260.0
7.5°	2328.5	2306.9	2310.6	2290.9	2287.2	2263.7	2290.0	2281.5	2274.0	2284.4
10°	2383.8	2359.4	2361.3	2336.0	2338.8	2307.8	2339.7	2324.7	2315.3	2329.4
12.5°	2450.4	2423.2	2424.1	2397.9	2396.9	2366.9	2395.1	2386.6	2372.5	2394.1
15°	2536.7	2505.8	2502.9	2468.2	2458.9	2425.1	2451.3	2435.4	2426.0	2457.0
17.5°	2657.7	2623.0	2612.7	2570.5	2395.1	2293.7	2434.5	2482.3	2424.1	2414.8
20°	2819.1	2790.0	2766.6	2702.8	2408.2	2092.0	1858.4	1860.3	2106.1	2219.6
22.5°	3037.7	3003.0	2958.9	2867.9	2209.3	1959.8	1960.7	1957.9	1680.2	1562.9
25°	3336.9	3294.7	3204.7	2690.6	2345.3	2114.6	2108.9	1834.1	1681.1	1689.6
27.5°	3741.3	3655.0	3127.7	2914.8	2587.4	2315.3	2180.2	1846.3	1865.0	1878.1
30°	4255.4	3908.3	3380.1	3253.5	2878.2	2581.7	2016.1	2062.0	2099.5	2108.0
32.5°	4782.6	3919.5	3783.5	3649.3	3236.6	2349.1	2272.2	2359.4	2398.8	2403.5
35°	4777.9	4399.9	4224.4	4073.4	3568.7	2513.3	2562.0	2696.2	2796.6	2791.9
37.5°	5056.5	4929.9	4720.7	4529.3	3212.2	2831.3	2918.5	3070.5	3192.5	3188.7
40°	5639.1	5492.8	5271.4	4869.9	3556.5	3195.3	3317.2	3480.5	3566.8	3571.5
42.5°	6189.8	6068.8	5842.7	4550.0	3987.1	3633.4	3744.1	3853.9	3907.3	3924.2
45°	6737.7	6651.4	5899.0	5028.4	4507.7	4074.3	4147.5	4168.1	4224.4	4217.9
47.5°	7182.4	7086.7	5672.0	5628.8	5139.1	4492.7	4487.1	4459.9	4480.5	4485.2
50°	7588.6	6435.6	6127.9	6271.4	5801.4	4919.6	4812.6	4757.3	4729.1	4716.9
52.5°	7909.4	6437.5	6553.8	6935.6	6549.1	5383.0	5153.2	4997.4	4375.5	4862.4
55°	8182.4	6703.0	6957.2	7645.8	7193.6	5868.0	5460.9	5183.2	2920.4	2341.6
57.5°	8339.1	6904.7	7356.9	8310.9	7756.5	6407.5	5027.5	4347.3	1651.1	1649.2
60°	7734.0	6542.6	7345.6	8659.9	7594.2	4970.2	2047.0	1713.0	312.4	320.8
62.5°	6547.2	5691.7	6966.6	8468.5	7072.6	4372.6	1835.9	1319.0	10.3	8.4
65°	5072.5	4540.6	5866.2	7448.8	6434.7	3648.4	1368.7	950.3	2.8	0.0
67.5°	3318.2	3200.0	4328.6	6176.7	5247.9	2826.6	918.4	455.0	1.9	0.0
70°	1414.7	1638.9	2742.2	4478.7	4017.1	1944.8	442.8	164.2	0.9	0.0
72.5°	395.9	524.4	1220.5	2624.0	2526.4	1022.6	172.6	69.4	0.9	0.0
75°	234.5	201.7	349.9	1047.0	1229.9	359.3	79.7	53.5	0.9	0.0
77.5°	195.1	157.6	200.8	267.4	372.4	129.5	67.5	47.8	0.0	0.0
80°	182.9	139.8	173.6	186.7	183.9	107.9	66.6	47.8	0.0	0.0
82.5°	173.6	122.0	143.5	143.5	153.9	99.4	62.9	46.9	0.0	0.0
85°	130.4	85.4	95.7	123.8	110.7	70.4	46.0	37.5	0.0	0.0
87.5°	49.7	31.0	37.5	39.4	31.9	15.9	3.8	3.8	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)