

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: P522115

Luminaire Tested: **CTN-CA10-210-730-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522115
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-730-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22665 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

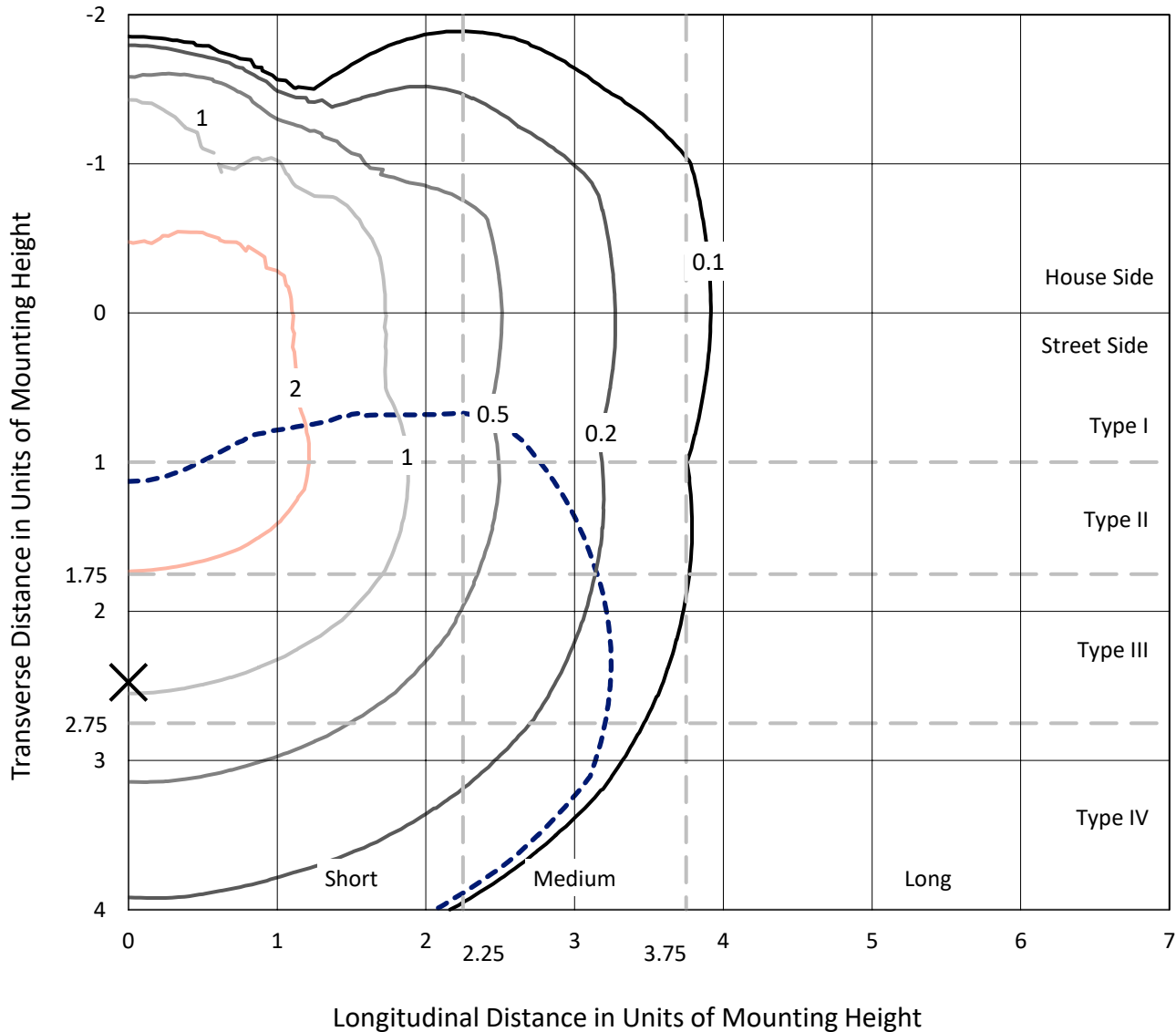
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

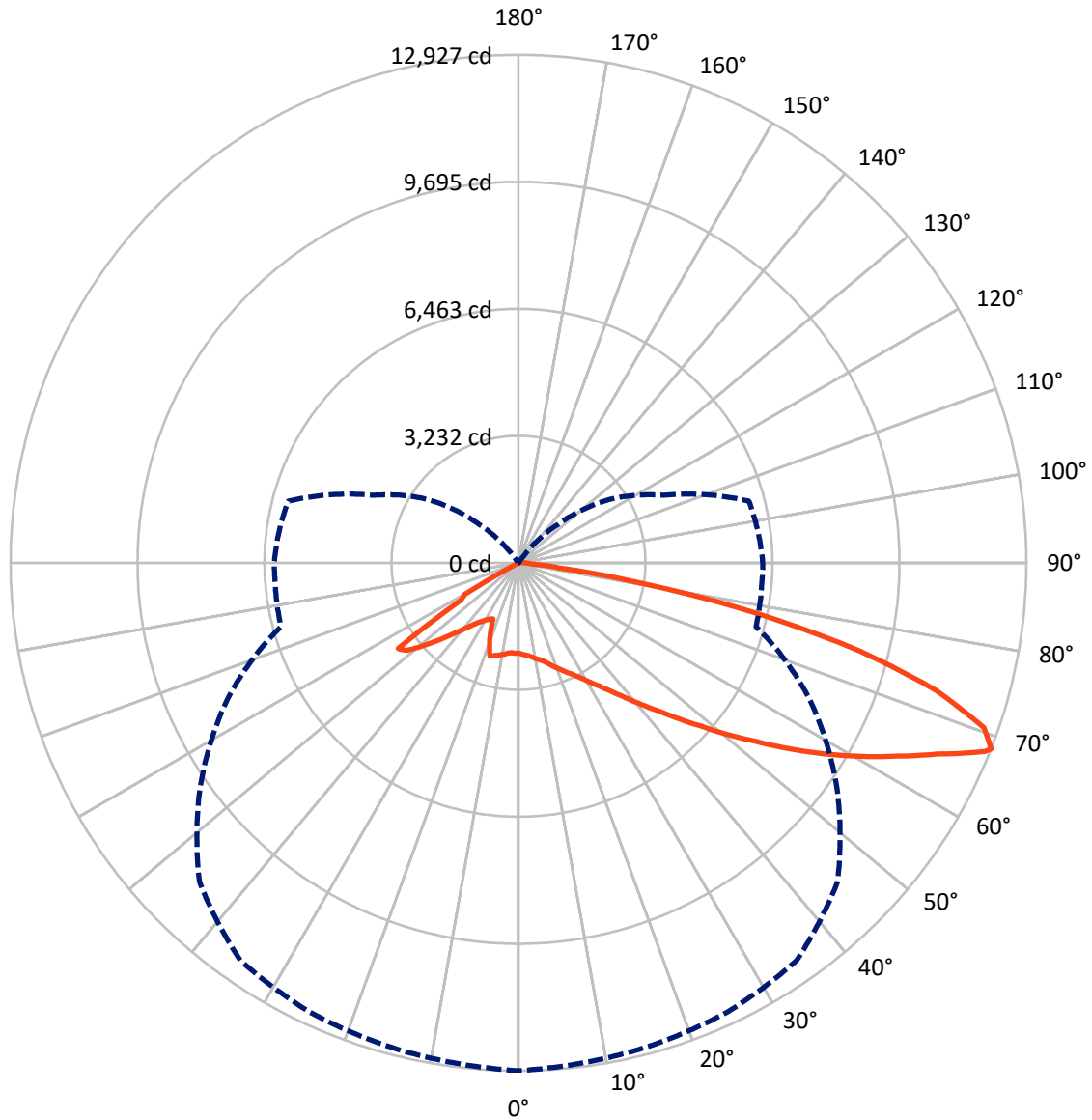
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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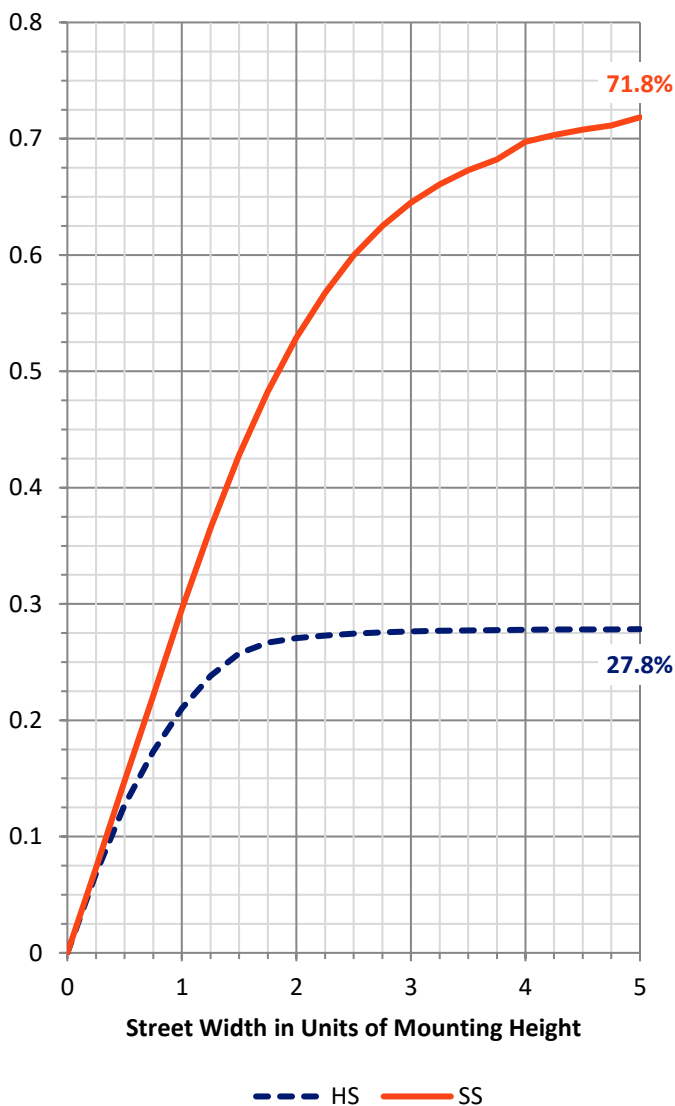
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6330.4	0.1	6330.5
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	16321.5	13.0	16334.5
	% Fixture	72.0	0.1	72.1
Total	Lumens	22651.9	13.1	22665.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.9	1.0
10°-20°	706.2	3.1
20°-30°	1195.6	5.3
30°-40°	1894.0	8.4
40°-50°	3096.6	13.7
50°-60°	4743.2	20.9
60°-70°	5832.2	25.7
70°-80°	4506.5	19.9
80°-90°	454.7	2.0
90°-100°	12.9	0.1
100°-110°	0.2	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°	22651.9	99.9
0°-180°	22665.0	100.0

Coefficient of Utilization

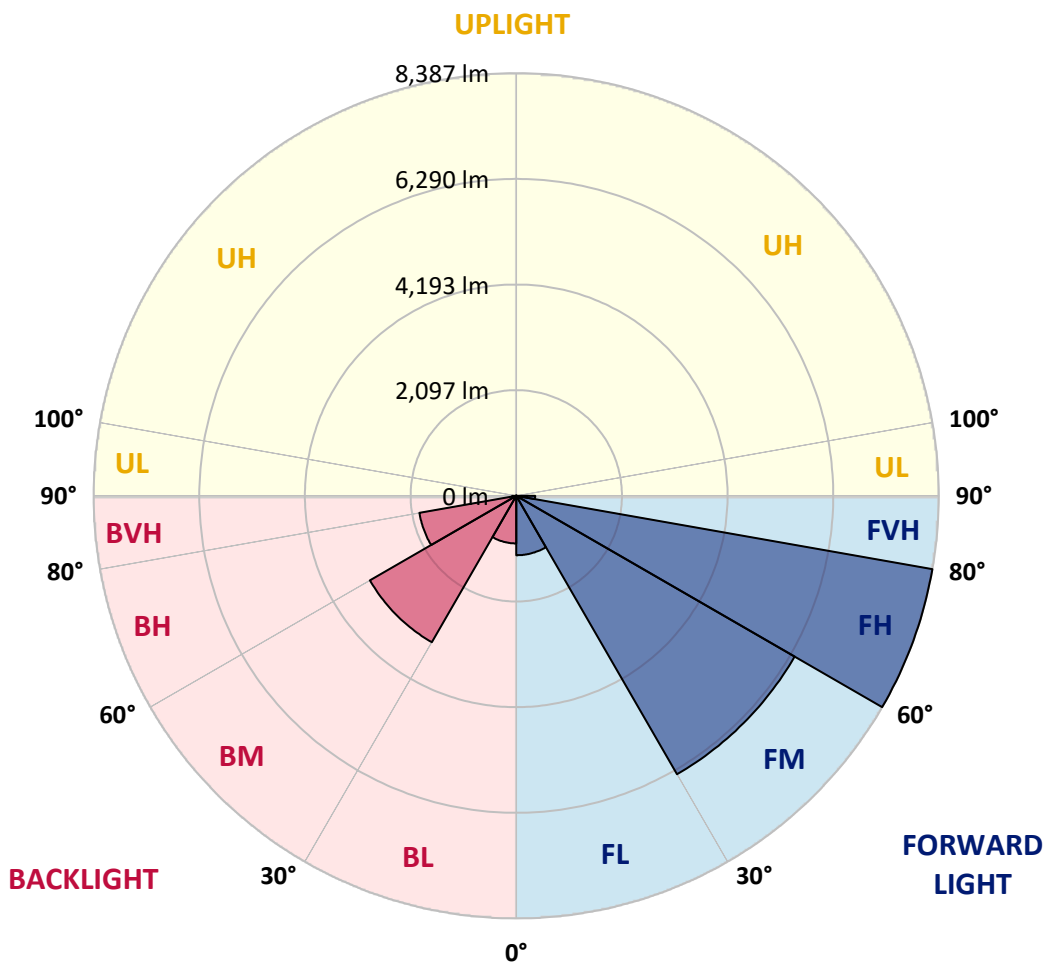


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1179.7	5.2			
FM (30°-60°)	6379.8	28.1			
FH (60°-80°)	8387.0	37.0			G4/12000
FVH (80°-90°)	375.0	1.7			G3/500
BL (0°-30°)	944.9	4.2	B2/1000		
BM (30°-60°)	3354.1	14.8	B3/5000		
BH (60°-80°)	1951.7	8.6	B3/2500		G3/2500
BVH (80°-90°)	79.7	0.4			G1/100
UL (90°-100°)	12.9	0.1		U2/50	
UH (100°-180°)	0.2	0.0		U1/10	

BUG Rating: B3-U2-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2
2.5°	2337.7	2333.3	2329.0	2338.8	2300.6	2317.0	2303.8	2315.9	2307.1	2317.0	2313.7
5°	2368.3	2363.9	2350.8	2361.7	2336.6	2343.2	2326.8	2331.1	2301.7	2319.1	2318.0
7.5°	2418.5	2406.5	2397.8	2397.8	2375.9	2374.8	2348.6	2349.7	2326.8	2324.6	2329.0
10°	2486.2	2477.5	2453.4	2455.6	2425.0	2420.7	2387.9	2386.8	2368.3	2357.4	2367.2
12.5°	2536.4	2545.2	2523.3	2523.3	2492.7	2470.9	2448.0	2432.7	2418.5	2402.1	2394.5
15°	2628.1	2636.9	2607.4	2606.3	2594.3	2568.1	2543.0	2510.2	2485.1	2477.5	2465.4
17.5°	2747.1	2741.7	2716.6	2717.7	2719.9	2677.3	2652.2	2609.6	2573.5	2547.3	2540.8
20°	2868.3	2868.3	2841.1	2849.8	2838.9	2799.6	2783.2	2724.2	2674.0	2645.6	2622.7
22.5°	3003.7	2998.3	2979.7	2998.3	2976.4	2937.1	2909.8	2850.9	2786.5	2626.0	2560.4
25°	3132.6	3129.3	3136.9	3142.4	3115.1	3066.0	3047.4	2985.2	2806.1	2595.4	2463.3
27.5°	3295.3	3284.3	3301.8	3312.7	3285.4	3242.9	3203.6	3133.7	2754.8	2588.8	2574.6
30°	3503.8	3479.8	3504.9	3510.4	3482.0	3455.8	3396.8	3047.4	2772.3	2724.2	2719.9
32.5°	3726.6	3698.2	3730.9	3735.3	3698.2	3676.3	3527.8	3002.6	2943.7	2888.0	2893.5
35°	3990.8	3990.8	4007.2	4009.4	3982.1	3944.9	3379.3	3221.0	3168.6	3117.3	3116.2
37.5°	4312.9	4303.1	4346.7	4372.9	4343.5	4237.6	3595.5	3521.3	3440.5	3375.0	3239.6
40°	4701.6	4719.1	4731.1	4757.3	4728.9	4490.9	3911.1	3827.0	3763.7	3544.2	3202.5
42.5°	5120.9	5125.2	5151.5	5184.2	5184.2	4933.1	4280.1	4208.1	4126.2	3465.6	3311.6
45°	5622.0	5612.2	5662.4	5714.9	5700.7	5440.8	4709.2	4655.7	4272.5	3693.8	3694.9
47.5°	6190.9	6178.9	6251.0	6319.8	6248.8	6004.2	5180.9	5139.4	4124.0	4080.3	4071.6
50°	6848.2	6818.7	6901.7	6993.4	6935.6	6633.1	5754.2	4957.1	4537.8	4502.9	4497.4
52.5°	7550.3	7527.4	7577.6	7733.7	7657.3	7291.5	6296.8	5114.3	5017.2	4977.8	4968.0
55°	8343.0	8298.2	8406.3	8525.3	8436.9	8019.8	6831.8	5636.2	5535.8	5468.1	5369.8
57.5°	9176.1	9111.7	9167.4	9316.9	9231.8	8765.5	7521.9	6173.4	6054.4	5010.6	4612.1
60°	10005.9	9976.4	9998.3	10130.4	10025.6	9490.5	8168.3	6711.7	5124.2	4956.0	4975.7
62.5°	10840.1	10775.7	10795.3	10930.7	10796.4	10180.6	8780.8	7200.9	5392.8	5333.8	5354.5
65°	11734.3	11657.9	11675.4	11714.7	11548.7	10799.7	9322.4	7662.8	5796.7	5734.5	5757.4
67.5°	12812.0	12742.1	12647.1	12530.3	12301.0	11457.0	9860.7	8148.6	6251.0	6216.0	6223.7
68°	12926.7	12859.0	12744.3	12605.7	12348.0	11484.3	9883.6	8162.8	6257.5	6213.8	6216.0
70°	12569.6	12610.0	12480.1	12247.5	12032.4	11084.7	9509.1	7848.4	5979.1	5914.7	5898.3
72.5°	11131.6	11220.1	11041.0	11001.7	10737.5	9874.9	8321.2	6810.0	5200.6	5221.3	5162.4
75°	8987.2	9117.1	8899.8	8911.9	8761.2	8237.1	6973.8	5670.1	4270.3	4365.3	4382.8
77.5°	6249.9	6436.6	6341.6	6436.6	6362.3	6173.4	5397.1	4366.4	3258.1	3367.3	3409.9
80°	3259.2	3480.9	3606.5	3645.8	3669.8	3662.1	3286.5	2620.5	1883.5	1923.9	1921.7
82.5°	1030.7	977.2	1008.9	1000.2	972.9	983.8	886.6	693.3	480.4	529.6	506.6
85°	311.2	313.4	304.6	302.4	279.5	245.7	200.9	115.7	56.8	66.6	62.2
87.5°	229.3	231.5	214.0	203.1	190.0	164.9	127.7	72.1	27.3	26.2	20.7
90°	126.7	122.3	113.6	104.8	99.4	85.2	64.4	27.3	9.8	7.6	6.6
92.5°	68.8	65.5	61.1	57.9	50.2	40.4	26.2	8.7	4.4	1.1	0.0
95°	31.7	29.5	28.4	25.1	21.8	15.3	8.7	5.5	3.3	1.1	0.0
97.5°	14.2	13.1	12.0	9.8	7.6	4.4	4.4	3.3	2.2	1.1	0.0
100°	3.3	3.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2
2.5°	2310.4	2303.8	2300.6	2279.8	2286.4	2267.8	2303.8	2295.1	2289.7	2304.9
5°	2312.6	2289.7	2303.8	2291.8	2296.2	2270.0	2298.4	2286.4	2285.3	2291.8
7.5°	2318.0	2302.8	2317.0	2292.9	2303.8	2292.9	2313.7	2301.7	2311.5	2318.0
10°	2347.5	2338.8	2332.2	2326.8	2334.4	2312.6	2338.8	2339.9	2343.2	2362.8
12.5°	2389.0	2380.3	2369.4	2355.2	2362.8	2354.1	2373.7	2379.2	2391.2	2401.0
15°	2446.9	2430.5	2426.1	2413.0	2420.7	2416.3	2420.7	2417.4	2440.3	2437.1
17.5°	2526.6	2508.0	2445.8	2382.5	2342.1	2354.1	2404.3	2469.8	2486.2	2488.4
20°	2556.1	2425.0	2418.5	2346.4	2313.7	2311.5	2207.8	2052.7	2099.7	2209.9
22.5°	2521.1	2342.1	2323.5	2309.3	2169.5	1940.3	1918.4	1895.5	1890.0	1906.4
25°	2442.5	2421.8	2405.4	2219.8	1999.2	2000.3	1968.6	1818.0	1583.2	1563.6
27.5°	2562.6	2534.2	2375.9	2089.8	2085.5	2083.3	2036.3	1649.8	1599.6	1611.6
30°	2699.1	2652.2	2238.3	2201.2	2200.1	2180.5	1825.6	1664.0	1664.0	1666.2
32.5°	2856.3	2564.8	2317.0	2334.4	2333.3	2240.5	1763.4	1752.5	1748.1	1759.0
35°	2976.4	2494.9	2486.2	2517.9	2496.0	1900.9	1873.7	1863.8	1859.5	1854.0
37.5°	2939.3	2695.8	2695.8	2715.5	2539.7	2024.3	2011.2	2011.2	2002.5	1998.1
40°	2996.1	2945.9	2920.8	2928.4	1845.3	2173.9	2183.7	2181.6	2180.5	2188.1
42.5°	3295.3	3250.5	3227.6	2956.8	2065.8	2160.8	2401.0	2399.9	2403.2	2399.9
45°	3676.3	3634.8	3574.8	2766.8	2345.3	1894.4	2646.7	2658.7	2659.8	2658.7
47.5°	4076.0	4049.8	3435.0	3062.7	2648.9	2033.1	2529.9	2954.6	2949.1	2955.7
50°	4498.5	4380.6	3417.6	3413.2	2972.1	2262.4	2263.4	3213.4	3269.1	3286.5
52.5°	4969.1	3971.1	3787.7	3455.8	3299.6	2498.2	2474.2	2847.6	3607.5	3625.0
55°	4615.3	4195.0	4191.7	3075.8	3432.8	2725.3	2728.6	2702.4	3308.4	3760.4
57.5°	4592.4	4602.2	4594.6	3431.8	2504.8	2555.0	2973.2	2950.2	2142.3	1736.1
60°	4988.8	5003.0	4463.6	3705.8	2707.8	1571.2	1831.1	1555.9	1576.7	1593.0
62.5°	5367.6	5372.0	3630.5	2429.4	1341.9	63.3	30.6	25.1	24.0	24.0
65°	5786.9	5786.9	3891.4	2650.0	1296.1	24.0	4.4	3.3	12.0	12.0
67.5°	6192.0	6102.5	4082.5	2813.8	1319.0	3.3	0.0	0.0	0.0	0.0
68°	6169.1	6070.8	4065.0	2809.4	1315.7	2.2	0.0	0.0	0.0	0.0
70°	5826.2	5731.2	3856.5	2681.6	1266.6	2.2	0.0	0.0	0.0	0.0
72.5°	5142.7	5055.4	3415.4	2363.9	1142.1	1.1	0.0	0.0	0.0	0.0
75°	4353.3	4341.3	2950.2	1994.8	979.4	1.1	0.0	0.0	0.0	0.0
77.5°	3502.7	3448.1	2306.0	1563.6	789.4	0.0	0.0	0.0	0.0	0.0
80°	1951.2	2032.0	1349.6	919.4	496.8	0.0	0.0	0.0	0.0	0.0
82.5°	527.4	493.5	294.8	199.8	95.0	0.0	0.0	0.0	0.0	0.0
85°	67.7	74.2	33.8	27.3	6.6	0.0	0.0	0.0	0.0	0.0
87.5°	34.9	41.5	10.9	8.7	2.2	0.0	0.0	0.0	0.0	0.0
90°	6.6	7.6	3.3	1.1	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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)