

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: P522187

Luminaire Tested: **CTN-CA6-230-730-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522187
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-CA6-230-730-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (6) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22375 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

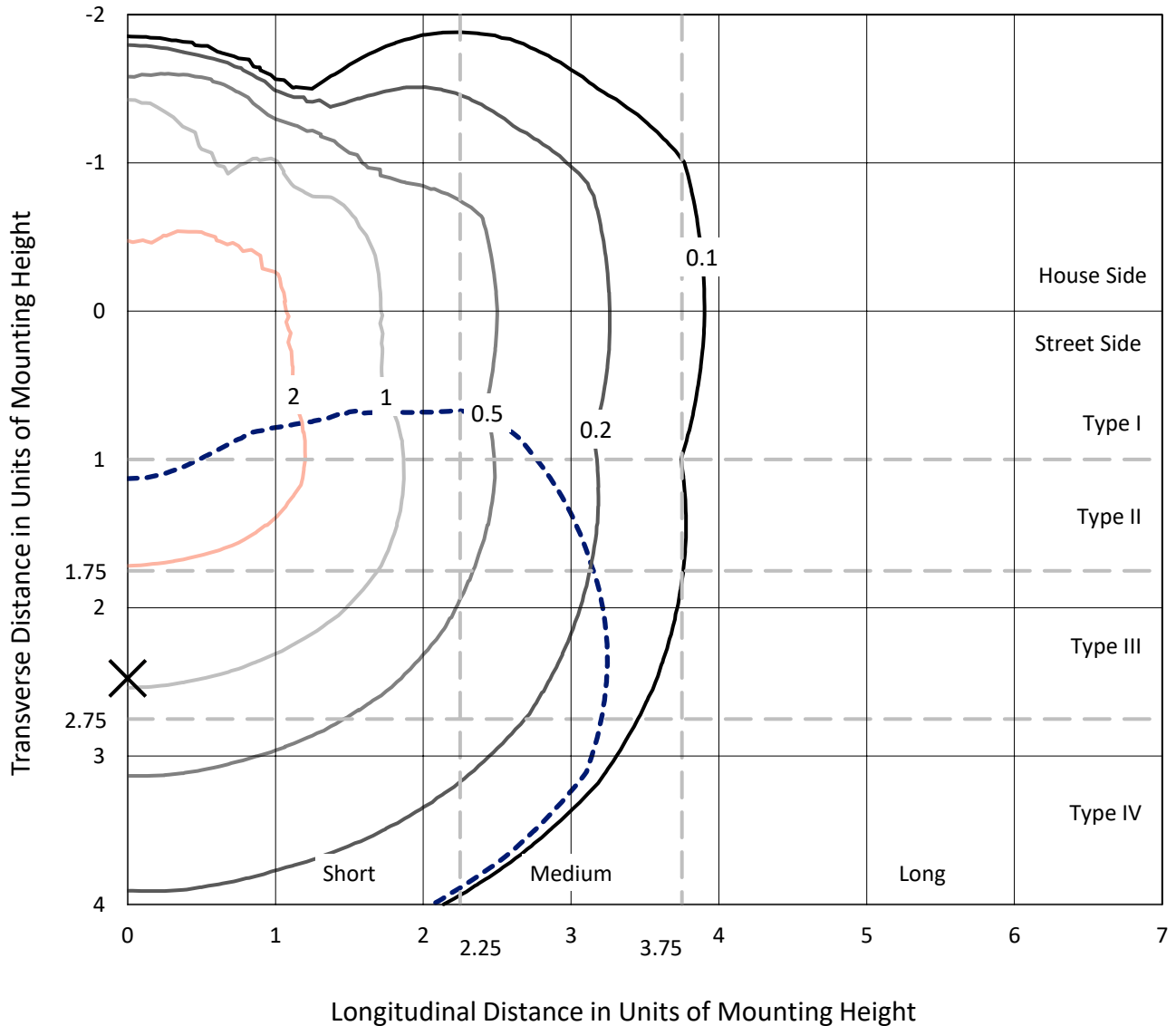
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

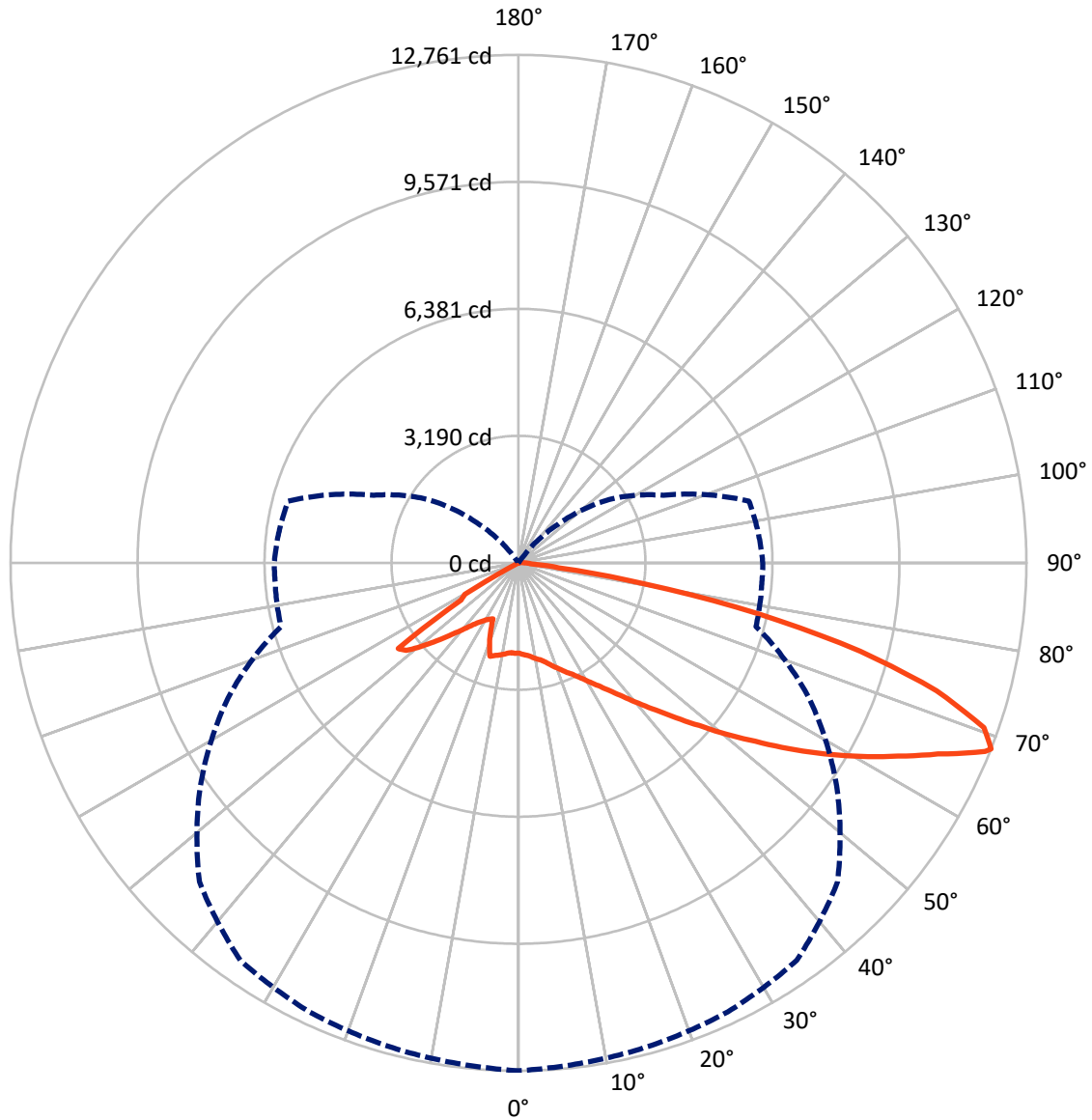
× Max cd
 - - - 1/2 Max cd



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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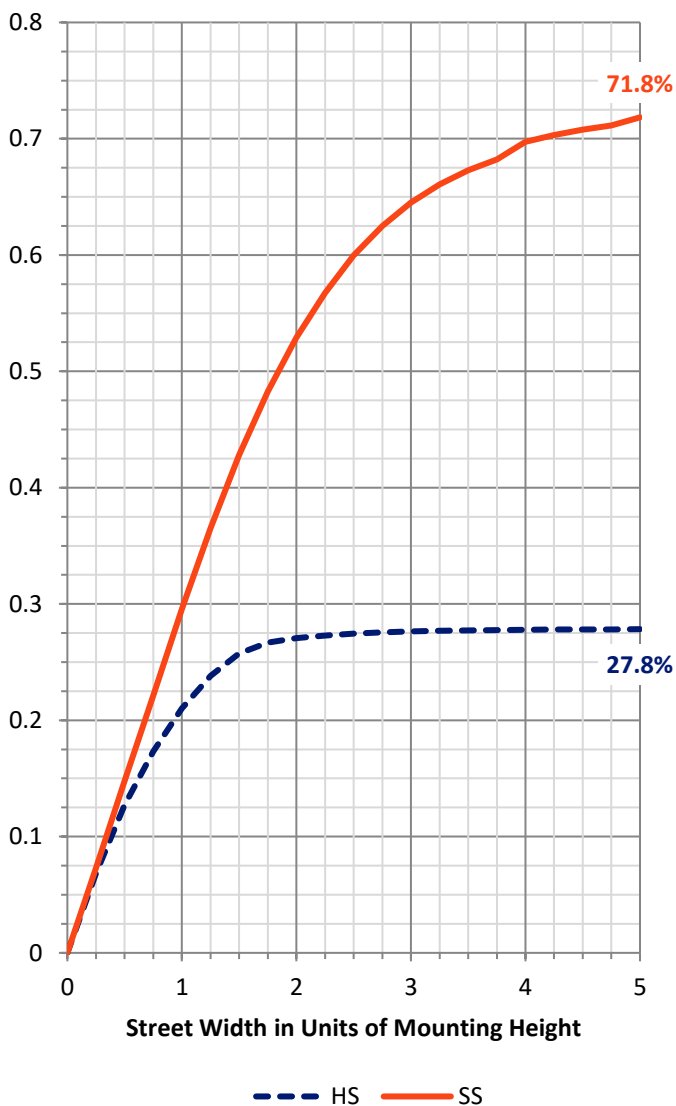
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6249.4	0.1	6249.5
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	16112.7	12.8	16125.5
	% Fixture	72.0	0.1	72.1
Total	Lumens	22362.1	13.0	22375.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.0	1.0
10°-20°	697.1	3.1
20°-30°	1180.3	5.3
30°-40°	1869.8	8.4
40°-50°	3057.0	13.7
50°-60°	4682.6	20.9
60°-70°	5757.6	25.7
70°-80°	4448.8	19.9
80°-90°	448.9	2.0
90°-100°	12.7	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°	22362.1	99.9
0°-180°	22375.0	100.0

Coefficient of Utilization

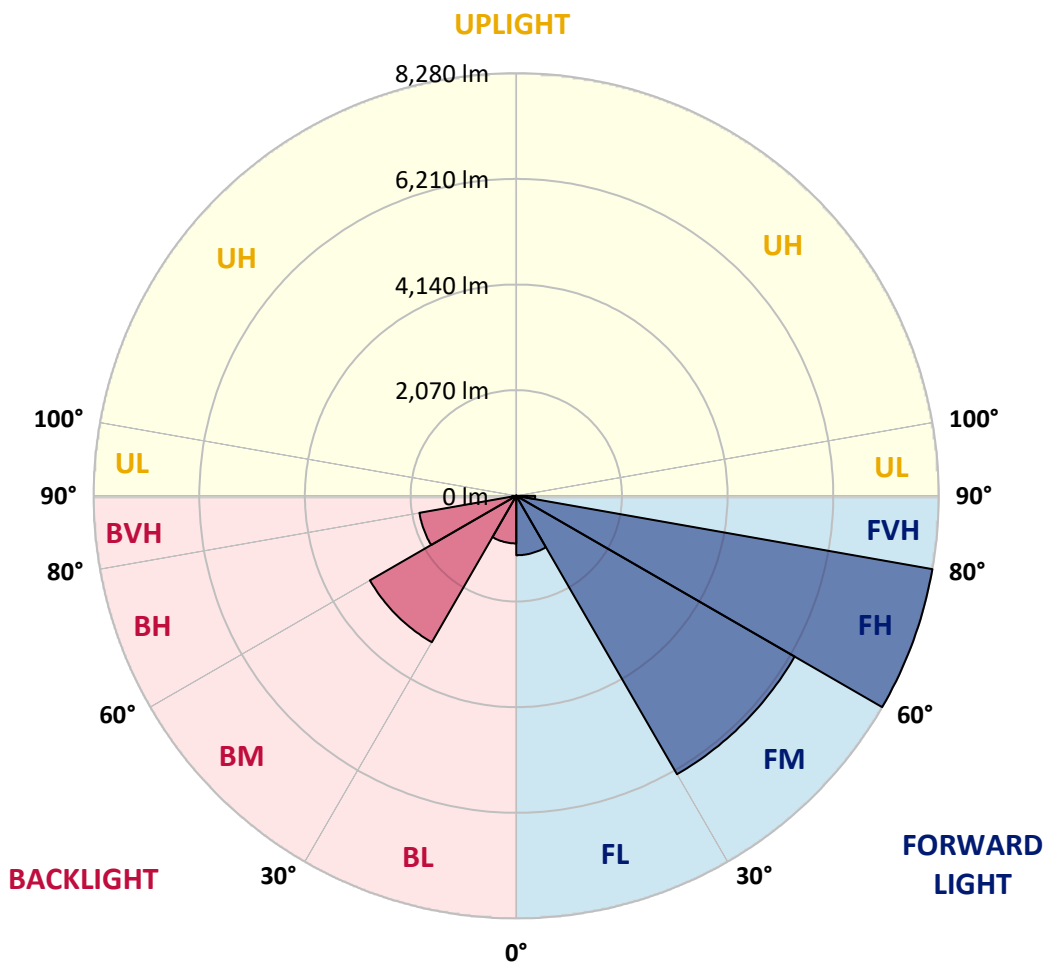


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1164.6	5.2			
FM	(30°-60°)	6298.2	28.1			
FH	(60°-80°)	8279.7	37.0			G4/12000
FVH	(80°-90°)	370.2	1.7			G3/500
BL	(0°-30°)	932.8	4.2	B2/1000		
BM	(30°-60°)	3311.2	14.8	B3/5000		
BH	(60°-80°)	1926.7	8.6	B3/2500		G3/2500
BVH	(80°-90°)	78.7	0.4			G1/100
UL	(90°-100°)	12.7	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°	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8
2.5°	2307.8	2303.5	2299.2	2308.9	2271.1	2287.3	2274.4	2286.2	2277.6	2287.3	2284.1
5°	2338.0	2333.7	2320.7	2331.5	2306.7	2313.2	2297.0	2301.3	2272.2	2289.5	2288.4
7.5°	2387.6	2375.7	2367.1	2367.1	2345.5	2344.4	2318.6	2319.6	2297.0	2294.9	2299.2
10°	2454.4	2445.8	2422.0	2424.2	2394.0	2389.7	2357.4	2356.3	2338.0	2327.2	2336.9
12.5°	2504.0	2512.6	2491.0	2491.0	2460.8	2439.3	2416.7	2401.6	2387.6	2371.4	2363.8
15°	2594.5	2603.1	2574.0	2572.9	2561.1	2535.2	2510.4	2478.1	2453.3	2445.8	2433.9
17.5°	2712.0	2706.6	2681.8	2682.9	2685.1	2643.0	2618.2	2576.2	2540.6	2514.7	2508.3
20°	2831.6	2831.6	2804.7	2813.3	2802.5	2763.7	2747.6	2689.4	2639.8	2611.8	2589.1
22.5°	2965.3	2959.9	2941.6	2959.9	2938.4	2899.6	2872.6	2814.4	2750.8	2592.4	2527.7
25°	3092.5	3089.3	3096.8	3102.2	3075.3	3026.7	3008.4	2947.0	2770.2	2562.2	2431.7
27.5°	3253.1	3242.3	3259.6	3270.4	3243.4	3201.4	3162.6	3093.6	2719.5	2555.7	2541.7
30°	3459.0	3435.3	3460.1	3465.5	3437.4	3411.6	3353.4	3008.4	2736.8	2689.4	2685.1
32.5°	3678.9	3650.9	3683.2	3687.5	3650.9	3629.3	3482.7	2964.2	2906.0	2851.0	2856.4
35°	3939.7	3939.7	3955.9	3958.1	3931.1	3894.5	3336.1	3179.8	3128.1	3077.4	3076.3
37.5°	4257.7	4248.0	4291.1	4317.0	4287.9	4183.3	3549.5	3476.2	3396.5	3331.8	3198.1
40°	4641.4	4658.7	4670.5	4696.4	4668.4	4433.4	3861.0	3778.0	3715.5	3498.9	3161.5
42.5°	5055.4	5059.7	5085.5	5117.9	5117.9	4870.0	4225.4	4154.2	4073.4	3421.3	3269.3
45°	5550.1	5540.4	5590.0	5641.7	5627.7	5371.2	4649.0	4596.2	4217.8	3646.5	3647.6
47.5°	6111.7	6099.8	6171.0	6238.9	6168.8	5927.4	5114.6	5073.7	4071.2	4028.1	4019.5
50°	6760.6	6731.5	6813.4	6904.0	6846.8	6548.2	5680.5	4893.7	4479.8	4445.3	4439.9
52.5°	7453.7	7431.1	7480.6	7634.8	7559.3	7198.2	6216.3	5048.9	4953.0	4914.2	4904.4
55°	8236.2	8192.0	8298.8	8416.3	8328.9	7917.2	6744.4	5564.1	5465.0	5398.1	5301.1
57.5°	9058.7	8995.1	9050.1	9197.7	9113.7	8653.4	7425.7	6094.5	5977.0	4946.5	4553.1
60°	9877.9	9848.8	9870.3	10000.8	9897.3	9369.1	8063.8	6625.9	5058.6	4892.6	4912.0
62.5°	10701.4	10637.8	10657.2	10790.9	10658.3	10050.3	8668.5	7108.8	5323.8	5265.5	5286.0
65°	11584.2	11508.8	11526.0	11564.8	11401.0	10661.5	9203.1	7564.7	5722.6	5661.1	5683.8
67.5°	12648.1	12579.1	12485.3	12370.0	12143.6	11310.4	9734.5	8044.4	6171.0	6136.5	6144.0
68°	12761.3	12694.4	12581.3	12444.4	12190.0	11337.4	9757.2	8058.4	6177.5	6134.3	6136.5
70°	12408.8	12448.7	12320.4	12090.8	11878.5	10942.9	9387.4	7748.0	5902.6	5839.0	5822.8
72.5°	10989.2	11076.5	10899.7	10860.9	10600.1	9748.5	8214.7	6722.9	5134.0	5154.5	5096.3
75°	8872.2	9000.5	8786.0	8797.8	8649.1	8131.7	6884.6	5597.5	4215.7	4309.4	4326.7
77.5°	6169.9	6354.2	6260.4	6354.2	6280.9	6094.5	5328.1	4310.5	3216.5	3324.2	3366.3
80°	3217.5	3436.3	3560.3	3599.1	3622.8	3615.3	3244.5	2587.0	1859.4	1899.3	1897.1
82.5°	1017.5	964.7	996.0	987.4	960.4	971.2	875.3	684.5	474.3	522.8	500.1
85°	307.2	309.4	300.7	298.6	275.9	242.5	198.3	114.3	56.1	65.8	61.4
87.5°	226.4	228.5	211.3	200.5	187.6	162.8	126.1	71.1	26.9	25.9	20.5
90°	125.0	120.7	112.1	103.5	98.1	84.1	63.6	26.9	9.7	7.5	6.5
92.5°	67.9	64.7	60.4	57.1	49.6	39.9	25.9	8.6	4.3	1.1	0.0
95°	31.3	29.1	28.0	24.8	21.6	15.1	8.6	5.4	3.2	1.1	0.0
97.5°	14.0	12.9	11.9	9.7	7.5	4.3	4.3	3.2	2.2	1.1	0.0
100°	3.2	3.2	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°	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8	2266.8
2.5°	2280.8	2274.4	2271.1	2250.7	2257.1	2238.8	2274.4	2265.7	2260.4	2275.4
5°	2283.0	2260.4	2274.4	2262.5	2266.8	2241.0	2269.0	2257.1	2256.0	2262.5
7.5°	2288.4	2273.3	2287.3	2263.6	2274.4	2263.6	2284.1	2272.2	2281.9	2288.4
10°	2317.5	2308.9	2302.4	2297.0	2304.6	2283.0	2308.9	2309.9	2313.2	2332.6
12.5°	2358.4	2349.8	2339.0	2325.0	2332.6	2324.0	2343.4	2348.7	2360.6	2370.3
15°	2415.6	2399.4	2395.1	2382.2	2389.7	2385.4	2389.7	2386.5	2409.1	2405.9
17.5°	2494.3	2475.9	2414.5	2352.0	2312.1	2324.0	2373.5	2438.2	2454.4	2456.5
20°	2523.4	2394.0	2387.6	2316.4	2284.1	2281.9	2179.5	2026.5	2072.8	2181.7
22.5°	2488.9	2312.1	2293.8	2279.8	2141.8	1915.4	1893.9	1871.2	1865.8	1882.0
25°	2411.3	2390.8	2374.6	2191.4	1973.6	1974.7	1943.5	1794.7	1563.0	1543.6
27.5°	2529.8	2501.8	2345.5	2063.1	2058.8	2056.6	2010.3	1628.7	1579.1	1591.0
30°	2664.6	2618.2	2209.7	2173.0	2172.0	2152.6	1802.3	1642.7	1642.7	1644.9
32.5°	2819.8	2532.0	2287.3	2304.6	2303.5	2211.9	1740.8	1730.0	1725.7	1736.5
35°	2938.4	2463.0	2454.4	2485.6	2464.1	1876.6	1849.7	1840.0	1835.7	1830.3
37.5°	2901.7	2661.3	2661.3	2680.7	2507.2	1998.4	1985.5	1985.5	1976.9	1972.6
40°	2957.8	2908.2	2883.4	2890.9	1821.7	2146.1	2155.8	2153.6	2152.6	2160.1
42.5°	3253.1	3208.9	3186.3	2919.0	2039.4	2133.2	2370.3	2369.2	2372.5	2369.2
45°	3629.3	3588.3	3529.0	2731.4	2315.3	1870.2	2612.8	2624.7	2625.8	2624.7
47.5°	4023.8	3997.9	3391.1	3023.5	2615.0	2007.1	2497.5	2916.8	2911.4	2917.9
50°	4441.0	4324.5	3373.8	3369.5	2934.0	2233.4	2234.5	3172.3	3227.2	3244.5
52.5°	4905.5	3920.3	3739.2	3411.6	3257.4	2466.2	2442.5	2811.2	3561.4	3578.6
55°	4556.3	4141.3	4138.1	3036.4	3388.9	2690.4	2693.7	2667.8	3266.0	3712.3
57.5°	4533.7	4543.4	4535.8	3387.8	2472.7	2522.3	2935.1	2912.5	2114.8	1713.9
60°	4924.9	4938.9	4406.5	3658.4	2673.2	1551.1	1807.6	1536.0	1556.5	1572.7
62.5°	5299.0	5303.3	3584.0	2398.3	1324.7	62.5	30.2	24.8	23.7	23.7
65°	5712.9	5712.9	3841.6	2616.1	1279.5	23.7	4.3	3.2	11.9	11.9
67.5°	6112.8	6024.4	4030.3	2777.8	1302.1	3.2	0.0	0.0	0.0	0.0
68°	6090.1	5993.1	4013.0	2773.4	1298.9	2.2	0.0	0.0	0.0	0.0
70°	5751.7	5657.9	3807.1	2647.3	1250.4	2.2	0.0	0.0	0.0	0.0
72.5°	5076.9	4990.7	3371.7	2333.7	1127.5	1.1	0.0	0.0	0.0	0.0
75°	4297.6	4285.7	2912.5	1969.3	966.9	1.1	0.0	0.0	0.0	0.0
77.5°	3457.9	3404.0	2276.5	1543.6	779.3	0.0	0.0	0.0	0.0	0.0
80°	1926.2	2006.0	1332.3	907.6	490.4	0.0	0.0	0.0	0.0	0.0
82.5°	520.6	487.2	291.0	197.3	93.8	0.0	0.0	0.0	0.0	0.0
85°	66.8	73.3	33.4	26.9	6.5	0.0	0.0	0.0	0.0	0.0
87.5°	34.5	41.0	10.8	8.6	2.2	0.0	0.0	0.0	0.0	0.0
90°	6.5	7.5	3.2	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)