

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: P522110

Luminaire Tested: **CTN-CA10-210-722-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522110
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-722-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24086 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U1 - G4

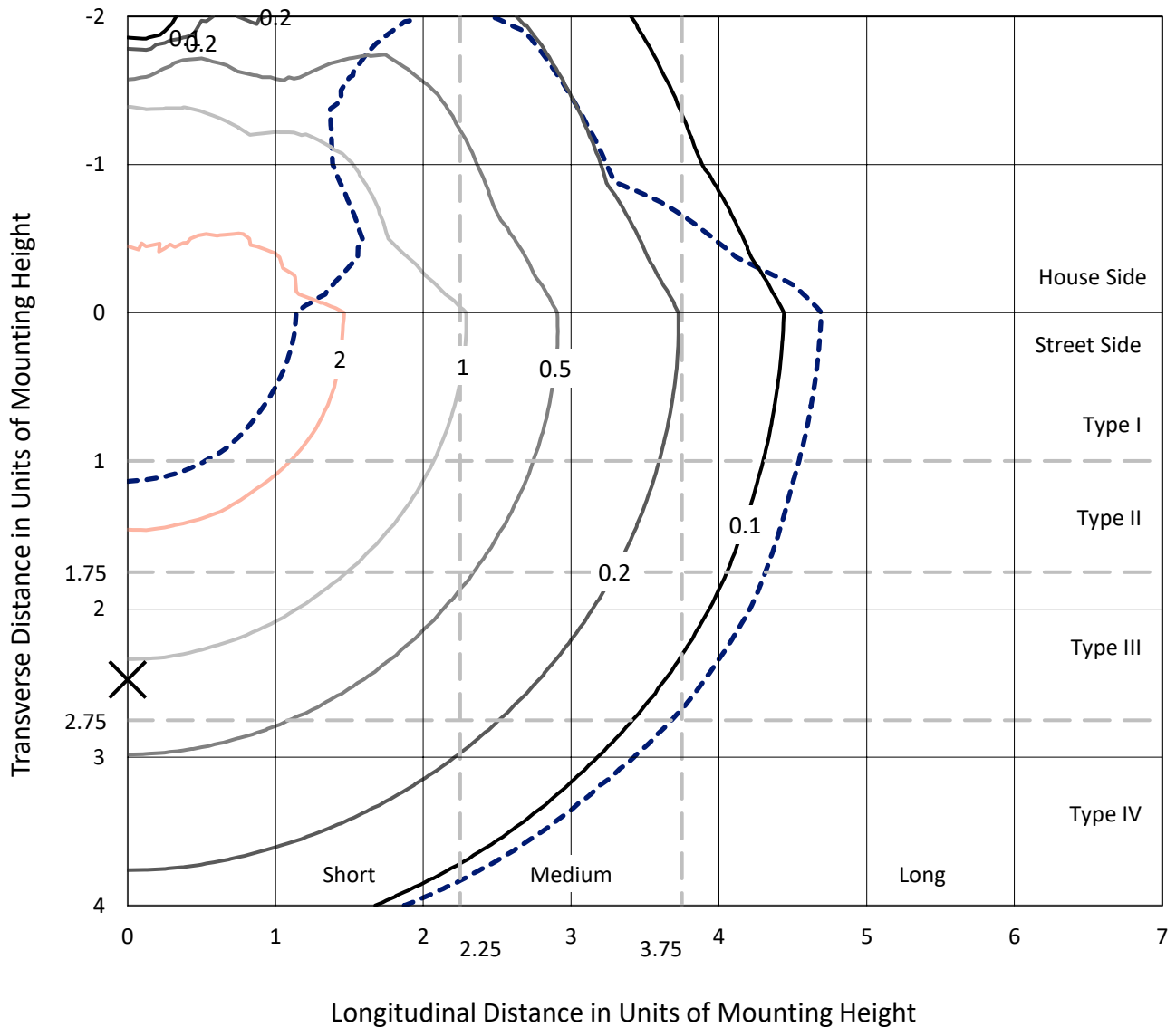
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

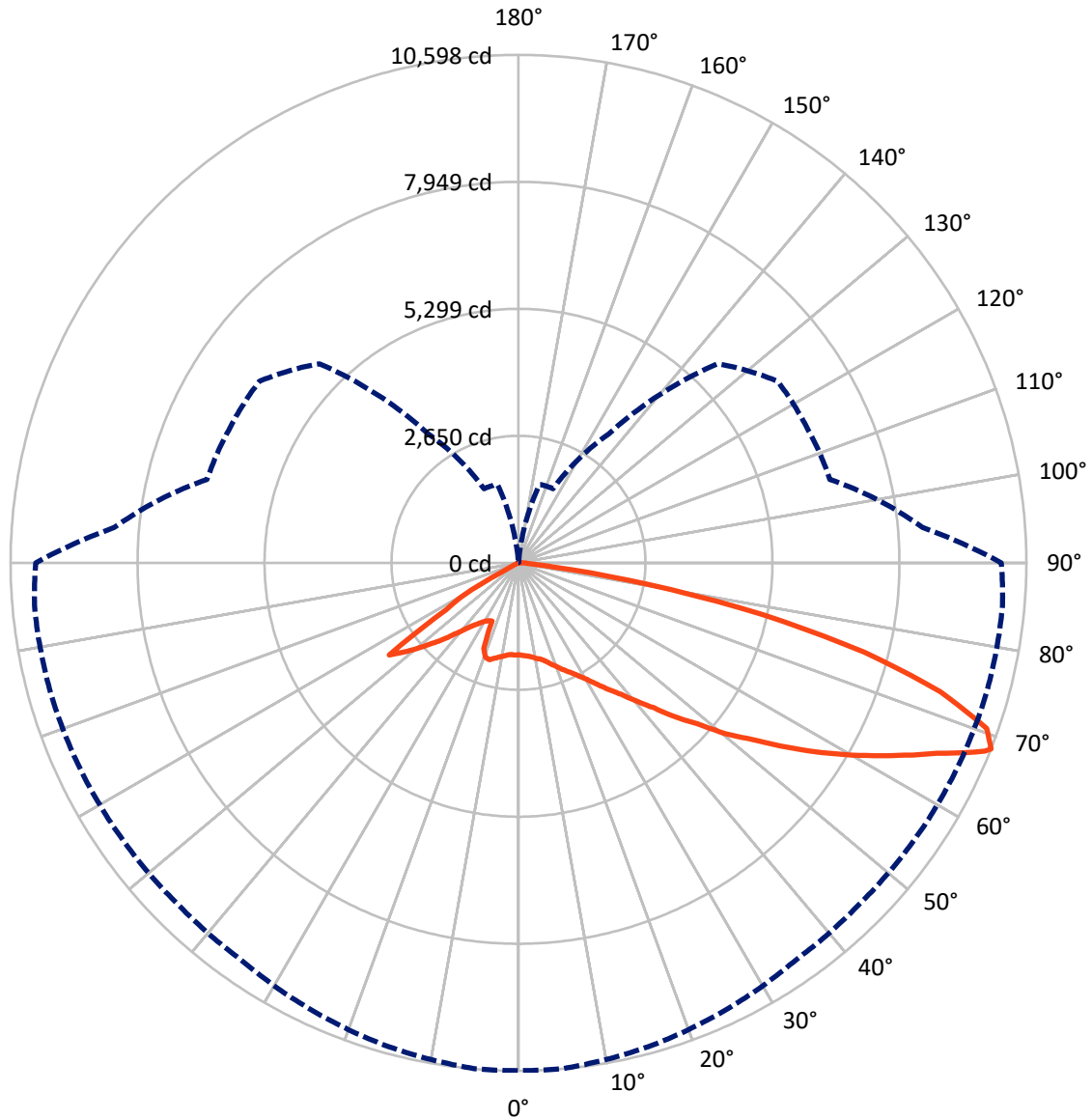
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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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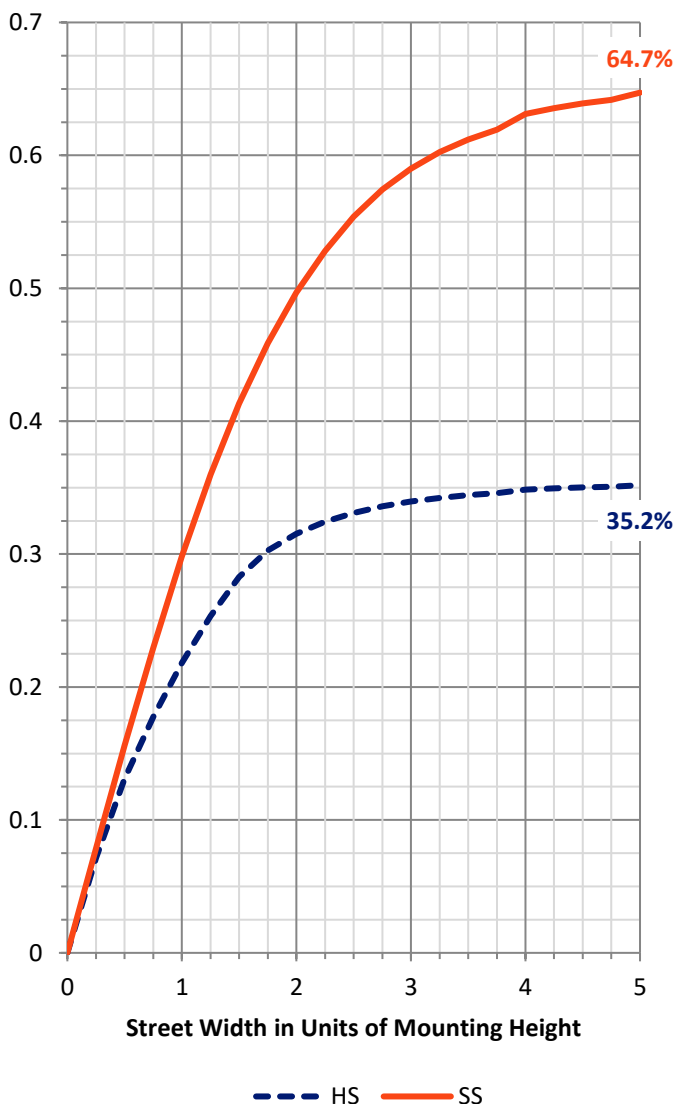
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8476.6	1.5	8478.1
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	15601.6	6.3	15607.9
	% Fixture	64.8	0.0	64.8
Total	Lumens	24078.2	7.8	24086.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.4	0.8
10°-20°	594.1	2.5
20°-30°	1060.6	4.4
30°-40°	1725.4	7.2
40°-50°	2946.5	12.2
50°-60°	4916.4	20.4
60°-70°	6839.7	28.4
70°-80°	5301.8	22.0
80°-90°	508.0	2.1
90°-100°	6.1	0.0
100°-110°	0.5	0.0
110°-120°	0.3	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	24078.2	100.0
0°-180°	24086.0	100.0

Coefficient of Utilization

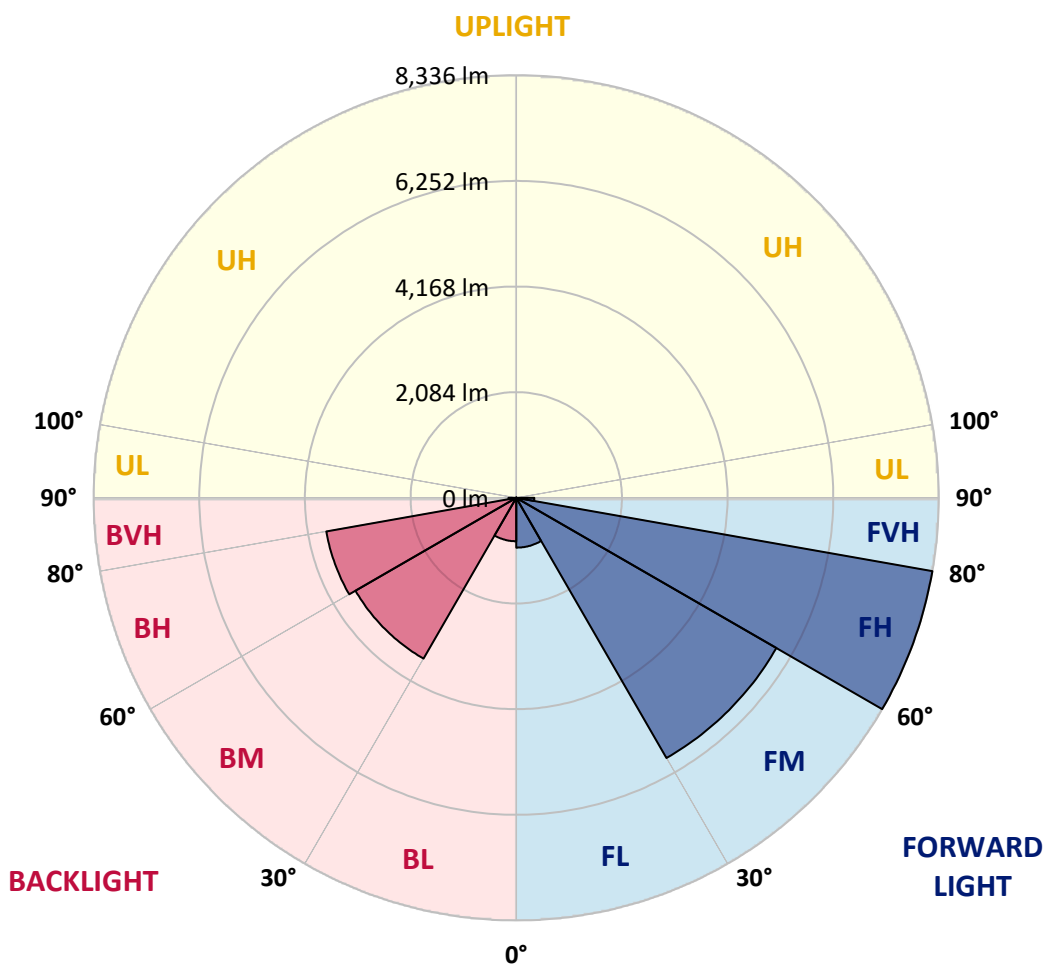


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	983.0	4.1			
FM	(30°-60°)	5926.8	24.6			
FH	(60°-80°)	8336.2	34.6			G4/12000
FVH	(80°-90°)	355.4	1.5			G3/500
BL	(0°-30°)	857.2	3.6	B2/1000		
BM	(30°-60°)	3661.5	15.2	B3/5000		
BH	(60°-80°)	3805.3	15.8	B4/5000		G4/5000
BVH	(80°-90°)	152.6	0.6			G2/225
UL	(90°-100°)	6.1	0.0		U1/10	
UH	(100°-180°)	1.7	0.0		U1/10	

BUG Rating: B4-U1-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8
2.5°	1938.6	1935.9	1934.1	1945.8	1912.3	1925.9	1916.8	1928.6	1925.9	1931.3	1932.2
5°	1952.2	1947.7	1941.3	1954.0	1934.1	1943.1	1933.2	1938.6	1921.4	1935.9	1937.7
7.5°	1983.0	1970.3	1969.4	1973.0	1959.4	1965.8	1948.6	1954.9	1945.8	1940.4	1945.8
10°	2029.2	2018.3	2006.6	2013.8	1991.2	1999.3	1981.2	1986.6	1982.1	1970.3	1981.2
12.5°	2060.9	2064.6	2056.4	2061.8	2041.9	2034.7	2028.3	2027.4	2024.7	2007.5	2004.8
15°	2131.6	2133.4	2118.9	2122.6	2118.0	2114.4	2105.4	2098.1	2083.6	2072.7	2065.5
17.5°	2224.1	2214.1	2200.5	2204.1	2216.8	2200.5	2195.1	2181.5	2160.6	2142.5	2138.9
20°	2321.1	2314.7	2302.0	2309.3	2308.4	2297.5	2300.2	2277.6	2247.6	2232.2	2220.5
22.5°	2428.9	2419.8	2410.8	2424.4	2413.5	2406.2	2403.5	2388.1	2351.0	2333.7	2331.0
25°	2536.8	2532.2	2538.6	2534.0	2518.6	2513.2	2516.8	2511.4	2467.9	2447.0	2434.3
27.5°	2671.8	2660.9	2670.9	2665.4	2649.1	2650.0	2650.9	2651.9	2602.9	2575.7	2557.6
30°	2825.9	2822.2	2834.9	2817.7	2802.3	2812.3	2820.4	2802.3	2759.7	2719.8	2713.5
32.5°	3026.2	3003.5	3018.0	2996.3	2972.7	2996.3	3010.8	2974.5	2940.1	2889.3	2898.4
35°	3248.2	3241.0	3241.0	3212.9	3200.2	3237.3	3251.8	3216.5	3163.0	3118.6	3107.7
37.5°	3483.8	3491.1	3513.8	3502.0	3490.2	3512.8	3545.5	3498.3	3429.5	3382.3	3369.7
40°	3796.5	3814.6	3830.1	3814.6	3801.1	3815.6	3852.7	3791.1	3743.0	3717.7	3690.5
42.5°	4132.8	4163.6	4153.6	4155.4	4167.2	4188.0	4225.2	4169.0	4113.7	4112.8	4072.9
45°	4587.7	4587.7	4566.9	4586.8	4585.0	4636.7	4653.0	4622.2	4575.9	4562.4	4527.9
47.5°	5012.8	5057.2	5049.0	5078.0	5055.4	5098.9	5154.2	5127.9	5074.4	5026.4	5019.1
50°	5605.5	5594.6	5583.8	5627.3	5623.6	5653.5	5704.3	5688.0	5613.7	5559.3	5549.3
52.5°	6126.6	6183.7	6170.1	6235.4	6199.1	6241.7	6302.5	6299.7	6209.1	6155.6	6140.2
55°	6784.6	6822.7	6820.0	6887.0	6837.2	6893.4	6944.1	6949.6	6850.8	6774.6	6798.2
57.5°	7469.8	7501.5	7483.4	7538.7	7489.7	7566.8	7597.6	7577.6	7519.6	7423.6	7458.9
60°	8155.9	8183.0	8203.9	8208.4	8180.3	8225.6	8254.6	8271.9	8180.3	8070.7	8113.3
62.5°	8852.8	8883.6	8865.5	8872.7	8794.8	8856.4	8892.7	8897.2	8792.1	8695.1	8725.0
65°	9586.9	9629.5	9564.3	9520.8	9424.7	9423.8	9471.8	9480.0	9405.7	9336.8	9325.0
67.5°	10495.9	10515.0	10375.4	10229.5	10067.3	10031.9	10065.4	10084.5	10127.1	10125.3	10071.8
68°	10598.4	10594.7	10453.3	10279.3	10105.3	10064.5	10080.9	10105.3	10133.4	10138.9	10074.5
70°	10365.4	10321.0	10240.4	10021.0	9848.8	9741.9	9684.8	9730.1	9654.0	9654.9	9534.4
72.5°	9207.2	9201.7	9053.1	8944.3	8791.2	8613.5	8532.0	8531.1	8538.3	8485.8	8361.6
75°	7458.0	7465.3	7292.1	7216.9	7169.8	7136.3	7153.5	7207.0	7212.4	7211.5	7168.0
77.5°	5201.3	5231.2	5185.0	5062.6	5194.0	5306.4	5523.0	5633.6	5598.3	5704.3	5771.4
80°	2726.2	2786.0	2787.8	2873.9	2979.9	3082.4	3269.1	3436.7	3313.5	3259.1	3202.9
82.5°	716.9	738.6	771.3	721.4	736.8	752.2	897.2	883.6	815.7	851.9	906.3
85°	204.8	211.2	202.1	183.1	167.7	154.1	157.7	133.2	116.0	115.1	111.5
87.5°	144.1	155.0	136.9	117.8	106.0	98.8	95.2	80.7	65.3	57.1	45.3
90°	67.1	66.2	57.1	44.4	39.0	37.2	37.2	29.0	16.3	10.0	9.1
92.5°	28.1	29.0	23.6	19.0	16.3	12.7	10.0	6.3	3.6	1.8	0.9
95°	10.0	10.9	9.1	7.3	6.3	5.4	4.5	3.6	1.8	0.9	0.9
97.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.8	1.8	0.9	0.9
100°	0.0	0.0	0.0	0.9	1.8	1.8	1.8	1.8	0.9	0.9	0.9
102.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
105°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9



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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	0.9	0.9	0.9	0.9
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
165°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
170°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
172.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
175°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
177.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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°	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8	1916.8
2.5°	1930.4	1925.9	1924.1	1901.4	1907.8	1894.2	1925.9	1916.8	1915.0	1927.7
5°	1935.0	1914.1	1926.8	1912.3	1915.9	1896.0	1921.4	1910.5	1911.4	1917.7
7.5°	1937.7	1925.9	1938.6	1913.2	1923.2	1915.9	1934.1	1923.2	1934.1	1939.5
10°	1964.9	1959.4	1950.4	1943.1	1950.4	1933.2	1955.8	1954.0	1960.3	1976.7
12.5°	2002.0	1995.7	1986.6	1973.9	1979.4	1973.0	1990.3	1992.1	2003.8	2012.0
15°	2057.3	2049.2	2044.6	2031.9	2033.8	2029.2	2039.2	2041.0	2064.6	2061.8
17.5°	2135.3	2126.2	2129.8	2118.0	2113.5	2102.6	2084.5	2078.2	2106.3	2114.4
20°	2220.5	2210.5	2215.0	2205.0	2120.8	1949.5	2064.6	2143.4	2083.6	2079.1
22.5°	2317.4	2306.6	2310.2	2294.8	2190.5	1869.7	1626.8	1606.9	1835.3	1927.7
25°	2424.4	2409.9	2408.1	2388.1	2045.5	1693.0	1665.8	1630.4	1463.7	1331.4
27.5°	2556.7	2534.9	2524.1	2223.2	2031.0	1759.1	1718.4	1592.4	1350.4	1358.6
30°	2699.9	2668.2	2464.2	2265.8	2137.1	1837.1	1782.7	1395.7	1397.5	1393.9
32.5°	2863.0	2792.3	2414.4	2396.3	2264.0	1920.5	1480.0	1463.7	1465.5	1470.9
35°	3076.9	2592.0	2582.1	2583.0	2418.9	1857.9	1567.9	1552.5	1554.3	1557.9
37.5°	3122.2	2794.1	2796.0	2775.1	2583.9	1697.5	1674.9	1673.9	1670.3	1666.7
40°	3158.5	3048.8	3022.5	2989.0	2395.4	1828.0	1820.8	1815.3	1818.1	1825.3
42.5°	3442.2	3359.7	3334.3	3294.4	2457.0	2025.6	2002.0	1995.7	2002.9	1999.3
45°	3819.2	3750.3	3700.5	3046.1	2714.4	2240.4	2221.4	2213.2	2215.9	2238.6
47.5°	4218.0	4177.2	4024.9	3290.8	3014.4	2494.2	2475.1	2462.4	2467.0	2461.5
50°	4652.1	4614.9	3725.8	3659.7	3346.1	2767.9	2739.8	2735.2	2737.0	2736.1
52.5°	5123.4	4346.6	4129.1	4060.3	3695.9	3054.3	3044.3	3019.8	3025.3	3019.8
55°	5676.2	4578.7	4573.2	4492.6	4089.3	3386.9	3375.1	3340.6	3124.0	3313.5
57.5°	6201.0	5021.8	5021.8	4943.9	4491.7	3717.7	3698.6	3673.3	2220.5	1790.9
60°	6775.6	5465.9	5453.3	5388.9	4879.6	4033.1	3278.1	3270.9	1341.3	1345.9
62.5°	7272.2	5862.0	5884.7	5824.8	5253.0	3019.8	1519.0	1488.2	132.3	203.9
65°	7828.7	6299.7	6326.9	6265.3	5657.2	3202.9	1648.6	1633.2	29.9	27.2
67.5°	8459.5	6736.6	6675.0	6607.0	5893.7	3298.1	1712.9	1699.3	8.2	5.4
68°	8464.9	6727.5	6647.8	6601.5	5871.1	3279.9	1707.5	1694.8	8.2	5.4
70°	8029.9	6388.6	6308.8	6320.6	5590.1	3136.7	1636.8	1613.2	8.2	5.4
72.5°	7044.7	5685.3	5595.5	5532.1	4957.5	2788.7	1467.3	1422.9	8.2	5.4
75°	6027.8	4817.9	4669.3	4529.7	3988.7	2282.1	1203.6	1153.7	8.2	5.4
77.5°	4750.9	3672.4	3461.2	3369.7	2997.2	1685.7	894.5	840.1	8.2	4.5
80°	2625.6	2107.2	1927.7	1871.5	1713.8	990.6	513.0	480.3	7.3	4.5
82.5°	678.8	509.3	444.1	428.7	402.4	234.7	125.1	118.7	6.3	3.6
85°	97.0	71.6	78.8	93.3	89.7	60.7	43.5	37.2	5.4	2.7
87.5°	50.8	42.6	49.8	56.2	57.1	35.3	18.1	10.0	2.7	0.0
90°	8.2	8.2	9.1	10.0	10.0	4.5	3.6	0.0	0.0	0.0
92.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.9	1.8	0.9	0.9	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°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.9	0.9	0.9	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)