

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: P522180

Luminaire Tested: **CTN-CA6-230-722-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522180
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA6-230-722-U-T5R-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (6) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21633 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U1 - G4

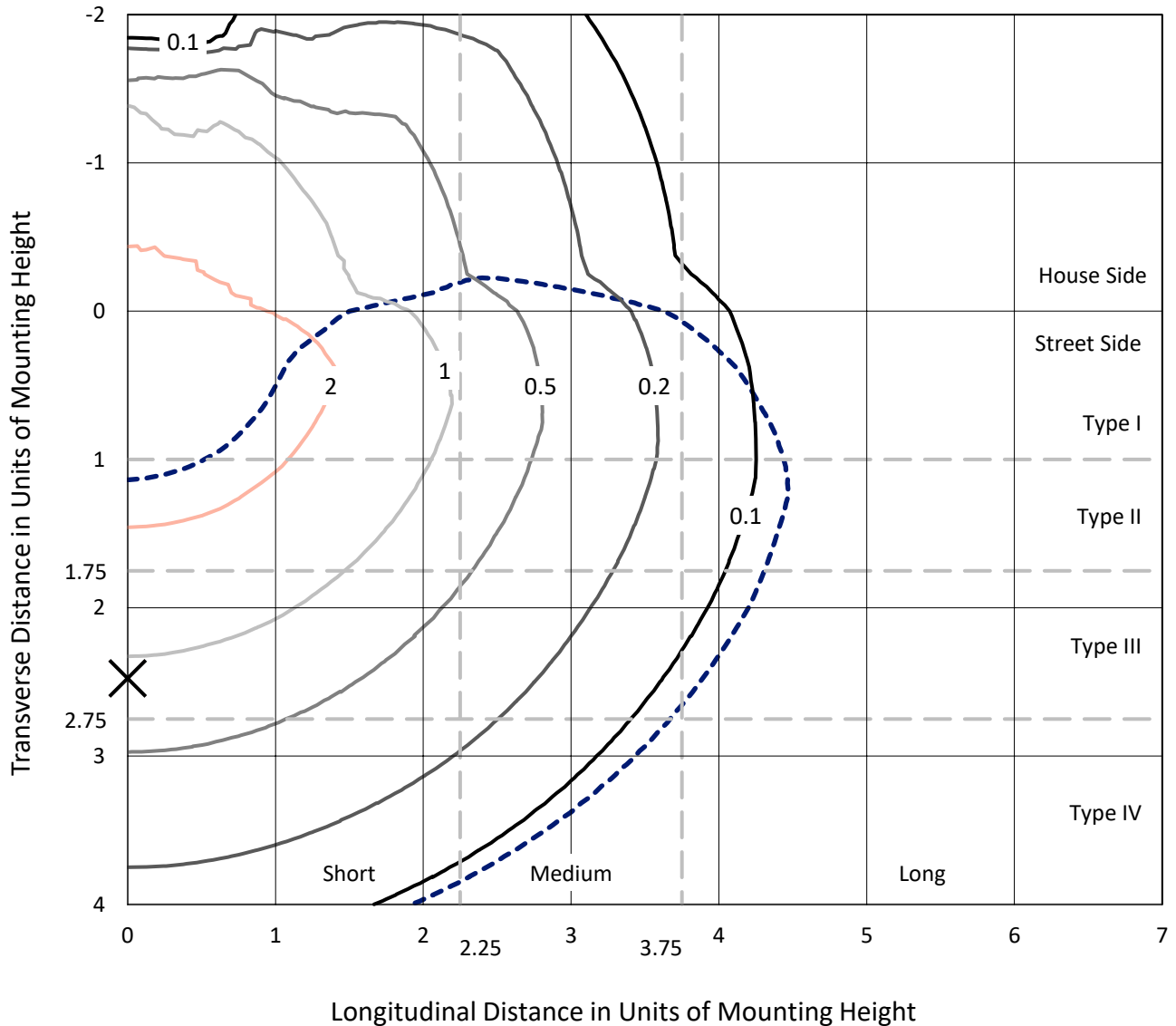
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

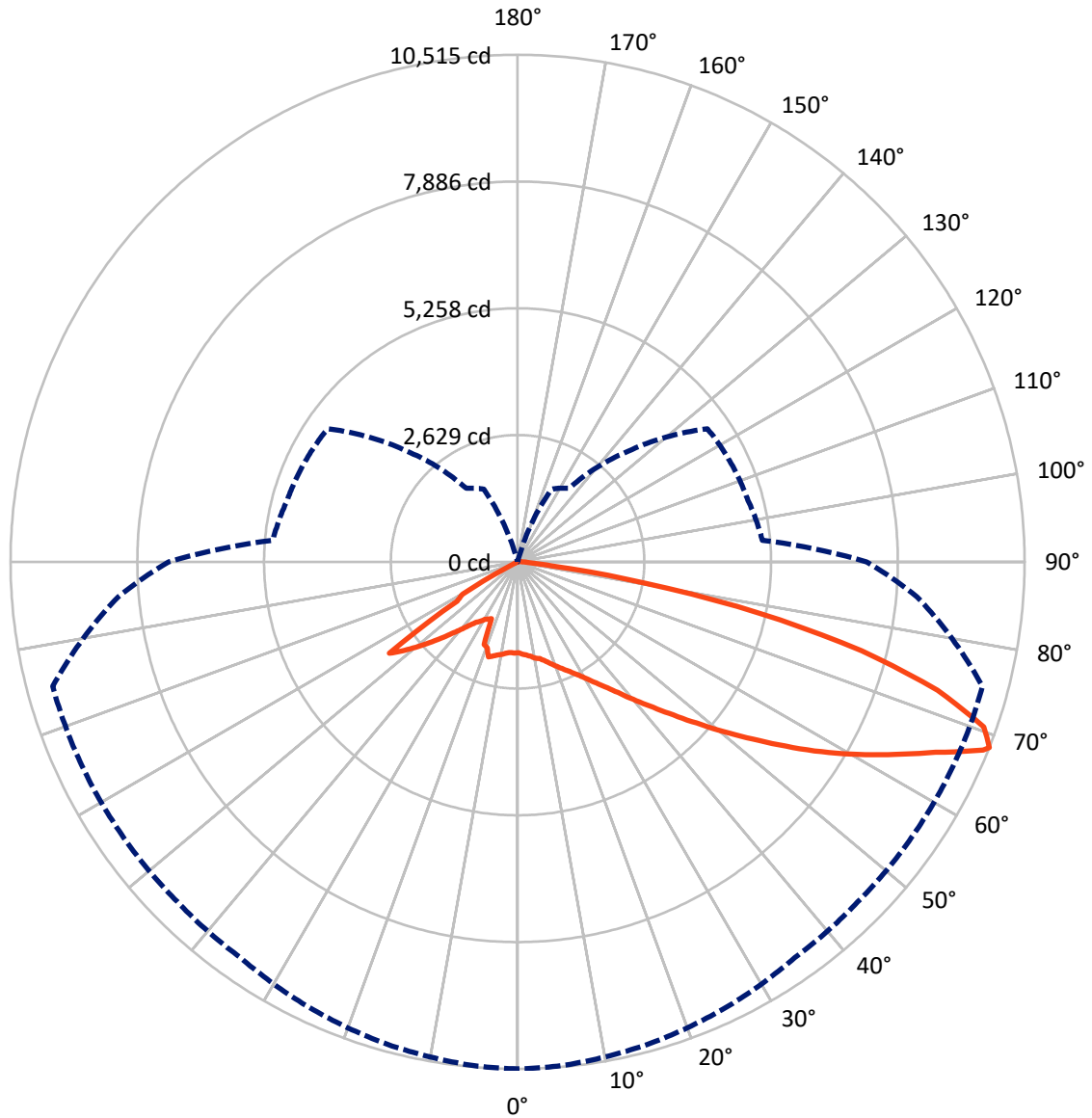
× Max cd
 - - - 1/2 Max cd



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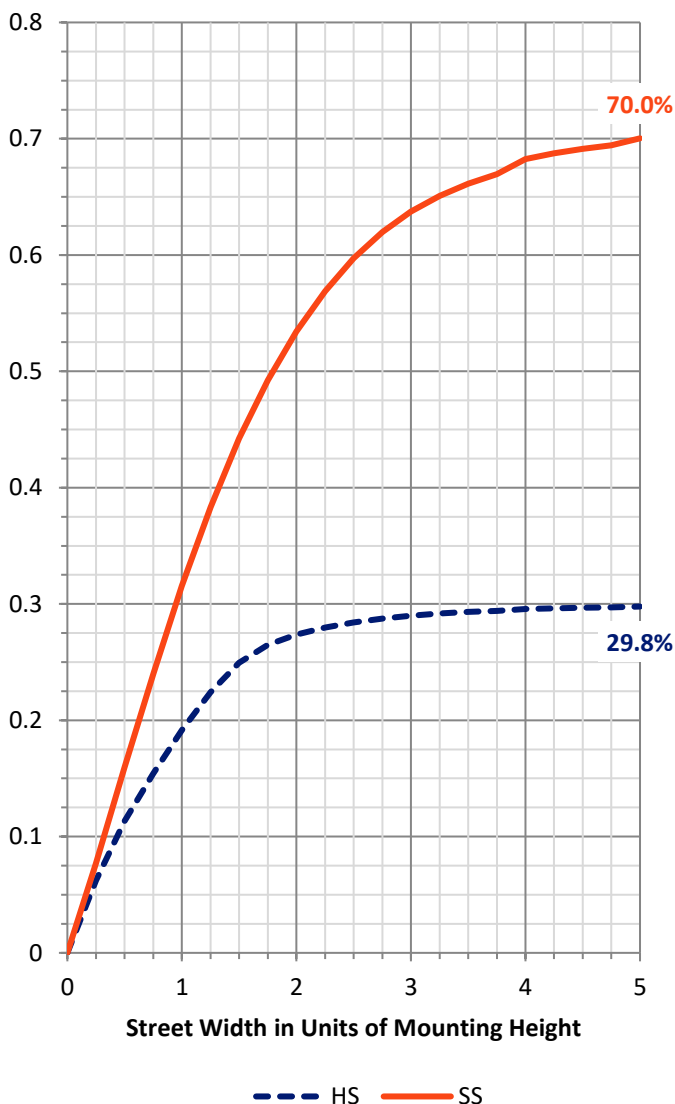
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6448.6	1.0	6449.6
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	15174.6	8.9	15183.5
	% Fixture	70.1	0.0	70.2
Total	Lumens	21623.1	9.9	21633.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.0	0.8
10°-20°	582.6	2.7
20°-30°	997.9	4.6
30°-40°	1618.8	7.5
40°-50°	2730.1	12.6
50°-60°	4450.1	20.6
60°-70°	5968.3	27.6
70°-80°	4635.8	21.4
80°-90°	456.6	2.1
90°-100°	8.7	0.0
100°-110°	0.5	0.0
110°-120°	0.1	0.0
120°-130°	0.1	0.0
130°-140°	0.1	0.0
140°-150°	0.1	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	21623.1	100.0
0°-180°	21633.0	100.0

Coefficient of Utilization

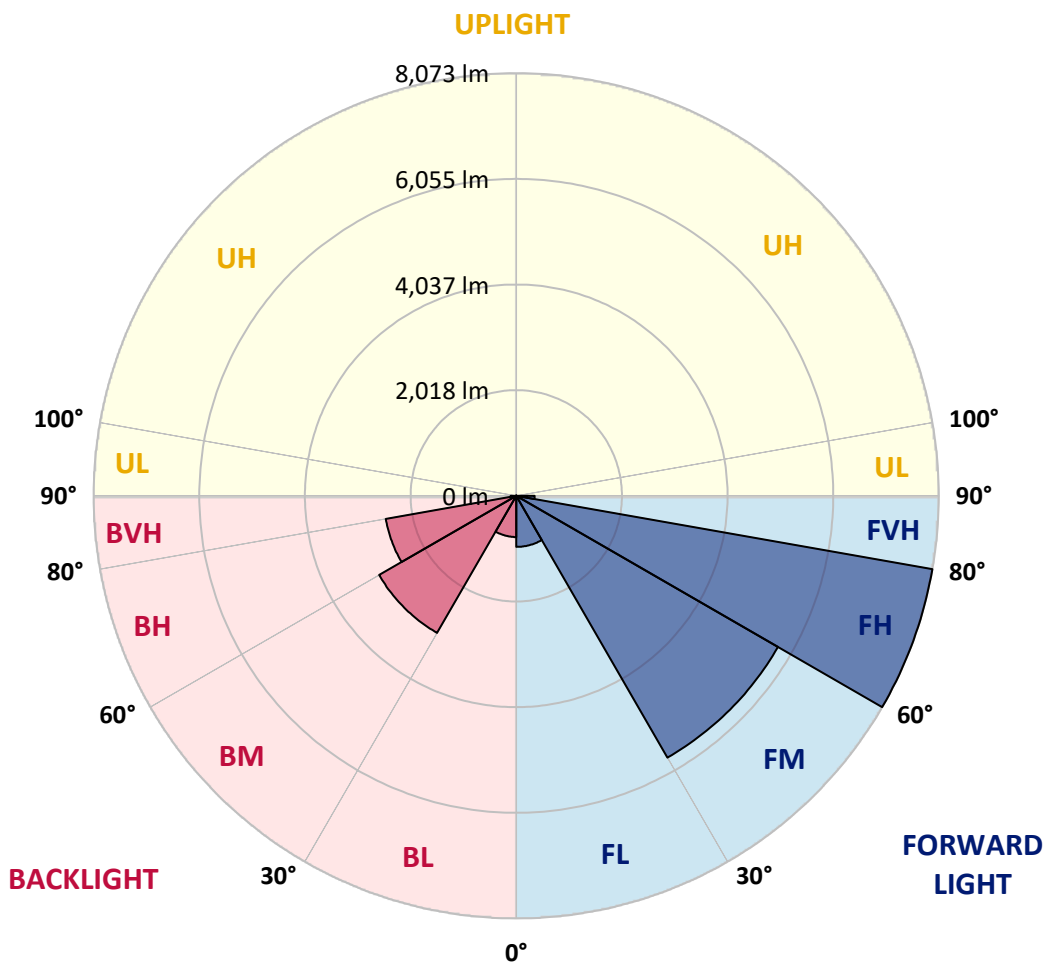


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	975.8	4.5			
FM	(30°-60°)	5774.6	26.7			
FH	(60°-80°)	8073.2	37.3			G4/12000
FVH	(80°-90°)	351.0	1.6			G3/500
BL	(0°-30°)	787.8	3.6	B2/1000		
BM	(30°-60°)	3024.4	14.0	B3/5000		
BH	(60°-80°)	2530.9	11.7	B4/5000		G4/5000
BVH	(80°-90°)	105.5	0.5			G2/225
UL	(90°-100°)	8.7	0.0		U1/10	
UH	(100°-180°)	1.2	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°	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0
2.5°	1917.3	1911.9	1911.0	1921.8	1887.8	1904.8	1889.6	1902.1	1894.0	1900.3	1901.2
5°	1943.3	1933.4	1927.2	1939.7	1918.2	1926.3	1909.3	1914.6	1892.3	1904.8	1906.6
7.5°	1980.8	1964.7	1962.9	1966.5	1947.7	1954.0	1926.3	1932.5	1916.4	1909.3	1915.5
10°	2031.8	2016.6	2005.0	2013.0	1988.0	1991.6	1962.0	1962.9	1951.3	1937.9	1948.6
12.5°	2060.5	2062.3	2056.9	2063.1	2042.6	2030.9	2010.4	2003.2	1991.6	1975.5	1970.1
15°	2132.0	2128.5	2117.7	2127.6	2124.9	2114.1	2089.1	2073.0	2047.9	2039.0	2030.0
17.5°	2219.7	2208.1	2199.1	2211.7	2225.1	2202.7	2178.6	2156.2	2123.1	2105.2	2094.5
20°	2311.9	2303.8	2294.9	2314.6	2319.0	2302.0	2284.1	2251.0	2212.6	2189.3	2166.9
22.5°	2414.8	2398.7	2401.3	2427.3	2419.2	2411.2	2387.9	2361.1	2314.6	2285.0	2220.6
25°	2521.2	2512.3	2524.8	2536.4	2530.2	2513.2	2501.5	2481.9	2430.0	2394.2	2300.2
27.5°	2653.6	2639.3	2655.4	2659.9	2654.5	2650.1	2634.0	2618.7	2562.4	2522.1	2404.9
30°	2809.3	2792.3	2818.3	2812.0	2806.6	2810.2	2800.4	2767.3	2717.2	2662.6	2545.4
32.5°	2994.5	2972.1	3001.7	2988.3	2975.7	3000.8	2977.5	2946.2	2887.2	2823.6	2709.1
35°	3209.2	3210.1	3225.3	3203.0	3198.5	3225.3	3210.1	3171.7	3117.1	3050.9	2888.0
37.5°	3469.6	3462.4	3500.9	3490.2	3474.1	3509.9	3514.3	3466.0	3367.6	3302.3	3109.9
40°	3786.3	3784.5	3797.0	3798.8	3794.4	3811.4	3819.4	3755.0	3691.5	3593.1	2934.6
42.5°	4124.5	4131.7	4154.0	4137.9	4159.4	4181.8	4184.4	4130.8	4039.5	3447.2	3117.1
45°	4530.7	4553.1	4568.3	4564.7	4574.5	4606.7	4609.4	4580.8	4491.3	3734.4	3448.1
47.5°	4996.8	5018.3	5022.8	5051.4	5042.4	5088.1	5081.8	5082.7	4987.0	4134.3	3808.7
50°	5532.7	5542.6	5579.3	5595.4	5573.0	5634.7	5618.6	5638.3	5520.2	4592.4	4196.1
52.5°	6101.8	6118.8	6134.0	6194.8	6166.2	6219.9	6198.4	6244.0	6107.1	5058.6	4626.4
55°	6748.6	6751.3	6777.2	6839.0	6801.4	6865.8	6834.5	6851.5	6742.4	5573.9	5074.7
57.5°	7433.9	7425.0	7434.8	7484.0	7450.0	7498.4	7485.8	7501.9	7399.9	6116.1	5402.1
60°	8112.1	8098.7	8113.0	8146.1	8099.6	8182.8	8138.1	8153.3	8043.2	6669.9	5869.1
62.5°	8793.9	8784.0	8767.9	8801.0	8733.0	8776.0	8794.8	8769.7	8673.1	7170.9	6275.3
65°	9525.7	9515.9	9456.8	9477.4	9355.7	9335.2	9342.3	9350.4	9285.9	7667.5	6720.9
67.5°	10415.0	10400.7	10289.8	10150.2	9974.9	9936.4	9940.0	9961.4	9970.4	8306.3	7242.5
68°	10515.2	10489.3	10365.8	10203.9	10020.5	9975.7	9971.3	9975.7	9980.2	8311.6	7237.1
70°	10259.4	10249.5	10155.6	9959.6	9771.8	9664.4	9571.3	9567.8	9524.8	7886.7	6837.2
72.5°	9104.3	9091.8	8980.0	8841.3	8725.0	8556.8	8436.0	8443.2	8372.5	6970.5	5984.6
75°	7367.7	7366.8	7232.6	7116.3	7118.1	7105.6	7065.3	7136.0	7062.7	5912.1	5104.2
77.5°	5134.6	5152.5	5143.5	5075.6	5171.3	5303.7	5447.7	5583.7	5541.7	4670.3	4069.9
80°	2682.3	2732.4	2909.5	2917.6	2984.7	3113.5	3211.9	3303.2	3309.4	2650.1	2351.2
82.5°	713.1	728.3	788.2	771.2	765.9	791.8	813.3	816.0	817.7	690.7	645.1
85°	221.9	228.1	221.0	211.1	195.9	178.9	174.5	142.3	112.7	93.0	81.4
87.5°	157.5	168.2	152.1	143.1	127.0	120.8	108.3	85.0	66.2	46.5	31.3
90°	81.4	83.2	74.3	63.5	59.0	55.5	47.4	34.0	17.0	8.9	8.1
92.5°	41.2	42.1	36.7	31.3	26.8	23.3	17.9	9.8	5.4	2.7	0.9
95°	16.1	17.0	15.2	13.4	10.7	8.1	7.2	5.4	3.6	1.8	0.9
97.5°	5.4	5.4	5.4	4.5	4.5	4.5	4.5	3.6	2.7	1.8	0.9
100°	0.0	0.0	0.0	0.9	1.8	2.7	2.7	2.7	1.8	0.9	0.9
102.5°	0.0	0.0	0.0	0.0	0.0	0.9	1.8	1.8	1.8	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	0.0	0.9	0.9	0.9
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
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	0.9
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	0.9	0.9	0.9
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.9	0.9	0.9	0.9
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	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°	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0	1886.0
2.5°	1896.7	1891.4	1894.0	1871.7	1877.1	1862.7	1893.2	1885.1	1881.5	1894.0
5°	1901.2	1881.5	1897.6	1882.4	1885.1	1864.5	1889.6	1879.7	1878.8	1886.0
7.5°	1903.0	1893.2	1908.4	1883.3	1891.4	1883.3	1902.1	1892.3	1901.2	1907.5
10°	1928.0	1922.7	1920.9	1911.9	1918.2	1900.3	1923.6	1923.6	1928.0	1945.0
12.5°	1964.7	1957.6	1953.1	1937.0	1943.3	1937.9	1956.7	1960.3	1968.3	1975.5
15°	2014.8	2002.3	1997.8	1983.5	1988.0	1987.1	2000.5	2001.4	2019.3	2018.4
17.5°	2079.2	2061.4	2066.7	2056.0	2056.9	2049.7	2042.6	2042.6	2058.7	2062.3
20°	2156.2	2054.2	1920.0	1844.8	1831.4	1841.3	1879.7	1943.3	1863.6	1886.0
22.5°	2017.5	1925.4	1919.1	1902.1	1891.4	1651.6	1589.9	1570.2	1673.1	1850.2
25°	2035.4	1996.0	1984.4	1962.9	1646.2	1643.5	1625.6	1596.1	1304.5	1298.2
27.5°	2130.2	2091.8	2073.0	1719.6	1712.4	1711.5	1684.7	1388.6	1321.5	1330.4
30°	2241.2	2196.5	1860.1	1806.4	1800.1	1785.8	1631.9	1371.6	1370.7	1371.6
32.5°	2369.1	2220.6	1913.7	1911.0	1914.6	1870.8	1445.8	1440.4	1439.5	1448.5
35°	2544.5	2060.5	2047.9	2061.4	2042.6	1617.6	1532.6	1529.9	1530.8	1526.3
37.5°	2428.2	2221.5	2218.8	2218.8	2175.0	1655.2	1638.2	1650.7	1648.9	1642.6
40°	2477.4	2416.5	2400.4	2395.1	1838.6	1785.8	1776.0	1792.1	1794.7	1799.2
42.5°	2716.3	2660.8	2652.7	2589.2	2000.5	1983.5	1953.1	1970.1	1968.3	1973.7
45°	3009.7	2972.1	2937.3	2244.8	2218.8	2197.3	2166.0	2185.7	2191.1	2187.5
47.5°	3351.5	3310.3	3058.0	2468.4	2467.5	2450.5	2415.7	2431.8	2429.1	2429.1
50°	3695.1	3650.3	2778.0	2752.9	2744.0	2717.2	2688.5	2691.2	2692.1	2701.1
52.5°	4078.9	3260.2	3075.0	3024.9	3032.1	3014.2	2986.5	2260.9	2973.0	2981.1
55°	3812.3	3412.3	3401.6	3335.4	3352.4	3329.1	3311.2	2230.5	2956.9	3267.4
57.5°	3769.3	3740.7	3731.7	3663.7	3685.2	3464.2	3629.7	2440.7	2045.3	1494.1
60°	4097.7	4067.2	4061.9	4001.9	4000.1	2752.9	3299.6	1674.0	1308.0	1317.0
62.5°	4416.2	4367.0	4380.4	4309.7	3038.4	1677.5	1478.9	37.6	59.9	63.5
65°	4771.4	4689.0	4702.5	4637.2	3134.1	1768.8	1598.8	19.7	17.0	16.1
67.5°	5113.1	4969.1	4900.2	4831.3	3254.9	1862.7	1665.9	5.4	0.0	0.0
68°	5096.1	4944.0	4873.4	4808.0	3242.3	1860.1	1662.3	5.4	0.0	0.0
70°	4808.9	4672.0	4604.9	4554.8	3095.6	1796.5	1595.2	5.4	0.0	0.0
72.5°	4204.1	4128.1	4085.1	4041.3	2750.3	1606.9	1430.6	5.4	0.0	0.0
75°	3572.5	3551.0	3524.2	3427.5	2292.2	1315.2	1175.6	5.4	0.0	0.0
77.5°	2830.8	2829.9	2764.6	2651.0	1725.8	965.4	867.0	4.5	0.0	0.0
80°	1530.8	1668.6	1618.5	1560.3	978.8	525.2	500.1	3.6	0.0	0.0
82.5°	430.3	407.1	391.0	365.9	205.8	114.5	111.8	3.6	0.0	0.0
85°	59.9	66.2	73.4	83.2	47.4	30.4	26.8	1.8	0.0	0.0
87.5°	34.0	38.5	47.4	49.2	17.9	14.3	4.5	0.0	0.0	0.0
90°	7.2	8.1	8.9	8.9	3.6	3.6	0.0	0.0	0.0	0.0
92.5°	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.9	0.9	0.9	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°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.9	0.9	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)