

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: P522108

Luminaire Tested: **CTN-CA10-210-722-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522108
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-CA10-210-722-U-T5R-HSS-HM-EX120
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: 21914 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U1 - G4

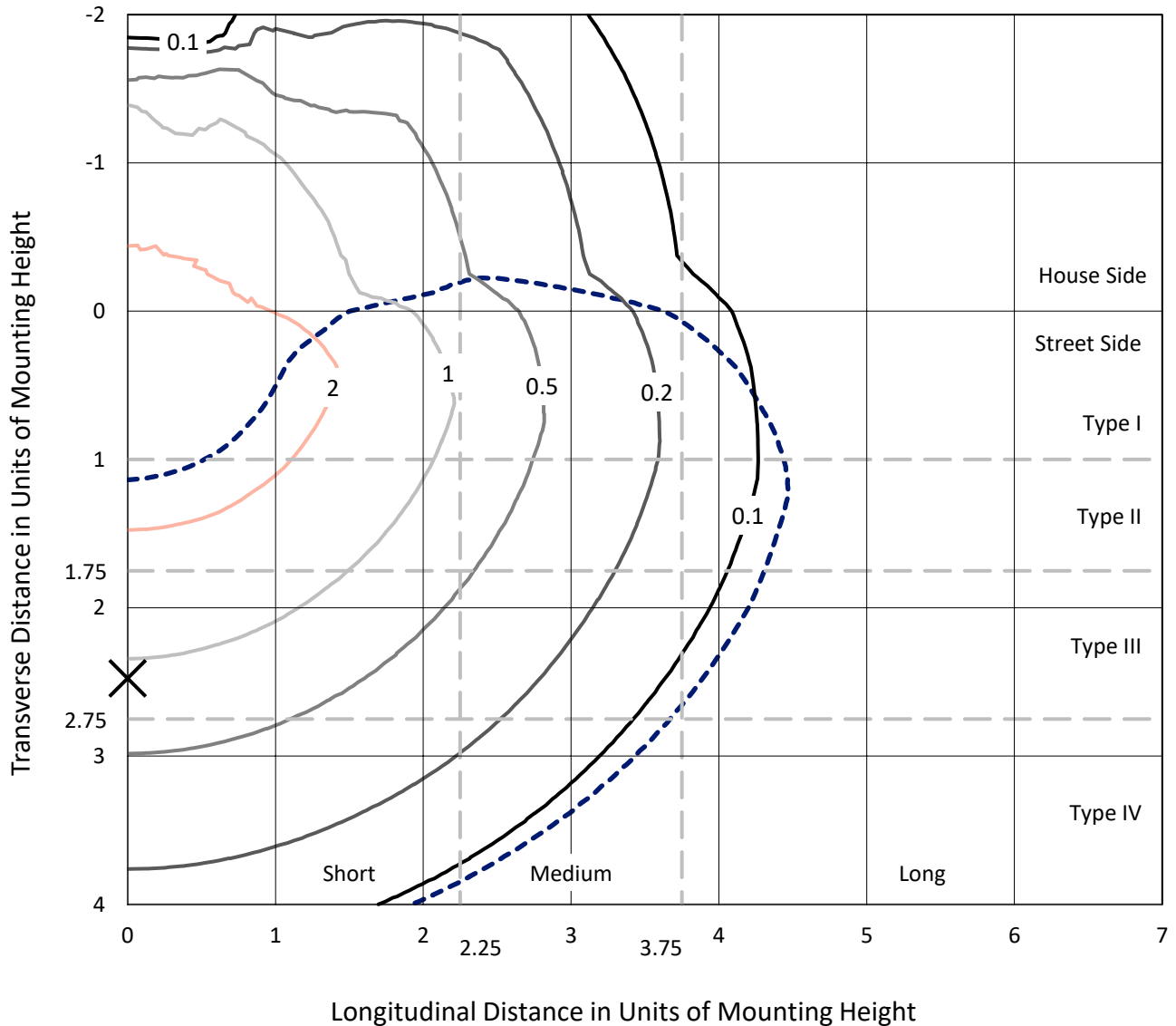
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

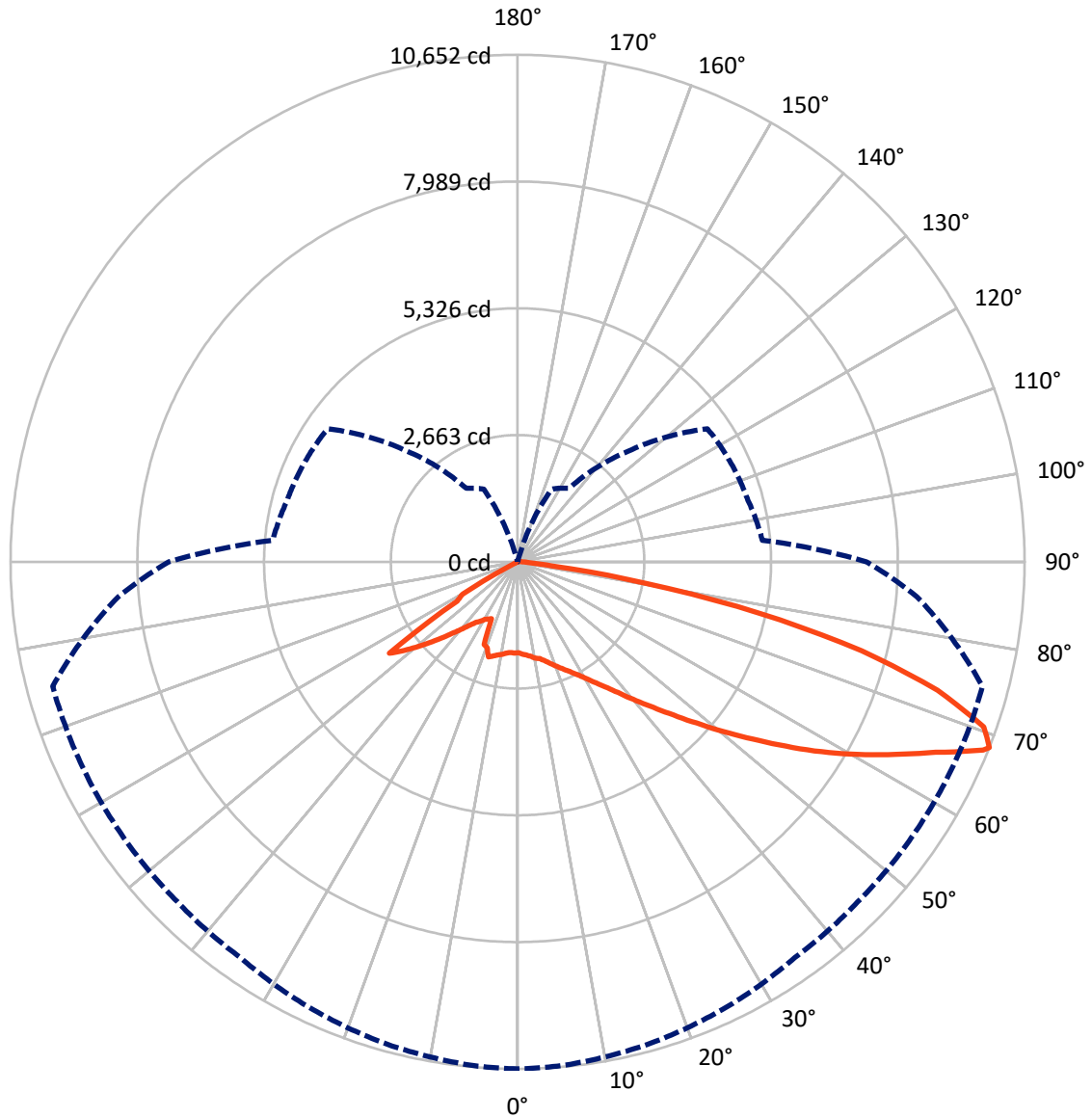
× Max cd
 - - - 1/2 Max cd



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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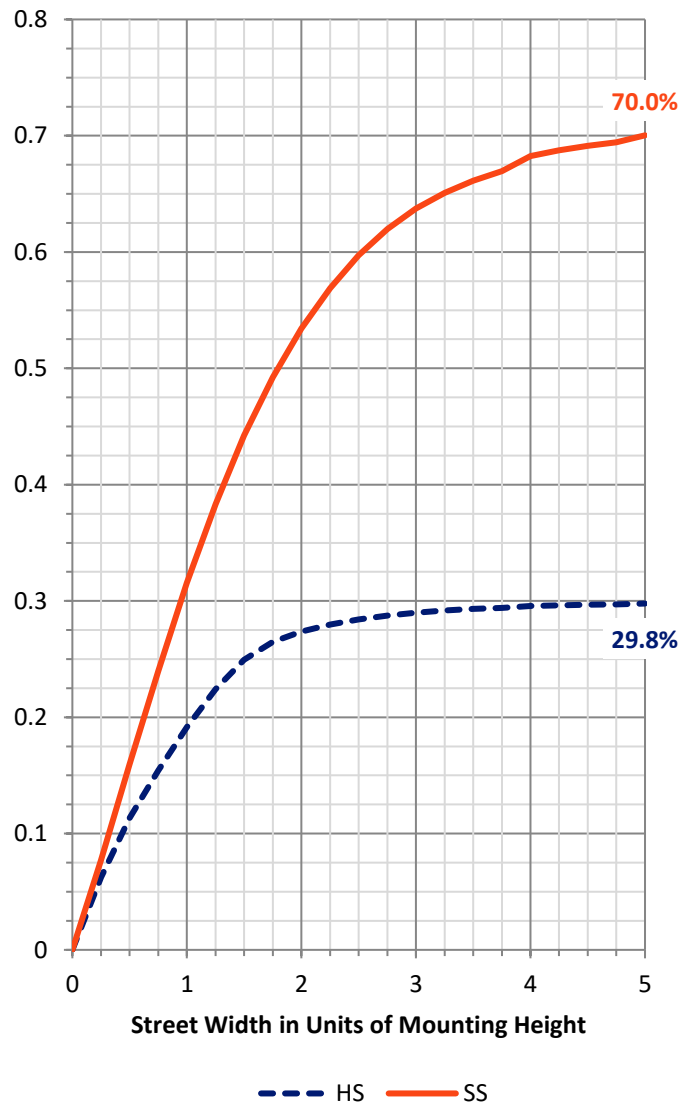
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6532.3	1.0	6533.3
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	15371.7	9.0	15380.7
	% Fixture	70.1	0.0	70.2
Total	Lumens	21904.0	10.0	21914.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.4	0.8
10°-20°	590.2	2.7
20°-30°	1010.9	4.6
30°-40°	1639.8	7.5
40°-50°	2765.5	12.6
50°-60°	4507.9	20.6
60°-70°	6045.8	27.6
70°-80°	4696.0	21.4
80°-90°	462.5	2.1
90°-100°	8.8	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°	21904.0	100.0
0°-180°	21914.0	100.0

Coefficient of Utilization



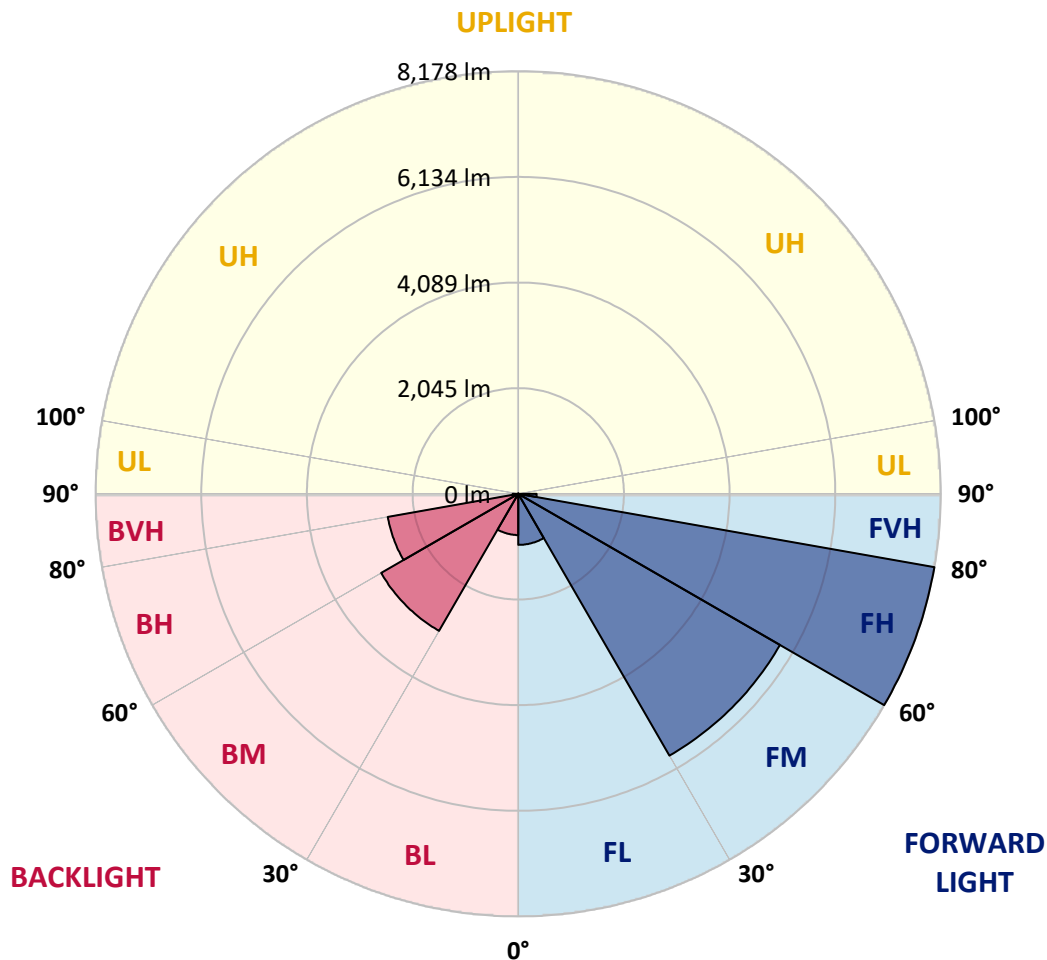
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	988.4	4.5			
FM (30°-60°)	5849.6	26.7			
FH (60°-80°)	8178.1	37.3			G4/12000
FVH (80°-90°)	355.6	1.6			G3/500
BL (0°-30°)	798.0	3.6	B2/1000		
BM (30°-60°)	3063.6	14.0	B3/5000		
BH (60°-80°)	2563.8	11.7	B4/5000		G4/5000
BVH (80°-90°)	106.9	0.5			G2/225
UL (90°-100°)	8.8	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°	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5
2.5°	1942.2	1936.8	1935.9	1946.7	1912.3	1929.5	1914.1	1926.8	1918.7	1925.0	1925.9
5°	1968.5	1958.5	1952.2	1964.9	1943.1	1951.3	1934.1	1939.5	1916.8	1929.5	1931.3
7.5°	2006.6	1990.3	1988.4	1992.1	1973.0	1979.4	1951.3	1957.6	1941.3	1934.1	1940.4
10°	2058.2	2042.8	2031.0	2039.2	2013.8	2017.4	1987.5	1988.4	1976.7	1963.1	1973.9
12.5°	2087.2	2089.0	2083.6	2089.9	2069.1	2057.3	2036.5	2029.2	2017.4	2001.1	1995.7
15°	2159.7	2156.1	2145.2	2155.2	2152.5	2141.6	2116.2	2099.9	2074.5	2065.5	2056.4
17.5°	2248.5	2236.8	2227.7	2240.4	2254.0	2231.3	2206.9	2184.2	2150.7	2132.5	2121.7
20°	2341.9	2333.7	2324.7	2344.6	2349.1	2331.9	2313.8	2280.3	2241.3	2217.7	2195.1
22.5°	2446.1	2429.8	2432.5	2458.8	2450.7	2442.5	2418.9	2391.7	2344.6	2314.7	2249.5
25°	2554.0	2544.9	2557.6	2569.4	2563.0	2545.8	2534.0	2514.1	2461.5	2425.3	2330.1
27.5°	2688.1	2673.6	2689.9	2694.5	2689.0	2684.5	2668.2	2652.8	2595.7	2554.9	2436.2
30°	2845.8	2828.6	2854.9	2848.5	2843.1	2846.7	2836.7	2803.2	2752.5	2697.2	2578.4
32.5°	3033.4	3010.8	3040.7	3027.1	3014.4	3039.8	3016.2	2984.5	2924.7	2860.3	2744.3
35°	3250.9	3251.8	3267.2	3244.6	3240.0	3267.2	3251.8	3212.9	3157.6	3090.5	2925.6
37.5°	3514.7	3507.4	3546.4	3535.5	3519.2	3555.4	3560.0	3511.0	3411.3	3345.2	3150.3
40°	3835.5	3833.7	3846.4	3848.2	3843.6	3860.9	3869.0	3803.8	3739.4	3639.7	2972.7
42.5°	4178.1	4185.3	4208.0	4191.7	4213.4	4236.1	4238.8	4184.4	4092.0	3492.0	3157.6
45°	4589.5	4612.2	4627.6	4624.0	4633.9	4666.6	4669.3	4640.3	4549.7	3782.9	3492.9
47.5°	5061.7	5083.5	5088.0	5117.0	5107.9	5154.2	5147.8	5148.7	5051.8	4188.0	3858.2
50°	5604.6	5614.6	5651.7	5668.0	5645.4	5707.9	5691.6	5711.5	5591.9	4652.1	4250.6
52.5°	6181.0	6198.2	6213.6	6275.3	6246.3	6300.6	6278.9	6325.1	6186.5	5124.3	4686.5
55°	6836.3	6839.0	6865.3	6927.8	6889.7	6955.0	6923.3	6940.5	6829.9	5646.3	5140.6
57.5°	7530.5	7521.4	7531.4	7581.3	7546.8	7595.8	7583.1	7599.4	7496.1	6195.5	5472.3
60°	8217.5	8203.9	8218.4	8251.9	8204.8	8289.1	8243.8	8259.2	8147.7	6756.5	5945.4
62.5°	8908.1	8898.1	8881.8	8915.3	8846.5	8890.0	8909.0	8883.6	8785.7	7264.1	6356.8
65°	9649.5	9639.5	9579.7	9600.5	9477.3	9456.4	9463.7	9471.8	9406.6	7767.1	6808.2
67.5°	10550.3	10535.8	10423.4	10282.1	10104.4	10065.4	10069.1	10090.8	10099.9	8414.2	7336.6
68°	10651.8	10625.5	10500.5	10336.4	10150.6	10105.3	10100.8	10105.3	10109.9	8419.6	7331.1
70°	10392.6	10382.7	10287.5	10089.0	9898.7	9789.9	9695.7	9692.1	9648.5	7989.1	6926.0
72.5°	9222.6	9209.9	9096.6	8956.1	8838.3	8667.9	8545.6	8552.8	8481.2	7061.0	6062.3
75°	7463.4	7462.5	7326.6	7208.8	7210.6	7197.9	7157.1	7228.7	7154.4	5988.9	5170.5
77.5°	5201.3	5219.4	5210.4	5141.5	5238.5	5372.6	5518.5	5656.3	5613.7	4730.9	4122.8
80°	2717.1	2767.9	2947.3	2955.5	3023.4	3153.9	3253.6	3346.1	3352.4	2684.5	2381.8
82.5°	722.3	737.7	798.5	781.2	775.8	802.1	823.8	826.6	828.4	699.7	653.4
85°	224.8	231.1	223.9	213.9	198.5	181.3	176.7	144.1	114.2	94.3	82.5
87.5°	159.5	170.4	154.1	145.0	128.7	122.4	109.7	86.1	67.1	47.1	31.7
90°	82.5	84.3	75.2	64.3	59.8	56.2	48.0	34.4	17.2	9.1	8.2
92.5°	41.7	42.6	37.2	31.7	27.2	23.6	18.1	10.0	5.4	2.7	0.9
95°	16.3	17.2	15.4	13.6	10.9	8.2	7.3	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°	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5	1910.5
2.5°	1921.4	1915.9	1918.7	1896.0	1901.4	1886.9	1917.7	1909.6	1906.0	1918.7
5°	1925.9	1906.0	1922.3	1906.9	1909.6	1888.7	1914.1	1904.2	1903.2	1910.5
7.5°	1927.7	1917.7	1933.2	1907.8	1915.9	1907.8	1926.8	1916.8	1925.9	1932.2
10°	1953.1	1947.7	1945.8	1936.8	1943.1	1925.0	1948.6	1948.6	1953.1	1970.3
12.5°	1990.3	1983.0	1978.5	1962.2	1968.5	1963.1	1982.1	1985.7	1993.9	2001.1
15°	2041.0	2028.3	2023.8	2009.3	2013.8	2012.9	2026.5	2027.4	2045.5	2044.6
17.5°	2106.3	2088.1	2093.6	2082.7	2083.6	2076.4	2069.1	2069.1	2085.4	2089.0
20°	2184.2	2080.9	1944.9	1868.8	1855.2	1865.2	1904.2	1968.5	1887.8	1910.5
22.5°	2043.7	1950.4	1944.0	1926.8	1915.9	1673.0	1610.5	1590.6	1694.8	1874.2
25°	2061.8	2022.0	2010.2	1988.4	1667.6	1664.9	1646.8	1616.9	1321.4	1315.1
27.5°	2157.9	2118.9	2099.9	1741.9	1734.7	1733.8	1706.6	1406.6	1338.6	1347.7
30°	2270.3	2225.0	1884.2	1829.8	1823.5	1809.0	1653.1	1389.4	1388.5	1389.4
32.5°	2399.9	2249.5	1938.6	1935.9	1939.5	1895.1	1464.6	1459.2	1458.2	1467.3
35°	2577.5	2087.2	2074.5	2088.1	2069.1	1638.6	1552.5	1549.8	1550.7	1546.2
37.5°	2459.7	2250.4	2247.6	2247.6	2203.2	1676.7	1659.4	1672.1	1670.3	1664.0
40°	2509.6	2447.9	2431.6	2426.2	1862.5	1809.0	1799.0	1815.3	1818.1	1822.6
42.5°	2751.5	2695.4	2687.2	2622.9	2026.5	2009.3	1978.5	1995.7	1993.9	1999.3
45°	3048.8	3010.8	2975.4	2273.9	2247.6	2225.9	2194.2	2214.1	2219.5	2215.9
47.5°	3395.0	3353.3	3097.8	2500.5	2499.6	2482.4	2447.0	2463.3	2460.6	2460.6
50°	3743.0	3697.7	2814.1	2788.7	2779.6	2752.5	2723.5	2726.2	2727.1	2736.1
52.5°	4131.9	3302.6	3115.0	3064.2	3071.5	3053.3	3025.3	2290.2	3011.7	3019.8
55°	3861.8	3456.7	3445.8	3378.7	3395.9	3372.4	3354.2	2259.4	2995.3	3309.8
57.5°	3818.3	3789.3	3780.2	3711.3	3733.1	3509.2	3676.9	2472.4	2071.8	1513.5
60°	4150.9	4120.1	4114.6	4053.9	4052.1	2788.7	3342.5	1695.7	1325.0	1334.1
62.5°	4473.5	4423.7	4437.3	4365.7	3077.8	1699.3	1498.1	38.1	60.7	64.3
65°	4833.3	4750.0	4763.6	4697.4	3174.8	1791.8	1619.6	19.9	17.2	16.3
67.5°	5179.5	5033.6	4963.8	4894.1	3297.1	1886.9	1687.5	5.4	0.0	0.0
68°	5162.3	5008.3	4936.7	4870.5	3284.5	1884.2	1683.9	5.4	0.0	0.0
70°	4871.4	4732.7	4664.8	4614.0	3135.8	1819.9	1615.9	5.4	0.0	0.0
72.5°	4258.7	4181.7	4138.2	4093.8	2786.0	1627.7	1449.2	5.4	0.0	0.0
75°	3618.9	3597.1	3569.9	3472.1	2322.0	1332.3	1190.9	5.4	0.0	0.0
77.5°	2867.6	2866.6	2800.5	2685.4	1748.3	977.9	878.2	4.5	0.0	0.0
80°	1550.7	1690.3	1639.5	1580.6	991.5	532.0	506.6	3.6	0.0	0.0
82.5°	435.9	412.4	396.1	370.7	208.5	116.0	113.3	3.6	0.0	0.0
85°	60.7	67.1	74.3	84.3	48.0	30.8	27.2	1.8	0.0	0.0
87.5°	34.4	39.0	48.0	49.8	18.1	14.5	4.5	0.0	0.0	0.0
90°	7.3	8.2	9.1	9.1	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)