

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: P522109

Luminaire Tested: **CTN-CA10-210-722-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522109
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-CA10-210-722-U-T5R-HSS-HM-EX180
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: 18813 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G3

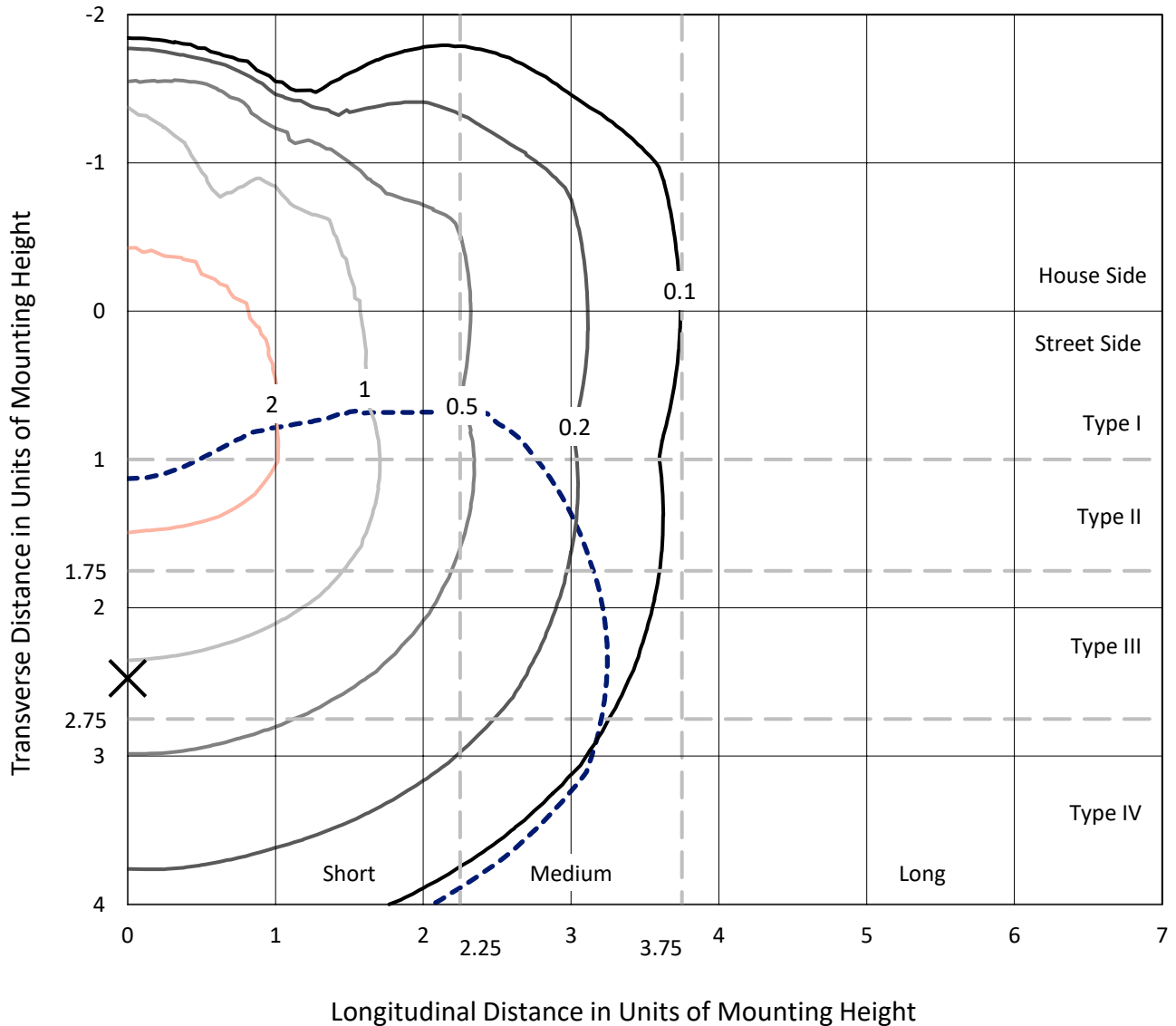
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

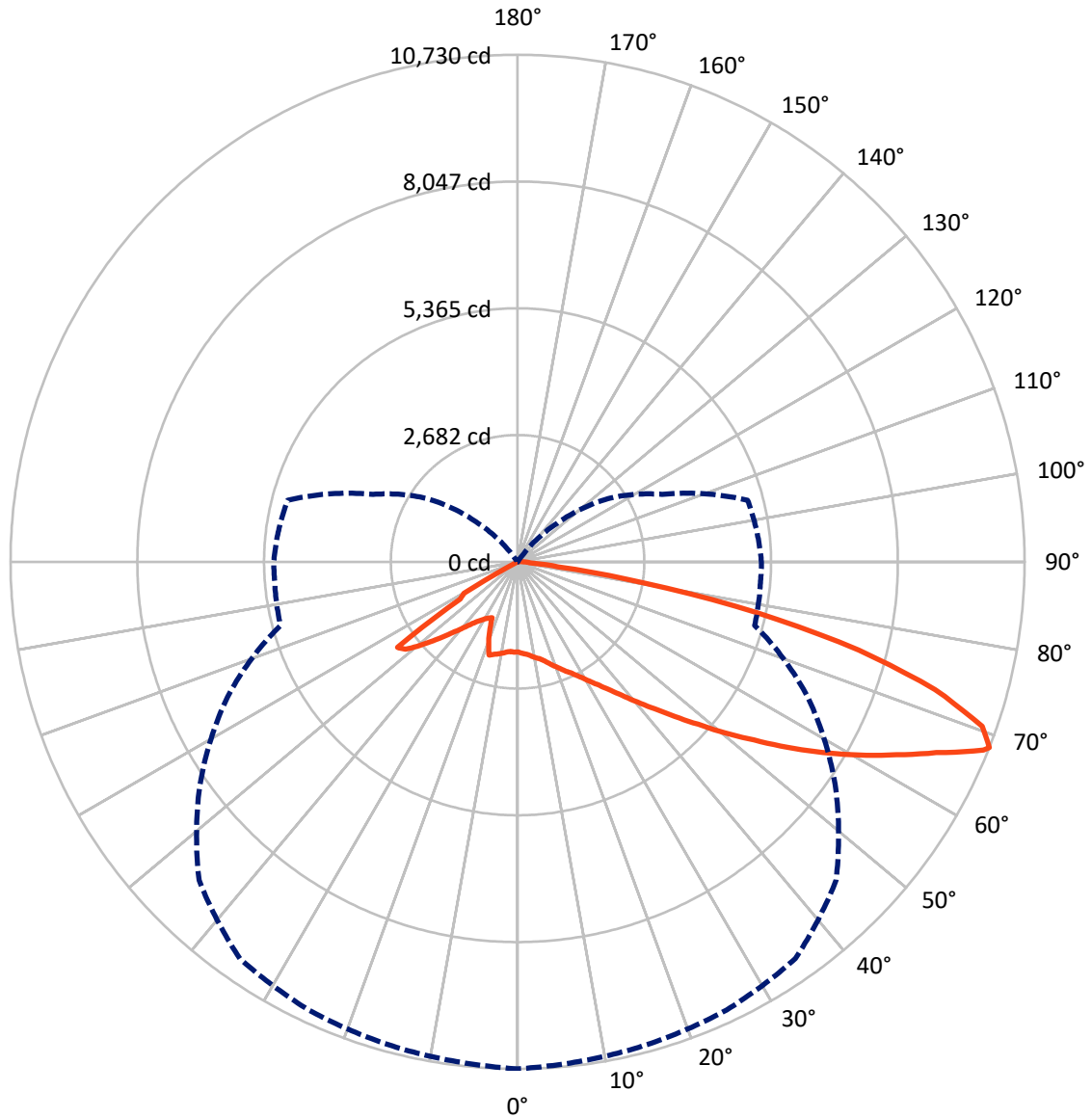
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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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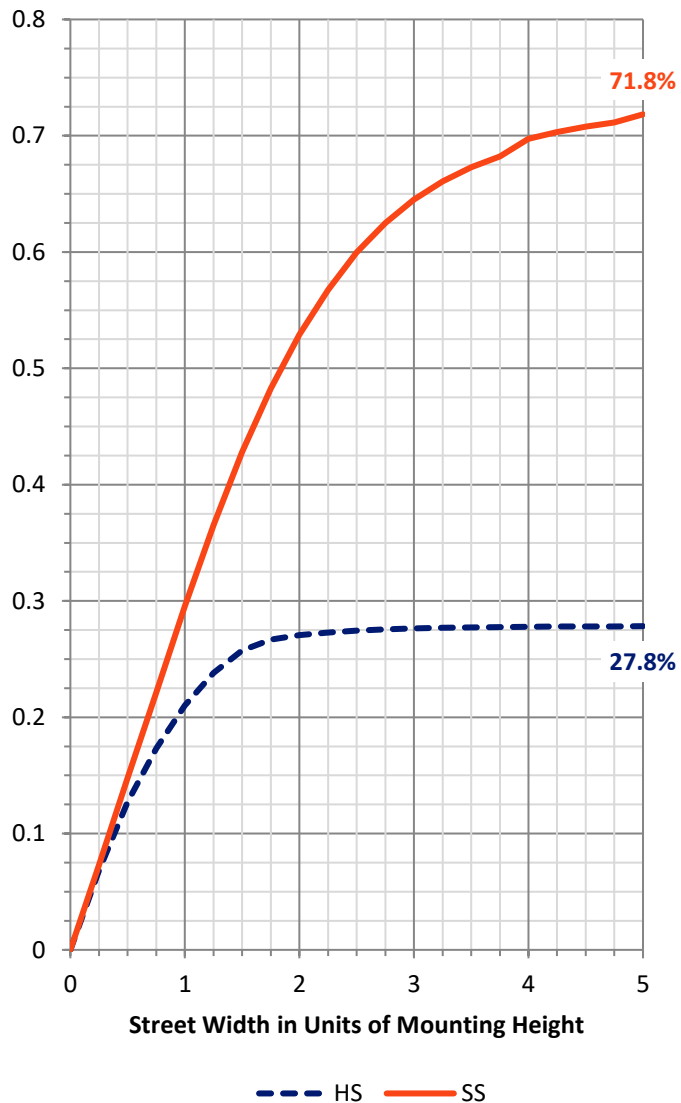
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5254.5	0.1	5254.6
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	13547.6	10.8	13558.4
	% Fixture	72.0	0.1	72.1
Total	Lumens	18802.1	10.9	18813.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.0	1.0
10°-20°	586.2	3.1
20°-30°	992.4	5.3
30°-40°	1572.1	8.4
40°-50°	2570.4	13.7
50°-60°	3937.1	20.9
60°-70°	4841.0	25.7
70°-80°	3740.6	19.9
80°-90°	377.4	2.0
90°-100°	10.7	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°	18802.1	99.9
0°-180°	18813.0	100.0

Coefficient of Utilization

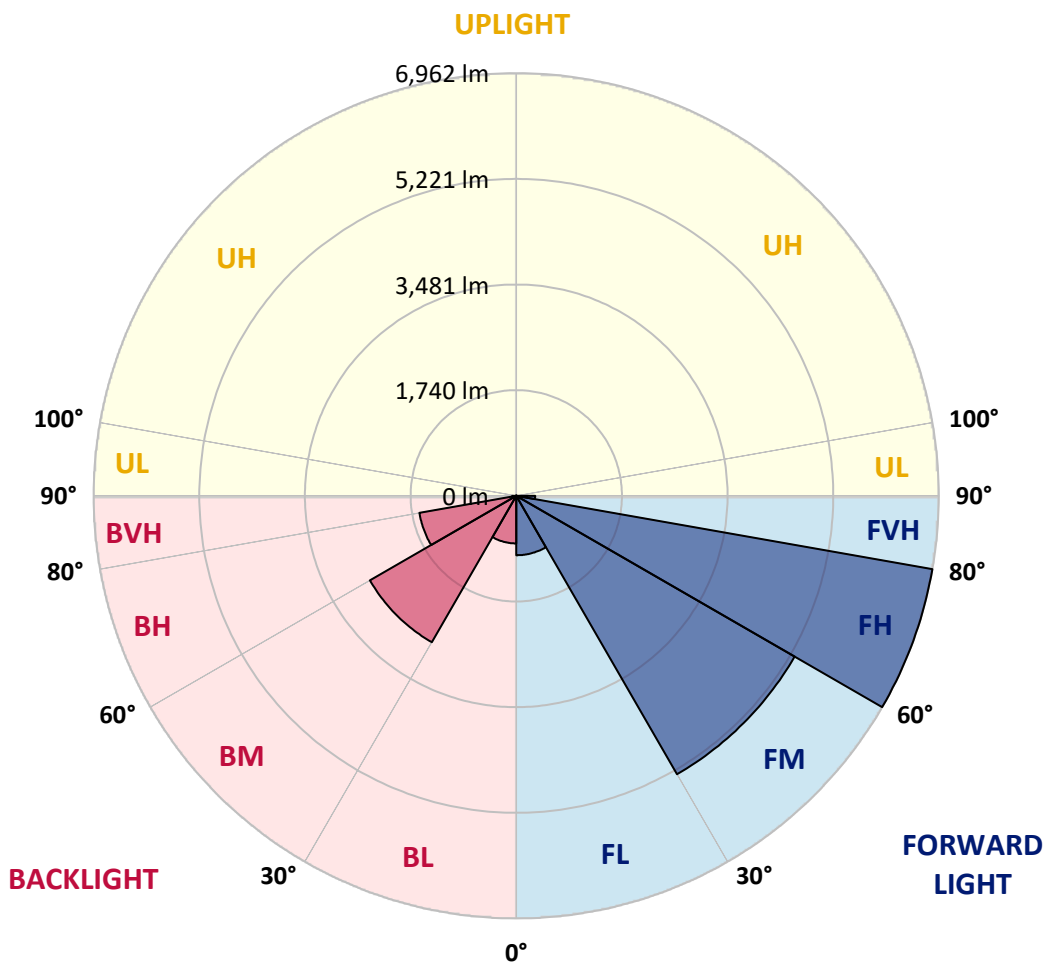


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	979.2	5.2			
FM (30°-60°)	5295.5	28.1			
FH (60°-80°)	6961.6	37.0			G3/7500
FVH (80°-90°)	311.3	1.7			G3/500
BL (0°-30°)	784.3	4.2	B2/1000		
BM (30°-60°)	2784.1	14.8	B3/5000		
BH (60°-80°)	1620.0	8.6	B3/2500		G3/2500
BVH (80°-90°)	66.2	0.4			G1/100
UL (90°-100°)	10.7	0.1		U2/50	
UH (100°-180°)	0.2	0.0		U1/10	

BUG Rating: B3-U2-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0
2.5°	1940.4	1936.8	1933.1	1941.3	1909.6	1923.2	1912.3	1922.3	1915.0	1923.2	1920.5
5°	1965.8	1962.1	1951.3	1960.3	1939.5	1944.9	1931.3	1935.0	1910.5	1925.0	1924.1
7.5°	2007.5	1997.5	1990.2	1990.2	1972.1	1971.2	1949.5	1950.4	1931.3	1929.5	1933.1
10°	2063.7	2056.4	2036.5	2038.3	2012.9	2009.3	1982.1	1981.2	1965.8	1956.7	1964.9
12.5°	2105.3	2112.6	2094.5	2094.5	2069.1	2051.0	2031.9	2019.2	2007.5	1993.9	1987.5
15°	2181.5	2188.7	2164.3	2163.3	2153.4	2131.6	2110.8	2083.6	2062.7	2056.4	2046.4
17.5°	2280.3	2275.7	2254.9	2255.8	2257.6	2222.3	2201.4	2166.1	2136.2	2114.4	2109.0
20°	2380.9	2380.9	2358.2	2365.5	2356.4	2323.8	2310.2	2261.2	2219.5	2196.0	2176.9
22.5°	2493.2	2488.7	2473.3	2488.7	2470.6	2438.0	2415.3	2366.4	2312.9	2179.7	2125.3
25°	2600.2	2597.5	2603.8	2608.3	2585.7	2544.9	2529.5	2477.8	2329.2	2154.3	2044.6
27.5°	2735.2	2726.2	2740.7	2749.7	2727.1	2691.7	2659.1	2601.1	2286.6	2148.8	2137.1
30°	2908.3	2888.4	2909.2	2913.8	2890.2	2868.5	2819.5	2529.5	2301.1	2261.2	2257.6
32.5°	3093.2	3069.7	3096.8	3100.5	3069.7	3051.5	2928.3	2492.3	2443.4	2397.2	2401.7
35°	3312.5	3312.5	3326.1	3327.9	3305.3	3274.5	2805.0	2673.6	2630.1	2587.5	2586.6
37.5°	3579.9	3571.7	3608.0	3629.7	3605.3	3517.4	2984.5	2922.8	2855.8	2801.4	2689.0
40°	3902.5	3917.0	3927.0	3948.8	3925.2	3727.6	3246.4	3176.6	3124.0	2941.9	2658.2
42.5°	4250.6	4254.2	4275.9	4303.1	4303.1	4094.7	3552.7	3492.9	3424.9	2876.6	2748.8
45°	4666.6	4658.4	4700.1	4743.6	4731.8	4516.1	3908.9	3864.5	3546.4	3066.0	3066.9
47.5°	5138.7	5128.8	5188.6	5245.7	5186.8	4983.8	4300.4	4266.0	3423.1	3386.9	3379.6
50°	5684.3	5659.9	5728.7	5804.9	5756.8	5505.8	4776.2	4114.6	3766.6	3737.6	3733.1
52.5°	6267.1	6248.1	6289.8	6419.4	6355.9	6052.3	5226.7	4245.1	4164.5	4131.8	4123.7
55°	6925.1	6887.9	6977.6	7076.4	7003.0	6656.8	5670.7	4678.3	4595.0	4538.8	4457.2
57.5°	7616.6	7563.1	7609.3	7733.5	7662.8	7275.8	6243.5	5124.2	5025.5	4159.0	3828.2
60°	8305.4	8280.9	8299.0	8408.7	8321.7	7877.6	6780.1	5571.1	4253.3	4113.7	4130.0
62.5°	8997.8	8944.3	8960.6	9073.0	8961.5	8450.4	7288.5	5977.1	4476.2	4427.3	4444.5
65°	9740.0	9676.6	9691.1	9723.7	9586.0	8964.3	7738.0	6360.4	4811.6	4759.9	4778.9
67.5°	10634.6	10576.6	10497.7	10400.7	10210.4	9509.8	8184.8	6763.7	5188.6	5159.6	5165.9
68°	10729.7	10673.5	10578.4	10463.3	10249.4	9532.5	8203.9	6775.5	5194.0	5157.8	5159.6
70°	10433.4	10466.9	10359.1	10166.0	9987.5	9200.8	7893.0	6514.5	4962.9	4909.4	4895.9
72.5°	9239.8	9313.2	9164.5	9131.9	8912.6	8196.6	6906.9	5652.6	4316.7	4333.9	4285.0
75°	7459.8	7567.6	7387.3	7397.3	7272.2	6837.2	5788.6	4706.4	3544.6	3623.4	3637.9
77.5°	5187.7	5342.7	5263.8	5342.7	5281.0	5124.2	4479.9	3624.3	2704.4	2795.0	2830.4
80°	2705.3	2889.3	2993.5	3026.1	3046.1	3039.7	2728.0	2175.1	1563.4	1596.9	1595.1
82.5°	855.6	811.1	837.4	830.2	807.5	816.6	735.9	575.5	398.8	439.6	420.5
85°	258.3	260.1	252.9	251.0	232.0	203.9	166.8	96.1	47.1	55.3	51.7
87.5°	190.3	192.1	177.6	168.6	157.7	136.9	106.0	59.8	22.7	21.8	17.2
90°	105.1	101.5	94.3	87.0	82.5	70.7	53.5	22.7	8.2	6.3	5.4
92.5°	57.1	54.4	50.8	48.0	41.7	33.5	21.8	7.3	3.6	0.9	0.0
95°	26.3	24.5	23.6	20.8	18.1	12.7	7.3	4.5	2.7	0.9	0.0
97.5°	11.8	10.9	10.0	8.2	6.3	3.6	3.6	2.7	1.8	0.9	0.0
100°	2.7	2.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	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°	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0	1906.0
2.5°	1917.7	1912.3	1909.6	1892.4	1897.8	1882.4	1912.3	1905.1	1900.5	1913.2
5°	1919.6	1900.5	1912.3	1902.3	1906.0	1884.2	1907.8	1897.8	1896.9	1902.3
7.5°	1924.1	1911.4	1923.2	1903.2	1912.3	1903.2	1920.5	1910.5	1918.6	1924.1
10°	1948.6	1941.3	1935.9	1931.3	1937.7	1919.6	1941.3	1942.2	1944.9	1961.2
12.5°	1983.0	1975.7	1966.7	1954.9	1961.2	1954.0	1970.3	1974.8	1984.8	1993.0
15°	2031.0	2017.4	2013.8	2002.9	2009.3	2005.7	2009.3	2006.6	2025.6	2022.9
17.5°	2097.2	2081.8	2030.1	1977.6	1944.0	1954.0	1995.7	2050.1	2063.7	2065.5
20°	2121.7	2012.9	2007.5	1947.6	1920.5	1918.6	1832.5	1703.9	1742.8	1834.4
22.5°	2092.7	1944.0	1928.6	1916.8	1800.8	1610.5	1592.4	1573.3	1568.8	1582.4
25°	2027.4	2010.2	1996.6	1842.5	1659.4	1660.3	1634.1	1509.0	1314.1	1297.8
27.5°	2127.1	2103.5	1972.1	1734.7	1731.0	1729.2	1690.3	1369.4	1327.7	1337.7
30°	2240.4	2201.4	1857.9	1827.1	1826.2	1809.9	1515.3	1381.2	1381.2	1383.0
32.5°	2370.9	2128.9	1923.2	1937.7	1936.8	1859.7	1463.7	1454.6	1451.0	1460.1
35°	2470.6	2070.9	2063.7	2089.9	2071.8	1577.9	1555.2	1547.1	1543.4	1538.9
37.5°	2439.8	2237.7	2237.7	2254.0	2108.1	1680.3	1669.4	1669.4	1662.2	1658.5
40°	2486.9	2445.2	2424.4	2430.7	1531.7	1804.5	1812.6	1810.8	1809.9	1816.2
42.5°	2735.2	2698.1	2679.0	2454.3	1714.7	1793.6	1993.0	1992.1	1994.8	1992.1
45°	3051.5	3017.1	2967.2	2296.6	1946.7	1572.4	2196.9	2206.9	2207.8	2206.9
47.5°	3383.2	3361.5	2851.2	2542.2	2198.7	1687.5	2099.9	2452.5	2447.9	2453.4
50°	3734.0	3636.1	2836.7	2833.1	2467.0	1877.9	1878.8	2667.3	2713.5	2728.0
52.5°	4124.6	3296.2	3144.0	2868.5	2738.9	2073.6	2053.7	2363.6	2994.4	3008.9
55°	3830.9	3482.0	3479.3	2553.1	2849.4	2262.1	2264.9	2243.1	2746.1	3121.3
57.5°	3811.9	3820.1	3813.7	2848.5	2079.1	2120.8	2467.9	2448.8	1778.2	1441.0
60°	4140.9	4152.7	3705.0	3076.0	2247.6	1304.2	1519.9	1291.5	1308.7	1322.3
62.5°	4455.4	4459.0	3013.5	2016.5	1113.8	52.6	25.4	20.8	19.9	19.9
65°	4803.4	4803.4	3230.1	2199.6	1075.8	19.9	3.6	2.7	10.0	10.0
67.5°	5139.7	5065.3	3388.7	2335.5	1094.8	2.7	0.0	0.0	0.0	0.0
68°	5120.6	5039.1	3374.2	2331.9	1092.1	1.8	0.0	0.0	0.0	0.0
70°	4836.0	4757.2	3201.1	2225.9	1051.3	1.8	0.0	0.0	0.0	0.0
72.5°	4268.7	4196.2	2834.9	1962.1	948.0	0.9	0.0	0.0	0.0	0.0
75°	3613.4	3603.5	2448.8	1655.8	813.0	0.9	0.0	0.0	0.0	0.0
77.5°	2907.4	2862.1	1914.1	1297.8	655.3	0.0	0.0	0.0	0.0	0.0
80°	1619.6	1686.6	1120.2	763.1	412.4	0.0	0.0	0.0	0.0	0.0
82.5°	437.7	409.6	244.7	165.9	78.8	0.0	0.0	0.0	0.0	0.0
85°	56.2	61.6	28.1	22.7	5.4	0.0	0.0	0.0	0.0	0.0
87.5°	29.0	34.4	9.1	7.3	1.8	0.0	0.0	0.0	0.0	0.0
90°	5.4	6.3	2.7	0.9	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)