

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: P522111

Luminaire Tested: **CTN-CA10-210-727-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522111
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-CA10-210-727-U-T5R-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22767.9 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U1 - G4

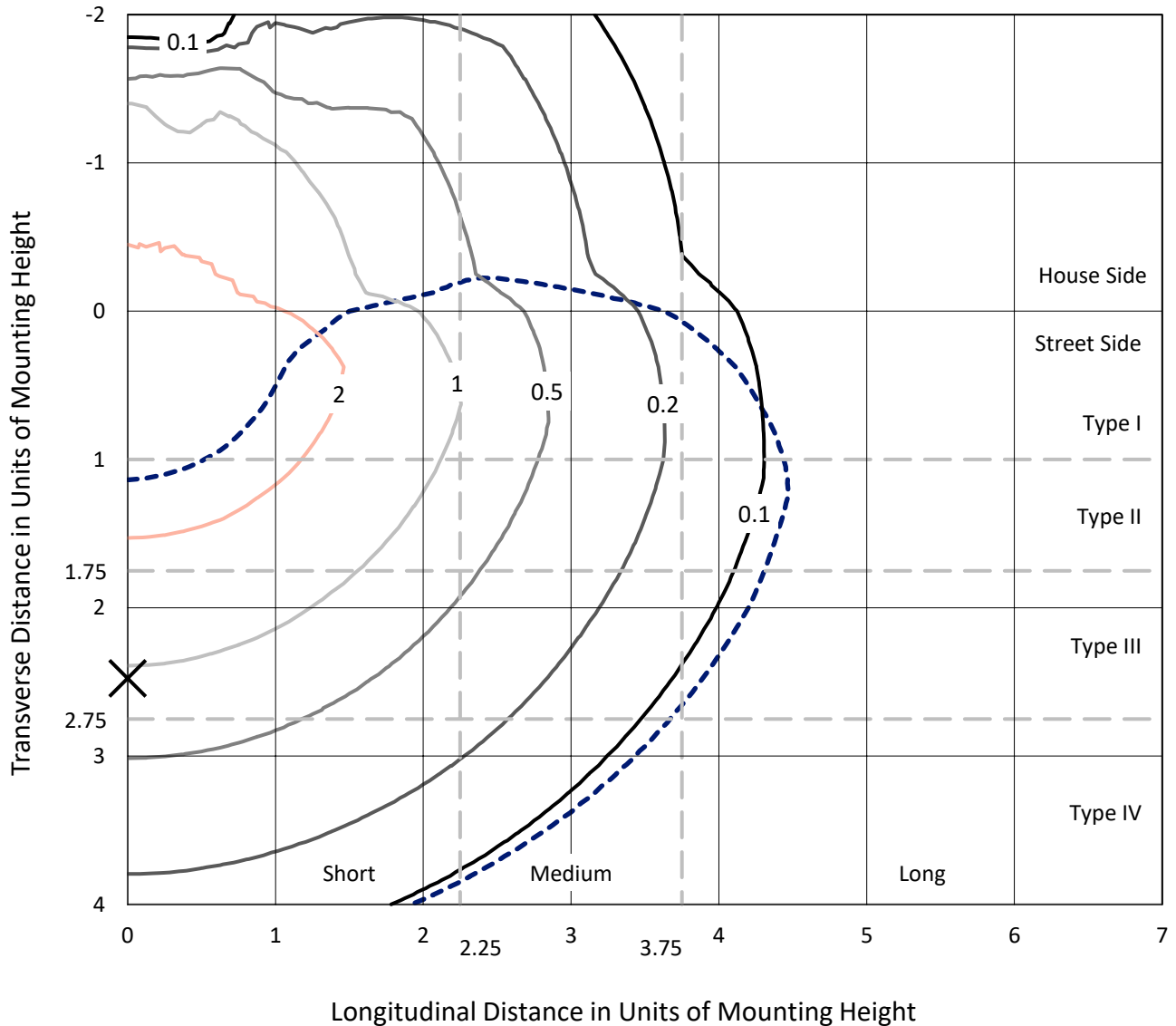
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

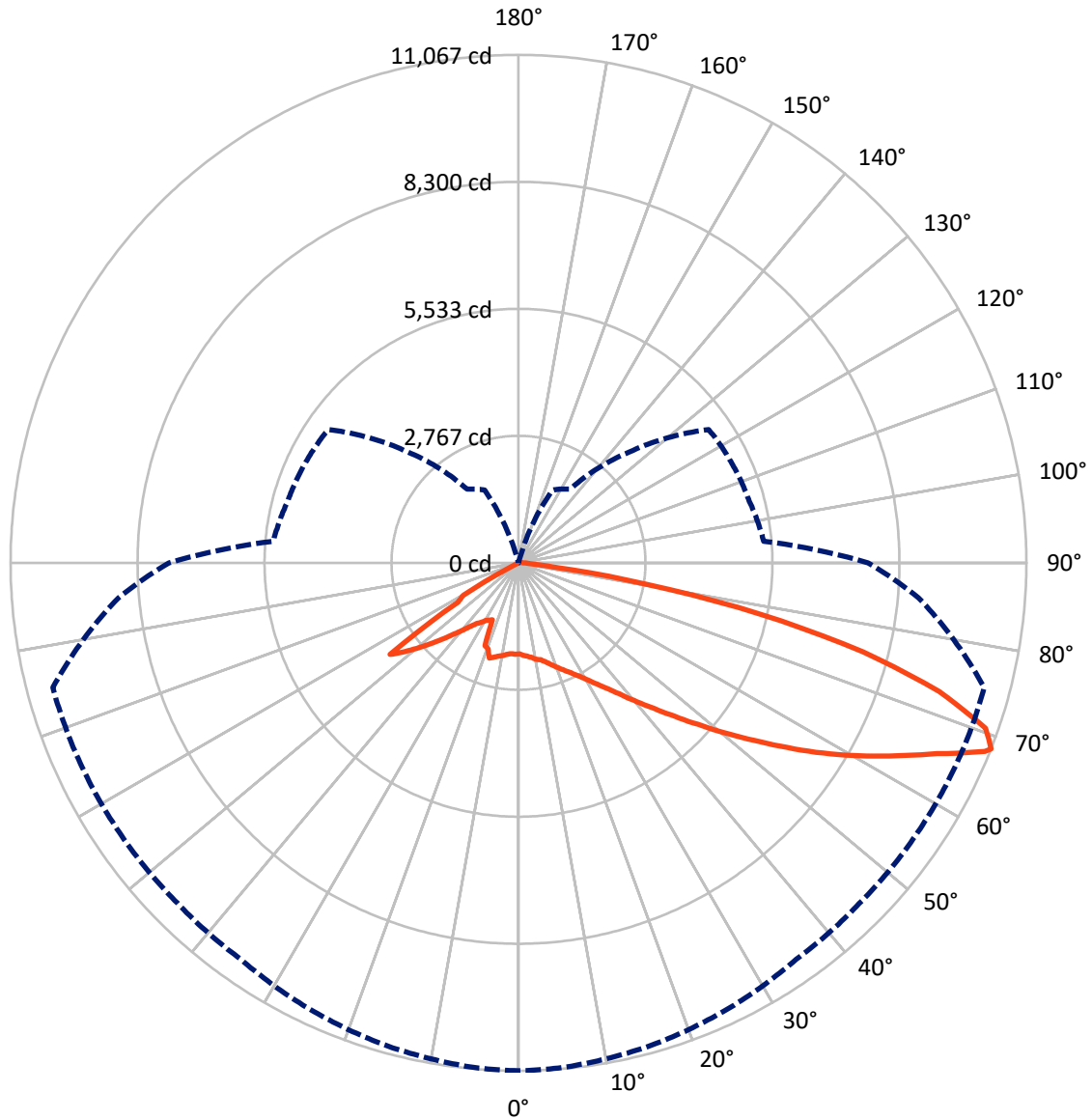
× Max cd
 - - - 1/2 Max cd



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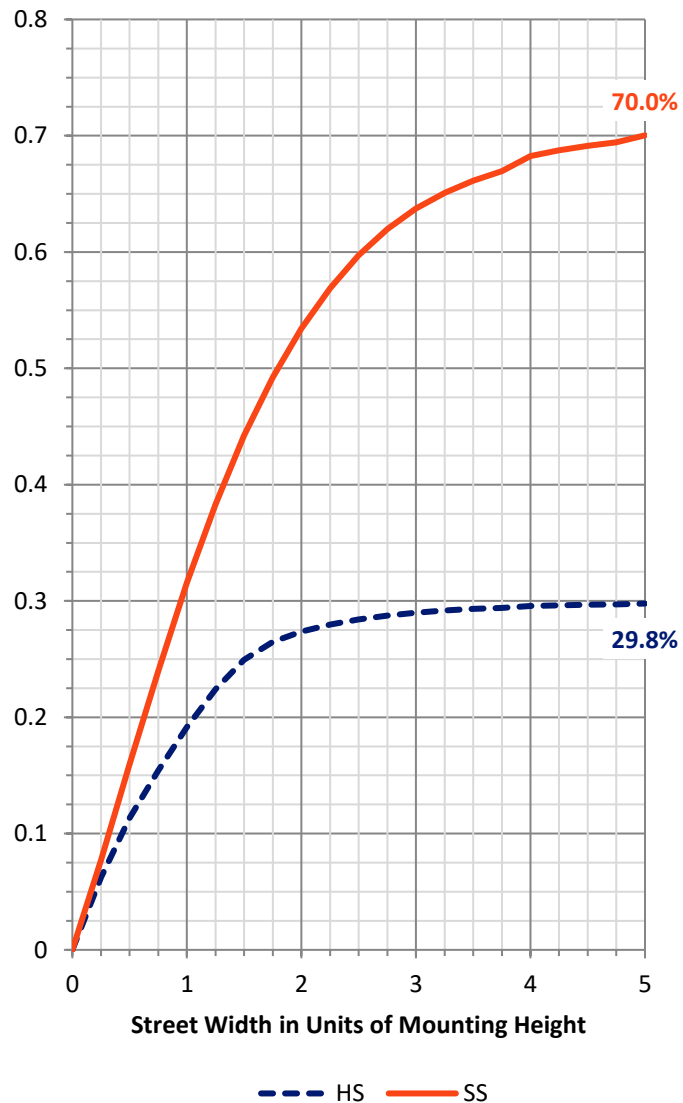
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6786.9	1.0	6787.9
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	15970.7	9.3	15980.0
	% Fixture	70.1	0.0	70.2
Total	Lumens	22757.6	10.3	22767.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.7	0.8
10°-20°	613.2	2.7
20°-30°	1050.3	4.6
30°-40°	1703.7	7.5
40°-50°	2873.3	12.6
50°-60°	4683.6	20.6
60°-70°	6281.4	27.6
70°-80°	4879.0	21.4
80°-90°	480.5	2.1
90°-100°	9.1	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°	22757.6	100.0
0°-180°	22767.9	100.0

Coefficient of Utilization

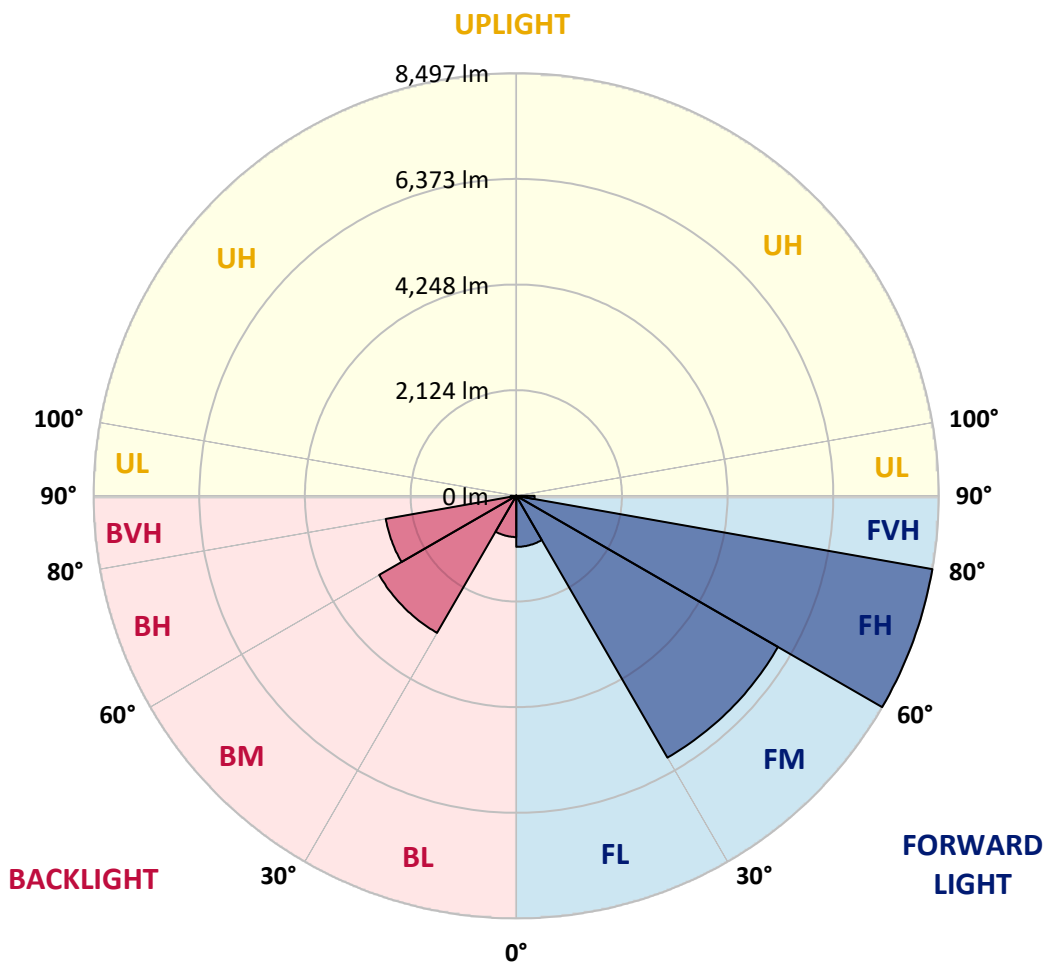


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1027.0	4.5			
FM (30°-60°)	6077.6	26.7			
FH (60°-80°)	8496.7	37.3			G4/12000
FVH (80°-90°)	369.4	1.6			G3/500
BL (0°-30°)	829.1	3.6	B2/1000		
BM (30°-60°)	3183.0	14.0	B3/5000		
BH (60°-80°)	2663.7	11.7	B4/5000		G4/5000
BVH (80°-90°)	111.1	0.5			G2/225
UL (90°-100°)	9.1	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°	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9
2.5°	2017.9	2012.3	2011.3	2022.6	1986.8	2004.7	1988.7	2001.9	1993.4	2000.0	2001.0
5°	2045.2	2034.9	2028.3	2041.4	2018.8	2027.3	2009.4	2015.1	1991.5	2004.7	2006.6
7.5°	2084.8	2067.8	2065.9	2069.7	2049.9	2056.5	2027.3	2033.9	2017.0	2009.4	2016.0
10°	2138.4	2122.4	2110.2	2118.7	2092.3	2096.1	2065.0	2065.9	2053.7	2039.6	2050.9
12.5°	2168.6	2170.4	2164.8	2171.4	2149.7	2137.5	2115.8	2108.3	2096.1	2079.1	2073.5
15°	2243.9	2240.1	2228.8	2239.2	2236.4	2225.1	2198.7	2181.7	2155.4	2146.0	2136.6
17.5°	2336.2	2323.9	2314.5	2327.7	2341.8	2318.3	2292.9	2269.3	2234.5	2215.6	2204.3
20°	2433.2	2424.7	2415.3	2436.0	2440.7	2422.8	2404.0	2369.1	2328.6	2304.2	2280.6
22.5°	2541.5	2524.5	2527.3	2554.6	2546.2	2537.7	2513.2	2485.0	2436.0	2404.9	2337.1
25°	2653.5	2644.1	2657.3	2669.5	2662.9	2645.0	2632.8	2612.1	2557.5	2519.8	2420.9
27.5°	2792.9	2777.8	2794.7	2799.5	2793.8	2789.1	2772.1	2756.1	2696.8	2654.4	2531.1
30°	2956.7	2938.8	2966.1	2959.5	2953.9	2957.6	2947.3	2912.5	2859.7	2802.3	2678.9
32.5°	3151.6	3128.1	3159.2	3145.0	3131.8	3158.2	3133.7	3100.8	3038.6	2971.8	2851.2
35°	3377.6	3378.6	3394.6	3371.0	3366.3	3394.6	3378.6	3338.1	3280.6	3210.9	3039.6
37.5°	3651.6	3644.1	3684.6	3673.3	3656.3	3694.0	3698.7	3647.9	3544.3	3475.5	3273.1
40°	3985.0	3983.1	3996.3	3998.1	3993.4	4011.3	4019.8	3952.0	3885.2	3781.6	3088.5
42.5°	4340.9	4348.4	4372.0	4355.0	4377.6	4401.2	4404.0	4347.5	4251.4	3628.1	3280.6
45°	4768.4	4791.9	4807.9	4804.2	4814.5	4848.4	4851.3	4821.1	4727.0	3930.3	3629.0
47.5°	5259.0	5281.6	5286.3	5316.4	5307.0	5355.0	5348.4	5349.4	5248.6	4351.3	4008.5
50°	5823.0	5833.4	5872.0	5888.9	5865.4	5930.4	5913.4	5934.1	5809.8	4833.4	4416.2
52.5°	6421.9	6439.8	6455.8	6519.8	6489.7	6546.2	6523.6	6571.6	6427.5	5324.0	4869.2
55°	7102.7	7105.5	7132.8	7197.8	7158.2	7226.0	7193.1	7211.0	7096.1	5866.3	5340.9
57.5°	7824.0	7814.6	7824.9	7876.7	7840.9	7891.8	7878.6	7895.5	7788.2	6437.0	5685.5
60°	8537.7	8523.6	8538.7	8573.5	8524.5	8612.1	8565.0	8581.0	8465.2	7019.8	6177.1
62.5°	9255.2	9244.9	9227.9	9262.8	9191.2	9236.4	9256.2	9229.8	9128.1	7547.1	6604.6
65°	10025.5	10015.1	9953.0	9974.7	9846.6	9824.9	9832.5	9840.9	9773.1	8069.7	7073.5
67.5°	10961.5	10946.4	10829.6	10682.8	10498.2	10457.7	10461.5	10484.1	10493.5	8742.1	7622.5
68°	11066.9	11039.6	10909.7	10739.3	10546.2	10499.1	10494.4	10499.1	10503.8	8747.7	7616.8
70°	10797.6	10787.3	10688.4	10482.2	10284.4	10171.5	10073.5	10069.8	10024.6	8300.4	7195.9
72.5°	9582.0	9568.8	9451.1	9305.2	9182.7	9005.7	8878.6	8886.1	8811.7	7336.2	6298.5
75°	7754.3	7753.4	7612.1	7489.7	7491.6	7478.4	7436.0	7510.4	7433.2	6222.3	5372.0
77.5°	5404.0	5422.8	5413.4	5341.8	5442.6	5582.0	5733.6	5876.7	5832.4	4915.3	4283.5
80°	2823.0	2875.7	3062.2	3070.6	3141.3	3276.9	3380.4	3476.5	3483.1	2789.1	2474.6
82.5°	750.5	766.5	829.6	811.7	806.0	833.3	855.9	858.8	860.6	726.9	678.9
85°	233.5	240.1	232.6	222.2	206.2	188.3	183.6	149.7	118.6	97.9	85.7
87.5°	165.7	177.0	160.1	150.7	133.7	127.1	113.9	89.5	69.7	49.0	33.0
90°	85.7	87.6	78.2	66.9	62.1	58.4	49.9	35.8	17.9	9.4	8.5
92.5°	43.3	44.3	38.6	33.0	28.2	24.5	18.8	10.4	5.6	2.8	0.9
95°	16.9	17.9	16.0	14.1	11.3	8.5	7.5	5.6	3.8	1.9	0.9
97.5°	5.6	5.6	5.6	4.7	4.7	4.7	4.7	3.8	2.8	1.9	0.9
100°	0.0	0.0	0.0	0.9	1.9	2.8	2.8	2.8	1.9	0.9	0.9
102.5°	0.0	0.0	0.0	0.0	0.0	0.9	1.9	1.9	1.9	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	0.0	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°	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9	1984.9
2.5°	1996.2	1990.6	1993.4	1969.9	1975.5	1960.5	1992.5	1984.0	1980.2	1993.4
5°	2001.0	1980.2	1997.2	1981.2	1984.0	1962.3	1988.7	1978.4	1977.4	1984.9
7.5°	2002.8	1992.5	2008.5	1982.1	1990.6	1982.1	2001.9	1991.5	2001.0	2007.5
10°	2029.2	2023.6	2021.7	2012.3	2018.8	2000.0	2024.5	2024.5	2029.2	2047.1
12.5°	2067.8	2060.3	2055.6	2038.6	2045.2	2039.6	2059.3	2063.1	2071.6	2079.1
15°	2120.5	2107.4	2102.7	2087.6	2092.3	2091.4	2105.5	2106.4	2125.3	2124.3
17.5°	2188.3	2169.5	2175.2	2163.9	2164.8	2157.3	2149.7	2149.7	2166.7	2170.4
20°	2269.3	2162.0	2020.7	1941.6	1927.5	1937.9	1978.4	2045.2	1961.4	1984.9
22.5°	2123.4	2026.4	2019.8	2001.9	1990.6	1738.2	1673.3	1652.6	1760.8	1947.3
25°	2142.2	2100.8	2088.5	2065.9	1732.6	1729.8	1710.9	1679.9	1372.9	1366.3
27.5°	2242.0	2201.5	2181.7	1809.8	1802.3	1801.3	1773.1	1461.4	1390.8	1400.2
30°	2358.8	2311.7	1957.6	1901.1	1894.6	1879.5	1717.5	1443.5	1442.6	1443.5
32.5°	2493.4	2337.1	2014.1	2011.3	2015.1	1968.9	1521.7	1516.0	1515.1	1524.5
35°	2678.0	2168.6	2155.4	2169.5	2149.7	1702.5	1613.0	1610.2	1611.1	1606.4
37.5°	2555.6	2338.1	2335.2	2335.2	2289.1	1742.0	1724.1	1737.3	1735.4	1728.8
40°	2607.4	2543.3	2526.4	2520.7	1935.0	1879.5	1869.1	1886.1	1888.9	1893.6
42.5°	2858.8	2800.4	2791.9	2725.1	2105.5	2087.6	2055.6	2073.5	2071.6	2077.2
45°	3167.6	3128.1	3091.4	2362.5	2335.2	2312.6	2279.7	2300.4	2306.0	2302.3
47.5°	3527.3	3484.0	3218.5	2597.9	2597.0	2579.1	2542.4	2559.3	2556.5	2556.5
50°	3888.9	3841.8	2923.8	2897.4	2888.0	2859.7	2829.6	2832.4	2833.4	2842.8
52.5°	4292.9	3431.3	3236.4	3183.6	3191.2	3172.3	3143.1	2379.5	3129.0	3137.5
55°	4012.3	3591.4	3580.1	3510.4	3528.3	3503.8	3485.0	2347.5	3112.1	3438.8
57.5°	3967.1	3936.9	3927.5	3856.0	3878.6	3646.0	3820.2	2568.8	2152.6	1572.5
60°	4312.6	4280.6	4275.0	4211.9	4210.0	2897.4	3472.7	1761.8	1376.7	1386.1
62.5°	4647.9	4596.1	4610.2	4535.8	3197.8	1765.5	1556.5	39.5	63.1	66.9
65°	5021.7	4935.1	4949.2	4880.5	3298.5	1861.6	1682.7	20.7	17.9	16.9
67.5°	5381.4	5229.8	5157.3	5084.8	3425.6	1960.5	1753.3	5.6	0.0	0.0
68°	5363.5	5203.4	5129.0	5060.3	3412.5	1957.6	1749.5	5.6	0.0	0.0
70°	5061.2	4917.2	4846.6	4793.8	3258.0	1890.8	1678.9	5.6	0.0	0.0
72.5°	4424.7	4344.7	4299.5	4253.3	2894.6	1691.2	1505.7	5.6	0.0	0.0
75°	3759.9	3737.3	3709.1	3607.4	2412.4	1384.2	1237.3	5.6	0.0	0.0
77.5°	2979.3	2978.4	2909.6	2790.0	1816.4	1016.0	912.4	4.7	0.0	0.0
80°	1611.1	1756.1	1703.4	1642.2	1030.1	552.7	526.4	3.8	0.0	0.0
82.5°	452.9	428.4	411.5	385.1	216.6	120.5	117.7	3.8	0.0	0.0
85°	63.1	69.7	77.2	87.6	49.9	32.0	28.2	1.9	0.0	0.0
87.5°	35.8	40.5	49.9	51.8	18.8	15.1	4.7	0.0	0.0	0.0
90°	7.5	8.5	9.4	9.4	3.8	3.8	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)