

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: P522182

Luminaire Tested: **CTN-CA6-230-722-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522182
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-CA6-230-722-U-T5R-HSS-HM-EX90
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: 23777 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U1 - G4

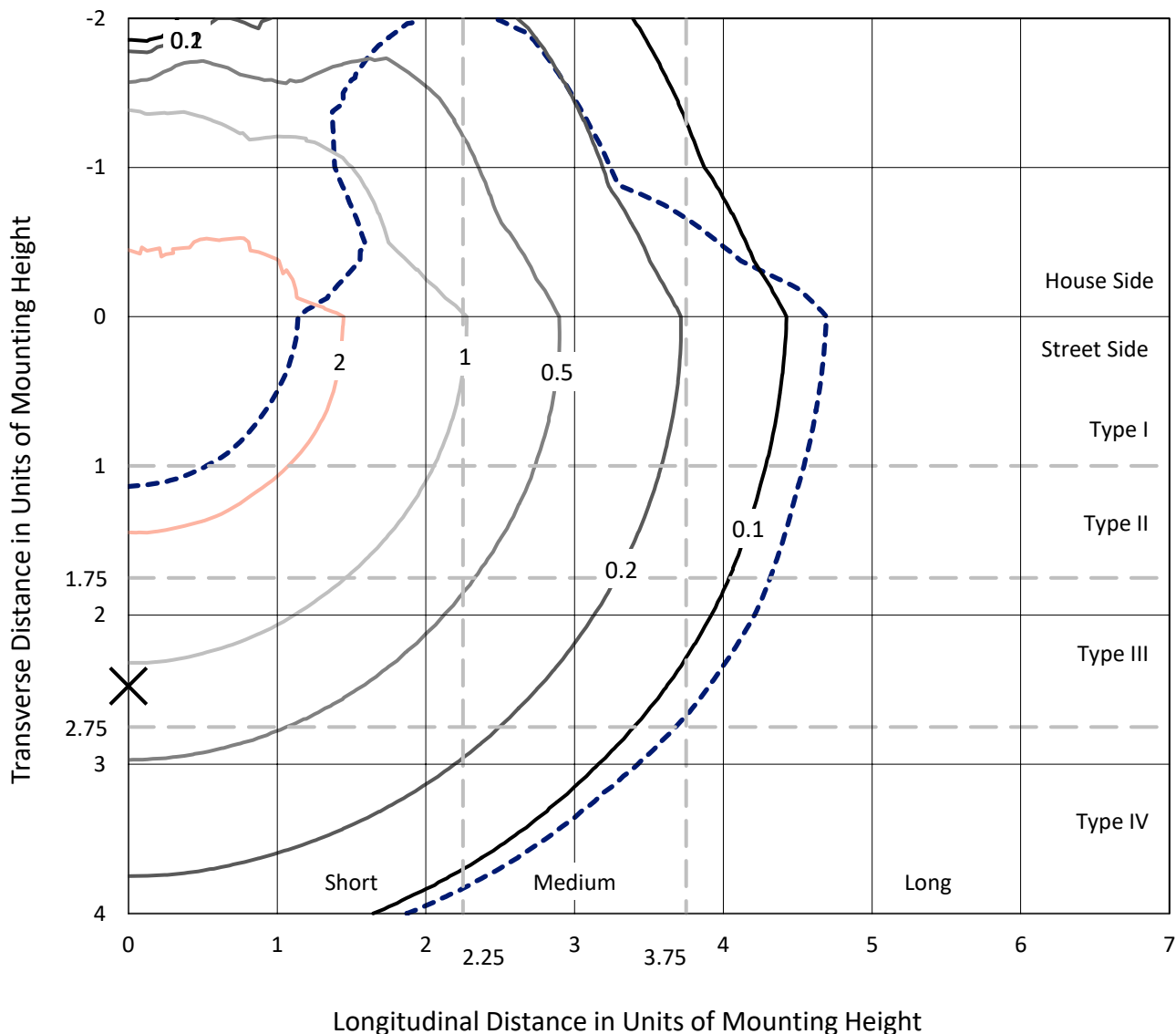
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

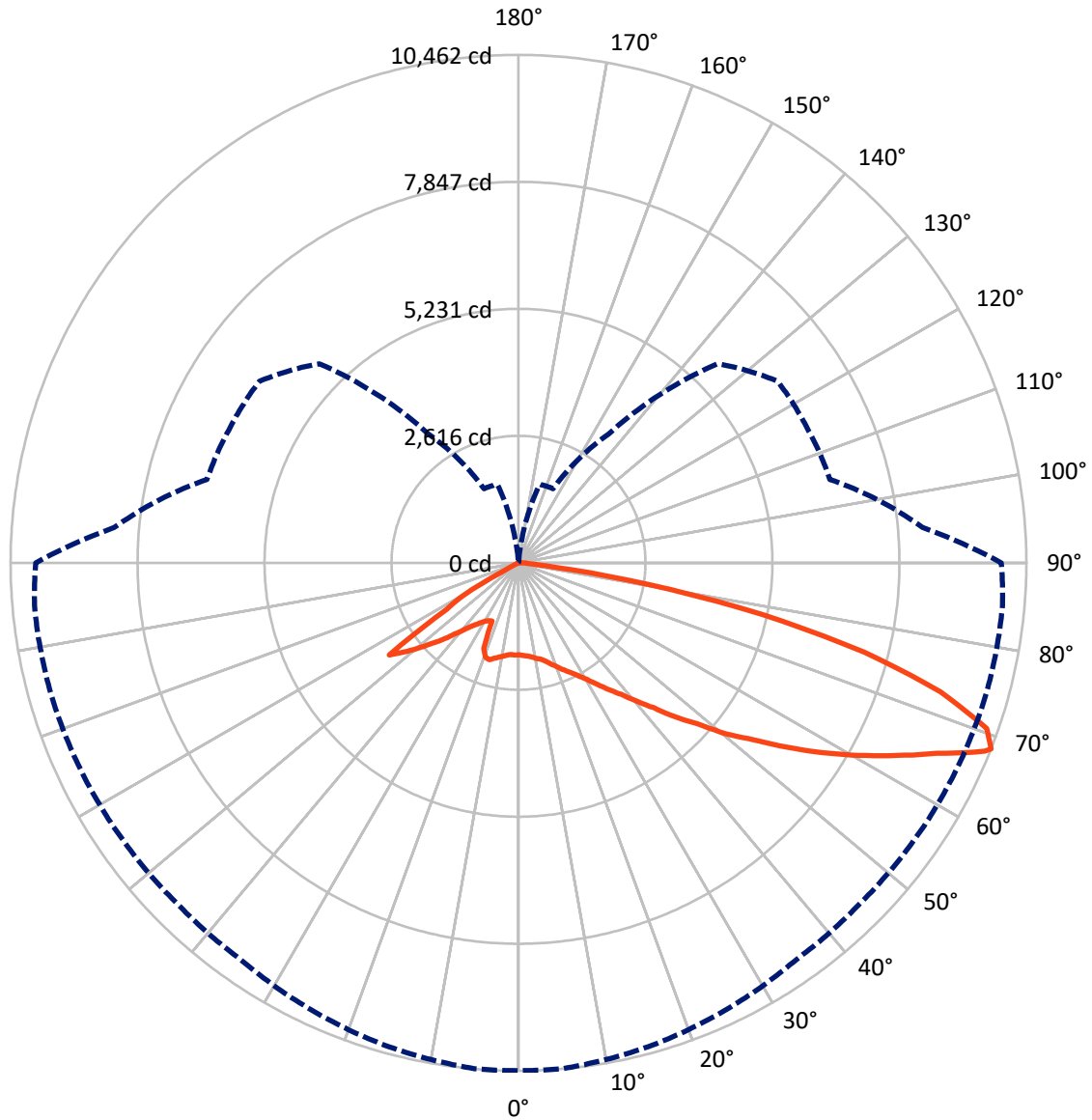
× Max cd
 - - - 1/2 Max cd



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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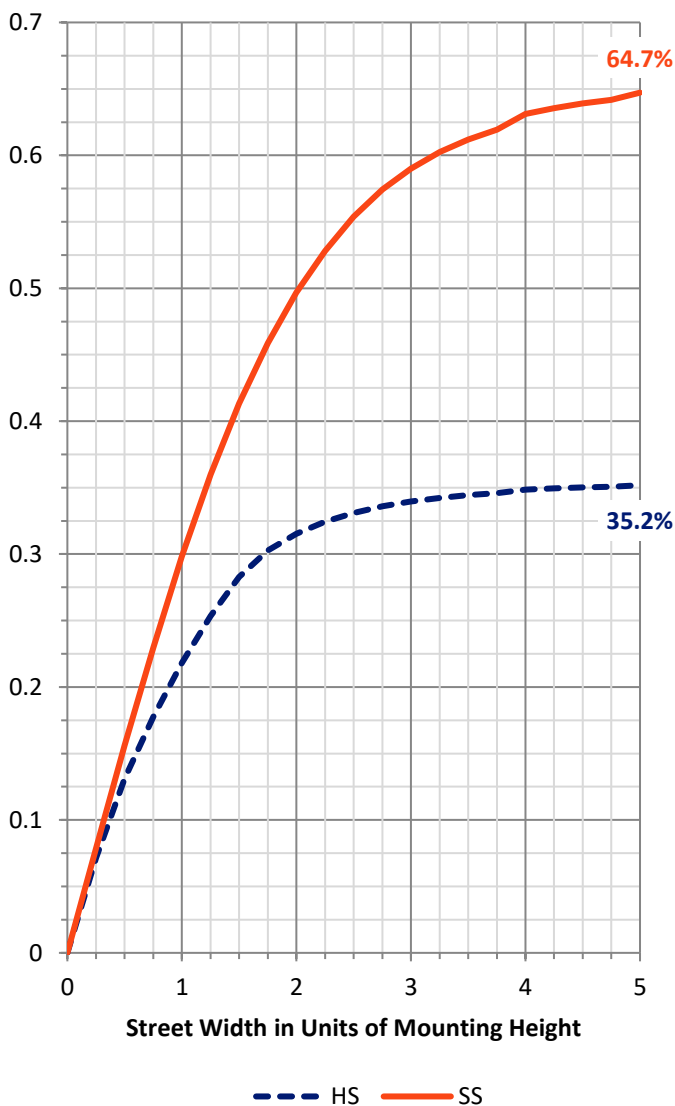
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8367.9	1.4	8369.3
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	15401.4	6.3	15407.7
	% Fixture	64.8	0.0	64.8
Total	Lumens	23769.3	7.7	23777.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.1	0.8
10°-20°	586.5	2.5
20°-30°	1047.0	4.4
30°-40°	1703.3	7.2
40°-50°	2908.7	12.2
50°-60°	4853.3	20.4
60°-70°	6752.0	28.4
70°-80°	5233.8	22.0
80°-90°	501.5	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°	23769.3	100.0
0°-180°	23777.0	100.0

Coefficient of Utilization

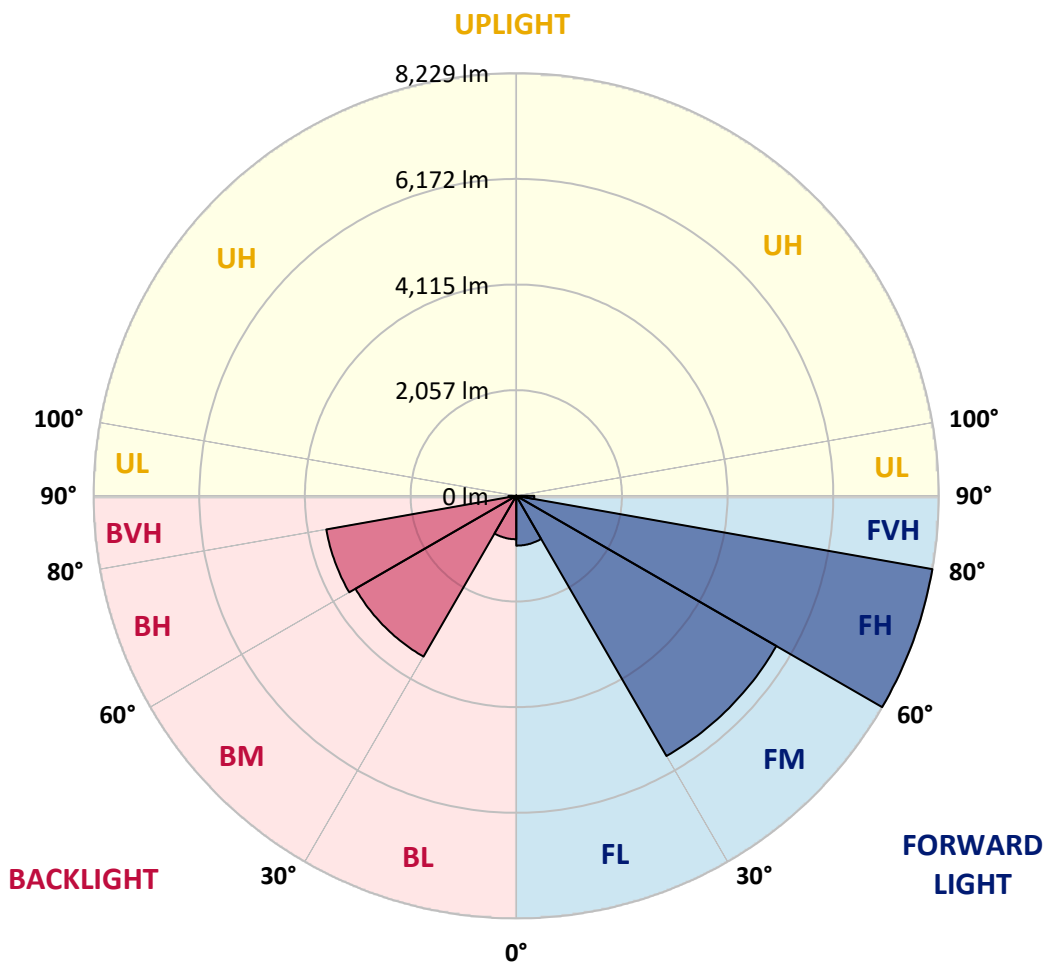


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	970.4	4.1			
FM	(30°-60°)	5850.8	24.6			
FH	(60°-80°)	8229.3	34.6			G4/12000
FVH	(80°-90°)	350.9	1.5			G3/500
BL	(0°-30°)	846.2	3.6	B2/1000		
BM	(30°-60°)	3614.6	15.2	B3/5000		
BH	(60°-80°)	3756.5	15.8	B4/5000		G4/5000
BVH	(80°-90°)	150.7	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°	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2
2.5°	1913.7	1911.0	1909.2	1920.9	1887.8	1901.2	1892.2	1903.9	1901.2	1906.6	1907.5
5°	1927.1	1922.7	1916.4	1928.9	1909.2	1918.2	1908.4	1913.7	1896.7	1911.0	1912.8
7.5°	1957.6	1945.0	1944.1	1947.7	1934.3	1940.6	1923.6	1929.8	1920.9	1915.5	1920.9
10°	2003.2	1992.5	1980.8	1988.0	1965.6	1973.7	1955.8	1961.1	1956.7	1945.0	1955.8
12.5°	2034.5	2038.1	2030.0	2035.4	2015.7	2008.6	2002.3	2001.4	1998.7	1981.7	1979.0
15°	2104.3	2106.1	2091.8	2095.3	2090.9	2087.3	2078.3	2071.2	2056.9	2046.1	2039.0
17.5°	2195.5	2185.7	2172.3	2175.9	2188.4	2172.3	2166.9	2153.5	2132.9	2115.0	2111.4
20°	2291.3	2285.0	2272.5	2279.6	2278.8	2268.0	2270.7	2248.3	2218.8	2203.6	2192.0
22.5°	2397.7	2388.8	2379.8	2393.3	2382.5	2375.4	2372.7	2357.5	2320.8	2303.8	2301.1
25°	2504.2	2499.7	2506.0	2501.5	2486.3	2480.9	2484.5	2479.2	2436.2	2415.6	2403.1
27.5°	2637.5	2626.8	2636.6	2631.3	2615.2	2616.0	2616.9	2617.8	2569.5	2542.7	2524.8
30°	2789.6	2786.0	2798.6	2781.6	2766.4	2776.2	2784.2	2766.4	2724.3	2684.9	2678.7
32.5°	2987.3	2965.0	2979.3	2957.8	2934.6	2957.8	2972.1	2936.3	2902.3	2852.2	2861.2
35°	3206.5	3199.4	3199.4	3171.6	3159.1	3195.8	3210.1	3175.2	3122.4	3078.6	3067.9
37.5°	3439.2	3446.3	3468.7	3457.0	3445.4	3467.8	3500.0	3453.5	3385.5	3338.9	3326.4
40°	3747.8	3765.7	3780.9	3765.7	3752.3	3766.6	3803.3	3742.4	3695.0	3670.0	3643.1
42.5°	4079.7	4110.2	4100.3	4102.1	4113.7	4134.3	4171.0	4115.5	4061.0	4060.1	4020.7
45°	4528.9	4528.9	4508.3	4528.0	4526.2	4577.2	4593.3	4562.9	4517.2	4503.8	4469.8
47.5°	4948.5	4992.3	4984.3	5012.9	4990.5	5033.5	5088.0	5062.1	5009.3	4961.9	4954.7
50°	5533.6	5522.9	5512.1	5555.1	5551.5	5581.0	5631.1	5615.0	5541.6	5488.0	5478.1
52.5°	6048.0	6104.4	6091.0	6155.4	6119.6	6161.7	6221.6	6218.9	6129.5	6076.7	6061.5
55°	6697.6	6735.2	6732.5	6798.7	6749.5	6804.9	6855.0	6860.4	6762.9	6687.7	6711.0
57.5°	7374.0	7405.3	7387.4	7442.0	7393.6	7469.7	7500.1	7480.4	7423.2	7328.3	7363.2
60°	8051.2	8078.1	8098.6	8103.1	8075.4	8120.1	8148.7	8165.7	8075.4	7967.1	8009.2
62.5°	8739.2	8769.7	8751.8	8758.9	8682.0	8742.8	8778.6	8783.1	8679.3	8583.6	8613.1
65°	9463.9	9506.0	9441.6	9398.6	9303.8	9302.9	9350.3	9358.4	9285.0	9217.0	9205.4
67.5°	10361.3	10380.1	10242.3	10098.3	9938.1	9903.2	9936.3	9955.1	9997.2	9995.4	9942.6
68°	10462.4	10458.8	10319.2	10147.5	9975.7	9935.4	9951.5	9975.7	10003.4	10008.8	9945.3
70°	10232.5	10188.6	10109.0	9892.5	9722.5	9616.9	9560.6	9605.3	9530.1	9531.0	9412.0
72.5°	9089.1	9083.7	8937.0	8829.6	8678.4	8503.0	8422.5	8421.6	8428.8	8376.9	8254.3
75°	7362.3	7369.5	7198.6	7124.3	7077.8	7044.7	7061.7	7114.5	7119.9	7119.0	7076.0
77.5°	5134.6	5164.1	5118.5	4997.7	5127.4	5238.4	5452.2	5561.3	5526.4	5631.1	5697.3
80°	2691.2	2750.2	2752.0	2837.0	2941.7	3042.8	3227.1	3392.6	3271.0	3217.3	3161.8
82.5°	707.7	729.2	761.4	712.2	727.4	742.6	885.7	872.3	805.2	841.0	894.7
85°	202.2	208.5	199.5	180.7	165.5	152.1	155.7	131.5	114.5	113.6	110.0
87.5°	142.3	153.0	135.1	116.3	104.7	97.5	93.9	79.6	64.4	56.4	44.7
90°	66.2	65.3	56.4	43.8	38.5	36.7	36.7	28.6	16.1	9.8	8.9
92.5°	27.7	28.6	23.3	18.8	16.1	12.5	9.8	6.3	3.6	1.8	0.9
95°	9.8	10.7	8.9	7.2	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°	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2	1892.2
2.5°	1905.7	1901.2	1899.4	1877.0	1883.3	1869.9	1901.2	1892.2	1890.5	1903.0
5°	1910.1	1889.6	1902.1	1887.8	1891.4	1871.7	1896.7	1886.0	1886.9	1893.1
7.5°	1912.8	1901.2	1913.7	1888.7	1898.5	1891.4	1909.2	1898.5	1909.2	1914.6
10°	1939.7	1934.3	1925.4	1918.2	1925.4	1908.4	1930.7	1928.9	1935.2	1951.3
12.5°	1976.3	1970.1	1961.1	1948.6	1954.0	1947.7	1964.7	1966.5	1978.1	1986.2
15°	2030.9	2022.9	2018.4	2005.9	2007.7	2003.2	2013.0	2014.8	2038.1	2035.4
17.5°	2107.9	2098.9	2102.5	2090.9	2086.4	2075.7	2057.8	2051.5	2079.2	2087.3
20°	2192.0	2182.1	2186.6	2176.8	2093.6	1924.5	2038.1	2115.9	2056.9	2052.4
22.5°	2287.7	2277.0	2280.5	2265.3	2162.4	1845.7	1606.0	1586.3	1811.7	1903.0
25°	2393.3	2379.0	2377.2	2357.5	2019.3	1671.3	1644.4	1609.5	1444.9	1314.3
27.5°	2523.9	2502.4	2491.7	2194.7	2005.0	1736.6	1696.3	1572.0	1333.1	1341.1
30°	2665.3	2633.9	2432.6	2236.7	2109.7	1813.5	1759.8	1377.8	1379.6	1376.0
32.5°	2826.3	2756.5	2383.4	2365.5	2234.9	1895.8	1461.0	1444.9	1446.7	1452.1
35°	3037.4	2558.8	2548.9	2549.8	2387.9	1834.1	1547.8	1532.6	1534.4	1538.0
37.5°	3082.2	2758.3	2760.1	2739.5	2550.7	1675.7	1653.4	1652.5	1648.9	1645.3
40°	3118.0	3009.7	2983.8	2950.7	2364.6	1804.6	1797.4	1792.0	1794.7	1801.9
42.5°	3398.0	3316.6	3291.5	3252.2	2425.5	1999.6	1976.3	1970.1	1977.2	1973.7
45°	3770.2	3702.2	3653.0	3007.0	2679.6	2211.6	2192.9	2184.8	2187.5	2209.9
47.5°	4163.8	4123.6	3973.3	3248.6	2975.7	2462.2	2443.4	2430.8	2435.3	2430.0
50°	4592.4	4555.7	3678.0	3612.7	3303.2	2732.4	2704.6	2700.1	2701.9	2701.0
52.5°	5057.6	4290.9	4076.2	4008.2	3648.5	3015.1	3005.2	2981.1	2986.4	2981.1
55°	5603.4	4519.9	4514.6	4434.9	4036.8	3343.4	3331.8	3297.8	3084.0	3271.0
57.5°	6121.4	4957.4	4957.4	4880.5	4434.0	3670.0	3651.2	3626.1	2192.0	1767.9
60°	6688.6	5395.8	5383.3	5319.8	4817.0	3981.3	3236.1	3228.9	1324.1	1328.6
62.5°	7178.9	5786.8	5809.2	5750.1	5185.6	2981.1	1499.5	1469.1	130.6	201.3
65°	7728.2	6218.9	6245.8	6184.9	5584.6	3161.8	1627.4	1612.2	29.5	26.8
67.5°	8350.9	6650.2	6589.3	6522.2	5818.1	3255.7	1690.9	1677.5	8.1	5.4
68°	8356.3	6641.2	6562.5	6516.9	5795.7	3237.8	1685.6	1673.1	8.1	5.4
70°	7926.9	6306.6	6227.9	6239.5	5518.4	3096.5	1615.8	1592.5	8.1	5.4
72.5°	6954.3	5612.3	5523.8	5461.1	4893.9	2752.9	1448.5	1404.6	8.1	5.4
75°	5950.5	4756.1	4609.4	4471.6	3937.5	2252.8	1188.1	1138.9	8.1	5.4
77.5°	4689.9	3625.2	3416.8	3326.4	2958.7	1664.1	883.0	829.4	8.1	4.5
80°	2591.9	2080.1	1903.0	1847.5	1691.8	977.9	506.4	474.2	7.2	4.5
82.5°	670.1	502.8	438.4	423.2	397.2	231.7	123.5	117.2	6.3	3.6
85°	95.7	70.7	77.8	92.2	88.6	59.9	42.9	36.7	5.4	2.7
87.5°	50.1	42.0	49.2	55.5	56.4	34.9	17.9	9.8	2.7	0.0
90°	8.1	8.1	8.9	9.8	9.8	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)