

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: P522146

Luminaire Tested: **CTN-CA10-630-722-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522146  
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-CA10-630-722-U-T5R-HSS-HM-EX90  
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: 63675 lumens  
Efficiency: N/A  
Efficacy: 100.8 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

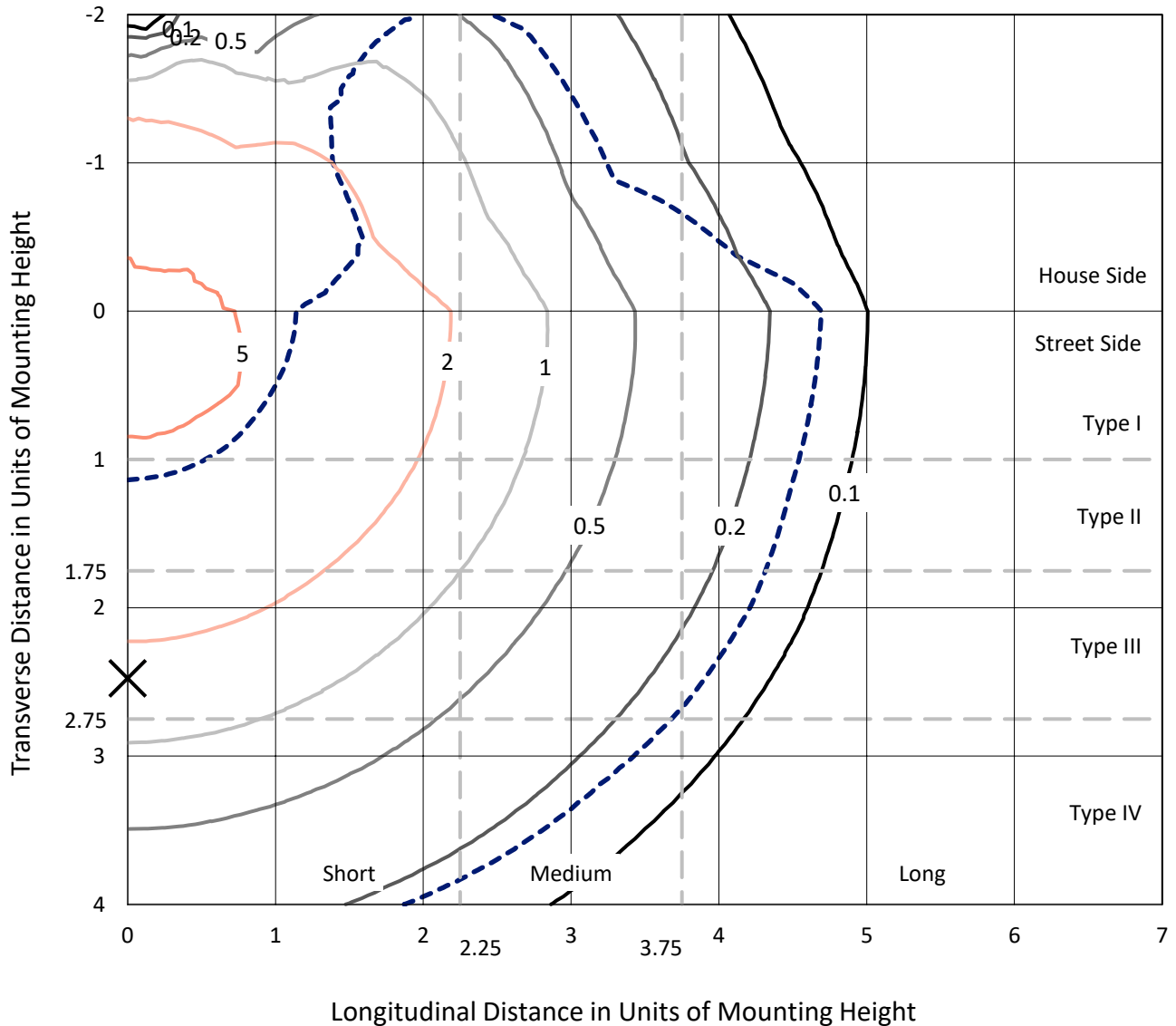
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

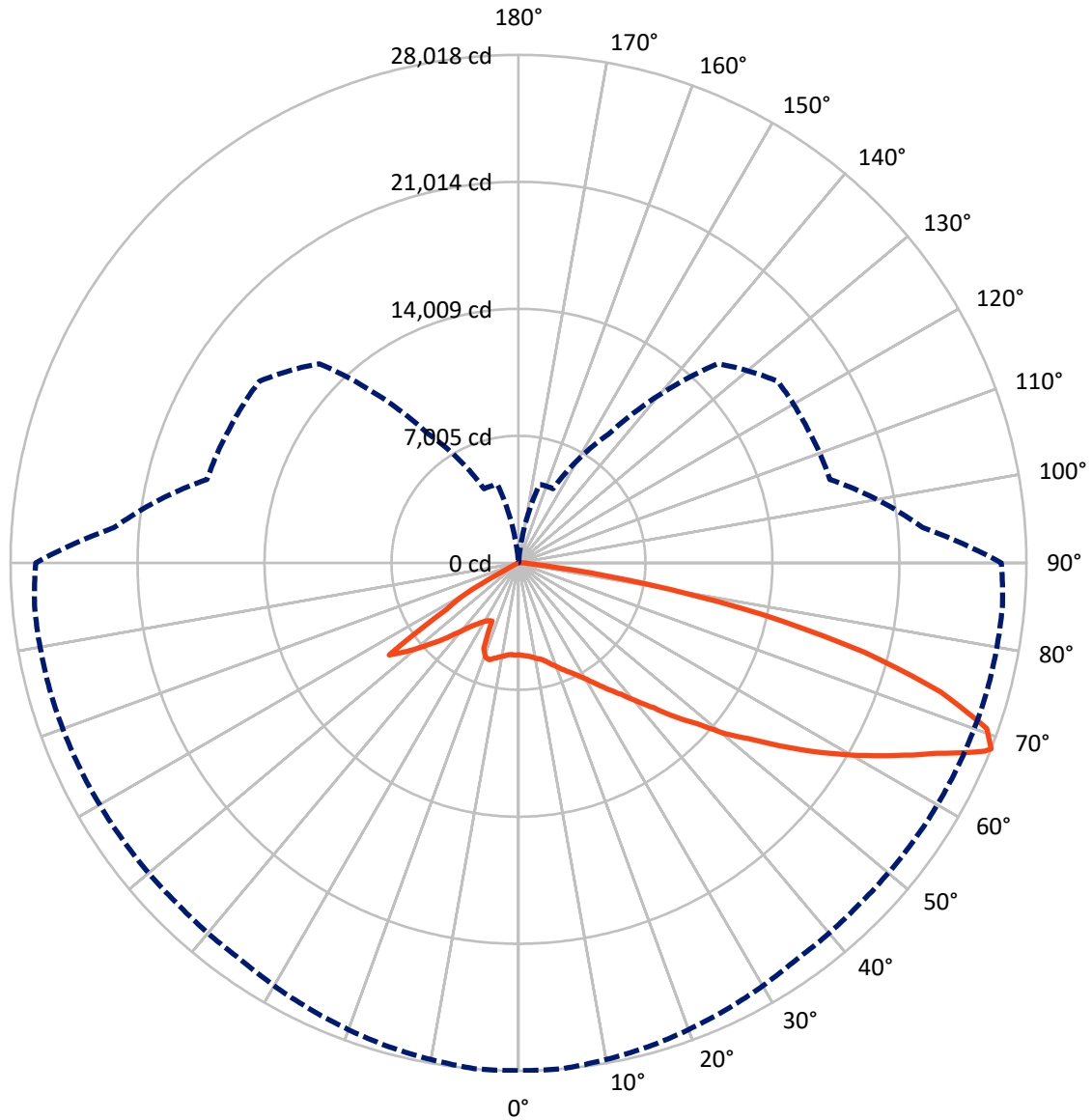
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.7 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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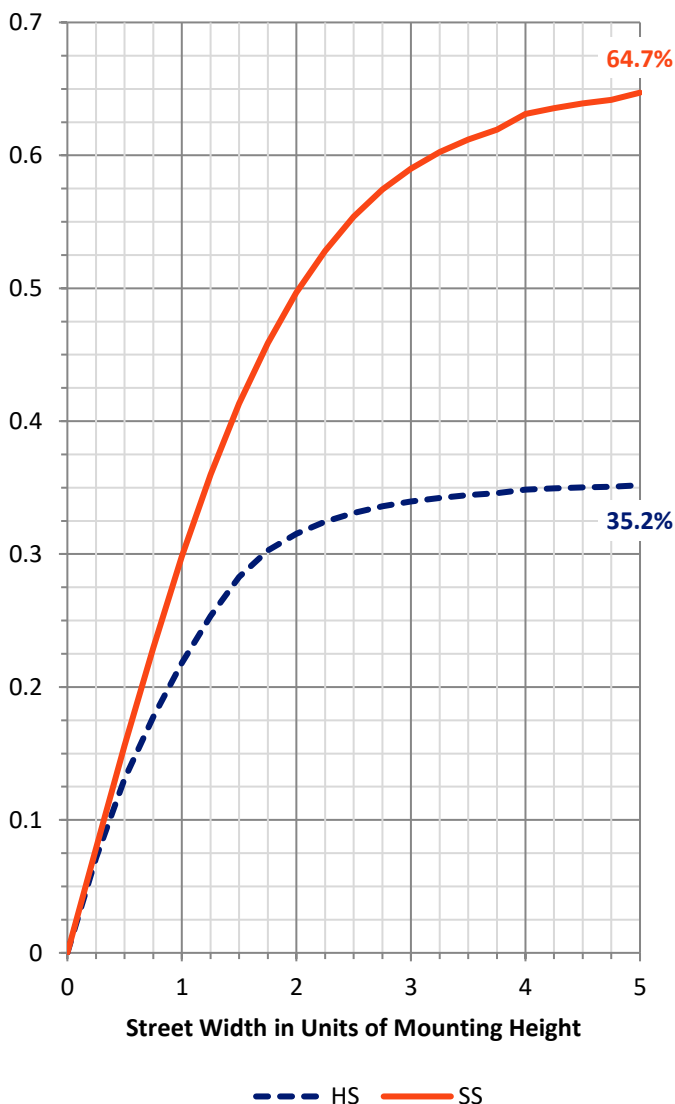
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	22409.3	3.9	22413.1
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	41245.1	16.8	41261.9
	% Fixture	64.8	0.0	64.8
<b>Total</b>	Lumens	63654.4	20.7	63675.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	490.2	0.8
10°-20°	1570.7	2.5
20°-30°	2803.9	4.4
30°-40°	4561.4	7.2
40°-50°	7789.6	12.2
50°-60°	12997.3	20.4
60°-70°	18081.9	28.4
70°-80°	14016.2	22.0
80°-90°	1343.1	2.1
90°-100°	16.2	0.0
100°-110°	1.4	0.0
110°-120°	0.7	0.0
120°-130°	0.5	0.0
130°-140°	0.5	0.0
140°-150°	0.6	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	63654.4	100.0
0°-180°	63675.0	100.0

**Coefficient of Utilization**

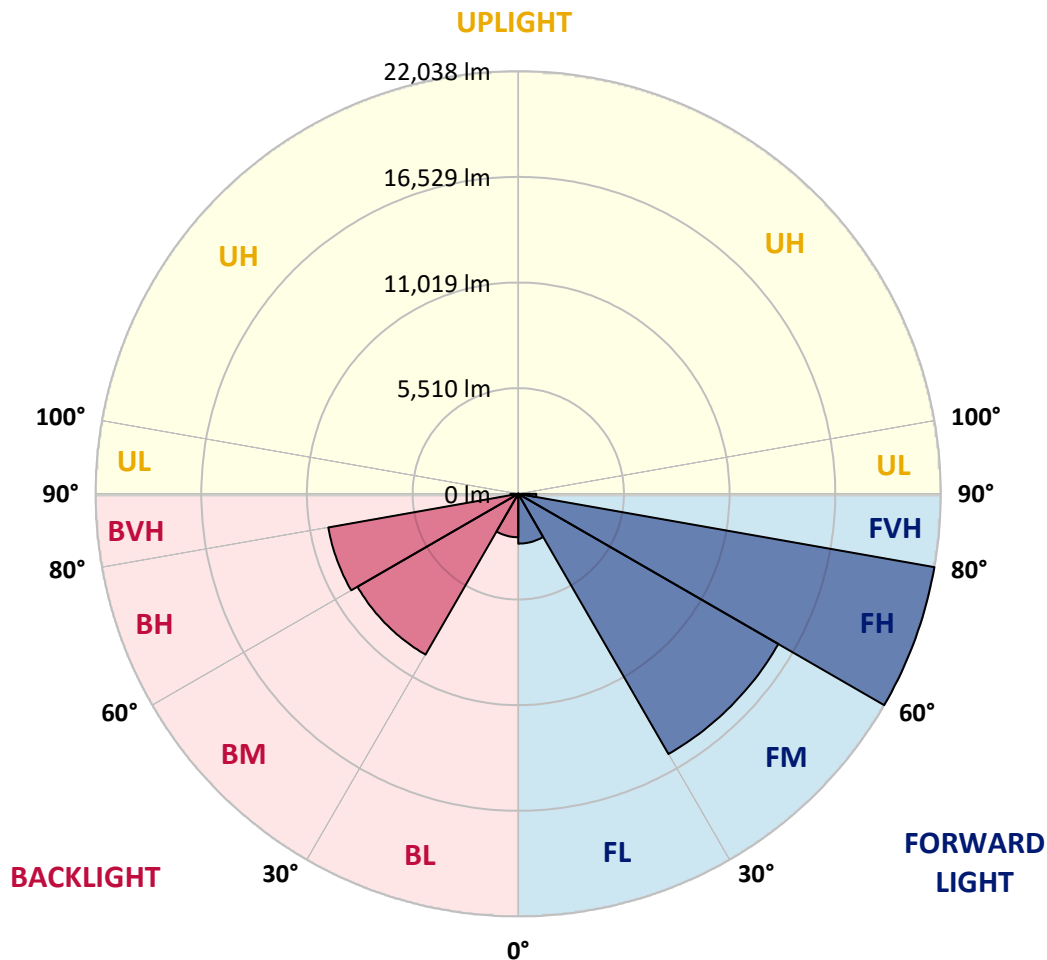


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2598.8	4.1			
FM (30°-60°)	15668.5	24.6			
FH (60°-80°)	22038.1	34.6			G5
FVH (80°-90°)	939.6	1.5			G5
BL (0°-30°)	2266.0	3.6	B3/2500		
BM (30°-60°)	9679.8	15.2	B5		
BH (60°-80°)	10060.0	15.8	B5		G5
BVH (80°-90°)	403.5	0.6			G3/500
UL (90°-100°)	16.2	0.0		U2/50	
UH (100°-180°)	4.4	0.0		U1/10	

**BUG Rating: B5-U2-G5**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5
2.5°	5125.0	5117.8	5113.0	5144.1	5055.5	5091.4	5067.5	5098.6	5091.4	5105.8	5108.2
5°	5160.9	5148.9	5132.1	5165.7	5113.0	5136.9	5110.6	5125.0	5079.4	5117.8	5122.6
7.5°	5242.4	5208.8	5206.4	5216.0	5180.1	5196.8	5151.3	5168.1	5144.1	5129.8	5144.1
10°	5364.6	5335.8	5304.7	5323.8	5263.9	5285.5	5237.6	5251.9	5240.0	5208.8	5237.6
12.5°	5448.4	5458.0	5436.4	5450.8	5398.1	5378.9	5362.2	5359.8	5352.6	5307.1	5299.9
15°	5635.3	5640.1	5601.8	5611.3	5599.4	5589.8	5565.8	5546.6	5508.3	5479.6	5460.4
17.5°	5879.7	5853.3	5817.4	5827.0	5860.5	5817.4	5803.0	5767.1	5712.0	5664.1	5654.5
20°	6136.1	6119.3	6085.7	6104.9	6102.5	6073.8	6080.9	6021.1	5942.0	5901.3	5870.1
22.5°	6421.2	6397.2	6373.3	6409.2	6380.4	6361.3	6354.1	6313.4	6215.1	6169.6	6162.4
25°	6706.3	6694.3	6711.1	6699.1	6658.4	6644.0	6653.6	6639.2	6524.2	6469.1	6435.6
27.5°	7063.3	7034.5	7060.9	7046.5	7003.4	7005.8	7008.2	7010.6	6881.2	6809.3	6761.4
30°	7470.6	7461.0	7494.6	7449.0	7408.3	7434.7	7456.2	7408.3	7295.7	7190.3	7173.5
32.5°	8000.1	7940.2	7978.6	7921.0	7858.8	7921.0	7959.4	7863.5	7772.5	7638.3	7662.3
35°	8587.1	8568.0	8568.0	8493.7	8460.1	8558.4	8596.7	8503.3	8361.9	8244.5	8215.8
37.5°	9210.1	9229.2	9289.1	9258.0	9226.8	9286.7	9373.0	9248.4	9066.3	8941.7	8908.2
40°	10036.7	10084.6	10125.3	10084.6	10048.7	10087.0	10185.2	10022.3	9895.3	9828.2	9756.4
42.5°	10925.6	11007.0	10980.7	10985.5	11016.6	11071.7	11170.0	11021.4	10875.3	10872.9	10767.4
45°	12128.4	12128.4	12073.2	12126.0	12121.2	12257.7	12300.9	12219.4	12097.2	12061.3	11970.2
47.5°	13252.1	13369.5	13347.9	13424.6	13364.7	13479.7	13625.8	13556.3	13415.0	13288.0	13268.8
50°	14819.0	14790.3	14761.5	14876.5	14866.9	14946.0	15080.2	15037.1	14840.6	14696.8	14670.5
52.5°	16196.7	16347.6	16311.7	16484.2	16388.4	16501.0	16661.5	16654.3	16414.7	16273.4	16232.6
55°	17936.2	18036.8	18029.6	18206.9	18075.1	18223.7	18357.9	18372.2	18111.1	17909.8	17972.1
57.5°	19747.5	19831.4	19783.5	19929.6	19800.2	20003.9	20085.3	20032.6	19879.3	19625.3	19718.8
60°	21561.3	21633.1	21688.2	21700.2	21625.9	21745.7	21822.4	21867.9	21625.9	21336.0	21448.6
62.5°	23403.7	23485.2	23437.3	23456.5	23250.4	23413.3	23509.2	23521.1	23243.2	22986.9	23065.9
65°	25344.5	25457.1	25284.6	25169.6	24915.6	24913.2	25040.2	25061.8	24865.3	24683.2	24652.0
67.5°	27747.6	27797.9	27429.0	27043.2	26614.3	26520.9	26609.5	26659.9	26772.5	26767.7	26626.3
68°	28018.4	28008.8	27635.0	27175.0	26715.0	26607.1	26650.3	26715.0	26789.2	26803.6	26633.5
70°	27402.6	27285.2	27072.0	26492.1	26036.9	25754.2	25603.2	25723.0	25521.8	25524.2	25205.5
72.5°	24340.6	24326.2	23933.3	23645.7	23240.8	22771.2	22555.6	22553.2	22572.3	22433.4	22105.1
75°	19716.4	19735.5	19277.9	19079.0	18954.4	18865.8	18911.3	19052.7	19067.1	19064.7	18949.7
77.5°	13750.4	13829.5	13707.3	13383.8	13731.3	14028.4	14601.0	14893.3	14799.9	15080.2	15257.5
80°	7207.1	7365.2	7370.0	7597.6	7877.9	8148.7	8642.2	9085.5	8759.6	8615.9	8467.3
82.5°	1895.2	1952.7	2039.0	1907.2	1947.9	1988.6	2372.0	2336.1	2156.4	2252.2	2396.0
85°	541.5	558.3	534.3	484.0	443.3	407.3	416.9	352.2	306.7	304.3	294.7
87.5°	381.0	409.7	361.8	311.5	280.3	261.2	251.6	213.2	172.5	150.9	119.8
90°	177.3	174.9	150.9	117.4	103.0	98.2	98.2	76.7	43.1	26.4	24.0
92.5°	74.3	76.7	62.3	50.3	43.1	33.5	26.4	16.8	9.6	4.8	2.4
95°	26.4	28.8	24.0	19.2	16.8	14.4	12.0	9.6	4.8	2.4	2.4
97.5°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	4.8	4.8	2.4	2.4
100°	0.0	0.0	0.0	2.4	4.8	4.8	4.8	4.8	2.4	2.4	2.4
102.5°	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4
105°	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4



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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	2.4	2.4	2.4	2.4
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4
165°	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4
167.5°	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4
170°	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4
172.5°	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4
175°	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4
177.5°	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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°	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5	5067.5
2.5°	5103.4	5091.4	5086.6	5026.7	5043.5	5007.6	5091.4	5067.5	5062.7	5096.2
5°	5115.4	5060.3	5093.8	5055.5	5065.1	5012.4	5079.4	5050.7	5053.1	5069.9
7.5°	5122.6	5091.4	5125.0	5057.9	5084.2	5065.1	5113.0	5084.2	5113.0	5127.4
10°	5194.4	5180.1	5156.1	5136.9	5156.1	5110.6	5170.5	5165.7	5182.5	5225.6
12.5°	5292.7	5275.9	5251.9	5218.4	5232.8	5216.0	5261.5	5266.3	5297.5	5319.0
15°	5438.8	5417.3	5405.3	5371.7	5376.5	5364.6	5390.9	5395.7	5458.0	5450.8
17.5°	5644.9	5620.9	5630.5	5599.4	5587.4	5558.6	5510.7	5493.9	5568.2	5589.8
20°	5870.1	5843.7	5855.7	5829.4	5606.5	5153.7	5458.0	5666.4	5508.3	5496.3
22.5°	6126.5	6097.7	6107.3	6066.6	5791.0	4942.9	4300.8	4248.0	4851.8	5096.2
25°	6409.2	6370.9	6366.1	6313.4	5407.7	4475.7	4403.8	4310.3	3869.5	3519.7
27.5°	6759.0	6701.5	6672.8	5877.3	5369.3	4650.6	4542.7	4209.7	3570.0	3591.5
30°	7137.6	7053.7	6514.6	5989.9	5649.7	4856.6	4712.9	3689.8	3694.6	3685.0
32.5°	7568.8	7382.0	6382.8	6334.9	5985.1	5077.0	3912.6	3869.5	3874.3	3888.6
35°	8134.3	6852.4	6826.1	6828.5	6394.8	4911.7	4145.0	4104.3	4109.1	4118.7
37.5°	8254.1	7386.7	7391.5	7336.4	6830.9	4487.6	4427.7	4425.3	4415.8	4406.2
40°	8349.9	8060.0	7990.5	7901.9	6332.5	4832.7	4813.5	4799.1	4806.3	4825.5
42.5°	9099.9	8881.8	8814.7	8709.3	6495.5	5355.0	5292.7	5275.9	5295.1	5285.5
45°	10096.6	9914.5	9782.7	8052.8	7175.9	5922.8	5872.5	5850.9	5858.1	5918.0
47.5°	11150.8	11043.0	10640.5	8699.7	7969.0	6593.7	6543.4	6509.8	6521.8	6507.4
50°	12298.5	12200.2	9849.8	9674.9	8845.9	7317.3	7243.0	7231.0	7235.8	7233.4
52.5°	13544.4	11491.0	10916.0	10733.9	9770.7	8074.4	8048.0	7983.3	7997.7	7983.3
55°	15005.9	12104.4	12090.0	11876.8	10810.6	8953.7	8922.6	8831.5	8258.9	8759.6
57.5°	16393.2	13276.0	13276.0	13070.0	11874.4	9828.2	9777.9	9710.8	5870.1	4734.4
60°	17912.2	14450.0	14416.5	14246.4	12899.9	10662.0	8666.2	8647.0	3546.0	3558.0
62.5°	19225.2	15497.1	15557.0	15398.8	13887.0	7983.3	4015.6	3934.2	349.8	539.1
65°	20696.3	16654.3	16726.2	16563.3	14955.6	8467.3	4358.3	4317.5	79.1	71.9
67.5°	22363.9	17809.2	17646.3	17466.6	15580.9	8718.9	4528.4	4492.4	21.6	14.4
68°	22378.3	17785.2	17574.4	17452.2	15521.0	8671.0	4514.0	4480.4	21.6	14.4
70°	21228.2	16889.1	16678.3	16709.4	14778.3	8292.4	4327.1	4264.8	21.6	14.4
72.5°	18623.8	15029.9	14792.7	14624.9	13105.9	7372.4	3879.1	3761.7	21.6	14.4
75°	15935.5	12736.9	12344.0	11975.0	10544.6	6033.0	3181.8	3050.1	21.6	14.4
77.5°	12559.6	9708.4	9150.2	8908.2	7923.4	4456.5	2364.8	2221.1	21.6	12.0
80°	6941.1	5570.6	5096.2	4947.7	4530.8	2618.8	1356.1	1269.9	19.2	12.0
82.5°	1794.6	1346.5	1174.0	1133.3	1063.8	620.6	330.6	313.9	16.8	9.6
85°	256.4	189.3	208.4	246.8	237.2	160.5	115.0	98.2	14.4	7.2
87.5°	134.2	112.6	131.8	148.5	150.9	93.4	47.9	26.4	7.2	0.0
90°	21.6	21.6	24.0	26.4	26.4	12.0	9.6	0.0	0.0	0.0
92.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.4	4.8	2.4	2.4	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°	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.4	2.4	2.4	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)