

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: P591216

Luminaire Tested: **CTN-CA10-630-727-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591216  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-727-U-T1-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 49655 lumens  
Efficiency: N/A  
Efficacy: 78.6 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B5 - U0 - G5

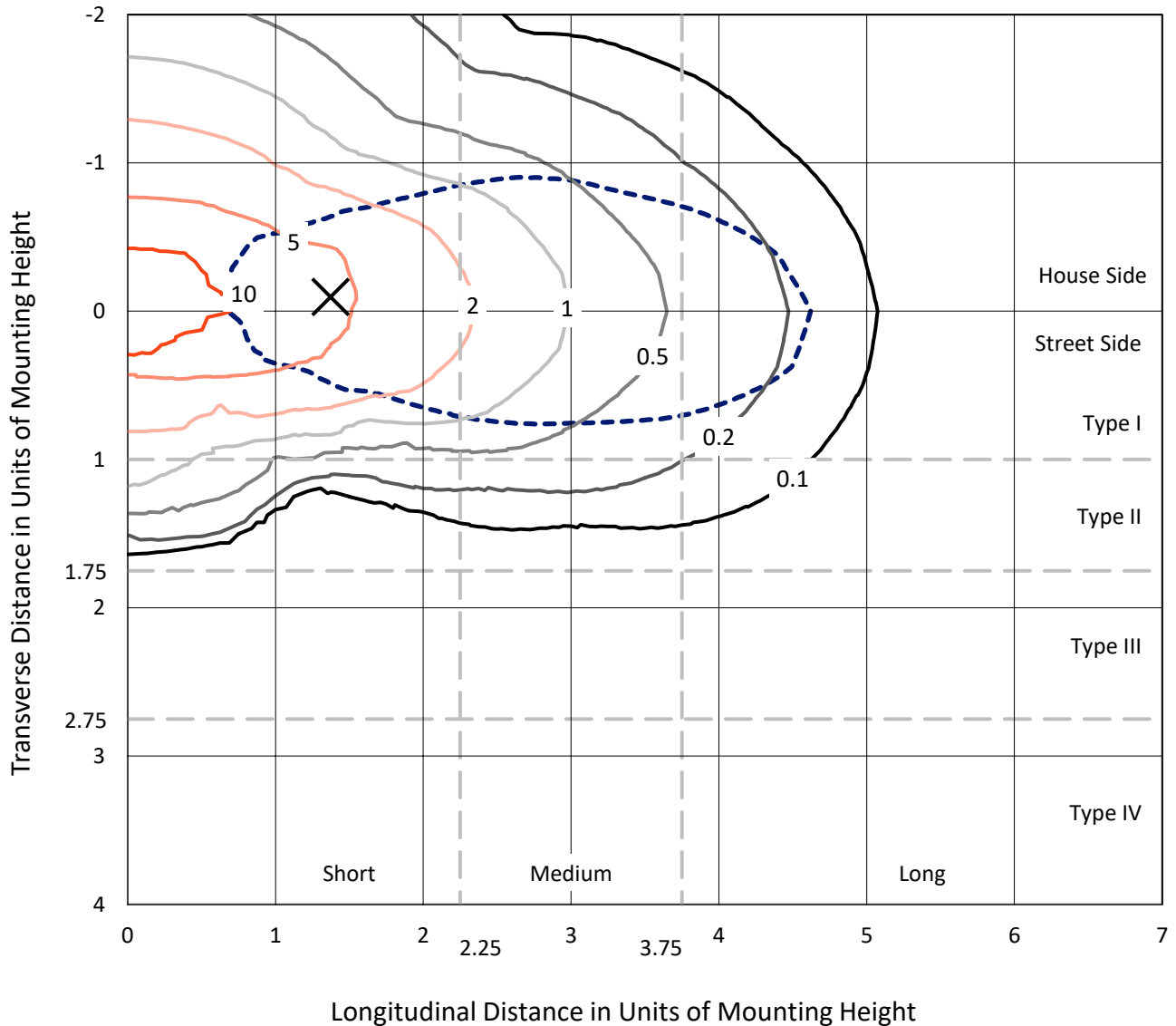
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

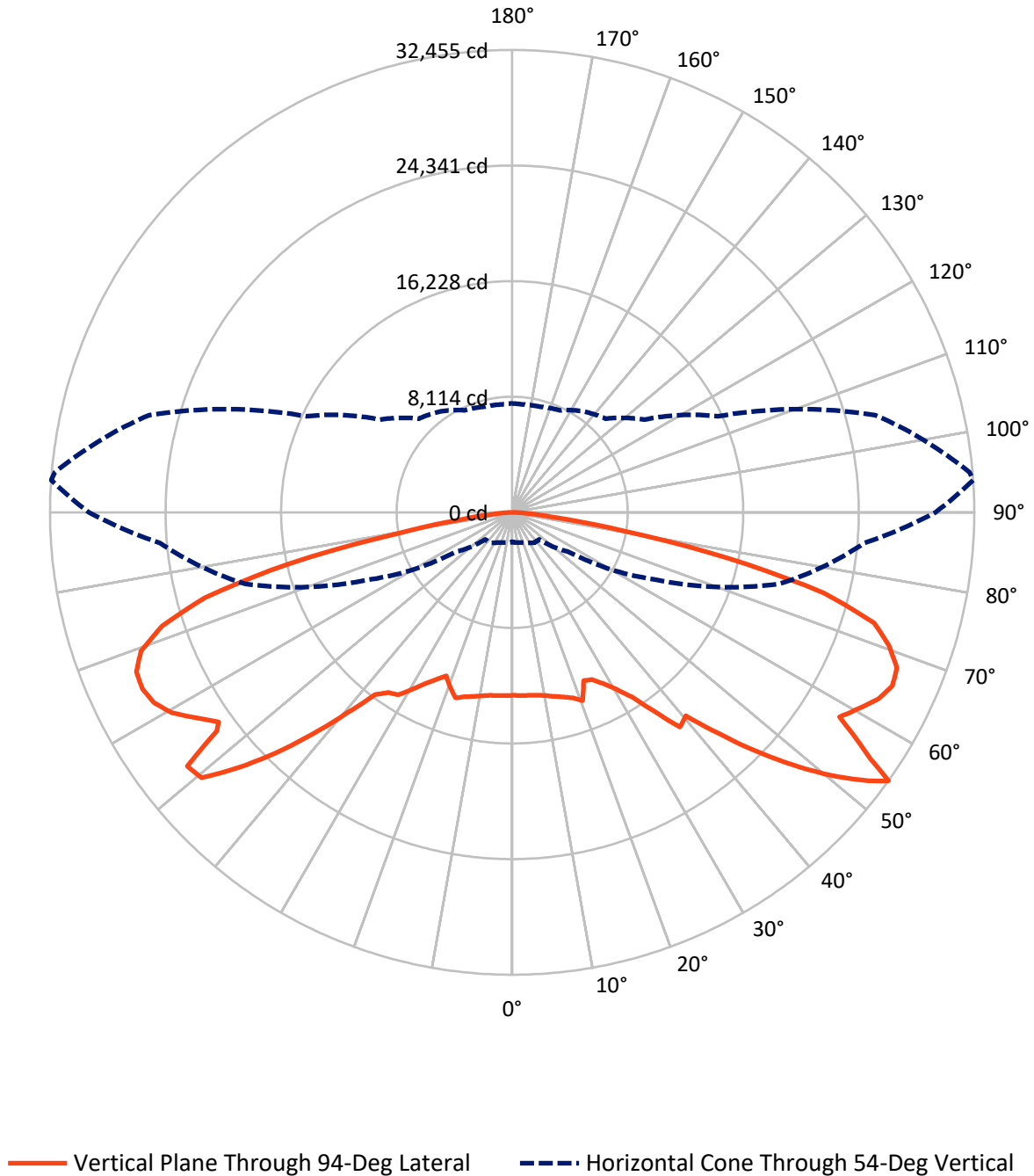
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.3 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



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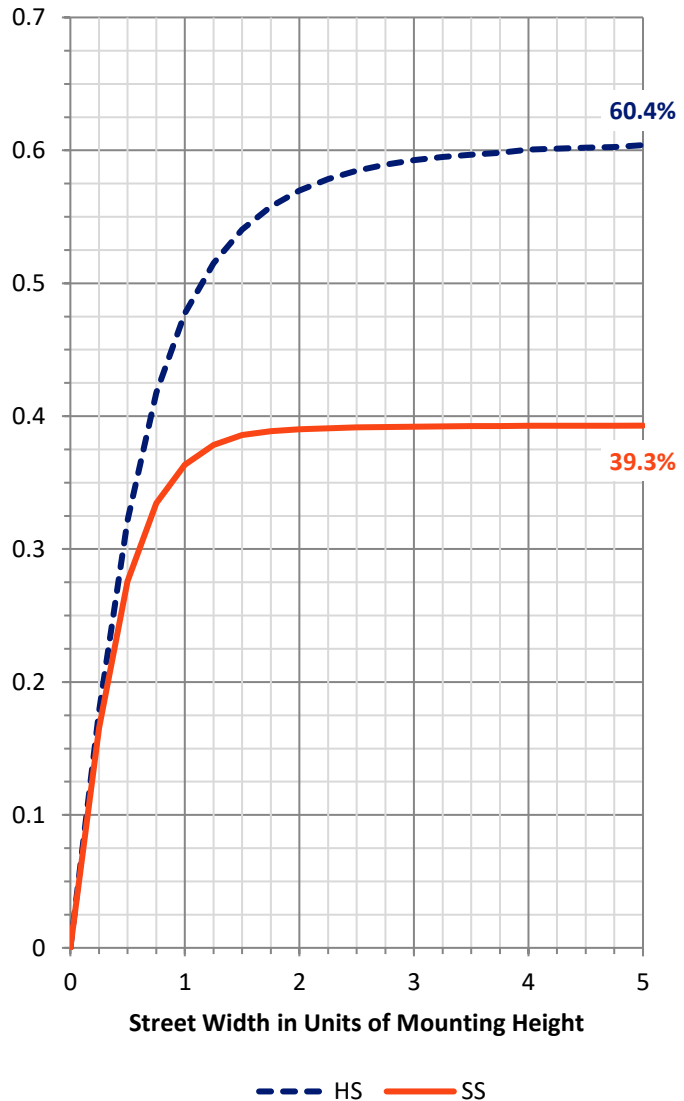
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	30244.0	0.0	30244.0
	% Fixture	60.9	0.0	60.9
<b>Street Side</b>	Lumens	19411.0	0.0	19411.0
	% Fixture	39.1	0.0	39.1
<b>Total</b>	Lumens	49655.0	0.0	49655.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1225.3	2.5
10°-20°	3506.0	7.1
20°-30°	5007.6	10.1
30°-40°	6625.7	13.3
40°-50°	8722.2	17.6
50°-60°	9623.0	19.4
60°-70°	8671.1	17.5
70°-80°	5483.8	11.0
80°-90°	790.3	1.6
90°-100°	0.0	0.0
100°-110°	0.0	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°	49655.0	100.0
0°-180°	49655.0	100.0

**Coefficient of Utilization**

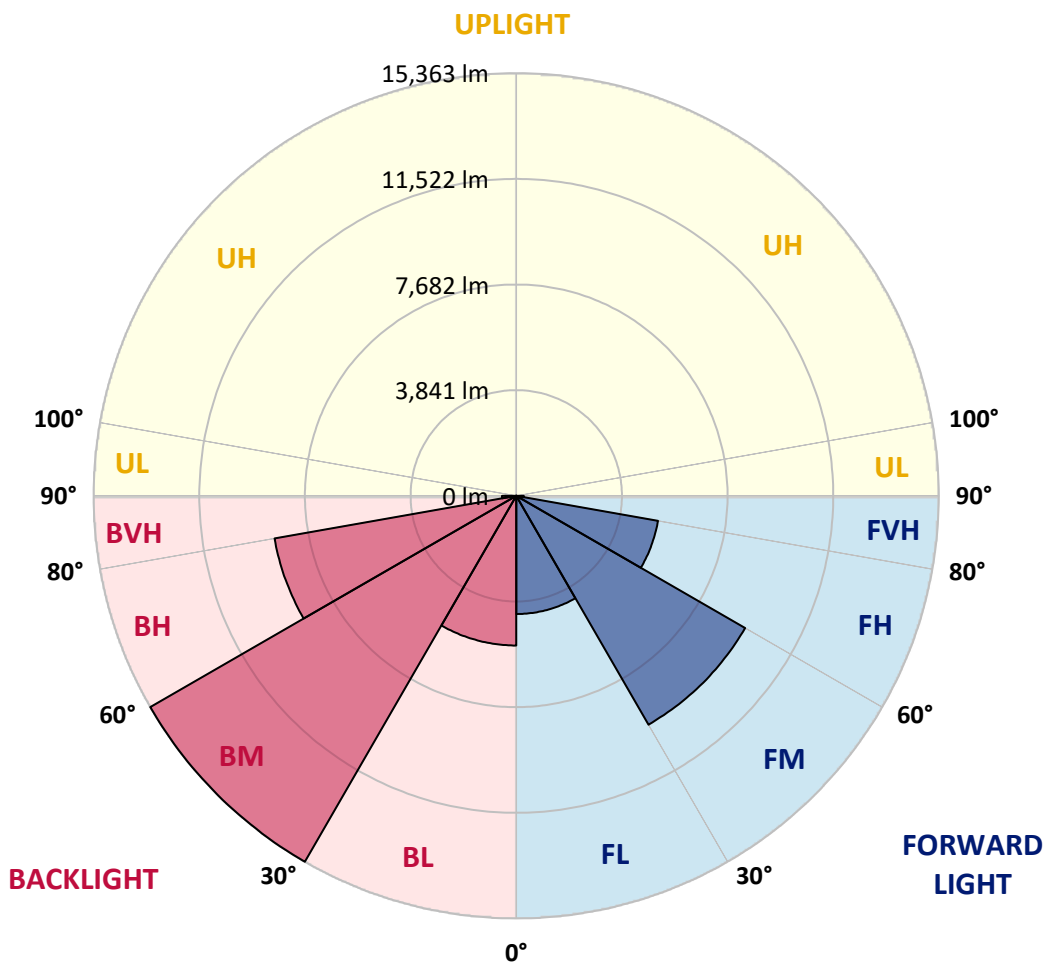


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4297.2	8.7			
FM (30°-60°)	9607.8	19.3			
FH (60°-80°)	5232.3	10.5			G3/7500
FVH (80°-90°)	273.6	0.6			G3/500
BL (0°-30°)	5441.7	11.0	B5		
BM (30°-60°)	15363.1	30.9	B5		
BH (60°-80°)	8922.6	18.0	B5		G5
BVH (80°-90°)	516.6	1.0			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**  
 Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5
2.5°	12863.7	12774.3	12786.4	12880.6	12680.1	12805.7	12747.8	12851.6	12810.5	12868.5	12912.0
5°	12750.2	12665.6	12687.4	12803.3	12643.9	12786.4	12704.3	12805.7	12820.2	12890.2	12931.3
7.5°	12656.0	12573.9	12588.4	12697.0	12595.6	12721.2	12672.9	12808.1	12810.5	12933.7	12965.1
10°	12561.8	12477.3	12496.6	12590.8	12525.6	12660.8	12692.2	12851.6	12887.8	13059.3	13061.7
12.5°	12361.4	12286.5	12296.2	12426.6	12429.0	12624.6	12687.4	12933.7	13008.5	13201.7	13221.1
15°	11571.7	11624.9	11827.7	11991.9	12144.0	12407.3	12622.2	13025.5	13126.9	13361.1	13416.7
17.5°	9659.2	9577.1	9135.2	9369.4	10101.1	10801.4	11173.3	12016.1	12960.3	13605.0	13677.5
20°	6773.5	6903.9	7597.0	7915.7	8437.3	9705.1	10869.0	11354.4	11661.1	12827.4	13737.8
22.5°	5372.9	5411.6	6404.1	7594.6	7985.8	8531.5	9912.8	11533.1	12013.7	12351.7	12501.4
25°	5001.1	5030.0	5189.4	6747.0	7814.3	8393.9	9000.0	11108.1	12429.0	12849.2	13027.9
27.5°	4689.5	4720.9	4877.9	5401.9	7657.3	8393.9	9082.1	10055.2	12832.3	13469.8	13621.9
30°	4457.7	4457.7	4619.5	5066.3	6418.5	8420.4	9253.5	10173.6	12204.4	14252.2	14387.4
32.5°	4245.2	4247.6	4423.9	4853.8	5561.3	8306.9	9495.0	10608.2	11716.6	15034.6	15384.7
35°	4054.5	4061.7	4221.1	4655.7	5344.0	6696.3	9763.1	11166.1	12653.6	14947.6	16901.2
37.5°	3892.7	3897.5	4035.1	4460.1	5160.4	4851.3	9936.9	11837.4	13911.7	15722.8	17217.6
40°	3776.8	3769.5	3868.5	4254.9	4892.4	4433.6	8410.8	12535.2	15406.4	18149.7	18705.1
42.5°	3660.8	3648.8	3747.8	4040.0	3346.9	4317.7	7792.6	13216.2	17128.2	20815.6	21310.6
45°	3525.6	3530.4	3627.0	3624.6	3168.2	4163.1	7860.2	11639.4	18970.7	23541.9	24172.2
47.5°	3453.2	3431.4	3479.7	2632.1	3020.9	3950.6	7831.2	10806.2	20595.9	26147.5	26772.9
50°	3317.9	3313.1	2439.0	2494.5	2873.6	3706.7	7377.2	11105.7	18584.3	28562.3	29195.0
52.5°	3115.1	2750.5	2262.7	2397.9	2726.3	3419.4	5269.1	11228.8	18533.6	28323.2	31452.8
54°	2069.5	2120.2	2190.2	2330.3	2620.1	2687.7	4819.9	11219.2	19415.0	24812.1	29726.2
55°	1185.7	1661.4	2132.3	2274.7	2545.2	1881.1	4646.1	11168.5	19977.7	24964.2	26797.1
57.5°	1026.3	1031.1	1173.6	1898.0	1306.4	1613.1	4153.5	10755.5	21030.5	26362.4	26886.4
60°	89.3	86.9	99.0	135.2	171.5	376.7	2091.2	6899.1	20294.0	27562.6	28376.4
62.5°	36.2	38.6	48.3	65.2	103.8	169.0	1729.0	6114.3	20605.5	28294.3	29185.3
65°	7.2	7.2	12.1	21.7	38.6	101.4	1473.0	5445.4	20446.1	28533.3	29723.8
67.5°	0.0	0.0	7.2	16.9	31.4	82.1	1275.0	5010.7	19535.8	28451.2	29523.4
70°	0.0	0.0	7.2	16.9	29.0	79.7	1091.5	4624.3	17277.9	27591.6	28779.6
72.5°	0.0	0.0	7.2	14.5	26.6	72.4	934.5	4083.4	14645.8	25522.1	27140.0
75°	0.0	0.0	7.2	14.5	24.1	65.2	787.2	3503.9	12235.8	21996.5	23940.4
77.5°	0.0	0.0	7.2	14.5	21.7	58.0	618.2	2798.8	9608.5	15949.8	16993.0
80°	0.0	0.0	7.2	14.5	19.3	45.9	456.4	1767.6	5329.5	8089.6	8519.4
82.5°	0.0	0.0	4.8	12.1	16.9	29.0	217.3	668.9	2511.4	3704.3	3593.2
85°	0.0	0.0	4.8	12.1	14.5	21.7	94.2	169.0	835.5	1229.1	1144.6
87.5°	0.0	0.0	4.8	9.7	12.1	14.5	24.1	29.0	265.6	355.0	367.1
90°	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):**

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5	12839.5
2.5°	12883.0	12883.0	12880.6	12943.3	12863.7	12870.9	12796.0	12989.2	12967.5	12907.1	12979.6
5°	12897.5	12909.5	12907.1	12938.5	12875.7	12914.4	12810.5	13001.3	12969.9	12921.6	12996.5
7.5°	12957.8	12979.6	12962.7	13018.2	12892.6	12931.3	12825.0	12991.6	12960.3	12890.2	12969.9
10°	13088.2	13110.0	13076.2	13102.7	12969.9	12950.6	12820.2	12994.1	12926.4	12873.3	12972.3
12.5°	13257.3	13283.8	13216.2	13211.4	13042.4	13003.7	12815.4	12933.7	12834.7	12791.2	12880.6
15°	13445.6	13477.0	13397.3	13380.4	13194.5	13066.5	12796.0	12822.6	12680.1	12622.2	12716.4
17.5°	13691.9	13720.9	13660.5	13650.9	13409.4	13192.1	12769.5	12682.6	12482.1	12433.8	12484.5
20°	14104.9	14124.2	14044.5	13972.1	13617.1	13259.7	12726.0	12499.0	12192.3	12090.9	12148.9
22.5°	12837.1	12991.6	14558.9	14288.4	13771.6	13329.7	12617.4	12238.2	11808.4	11617.6	11656.3
25°	13003.7	13018.2	13612.3	14662.7	13940.7	13375.6	12489.4	11914.6	11323.0	11045.3	11093.6
27.5°	13607.4	13590.5	13356.3	14703.7	14141.1	13402.2	12330.0	11574.2	10842.5	10509.2	10521.3
30°	14389.8	14363.3	14008.3	13293.5	14428.5	13411.8	12189.9	11183.0	10415.0	10060.1	10050.4
32.5°	15459.6	15384.7	14834.1	13846.5	13213.8	13477.0	11991.9	10811.1	10006.9	9656.8	9630.2
35°	17101.6	16964.0	15961.9	14549.2	13003.7	13477.0	11721.5	10410.2	9630.2	9297.0	9277.7
37.5°	19137.3	19173.5	17403.5	15336.4	13327.3	12214.1	11397.9	10035.9	9304.2	9009.6	9009.6
40°	18772.7	19253.2	19077.0	16143.0	13660.5	12011.2	11050.1	9676.1	9033.8	8809.2	8838.2
42.5°	21180.2	20994.3	21018.5	16951.9	13894.8	11803.6	10673.4	9342.9	8794.7	8603.9	8625.7
45°	23851.0	23640.9	19241.2	17676.4	14003.4	11494.5	10291.9	9000.0	8531.5	8372.1	8430.1
47.5°	26488.0	26299.6	21129.5	17500.1	13902.0	11021.2	9821.0	8703.0	8253.8	8140.3	8227.2
50°	29040.4	28774.8	23165.2	15643.1	13542.2	10366.8	9340.5	8391.4	8012.3	7944.7	8009.9
52.5°	31317.6	30965.0	25227.5	15923.2	11830.1	9705.1	8913.0	8092.0	7792.6	7717.7	7782.9
54°	32455.0	32240.0	26379.3	15954.6	11339.9	9294.6	8657.1	7901.2	7669.4	7606.6	7642.9
55°	30518.3	30948.1	27062.7	15928.0	10984.9	9045.9	8488.0	7775.7	7582.5	7514.9	7551.1
57.5°	27101.3	26637.7	25302.3	15602.0	10019.0	8422.8	7993.0	7456.9	7324.1	7237.2	7287.9
60°	27961.0	27876.5	23097.6	14884.9	8963.8	7725.0	7505.2	7085.0	6995.7	6923.2	6990.9
62.5°	28859.3	28803.8	23450.2	13771.6	7913.3	7039.2	6945.0	6650.4	6597.2	6565.9	6582.8
65°	29344.7	28989.7	23440.5	12281.7	6949.8	6336.4	6322.0	6102.2	6126.4	6111.9	6181.9
67.5°	29139.4	28760.3	22404.6	11207.1	6044.3	5534.7	5580.6	5488.8	5578.2	5604.8	5657.9
70°	28067.3	28190.4	20146.7	10171.2	5143.5	4660.6	4805.5	4793.4	4923.8	5025.2	5109.7
72.5°	26584.6	26111.3	16886.7	8645.0	3764.7	3315.5	3566.7	3735.7	3880.6	4001.3	4081.0
75°	22626.7	22071.3	12467.6	6739.7	2726.3	2286.8	2354.4	2429.3	2523.5	2801.2	2965.4
77.5°	15512.7	15280.9	8966.2	5083.2	1736.2	1378.9	1642.1	1791.8	1871.5	1859.4	1888.4
80°	7954.4	7913.3	5307.7	3040.2	1171.2	1009.4	1195.3	1209.8	1337.8	1436.8	1441.6
82.5°	3206.9	3366.2	2120.2	1666.2	813.8	763.1	842.8	949.0	1057.7	1115.6	1130.1
85°	1135.0	1108.4	644.8	782.4	516.8	533.7	596.5	717.2	830.7	845.2	813.8
87.5°	304.3	316.3	137.6	287.4	282.5	309.1	342.9	391.2	473.3	497.4	473.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)