

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: P591120

Luminaire Tested: **CTN-CA10-630-722-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591120
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-CA10-630-722-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47791 lumens
Efficiency: N/A
Efficacy: 75.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

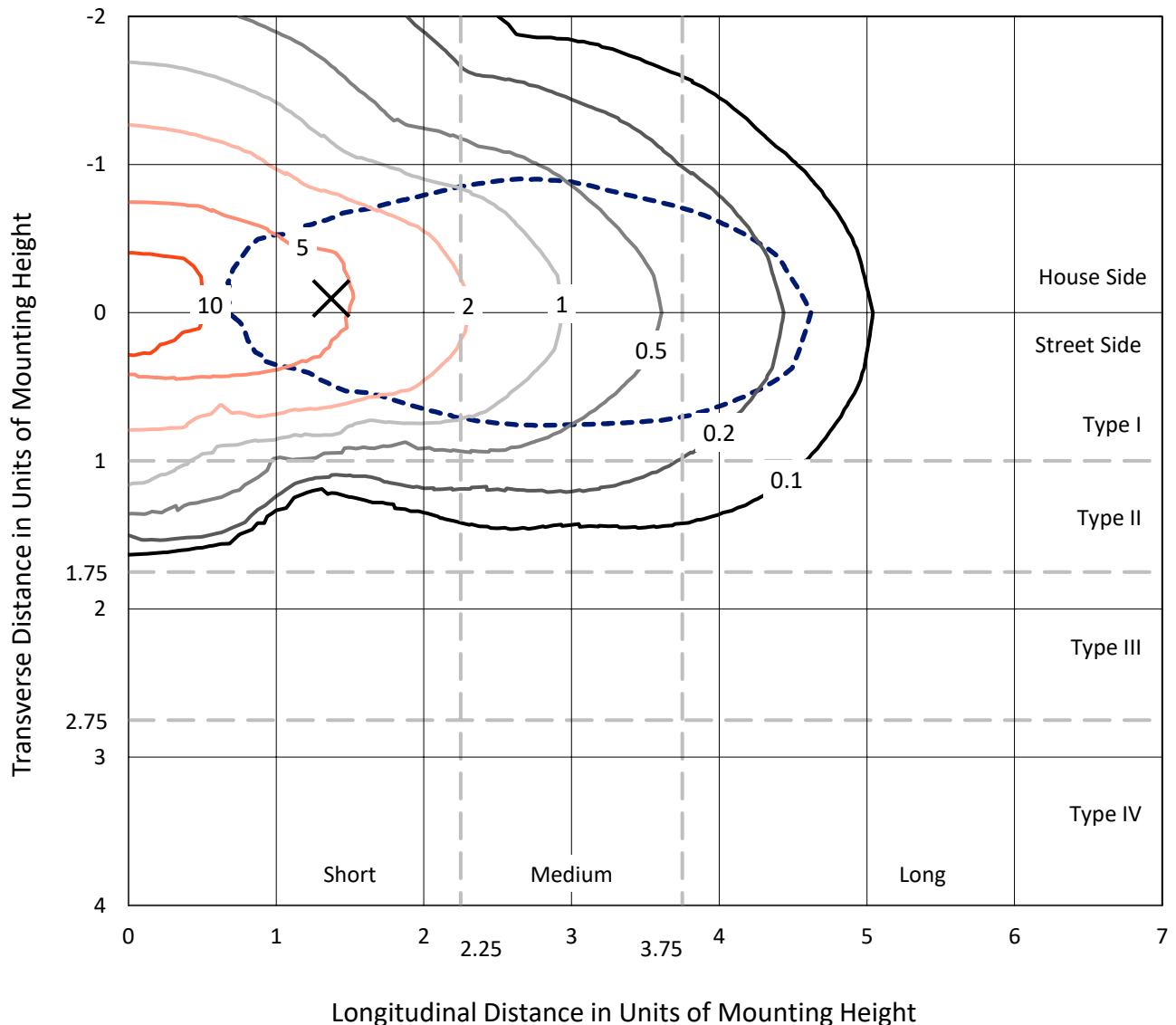
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

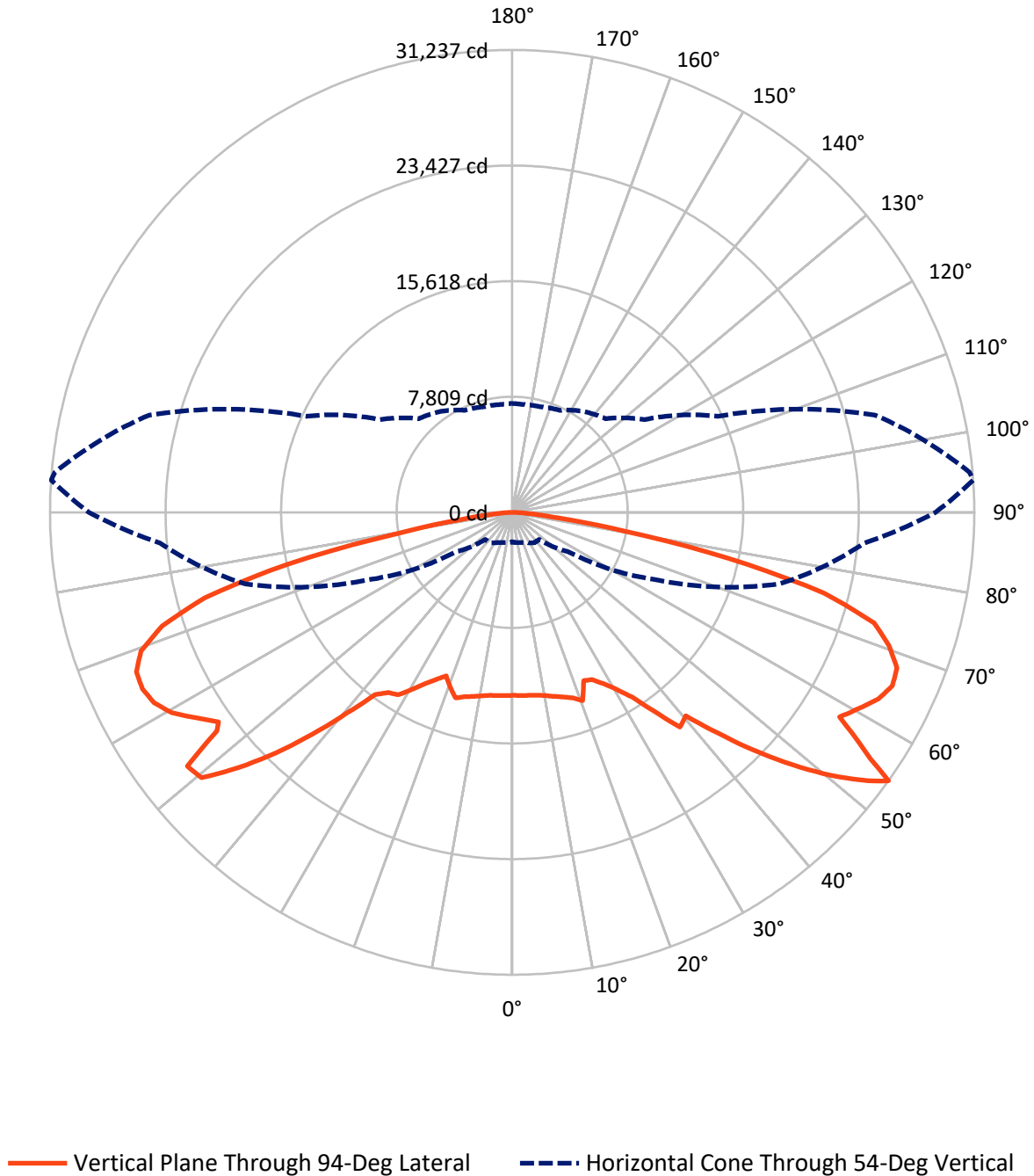
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.7 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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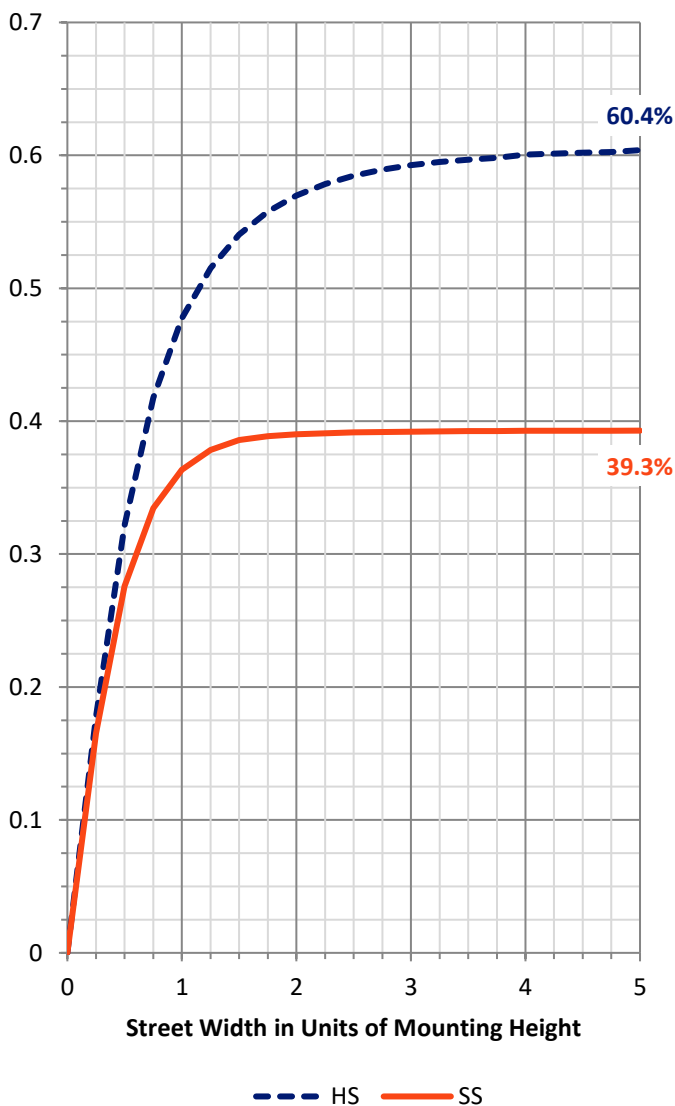
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	29108.7	0.0	29108.7
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	18682.3	0.0	18682.3
	% Fixture	39.1	0.0	39.1
Total	Lumens	47791.0	0.0	47791.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1179.3	2.5
10°-20°	3374.4	7.1
20°-30°	4819.6	10.1
30°-40°	6376.9	13.3
40°-50°	8394.8	17.6
50°-60°	9261.8	19.4
60°-70°	8345.6	17.5
70°-80°	5278.0	11.0
80°-90°	760.6	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°	47791.0	100.0
0°-180°	47791.0	100.0

Coefficient of Utilization

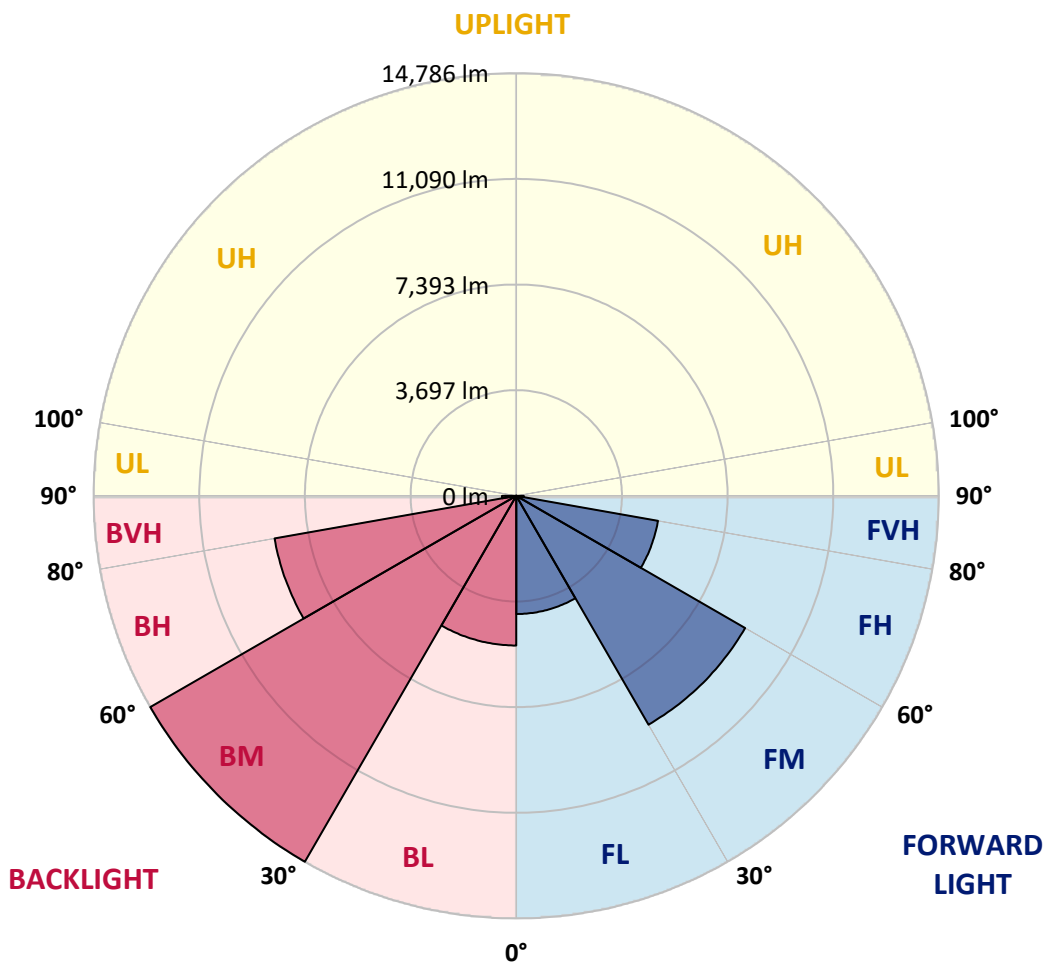


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4135.9	8.7			
FM	(30°-60°)	9247.1	19.3			
FH	(60°-80°)	5035.9	10.5			G3/7500
FVH	(80°-90°)	263.4	0.6			G3/500
BL	(0°-30°)	5237.4	11.0	B5		
BM	(30°-60°)	14786.4	30.9	B5		
BH	(60°-80°)	8587.6	18.0	B5		G5
BVH	(80°-90°)	497.2	1.0			G3/500
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°	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5
2.5°	12380.8	12294.8	12306.4	12397.0	12204.1	12325.0	12269.2	12369.2	12329.6	12385.4	12427.3
5°	12271.5	12190.2	12211.1	12322.7	12169.3	12306.4	12227.4	12325.0	12338.9	12406.3	12445.8
7.5°	12180.9	12101.9	12115.8	12220.4	12122.8	12243.6	12197.2	12327.3	12329.6	12448.2	12478.4
10°	12090.3	12008.9	12027.5	12118.1	12055.4	12185.5	12215.8	12369.2	12404.0	12569.0	12571.4
12.5°	11897.3	11825.3	11834.6	11960.1	11962.4	12150.7	12211.1	12448.2	12520.2	12706.2	12724.7
15°	11137.3	11188.5	11383.7	11541.8	11688.2	11941.5	12148.4	12536.5	12634.1	12859.5	12913.0
17.5°	9296.6	9217.6	8792.3	9017.7	9721.9	10395.9	10753.9	11565.0	12473.7	13094.3	13164.0
20°	6519.3	6644.8	7311.8	7618.6	8120.6	9340.8	10461.0	10928.2	11223.3	12345.9	13222.1
22.5°	5171.2	5208.4	6163.7	7309.5	7686.0	8211.2	9540.7	11100.2	11562.7	11888.1	12032.1
25°	4813.3	4841.2	4994.6	6493.7	7521.0	8078.8	8662.1	10691.1	11962.4	12366.8	12538.8
27.5°	4513.5	4543.7	4694.8	5199.1	7369.9	8078.8	8741.1	9677.8	12350.6	12964.1	13110.6
30°	4290.4	4290.4	4446.1	4876.1	6177.6	8104.3	8906.2	9791.7	11746.3	13717.2	13847.3
32.5°	4085.9	4088.2	4257.9	4671.6	5352.5	7995.1	9138.6	10210.0	11276.8	14470.2	14807.2
35°	3902.3	3909.2	4062.6	4481.0	5143.4	6444.9	9396.6	10746.9	12178.6	14386.5	16266.8
37.5°	3746.5	3751.2	3883.7	4292.7	4966.7	4669.2	9563.9	11393.0	13389.5	15132.6	16571.2
40°	3635.0	3628.0	3723.3	4095.2	4708.7	4267.1	8095.0	12064.7	14828.1	17468.3	18002.9
42.5°	3523.4	3511.8	3607.1	3888.3	3221.3	4155.6	7500.0	12720.1	16485.2	20034.2	20510.7
45°	3393.3	3397.9	3490.9	3488.6	3049.3	4006.8	7565.1	11202.4	18258.6	22658.2	23264.8
47.5°	3323.5	3302.6	3349.1	2533.3	2907.5	3802.3	7537.2	10400.6	19822.7	25165.9	25767.9
50°	3193.4	3188.7	2347.4	2400.9	2765.7	3567.6	7100.3	10688.8	17886.7	27490.1	28099.0
52.5°	2998.2	2647.2	2177.7	2307.9	2624.0	3291.0	5071.3	10807.3	17837.9	27260.0	30272.1
54°	1991.8	2040.6	2108.0	2242.8	2521.7	2586.8	4639.0	10798.0	18686.2	23880.7	28610.3
55°	1141.2	1599.0	2052.2	2189.4	2449.7	1810.5	4471.7	10749.2	19227.7	24027.1	25791.1
57.5°	987.8	992.4	1129.5	1826.8	1257.4	1552.5	3997.5	10351.8	20241.1	25372.8	25877.1
60°	86.0	83.7	95.3	130.2	165.0	362.6	2012.7	6640.1	19532.2	26527.9	27311.1
62.5°	34.9	37.2	46.5	62.8	99.9	162.7	1664.1	5884.8	19832.0	27232.1	28089.7
65°	7.0	7.0	11.6	20.9	37.2	97.6	1417.7	5241.0	19678.6	27462.2	28608.0
67.5°	0.0	0.0	7.0	16.3	30.2	79.0	1227.2	4822.6	18802.4	27383.2	28415.1
70°	0.0	0.0	7.0	16.3	27.9	76.7	1050.5	4450.8	16629.3	26555.8	27699.3
72.5°	0.0	0.0	7.0	13.9	25.6	69.7	899.4	3930.1	14096.0	24564.0	26121.2
75°	0.0	0.0	7.0	13.9	23.2	62.8	757.7	3372.3	11776.5	21170.7	23041.7
77.5°	0.0	0.0	7.0	13.9	20.9	55.8	595.0	2693.7	9247.8	15351.0	16355.1
80°	0.0	0.0	7.0	13.9	18.6	44.2	439.3	1701.3	5129.4	7785.9	8199.6
82.5°	0.0	0.0	4.6	11.6	16.3	27.9	209.2	643.8	2417.1	3565.3	3458.3
85°	0.0	0.0	4.6	11.6	13.9	20.9	90.6	162.7	804.2	1183.0	1101.6
87.5°	0.0	0.0	4.6	9.3	11.6	13.9	23.2	27.9	255.7	341.7	353.3
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°	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5	12357.5
2.5°	12399.4	12399.4	12397.0	12457.5	12380.8	12387.7	12315.7	12501.6	12480.7	12422.6	12492.3
5°	12413.3	12424.9	12422.6	12452.8	12392.4	12429.6	12329.6	12513.2	12483.0	12436.6	12508.6
7.5°	12471.4	12492.3	12476.1	12529.5	12408.7	12445.8	12343.6	12504.0	12473.7	12406.3	12483.0
10°	12596.9	12617.8	12585.3	12610.9	12483.0	12464.4	12338.9	12506.3	12441.2	12390.1	12485.4
12.5°	12759.6	12785.2	12720.1	12715.5	12552.8	12515.6	12334.3	12448.2	12352.9	12311.0	12397.0
15°	12940.9	12971.1	12894.4	12878.1	12699.2	12576.0	12315.7	12341.3	12204.1	12148.4	12239.0
17.5°	13178.0	13205.8	13147.7	13138.4	12906.0	12696.9	12290.1	12206.5	12013.6	11967.1	12015.9
20°	13575.4	13594.0	13517.3	13447.6	13105.9	12761.9	12248.3	12029.8	11734.7	11637.0	11692.8
22.5°	12355.2	12504.0	14012.3	13752.0	13254.7	12829.3	12143.7	11778.8	11365.1	11181.5	11218.7
25°	12515.6	12529.5	13101.3	14112.3	13417.3	12873.5	12020.5	11467.4	10898.0	10630.7	10677.2
27.5°	13096.6	13080.3	12854.9	14151.8	13610.2	12899.1	11867.1	11139.7	10435.5	10114.7	10126.3
30°	13849.6	13824.1	13482.4	12794.5	13886.8	12908.4	11732.3	10763.2	10024.1	9682.4	9673.1
32.5°	14879.2	14807.2	14277.3	13326.7	12717.8	12971.1	11541.8	10405.2	9631.3	9294.3	9268.7
35°	16459.7	16327.2	15362.7	14003.0	12515.6	12971.1	11281.4	10019.4	9268.7	8948.0	8929.4
37.5°	18418.9	18453.8	16750.2	14760.7	12827.0	11755.6	10970.0	9659.2	8955.0	8671.4	8671.4
40°	18068.0	18530.5	18360.8	15537.0	13147.7	11560.3	10635.3	9312.9	8694.7	8478.5	8506.4
42.5°	20385.2	20206.2	20229.4	16315.6	13373.2	11360.5	10272.8	8992.2	8464.6	8281.0	8301.9
45°	22955.7	22753.5	18518.9	17012.8	13477.8	11063.0	9905.5	8662.1	8211.2	8057.8	8113.6
47.5°	25493.7	25312.4	20336.4	16843.1	13380.2	10607.4	9452.3	8376.3	7944.0	7834.7	7918.4
50°	27950.3	27694.6	22295.6	15055.9	13033.9	9977.6	8989.8	8076.4	7711.5	7646.5	7709.2
52.5°	30142.0	29802.6	24280.4	15325.5	11386.0	9340.8	8578.5	7788.2	7500.0	7428.0	7490.8
54°	31236.6	31029.8	25389.1	15355.7	10914.2	8945.7	8332.1	7604.6	7381.5	7321.1	7355.9
55°	29372.7	29786.4	26046.8	15330.1	10572.6	8706.3	8169.4	7483.8	7297.8	7232.8	7267.6
57.5°	26084.0	25637.8	24352.5	15016.4	9642.9	8106.7	7693.0	7177.0	7049.2	6965.5	7014.3
60°	26911.4	26830.0	22230.5	14326.1	8627.3	7435.0	7223.5	6819.1	6733.1	6663.4	6728.4
62.5°	27776.0	27722.5	22569.9	13254.7	7616.3	6774.9	6684.3	6400.7	6349.6	6319.4	6335.6
65°	28243.1	27901.5	22560.6	11820.7	6688.9	6098.6	6084.6	5873.1	5896.4	5882.4	5949.8
67.5°	28045.6	27680.7	21563.5	10786.4	5817.4	5327.0	5371.1	5282.8	5368.8	5394.4	5445.5
70°	27013.6	27132.2	19390.4	9789.3	4950.4	4485.6	4625.1	4613.4	4739.0	4836.6	4917.9
72.5°	25586.6	25131.1	16252.8	8320.5	3623.4	3191.1	3432.8	3595.5	3734.9	3851.1	3927.8
75°	21777.3	21242.8	11999.6	6486.7	2624.0	2201.0	2266.1	2338.1	2428.7	2696.0	2854.1
77.5°	14930.4	14707.3	8629.6	4892.3	1671.1	1327.1	1580.4	1724.5	1801.2	1789.6	1817.5
80°	7655.8	7616.3	5108.5	2926.1	1127.2	971.5	1150.5	1164.4	1287.6	1382.9	1387.5
82.5°	3086.5	3239.9	2040.6	1603.7	783.2	734.4	811.1	913.4	1018.0	1073.8	1087.7
85°	1092.4	1066.8	620.5	753.0	497.4	513.6	574.1	690.3	799.5	813.5	783.2
87.5°	292.8	304.5	132.5	276.6	271.9	297.5	330.0	376.5	455.5	478.8	455.5
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)