

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: P591097

Luminaire Tested: **CTN-CA10-210-722-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591097
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-722-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 24177 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

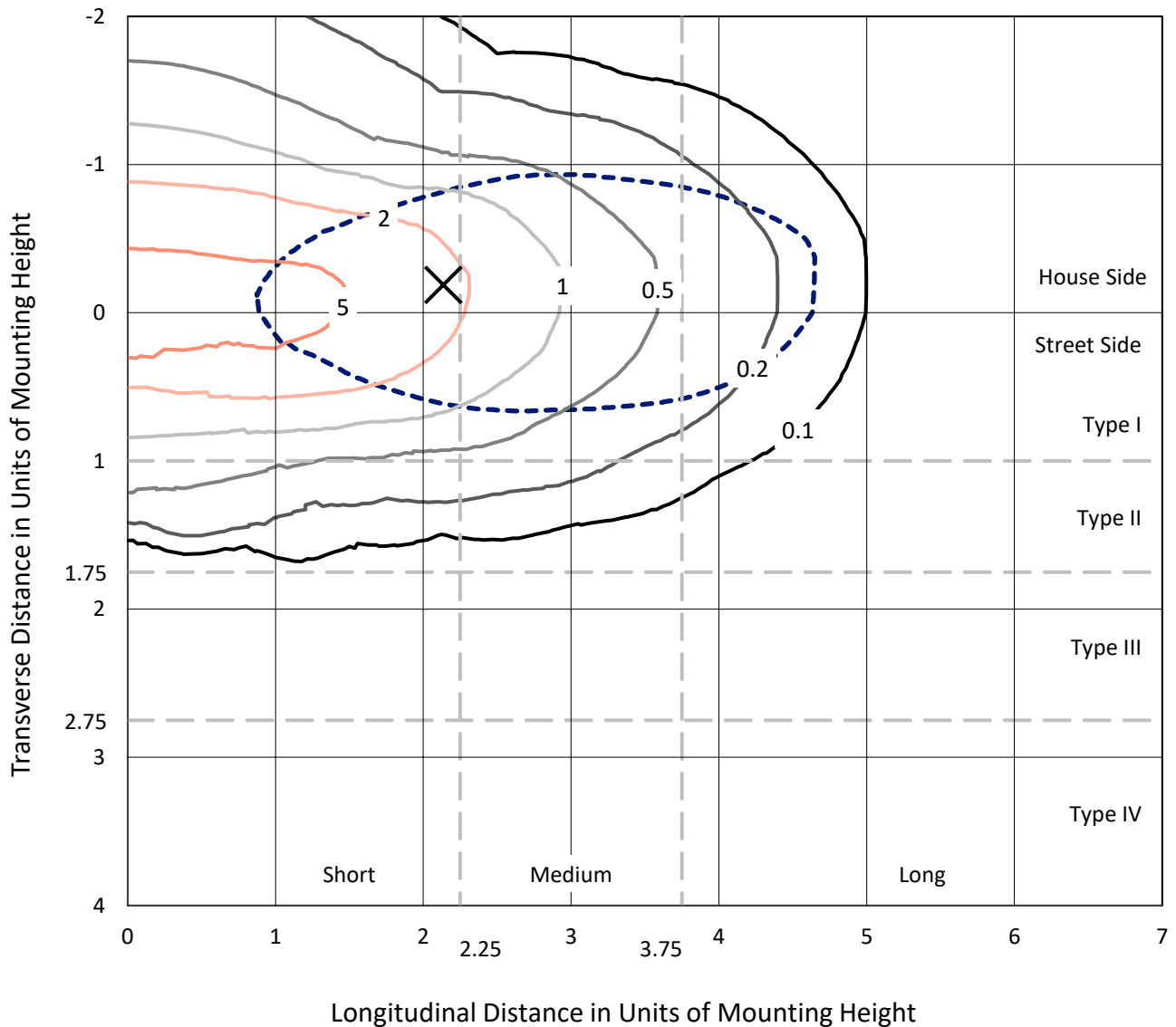
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

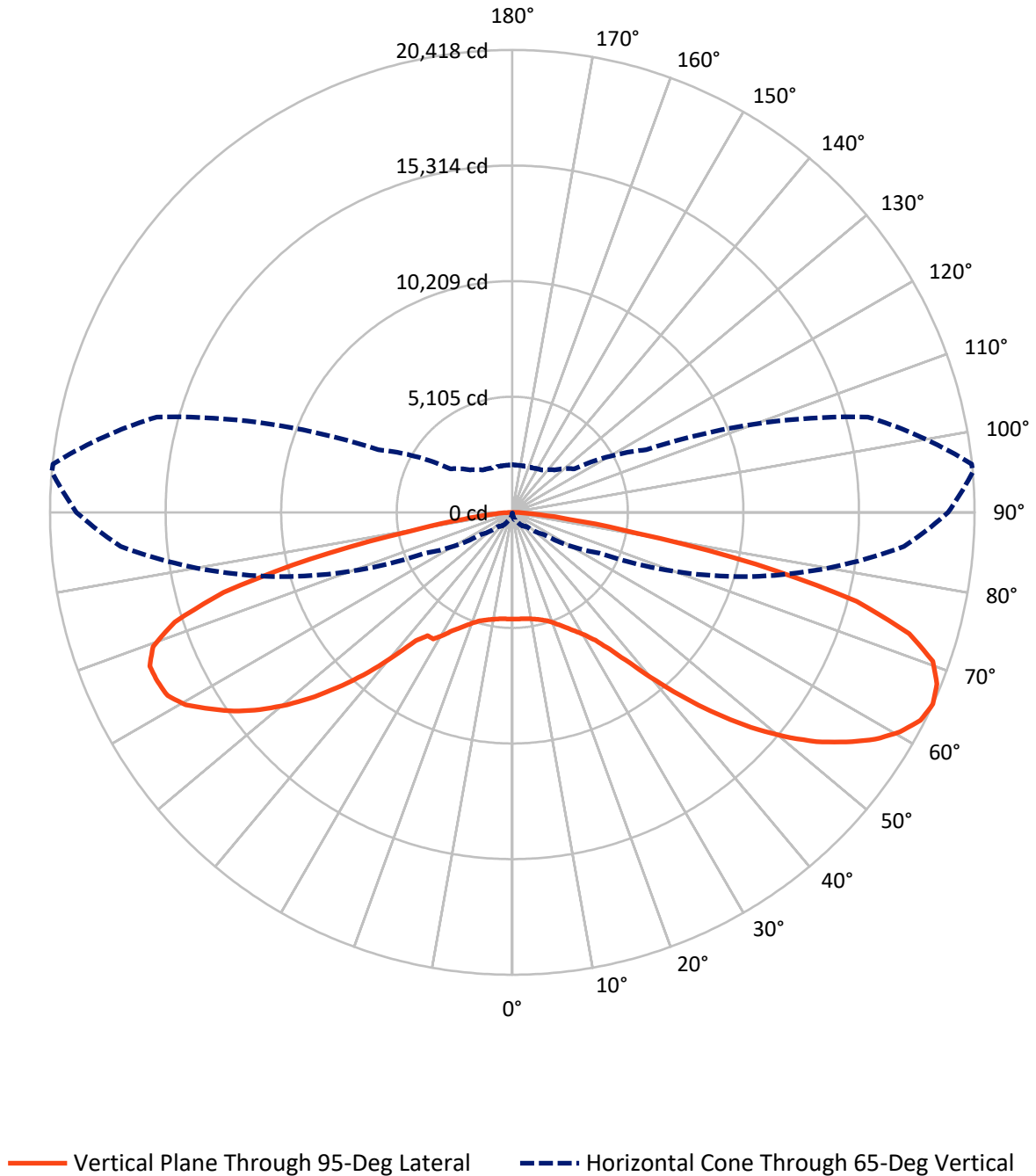
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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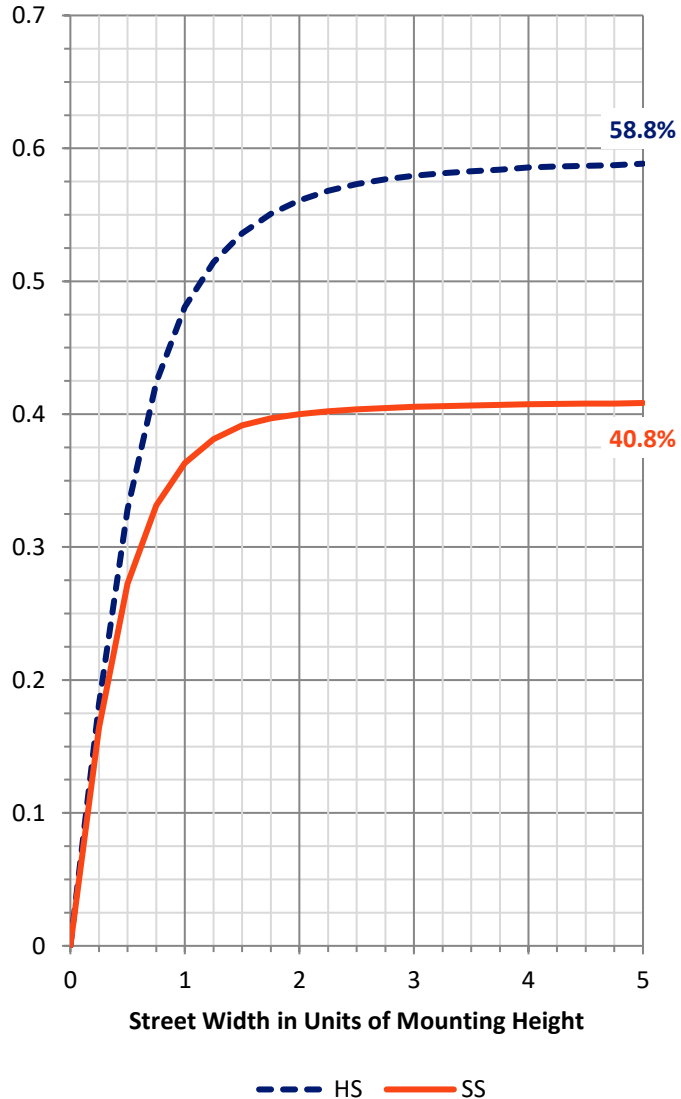
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14335.5	0.0	14335.5
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	9841.5	0.0	9841.5
	% Fixture	40.7	0.0	40.7
Total	Lumens	24177.0	0.0	24177.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	448.6	1.9
10°-20°	1291.7	5.3
20°-30°	1941.5	8.0
30°-40°	2707.0	11.2
40°-50°	3886.4	16.1
50°-60°	4954.1	20.5
60°-70°	5158.3	21.3
70°-80°	3321.7	13.7
80°-90°	467.8	1.9
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°	24177.0	100.0
0°-180°	24177.0	100.0

Coefficient of Utilization



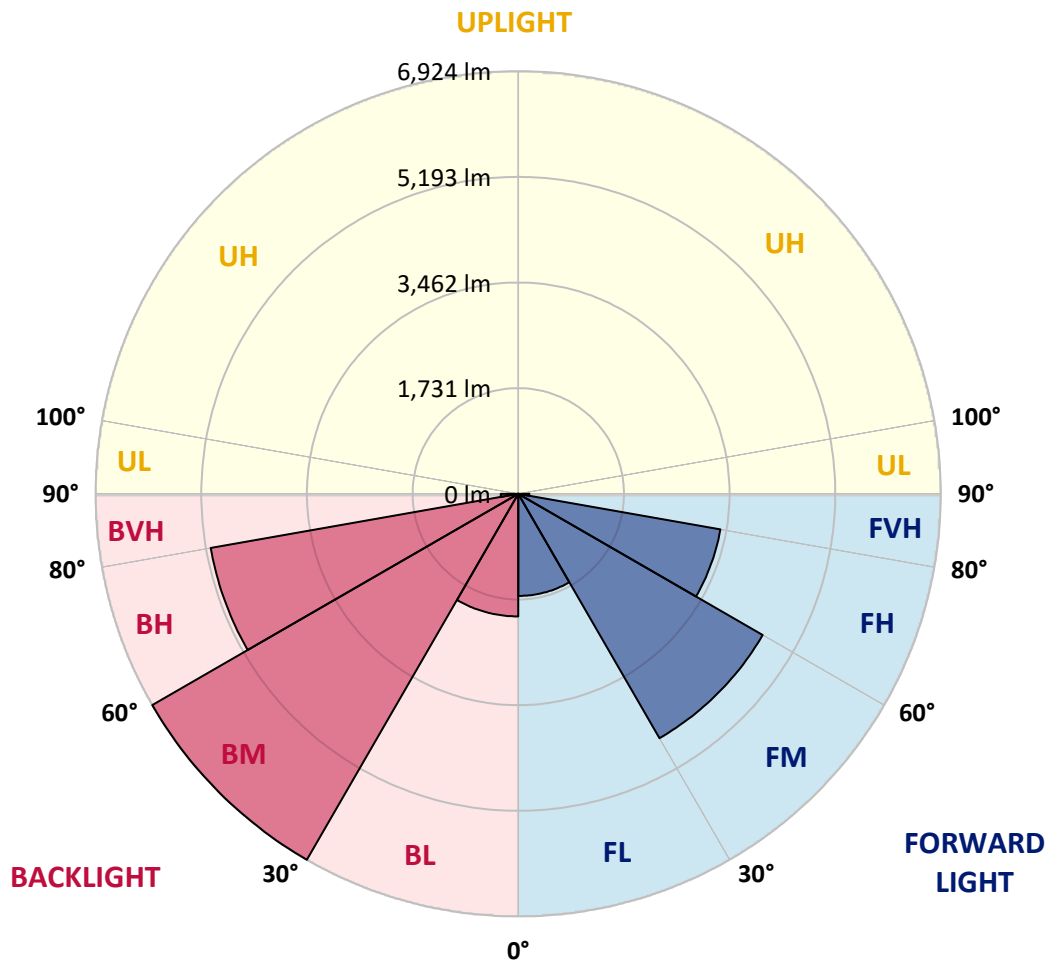
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1673.0	6.9			
FM (30°-60°)	4623.5	19.1			
FH (60°-80°)	3362.9	13.9			G2/5000
FVH (80°-90°)	181.9	0.8			G2/225
BL (0°-30°)	2008.8	8.3	B3/2500		
BM (30°-60°)	6923.9	28.6	B4/8500		
BH (60°-80°)	5117.0	21.2	B5		G5
BVH (80°-90°)	285.9	1.2			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°	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0
2.5°	4726.1	4687.4	4695.3	4733.1	4663.6	4701.5	4673.3	4719.0	4707.6	4711.1	4733.1
5°	4686.5	4646.9	4661.9	4708.5	4643.4	4689.1	4668.0	4705.8	4702.3	4715.5	4729.6
7.5°	4650.5	4608.3	4627.6	4661.9	4626.7	4666.3	4654.9	4702.3	4700.6	4739.3	4748.9
10°	4610.0	4571.3	4588.0	4630.2	4601.2	4648.7	4658.4	4714.6	4733.1	4785.8	4790.2
12.5°	4538.8	4501.0	4508.9	4562.6	4566.9	4639.0	4672.4	4761.2	4780.6	4841.2	4843.9
15°	4283.9	4275.1	4349.8	4436.0	4471.1	4578.4	4690.0	4811.3	4840.3	4916.8	4924.7
17.5°	3566.5	3478.6	3346.8	3451.4	3681.7	3977.9	4647.8	4886.1	4939.7	5016.2	5039.9
20°	2392.0	2472.0	2770.1	2903.7	3108.5	3607.8	4637.3	4966.9	5083.0	5175.3	5220.1
22.5°	1976.2	1971.8	2328.7	2778.8	2939.7	3169.2	4262.8	5062.8	5255.3	5375.7	5432.0
25°	1835.6	1837.3	1902.4	2471.2	2869.4	3112.0	3915.5	4937.1	5444.3	5616.6	5683.4
27.5°	1723.9	1731.0	1786.3	1978.9	2809.6	3099.7	3925.2	4577.5	5643.9	5874.2	5951.5
30°	1635.1	1631.6	1698.4	1859.3	2338.4	3104.1	3970.9	4649.6	5458.4	6239.9	6283.0
32.5°	1561.3	1551.6	1619.3	1781.1	2042.2	3069.8	4039.5	4851.8	5327.4	6591.5	6759.4
35°	1490.1	1486.6	1546.3	1705.5	1971.8	2549.4	4119.5	5102.3	5752.9	6603.0	7413.5
37.5°	1434.7	1432.1	1479.5	1629.9	1908.5	2322.6	4185.4	5417.9	6306.7	7090.9	7955.0
40°	1389.9	1382.8	1420.6	1563.0	1836.4	2284.8	3645.6	5747.6	6982.7	8229.3	9266.6
42.5°	1352.1	1342.4	1379.3	1497.1	1767.0	2242.6	3385.4	6079.9	7777.4	9497.0	10542.2
45°	1300.2	1299.3	1337.1	1447.0	1693.2	2181.1	3410.0	5525.2	8670.6	10710.1	11882.0
47.5°	1273.8	1267.7	1295.8	1400.4	1623.7	2087.9	3386.3	5287.8	9354.6	11927.7	13187.4
50°	1232.5	1227.2	1254.5	1346.8	1555.1	1970.1	3300.2	5433.7	8791.0	13081.1	14414.7
52.5°	1158.7	953.8	1214.0	1302.0	1481.3	1842.6	3136.6	5514.6	9009.9	14150.1	15557.5
55°	455.4	611.0	1162.2	1245.7	1405.7	1723.0	2888.7	5491.8	9734.3	15107.4	16542.1
57.5°	396.5	398.2	771.9	1040.0	1316.0	1598.2	2586.3	5361.7	10373.4	15926.7	17501.2
60°	56.3	57.1	391.2	437.8	863.3	1135.8	2278.6	5128.7	10752.3	16746.1	18328.5
62.5°	37.8	39.6	356.0	397.4	787.7	1007.5	1992.9	4714.6	10935.2	17243.6	18924.5
65°	27.3	28.1	322.6	359.6	701.5	894.0	1727.4	4264.5	10951.9	17358.8	19251.5
67.5°	25.5	26.4	297.1	331.4	638.2	793.8	1498.0	3868.1	10490.4	17393.1	19238.3
70°	26.4	26.4	270.8	299.8	566.1	688.3	1243.1	3473.3	9326.4	16944.7	18805.8
72.5°	26.4	27.3	236.5	263.7	487.9	582.8	1018.9	2823.7	7553.3	15675.3	17761.4
75°	26.4	27.3	186.4	218.0	405.3	467.7	836.0	2276.9	5817.0	13228.8	15539.9
77.5°	27.3	27.3	137.1	167.0	313.0	351.6	634.7	1749.4	4286.5	9169.9	10819.1
80°	27.3	29.0	96.7	123.1	231.2	254.1	460.7	1116.5	2308.5	4650.5	5371.3
82.5°	28.1	29.0	72.1	92.3	160.0	182.9	281.3	549.4	1067.2	2152.0	2437.8
85°	26.4	27.3	58.9	64.2	91.4	109.9	174.9	272.5	375.4	846.6	880.0
87.5°	18.5	17.6	18.5	21.1	29.9	48.4	82.6	92.3	90.5	227.7	264.6
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):

	95°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0	4712.0
2.5°	4719.9	4721.7	4714.6	4741.9	4714.6	4729.6	4690.0	4751.6	4745.4	4728.7	4749.8
5°	4719.0	4723.4	4721.7	4746.3	4712.0	4724.3	4684.7	4749.8	4727.8	4712.9	4738.4
7.5°	4740.1	4746.3	4743.6	4760.4	4720.8	4719.9	4681.2	4729.6	4708.5	4676.8	4708.5
10°	4786.7	4786.7	4778.8	4788.5	4731.3	4725.2	4660.1	4715.5	4679.5	4651.3	4690.0
12.5°	4846.5	4851.8	4831.6	4829.8	4750.7	4732.2	4650.5	4677.7	4625.8	4599.5	4637.3
15°	4934.4	4937.9	4911.6	4894.9	4798.2	4757.7	4625.8	4620.6	4548.5	4523.0	4550.2
17.5°	5036.4	5035.5	4998.6	4991.6	4878.2	4784.1	4605.6	4551.1	4458.8	4429.8	4453.5
20°	5199.9	5190.2	5149.8	5109.4	4944.1	4800.8	4576.6	4462.3	4334.0	4292.7	4312.0
22.5°	5419.7	5416.2	5352.9	5235.9	5014.4	4816.6	4527.4	4354.2	4183.7	4108.9	4121.2
25°	5660.6	5657.9	5567.4	5392.4	5075.9	4828.0	4470.2	4232.9	4002.6	3889.2	3886.5
27.5°	5940.1	5933.1	5810.9	5561.2	5161.2	4831.6	4408.7	4104.5	3823.2	3681.7	3687.8
30°	6280.3	6268.0	6101.0	5748.5	5269.4	4842.1	4356.0	3960.4	3656.2	3505.9	3502.4
32.5°	6731.3	6713.7	6454.4	5994.6	5409.1	4868.5	4292.7	3818.0	3500.6	3349.4	3336.2
35°	7417.9	7381.8	6952.8	6309.3	5564.7	4886.1	4191.6	3682.6	3350.3	3207.9	3197.3
37.5°	8434.1	8373.5	7580.5	6639.9	5719.5	4882.5	4076.4	3536.6	3228.1	3090.1	3087.4
40°	9773.9	9678.9	8333.9	6994.2	5868.0	4863.2	3952.5	3406.5	3126.1	3007.4	3016.2
42.5°	11239.4	11139.1	9227.1	7354.6	5979.7	4803.4	3819.7	3283.5	3032.0	2937.1	2938.0
45°	12716.2	12623.1	10254.8	7693.9	6035.1	4690.9	3681.7	3166.5	2932.7	2850.1	2859.7
47.5°	14187.0	14118.4	11272.8	7980.5	6007.8	4514.2	3515.5	3055.8	2834.2	2766.5	2788.5
50°	15554.9	15481.9	12357.6	8217.9	5870.7	4268.1	3345.0	2946.8	2754.2	2695.3	2713.8
52.5°	16822.5	16725.0	13519.7	8355.0	5623.6	4008.7	3194.7	2850.9	2676.9	2618.0	2637.3
55°	17899.4	17895.1	14583.5	8366.4	5237.7	3743.2	3049.6	2740.2	2601.3	2552.9	2557.3
57.5°	18907.8	18947.3	15498.6	8227.5	4780.6	3497.1	2883.5	2625.9	2514.2	2464.1	2468.5
60°	19677.9	19727.1	16119.3	7823.2	4293.5	3225.4	2705.0	2504.6	2406.1	2358.6	2372.7
62.5°	20230.8	20167.5	16448.0	7242.9	3805.6	2933.6	2511.6	2349.8	2271.6	2242.6	2243.5
65°	20418.1	20397.9	16255.5	6528.2	3345.0	2646.1	2283.0	2157.3	2109.0	2088.8	2103.7
67.5°	20226.4	20238.7	15505.6	5920.8	2907.2	2321.7	2026.3	1945.5	1920.8	1920.0	1935.8
70°	19701.6	19604.9	13950.5	5435.5	2496.7	1961.3	1750.3	1711.6	1703.7	1723.0	1736.2
72.5°	18330.2	18189.6	11569.0	4662.8	1916.4	1442.6	1325.7	1378.4	1376.7	1387.2	1399.5
75°	15703.4	15333.3	9061.8	3712.5	1419.8	1020.6	884.4	882.6	880.0	969.7	1002.2
77.5°	11006.4	10759.4	6690.0	2827.2	944.2	611.0	606.6	654.1	662.0	603.1	614.5
80°	5521.7	5629.8	3861.0	1746.8	627.7	430.8	451.9	444.8	451.0	458.0	462.4
82.5°	2545.0	2599.5	1847.9	851.0	404.4	327.0	309.4	336.7	349.0	348.1	345.5
85°	902.8	908.1	584.6	364.8	247.9	212.7	216.3	251.4	265.5	253.2	247.0
87.5°	262.0	248.8	119.6	108.1	114.3	113.4	116.9	124.0	133.6	131.9	122.2
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)