

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: STREETWORKS

Report Number: P510467

Luminaire Tested: **CST-CA10-310-727-U-T2**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510467
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA10-310-727-U-T2
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40727 lumens
Efficiency: N/A
Efficacy: 130.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

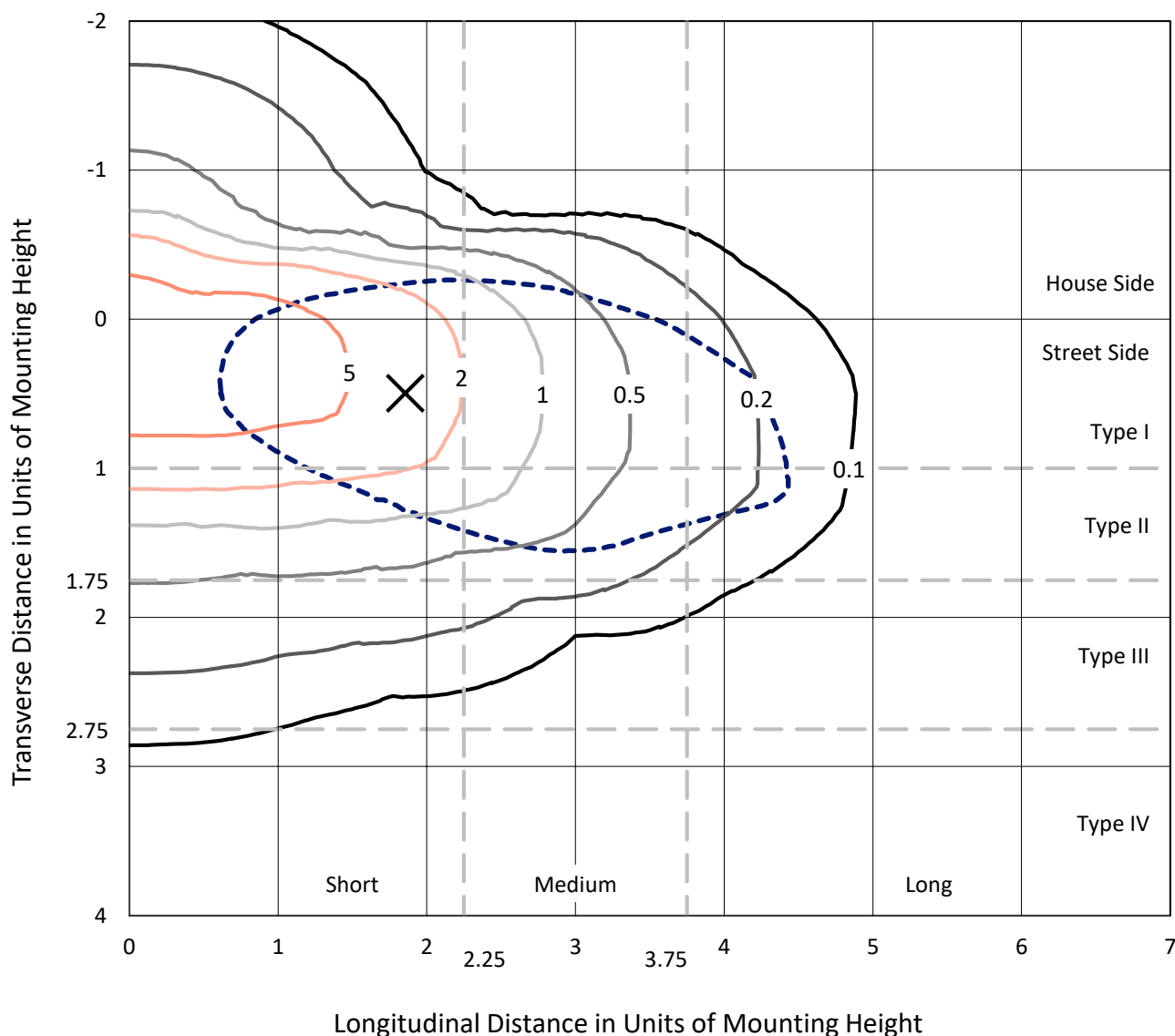
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

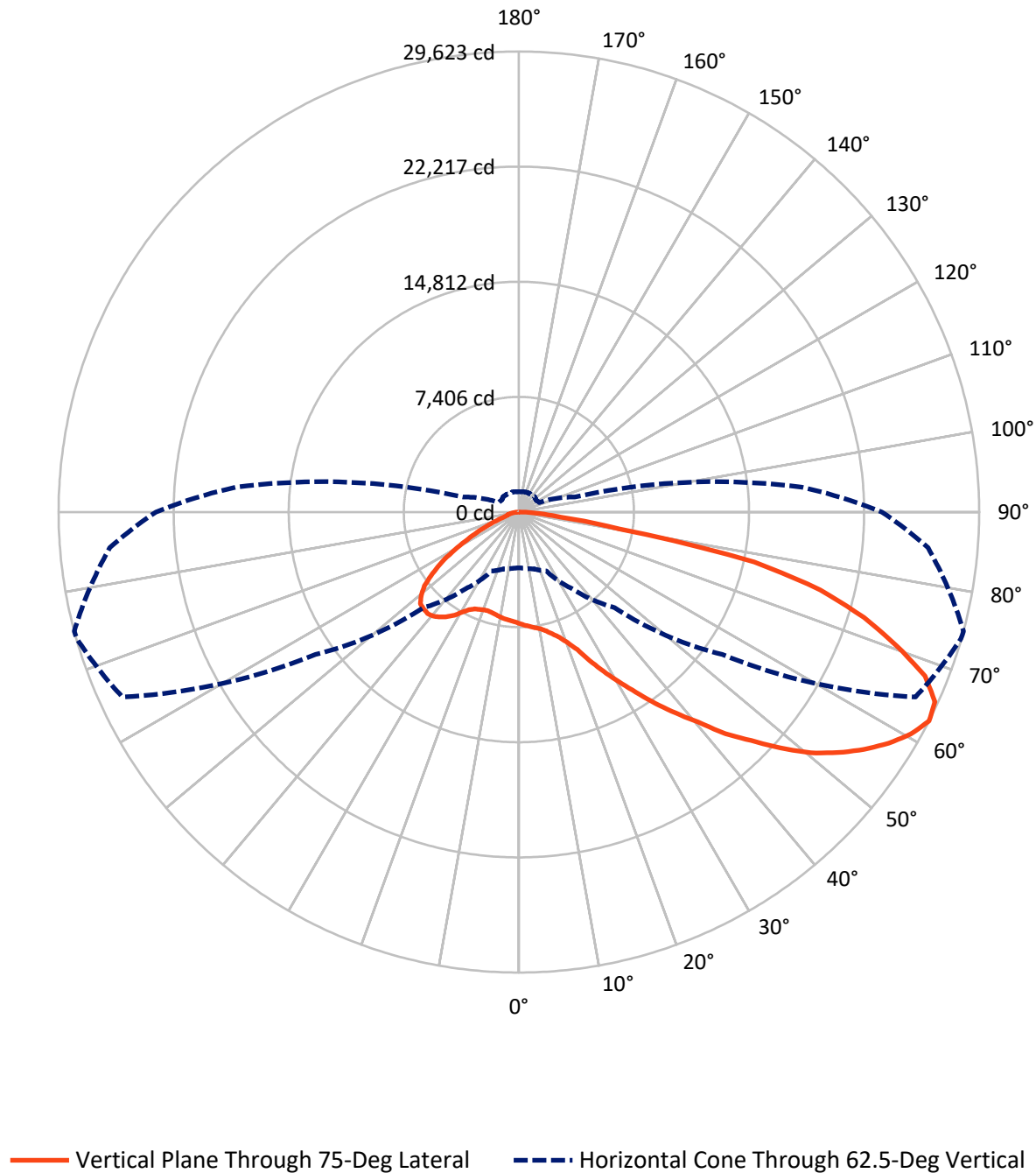
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.4 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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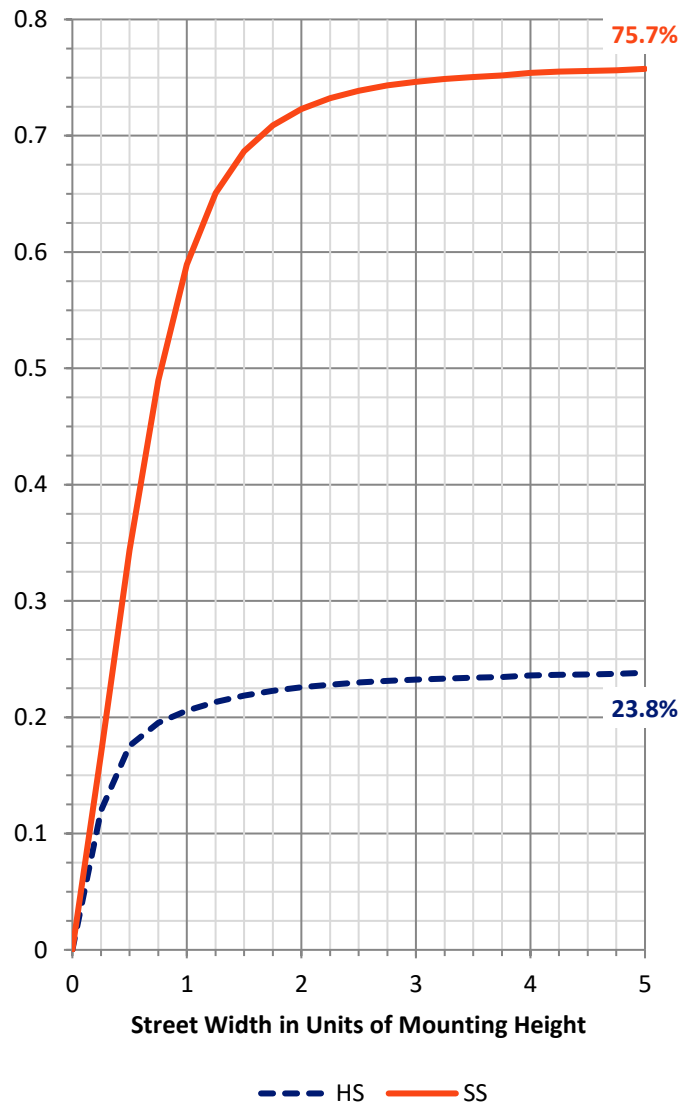
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9867.4	0.0	9867.4
	% Fixture	24.2	0.0	24.2
Street Side	Lumens	30859.6	0.0	30859.6
	% Fixture	75.8	0.0	75.8
Total	Lumens	40727.0	0.0	40727.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	690.7	1.7
10°-20°	2096.1	5.1
20°-30°	3615.3	8.9
30°-40°	5330.8	13.1
40°-50°	7027.2	17.3
50°-60°	8270.3	20.3
60°-70°	8228.2	20.2
70°-80°	4798.4	11.8
80°-90°	670.0	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°	40727.0	100.0
0°-180°	40727.0	100.0

Coefficient of Utilization



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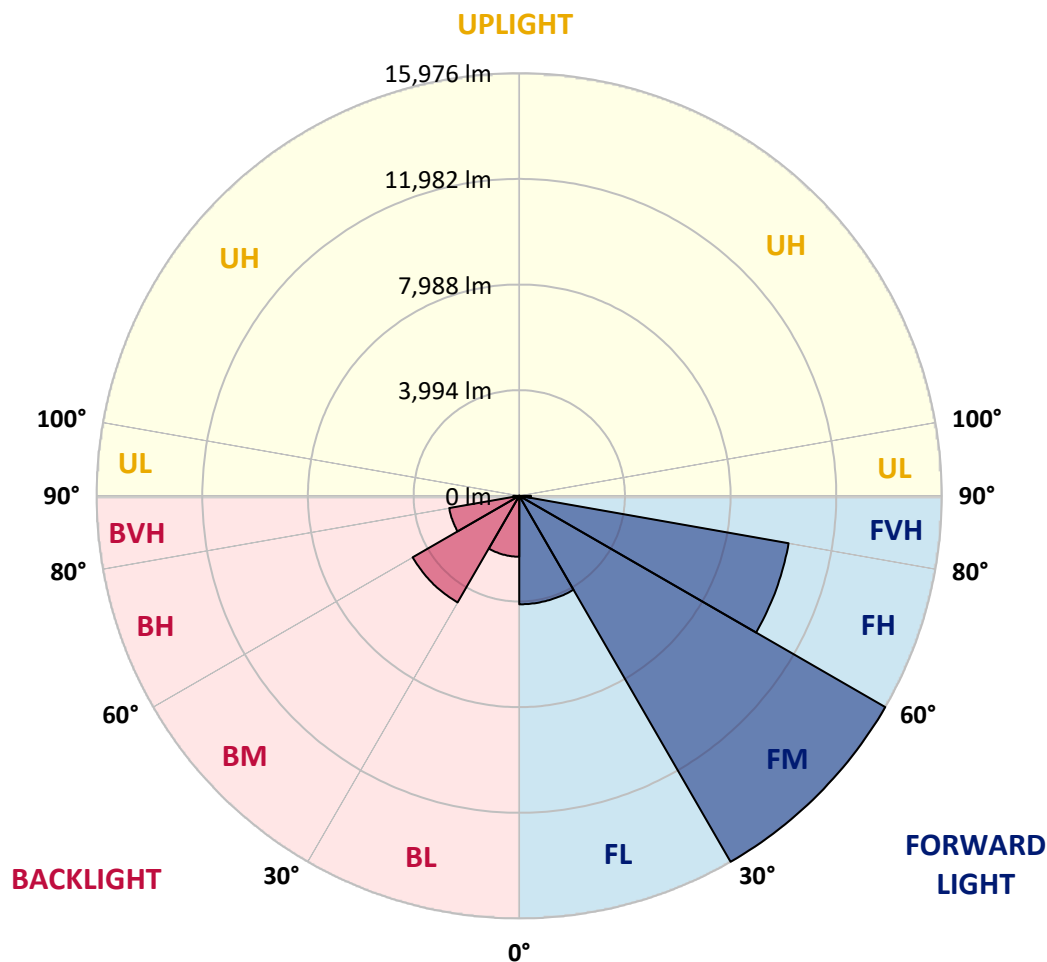
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4101.0	10.1			
FM	(30°-60°)	15975.5	39.2			
FH	(60°-80°)	10338.4	25.4			G4/12000
FVH	(80°-90°)	444.6	1.1			G3/500
BL	(0°-30°)	2301.0	5.6	B3/2500		
BM	(30°-60°)	4652.8	11.4	B3/5000		
BH	(60°-80°)	2688.2	6.6	B4/5000		G4/5000
BVH	(80°-90°)	225.4	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2
2.5°	7572.4	7541.3	7545.5	7523.7	7491.1	7466.7	7403.0	7334.3	7293.2	7289.9	7231.2
5°	7952.9	7963.0	7965.5	7895.9	7827.2	7749.2	7652.0	7519.6	7411.4	7394.7	7280.7
7.5°	8299.9	8299.1	8294.1	8255.5	8223.6	8108.0	7913.5	7705.6	7529.6	7513.7	7328.4
10°	8655.3	8652.8	8602.5	8538.0	8465.9	8359.4	8192.6	7943.7	7658.7	7637.7	7372.9
12.5°	9042.6	9014.9	8983.1	8905.1	8819.6	8635.2	8460.0	8189.3	7891.7	7854.0	7451.7
15°	9361.9	9333.4	9289.0	9236.2	9146.5	9005.7	8819.6	8498.6	8179.2	8142.3	7628.5
17.5°	9677.9	9664.5	9632.7	9576.5	9507.8	9386.2	9215.2	8942.8	8524.6	8479.3	7922.7
20°	9936.9	9905.1	9881.6	9907.6	9913.5	9823.8	9729.9	9501.1	9040.1	8970.5	8284.0
22.5°	10084.5	10077.8	10206.0	10301.6	10340.1	10360.2	10330.9	10146.5	9729.1	9607.5	8786.9
25°	10224.4	10213.5	10387.9	10626.8	10853.9	10969.6	11047.6	11071.9	10688.8	10579.0	9595.8
27.5°	10228.6	10258.8	10511.9	10912.6	11258.8	11611.7	11985.5	12028.3	11692.1	11605.0	10516.1
30°	10251.3	10264.7	10515.3	10975.5	11696.3	12262.1	12749.1	12989.7	12699.7	12659.4	11529.5
32.5°	9963.8	9981.4	10371.1	11085.3	12026.6	12935.2	13581.5	13938.5	13866.5	13815.3	12610.8
35°	9664.5	9679.6	10132.2	10929.4	12272.2	13546.3	14333.3	15034.9	15166.5	15128.0	13817.0
37.5°	9195.1	9245.4	9719.8	10743.3	12314.9	13995.5	15050.8	16127.1	16524.4	16408.7	15092.7
40°	8685.5	8722.4	9274.8	10353.5	12267.2	14290.6	15755.8	17335.8	17816.9	17754.9	16359.3
42.5°	8041.8	8140.7	8693.9	9855.6	12021.6	14474.2	16407.9	18706.3	19405.3	19488.3	17522.7
45°	7499.4	7496.9	8010.7	9134.8	11576.5	14517.7	17008.1	20091.8	21114.4	20958.5	19060.8
47.5°	6861.6	6887.5	7424.0	8417.3	10920.2	14379.4	17475.8	21729.7	22764.9	22680.2	20322.3
50°	5385.5	5572.4	6588.3	7800.4	10032.5	13993.9	17865.5	23324.8	24313.0	24351.6	21469.0
52.5°	4642.8	4714.9	5275.7	7179.2	9244.6	13346.8	18293.0	25119.4	25809.2	25711.2	22770.7
55°	4345.3	4383.8	4652.9	6063.6	8482.7	12345.1	18498.4	26758.1	26976.0	26960.1	23842.0
57.5°	4129.8	4159.2	4350.3	5060.3	7646.1	11059.3	18324.9	27824.3	28162.9	28059.0	24852.8
60°	3818.9	3842.3	4127.3	4559.8	6785.3	9760.9	17257.8	28307.9	29023.7	28985.2	25746.4
62.5°	3585.0	3625.2	3784.5	4190.2	6050.2	8691.4	15986.3	28157.0	29588.7	29623.1	26428.7
65°	3337.7	3373.8	3508.7	3863.3	5383.8	7988.1	14615.0	27401.0	29328.9	29420.2	26539.3
67.5°	3032.6	3060.3	3220.4	3527.2	4605.1	7284.9	13068.5	26064.0	27887.1	28181.3	25437.9
70°	2648.7	2658.8	2854.9	3063.6	3823.9	6224.5	10391.2	23875.5	25800.8	25806.7	23358.3
72.5°	2108.1	2116.5	2168.4	2326.9	2872.5	4926.1	7637.7	19949.3	23264.4	23221.7	20759.9
75°	1433.3	1507.1	1687.3	1838.2	2072.0	3459.3	4750.1	13440.6	19710.4	20045.7	17052.5
77.5°	1132.4	1139.1	1213.7	1352.0	1554.0	2584.2	2662.1	7436.6	14694.6	15491.7	13403.8
80°	789.6	801.3	761.1	794.6	1083.8	1768.6	1555.7	3236.3	6128.1	6543.0	8047.6
82.5°	376.4	389.8	447.6	415.8	539.0	751.9	821.4	1672.2	2647.1	2716.6	3133.2
85°	248.1	248.1	248.9	235.5	314.3	327.7	373.0	713.3	1292.5	1336.1	1328.6
87.5°	79.6	88.0	85.5	99.7	120.7	109.0	114.0	223.8	443.4	439.2	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2	7179.2
2.5°	7189.3	7154.9	7074.5	7004.1	6934.5	6881.7	6836.4	6776.1	6747.6	6721.6	6776.1
5°	7210.3	7149.1	7004.9	6860.7	6728.3	6631.1	6571.5	6528.0	6488.6	6488.6	6507.0
7.5°	7234.6	7151.6	6945.4	6740.9	6542.2	6431.6	6346.9	6291.6	6259.7	6261.4	6300.8
10°	7250.5	7123.1	6877.5	6601.7	6385.5	6207.8	6124.8	6045.1	5984.8	5948.8	5989.0
12.5°	7268.9	7113.9	6786.1	6475.1	6211.9	6010.8	5838.1	5778.6	5719.9	5674.7	5696.5
15°	7382.9	7149.1	6709.8	6314.2	6009.1	5758.5	5532.2	5423.2	5406.4	5375.4	5383.0
17.5°	7569.0	7243.8	6660.4	6117.2	5765.2	5469.3	5182.6	5041.8	5008.3	4992.4	5000.7
20°	7846.5	7424.0	6675.5	5978.9	5490.3	5159.2	4788.7	4623.5	4512.1	4518.8	4551.5
22.5°	8270.6	7714.9	6757.6	5827.2	5192.7	4758.5	4384.7	4160.0	4047.7	4023.4	4060.3
25°	8946.2	8183.4	6848.1	5682.2	4905.2	4326.0	3911.9	3668.8	3524.7	3515.4	3556.5
27.5°	9812.0	8901.8	7045.1	5556.5	4548.1	3806.3	3394.7	3186.9	3033.5	3015.0	3001.6
30°	10698.0	9699.7	7401.4	5365.4	4131.5	3269.8	2911.9	2749.3	2577.5	2507.9	2523.0
32.5°	11636.8	10443.2	7818.8	5231.2	3665.5	2797.9	2487.0	2331.9	2174.3	2073.7	2050.3
35°	12582.3	11182.5	8170.0	5030.9	3223.7	2423.3	2125.7	1965.6	1828.1	1746.0	1740.1
37.5°	13688.8	11952.0	8451.6	4818.0	2765.2	2129.9	1772.0	1679.8	1613.5	1541.5	1549.0
40°	14796.9	12848.9	8677.1	4466.0	2384.7	1814.7	1507.9	1526.4	1540.6	1480.3	1475.2
42.5°	15717.2	13602.4	8780.2	4010.0	2047.7	1540.6	1391.4	1475.2	1537.3	1497.9	1492.8
45°	16651.8	14236.9	8740.0	3444.2	1767.8	1409.9	1382.2	1467.7	1547.3	1538.1	1533.9
47.5°	17667.7	15068.4	8670.4	2799.6	1567.4	1397.3	1402.3	1442.6	1543.1	1559.9	1553.2
50°	18909.9	15833.7	8258.9	2180.2	1470.2	1417.4	1447.6	1426.6	1512.1	1546.5	1552.4
52.5°	20146.3	16423.0	7708.1	1889.3	1431.7	1436.7	1510.4	1439.2	1476.9	1507.1	1534.8
55°	21100.2	17023.1	6817.1	1714.1	1419.1	1445.9	1528.1	1466.0	1465.2	1465.2	1474.4
57.5°	22076.7	17827.0	5926.1	1601.0	1397.3	1456.0	1507.1	1471.1	1459.3	1442.6	1431.7
60°	22756.5	18124.5	4781.1	1526.4	1374.7	1441.7	1448.4	1443.4	1407.3	1391.4	1378.8
62.5°	23360.0	18286.3	3722.5	1440.9	1343.6	1408.2	1373.0	1362.1	1341.1	1302.6	1309.3
65°	23198.2	17939.3	2836.5	1344.5	1321.9	1368.0	1306.8	1280.8	1282.5	1242.2	1255.6
67.5°	22157.2	16382.7	2036.8	1197.0	1262.3	1288.3	1231.3	1212.0	1183.5	1163.4	1181.9
70°	20054.1	14522.8	1373.8	993.3	1126.5	1182.7	1145.0	1111.5	1067.0	1053.6	1073.7
72.5°	16879.0	12123.0	948.0	798.8	972.3	1045.2	1031.0	996.6	964.8	997.5	1036.9
75°	13866.5	8968.8	773.7	654.6	747.7	870.9	912.8	922.9	1018.4	1336.9	1369.6
77.5°	9981.4	5559.8	695.7	532.3	596.8	696.5	780.4	814.7	1243.9	1191.1	1188.6
80°	5819.7	3240.5	530.6	419.9	482.8	510.5	610.2	956.4	1072.9	920.4	897.7
82.5°	2655.4	1430.0	369.6	336.1	335.3	337.8	415.8	920.4	823.1	725.0	698.2
85°	976.5	502.9	224.6	194.5	223.0	193.6	272.4	674.8	476.9	469.4	391.4
87.5°	240.6	103.1	76.3	63.7	52.0	49.5	83.0	222.1	116.5	106.5	102.3
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)