

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: P591384

Luminaire Tested: **CTN-CA10-210-740-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591384
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-CA10-210-740-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22181 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

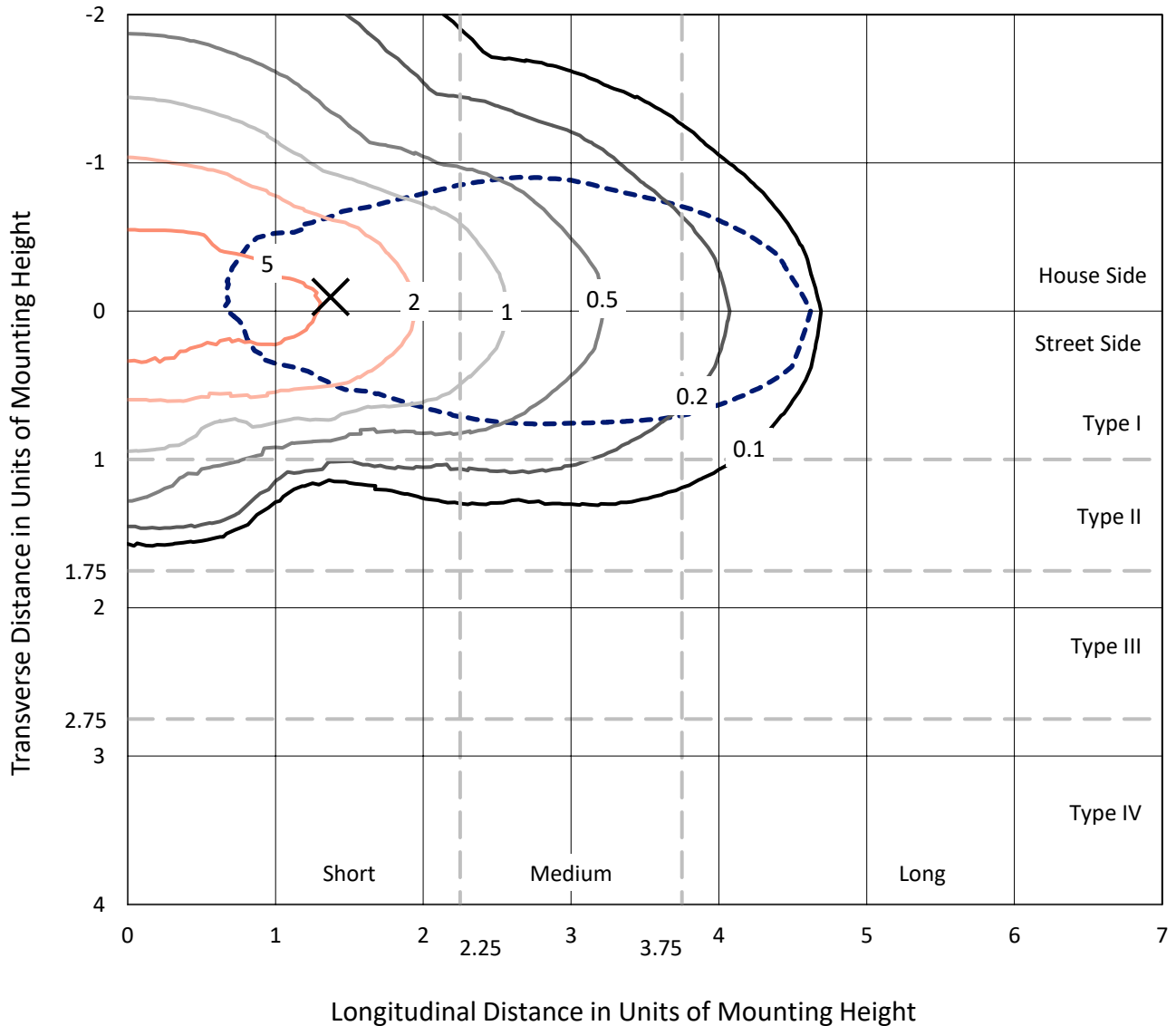
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

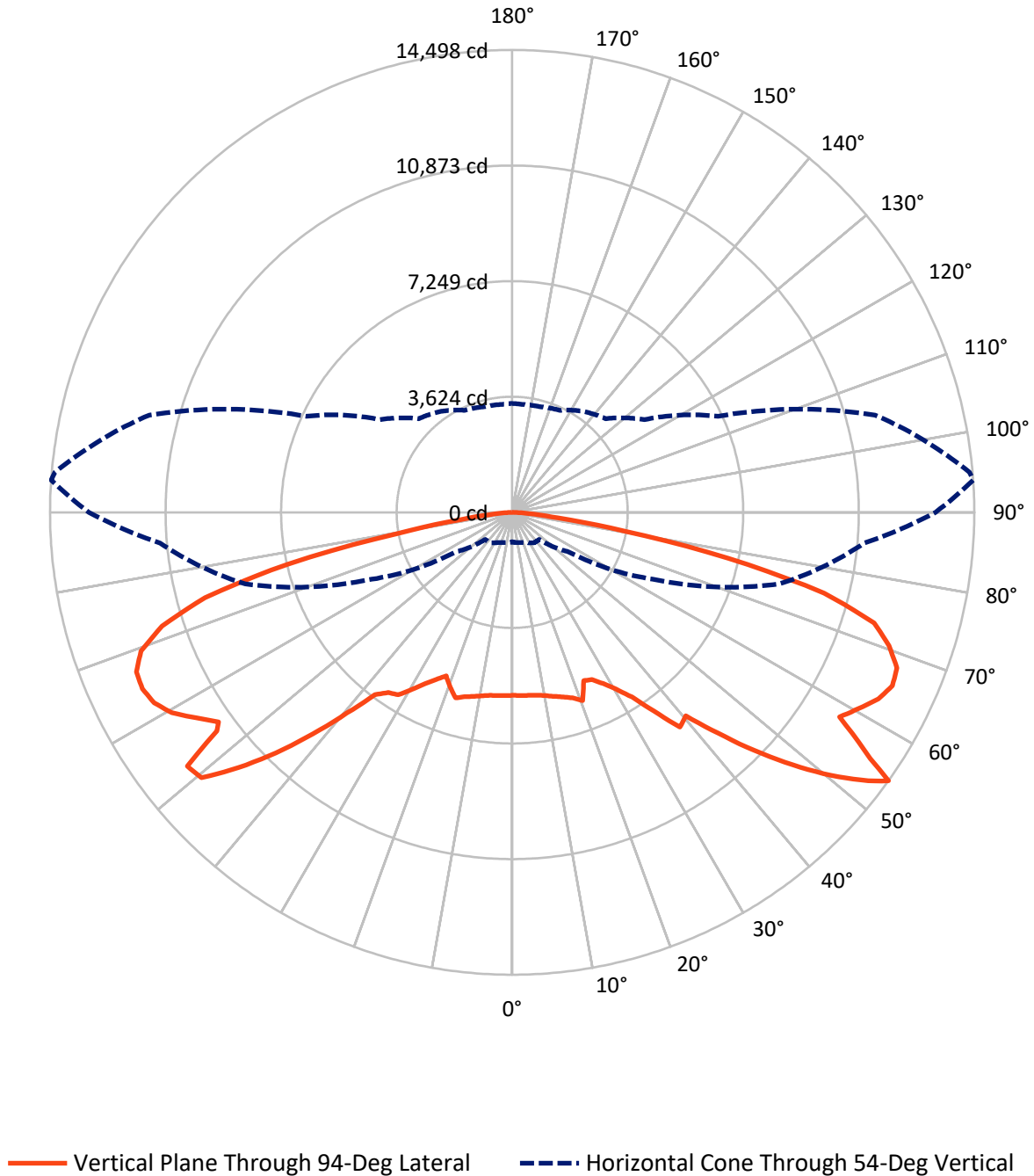
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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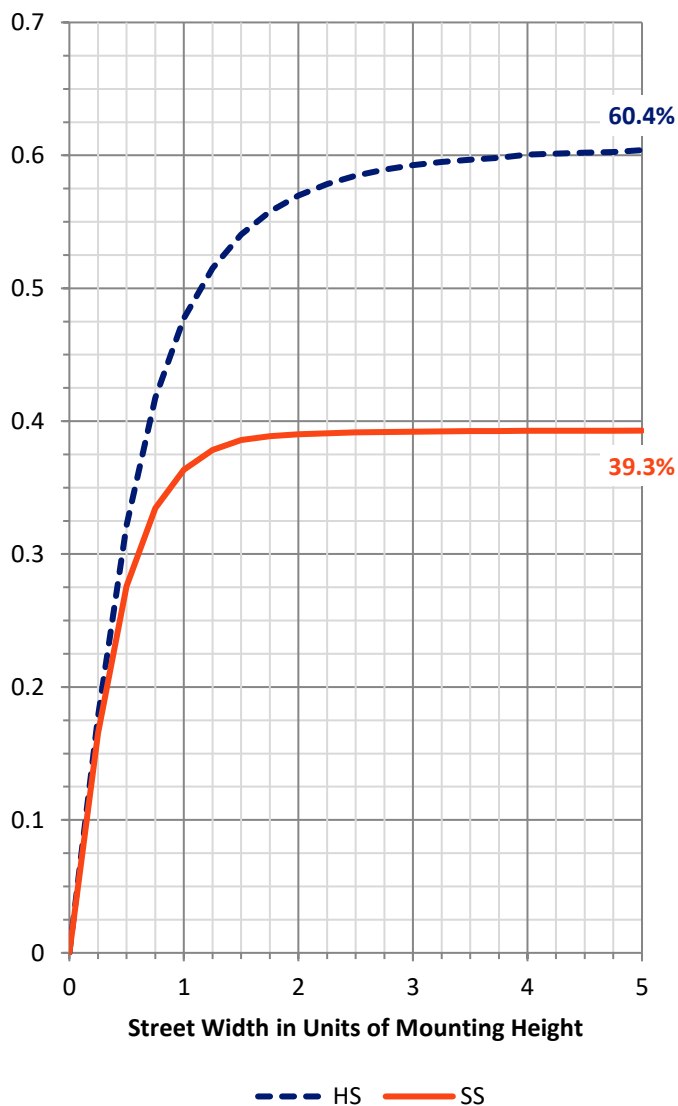
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13510.1	0.0	13510.1
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	8670.9	0.0	8670.9
	% Fixture	39.1	0.0	39.1
Total	Lumens	22181.0	0.0	22181.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	547.4	2.5
10°-20°	1566.1	7.1
20°-30°	2236.9	10.1
30°-40°	2959.7	13.3
40°-50°	3896.2	17.6
50°-60°	4298.6	19.4
60°-70°	3873.4	17.5
70°-80°	2449.6	11.0
80°-90°	353.0	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°	22181.0	100.0
0°-180°	22181.0	100.0

Coefficient of Utilization



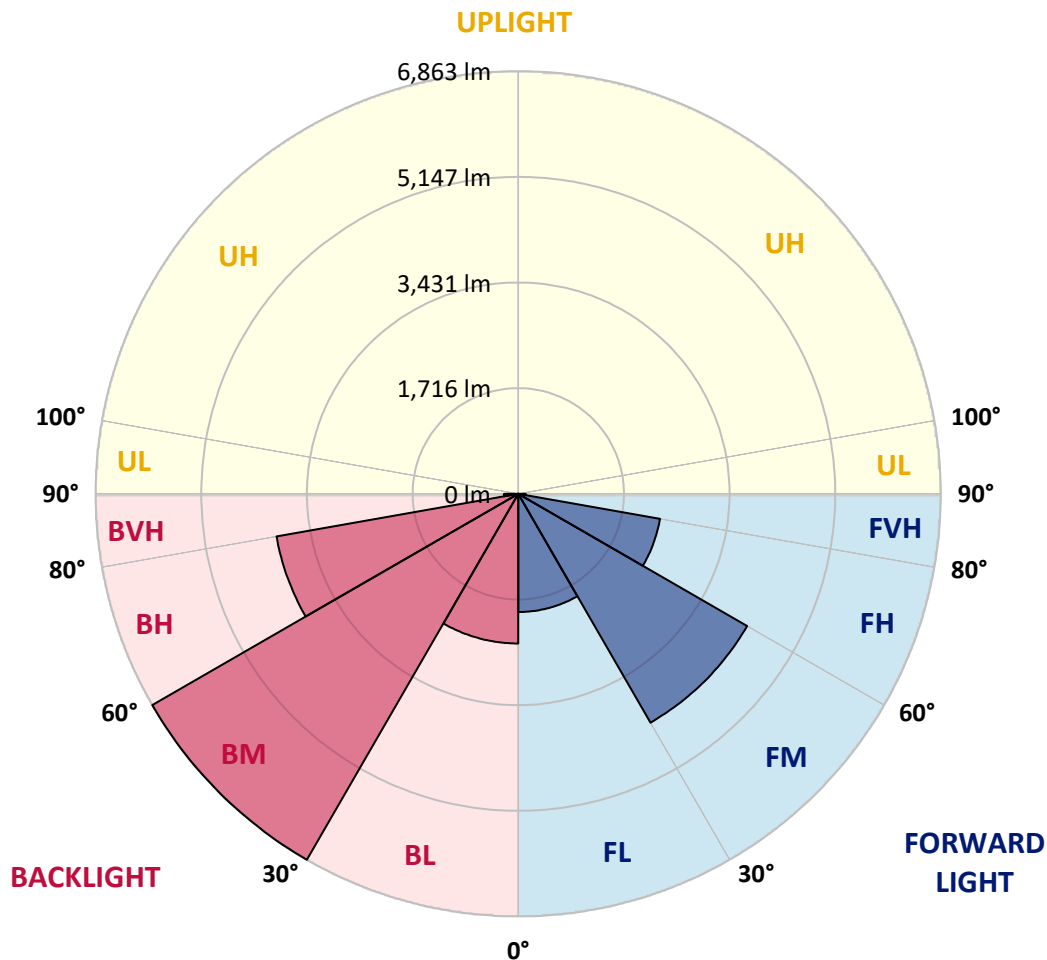
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1919.6	8.7			
FM	(30°-60°)	4291.8	19.3			
FH	(60°-80°)	2337.3	10.5			G2/5000
FVH	(80°-90°)	122.2	0.6			G2/225
BL	(0°-30°)	2430.8	11.0	B3/2500		
BM	(30°-60°)	6862.7	30.9	B4/8500		
BH	(60°-80°)	3985.7	18.0	B4/5000		G4/5000
BVH	(80°-90°)	230.8	1.0			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 I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4
2.5°	5746.2	5706.3	5711.7	5753.8	5664.2	5720.3	5694.4	5740.8	5722.5	5748.4	5767.8
5°	5695.5	5657.8	5667.5	5719.3	5648.1	5711.7	5675.0	5720.3	5726.8	5758.1	5776.4
7.5°	5653.5	5616.8	5623.3	5671.8	5626.5	5682.6	5661.0	5721.4	5722.5	5777.5	5791.5
10°	5611.4	5573.6	5582.3	5624.3	5595.2	5655.6	5669.6	5740.8	5757.0	5833.6	5834.7
12.5°	5521.9	5488.4	5492.7	5551.0	5552.1	5639.4	5667.5	5777.5	5810.9	5897.2	5905.9
15°	5169.1	5192.9	5283.5	5356.8	5424.8	5542.4	5638.4	5818.5	5863.8	5968.4	5993.2
17.5°	4314.8	4278.1	4080.7	4185.3	4512.2	4825.0	4991.1	5367.6	5789.4	6077.4	6109.7
20°	3025.7	3084.0	3393.6	3536.0	3769.0	4335.3	4855.2	5072.0	5209.0	5730.0	6136.7
22.5°	2400.1	2417.4	2860.7	3392.5	3567.3	3811.0	4428.1	5151.9	5366.5	5517.5	5584.4
25°	2234.0	2246.9	2318.1	3013.9	3490.7	3749.6	4020.3	4962.0	5552.1	5739.8	5819.6
27.5°	2094.8	2108.9	2179.0	2413.0	3420.6	3749.6	4057.0	4491.7	5732.2	6017.0	6084.9
30°	1991.3	1991.3	2063.6	2263.1	2867.2	3761.4	4133.6	4544.6	5451.7	6366.5	6426.9
32.5°	1896.4	1897.4	1976.2	2168.2	2484.2	3710.7	4241.4	4738.7	5233.8	6716.0	6872.4
35°	1811.1	1814.4	1885.6	2079.7	2387.2	2991.2	4361.2	4987.9	5652.4	6677.1	7549.8
37.5°	1738.9	1741.0	1802.5	1992.4	2305.2	2167.1	4438.8	5287.8	6214.4	7023.4	7691.1
40°	1687.1	1683.8	1728.1	1900.7	2185.4	1980.5	3757.1	5599.5	6882.1	8107.5	8355.6
42.5°	1635.3	1629.9	1674.1	1804.7	1495.1	1928.7	3481.0	5903.7	7651.2	9298.4	9519.5
45°	1574.9	1577.1	1620.2	1619.1	1415.3	1859.7	3511.2	5199.3	8474.3	10516.2	10797.8
47.5°	1542.5	1532.8	1554.4	1175.8	1349.5	1764.8	3498.2	4827.2	9200.2	11680.1	11959.5
50°	1482.1	1480.0	1089.5	1114.3	1283.7	1655.8	3295.4	4960.9	8301.7	12758.8	13041.5
52.5°	1391.5	1228.6	1010.7	1071.1	1217.9	1527.4	2353.7	5015.9	8279.0	12652.1	14050.0
54°	924.4	947.1	978.4	1040.9	1170.4	1200.6	2153.1	5011.6	8672.7	11083.6	13278.8
55°	529.6	742.1	952.5	1016.1	1136.9	840.3	2075.4	4989.0	8924.1	11151.6	11970.3
57.5°	458.4	460.6	524.2	847.9	583.6	720.6	1855.4	4804.5	9394.4	11776.2	12010.2
60°	39.9	38.8	44.2	60.4	76.6	168.3	934.2	3081.8	9065.4	12312.3	12675.8
62.5°	16.2	17.3	21.6	29.1	46.4	75.5	772.3	2731.3	9204.5	12639.1	13037.1
65°	3.2	3.2	5.4	9.7	17.3	45.3	658.0	2432.5	9133.3	12745.9	13277.7
67.5°	0.0	0.0	3.2	7.6	14.0	36.7	569.6	2238.3	8726.7	12709.2	13188.2
70°	0.0	0.0	3.2	7.6	12.9	35.6	487.6	2065.7	7718.1	12325.2	12855.9
72.5°	0.0	0.0	3.2	6.5	11.9	32.4	417.5	1824.1	6542.3	11400.8	12123.5
75°	0.0	0.0	3.2	6.5	10.8	29.1	351.7	1565.2	5465.8	9825.9	10694.2
77.5°	0.0	0.0	3.2	6.5	9.7	25.9	276.1	1250.2	4292.1	7124.8	7590.8
80°	0.0	0.0	3.2	6.5	8.6	20.5	203.9	789.6	2380.7	3613.6	3805.6
82.5°	0.0	0.0	2.2	5.4	7.6	12.9	97.1	298.8	1121.8	1654.7	1605.1
85°	0.0	0.0	2.2	5.4	6.5	9.7	42.1	75.5	373.2	549.1	511.3
87.5°	0.0	0.0	2.2	4.3	5.4	6.5	10.8	12.9	118.7	158.6	164.0
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°	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4	5735.4
2.5°	5754.9	5754.9	5753.8	5781.8	5746.2	5749.5	5716.0	5802.3	5792.6	5765.6	5798.0
5°	5761.3	5766.7	5765.6	5779.7	5751.6	5768.9	5722.5	5807.7	5793.7	5772.1	5805.6
7.5°	5788.3	5798.0	5790.5	5815.3	5759.2	5776.4	5729.0	5803.4	5789.4	5758.1	5793.7
10°	5846.5	5856.3	5841.2	5853.0	5793.7	5785.1	5726.8	5804.5	5774.3	5750.5	5794.8
12.5°	5922.1	5933.9	5903.7	5901.6	5826.1	5808.8	5724.7	5777.5	5733.3	5713.9	5753.8
15°	6006.2	6020.2	5984.6	5977.1	5894.0	5836.8	5716.0	5727.9	5664.2	5638.4	5680.4
17.5°	6116.2	6129.2	6102.2	6097.9	5990.0	5892.9	5704.2	5665.3	5575.8	5554.2	5576.9
20°	6300.7	6309.3	6273.7	6241.3	6082.8	5923.1	5684.7	5583.3	5446.3	5401.0	5426.9
22.5°	5734.4	5803.4	6503.5	6382.7	6151.8	5954.4	5636.2	5466.8	5274.8	5189.6	5206.9
25°	5808.8	5815.3	6080.6	6549.9	6227.3	5974.9	5579.0	5322.3	5058.0	4934.0	4955.5
27.5°	6078.5	6070.9	5966.3	6568.2	6316.9	5986.8	5507.8	5170.2	4843.4	4694.5	4699.9
30°	6428.0	6416.1	6257.5	5938.2	6445.2	5991.1	5445.3	4995.5	4652.4	4493.9	4489.5
32.5°	6905.8	6872.4	6626.4	6185.3	5902.6	6020.2	5356.8	4829.3	4470.1	4313.7	4301.8
35°	7639.3	7577.9	7130.2	6499.2	5808.8	6020.2	5236.0	4650.3	4301.8	4153.0	4144.4
37.5°	8548.7	8564.9	7774.2	6850.8	5953.3	5456.1	5091.5	4483.1	4156.2	4024.6	4024.6
40°	8385.8	8600.5	8521.7	7211.1	6102.2	5365.4	4936.1	4322.3	4035.4	3935.1	3948.0
42.5°	9461.3	9378.2	9389.0	7572.5	6206.8	5272.7	4767.8	4173.5	3928.6	3843.4	3853.1
45°	10654.3	10560.5	8595.1	7896.1	6255.4	5134.6	4597.4	4020.3	3811.0	3739.8	3765.7
47.5°	11832.2	11748.1	9438.6	7817.3	6210.1	4923.2	4387.1	3887.6	3687.0	3636.3	3675.1
50°	12972.4	12853.8	10348.0	6987.8	6049.3	4630.9	4172.4	3748.5	3579.1	3548.9	3578.0
52.5°	13989.6	13832.1	11269.2	7112.9	5284.5	4335.3	3981.5	3614.7	3481.0	3447.5	3476.6
54°	14497.7	14401.7	11783.7	7127.0	5065.6	4151.9	3867.1	3529.5	3425.9	3397.9	3414.1
55°	13632.6	13824.6	12089.0	7115.1	4907.0	4040.8	3791.6	3473.4	3387.1	3356.9	3373.1
57.5°	12106.2	11899.1	11302.6	6969.5	4475.5	3762.5	3570.5	3331.0	3271.7	3232.9	3255.5
60°	12490.2	12452.5	10317.8	6649.1	4004.1	3450.8	3352.6	3164.9	3125.0	3092.6	3122.8
62.5°	12891.5	12866.7	10475.2	6151.8	3534.9	3144.4	3102.3	2970.7	2947.0	2933.0	2940.5
65°	13108.3	12949.8	10470.9	5486.3	3104.5	2830.5	2824.0	2725.9	2736.7	2730.2	2761.5
67.5°	13016.7	12847.3	10008.2	5006.2	2700.0	2472.4	2492.9	2451.9	2491.8	2503.7	2527.4
70°	12537.7	12592.7	8999.6	4543.5	2297.6	2081.9	2146.6	2141.2	2199.5	2244.8	2282.5
72.5°	11875.4	11664.0	7543.3	3861.7	1681.7	1481.1	1593.2	1668.7	1733.5	1787.4	1823.0
75°	10107.4	9859.3	5569.3	3010.6	1217.9	1021.5	1051.7	1085.2	1127.2	1251.3	1324.6
77.5°	6929.6	6826.0	4005.2	2270.7	775.6	615.9	733.5	800.4	836.0	830.6	843.5
80°	3553.2	3534.9	2371.0	1358.1	523.2	450.9	534.0	540.4	597.6	641.8	644.0
82.5°	1432.5	1503.7	947.1	744.3	363.5	340.9	376.5	423.9	472.5	498.4	504.8
85°	507.0	495.1	288.0	349.5	230.8	238.4	266.4	320.4	371.1	377.5	363.5
87.5°	135.9	141.3	61.5	128.4	126.2	138.1	153.2	174.7	211.4	222.2	211.4
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)