

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: P591370

Luminaire Tested: **CTN-CA8-330-730-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591370
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-730-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30487 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

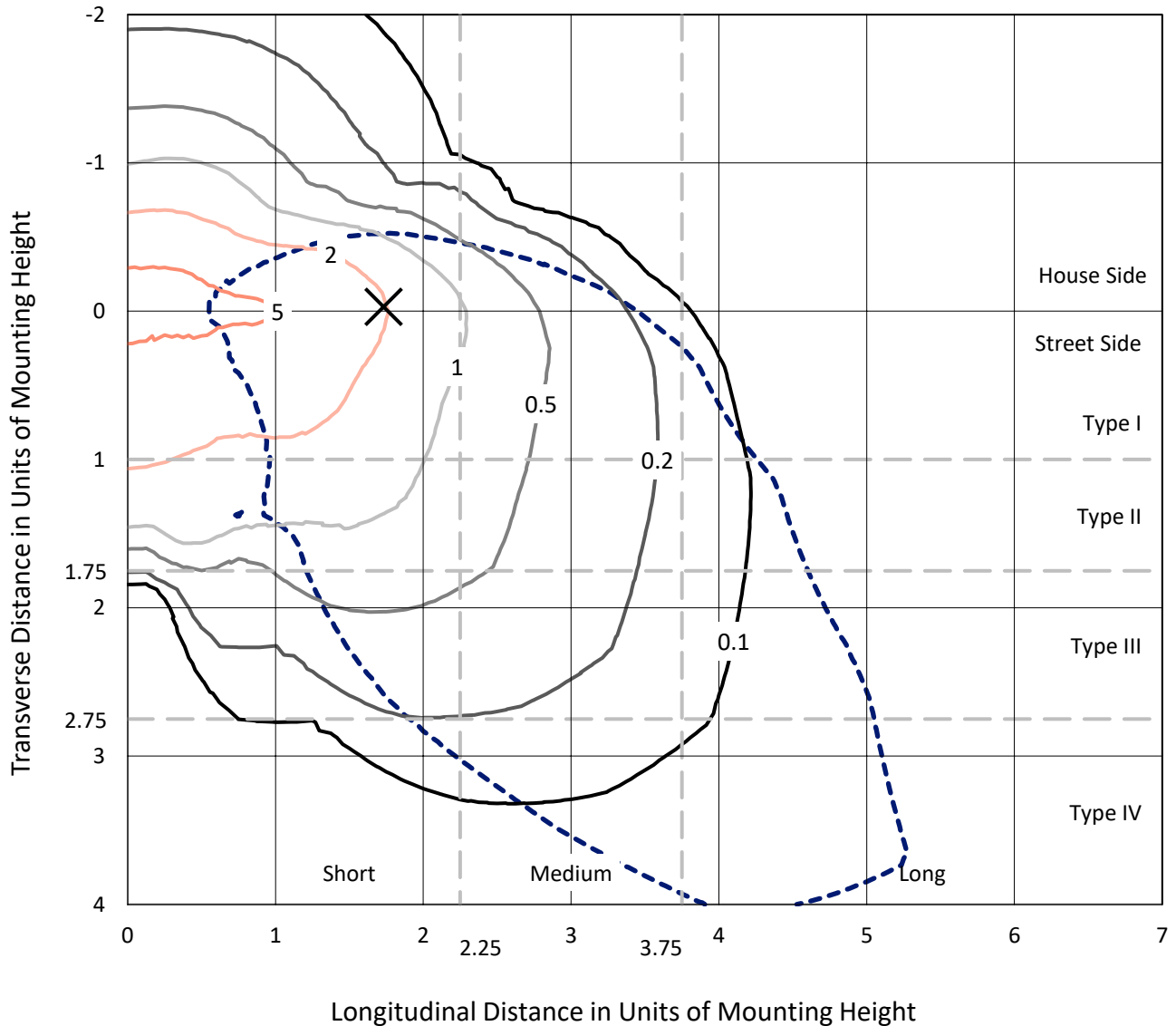
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

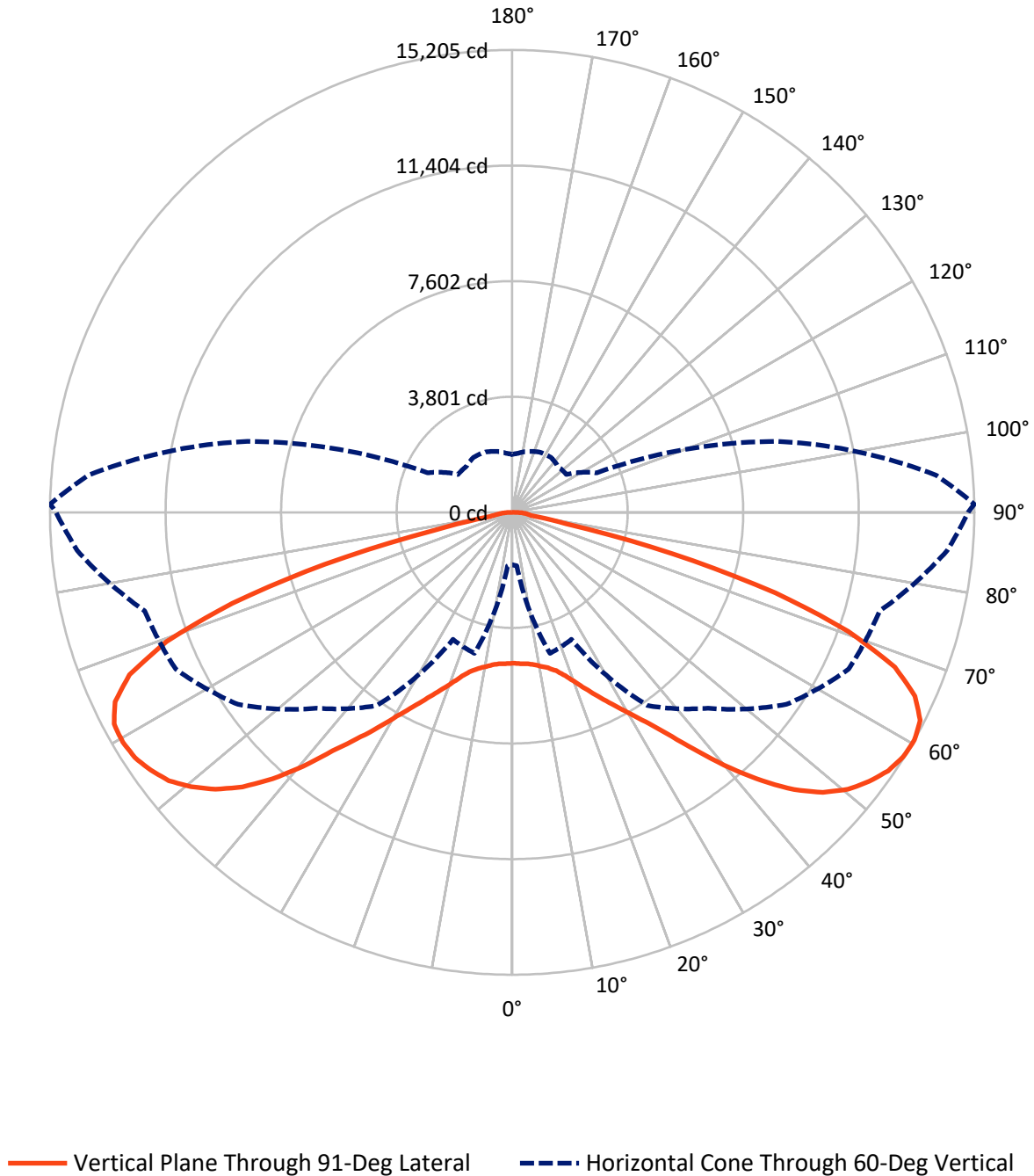
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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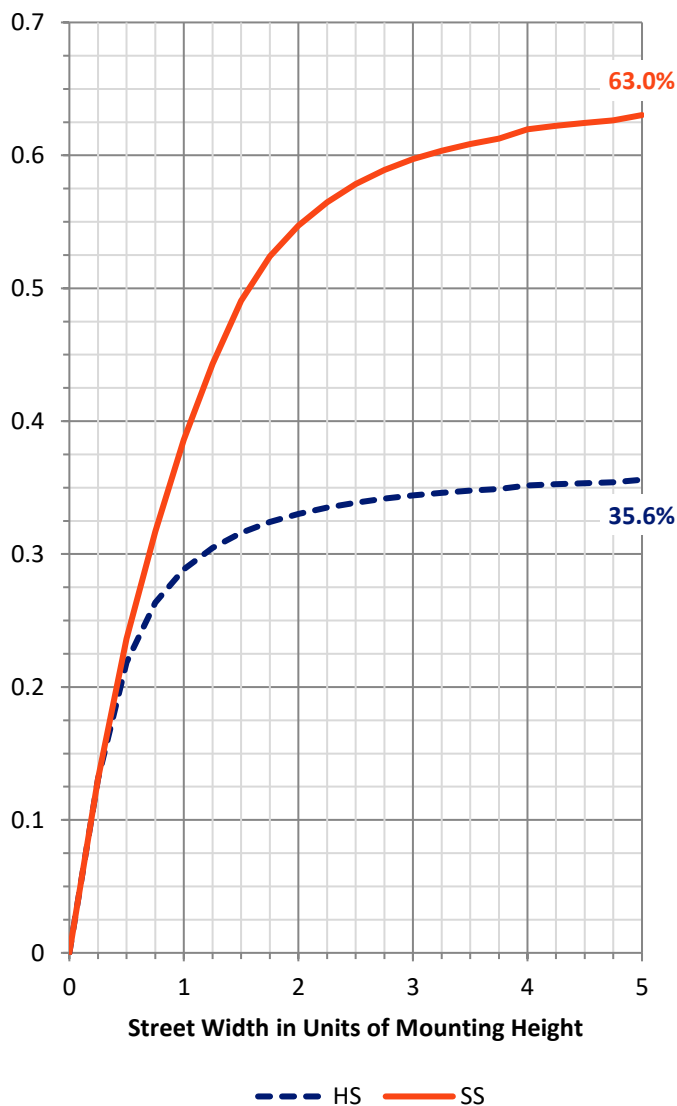
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11071.7	0.0	11071.7
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	19415.3	0.0	19415.3
	% Fixture	63.7	0.0	63.7
Total	Lumens	30487.0	0.0	30487.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	483.4	1.6
10°-20°	1482.6	4.9
20°-30°	2430.4	8.0
30°-40°	3432.5	11.3
40°-50°	4831.9	15.8
50°-60°	6080.0	19.9
60°-70°	6119.9	20.1
70°-80°	4502.3	14.8
80°-90°	1123.9	3.7
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°	30487.0	100.0
0°-180°	30487.0	100.0

Coefficient of Utilization

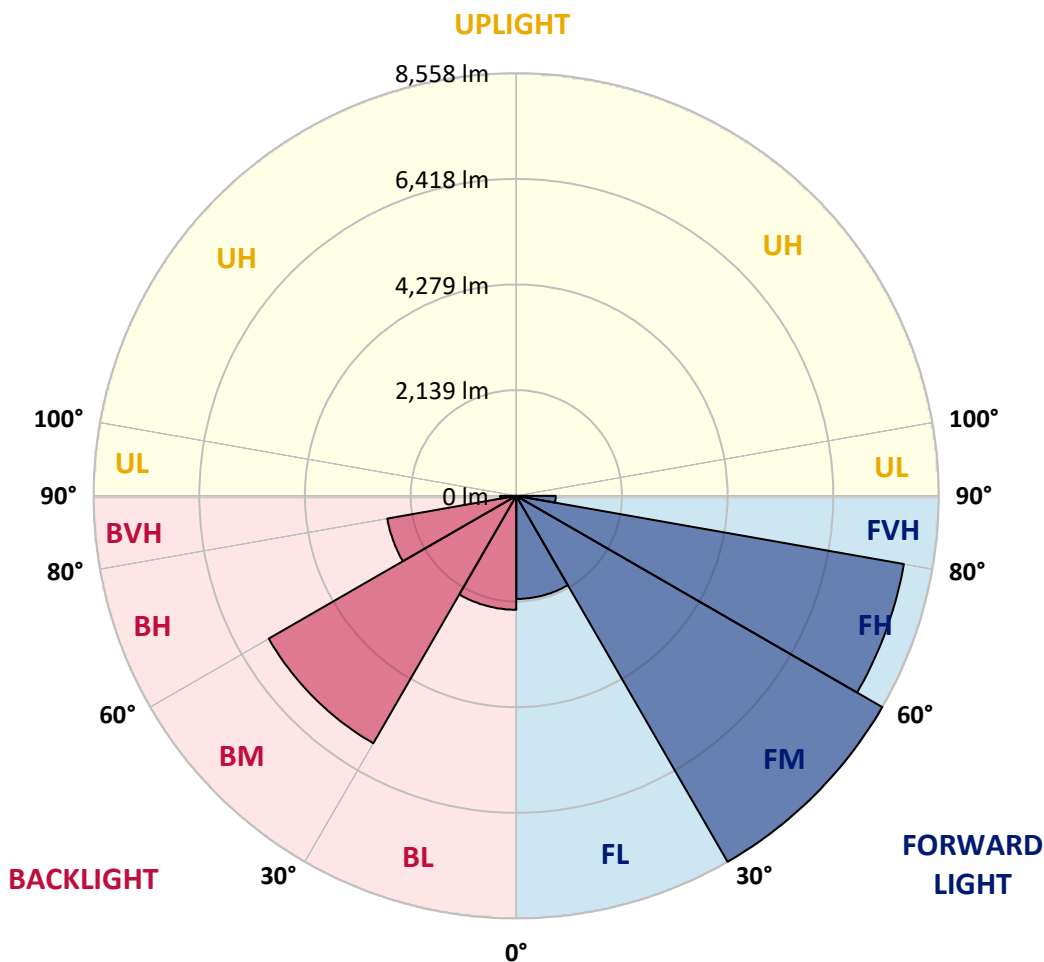


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2088.7	6.9			
FM (30°-60°)	8557.7	28.1			
FH (60°-80°)	7970.6	26.1			G4/12000
FVH (80°-90°)	798.3	2.6			G5
BL (0°-30°)	2307.7	7.6	B3/2500		
BM (30°-60°)	5786.7	19.0	B4/8500		
BH (60°-80°)	2651.7	8.7	B4/5000		G4/5000
BVH (80°-90°)	325.6	1.1			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3
2.5°	4909.3	4878.1	4879.6	4925.6	4855.8	4900.4	4890.0	4961.3	4947.9	4973.2	4979.1
5°	4875.1	4849.9	4849.9	4904.9	4857.3	4895.9	4863.3	4925.6	4947.9	4985.1	4992.5
7.5°	4888.5	4861.8	4872.2	4919.7	4866.2	4906.3	4903.4	4958.3	4971.7	5034.1	5043.0
10°	4912.3	4888.5	4891.5	4931.6	4895.9	4970.2	4956.8	5035.6	5034.1	5132.1	5139.5
12.5°	4870.7	4852.9	4852.9	4906.3	4927.1	5005.9	5032.6	5114.3	5123.2	5233.1	5242.0
15°	4805.3	4775.6	4820.2	4900.4	4943.5	5066.8	5112.8	5242.0	5265.8	5369.8	5392.1
17.5°	4668.7	4682.0	4806.8	4750.4	4554.3	4737.0	5243.5	5408.4	5460.4	5583.7	5637.2
20°	4245.3	4080.4	3753.7	3842.8	4246.8	4768.2	5426.2	5619.3	5733.7	5879.3	5969.9
22.5°	3207.0	3311.0	3921.5	3985.4	4003.2	4350.8	5681.7	5877.8	6029.3	6213.5	6333.8
25°	3325.9	3315.5	3524.9	4180.0	4197.8	4396.8	5349.0	6215.0	6351.6	6607.1	6727.5
27.5°	3435.8	3435.8	3423.9	3946.8	4399.8	4595.9	5522.8	5966.9	6775.0	7052.8	7193.9
30°	3618.5	3624.4	3557.6	3556.1	4566.2	4778.6	5858.5	6078.3	7149.3	7675.2	7707.8
32.5°	3980.9	3960.1	3876.9	3749.2	3949.7	4991.0	6186.8	6480.9	6788.4	8374.8	8345.1
35°	4242.4	4226.0	4166.6	4077.5	3985.4	5087.6	6494.2	6902.7	7406.3	8581.3	9151.7
37.5°	4558.7	4532.0	4465.2	4359.7	4300.3	4392.4	6810.6	7379.6	8178.7	8826.4	10062.2
40°	4904.9	4897.4	4794.9	4658.3	4576.6	4644.9	7052.8	7973.7	9136.8	9867.6	11066.4
42.5°	5170.7	5164.8	5080.1	5001.4	4962.8	5100.9	6451.2	8761.0	10233.0	10813.8	12033.4
45°	5409.9	5401.0	5398.0	5371.3	5402.5	5738.2	7110.7	9246.7	11310.0	11627.9	12912.7
47.5°	5591.1	5564.4	5488.6	5496.0	5583.7	6149.6	7797.0	8514.4	12183.4	12345.3	13599.0
50°	6021.9	5995.1	5733.7	5742.6	5912.0	6660.6	8388.2	9362.6	11370.9	12966.2	14124.8
52.5°	6406.6	6185.3	6042.7	6048.6	6280.3	7204.3	9059.6	10240.5	11177.8	13457.9	14549.7
55°	5533.2	5390.6	6778.0	6584.9	6712.6	7797.0	9711.7	11001.0	11708.1	13833.7	14793.3
57.5°	3247.1	3229.3	7459.8	7627.6	7479.1	8437.2	10371.2	11633.8	12173.0	14184.3	14956.7
60°	1723.1	1764.7	4797.9	4610.7	7752.4	9105.6	11009.9	12208.7	12517.6	14365.5	15001.2
62.5°	158.9	141.1	3153.5	3582.8	6948.8	9979.0	11767.5	12793.9	12750.8	14462.0	14922.5
65°	31.2	41.6	3094.1	3539.8	7721.2	11427.3	13004.8	13244.0	12877.1	14346.2	14509.6
67.5°	23.8	35.7	2923.3	3501.1	8195.1	11984.4	14429.4	13402.9	12884.5	13976.3	13600.5
70°	23.8	37.1	2580.2	3272.4	8419.4	12008.1	14766.5	13340.5	12718.2	13138.5	11887.8
72.5°	23.8	37.1	2167.2	2835.7	8037.6	11492.7	14175.3	12994.4	12098.7	11312.9	9272.0
75°	23.8	34.2	1700.8	2303.9	6947.3	10698.0	13160.8	11488.2	10184.0	8278.2	5949.1
77.5°	23.8	32.7	1253.7	1803.3	5797.6	9435.4	11445.1	9442.8	7676.6	4334.5	2189.5
80°	22.3	32.7	763.5	1271.5	4466.7	7611.3	8994.2	6977.0	4034.4	1090.3	632.8
82.5°	22.3	31.2	363.9	814.0	3138.7	5438.1	5868.9	2988.7	858.6	503.6	503.6
85°	19.3	28.2	194.6	442.7	2051.4	3565.0	2831.2	506.5	335.7	340.2	387.7
87.5°	11.9	14.9	92.1	199.0	1182.4	1905.8	1090.3	185.7	139.6	147.1	219.8
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3	4958.3
2.5°	4983.6	4976.2	4992.5	5044.5	5035.6	5072.7	5043.0	5095.0	5105.4	5090.5	5114.3
5°	4999.9	5010.3	5065.3	5114.3	5087.6	5147.0	5163.3	5236.1	5234.6	5221.2	5251.0
7.5°	5053.4	5081.6	5136.6	5197.5	5210.8	5258.4	5252.4	5344.5	5334.1	5328.2	5357.9
10°	5145.5	5188.6	5240.6	5341.6	5308.9	5389.1	5334.1	5396.5	5390.6	5375.7	5402.5
12.5°	5248.0	5307.4	5369.8	5461.9	5448.5	5447.0	5398.0	5417.3	5401.0	5365.3	5387.6
15°	5402.5	5475.3	5561.4	5620.8	5542.1	5512.4	5435.1	5393.6	5337.1	5253.9	5267.3
17.5°	5643.1	5729.3	5821.4	5831.8	5709.9	5632.7	5445.5	5297.0	5149.9	5038.5	5048.9
20°	5966.9	6045.7	6114.0	6065.0	5900.1	5727.8	5445.5	5210.8	4936.0	4731.1	4716.2
22.5°	6345.7	6369.5	6434.8	6314.5	6030.8	5790.2	5430.7	5081.6	4634.5	4361.2	4328.5
25°	6754.2	6751.2	6723.0	6473.5	6112.5	5756.0	5317.8	4860.3	4289.9	4004.7	3980.9
27.5°	7198.3	7161.2	6968.1	6607.1	6078.3	5632.7	5103.9	4487.4	3976.5	3731.4	3723.9
30°	7698.9	7600.9	7210.2	6620.5	5950.6	5389.1	4756.3	4111.6	3697.2	3478.8	3458.1
32.5°	8282.7	8091.1	7403.3	6577.4	5720.3	5017.7	4333.0	3816.0	3468.5	3229.3	3183.3
35°	9044.7	8709.0	7581.6	6436.3	5378.7	4576.6	3942.3	3553.1	3256.0	3010.9	2961.9
37.5°	10002.8	9509.6	7850.4	6229.8	4988.0	4182.9	3672.0	3379.3	3109.0	2819.3	2759.9
40°	11066.4	10451.4	8165.3	6029.3	4616.7	3890.3	3495.2	3297.6	3013.9	2696.0	2639.6
42.5°	12073.5	11399.1	8637.7	5769.4	4263.2	3655.6	3431.3	3273.9	2969.4	2642.6	2581.7
45°	13003.4	12232.4	9124.9	5507.9	3903.7	3464.0	3377.8	3204.0	2901.0	2580.2	2510.4
47.5°	13762.4	12889.0	9555.7	5237.6	3587.3	3314.0	3275.3	3070.4	2780.7	2479.2	2413.8
50°	14313.5	13392.5	9808.2	4986.5	3282.8	3163.9	3095.6	2880.2	2611.4	2360.3	2312.8
52.5°	14704.2	13827.8	9934.5	4958.3	3006.5	2961.9	2886.2	2684.2	2468.8	2274.2	2217.7
55°	15005.7	14065.4	9826.0	4793.4	2745.1	2707.9	2629.2	2504.4	2375.2	2194.0	2156.8
57.5°	15169.1	14173.9	9578.0	4043.3	2467.3	2403.4	2393.0	2366.3	2253.4	2073.6	2045.4
60°	15204.7	14001.6	9016.5	3074.8	2176.1	2134.5	2213.3	2179.1	2078.1	1944.4	1904.3
62.5°	15065.1	13633.2	7951.4	2299.4	1934.0	2002.3	2082.6	2030.6	1913.2	1782.5	1757.2
65°	14561.6	12788.0	6408.1	1789.9	1822.6	1940.0	2011.3	1948.9	1806.3	1657.7	1641.4
67.5°	13576.7	11471.9	4218.6	1610.2	1770.6	1888.0	1968.2	1868.7	1724.6	1564.1	1544.8
70°	11730.3	9068.5	2009.8	1501.8	1671.1	1787.0	1850.8	1737.9	1598.3	1440.9	1420.1
72.5°	9059.6	6163.0	1109.6	1382.9	1547.8	1654.8	1700.8	1567.1	1437.9	1372.5	1366.6
75°	5453.0	2648.5	1002.7	1265.6	1388.9	1488.4	1570.1	1469.1	1356.2	1228.4	1195.8
77.5°	1800.3	769.4	943.2	1125.9	1265.6	1385.9	1424.5	1326.5	1185.4	1076.9	1068.0
80°	631.3	644.7	879.4	937.3	1102.2	1203.2	1246.3	1133.4	1066.5	953.6	931.4
82.5°	514.0	577.8	710.0	707.1	870.5	989.3	1054.6	1026.4	938.8	848.2	839.3
85°	420.4	528.8	450.1	494.6	623.9	753.1	877.9	880.9	814.0	721.9	661.0
87.5°	249.6	270.3	224.3	252.5	329.8	423.3	490.2	467.9	383.2	323.8	316.4
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)