

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: P591312

Luminaire Tested: **CTN-CA10-630-730-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591312
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-CA10-630-730-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 57577 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

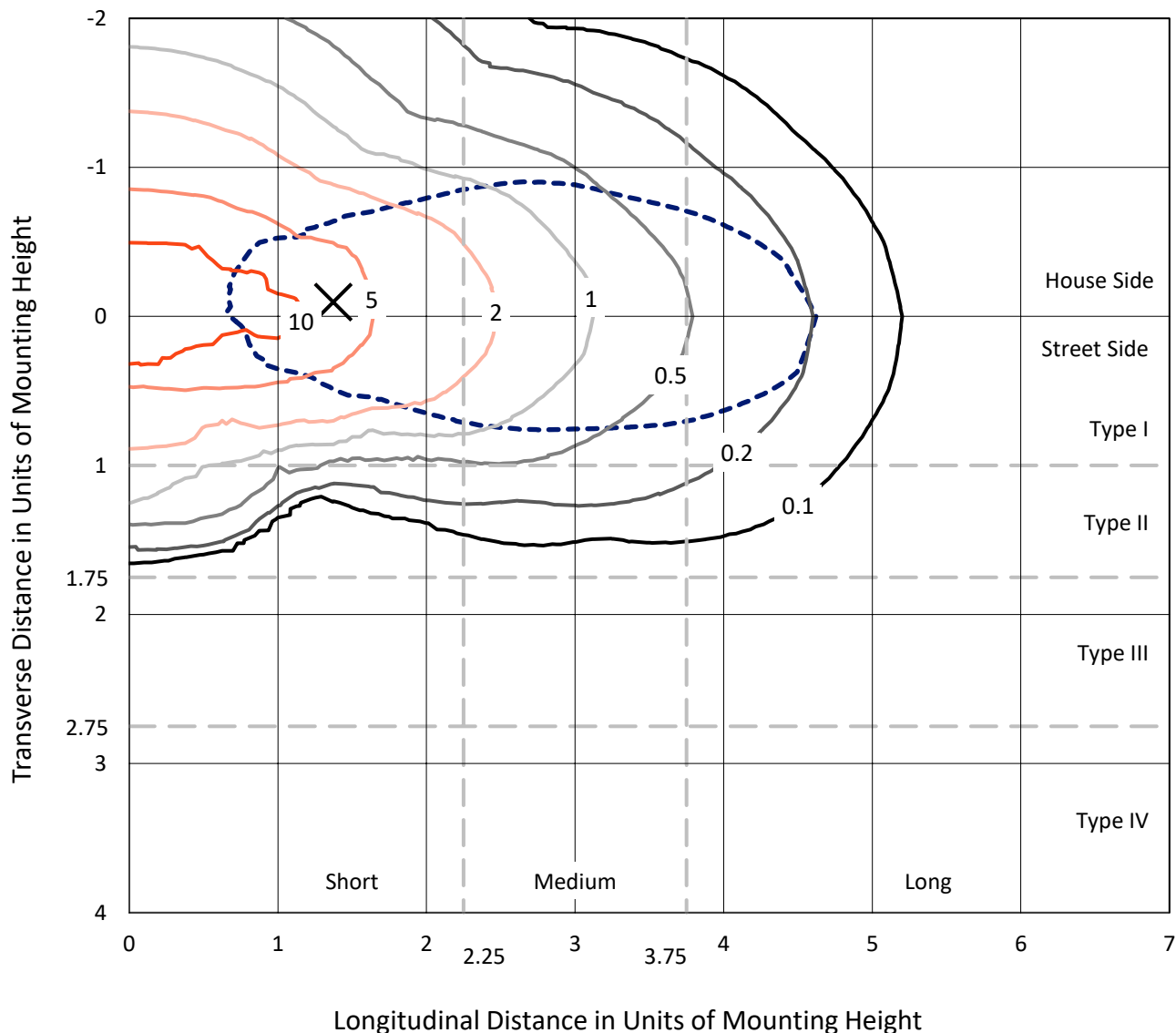
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

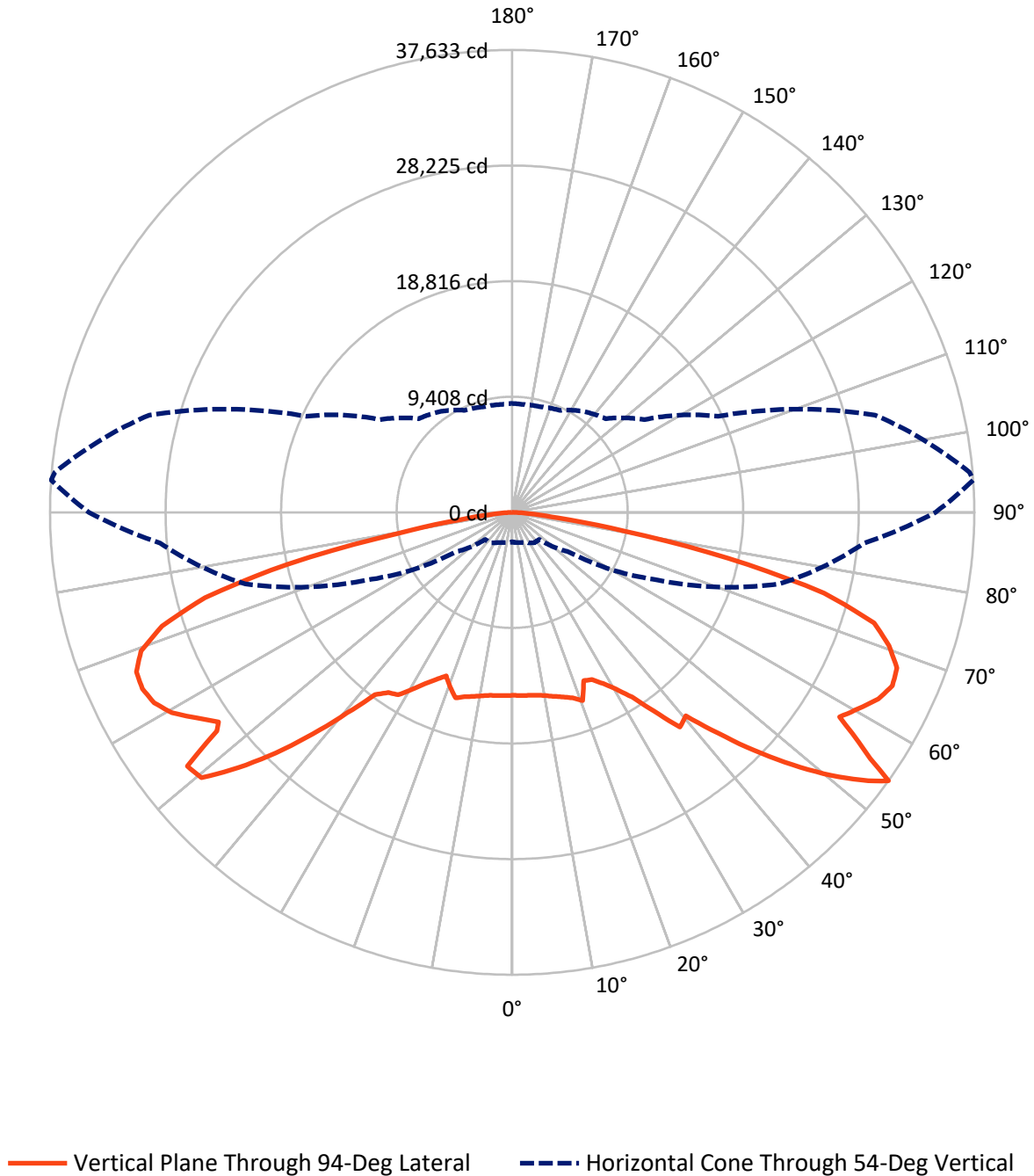
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.5 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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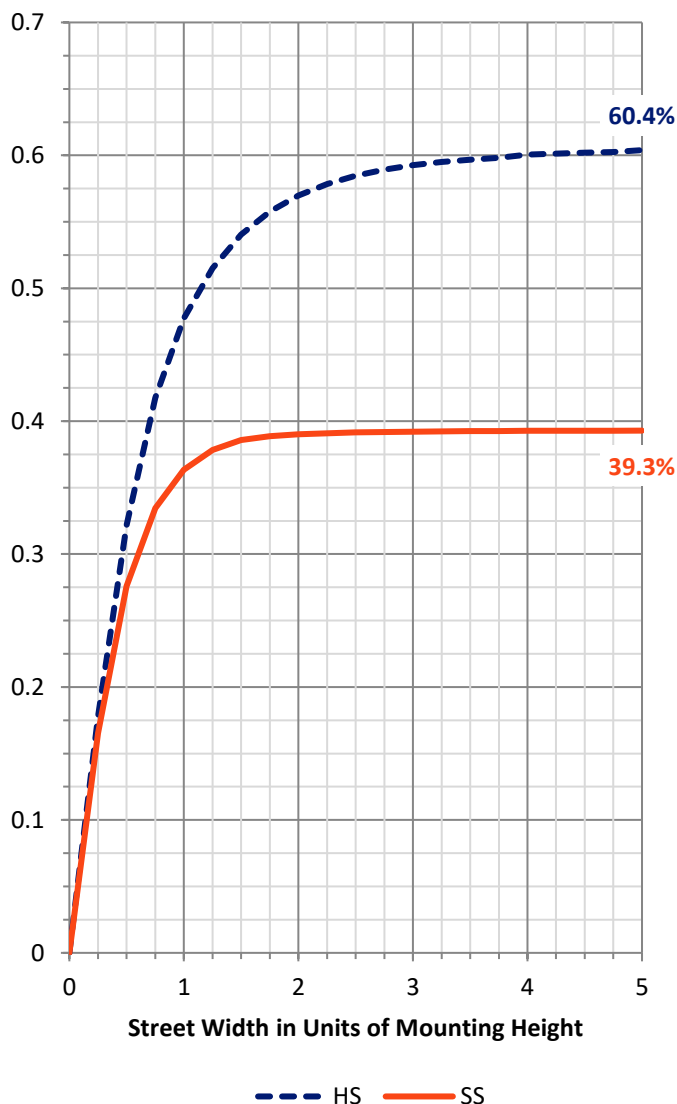
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	35069.2	0.0	35069.2
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	22507.8	0.0	22507.8
	% Fixture	39.1	0.0	39.1
Total	Lumens	57577.0	0.0	57577.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1420.8	2.5
10°-20°	4065.4	7.1
20°-30°	5806.5	10.1
30°-40°	7682.7	13.3
40°-50°	10113.8	17.6
50°-60°	11158.3	19.4
60°-70°	10054.5	17.5
70°-80°	6358.7	11.0
80°-90°	916.3	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°	57577.0	100.0
0°-180°	57577.0	100.0

Coefficient of Utilization

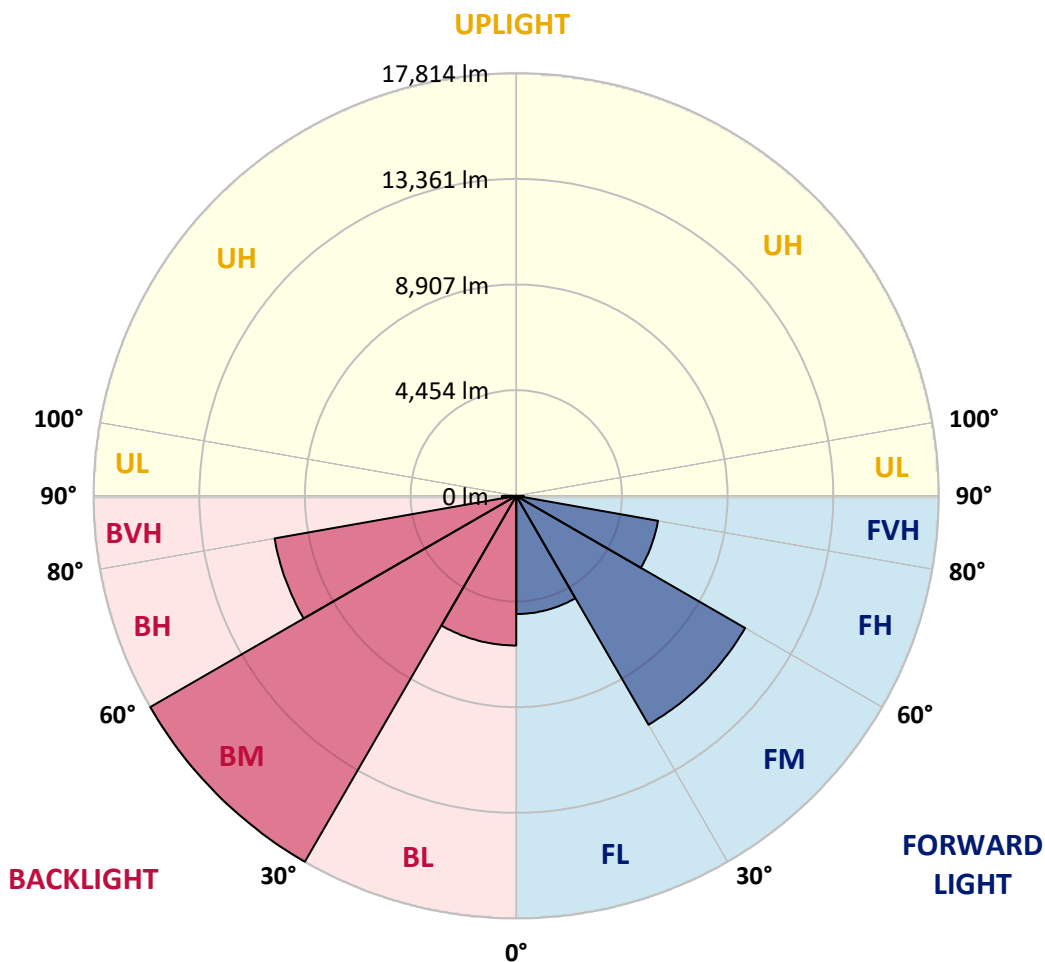


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4982.8	8.7			
FM (30°-60°)	11140.6	19.3			
FH (60°-80°)	6067.1	10.5			G3/7500
FVH (80°-90°)	317.3	0.6			G3/500
BL (0°-30°)	6309.9	11.0	B5		
BM (30°-60°)	17814.2	30.9	B5		
BH (60°-80°)	10346.1	18.0	B5		G5
BVH (80°-90°)	599.0	1.0			G4/750
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°	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9
2.5°	14915.9	14812.3	14826.3	14935.5	14703.1	14848.7	14781.5	14901.9	14854.3	14921.5	14971.9
5°	14784.3	14686.3	14711.5	14845.9	14661.1	14826.3	14731.1	14848.7	14865.5	14946.7	14994.3
7.5°	14675.1	14579.9	14596.7	14722.7	14605.1	14750.7	14694.7	14851.5	14854.3	14997.1	15033.5
10°	14565.9	14467.9	14490.3	14599.5	14523.9	14680.7	14717.1	14901.9	14943.9	15142.7	15145.5
12.5°	14333.5	14246.7	14257.9	14409.1	14411.9	14638.7	14711.5	14997.1	15083.9	15307.9	15330.3
15°	13417.9	13479.5	13714.7	13905.1	14081.5	14386.7	14635.9	15103.5	15221.1	15492.8	15557.2
17.5°	11200.3	11105.1	10592.6	10864.2	11712.7	12524.7	12955.9	13933.1	15027.9	15775.6	15859.6
20°	7854.2	8005.4	8809.0	9178.6	9783.4	11253.5	12603.1	13165.9	13521.5	14873.9	15929.6
22.5°	6230.1	6274.9	7425.8	8806.2	9259.8	9892.6	11494.3	13373.1	13930.3	14322.3	14495.9
25°	5798.9	5832.5	6017.3	7823.4	9061.0	9733.0	10435.8	12880.3	14411.9	14899.1	15106.3
27.5°	5437.7	5474.1	5656.1	6263.7	8879.0	9733.0	10531.0	11659.5	14879.5	15618.8	15795.2
30°	5168.9	5168.9	5356.5	5874.5	7442.6	9763.8	10729.8	11796.7	14151.5	16526.0	16682.8
32.5°	4922.5	4925.3	5129.7	5628.1	6448.5	9632.2	11009.9	12300.7	13585.9	17433.2	17839.2
35°	4701.3	4709.7	4894.5	5398.5	6196.5	7764.6	11320.7	12947.5	14672.3	17332.4	19597.6
37.5°	4513.7	4519.3	4678.9	5171.7	5983.7	5625.3	11522.3	13725.9	16131.2	18231.2	19964.5
40°	4379.3	4370.9	4485.7	4933.7	5672.9	5140.9	9752.6	14535.1	17864.4	21045.3	21689.3
42.5°	4244.9	4230.9	4345.7	4684.5	3880.9	5006.5	9035.8	15324.7	19860.9	24136.6	24710.6
45°	4088.1	4093.7	4205.7	4202.9	3673.7	4827.3	9114.2	13496.3	21997.3	27297.8	28028.6
47.5°	4004.1	3978.9	4034.9	3052.1	3502.9	4580.9	9080.6	12530.3	23881.7	30319.1	31044.3
50°	3847.3	3841.7	2828.1	2892.5	3332.1	4298.1	8554.2	12877.5	21549.3	33119.2	33852.8
52.5°	3612.1	3189.3	2623.7	2780.5	3161.3	3964.9	6109.7	13020.3	21490.5	32841.9	36470.8
54°	2399.7	2458.5	2539.7	2702.1	3038.1	3116.5	5588.9	13009.1	22512.5	28770.7	34468.8
55°	1374.8	1926.4	2472.5	2637.7	2951.3	2181.2	5387.3	12950.3	23164.9	28947.1	31072.3
57.5°	1190.0	1195.6	1360.8	2200.9	1514.8	1870.4	4816.1	12471.5	24385.8	30568.3	31175.9
60°	103.6	100.8	114.8	156.8	198.8	436.8	2424.9	7999.8	23531.7	31959.9	32903.6
62.5°	42.0	44.8	56.0	75.6	120.4	196.0	2004.8	7089.8	23892.9	32808.3	33841.6
65°	8.4	8.4	14.0	25.2	44.8	117.6	1708.0	6314.1	23708.1	33085.6	34466.0
67.5°	0.0	0.0	8.4	19.6	36.4	95.2	1478.4	5810.1	22652.5	32990.4	34233.6
70°	0.0	0.0	8.4	19.6	33.6	92.4	1265.6	5362.1	20034.5	31993.5	33371.2
72.5°	0.0	0.0	8.4	16.8	30.8	84.0	1083.6	4734.9	16982.4	29593.9	31469.9
75°	0.0	0.0	8.4	16.8	28.0	75.6	912.8	4062.9	14187.9	25505.8	27759.8
77.5°	0.0	0.0	8.4	16.8	25.2	67.2	716.8	3245.3	11141.5	18494.4	19704.0
80°	0.0	0.0	8.4	16.8	22.4	53.2	529.2	2049.6	6179.7	9380.2	9878.6
82.5°	0.0	0.0	5.6	14.0	19.6	33.6	252.0	775.6	2912.1	4295.3	4166.5
85°	0.0	0.0	5.6	14.0	16.8	25.2	109.2	196.0	968.8	1425.2	1327.2
87.5°	0.0	0.0	5.6	11.2	14.0	16.8	28.0	33.6	308.0	411.6	425.6
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):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9	14887.9
2.5°	14938.3	14938.3	14935.5	15008.3	14915.9	14924.3	14837.5	15061.5	15036.3	14966.3	15050.3
5°	14955.1	14969.1	14966.3	15002.7	14929.9	14974.7	14854.3	15075.5	15039.1	14983.1	15069.9
7.5°	15025.1	15050.3	15030.7	15095.1	14949.5	14994.3	14871.1	15064.3	15027.9	14946.7	15039.1
10°	15176.3	15201.5	15162.3	15193.1	15039.1	15016.7	14865.5	15067.1	14988.7	14927.1	15041.9
12.5°	15372.4	15403.2	15324.7	15319.1	15123.1	15078.3	14859.9	14997.1	14882.3	14831.9	14935.5
15°	15590.8	15627.2	15534.8	15515.2	15299.5	15151.1	14837.5	14868.3	14703.1	14635.9	14745.1
17.5°	15876.4	15910.0	15840.0	15828.8	15548.8	15296.7	14806.7	14705.9	14473.5	14417.5	14476.3
20°	16355.2	16377.6	16285.2	16201.2	15789.6	15375.2	14756.3	14493.1	14137.5	14019.9	14087.1
22.5°	14885.1	15064.3	16881.6	16568.0	15968.8	15456.4	14630.3	14190.7	13692.3	13471.1	13515.9
25°	15078.3	15095.1	15784.0	17002.0	16164.8	15509.6	14481.9	13815.5	13129.5	12807.5	12863.5
27.5°	15778.4	15758.8	15487.2	17049.6	16397.2	15540.4	14297.1	13420.7	12572.3	12185.9	12199.9
30°	16685.6	16654.8	16243.2	15414.4	16730.4	15551.6	14134.7	12967.1	12076.7	11665.1	11653.9
32.5°	17926.0	17839.2	17200.8	16055.6	15321.9	15627.2	13905.1	12535.9	11603.5	11197.5	11166.7
35°	19830.1	19670.4	18508.4	16870.4	15078.3	15627.2	13591.5	12071.1	11166.7	10780.2	10757.8
37.5°	22190.5	22232.5	20180.1	17783.2	15453.6	14162.7	13216.3	11637.1	10788.6	10447.0	10447.0
40°	21767.7	22324.9	22120.5	18718.4	15840.0	13927.5	12813.1	11219.9	10475.0	10214.6	10248.2
42.5°	24559.4	24343.8	24371.8	19656.4	16111.6	13686.7	12376.3	10833.4	10197.8	9976.6	10001.8
45°	27656.2	27412.6	22310.9	20496.5	16237.6	13328.3	11933.9	10435.8	9892.6	9707.8	9775.0
47.5°	30713.9	30495.5	24500.6	20292.1	16120.0	12779.5	11387.9	10091.4	9570.6	9439.0	9539.8
50°	33673.6	33365.6	26861.0	18138.8	15702.8	12020.7	10830.6	9730.2	9290.6	9212.2	9287.8
52.5°	36314.0	35905.2	29252.3	18463.6	13717.5	11253.5	10335.0	9383.0	9035.8	8949.0	9024.6
54°	37632.9	37383.7	30587.9	18500.0	13149.1	10777.4	10038.2	9161.8	8893.0	8820.2	8862.2
55°	35387.2	35885.6	31380.3	18469.2	12737.5	10489.0	9842.2	9016.2	8792.2	8713.8	8755.8
57.5°	31425.1	30887.5	29339.1	18091.2	11617.5	9766.6	9268.2	8646.6	8492.6	8391.8	8450.6
60°	32421.9	32323.9	26782.6	17259.6	10393.8	8957.4	8702.6	8215.4	8111.8	8027.8	8106.2
62.5°	33463.6	33399.2	27191.4	15968.8	9175.8	8162.2	8053.0	7711.4	7649.8	7613.4	7633.0
65°	34026.4	33614.8	27180.2	14241.1	8058.6	7347.4	7330.6	7075.8	7103.8	7087.0	7168.2
67.5°	33788.4	33348.8	25979.0	12995.1	7008.6	6417.7	6470.9	6364.5	6468.1	6498.9	6560.5
70°	32545.1	32687.9	23360.9	11793.9	5964.1	5404.1	5572.1	5558.1	5709.3	5826.9	5924.9
72.5°	30825.9	30277.1	19580.8	10024.2	4365.3	3844.5	4135.7	4331.7	4499.7	4639.7	4732.1
75°	26236.6	25592.6	14456.7	7815.0	3161.3	2651.7	2730.1	2816.9	2926.1	3248.1	3438.5
77.5°	17987.6	17718.8	10396.6	5894.1	2013.2	1598.8	1904.0	2077.6	2170.0	2156.0	2189.6
80°	9223.4	9175.8	6154.5	3525.3	1358.0	1170.4	1386.0	1402.8	1551.2	1666.0	1671.6
82.5°	3718.5	3903.3	2458.5	1932.0	943.6	884.8	977.2	1100.4	1226.4	1293.6	1310.4
85°	1316.0	1285.2	747.6	907.2	599.2	618.8	691.6	831.6	963.2	980.0	943.6
87.5°	352.8	366.8	159.6	333.2	327.6	358.4	397.6	453.6	548.8	576.8	548.8
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)