

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: P591324

Luminaire Tested: **CTN-CA10-760-730-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591324
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-CA10-760-730-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: 66476 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

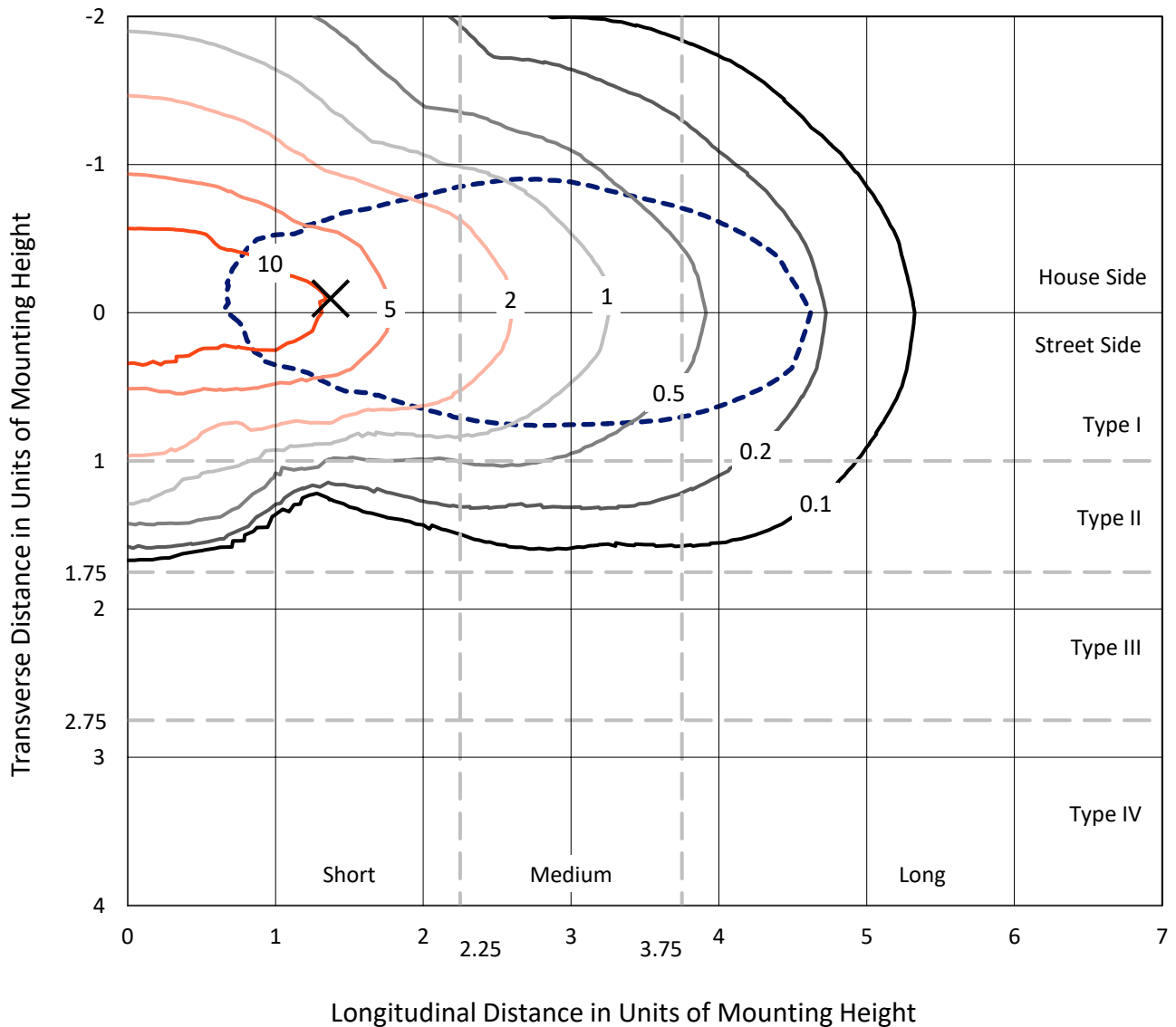
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

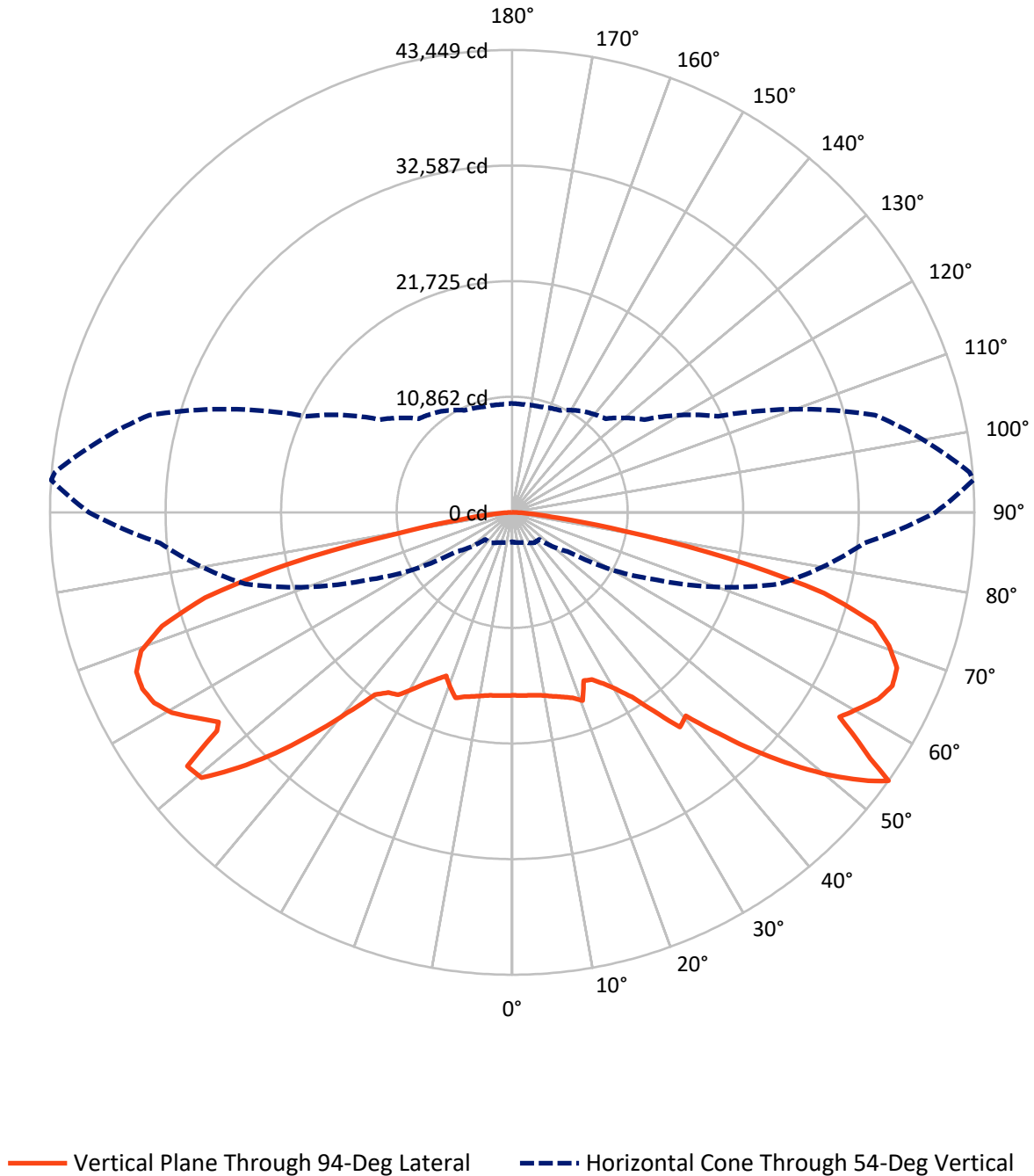
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.1 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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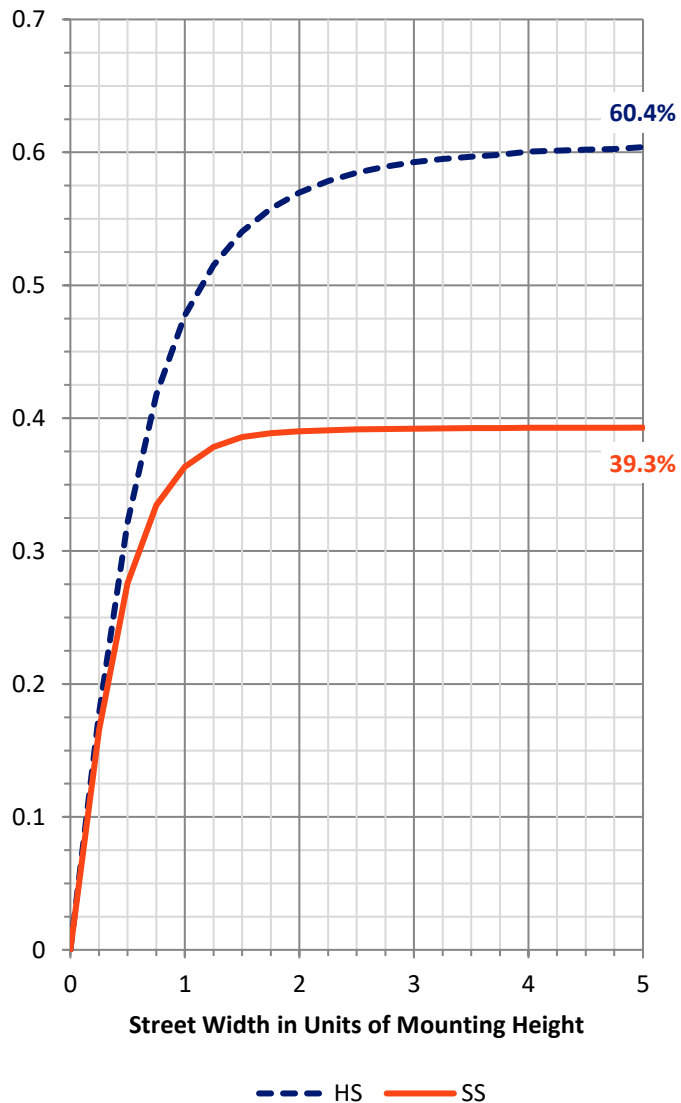
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	40489.4	0.0	40489.4
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	25986.6	0.0	25986.6
	% Fixture	39.1	0.0	39.1
Total	Lumens	66476.0	0.0	66476.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1640.4	2.5
10°-20°	4693.7	7.1
20°-30°	6704.0	10.1
30°-40°	8870.2	13.3
40°-50°	11676.9	17.6
50°-60°	12882.9	19.4
60°-70°	11608.5	17.5
70°-80°	7341.5	11.0
80°-90°	1058.0	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°	66476.0	100.0
0°-180°	66476.0	100.0

Coefficient of Utilization



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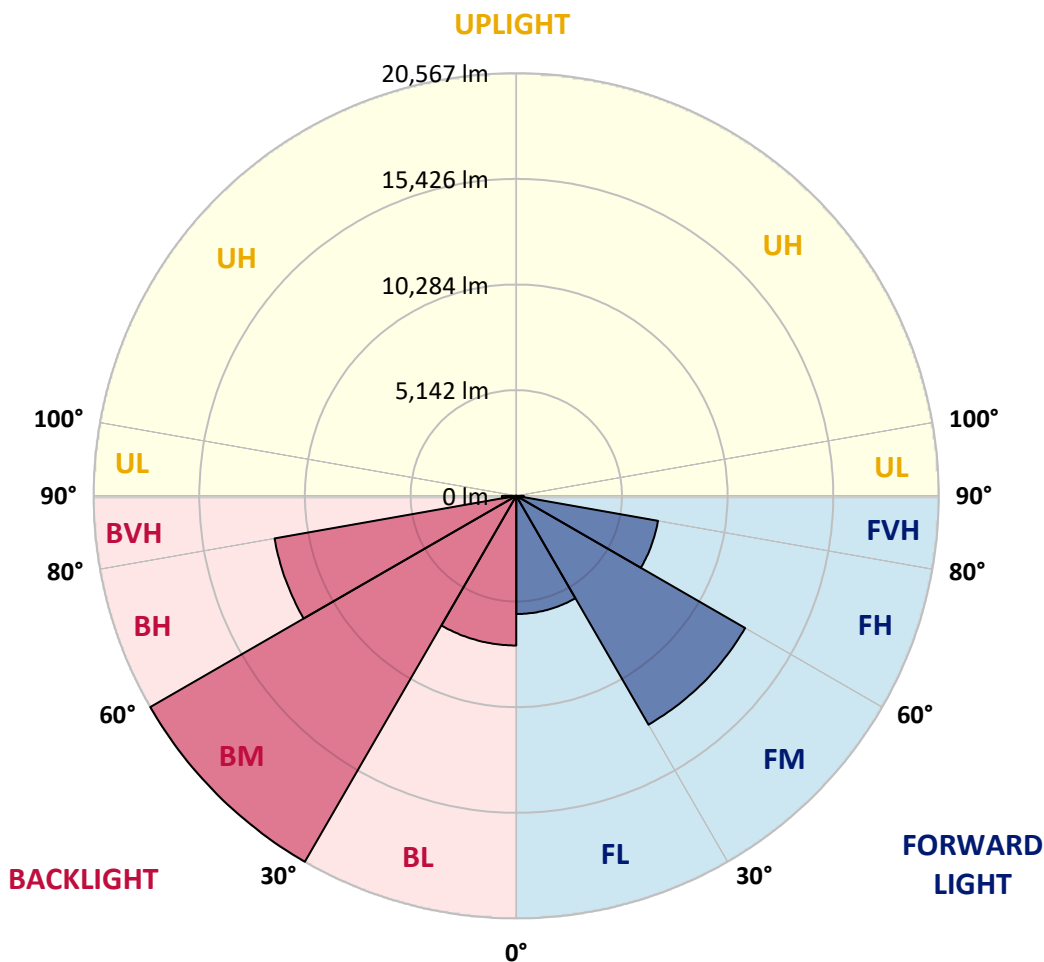
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5752.9	8.7			
FM (30°-60°)	12862.5	19.3			
FH (60°-80°)	7004.8	10.5			G3/7500
FVH (80°-90°)	366.4	0.6			G3/500
BL (0°-30°)	7285.1	11.0	B5		
BM (30°-60°)	20567.5	30.9	B5		
BH (60°-80°)	11945.2	18.0	B5		G5
BVH (80°-90°)	691.6	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°	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0
2.5°	17221.3	17101.7	17117.9	17244.0	16975.6	17143.7	17066.1	17205.2	17150.2	17227.8	17286.0
5°	17069.4	16956.2	16985.3	17140.5	16927.1	17117.9	17008.0	17143.7	17163.1	17256.9	17311.8
7.5°	16943.3	16833.4	16852.8	16998.3	16862.5	17030.6	16965.9	17147.0	17150.2	17315.1	17357.1
10°	16817.2	16704.1	16729.9	16856.0	16768.7	16949.8	16991.8	17205.2	17253.7	17483.2	17486.4
12.5°	16548.9	16448.7	16461.6	16636.2	16639.4	16901.3	16985.3	17315.1	17415.3	17673.9	17699.8
15°	15491.8	15562.9	15834.4	16054.3	16257.9	16610.3	16898.0	17437.9	17573.7	17887.3	17961.6
17.5°	12931.3	12821.4	12229.8	12543.4	13523.0	14460.5	14958.3	16086.6	17350.6	18213.8	18310.8
20°	9068.1	9242.7	10170.5	10597.2	11295.5	12992.8	14551.0	15200.8	15611.4	17172.8	18391.6
22.5°	7193.1	7244.8	8573.5	10167.3	10691.0	11421.6	13270.8	15440.0	16083.4	16536.0	16736.4
25°	6695.2	6734.0	6947.4	9032.5	10461.5	11237.3	12048.8	14871.0	16639.4	17201.9	17441.2
27.5°	6278.2	6320.2	6530.3	7231.9	10251.3	11237.3	12158.7	13461.5	17179.3	18032.8	18236.4
30°	5967.8	5967.8	6184.4	6782.5	8592.9	11272.9	12388.2	13619.9	16338.8	19080.2	19261.2
32.5°	5683.3	5686.6	5922.6	6498.0	7445.2	11121.0	12711.5	14201.9	15685.7	20127.6	20596.4
35°	5427.9	5437.6	5651.0	6232.9	7154.3	8964.7	13070.4	14948.6	16940.1	20011.3	22626.6
37.5°	5211.3	5217.8	5402.1	5971.0	6908.6	6494.8	13303.1	15847.4	18624.4	21049.0	23050.1
40°	5056.2	5046.5	5179.0	5696.3	6549.7	5935.5	11260.0	16781.7	20625.5	24298.0	25041.6
42.5°	4901.0	4884.8	5017.4	5408.5	4480.7	5780.3	10432.4	17693.3	22930.5	27867.1	28529.8
45°	4719.9	4726.4	4855.7	4852.5	4241.5	5573.4	10522.9	15582.3	25397.2	31516.9	32360.7
47.5°	4623.0	4593.9	4658.5	3523.8	4044.3	5288.9	10484.1	14466.9	27572.9	35005.2	35842.5
50°	4441.9	4435.5	3265.2	3339.5	3847.1	4962.4	9876.3	14867.8	24879.9	38238.0	39085.0
52.5°	4170.4	3682.2	3029.2	3210.2	3649.9	4577.7	7054.1	15032.7	24812.0	37917.9	42107.7
54°	2770.5	2838.4	2932.2	3119.7	3507.6	3598.1	6452.7	15019.8	25992.0	33217.4	39796.2
55°	1587.3	2224.2	2854.6	3045.3	3407.4	2518.4	6220.0	14951.9	26745.3	33421.1	35874.8
57.5°	1374.0	1380.4	1571.2	2541.0	1749.0	2159.5	5560.5	14399.1	28154.8	35292.9	35994.4
60°	119.6	116.4	132.5	181.0	229.5	504.3	2799.6	9236.2	27168.8	36899.6	37989.1
62.5°	48.5	51.7	64.7	87.3	139.0	226.3	2314.7	8185.5	27585.8	37879.1	39072.1
65°	9.7	9.7	16.2	29.1	51.7	135.8	1972.0	7290.0	27372.4	38199.2	39793.0
67.5°	0.0	0.0	9.7	22.6	42.0	109.9	1706.9	6708.1	26153.7	38089.3	39524.7
70°	0.0	0.0	9.7	22.6	38.8	106.7	1461.2	6190.9	23130.9	36938.4	38528.9
72.5°	0.0	0.0	9.7	19.4	35.6	97.0	1251.1	5466.7	19607.2	34167.9	36333.9
75°	0.0	0.0	9.7	19.4	32.3	87.3	1053.9	4690.8	16380.8	29447.9	32050.3
77.5°	0.0	0.0	9.7	19.4	29.1	77.6	827.6	3746.9	12863.5	21352.9	22749.5
80°	0.0	0.0	9.7	19.4	25.9	61.4	611.0	2366.4	7134.9	10830.0	11405.4
82.5°	0.0	0.0	6.5	16.2	22.6	38.8	291.0	895.5	3362.2	4959.2	4810.5
85°	0.0	0.0	6.5	16.2	19.4	29.1	126.1	226.3	1118.6	1645.5	1532.4
87.5°	0.0	0.0	6.5	12.9	16.2	19.4	32.3	38.8	355.6	475.2	491.4
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°	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0	17189.0
2.5°	17247.2	17247.2	17244.0	17328.0	17221.3	17231.0	17130.8	17389.4	17360.3	17279.5	17376.5
5°	17266.6	17282.7	17279.5	17321.5	17237.5	17289.2	17150.2	17405.6	17363.6	17298.9	17399.1
7.5°	17347.4	17376.5	17353.9	17428.2	17260.1	17311.8	17169.6	17392.7	17350.6	17256.9	17363.6
10°	17522.0	17551.1	17505.8	17541.4	17363.6	17337.7	17163.1	17395.9	17305.4	17234.3	17366.8
12.5°	17748.3	17783.8	17693.3	17686.9	17460.6	17408.8	17156.7	17315.1	17182.5	17124.3	17244.0
15°	18000.4	18042.5	17935.8	17913.1	17664.2	17492.9	17130.8	17166.4	16975.6	16898.0	17024.1
17.5°	18330.2	18369.0	18288.2	18275.2	17951.9	17661.0	17095.2	16978.9	16710.5	16645.9	16713.8
20°	18883.0	18908.9	18802.2	18705.2	18230.0	17751.5	17037.1	16733.2	16322.6	16186.8	16264.4
22.5°	17185.8	17392.7	19490.8	19128.7	18436.9	17845.3	16891.6	16384.0	15808.6	15553.2	15604.9
25°	17408.8	17428.2	18223.5	19629.8	18663.2	17906.7	16720.2	15950.8	15158.8	14787.0	14851.7
27.5°	18217.0	18194.4	17880.8	19684.7	18931.5	17942.2	16506.9	15495.0	14515.4	14069.3	14085.5
30°	19264.5	19228.9	18753.7	17796.8	19316.2	17955.2	16319.4	14971.3	13943.2	13468.0	13455.1
32.5°	20696.6	20596.4	19859.3	18537.1	17690.1	18042.5	16054.3	14473.4	13396.9	12928.1	12892.6
35°	22895.0	22710.7	21369.1	19477.8	17408.8	18042.5	15692.2	13936.8	12892.6	12446.4	12420.6
37.5°	25620.2	25668.7	23299.1	20531.7	17842.0	16351.7	15259.0	13435.7	12456.1	12061.7	12061.7
40°	25132.1	25775.4	25539.4	21611.5	18288.2	16080.1	14793.5	12954.0	12094.0	11793.4	11832.2
42.5°	28355.2	28106.3	28138.6	22694.5	18601.7	15802.1	14289.1	12507.8	11774.0	11518.6	11547.7
45°	31930.7	31649.5	25759.2	23664.4	18747.2	15388.3	13778.4	12048.8	11421.6	11208.2	11285.8
47.5°	35461.0	35208.8	28287.3	23428.4	18611.4	14754.7	13147.9	11651.1	11049.8	10897.9	11014.3
50°	38878.1	38522.5	31012.6	20942.3	18129.7	13878.6	12504.6	11234.1	10726.6	10636.0	10723.3
52.5°	41926.7	41454.7	33773.4	21317.3	15837.7	12992.8	11932.4	10833.2	10432.4	10332.1	10419.4
54°	43449.3	43161.6	35315.5	21359.4	15181.4	12443.2	11589.7	10577.8	10267.5	10183.4	10231.9
55°	40856.6	41432.0	36230.4	21323.8	14706.2	12110.2	11363.4	10409.7	10151.1	10060.6	10109.1
57.5°	36282.1	35661.4	33873.7	20887.4	13413.0	11276.1	10700.7	9983.0	9805.2	9688.8	9756.7
60°	37433.0	37319.9	30922.1	19927.2	12000.3	10341.8	10047.7	9485.1	9365.5	9268.5	9359.1
62.5°	38635.6	38561.3	31394.1	18436.9	10594.0	9423.7	9297.6	8903.2	8832.1	8790.1	8812.7
65°	39285.4	38810.2	31381.1	16442.2	9304.1	8483.0	8463.6	8169.4	8201.7	8182.3	8276.1
67.5°	39010.6	38503.1	29994.3	15003.6	8091.8	7409.7	7471.1	7348.2	7467.9	7503.4	7574.5
70°	37575.3	37740.1	26971.6	13616.7	6885.9	6239.4	6433.3	6417.2	6591.8	6727.5	6840.7
72.5°	35590.3	34956.7	22607.2	11573.6	5040.0	4438.7	4774.9	5001.2	5195.2	5356.8	5463.5
75°	30291.7	29548.1	16691.1	9022.8	3649.9	3061.5	3152.0	3252.2	3378.3	3750.1	3969.9
77.5°	20767.7	20457.4	12003.5	6805.1	2324.4	1845.9	2198.3	2398.8	2505.4	2489.3	2528.1
80°	10649.0	10594.0	7105.8	4070.1	1567.9	1351.3	1600.3	1619.7	1791.0	1923.5	1930.0
82.5°	4293.2	4506.6	2838.4	2230.7	1089.5	1021.6	1128.3	1270.5	1416.0	1493.6	1513.0
85°	1519.4	1483.9	863.2	1047.4	691.8	714.5	798.5	960.2	1112.1	1131.5	1089.5
87.5°	407.3	423.5	184.3	384.7	378.2	413.8	459.1	523.7	633.6	666.0	633.6
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)