

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: P522239

Luminaire Tested: **CTN-CA8-480-727-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522239
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-727-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 50956 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

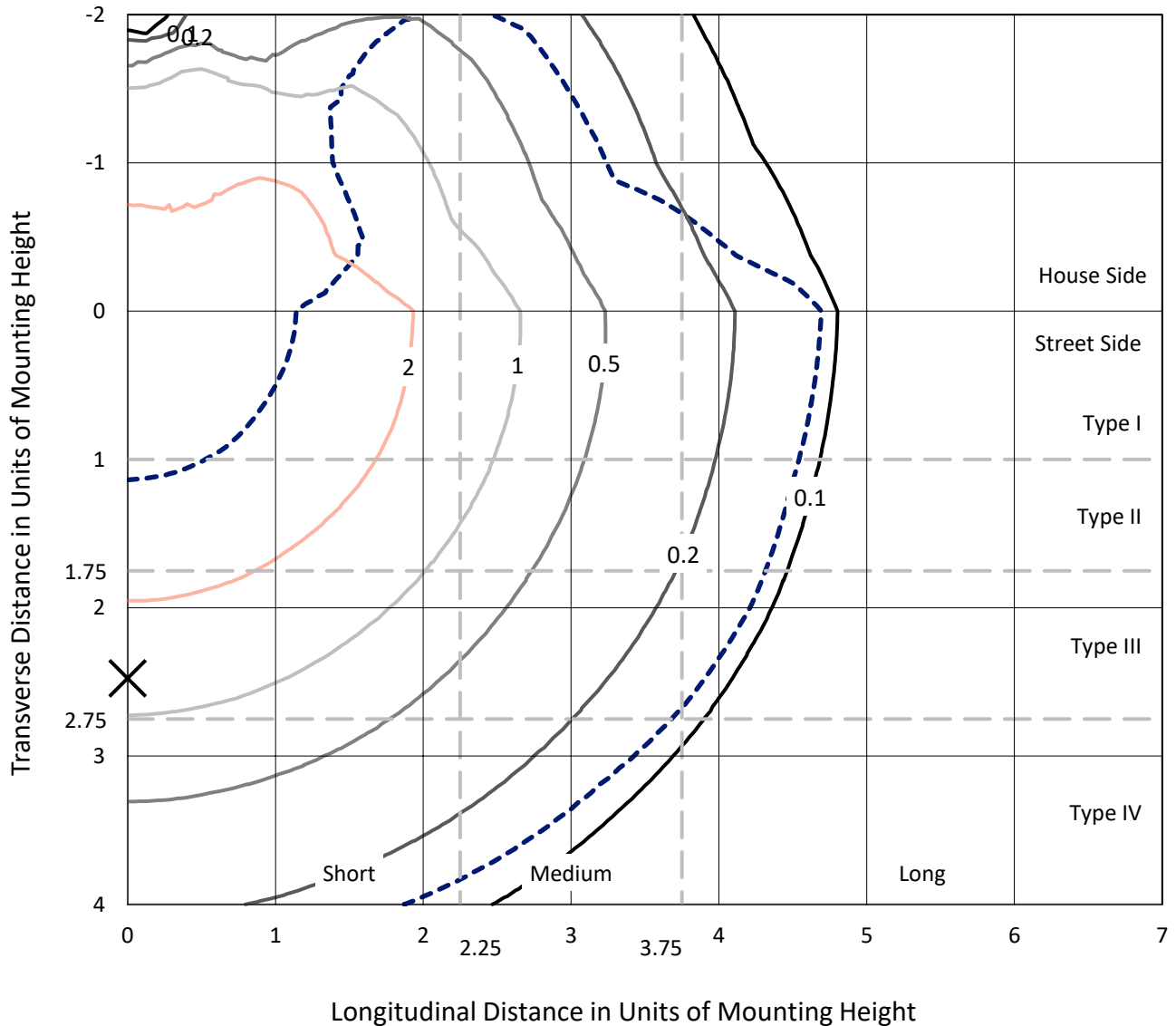
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

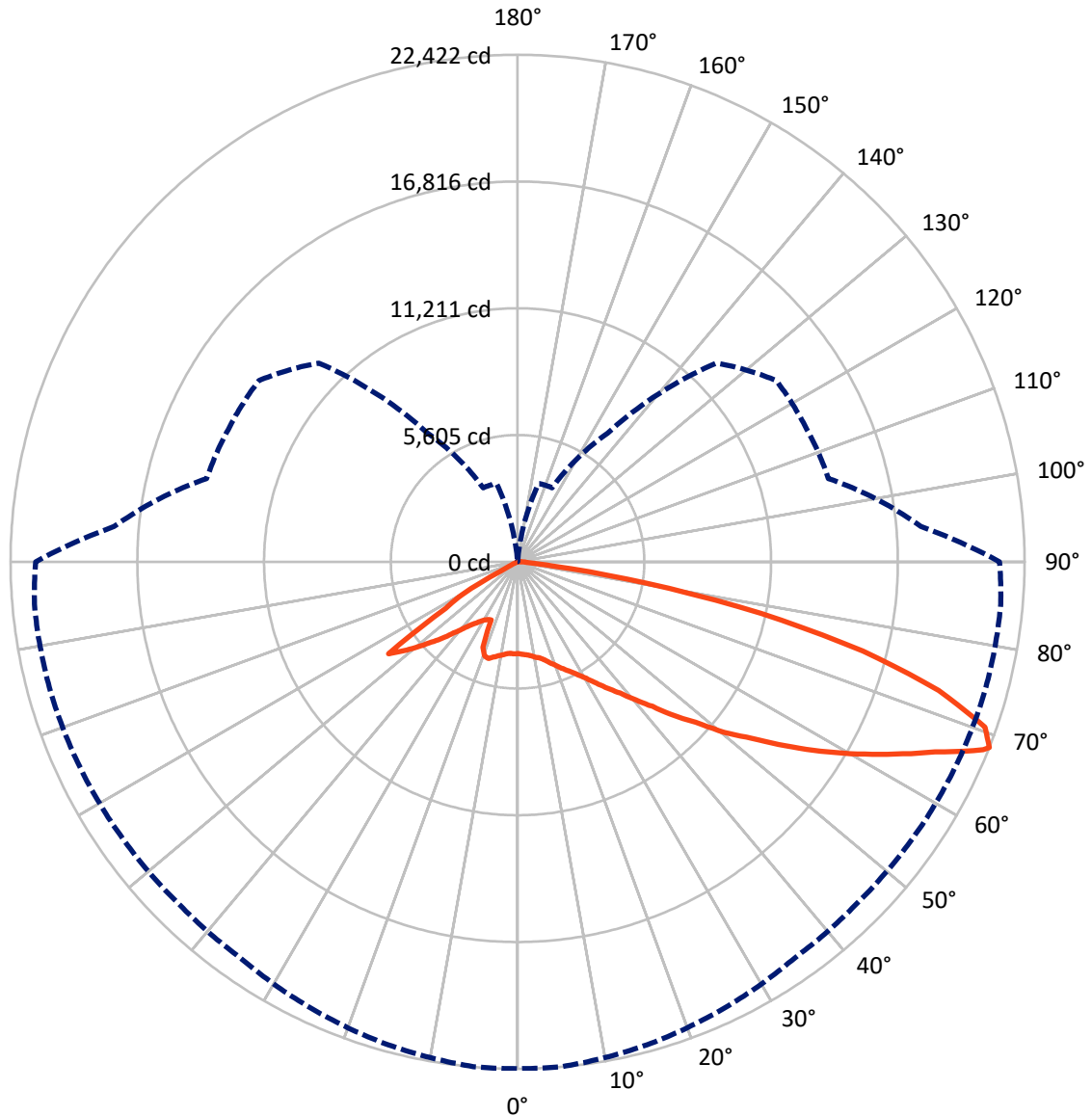
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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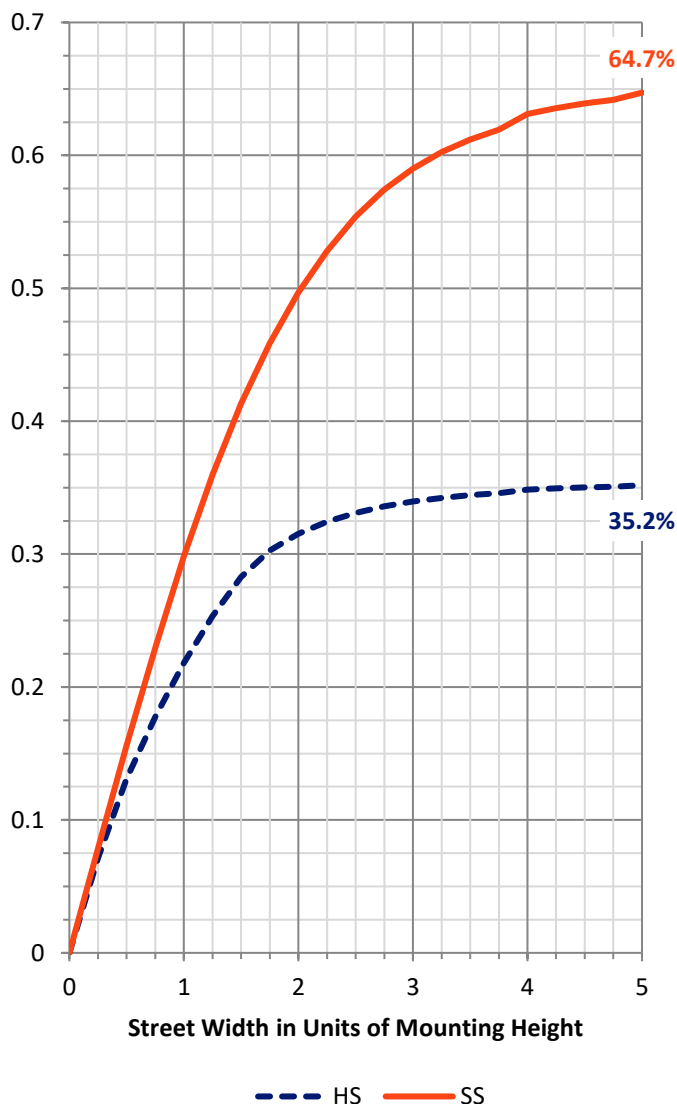
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17933.0	3.1	17936.1
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	33006.4	13.4	33019.9
	% Fixture	64.8	0.0	64.8
Total	Lumens	50939.5	16.5	50956.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.3	0.8
10°-20°	1256.9	2.5
20°-30°	2243.9	4.4
30°-40°	3650.3	7.2
40°-50°	6233.6	12.2
50°-60°	10401.1	20.4
60°-70°	14470.0	28.4
70°-80°	11216.5	22.0
80°-90°	1074.8	2.1
90°-100°	13.0	0.0
100°-110°	1.1	0.0
110°-120°	0.6	0.0
120°-130°	0.4	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	50939.5	100.0
0°-180°	50956.0	100.0

Coefficient of Utilization

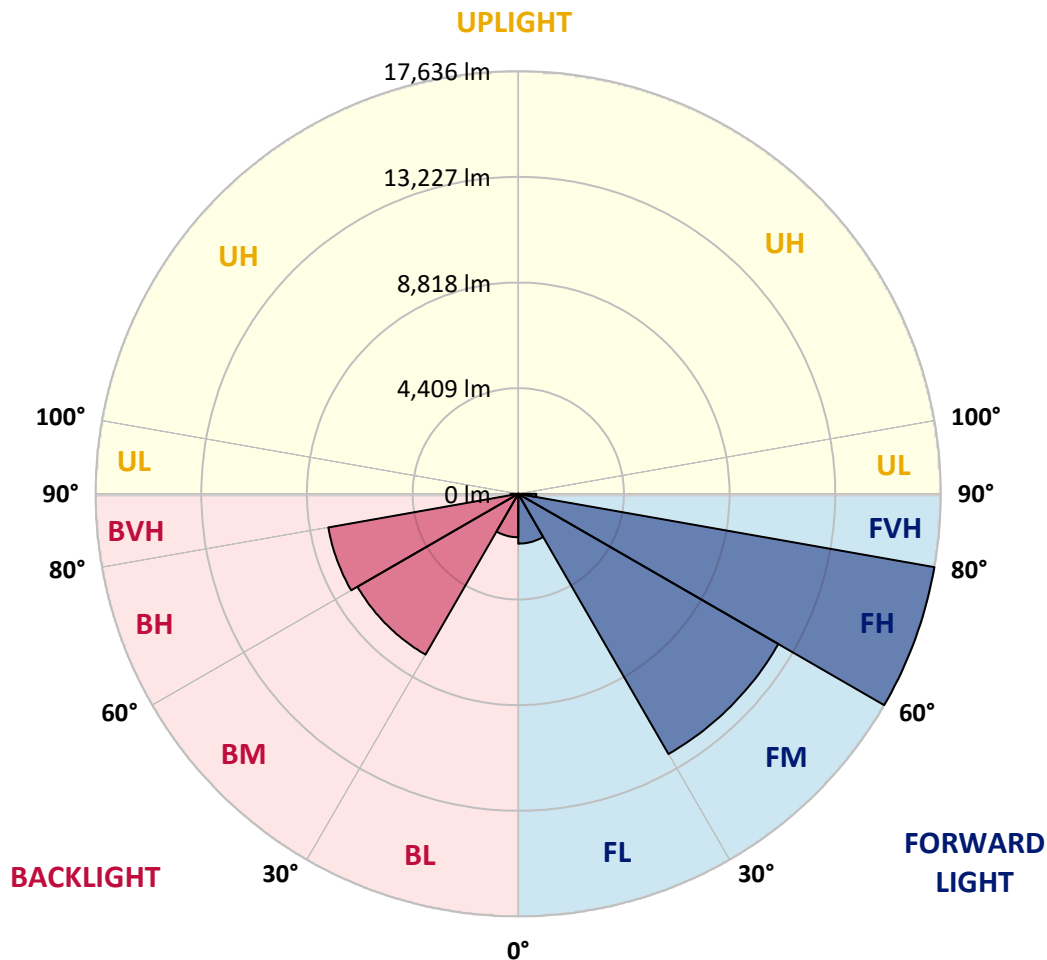


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2079.7	4.1			
FM (30°-60°)	12538.7	24.6			
FH (60°-80°)	17636.0	34.6			G5
FVH (80°-90°)	751.9	1.5			G5
BL (0°-30°)	1813.4	3.6	B3/2500		
BM (30°-60°)	7746.3	15.2	B4/8500		
BH (60°-80°)	8050.5	15.8	B5		G5
BVH (80°-90°)	322.9	0.6			G3/500
UL (90°-100°)	13.0	0.0		U2/50	
UH (100°-180°)	3.5	0.0		U1/10	

BUG Rating: B5-U2-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2
2.5°	4101.3	4095.5	4091.7	4116.6	4045.7	4074.4	4055.2	4080.2	4074.4	4085.9	4087.8
5°	4130.0	4120.4	4107.0	4133.9	4091.7	4110.8	4089.8	4101.3	4064.8	4095.5	4099.3
7.5°	4195.2	4168.4	4166.4	4174.1	4145.4	4158.8	4122.3	4135.8	4116.6	4105.1	4116.6
10°	4293.0	4270.0	4245.1	4260.4	4212.5	4229.7	4191.4	4202.9	4193.3	4168.4	4191.4
12.5°	4360.1	4367.8	4350.5	4362.0	4319.8	4304.5	4291.1	4289.2	4283.4	4247.0	4241.2
15°	4509.7	4513.5	4482.8	4490.5	4480.9	4473.2	4454.1	4438.7	4408.0	4385.0	4369.7
17.5°	4705.2	4684.1	4655.4	4663.0	4689.9	4655.4	4643.9	4615.1	4571.0	4532.7	4525.0
20°	4910.4	4897.0	4870.1	4885.5	4883.5	4860.5	4866.3	4818.4	4755.1	4722.5	4697.6
22.5°	5138.6	5119.4	5100.2	5129.0	5106.0	5090.6	5084.9	5052.3	4973.7	4937.2	4931.5
25°	5366.7	5357.1	5370.6	5361.0	5328.4	5316.9	5324.5	5313.0	5221.0	5176.9	5150.1
27.5°	5652.4	5629.4	5650.5	5639.0	5604.5	5606.4	5608.3	5610.2	5506.7	5449.2	5410.8
30°	5978.4	5970.7	5997.5	5961.1	5928.5	5949.6	5966.9	5928.5	5838.4	5754.0	5740.6
32.5°	6402.1	6354.2	6384.8	6338.8	6289.0	6338.8	6369.5	6292.8	6220.0	6112.6	6131.8
35°	6871.9	6856.5	6856.5	6797.1	6770.2	6848.8	6879.5	6804.7	6691.6	6597.7	6574.7
37.5°	7370.4	7385.7	7433.6	7408.7	7383.8	7431.7	7500.8	7401.1	7255.3	7155.6	7128.8
40°	8031.9	8070.2	8102.8	8070.2	8041.5	8072.1	8150.7	8020.4	7918.7	7865.1	7807.5
42.5°	8743.2	8808.4	8787.3	8791.1	8816.1	8860.2	8938.8	8819.9	8702.9	8701.0	8616.7
45°	9705.7	9705.7	9661.6	9703.8	9700.0	9809.3	9843.8	9778.6	9680.8	9652.0	9579.2
47.5°	10605.0	10698.9	10681.7	10743.0	10695.1	10787.1	10904.1	10848.5	10735.4	10633.7	10618.4
50°	11858.9	11835.9	11812.9	11905.0	11897.3	11960.6	12067.9	12033.4	11876.2	11761.2	11740.1
52.5°	12961.4	13082.2	13053.5	13191.5	13114.8	13204.9	13333.4	13327.6	13135.9	13022.8	12990.2
55°	14353.4	14434.0	14428.2	14570.1	14464.6	14583.5	14690.9	14702.4	14493.4	14332.3	14382.2
57.5°	15803.0	15870.1	15831.7	15948.7	15845.2	16008.1	16073.3	16031.1	15908.4	15705.2	15780.0
60°	17254.4	17311.9	17356.0	17365.6	17306.2	17402.1	17463.4	17499.8	17306.2	17074.2	17164.3
62.5°	18728.9	18794.1	18755.7	18771.1	18606.2	18736.5	18813.2	18822.8	18600.4	18395.3	18458.5
65°	20281.9	20372.1	20234.0	20142.0	19938.7	19936.8	20038.4	20055.7	19898.5	19752.8	19727.8
67.5°	22205.1	22245.3	21950.1	21641.4	21298.2	21223.4	21294.3	21334.6	21424.7	21420.9	21307.7
68°	22421.7	22414.1	22115.0	21746.8	21378.7	21292.4	21326.9	21378.7	21438.1	21449.6	21313.5
70°	21929.0	21835.0	21664.4	21200.4	20836.1	20609.8	20489.0	20584.9	20423.8	20425.8	20170.7
72.5°	19478.6	19467.1	19152.6	18922.5	18598.5	18222.7	18050.1	18048.2	18063.6	17952.3	17689.7
75°	15778.0	15793.4	15427.2	15268.0	15168.3	15097.4	15133.8	15246.9	15258.4	15256.5	15164.5
77.5°	11003.8	11067.1	10969.3	10710.4	10988.5	11226.2	11684.5	11918.4	11843.6	12067.9	12209.8
80°	5767.5	5894.0	5897.8	6080.0	6304.3	6521.0	6916.0	7270.7	7009.9	6894.9	6776.0
82.5°	1516.6	1562.7	1631.7	1526.2	1558.8	1591.4	1898.2	1869.4	1725.6	1802.3	1917.4
85°	433.3	446.7	427.6	387.3	354.7	326.0	333.6	281.9	245.4	243.5	235.8
87.5°	304.9	327.9	289.5	249.3	224.3	209.0	201.3	170.6	138.1	120.8	95.9
90°	141.9	140.0	120.8	94.0	82.4	78.6	78.6	61.4	34.5	21.1	19.2
92.5°	59.4	61.4	49.9	40.3	34.5	26.8	21.1	13.4	7.7	3.8	1.9
95°	21.1	23.0	19.2	15.3	13.4	11.5	9.6	7.7	3.8	1.9	1.9
97.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	3.8	3.8	1.9	1.9
100°	0.0	0.0	0.0	1.9	3.8	3.8	3.8	3.8	1.9	1.9	1.9
102.5°	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
105°	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
165°	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9
167.5°	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9
170°	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
172.5°	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
175°	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
177.5°	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
180°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2	4055.2
2.5°	4084.0	4074.4	4070.6	4022.6	4036.1	4007.3	4074.4	4055.2	4051.4	4078.2
5°	4093.6	4049.5	4076.3	4045.7	4053.3	4011.1	4064.8	4041.8	4043.7	4057.2
7.5°	4099.3	4074.4	4101.3	4047.6	4068.7	4053.3	4091.7	4068.7	4091.7	4103.2
10°	4156.9	4145.4	4126.2	4110.8	4126.2	4089.8	4137.7	4133.9	4147.3	4181.8
12.5°	4235.5	4222.1	4202.9	4176.0	4187.5	4174.1	4210.5	4214.4	4239.3	4256.6
15°	4352.4	4335.2	4325.6	4298.7	4302.6	4293.0	4314.1	4317.9	4367.8	4362.0
17.5°	4517.3	4498.2	4505.8	4480.9	4471.3	4448.3	4410.0	4396.5	4456.0	4473.2
20°	4697.6	4676.5	4686.1	4665.0	4486.6	4124.3	4367.8	4534.6	4408.0	4398.4
22.5°	4902.7	4879.7	4887.4	4854.8	4634.3	3955.5	3441.7	3399.5	3882.7	4078.2
25°	5129.0	5098.3	5094.5	5052.3	4327.5	3581.6	3524.1	3449.4	3096.6	2816.6
27.5°	5408.9	5362.9	5339.9	4703.3	4296.8	3721.6	3635.3	3368.8	2856.9	2874.1
30°	5711.8	5644.7	5213.3	4793.4	4521.2	3886.5	3771.5	2952.8	2956.6	2948.9
32.5°	6057.0	5907.4	5107.9	5069.5	4789.6	4062.9	3131.1	3096.6	3100.4	3111.9
35°	6509.5	5483.7	5462.6	5464.5	5117.5	3930.6	3317.1	3284.5	3288.3	3296.0
37.5°	6605.3	5911.3	5915.1	5871.0	5466.4	3591.2	3543.3	3541.4	3533.7	3526.0
40°	6682.0	6450.0	6394.4	6323.5	5067.6	3867.3	3852.0	3840.5	3846.2	3861.6
42.5°	7282.2	7107.7	7054.0	6969.6	5198.0	4285.3	4235.5	4222.1	4237.4	4229.7
45°	8079.8	7934.1	7828.6	6444.3	5742.5	4739.7	4699.5	4682.2	4688.0	4735.9
47.5°	8923.4	8837.2	8515.0	6962.0	6377.2	5276.6	5236.3	5209.5	5219.1	5207.6
50°	9841.9	9763.3	7882.3	7742.3	7078.9	5855.7	5796.2	5786.6	5790.5	5788.5
52.5°	10838.9	9195.7	8735.5	8589.8	7819.0	6461.5	6440.4	6388.7	6400.2	6388.7
55°	12008.5	9686.6	9675.1	9504.4	8651.2	7165.2	7140.3	7067.4	6609.2	7009.9
57.5°	13118.7	10624.2	10624.2	10459.3	9502.5	7865.1	7824.8	7771.1	4697.6	3788.7
60°	14334.3	11563.7	11536.8	11400.7	10323.1	8532.3	6935.1	6919.8	2837.7	2847.3
62.5°	15385.0	12401.6	12449.5	12322.9	11113.1	6388.7	3213.5	3148.3	279.9	431.4
65°	16562.2	13327.6	13385.2	13254.8	11968.2	6776.0	3487.7	3455.1	63.3	57.5
67.5°	17896.7	14251.8	14121.4	13977.6	12468.7	6977.3	3623.8	3595.1	17.3	11.5
68°	17908.2	14232.6	14063.9	13966.1	12420.7	6939.0	3612.3	3585.5	17.3	11.5
70°	16987.9	13515.5	13346.8	13371.7	11826.3	6636.0	3462.8	3412.9	17.3	11.5
72.5°	14903.7	12027.7	11837.8	11703.6	10488.0	5899.8	3104.2	3010.3	17.3	11.5
75°	12752.4	10192.7	9878.3	9583.0	8438.3	4827.9	2546.3	2440.8	17.3	11.5
77.5°	10050.9	7769.2	7322.4	7128.8	6340.7	3566.3	1892.4	1777.4	17.3	9.6
80°	5554.6	4457.9	4078.2	3959.4	3625.7	2095.7	1085.2	1016.2	15.3	9.6
82.5°	1436.1	1077.6	939.5	906.9	851.3	496.6	264.6	251.2	13.4	7.7
85°	205.2	151.5	166.8	197.5	189.8	128.5	92.0	78.6	11.5	5.8
87.5°	107.4	90.1	105.5	118.9	120.8	74.8	38.3	21.1	5.8	0.0
90°	17.3	17.3	19.2	21.1	21.1	9.6	7.7	0.0	0.0	0.0
92.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.9	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.9	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.9	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.9	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.9	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.9	3.8	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.9	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.9	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)