

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: P522155

Luminaire Tested: **CTN-CA10-630-740-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522155
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-CA10-630-740-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 78128.9 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

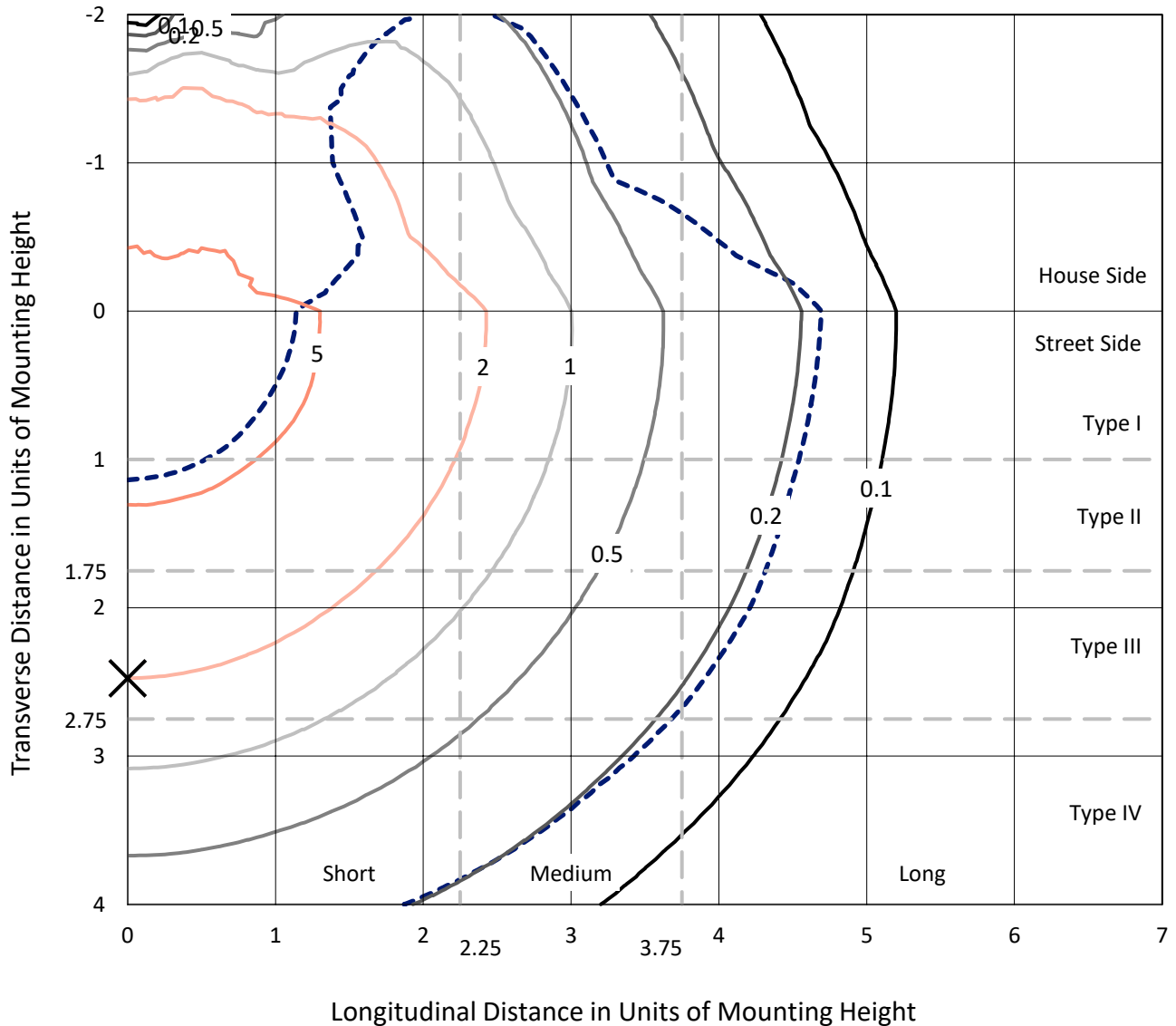
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

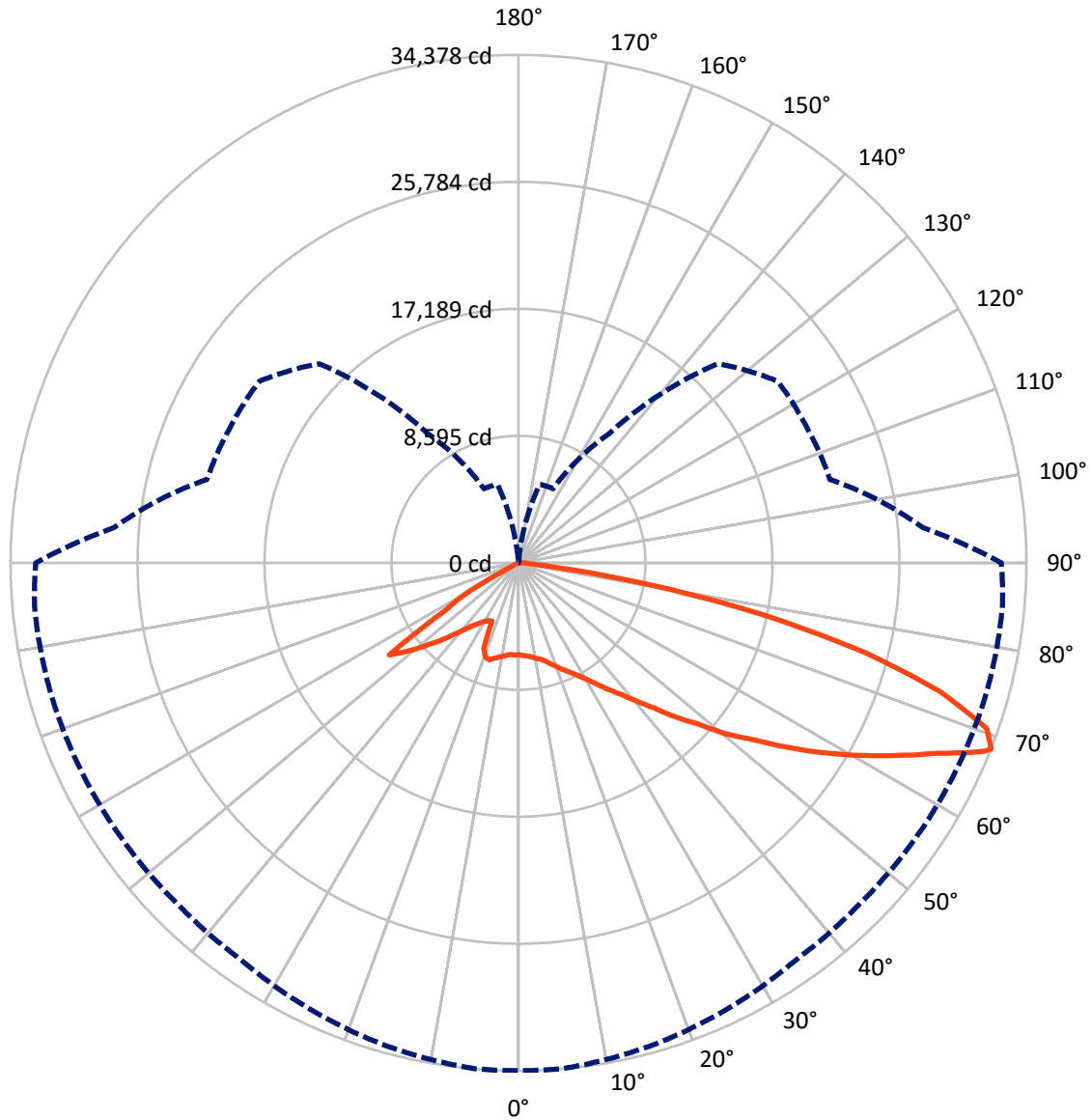
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7 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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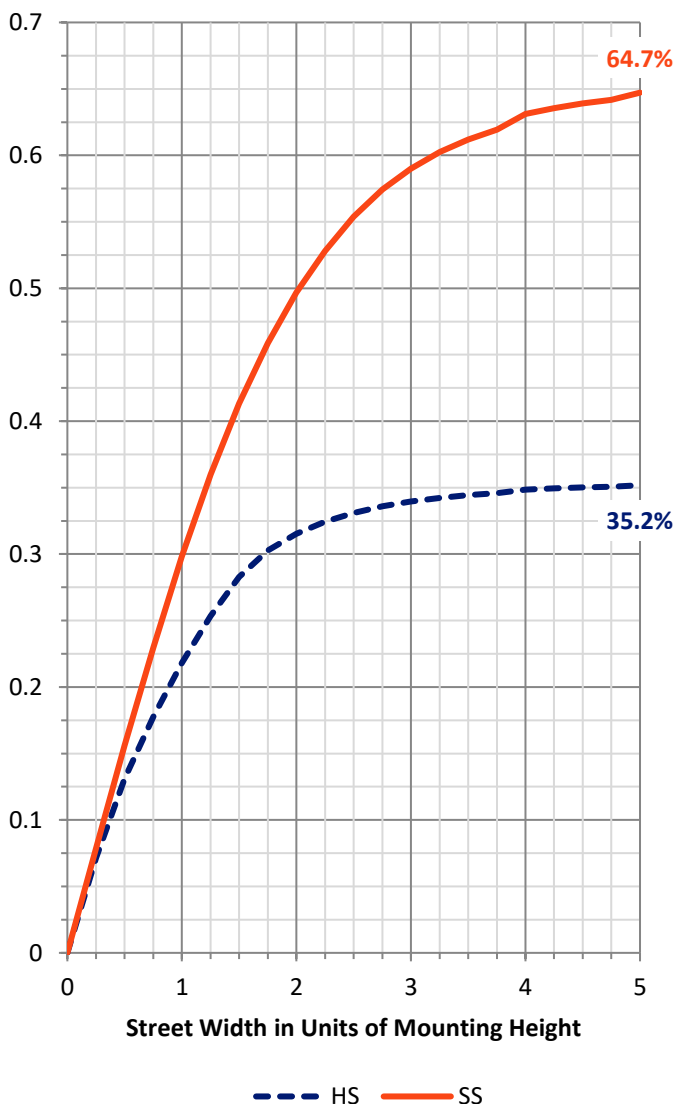
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	27496.1	4.7	27500.8
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	50607.6	20.6	50628.2
	% Fixture	64.8	0.0	64.8
Total	Lumens	78103.7	25.2	78128.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	601.5	0.8
10°-20°	1927.2	2.5
20°-30°	3440.4	4.4
30°-40°	5596.8	7.2
40°-50°	9557.8	12.2
50°-60°	15947.6	20.4
60°-70°	22186.4	28.4
70°-80°	17197.9	22.0
80°-90°	1648.0	2.1
90°-100°	19.9	0.0
100°-110°	1.7	0.0
110°-120°	0.8	0.0
120°-130°	0.6	0.0
130°-140°	0.6	0.0
140°-150°	0.7	0.0
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	78103.7	100.0
0°-180°	78128.9	100.0

Coefficient of Utilization

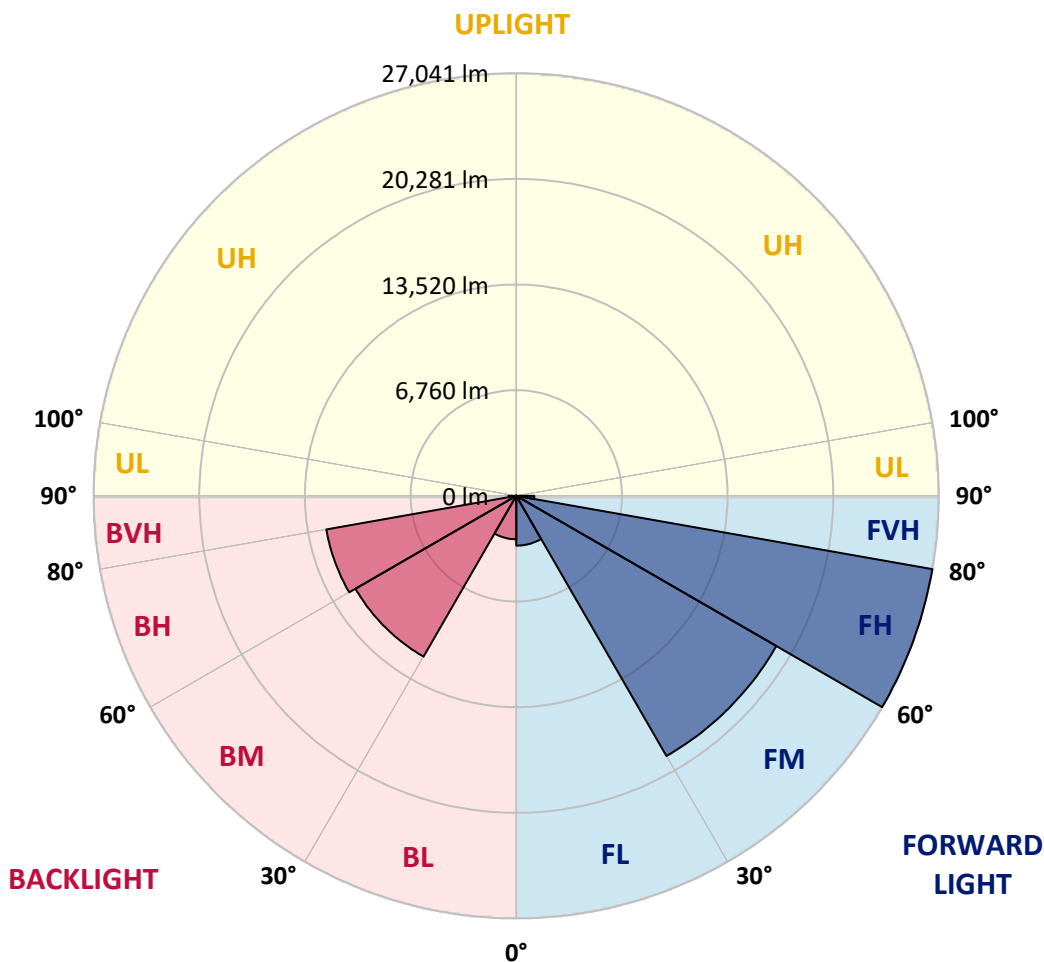


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3188.8	4.1			
FM (30°-60°)	19225.2	24.6			
FH (60°-80°)	27040.7	34.6			G5
FVH (80°-90°)	1152.9	1.5			G5
BL (0°-30°)	2780.4	3.6	B4/5000		
BM (30°-60°)	11877.1	15.2	B5		
BH (60°-80°)	12343.5	15.8	B5		G5
BVH (80°-90°)	495.1	0.6			G3/500
UL (90°-100°)	19.9	0.0		U2/50	
UH (100°-180°)	5.3	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°	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8
2.5°	6288.3	6279.5	6273.6	6311.8	6203.1	6247.2	6217.8	6256.0	6247.2	6264.8	6267.7
5°	6332.4	6317.7	6297.1	6338.3	6273.6	6303.0	6270.7	6288.3	6232.5	6279.5	6285.4
7.5°	6432.4	6391.2	6388.3	6400.0	6355.9	6376.5	6320.6	6341.2	6311.8	6294.2	6311.8
10°	6582.3	6547.0	6508.8	6532.3	6458.8	6485.3	6426.5	6444.1	6429.4	6391.2	6426.5
12.5°	6685.2	6696.9	6670.5	6688.1	6623.4	6599.9	6579.4	6576.4	6567.6	6511.7	6502.9
15°	6914.5	6920.4	6873.3	6885.1	6870.4	6858.6	6829.2	6805.7	6758.7	6723.4	6699.9
17.5°	7214.4	7182.0	7137.9	7149.7	7190.8	7137.9	7120.3	7076.2	7008.6	6949.8	6938.0
20°	7528.9	7508.3	7467.2	7490.7	7487.8	7452.5	7461.3	7387.8	7290.8	7240.8	7202.6
22.5°	7878.8	7849.4	7820.0	7864.1	7828.8	7805.3	7796.4	7746.5	7625.9	7570.1	7561.3
25°	8228.6	8213.9	8234.5	8219.8	8169.8	8152.2	8163.9	8146.3	8005.2	7937.6	7896.4
27.5°	8666.6	8631.4	8663.7	8646.1	8593.1	8596.1	8599.0	8602.0	8443.2	8355.0	8296.2
30°	9166.4	9154.6	9195.8	9139.9	9090.0	9122.3	9148.8	9090.0	8951.8	8822.4	8801.9
32.5°	9816.1	9742.6	9789.7	9719.1	9642.7	9719.1	9766.1	9648.5	9536.8	9372.2	9401.6
35°	10536.4	10512.9	10512.9	10421.7	10380.6	10501.1	10548.1	10433.5	10260.0	10116.0	10080.7
37.5°	11300.7	11324.2	11397.7	11359.5	11321.3	11394.8	11500.6	11347.8	11124.3	10971.5	10930.3
40°	12315.0	12373.8	12423.7	12373.8	12329.7	12376.7	12497.2	12297.3	12141.5	12059.2	11971.0
42.5°	13405.7	13505.6	13473.3	13479.1	13517.4	13585.0	13705.5	13523.2	13343.9	13341.0	13211.6
45°	14881.4	14881.4	14813.8	14878.5	14872.6	15040.2	15093.1	14993.2	14843.2	14799.1	14687.4
47.5°	16260.2	16404.3	16377.8	16471.9	16398.4	16539.5	16718.8	16633.6	16460.1	16304.3	16280.8
50°	18182.9	18147.6	18112.3	18253.4	18241.7	18338.7	18503.3	18450.4	18209.3	18033.0	18000.6
52.5°	19873.3	20058.5	20014.4	20226.1	20108.5	20246.6	20443.6	20434.8	20140.8	19967.4	19917.4
55°	22007.6	22131.1	22122.3	22339.8	22178.1	22360.4	22525.0	22542.7	22222.2	21975.3	22051.7
57.5°	24230.1	24333.0	24274.2	24453.6	24294.8	24544.7	24644.6	24580.0	24391.8	24080.2	24194.8
60°	26455.6	26543.8	26611.4	26626.1	26535.0	26681.9	26776.0	26831.9	26535.0	26179.2	26317.4
62.5°	28716.3	28816.3	28757.5	28781.0	28528.2	28728.1	28845.7	28860.4	28519.3	28204.8	28301.8
65°	31097.6	31235.8	31024.1	30883.0	30571.4	30568.4	30724.2	30750.7	30509.6	30286.2	30248.0
67.5°	34046.2	34108.0	33655.2	33181.9	32655.7	32541.0	32649.8	32711.6	32849.7	32843.8	32670.4
68°	34378.4	34366.7	33908.1	33343.6	32779.2	32646.9	32699.8	32779.2	32870.3	32887.9	32679.2
70°	33622.9	33478.8	33217.2	32505.8	31947.2	31600.3	31415.1	31562.1	31315.1	31318.1	30927.1
72.5°	29865.8	29848.2	29366.0	29013.2	28516.4	27940.2	27675.6	27672.7	27696.2	27525.7	27122.9
75°	24191.9	24215.4	23653.9	23409.9	23257.0	23148.3	23204.1	23377.6	23395.2	23392.3	23251.2
77.5°	16871.7	16968.7	16818.8	16421.9	16848.2	17212.7	17915.4	18274.0	18159.4	18503.3	18720.9
80°	8843.0	9037.1	9042.9	9322.2	9666.2	9998.4	10604.0	11147.9	10748.0	10571.6	10389.4
82.5°	2325.4	2396.0	2501.8	2340.1	2390.1	2440.1	2910.4	2866.3	2645.9	2763.4	2939.8
85°	664.4	685.0	655.6	593.8	543.9	499.8	511.5	432.2	376.3	373.4	361.6
87.5°	467.4	502.7	443.9	382.2	344.0	320.4	308.7	261.6	211.7	185.2	147.0
90°	217.5	214.6	185.2	144.1	126.4	120.5	120.5	94.1	52.9	32.3	29.4
92.5°	91.1	94.1	76.4	61.7	52.9	41.2	32.3	20.6	11.8	5.9	2.9
95°	32.3	35.3	29.4	23.5	20.6	17.6	14.7	11.8	5.9	2.9	2.9
97.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	5.9	5.9	2.9	2.9
100°	0.0	0.0	0.0	2.9	5.9	5.9	5.9	5.9	2.9	2.9	2.9
102.5°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
105°	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9



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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	2.9	2.9	2.9	2.9
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
165°	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9
167.5°	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9
170°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
172.5°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
175°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
177.5°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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°	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8	6217.8
2.5°	6261.9	6247.2	6241.3	6167.8	6188.4	6144.3	6247.2	6217.8	6211.9	6253.0
5°	6276.5	6208.9	6250.1	6203.1	6214.8	6150.1	6232.5	6197.2	6200.1	6220.7
7.5°	6285.4	6247.2	6288.3	6206.0	6238.3	6214.8	6273.6	6238.3	6273.6	6291.2
10°	6373.6	6355.9	6326.5	6303.0	6326.5	6270.7	6344.2	6338.3	6358.9	6411.8
12.5°	6494.1	6473.5	6444.1	6403.0	6420.6	6400.0	6455.9	6461.8	6500.0	6526.4
15°	6673.4	6647.0	6632.3	6591.1	6597.0	6582.3	6614.6	6620.5	6696.9	6688.1
17.5°	6926.3	6896.9	6908.6	6870.4	6855.7	6820.4	6761.6	6741.0	6832.2	6858.6
20°	7202.6	7170.3	7185.0	7152.6	6879.2	6323.6	6696.9	6952.7	6758.7	6744.0
22.5°	7517.2	7481.9	7493.6	7443.7	7105.6	6064.9	5277.0	5212.3	5953.2	6253.0
25°	7864.1	7817.0	7811.1	7746.5	6635.2	5491.6	5403.4	5288.8	4747.8	4318.6
27.5°	8293.3	8222.7	8187.4	7211.4	6588.2	5706.2	5573.9	5165.3	4380.4	4406.8
30°	8757.8	8654.9	7993.4	7349.6	6932.1	5959.0	5782.7	4527.3	4533.2	4521.5
32.5°	9286.9	9057.6	7831.7	7772.9	7343.7	6229.5	4800.8	4747.8	4753.7	4771.4
35°	9980.7	8407.9	8375.6	8378.5	7846.4	6026.7	5085.9	5035.9	5041.8	5053.6
37.5°	10127.7	9063.5	9069.4	9001.8	8381.5	5506.3	5432.8	5429.9	5418.1	5406.4
40°	10245.3	9889.6	9804.4	9695.6	7770.0	5929.6	5906.1	5888.5	5897.3	5920.8
42.5°	11165.5	10898.0	10815.7	10686.3	7969.9	6570.5	6494.1	6473.5	6497.0	6485.3
45°	12388.5	12165.0	12003.3	9880.8	8804.8	7267.3	7205.5	7179.1	7187.9	7261.4
47.5°	13682.0	13549.7	13055.8	10674.5	9777.9	8090.4	8028.7	7987.5	8002.2	7984.6
50°	15090.2	14969.6	12085.7	11871.1	10853.9	8978.3	8887.1	8872.4	8878.3	8875.4
52.5°	16618.9	14099.5	13393.9	13170.5	11988.7	9907.2	9874.9	9795.5	9813.2	9795.5
55°	18412.2	14852.1	14834.4	14572.8	13264.5	10986.2	10947.9	10836.2	10133.6	10748.0
57.5°	20114.4	16289.6	16289.6	16036.8	14569.8	12059.2	11997.5	11915.2	7202.6	5809.1
60°	21978.2	17730.1	17689.0	17480.3	15828.1	13082.3	10633.4	10609.9	4351.0	4365.7
62.5°	23589.2	19014.9	19088.4	18894.3	17039.3	9795.5	4927.2	4827.2	429.2	661.5
65°	25394.3	20434.8	20523.0	20323.1	18350.5	10389.4	5347.6	5297.6	97.0	88.2
67.5°	27440.4	21851.8	21651.9	21431.4	19117.8	10698.1	5556.3	5512.2	26.5	17.6
68°	27458.1	21822.4	21563.7	21413.8	19044.3	10639.3	5538.7	5497.5	26.5	17.6
70°	26046.9	20722.9	20464.2	20502.4	18132.9	10174.8	5309.3	5232.9	26.5	17.6
72.5°	22851.3	18441.6	18150.5	17944.8	16080.9	9045.9	4759.6	4615.5	26.5	17.6
75°	19552.8	15628.2	15146.0	14693.3	12938.2	7402.5	3904.1	3742.4	26.5	17.6
77.5°	15410.6	11912.2	11227.2	10930.3	9722.0	5468.1	2901.6	2725.2	26.5	14.7
80°	8516.7	6835.1	6253.0	6070.8	5559.2	3213.2	1663.9	1558.1	23.5	14.7
82.5°	2201.9	1652.2	1440.5	1390.5	1305.3	761.4	405.7	385.1	20.6	11.8
85°	314.6	232.2	255.8	302.8	291.0	197.0	141.1	120.5	17.6	8.8
87.5°	164.6	138.2	161.7	182.3	185.2	114.7	58.8	32.3	8.8	0.0
90°	26.5	26.5	29.4	32.3	32.3	14.7	11.8	0.0	0.0	0.0
92.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.9	5.9	2.9	2.9	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°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.9	2.9	2.9	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)