

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: P522149

Luminaire Tested: **CTN-CA10-630-727-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522149
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-CA10-630-727-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 66159 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

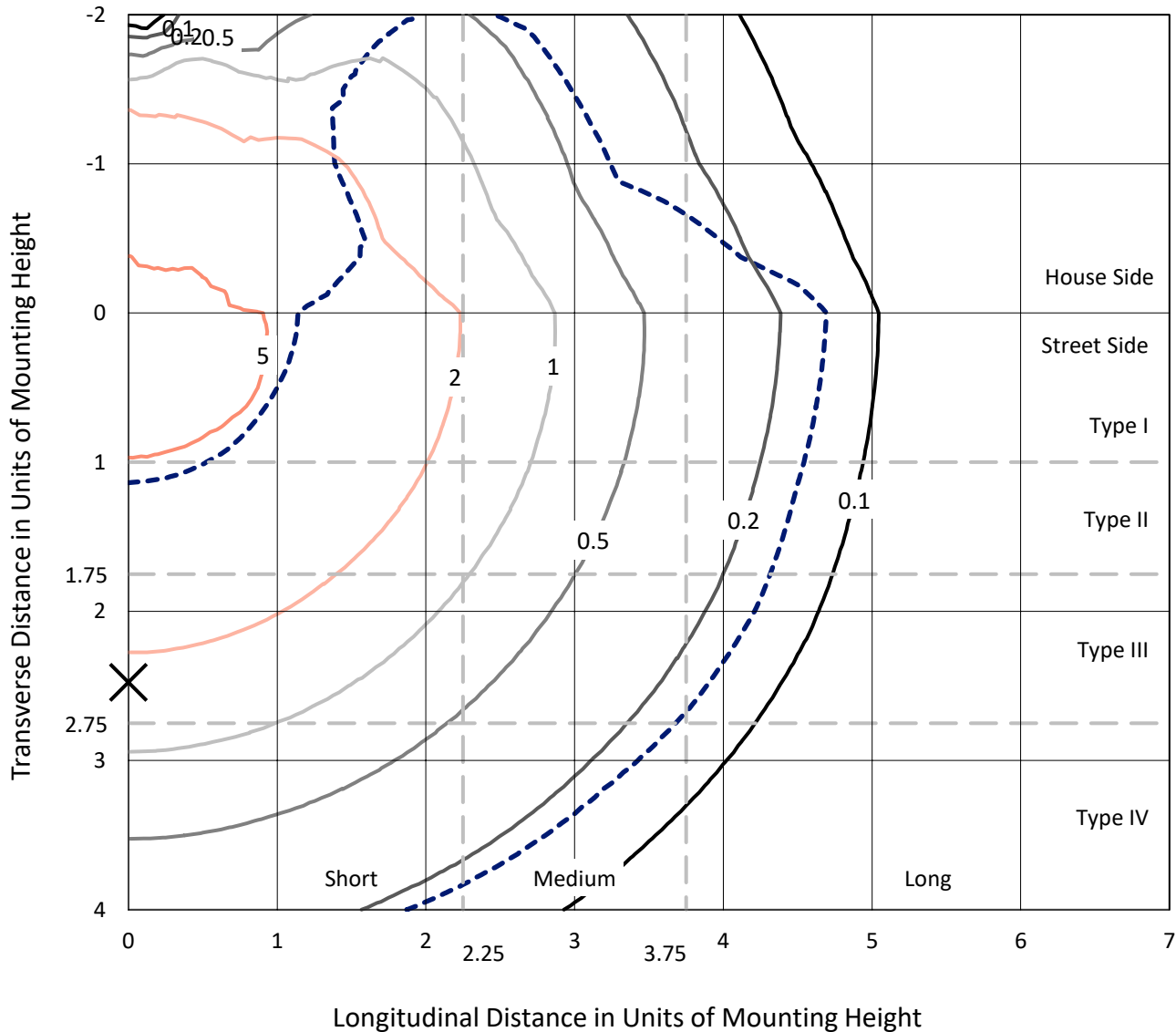
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

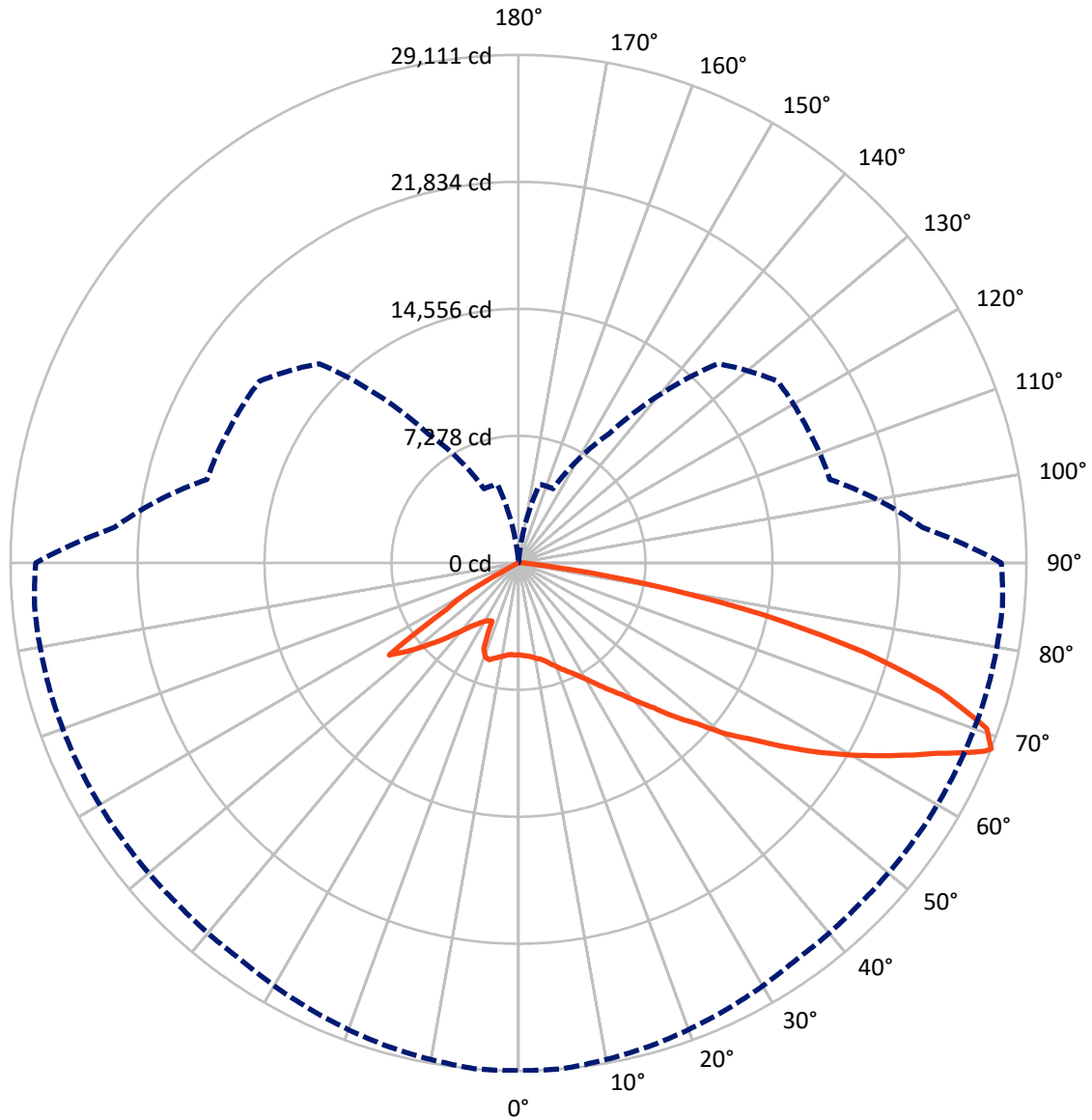
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.9 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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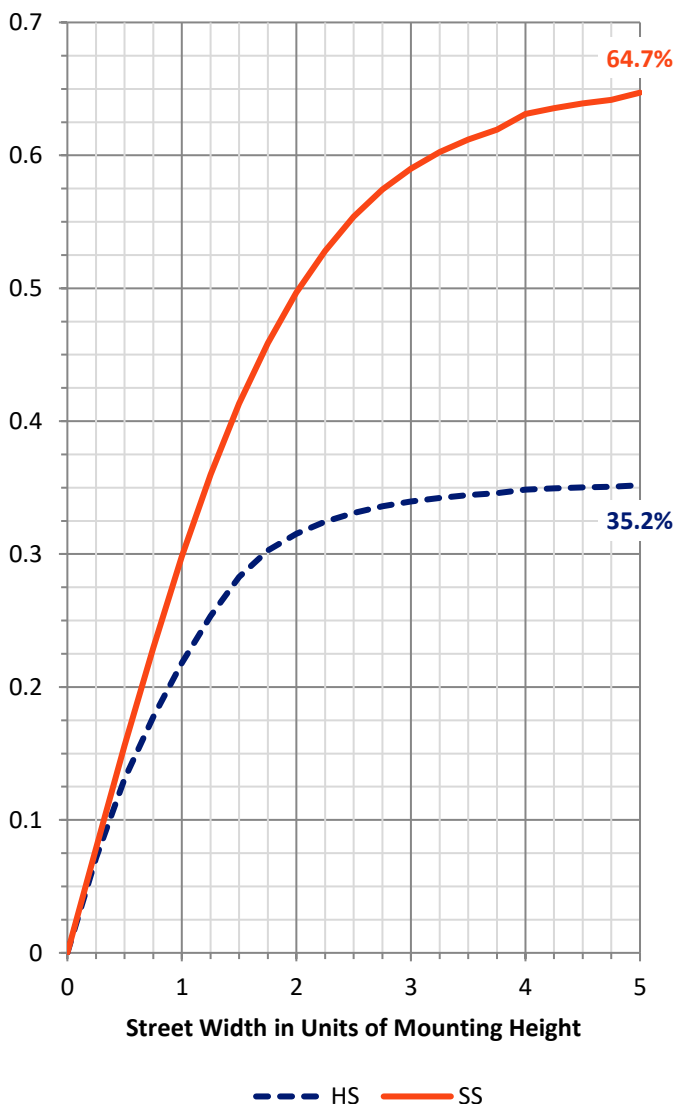
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	23283.5	4.0	23287.5
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	42854.1	17.5	42871.6
	% Fixture	64.8	0.0	64.8
Total	Lumens	66137.6	21.5	66159.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	509.4	0.8
10°-20°	1631.9	2.5
20°-30°	2913.3	4.4
30°-40°	4739.4	7.2
40°-50°	8093.5	12.2
50°-60°	13504.3	20.4
60°-70°	18787.2	28.4
70°-80°	14563.0	22.0
80°-90°	1395.5	2.1
90°-100°	16.9	0.0
100°-110°	1.4	0.0
110°-120°	0.7	0.0
120°-130°	0.5	0.0
130°-140°	0.5	0.0
140°-150°	0.6	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	66137.6	100.0
0°-180°	66159.0	100.0

Coefficient of Utilization

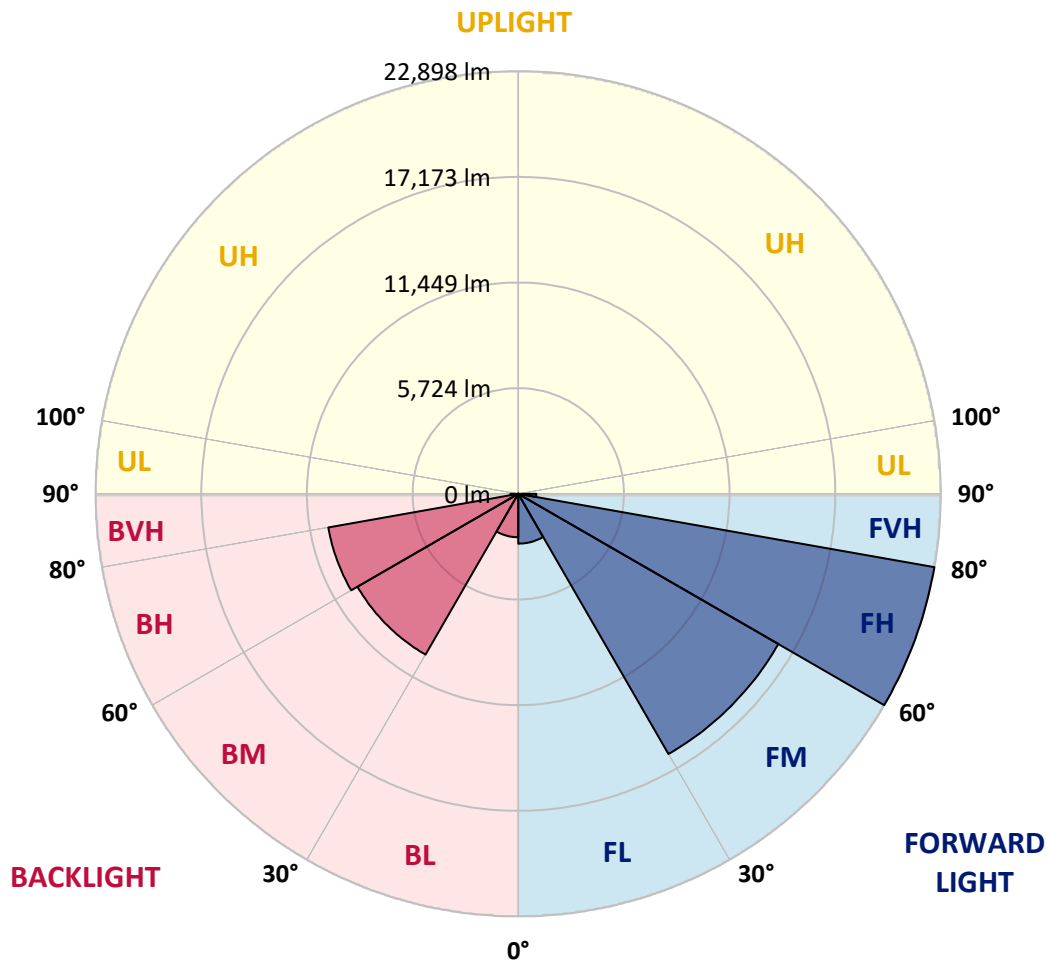


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2700.2	4.1			
FM (30°-60°)	16279.7	24.6			
FH (60°-80°)	22897.9	34.6			G5
FVH (80°-90°)	976.3	1.5			G5
BL (0°-30°)	2354.4	3.6	B3/2500		
BM (30°-60°)	10057.4	15.2	B5		
BH (60°-80°)	10452.4	15.8	B5		G5
BVH (80°-90°)	419.2	0.6			G3/500
UL (90°-100°)	16.9	0.0		U2/50	
UH (100°-180°)	4.6	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°	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1
2.5°	5324.9	5317.4	5312.4	5344.8	5252.7	5290.0	5265.1	5297.5	5290.0	5305.0	5307.5
5°	5362.2	5349.8	5332.4	5367.2	5312.4	5337.3	5310.0	5324.9	5277.6	5317.4	5322.4
7.5°	5446.9	5412.0	5409.5	5419.5	5382.1	5399.6	5352.3	5369.7	5344.8	5329.9	5344.8
10°	5573.8	5544.0	5511.6	5531.5	5469.3	5491.7	5441.9	5456.8	5444.4	5412.0	5441.9
12.5°	5661.0	5670.9	5648.5	5663.5	5608.7	5588.8	5571.3	5568.9	5561.4	5514.1	5506.6
15°	5855.1	5860.1	5820.3	5830.2	5817.8	5807.8	5782.9	5763.0	5723.2	5693.3	5673.4
17.5°	6109.1	6081.7	6044.3	6054.3	6089.1	6044.3	6029.4	5992.1	5934.8	5885.0	5875.1
20°	6375.4	6358.0	6323.1	6343.1	6340.6	6310.7	6318.2	6255.9	6173.8	6131.5	6099.1
22.5°	6671.7	6646.8	6621.9	6659.2	6629.3	6609.4	6602.0	6559.6	6457.6	6410.3	6402.8
25°	6967.9	6955.5	6972.9	6960.4	6918.1	6903.2	6913.1	6898.2	6778.7	6721.5	6686.6
27.5°	7338.8	7309.0	7336.3	7321.4	7276.6	7279.1	7281.6	7284.1	7149.6	7075.0	7025.2
30°	7762.0	7752.1	7786.9	7739.6	7697.3	7724.7	7747.1	7697.3	7580.3	7470.8	7453.4
32.5°	8312.2	8250.0	8289.8	8230.1	8165.3	8230.1	8269.9	8170.3	8075.7	7936.3	7961.2
35°	8922.1	8902.2	8902.2	8825.0	8790.2	8892.2	8932.1	8835.0	8688.1	8566.1	8536.3
37.5°	9569.4	9589.3	9651.5	9619.2	9586.8	9649.0	9738.6	9609.2	9420.0	9290.5	9255.7
40°	10428.2	10478.0	10520.3	10478.0	10440.7	10480.5	10582.6	10413.3	10281.3	10211.6	10137.0
42.5°	11351.8	11436.4	11409.1	11414.0	11446.4	11503.7	11605.7	11451.4	11299.5	11297.0	11187.5
45°	12601.5	12601.5	12544.2	12599.0	12594.0	12735.9	12780.7	12696.1	12569.1	12531.8	12437.2
47.5°	13769.0	13891.0	13868.6	13948.3	13886.0	14005.5	14157.4	14085.2	13938.3	13806.4	13786.5
50°	15397.1	15367.2	15337.4	15456.9	15446.9	15529.1	15668.5	15623.7	15419.5	15270.2	15242.8
52.5°	16828.5	16985.4	16948.0	17127.3	17027.7	17144.7	17311.5	17304.0	17055.1	16908.2	16865.9
55°	18635.9	18740.4	18733.0	18917.2	18780.3	18934.6	19074.0	19088.9	18817.6	18608.5	18673.2
57.5°	20517.9	20605.0	20555.2	20707.1	20572.6	20784.2	20868.9	20814.1	20654.8	20390.9	20488.0
60°	22402.4	22477.1	22534.3	22546.8	22469.6	22594.1	22673.7	22721.0	22469.6	22168.4	22285.4
62.5°	24316.7	24401.4	24351.6	24371.5	24157.4	24326.7	24426.3	24438.7	24150.0	23883.6	23965.7
65°	26333.2	26450.2	26270.9	26151.5	25887.6	25885.1	26017.0	26039.4	25835.3	25646.1	25613.7
67.5°	28830.1	28882.4	28499.0	28098.2	27652.6	27555.5	27647.6	27699.9	27816.9	27811.9	27665.0
68°	29111.4	29101.4	28713.1	28235.1	27757.1	27645.1	27689.9	27757.1	27834.3	27849.2	27672.5
70°	28471.6	28349.6	28128.1	27525.6	27052.6	26758.9	26602.0	26726.5	26517.4	26519.9	26188.8
72.5°	25290.1	25275.2	24866.9	24568.2	24147.5	23659.5	23435.5	23433.0	23452.9	23308.5	22967.5
75°	20485.5	20505.4	20029.9	19823.3	19693.9	19601.8	19649.1	19795.9	19810.9	19808.4	19688.9
77.5°	14286.8	14369.0	14242.0	13906.0	14266.9	14575.6	15170.6	15474.3	15377.2	15668.5	15852.7
80°	7488.2	7652.5	7657.5	7894.0	8185.2	8466.5	8979.4	9439.9	9101.4	8952.0	8797.6
82.5°	1969.1	2028.9	2118.5	1981.6	2023.9	2066.2	2464.5	2427.2	2240.5	2340.1	2489.4
85°	562.6	580.0	555.1	502.9	460.5	423.2	433.2	365.9	318.6	316.2	306.2
87.5°	395.8	425.7	375.9	323.6	291.3	271.3	261.4	221.6	179.2	156.8	124.5
90°	184.2	181.7	156.8	122.0	107.0	102.1	102.1	79.7	44.8	27.4	24.9
92.5°	77.2	79.7	64.7	52.3	44.8	34.9	27.4	17.4	10.0	5.0	2.5
95°	27.4	29.9	24.9	19.9	17.4	14.9	12.4	10.0	5.0	2.5	2.5
97.5°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	5.0	5.0	2.5	2.5
100°	0.0	0.0	0.0	2.5	5.0	5.0	5.0	5.0	2.5	2.5	2.5
102.5°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
105°	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5



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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	2.5	2.5	2.5	2.5
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
165°	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5
167.5°	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5
170°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
172.5°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
175°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
177.5°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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°	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1	5265.1
2.5°	5302.5	5290.0	5285.1	5222.8	5240.2	5202.9	5290.0	5265.1	5260.2	5295.0
5°	5314.9	5257.7	5292.5	5252.7	5262.7	5207.9	5277.6	5247.7	5250.2	5267.6
7.5°	5322.4	5290.0	5324.9	5255.2	5282.6	5262.7	5312.4	5282.6	5312.4	5327.4
10°	5397.1	5382.1	5357.3	5337.3	5357.3	5310.0	5372.2	5367.2	5384.6	5429.4
12.5°	5499.1	5481.7	5456.8	5422.0	5436.9	5419.5	5466.8	5471.8	5504.1	5526.5
15°	5651.0	5628.6	5616.2	5581.3	5586.3	5573.8	5601.2	5606.2	5670.9	5663.5
17.5°	5865.1	5840.2	5850.2	5817.8	5805.3	5775.5	5725.7	5708.3	5785.4	5807.8
20°	6099.1	6071.7	6084.2	6056.8	5825.3	5354.8	5670.9	5887.5	5723.2	5710.8
22.5°	6365.5	6335.6	6345.6	6303.2	6016.9	5135.7	4468.5	4413.8	5041.1	5295.0
25°	6659.2	6619.4	6614.4	6559.6	5618.6	4650.3	4575.6	4478.5	4020.4	3657.0
27.5°	7022.7	6962.9	6933.1	6106.6	5578.8	4832.0	4720.0	4373.9	3709.2	3731.7
30°	7416.0	7328.9	6768.8	6223.6	5870.1	5046.1	4896.7	3833.7	3838.7	3828.7
32.5°	7864.1	7669.9	6631.8	6582.1	6218.6	5275.1	4065.2	4020.4	4025.4	4040.3
35°	8451.6	7119.8	7092.4	7094.9	6644.3	5103.3	4306.7	4264.4	4269.4	4279.3
37.5°	8576.1	7674.9	7679.9	7622.6	7097.4	4662.7	4600.5	4598.0	4588.0	4578.1
40°	8675.7	8374.4	8302.2	8210.1	6579.6	5021.2	5001.3	4986.3	4993.8	5013.7
42.5°	9454.9	9228.3	9158.6	9049.1	6748.8	5563.9	5499.1	5481.7	5501.6	5491.7
45°	10490.5	10301.3	10164.3	8367.0	7455.8	6153.9	6101.6	6079.2	6086.7	6148.9
47.5°	11585.8	11473.8	11055.6	9039.1	8279.8	6850.9	6798.6	6763.8	6776.2	6761.3
50°	12778.2	12676.2	10234.0	10052.3	9191.0	7602.7	7525.5	7513.1	7518.1	7515.6
52.5°	14072.7	11939.3	11341.8	11152.6	10151.9	8389.4	8362.0	8294.8	8309.7	8294.8
55°	15591.3	12576.6	12561.7	12340.1	11232.3	9303.0	9270.6	9176.0	8581.1	9101.4
57.5°	17032.7	13793.9	13793.9	13579.8	12337.6	10211.6	10159.4	10089.7	6099.1	4919.1
60°	18611.0	15013.7	14978.9	14802.1	13403.1	11078.0	9004.3	8984.3	3684.4	3696.8
62.5°	19975.2	16101.6	16163.9	15999.6	14428.7	8294.8	4172.3	4087.6	363.5	560.1
65°	21503.7	17304.0	17378.7	17209.4	15539.0	8797.6	4528.3	4486.0	82.2	74.7
67.5°	23236.3	18503.9	18334.6	18147.9	16188.8	9059.0	4705.0	4667.7	22.4	14.9
68°	23251.3	18479.0	18260.0	18133.0	16126.5	9009.2	4690.1	4655.2	22.4	14.9
70°	22056.3	17548.0	17328.9	17361.3	15354.8	8615.9	4495.9	4431.2	22.4	14.9
72.5°	19350.3	15616.2	15369.7	15195.5	13617.2	7660.0	4030.4	3908.4	22.4	14.9
75°	16557.2	13233.8	12825.5	12442.2	10956.0	6268.4	3306.0	3169.0	22.4	14.9
77.5°	13049.6	10087.2	9507.1	9255.7	8232.5	4630.3	2457.1	2307.7	22.4	12.4
80°	7211.9	5787.9	5295.0	5140.7	4707.5	2720.9	1409.0	1319.4	19.9	12.4
82.5°	1864.6	1399.1	1219.8	1177.5	1105.3	644.8	343.5	326.1	17.4	10.0
85°	266.4	196.7	216.6	256.4	246.5	166.8	119.5	102.1	14.9	7.5
87.5°	139.4	117.0	136.9	154.3	156.8	97.1	49.8	27.4	7.5	0.0
90°	22.4	22.4	24.9	27.4	27.4	12.4	10.0	0.0	0.0	0.0
92.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.5	5.0	2.5	2.5	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°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.5	2.5	2.5	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)