

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: P522152

Luminaire Tested: **CTN-CA10-630-730-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522152
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-CA10-630-730-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 76715 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

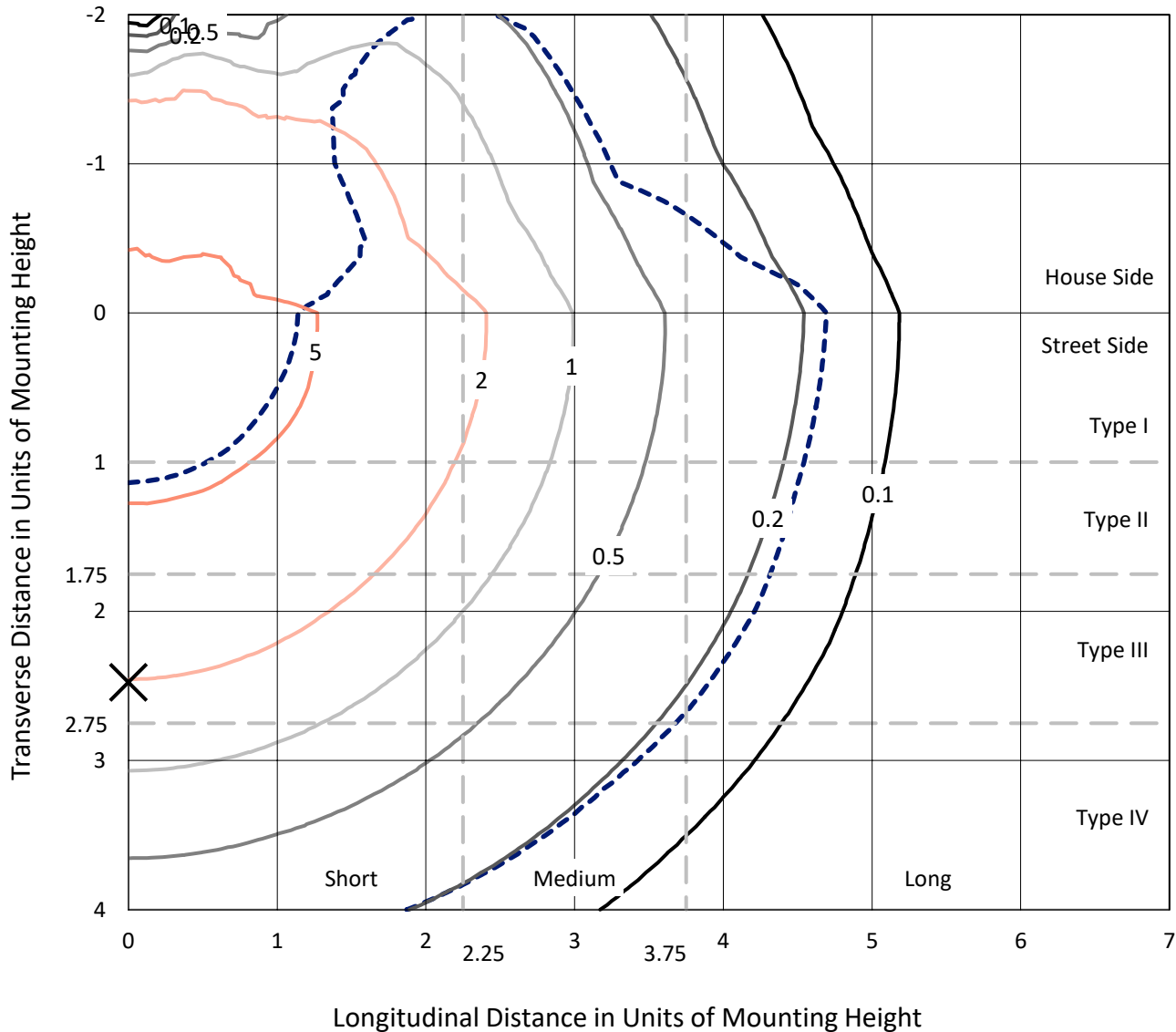
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

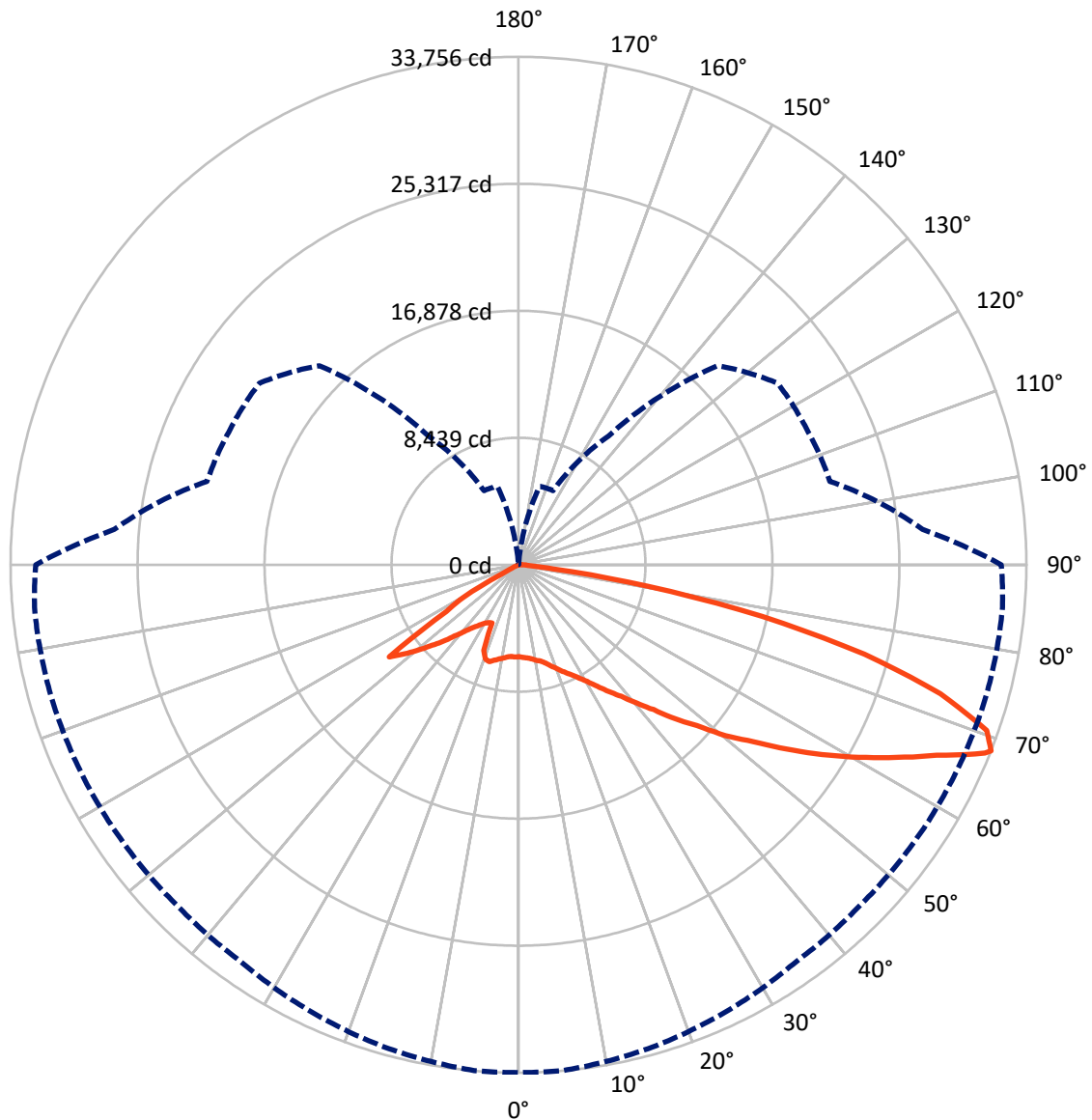
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.8 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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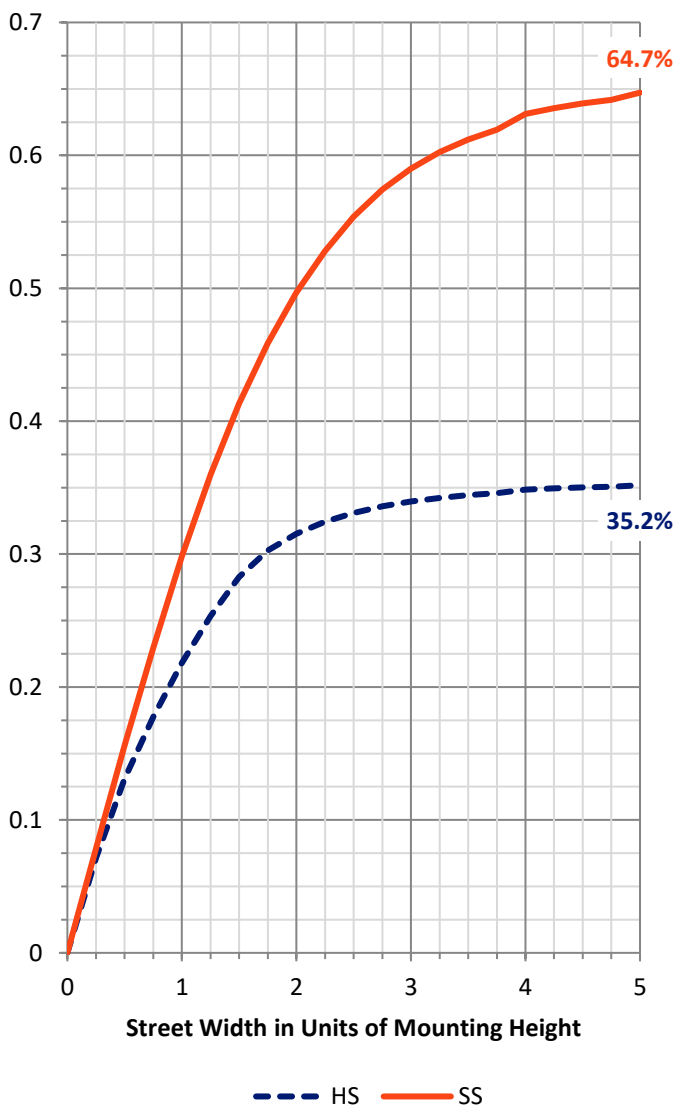
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	26998.5	4.7	27003.1
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	49691.7	20.2	49711.9
	% Fixture	64.8	0.0	64.8
Total	Lumens	76690.1	24.9	76715.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	590.6	0.8
10°-20°	1892.3	2.5
20°-30°	3378.2	4.4
30°-40°	5495.5	7.2
40°-50°	9384.8	12.2
50°-60°	15659.0	20.4
60°-70°	21784.8	28.4
70°-80°	16886.6	22.0
80°-90°	1618.2	2.1
90°-100°	19.6	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°	76690.1	100.0
0°-180°	76715.0	100.0

Coefficient of Utilization

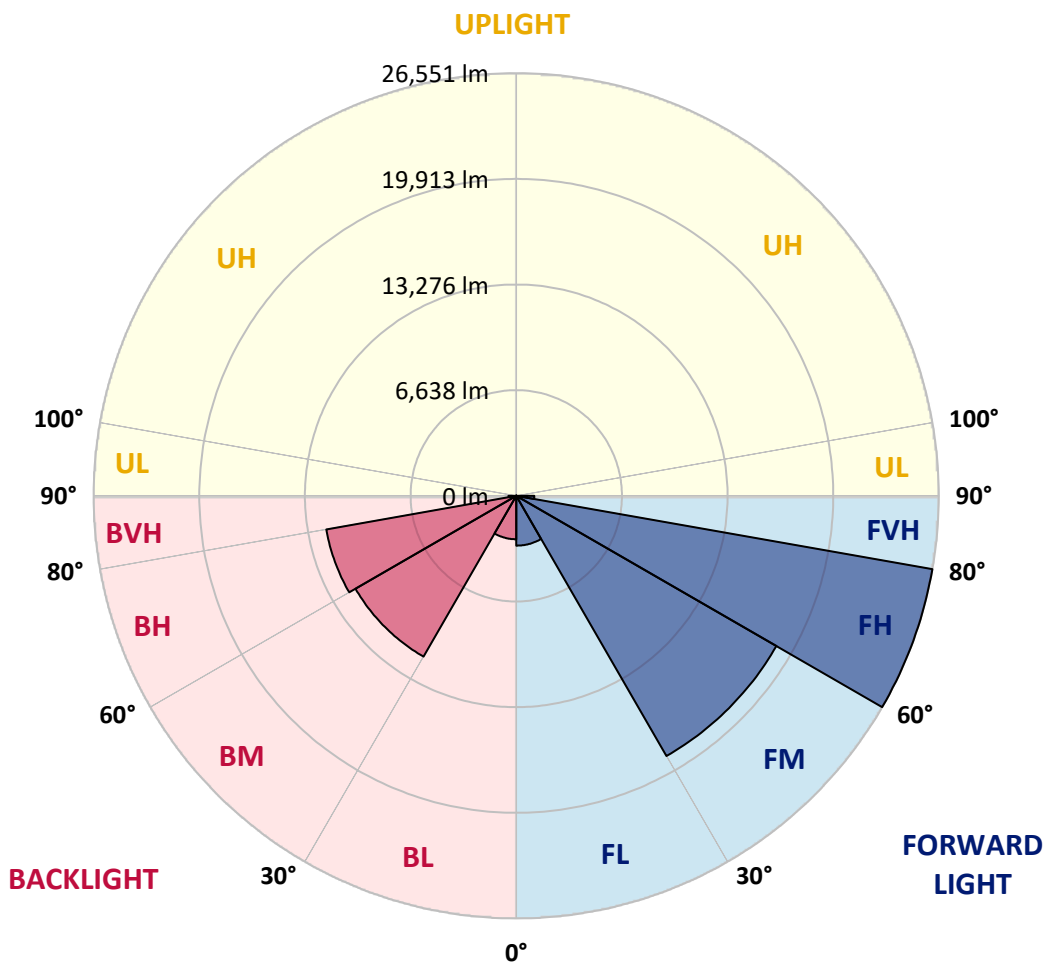


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3131.0	4.1			
FM (30°-60°)	18877.3	24.6			
FH (60°-80°)	26551.3	34.6			G5
FVH (80°-90°)	1132.1	1.5			G5
BL (0°-30°)	2730.1	3.6	B4/5000		
BM (30°-60°)	11662.1	15.2	B5		
BH (60°-80°)	12120.1	15.8	B5		G5
BVH (80°-90°)	486.1	0.6			G3/500
UL (90°-100°)	19.6	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°	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2
2.5°	6174.5	6165.8	6160.1	6197.6	6090.8	6134.1	6105.2	6142.7	6134.1	6151.4	6154.3
5°	6217.8	6203.4	6183.2	6223.6	6160.1	6188.9	6157.2	6174.5	6119.7	6165.8	6171.6
7.5°	6315.9	6275.5	6272.6	6284.2	6240.9	6261.1	6206.3	6226.5	6197.6	6180.3	6197.6
10°	6463.2	6428.5	6391.0	6414.1	6341.9	6367.9	6310.2	6327.5	6313.1	6275.5	6310.2
12.5°	6564.2	6575.7	6549.8	6567.1	6503.6	6480.5	6460.3	6457.4	6448.7	6393.9	6385.2
15°	6789.4	6795.1	6748.9	6760.5	6746.1	6734.5	6705.6	6682.5	6636.4	6601.7	6578.6
17.5°	7083.8	7052.0	7008.7	7020.3	7060.7	7008.7	6991.4	6948.1	6881.7	6824.0	6812.4
20°	7392.7	7372.5	7332.0	7355.1	7352.2	7317.6	7326.3	7254.1	7158.8	7109.8	7072.2
22.5°	7736.2	7707.3	7678.4	7721.7	7687.1	7664.0	7655.3	7606.3	7487.9	7433.1	7424.4
25°	8079.7	8065.2	8085.5	8071.0	8021.9	8004.6	8016.2	7998.9	7860.3	7793.9	7753.5
27.5°	8509.8	8475.1	8506.9	8489.6	8437.6	8440.5	8443.4	8446.3	8290.4	8203.8	8146.1
30°	9000.5	8989.0	9029.4	8974.5	8925.5	8957.2	8983.2	8925.5	8789.8	8662.8	8642.6
32.5°	9638.5	9566.3	9612.5	9543.2	9468.1	9543.2	9589.4	9473.9	9364.2	9202.6	9231.4
35°	10345.7	10322.6	10322.6	10233.1	10192.7	10311.0	10357.2	10244.6	10074.3	9932.9	9898.3
37.5°	11096.2	11119.3	11191.5	11153.9	11116.4	11188.6	11292.5	11142.4	10923.0	10772.9	10732.5
40°	12092.1	12149.8	12198.9	12149.8	12106.5	12152.7	12271.1	12074.8	11921.8	11841.0	11754.4
42.5°	13163.0	13261.2	13229.4	13235.2	13272.7	13339.1	13457.5	13278.5	13102.4	13099.5	12972.5
45°	14612.1	14612.1	14545.7	14609.2	14603.5	14768.0	14820.0	14721.8	14574.6	14531.3	14421.6
47.5°	15965.9	16107.4	16081.4	16173.8	16101.6	16240.2	16416.3	16332.6	16162.2	16009.2	15986.2
50°	17853.8	17819.2	17784.5	17923.1	17911.5	18006.8	18168.4	18116.5	17879.8	17706.6	17674.8
52.5°	19513.6	19695.5	19652.2	19860.0	19744.5	19880.2	20073.6	20065.0	19776.3	19606.0	19556.9
55°	21609.3	21730.5	21721.9	21935.5	21776.7	21955.7	22117.4	22134.7	21820.0	21577.6	21652.6
57.5°	23791.6	23892.6	23834.9	24011.0	23855.1	24100.5	24198.6	24135.1	23950.4	23644.4	23757.0
60°	25976.8	26063.4	26129.8	26144.2	26054.7	26199.1	26291.4	26346.3	26054.7	25705.4	25841.1
62.5°	28196.6	28294.7	28237.0	28260.1	28011.9	28208.1	28323.6	28338.0	28003.2	27694.3	27789.6
65°	30534.8	30670.4	30462.6	30324.0	30018.1	30015.2	30168.2	30194.1	29957.4	29738.1	29700.5
67.5°	33430.1	33490.7	33046.1	32581.4	32064.7	31952.1	32058.9	32119.5	32255.2	32249.4	32079.1
68°	33756.2	33744.7	33294.4	32740.2	32185.9	32056.0	32108.0	32185.9	32275.4	32292.7	32087.8
70°	33014.4	32872.9	32616.0	31917.5	31369.0	31028.4	30846.5	30990.9	30748.4	30751.3	30367.3
72.5°	29325.3	29308.0	28834.5	28488.1	28000.3	27434.5	27174.7	27171.8	27194.9	27027.5	26632.0
75°	23754.1	23777.2	23225.8	22986.2	22836.1	22729.3	22784.2	22954.5	22971.8	22968.9	22830.4
77.5°	16566.4	16661.6	16514.4	16124.7	16543.3	16901.2	17591.1	17943.3	17830.7	18168.4	18382.1
80°	8683.0	8873.5	8879.3	9153.5	9491.2	9817.4	10412.1	10946.1	10553.5	10380.3	10201.3
82.5°	2283.3	2352.6	2456.5	2297.8	2346.8	2395.9	2857.8	2814.5	2598.0	2713.4	2886.6
85°	652.4	672.6	643.7	583.1	534.0	490.7	502.3	424.3	369.5	366.6	355.1
87.5°	459.0	493.6	435.9	375.3	337.7	314.6	303.1	256.9	207.8	181.9	144.3
90°	213.6	210.7	181.9	141.4	124.1	118.4	118.4	92.4	52.0	31.8	28.9
92.5°	89.5	92.4	75.1	60.6	52.0	40.4	31.8	20.2	11.5	5.8	2.9
95°	31.8	34.6	28.9	23.1	20.2	17.3	14.4	11.5	5.8	2.9	2.9
97.5°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	5.8	5.8	2.9	2.9
100°	0.0	0.0	0.0	2.9	5.8	5.8	5.8	5.8	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°	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2	6105.2
2.5°	6148.5	6134.1	6128.3	6056.1	6076.4	6033.1	6134.1	6105.2	6099.4	6139.9
5°	6163.0	6096.6	6137.0	6090.8	6102.3	6038.8	6119.7	6085.0	6087.9	6108.1
7.5°	6171.6	6134.1	6174.5	6093.7	6125.4	6102.3	6160.1	6125.4	6160.1	6177.4
10°	6258.2	6240.9	6212.0	6188.9	6212.0	6157.2	6229.3	6223.6	6243.8	6295.7
12.5°	6376.6	6356.4	6327.5	6287.1	6304.4	6284.2	6339.0	6344.8	6382.3	6408.3
15°	6552.6	6526.7	6512.2	6471.8	6477.6	6463.2	6494.9	6500.7	6575.7	6567.1
17.5°	6800.9	6772.0	6783.6	6746.1	6731.6	6697.0	6639.2	6619.0	6708.5	6734.5
20°	7072.2	7040.5	7054.9	7023.2	6754.7	6209.1	6575.7	6826.9	6636.4	6621.9
22.5°	7381.1	7346.5	7358.0	7308.9	6977.0	5955.1	5181.5	5118.0	5845.4	6139.9
25°	7721.7	7675.5	7669.8	7606.3	6515.1	5392.2	5305.6	5193.0	4661.9	4240.5
27.5°	8143.2	8073.9	8039.3	7080.9	6468.9	5602.9	5473.1	5071.8	4301.1	4327.1
30°	8599.3	8498.2	7848.7	7216.6	6806.7	5851.2	5678.0	4445.4	4451.2	4439.6
32.5°	9118.9	8893.7	7690.0	7632.2	7210.8	6116.8	4713.9	4661.9	4667.7	4685.0
35°	9800.1	8255.8	8224.0	8226.9	7704.4	5917.6	4993.9	4944.8	4950.6	4962.1
37.5°	9944.4	8899.5	8905.3	8838.9	8229.8	5406.7	5334.5	5331.6	5320.1	5308.5
40°	10059.9	9710.6	9626.9	9520.1	7629.4	5822.3	5799.2	5781.9	5790.6	5813.7
42.5°	10963.4	10700.7	10619.9	10492.9	7825.7	6451.6	6376.6	6356.4	6379.5	6367.9
45°	12164.3	11944.9	11786.1	9702.0	8645.5	7135.7	7075.1	7049.1	7057.8	7130.0
47.5°	13434.4	13304.5	12819.5	10481.4	9600.9	7944.0	7883.4	7843.0	7857.4	7840.1
50°	14817.1	14698.7	11866.9	11656.2	10657.4	8815.8	8726.3	8711.8	8717.6	8714.7
52.5°	16318.1	13844.3	13151.5	12932.1	11771.7	9727.9	9696.2	9618.3	9635.6	9618.3
55°	18079.0	14583.3	14565.9	14309.0	13024.5	10787.3	10749.8	10640.1	9950.2	10553.5
57.5°	19750.3	15994.8	15994.8	15746.6	14306.1	11841.0	11780.3	11699.5	7072.2	5704.0
60°	21580.4	17409.3	17368.9	17163.9	15541.6	12845.5	10440.9	10417.8	4272.2	4286.6
62.5°	23162.3	18670.7	18742.9	18552.4	16730.9	9618.3	4838.0	4739.8	421.4	649.5
65°	24934.7	20065.0	20151.6	19955.3	18018.3	10201.3	5250.8	5201.7	95.3	86.6
67.5°	26943.8	21456.3	21260.0	21043.5	18771.8	10504.4	5455.7	5412.4	26.0	17.3
68°	26961.1	21427.5	21173.4	21026.2	18699.6	10446.7	5438.4	5398.0	26.0	17.3
70°	25575.5	20347.9	20093.8	20131.4	17804.7	9990.6	5213.3	5138.2	26.0	17.3
72.5°	22437.8	18107.8	17822.1	17620.0	15789.9	8882.2	4673.5	4532.0	26.0	17.3
75°	19199.0	15345.3	14871.9	14427.4	12704.1	7268.5	3833.4	3674.7	26.0	17.3
77.5°	15131.7	11696.6	11024.0	10732.5	9546.1	5369.1	2849.1	2675.9	26.0	14.4
80°	8362.6	6711.4	6139.9	5960.9	5458.6	3155.1	1633.8	1529.9	23.1	14.4
82.5°	2162.1	1622.3	1414.4	1365.4	1281.7	747.6	398.4	378.1	20.2	11.5
85°	308.9	228.0	251.1	297.3	285.8	193.4	138.6	118.4	17.3	8.7
87.5°	161.7	135.7	158.8	179.0	181.9	112.6	57.7	31.8	8.7	0.0
90°	26.0	26.0	28.9	31.8	31.8	14.4	11.5	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	5.8	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)