

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: P579489

Luminaire Tested: **CTN-CA10-630-740-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579489
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-740-U-T5N-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 76076 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B5 - U2 - G5

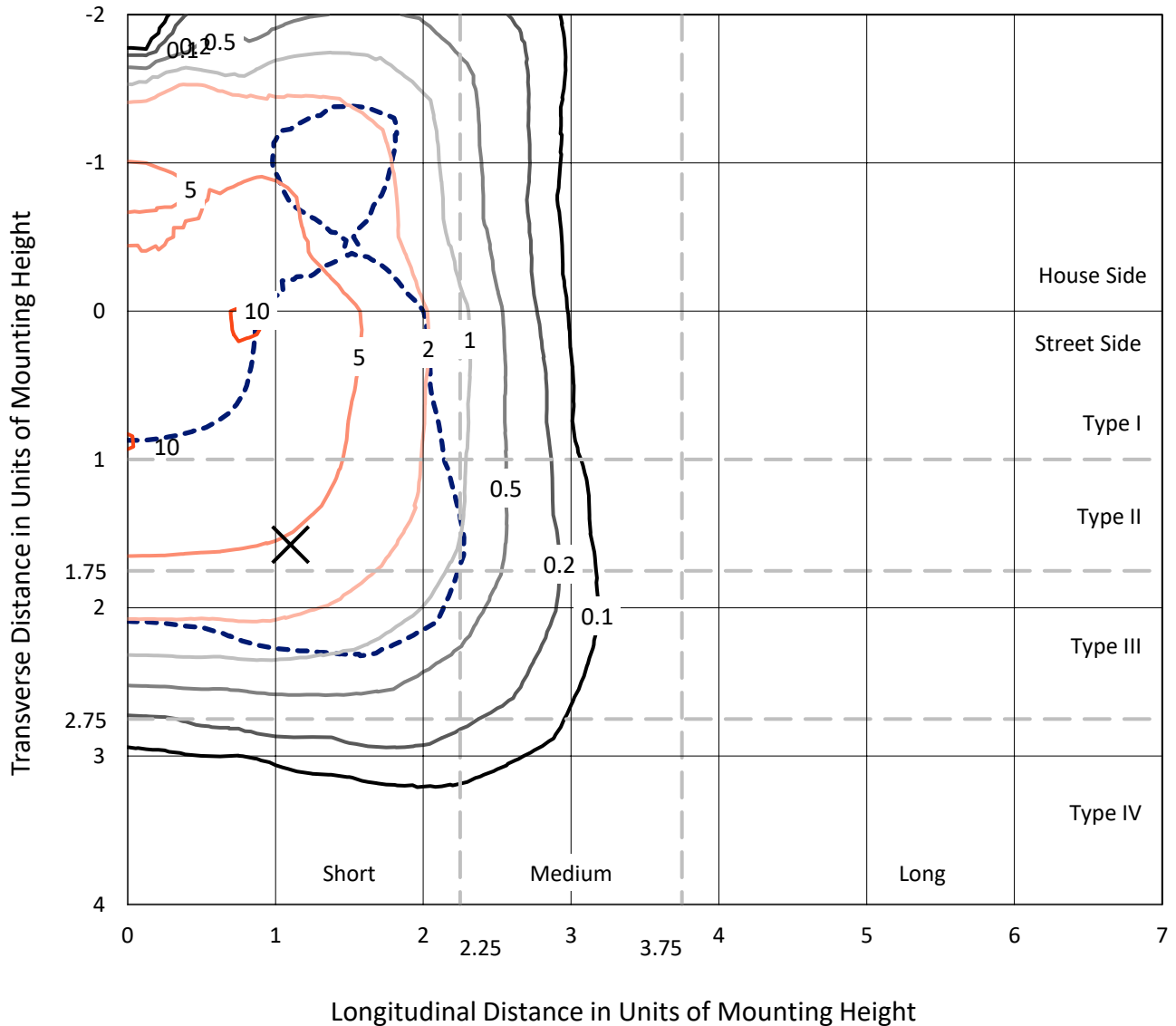
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

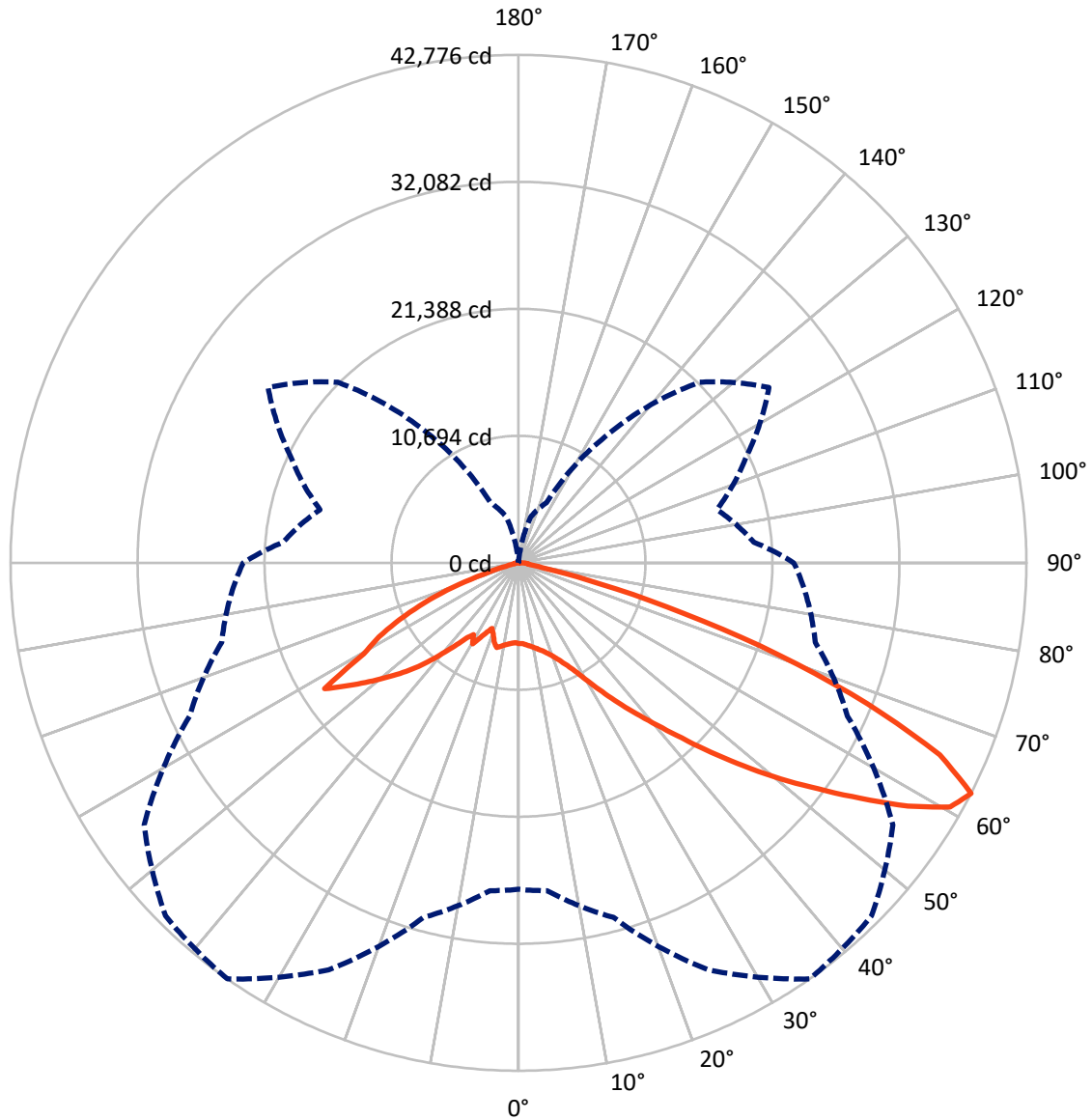
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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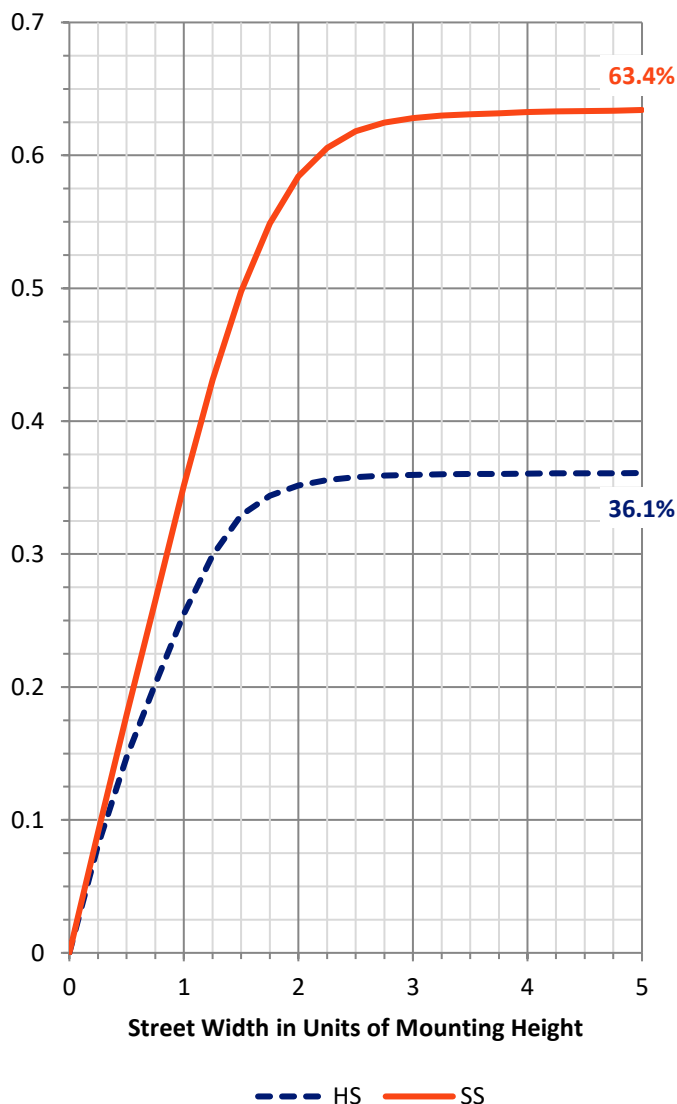
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	27613.8	0.1	27613.8
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	48426.1	36.1	48462.2
	% Fixture	63.7	0.0	63.7
Total	Lumens	76039.9	36.1	76076.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	669.2	0.9
10°-20°	2162.9	2.8
20°-30°	4161.1	5.5
30°-40°	8300.9	10.9
40°-50°	15157.0	19.9
50°-60°	22649.9	29.8
60°-70°	18978.5	24.9
70°-80°	3551.6	4.7
80°-90°	408.8	0.5
90°-100°	32.5	0.0
100°-110°	3.5	0.0
110°-120°	0.1	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°	76039.9	100.0
0°-180°	76076.0	100.0

Coefficient of Utilization



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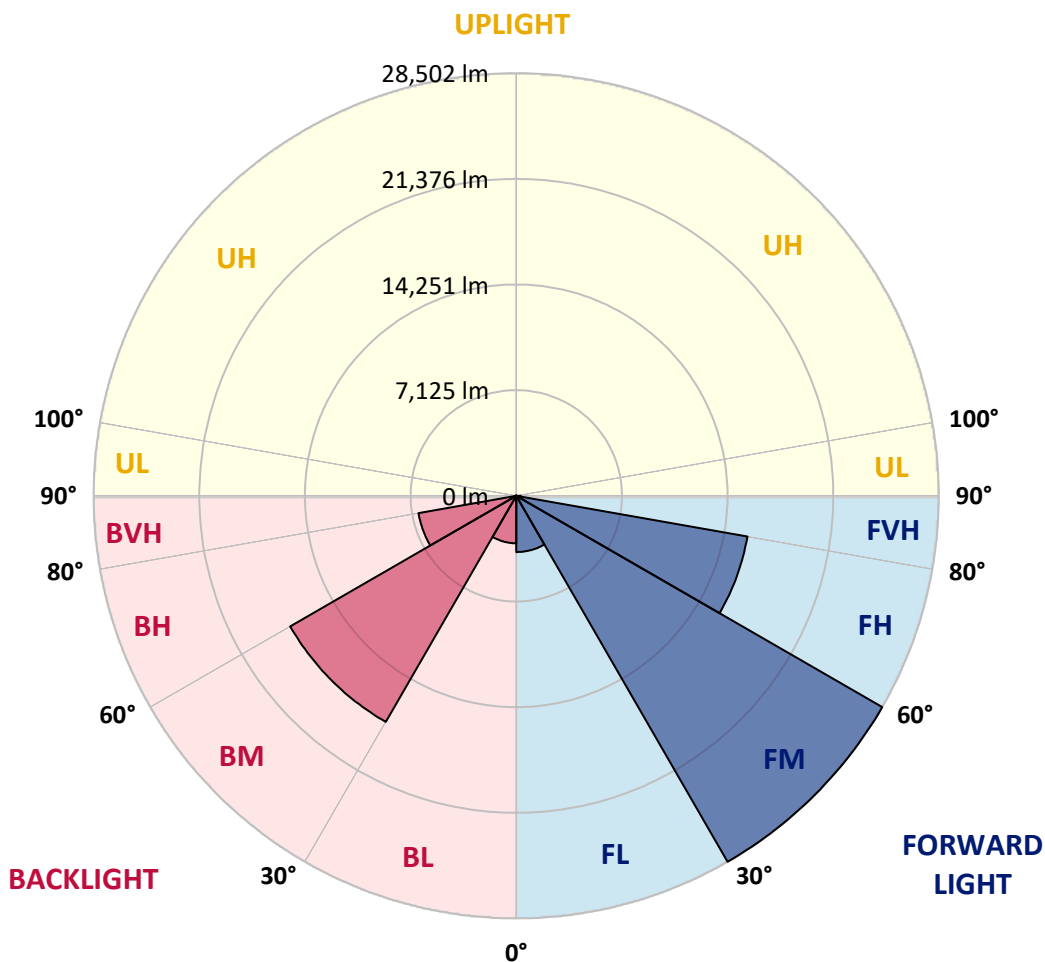
CATALOG NUMBER: CTN-CA10-630-740-U-T5N-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3793.3	5.0			
FM (30°-60°)	28501.5	37.5			
FH (60°-80°)	15833.6	20.8			G5
FVH (80°-90°)	297.7	0.4			G3/500
BL (0°-30°)	3199.9	4.2	B4/5000		
BM (30°-60°)	17606.2	23.1	B5		
BH (60°-80°)	6696.5	8.8	B5		G5
BVH (80°-90°)	111.1	0.1			G2/225
UL (90°-100°)	32.5	0.0		U2/50	
UH (100°-180°)	3.6	0.0		U1/10	

BUG Rating: B5-U2-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0
2.5°	6952.5	6895.4	6904.0	6943.9	6818.4	6869.8	6815.6	6866.9	6849.8	6872.6	6889.7
5°	7052.3	6981.0	6986.7	7032.3	6935.3	6978.1	6923.9	6958.2	6929.6	6961.0	6963.9
7.5°	7189.1	7129.3	7120.7	7166.3	7083.6	7120.7	7066.5	7083.6	7055.1	7092.2	7080.8
10°	7371.7	7317.5	7303.2	7334.6	7269.0	7289.0	7231.9	7254.7	7212.0	7254.7	7234.8
12.5°	7574.1	7502.8	7505.7	7539.9	7474.3	7488.6	7442.9	7468.6	7417.3	7462.9	7448.6
15°	7813.7	7711.0	7731.0	7768.0	7705.3	7748.1	7693.9	7731.0	7682.5	7731.0	7713.9
17.5°	8124.5	8007.6	8021.8	8081.7	8030.4	8098.8	8036.1	8081.7	8058.9	8090.3	8084.6
20°	8518.0	8441.0	8426.8	8500.9	8426.8	8512.3	8478.1	8558.0	8563.7	8595.0	8609.3
22.5°	9042.8	8991.4	8957.2	9008.5	8942.9	9002.8	9051.3	9188.2	9239.5	9322.2	9327.9
25°	9741.4	9738.6	9661.6	9664.4	9581.7	9661.6	9798.5	10012.3	10149.2	10254.7	10214.8
27.5°	10685.3	10702.4	10585.5	10539.9	10442.9	10562.7	10845.0	11110.2	11358.3	11506.6	11506.6
30°	11917.3	11934.4	11763.3	11672.0	11583.6	11791.8	12128.3	12473.3	12827.0	13040.8	12992.4
32.5°	13548.4	13494.3	13249.0	13083.6	12932.5	13172.0	13559.8	13950.5	14432.5	14740.5	14703.4
35°	15527.5	15330.8	15085.5	14777.5	14452.4	14640.6	15005.7	15496.2	16166.3	16628.3	16511.4
37.5°	17826.0	17632.1	17212.9	16682.5	16115.0	16137.8	16425.8	17275.6	18114.0	18490.4	18410.6
40°	20212.9	20061.7	19676.8	18995.2	17968.6	17731.9	18205.3	19229.0	20030.4	20503.7	20369.7
42.5°	22645.4	22491.4	22200.5	21516.1	20155.8	19585.5	20078.8	21193.9	22049.4	22514.2	22360.2
45°	25072.2	24895.4	24664.4	24059.8	22762.3	21926.7	22203.4	23227.1	24008.5	24536.1	24219.5
47.5°	27205.2	27088.3	26931.5	26686.2	25551.3	24627.3	24607.3	25283.2	25822.2	26170.1	25782.2
50°	29061.7	28979.0	29067.4	29016.1	28602.6	27761.3	27245.2	27199.5	27373.5	27627.3	27074.1
52.5°	30727.1	30581.7	30909.6	31317.4	31622.5	31451.4	29780.3	28842.1	28651.1	28736.6	28109.2
55°	32090.2	32021.8	32572.2	33595.9	35007.5	35383.9	32383.9	30439.1	29734.7	29689.1	28976.2
57.5°	32922.9	33019.9	34120.6	36071.2	38660.5	38780.3	35580.7	32147.3	30789.8	30299.3	29478.1
60°	31596.9	31970.4	33849.7	37873.5	41760.3	41834.5	37927.7	32460.9	29472.4	28374.4	27356.4
62.5°	27496.1	27718.6	30915.3	37813.6	42775.5	42051.2	38486.6	30567.4	25876.4	24125.4	23184.3
65°	19368.8	19785.1	23210.0	34020.8	38979.9	39071.2	35306.9	26429.6	20663.4	18727.1	18119.7
67.5°	11697.7	12096.9	15744.3	24558.9	31688.1	32711.9	29452.4	20010.4	14817.5	12370.7	11757.6
70°	3798.5	4231.9	7174.9	14475.2	23309.8	25765.1	22163.4	13023.7	7759.5	5435.3	4776.6
72.5°	1443.0	1574.1	2335.5	6322.2	14518.0	17201.5	13708.1	6533.3	2404.0	1431.6	1257.6
75°	938.2	958.2	1092.2	2215.8	7000.9	9470.5	6607.4	1913.5	963.9	855.5	792.8
77.5°	807.0	821.3	878.3	1103.6	2230.0	3621.7	1896.4	978.1	804.2	712.9	670.2
80°	761.4	767.1	804.2	935.4	1043.7	1209.1	912.5	818.4	701.5	670.2	638.8
82.5°	721.5	741.4	761.4	849.8	847.0	869.8	732.9	641.6	596.0	627.4	616.0
85°	673.0	684.4	698.7	758.6	690.1	584.6	564.6	442.0	430.6	459.1	430.6
87.5°	473.4	501.9	484.8	510.5	479.1	373.6	316.5	250.9	199.6	165.4	159.7
90°	193.9	196.8	185.4	171.1	151.1	125.5	99.8	62.7	28.5	14.3	5.7
92.5°	151.1	151.1	145.4	131.2	114.1	94.1	71.3	39.9	20.0	8.6	2.9
95°	94.1	97.0	91.3	82.7	71.3	57.0	42.8	22.8	14.3	5.7	2.9
97.5°	59.9	59.9	54.2	48.5	39.9	28.5	20.0	17.1	11.4	5.7	0.0
100°	34.2	34.2	31.4	25.7	20.0	14.3	14.3	11.4	8.6	2.9	0.0
102.5°	20.0	20.0	14.3	11.4	8.6	8.6	8.6	8.6	5.7	2.9	0.0
105°	8.6	8.6	5.7	5.7	2.9	2.9	5.7	5.7	5.7	2.9	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.7	5.7	2.9	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.7	2.9	2.9



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CANDELA DISTRIBUTION (continued):

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

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0	6807.0
2.5°	6878.3	6827.0	6835.5	6787.1	6778.5	6730.0	6827.0	6838.4	6809.9	6835.5
5°	6958.2	6895.4	6915.4	6861.2	6852.6	6787.1	6872.6	6866.9	6844.1	6869.8
7.5°	7077.9	7012.3	7023.7	6963.9	6952.5	6881.2	6961.0	6935.3	6912.5	6943.9
10°	7246.2	7172.0	7177.7	7100.7	7109.3	7015.2	7112.1	7066.5	7038.0	7080.8
12.5°	7448.6	7365.9	7368.8	7289.0	7286.1	7194.8	7280.4	7254.7	7212.0	7277.5
15°	7711.0	7616.9	7608.3	7502.8	7474.3	7371.7	7451.5	7403.0	7374.5	7468.6
17.5°	8078.9	7973.4	7942.0	7813.7	7280.4	6972.4	7400.2	7545.6	7368.8	7340.3
20°	8569.4	8481.0	8409.7	8215.8	7320.3	6359.3	5649.2	5654.9	6402.1	6747.1
22.5°	9233.8	9128.3	8994.3	8717.7	6715.8	5957.2	5960.1	5951.5	5107.4	4750.9
25°	10143.5	10015.2	9741.4	8178.7	7129.3	6427.7	6410.6	5575.1	5110.3	5135.9
27.5°	11372.6	11110.2	9507.6	8860.2	7865.0	7038.0	6627.4	5612.2	5669.2	5709.1
30°	12935.3	11880.2	10274.7	9889.7	8749.0	7847.9	6128.3	6268.0	6382.1	6407.8
32.5°	14538.0	11914.4	11500.9	11093.1	9838.4	7140.7	6906.8	7172.0	7291.8	7306.1
35°	14523.7	13374.5	12841.2	12382.1	10847.9	7639.7	7788.0	8195.8	8500.9	8486.7
37.5°	15370.7	14985.7	14349.8	13768.0	9764.2	8606.4	8871.6	9333.6	9704.3	9692.9
40°	17141.6	16696.7	16023.7	14803.2	10810.8	9712.9	10083.6	10579.8	10842.2	10856.4
42.5°	18815.5	18447.7	17760.4	13830.8	12119.7	11044.6	11381.1	11714.8	11877.3	11928.7
45°	20480.9	20218.6	17931.5	15285.1	13702.4	12384.9	12607.4	12670.1	12841.2	12821.3
47.5°	21832.6	21541.8	17241.4	17110.2	15621.6	13656.8	13639.7	13557.0	13619.7	13634.0
50°	23067.4	19562.7	18627.3	19063.6	17634.9	14954.3	14629.2	14461.0	14375.4	14338.4
52.5°	24042.7	19568.4	19922.0	21082.6	19907.7	16363.1	15664.4	15191.0	13300.3	14780.4
55°	24872.6	20375.4	21148.2	23241.4	21866.9	17837.4	16599.8	15755.7	8877.4	7117.9
57.5°	25348.8	20988.5	22363.1	25263.2	23577.9	19477.1	15282.3	13214.8	5019.0	5013.3
60°	23509.4	19887.8	22328.8	26324.1	23084.5	15108.3	6222.4	5207.2	949.6	975.3
62.5°	19902.0	17301.3	21176.7	25742.3	21499.0	13291.8	5580.8	4009.5	31.4	25.7
65°	15419.2	13802.2	17831.7	22642.5	19559.8	11090.3	4160.6	2888.8	8.6	0.0
67.5°	10086.5	9727.2	13157.8	18775.6	15952.4	8592.2	2791.8	1383.1	5.7	0.0
70°	4300.4	4981.9	8335.5	13614.0	12211.0	5911.6	1346.0	499.0	2.9	0.0
72.5°	1203.4	1594.1	3710.1	7976.2	7679.6	3108.4	524.7	211.0	2.9	0.0
75°	712.9	613.1	1063.7	3182.5	3738.6	1092.2	242.4	162.5	2.9	0.0
77.5°	593.2	479.1	610.3	812.7	1132.1	393.5	205.3	145.4	0.0	0.0
80°	556.1	424.9	527.6	567.5	558.9	327.9	202.5	145.4	0.0	0.0
82.5°	527.6	370.7	436.3	436.3	467.7	302.3	191.1	142.6	0.0	0.0
85°	396.4	259.5	290.9	376.4	336.5	213.9	139.7	114.1	0.0	0.0
87.5°	151.1	94.1	114.1	119.8	97.0	48.5	11.4	11.4	0.0	0.0
90°	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	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°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	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)