

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: P579486

Luminaire Tested: **CTN-CA10-630-740-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-1)
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-T5-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: 74491 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

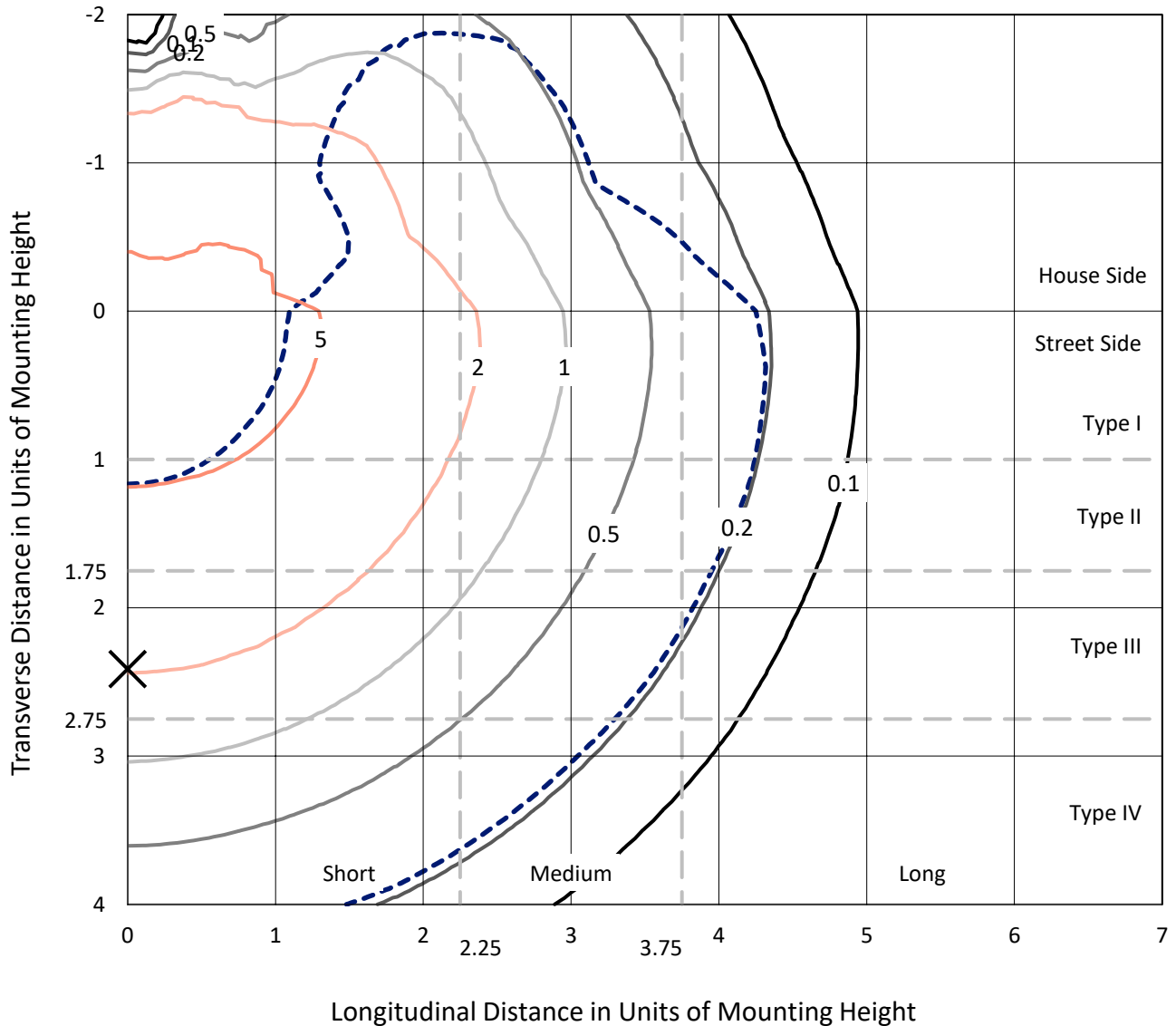
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

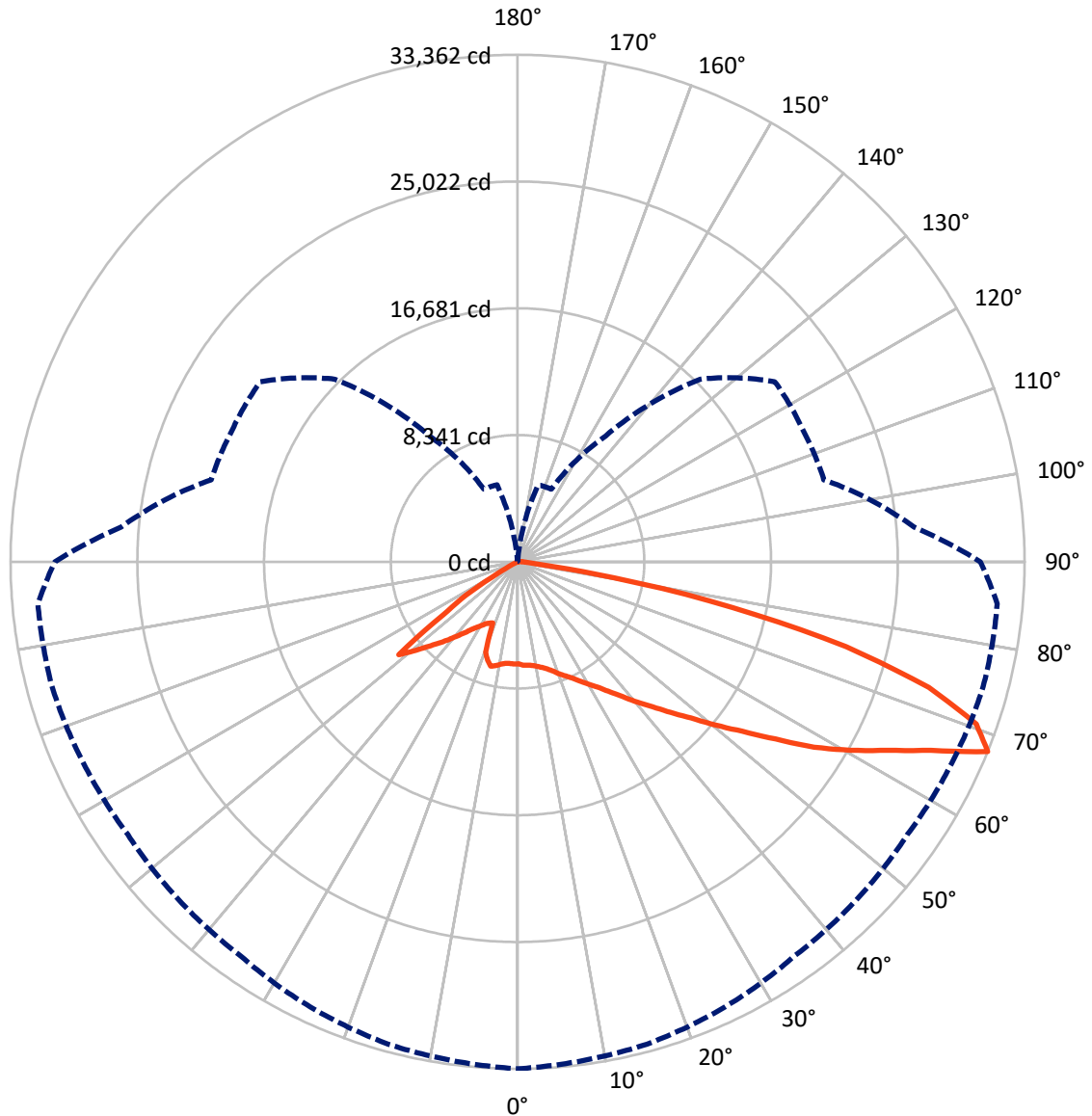
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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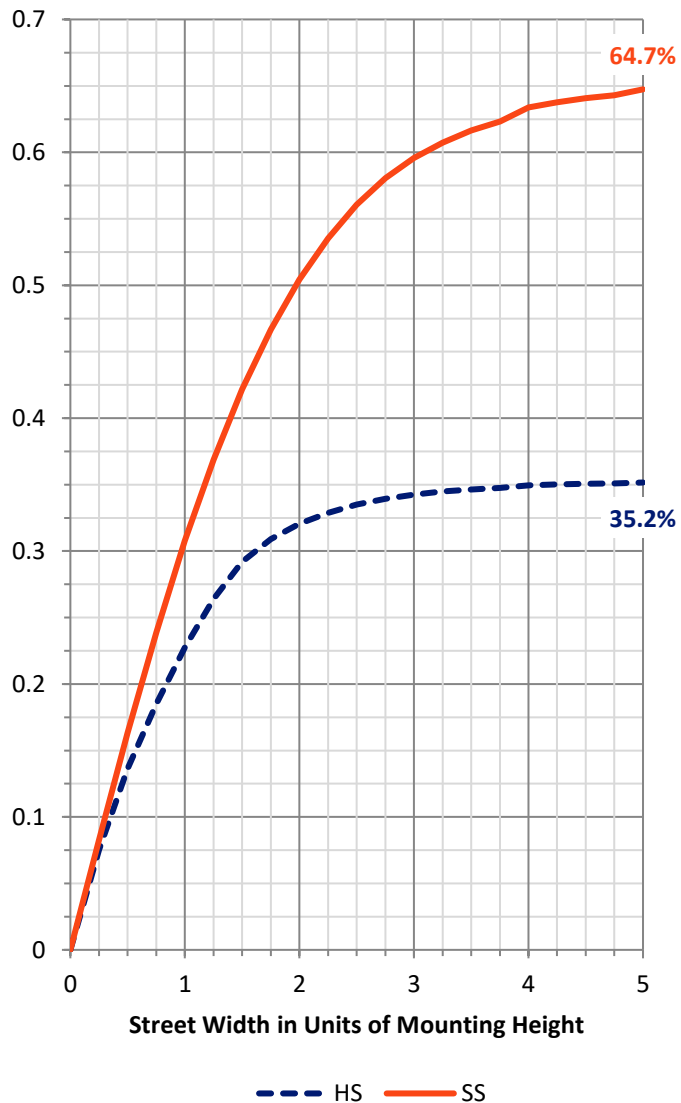
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	26220.7	1.6	26222.3
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	48216.2	52.6	48268.7
	% Fixture	64.7	0.1	64.8
Total	Lumens	74436.9	54.1	74491.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	645.8	0.9
10°-20°	2006.2	2.7
20°-30°	3478.3	4.7
30°-40°	5707.3	7.7
40°-50°	9519.9	12.8
50°-60°	15406.8	20.7
60°-70°	21266.3	28.5
70°-80°	15342.8	20.6
80°-90°	1063.4	1.4
90°-100°	46.1	0.1
100°-110°	7.7	0.0
110°-120°	0.3	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°	74436.9	99.9
0°-180°	74491.0	100.0

Coefficient of Utilization

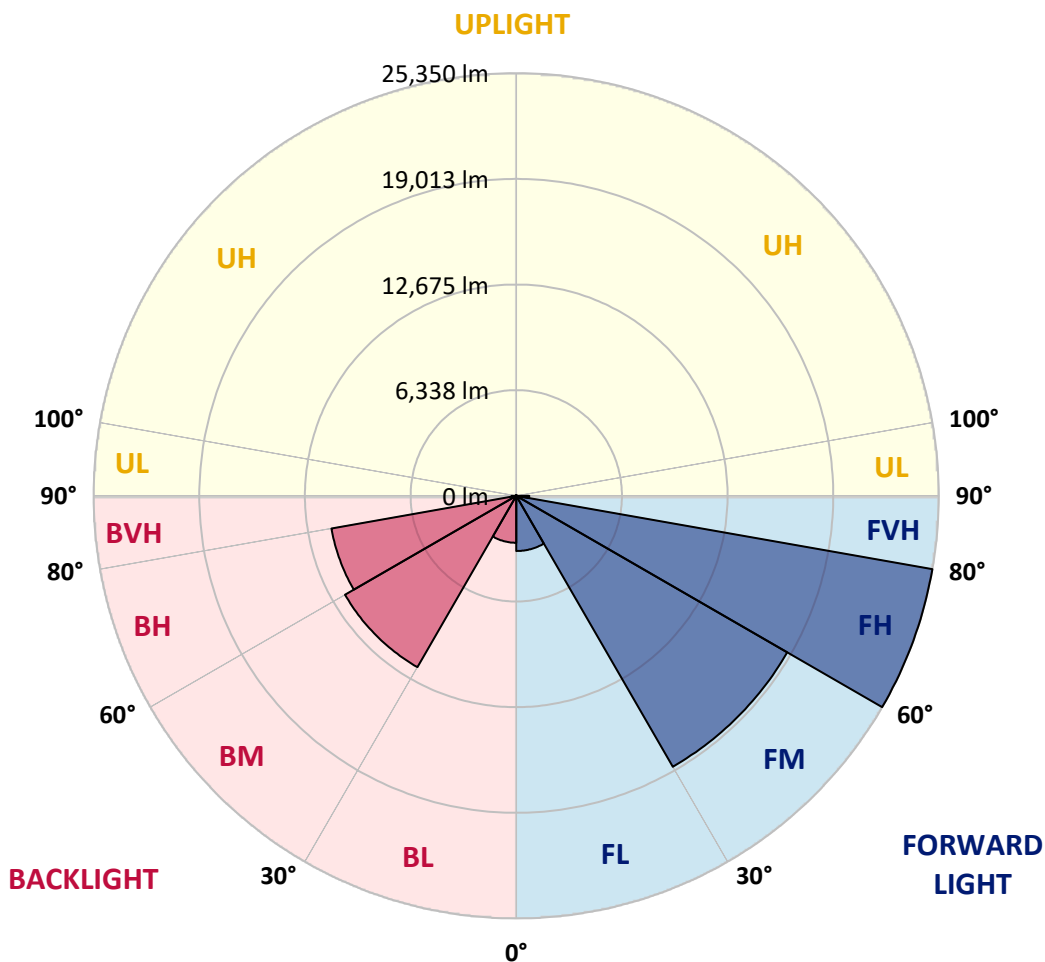


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3312.5	4.4			
FM	(30°-60°)	18769.8	25.2			
FH	(60°-80°)	25350.3	34.0			G5
FVH	(80°-90°)	783.6	1.1			G5
BL	(0°-30°)	2817.8	3.8	B4/5000		
BM	(30°-60°)	11864.2	15.9	B5		
BH	(60°-80°)	11258.8	15.1	B5		G5
BVH	(80°-90°)	279.9	0.4			G3/500
UL	(90°-100°)	46.1	0.1		U2/50	
UH	(100°-180°)	8.0	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°	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9
2.5°	6815.6	6775.7	6778.5	6818.5	6710.1	6750.0	6704.4	6744.3	6724.3	6738.6	6755.7
5°	6835.6	6787.1	6792.8	6841.3	6755.7	6787.1	6732.9	6755.7	6738.6	6755.7	6758.6
7.5°	6886.9	6838.4	6841.3	6878.3	6789.9	6812.8	6761.4	6772.8	6744.3	6775.7	6767.1
10°	6995.3	6949.6	6932.5	6963.9	6886.9	6889.7	6829.9	6841.3	6798.5	6841.3	6824.2
12.5°	7140.7	7078.0	7083.7	7100.8	7006.7	7012.4	6941.1	6958.2	6886.9	6946.8	6926.8
15°	7317.5	7240.5	7249.1	7277.6	7186.3	7177.8	7112.2	7112.2	7049.4	7095.1	7075.1
17.5°	7562.8	7477.2	7471.5	7491.5	7417.3	7417.3	7343.2	7334.6	7271.9	7309.0	7303.2
20°	7882.1	7785.2	7768.1	7805.1	7711.0	7722.4	7628.3	7619.8	7551.3	7574.2	7577.0
22.5°	8170.2	8093.2	8090.3	8147.4	8036.1	8050.4	7964.8	7942.0	7885.0	7916.4	7924.9
25°	8501.0	8489.6	8481.0	8501.0	8389.8	8389.8	8329.9	8309.9	8272.8	8295.6	8318.5
27.5°	8917.3	8911.6	8888.8	8891.7	8797.5	8811.8	8746.2	8734.8	8717.7	8714.8	8703.4
30°	9376.4	9350.8	9319.4	9339.4	9296.6	9310.9	9253.8	9216.7	9211.0	9213.9	9196.8
32.5°	9886.9	9852.7	9832.7	9866.9	9884.1	9924.0	9921.1	9818.5	9818.5	9861.2	9784.2
35°	10520.0	10465.8	10482.9	10528.5	10562.8	10665.4	10648.3	10577.0	10599.8	10619.8	10528.5
37.5°	11264.3	11227.2	11304.2	11389.8	11392.6	11538.0	11503.8	11520.9	11518.1	11492.4	11432.5
40°	12156.9	12097.0	12176.8	12242.4	12202.5	12376.5	12370.7	12447.7	12499.1	12587.5	12553.3
42.5°	13043.8	12998.1	13075.1	13217.7	13194.9	13394.5	13423.0	13542.8	13614.1	13751.0	13671.1
45°	14136.0	14110.3	14181.6	14292.8	14369.8	14635.0	14740.5	14791.9	14971.5	15136.9	14951.6
47.5°	15359.3	15393.6	15382.2	15584.6	15755.7	16078.0	16120.8	16286.2	16443.0	16625.5	16445.9
50°	16882.2	16825.1	16876.5	17070.4	17349.8	17583.7	17803.3	18040.0	18194.0	18382.2	18051.4
52.5°	18521.9	18570.4	18684.5	18983.9	19189.2	19465.8	19665.4	19947.8	20098.9	20261.4	19830.8
55°	20589.4	20629.3	20754.8	21062.8	21208.2	21521.9	21658.8	21941.1	22086.5	22157.8	21607.5
57.5°	23013.4	22879.3	22982.0	23141.7	23367.0	23706.3	23743.4	24008.6	24008.6	24099.9	23398.3
60°	25177.8	25086.6	25194.9	25423.1	25511.5	25819.4	25788.1	26004.8	26061.8	25993.4	25155.0
62.5°	27310.9	27328.0	27467.7	27541.9	27507.7	27690.2	27764.3	27992.5	27898.3	27921.2	26954.4
65°	29900.3	29940.2	29925.9	29789.0	29481.1	29840.4	29820.4	30182.6	30205.4	30410.7	29287.1
67.5°	33362.2	33185.4	32863.2	32312.8	31702.5	31491.5	31306.1	31485.8	31716.8	31679.7	30447.8
70°	32016.2	31728.2	31560.0	31080.9	30265.3	29843.2	29458.2	29489.6	29826.1	29857.5	28597.0
72.5°	28303.3	28157.9	27510.5	27091.3	26532.4	26207.3	25742.4	25848.0	26287.1	26361.3	25357.5
75°	22326.1	22192.1	21607.5	21470.6	21194.0	21353.7	21239.6	21282.4	21636.0	21310.9	20709.2
77.5°	14449.7	14481.0	14389.8	14700.6	14689.2	14697.7	15114.1	15156.9	15501.9	15302.3	14720.6
80°	6479.1	6573.2	6795.6	7246.2	6972.4	7120.7	7280.4	7232.0	7579.9	6792.8	7075.1
82.5°	1311.8	1357.4	1280.4	1337.5	1249.1	1294.7	1360.3	1260.5	1249.1	1157.8	1075.1
85°	675.9	684.4	681.6	667.3	587.5	541.8	521.9	439.2	396.4	387.8	359.3
87.5°	439.2	444.9	430.6	427.8	376.4	345.1	308.0	259.5	216.7	151.1	125.5
90°	268.1	268.1	253.8	239.5	213.9	191.1	154.0	111.2	65.6	25.7	14.3
92.5°	179.7	179.7	174.0	165.4	148.3	128.3	99.8	65.6	31.4	11.4	5.7
95°	114.1	114.1	111.2	108.4	97.0	82.7	62.7	39.9	20.0	8.6	2.9
97.5°	74.1	74.1	74.1	71.3	65.6	57.0	42.8	25.7	14.3	5.7	2.9
100°	45.6	48.5	45.6	45.6	42.8	37.1	28.5	17.1	11.4	5.7	2.9
102.5°	25.7	25.7	28.5	28.5	25.7	22.8	17.1	14.3	8.6	5.7	2.9
105°	11.4	11.4	14.3	14.3	14.3	11.4	11.4	8.6	5.7	5.7	2.9
107.5°	2.9	2.9	2.9	5.7	8.6	8.6	8.6	8.6	5.7	2.9	2.9
110°	0.0	0.0	0.0	2.9	2.9	5.7	5.7	5.7	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°	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9	6712.9
2.5°	6738.6	6704.4	6730.1	6687.3	6675.9	6638.8	6710.1	6721.5	6715.8	6727.2
5°	6744.3	6701.5	6732.9	6690.1	6687.3	6647.4	6721.5	6724.3	6704.4	6712.9
7.5°	6761.4	6721.5	6744.3	6695.8	6701.5	6653.1	6738.6	6735.8	6724.3	6744.3
10°	6824.2	6778.5	6787.1	6735.8	6750.0	6698.7	6804.2	6809.9	6798.5	6835.6
12.5°	6932.5	6869.8	6889.7	6829.9	6841.3	6789.9	6918.3	6926.8	6926.8	6986.7
15°	7080.8	7015.2	7058.0	6981.0	6983.9	6906.9	7003.8	7003.8	7015.2	7097.9
17.5°	7297.5	7217.7	7274.7	7203.4	6758.6	6590.3	6921.1	7123.6	6787.1	6758.6
20°	7565.6	7528.5	7559.9	7443.0	6721.5	5951.5	5352.7	5321.3	5985.8	6316.6
22.5°	7893.6	7856.5	7870.7	7722.4	6000.0	5458.2	5449.6	5392.6	4562.7	4334.6
25°	8278.5	8258.6	8227.2	6983.9	6202.5	5683.5	5615.0	4870.7	4394.5	4437.3
27.5°	8692.0	8632.1	7574.2	7254.8	6513.3	5908.8	5520.9	4548.5	4531.4	4571.3
30°	9154.0	8837.5	7753.8	7645.5	6875.5	6188.2	4805.1	4748.1	4748.1	4810.8
32.5°	9741.5	8252.9	8252.9	8195.8	7323.2	5432.5	5058.9	5024.7	5064.6	5090.3
35°	9653.1	8877.4	8968.7	8943.0	7930.6	5532.3	5466.7	5409.7	5418.3	5418.3
37.5°	9681.6	9712.9	9821.3	9710.1	6918.3	5965.8	5860.3	5848.9	5857.4	5877.4
40°	10577.0	10594.1	10634.1	10388.8	7434.4	6470.5	6325.1	6296.6	6325.1	6367.9
42.5°	11540.9	11589.4	11635.0	9447.7	8155.9	7043.7	6898.3	6844.1	6895.5	6941.1
45°	12681.6	12755.7	12057.1	10283.3	8971.5	7696.8	7542.8	7477.2	7508.6	7548.5
47.5°	13964.9	14081.8	11369.8	11347.0	9929.7	8469.6	8292.8	8167.3	8215.8	8212.9
50°	15413.5	13457.3	12561.8	12547.6	10999.1	9330.8	9148.3	9034.2	9071.3	9042.8
52.5°	16979.1	13825.1	13853.6	13850.8	12116.9	10257.6	10089.4	9946.8	9653.1	9924.0
55°	18581.8	15097.0	15205.4	15188.2	13289.0	11215.8	11036.1	10902.1	7123.6	6017.1
57.5°	20175.9	16425.9	16460.1	16500.0	14503.8	12139.8	11349.8	10425.9	4063.7	4043.7
60°	21750.0	17692.1	17760.5	17783.3	15159.7	10049.5	4639.7	4725.3	1229.1	1468.6
62.5°	23381.2	18941.1	19003.8	18983.9	15812.8	9345.1	4873.6	4776.6	114.1	105.5
65°	25463.0	20506.7	20418.3	20352.7	16842.2	9972.5	5235.8	5210.1	37.1	25.7
67.5°	26193.0	20863.2	20683.5	20660.7	16990.5	10106.5	5264.3	5244.3	37.1	25.7
70°	24539.0	19508.6	19200.6	19209.2	15809.9	9453.4	4910.7	4882.1	34.2	25.7
72.5°	21490.5	17230.1	17101.7	16423.0	13691.1	8315.6	4354.6	4246.2	34.2	22.8
75°	17643.6	13919.2	13634.1	12872.7	10896.4	6610.3	3419.2	3279.5	31.4	20.0
77.5°	12248.1	9761.4	9216.7	8441.1	7289.0	4383.1	2298.5	2118.8	28.5	20.0
80°	5552.3	4006.7	4026.6	3085.6	2472.4	1485.7	730.0	661.6	25.7	17.1
82.5°	966.7	712.9	670.2	647.3	539.0	365.0	222.4	191.1	22.8	11.4
85°	336.5	270.9	299.4	353.6	313.7	219.6	136.9	131.2	14.3	5.7
87.5°	114.1	119.8	139.7	168.3	148.3	85.6	51.3	37.1	2.9	0.0
90°	11.4	14.3	14.3	14.3	8.6	0.0	0.0	0.0	0.0	0.0
92.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.9	2.9	2.9	0.0	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	0.0	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	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	2.9	2.9	2.9	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)