

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: P522169

Luminaire Tested: **CTN-CA10-760-730-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522169
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-760-730-U-T5R-HSS-HM-EX180
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: 69181 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

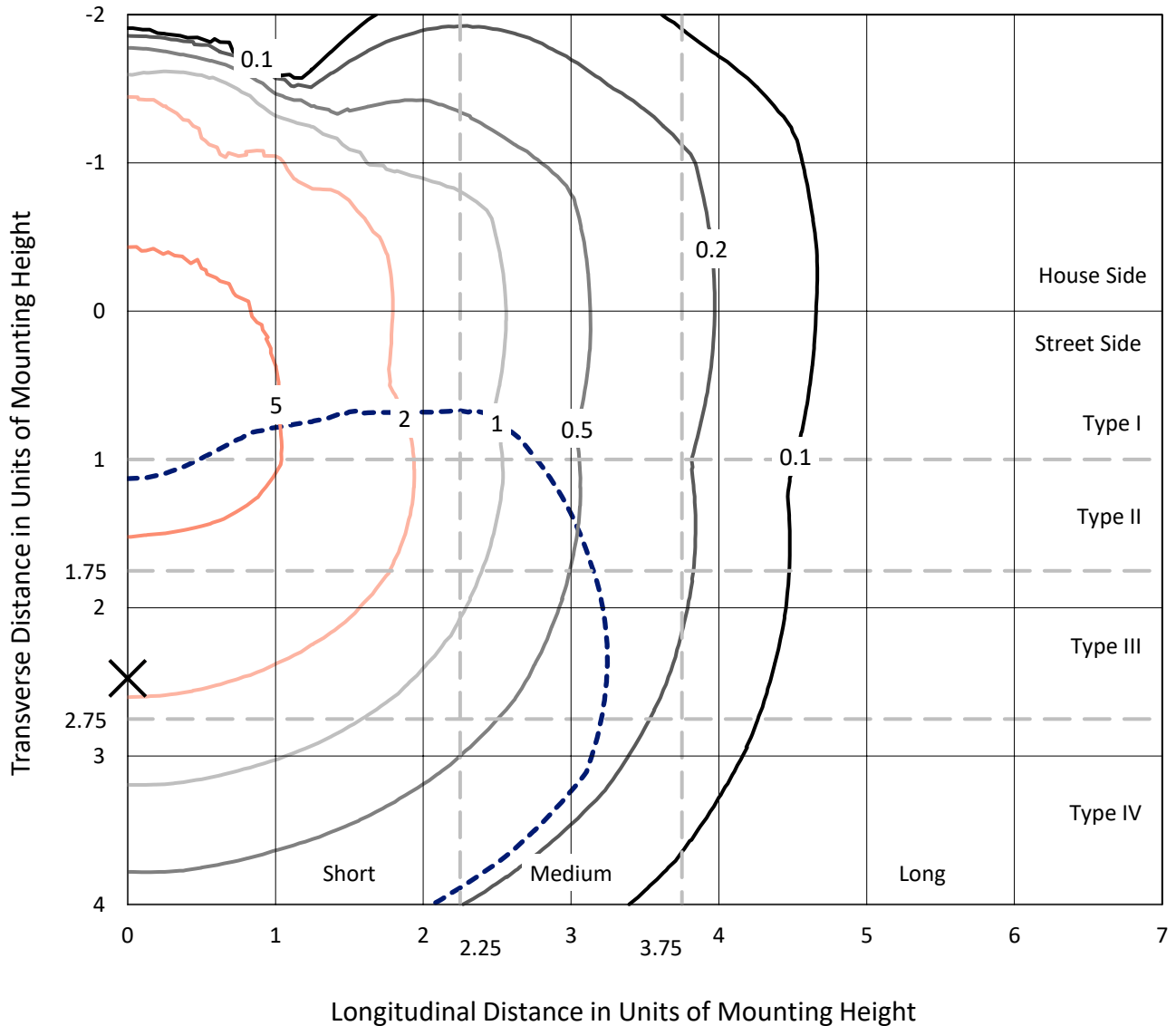
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

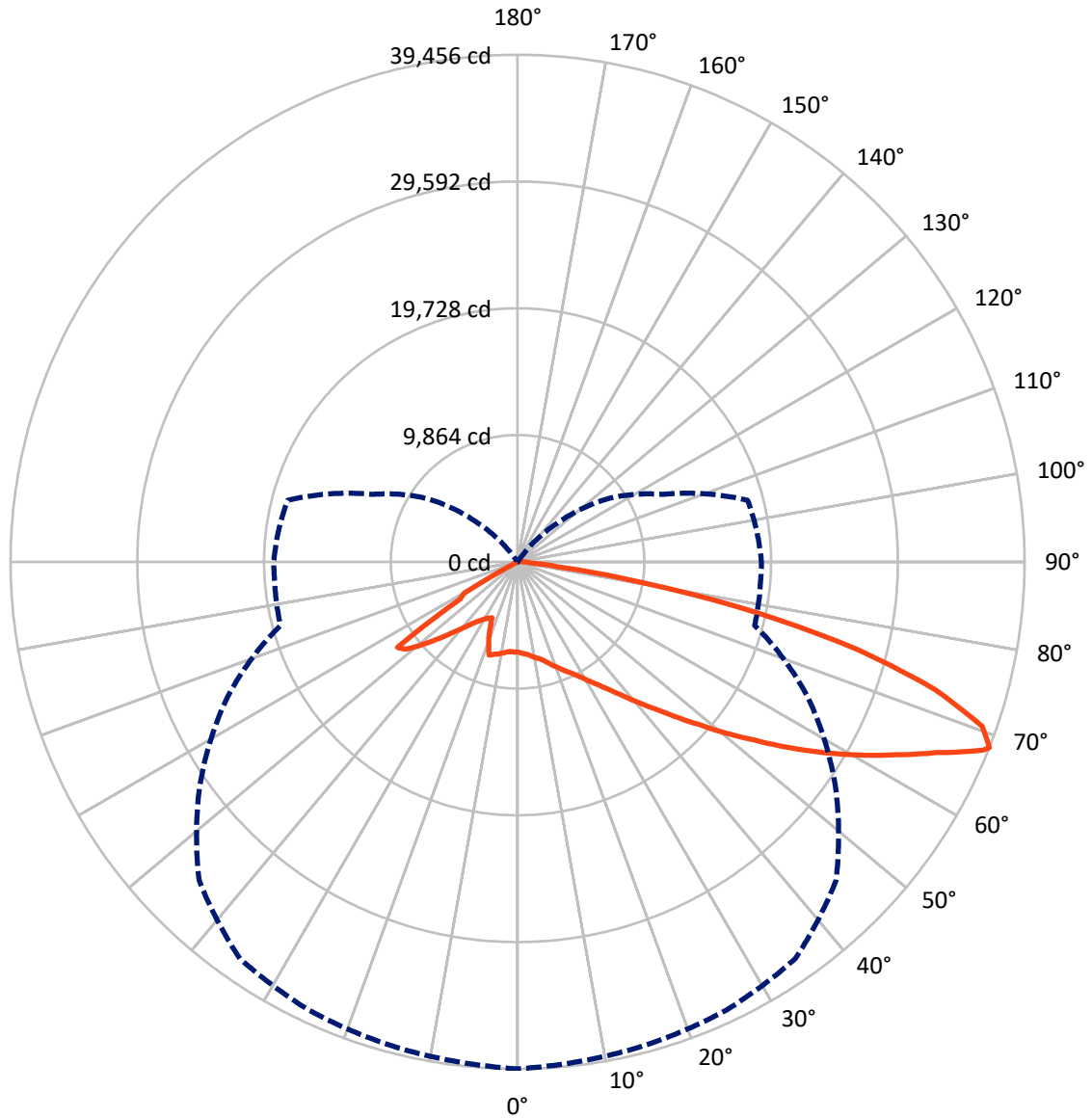
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.1 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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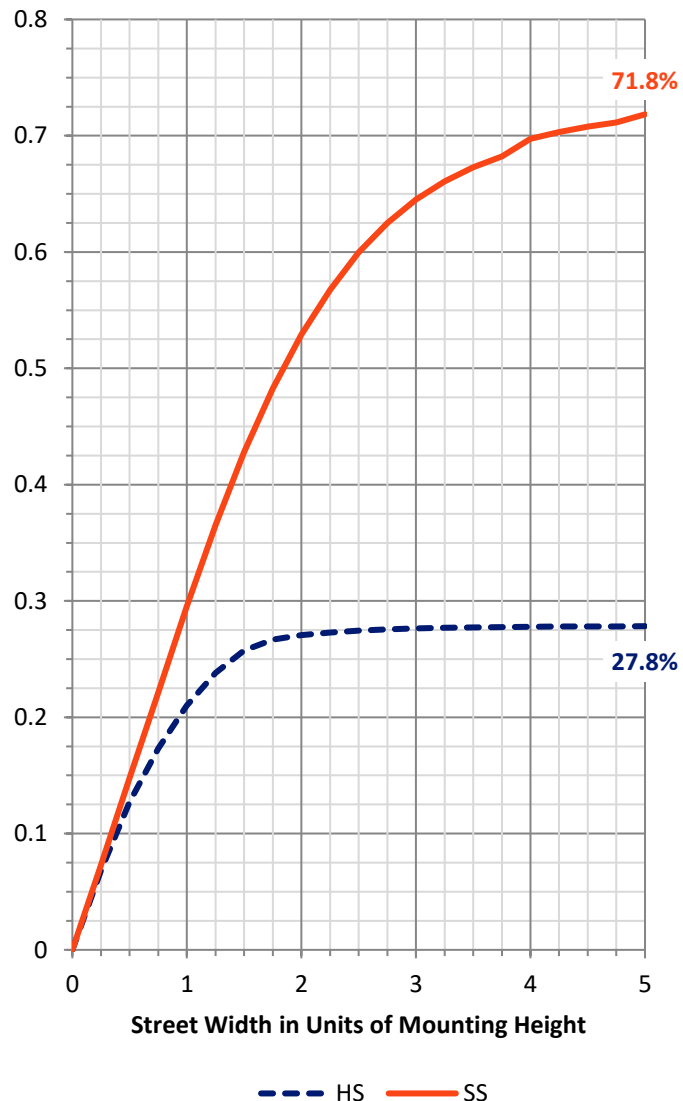
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	19322.3	0.4	19322.8
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	49818.6	39.6	49858.2
	% Fixture	72.0	0.1	72.1
Total	Lumens	69141.0	40.1	69181.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	680.3	1.0
10°-20°	2155.5	3.1
20°-30°	3649.2	5.3
30°-40°	5781.2	8.4
40°-50°	9451.9	13.7
50°-60°	14478.0	20.9
60°-70°	17801.7	25.7
70°-80°	13755.3	19.9
80°-90°	1387.9	2.0
90°-100°	39.4	0.1
100°-110°	0.6	0.0
110°-120°	0.0	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°	69141.0	99.9
0°-180°	69181.0	100.0

Coefficient of Utilization

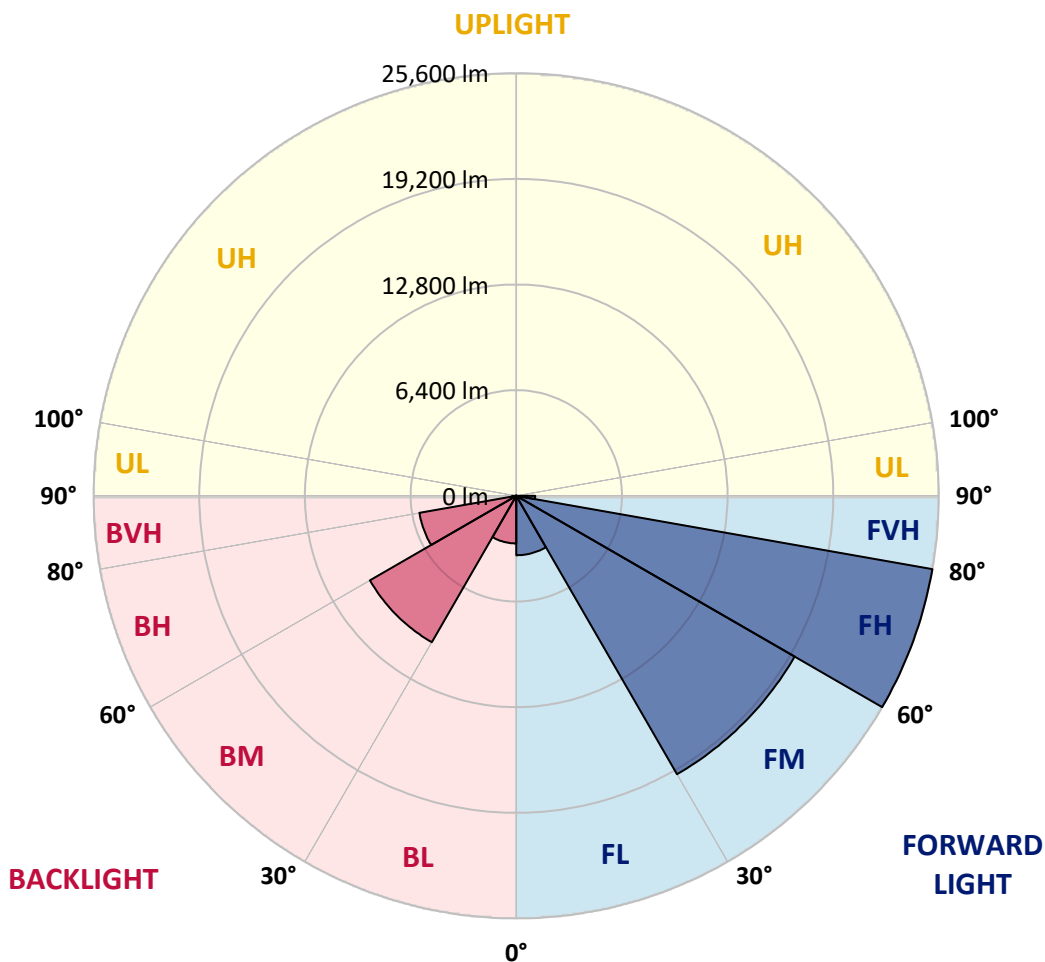


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3600.9	5.2			
FM (30°-60°)	19473.3	28.1			
FH (60°-80°)	25599.9	37.0			G5
FVH (80°-90°)	1144.6	1.7			G5
BL (0°-30°)	2884.1	4.2	B4/5000		
BM (30°-60°)	10237.8	14.8	B5		
BH (60°-80°)	5957.1	8.6	B5		G5
BVH (80°-90°)	243.3	0.4			G3/500
UL (90°-100°)	39.4	0.1		U2/50	
UH (100°-180°)	0.6	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°	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8
2.5°	7135.4	7122.1	7108.8	7138.7	7022.1	7072.1	7032.1	7068.8	7042.1	7072.1	7062.1
5°	7228.7	7215.4	7175.4	7208.7	7132.1	7152.1	7102.1	7115.4	7025.4	7078.8	7075.4
7.5°	7382.0	7345.4	7318.7	7318.7	7252.1	7248.7	7168.7	7172.1	7102.1	7095.4	7108.8
10°	7588.7	7562.0	7488.7	7495.4	7402.0	7388.7	7288.7	7285.4	7228.7	7195.4	7225.4
12.5°	7742.0	7768.6	7702.0	7702.0	7608.7	7542.0	7472.0	7425.4	7382.0	7332.0	7308.7
15°	8021.9	8048.6	7958.6	7955.3	7918.6	7838.6	7762.0	7662.0	7585.3	7562.0	7525.3
17.5°	8385.2	8368.5	8291.9	8295.2	8301.9	8171.9	8095.2	7965.3	7855.3	7775.3	7755.3
20°	8755.1	8755.1	8671.8	8698.5	8665.1	8545.2	8495.2	8315.2	8161.9	8075.3	8005.3
22.5°	9168.4	9151.7	9095.1	9151.7	9085.1	8965.1	8881.8	8701.8	8505.2	8015.3	7815.3
25°	9561.7	9551.7	9575.0	9591.7	9508.3	9358.4	9301.7	9111.7	8565.2	7921.9	7518.7
27.5°	10058.2	10024.9	10078.2	10111.6	10028.2	9898.3	9778.3	9565.0	8408.5	7901.9	7858.6
30°	10694.8	10621.5	10698.1	10714.8	10628.1	10548.2	10368.2	9301.7	8461.9	8315.2	8301.9
32.5°	11374.7	11288.0	11388.0	11401.3	11288.0	11221.4	10768.1	9165.1	8985.1	8815.1	8831.8
35°	12181.2	12181.2	12231.2	12237.9	12154.5	12041.2	10314.9	9831.6	9671.6	9515.0	9511.7
37.5°	13164.4	13134.4	13267.7	13347.7	13257.7	12934.4	10974.7	10748.1	10501.5	10301.5	9888.3
40°	14350.8	14404.1	14440.8	14520.8	14434.1	13707.6	11937.9	11681.3	11488.0	10818.1	9775.0
42.5°	15630.6	15643.9	15723.9	15823.9	15823.9	15057.4	13064.4	12844.4	12594.5	10578.1	10108.2
45°	17160.3	17130.3	17283.6	17443.6	17400.3	16607.1	14374.1	14210.8	13041.0	11274.7	11278.0
47.5°	18896.7	18860.0	19080.0	19290.0	19073.3	18326.8	15813.9	15687.3	12587.8	12454.5	12427.8
50°	20903.0	20813.0	21066.3	21346.3	21169.6	20246.5	17563.6	15130.7	13850.9	13744.3	13727.6
52.5°	23046.0	22976.0	23129.3	23605.9	23372.6	22256.1	19220.0	15610.6	15314.0	15194.0	15164.0
55°	25465.5	25328.9	25658.8	26022.1	25752.2	24479.0	20853.0	17203.7	16897.0	16690.4	16390.5
57.5°	28008.4	27811.8	27981.8	28438.4	28178.4	26755.3	22959.3	18843.4	18480.1	15294.0	14077.5
60°	30541.3	30451.3	30518.0	30921.3	30601.3	28968.3	24932.3	20486.4	15640.6	15127.4	15187.3
62.5°	33087.5	32890.9	32950.9	33364.2	32954.2	31074.6	26802.0	21979.5	16460.5	16280.5	16343.8
65°	35817.1	35583.8	35637.1	35757.1	35250.5	32964.2	28455.0	23389.2	17693.6	17503.6	17573.6
67.5°	39106.5	38893.2	38603.2	38246.6	37546.8	34970.5	30098.1	24872.3	19080.0	18973.3	18996.7
68°	39456.4	39249.8	38899.9	38476.6	37690.1	35053.9	30168.1	24915.6	19100.0	18966.7	18973.3
70°	38366.6	38489.9	38093.3	37383.5	36726.9	33834.1	29024.9	23955.8	18250.1	18053.5	18003.5
72.5°	33977.4	34247.3	33700.8	33580.8	32774.3	30141.4	25398.9	20786.4	15873.9	15937.2	15757.2
75°	27431.9	27828.5	27165.2	27201.9	26742.0	25142.3	21286.3	17307.0	13034.4	13324.3	13377.7
77.5°	19076.7	19646.6	19356.6	19646.6	19419.9	18843.4	16473.8	13327.7	9944.9	10278.2	10408.2
80°	9948.3	10624.8	11008.1	11128.1	11201.4	11178.0	10031.6	7998.6	5749.0	5872.3	5865.6
82.5°	3146.1	2982.8	3079.5	3052.8	2969.5	3002.8	2706.2	2116.3	1466.4	1616.4	1546.4
85°	949.8	956.5	929.8	923.2	853.2	749.9	613.2	353.3	173.3	203.3	190.0
87.5°	699.9	706.5	653.2	619.9	579.9	503.2	389.9	220.0	83.3	80.0	63.3
90°	386.6	373.3	346.6	319.9	303.3	260.0	196.6	83.3	30.0	23.3	20.0
92.5°	210.0	200.0	186.6	176.6	153.3	123.3	80.0	26.7	13.3	3.3	0.0
95°	96.6	90.0	86.7	76.7	66.7	46.7	26.7	16.7	10.0	3.3	0.0
97.5°	43.3	40.0	36.7	30.0	23.3	13.3	13.3	10.0	6.7	3.3	0.0
100°	10.0	10.0	6.7	6.7	6.7	6.7	6.7	6.7	6.7	3.3	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0



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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	0.0	0.0	0.0	0.0
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°	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8	7008.8
2.5°	7052.1	7032.1	7022.1	6958.8	6978.8	6922.1	7032.1	7005.4	6988.8	7035.4
5°	7058.8	6988.8	7032.1	6995.4	7008.8	6928.8	7015.4	6978.8	6975.4	6995.4
7.5°	7075.4	7028.8	7072.1	6998.8	7032.1	6998.8	7062.1	7025.4	7055.4	7075.4
10°	7165.4	7138.7	7118.8	7102.1	7125.4	7058.8	7138.7	7142.1	7152.1	7212.1
12.5°	7292.1	7265.4	7232.1	7188.7	7212.1	7185.4	7245.4	7262.1	7298.7	7328.7
15°	7468.7	7418.7	7405.4	7365.4	7388.7	7375.4	7388.7	7378.7	7448.7	7438.7
17.5°	7712.0	7655.3	7465.4	7272.1	7148.7	7185.4	7338.7	7538.7	7588.7	7595.3
20°	7802.0	7402.0	7382.0	7162.1	7062.1	7055.4	6738.8	6265.6	6408.9	6745.5
22.5°	7695.3	7148.7	7092.1	7048.8	6622.2	5922.3	5855.6	5785.7	5769.0	5819.0
25°	7455.4	7392.0	7342.0	6775.5	6102.3	6105.6	6008.9	5549.0	4832.5	4772.5
27.5°	7822.0	7735.3	7252.1	6378.9	6365.6	6358.9	6215.6	5035.8	4882.5	4919.1
30°	8238.6	8095.2	6832.1	6718.8	6715.5	6655.5	5572.4	5079.1	5079.1	5085.8
32.5°	8718.5	7828.6	7072.1	7125.4	7122.1	6838.8	5382.4	5349.1	5335.7	5369.1
35°	9085.1	7615.3	7588.7	7685.3	7618.7	5802.3	5719.0	5689.0	5675.7	5659.0
37.5°	8971.8	8228.6	8228.6	8288.5	7752.0	6178.9	6138.9	6138.9	6112.3	6098.9
40°	9145.1	8991.8	8915.1	8938.4	5632.3	6635.5	6665.5	6658.8	6655.5	6678.8
42.5°	10058.2	9921.6	9851.6	9025.1	6305.6	6595.5	7328.7	7325.4	7335.4	7325.4
45°	11221.4	11094.7	10911.4	8445.2	7158.7	5782.3	8078.6	8115.2	8118.6	8115.2
47.5°	12441.2	12361.2	10484.8	9348.4	8085.3	6205.6	7722.0	9018.4	9001.8	9021.8
50°	13730.9	13371.0	10431.5	10418.2	9071.7	6905.5	6908.8	9808.3	9978.3	10031.6
52.5°	15167.3	12121.2	11561.3	10548.2	10071.6	7625.3	7552.0	8691.8	11011.4	11064.7
55°	14087.5	12804.4	12794.4	9388.4	10478.2	8318.5	8328.5	8248.6	10098.2	11478.0
57.5°	14017.5	14047.5	14024.2	10474.8	7645.3	7798.6	9075.1	9005.1	6538.9	5299.1
60°	15227.3	15270.7	13624.3	11311.4	8265.2	4795.8	5589.0	4749.2	4812.5	4862.5
62.5°	16383.8	16397.1	11081.4	7415.4	4095.9	193.3	93.3	76.7	73.3	73.3
65°	17663.6	17663.6	11877.9	8088.6	3956.0	73.3	13.3	10.0	36.7	36.7
67.5°	18900.0	18626.7	12461.2	8588.5	4026.0	10.0	0.0	0.0	0.0	0.0
68°	18830.0	18530.1	12407.8	8575.2	4016.0	6.7	0.0	0.0	0.0	0.0
70°	17783.6	17493.6	11771.3	8185.2	3866.0	6.7	0.0	0.0	0.0	0.0
72.5°	15697.3	15430.6	10424.8	7215.4	3486.1	3.3	0.0	0.0	0.0	0.0
75°	13287.7	13251.0	9005.1	6088.9	2989.5	3.3	0.0	0.0	0.0	0.0
77.5°	10691.5	10524.8	7038.8	4772.5	2409.6	0.0	0.0	0.0	0.0	0.0
80°	5955.6	6202.2	4119.3	2806.2	1516.4	0.0	0.0	0.0	0.0	0.0
82.5°	1609.7	1506.4	899.8	609.9	289.9	0.0	0.0	0.0	0.0	0.0
85°	206.6	226.6	103.3	83.3	20.0	0.0	0.0	0.0	0.0	0.0
87.5°	106.6	126.6	33.3	26.7	6.7	0.0	0.0	0.0	0.0	0.0
90°	20.0	23.3	10.0	3.3	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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)