

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: P522170

Luminaire Tested: **CTN-CA10-760-730-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522170
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-CA10-760-730-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: 88570.9 lumens
Efficiency: N/A
Efficacy: 116.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

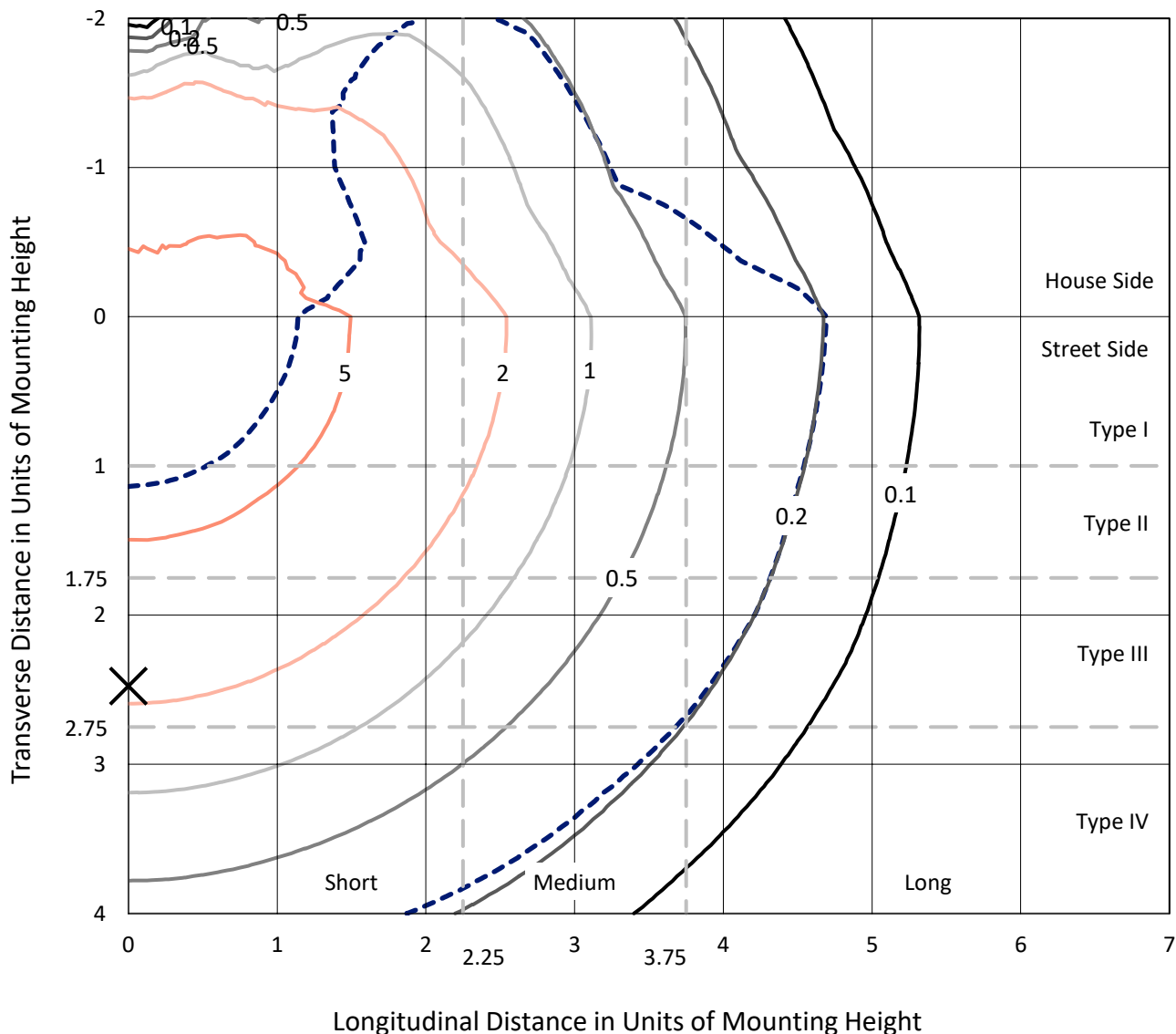
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

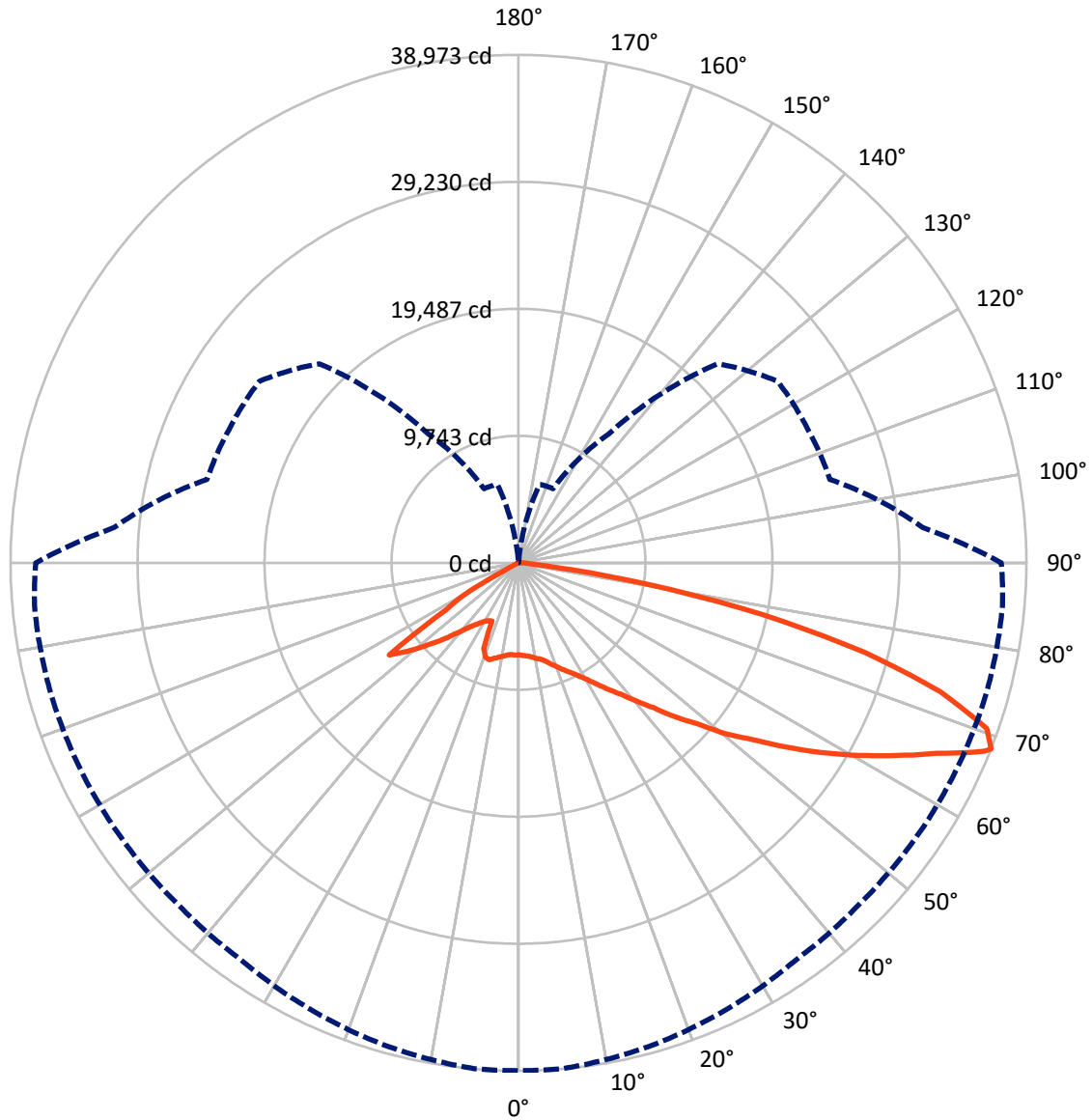
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.9 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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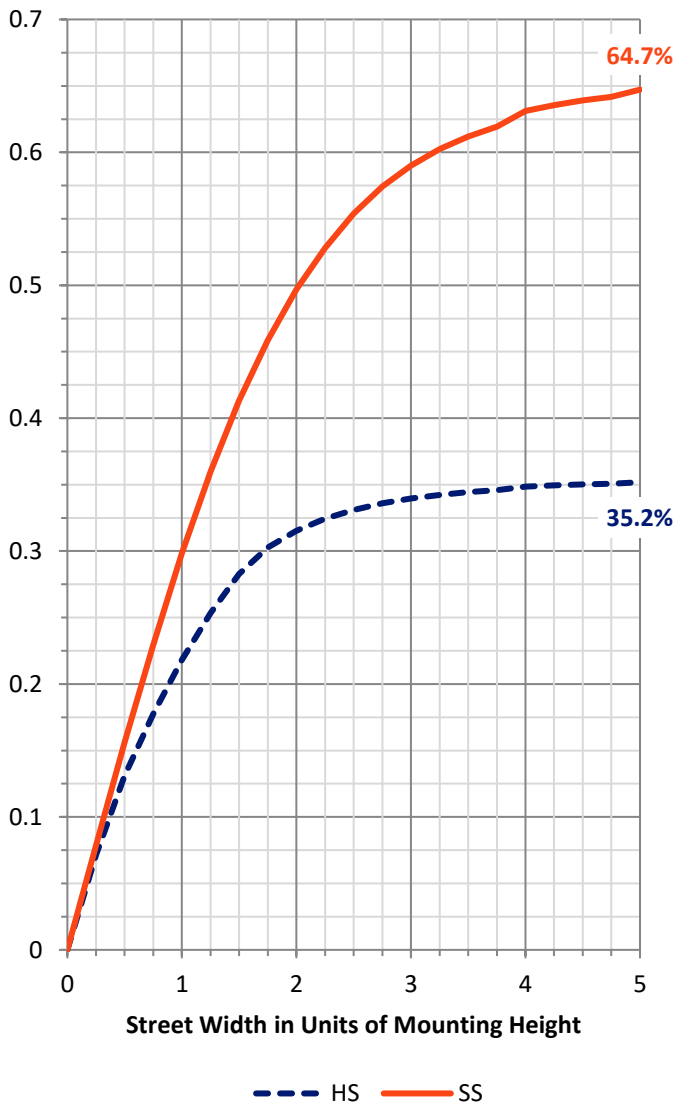
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	31171.0	5.3	31176.3
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	57371.3	23.3	57394.7
	% Fixture	64.8	0.0	64.8
Total	Lumens	88542.3	28.6	88570.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	681.9	0.8
10°-20°	2184.8	2.5
20°-30°	3900.2	4.4
30°-40°	6344.9	7.2
40°-50°	10835.2	12.2
50°-60°	18079.1	20.4
60°-70°	25151.6	28.4
70°-80°	19496.4	22.0
80°-90°	1868.2	2.1
90°-100°	22.6	0.0
100°-110°	1.9	0.0
110°-120°	1.0	0.0
120°-130°	0.6	0.0
130°-140°	0.7	0.0
140°-150°	0.8	0.0
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-90°	88542.3	100.0
0°-180°	88570.9	100.0

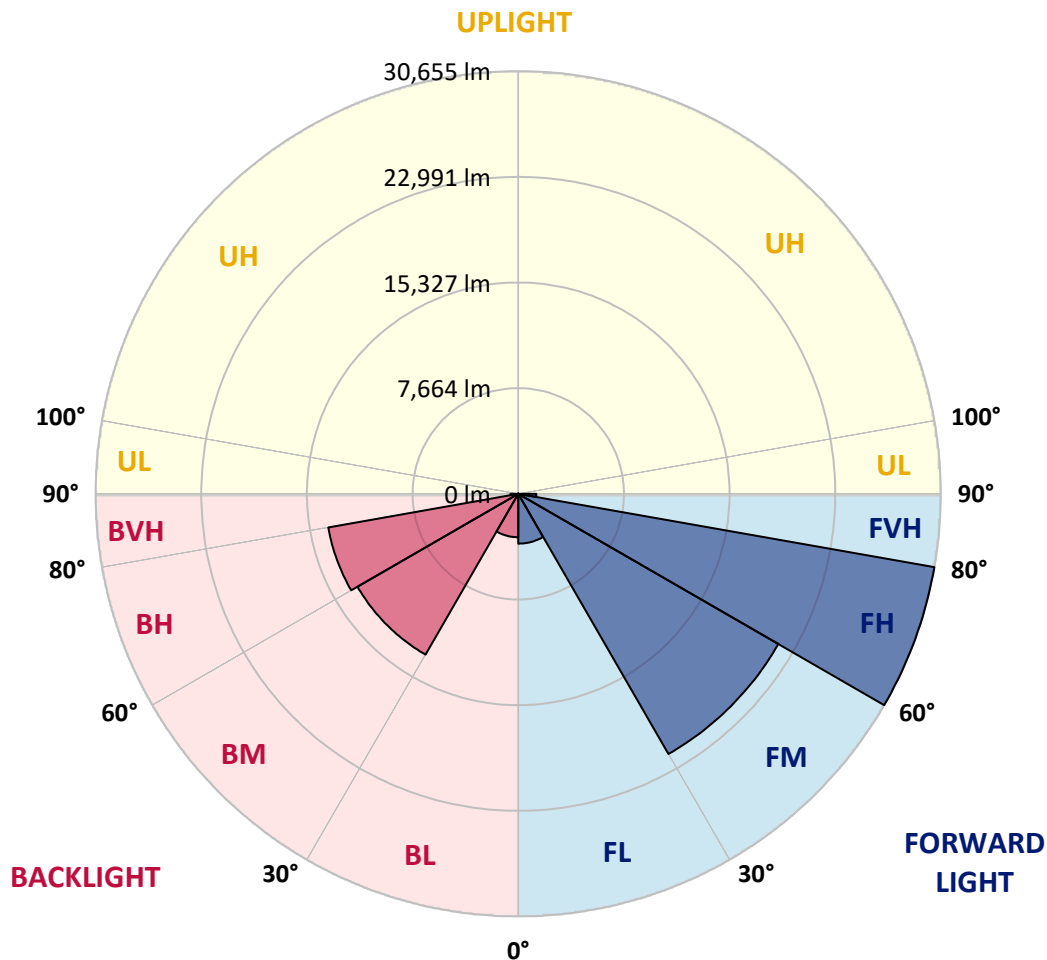


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3614.9	4.1			
FM (30°-60°)	21794.7	24.6			
FH (60°-80°)	30654.7	34.6			G5
FVH (80°-90°)	1307.0	1.5			G5
BL (0°-30°)	3152.0	3.6	B4/5000		
BM (30°-60°)	13464.5	15.2	B5		
BH (60°-80°)	13993.3	15.8	B5		G5
BVH (80°-90°)	561.2	0.6			G4/750
UL (90°-100°)	22.6	0.0		U2/50	
UH (100°-180°)	6.1	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°	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8
2.5°	7128.7	7118.7	7112.1	7155.4	7032.1	7082.1	7048.8	7092.1	7082.1	7102.1	7105.4
5°	7178.7	7162.1	7138.7	7185.4	7112.1	7145.4	7108.7	7128.7	7065.4	7118.7	7125.4
7.5°	7292.1	7245.4	7242.1	7255.4	7205.4	7228.7	7165.4	7188.7	7155.4	7135.4	7155.4
10°	7462.0	7422.0	7378.7	7405.4	7322.0	7352.0	7285.4	7305.4	7288.7	7245.4	7285.4
12.5°	7578.7	7592.0	7562.0	7582.0	7508.7	7482.0	7458.7	7455.4	7445.4	7382.0	7372.0
15°	7838.6	7845.3	7792.0	7805.3	7788.6	7775.3	7742.0	7715.3	7662.0	7622.0	7595.3
17.5°	8178.6	8141.9	8091.9	8105.2	8151.9	8091.9	8071.9	8021.9	7945.3	7878.6	7865.3
20°	8535.2	8511.8	8465.2	8491.8	8488.5	8448.5	8458.5	8375.2	8265.2	8208.6	8165.2
22.5°	8931.8	8898.4	8865.1	8915.1	8875.1	8848.4	8838.4	8781.8	8645.1	8581.8	8571.8
25°	9328.4	9311.7	9335.0	9318.4	9261.7	9241.7	9255.0	9235.0	9075.1	8998.4	8951.8
27.5°	9824.9	9784.9	9821.6	9801.6	9741.6	9745.0	9748.3	9751.6	9571.6	9471.7	9405.0
30°	10391.5	10378.2	10424.8	10361.5	10304.9	10341.5	10371.5	10304.9	10148.2	10001.6	9978.2
32.5°	11128.0	11044.7	11098.0	11018.1	10931.4	11018.1	11071.4	10938.1	10811.4	10624.8	10658.1
35°	11944.6	11917.9	11917.9	11814.6	11767.9	11904.6	11957.9	11827.9	11631.3	11468.0	11428.0
37.5°	12811.1	12837.7	12921.1	12877.7	12834.4	12917.7	13037.7	12864.4	12611.1	12437.8	12391.2
40°	13960.9	14027.5	14084.2	14027.5	13977.5	14030.9	14167.5	13940.9	13764.2	13670.9	13570.9
42.5°	15197.3	15310.6	15274.0	15280.6	15324.0	15400.6	15537.3	15330.6	15127.3	15124.0	14977.4
45°	16870.4	16870.4	16793.7	16867.0	16860.4	17050.3	17110.3	16997.0	16827.0	16777.0	16650.4
47.5°	18433.4	18596.7	18566.7	18673.4	18590.1	18750.0	18953.3	18856.7	18660.1	18483.4	18456.8
50°	20613.0	20573.0	20533.1	20693.0	20679.7	20789.7	20976.3	20916.3	20643.0	20443.1	20406.4
52.5°	22529.4	22739.3	22689.3	22929.3	22796.0	22952.6	23175.9	23165.9	22832.6	22636.0	22579.4
55°	24948.9	25088.9	25078.9	25325.5	25142.2	25348.9	25535.5	25555.5	25192.2	24912.3	24998.9
57.5°	27468.5	27585.1	27518.5	27721.8	27541.8	27825.1	27938.4	27865.1	27651.8	27298.5	27428.5
60°	29991.4	30091.4	30168.0	30184.7	30081.4	30248.0	30354.7	30418.0	30081.4	29678.1	29834.8
62.5°	32554.3	32667.6	32600.9	32627.6	32341.0	32567.6	32700.9	32717.6	32331.0	31974.4	32084.4
65°	35253.8	35410.4	35170.5	35010.5	34657.2	34653.9	34830.5	34860.5	34587.2	34334.0	34290.6
67.5°	38596.5	38666.5	38153.3	37616.7	37020.2	36890.2	37013.5	37083.5	37240.1	37233.4	37036.8
68°	38973.1	38959.8	38439.9	37800.0	37160.1	37010.2	37070.1	37160.1	37263.4	37283.4	37046.8
70°	38116.6	37953.3	37656.7	36850.2	36217.0	35823.7	35613.7	35780.4	35500.4	35503.8	35060.5
72.5°	33857.4	33837.4	33290.8	32890.9	32327.6	31674.4	31374.5	31371.1	31397.8	31204.5	30747.9
75°	27425.2	27451.8	26815.3	26538.7	26365.4	26242.1	26305.4	26502.0	26522.0	26518.7	26358.7
77.5°	19126.6	19236.6	19066.6	18616.7	19100.0	19513.2	20309.8	20716.4	20586.4	20976.3	21222.9
80°	10024.9	10244.9	10251.5	10568.1	10958.1	11334.7	12021.2	12637.8	12184.5	11984.6	11777.9
82.5°	2636.2	2716.2	2836.2	2652.9	2709.5	2766.2	3299.4	3249.4	2999.5	3132.8	3332.7
85°	753.2	776.5	743.2	673.2	616.6	566.6	579.9	489.9	426.6	423.3	409.9
87.5°	529.9	569.9	503.2	433.3	389.9	363.3	349.9	296.6	240.0	210.0	166.6
90°	246.6	243.3	210.0	163.3	143.3	136.6	136.6	106.6	60.0	36.7	33.3
92.5°	103.3	106.6	86.7	70.0	60.0	46.7	36.7	23.3	13.3	6.7	3.3
95°	36.7	40.0	33.3	26.7	23.3	20.0	16.7	13.3	6.7	3.3	3.3
97.5°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	6.7	6.7	3.3	3.3
100°	0.0	0.0	0.0	3.3	6.7	6.7	6.7	6.7	3.3	3.3	3.3
102.5°	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
105°	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3	3.3
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3



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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	3.3	3.3	3.3	3.3
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3
145°	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3
150°	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3
160°	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3
165°	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3	3.3
167.5°	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3	3.3
170°	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
172.5°	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
175°	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
177.5°	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
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°	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8	7048.8
2.5°	7098.8	7082.1	7075.4	6992.1	7015.4	6965.4	7082.1	7048.8	7042.1	7088.8
5°	7115.4	7038.8	7085.4	7032.1	7045.4	6972.1	7065.4	7025.4	7028.8	7052.1
7.5°	7125.4	7082.1	7128.7	7035.4	7072.1	7045.4	7112.1	7072.1	7112.1	7132.1
10°	7225.4	7205.4	7172.1	7145.4	7172.1	7108.7	7192.1	7185.4	7208.7	7268.7
12.5°	7362.0	7338.7	7305.4	7258.7	7278.7	7255.4	7318.7	7325.4	7368.7	7398.7
15°	7565.3	7535.3	7518.7	7472.0	7478.7	7462.0	7498.7	7505.3	7592.0	7582.0
17.5°	7852.0	7818.6	7832.0	7788.6	7772.0	7732.0	7665.3	7642.0	7745.3	7775.3
20°	8165.2	8128.6	8145.2	8108.6	7798.6	7168.7	7592.0	7881.9	7662.0	7645.3
22.5°	8521.8	8481.8	8495.2	8438.5	8055.2	6875.5	5982.3	5909.0	6748.8	7088.8
25°	8915.1	8861.8	8855.1	8781.8	7522.0	6225.6	6125.6	5995.6	5382.4	4895.8
27.5°	9401.7	9321.7	9281.7	8175.2	7468.7	6468.9	6318.9	5855.6	4965.8	4995.8
30°	9928.3	9811.6	9061.7	8331.9	7858.6	6755.5	6555.5	5132.4	5139.1	5125.8
32.5°	10528.1	10268.2	8878.4	8811.8	8325.2	7062.1	5442.4	5382.4	5389.1	5409.0
35°	11314.7	9531.7	9495.0	9498.3	8895.1	6832.1	5765.7	5709.0	5715.7	5729.0
37.5°	11481.3	10274.9	10281.5	10204.9	9501.7	6242.2	6158.9	6155.6	6142.3	6128.9
40°	11614.6	11211.4	11114.7	10991.4	8808.5	6722.2	6695.5	6675.5	6685.5	6712.2
42.5°	12657.8	12354.5	12261.2	12114.5	9035.1	7448.7	7362.0	7338.7	7365.4	7352.0
45°	14044.2	13790.9	13607.6	11201.4	9981.6	8238.6	8168.6	8138.6	8148.6	8231.9
47.5°	15510.6	15360.6	14800.7	12101.2	11084.7	9171.7	9101.7	9055.1	9071.7	9051.7
50°	17107.0	16970.3	13700.9	13457.6	12304.5	10178.2	10074.9	10058.2	10064.9	10061.6
52.5°	18840.0	15983.9	15184.0	14930.7	13590.9	11231.4	11194.7	11104.7	11124.7	11104.7
55°	20873.0	16837.0	16817.0	16520.4	15037.4	12454.5	12411.1	12284.5	11488.0	12184.5
57.5°	22802.7	18466.8	18466.8	18180.1	16517.1	13670.9	13600.9	13507.6	8165.2	6585.5
60°	24915.6	20099.8	20053.1	19816.5	17943.5	14830.7	12054.5	12027.9	4932.5	4949.1
62.5°	26742.0	21556.2	21639.5	21419.6	19316.6	11104.7	5585.7	5472.4	486.6	749.9
65°	28788.3	23165.9	23265.9	23039.3	20803.0	11777.9	6062.3	6005.6	110.0	100.0
67.5°	31107.9	24772.3	24545.7	24295.7	21672.9	12127.9	6298.9	6248.9	30.0	20.0
68°	31127.9	24739.0	24445.7	24275.7	21589.5	12061.2	6278.9	6232.2	30.0	20.0
70°	29528.1	23492.5	23199.3	23242.6	20556.4	11534.6	6018.9	5932.3	30.0	20.0
72.5°	25905.4	20906.3	20576.4	20343.1	18230.1	10254.9	5395.7	5232.4	30.0	20.0
75°	22166.1	17716.9	17170.3	16657.1	14667.4	8391.9	4425.9	4242.6	30.0	20.0
77.5°	17470.3	13504.3	12727.8	12391.2	11021.4	6198.9	3289.4	3089.5	30.0	16.7
80°	9655.0	7748.6	7088.8	6882.1	6302.2	3642.7	1886.3	1766.4	26.7	16.7
82.5°	2496.2	1873.0	1633.0	1576.4	1479.7	863.2	459.9	436.6	23.3	13.3
85°	356.6	263.3	289.9	343.3	329.9	223.3	160.0	136.6	20.0	10.0
87.5°	186.6	156.6	183.3	206.6	210.0	130.0	66.7	36.7	10.0	0.0
90°	30.0	30.0	33.3	36.7	36.7	16.7	13.3	0.0	0.0	0.0
92.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.3	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	3.3	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0
100°	3.3	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	3.3	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0
105°	3.3	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	3.3	6.7	3.3	3.3	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°	3.3	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	3.3	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0
115°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	3.3	3.3	3.3	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)