

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: P522223

Luminaire Tested: **CTN-CA8-330-730-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522223  
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-CA8-330-730-U-T5R-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31787 lumens  
Efficiency: N/A  
Efficacy: 95.9 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G4

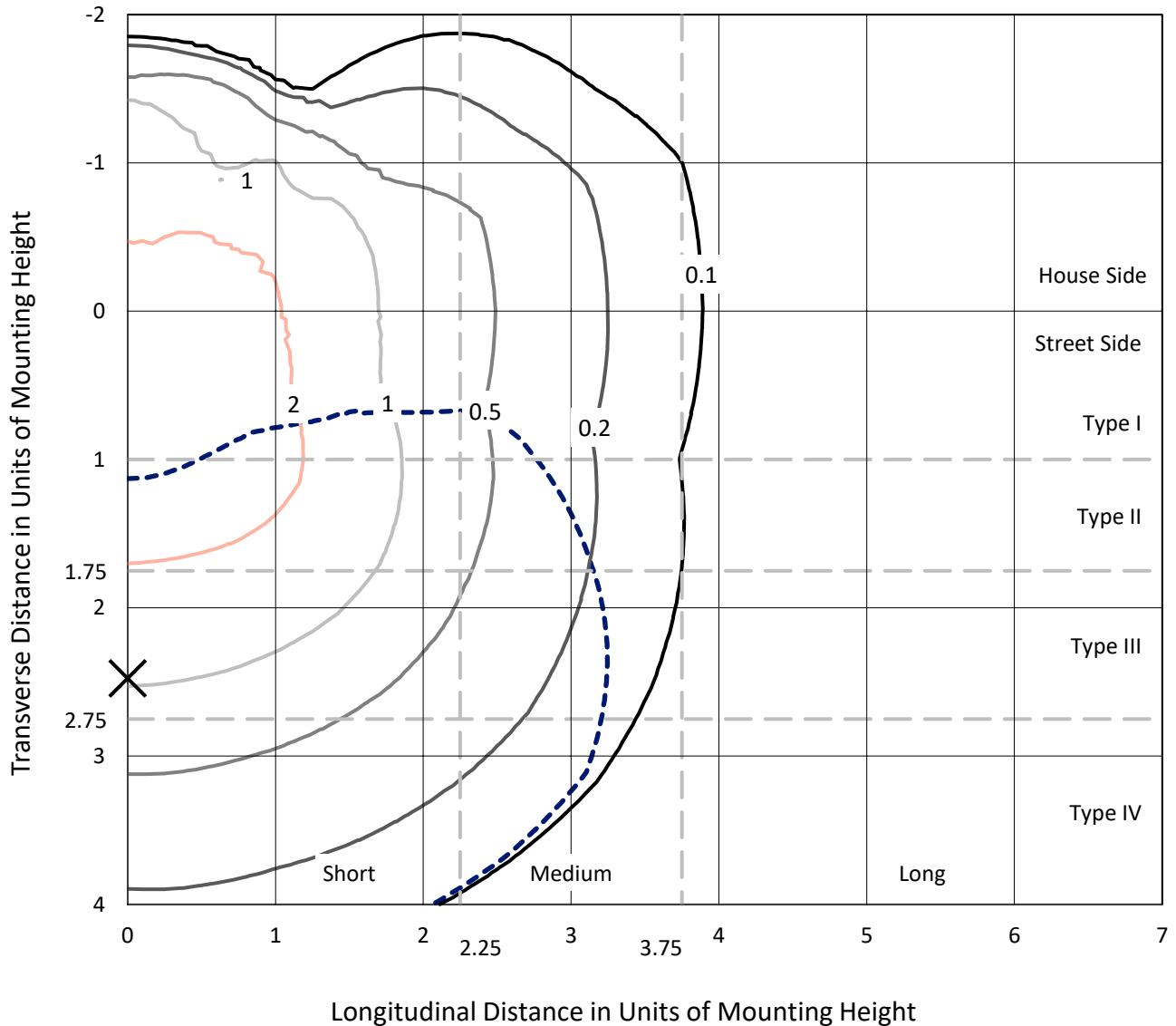
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

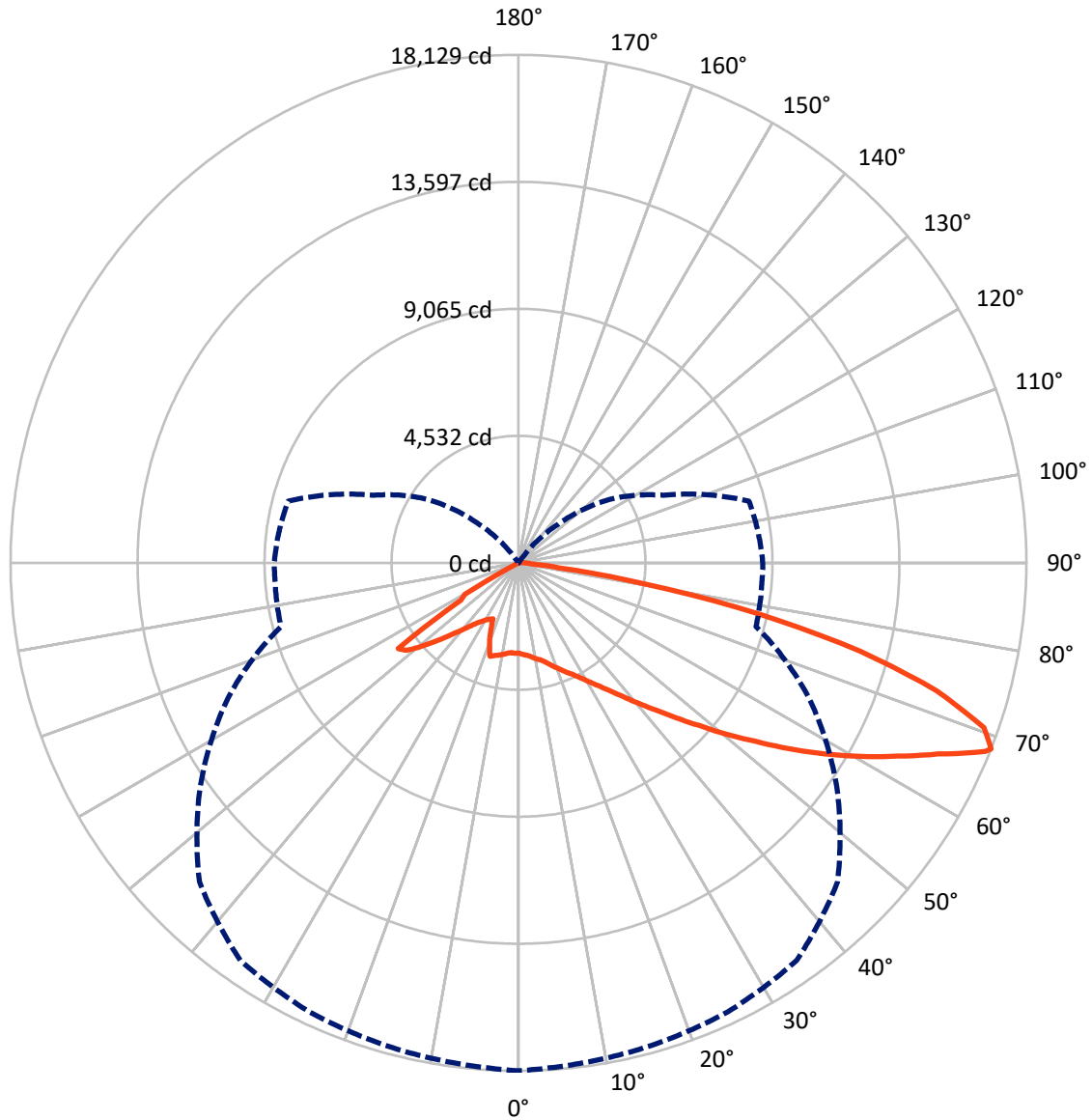
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.7 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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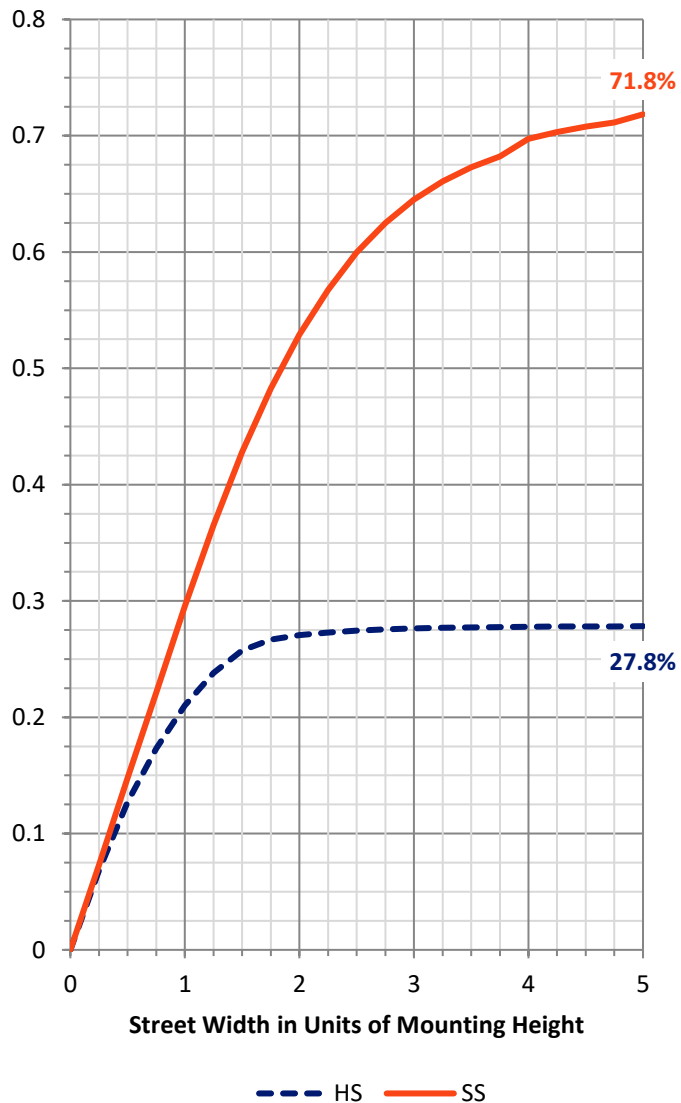
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8878.1	0.2	8878.3
	% Fixture	27.9	0.0	27.9
<b>Street Side</b>	Lumens	22890.4	18.2	22908.7
	% Fixture	72.0	0.1	72.1
<b>Total</b>	Lumens	31768.6	18.4	31787.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	312.6	1.0
10°-20°	990.4	3.1
20°-30°	1676.7	5.3
30°-40°	2656.3	8.4
40°-50°	4342.9	13.7
50°-60°	6652.3	20.9
60°-70°	8179.5	25.7
70°-80°	6320.2	19.9
80°-90°	637.7	2.0
90°-100°	18.1	0.1
100°-110°	0.3	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°	31768.6	99.9
0°-180°	31787.0	100.0

**Coefficient of Utilization**



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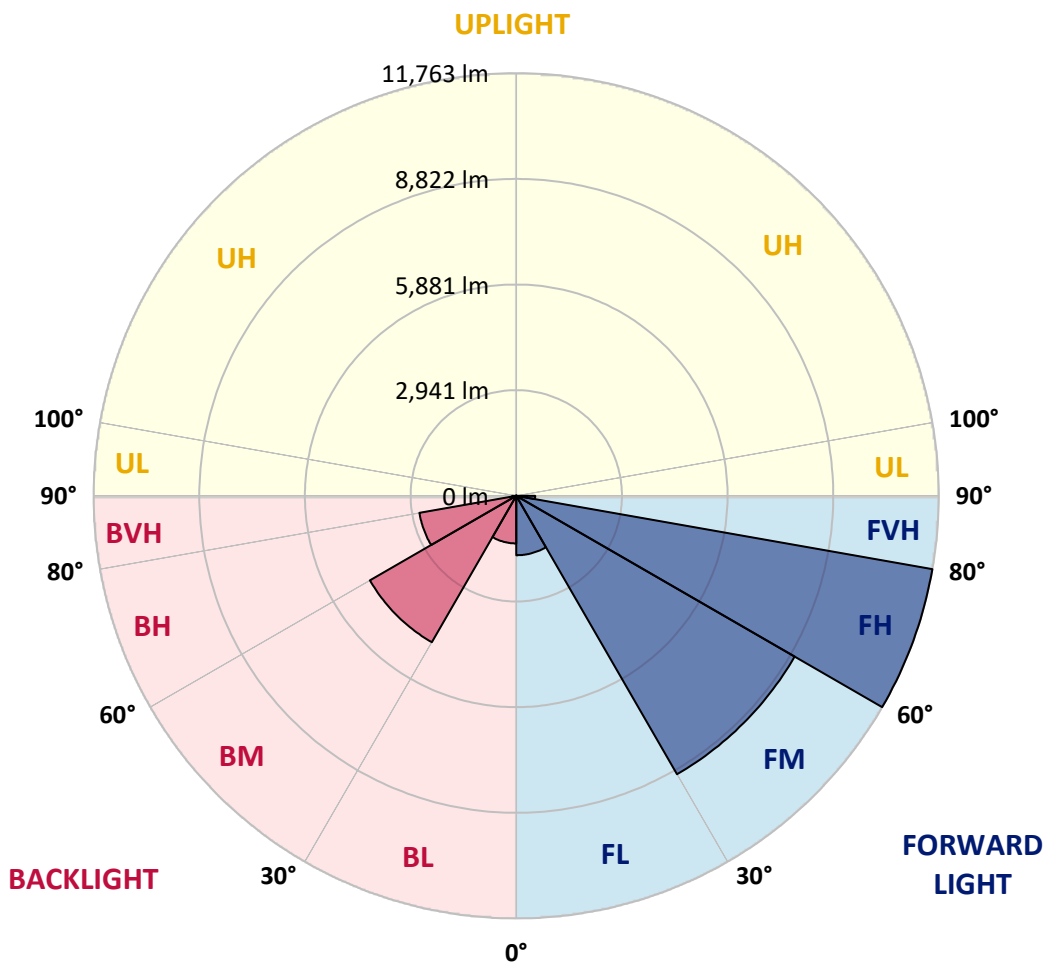
CATALOG NUMBER: CTN-CA8-330-730-U-T5R-HSS-HM-EX180

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1654.5	5.2			
FM (30°-60°)	8947.5	28.1			
FH (60°-80°)	11762.5	37.0			G4/12000
FVH (80°-90°)	525.9	1.7			G4/750
BL (0°-30°)	1325.2	4.2	B3/2500		
BM (30°-60°)	4704.0	14.8	B3/5000		
BH (60°-80°)	2737.2	8.6	B4/5000		G4/5000
BVH (80°-90°)	111.8	0.4			G2/225
UL (90°-100°)	18.1	0.1		U2/50	
UH (100°-180°)	0.3	0.0		U1/10	

**BUG Rating: B4-U2-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4
2.5°	3278.6	3272.4	3266.3	3280.1	3226.5	3249.5	3231.1	3247.9	3235.7	3249.5	3244.9
5°	3321.4	3315.3	3296.9	3312.2	3277.0	3286.2	3263.2	3269.4	3228.0	3252.5	3251.0
7.5°	3391.9	3375.0	3362.8	3362.8	3332.1	3330.6	3293.9	3295.4	3263.2	3260.2	3266.3
10°	3486.8	3474.6	3440.9	3443.9	3401.1	3394.9	3349.0	3347.5	3321.4	3306.1	3319.9
12.5°	3557.3	3569.5	3538.9	3538.9	3496.0	3465.4	3433.2	3411.8	3391.9	3368.9	3358.2
15°	3685.9	3698.1	3656.8	3655.3	3638.4	3601.7	3566.4	3520.5	3485.3	3474.6	3457.7
17.5°	3852.8	3845.1	3809.9	3811.5	3814.5	3754.8	3719.6	3659.9	3609.3	3572.6	3563.4
20°	4022.8	4022.8	3984.5	3996.7	3981.4	3926.3	3903.3	3820.6	3750.2	3710.4	3678.2
22.5°	4212.7	4205.0	4179.0	4205.0	4174.4	4119.2	4081.0	3998.3	3907.9	3682.8	3590.9
25°	4393.4	4388.8	4399.5	4407.1	4368.9	4299.9	4273.9	4186.6	3935.5	3639.9	3454.7
27.5°	4621.5	4606.2	4630.7	4646.0	4607.7	4548.0	4492.9	4394.9	3863.5	3630.8	3610.8
30°	4914.0	4880.3	4915.5	4923.2	4883.4	4846.6	4763.9	4273.9	3888.0	3820.6	3814.5
32.5°	5226.4	5186.6	5232.5	5238.6	5186.6	5155.9	4947.7	4211.1	4128.4	4050.3	4058.0
35°	5597.0	5597.0	5619.9	5623.0	5584.7	5532.7	4739.4	4517.4	4443.9	4371.9	4370.4
37.5°	6048.7	6034.9	6096.2	6132.9	6091.6	5943.0	5042.6	4938.5	4825.2	4733.3	4543.4
40°	6593.9	6618.4	6635.2	6672.0	6632.1	6298.3	5485.2	5367.3	5278.5	4970.7	4491.4
42.5°	7181.9	7188.0	7224.8	7270.7	7270.7	6918.5	6002.8	5901.7	5786.9	4860.4	4644.5
45°	7884.8	7871.0	7941.4	8014.9	7995.0	7630.6	6604.6	6529.5	5992.0	5180.4	5182.0
47.5°	8682.6	8665.7	8766.8	8863.3	8763.7	8420.7	7266.1	7207.9	5783.8	5722.5	5710.3
50°	9604.4	9563.1	9679.5	9808.1	9726.9	9302.8	8070.0	6952.2	6364.2	6315.2	6307.5
52.5°	10589.1	10556.9	10627.3	10846.3	10739.1	10226.1	8831.1	7172.7	7036.4	6981.3	6967.5
55°	11700.8	11638.0	11789.6	11956.5	11832.5	11247.5	9581.5	7904.7	7763.8	7668.8	7531.0
57.5°	12869.2	12778.8	12856.9	13066.7	12947.3	12293.4	10549.3	8658.1	8491.2	7027.2	6468.3
60°	14033.0	13991.7	14022.3	14207.6	14060.6	13310.2	11455.8	9413.0	7186.5	6950.7	6978.2
62.5°	15202.9	15112.6	15140.1	15330.0	15141.7	14278.0	12314.9	10099.0	7563.2	7480.5	7509.6
65°	16457.1	16349.9	16374.4	16429.5	16196.8	15146.3	13074.4	10746.8	8129.8	8042.5	8074.6
67.5°	17968.5	17870.5	17737.3	17573.4	17251.8	16068.1	13829.3	11428.2	8766.8	8717.8	8728.5
68°	18129.3	18034.3	17873.5	17679.1	17317.7	16106.4	13861.5	11448.1	8776.0	8714.7	8717.8
70°	17628.5	17685.2	17503.0	17176.8	16875.1	15545.9	13336.2	11007.1	8385.5	8295.2	8272.2
72.5°	15611.8	15735.8	15484.7	15429.6	15059.0	13849.2	11670.2	9550.8	7293.7	7322.8	7240.1
75°	12604.3	12786.5	12481.8	12498.6	12287.3	11552.3	9780.5	7952.1	5989.0	6122.2	6146.7
77.5°	8765.3	9027.1	8893.9	9027.1	8923.0	8658.1	7569.3	6123.7	4569.5	4722.6	4782.3
80°	4571.0	4881.8	5057.9	5113.1	5146.8	5136.0	4609.3	3675.2	2641.5	2698.2	2695.1
82.5°	1445.6	1370.5	1414.9	1402.7	1364.4	1379.7	1243.4	972.4	673.8	742.7	710.5
85°	436.4	439.5	427.2	424.2	392.0	344.5	281.8	162.3	79.6	93.4	87.3
87.5°	321.6	324.6	300.1	284.8	266.4	231.2	179.2	101.1	38.3	36.8	29.1
90°	177.6	171.5	159.3	147.0	139.3	119.4	90.3	38.3	13.8	10.7	9.2
92.5°	96.5	91.9	85.8	81.2	70.4	56.7	36.8	12.3	6.1	1.5	0.0
95°	44.4	41.3	39.8	35.2	30.6	21.4	12.3	7.7	4.6	1.5	0.0
97.5°	19.9	18.4	16.8	13.8	10.7	6.1	6.1	4.6	3.1	1.5	0.0
100°	4.6	4.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	1.5	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	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°	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4	3220.4
2.5°	3240.3	3231.1	3226.5	3197.4	3206.6	3180.5	3231.1	3218.8	3211.2	3232.6
5°	3243.3	3211.2	3231.1	3214.2	3220.4	3183.6	3223.4	3206.6	3205.0	3214.2
7.5°	3251.0	3229.5	3249.5	3215.8	3231.1	3215.8	3244.9	3228.0	3241.8	3251.0
10°	3292.3	3280.1	3270.9	3263.2	3274.0	3243.3	3280.1	3281.6	3286.2	3313.8
12.5°	3350.5	3338.3	3323.0	3303.1	3313.8	3301.5	3329.1	3336.7	3353.6	3367.4
15°	3431.7	3408.7	3402.6	3384.2	3394.9	3388.8	3394.9	3390.3	3422.5	3417.9
17.5°	3543.5	3517.4	3430.2	3341.3	3284.7	3301.5	3372.0	3463.8	3486.8	3489.9
20°	3584.8	3401.1	3391.9	3290.8	3244.9	3241.8	3096.3	2878.9	2944.7	3099.4
22.5°	3535.8	3284.7	3258.6	3238.7	3042.7	2721.2	2690.5	2658.4	2650.7	2673.7
25°	3425.6	3396.5	3373.5	3113.2	2803.8	2805.4	2761.0	2549.6	2220.4	2192.8
27.5°	3594.0	3554.2	3332.1	2930.9	2924.8	2921.8	2855.9	2313.8	2243.4	2260.2
30°	3785.4	3719.6	3139.2	3087.1	3085.6	3058.0	2560.4	2333.7	2333.7	2336.8
32.5°	4005.9	3597.1	3249.5	3274.0	3272.4	3142.3	2473.1	2457.8	2451.6	2467.0
35°	4174.4	3499.1	3486.8	3531.2	3500.6	2666.0	2627.7	2614.0	2607.8	2600.2
37.5°	4122.3	3780.8	3780.8	3808.4	3561.8	2839.1	2820.7	2820.7	2808.4	2802.3
40°	4201.9	4131.5	4096.3	4107.0	2587.9	3048.9	3062.6	3059.6	3058.0	3068.8
42.5°	4621.5	4558.7	4526.6	4146.8	2897.3	3030.5	3367.4	3365.8	3370.4	3365.8
45°	5155.9	5097.8	5013.5	3880.4	3289.3	2656.8	3711.9	3728.8	3730.3	3728.8
47.5°	5716.4	5679.7	4817.5	4295.3	3715.0	2851.3	3548.1	4143.7	4136.1	4145.3
50°	6309.0	6143.6	4793.0	4786.9	4168.2	3172.9	3174.4	4506.7	4584.8	4609.3
52.5°	6969.0	5569.4	5312.1	4846.6	4627.6	3503.7	3470.0	3993.7	5059.5	5084.0
55°	6472.9	5883.3	5878.7	4313.7	4814.5	3822.2	3826.8	3790.0	4639.9	5273.9
57.5°	6440.7	6454.5	6443.8	4812.9	3512.8	3583.3	4169.8	4137.6	3004.4	2434.8
60°	6996.6	7016.5	6260.0	5197.3	3797.7	2203.6	2568.0	2182.1	2211.2	2234.2
62.5°	7528.0	7534.1	5091.6	3407.2	1882.0	88.8	42.9	35.2	33.7	33.7
65°	8116.0	8116.0	5457.6	3716.5	1817.7	33.7	6.1	4.6	16.8	16.8
67.5°	8684.1	8558.5	5725.6	3946.2	1849.8	4.6	0.0	0.0	0.0	0.0
68°	8651.9	8514.1	5701.1	3940.1	1845.2	3.1	0.0	0.0	0.0	0.0
70°	8171.1	8037.9	5408.6	3760.9	1776.3	3.1	0.0	0.0	0.0	0.0
72.5°	7212.5	7090.0	4790.0	3315.3	1601.8	1.5	0.0	0.0	0.0	0.0
75°	6105.4	6088.5	4137.6	2797.7	1373.6	1.5	0.0	0.0	0.0	0.0
77.5°	4912.5	4835.9	3234.1	2192.8	1107.1	0.0	0.0	0.0	0.0	0.0
80°	2736.5	2849.8	1892.7	1289.4	696.7	0.0	0.0	0.0	0.0	0.0
82.5°	739.6	692.2	413.5	280.2	133.2	0.0	0.0	0.0	0.0	0.0
85°	94.9	104.1	47.5	38.3	9.2	0.0	0.0	0.0	0.0	0.0
87.5°	49.0	58.2	15.3	12.3	3.1	0.0	0.0	0.0	0.0	0.0
90°	9.2	10.7	4.6	1.5	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



REPORT NUMBER: P522223  
 CATALOG NUMBER: CTN-CA8-330-730-U-T5R-HSS-HM-EX180

**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)