

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: STREETWORKS

Report Number: P522208

Luminaire Tested: **CST-CA8-230-740-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522208  
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: STREETWORKS  
Catalog Number: CST-CA8-230-740-U-T5R-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23707 lumens  
Efficiency: N/A  
Efficacy: 103.8 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U2 - G4

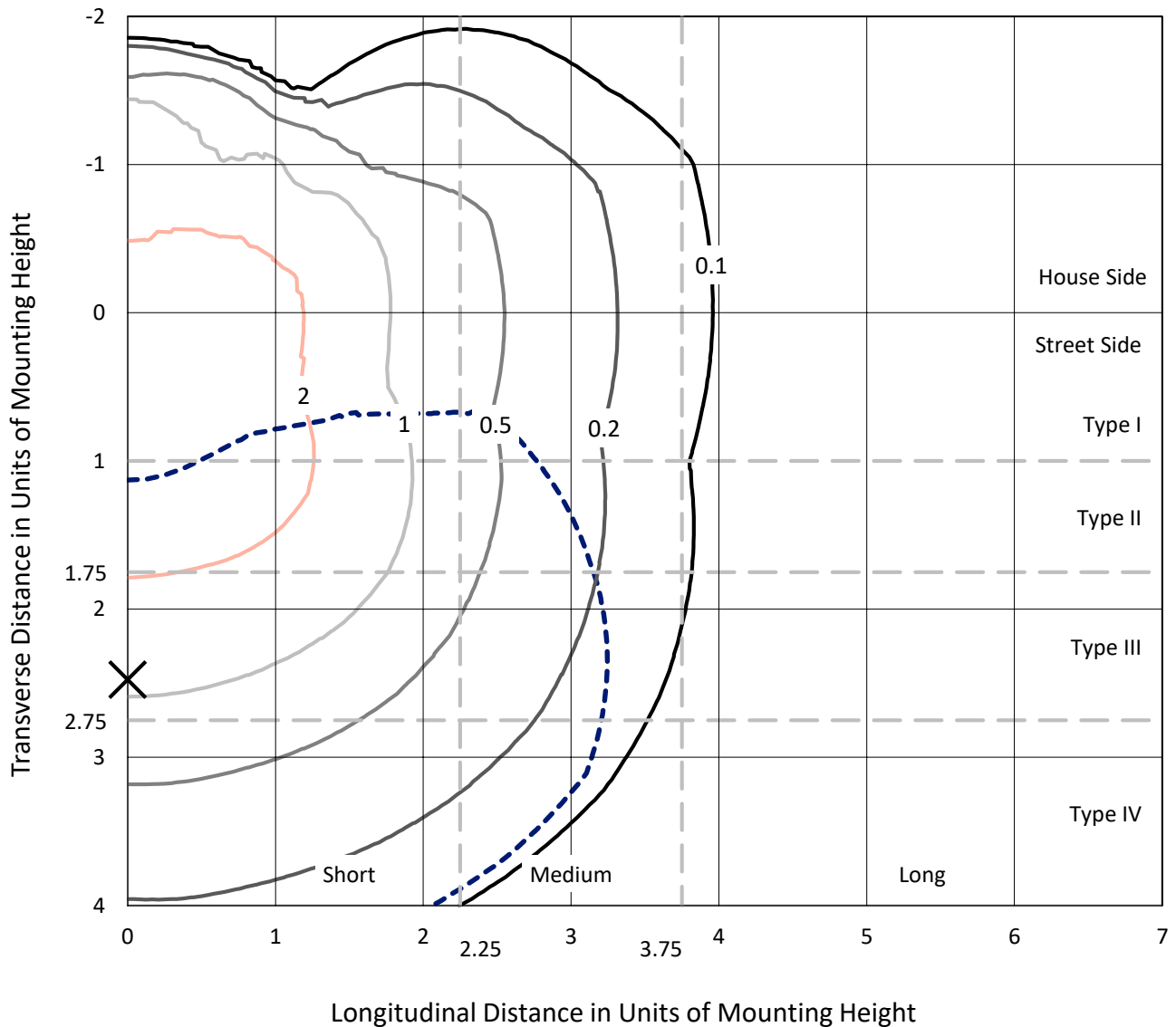
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

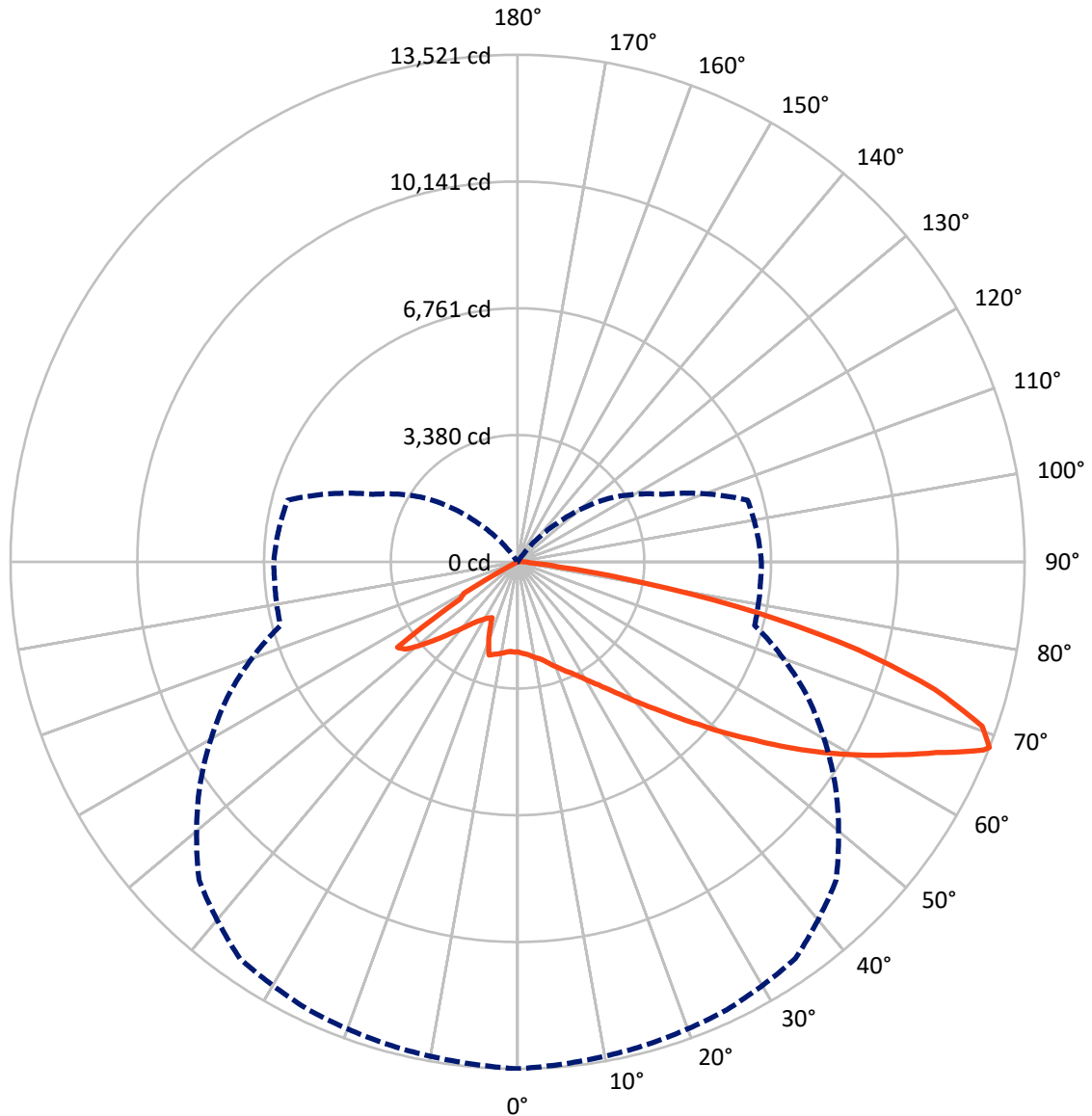
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 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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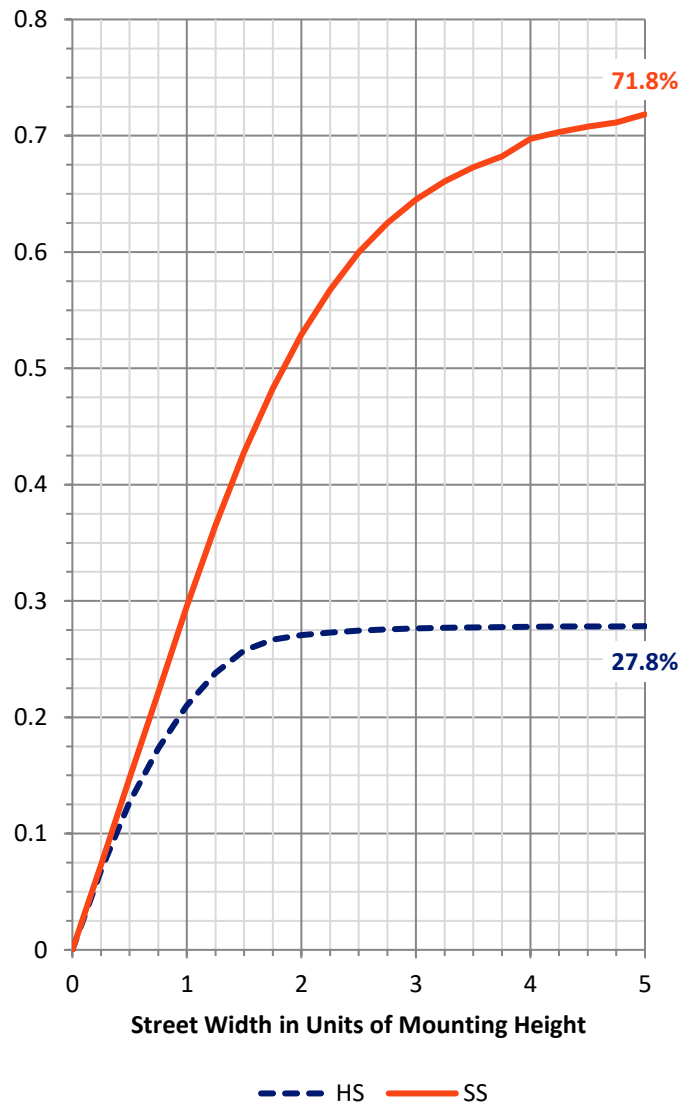
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6621.4	0.1	6621.5
	% Fixture	27.9	0.0	27.9
<b>Street Side</b>	Lumens	17071.9	13.6	17085.5
	% Fixture	72.0	0.1	72.1
<b>Total</b>	Lumens	23693.3	13.7	23707.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	233.1	1.0
10°-20°	738.6	3.1
20°-30°	1250.5	5.3
30°-40°	1981.1	8.4
40°-50°	3239.0	13.7
50°-60°	4961.3	20.9
60°-70°	6100.3	25.7
70°-80°	4713.7	19.9
80°-90°	475.6	2.0
90°-100°	13.5	0.1
100°-110°	0.2	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°	23693.3	99.9
0°-180°	23707.0	100.0

**Coefficient of Utilization**

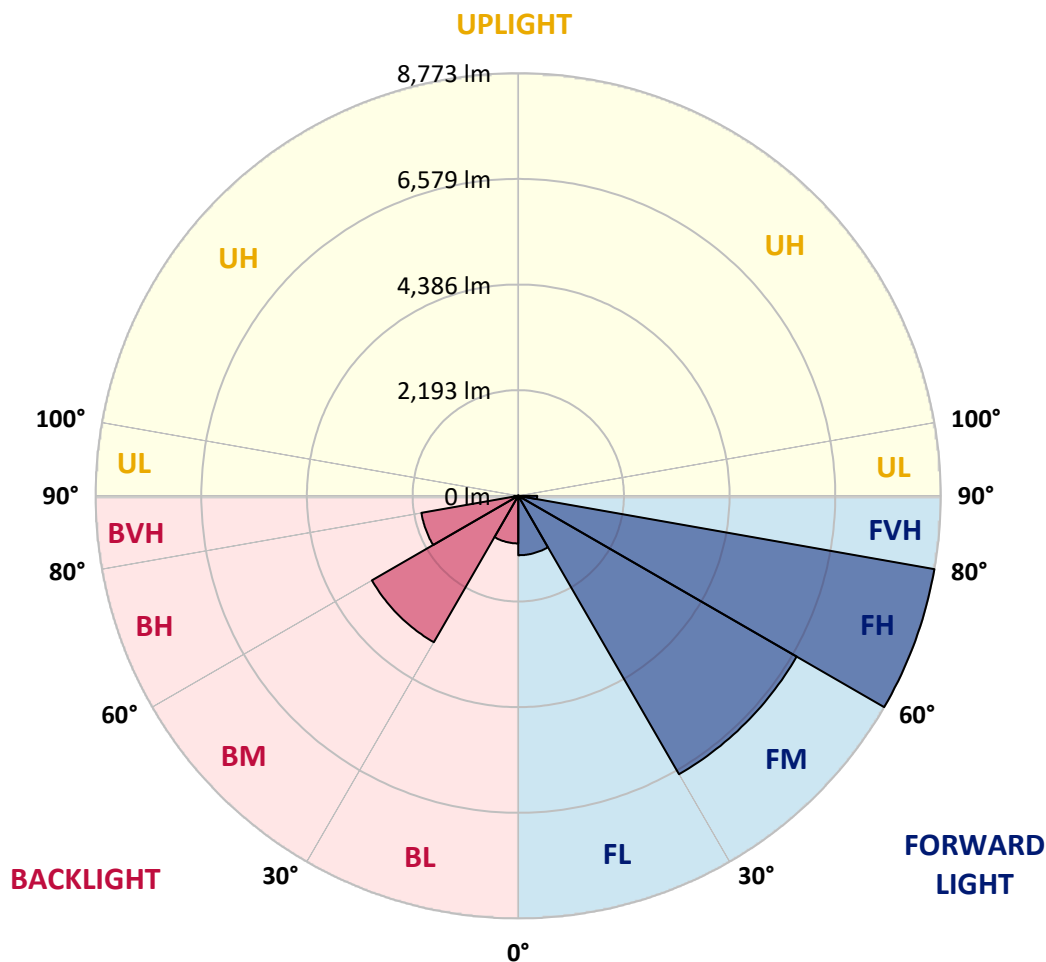


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1234.0	5.2			
FM	(30°-60°)	6673.1	28.1			
FH	(60°-80°)	8772.6	37.0			G4/12000
FVH	(80°-90°)	392.2	1.7			G3/500
BL	(0°-30°)	988.3	4.2	B2/1000		
BM	(30°-60°)	3508.3	14.8	B3/5000		
BH	(60°-80°)	2041.4	8.6	B3/2500		G3/2500
BVH	(80°-90°)	83.4	0.4			G1/100
UL	(90°-100°)	13.5	0.1		U2/50	
UH	(100°-180°)	0.2	0.0		U1/10	

**BUG Rating: B3-U2-G4**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8
2.5°	2445.2	2440.6	2436.0	2446.3	2406.3	2423.5	2409.8	2422.3	2413.2	2423.5	2420.0
5°	2477.1	2472.6	2458.9	2470.3	2444.0	2450.9	2433.7	2438.3	2407.5	2425.8	2424.6
7.5°	2529.7	2517.1	2508.0	2508.0	2485.1	2484.0	2456.6	2457.7	2433.7	2431.5	2436.0
10°	2600.5	2591.4	2566.2	2568.5	2536.5	2532.0	2497.7	2496.6	2477.1	2465.7	2476.0
12.5°	2653.0	2662.2	2639.3	2639.3	2607.3	2584.5	2560.5	2544.5	2529.7	2512.6	2504.6
15°	2749.0	2758.1	2727.3	2726.1	2713.6	2686.1	2659.9	2625.6	2599.3	2591.4	2578.8
17.5°	2873.4	2867.7	2841.5	2842.6	2844.9	2800.4	2774.1	2729.5	2691.9	2664.4	2657.6
20°	3000.2	3000.2	2971.7	2980.8	2969.4	2928.3	2911.1	2849.5	2796.9	2767.2	2743.3
22.5°	3141.8	3136.1	3116.7	3136.1	3113.3	3072.2	3043.6	2981.9	2914.6	2746.7	2678.2
25°	3276.6	3273.2	3281.2	3286.9	3258.3	3206.9	3187.5	3122.4	2935.1	2714.7	2576.5
27.5°	3446.8	3435.3	3453.6	3465.0	3436.5	3391.9	3350.8	3277.7	2881.4	2707.8	2693.0
30°	3664.9	3639.8	3666.0	3671.8	3642.1	3614.6	3553.0	3187.5	2899.7	2849.5	2844.9
32.5°	3897.9	3868.2	3902.5	3907.0	3868.2	3845.3	3690.0	3140.7	3079.0	3020.8	3026.5
35°	4174.3	4174.3	4191.4	4193.7	4165.1	4126.3	3534.7	3369.1	3314.3	3260.6	3259.5
37.5°	4511.2	4500.9	4546.6	4574.0	4543.2	4432.4	3760.8	3683.2	3598.7	3530.1	3388.5
40°	4917.8	4936.0	4948.6	4976.0	4946.3	4697.3	4090.9	4003.0	3936.7	3707.2	3349.7
42.5°	5356.3	5360.9	5388.3	5422.5	5422.5	5159.9	4476.9	4401.5	4315.9	3624.9	3463.9
45°	5880.5	5870.2	5922.8	5977.6	5962.7	5690.9	4925.7	4869.8	4468.9	3863.6	3864.8
47.5°	6475.5	6463.0	6538.3	6610.3	6536.1	6280.2	5419.1	5375.7	4313.6	4267.9	4258.8
50°	7163.1	7132.2	7219.0	7315.0	7254.4	6938.1	6018.7	5185.0	4746.4	4709.9	4704.2
52.5°	7897.4	7873.4	7926.0	8089.3	8009.3	7626.7	6586.3	5349.5	5247.8	5206.7	5196.4
55°	8726.6	8679.7	8792.8	8917.3	8824.8	8388.5	7145.9	5895.4	5790.3	5719.5	5616.7
57.5°	9598.0	9530.6	9588.8	9745.3	9656.2	9168.5	7867.7	6457.3	6332.8	5241.0	4824.1
60°	10465.9	10435.1	10457.9	10596.1	10486.5	9926.9	8543.8	7020.3	5359.7	5183.9	5204.4
62.5°	11338.5	11271.1	11291.6	11433.3	11292.8	10648.7	9184.5	7531.9	5640.7	5579.0	5600.7
65°	12273.8	12193.9	12212.1	12253.3	12079.7	11296.2	9751.0	8015.0	6063.2	5998.1	6022.1
67.5°	13401.0	13327.9	13228.6	13106.4	12866.6	11983.7	10314.0	8523.3	6538.3	6501.8	6509.8
68°	13521.0	13450.2	13330.2	13185.2	12915.7	12012.3	10338.0	8538.1	6545.2	6499.5	6501.8
70°	13147.5	13189.8	13053.9	12810.6	12585.6	11594.3	9946.3	8209.2	6254.0	6186.6	6169.5
72.5°	11643.4	11735.9	11548.6	11507.5	11231.1	10328.9	8703.7	7123.1	5439.7	5461.4	5399.7
75°	9400.4	9536.3	9309.0	9321.6	9164.0	8615.8	7294.4	5930.8	4466.6	4566.0	4584.3
77.5°	6537.2	6732.5	6633.1	6732.5	6654.8	6457.3	5645.2	4567.1	3407.9	3522.1	3566.7
80°	3409.1	3640.9	3772.3	3813.4	3838.5	3830.5	3437.6	2741.0	1970.1	2012.3	2010.0
82.5°	1078.1	1022.2	1055.3	1046.1	1017.6	1029.0	927.4	725.2	502.5	553.9	529.9
85°	325.5	327.8	318.6	316.4	292.4	257.0	210.1	121.1	59.4	69.7	65.1
87.5°	239.8	242.1	223.8	212.4	198.7	172.5	133.6	75.4	28.6	27.4	21.7
90°	132.5	127.9	118.8	109.6	103.9	89.1	67.4	28.6	10.3	8.0	6.9
92.5°	72.0	68.5	64.0	60.5	52.5	42.3	27.4	9.1	4.6	1.1	0.0
95°	33.1	30.8	29.7	26.3	22.8	16.0	9.1	5.7	3.4	1.1	0.0
97.5°	14.8	13.7	12.6	10.3	8.0	4.6	4.6	3.4	2.3	1.1	0.0
100°	3.4	3.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.1	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	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°	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8	2401.8
2.5°	2416.6	2409.8	2406.3	2384.6	2391.5	2372.1	2409.8	2400.6	2394.9	2410.9
5°	2418.9	2394.9	2409.8	2397.2	2401.8	2374.4	2404.1	2391.5	2390.4	2397.2
7.5°	2424.6	2408.6	2423.5	2398.3	2409.8	2398.3	2420.0	2407.5	2417.8	2424.6
10°	2455.4	2446.3	2439.5	2433.7	2441.7	2418.9	2446.3	2447.5	2450.9	2471.4
12.5°	2498.8	2489.7	2478.3	2463.4	2471.4	2462.3	2482.9	2488.6	2501.1	2511.4
15°	2559.4	2542.2	2537.7	2524.0	2532.0	2527.4	2532.0	2528.5	2552.5	2549.1
17.5°	2642.7	2623.3	2558.2	2492.0	2449.7	2462.3	2514.8	2583.4	2600.5	2602.8
20°	2673.6	2536.5	2529.7	2454.3	2420.0	2417.8	2309.3	2147.1	2196.2	2311.5
22.5°	2637.0	2449.7	2430.3	2415.5	2269.3	2029.5	2006.6	1982.6	1976.9	1994.1
25°	2554.8	2533.1	2516.0	2321.8	2091.1	2092.3	2059.2	1901.5	1656.0	1635.4
27.5°	2680.4	2650.7	2485.1	2185.9	2181.4	2179.1	2130.0	1725.7	1673.1	1685.7
30°	2823.2	2774.1	2341.2	2302.4	2301.3	2280.7	1909.5	1740.5	1740.5	1742.8
32.5°	2987.7	2682.7	2423.5	2441.7	2440.6	2343.5	1844.4	1833.0	1828.5	1839.9
35°	3113.3	2609.6	2600.5	2633.6	2610.8	1988.3	1959.8	1949.5	1944.9	1939.2
37.5°	3074.5	2819.8	2819.8	2840.3	2656.5	2117.4	2103.7	2103.7	2094.6	2090.0
40°	3133.8	3081.3	3055.0	3063.0	1930.1	2273.9	2284.1	2281.9	2280.7	2288.7
42.5°	3446.8	3399.9	3376.0	3092.7	2160.8	2260.2	2511.4	2510.3	2513.7	2510.3
45°	3845.3	3801.9	3739.1	2894.0	2453.2	1981.5	2768.4	2780.9	2782.1	2780.9
47.5°	4263.3	4235.9	3593.0	3203.5	2770.7	2126.5	2646.2	3090.4	3084.7	3091.6
50°	4705.3	4582.0	3574.7	3570.1	3108.7	2366.4	2367.5	3361.1	3419.4	3437.6
52.5°	5197.6	4153.7	3961.8	3614.6	3451.3	2613.1	2587.9	2978.5	3773.4	3791.7
55°	4827.5	4387.8	4384.4	3217.2	3590.7	2850.6	2854.0	2826.6	3460.5	3933.3
57.5°	4803.5	4813.8	4805.8	3589.5	2619.9	2672.4	3109.9	3085.9	2240.7	1815.9
60°	5218.1	5233.0	4668.8	3876.2	2832.3	1643.4	1915.3	1627.4	1649.1	1666.3
62.5°	5614.4	5619.0	3797.4	2541.1	1403.6	66.2	32.0	26.3	25.1	25.1
65°	6053.0	6053.0	4070.3	2771.8	1355.6	25.1	4.6	3.4	12.6	12.6
67.5°	6476.7	6383.0	4270.2	2943.1	1379.6	3.4	0.0	0.0	0.0	0.0
68°	6452.7	6349.9	4251.9	2938.5	1376.2	2.3	0.0	0.0	0.0	0.0
70°	6094.1	5994.7	4033.8	2804.9	1324.8	2.3	0.0	0.0	0.0	0.0
72.5°	5379.1	5287.8	3572.4	2472.6	1194.6	1.1	0.0	0.0	0.0	0.0
75°	4553.4	4540.9	3085.9	2086.6	1024.4	1.1	0.0	0.0	0.0	0.0
77.5°	3663.8	3606.7	2412.1	1635.4	825.7	0.0	0.0	0.0	0.0	0.0
80°	2040.9	2125.4	1411.6	961.6	519.6	0.0	0.0	0.0	0.0	0.0
82.5°	551.6	516.2	308.4	209.0	99.4	0.0	0.0	0.0	0.0	0.0
85°	70.8	77.7	35.4	28.6	6.9	0.0	0.0	0.0	0.0	0.0
87.5°	36.5	43.4	11.4	9.1	2.3	0.0	0.0	0.0	0.0	0.0
90°	6.9	8.0	3.4	1.1	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: P522208  
 CATALOG NUMBER: CST-CA8-230-740-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)