

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: P522215

Luminaire Tested: **CST-CA8-230-760-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522215  
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: STREETWORKS  
Catalog Number: CST-CA8-230-760-U-T5R-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 5700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30253.9 lumens  
Efficiency: N/A  
Efficacy: 132.5 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U1 - G4

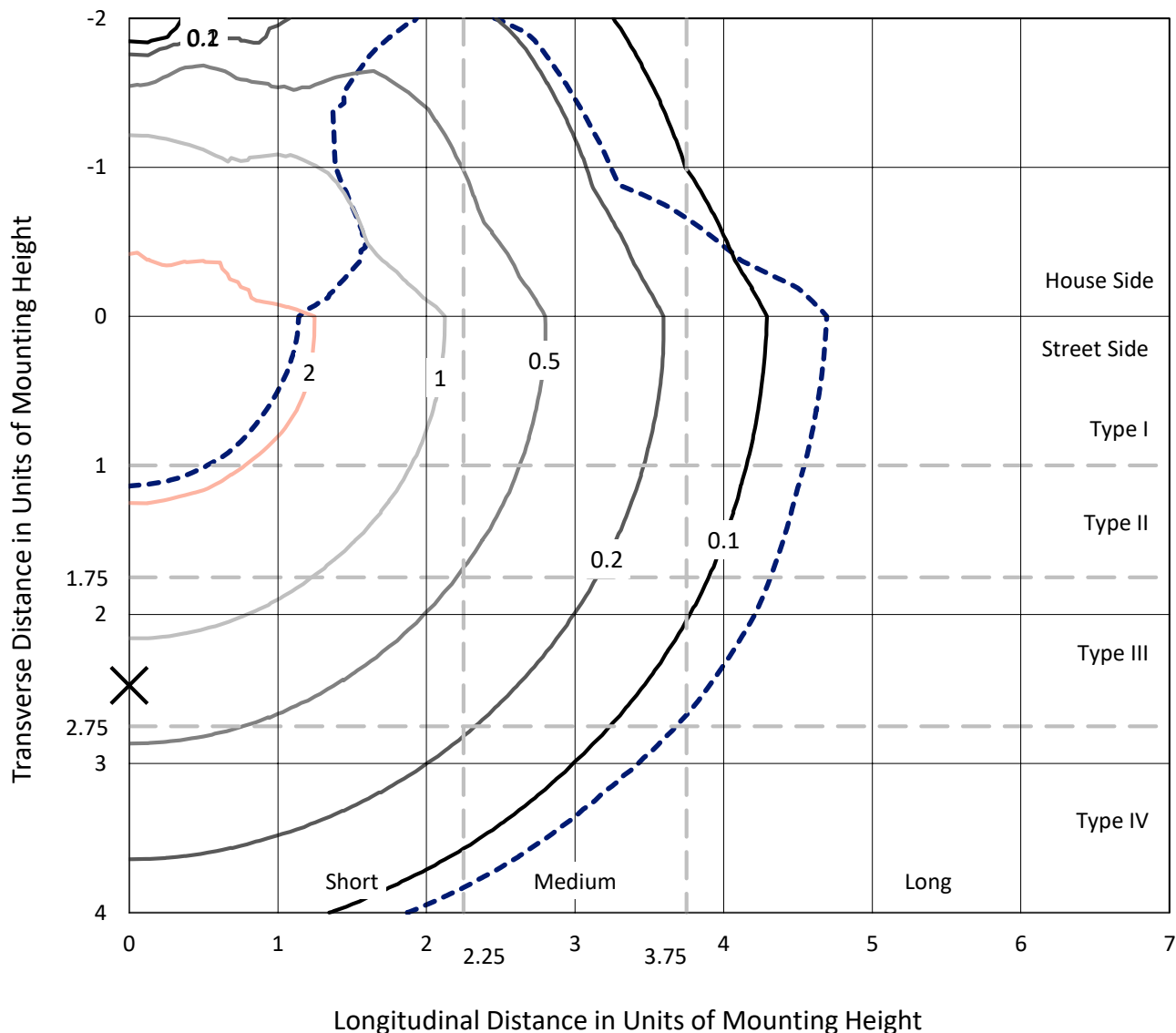
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

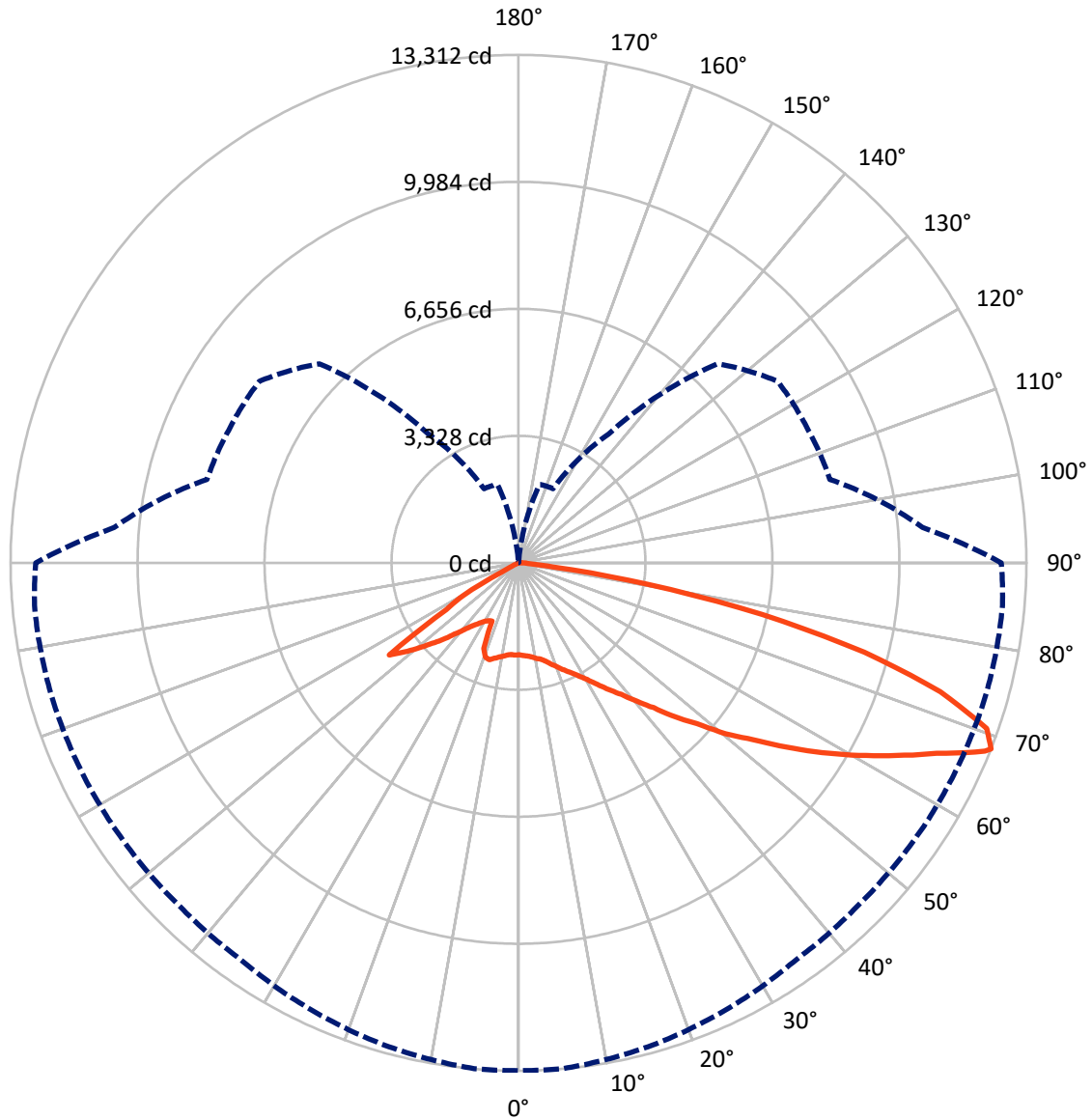
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 2.7 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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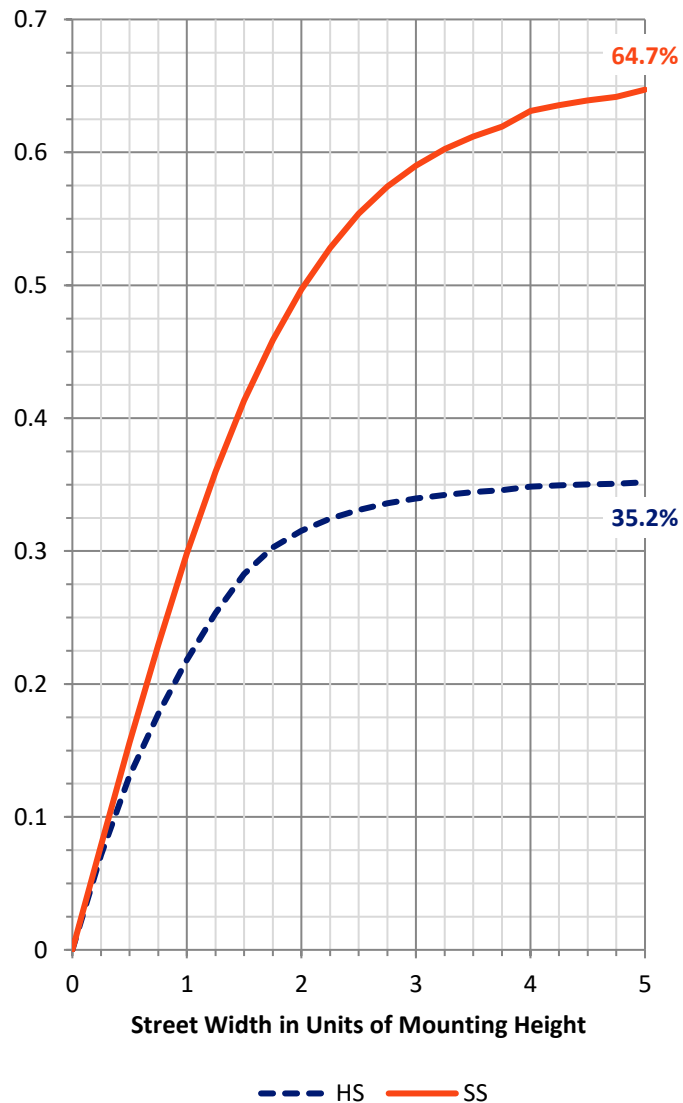
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10647.3	1.8	10649.1
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	19596.8	7.9	19604.8
	% Fixture	64.8	0.0	64.8
<b>Total</b>	Lumens	30244.2	9.7	30253.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.9	0.8
10°-20°	746.3	2.5
20°-30°	1332.2	4.4
30°-40°	2167.3	7.2
40°-50°	3701.1	12.2
50°-60°	6175.4	20.4
60°-70°	8591.3	28.4
70°-80°	6659.6	22.0
80°-90°	638.2	2.1
90°-100°	7.7	0.0
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.1	0.0
0°-90°	30244.2	100.0
0°-180°	30253.9	100.0

**Coefficient of Utilization**

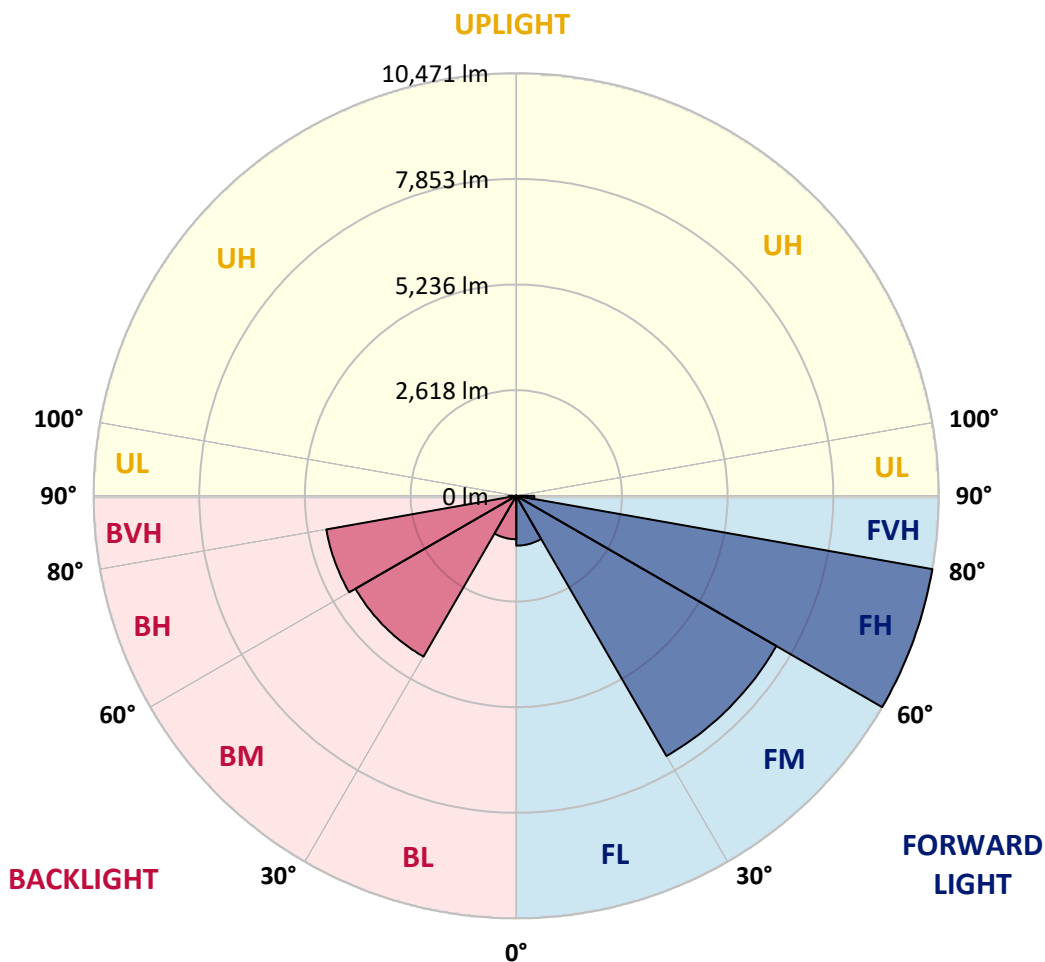


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1234.8	4.1			
FM (30°-60°)	7444.6	24.6			
FH (60°-80°)	10471.0	34.6			G4/12000
FVH (80°-90°)	446.4	1.5			G3/500
BL (0°-30°)	1076.7	3.6	B3/2500		
BM (30°-60°)	4599.2	15.2	B3/5000		
BH (60°-80°)	4779.8	15.8	B4/5000		G4/5000
BVH (80°-90°)	191.7	0.6			G2/225
UL (90°-100°)	7.7	0.0		U1/10	
UH (100°-180°)	2.0	0.0		U1/10	

**BUG Rating: B4-U1-G4**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7
2.5°	2435.0	2431.6	2429.3	2444.1	2402.0	2419.1	2407.7	2422.5	2419.1	2425.9	2427.1
5°	2452.1	2446.4	2438.4	2454.4	2429.3	2440.7	2428.2	2435.0	2413.4	2431.6	2433.9
7.5°	2490.8	2474.9	2473.7	2478.3	2461.2	2469.2	2447.6	2455.5	2444.1	2437.3	2444.1
10°	2548.9	2535.2	2520.4	2529.5	2501.1	2511.3	2488.5	2495.4	2489.7	2474.9	2488.5
12.5°	2588.7	2593.3	2583.0	2589.9	2564.8	2555.7	2547.7	2546.6	2543.2	2521.5	2518.1
15°	2677.5	2679.8	2661.6	2666.1	2660.4	2655.9	2644.5	2635.4	2617.2	2603.5	2594.4
17.5°	2793.6	2781.1	2764.0	2768.6	2784.5	2764.0	2757.2	2740.1	2713.9	2691.2	2686.6
20°	2915.4	2907.5	2891.5	2900.6	2899.5	2885.8	2889.3	2860.8	2823.2	2803.9	2789.1
22.5°	3050.9	3039.5	3028.1	3045.2	3031.6	3022.4	3019.0	2999.7	2953.0	2931.4	2928.0
25°	3186.4	3180.7	3188.6	3183.0	3163.6	3156.8	3161.3	3154.5	3099.9	3073.7	3057.7
27.5°	3356.0	3342.3	3354.9	3348.0	3327.5	3328.7	3329.8	3330.9	3269.5	3235.3	3212.6
30°	3549.5	3545.0	3560.9	3539.3	3519.9	3532.4	3542.7	3519.9	3466.4	3416.3	3408.4
32.5°	3801.1	3772.6	3790.9	3763.5	3733.9	3763.5	3781.8	3736.2	3693.0	3629.2	3640.6
35°	4080.0	4070.9	4070.9	4035.6	4019.7	4066.4	4084.6	4040.2	3973.0	3917.2	3903.6
37.5°	4376.0	4385.1	4413.6	4398.8	4384.0	4412.4	4453.4	4394.2	4307.7	4248.5	4232.6
40°	4768.7	4791.5	4810.9	4791.5	4774.4	4792.6	4839.3	4761.9	4701.6	4669.7	4635.6
42.5°	5191.1	5229.8	5217.3	5219.5	5234.3	5260.5	5307.2	5236.6	5167.2	5166.0	5116.0
45°	5762.6	5762.6	5736.4	5761.4	5759.1	5824.0	5844.5	5805.8	5747.8	5730.7	5687.4
47.5°	6296.5	6352.3	6342.0	6378.4	6350.0	6404.6	6474.1	6441.0	6373.9	6313.5	6304.4
50°	7041.0	7027.3	7013.7	7068.3	7063.8	7101.3	7165.1	7144.6	7051.2	6982.9	6970.4
52.5°	7695.6	7767.3	7750.2	7832.2	7786.6	7840.1	7916.4	7913.0	7799.2	7732.0	7712.6
55°	8522.0	8569.8	8566.4	8650.7	8588.1	8658.6	8722.4	8729.2	8605.1	8509.5	8539.1
57.5°	9382.7	9422.5	9399.7	9469.2	9407.7	9504.5	9543.2	9518.1	9445.3	9324.6	9369.0
60°	10244.4	10278.6	10304.8	10310.5	10275.2	10332.1	10368.5	10390.1	10275.2	10137.4	10190.9
62.5°	11119.9	11158.6	11135.8	11144.9	11047.0	11124.4	11169.9	11175.6	11043.6	10921.8	10959.3
65°	12042.0	12095.5	12013.5	11958.9	11838.2	11837.0	11897.4	11907.6	11814.3	11727.8	11713.0
67.5°	13183.8	13207.7	13032.4	12849.1	12645.3	12600.9	12643.0	12666.9	12720.4	12718.2	12651.0
68°	13312.4	13307.9	13130.3	12911.7	12693.1	12641.9	12662.4	12693.1	12728.4	12735.2	12654.4
70°	13019.8	12964.1	12862.7	12587.3	12371.0	12236.6	12164.9	12221.8	12126.2	12127.3	11975.9
72.5°	11565.0	11558.1	11371.4	11234.8	11042.4	10819.3	10716.9	10715.7	10724.8	10658.8	10502.8
75°	9367.9	9377.0	9159.5	9065.1	9005.9	8963.7	8985.4	9052.5	9059.4	9058.2	9003.6
77.5°	6533.3	6570.8	6512.8	6359.1	6524.2	6665.3	6937.4	7076.3	7031.9	7165.1	7249.3
80°	3424.3	3499.4	3501.7	3609.9	3743.0	3871.7	4106.2	4316.8	4162.0	4093.7	4023.1
82.5°	900.5	927.8	968.8	906.2	925.5	944.9	1127.0	1109.9	1024.6	1070.1	1138.4
85°	257.3	265.2	253.9	230.0	210.6	193.5	198.1	167.3	145.7	144.6	140.0
87.5°	181.0	194.7	171.9	148.0	133.2	124.1	119.5	101.3	82.0	71.7	56.9
90°	84.2	83.1	71.7	55.8	49.0	46.7	46.7	36.4	20.5	12.5	11.4
92.5°	35.3	36.4	29.6	23.9	20.5	15.9	12.5	8.0	4.6	2.3	1.1
95°	12.5	13.7	11.4	9.1	8.0	6.8	5.7	4.6	2.3	1.1	1.1
97.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.3	2.3	1.1	1.1
100°	0.0	0.0	0.0	1.1	2.3	2.3	2.3	2.3	1.1	1.1	1.1
102.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
105°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1



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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	1.1	1.1	1.1	1.1
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
165°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
170°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
172.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
175°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
177.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7	2407.7
2.5°	2424.8	2419.1	2416.8	2388.4	2396.3	2379.2	2419.1	2407.7	2405.4	2421.4
5°	2430.5	2404.3	2420.2	2402.0	2406.6	2381.5	2413.4	2399.7	2400.9	2408.8
7.5°	2433.9	2419.1	2435.0	2403.2	2415.7	2406.6	2429.3	2415.7	2429.3	2436.2
10°	2468.0	2461.2	2449.8	2440.7	2449.8	2428.2	2456.7	2454.4	2462.4	2482.8
12.5°	2514.7	2506.7	2495.4	2479.4	2486.3	2478.3	2499.9	2502.2	2517.0	2527.2
15°	2584.2	2573.9	2568.2	2552.3	2554.6	2548.9	2561.4	2563.7	2593.3	2589.9
17.5°	2682.1	2670.7	2675.2	2660.4	2654.7	2641.1	2618.3	2610.3	2645.6	2655.9
20°	2789.1	2776.5	2782.2	2769.7	2663.8	2448.7	2593.3	2692.3	2617.2	2611.5
22.5°	2910.9	2897.2	2901.8	2882.4	2751.5	2348.5	2043.4	2018.4	2305.3	2421.4
25°	3045.2	3027.0	3024.7	2999.7	2569.4	2126.5	2092.4	2048.0	1838.5	1672.3
27.5°	3211.4	3184.1	3170.4	2792.5	2551.1	2209.6	2158.4	2000.2	1696.2	1706.5
30°	3391.3	3351.4	3095.3	2846.0	2684.3	2307.5	2239.2	1753.1	1755.4	1750.9
32.5°	3596.2	3507.4	3032.7	3009.9	2843.7	2412.3	1859.0	1838.5	1840.8	1847.6
35°	3864.9	3255.8	3243.3	3244.4	3038.4	2333.7	1969.4	1950.1	1952.4	1956.9
37.5°	3921.8	3509.7	3512.0	3485.8	3245.6	2132.2	2103.8	2102.6	2098.1	2093.5
40°	3967.3	3829.6	3796.6	3754.4	3008.8	2296.1	2287.0	2280.2	2283.6	2292.7
42.5°	4323.6	4220.0	4188.2	4138.1	3086.2	2544.3	2514.7	2506.7	2515.9	2511.3
45°	4797.2	4710.7	4648.1	3826.2	3409.5	2814.1	2790.2	2780.0	2783.4	2811.8
47.5°	5298.1	5246.9	5055.6	4133.5	3786.3	3132.9	3109.0	3093.0	3098.7	3091.9
50°	5843.4	5796.7	4679.9	4596.8	4203.0	3476.7	3441.4	3435.7	3438.0	3436.8
52.5°	6435.4	5459.8	5186.5	5100.0	4642.4	3836.4	3823.9	3793.1	3800.0	3793.1
55°	7129.8	5751.2	5744.3	5643.0	5136.4	4254.2	4239.4	4196.1	3924.1	4162.0
57.5°	7788.9	6307.9	6307.9	6210.0	5641.9	4669.7	4645.8	4613.9	2789.1	2249.5
60°	8510.7	6865.7	6849.7	6768.9	6129.1	5065.9	4117.6	4108.5	1684.8	1690.5
62.5°	9134.5	7363.1	7391.6	7316.5	6598.1	3793.1	1908.0	1869.2	166.2	256.1
65°	9833.5	7913.0	7947.1	7869.7	7105.9	4023.1	2070.7	2051.4	37.6	34.2
67.5°	10625.8	8461.7	8384.3	8298.9	7403.0	4142.6	2151.6	2134.5	10.2	6.8
68°	10632.6	8450.3	8350.1	8292.1	7374.5	4119.9	2144.7	2128.8	10.2	6.8
70°	10086.2	8024.6	7924.4	7939.2	7021.6	3940.0	2055.9	2026.3	10.2	6.8
72.5°	8848.8	7141.2	7028.5	6948.8	6227.0	3502.8	1843.1	1787.3	10.2	6.8
75°	7571.5	6051.7	5865.0	5689.7	5010.1	2866.5	1511.8	1449.2	10.2	6.8
77.5°	5967.5	4612.8	4347.5	4232.6	3764.7	2117.4	1123.6	1055.3	10.2	5.7
80°	3297.9	2646.8	2421.4	2350.8	2152.7	1244.3	644.3	603.4	9.1	5.7
82.5°	852.7	639.8	557.8	538.5	505.4	294.8	157.1	149.1	8.0	4.6
85°	121.8	89.9	99.0	117.3	112.7	76.3	54.6	46.7	6.8	3.4
87.5°	63.8	53.5	62.6	70.6	71.7	44.4	22.8	12.5	3.4	0.0
90°	10.2	10.2	11.4	12.5	12.5	5.7	4.6	0.0	0.0	0.0
92.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.1	2.3	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P522215  
 CATALOG NUMBER: CST-CA8-230-760-U-T5R-HSS-HM-EX90

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.1	1.1	1.1	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)