

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: P579644

Luminaire Tested: **CTN-CA6-230-727-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579644
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA6-230-727-U-T5N-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (6) 2700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19130 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U2 - G2

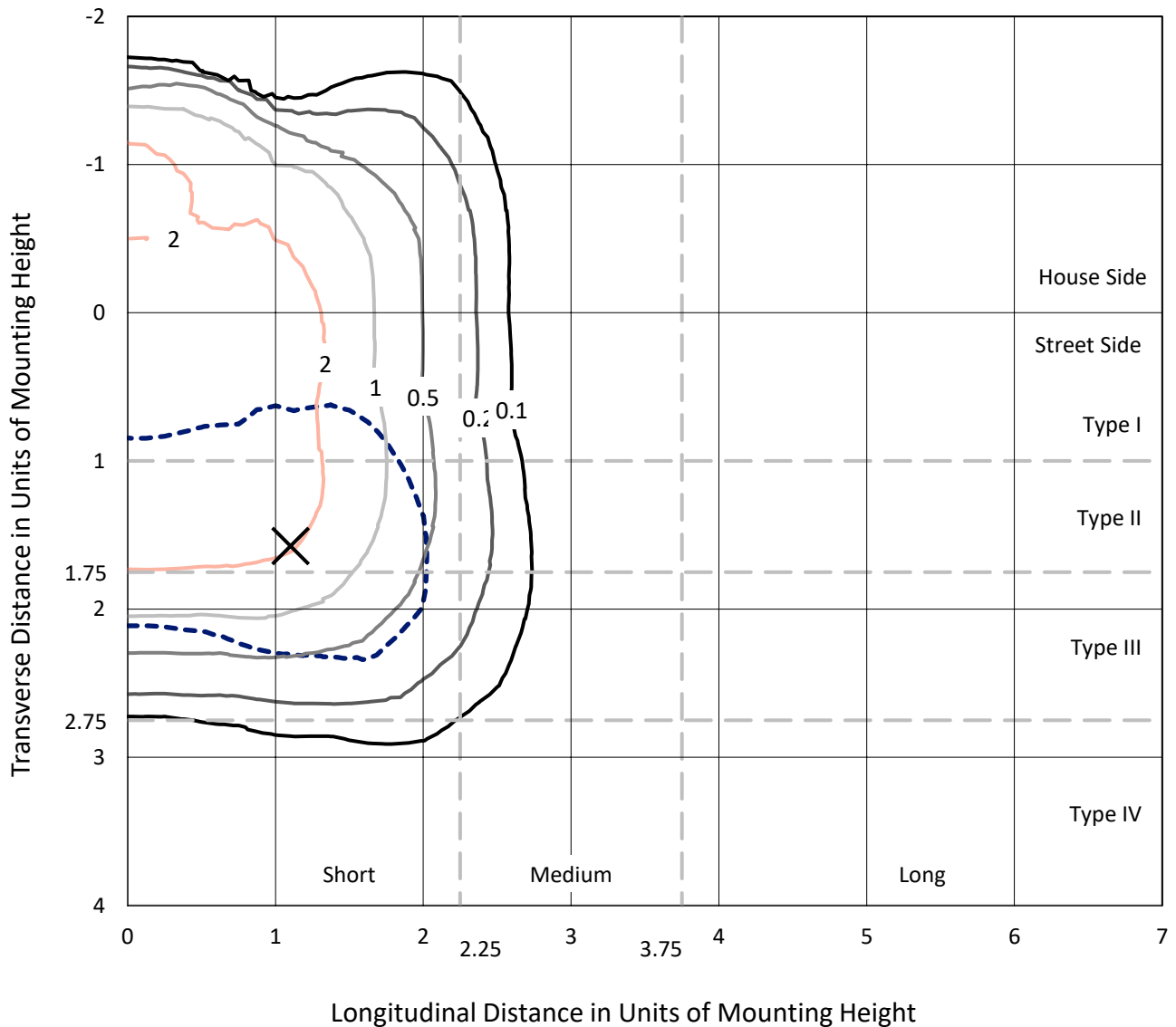
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P579644
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Iso-Footcandle Lines of Horizontal Illumination

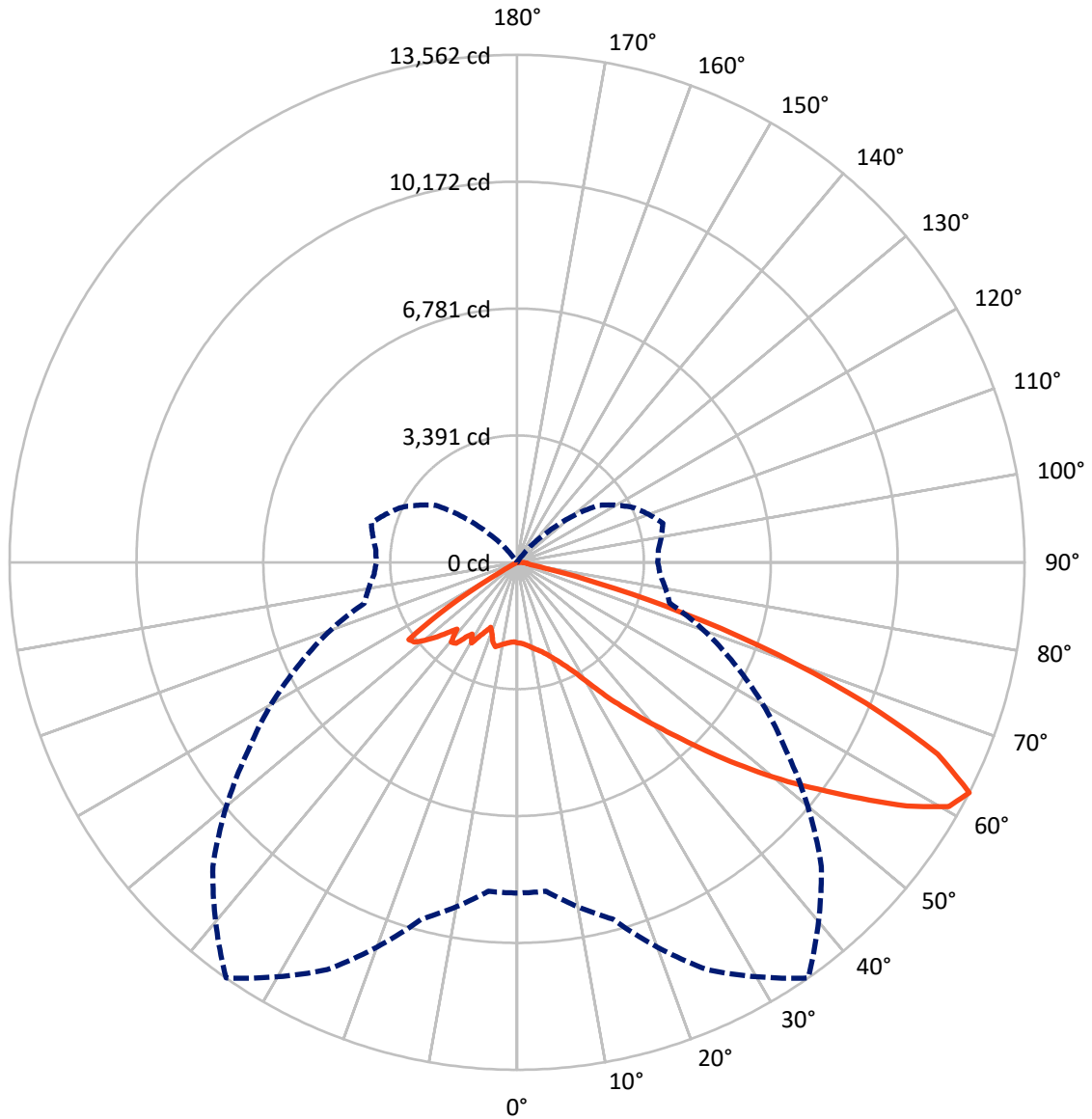
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - N/A

REPORT NUMBER: P579644
CATALOG NUMBER: CTN-CA6-230-727-U-T5N-HSS-HM-EX180

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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 CATALOG NUMBER: CTN-CA6-230-727-U-T5N-HSS-HM-EX180

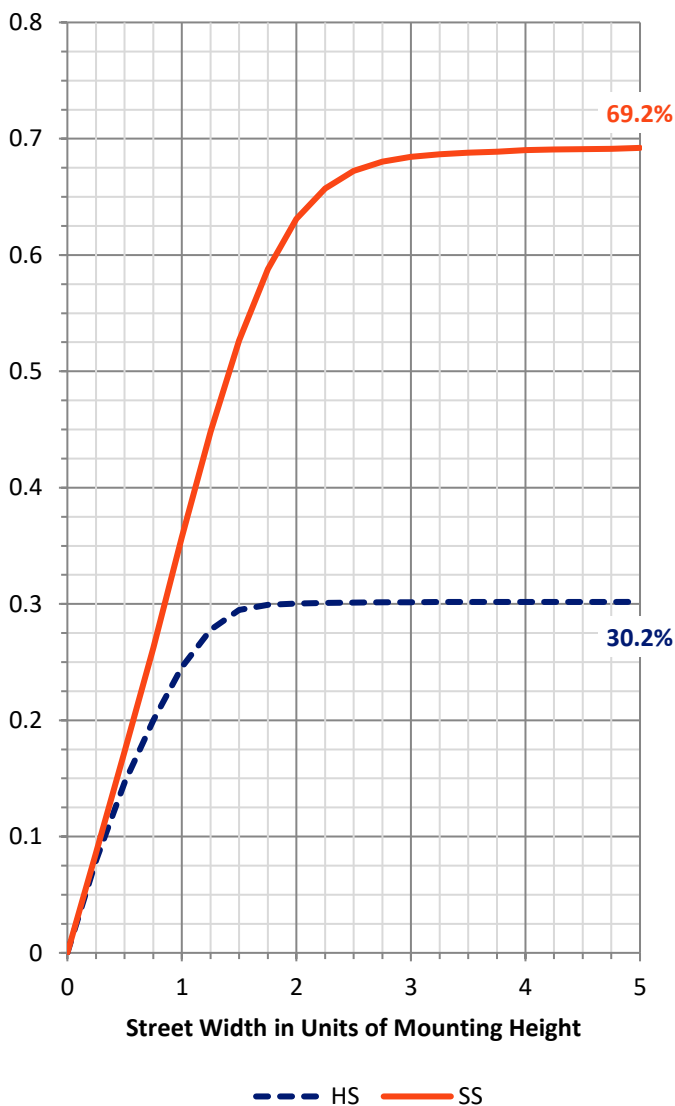
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5806.0	0.0	5806.0
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	13307.4	16.6	13324.0
	% Fixture	69.6	0.1	69.6
Total	Lumens	19113.4	16.6	19130.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.6	1.1
10°-20°	682.2	3.6
20°-30°	1246.9	6.5
30°-40°	2376.1	12.4
40°-50°	4078.3	21.3
50°-60°	5471.2	28.6
60°-70°	4159.2	21.7
70°-80°	787.5	4.1
80°-90°	99.4	0.5
90°-100°	14.6	0.1
100°-110°	2.0	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°	19113.4	99.9
0°-180°	19130.0	100.0

Coefficient of Utilization



REPORT NUMBER: P579644

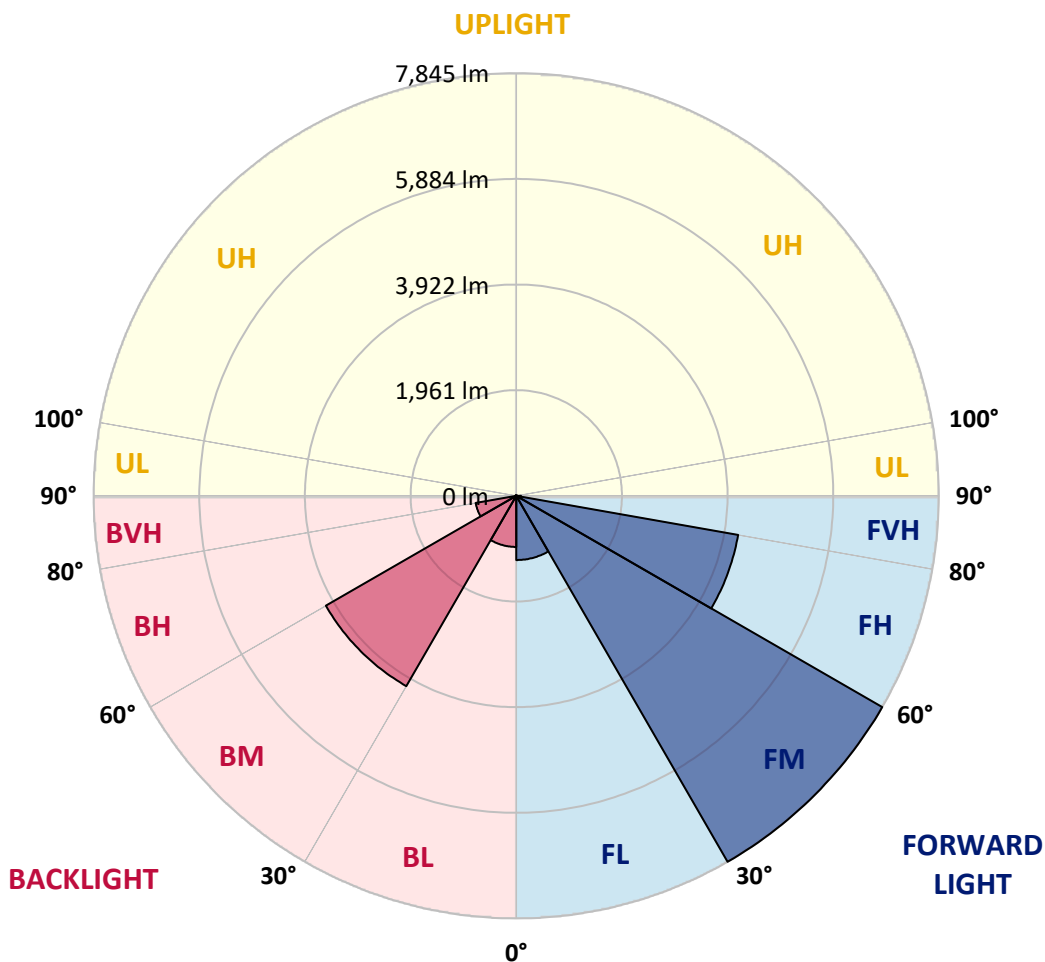
CATALOG NUMBER: CTN-CA6-230-727-U-T5N-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1192.5	6.2			
FM (30°-60°)	7844.9	41.0			
FH (60°-80°)	4182.2	21.9			G2/5000
FVH (80°-90°)	87.8	0.5			G1/100
BL (0°-30°)	949.1	5.0	B2/1000		
BM (30°-60°)	4080.7	21.3	B3/5000		
BH (60°-80°)	764.6	4.0	B2/1000		G2/1000
BVH (80°-90°)	11.6	0.1			G1/100
UL (90°-100°)	14.6	0.1		U2/50	
UH (100°-180°)	2.0	0.0		U1/10	

BUG Rating: B3-U2-G2

Type III Short





REPORT NUMBER: P579644

CATALOG NUMBER: CTN-CA6-230-727-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3
2.5°	2207.5	2191.2	2192.1	2206.6	2165.1	2180.4	2162.4	2180.4	2170.5	2177.7	2181.3
5°	2246.3	2230.0	2228.2	2243.5	2208.4	2219.2	2201.2	2213.8	2200.3	2209.3	2209.3
7.5°	2304.9	2288.6	2283.2	2294.9	2262.5	2270.6	2251.7	2258.9	2243.5	2255.3	2249.0
10°	2374.3	2356.3	2350.0	2356.3	2328.3	2332.8	2310.3	2318.4	2295.8	2309.4	2300.4
12.5°	2448.2	2424.8	2424.8	2430.2	2400.4	2401.4	2380.6	2385.1	2362.6	2377.0	2366.2
15°	2528.5	2502.3	2506.0	2511.4	2479.8	2485.2	2463.6	2470.8	2447.3	2461.8	2450.9
17.5°	2634.9	2606.9	2603.3	2619.6	2589.8	2599.7	2575.4	2584.4	2563.7	2568.2	2562.8
20°	2781.9	2746.7	2738.6	2760.2	2726.9	2734.1	2716.1	2734.1	2712.5	2680.0	2588.9
22.5°	2957.7	2927.1	2913.5	2928.0	2888.3	2900.9	2900.0	2928.9	2869.4	2664.7	2573.6
25°	3189.5	3168.7	3142.6	3144.4	3096.6	3115.5	3149.8	3172.3	2919.0	2739.5	2741.3
27.5°	3498.8	3478.0	3442.0	3428.4	3359.0	3405.0	3458.2	3238.2	3038.9	3084.9	3059.6
30°	3893.7	3890.1	3817.1	3793.6	3717.9	3775.6	3729.6	3352.7	3421.2	3485.3	3446.5
32.5°	4419.5	4394.2	4288.7	4246.3	4167.0	4200.3	3794.5	3740.4	3842.3	3928.9	3888.3
35°	5055.2	4978.5	4871.2	4787.4	4649.4	4463.6	4041.6	4147.1	4299.5	4418.6	4222.0
37.5°	5793.7	5710.8	5543.0	5392.4	5175.1	4596.2	4414.0	4625.1	4816.2	4687.3	4233.7
40°	6553.9	6480.0	6322.1	6128.3	5761.3	5007.4	4865.8	5118.3	5335.6	4597.1	4371.7
42.5°	7308.7	7245.5	7118.4	6927.2	6454.7	5497.0	5360.9	5632.3	5427.6	4772.9	4765.7
45°	8069.7	8038.2	7893.9	7730.7	7276.2	6123.8	5915.5	6127.4	5222.9	5194.1	5176.9
47.5°	8686.5	8691.9	8641.4	8556.7	8152.7	6811.8	6540.4	5911.9	5471.8	5503.4	5511.5
50°	9322.3	9281.7	9279.0	9284.4	9115.8	7698.2	6966.0	5814.5	5797.3	5794.6	5787.4
52.5°	9831.7	9780.3	9886.7	9971.5	10071.6	8687.4	6902.0	6144.5	6046.2	6011.9	5801.8
55°	10246.5	10226.7	10399.8	10686.6	11132.1	9735.3	7468.3	6466.4	6269.8	5469.1	4933.5
57.5°	10498.1	10527.0	10884.1	11447.7	12281.8	10603.6	8127.4	6792.9	5368.1	4817.1	4782.9
60°	10016.6	10169.0	10776.8	12014.0	13253.9	11420.6	8618.0	6858.7	4830.7	4535.8	4467.3
62.5°	8838.0	8823.6	9867.8	12014.0	13562.3	11501.8	8773.1	6392.5	4220.2	3836.0	3759.4
65°	6255.4	6293.3	7408.8	10826.4	12354.8	10698.3	8092.3	5434.8	3366.2	3013.6	2909.9
67.5°	3871.2	3868.5	4960.5	7973.2	10057.2	8957.0	6812.7	4166.1	2336.4	2003.7	1891.0
70°	1337.3	1375.2	2230.9	4665.6	7403.3	7017.4	5098.5	2630.4	1231.8	878.3	741.2
72.5°	532.0	544.7	800.8	2080.3	4625.1	4688.2	3098.4	1277.8	368.8	234.5	220.0
75°	348.1	349.9	384.1	751.2	2244.4	2522.2	1439.2	367.0	171.3	156.9	153.3
77.5°	300.3	301.2	319.2	380.5	731.3	981.1	409.4	217.3	143.4	128.9	125.3
80°	278.6	279.5	288.6	327.3	352.6	334.5	218.2	174.9	120.8	114.5	113.6
82.5°	263.3	266.9	271.4	294.9	285.0	251.6	181.3	141.6	92.9	99.2	101.9
85°	242.6	246.2	248.9	262.4	238.1	184.0	140.7	106.4	59.5	64.9	64.0
87.5°	182.2	184.0	180.3	178.5	165.9	128.9	92.9	67.6	23.4	21.6	19.8
90°	87.5	86.6	83.0	76.6	66.7	52.3	38.8	21.6	9.9	4.5	1.8
92.5°	69.4	68.5	66.7	60.4	52.3	38.8	28.0	15.3	9.0	3.6	0.9
95°	46.9	45.1	43.3	38.8	32.5	23.4	16.2	10.8	7.2	2.7	0.9
97.5°	30.7	29.8	27.1	23.4	18.0	12.6	9.9	8.1	6.3	2.7	0.9
100°	18.9	18.9	17.1	13.5	9.0	7.2	6.3	6.3	4.5	1.8	0.0
102.5°	11.7	10.8	9.9	6.3	4.5	4.5	4.5	4.5	3.6	1.8	0.0
105°	6.3	6.3	4.5	3.6	2.7	1.8	2.7	3.6	2.7	0.9	0.0
107.5°	1.8	1.8	1.8	0.9	0.9	0.0	0.9	1.8	1.8	0.9	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	0.9	0.0



REPORT NUMBER: P579644
 CATALOG NUMBER: CTN-CA6-230-727-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
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



REPORT NUMBER: P579644

CATALOG NUMBER: CTN-CA6-230-727-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3	2154.3
2.5°	2176.8	2159.7	2164.2	2147.1	2144.4	2126.3	2157.0	2158.8	2150.7	2159.7
5°	2204.8	2184.0	2192.1	2171.4	2167.8	2144.4	2168.7	2166.0	2159.7	2166.9
7.5°	2244.4	2223.7	2228.2	2203.9	2199.4	2173.2	2196.7	2187.6	2179.5	2189.4
10°	2299.5	2276.0	2279.6	2250.8	2247.2	2216.5	2243.5	2230.0	2218.3	2231.8
12.5°	2367.1	2336.4	2332.8	2302.2	2299.5	2270.6	2298.6	2285.0	2273.3	2294.9
15°	2444.6	2404.1	2398.6	2359.9	2355.4	2325.6	2352.7	2332.8	2323.8	2351.8
17.5°	2548.3	2405.0	2324.7	2267.9	2235.4	2219.2	2267.9	2333.7	2313.9	2314.8
20°	2506.0	2351.8	2244.4	2195.8	2160.6	2003.7	1787.3	1849.5	1975.7	2037.9
22.5°	2493.3	2439.2	2395.0	2313.0	1964.0	1875.6	1888.3	1873.8	1635.8	1544.7
25°	2735.0	2672.8	2577.2	2147.1	2046.1	2026.2	2033.4	1784.6	1605.1	1631.3
27.5°	3044.3	2980.3	2508.7	2267.9	2248.1	2221.9	2079.4	1768.3	1792.7	1817.9
30°	3433.9	3097.5	2616.0	2542.0	2505.1	2478.0	1949.6	1974.8	2015.4	2047.0
32.5°	3813.5	3087.6	2923.5	2831.5	2785.5	2260.7	2203.0	2261.6	2303.1	2327.4
35°	3818.0	3441.1	3267.9	3149.8	2857.6	2430.2	2483.4	2581.7	2683.6	2702.5
37.5°	3921.7	3841.4	3643.1	3494.3	2125.4	2712.5	2829.7	2942.4	3044.3	3050.6
40°	4334.7	4248.1	4062.4	3735.0	2347.2	2766.6	3211.1	3338.3	3423.9	3419.4
42.5°	4746.8	4687.3	4494.3	3319.3	2644.8	2396.8	3611.5	3695.4	3749.5	3787.3
45°	5161.6	5102.1	4450.1	3644.9	2999.2	2625.0	3514.1	3989.3	4048.8	4067.8
47.5°	5485.3	5338.3	4077.7	4076.8	3442.0	2917.2	2901.8	4254.4	4306.7	4293.2
50°	5784.7	4765.7	4407.7	4218.4	3900.1	3192.2	3085.8	3579.9	4540.3	4520.5
52.5°	5263.5	4625.1	4690.9	3836.9	4268.0	3465.4	3293.2	3210.2	4125.5	4656.6
55°	4707.1	4797.3	4980.3	4215.7	3096.6	3553.8	3469.0	3304.0	2783.7	2342.7
57.5°	4803.6	4938.0	4947.0	4566.4	3204.8	2220.1	2843.2	2488.8	1572.6	1576.3
60°	4481.7	4656.6	3616.0	3044.3	1723.2	462.6	45.1	39.7	274.1	333.6
62.5°	3789.1	4032.6	3451.9	2652.0	1105.5	17.1	4.5	0.9	0.0	0.0
65°	2934.3	3227.4	2917.2	2288.6	981.1	5.4	0.0	0.0	0.0	0.0
67.5°	1935.1	2199.4	2216.5	1914.4	817.9	2.7	0.0	0.0	0.0	0.0
70°	810.7	1141.6	1379.7	1423.0	642.9	0.9	0.0	0.0	0.0	0.0
72.5°	234.5	362.5	663.7	854.9	408.5	0.0	0.0	0.0	0.0	0.0
75°	156.0	166.8	192.1	385.0	203.8	0.0	0.0	0.0	0.0	0.0
77.5°	128.9	131.7	110.0	105.5	58.6	0.0	0.0	0.0	0.0	0.0
80°	117.2	115.4	88.4	62.2	21.6	0.0	0.0	0.0	0.0	0.0
82.5°	108.2	102.8	64.0	32.5	14.4	0.0	0.0	0.0	0.0	0.0
85°	73.0	72.1	28.9	19.8	2.7	0.0	0.0	0.0	0.0	0.0
87.5°	19.8	25.2	6.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P579644
 CATALOG NUMBER: CTN-CA6-230-727-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

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