

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: P579407

Luminaire Tested: **CTN-CA8-230-722-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579407
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-722-U-T5-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2200K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18016 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G3

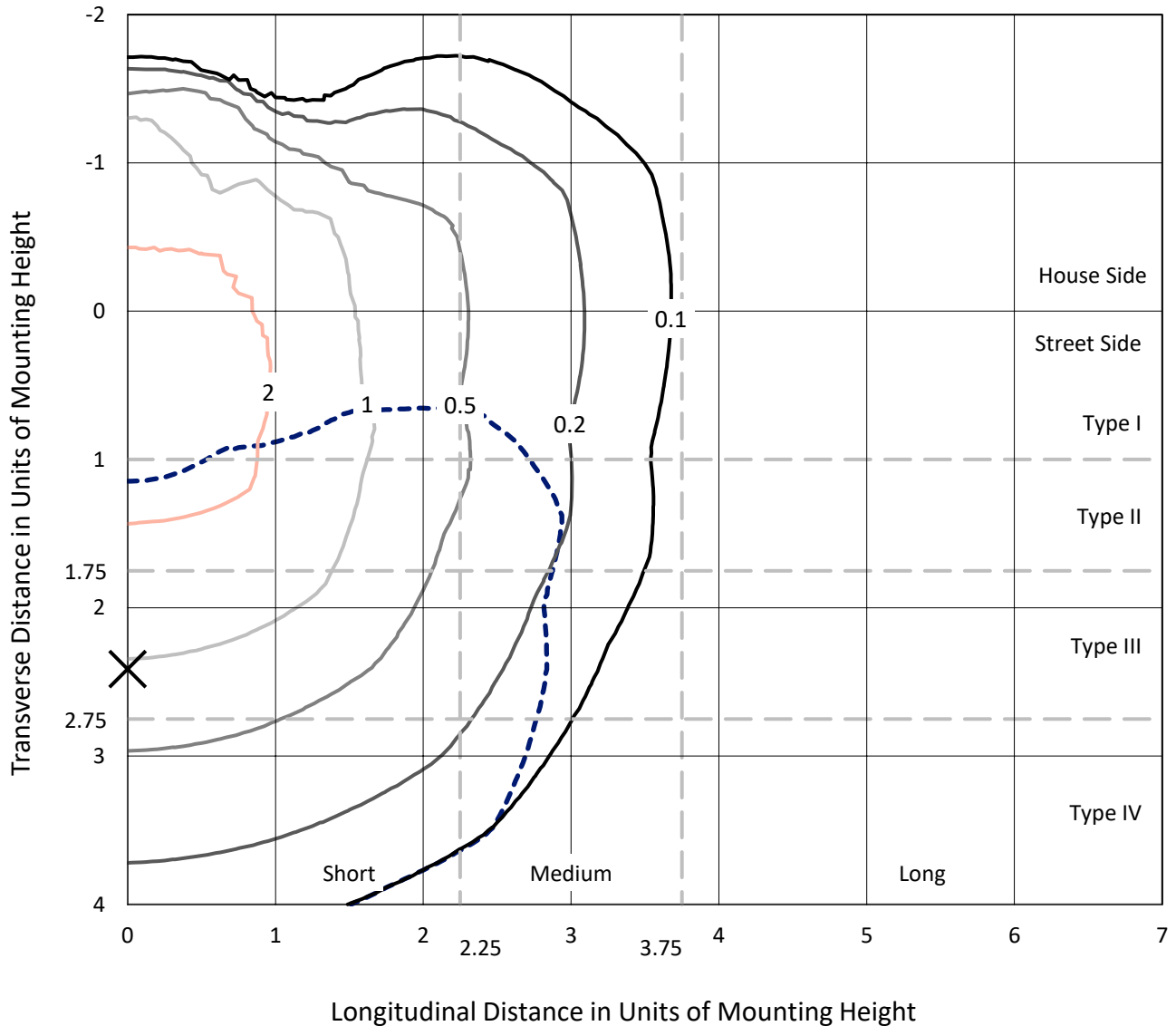
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P579407
 CATALOG NUMBER: CTN-CA8-230-722-U-T5-HSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

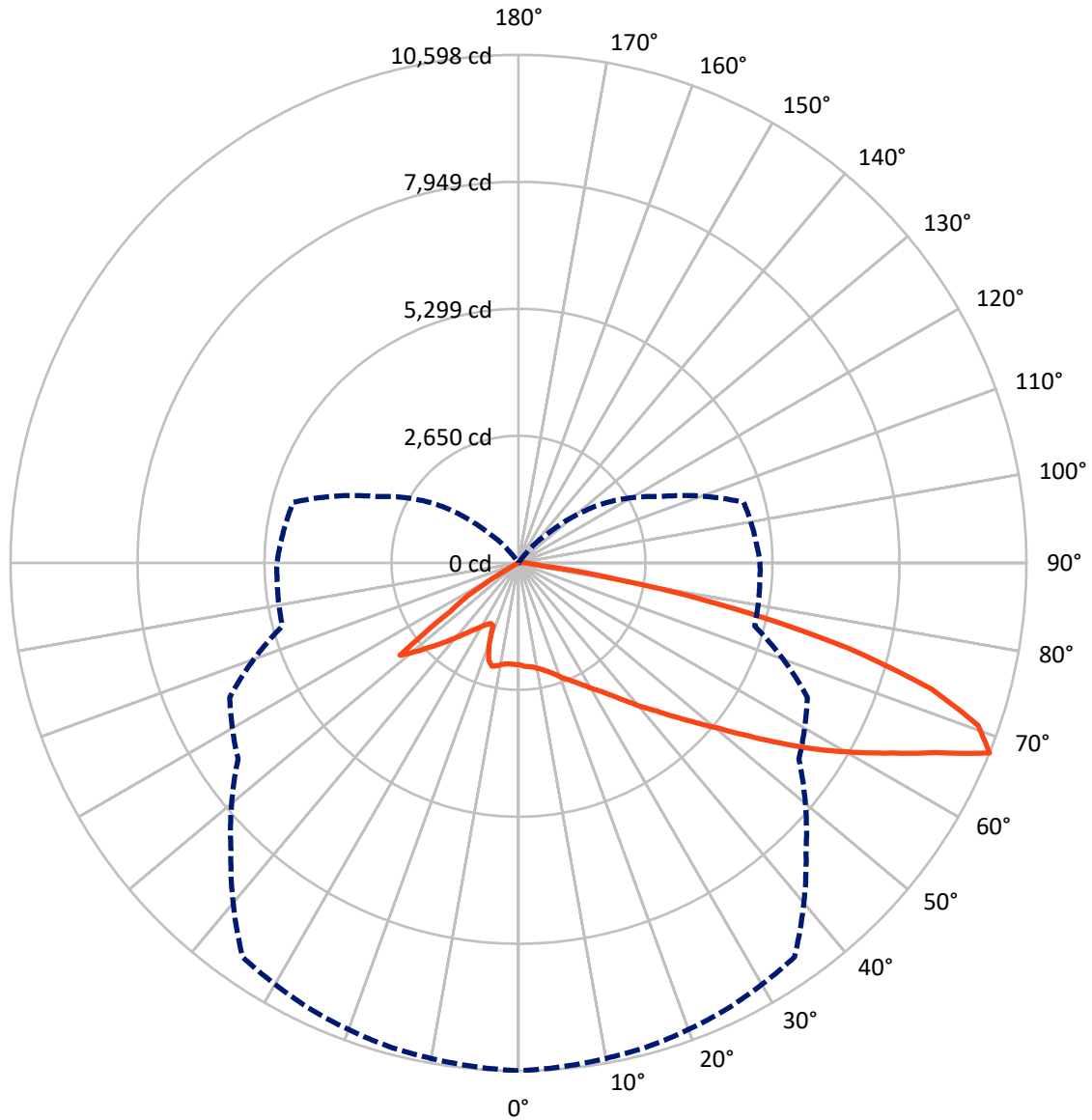
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - N/A

REPORT NUMBER: P579407
CATALOG NUMBER: CTN-CA8-230-722-U-T5-HSS-HM-EX180

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P579407
 CATALOG NUMBER: CTN-CA8-230-722-U-T5-HSS-HM-EX180

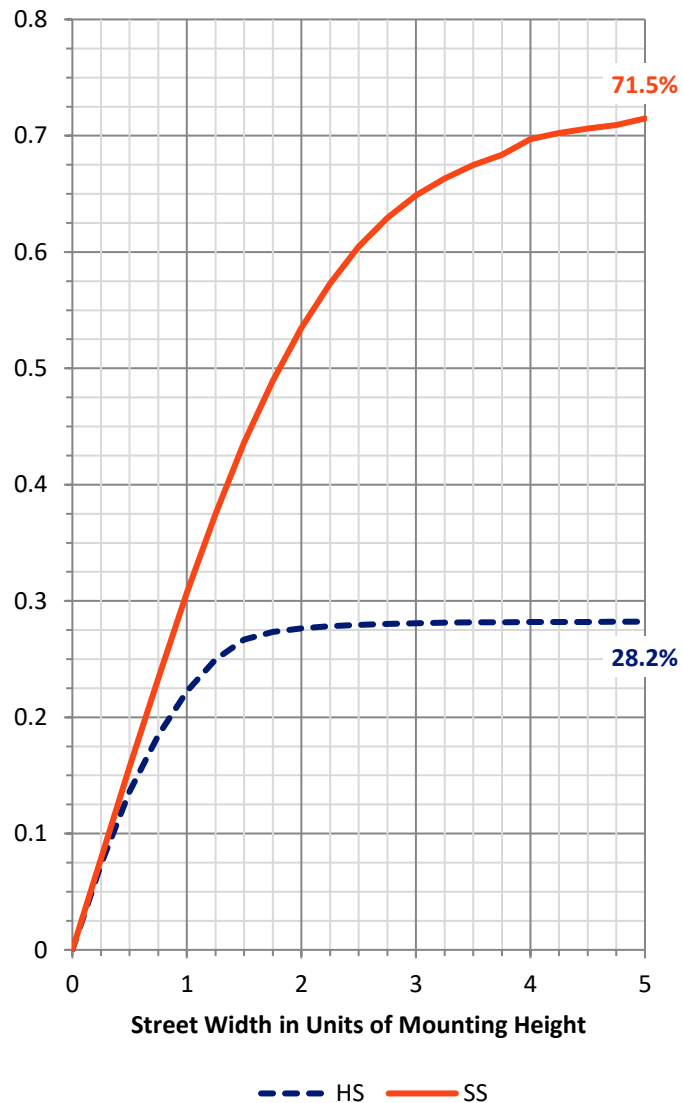
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5106.1	0.1	5106.1
	% Fixture	28.3	0.0	28.3
Street Side	Lumens	12886.9	22.9	12909.8
	% Fixture	71.5	0.1	71.7
Total	Lumens	17993.0	23.0	18016.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.6	1.1
10°-20°	629.9	3.5
20°-30°	1043.1	5.8
30°-40°	1641.9	9.1
40°-50°	2569.6	14.3
50°-60°	3710.2	20.6
60°-70°	4596.2	25.5
70°-80°	3347.3	18.6
80°-90°	250.1	1.4
90°-100°	19.6	0.1
100°-110°	3.3	0.0
110°-120°	0.1	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°	17993.0	99.9
0°-180°	18016.0	100.0

Coefficient of Utilization



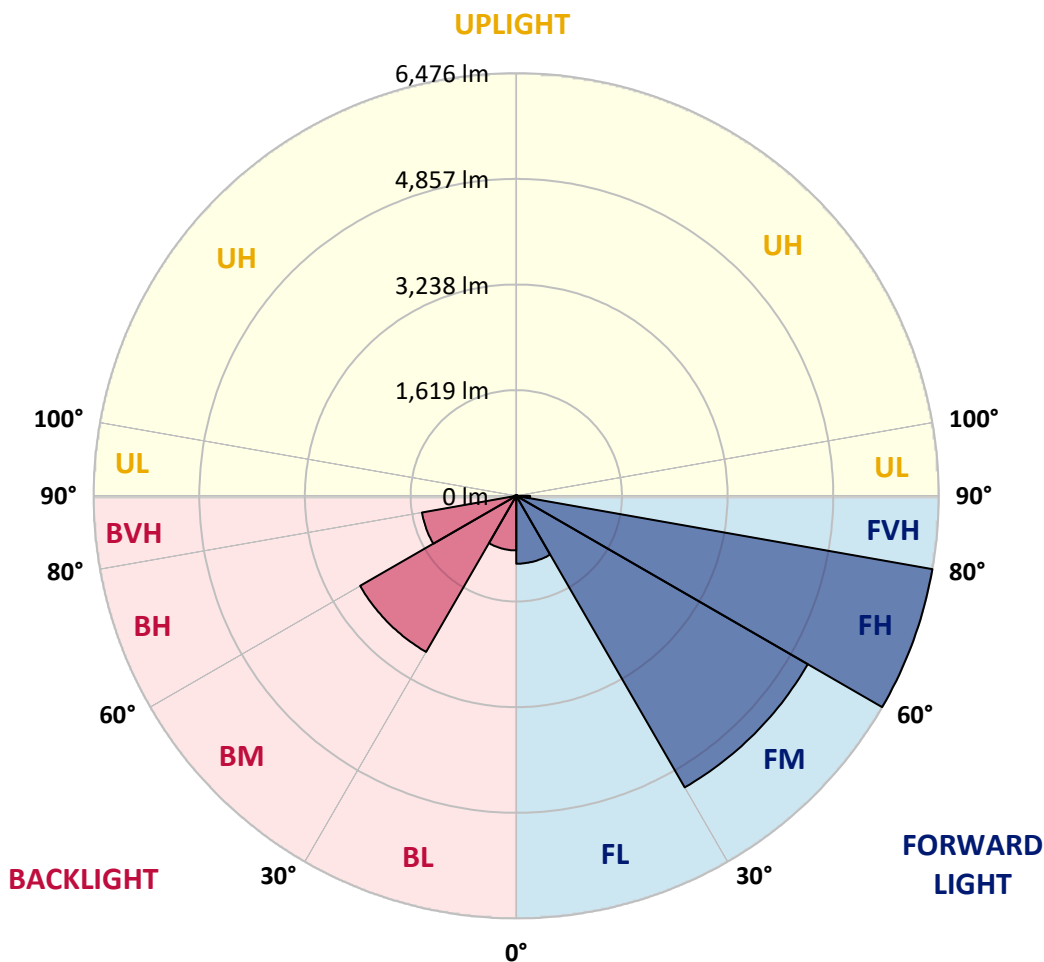
REPORT NUMBER: P579407
 CATALOG NUMBER: CTN-CA8-230-722-U-T5-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1040.6	5.8			
FM (30°-60°)	5159.3	28.6			
FH (60°-80°)	6476.2	35.9			G3/7500
FVH (80°-90°)	210.9	1.2			G2/225
BL (0°-30°)	837.0	4.6	B2/1000		
BM (30°-60°)	2762.5	15.3	B3/5000		
BH (60°-80°)	1467.4	8.1	B3/2500		G3/2500
BVH (80°-90°)	39.1	0.2			G1/100
UL (90°-100°)	19.6	0.1		U2/50	
UH (100°-180°)	3.4	0.0		U1/10	

BUG Rating: B3-U2-G3

Type IV Short





REPORT NUMBER: P579407

CATALOG NUMBER: CTN-CA8-230-722-U-T5-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8
2.5°	2160.6	2148.9	2148.9	2161.5	2126.3	2137.2	2122.7	2135.4	2128.1	2131.8	2136.3
5°	2173.3	2159.7	2160.6	2176.0	2144.4	2153.4	2136.3	2142.6	2136.3	2139.0	2139.0
7.5°	2196.8	2185.0	2185.0	2194.1	2162.5	2165.2	2149.8	2149.8	2141.7	2148.0	2142.6
10°	2241.0	2228.4	2222.0	2226.6	2198.6	2195.0	2174.2	2174.2	2161.5	2171.5	2163.4
12.5°	2294.3	2276.2	2274.4	2275.3	2243.7	2237.4	2213.9	2214.8	2191.3	2204.9	2195.0
15°	2358.4	2335.8	2334.0	2337.6	2304.2	2292.5	2266.3	2266.3	2240.1	2247.3	2233.8
17.5°	2440.5	2414.4	2409.8	2416.2	2382.8	2371.9	2341.2	2335.8	2306.9	2301.5	2289.8
20°	2548.9	2519.1	2510.1	2523.6	2481.2	2471.2	2434.2	2422.5	2383.7	2319.6	2235.6
22.5°	2646.4	2622.9	2617.5	2626.5	2587.7	2577.8	2541.7	2517.3	2423.4	2294.3	2216.6
25°	2757.5	2748.4	2745.7	2740.3	2705.1	2687.9	2653.6	2619.3	2406.2	2229.3	2227.5
27.5°	2894.7	2890.2	2877.6	2873.0	2834.2	2823.4	2778.2	2557.0	2344.8	2332.2	2325.0
30°	3044.6	3035.6	3022.9	3023.8	2997.6	2977.8	2870.3	2501.9	2463.1	2463.1	2444.2
32.5°	3210.7	3200.8	3188.1	3190.9	3180.0	3162.9	2839.6	2647.3	2617.5	2625.6	2602.2
35°	3416.6	3400.3	3395.8	3406.7	3407.6	3296.5	2893.8	2845.0	2821.6	2816.2	2727.7
37.5°	3656.8	3643.2	3659.5	3684.7	3655.9	3330.8	3109.6	3094.2	3070.8	2939.9	2730.4
40°	3944.8	3920.4	3940.3	3956.5	3937.6	3534.9	3336.2	3341.6	3320.9	2932.6	2700.6
42.5°	4230.1	4206.6	4223.8	4264.4	4257.2	3787.7	3612.5	3624.3	3414.8	2949.8	2931.7
45°	4583.1	4575.0	4569.6	4603.0	4631.0	4090.1	3940.3	3939.4	3348.0	3222.5	3206.2
47.5°	4983.1	4972.3	4975.0	5017.4	5059.9	4451.3	4327.6	3964.6	3520.4	3533.1	3518.6
50°	5429.2	5417.4	5452.6	5514.0	5535.7	4856.7	4705.0	3896.0	3879.8	3893.3	3868.9
52.5°	5995.3	5969.1	6023.3	6089.2	6117.2	5336.2	4725.8	4301.4	4274.3	4277.0	4199.4
55°	6639.0	6618.3	6667.0	6741.1	6782.6	5871.6	5157.4	4696.0	4679.7	4219.3	3799.4
57.5°	7338.8	7315.3	7380.3	7402.0	7412.8	6425.1	5591.7	5124.0	4371.9	3852.7	3829.2
60°	8025.0	7999.7	8081.9	8085.5	8117.1	6977.6	6004.3	5536.6	4212.0	4143.4	4123.6
62.5°	8745.5	8713.9	8786.1	8783.4	8721.1	7483.3	6413.3	5933.0	4497.4	4443.2	4412.5
65°	9545.5	9522.0	9572.6	9491.3	9367.6	8006.0	6837.7	6364.6	4829.6	4819.7	4812.5
67.5°	10598.3	10552.2	10450.2	10276.8	10040.3	8485.5	7141.1	6649.0	5099.6	5053.5	5039.1
70°	10174.8	10120.6	10043.0	9852.5	9611.4	8034.9	6653.5	6219.2	4768.2	4770.0	4735.7
72.5°	9009.2	8915.3	8842.1	8574.9	8442.1	7017.4	5797.5	5397.6	4124.5	4201.2	4185.0
75°	7106.7	7011.0	6891.0	6786.2	6771.8	5691.9	4674.3	4386.3	3288.4	3344.4	3385.0
77.5°	4606.6	4571.4	4723.1	4623.8	4713.2	3919.5	3338.9	3091.5	2266.3	2408.0	2389.1
80°	2108.3	2067.6	2311.4	2242.8	2276.2	1925.0	1631.5	1567.4	1025.7	1032.9	1054.6
82.5°	476.7	460.5	477.6	438.8	428.0	362.1	318.7	288.9	181.5	192.3	202.3
85°	260.9	260.9	257.3	239.3	205.0	168.8	133.6	102.9	56.0	61.4	60.5
87.5°	183.3	178.8	177.9	158.9	136.3	115.6	92.1	65.9	31.6	21.7	19.9
90°	125.5	123.7	117.4	105.6	91.2	74.9	56.0	32.5	13.5	6.3	4.5
92.5°	91.2	89.4	84.9	74.9	62.3	50.6	37.0	21.7	10.8	4.5	0.9
95°	60.5	59.6	56.9	48.8	40.6	32.5	23.5	13.5	9.0	3.6	0.9
97.5°	41.5	40.6	37.9	32.5	26.2	20.8	14.4	9.9	7.2	2.7	0.9
100°	28.0	27.1	25.3	20.8	16.3	12.6	9.0	7.2	5.4	2.7	0.9
102.5°	18.1	17.2	15.3	12.6	9.0	7.2	6.3	5.4	3.6	1.8	0.9
105°	10.8	9.9	8.1	6.3	5.4	4.5	4.5	3.6	2.7	0.9	0.9
107.5°	5.4	4.5	3.6	3.6	3.6	2.7	2.7	2.7	1.8	0.9	0.0
110°	0.9	0.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.0



REPORT NUMBER: P579407
 CATALOG NUMBER: CTN-CA8-230-722-U-T5-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: P579407

CATALOG NUMBER: CTN-CA8-230-722-U-T5-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8	2121.8
2.5°	2131.8	2117.3	2125.4	2112.8	2110.1	2096.5	2118.2	2120.9	2119.1	2122.7
5°	2134.5	2119.1	2128.1	2112.8	2112.8	2098.3	2119.1	2119.1	2113.7	2115.5
7.5°	2141.7	2126.3	2132.7	2115.5	2116.4	2099.2	2124.5	2121.8	2117.3	2123.6
10°	2162.5	2145.3	2144.4	2128.1	2131.8	2113.7	2145.3	2145.3	2140.8	2152.5
12.5°	2195.9	2170.6	2166.1	2146.2	2153.4	2138.1	2176.9	2178.7	2179.6	2198.6
15°	2231.1	2200.4	2204.9	2181.4	2178.7	2170.6	2205.8	2204.0	2203.1	2229.3
17.5°	2280.7	2136.3	2112.8	2096.5	2092.9	2073.1	2105.6	2167.9	2135.4	2117.3
20°	2202.2	2126.3	2033.3	2001.7	1995.4	1823.0	1686.6	1748.0	1831.1	1838.3
22.5°	2130.9	2103.8	2096.5	2046.9	1771.5	1713.7	1719.1	1696.6	1499.7	1413.9
25°	2219.3	2195.9	2165.2	1861.8	1796.8	1776.0	1769.7	1538.5	1383.2	1393.2
27.5°	2317.8	2291.6	2024.3	1866.3	1880.7	1851.9	1709.2	1435.6	1426.6	1443.7
30°	2440.5	2231.1	1975.6	1966.5	1980.1	1943.0	1518.7	1498.8	1496.1	1514.2
32.5°	2580.5	2151.6	2105.6	2105.6	2099.2	1699.3	1599.9	1586.4	1593.6	1612.6
35°	2528.1	2276.2	2270.8	2293.4	2141.7	1743.5	1730.0	1706.5	1711.9	1718.2
37.5°	2470.3	2481.2	2483.9	2472.1	1562.0	1869.9	1859.1	1854.6	1849.1	1851.0
40°	2685.2	2692.5	2689.7	2582.3	1685.7	1894.3	2005.3	1997.2	1996.3	2007.2
42.5°	2936.2	2956.1	2940.8	2278.0	1851.0	1592.7	2174.2	2169.7	2167.9	2190.4
45°	3218.8	3237.8	2915.5	2439.6	2027.0	1648.7	2185.9	2353.9	2367.4	2387.3
47.5°	3524.9	3521.3	2690.6	2687.9	2233.8	1804.0	1817.5	2574.2	2596.7	2604.0
50°	3877.1	3298.3	2946.2	2846.9	2467.6	1978.3	1926.8	2362.0	2860.4	2867.6
52.5°	3802.1	3263.1	3239.6	2497.4	2677.1	2170.6	2120.0	2106.5	2965.1	3139.4
55°	3543.9	3571.0	3537.6	2740.3	1962.9	2342.1	2310.5	2297.0	2205.8	1746.2
57.5°	3831.0	3839.1	3810.2	2963.3	1996.3	1460.0	2274.4	1951.2	1267.7	1261.4
60°	4129.0	4142.5	2837.8	2176.9	1279.4	488.5	116.5	122.8	350.3	307.9
62.5°	4413.4	4426.9	3004.0	1989.1	808.1	36.1	23.5	16.3	18.1	18.1
65°	4784.5	4789.9	3215.2	2105.6	839.7	9.0	2.7	0.0	0.0	0.0
67.5°	4976.8	4865.7	3268.5	2158.8	862.3	5.4	1.8	0.0	0.0	0.0
70°	4686.1	4566.9	3042.8	2023.4	803.6	4.5	0.9	0.0	0.0	0.0
72.5°	4129.0	4071.2	2731.3	1794.1	711.5	2.7	0.9	0.0	0.0	0.0
75°	3422.0	3345.3	2264.5	1495.2	588.7	1.8	0.0	0.0	0.0	0.0
77.5°	2434.2	2443.3	1578.3	1089.8	400.9	1.8	0.0	0.0	0.0	0.0
80°	1065.4	1089.8	691.6	500.2	141.8	0.9	0.0	0.0	0.0	0.0
82.5°	203.2	186.9	90.3	71.3	18.1	0.0	0.0	0.0	0.0	0.0
85°	66.8	73.1	33.4	27.1	8.1	0.0	0.0	0.0	0.0	0.0
87.5°	23.5	29.8	9.9	8.1	1.8	0.0	0.0	0.0	0.0	0.0
90°	3.6	3.6	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: P579407
 CATALOG NUMBER: CTN-CA8-230-722-U-T5-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)