

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: P579650

Luminaire Tested: **CTN-CA8-230-727-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579650
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-CA8-230-727-U-T5N-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20560 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U2 - G2

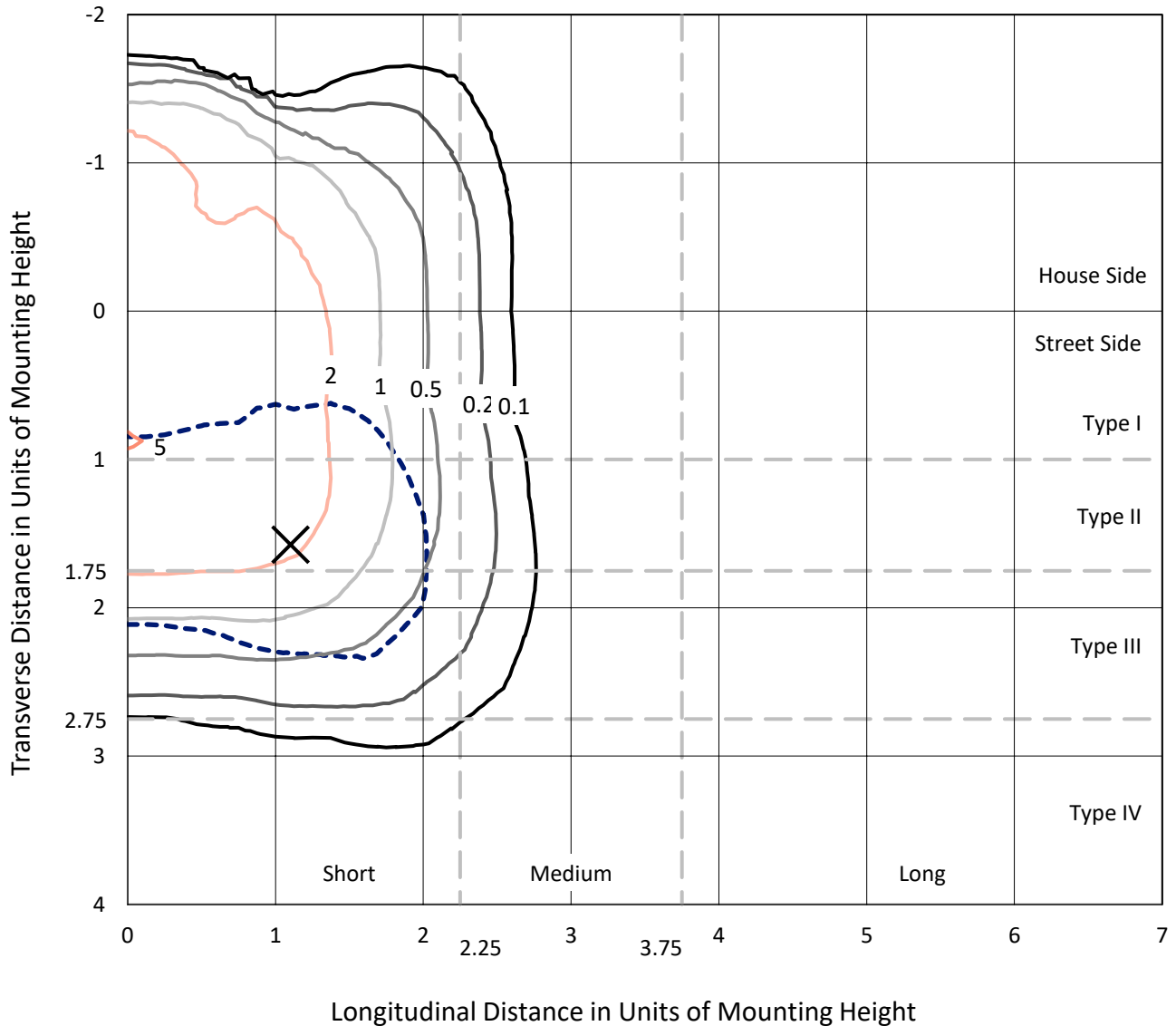
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P579650
 CATALOG NUMBER: CTN-CA8-230-727-U-T5N-HSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

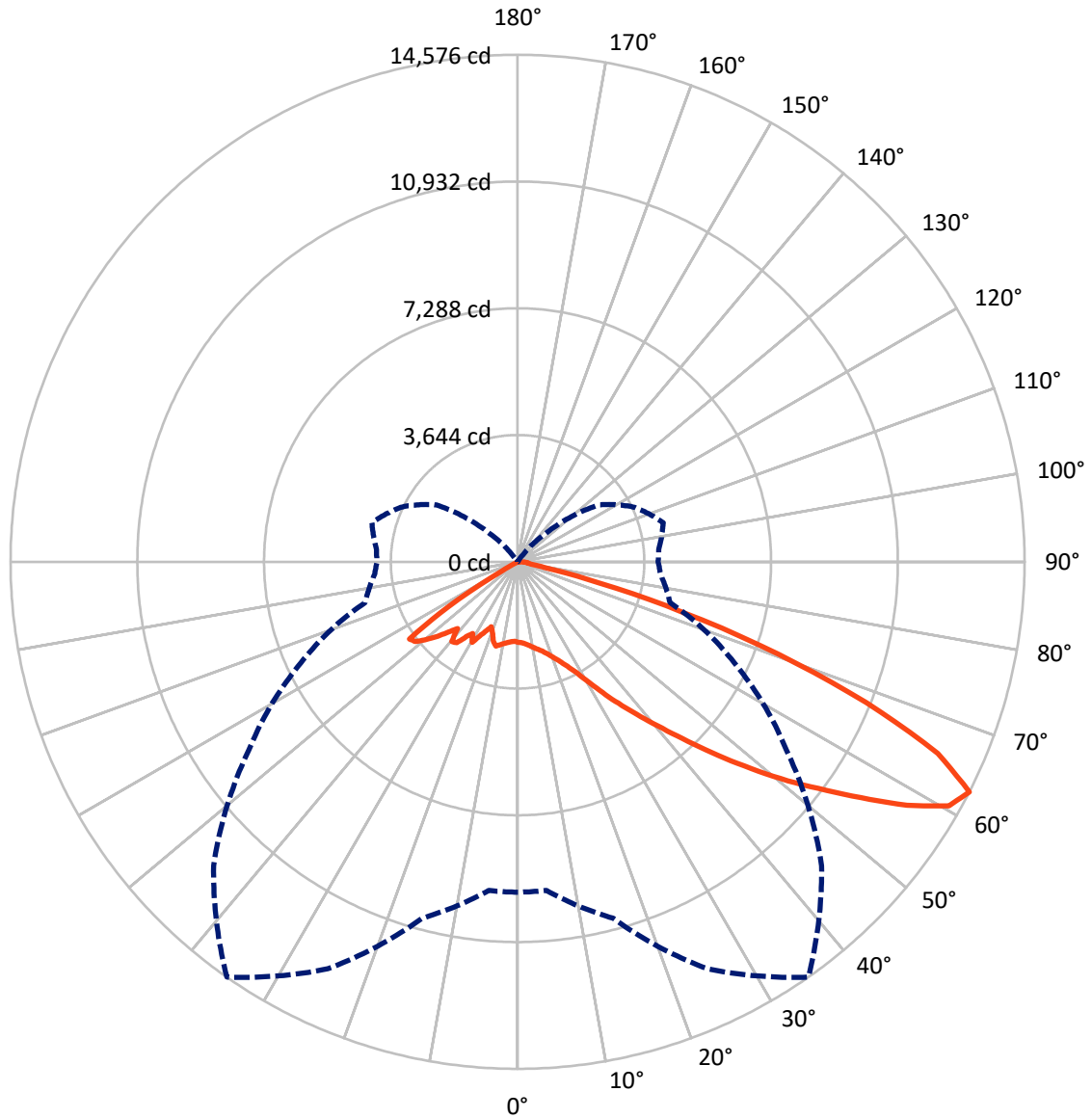
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type III - Short - N/A

REPORT NUMBER: P579650
CATALOG NUMBER: CTN-CA8-230-727-U-T5N-HSS-HM-EX180

Luminous Intensity Polar Plot



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



REPORT NUMBER: P579650
 CATALOG NUMBER: CTN-CA8-230-727-U-T5N-HSS-HM-EX180

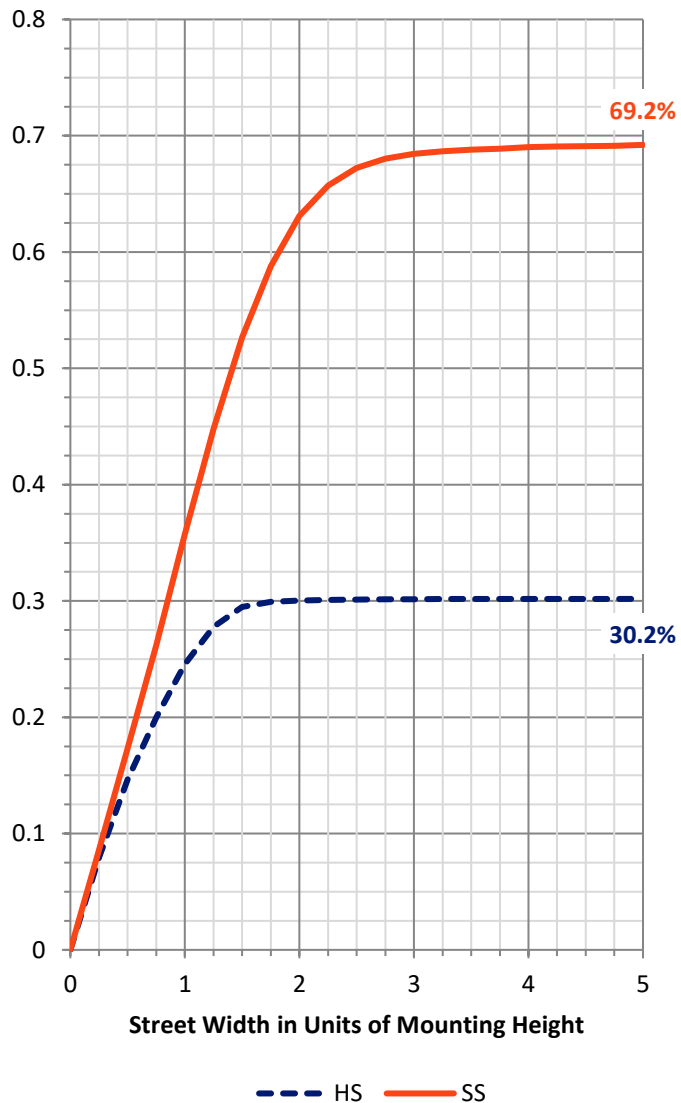
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6240.0	0.0	6240.0
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	14302.1	17.8	14320.0
	% Fixture	69.6	0.1	69.6
Total	Lumens	20542.1	17.9	20560.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.4	1.1
10°-20°	733.2	3.6
20°-30°	1340.1	6.5
30°-40°	2553.7	12.4
40°-50°	4383.2	21.3
50°-60°	5880.2	28.6
60°-70°	4470.1	21.7
70°-80°	846.4	4.1
80°-90°	106.9	0.5
90°-100°	15.7	0.1
100°-110°	2.1	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°	20542.1	99.9
0°-180°	20560.0	100.0

Coefficient of Utilization

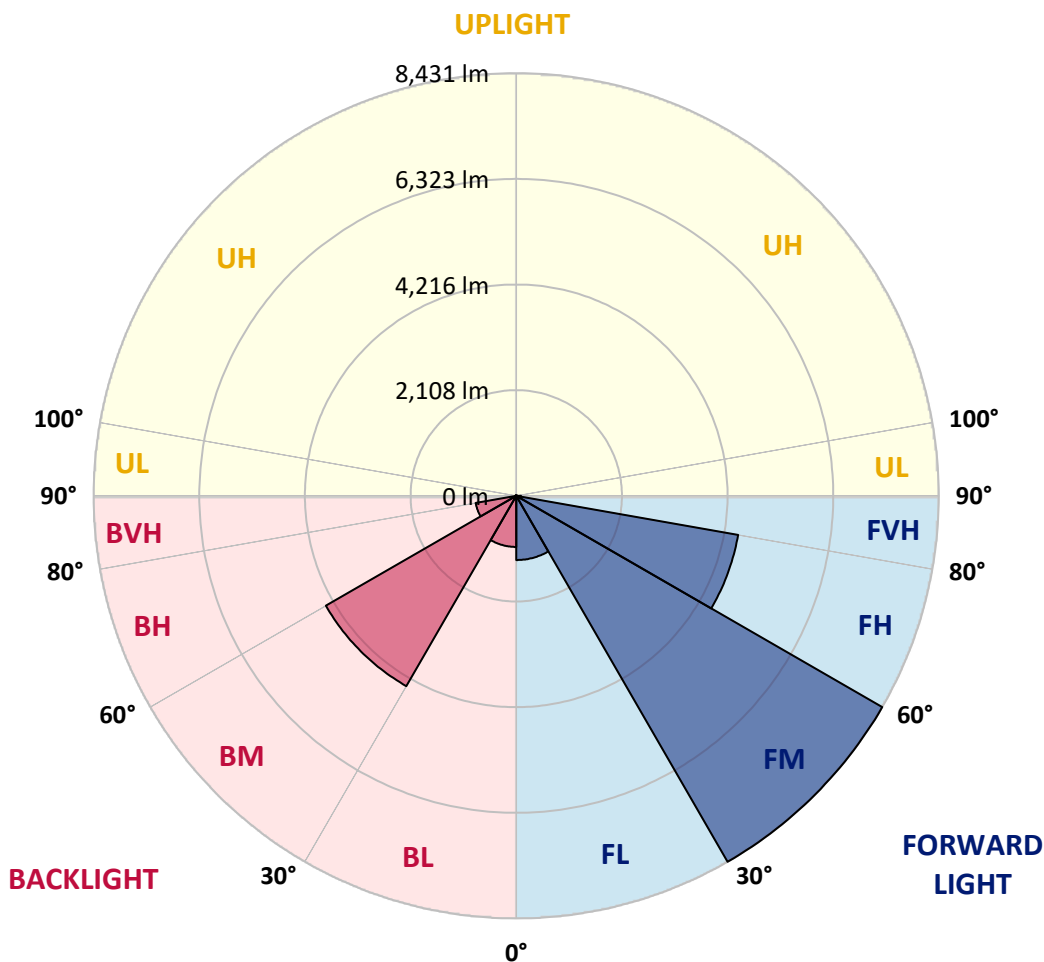


REPORT NUMBER: P579650
 CATALOG NUMBER: CTN-CA8-230-727-U-T5N-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1281.7	6.2			
FM	(30°-60°)	8431.3	41.0			
FH	(60°-80°)	4494.8	21.9			G2/5000
FVH	(80°-90°)	94.4	0.5			G1/100
BL	(0°-30°)	1020.0	5.0	B3/2500		
BM	(30°-60°)	4385.8	21.3	B3/5000		
BH	(60°-80°)	821.7	4.0	B2/1000		G2/1000
BVH	(80°-90°)	12.5	0.1			G1/100
UL	(90°-100°)	15.7	0.1		U2/50	
UH	(100°-180°)	2.1	0.0		U1/10	

BUG Rating: B3-U2-G2
 Type III Short





REPORT NUMBER: P579650

CATALOG NUMBER: CTN-CA8-230-727-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3
2.5°	2372.5	2355.0	2356.0	2371.5	2326.9	2343.4	2324.0	2343.4	2332.8	2340.5	2344.4
5°	2414.2	2396.7	2394.8	2411.3	2373.5	2385.1	2365.7	2379.3	2364.7	2374.4	2374.4
7.5°	2477.2	2459.7	2453.9	2466.5	2431.6	2440.3	2420.0	2427.7	2411.3	2423.9	2417.1
10°	2551.8	2532.4	2525.6	2532.4	2502.4	2507.2	2483.0	2491.7	2467.5	2482.0	2472.3
12.5°	2631.3	2606.1	2606.1	2611.9	2579.9	2580.9	2558.6	2563.4	2539.2	2554.7	2543.1
15°	2717.5	2689.4	2693.3	2699.1	2665.2	2671.0	2647.7	2655.5	2630.3	2645.8	2634.2
17.5°	2831.9	2801.8	2797.9	2815.4	2783.4	2794.1	2767.9	2777.6	2755.3	2760.1	2754.3
20°	2989.8	2952.0	2943.3	2966.6	2930.7	2938.5	2919.1	2938.5	2915.2	2880.3	2782.4
22.5°	3178.8	3145.9	3131.3	3146.8	3104.2	3117.8	3116.8	3147.8	3083.8	2863.8	2766.0
25°	3427.9	3405.6	3377.5	3379.4	3328.1	3348.4	3385.3	3409.5	3137.2	2944.3	2946.2
27.5°	3760.3	3738.0	3699.3	3684.7	3610.1	3659.5	3716.7	3480.2	3266.0	3315.5	3288.3
30°	4184.8	4180.9	4102.4	4077.2	3995.8	4057.8	4008.4	3603.3	3677.0	3745.8	3704.1
32.5°	4749.8	4722.7	4609.3	4563.7	4478.5	4514.3	4078.2	4020.0	4129.6	4222.6	4179.0
35°	5433.1	5350.7	5235.4	5145.2	4997.0	4797.3	4343.7	4457.1	4620.9	4748.9	4537.6
37.5°	6226.8	6137.7	5957.4	5795.5	5562.0	4939.8	4744.0	4970.8	5176.2	5037.7	4550.2
40°	7043.8	6964.3	6794.7	6586.4	6191.9	5381.7	5229.6	5500.9	5734.5	4940.7	4698.5
42.5°	7855.0	7787.2	7650.5	7445.0	6937.2	5908.0	5761.6	6053.3	5833.3	5129.7	5122.0
45°	8673.0	8639.0	8484.0	8308.6	7820.1	6581.5	6357.6	6585.4	5613.3	5582.3	5563.9
47.5°	9335.9	9341.7	9287.4	9196.3	8762.1	7321.0	7029.3	6353.8	5880.8	5914.7	5923.5
50°	10019.1	9975.5	9972.6	9978.4	9797.2	8273.7	7486.7	6249.1	6230.7	6227.8	6220.0
52.5°	10566.7	10511.4	10625.8	10716.9	10824.5	9336.8	7417.9	6603.8	6498.2	6461.3	6235.5
55°	11012.5	10991.2	11177.2	11485.4	11964.2	10463.0	8026.5	6949.8	6738.5	5877.9	5302.2
57.5°	11282.9	11313.9	11697.7	12303.4	13199.9	11396.3	8735.0	7300.6	5769.4	5177.2	5140.4
60°	10765.4	10929.1	11582.4	12912.0	14244.6	12274.3	9262.2	7371.4	5191.8	4874.8	4801.2
62.5°	9498.7	9483.2	10605.4	12912.0	14576.1	12361.6	9428.9	6870.3	4535.6	4122.8	4040.4
65°	6723.0	6763.7	7962.6	11635.7	13278.4	11498.0	8697.2	5841.1	3617.9	3238.9	3127.5
67.5°	4160.6	4157.7	5331.3	8569.3	10809.0	9626.6	7322.0	4477.5	2511.1	2153.5	2032.3
70°	1437.3	1478.0	2397.7	5014.4	7956.8	7542.0	5479.6	2827.0	1323.9	944.0	796.6
72.5°	571.8	585.4	860.6	2235.8	4970.8	5038.6	3330.0	1373.3	396.4	252.0	236.5
75°	374.1	376.0	412.9	807.3	2412.2	2710.7	1546.8	394.4	184.1	168.6	164.8
77.5°	322.7	323.7	343.1	409.0	786.0	1054.4	440.0	233.6	154.1	138.6	134.7
80°	299.5	300.4	310.1	351.8	378.9	359.6	234.5	188.0	129.9	123.1	122.1
82.5°	283.0	286.9	291.7	316.9	306.3	270.4	194.8	152.2	99.8	106.6	109.5
85°	260.7	264.6	267.5	282.0	255.9	197.7	151.2	114.4	64.0	69.8	68.8
87.5°	195.8	197.7	193.8	191.9	178.3	138.6	99.8	72.7	25.2	23.3	21.3
90°	94.0	93.0	89.2	82.4	71.7	56.2	41.7	23.3	10.7	4.8	1.9
92.5°	74.6	73.7	71.7	64.9	56.2	41.7	30.0	16.5	9.7	3.9	1.0
95°	50.4	48.5	46.5	41.7	34.9	25.2	17.4	11.6	7.8	2.9	1.0
97.5°	33.0	32.0	29.1	25.2	19.4	13.6	10.7	8.7	6.8	2.9	1.0
100°	20.4	20.4	18.4	14.5	9.7	7.8	6.8	6.8	4.8	1.9	0.0
102.5°	12.6	11.6	10.7	6.8	4.8	4.8	4.8	4.8	3.9	1.9	0.0
105°	6.8	6.8	4.8	3.9	2.9	1.9	2.9	3.9	2.9	1.0	0.0
107.5°	1.9	1.9	1.9	1.0	1.0	0.0	1.0	1.9	1.9	1.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.9	1.0	0.0



REPORT NUMBER: P579650
 CATALOG NUMBER: CTN-CA8-230-727-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: P579650

CATALOG NUMBER: CTN-CA8-230-727-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3	2315.3
2.5°	2339.5	2321.1	2326.0	2307.6	2304.6	2285.3	2318.2	2320.2	2311.4	2321.1
5°	2369.6	2347.3	2356.0	2333.7	2329.8	2304.6	2330.8	2327.9	2321.1	2328.9
7.5°	2412.2	2389.9	2394.8	2368.6	2363.8	2335.7	2360.9	2351.2	2342.4	2353.1
10°	2471.3	2446.1	2450.0	2419.0	2415.1	2382.2	2411.3	2396.7	2384.1	2398.7
12.5°	2544.0	2511.1	2507.2	2474.2	2471.3	2440.3	2470.4	2455.8	2443.2	2466.5
15°	2627.4	2583.8	2577.9	2536.3	2531.4	2499.4	2528.5	2507.2	2497.5	2527.6
17.5°	2738.8	2584.7	2498.5	2437.4	2402.5	2385.1	2437.4	2508.2	2486.8	2487.8
20°	2693.3	2527.6	2412.2	2359.9	2322.1	2153.5	1920.9	1987.7	2123.4	2190.3
22.5°	2679.7	2621.6	2574.1	2485.9	2110.8	2015.8	2029.4	2013.9	1758.0	1660.2
25°	2939.4	2872.6	2769.8	2307.6	2199.0	2177.7	2185.4	1918.0	1725.1	1753.2
27.5°	3271.9	3203.1	2696.2	2437.4	2416.1	2388.0	2234.9	1900.5	1926.7	1953.8
30°	3690.5	3329.0	2811.5	2732.0	2692.3	2663.2	2095.3	2122.4	2166.1	2200.0
32.5°	4098.6	3318.4	3142.0	3043.1	2993.7	2429.7	2367.6	2430.6	2475.2	2501.4
35°	4103.4	3698.3	3512.2	3385.3	3071.2	2611.9	2669.0	2774.7	2884.2	2904.6
37.5°	4214.8	4128.6	3915.4	3755.5	2284.3	2915.2	3041.2	3162.3	3271.9	3278.6
40°	4658.7	4565.7	4366.0	4014.2	2522.7	2973.4	3451.2	3587.8	3679.9	3675.0
42.5°	5101.6	5037.7	4830.3	3567.5	2842.5	2576.0	3881.5	3971.6	4029.7	4070.4
45°	5547.4	5483.5	4782.8	3917.3	3223.4	2821.2	3776.8	4287.5	4351.5	4371.9
47.5°	5895.4	5737.4	4382.5	4381.5	3699.3	3135.2	3118.7	4572.5	4628.7	4614.1
50°	6217.1	5122.0	4737.2	4533.7	4191.6	3430.8	3316.4	3847.5	4879.7	4858.4
52.5°	5657.0	4970.8	5041.5	4123.7	4587.0	3724.5	3539.3	3450.2	4433.9	5004.7
55°	5059.0	5155.9	5352.6	4530.8	3328.1	3819.4	3728.3	3551.0	2991.8	2517.9
57.5°	5162.7	5307.1	5316.8	4907.8	3444.4	2386.1	3055.7	2674.9	1690.2	1694.1
60°	4816.7	5004.7	3886.3	3271.9	1852.1	497.2	48.5	42.6	294.6	358.6
62.5°	4072.4	4334.1	3709.9	2850.3	1188.2	18.4	4.8	1.0	0.0	0.0
65°	3153.6	3468.6	3135.2	2459.7	1054.4	5.8	0.0	0.0	0.0	0.0
67.5°	2079.8	2363.8	2382.2	2057.5	879.0	2.9	0.0	0.0	0.0	0.0
70°	871.3	1226.9	1482.8	1529.3	691.0	1.0	0.0	0.0	0.0	0.0
72.5°	252.0	389.6	713.3	918.8	439.0	0.0	0.0	0.0	0.0	0.0
75°	167.7	179.3	206.4	413.8	219.0	0.0	0.0	0.0	0.0	0.0
77.5°	138.6	141.5	118.2	113.4	63.0	0.0	0.0	0.0	0.0	0.0
80°	126.0	124.1	95.0	66.9	23.3	0.0	0.0	0.0	0.0	0.0
82.5°	116.3	110.5	68.8	34.9	15.5	0.0	0.0	0.0	0.0	0.0
85°	78.5	77.5	31.0	21.3	2.9	0.0	0.0	0.0	0.0	0.0
87.5°	21.3	27.1	6.8	2.9	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: P579650
 CATALOG NUMBER: CTN-CA8-230-727-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)