

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: P237572

Luminaire Tested: **CTN-10-8-D-E1-T2-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237572  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: CTN-10-8-D-E1-T2-7050-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 70 CRI, 5000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 73935 lumens  
Efficiency: N/A  
Efficacy: 117.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B4 - U0 - G5

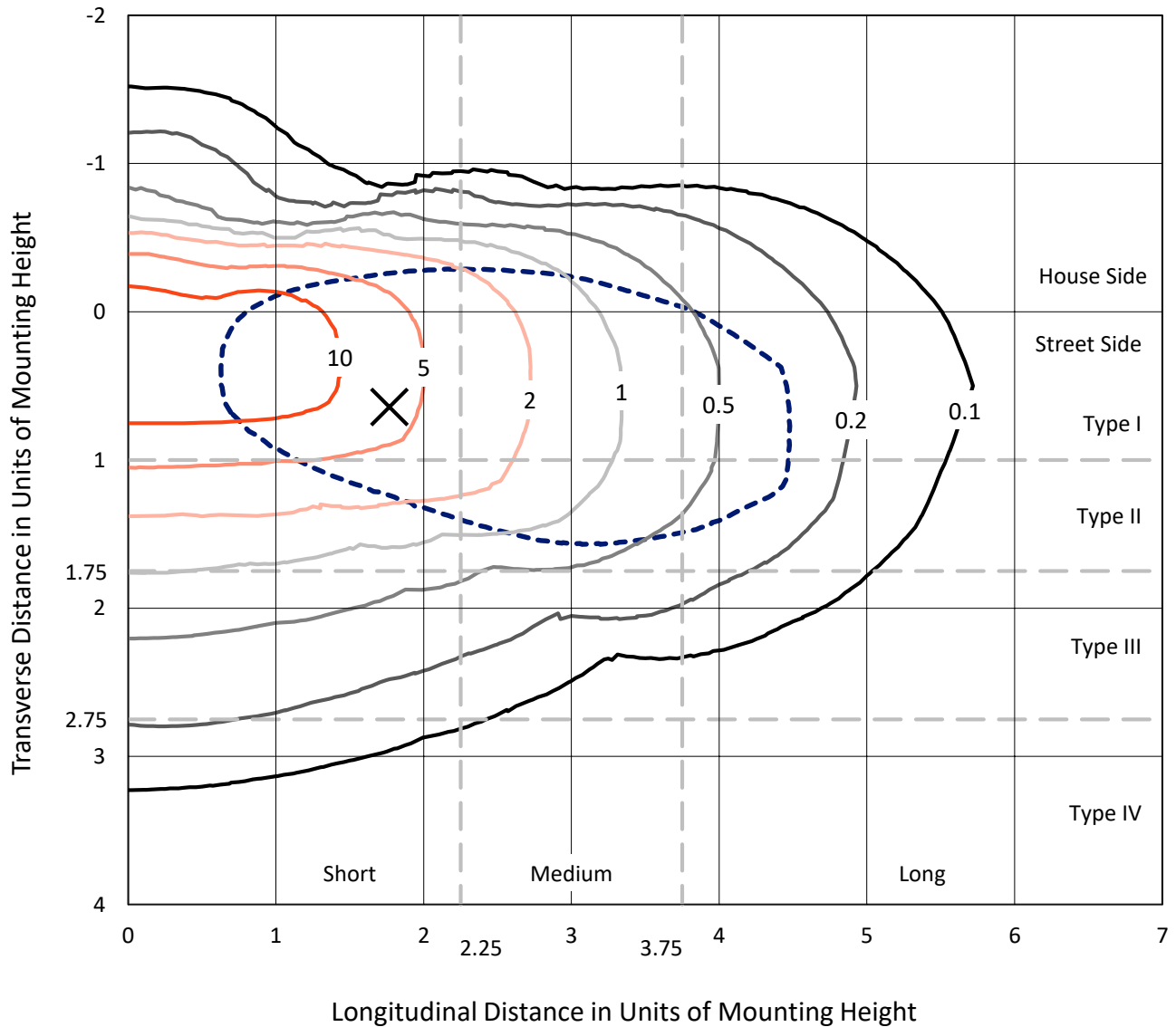
Input Watts (W): 631  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P237572  
 CATALOG NUMBER: CTN-10-8-D-E1-T2-7050-HSS

### Iso-Footcandle Lines of Horizontal Illumination

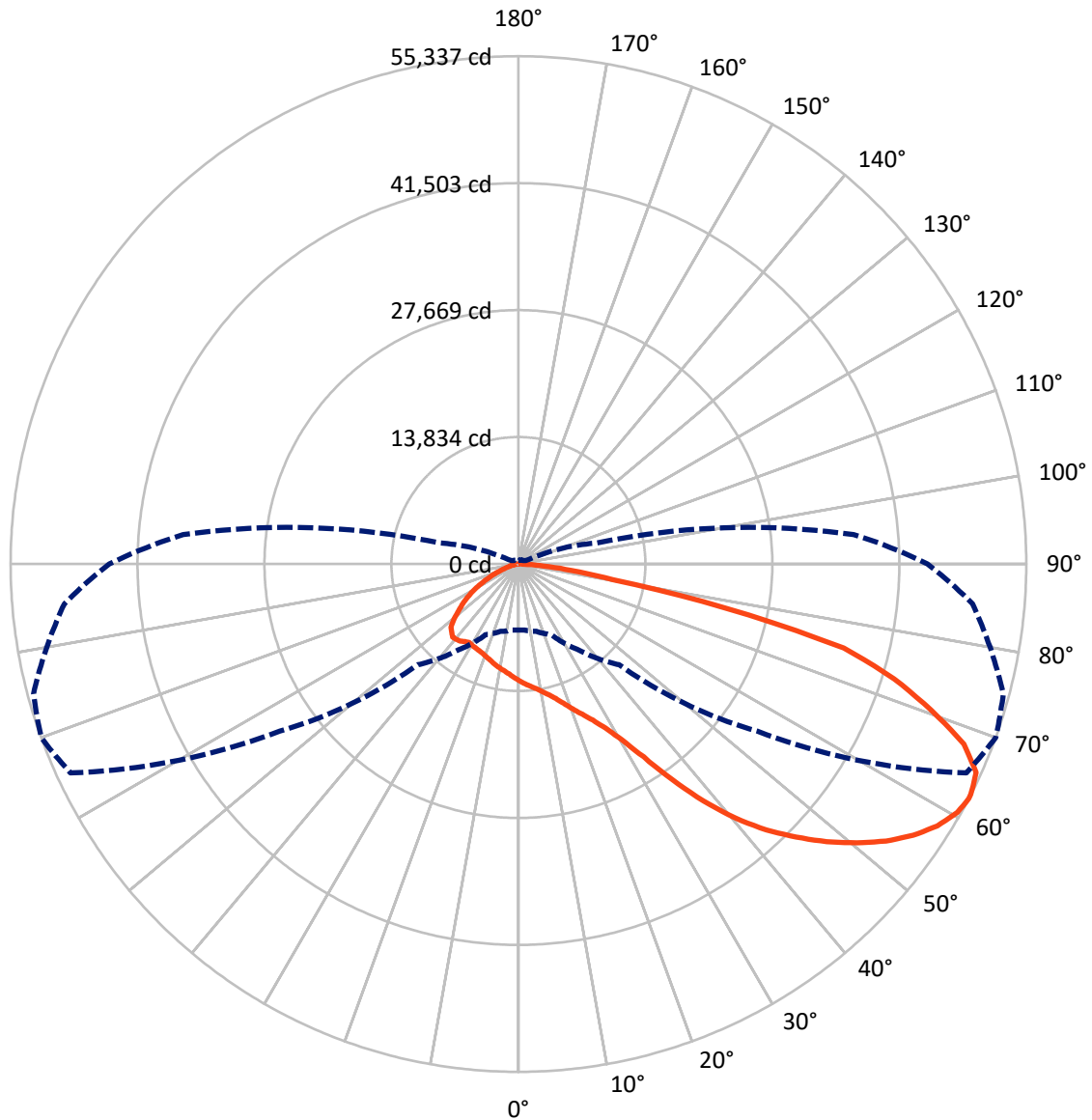
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 18.2 fc  
 Type II - Short - Non-Cutoff

REPORT NUMBER: P237572  
CATALOG NUMBER: CTN-10-8-D-E1-T2-7050-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 62-Deg Vertical

REPORT NUMBER: P237572

CATALOG NUMBER: CTN-10-8-D-E1-T2-7050-HSS

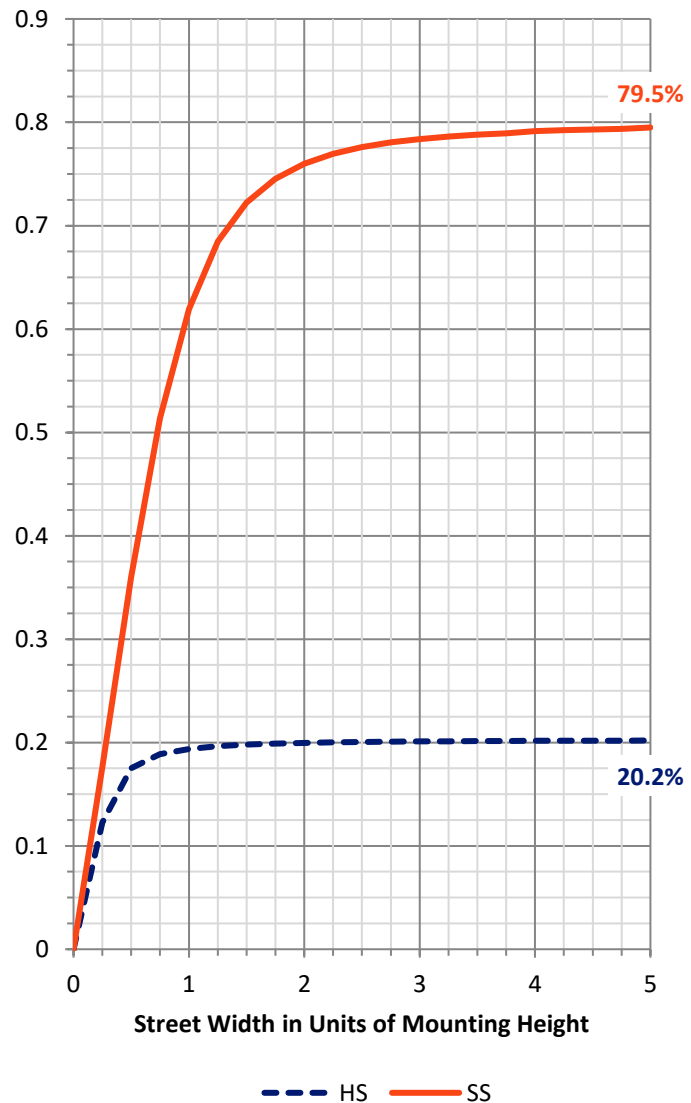
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	15124.1	0.0	15124.1
	% Fixture	20.5	0.0	20.5
<b>Street Side</b>	Lumens	58810.9	0.0	58810.9
	% Fixture	79.5	0.0	79.5
<b>Total</b>	Lumens	73935.0	0.0	73935.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1211.6	1.6
10°-20°	3686.2	5.0
20°-30°	6206.2	8.4
30°-40°	9371.1	12.7
40°-50°	13141.2	17.8
50°-60°	15359.0	20.8
60°-70°	14901.1	20.2
70°-80°	8711.1	11.8
80°-90°	1347.5	1.8
90°-100°	0.0	0.0
100°-110°	0.0	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°	73935.0	100.0
0°-180°	73935.0	100.0



REPORT NUMBER: P237572

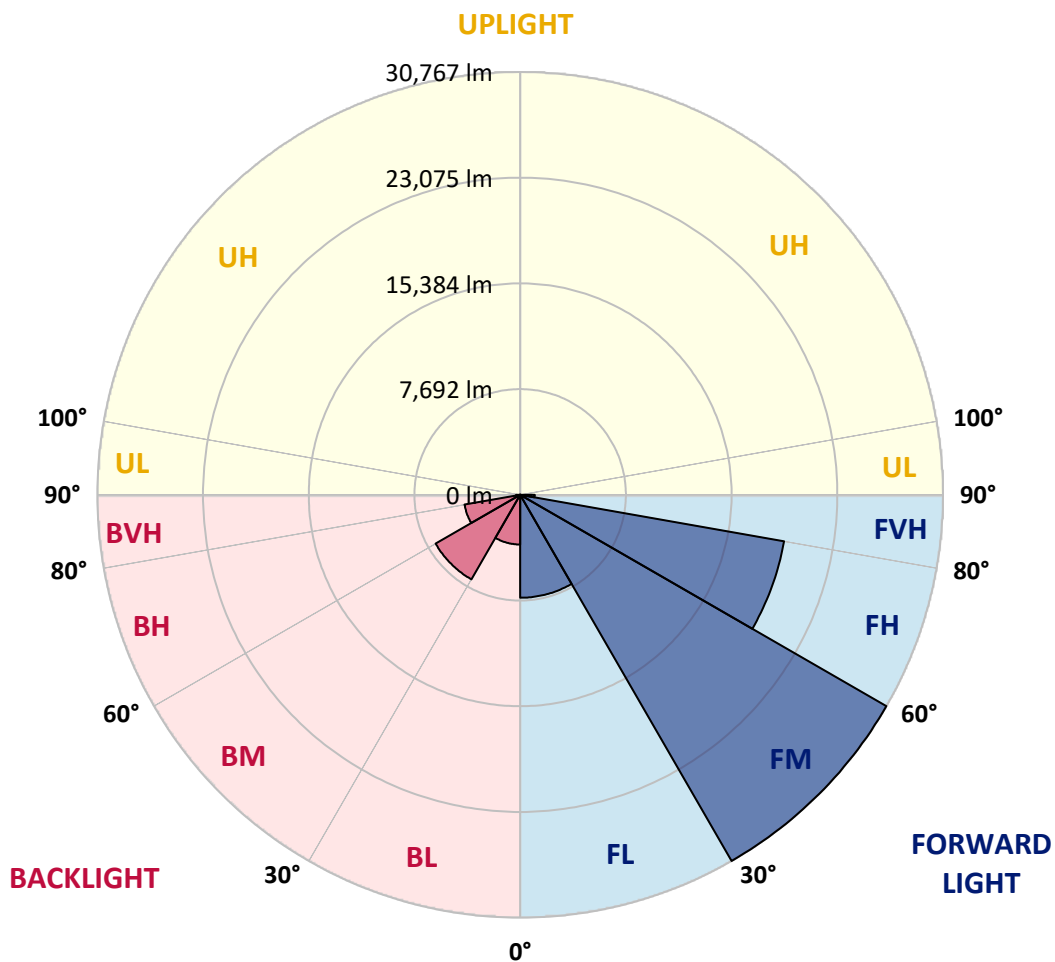
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	7488.0	10.1			
FM	(30°-60°)	30767.1	41.6			
FH	(60°-80°)	19499.9	26.4			G5
FVH	(80°-90°)	1056.0	1.4			G5
BL	(0°-30°)	3616.0	4.9	B4/5000		
BM	(30°-60°)	7104.3	9.6	B4/8500		
BH	(60°-80°)	4112.3	5.6	B4/5000		G4/5000
BVH	(80°-90°)	291.5	0.4			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type II Short





REPORT NUMBER: P237572

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7
2.5°	13803.6	13712.2	13673.0	13730.4	13346.5	13354.3	13168.9	13140.2	13051.4	12926.0	12787.6
5°	14592.3	14485.3	14430.4	14464.4	14059.5	13989.0	13686.0	13537.2	13362.2	13205.5	12905.1
7.5°	15349.8	15240.1	15198.3	15180.0	14691.6	14584.5	14198.0	13934.2	13696.5	13495.4	13087.9
10°	16112.4	16000.1	15913.9	15937.4	15425.5	15234.9	14788.2	14425.2	14119.6	13858.4	13296.9
12.5°	16869.9	16734.0	16640.0	16640.0	16135.9	15950.5	15449.0	14984.1	14595.0	14265.9	13560.7
15°	17645.6	17468.0	17447.1	17447.1	16911.7	16687.0	16193.4	15678.9	15200.9	14777.8	13879.3
17.5°	18447.4	18222.8	18217.6	18251.5	17760.5	17507.2	17042.2	16561.7	15953.1	15417.7	14268.5
20°	18975.0	18773.9	18726.9	18828.7	18442.2	18277.6	17778.8	17441.9	16856.8	16219.5	14769.9
22.5°	19377.2	19254.5	19298.9	19466.0	19278.0	19136.9	18612.0	18309.0	17781.4	17128.4	15446.4
25°	19782.1	19701.1	19803.0	20098.1	20113.8	20152.9	19714.2	19327.6	18836.6	18254.1	16326.6
27.5°	19656.7	19633.2	19941.4	20549.9	20884.3	21061.9	20816.4	20680.5	20231.3	19617.5	17434.0
30°	19748.1	19690.7	20061.5	20832.0	21576.4	22090.9	22090.9	22399.1	22203.2	21586.8	19123.9
32.5°	19476.5	19369.4	19795.1	20899.9	22179.7	23180.1	23624.1	24715.8	25058.0	24836.0	22474.9
35°	18225.4	18306.4	19139.6	20628.3	22595.0	24245.7	25421.0	27761.2	28813.8	29064.5	26332.6
37.5°	17444.5	17478.4	18327.3	20184.3	22741.3	25293.0	27387.7	31276.8	32768.1	32922.2	29717.5
40°	16368.4	16496.4	17447.1	19588.8	22657.7	26178.5	29505.9	34742.7	36401.2	36273.2	32679.3
42.5°	15519.5	15556.1	16386.7	18643.3	22292.0	26883.7	31642.4	37889.9	39626.8	39269.0	35607.2
45°	14461.7	14529.7	15315.8	17468.0	21641.7	27241.5	33486.4	40841.3	42431.9	41985.3	38143.3
47.5°	13181.9	13479.7	14302.4	16201.2	20539.5	27204.9	35048.3	43395.7	45210.9	44524.0	40514.8
50°	10617.1	10980.2	12625.6	15059.9	19095.2	26693.0	36291.5	46208.6	47762.7	47070.6	42680.1
52.5°	9274.6	9345.2	10183.6	13777.4	17402.7	25549.0	37137.7	48533.2	50152.5	49423.8	44761.7
55°	8668.7	8741.8	9164.9	11701.0	15848.6	23522.2	37448.5	50750.6	52187.1	51351.4	46477.7
57.5°	8138.5	8162.0	8660.9	9896.3	14367.7	20852.9	36793.0	52599.8	53830.0	52693.8	47668.7
60°	7532.5	7626.6	8117.6	9034.3	12698.8	17752.7	34546.8	53783.0	54945.2	53934.5	48904.1
62°	7193.0	7216.5	7600.5	8498.9	11405.9	15511.7	31749.5	53850.9	55337.0	54697.1	49664.1
62.5°	7093.8	7109.4	7472.5	8363.1	11139.5	15067.7	30986.9	53796.0	55313.5	54830.3	49831.3
65°	6524.4	6560.9	6887.4	7720.6	9972.0	13336.0	27413.9	52900.2	54809.4	54605.7	49815.6
67.5°	5832.2	5842.7	6190.1	6939.7	8767.9	11708.9	23026.0	51186.8	52341.2	52077.4	47634.7
70°	4769.2	4959.9	5338.6	5999.4	7253.1	9713.4	17515.0	45850.8	47744.4	48005.6	43727.4
72.5°	3625.2	3612.2	3745.4	4205.1	5283.7	7462.0	11823.8	38417.5	42805.4	44218.4	39415.3
75°	2238.3	2324.5	2883.5	3251.7	3787.2	5262.9	7412.4	26742.6	36602.3	39044.4	34839.3
77.5°	1739.5	1755.2	2045.1	2682.4	3102.9	3729.7	4623.0	14571.4	22945.0	29017.5	27134.4
80°	1324.2	1352.9	1543.6	1682.0	2183.5	2272.3	3084.6	7537.8	10450.0	14636.7	18228.0
82.5°	799.2	843.6	1021.2	1102.2	1204.1	1138.8	1658.5	4066.6	5793.1	7490.8	9282.5
85°	402.2	483.2	679.1	642.5	545.9	504.1	710.4	1966.7	2768.5	3664.4	4259.9
87.5°	101.9	122.8	159.3	190.7	161.9	133.2	193.3	532.8	548.5	525.0	1470.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P237572

CATALOG NUMBER: CTN-10-8-D-E1-T2-7050-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7	12719.7
2.5°	12740.5	12633.5	12437.6	12325.3	12045.8	11938.7	11737.6	11810.7	11766.3	11721.9	11724.5
5°	12761.4	12568.2	12194.7	11925.7	11520.8	11314.5	11050.7	11008.9	10894.0	10823.5	10831.3
7.5°	12805.8	12529.0	12001.4	11573.1	11003.7	10679.8	10327.2	10267.1	10094.8	10016.4	10026.8
10°	12918.2	12591.7	11876.0	11246.6	10604.1	10154.8	9742.2	9609.0	9444.4	9355.6	9350.4
12.5°	13090.5	12685.7	11698.4	10998.5	10217.5	9635.1	9159.7	8945.5	8710.5	8632.1	8640.0
15°	13364.8	12805.8	11549.5	10656.3	9750.0	9144.0	8556.4	8297.8	8049.7	7958.3	7950.4
17.5°	13699.1	12915.5	11445.1	10254.1	9345.2	8619.1	8101.9	7749.3	7331.4	7271.4	7206.1
20°	14030.8	13134.9	11351.1	9961.6	8864.6	8091.5	7415.0	7054.6	6456.5	6231.8	6150.9
22.5°	14514.0	13482.3	11338.0	9614.2	8381.4	7514.3	6602.7	6020.3	5362.1	4980.8	4897.2
25°	15159.1	13863.6	11371.9	9350.4	7840.7	6780.3	5550.2	4709.1	4082.3	3651.4	3562.5
27.5°	15997.5	14383.4	11473.8	9060.5	7349.7	5900.1	4369.6	3505.1	2974.9	2614.5	2530.9
30°	17232.9	15255.7	11633.1	8791.4	6634.1	4753.5	3212.6	2525.6	2113.0	1891.0	1888.4
32.5°	20116.4	17204.2	11724.5	8457.1	5968.1	3593.9	2311.5	1828.3	1499.2	1415.6	1486.1
35°	23423.0	19964.9	12429.7	8096.7	4925.9	2643.2	1650.7	1300.7	1164.9	1185.8	1225.0
37.5°	26473.6	22618.5	13505.8	7511.6	3943.9	1862.2	1185.8	1034.3	1005.6	1081.3	1151.8
40°	29174.2	24911.7	14427.8	6869.1	2789.4	1300.7	950.7	955.9	927.2	961.2	984.7
42.5°	31822.6	27037.8	15402.0	6004.6	1859.6	961.2	859.3	906.3	872.4	877.6	843.6
45°	34455.4	29281.3	15822.5	4936.4	1245.8	833.2	804.4	859.3	856.7	835.8	786.2
47.5°	36727.7	30827.5	16355.3	3724.5	927.2	757.4	765.3	804.4	830.6	794.0	770.5
50°	38681.3	32467.8	15945.3	2465.6	828.0	707.8	736.5	736.5	778.3	715.6	686.9
52.5°	40548.8	34100.2	14892.7	1624.6	760.0	673.9	702.6	684.3	702.6	639.9	632.1
55°	41669.3	34943.8	13620.7	1266.7	718.3	645.1	658.2	653.0	637.3	572.0	585.1
57.5°	42902.1	35915.4	12038.0	1063.0	700.0	611.2	613.8	605.9	558.9	514.5	517.1
60°	43886.7	36641.5	10345.5	937.7	679.1	592.9	556.3	543.3	478.0	451.8	454.5
62°	44576.2	36675.4	8869.8	872.4	653.0	579.8	522.4	493.6	420.5	399.6	397.0
62.5°	44652.0	36547.5	8509.4	856.7	642.5	574.6	519.8	478.0	404.8	389.2	383.9
65°	44369.9	35124.0	6788.2	770.5	598.1	543.3	483.2	415.3	347.4	326.5	318.6
67.5°	42270.0	32574.9	5184.5	700.0	543.3	522.4	446.6	365.7	308.2	282.1	276.9
70°	38174.6	29124.6	3701.0	611.2	488.4	475.4	449.2	334.3	284.7	248.1	242.9
72.5°	33624.8	25452.4	2517.8	543.3	433.6	391.8	331.7	316.0	266.4	219.4	214.2
75°	28615.3	20270.5	1791.7	467.5	373.5	331.7	279.5	292.5	250.7	195.9	190.7
77.5°	21955.1	14908.4	1329.4	383.9	289.9	269.0	235.1	258.6	227.2	177.6	175.0
80°	14992.0	10295.9	945.5	289.9	190.7	190.7	198.5	222.0	201.1	159.3	156.7
82.5°	8428.4	5419.6	558.9	208.9	130.6	130.6	154.1	180.2	167.2	138.4	135.8
85°	3492.0	1961.5	295.1	130.6	86.2	88.8	109.7	133.2	130.6	109.7	107.1
87.5°	1214.5	493.6	86.2	44.4	36.6	39.2	44.4	62.7	62.7	54.8	57.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)