

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: P237545

Luminaire Tested: **CTN-8-4-D-E1-T3-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237545  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-26)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: CTN-8-4-D-E1-T3-7050-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 5000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40374 lumens  
Efficiency: N/A  
Efficacy: 124.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G5

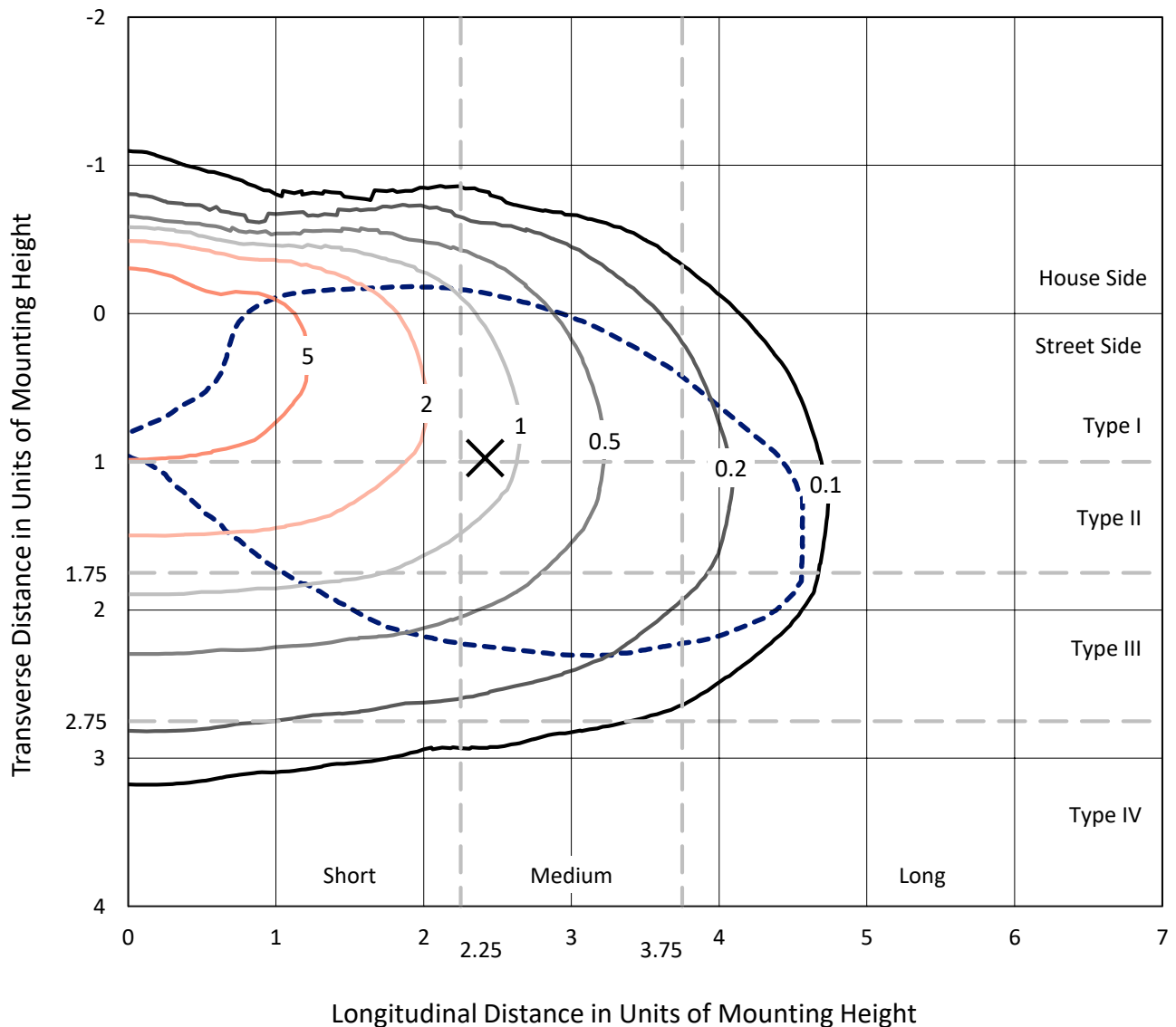
Input Watts (W): 325  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P237545  
 CATALOG NUMBER: CTN-8-4-D-E1-T3-7050-HSS

### Iso-Footcandle Lines of Horizontal Illumination

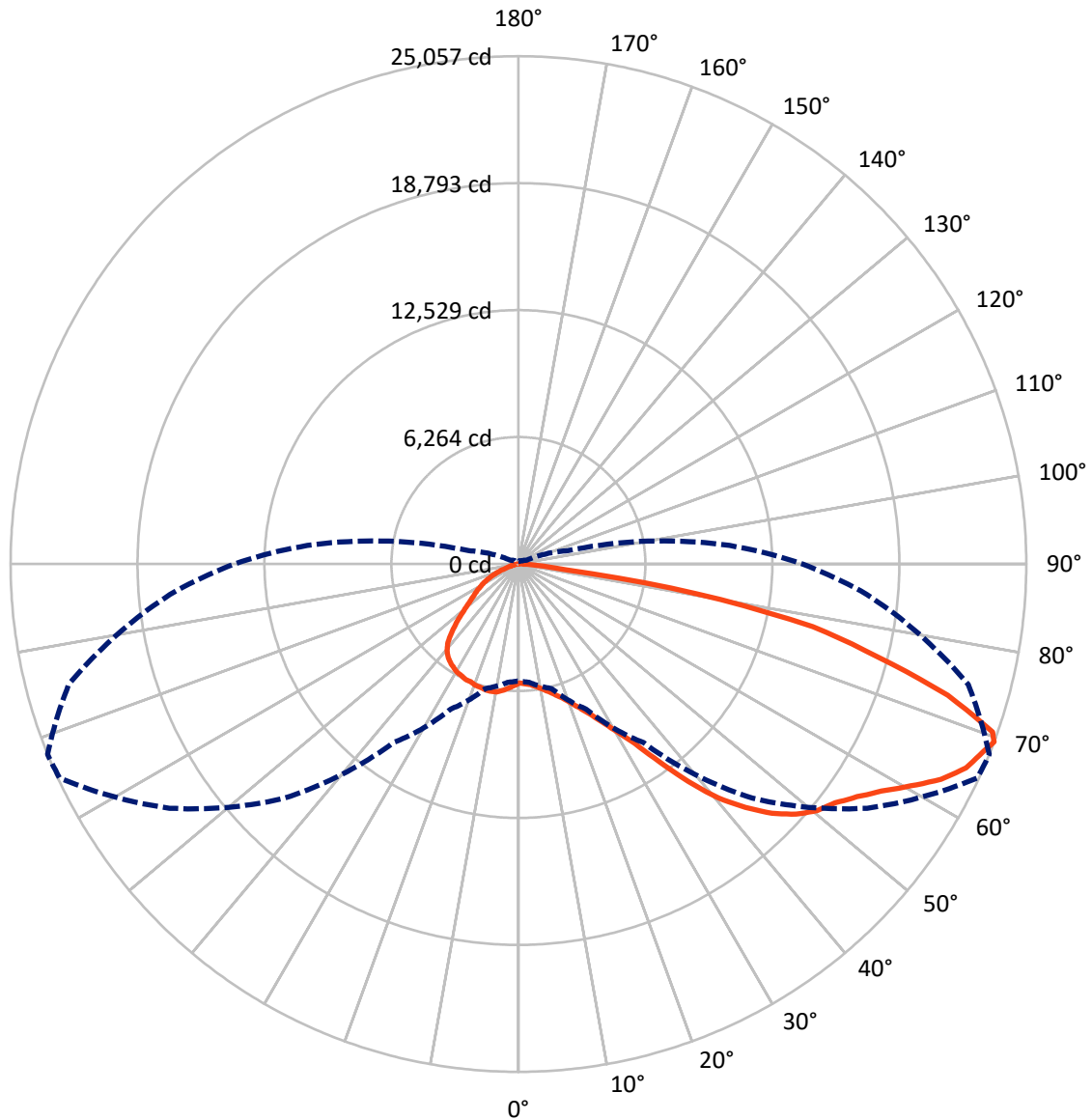
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P237545  
CATALOG NUMBER: CTN-8-4-D-E1-T3-7050-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P237545

CATALOG NUMBER: CTN-8-4-D-E1-T3-7050-HSS

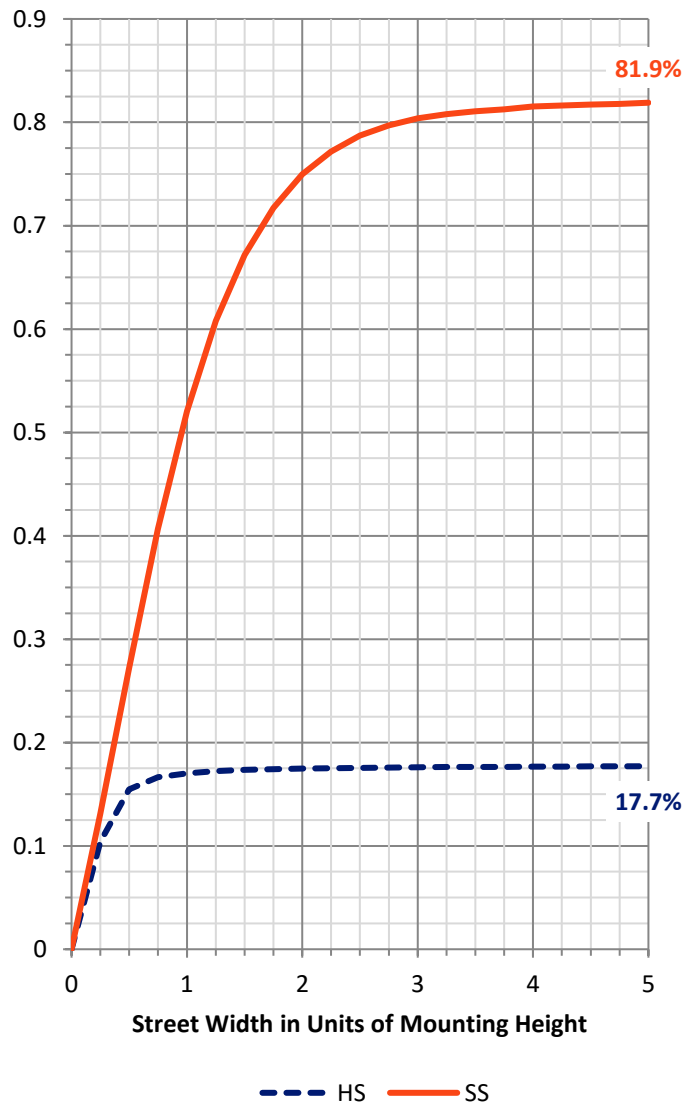
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7245.7	0.0	7245.7
	% Fixture	17.9	0.0	17.9
<b>Street Side</b>	Lumens	33128.3	0.0	33128.3
	% Fixture	82.1	0.0	82.1
<b>Total</b>	Lumens	40374.0	0.0	40374.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	589.8	1.5
10°-20°	1850.7	4.6
20°-30°	3163.6	7.8
30°-40°	4874.7	12.1
40°-50°	6995.4	17.3
50°-60°	8419.3	20.9
60°-70°	8835.3	21.9
70°-80°	5118.6	12.7
80°-90°	526.7	1.3
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°	40374.0	100.0
0°-180°	40374.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P237545

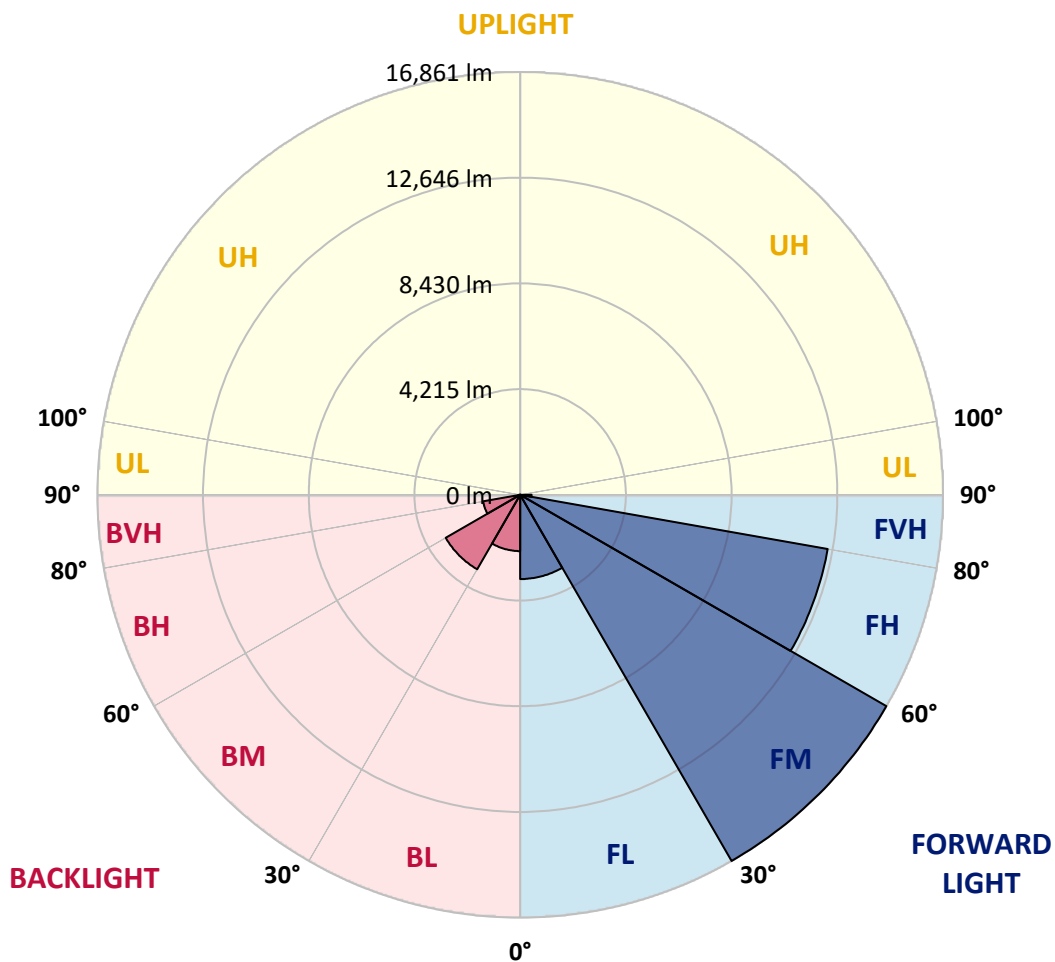
CATALOG NUMBER: CTN-8-4-D-E1-T3-7050-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3358.9	8.3			
FM (30°-60°)	16860.8	41.8			
FH (60°-80°)	12450.9	30.8			G5
FVH (80°-90°)	457.7	1.1			G3/500
BL (0°-30°)	2245.1	5.6	B3/2500		
BM (30°-60°)	3428.7	8.5	B3/5000		
BH (60°-80°)	1503.0	3.7	B3/2500		G3/2500
BVH (80°-90°)	68.9	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type III Medium





REPORT NUMBER: P237545

CATALOG NUMBER: CTN-8-4-D-E1-T3-7050-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6
2.5°	5938.4	5890.8	5896.4	5934.2	5822.2	5869.8	5840.4	5902.0	5911.8	5882.4	5909.0
5°	6055.9	6015.3	6013.9	6051.7	5927.2	5963.5	5917.4	5959.3	5971.9	5941.2	5987.3
7.5°	6283.9	6240.5	6232.1	6269.9	6111.8	6123.0	6060.1	6081.0	6092.2	6050.3	6096.4
10°	6611.2	6563.7	6532.9	6553.9	6376.2	6348.2	6240.5	6237.7	6254.5	6197.2	6271.3
12.5°	6977.7	6921.8	6877.0	6881.2	6678.4	6630.8	6488.1	6437.8	6449.0	6372.0	6461.5
15°	7376.4	7295.3	7253.3	7254.7	7026.7	6947.0	6763.7	6681.2	6674.2	6600.0	6651.8
17.5°	7856.3	7790.5	7737.3	7709.4	7467.4	7309.3	7091.1	6983.3	6944.2	6895.2	6868.6
20°	8420.0	8337.5	8281.5	8271.7	7975.2	7765.3	7475.8	7333.1	7286.9	7246.3	7127.4
22.5°	9048.1	8964.2	8887.2	8874.7	8559.9	8306.7	7917.8	7741.5	7701.0	7654.8	7417.0
25°	9627.3	9617.5	9532.1	9518.2	9214.6	8885.9	8429.8	8204.6	8204.6	8150.0	7784.9
27.5°	10273.6	10287.6	10210.6	10193.8	9908.5	9544.7	9002.0	8786.5	8831.3	8733.4	8247.9
30°	10954.8	10925.5	10904.5	10922.7	10658.3	10273.6	9708.4	9526.5	9596.5	9484.6	8869.1
32.5°	11564.8	11542.4	11556.4	11626.3	11436.1	11080.7	10595.3	10482.0	10549.2	10619.1	9982.6
35°	12047.4	11999.8	12176.1	12330.0	12275.4	11938.3	11548.0	11787.2	11971.8	12290.8	11623.5
37.5°	12472.6	12437.7	12651.7	12966.5	13035.0	12847.6	12727.2	13394.5	13605.8	14035.2	13063.0
40°	12685.3	12678.3	12941.3	13351.2	13629.5	13751.2	13962.5	14871.8	15179.5	15297.0	14158.3
42.5°	12616.7	12639.1	13103.6	13735.9	14186.3	14708.1	15133.4	16133.6	16416.2	16319.6	15118.0
45°	12425.1	12436.3	12907.7	13893.9	14668.9	15691.5	16259.5	17303.1	17553.5	17213.5	15881.8
47.5°	12159.3	12163.5	12661.5	13784.8	15063.4	16581.2	17230.3	18237.5	18440.4	17960.6	16431.6
50°	11799.8	11806.8	12401.3	13647.7	15403.4	17310.1	17989.9	18962.2	19118.8	18490.7	16907.2
52.5°	11345.1	11406.7	12057.2	13428.1	15616.0	17827.7	18564.9	19493.8	19570.7	19124.4	17328.2
55°	10820.5	10884.9	11619.3	13130.1	15698.5	18121.4	18967.8	20148.4	20271.5	19832.3	17671.0
57.5°	10199.4	10287.6	11061.1	12646.1	15505.5	18244.5	19377.6	20957.0	21123.5	20572.3	18023.5
60°	9479.0	9588.1	10402.3	12041.8	15059.2	18374.6	20144.2	22041.2	22234.2	21368.3	18331.3
62.5°	8726.4	8796.3	9532.1	11217.8	14344.4	18475.4	20969.6	23377.1	23393.9	22066.3	18501.9
65°	7719.2	7793.3	8452.2	10177.0	13271.4	18155.0	21386.5	24314.4	24264.0	22613.3	18444.6
67.5°	6566.5	6636.4	7175.0	8883.1	11798.4	17256.9	21243.8	24687.9	24721.5	23010.6	17894.8
69°	5766.3	5858.6	6366.4	7899.6	10757.6	16337.8	21004.6	24978.9	25057.2	22974.2	17258.3
70°	5082.2	5201.1	5683.8	7030.9	9876.3	15502.7	20542.9	24813.8	24819.4	22606.3	16672.2
72.5°	3319.6	3392.3	3476.3	4561.8	7105.0	12285.2	18178.8	22006.2	22151.7	20172.2	14576.6
75°	1642.3	1706.7	2020.0	2413.1	3653.9	8229.8	14412.9	18029.1	18304.7	17131.0	11942.5
77.5°	906.5	919.1	1029.6	1580.8	1894.1	3721.1	9851.1	14372.4	14855.0	13961.1	8576.7
80°	565.2	562.4	587.5	735.8	1061.8	1764.0	4160.3	8066.1	8933.4	7289.7	3389.5
82.5°	440.7	432.3	433.7	475.6	449.0	831.0	1731.8	2348.8	2369.7	2104.0	1319.2
85°	225.2	254.6	302.2	316.2	265.8	451.8	797.4	927.5	949.9	832.3	686.9
87.5°	75.5	76.9	81.1	79.7	71.3	155.3	295.2	344.1	306.4	173.5	235.0
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: P237545

CATALOG NUMBER: CTN-8-4-D-E1-T3-7050-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6	5872.6
2.5°	5949.5	5937.0	5962.1	6019.5	5971.9	6015.3	5971.9	6117.4	6100.6	6090.8	6118.8
5°	6032.1	6030.7	6071.3	6163.6	6159.4	6236.3	6194.4	6338.4	6317.5	6314.7	6339.8
7.5°	6144.0	6170.6	6213.9	6309.1	6310.5	6373.4	6325.9	6439.2	6393.0	6381.8	6416.8
10°	6314.7	6321.7	6355.2	6421.0	6328.7	6356.6	6278.3	6367.8	6303.5	6296.5	6348.2
12.5°	6478.3	6488.1	6437.8	6416.8	6297.9	6261.5	6124.4	6172.0	6097.8	6090.8	6116.0
15°	6653.2	6587.4	6467.1	6398.6	6193.0	6061.5	5907.6	5813.9	5686.6	5627.8	5650.2
17.5°	6835.1	6707.8	6482.5	6316.1	6040.5	5848.8	5542.5	5383.0	5194.1	5097.6	5079.4
20°	7033.7	6854.6	6520.3	6274.1	5886.6	5508.9	5135.4	4770.3	4554.8	4455.5	4428.9
22.5°	7257.5	7039.3	6573.5	6134.2	5646.0	5187.1	4556.2	4096.0	3782.6	3686.1	3659.5
25°	7537.3	7246.3	6646.2	6099.2	5415.2	4661.2	3876.4	3354.6	2989.5	2842.6	2811.8
27.5°	7877.2	7531.7	6765.1	5932.8	5009.5	4075.0	3200.7	2600.6	2221.5	2048.0	2010.2
30°	8372.5	7896.8	6844.8	5834.8	4648.6	3466.5	2487.3	1817.2	1457.7	1330.4	1296.8
32.5°	9348.9	8523.5	7007.1	5609.6	4115.6	2758.6	1712.3	1114.9	863.1	790.4	762.4
35°	10799.6	9704.2	7240.7	5342.4	3516.8	1962.7	1017.0	646.3	519.0	492.4	484.0
37.5°	12121.5	10869.5	7692.6	4931.1	2730.7	1207.3	588.9	414.1	381.9	386.1	386.1
40°	13118.9	11735.4	8220.0	4388.4	1852.2	677.1	404.3	344.1	351.1	352.5	351.1
42.5°	14053.4	12528.6	8474.6	3789.6	1073.0	449.0	351.1	320.3	325.9	321.7	319.0
45°	14787.8	13096.6	8550.1	2983.9	587.5	401.5	330.1	298.0	295.2	298.0	300.8
47.5°	15264.9	13443.5	8378.0	2284.4	443.5	373.5	317.6	282.6	275.6	295.2	293.8
50°	15618.8	13681.3	7710.8	1737.4	432.3	349.7	302.2	264.4	267.2	291.0	288.2
52.5°	15876.2	13742.9	6979.1	1393.3	412.7	332.9	288.2	256.0	253.2	271.4	272.8
55°	16080.4	13577.8	6523.1	1096.7	395.9	316.2	277.0	247.6	233.6	239.2	237.8
57.5°	16207.7	13388.9	6002.7	914.9	380.5	298.0	261.6	225.2	204.2	205.6	204.2
60°	16179.7	13263.0	5405.4	749.8	360.9	281.2	240.6	201.4	180.5	174.9	174.9
62.5°	16123.8	13004.2	4788.5	653.3	344.1	275.6	215.4	183.3	167.9	162.3	162.3
65°	15743.3	12387.3	3963.1	559.6	327.3	260.2	201.4	176.3	158.1	152.5	152.5
67.5°	14799.0	11367.5	3069.2	486.8	314.8	235.0	197.2	172.1	152.5	145.5	145.5
69°	14001.7	10461.0	2520.8	447.6	302.2	223.8	197.2	173.5	149.7	141.3	141.3
70°	13379.1	9749.0	2085.8	423.9	289.6	216.8	197.2	174.9	148.3	138.5	137.1
72.5°	11480.8	7611.4	1158.3	359.5	240.6	197.2	193.0	176.3	141.3	127.3	125.9
75°	8808.9	5350.8	689.7	303.6	202.8	180.5	183.3	169.3	130.1	114.7	114.7
77.5°	5504.7	2457.9	513.4	237.8	165.1	156.7	159.5	149.7	117.5	104.9	104.9
80°	1880.1	1109.3	387.5	183.3	118.9	121.7	131.5	125.9	104.9	95.1	93.7
82.5°	1029.6	721.8	274.2	127.3	82.5	100.7	100.7	102.1	90.9	83.9	82.5
85°	559.6	376.3	169.3	76.9	58.8	74.1	71.3	76.9	74.1	68.5	67.1
87.5°	194.4	128.7	56.0	28.0	23.8	25.2	29.4	39.2	37.8	39.2	40.6
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)