

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: P232714

Luminaire Tested: **CTN-8-4-D-E1-T4-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232714  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-20)  
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-T4-7030  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 3000K LEDS AND TYPE IV OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 41480 lumens  
Efficiency: N/A  
Efficacy: 127.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B4 - U0 - G5

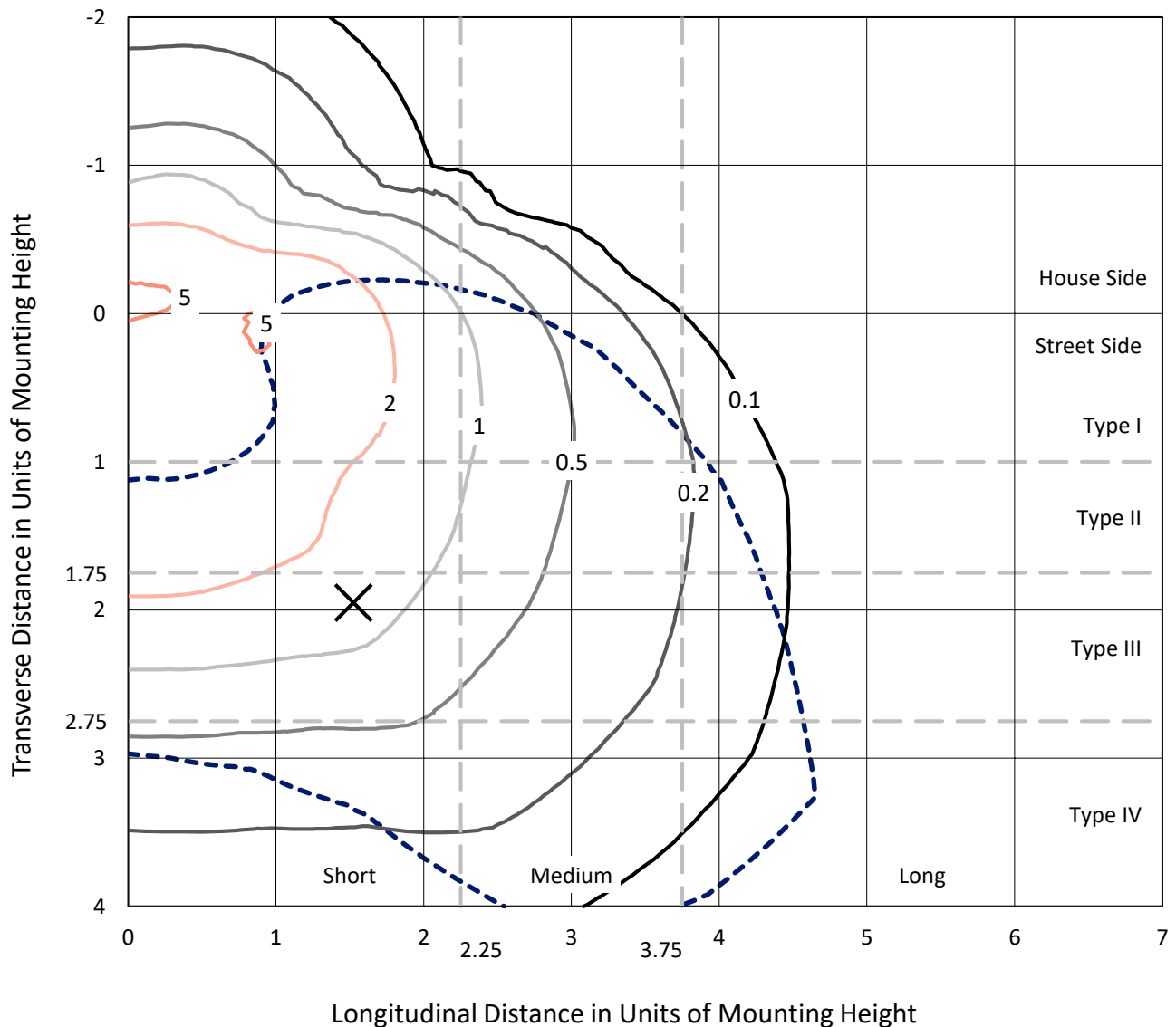
Input Watts (W): 325  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P232714  
 CATALOG NUMBER: CTN-8-4-D-E1-T4-7030

### Iso-Footcandle Lines of Horizontal Illumination

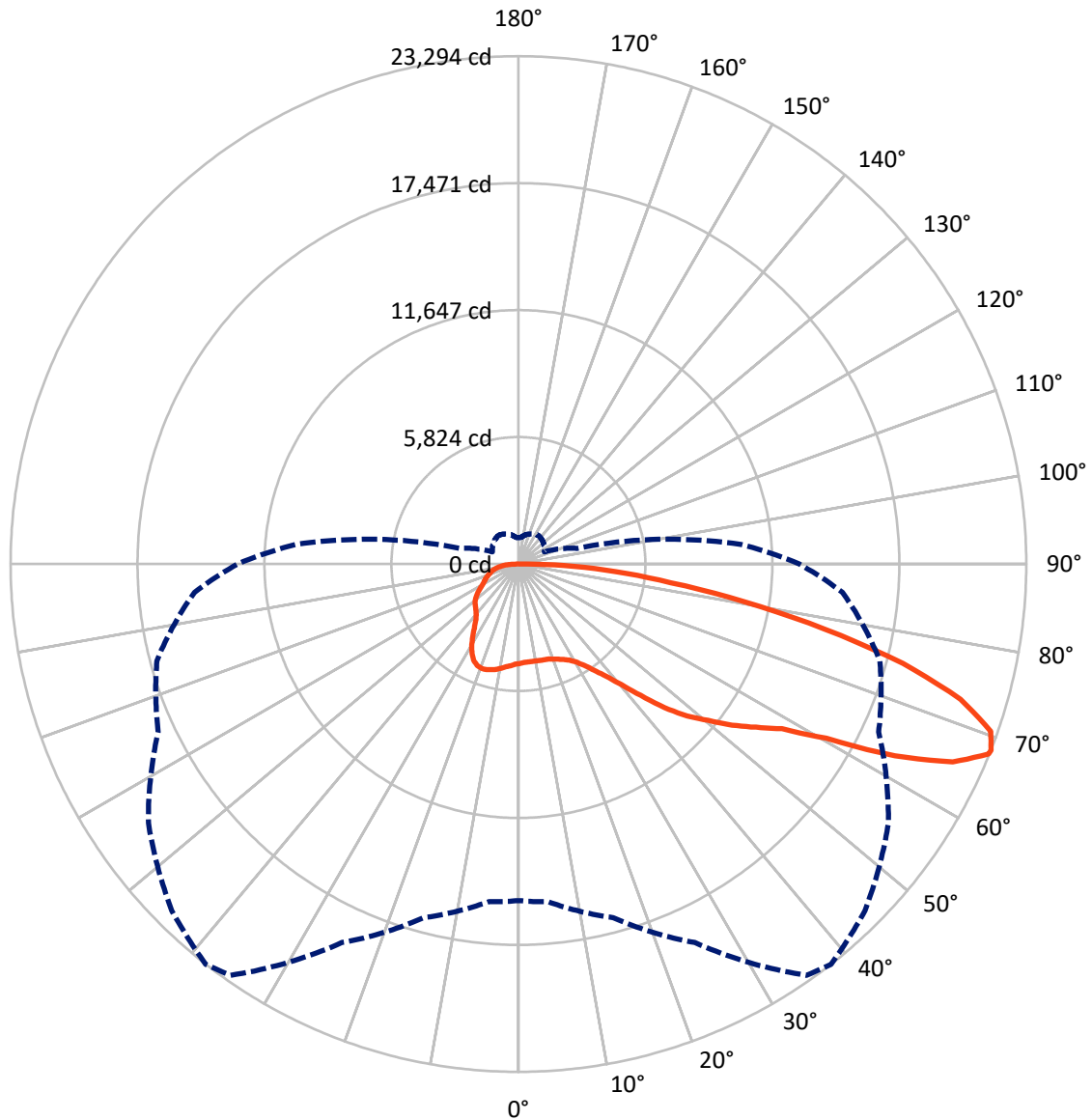
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.2 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P232714  
CATALOG NUMBER: CTN-8-4-D-E1-T4-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P232714

CATALOG NUMBER: CTN-8-4-D-E1-T4-7030

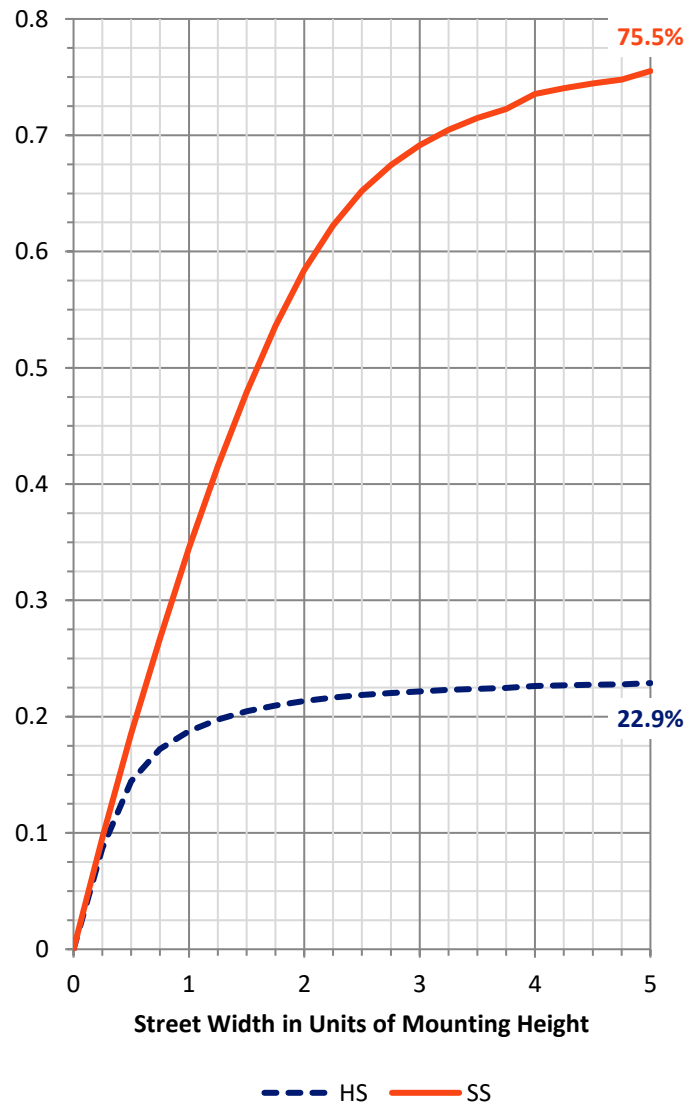
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9680.5	0.0	9680.5
	% Fixture	23.3	0.0	23.3
<b>Street Side</b>	Lumens	31799.5	0.0	31799.5
	% Fixture	76.7	0.0	76.7
<b>Total</b>	Lumens	41480.0	0.0	41480.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	441.9	1.1
10°-20°	1364.2	3.3
20°-30°	2317.6	5.6
30°-40°	3509.7	8.5
40°-50°	5805.0	14.0
50°-60°	8361.8	20.2
60°-70°	10545.4	25.4
70°-80°	7505.4	18.1
80°-90°	1629.1	3.9
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°	41480.0	100.0
0°-180°	41480.0	100.0



REPORT NUMBER: P232714

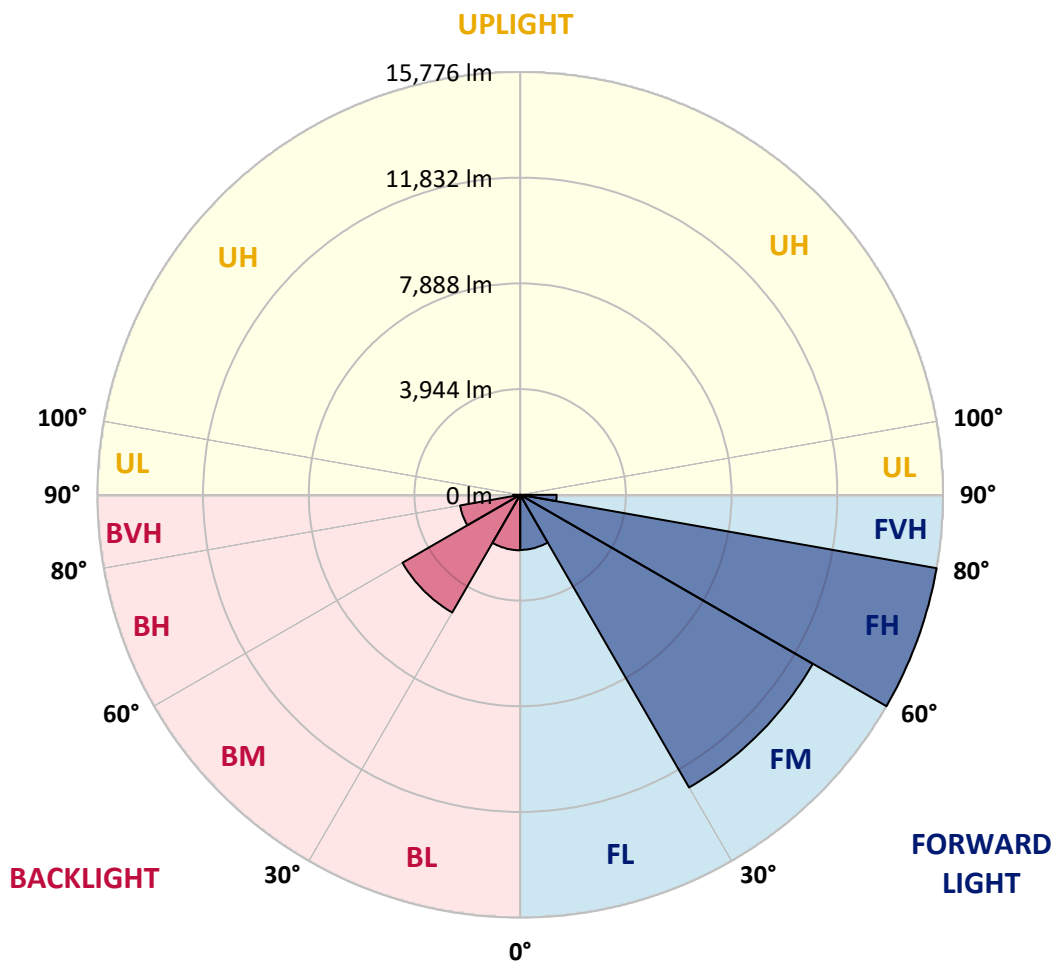
CATALOG NUMBER: CTN-8-4-D-E1-T4-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2055.1	5.0			
FM	(30°-60°)	12607.1	30.4			
FH	(60°-80°)	15775.5	38.0			G5
FVH	(80°-90°)	1361.7	3.3			G5
BL	(0°-30°)	2068.6	5.0	B3/2500		
BM	(30°-60°)	5069.4	12.2	B4/8500		
BH	(60°-80°)	2275.2	5.5	B3/2500		G3/2500
BVH	(80°-90°)	267.3	0.6			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 IV Short





REPORT NUMBER: P232714

CATALOG NUMBER: CTN-8-4-D-E1-T4-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6
2.5°	4553.5	4561.6	4556.2	4553.5	4518.4	4526.5	4540.0	4521.1	4566.9	4564.2	4591.2
5°	4510.3	4514.4	4515.7	4527.9	4494.2	4511.7	4527.9	4515.7	4564.2	4550.8	4588.5
7.5°	4498.2	4496.9	4498.2	4521.1	4484.7	4511.7	4530.6	4526.5	4579.1	4568.3	4614.1
10°	4467.2	4468.6	4472.6	4498.2	4479.4	4515.7	4549.4	4566.9	4637.0	4627.6	4680.1
12.5°	4413.3	4424.1	4438.9	4482.0	4486.1	4534.6	4584.5	4619.5	4711.1	4719.2	4785.3
15°	4366.2	4385.0	4410.6	4468.6	4492.8	4548.1	4611.4	4676.1	4796.0	4832.4	4916.0
17.5°	4381.0	4409.3	4443.0	4502.3	4519.8	4577.7	4649.1	4735.4	4883.6	4961.8	5069.6
20°	4472.6	4491.5	4519.8	4575.0	4597.9	4655.9	4713.8	4798.7	4991.4	5118.1	5251.5
22.5°	4587.2	4614.1	4633.0	4666.7	4693.6	4744.8	4805.5	4889.0	5116.8	5275.8	5459.0
25°	4709.8	4723.3	4750.2	4773.1	4806.8	4847.2	4916.0	5018.4	5259.6	5455.0	5711.0
27.5°	4823.0	4829.7	4880.9	4899.8	4965.8	4995.5	5049.4	5185.5	5445.6	5686.8	6002.1
30°	4988.7	5002.2	5041.3	5085.8	5182.8	5212.4	5267.7	5410.5	5693.5	6002.1	6380.8
32.5°	5302.7	5337.8	5332.4	5379.5	5494.1	5533.2	5608.6	5794.6	6103.2	6457.6	6907.7
35°	5938.8	5988.6	5926.7	5863.3	5924.0	5976.5	6092.4	6364.6	6746.0	7330.8	7775.5
37.5°	6980.5	7030.3	6809.3	6607.2	6475.1	6516.9	6674.6	7060.0	7643.5	8659.5	9155.4
40°	8197.3	8251.2	7944.0	7580.1	7282.3	7266.1	7314.7	7805.2	8647.4	10137.8	10524.6
42.5°	9257.9	9399.4	8997.8	8683.8	8298.4	8233.7	8116.5	8612.4	9709.3	11507.0	11725.3
45°	10288.8	10426.2	10109.5	9892.6	9499.1	9394.0	9171.6	9472.1	10751.0	12705.0	12714.4
47.5°	11234.8	11345.3	10977.4	10838.6	10450.5	10404.7	10176.9	10387.1	11715.8	13719.7	13528.3
50°	12292.6	12408.5	11822.3	11651.2	11338.5	11276.5	11202.4	11353.3	12822.2	14594.3	14219.6
52.5°	13586.3	13543.2	12819.5	12427.4	12261.6	12276.4	12192.9	12360.0	13996.0	15335.4	14764.1
55°	15134.7	14913.7	14118.6	13524.3	13142.9	13215.7	13106.5	13351.8	15156.2	15960.7	15157.6
57.5°	16014.6	16075.3	15999.8	15235.7	14265.5	14254.7	14082.2	14318.0	16169.6	16471.5	15397.4
60°	17297.5	17548.2	17643.8	17437.7	16567.1	16223.5	15359.7	15305.8	17025.3	16912.1	15520.1
62.5°	18108.8	18226.0	18801.4	19050.7	19331.0	19390.3	18018.5	16495.7	17657.3	17137.2	15571.3
65°	17720.7	17839.2	18914.6	19891.6	21554.5	21888.7	21452.1	18381.0	18084.5	17187.0	15400.1
67.5°	15731.6	15877.2	17320.4	19322.9	22899.4	23259.2	22554.4	20554.6	18224.7	17157.4	15028.2
68°	15440.6	15548.4	16793.5	19157.2	23034.2	23294.2	22481.7	20719.0	18232.7	17166.8	14913.7
70°	13203.6	13393.6	14704.8	17649.2	22817.2	22983.0	22027.5	20627.4	18049.5	17013.2	14075.5
72.5°	10291.5	10554.2	11551.4	14659.0	21074.8	21209.5	20409.1	19616.7	17495.6	15947.2	12064.9
75°	7456.2	7681.2	8640.7	11312.9	17742.2	18220.6	18085.9	18228.7	15683.1	13512.2	8737.7
77.5°	5149.1	5341.8	6236.6	8441.2	13757.4	14362.5	15061.9	15432.5	12886.9	10024.6	4153.2
80°	3298.9	3447.1	4208.5	5944.2	9920.9	10489.6	11242.8	11626.9	9166.2	5042.6	737.1
82.5°	1939.2	2040.2	2560.4	3835.2	6686.7	7033.0	7396.9	6752.7	3678.9	964.9	464.9
85°	963.5	1030.9	1350.3	2169.6	4157.3	4475.3	4596.6	2881.1	777.6	353.1	316.7
87.5°	431.2	450.1	579.5	977.0	1975.6	2082.0	2030.8	896.1	156.3	132.1	113.2
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: P232714  
 CATALOG NUMBER: CTN-8-4-D-E1-T4-7030

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6	4569.6
2.5°	4593.9	4583.1	4580.4	4597.9	4579.1	4602.0	4595.2	4646.5	4653.2	4634.3	4665.3
5°	4600.6	4595.2	4599.3	4631.6	4624.9	4672.1	4684.2	4735.4	4735.4	4720.6	4752.9
7.5°	4631.6	4631.6	4643.8	4703.0	4703.0	4743.5	4757.0	4813.6	4812.2	4812.2	4841.8
10°	4709.8	4709.8	4735.4	4810.9	4792.0	4844.5	4851.3	4880.9	4874.2	4875.5	4906.5
12.5°	4825.7	4832.4	4876.9	4942.9	4930.8	4949.7	4936.2	4930.8	4882.3	4882.3	4902.5
15°	4959.1	4987.4	5048.0	5108.7	5068.2	5061.5	4984.7	4917.3	4813.6	4769.1	4792.0
17.5°	5132.9	5181.4	5251.5	5294.6	5217.8	5162.6	5023.8	4848.6	4680.1	4581.8	4584.5
20°	5325.6	5390.3	5476.6	5491.4	5378.2	5240.7	5008.9	4734.0	4444.3	4288.0	4277.2
22.5°	5539.9	5620.7	5720.5	5662.5	5477.9	5254.2	4922.7	4557.5	4168.1	3905.3	3901.2
25°	5801.3	5888.9	5952.3	5790.5	5500.8	5185.5	4773.1	4282.6	3801.5	3518.5	3499.7
27.5°	6134.2	6192.1	6145.0	5856.6	5432.1	5021.1	4519.8	3929.5	3420.2	3164.1	3135.8
30°	6529.0	6522.3	6266.2	5837.7	5293.3	4761.0	4174.8	3546.8	3107.5	2887.9	2862.3
32.5°	7008.8	6911.7	6383.5	5747.4	5069.6	4420.1	3765.1	3228.8	2881.1	2658.8	2631.8
35°	7774.2	7500.6	6535.8	5611.3	4758.3	4009.0	3378.4	2983.5	2705.9	2451.2	2398.7
37.5°	8961.4	8384.6	6789.1	5468.5	4401.2	3606.1	3090.0	2805.7	2568.5	2280.1	2218.1
40°	10182.3	9411.5	7174.5	5314.8	4067.0	3301.6	2926.9	2722.1	2484.9	2207.3	2145.3
42.5°	11242.8	10369.6	7636.7	5122.1	3724.7	3061.7	2843.4	2695.2	2458.0	2193.9	2134.6
45°	12179.4	11230.7	8119.2	4898.4	3366.3	2867.6	2772.0	2657.4	2417.6	2162.9	2109.0
47.5°	12959.7	11916.6	8543.6	4650.5	3014.5	2724.8	2701.9	2568.5	2340.7	2095.5	2049.7
50°	13563.4	12404.5	8828.0	4374.2	2714.0	2613.0	2600.8	2432.4	2211.4	1976.9	1931.1
52.5°	13991.9	12731.9	8993.7	4270.5	2478.2	2483.6	2463.4	2284.1	2069.9	1836.7	1800.4
55°	14264.1	12957.0	8953.3	4137.1	2239.7	2301.7	2304.4	2175.0	1986.3	1759.9	1730.3
57.5°	14367.9	12947.5	8714.8	3468.7	2007.9	2083.4	2119.7	2099.5	1932.4	1711.4	1687.2
60°	14311.3	12795.3	8206.8	2541.5	1768.0	1870.4	1959.4	1955.3	1813.8	1605.0	1579.4
62.5°	14217.0	12442.2	7210.9	1819.2	1587.4	1719.5	1827.3	1790.9	1656.2	1472.9	1455.4
65°	13878.7	11819.6	5574.9	1455.4	1512.0	1634.6	1723.6	1661.6	1529.5	1338.1	1328.7
67.5°	13130.8	10574.4	3254.4	1327.4	1456.7	1563.2	1626.5	1549.7	1427.1	1241.1	1224.9
68°	12877.5	10255.1	2767.9	1315.2	1446.0	1545.7	1603.6	1522.8	1402.8	1222.3	1206.1
70°	11598.6	8311.9	1320.6	1265.4	1398.8	1464.8	1498.5	1424.4	1307.2	1146.8	1136.0
72.5°	9027.4	5014.3	882.7	1189.9	1307.2	1370.5	1378.6	1262.7	1152.2	1033.6	1026.9
75°	5333.7	1664.3	820.7	1078.1	1180.5	1268.1	1291.0	1175.1	1052.5	915.0	912.3
77.5°	1299.1	645.5	774.9	962.2	1070.0	1154.9	1172.4	1087.5	979.7	824.7	819.3
80°	535.0	536.3	722.3	797.8	917.7	999.9	1025.5	950.0	853.0	753.3	742.5
82.5°	444.7	452.8	613.1	588.9	734.4	830.1	855.7	803.2	769.5	661.7	650.9
85°	316.7	401.6	407.0	396.2	514.8	591.6	721.0	695.4	659.0	567.3	513.4
87.5°	148.2	234.5	176.5	169.8	261.4	350.4	412.4	432.6	374.6	291.1	269.5
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)