

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: P232705

Luminaire Tested: **CTN-10-3-D-E1-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232705  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-19)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: CTN-10-3-D-E1-T3-7050  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 70 CRI, 5000K LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32013 lumens  
Efficiency: N/A  
Efficacy: 151.0 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 212  
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

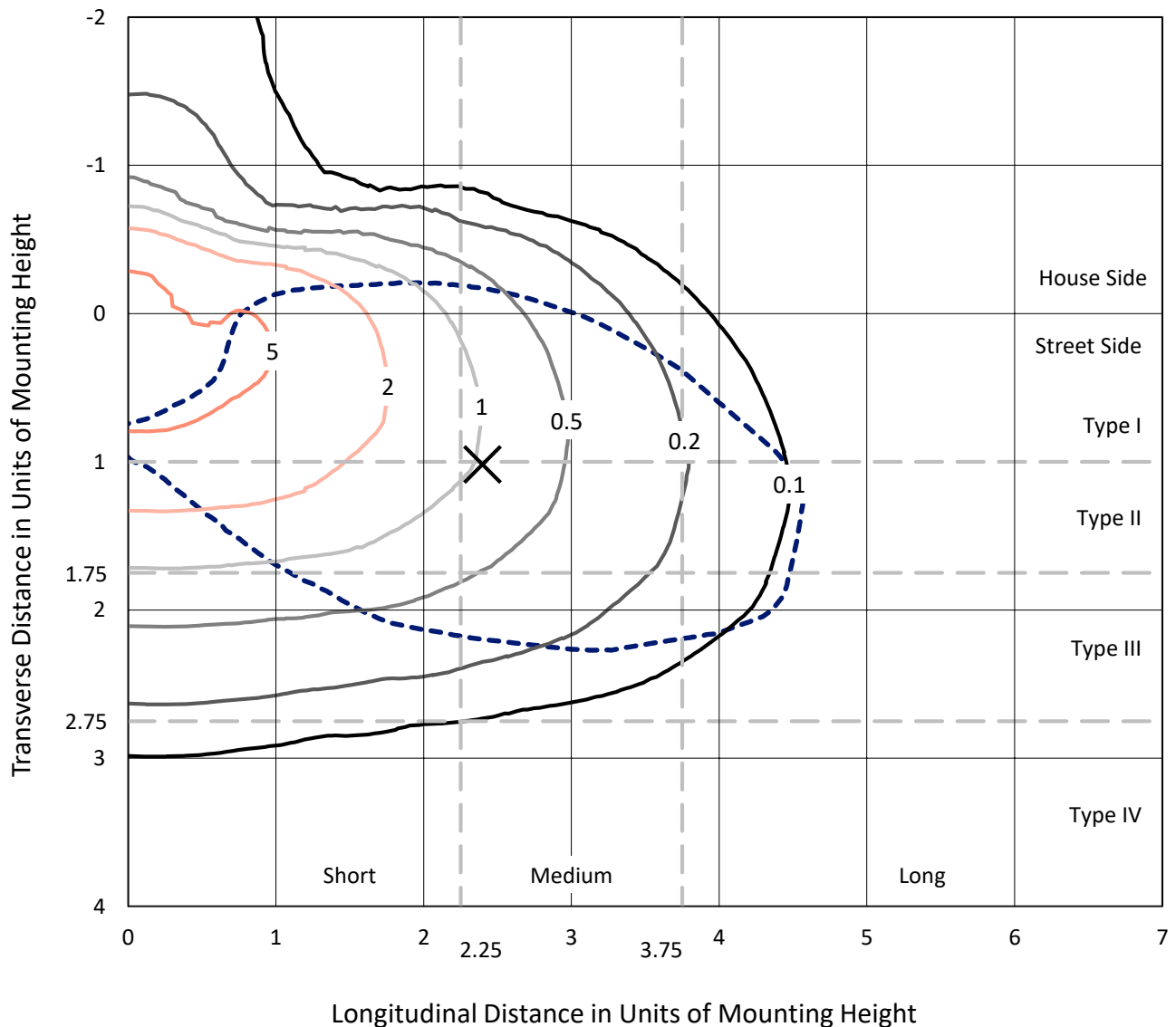


REPORT NUMBER: P232705

CATALOG NUMBER: CTN-10-3-D-E1-T3-7050

### Iso-Footcandle Lines of Horizontal Illumination

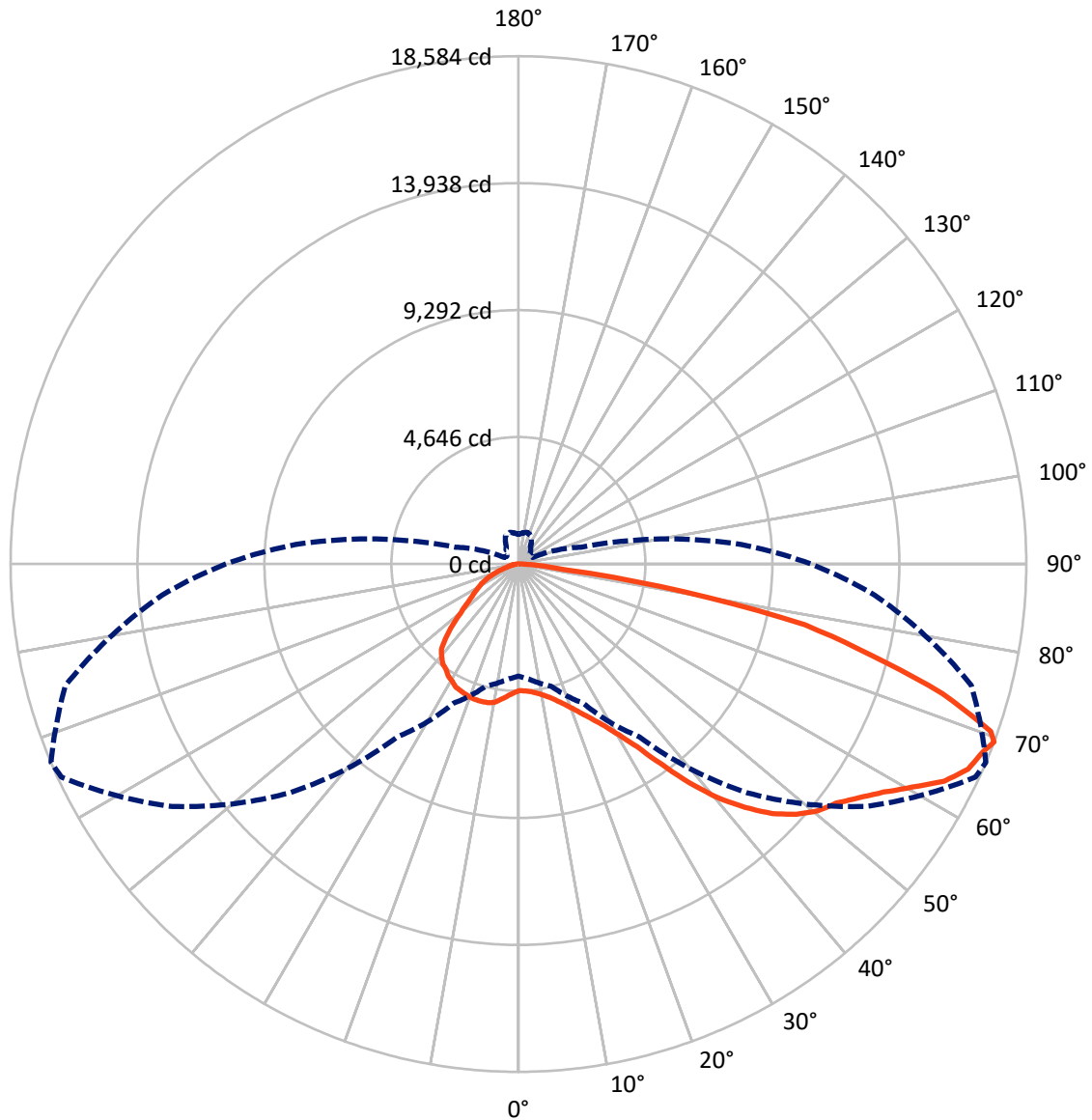
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.1 fc  
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P232705  
CATALOG NUMBER: CTN-10-3-D-E1-T3-7050

### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P232705

CATALOG NUMBER: CTN-10-3-D-E1-T3-7050

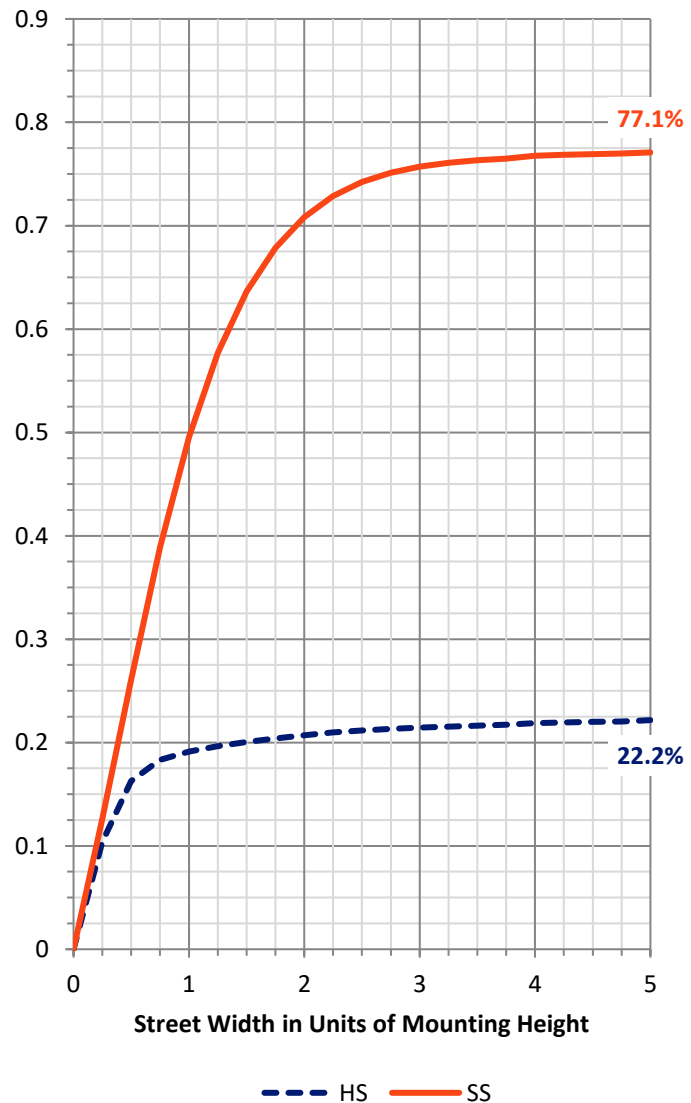
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7282.3	0.0	7282.3
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	24730.7	0.0	24730.7
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	32013.0	0.0	32013.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	470.3	1.5
10°-20°	1510.4	4.7
20°-30°	2626.6	8.2
30°-40°	3956.6	12.4
40°-50°	5464.5	17.1
50°-60°	6521.9	20.4
60°-70°	6868.7	21.5
70°-80°	4029.3	12.6
80°-90°	564.7	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°	32013.0	100.0
0°-180°	32013.0	100.0



REPORT NUMBER: P232705

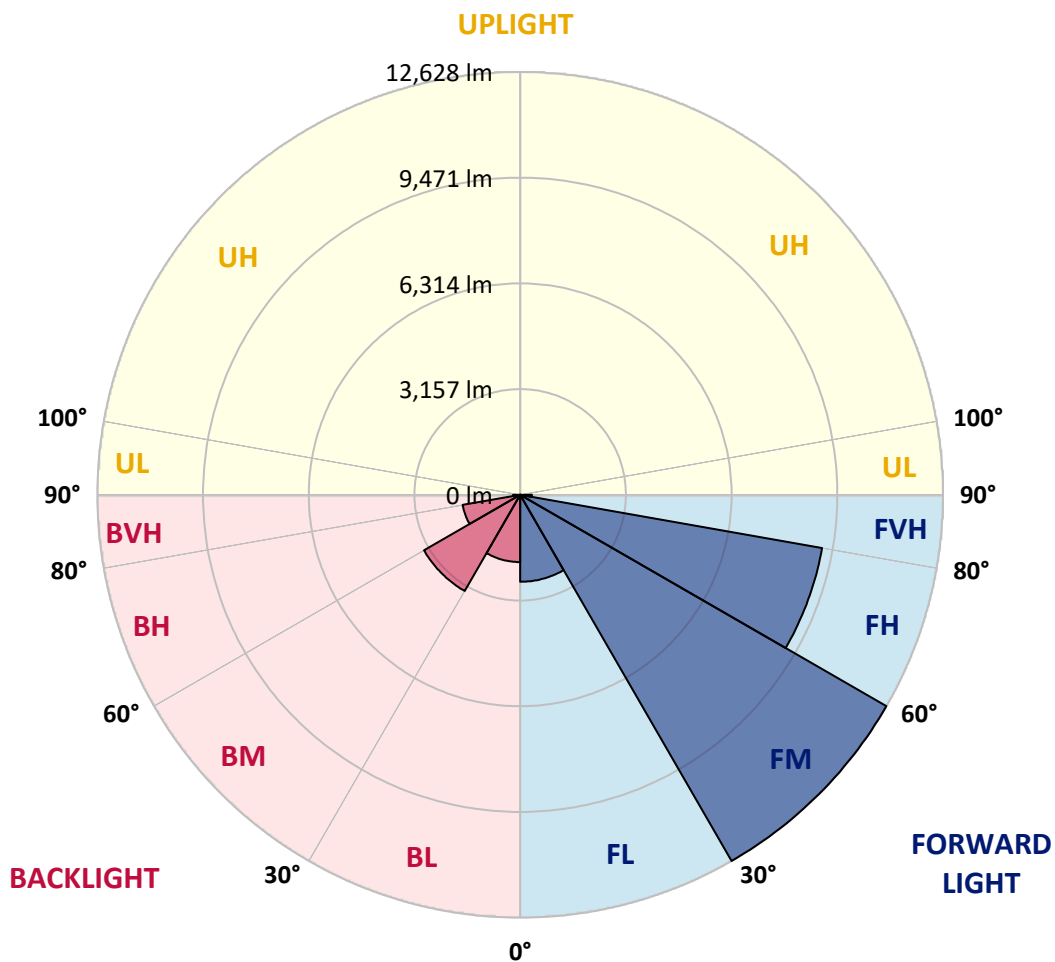
CATALOG NUMBER: CTN-10-3-D-E1-T3-7050

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2597.8	8.1			
FM	(30°-60°)	12627.6	39.4			
FH	(60°-80°)	9154.3	28.6			G4/12000
FVH	(80°-90°)	351.0	1.1			G3/500
BL	(0°-30°)	2009.5	6.3	B3/2500		
BM	(30°-60°)	3315.4	10.4	B3/5000		
BH	(60°-80°)	1743.7	5.4	B3/2500		G3/2500
BVH	(80°-90°)	213.8	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Medium





REPORT NUMBER: P232705

CATALOG NUMBER: CTN-10-3-D-E1-T3-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7
2.5°	4652.2	4658.4	4652.2	4642.0	4608.1	4623.5	4610.2	4653.2	4650.2	4633.8	4663.5
5°	4760.8	4768.0	4754.7	4746.5	4694.2	4701.4	4672.7	4696.3	4688.1	4660.4	4706.5
7.5°	4938.1	4945.3	4928.9	4917.6	4843.8	4827.4	4775.2	4782.3	4767.0	4722.9	4776.2
10°	5176.9	5183.0	5155.3	5127.7	5033.4	4993.4	4906.3	4892.0	4869.4	4826.4	4880.7
12.5°	5434.1	5443.3	5409.5	5373.6	5264.0	5198.4	5074.4	5030.3	5002.7	4950.4	5009.8
15°	5709.7	5721.0	5686.1	5645.2	5524.2	5422.8	5268.1	5201.5	5174.8	5109.2	5146.1
17.5°	6071.4	6068.4	6039.7	5983.3	5838.8	5690.2	5499.6	5400.3	5381.8	5318.3	5327.5
20°	6490.5	6476.2	6449.6	6371.7	6214.9	6030.5	5781.4	5655.4	5637.0	5583.7	5527.3
22.5°	6945.5	6931.2	6905.6	6806.2	6651.4	6409.6	6111.4	5962.8	5938.2	5871.6	5777.3
25°	7393.3	7378.0	7363.6	7269.3	7118.7	6844.1	6485.4	6295.9	6284.6	6217.0	6043.8
27.5°	7858.5	7849.3	7853.4	7772.5	7621.8	7337.0	6930.2	6724.2	6704.7	6618.6	6383.0
30°	8337.1	8339.1	8378.1	8292.0	8153.7	7866.7	7463.0	7252.9	7256.0	7179.2	6834.9
32.5°	8765.4	8767.5	8854.6	8811.5	8735.7	8449.8	8078.9	7931.3	7961.0	7954.9	7602.4
35°	9074.9	9088.2	9282.9	9341.3	9312.6	9063.6	8840.2	8876.1	8970.4	9236.8	8866.9
37.5°	9365.9	9371.0	9620.0	9755.3	9861.9	9712.3	9667.2	10007.4	10156.0	10524.9	9977.7
40°	9449.9	9520.6	9835.2	10023.8	10271.8	10345.5	10574.0	11077.2	11252.4	11474.8	10725.7
42.5°	9373.1	9473.5	9868.0	10315.8	10660.1	11025.9	11445.1	12014.8	12173.6	12310.9	11442.0
45°	9212.2	9289.0	9698.9	10369.1	10993.2	11718.6	12202.3	12884.8	13028.2	12939.1	12001.5
47.5°	8998.0	9056.4	9513.5	10284.0	11259.6	12339.6	12896.0	13582.6	13687.1	13479.1	12381.6
50°	8700.9	8770.5	9280.9	10167.2	11455.3	12859.2	13453.5	14107.3	14195.4	13815.2	12754.6
52.5°	8334.0	8421.1	9014.4	9968.4	11601.8	13246.5	13842.9	14456.7	14545.8	14298.9	13049.8
55°	7918.0	8038.9	8649.6	9726.6	11612.1	13452.5	14085.7	14969.0	15096.1	14829.7	13308.0
57.5°	7495.8	7573.7	8220.3	9356.7	11419.4	13521.1	14376.8	15565.4	15750.9	15344.1	13589.8
60°	6980.4	7055.2	7695.6	8861.7	11035.2	13626.7	14958.8	16419.0	16566.6	15943.6	13829.6
62.5°	6370.7	6455.7	7036.7	8184.4	10466.4	13669.7	15552.1	17326.9	17496.0	16488.7	13967.9
65°	5596.0	5690.2	6220.0	7364.6	9653.8	13364.3	15808.3	17998.1	18085.2	16906.8	13908.5
67.5°	4749.6	4827.4	5249.6	6345.0	8529.7	12568.1	15674.1	18246.1	18334.2	17190.6	13552.9
69°	4101.9	4221.8	4627.6	5618.5	7721.2	11839.6	15469.1	18450.0	18584.2	17158.9	13085.6
70°	3583.4	3717.7	4084.5	4978.1	7034.7	11083.3	15087.9	18295.3	18333.2	16852.5	12664.5
72.5°	2264.6	2308.7	2475.7	3070.0	4949.4	8615.8	13203.5	16241.7	16231.5	15035.7	11055.7
75°	1119.0	1176.4	1493.0	1723.6	2438.8	5541.7	10392.7	13339.8	13341.8	12690.1	9089.2
77.5°	672.2	696.8	777.8	1110.8	1393.6	2487.0	7054.1	10560.7	10722.6	10328.1	6540.8
80°	463.2	450.9	474.4	546.2	750.1	1307.5	2899.9	5970.0	6145.2	5667.7	2786.2
82.5°	364.8	354.6	361.7	380.2	357.6	605.6	1226.6	1785.1	1732.8	1527.9	1070.8
85°	255.2	234.7	248.0	240.8	213.1	355.6	596.4	741.9	736.8	761.4	583.1
87.5°	81.0	71.7	73.8	71.7	59.4	126.0	214.2	289.0	266.4	270.5	204.9
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: P232705

CATALOG NUMBER: CTN-10-3-D-E1-T3-7050

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7	4632.7
2.5°	4670.7	4662.5	4671.7	4719.8	4708.6	4750.6	4760.8	4829.5	4832.6	4826.4	4857.2
5°	4728.0	4736.2	4771.1	4847.9	4873.5	4963.7	5004.7	5088.7	5096.9	5100.0	5129.7
7.5°	4811.0	4825.4	4900.2	5000.6	5048.8	5166.6	5228.1	5331.6	5338.8	5350.0	5383.9
10°	4934.0	4954.5	5013.9	5151.2	5166.6	5259.9	5316.2	5405.4	5399.2	5414.6	5445.3
12.5°	5058.0	5069.3	5114.4	5208.6	5198.4	5289.6	5314.2	5372.6	5368.5	5367.5	5390.0
15°	5191.2	5171.7	5177.9	5213.8	5175.8	5232.2	5214.8	5257.8	5201.5	5178.9	5194.3
17.5°	5332.6	5285.5	5225.0	5198.4	5126.7	5117.4	5058.0	5037.5	4998.6	4986.3	4998.6
20°	5500.7	5400.3	5253.7	5176.9	5020.1	4939.1	4825.4	4758.8	4668.6	4675.8	4693.2
22.5°	5671.8	5530.4	5309.1	5103.1	4881.7	4717.8	4491.3	4430.9	4313.0	4278.2	4313.0
25°	5881.9	5692.3	5336.7	5037.5	4672.7	4380.7	4151.1	3937.0	3847.8	3760.7	3793.5
27.5°	6157.5	5901.3	5437.1	4956.6	4436.0	4046.6	3681.8	3405.1	3294.5	3201.2	3207.4
30°	6515.1	6181.1	5475.1	4786.4	4151.1	3588.6	3129.5	2822.1	2683.7	2645.8	2629.4
32.5°	7176.1	6632.0	5542.7	4662.5	3796.6	3090.5	2526.9	2197.0	2109.9	2126.3	2179.6
35°	8347.3	7575.7	5747.6	4403.2	3405.1	2547.4	1963.4	1708.2	1722.5	1752.3	1746.1
37.5°	9357.7	8427.3	6088.9	4220.8	2926.6	1929.5	1482.8	1347.5	1433.6	1492.0	1489.9
40°	10044.3	9048.2	6535.6	3879.6	2322.0	1375.2	1091.3	1016.5	1126.2	1251.2	1272.7
42.5°	10725.7	9612.9	6751.9	3577.3	1630.3	970.4	790.1	809.5	949.9	1067.8	1089.3
45°	11215.5	10022.7	6847.2	3038.3	1041.1	742.9	689.6	761.4	913.0	1006.3	1016.5
47.5°	11575.2	10331.2	6743.7	2458.3	766.5	679.4	680.4	771.6	924.3	1029.8	1033.9
50°	11892.9	10548.4	6326.6	1917.2	689.6	657.9	693.7	801.3	957.1	1063.7	1060.6
52.5°	12110.1	10612.0	5820.4	1570.9	668.1	645.6	705.0	829.0	967.3	1039.1	1032.9
55°	12254.6	10516.7	5431.0	1293.2	649.7	644.5	723.4	863.8	977.6	1006.3	991.9
57.5°	12343.7	10324.0	5102.1	1111.8	634.3	644.5	743.9	877.2	1015.5	1067.8	1051.4
60°	12317.1	10237.9	4656.3	963.2	612.8	646.6	755.2	896.6	1168.2	1291.1	1294.2
62.5°	12263.8	10069.9	4220.8	845.4	587.2	658.9	769.6	1009.3	1434.6	1435.6	1384.4
65°	12010.7	9563.7	3587.5	738.8	560.5	662.0	772.6	1194.8	1608.8	1473.5	1406.9
67.5°	11313.9	8822.8	2846.7	639.4	530.8	643.5	769.6	1169.2	1299.3	1163.1	1129.2
69°	10706.2	8180.3	2378.4	580.0	509.3	625.1	772.6	1121.0	1203.0	1122.1	1091.3
70°	10263.6	7659.8	2020.7	544.1	489.8	615.9	772.6	1103.6	1189.7	1112.8	1083.1
72.5°	8809.5	6017.1	1211.2	453.9	433.5	580.0	765.5	1077.0	1199.9	1134.4	1095.4
75°	6748.8	4376.6	705.0	373.0	364.8	520.6	727.5	1060.6	1234.8	1135.4	1050.3
77.5°	4324.3	2019.7	525.7	303.3	296.1	450.9	679.4	1007.3	1268.6	1190.7	1083.1
80°	1502.2	916.1	392.5	239.8	229.5	368.9	595.4	907.9	1208.1	1216.3	1135.4
82.5°	823.9	603.6	277.7	178.3	169.1	231.6	463.2	782.9	1118.0	1204.0	1210.2
85°	452.9	340.2	182.4	114.8	129.1	198.8	320.7	608.7	899.7	1046.2	1092.3
87.5°	183.4	123.0	71.7	45.1	53.3	78.9	108.6	311.5	543.1	700.9	771.6
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)