

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: P591161

Luminaire Tested: **CTN-CA8-230-722-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591161  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-230-722-U-T3-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17470 lumens  
Efficiency: N/A  
Efficacy: 76.5 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

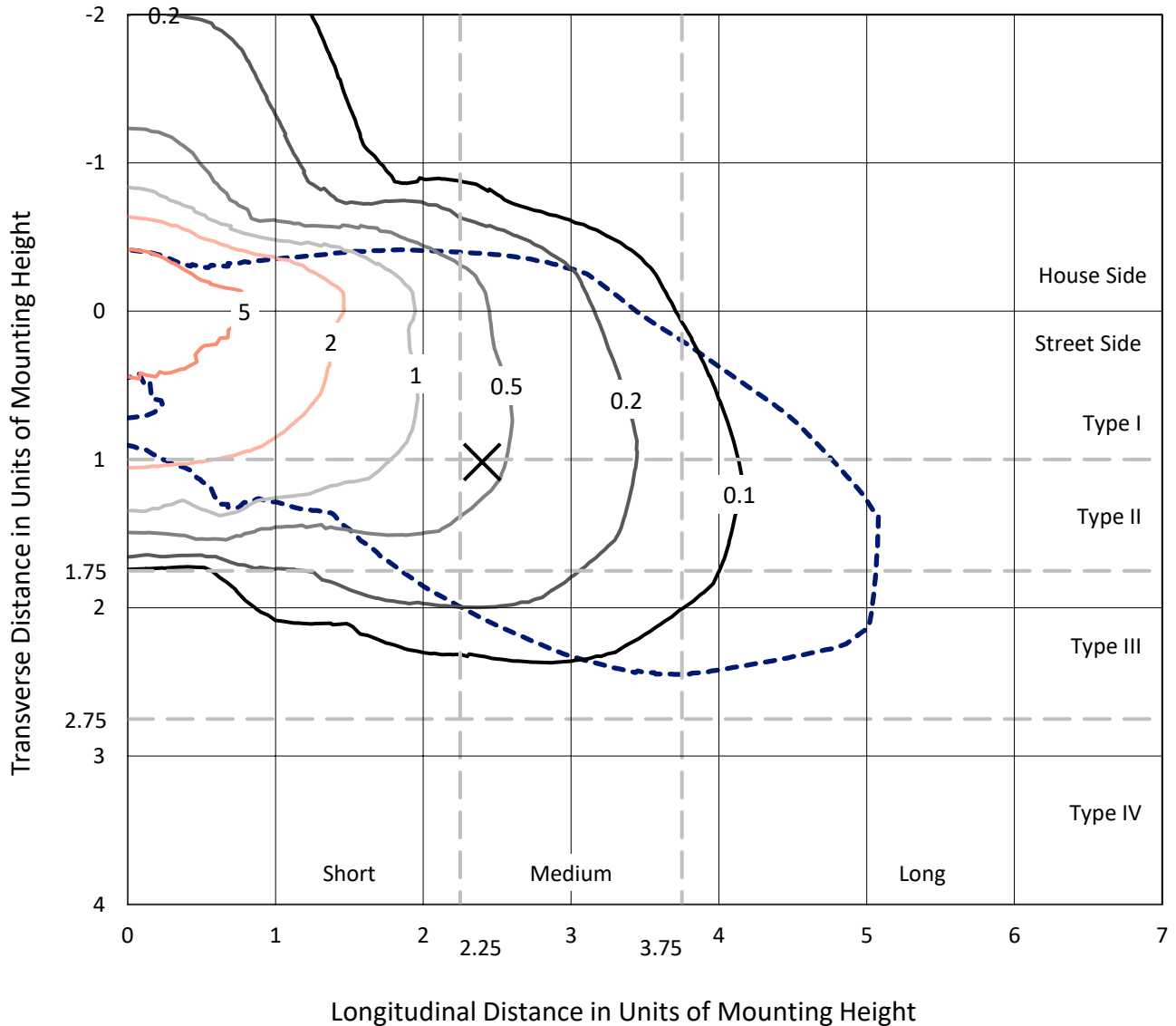
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P591161  
 CATALOG NUMBER: CTN-CA8-230-722-U-T3-SSS-HM-EX120

### Iso-Footcandle Lines of Horizontal Illumination

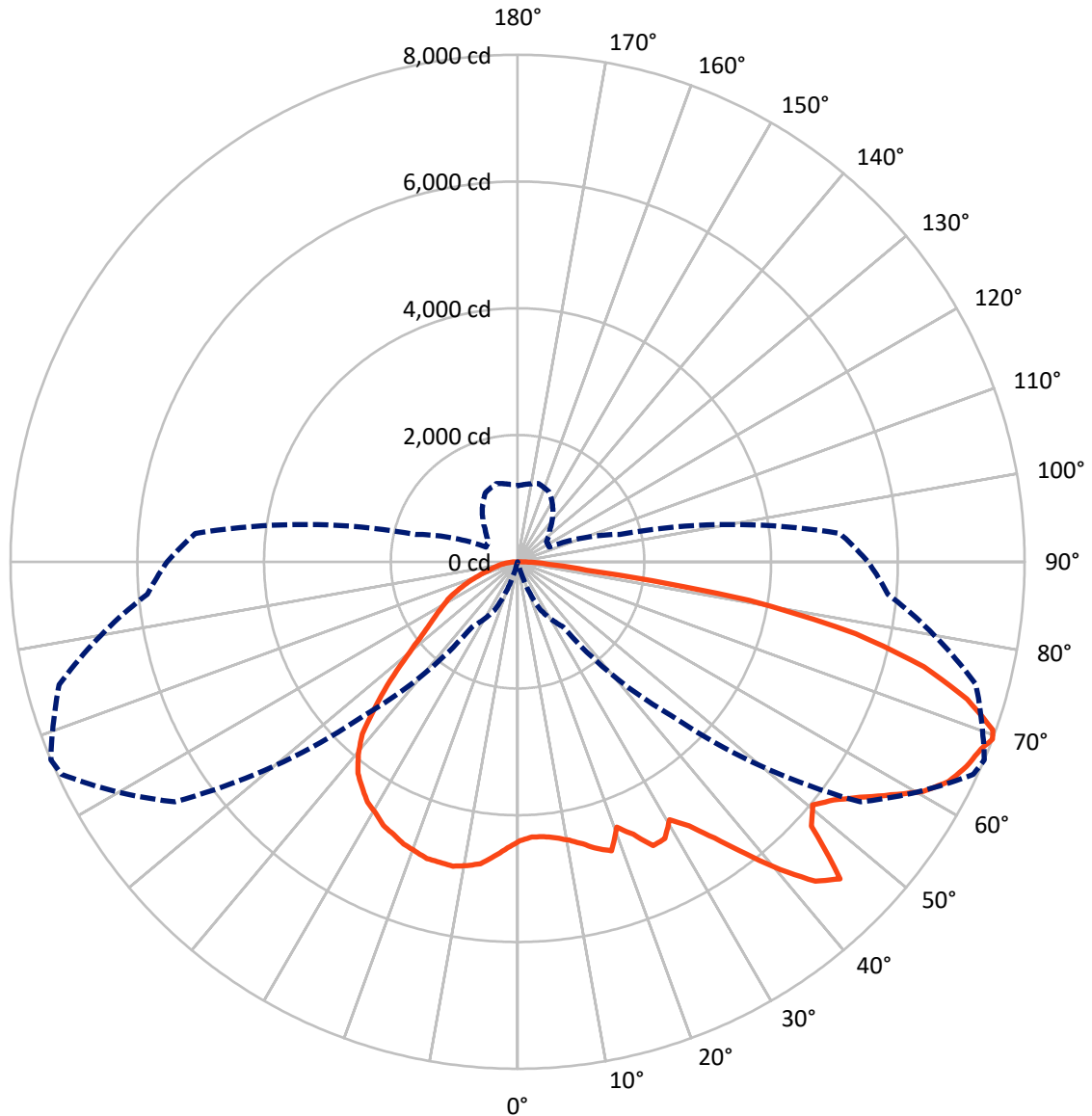
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc  
 Type III - Medium - N/A

REPORT NUMBER: P591161  
CATALOG NUMBER: CTN-CA8-230-722-U-T3-SSS-HM-EX120

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P591161  
 CATALOG NUMBER: CTN-CA8-230-722-U-T3-SSS-HM-EX120

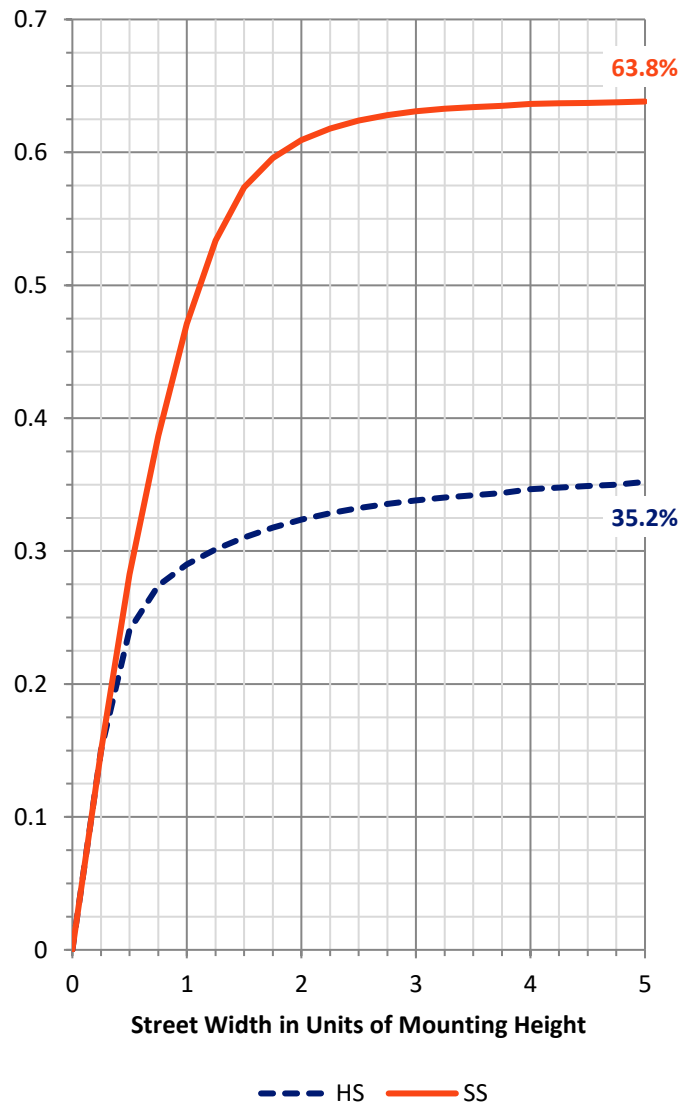
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6320.1	0.0	6320.1
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	11149.8	0.0	11149.8
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	17470.0	0.0	17470.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	440.1	2.5
10°-20°	1358.7	7.8
20°-30°	2005.4	11.5
30°-40°	2519.7	14.4
40°-50°	2955.4	16.9
50°-60°	3092.6	17.7
60°-70°	2762.9	15.8
70°-80°	1944.6	11.1
80°-90°	390.6	2.2
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°	17470.0	100.0
0°-180°	17470.0	100.0

**Coefficient of Utilization**

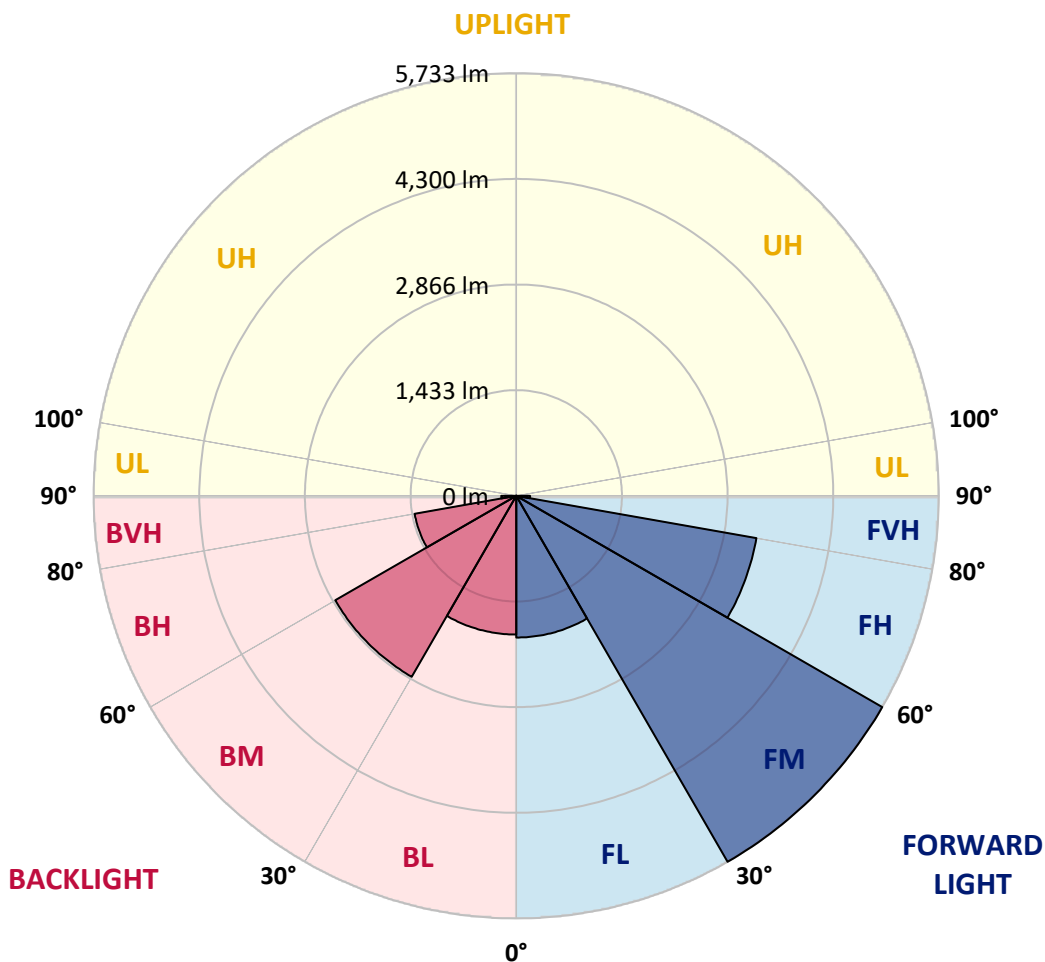


REPORT NUMBER: P591161  
 CATALOG NUMBER: CTN-CA8-230-722-U-T3-SSS-HM-EX120

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1922.5	11.0			
FM	(30°-60°)	5732.9	32.8			
FH	(60°-80°)	3307.8	18.9			G2/5000
FVH	(80°-90°)	186.6	1.1			G2/225
BL	(0°-30°)	1881.7	10.8	B3/2500		
BM	(30°-60°)	2834.8	16.2	B3/5000		
BH	(60°-80°)	1399.7	8.0	B3/2500		G3/2500
BVH	(80°-90°)	203.9	1.2			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type III Medium





REPORT NUMBER: P591161

CATALOG NUMBER: CTN-CA8-230-722-U-T3-SSS-HM-EX120

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8
2.5°	4296.1	4270.8	4282.6	4316.0	4246.4	4296.1	4278.0	4328.6	4347.6	4344.9	4417.1
5°	4330.4	4302.4	4306.9	4332.2	4256.4	4295.2	4278.0	4334.0	4355.7	4349.4	4447.8
7.5°	4452.3	4421.6	4411.7	4419.8	4337.6	4367.4	4330.4	4375.6	4399.0	4399.0	4511.0
10°	4644.6	4607.6	4585.9	4585.0	4488.4	4474.9	4429.7	4450.5	4467.7	4482.1	4606.7
12.5°	4846.0	4815.3	4787.3	4771.9	4644.6	4613.0	4547.1	4562.5	4567.9	4587.7	4711.4
15°	5029.3	4998.6	4990.4	4966.1	4839.7	4787.3	4695.2	4688.0	4695.2	4706.9	4829.7
17.5°	4958.8	4960.6	5005.8	5010.3	4846.0	4725.0	4660.9	4782.8	4794.5	4887.5	4967.0
20°	4825.2	4759.3	4522.7	4393.6	4412.6	4569.7	4453.2	4447.8	4472.2	4637.4	5040.1
22.5°	4018.9	3982.8	4112.8	4154.3	4304.2	4363.8	4641.0	4648.2	4672.6	4672.6	4790.0
25°	3469.9	3656.8	3909.6	4361.1	4314.2	4325.9	4438.8	4918.2	4964.3	4963.4	4946.2
27.5°	3587.3	3563.8	3942.2	4225.7	4560.7	4539.9	4417.1	4743.0	4947.1	5297.4	5216.2
30°	3728.2	3711.0	3739.0	4218.4	4773.7	4801.7	4688.0	4654.6	4724.1	5460.0	5525.0
32.5°	3859.1	3838.3	3869.9	3943.1	4474.9	5071.7	4984.1	4943.5	4968.8	5116.9	5922.3
35°	3974.7	3972.9	4009.0	4095.7	4548.9	5165.6	5287.5	5284.8	5352.5	5479.8	5980.0
37.5°	4056.8	4055.9	4084.8	4185.9	4288.0	4771.0	5571.9	5733.6	5841.9	6030.6	5841.9
40°	4055.9	4070.4	4146.2	4276.2	4411.7	4557.0	5697.4	6260.9	6390.9	6525.4	6211.2
42.5°	3971.0	3979.2	4112.8	4353.9	4521.8	4647.3	5199.0	6745.7	6891.1	6881.2	6501.9
45°	3892.5	3896.1	4045.1	4341.2	4613.9	4840.6	5097.0	6743.9	7136.7	7198.1	6775.5
47.5°	3790.5	3790.5	3937.6	4268.1	4697.0	5058.2	5369.7	5825.6	6235.6	7472.6	7002.2
50°	3659.5	3675.8	3495.2	4192.3	4736.7	5264.9	5600.8	5976.4	6033.3	6682.5	7212.5
52.5°	3451.0	3441.9	2731.3	4108.3	4753.0	5414.8	5841.0	6212.1	6242.8	6177.8	7006.7
55°	2175.1	2425.2	2415.3	4009.9	4743.0	5511.4	6025.2	6471.2	6557.9	6478.5	5894.3
57.5°	1313.8	1254.2	2064.1	3728.2	3809.4	5586.4	6275.3	6864.9	6940.8	6756.6	5993.6
60°	512.9	484.0	522.8	1696.6	2733.1	5197.2	6615.7	7283.0	7355.2	7021.1	6077.6
62.5°	64.1	55.1	47.0	1174.7	1737.2	3860.9	6796.3	7619.8	7633.3	7212.5	6093.8
65°	9.0	9.9	18.1	1047.4	1578.3	3795.0	6859.5	7757.0	7785.0	7350.7	6038.7
67.5°	3.6	4.5	14.4	911.0	1385.1	3619.8	6703.3	7851.8	7884.3	7484.3	5985.5
69°	3.6	4.5	14.4	818.9	1253.3	3426.6	6603.1	7935.8	7999.9	7487.0	5863.6
70°	3.6	4.5	13.5	753.0	1150.3	3263.2	6506.5	7903.3	7954.7	7414.8	5728.1
72.5°	3.6	4.5	13.5	579.7	874.9	2620.3	5895.2	7442.8	7416.6	6959.7	5200.8
75°	4.5	4.5	13.5	407.2	606.8	1863.6	4975.1	6609.4	6621.1	6195.8	4374.7
77.5°	4.5	4.5	13.5	259.1	382.8	1078.1	3602.7	5420.2	5453.6	5162.0	3275.8
80°	4.5	4.5	13.5	118.3	237.5	563.4	1771.5	3532.2	3711.9	3465.4	1797.7
82.5°	4.5	4.5	12.6	74.0	130.0	253.7	698.9	1107.9	1097.0	1079.9	571.5
85°	3.6	3.6	9.9	52.4	86.7	147.2	388.3	496.6	490.3	434.3	295.3
87.5°	1.8	1.8	5.4	21.7	36.1	66.8	194.1	225.7	214.9	184.2	126.4
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: P591161

CATALOG NUMBER: CTN-CA8-230-722-U-T3-SSS-HM-EX120

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8	4400.8
2.5°	4450.5	4456.8	4486.6	4525.4	4537.2	4587.7	4595.9	4678.9	4691.6	4712.3	4721.4
5°	4495.6	4520.0	4585.0	4676.2	4753.9	4833.3	4836.0	4937.2	4963.4	4957.9	4984.1
7.5°	4559.8	4600.4	4699.7	4826.1	4854.1	4957.0	4949.8	5050.0	5051.8	5037.4	5077.1
10°	4658.2	4708.7	4799.0	4876.7	4930.0	4996.8	4987.7	5082.5	5069.0	5053.7	5097.9
12.5°	4759.3	4785.5	4840.6	4927.2	4939.0	4962.5	4950.7	5038.3	5023.9	5004.9	5048.2
15°	4847.8	4860.4	4860.4	4907.4	4877.6	4896.5	4856.8	4927.2	4893.8	4884.8	4926.3
17.5°	4962.5	4941.7	4899.3	4895.6	4818.0	4789.1	4729.5	4748.5	4685.3	4691.6	4713.2
20°	5091.6	5045.5	4933.6	4821.6	4678.0	4609.4	4491.1	4482.1	4423.4	4412.6	4433.3
22.5°	5139.4	5180.1	4975.1	4758.4	4511.0	4357.5	4217.5	4150.7	4065.0	4009.9	4017.1
25°	5284.8	5357.9	5038.3	4645.5	4314.2	4061.3	3851.0	3698.4	3569.2	3503.3	3516.9
27.5°	5481.6	5600.8	5074.4	4567.0	4055.9	3725.5	3373.3	3172.9	3039.2	2970.6	2968.8
30°	5763.3	5913.2	5143.9	4402.6	3768.8	3283.9	2849.6	2613.1	2503.8	2458.7	2462.3
32.5°	6115.5	6296.1	5288.4	4265.4	3456.4	2811.7	2316.9	2110.1	2060.5	2052.3	2047.8
35°	6582.3	6761.1	5403.1	4054.1	3051.0	2276.3	1860.0	1713.7	1721.9	1720.1	1725.5
37.5°	6506.5	7184.5	5534.0	3847.3	2566.1	1784.2	1503.4	1421.2	1423.9	1455.5	1461.8
40°	6221.1	6814.3	5729.0	3505.1	1999.1	1370.6	1185.5	1166.6	1244.2	1313.8	1326.4
42.5°	6445.1	6591.3	5755.2	3135.8	1462.7	1051.0	991.4	1070.0	1195.5	1275.8	1290.3
45°	6669.0	6787.3	5603.5	2583.3	1049.2	899.3	943.6	1056.4	1195.5	1281.2	1291.2
47.5°	6896.5	6895.6	5426.6	2071.3	857.8	859.6	931.8	1057.3	1202.7	1289.4	1294.8
50°	7041.0	6983.2	4964.3	1622.5	798.2	836.1	925.5	1062.7	1200.9	1264.1	1266.8
52.5°	7113.2	7027.4	4556.1	1296.6	770.2	817.1	926.4	1075.4	1191.0	1226.2	1224.4
55°	6991.3	7003.1	4218.4	1078.1	744.0	801.8	930.9	1084.4	1195.5	1231.6	1231.6
57.5°	6839.6	6842.3	3949.4	912.9	717.8	789.2	936.3	1098.0	1278.5	1346.3	1336.3
60°	6733.1	6611.2	3568.3	809.0	688.0	777.4	943.6	1156.6	1473.6	1542.2	1518.7
62.5°	6557.9	6392.7	3176.5	736.8	654.6	768.4	948.1	1238.8	1499.8	1503.4	1445.6
65°	6250.9	6014.4	2564.3	665.5	620.3	755.7	945.4	1269.5	1381.5	1327.3	1311.0
67.5°	5806.7	5497.9	2009.9	594.1	582.4	736.8	963.4	1213.5	1304.7	1260.5	1238.8
69°	5529.5	5106.0	1668.6	551.7	558.0	722.3	972.4	1202.7	1277.6	1223.5	1198.2
70°	5319.1	4766.5	1413.1	523.7	537.2	709.7	954.4	1196.4	1265.0	1198.2	1168.4
72.5°	4516.4	3832.0	904.7	458.7	483.1	678.1	905.6	1156.6	1237.0	1191.9	1154.8
75°	3491.6	2814.4	577.0	399.1	428.0	631.1	855.1	1128.7	1249.6	1168.4	1087.1
77.5°	2350.3	1572.0	440.6	335.0	363.0	569.7	774.7	1050.1	1206.3	1135.0	1034.7
80°	1070.9	599.5	340.4	271.8	293.4	458.7	668.2	929.1	1140.4	1139.5	1067.3
82.5°	428.9	400.9	252.8	207.7	231.1	342.2	529.1	795.5	1005.9	1049.2	1120.5
85°	250.1	252.8	167.9	144.5	172.5	251.9	377.4	614.9	818.0	904.7	965.2
87.5°	102.0	113.8	78.6	75.8	94.8	134.5	173.4	298.0	440.6	540.8	577.9
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)