

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: P591046

Luminaire Tested: **CTN-CA10-310-740-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P591046  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 12/14/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-310-740-U-T3-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 44106 lumens  
Efficiency: N/A  
Efficacy: 141.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G5

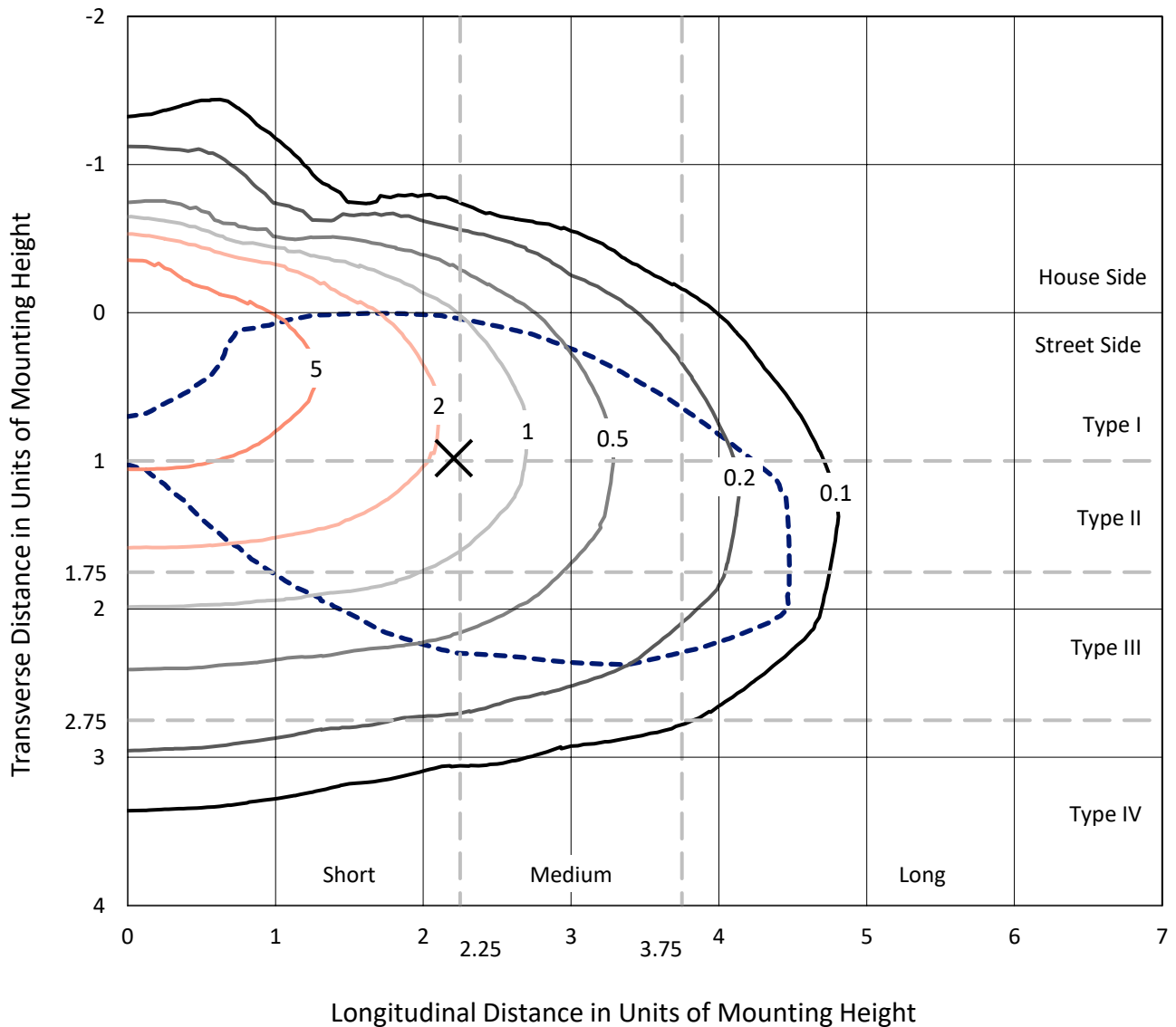
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P591046  
 CATALOG NUMBER: CTN-CA10-310-740-U-T3-HSS-HM-EX120

### Iso-Footcandle Lines of Horizontal Illumination

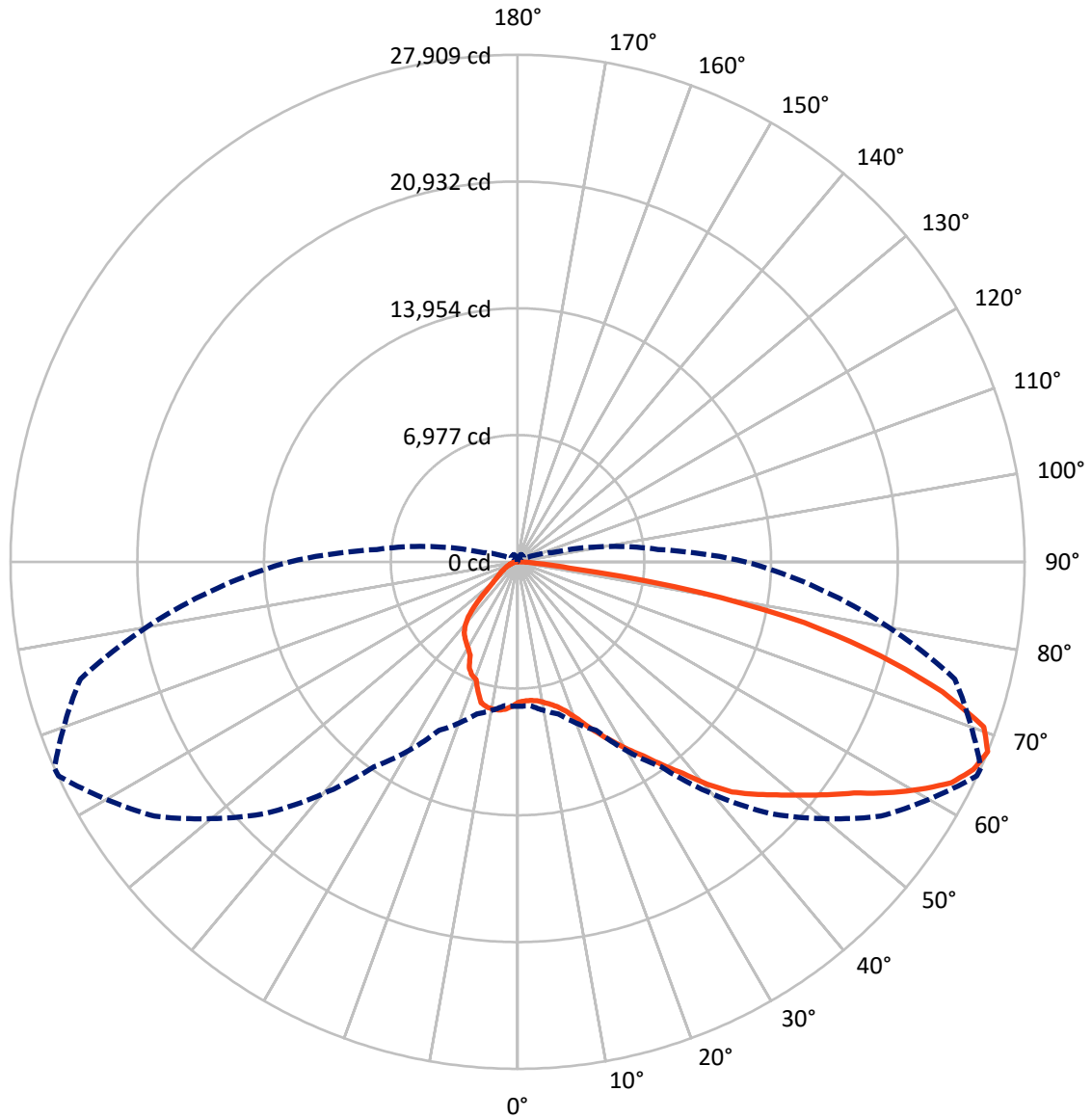
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.6 fc  
 Type III - Short - N/A

REPORT NUMBER: P591046  
CATALOG NUMBER: CTN-CA10-310-740-U-T3-HSS-HM-EX120

### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P591046  
 CATALOG NUMBER: CTN-CA10-310-740-U-T3-HSS-HM-EX120

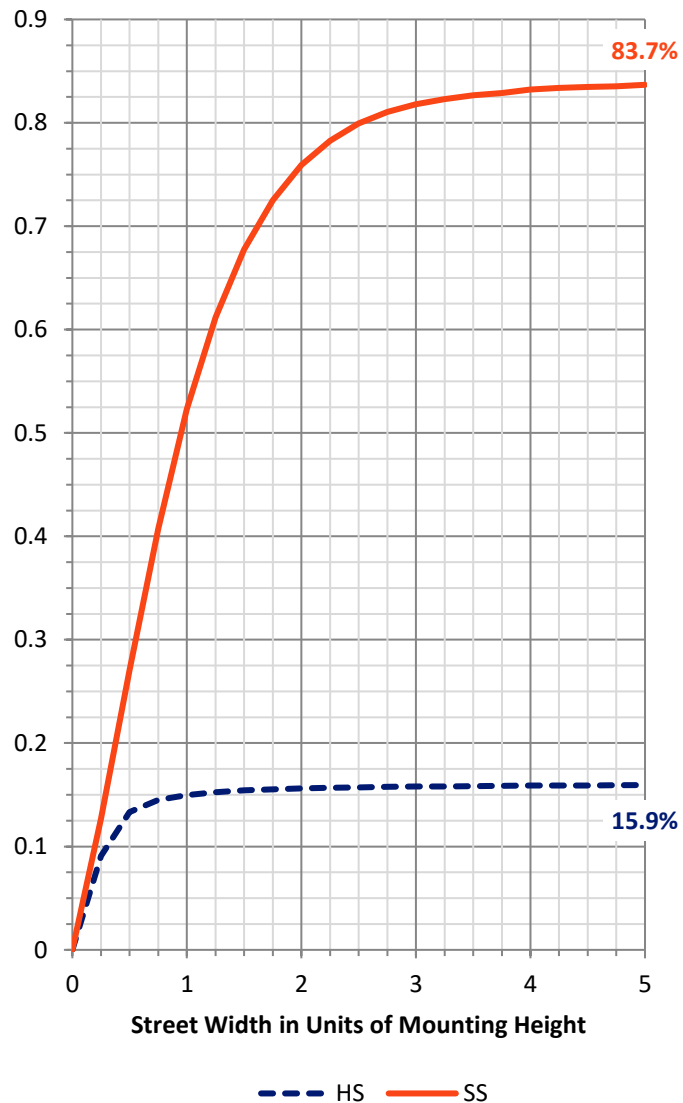
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7119.6	0.0	7119.6
	% Fixture	16.1	0.0	16.1
<b>Street Side</b>	Lumens	36986.4	0.0	36986.4
	% Fixture	83.9	0.0	83.9
<b>Total</b>	Lumens	44106.0	0.0	44106.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	765.3	1.7
10°-20°	2307.4	5.2
20°-30°	3750.8	8.5
30°-40°	5478.9	12.4
40°-50°	7297.4	16.5
50°-60°	8827.5	20.0
60°-70°	9450.8	21.4
70°-80°	5608.7	12.7
80°-90°	619.3	1.4
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°	44106.0	100.0
0°-180°	44106.0	100.0

**Coefficient of Utilization**



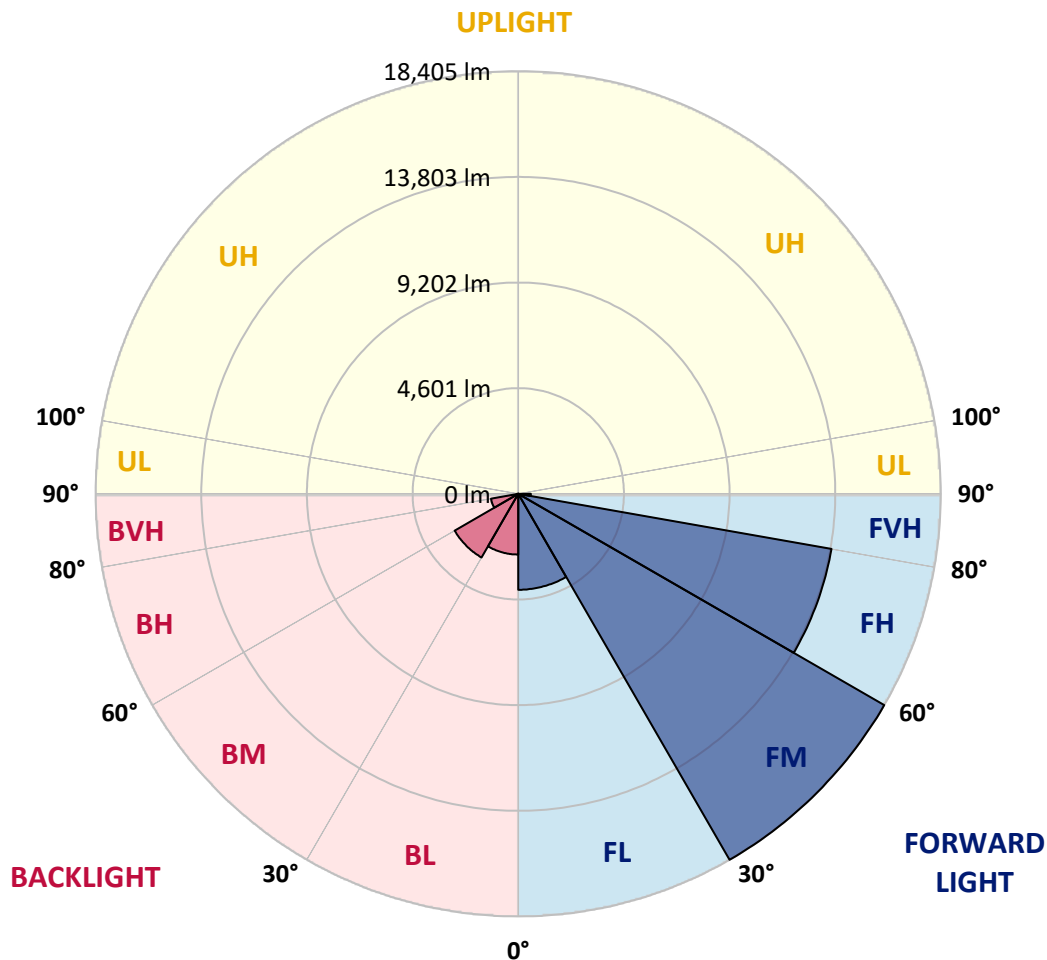
REPORT NUMBER: P591046  
 CATALOG NUMBER: CTN-CA10-310-740-U-T3-HSS-HM-EX120

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4179.3	9.5			
FM	(30°-60°)	18404.6	41.7			
FH	(60°-80°)	13853.5	31.4			G5
FVH	(80°-90°)	549.0	1.2			G4/750
BL	(0°-30°)	2644.1	6.0	B4/5000		
BM	(30°-60°)	3199.2	7.3	B3/5000		
BH	(60°-80°)	1206.0	2.7	B3/2500		G3/2500
BVH	(80°-90°)	70.3	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

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

Type III Short





REPORT NUMBER: P591046

CATALOG NUMBER: CTN-CA10-310-740-U-T3-HSS-HM-EX120

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3
2.5°	7624.0	7580.9	7600.4	7651.1	7553.8	7615.7	7571.9	7648.3	7669.1	7677.5	7708.0
5°	7773.3	7716.4	7717.8	7749.7	7639.3	7666.4	7592.0	7645.5	7662.2	7684.4	7758.7
7.5°	8035.2	7972.0	7966.4	7974.7	7837.2	7806.7	7701.8	7712.9	7725.4	7738.6	7835.1
10°	8394.9	8330.3	8319.2	8297.7	8116.4	8036.5	7881.0	7856.7	7868.5	7846.9	7961.5
12.5°	8826.9	8749.1	8708.2	8646.4	8436.6	8311.6	8106.0	8039.3	8049.7	8004.6	8084.5
15°	9281.2	9198.5	9176.3	9081.1	8822.8	8651.9	8385.9	8284.5	8287.3	8235.2	8231.7
17.5°	9766.0	9692.3	9674.3	9613.9	9327.7	9124.2	8795.7	8658.2	8647.7	8596.3	8443.5
20°	10316.0	10269.5	10259.8	10225.1	9966.0	9727.8	9354.1	9169.3	9158.9	9077.7	8751.2
22.5°	10992.5	10937.7	10908.5	10878.6	10684.8	10436.9	10035.4	9775.0	9816.0	9679.1	9150.6
25°	11665.5	11621.8	11596.8	11577.3	11417.6	11182.8	10776.5	10470.9	10511.9	10365.3	9636.1
27.5°	12333.7	12237.1	12277.4	12323.3	12163.5	11976.7	11535.0	11202.3	11214.8	11056.4	10217.4
30°	12954.6	12903.9	12973.4	13016.4	12899.7	12753.9	12289.9	11968.4	11987.1	11798.9	10884.2
32.5°	13506.1	13433.1	13588.0	13672.1	13602.6	13482.5	13034.5	12729.6	12735.1	12621.2	11680.1
35°	13911.0	13915.8	14129.8	14355.5	14354.8	14185.3	13804.7	13663.0	13727.6	13676.9	12656.6
37.5°	14323.5	14286.7	14534.0	14869.5	14979.2	14828.5	14602.7	14686.8	14773.6	14929.2	13579.0
40°	14518.7	14520.1	14819.4	15207.0	15460.5	15432.0	15352.9	15914.7	16094.6	16141.2	13209.5
42.5°	14283.3	14299.9	14834.0	15519.5	15913.4	16064.1	16237.7	17194.8	17316.3	17053.1	13645.0
45°	13974.9	13997.8	14625.0	15627.2	16314.8	16739.2	17217.7	18151.2	18245.6	17895.6	14278.4
47.5°	13685.3	13727.6	14380.5	15562.6	16632.9	17499.7	18094.2	19052.0	19167.3	18705.4	14868.8
50°	13304.7	13399.1	14065.2	15391.1	16872.5	18161.6	18904.0	20136.2	20180.6	19495.8	15400.8
52.5°	12936.5	12964.3	13708.2	15171.6	17053.1	18761.7	19870.2	21250.2	21301.6	20361.2	15891.8
55°	12432.3	12474.0	13305.3	14896.5	17164.2	19264.5	20848.1	22411.5	22457.3	21400.9	16419.7
57.5°	11877.4	11907.9	12783.0	14474.3	17080.9	19711.1	21890.6	23874.2	23986.7	22470.5	16894.0
60°	11180.7	11221.0	12109.3	13888.8	16793.3	20232.0	23178.3	25437.6	25437.6	23452.6	17269.8
62.5°	10199.4	10255.6	11155.0	13045.6	16196.0	20533.4	24206.2	26798.9	26789.9	24226.3	17396.9
65°	9058.9	9067.9	9883.3	11859.3	15204.2	20373.0	24597.9	27594.2	27574.0	24786.1	17221.9
67.5°	7952.5	7942.8	8666.5	10236.9	13774.2	19583.3	24411.1	27884.5	27908.8	24920.9	16569.7
70°	6382.8	6370.3	7035.7	8319.2	11611.4	17882.4	23349.1	27147.6	27221.2	24151.3	15486.9
72.5°	4567.3	4548.6	4867.4	5716.1	8526.9	14710.4	20701.5	24315.2	24450.0	21686.4	13509.5
75°	2674.7	2694.8	3027.5	3515.8	5063.9	9677.1	16790.6	20420.2	20612.6	18448.4	10625.8
77.5°	1487.7	1483.5	1728.0	2095.4	2490.6	4846.5	11721.8	16081.4	16146.7	14456.2	7145.5
80°	718.2	714.7	780.7	984.9	1420.3	2177.4	5757.1	9991.7	10189.6	8786.0	3493.5
82.5°	516.7	519.5	556.3	540.4	529.9	960.6	1921.1	3147.0	2873.3	2217.7	1080.0
85°	388.2	388.2	421.6	388.9	379.9	489.0	934.2	1124.5	1079.3	986.9	641.8
87.5°	182.7	173.6	184.7	175.0	162.5	216.7	409.8	475.1	439.6	383.4	280.6
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: P591046

CATALOG NUMBER: CTN-CA10-310-740-U-T3-HSS-HM-EX120

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3	7723.3
2.5°	7760.1	7775.4	7855.3	7959.5	7969.2	8058.8	8086.6	8197.7	8193.5	8163.0	8194.9
5°	7812.2	7858.7	7995.6	8142.1	8179.6	8292.1	8316.4	8425.5	8432.4	8394.9	8426.2
7.5°	7895.6	7963.6	8092.8	8238.0	8254.6	8354.6	8350.5	8454.0	8435.9	8403.3	8444.9
10°	7997.7	8050.4	8136.6	8232.4	8224.8	8304.6	8279.6	8354.0	8316.4	8290.1	8338.0
12.5°	8100.4	8102.5	8109.5	8169.9	8122.7	8140.7	8091.4	8146.3	8088.6	8044.2	8073.4
15°	8203.2	8144.9	8047.0	8009.5	7878.2	7810.8	7740.0	7806.0	7671.2	7600.4	7618.4
17.5°	8348.4	8208.1	7878.9	7402.4	6998.2	6775.3	6607.9	6478.7	6481.5	6545.4	6583.6
20°	8464.4	7931.0	7126.7	6832.2	6530.1	6122.4	5489.7	5316.0	5201.4	5199.3	5218.1
22.5°	8423.4	7637.9	7127.4	6666.9	6009.9	5195.2	4921.5	4762.5	4495.1	3923.5	3876.9
25°	8800.5	7897.6	7168.4	6325.2	5181.3	4768.0	4392.3	4083.2	3408.1	3301.9	3297.7
27.5°	9252.7	8248.4	7223.9	5587.6	4850.0	4292.3	3814.4	3067.8	2744.1	2698.3	2682.3
30°	9775.7	8661.6	6885.0	5351.4	4497.2	3738.7	3105.3	2355.9	2092.7	2076.7	2080.8
32.5°	10431.3	9133.2	6531.5	5157.0	4070.0	3097.7	2117.7	1796.8	1646.1	1481.5	1534.2
35°	11130.0	8861.7	6742.6	4916.7	3535.2	2329.5	1608.6	1427.3	1305.0	1091.8	1005.0
37.5°	10855.0	9048.5	6987.8	4652.7	2867.1	1579.4	1244.6	1087.7	973.1	795.3	791.8
40°	11193.9	9583.3	7162.8	4227.7	2073.2	1120.3	907.1	841.8	789.0	690.4	676.5
42.5°	11792.6	10050.0	7281.6	3682.5	1239.1	833.5	774.4	784.1	738.3	662.6	653.6
45°	12382.3	10458.4	7169.8	2851.1	881.4	751.5	755.0	750.8	695.2	667.5	657.7
47.5°	12919.2	10803.6	6855.1	1880.8	764.7	732.7	740.4	721.6	659.1	643.1	641.8
50°	13380.4	11168.2	5427.8	1441.2	735.5	707.7	724.4	693.8	586.2	568.8	550.8
52.5°	13664.4	10561.9	4822.2	1107.1	705.0	668.8	673.7	698.7	552.2	439.6	411.9
55°	13621.4	9514.5	4483.3	921.7	656.3	614.7	624.4	664.7	499.4	343.8	311.2
57.5°	13826.3	9428.4	4131.8	784.1	566.1	557.0	537.6	605.6	454.2	227.8	216.0
60°	13792.9	9418.0	3687.3	616.8	500.1	468.1	443.8	493.1	325.7	84.7	77.1
62.5°	13738.7	9150.6	3182.4	552.9	460.5	448.0	427.1	482.7	277.1	59.0	43.8
65°	13467.2	8716.5	2610.1	484.1	429.9	404.2	402.8	457.0	228.5	32.6	14.6
67.5°	12540.0	7771.2	1941.9	445.9	411.9	398.7	423.0	440.3	219.5	33.3	13.2
70°	11387.0	6524.5	1253.0	402.1	386.2	393.1	413.3	445.2	213.2	30.6	11.8
72.5°	9521.5	5047.2	759.8	359.1	349.4	370.2	407.7	445.2	197.2	25.7	9.7
75°	7243.4	3366.4	565.4	317.4	306.3	332.7	371.6	427.8	193.8	22.2	6.3
77.5°	4497.2	1589.8	445.9	266.7	254.9	282.0	311.8	352.8	196.6	21.5	3.5
80°	1819.0	664.0	350.0	214.6	200.0	214.6	252.8	300.7	156.3	30.6	0.0
82.5°	765.4	467.4	286.2	170.9	159.7	141.0	172.2	222.9	122.9	24.3	0.0
85°	506.3	324.4	204.9	116.0	102.1	68.8	84.0	100.7	70.1	0.0	0.0
87.5°	229.2	143.8	89.6	39.6	33.3	18.8	11.1	9.7	0.0	0.0	0.0
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)