

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: P591362

Luminaire Tested: **CTN-CA8-330-730-U-T2-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591362  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-330-730-U-T2-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29437 lumens  
Efficiency: N/A  
Efficacy: 88.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G4

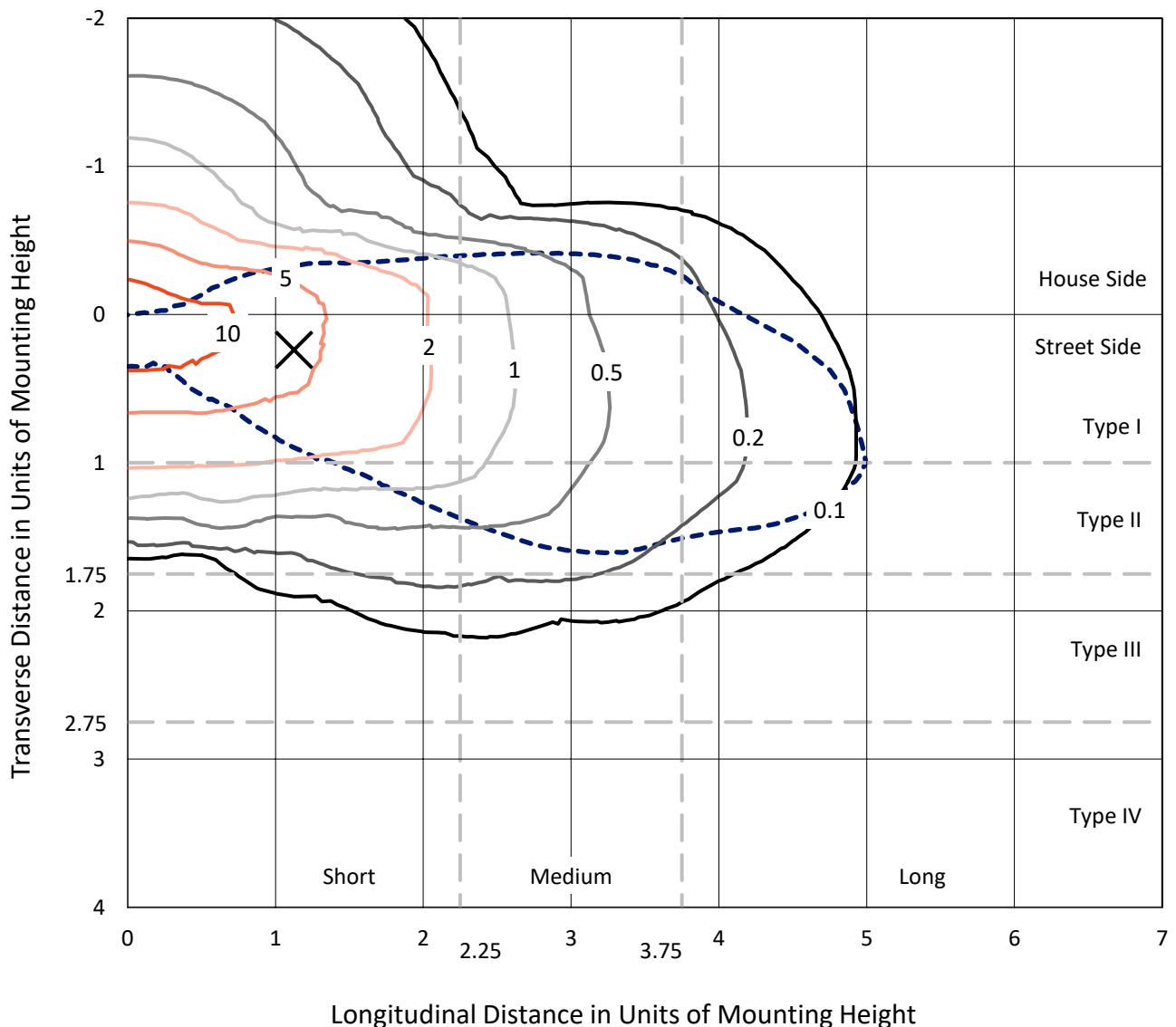
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P591362  
 CATALOG NUMBER: CTN-CA8-330-730-U-T2-SSS-HM-EX120

### Iso-Footcandle Lines of Horizontal Illumination

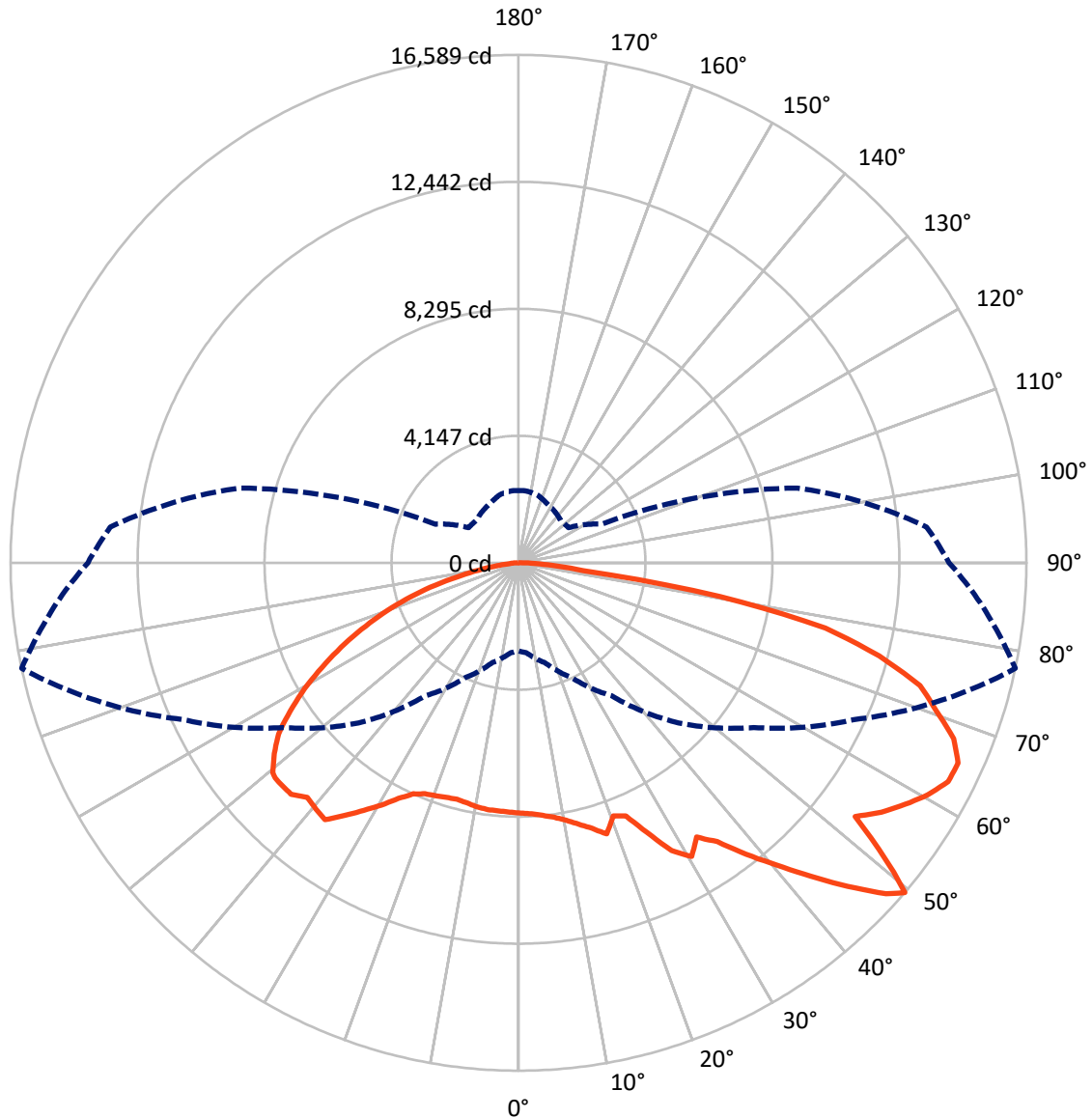
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.9 fc  
 Type II - Short - N/A

REPORT NUMBER: P591362  
CATALOG NUMBER: CTN-CA8-330-730-U-T2-SSS-HM-EX120

### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 49-Deg Vertical

REPORT NUMBER: P591362  
 CATALOG NUMBER: CTN-CA8-330-730-U-T2-SSS-HM-EX120

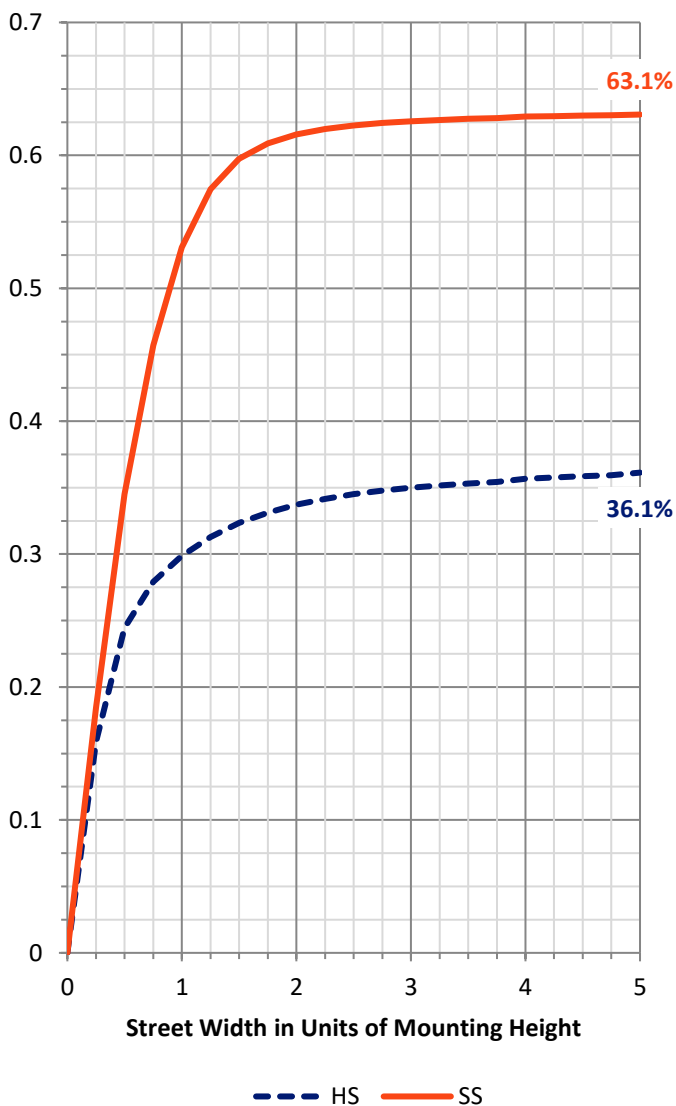
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10899.5	0.0	10899.5
	% Fixture	37.0	0.0	37.0
<b>Street Side</b>	Lumens	18537.6	0.0	18537.6
	% Fixture	63.0	0.0	63.0
<b>Total</b>	Lumens	29437.0	0.0	29437.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	792.4	2.7
10°-20°	2331.8	7.9
20°-30°	3328.7	11.3
30°-40°	4285.1	14.6
40°-50°	5026.4	17.1
50°-60°	5185.4	17.6
60°-70°	4708.3	16.0
70°-80°	3126.9	10.6
80°-90°	652.0	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°	29437.0	100.0
0°-180°	29437.0	100.0

**Coefficient of Utilization**

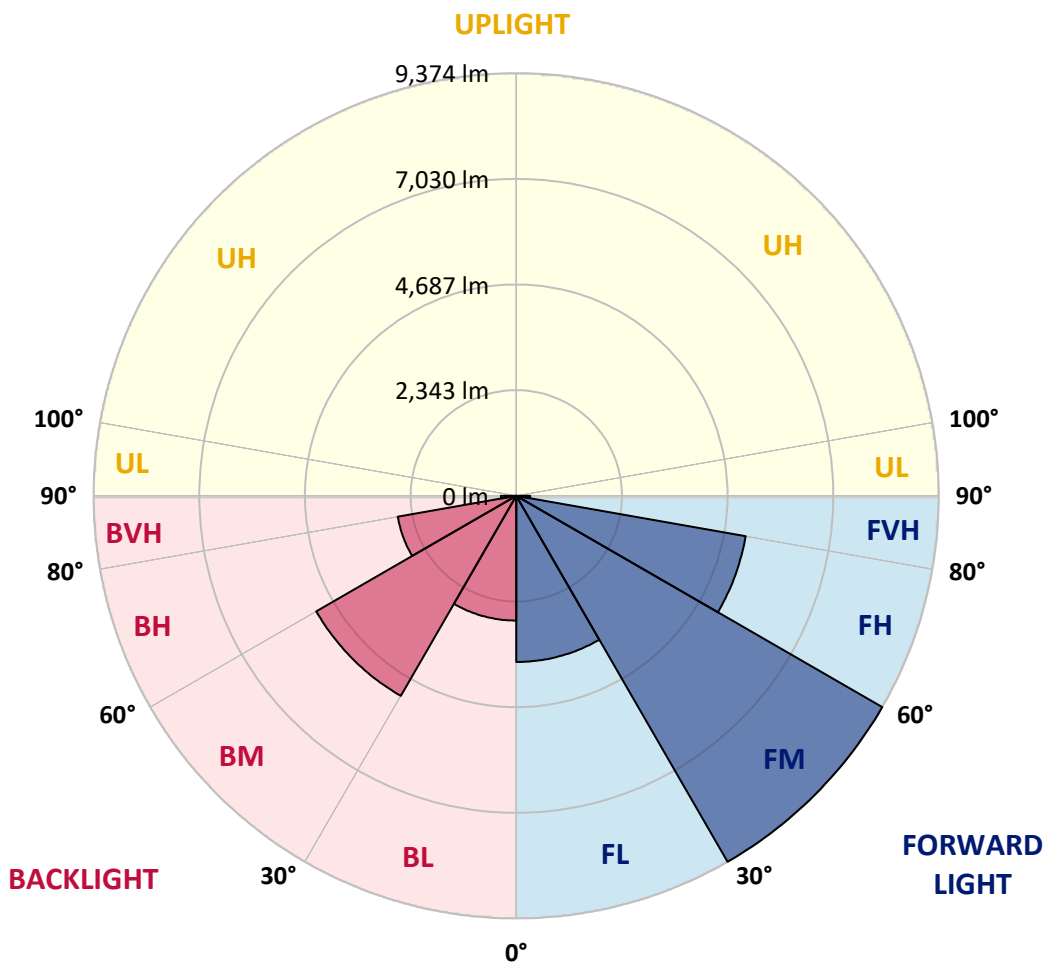


REPORT NUMBER: P591362  
 CATALOG NUMBER: CTN-CA8-330-730-U-T2-SSS-HM-EX120

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3685.9	12.5			
FM (30°-60°)	9373.6	31.8			
FH (60°-80°)	5167.3	17.6			G3/7500
FVH (80°-90°)	310.7	1.1			G3/500
BL (0°-30°)	2766.9	9.4	B4/5000		
BM (30°-60°)	5123.4	17.4	B4/8500		
BH (60°-80°)	2667.9	9.1	B4/5000		G4/5000
BVH (80°-90°)	341.3	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type II Short





REPORT NUMBER: P591362

CATALOG NUMBER: CTN-CA8-330-730-U-T2-SSS-HM-EX120

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4
2.5°	8508.6	8443.2	8464.0	8499.7	8337.8	8373.4	8303.6	8331.8	8245.7	8213.0	8227.8
5°	9110.2	9040.4	9065.6	9077.5	8842.8	8747.7	8529.4	8483.3	8348.2	8288.7	8282.8
7.5°	9407.3	9331.5	9337.5	9344.9	9157.7	9171.1	8973.5	8737.3	8486.3	8395.7	8355.6
10°	9896.0	9790.5	9754.9	9740.0	9487.5	9382.0	9209.7	9080.5	8688.3	8551.7	8449.2
12.5°	10197.5	10120.3	10120.3	10105.4	9838.0	9756.3	9448.9	9312.2	8926.0	8764.1	8587.3
15°	10252.5	10200.5	10267.3	10254.0	10078.7	9983.6	9847.0	9561.8	9166.6	8998.8	8790.8
17.5°	9631.6	9493.4	9229.0	9269.1	9270.6	9463.7	9370.1	9566.2	9450.3	9313.7	9089.4
20°	7909.9	7957.5	8380.8	8278.3	8239.7	8649.7	9068.6	9080.5	8850.2	8827.9	9131.0
22.5°	6890.9	6721.6	7192.5	7877.3	7920.3	8468.5	8957.2	9545.4	9177.0	8979.5	8747.7
25°	5869.0	5931.3	6641.4	7528.2	8155.0	8276.8	8838.3	9777.1	9934.6	9751.9	9267.6
27.5°	5692.2	5689.2	5998.2	6981.5	8267.9	8725.5	8911.1	9646.4	10744.2	10641.7	10029.7
30°	5653.6	5629.8	5791.7	6608.7	7743.6	9129.5	9483.0	9745.9	10680.3	11136.3	10882.3
32.5°	5484.2	5463.4	5635.7	6063.6	7323.2	9425.1	10028.2	10420.3	10463.4	10678.8	11782.5
35°	5218.3	5234.7	5473.8	5938.8	6715.7	8715.1	10586.7	11179.4	11335.4	11186.8	11339.8
37.5°	4946.5	4964.3	5199.0	5726.4	6610.2	8418.0	10947.7	11913.2	12237.0	12078.1	11371.0
40°	4609.3	4637.5	4909.4	5502.1	6488.4	7748.0	10206.4	12746.5	13186.2	12978.3	12191.0
42.5°	4226.1	4237.9	4546.9	5160.4	6333.9	7788.1	9441.4	13516.0	14107.2	13992.8	12999.1
45°	3893.3	3893.3	4174.1	4720.7	5981.9	7712.4	9117.6	12942.6	15237.6	15075.7	13808.6
47.5°	3440.3	3480.4	3810.1	4352.3	5567.4	7537.1	9303.3	11654.7	16290.8	16155.6	14621.1
49°	2881.7	2950.1	3385.3	4150.3	5301.5	7391.5	9377.6	12109.3	15564.4	16589.4	15148.5
50°	2653.0	2688.6	2693.1	4006.2	5104.0	7259.3	9411.7	12458.4	14338.9	15889.7	15518.4
52.5°	2296.5	2072.2	1841.9	3606.6	4707.3	6770.6	9432.5	13406.1	14044.8	13767.0	15230.2
55°	970.0	1270.0	1614.7	2950.1	4279.5	6166.0	9364.2	14447.4	14691.0	14385.0	13058.5
57.5°	733.8	781.3	867.5	2289.1	3065.9	5476.8	9133.9	15106.9	15236.1	14888.5	13588.8
60°	107.0	109.9	154.5	928.4	1755.8	3909.7	8305.1	15087.6	15641.6	15374.3	14046.3
62.5°	44.6	46.0	59.4	760.5	1353.2	3009.5	7581.7	14835.1	16035.3	15748.6	14475.6
65°	7.4	8.9	25.3	672.9	1118.5	2811.9	6788.4	14885.6	15895.7	15776.8	14641.9
67.5°	5.9	7.4	23.8	604.6	922.5	2574.3	6005.6	14081.9	15386.1	15334.2	14197.8
70°	5.9	7.4	25.3	546.6	797.7	2268.3	5038.6	12969.3	14451.8	14472.6	13452.1
72.5°	7.4	7.4	25.3	488.7	693.7	1938.5	3986.9	11483.9	13603.6	13718.0	12391.5
75°	7.4	7.4	23.8	424.8	595.7	1616.2	2871.3	8444.7	12199.9	12165.7	10867.5
77.5°	7.4	7.4	23.8	337.2	494.7	1329.5	1870.2	4756.4	10102.5	10246.5	9086.4
80°	7.4	7.4	23.8	246.6	387.7	996.7	1133.4	2434.6	5393.6	6677.0	6250.7
82.5°	7.4	7.4	23.8	166.4	265.9	574.9	653.6	1232.9	1937.0	2122.7	2483.6
85°	5.9	5.9	17.8	99.5	136.7	203.5	314.9	656.6	1059.1	1106.6	1079.9
87.5°	3.0	3.0	8.9	35.7	59.4	74.3	141.1	264.4	389.2	398.1	346.1
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: P591362

CATALOG NUMBER: CTN-CA8-330-730-U-T2-SSS-HM-EX120

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4	8174.4
2.5°	8227.8	8180.3	8137.2	8144.6	8052.5	8025.8	7923.3	7976.8	7924.8	7878.8	7921.8
5°	8241.2	8183.3	8104.5	8028.8	7817.9	7719.8	7596.5	7627.7	7557.9	7502.9	7550.5
7.5°	8279.8	8208.5	8086.7	7871.3	7620.3	7464.3	7324.7	7461.3	7445.0	7403.4	7452.4
10°	8297.6	8236.7	8027.3	7774.8	7424.2	7326.2	7199.9	7198.4	7202.9	7210.3	7259.3
12.5°	8345.2	8253.1	7921.8	7627.7	7302.4	7103.4	7011.3	7085.5	6951.8	6873.1	6907.3
15°	8458.1	8290.2	7850.5	7421.2	7113.8	6948.9	6654.8	6680.0	6651.8	6574.5	6608.7
17.5°	8680.9	8394.2	7847.6	7290.5	6873.1	6604.2	6347.3	6225.5	6186.8	6192.8	6222.5
20°	8954.2	8578.4	7853.5	7122.7	6622.1	6310.1	5913.5	5828.9	5701.1	5704.1	5711.5
22.5°	8780.4	8790.8	7856.5	6931.0	6308.6	5918.0	5497.6	5331.2	5233.2	5207.9	5245.1
25°	9251.3	9203.8	7902.5	6828.5	5978.9	5454.5	5014.8	4802.4	4655.4	4643.5	4685.1
27.5°	9878.2	9792.0	8140.2	6607.2	5629.8	4899.0	4422.1	4261.7	4135.5	4090.9	4120.6
30°	10640.2	10539.2	8468.5	6434.9	5158.9	4301.8	3893.3	3783.4	3658.6	3576.9	3584.4
32.5°	11436.4	11221.0	8805.7	6289.3	4676.2	3778.9	3429.9	3331.8	3184.8	3079.3	3104.6
35°	12238.5	11932.5	9181.5	6032.4	4086.4	3318.5	3036.2	2904.0	2783.7	2688.6	2672.3
37.5°	11604.2	12764.4	9545.4	5793.2	3624.5	2967.9	2648.5	2555.0	2483.6	2409.4	2407.9
40°	11656.2	11922.1	9760.8	5369.9	3109.0	2608.4	2287.6	2320.3	2350.0	2293.5	2293.5
42.5°	12171.7	11792.9	9674.6	4808.4	2725.8	2249.0	2101.9	2234.1	2327.7	2287.6	2286.1
45°	12898.0	12406.4	9821.7	4175.6	2352.9	2027.6	2049.9	2211.8	2333.6	2326.2	2323.2
47.5°	13669.0	13104.5	9539.5	3423.9	2096.0	1959.3	2049.9	2179.1	2324.7	2358.9	2351.4
49°	14065.6	13380.8	9426.6	2985.7	1993.5	1950.4	2052.9	2152.4	2308.4	2360.4	2352.9
50°	14307.7	13529.4	9281.0	2736.2	1938.5	1951.9	2058.8	2136.1	2293.5	2351.4	2347.0
52.5°	14852.9	13755.1	8559.1	2302.4	1849.4	1956.3	2097.4	2119.7	2238.6	2300.9	2333.6
55°	14297.3	14270.6	7638.1	2103.4	1801.8	1945.9	2113.8	2134.6	2192.5	2226.7	2251.9
57.5°	14211.2	14494.9	6478.0	1996.4	1760.2	1931.1	2094.5	2133.1	2167.3	2161.3	2150.9
60°	14484.5	14691.0	5282.2	1891.0	1712.7	1907.3	2030.6	2087.0	2097.4	2082.6	2058.8
62.5°	14527.6	14744.4	4059.7	1784.0	1660.7	1849.4	1937.0	1993.5	1993.5	1956.3	1947.4
65°	14327.0	14410.2	2991.7	1660.7	1598.3	1782.5	1827.1	1868.7	1888.0	1839.0	1841.9
67.5°	13752.2	13270.9	2271.2	1513.7	1522.6	1690.4	1721.6	1749.8	1754.3	1726.1	1723.1
70°	12596.5	11996.4	1623.6	1290.8	1384.4	1544.9	1592.4	1635.5	1620.6	1571.6	1564.2
72.5°	10854.1	10320.8	1103.7	1033.9	1218.1	1405.2	1434.9	1436.4	1406.7	1442.4	1467.6
75°	9337.5	8061.5	822.9	824.4	975.9	1212.1	1304.2	1311.6	1325.0	1521.1	1561.2
77.5°	7419.8	5252.5	701.1	650.6	748.7	1008.6	1154.2	1207.7	1602.8	1738.0	1720.1
80°	4557.3	3153.6	543.7	515.4	609.0	775.4	992.3	1234.4	1635.5	1537.4	1485.4
82.5°	2134.6	1439.4	392.2	395.1	453.1	566.0	784.3	1436.4	1412.6	1166.1	1151.2
85°	825.9	497.6	237.7	268.9	304.5	383.2	601.6	1417.1	1097.7	987.8	915.0
87.5°	212.4	96.6	104.0	109.9	135.2	202.0	328.3	742.7	577.8	506.5	497.6
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)