

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: P579441

Luminaire Tested: **CTN-CA10-630-730-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579441
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-730-U-T5N-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 74699 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B5 - U2 - G5

Input Watts (W): 631.4
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

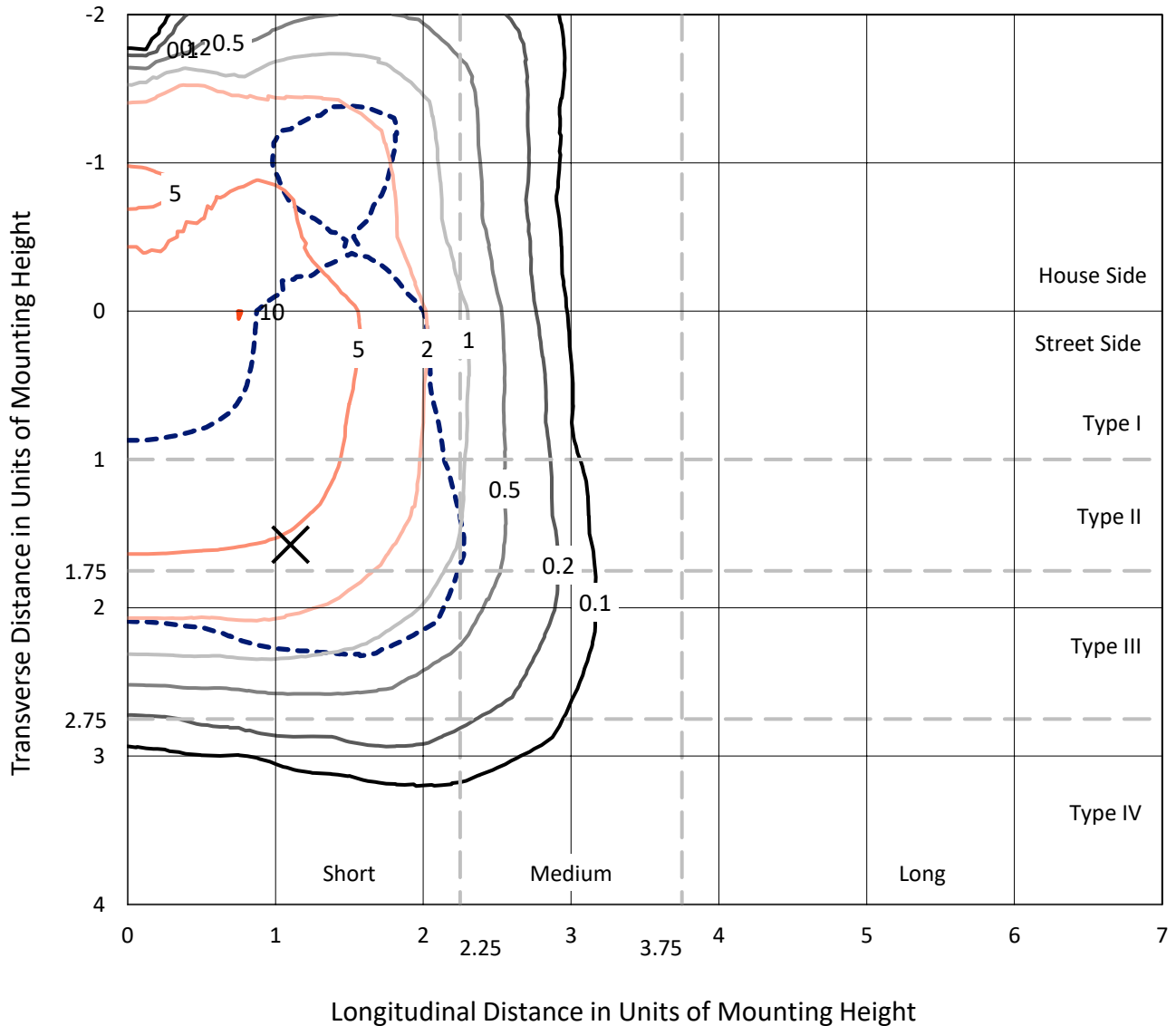




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Iso-Footcandle Lines of Horizontal Illumination

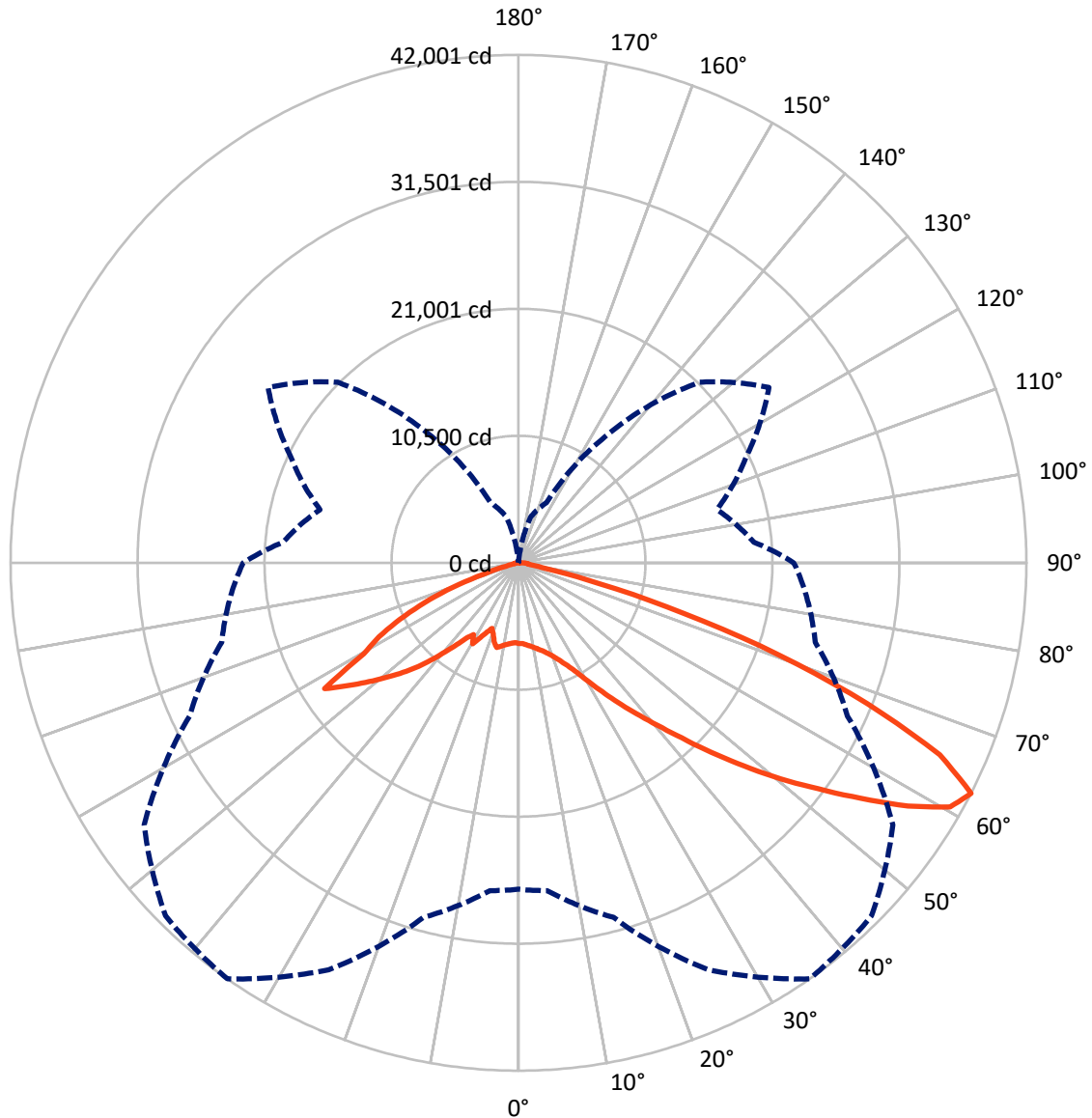
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10 fc
 Type III - Short - N/A

REPORT NUMBER: P579441
CATALOG NUMBER: CTN-CA10-630-730-U-T5N-HSS-HM-EX90

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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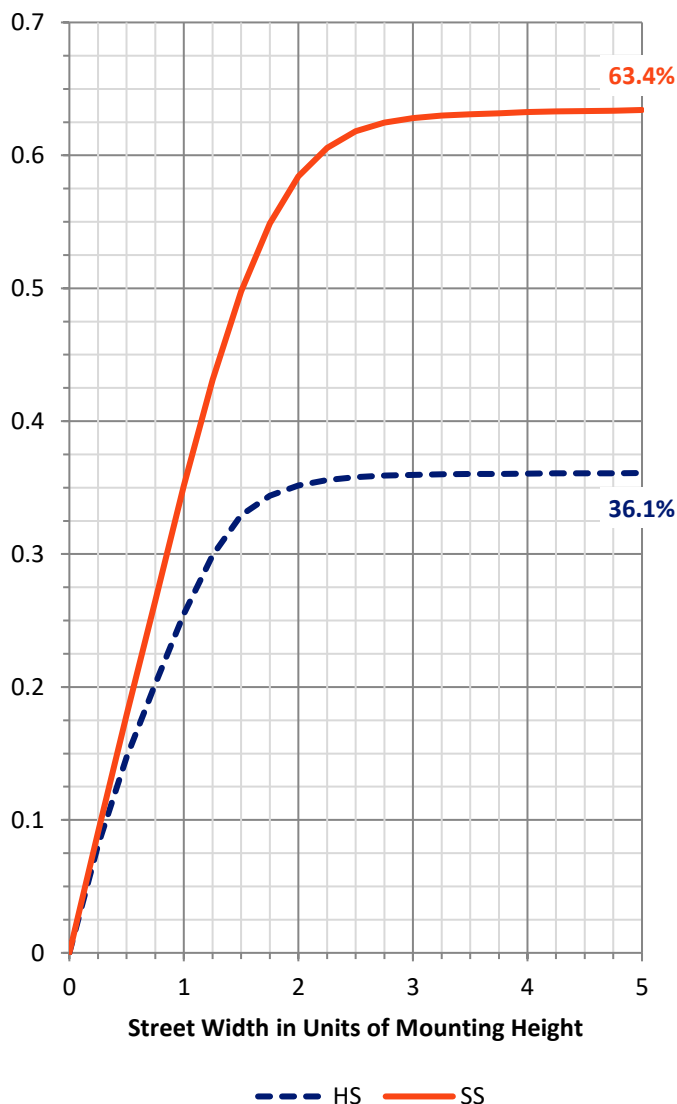
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	27113.9	0.1	27114.0
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	47549.6	35.4	47585.0
	% Fixture	63.7	0.0	63.7
Total	Lumens	74663.5	35.4	74699.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	657.1	0.9
10°-20°	2123.7	2.8
20°-30°	4085.8	5.5
30°-40°	8150.7	10.9
40°-50°	14882.7	19.9
50°-60°	22239.9	29.8
60°-70°	18634.9	24.9
70°-80°	3487.3	4.7
80°-90°	401.4	0.5
90°-100°	31.9	0.0
100°-110°	3.4	0.0
110°-120°	0.1	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°	74663.5	100.0
0°-180°	74699.0	100.0

Coefficient of Utilization

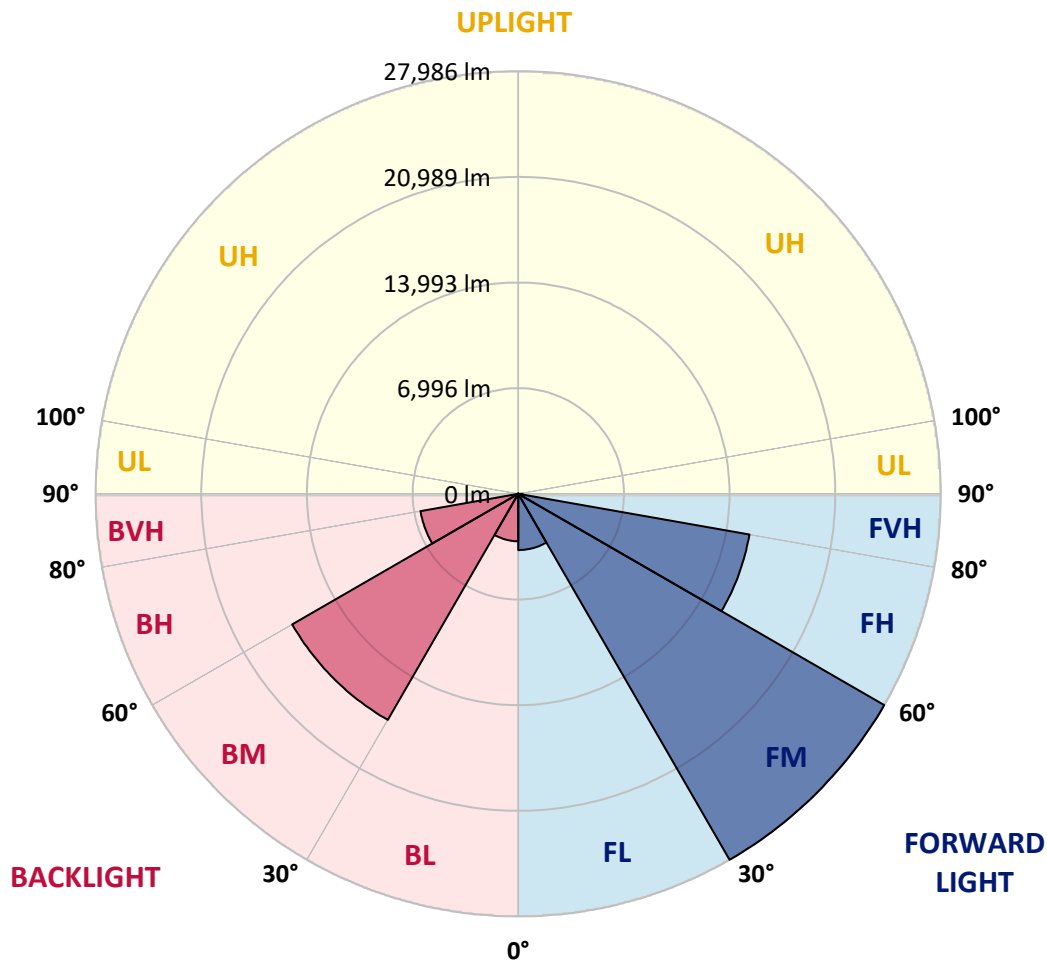


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 CATALOG NUMBER: CTN-CA10-630-730-U-T5N-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3724.6	5.0			
FM	(30°-60°)	27985.7	37.5			
FH	(60°-80°)	15547.0	20.8			G5
FVH	(80°-90°)	292.3	0.4			G3/500
BL	(0°-30°)	3142.0	4.2	B4/5000		
BM	(30°-60°)	17287.6	23.1	B5		
BH	(60°-80°)	6575.3	8.8	B5		G5
BVH	(80°-90°)	109.1	0.1			G2/225
UL	(90°-100°)	31.9	0.0		U2/50	
UH	(100°-180°)	3.5	0.0		U1/10	

BUG Rating: B5-U2-G5
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8
2.5°	6826.6	6770.6	6779.0	6818.2	6695.0	6745.4	6692.2	6742.6	6725.8	6748.2	6765.0
5°	6924.6	6854.6	6860.2	6905.0	6809.8	6851.8	6798.6	6832.2	6804.2	6835.0	6837.8
7.5°	7059.0	7000.2	6991.8	7036.6	6955.4	6991.8	6938.6	6955.4	6927.4	6963.8	6952.6
10°	7238.2	7185.0	7171.0	7201.8	7137.4	7157.0	7101.0	7123.4	7081.4	7123.4	7103.8
12.5°	7437.0	7367.0	7369.8	7403.4	7339.0	7353.0	7308.2	7333.4	7283.0	7327.8	7313.8
15°	7672.2	7571.4	7591.0	7627.4	7565.8	7607.8	7554.6	7591.0	7543.4	7591.0	7574.2
17.5°	7977.4	7862.6	7876.6	7935.4	7885.0	7952.2	7890.6	7935.4	7913.0	7943.8	7938.2
20°	8363.9	8288.3	8274.3	8347.1	8274.3	8358.3	8324.7	8403.1	8408.7	8439.5	8453.5
22.5°	8879.1	8828.7	8795.1	8845.5	8781.1	8839.9	8887.5	9021.9	9072.3	9153.5	9159.1
25°	9565.1	9562.3	9486.7	9489.5	9408.3	9486.7	9621.1	9831.1	9965.5	10069.1	10029.9
27.5°	10491.9	10508.7	10393.9	10349.1	10253.9	10371.5	10648.7	10909.1	11152.7	11298.3	11298.3
30°	11701.6	11718.4	11550.4	11460.8	11374.0	11578.4	11908.8	12247.6	12594.8	12804.8	12757.2
32.5°	13303.2	13250.0	13009.2	12846.8	12698.4	12933.6	13314.4	13698.0	14171.2	14473.6	14437.2
35°	15246.5	15053.3	14812.5	14510.0	14190.8	14375.6	14734.1	15215.7	15873.7	16327.3	16212.5
37.5°	17503.3	17312.9	16901.3	16380.5	15823.3	15845.7	16128.5	16962.9	17786.1	18155.8	18077.4
40°	19847.0	19698.6	19320.6	18651.4	17643.3	17410.9	17875.8	18881.0	19667.8	20132.6	20001.0
42.5°	22235.5	22084.3	21798.7	21126.7	19791.0	19231.0	19715.4	20810.2	21650.3	22106.7	21955.5
45°	24618.4	24444.8	24217.9	23624.3	22350.3	21529.9	21801.5	22806.7	23573.9	24091.9	23781.1
47.5°	26712.8	26598.0	26444.0	26203.2	25088.8	24181.5	24161.9	24825.6	25354.8	25696.4	25315.6
50°	28535.7	28454.5	28541.3	28490.9	28084.9	27258.8	26752.0	26707.2	26878.0	27127.2	26584.0
52.5°	30170.9	30028.1	30350.1	30750.5	31050.2	30882.2	29241.3	28320.1	28132.5	28216.5	27600.5
55°	31509.4	31442.2	31982.6	32987.8	34373.9	34743.5	31797.8	29888.1	29196.5	29151.7	28451.7
57.5°	32327.0	32422.2	33503.0	35418.3	37960.8	38078.4	34936.7	31565.4	30232.5	29750.9	28944.5
60°	31025.0	31391.8	33237.0	37187.9	41004.5	41077.3	37241.2	31873.4	28938.9	27860.9	26861.2
62.5°	26998.4	27216.8	30355.7	37129.1	42001.3	41290.1	37790.0	30014.1	25408.0	23688.7	22764.7
65°	19018.2	19427.0	22789.9	33405.0	38274.4	38364.0	34667.9	25951.2	20289.4	18388.2	17791.7
67.5°	11486.0	11878.0	15459.3	24114.3	31114.6	32119.8	28919.3	19648.2	14549.2	12146.8	11544.8
70°	3729.7	4155.3	7045.0	14213.2	22887.9	25298.8	21762.3	12788.0	7619.0	5337.0	4690.1
72.5°	1416.8	1545.6	2293.3	6207.8	14255.2	16890.1	13460.0	6415.0	2360.5	1405.6	1234.8
75°	921.2	940.8	1072.4	2175.7	6874.2	9299.1	6487.8	1878.9	946.4	840.0	778.4
77.5°	792.4	806.4	862.4	1083.6	2189.7	3556.1	1862.1	960.4	789.6	700.0	658.0
80°	747.6	753.2	789.6	918.4	1024.8	1187.2	896.0	803.6	688.8	658.0	627.2
82.5°	708.4	728.0	747.6	834.4	831.6	854.0	719.6	630.0	585.2	616.0	604.8
85°	660.8	672.0	686.0	744.8	677.6	574.0	554.4	434.0	422.8	450.8	422.8
87.5°	464.8	492.8	476.0	501.2	470.4	366.8	310.8	246.4	196.0	162.4	156.8
90°	190.4	193.2	182.0	168.0	148.4	123.2	98.0	61.6	28.0	14.0	5.6
92.5°	148.4	148.4	142.8	128.8	112.0	92.4	70.0	39.2	19.6	8.4	2.8
95°	92.4	95.2	89.6	81.2	70.0	56.0	42.0	22.4	14.0	5.6	2.8
97.5°	58.8	58.8	53.2	47.6	39.2	28.0	19.6	16.8	11.2	5.6	0.0
100°	33.6	33.6	30.8	25.2	19.6	14.0	14.0	11.2	8.4	2.8	0.0
102.5°	19.6	19.6	14.0	11.2	8.4	8.4	8.4	8.4	5.6	2.8	0.0
105°	8.4	8.4	5.6	5.6	2.8	2.8	5.6	5.6	5.6	2.8	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.8	5.6	5.6	2.8	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	5.6	2.8	2.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P579441

CATALOG NUMBER: CTN-CA10-630-730-U-T5N-HSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8	6683.8
2.5°	6753.8	6703.4	6711.8	6664.2	6655.8	6608.2	6703.4	6714.6	6686.6	6711.8
5°	6832.2	6770.6	6790.2	6737.0	6728.6	6664.2	6748.2	6742.6	6720.2	6745.4
7.5°	6949.8	6885.4	6896.6	6837.8	6826.6	6756.6	6835.0	6809.8	6787.4	6818.2
10°	7115.0	7042.2	7047.8	6972.2	6980.6	6888.2	6983.4	6938.6	6910.6	6952.6
12.5°	7313.8	7232.6	7235.4	7157.0	7154.2	7064.6	7148.6	7123.4	7081.4	7145.8
15°	7571.4	7479.0	7470.6	7367.0	7339.0	7238.2	7316.6	7269.0	7241.0	7333.4
17.5°	7932.6	7829.0	7798.2	7672.2	7148.6	6846.2	7266.2	7409.0	7235.4	7207.4
20°	8414.3	8327.5	8257.5	8067.0	7187.8	6244.2	5547.0	5552.6	6286.2	6625.0
22.5°	9066.7	8963.1	8831.5	8559.9	6594.2	5849.4	5852.2	5843.8	5015.0	4664.9
25°	9959.9	9833.9	9565.1	8030.6	7000.2	6311.4	6294.6	5474.2	5017.8	5043.0
27.5°	11166.7	10909.1	9335.5	8699.9	7722.6	6910.6	6507.4	5510.6	5566.6	5605.8
30°	12701.2	11665.2	10088.7	9710.7	8590.7	7705.8	6017.4	6154.6	6266.6	6291.8
32.5°	14274.8	11698.8	11292.7	10892.3	9660.3	7011.4	6781.8	7042.2	7159.8	7173.8
35°	14260.8	13132.4	12608.8	12158.0	10651.5	7501.4	7647.0	8047.4	8347.1	8333.1
37.5°	15092.5	14714.5	14090.0	13518.8	9587.5	8450.7	8711.1	9164.7	9528.7	9517.5
40°	16831.3	16394.5	15733.7	14535.2	10615.1	9537.1	9901.1	10388.3	10645.9	10659.9
42.5°	18475.0	18113.8	17438.9	13580.4	11900.4	10844.7	11175.1	11502.8	11662.4	11712.8
45°	20110.2	19852.6	17606.9	15008.5	13454.4	12160.8	12379.2	12440.8	12608.8	12589.2
47.5°	21437.5	21151.9	16929.3	16800.5	15338.9	13409.6	13392.8	13311.6	13373.2	13387.2
50°	22649.9	19208.6	18290.2	18718.6	17315.7	14683.7	14364.4	14199.2	14115.2	14078.8
52.5°	23607.5	19214.2	19561.4	20701.0	19547.4	16066.9	15380.9	14916.1	13059.6	14512.8
55°	24422.4	20006.6	20765.4	22820.7	21471.1	17514.5	16299.3	15470.5	8716.7	6989.0
57.5°	24890.0	20608.6	21958.3	24806.0	23151.1	19124.6	15005.7	12975.6	4928.2	4922.6
60°	23083.9	19527.8	21924.7	25847.6	22666.7	14834.9	6109.8	5113.0	932.4	957.6
62.5°	19541.8	16988.1	20793.4	25276.4	21109.9	13051.2	5479.8	3936.9	30.8	25.2
65°	15140.1	13552.4	17508.9	22232.7	19205.8	10889.5	4085.3	2836.5	8.4	0.0
67.5°	9903.9	9551.1	12919.6	18435.8	15663.7	8436.7	2741.3	1358.0	5.6	0.0
70°	4222.5	4891.8	8184.7	13367.6	11990.0	5804.6	1321.6	490.0	2.8	0.0
72.5°	1181.6	1565.2	3642.9	7831.8	7540.6	3052.1	515.2	207.2	2.8	0.0
75°	700.0	602.0	1044.4	3124.9	3670.9	1072.4	238.0	159.6	2.8	0.0
77.5°	582.4	470.4	599.2	798.0	1111.6	386.4	201.6	142.8	0.0	0.0
80°	546.0	417.2	518.0	557.2	548.8	322.0	198.8	142.8	0.0	0.0
82.5°	518.0	364.0	428.4	428.4	459.2	296.8	187.6	140.0	0.0	0.0
85°	389.2	254.8	285.6	369.6	330.4	210.0	137.2	112.0	0.0	0.0
87.5°	148.4	92.4	112.0	117.6	95.2	47.6	11.2	11.2	0.0	0.0
90°	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P579441
 CATALOG NUMBER: CTN-CA10-630-730-U-T5N-HSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)