

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: P522235

Luminaire Tested: **CTN-CA8-480-722-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522235
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-722-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38307 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G5

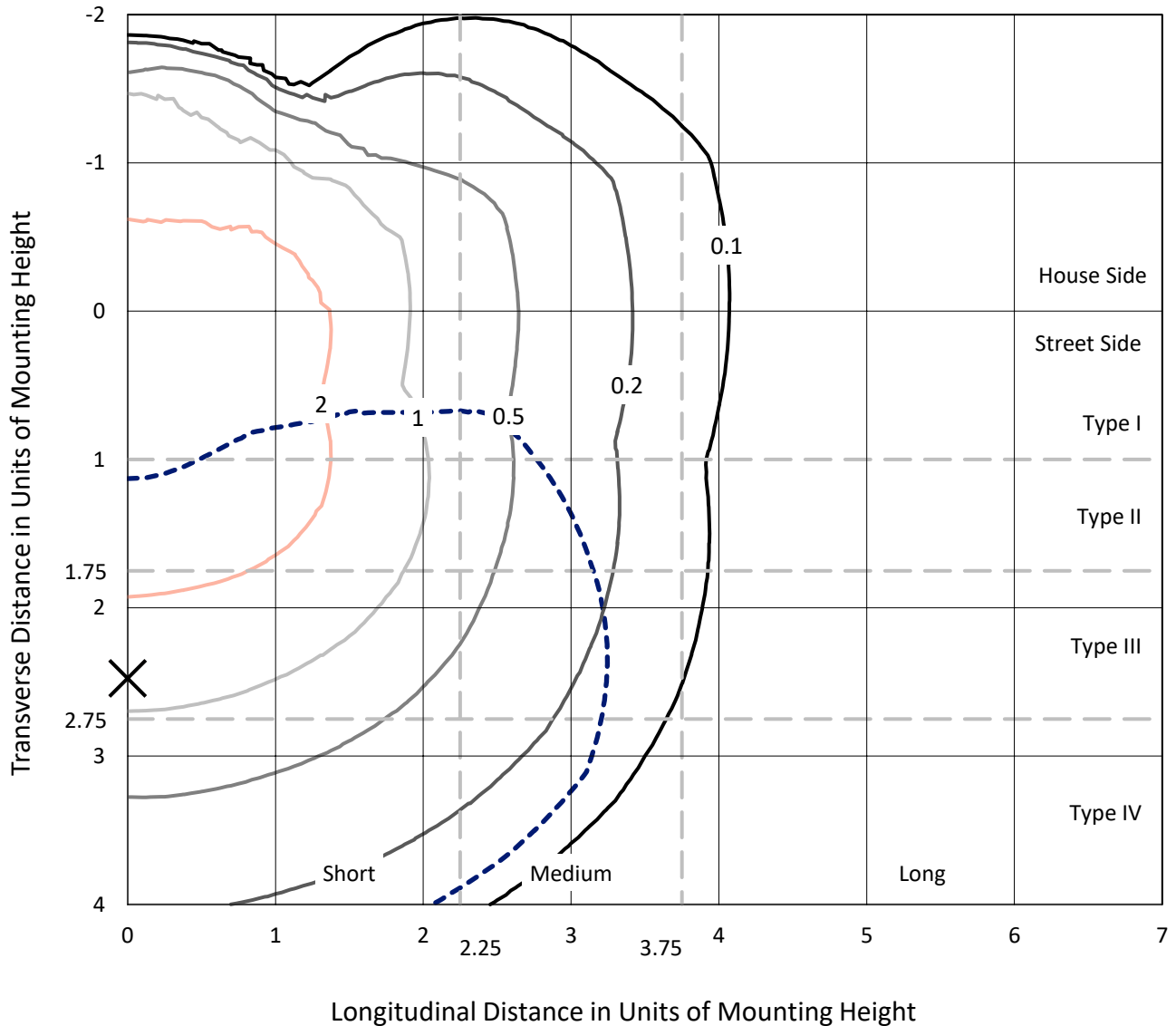
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P522235
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Iso-Footcandle Lines of Horizontal Illumination

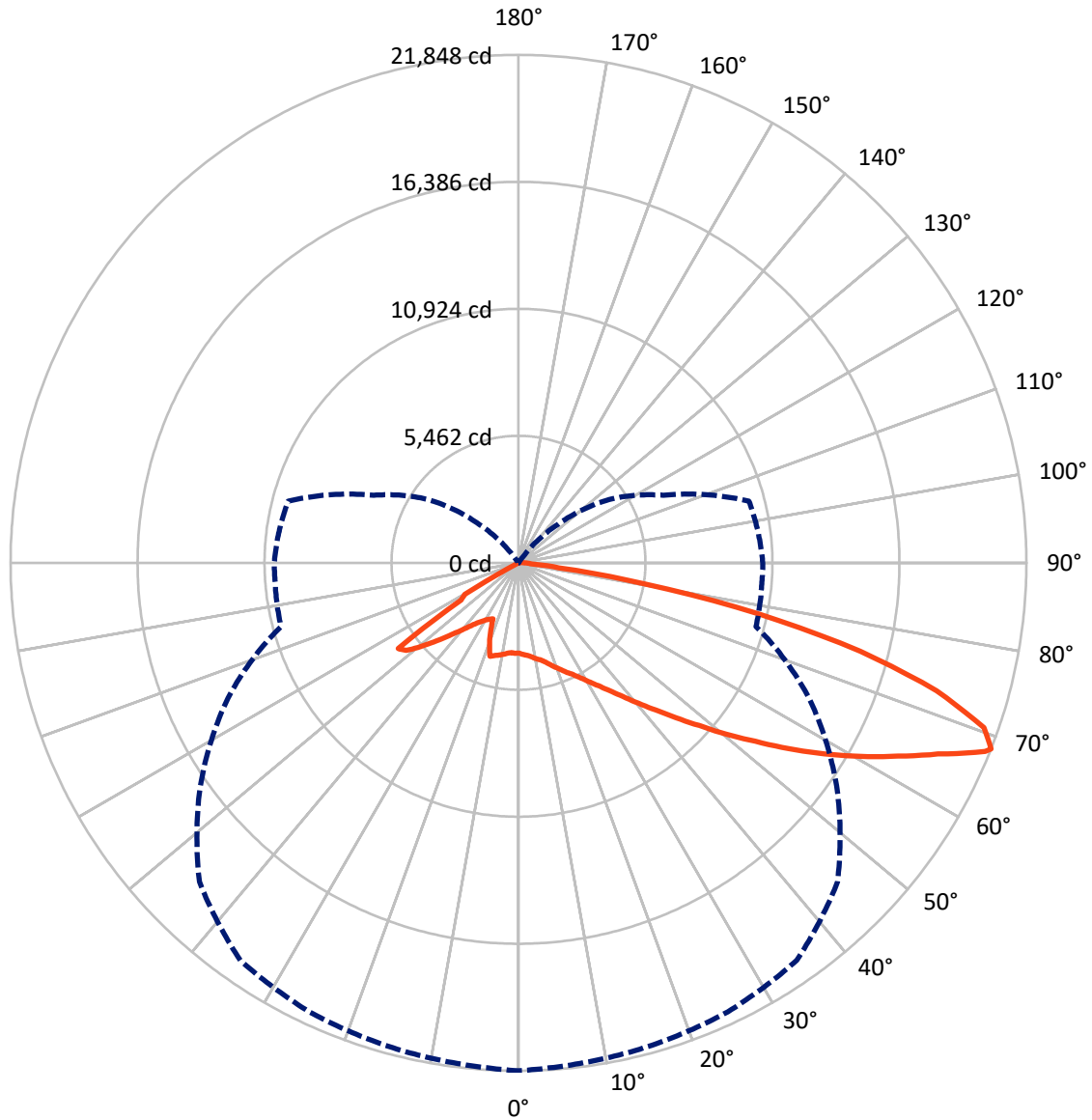
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - N/A

REPORT NUMBER: P522235
CATALOG NUMBER: CTN-CA8-480-722-U-T5R-HSS-HM-EX180

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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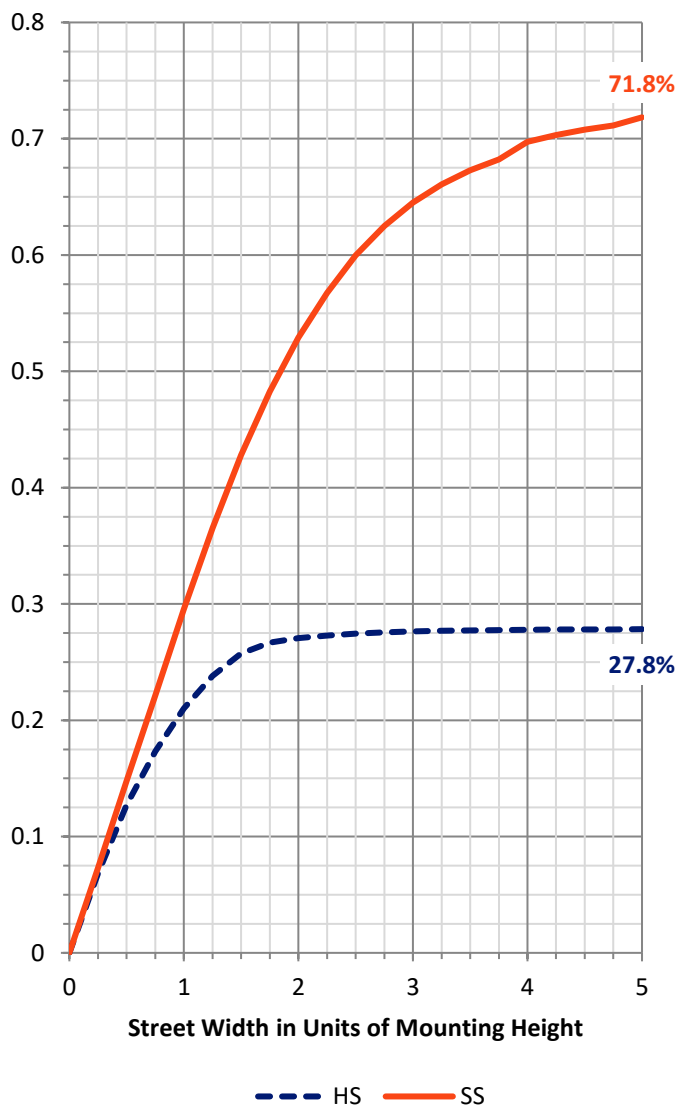
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10699.2	0.2	10699.4
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	27585.6	21.9	27607.6
	% Fixture	72.0	0.1	72.1
Total	Lumens	38284.8	22.2	38307.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	376.7	1.0
10°-20°	1193.5	3.1
20°-30°	2020.7	5.3
30°-40°	3201.2	8.4
40°-50°	5233.7	13.7
50°-60°	8016.8	20.9
60°-70°	9857.2	25.7
70°-80°	7616.6	19.9
80°-90°	768.5	2.0
90°-100°	21.8	0.1
100°-110°	0.4	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°	38284.8	99.9
0°-180°	38307.0	100.0

Coefficient of Utilization

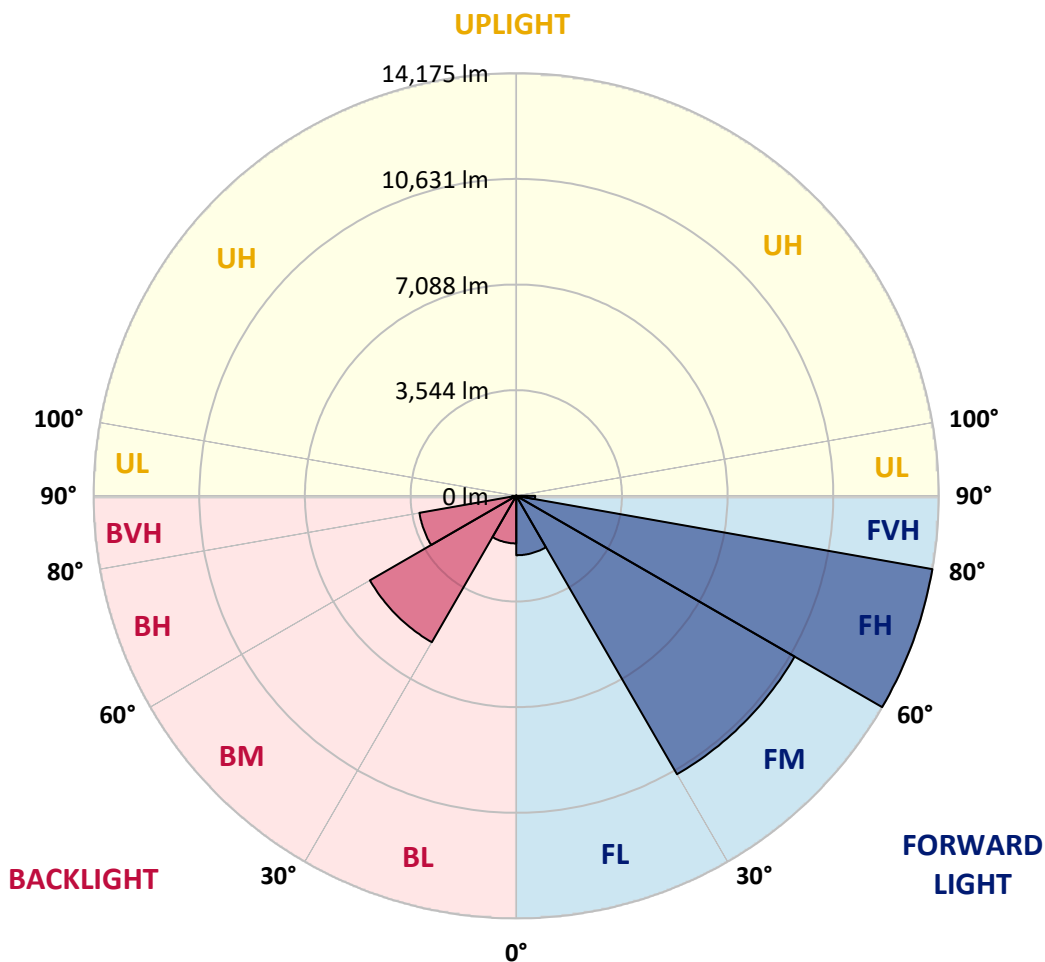


REPORT NUMBER: P522235
 CATALOG NUMBER: CTN-CA8-480-722-U-T5R-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1993.9	5.2			
FM (30°-60°)	10782.8	28.1			
FH (60°-80°)	14175.2	37.0			G5
FVH (80°-90°)	633.8	1.7			G4/750
BL (0°-30°)	1597.0	4.2	B3/2500		
BM (30°-60°)	5668.9	14.8	B4/8500		
BH (60°-80°)	3298.6	8.6	B4/5000		G4/5000
BVH (80°-90°)	134.7	0.4			G2/225
UL (90°-100°)	21.8	0.1		U2/50	
UH (100°-180°)	0.4	0.0		U1/10	

BUG Rating: B4-U2-G5
 Type IV Short





REPORT NUMBER: P522235

CATALOG NUMBER: CTN-CA8-480-722-U-T5R-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9
2.5°	3951.0	3943.7	3936.3	3952.9	3888.3	3916.0	3893.8	3914.1	3899.4	3916.0	3910.4
5°	4002.7	3995.3	3973.2	3991.6	3949.2	3960.3	3932.6	3940.0	3890.1	3919.7	3917.8
7.5°	4087.6	4067.3	4052.5	4052.5	4015.6	4013.8	3969.5	3971.3	3932.6	3928.9	3936.3
10°	4202.0	4187.2	4146.6	4150.3	4098.7	4091.3	4035.9	4034.1	4002.7	3984.3	4000.9
12.5°	4286.9	4301.7	4264.8	4264.8	4213.1	4176.2	4137.4	4111.6	4087.6	4059.9	4047.0
15°	4441.9	4456.7	4406.9	4405.0	4384.7	4340.4	4298.0	4242.6	4200.2	4187.2	4166.9
17.5°	4643.1	4633.8	4591.4	4593.2	4596.9	4525.0	4482.5	4410.5	4349.6	4305.4	4294.3
20°	4847.9	4847.9	4801.8	4816.5	4798.1	4731.6	4704.0	4604.3	4519.4	4471.4	4432.7
22.5°	5076.7	5067.5	5036.1	5067.5	5030.6	4964.2	4918.0	4818.4	4709.5	4438.2	4327.5
25°	5294.5	5289.0	5301.9	5311.1	5265.0	5181.9	5150.6	5045.4	4742.7	4386.6	4163.3
27.5°	5569.5	5551.0	5580.5	5599.0	5552.9	5480.9	5414.4	5296.3	4656.0	4375.5	4351.5
30°	5921.9	5881.3	5923.8	5933.0	5885.0	5840.7	5741.1	5150.6	4685.5	4604.3	4596.9
32.5°	6298.4	6250.4	6305.8	6313.2	6250.4	6213.5	5962.5	5074.9	4975.2	4881.1	4890.3
35°	6745.0	6745.0	6772.7	6776.4	6730.2	6667.5	5711.6	5444.0	5355.4	5268.7	5266.8
37.5°	7289.4	7272.8	7346.6	7390.9	7341.1	7162.1	6077.0	5951.5	5814.9	5704.2	5475.3
40°	7946.4	7975.9	7996.2	8040.5	7992.5	7590.2	6610.3	6468.2	6361.1	5990.2	5412.6
42.5°	8655.0	8662.4	8706.7	8762.0	8762.0	8337.6	7234.0	7112.2	6973.8	5857.3	5597.1
45°	9502.0	9485.4	9570.3	9658.9	9634.9	9195.7	7959.3	7868.8	7221.1	6243.0	6244.9
47.5°	10463.5	10443.2	10565.0	10681.3	10561.3	10147.9	8756.5	8686.4	6970.1	6896.3	6881.6
50°	11574.4	11524.6	11664.9	11819.9	11722.1	11210.9	9725.3	8378.2	7669.5	7610.5	7601.3
52.5°	12761.0	12722.3	12807.2	13071.1	12941.9	12323.7	10642.5	8643.9	8479.7	8413.2	8396.6
55°	14100.8	14025.2	14207.8	14409.0	14259.5	13554.6	11546.8	9526.0	9356.3	9241.8	9075.8
57.5°	15508.9	15400.0	15494.1	15746.9	15603.0	14815.0	12713.1	10434.0	10232.8	8468.6	7795.0
60°	16911.4	16861.6	16898.5	17121.8	16944.6	16040.3	13805.5	11343.8	8660.5	8376.3	8409.6
62.5°	18321.3	18212.4	18245.6	18474.4	18247.5	17206.6	14840.8	12170.5	9114.5	9014.9	9049.9
65°	19832.7	19703.5	19733.0	19799.5	19519.0	18253.0	15756.2	12951.1	9797.3	9692.1	9730.9
67.5°	21654.1	21536.0	21375.4	21178.0	20790.4	19363.9	16665.9	13772.3	10565.0	10505.9	10518.9
68°	21847.9	21733.5	21539.7	21305.3	20869.8	19410.1	16704.7	13796.3	10576.1	10502.3	10505.9
70°	21244.4	21312.7	21093.1	20700.0	20336.5	18734.7	16071.7	13264.8	10105.5	9996.6	9968.9
72.5°	18814.0	18963.5	18660.8	18594.4	18147.8	16689.9	14063.9	11509.9	8789.7	8824.8	8725.1
75°	15189.6	15409.2	15042.0	15062.3	14807.6	13921.8	11786.7	9583.2	7217.4	7378.0	7407.5
77.5°	10563.2	10878.7	10718.2	10878.7	10753.2	10434.0	9121.9	7379.8	5506.7	5691.3	5763.2
80°	5508.6	5883.2	6095.4	6161.8	6202.4	6189.5	5554.7	4429.0	3183.3	3251.6	3247.9
82.5°	1742.1	1651.6	1705.2	1690.4	1644.3	1662.7	1498.5	1171.8	812.0	895.0	856.3
85°	525.9	529.6	514.9	511.2	472.4	415.2	339.6	195.6	96.0	112.6	105.2
87.5°	387.5	391.2	361.7	343.2	321.1	278.7	215.9	121.8	46.1	44.3	35.1
90°	214.1	206.7	191.9	177.2	167.9	143.9	108.9	46.1	16.6	12.9	11.1
92.5°	116.3	110.7	103.3	97.8	84.9	68.3	44.3	14.8	7.4	1.8	0.0
95°	53.5	49.8	48.0	42.4	36.9	25.8	14.8	9.2	5.5	1.8	0.0
97.5°	24.0	22.1	20.3	16.6	12.9	7.4	7.4	5.5	3.7	1.8	0.0
100°	5.5	5.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7	1.8	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0



REPORT NUMBER: P522235
 CATALOG NUMBER: CTN-CA8-480-722-U-T5R-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9	3880.9
2.5°	3904.9	3893.8	3888.3	3853.2	3864.3	3832.9	3893.8	3879.1	3869.8	3895.7
5°	3908.6	3869.8	3893.8	3873.5	3880.9	3836.6	3884.6	3864.3	3862.5	3873.5
7.5°	3917.8	3892.0	3916.0	3875.4	3893.8	3875.4	3910.4	3890.1	3906.7	3917.8
10°	3967.6	3952.9	3941.8	3932.6	3945.5	3908.6	3952.9	3954.7	3960.3	3993.5
12.5°	4037.8	4023.0	4004.6	3980.6	3993.5	3978.7	4011.9	4021.2	4041.5	4058.1
15°	4135.6	4107.9	4100.5	4078.4	4091.3	4083.9	4091.3	4085.7	4124.5	4119.0
17.5°	4270.3	4238.9	4133.7	4026.7	3958.4	3978.7	4063.6	4174.3	4202.0	4205.7
20°	4320.1	4098.7	4087.6	3965.8	3910.4	3906.7	3731.4	3469.4	3548.7	3735.1
22.5°	4261.1	3958.4	3927.0	3903.1	3666.8	3279.3	3242.4	3203.6	3194.4	3222.1
25°	4128.2	4093.1	4065.4	3751.7	3379.0	3380.8	3327.3	3072.6	2675.9	2642.6
27.5°	4331.2	4283.2	4015.6	3532.1	3524.7	3521.1	3441.7	2788.4	2703.5	2723.8
30°	4561.9	4482.5	3783.1	3720.4	3718.5	3685.3	3085.5	2812.4	2812.4	2816.1
32.5°	4827.6	4334.9	3916.0	3945.5	3943.7	3786.8	2980.3	2961.9	2954.5	2973.0
35°	5030.6	4216.8	4202.0	4255.5	4218.6	3212.9	3166.7	3150.1	3142.7	3133.5
37.5°	4967.9	4556.3	4556.3	4589.5	4292.4	3421.4	3399.3	3399.3	3384.5	3377.1
40°	5063.8	4978.9	4936.5	4949.4	3118.8	3674.2	3690.8	3687.1	3685.3	3698.2
42.5°	5569.5	5493.8	5455.0	4997.4	3491.5	3652.1	4058.1	4056.2	4061.8	4056.2
45°	6213.5	6143.4	6041.9	4676.3	3964.0	3201.8	4473.3	4493.6	4495.4	4493.6
47.5°	6888.9	6844.6	5805.7	5176.4	4477.0	3436.2	4275.8	4993.7	4984.5	4995.5
50°	7603.1	7403.8	5776.1	5768.8	5023.2	3823.7	3825.5	5431.1	5525.2	5554.7
52.5°	8398.5	6711.8	6401.7	5840.7	5576.8	4222.3	4181.7	4812.8	6097.3	6126.8
55°	7800.6	7090.1	7084.5	5198.5	5802.0	4606.2	4611.7	4567.4	5591.6	6355.6
57.5°	7761.8	7778.4	7765.5	5800.1	4233.4	4318.3	5025.1	4986.3	3620.7	2934.2
60°	8431.7	8455.7	7544.1	6263.3	4576.6	2655.6	3094.8	2629.7	2664.8	2692.5
62.5°	9072.1	9079.4	6136.0	4106.0	2268.0	107.0	51.7	42.4	40.6	40.6
65°	9780.7	9780.7	6577.1	4478.8	2190.5	40.6	7.4	5.5	20.3	20.3
67.5°	10465.3	10314.0	6900.0	4755.6	2229.3	5.5	0.0	0.0	0.0	0.0
68°	10426.6	10260.5	6870.5	4748.3	2223.7	3.7	0.0	0.0	0.0	0.0
70°	9847.1	9686.6	6518.0	4532.3	2140.7	3.7	0.0	0.0	0.0	0.0
72.5°	8691.9	8544.3	5772.5	3995.3	1930.3	1.8	0.0	0.0	0.0	0.0
75°	7357.7	7337.4	4986.3	3371.6	1655.3	1.8	0.0	0.0	0.0	0.0
77.5°	5920.1	5827.8	3897.5	2642.6	1334.2	0.0	0.0	0.0	0.0	0.0
80°	3297.8	3434.3	2280.9	1553.8	839.7	0.0	0.0	0.0	0.0	0.0
82.5°	891.3	834.1	498.3	337.7	160.6	0.0	0.0	0.0	0.0	0.0
85°	114.4	125.5	57.2	46.1	11.1	0.0	0.0	0.0	0.0	0.0
87.5°	59.1	70.1	18.5	14.8	3.7	0.0	0.0	0.0	0.0	0.0
90°	11.1	12.9	5.5	1.8	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



REPORT NUMBER: P522235
 CATALOG NUMBER: CTN-CA8-480-722-U-T5R-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)