

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: P237510

Luminaire Tested: **CTN-6-3-D-E1-T4-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237510  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-27)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: CTN-6-3-D-E1-T4-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(6) 70 CRI, 4000K LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27357 lumens  
Efficiency: N/A  
Efficacy: 116.9 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

Input Watts (W): 234  
Input Voltage (V): NR  
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: 25 FT

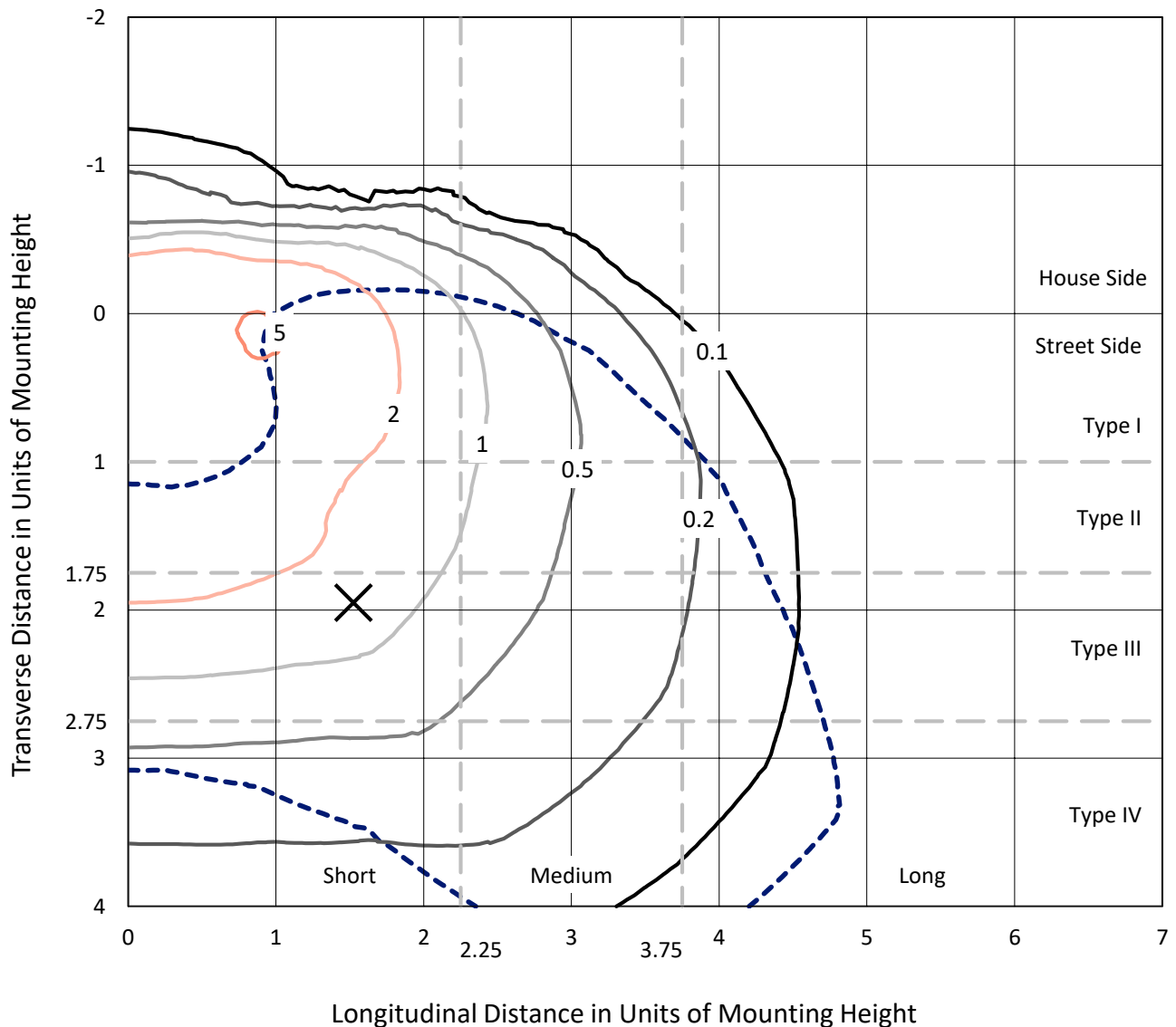


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### Iso-Footcandle Lines of Horizontal Illumination

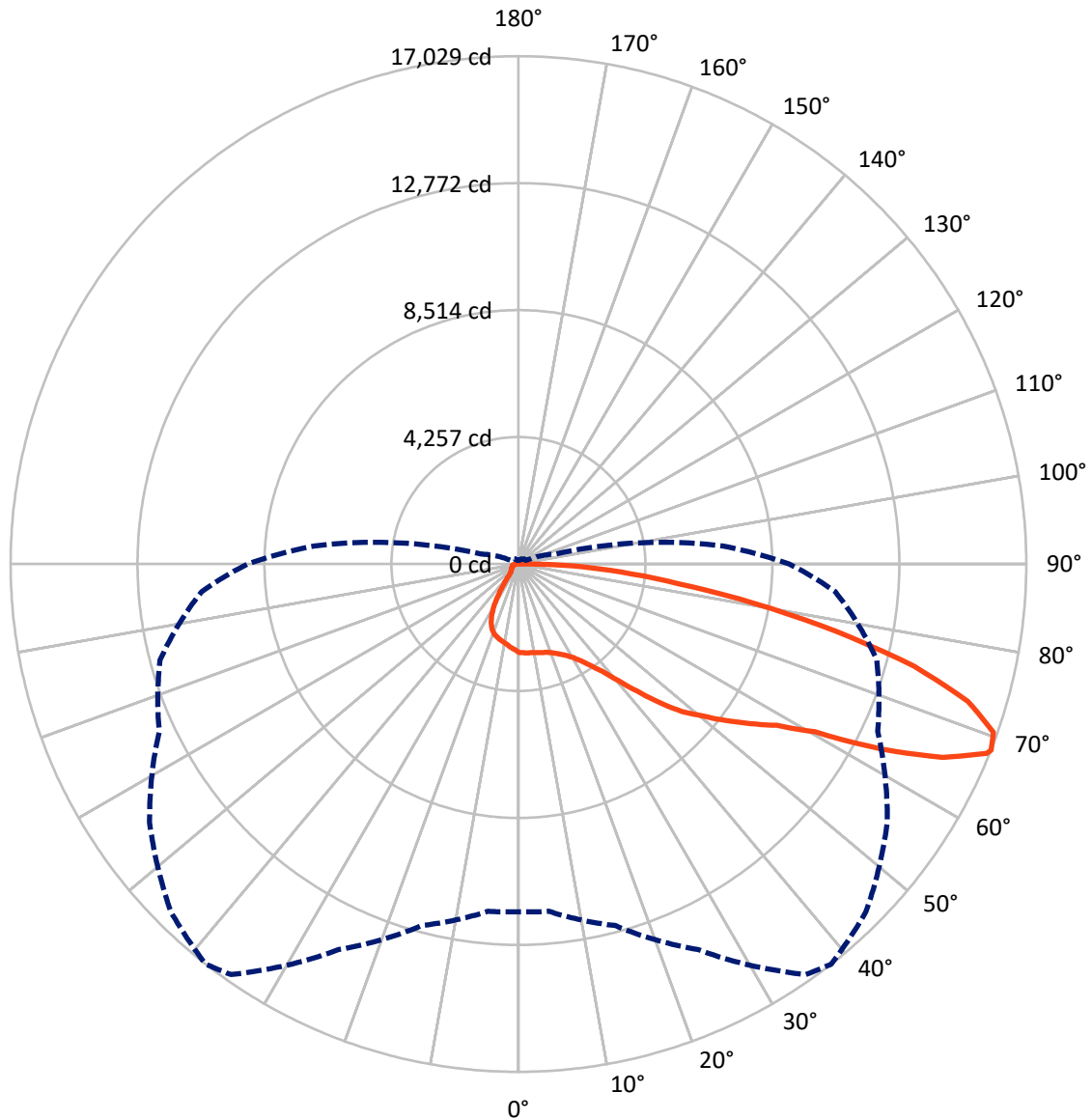
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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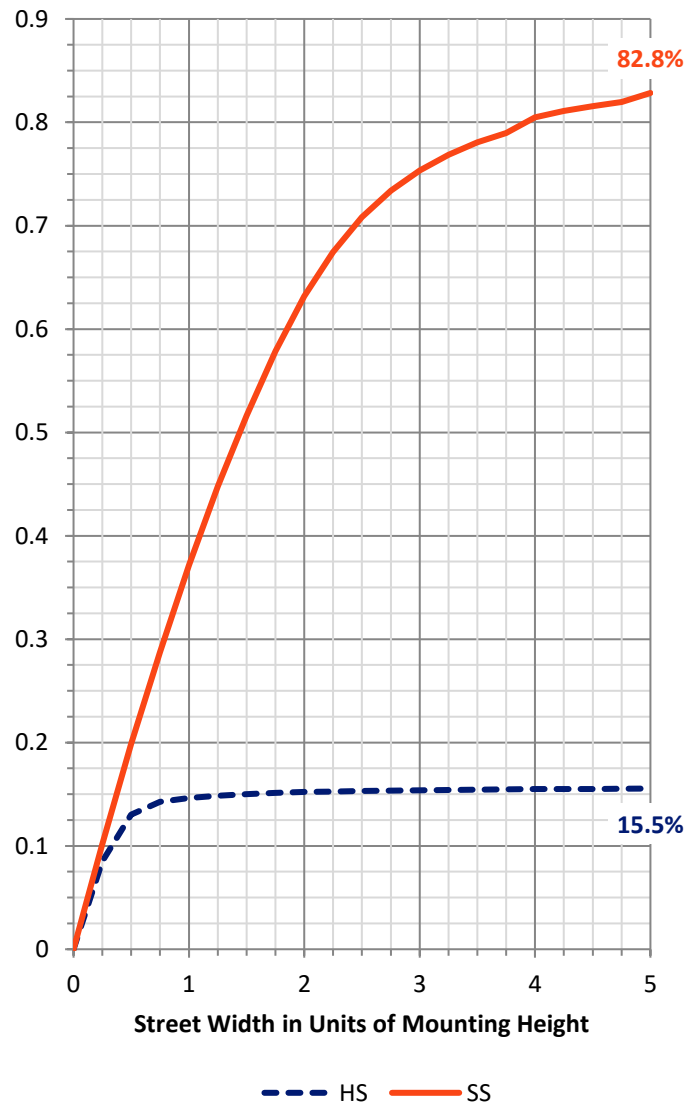
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4315.0	0.0	4315.0
	% Fixture	15.8	0.0	15.8
<b>Street Side</b>	Lumens	23042.0	0.0	23042.0
	% Fixture	84.2	0.0	84.2
<b>Total</b>	Lumens	27357.0	0.0	27357.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	280.1	1.0
10°-20°	831.9	3.0
20°-30°	1388.3	5.1
30°-40°	2129.5	7.8
40°-50°	3666.2	13.4
50°-60°	5448.5	19.9
60°-70°	7207.8	26.3
70°-80°	5293.5	19.3
80°-90°	1111.2	4.1
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°	27357.0	100.0
0°-180°	27357.0	100.0



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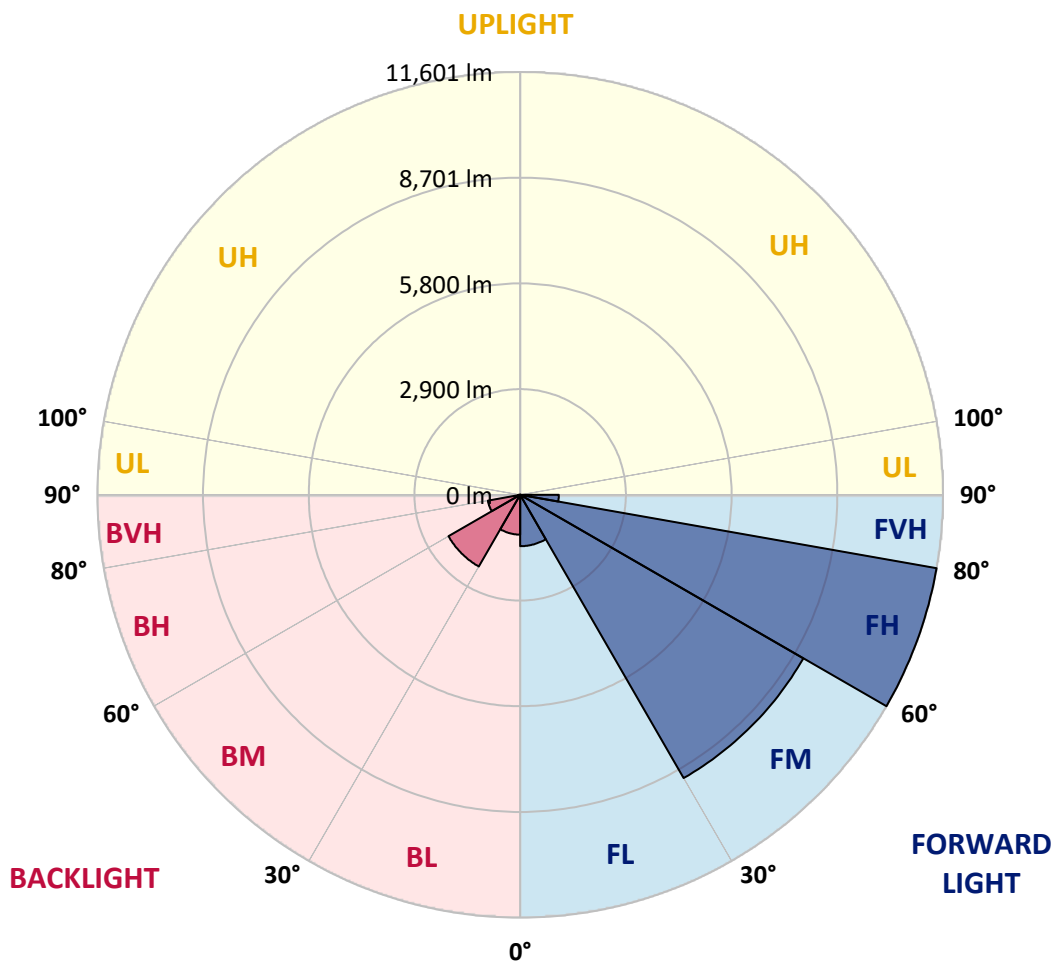
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1408.6	5.1			
FM	(30°-60°)	8972.7	32.8			
FH	(60°-80°)	11600.7	42.4			G4/12000
FVH	(80°-90°)	1060.1	3.9			G5
BL	(0°-30°)	1091.8	4.0	B3/2500		
BM	(30°-60°)	2271.5	8.3	B2/2500		
BH	(60°-80°)	900.6	3.3	B2/1000		G2/1000
BVH	(80°-90°)	51.1	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0
2.5°	3034.0	3013.0	3017.0	3030.0	2977.0	2973.0	2990.0	2971.0	2996.0	2984.0	2985.0
5°	3042.0	3022.0	3030.0	3050.0	3000.0	2999.0	3018.0	2994.0	3013.0	2998.0	2994.0
7.5°	3035.0	3017.0	3023.0	3042.0	2999.0	3002.0	3027.0	3019.0	3047.0	3032.0	3021.0
10°	3032.0	3020.0	3021.0	3047.0	3013.0	3021.0	3053.0	3058.0	3103.0	3090.0	3085.0
12.5°	3005.0	2996.0	3005.0	3046.0	3035.0	3051.0	3094.0	3120.0	3173.0	3168.0	3178.0
15°	2989.0	2985.0	2992.0	3040.0	3053.0	3079.0	3136.0	3187.0	3251.0	3260.0	3283.0
17.5°	3008.0	3014.0	3027.0	3066.0	3084.0	3111.0	3175.0	3245.0	3336.0	3375.0	3402.0
20°	3088.0	3095.0	3107.0	3132.0	3152.0	3175.0	3232.0	3312.0	3433.0	3494.0	3537.0
22.5°	3204.0	3192.0	3209.0	3230.0	3236.0	3256.0	3314.0	3394.0	3531.0	3623.0	3683.0
25°	3294.0	3286.0	3303.0	3339.0	3338.0	3356.0	3413.0	3495.0	3643.0	3775.0	3881.0
27.5°	3388.0	3383.0	3390.0	3438.0	3457.0	3479.0	3529.0	3621.0	3788.0	3954.0	4121.0
30°	3524.0	3535.0	3523.0	3578.0	3619.0	3644.0	3695.0	3808.0	3987.0	4214.0	4425.0
32.5°	3735.0	3740.0	3720.0	3781.0	3840.0	3878.0	3927.0	4075.0	4271.0	4548.0	4820.0
35°	4185.0	4186.0	4104.0	4095.0	4128.0	4183.0	4255.0	4475.0	4767.0	5194.0	5502.0
37.5°	4867.0	4834.0	4756.0	4604.0	4555.0	4565.0	4668.0	4974.0	5417.0	6205.0	6500.0
40°	5649.0	5611.0	5474.0	5273.0	5129.0	5120.0	5155.0	5522.0	6170.0	7341.9	7490.9
42.5°	6493.0	6467.0	6245.0	6037.0	5853.0	5824.0	5745.0	6113.0	7000.0	8356.9	8355.9
45°	7272.0	7267.0	6996.0	6893.0	6698.0	6622.0	6528.0	6814.0	7852.9	9156.9	9060.9
47.5°	8002.9	7987.9	7699.9	7581.9	7432.9	7391.9	7281.0	7480.9	8581.9	9903.9	9664.9
50°	8778.9	8732.9	8304.9	8185.9	8038.9	8006.9	7948.9	8178.9	9375.9	10556.9	10160.9
52.5°	9680.9	9610.9	9026.9	8805.9	8700.9	8721.9	8684.9	8890.9	10263.9	11102.9	10566.9
55°	10747.9	10537.9	9979.9	9578.9	9345.9	9442.9	9370.9	9627.9	11115.9	11527.9	10862.9
57.5°	11530.9	11529.9	11302.9	10732.9	10204.9	10209.9	10064.9	10357.9	11804.9	11950.9	11035.9
60°	12426.9	12479.9	12557.9	12304.9	11681.9	11420.9	10910.9	11080.9	12358.9	12257.9	11112.9
62.5°	13205.9	13236.9	13581.9	13678.9	13726.9	13662.9	12528.9	11913.9	12811.9	12428.9	11134.9
65°	13177.9	13174.9	13920.9	14570.9	15580.9	15637.9	15310.9	13150.9	13162.9	12450.9	11020.9
67.5°	11891.9	11952.9	12950.9	14343.9	16752.9	16932.9	16481.9	14946.9	13292.9	12440.9	10748.9
68°	11661.9	11687.9	12550.9	14263.9	16802.9	17028.9	16483.9	15096.9	13288.9	12441.9	10664.9
70°	10196.9	10235.9	11241.9	13294.9	16816.9	16894.9	16236.9	15178.9	13156.9	12348.9	10058.9
72.5°	8049.9	8094.9	9011.9	11217.9	15768.9	15765.9	15129.9	14491.9	12709.9	11668.9	8532.9
75°	5832.0	5979.0	6781.0	8810.9	13498.9	13704.9	13622.9	13495.9	11437.9	9860.9	6022.0
77.5°	4089.0	4164.0	4919.0	6627.0	10607.9	10922.9	11475.9	11639.9	9534.9	7322.9	2712.0
80°	2579.0	2720.0	3345.0	4706.0	7727.9	8018.9	8688.9	8964.9	7038.0	3592.0	475.0
82.5°	1503.0	1587.0	2047.0	3048.0	5196.0	5399.0	5838.0	5499.0	2853.0	478.0	264.0
85°	728.0	805.0	1099.0	1734.0	3244.0	3449.0	3686.0	2398.0	472.0	188.0	178.0
87.5°	295.0	303.0	450.0	770.0	1617.0	1793.0	1735.0	787.0	123.0	68.0	56.0
90°	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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0	2971.0
2.5°	2990.0	2975.0	2957.0	2951.0	2909.0	2907.0	2872.0	2923.0	2908.0	2909.0	2921.0
5°	2992.0	2975.0	2940.0	2924.0	2879.0	2867.0	2809.0	2841.0	2807.0	2804.0	2824.0
7.5°	3013.0	2994.0	2944.0	2919.0	2835.0	2795.0	2740.0	2768.0	2716.0	2705.0	2709.0
10°	3069.0	3045.0	2984.0	2925.0	2821.0	2763.0	2655.0	2664.0	2618.0	2603.0	2616.0
12.5°	3154.0	3125.0	3052.0	2965.0	2833.0	2731.0	2599.0	2546.0	2476.0	2453.0	2460.0
15°	3270.0	3236.0	3140.0	3039.0	2859.0	2716.0	2536.0	2426.0	2290.0	2252.0	2238.0
17.5°	3397.0	3361.0	3250.0	3123.0	2905.0	2699.0	2464.0	2289.0	2093.0	2007.0	2002.0
20°	3546.0	3507.0	3391.0	3221.0	2942.0	2678.0	2374.0	2123.0	1868.0	1724.0	1714.0
22.5°	3717.0	3683.0	3552.0	3308.0	2961.0	2623.0	2238.0	1911.0	1592.0	1412.0	1403.0
25°	3918.0	3886.0	3702.0	3369.0	2940.0	2526.0	2052.0	1651.0	1267.0	1087.0	1079.0
27.5°	4158.0	4108.0	3820.0	3387.0	2878.0	2367.0	1819.0	1317.0	936.0	799.0	792.0
30°	4431.0	4342.0	3931.0	3382.0	2768.0	2164.0	1498.0	971.0	665.0	573.0	570.0
32.5°	4775.0	4619.0	4037.0	3342.0	2611.0	1898.0	1140.0	674.0	478.0	433.0	432.0
35°	5349.0	5015.0	4153.0	3270.0	2398.0	1549.0	790.0	459.0	389.0	380.0	380.0
37.5°	6205.0	5668.0	4318.0	3155.0	2122.0	1181.0	520.0	365.0	366.0	371.0	372.0
40°	7084.0	6419.0	4557.0	2984.0	1800.0	830.0	378.0	339.0	351.0	359.0	365.0
42.5°	7890.9	7099.0	4823.0	2750.0	1436.0	548.0	338.0	326.0	332.0	338.0	344.0
45°	8567.9	7694.9	5074.0	2483.0	1064.0	390.0	335.0	311.0	308.0	312.0	316.0
47.5°	9138.9	8179.9	5250.0	2182.0	724.0	334.0	327.0	295.0	285.0	286.0	288.0
50°	9574.9	8522.9	5328.0	1851.0	480.0	325.0	312.0	278.0	262.0	262.0	264.0
52.5°	9868.9	8737.9	5282.0	1478.0	345.0	320.0	300.0	260.0	241.0	244.0	246.0
55°	10086.9	8852.9	5101.0	1086.0	304.0	305.0	286.0	239.0	223.0	231.0	234.0
57.5°	10171.9	8849.9	4797.0	750.0	302.0	282.0	266.0	221.0	208.0	219.0	224.0
60°	10140.9	8703.9	4355.0	511.0	296.0	264.0	245.0	204.0	194.0	194.0	195.0
62.5°	10078.9	8498.9	3714.0	379.0	282.0	251.0	229.0	190.0	178.0	172.0	170.0
65°	9798.9	8001.9	2727.0	327.0	268.0	244.0	214.0	177.0	161.0	151.0	149.0
67.5°	9244.9	7147.0	1524.0	302.0	258.0	240.0	204.0	165.0	147.0	135.0	134.0
68°	9074.9	6880.0	1292.0	300.0	260.0	240.0	203.0	162.0	145.0	132.0	131.0
70°	8068.9	5550.0	534.0	282.0	274.0	241.0	198.0	153.0	137.0	124.0	123.0
72.5°	6103.0	3215.0	282.0	245.0	267.0	237.0	200.0	146.0	130.0	115.0	113.0
75°	3363.0	921.0	251.0	199.0	247.0	250.0	204.0	145.0	126.0	107.0	103.0
77.5°	747.0	300.0	234.0	174.0	213.0	230.0	189.0	138.0	128.0	98.0	94.0
80°	286.0	244.0	222.0	134.0	169.0	195.0	157.0	123.0	131.0	92.0	87.0
82.5°	239.0	214.0	204.0	104.0	117.0	143.0	126.0	105.0	121.0	85.0	81.0
85°	176.0	207.0	144.0	82.0	86.0	88.0	88.0	82.0	104.0	75.0	71.0
87.5°	71.0	100.0	61.0	38.0	44.0	41.0	36.0	44.0	60.0	53.0	53.0
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)