

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: P232719

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232719  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-20)  
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  
Description: CELESTEON HIGH MAST LUMINAIRE  
(6) 70 CRI, 4000K LEDS AND TYPE IV OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30781.1 lumens  
Efficiency: N/A  
Efficacy: 131.5 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

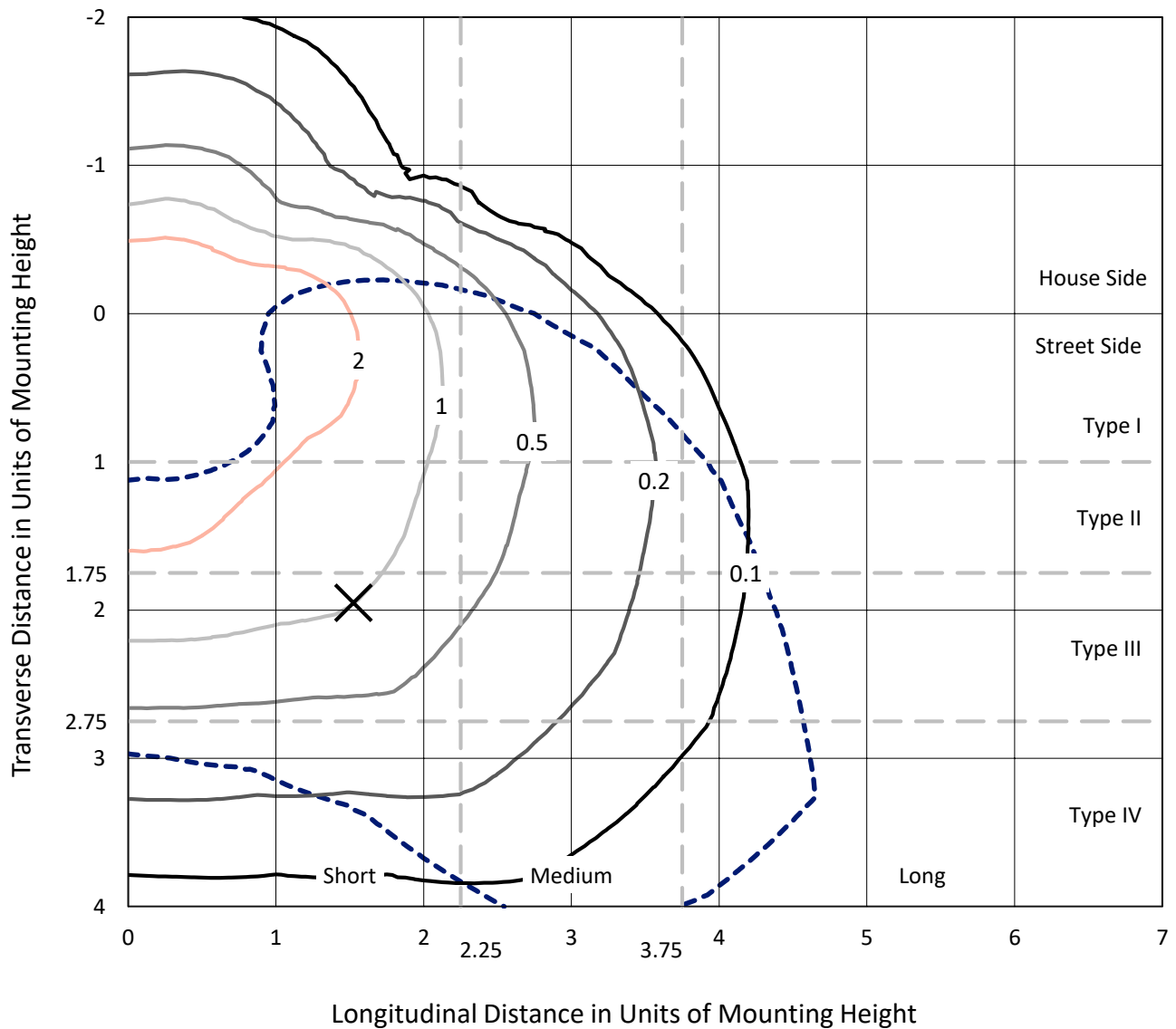
Input Watts (W): 234  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

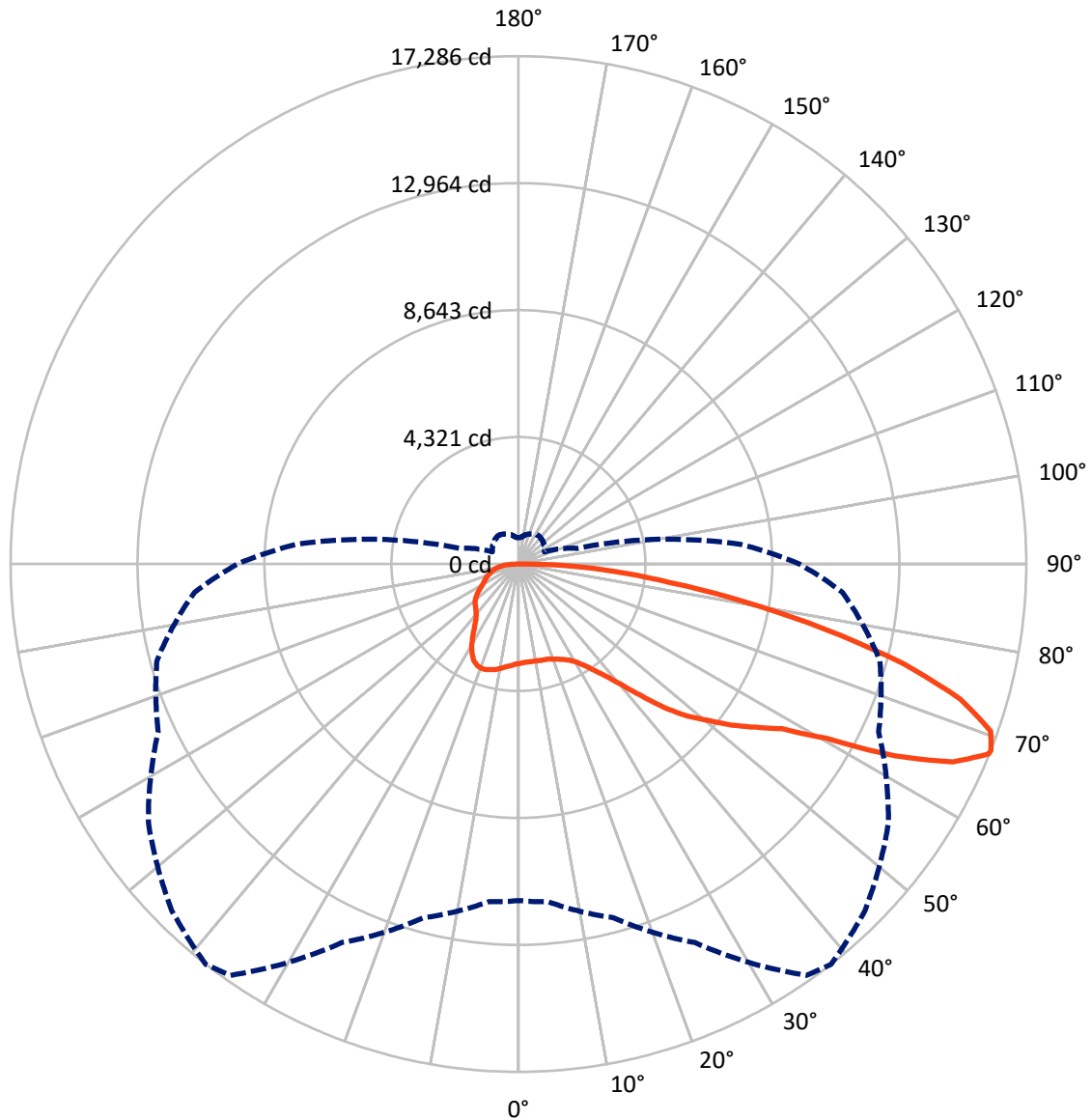
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.9 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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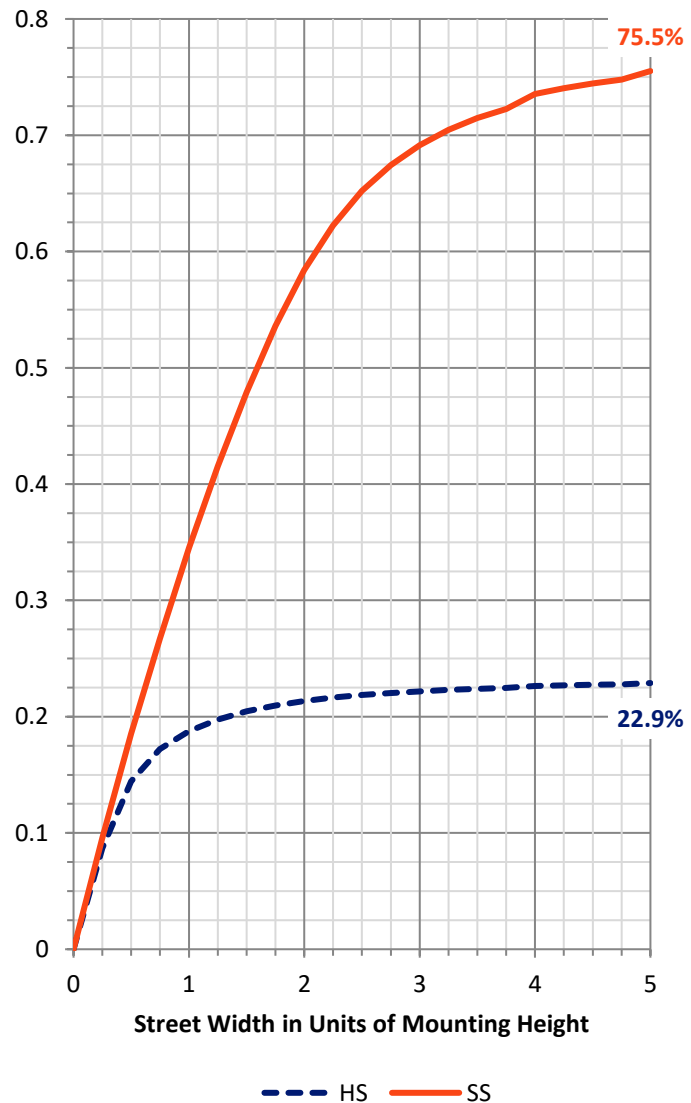
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7183.6	0.0	7183.6
	% Fixture	23.3	0.0	23.3
<b>Street Side</b>	Lumens	23597.4	0.0	23597.4
	% Fixture	76.7	0.0	76.7
<b>Total</b>	Lumens	30781.1	0.0	30781.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	327.9	1.1
10°-20°	1012.3	3.3
20°-30°	1719.8	5.6
30°-40°	2604.4	8.5
40°-50°	4307.7	14.0
50°-60°	6205.0	20.2
60°-70°	7825.4	25.4
70°-80°	5569.5	18.1
80°-90°	1208.9	3.9
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°	30781.1	100.0
0°-180°	30781.1	100.0



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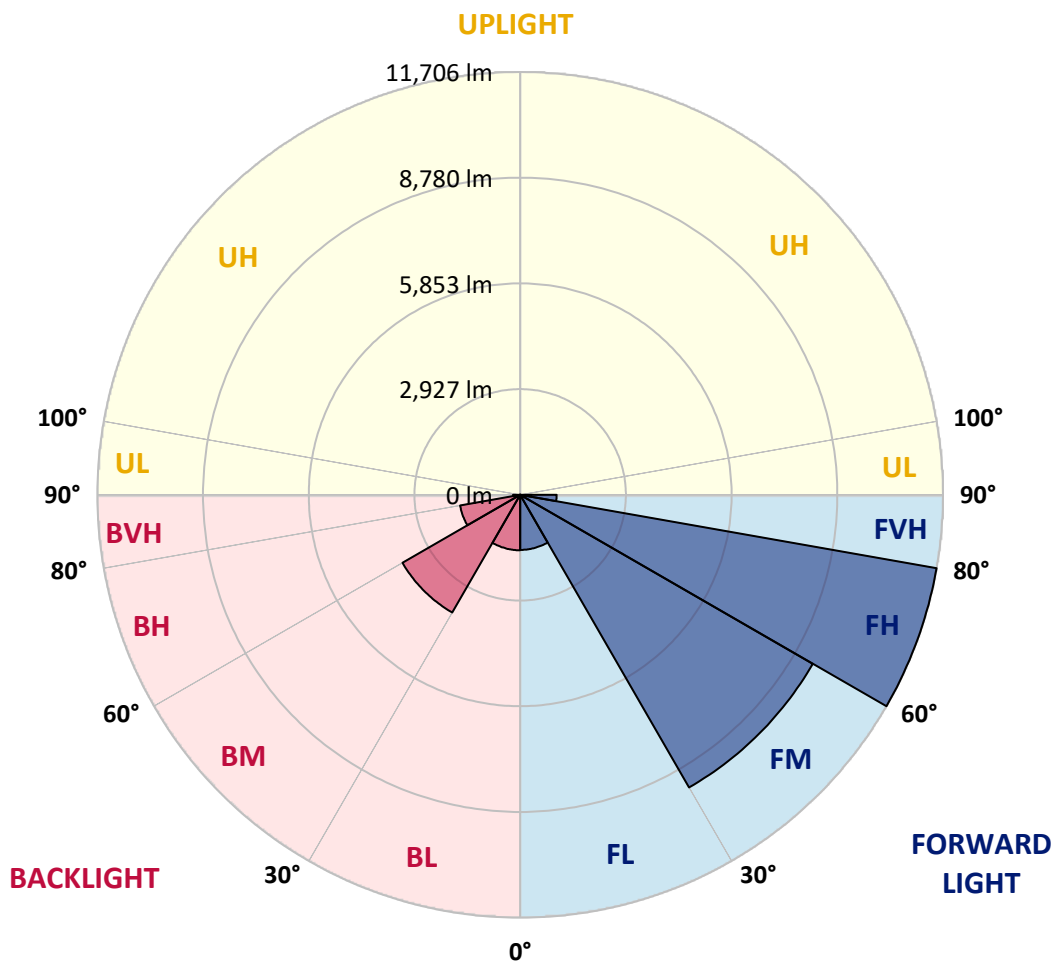
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1525.1	5.0			
FM	(30°-60°)	9355.3	30.4			
FH	(60°-80°)	11706.5	38.0			G4/12000
FVH	(80°-90°)	1010.5	3.3			G5
BL	(0°-30°)	1535.0	5.0	B3/2500		
BM	(30°-60°)	3761.8	12.2	B3/5000		
BH	(60°-80°)	1688.4	5.5	B3/2500		G3/2500
BVH	(80°-90°)	198.4	0.6			G2/225
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°	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0
2.5°	3379.0	3385.0	3381.0	3379.0	3353.0	3359.0	3369.0	3355.0	3389.0	3387.0	3407.0
5°	3347.0	3350.0	3351.0	3360.0	3335.0	3348.0	3360.0	3351.0	3387.0	3377.0	3405.0
7.5°	3338.0	3337.0	3338.0	3355.0	3328.0	3348.0	3362.0	3359.0	3398.0	3390.0	3424.0
10°	3315.0	3316.0	3319.0	3338.0	3324.0	3351.0	3376.0	3389.0	3441.0	3434.0	3473.0
12.5°	3275.0	3283.0	3294.0	3326.0	3329.0	3365.0	3402.0	3428.0	3496.0	3502.0	3551.0
15°	3240.0	3254.0	3273.0	3316.0	3334.0	3375.0	3422.0	3470.0	3559.0	3586.0	3648.0
17.5°	3251.0	3272.0	3297.0	3341.0	3354.0	3397.0	3450.0	3514.0	3624.0	3682.0	3762.0
20°	3319.0	3333.0	3354.0	3395.0	3412.0	3455.0	3498.0	3561.0	3704.0	3798.0	3897.0
22.5°	3404.0	3424.0	3438.0	3463.0	3483.0	3521.0	3566.0	3628.0	3797.0	3915.0	4051.0
25°	3495.0	3505.0	3525.0	3542.0	3567.0	3597.0	3648.0	3724.0	3903.0	4048.0	4238.0
27.5°	3579.0	3584.0	3622.0	3636.0	3685.0	3707.0	3747.0	3848.0	4041.0	4220.0	4454.0
30°	3702.0	3712.0	3741.0	3774.0	3846.0	3868.0	3909.0	4015.0	4225.0	4454.0	4735.0
32.5°	3935.0	3961.0	3957.0	3992.0	4077.0	4106.0	4162.0	4300.0	4529.0	4792.0	5126.0
35°	4407.0	4444.0	4398.0	4351.0	4396.0	4435.0	4521.0	4723.0	5006.0	5440.0	5770.0
37.5°	5180.0	5217.0	5053.0	4903.0	4805.0	4836.0	4953.0	5239.0	5672.0	6426.0	6794.0
40°	6083.0	6123.0	5895.0	5625.0	5404.0	5392.0	5428.0	5792.0	6417.0	7523.0	7810.0
42.5°	6870.0	6975.0	6677.0	6444.0	6158.0	6110.0	6023.0	6391.0	7205.0	8539.0	8701.0
45°	7635.0	7737.0	7502.0	7341.0	7049.0	6971.0	6806.0	7029.0	7978.0	9428.0	9435.0
47.5°	8337.0	8419.0	8146.0	8043.0	7755.0	7721.0	7552.0	7708.0	8694.0	10181.0	10039.0
50°	9122.0	9208.0	8773.0	8646.0	8414.0	8368.0	8313.0	8425.0	9515.0	10830.0	10552.0
52.5°	10082.0	10050.0	9513.0	9222.0	9099.0	9110.0	9048.0	9172.0	10386.0	11379.9	10956.0
55°	11230.9	11067.0	10477.0	10036.0	9753.0	9807.0	9726.0	9908.0	11246.9	11843.9	11247.9
57.5°	11883.9	11928.9	11872.9	11305.9	10586.0	10578.0	10450.0	10625.0	11998.9	12222.9	11425.9
60°	12835.9	13021.9	13092.9	12939.9	12293.9	12038.9	11397.9	11357.9	12633.9	12549.9	11516.9
62.5°	13437.9	13524.9	13951.9	14136.9	14344.9	14388.9	13370.9	12240.9	13102.9	12716.9	11554.9
65°	13149.9	13237.9	14035.9	14760.9	15994.9	16242.9	15918.9	13639.9	13419.9	12753.9	11427.9
67.5°	11673.9	11781.9	12852.9	14338.9	16992.9	17259.9	16736.9	15252.9	13523.9	12731.9	11152.0
68°	11457.9	11537.9	12461.9	14215.9	17092.9	17285.9	16682.9	15374.9	13529.9	12738.9	11067.0
70°	9798.0	9939.0	10912.0	13096.9	16931.9	17054.9	16345.9	15306.9	13393.9	12624.9	10445.0
72.5°	7637.0	7832.0	8572.0	10878.0	15638.9	15738.9	15144.9	14556.9	12982.9	11833.9	8953.0
75°	5533.0	5700.0	6412.0	8395.0	13165.9	13520.9	13420.9	13526.9	11637.9	10027.0	6484.0
77.5°	3821.0	3964.0	4628.0	6264.0	10209.0	10658.0	11176.9	11451.9	9563.0	7439.0	3082.0
80°	2448.0	2558.0	3123.0	4411.0	7362.0	7784.0	8343.0	8628.0	6802.0	3742.0	547.0
82.5°	1439.0	1514.0	1900.0	2846.0	4962.0	5219.0	5489.0	5011.0	2730.0	716.0	345.0
85°	715.0	765.0	1002.0	1610.0	3085.0	3321.0	3411.0	2138.0	577.0	262.0	235.0
87.5°	320.0	334.0	430.0	725.0	1466.0	1545.0	1507.0	665.0	116.0	98.0	84.0
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°	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0	3391.0
2.5°	3409.0	3401.0	3399.0	3412.0	3398.0	3415.0	3410.0	3448.0	3453.0	3439.0	3462.0
5°	3414.0	3410.0	3413.0	3437.0	3432.0	3467.0	3476.0	3514.0	3514.0	3503.0	3527.0
7.5°	3437.0	3437.0	3446.0	3490.0	3490.0	3520.0	3530.0	3572.0	3571.0	3571.0	3593.0
10°	3495.0	3495.0	3514.0	3570.0	3556.0	3595.0	3600.0	3622.0	3617.0	3618.0	3641.0
12.5°	3581.0	3586.0	3619.0	3668.0	3659.0	3673.0	3663.0	3659.0	3623.0	3623.0	3638.0
15°	3680.0	3701.0	3746.0	3791.0	3761.0	3756.0	3699.0	3649.0	3572.0	3539.0	3556.0
17.5°	3809.0	3845.0	3897.0	3929.0	3872.0	3831.0	3728.0	3598.0	3473.0	3400.0	3402.0
20°	3952.0	4000.0	4064.0	4075.0	3991.0	3889.0	3717.0	3513.0	3298.0	3182.0	3174.0
22.5°	4111.0	4171.0	4245.0	4202.0	4065.0	3899.0	3653.0	3382.0	3093.0	2898.0	2895.0
25°	4305.0	4370.0	4417.0	4297.0	4082.0	3848.0	3542.0	3178.0	2821.0	2611.0	2597.0
27.5°	4552.0	4595.0	4560.0	4346.0	4031.0	3726.0	3354.0	2916.0	2538.0	2348.0	2327.0
30°	4845.0	4840.0	4650.0	4332.0	3928.0	3533.0	3098.0	2632.0	2306.0	2143.0	2124.0
32.5°	5201.0	5129.0	4737.0	4265.0	3762.0	3280.0	2794.0	2396.0	2138.0	1973.0	1953.0
35°	5769.0	5566.0	4850.0	4164.0	3531.0	2975.0	2507.0	2214.0	2008.0	1819.0	1780.0
37.5°	6650.0	6222.0	5038.0	4058.0	3266.0	2676.0	2293.0	2082.0	1906.0	1692.0	1646.0
40°	7556.0	6984.0	5324.0	3944.0	3018.0	2450.0	2172.0	2020.0	1844.0	1638.0	1592.0
42.5°	8343.0	7695.0	5667.0	3801.0	2764.0	2272.0	2110.0	2000.0	1824.0	1628.0	1584.0
45°	9038.0	8334.0	6025.0	3635.0	2498.0	2128.0	2057.0	1972.0	1794.0	1605.0	1565.0
47.5°	9617.0	8843.0	6340.0	3451.0	2237.0	2022.0	2005.0	1906.0	1737.0	1555.0	1521.0
50°	10065.0	9205.0	6551.0	3246.0	2014.0	1939.0	1930.0	1805.0	1641.0	1467.0	1433.0
52.5°	10383.0	9448.0	6674.0	3169.0	1839.0	1843.0	1828.0	1695.0	1536.0	1363.0	1336.0
55°	10585.0	9615.0	6644.0	3070.0	1662.0	1708.0	1710.0	1614.0	1474.0	1306.0	1284.0
57.5°	10662.0	9608.0	6467.0	2574.0	1490.0	1546.0	1573.0	1558.0	1434.0	1270.0	1252.0
60°	10620.0	9495.0	6090.0	1886.0	1312.0	1388.0	1454.0	1451.0	1346.0	1191.0	1172.0
62.5°	10550.0	9233.0	5351.0	1350.0	1178.0	1276.0	1356.0	1329.0	1229.0	1093.0	1080.0
65°	10299.0	8771.0	4137.0	1080.0	1122.0	1213.0	1279.0	1233.0	1135.0	993.0	986.0
67.5°	9744.0	7847.0	2415.0	985.0	1081.0	1160.0	1207.0	1150.0	1059.0	921.0	909.0
68°	9556.0	7610.0	2054.0	976.0	1073.0	1147.0	1190.0	1130.0	1041.0	907.0	895.0
70°	8607.0	6168.0	980.0	939.0	1038.0	1087.0	1112.0	1057.0	970.0	851.0	843.0
72.5°	6699.0	3721.0	655.0	883.0	970.0	1017.0	1023.0	937.0	855.0	767.0	762.0
75°	3958.0	1235.0	609.0	800.0	876.0	941.0	958.0	872.0	781.0	679.0	677.0
77.5°	964.0	479.0	575.0	714.0	794.0	857.0	870.0	807.0	727.0	612.0	608.0
80°	397.0	398.0	536.0	592.0	681.0	742.0	761.0	705.0	633.0	559.0	551.0
82.5°	330.0	336.0	455.0	437.0	545.0	616.0	635.0	596.0	571.0	491.0	483.0
85°	235.0	298.0	302.0	294.0	382.0	439.0	535.0	516.0	489.0	421.0	381.0
87.5°	110.0	174.0	131.0	126.0	194.0	260.0	306.0	321.0	278.0	216.0	200.0
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)