

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: P591427

Luminaire Tested: **CTN-CA10-760-740-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591427  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-760-740-U-T3-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 73786 lumens  
Efficiency: N/A  
Efficacy: 96.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B5 - U0 - G5

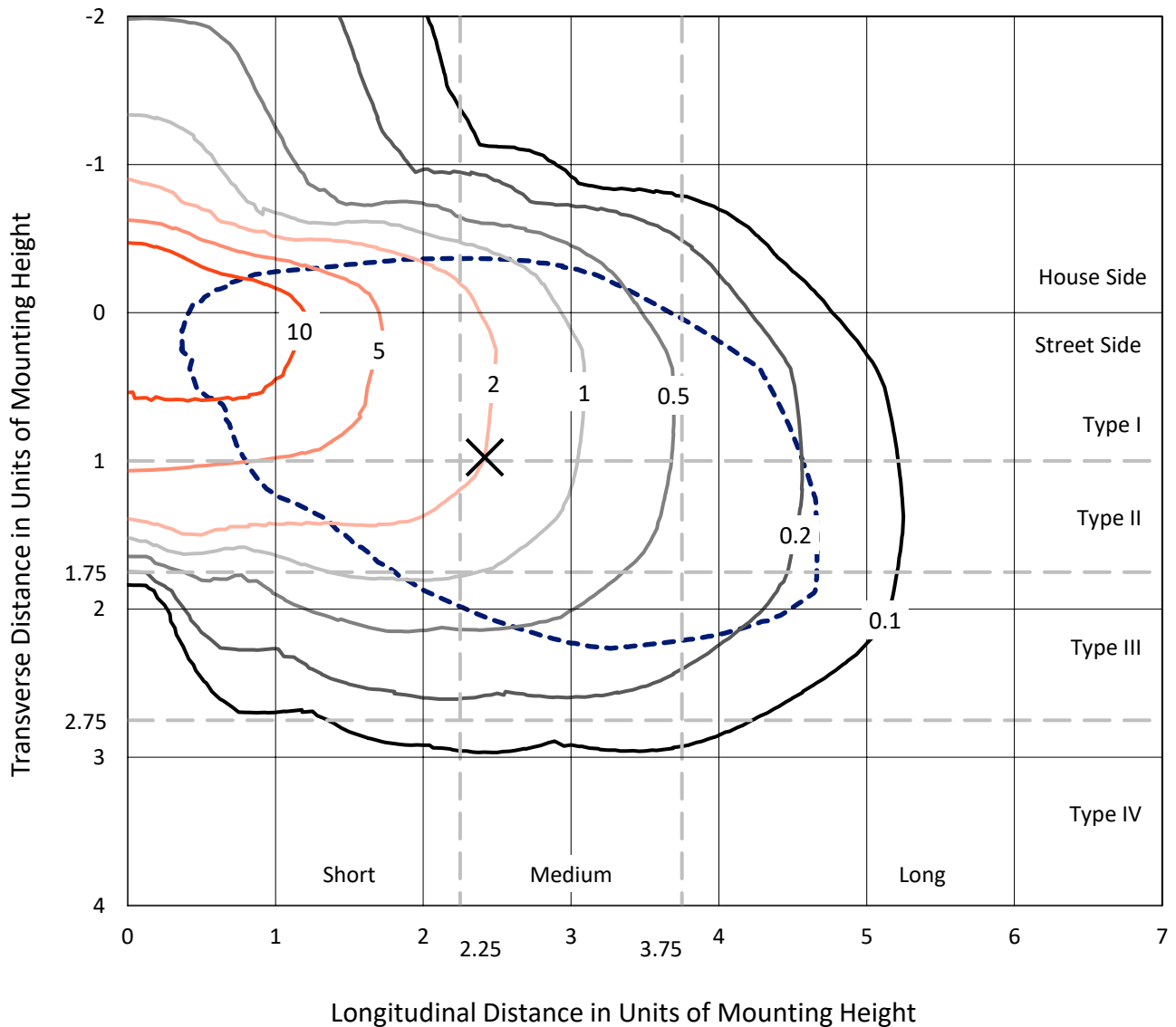
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

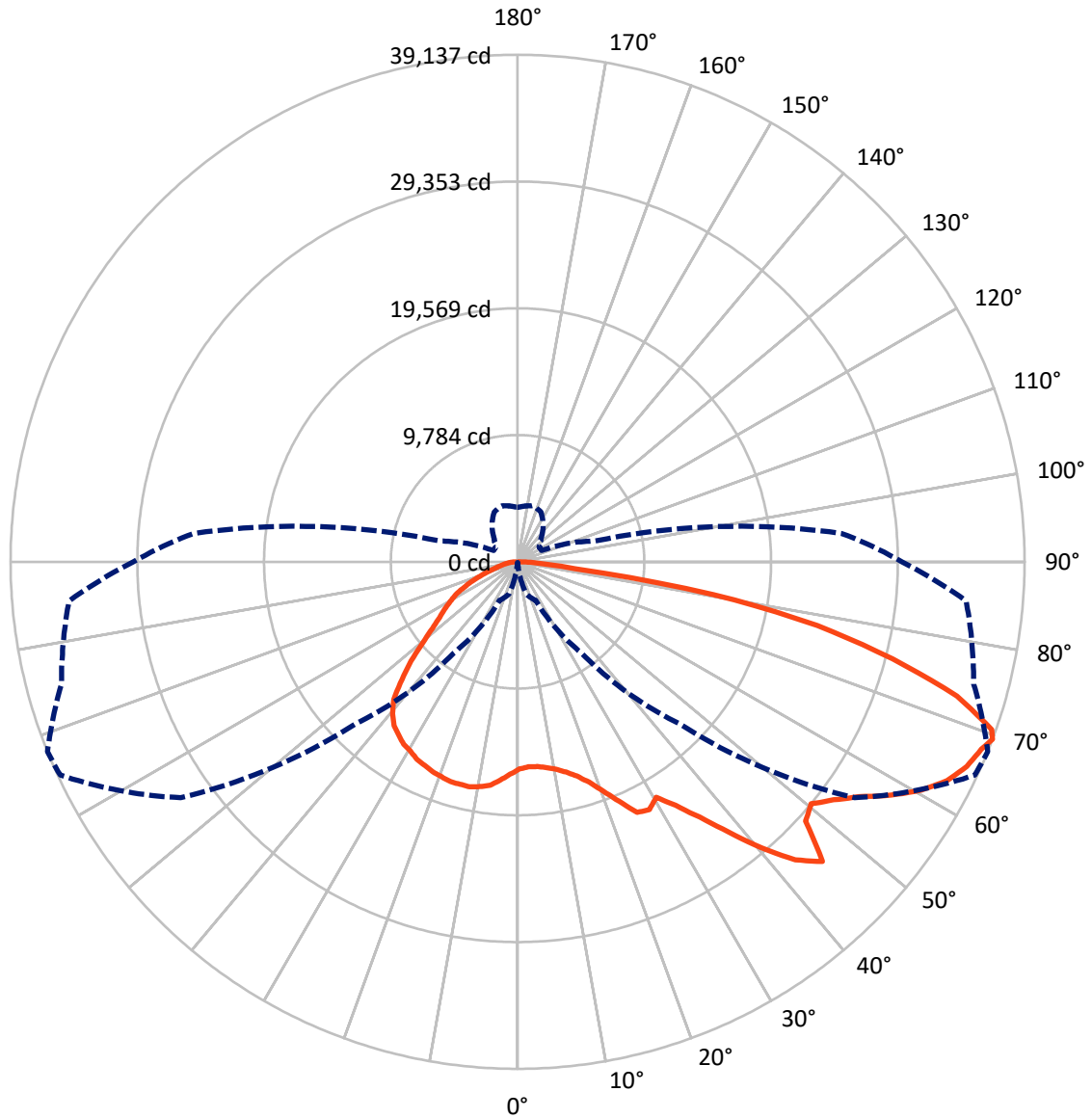
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.8 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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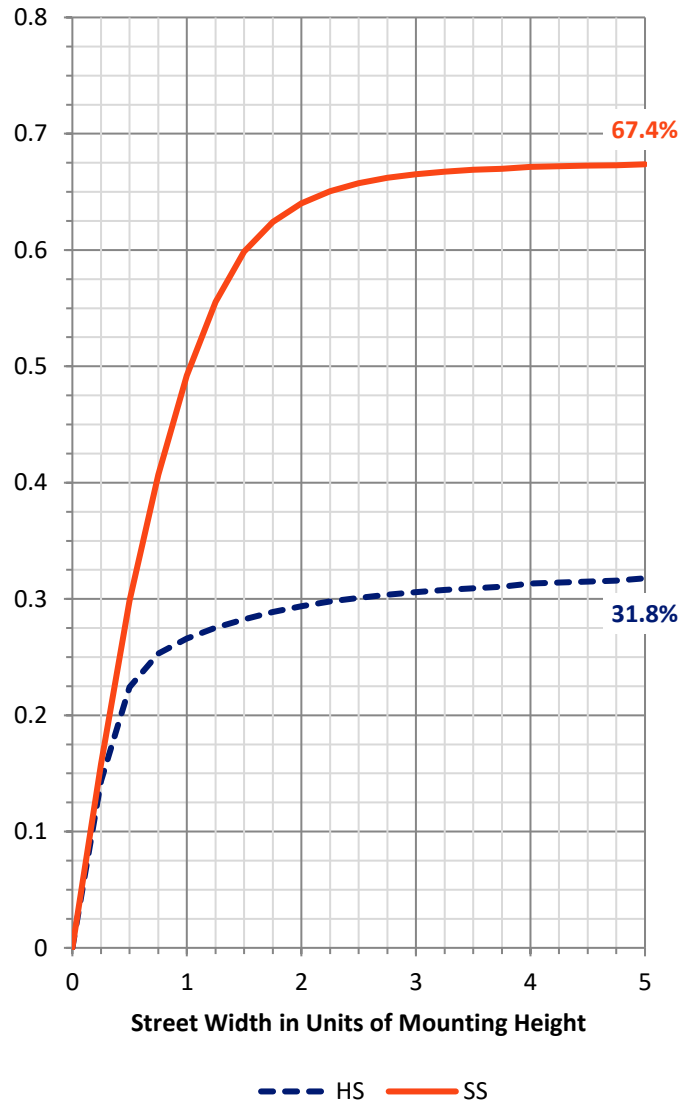
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	24067.9	0.0	24067.9
	% Fixture	32.6	0.0	32.6
<b>Street Side</b>	Lumens	49718.1	0.0	49718.1
	% Fixture	67.4	0.0	67.4
<b>Total</b>	Lumens	73786.0	0.0	73786.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1597.5	2.2
10°-20°	4942.8	6.7
20°-30°	7599.4	10.3
30°-40°	9870.2	13.4
40°-50°	12183.3	16.5
50°-60°	13683.0	18.5
60°-70°	13372.4	18.1
70°-80°	8979.9	12.2
80°-90°	1557.5	2.1
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°	73786.0	100.0
0°-180°	73786.0	100.0

**Coefficient of Utilization**



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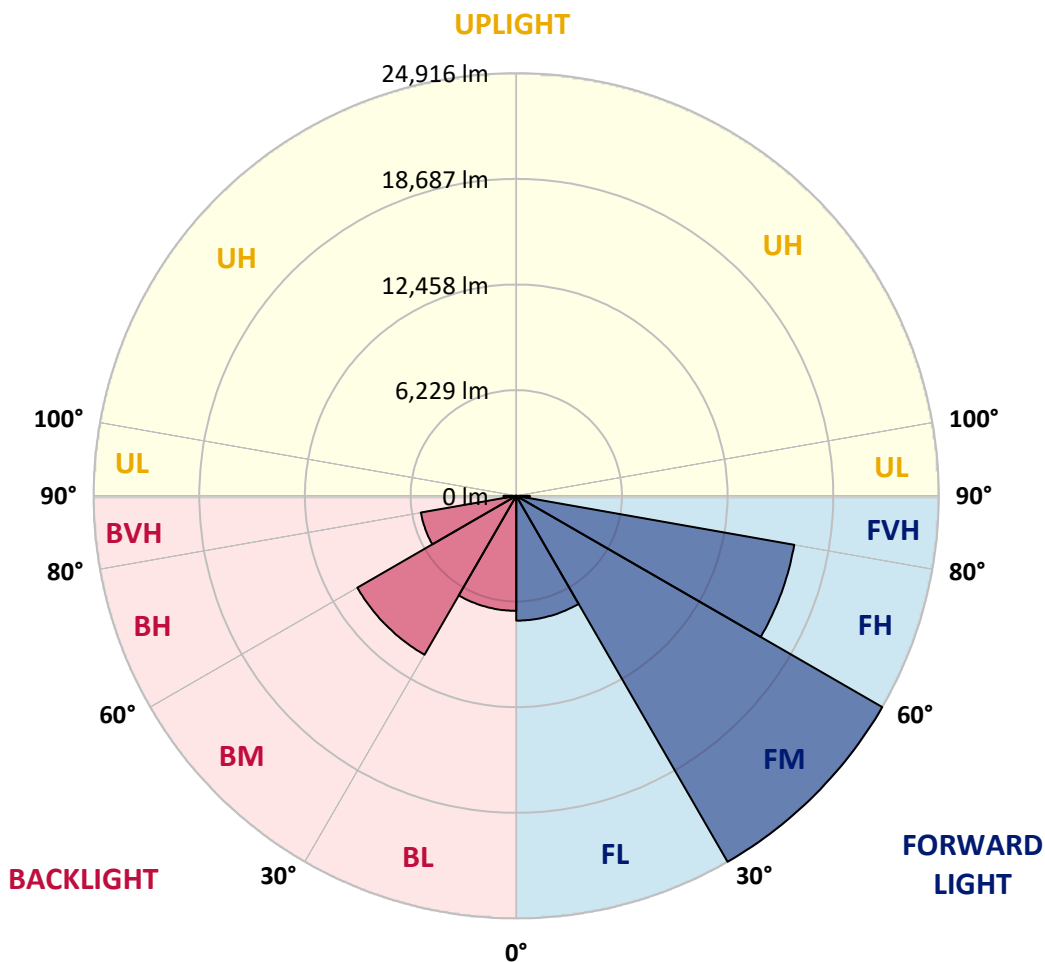
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7357.2	10.0			
FM (30°-60°)	24915.7	33.8			
FH (60°-80°)	16642.5	22.6			G5
FVH (80°-90°)	802.8	1.1			G5
BL (0°-30°)	6782.5	9.2	B5		
BM (30°-60°)	10820.8	14.7	B5		
BH (60°-80°)	5709.9	7.7	B5		G5
BVH (80°-90°)	754.7	1.0			G5
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6
2.5°	15671.9	15576.5	15612.7	15744.4	15477.7	15652.2	15569.9	15747.7	15839.9	15800.3	16050.6
5°	15820.1	15714.7	15721.3	15813.5	15527.1	15675.2	15583.0	15774.0	15876.1	15820.1	16155.9
7.5°	16271.2	16155.9	16123.0	16116.4	15846.4	15958.4	15774.0	15928.8	16034.1	16004.5	16383.1
10°	16962.6	16824.3	16761.7	16725.5	16402.9	16369.9	16139.5	16208.6	16287.6	16320.6	16728.8
12.5°	17723.1	17535.5	17495.9	17387.3	16972.5	16900.0	16620.2	16653.1	16653.1	16728.8	17133.8
15°	18368.4	18213.7	18213.7	18101.8	17696.8	17594.7	17209.5	17170.0	17163.4	17222.7	17584.8
17.5°	17953.6	17868.0	17792.3	17736.3	17110.7	16946.1	17989.8	17920.7	17887.7	17947.0	18157.7
20°	16560.9	16791.4	16304.1	15616.0	15714.7	17696.8	18994.0	18868.9	18888.6	18947.9	18888.6
22.5°	14575.6	14006.0	14901.5	15148.4	15560.0	17025.1	19909.3	20041.0	20080.5	20083.8	19774.3
25°	12491.5	12807.5	14022.4	15905.7	15853.0	17074.5	19352.9	21226.3	21423.8	21404.1	20867.4
27.5°	13090.7	13031.4	13969.8	15207.7	16771.6	18121.5	19695.3	20528.3	21660.9	22915.3	22187.7
30°	13614.2	13564.8	13663.6	15395.4	17377.4	19168.5	20976.0	20841.0	21081.4	23353.2	23745.0
32.5°	14081.7	14045.5	14160.7	14351.7	16369.9	20297.8	22349.0	22322.6	22405.0	22582.7	25582.1
35°	14522.9	14526.2	14667.8	14980.5	16498.3	20531.6	23705.5	23985.3	24202.6	24594.4	25266.1
37.5°	14825.8	14832.4	14944.3	15322.9	15958.4	19375.9	25078.4	26076.0	26464.5	27169.1	26217.6
40°	14822.5	14871.9	15141.9	15635.7	16485.2	18612.1	25503.1	28446.6	29072.1	29585.7	27985.6
42.5°	14513.0	14539.3	15043.1	15935.3	16952.7	19191.5	24182.9	30757.8	31452.5	31311.0	29447.4
45°	14229.9	14223.3	14796.2	15895.8	17370.8	19988.3	24360.7	30692.0	33000.0	32828.8	30790.8
47.5°	13851.2	13861.1	14466.9	15724.6	17752.8	20841.0	25677.6	27909.9	29908.4	34132.6	31883.8
50°	13377.1	13436.4	14052.1	15464.5	17943.7	21637.8	26816.8	29131.4	29368.4	30655.8	32953.9
52.5°	12590.2	12484.9	13607.6	15164.9	18078.7	22217.3	27903.3	30303.5	30527.4	30059.8	34043.7
55°	7147.9	8869.8	13051.2	14815.9	18118.2	22566.3	28746.2	31636.9	31985.9	31544.7	34929.3
57.5°	4490.9	4629.1	11306.2	13890.7	17785.7	22783.6	29780.0	33467.5	33984.4	32934.1	35601.0
60°	1590.2	1715.4	5498.3	6377.4	14578.9	22184.4	31353.8	35624.0	35795.2	34241.2	36094.9
62.5°	167.9	220.6	3727.0	4681.8	11319.4	20472.3	32440.3	37359.1	37204.4	35209.2	36361.5
65°	59.3	82.3	3276.0	4188.0	10535.8	19938.9	32799.1	38099.9	38096.6	35828.2	36170.6
67.5°	46.1	62.6	2847.9	3638.1	9403.2	18796.5	32203.2	38656.4	38603.7	36440.6	35666.8
69°	46.1	65.8	2564.8	3279.3	8583.4	17703.4	31742.3	38949.4	39137.1	36450.4	34754.8
70°	46.1	65.8	2383.7	3029.0	7915.0	16702.5	31080.5	38725.5	38821.0	36134.4	33809.9
72.5°	46.1	65.8	1847.1	2344.2	6018.6	12856.9	27228.4	35288.2	35469.3	33358.8	30385.8
75°	46.1	65.8	1300.5	1705.5	3950.9	8626.2	21680.6	29391.5	29882.0	28193.0	24897.3
77.5°	46.1	65.8	777.0	1165.5	2479.2	4734.5	14918.0	22526.8	23636.3	22062.5	17795.6
80°	46.1	62.6	365.5	635.4	1412.5	2508.8	6835.1	13867.7	15313.1	13801.8	9307.7
82.5°	46.1	62.6	299.6	457.6	714.5	1247.8	2670.2	4543.5	4461.2	4006.9	2999.4
85°	42.8	56.0	246.9	335.8	513.6	790.2	1488.2	1850.3	1764.7	1560.6	1570.5
87.5°	29.6	32.9	85.6	151.5	207.4	391.8	721.0	783.6	800.1	668.4	701.3
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°	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6	15994.6
2.5°	16169.1	16188.9	16284.3	16455.5	16452.2	16636.6	16587.2	17015.3	17031.7	17025.1	17058.1
5°	16317.3	16429.2	16639.9	17005.4	17216.1	17492.7	17440.0	17871.3	17897.6	17861.4	17953.6
7.5°	16574.1	16712.3	17058.1	17509.1	17565.1	17914.1	17841.7	18190.6	18174.2	18108.3	18266.4
10°	16936.2	17100.9	17413.6	17670.4	17831.8	18035.9	17956.9	18253.2	18197.2	18124.8	18276.3
12.5°	17305.0	17384.0	17558.5	17848.2	17861.4	17907.5	17815.3	18055.7	17993.1	17884.5	18042.5
15°	17657.3	17667.2	17637.5	17769.2	17630.9	17660.6	17459.7	17611.2	17502.5	17453.1	17555.2
17.5°	18114.9	17996.4	17785.7	17729.7	17403.8	17265.5	16969.2	16962.6	16771.6	16702.5	16771.6
20°	18664.8	18407.9	17920.7	17456.4	16893.4	16610.3	16106.5	15971.6	15816.8	15668.7	15751.0
22.5°	19425.3	18928.2	18088.6	17222.7	16290.9	15734.5	15115.5	14733.6	14443.9	14157.4	14243.0
25°	20291.2	19596.5	18325.6	16824.3	15569.9	14585.4	13782.1	13130.2	12715.3	12297.2	12484.9
27.5°	21463.3	20505.2	18470.5	16528.0	14631.5	13311.3	12030.5	11181.1	10749.8	10450.2	10354.7
30°	22829.7	21680.6	18730.6	15945.2	13528.6	11744.1	10117.6	9169.4	8711.8	8570.2	8629.4
32.5°	24495.6	23109.5	19260.7	15457.9	12409.1	10081.4	8185.0	7444.2	7114.9	7091.9	7085.3
35°	26724.6	24933.5	19715.0	14700.7	10927.6	8142.2	6512.4	5900.0	5886.9	5877.0	5900.0
37.5°	28436.7	26790.5	20199.0	13959.9	9169.4	6357.7	5208.6	4836.6	4797.1	4912.3	4941.9
40°	29786.6	28120.6	20923.4	12708.8	7108.3	4747.7	4000.3	3862.0	4141.9	4395.4	4448.1
42.5°	31004.8	29240.0	21081.4	11375.3	5179.0	3644.7	3315.5	3545.9	3977.2	4267.0	4323.0
45°	32147.2	30415.4	20478.9	9393.3	3704.0	3088.3	3154.1	3499.8	3983.8	4293.3	4326.2
47.5°	33395.1	31202.3	19827.0	7552.8	3045.5	2959.9	3121.2	3516.3	4023.3	4336.1	4352.6
50°	34218.2	31765.3	18197.2	5906.6	2854.5	2880.9	3108.0	3552.5	4029.9	4253.8	4267.0
52.5°	34554.0	32216.4	16722.2	4727.9	2759.1	2821.6	3124.5	3615.1	4013.5	4138.6	4132.0
55°	34764.7	32423.8	15454.6	3934.4	2673.4	2775.5	3154.1	3661.2	4049.7	4178.1	4178.1
57.5°	34629.7	31959.6	14513.0	3351.7	2587.8	2742.6	3190.4	3730.3	4392.1	4619.3	4596.2
60°	34531.0	31090.4	13176.3	2959.9	2485.8	2706.4	3236.5	3970.7	5123.0	5353.5	5277.8
62.5°	34020.6	30356.2	11727.6	2709.7	2370.5	2686.6	3276.0	4293.3	5225.1	5211.9	5063.7
65°	32720.1	28861.4	9442.7	2456.1	2252.0	2660.3	3289.1	4434.9	4806.9	4599.5	4556.7
67.5°	30876.4	26704.9	7450.8	2202.6	2120.3	2604.3	3397.8	4267.0	4573.2	4395.4	4329.5
69°	29671.3	25108.0	6189.8	2044.6	2034.7	2558.2	3440.6	4250.5	4487.6	4286.7	4201.1
70°	28700.1	23725.2	5343.6	1942.5	1968.9	2522.0	3397.8	4247.2	4451.4	4201.1	4105.7
72.5°	24531.9	19221.2	3450.5	1698.9	1774.6	2426.5	3236.5	4138.6	4375.6	4211.0	4079.3
75°	19010.5	13992.8	2232.3	1468.4	1570.5	2265.2	3075.1	4069.4	4444.8	4145.2	3862.0
77.5°	12198.4	7487.0	1728.5	1234.7	1349.9	2038.0	2785.4	3789.6	4316.4	4046.4	3680.9
80°	5314.0	2778.8	1333.4	1000.9	1093.1	1656.1	2390.3	3368.2	4092.5	4062.9	3815.9
82.5°	2255.3	1791.1	1027.2	767.1	869.2	1224.8	1873.4	2887.5	3615.1	3756.7	4026.6
85°	1277.5	1073.3	684.8	526.8	645.3	902.1	1333.4	2215.8	2943.4	3262.8	3490.0
87.5°	549.8	447.8	316.1	283.1	365.5	467.5	572.9	1040.4	1570.5	1916.2	2061.1
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)