

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: P237535

Luminaire Tested: **CTN-8-3-D-E1-T3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237535  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-26)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: CTN-8-3-D-E1-T3-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 4000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28954 lumens  
Efficiency: N/A  
Efficacy: 128.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 226  
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

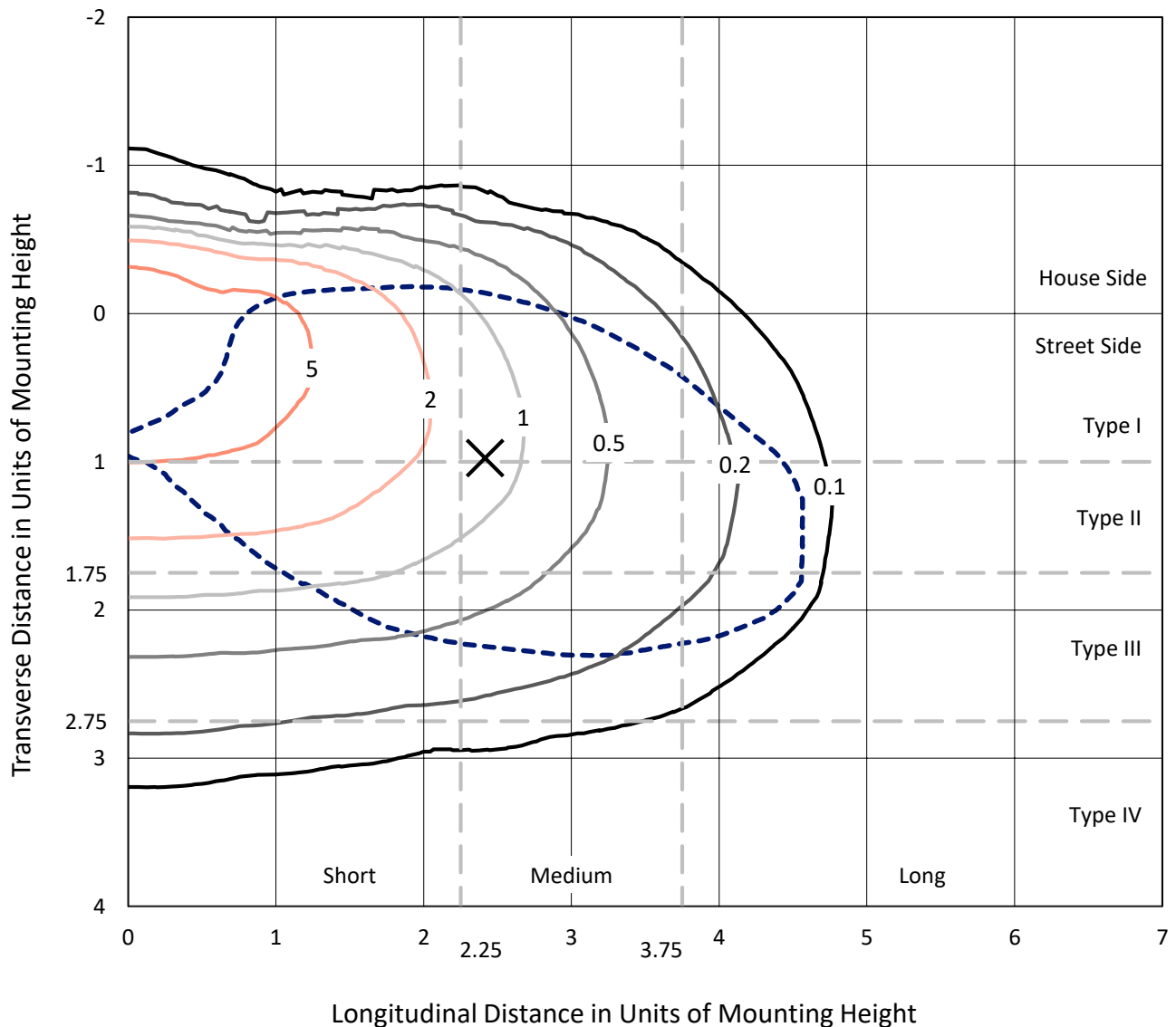


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### Iso-Footcandle Lines of Horizontal Illumination

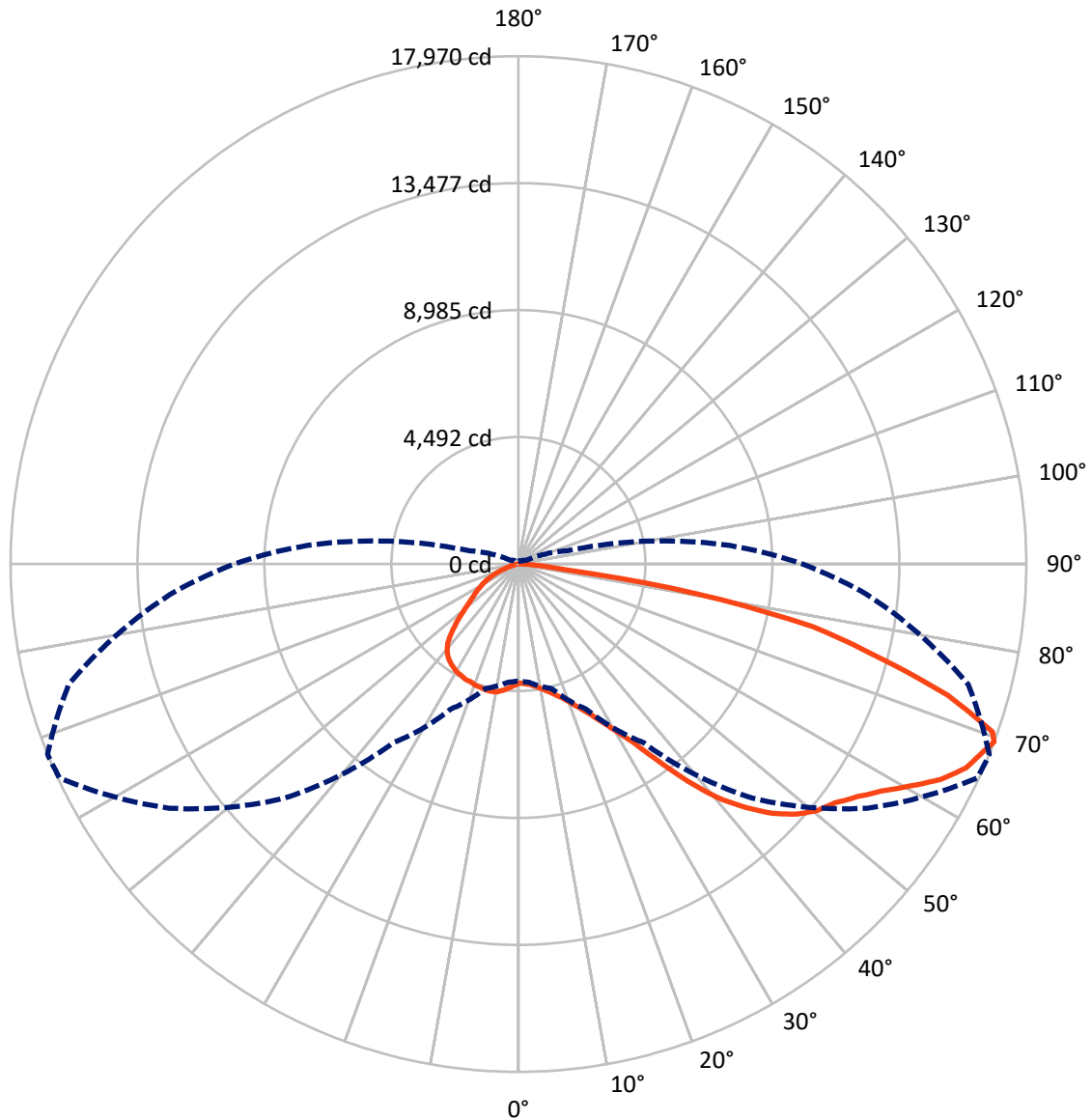
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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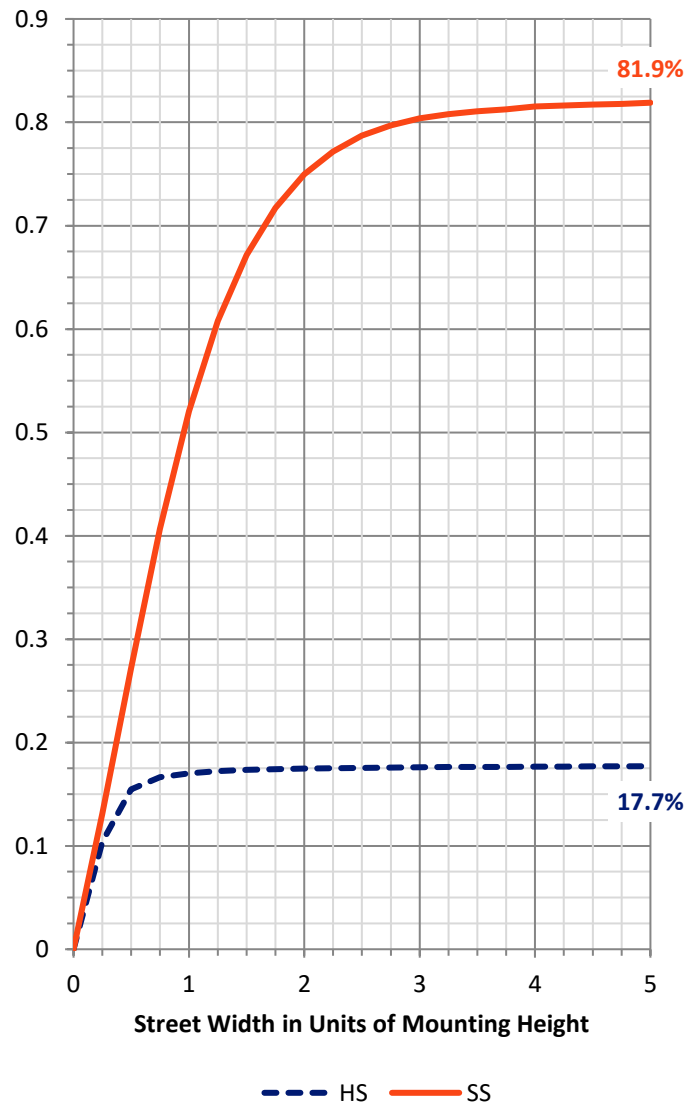
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5196.2	0.0	5196.2
	% Fixture	17.9	0.0	17.9
<b>Street Side</b>	Lumens	23757.8	0.0	23757.8
	% Fixture	82.1	0.0	82.1
<b>Total</b>	Lumens	28954.0	0.0	28954.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	423.0	1.5
10°-20°	1327.2	4.6
20°-30°	2268.7	7.8
30°-40°	3495.9	12.1
40°-50°	5016.7	17.3
50°-60°	6037.9	20.9
60°-70°	6336.2	21.9
70°-80°	3670.8	12.7
80°-90°	377.7	1.3
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°	28954.0	100.0
0°-180°	28954.0	100.0



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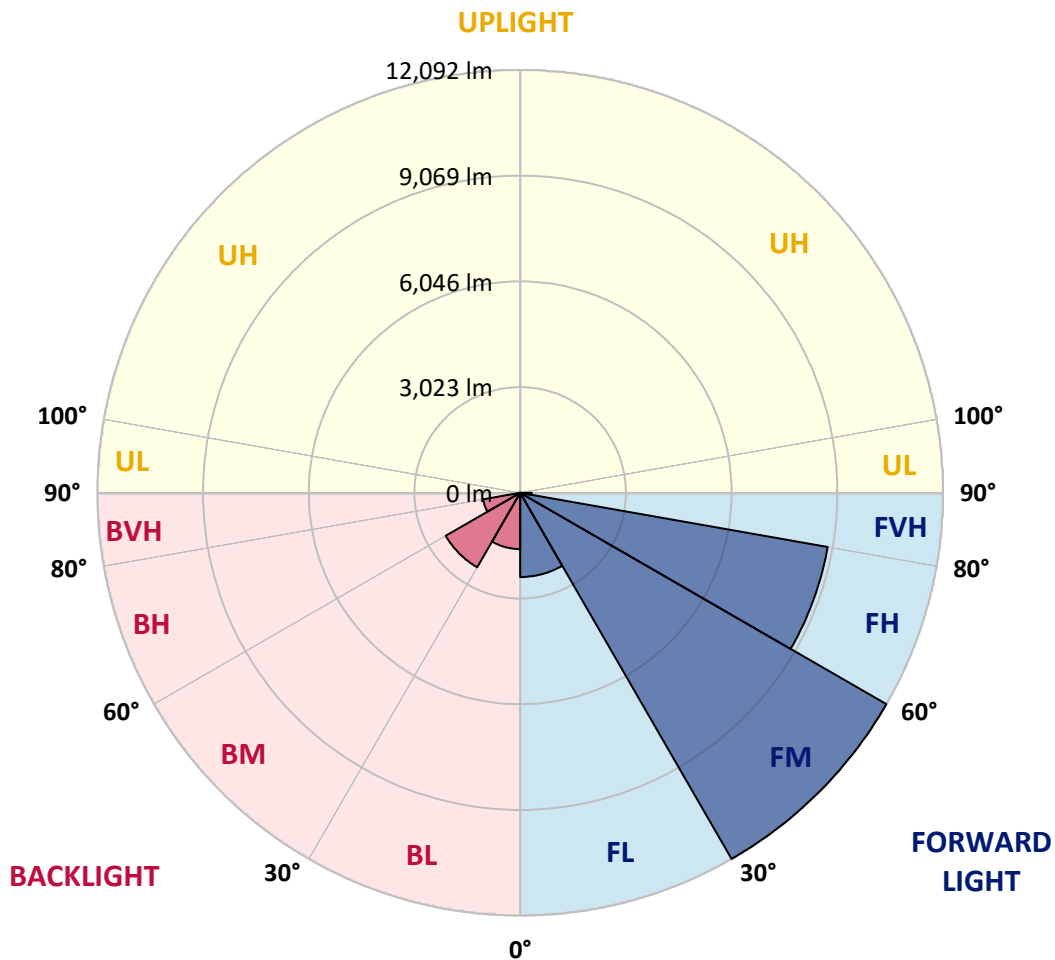
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2408.8	8.3			
FM	(30°-60°)	12091.6	41.8			
FH	(60°-80°)	8929.1	30.8			G4/12000
FVH	(80°-90°)	328.3	1.1			G3/500
BL	(0°-30°)	1610.1	5.6	B3/2500		
BM	(30°-60°)	2458.9	8.5	B2/2500		
BH	(60°-80°)	1077.8	3.7	B3/2500		G3/2500
BVH	(80°-90°)	49.4	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-G4**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5
2.5°	4258.7	4224.6	4228.6	4255.7	4175.4	4209.5	4188.4	4232.6	4239.6	4218.5	4237.6
5°	4342.9	4313.8	4312.8	4339.9	4250.6	4276.7	4243.6	4273.7	4282.7	4260.7	4293.8
7.5°	4506.5	4475.4	4469.3	4496.4	4383.1	4391.1	4345.9	4361.0	4369.0	4338.9	4372.0
10°	4741.2	4707.1	4685.0	4700.1	4572.7	4552.6	4475.4	4473.3	4485.4	4444.3	4497.4
12.5°	5004.1	4963.9	4931.8	4934.8	4789.4	4755.3	4652.9	4616.8	4624.8	4569.7	4633.9
15°	5290.0	5231.8	5201.7	5202.7	5039.2	4982.0	4850.6	4791.4	4786.4	4733.2	4770.3
17.5°	5634.1	5586.9	5548.8	5528.7	5355.2	5241.8	5085.3	5008.1	4980.0	4944.9	4925.8
20°	6038.4	5979.2	5939.1	5932.0	5719.3	5568.9	5361.2	5258.9	5225.8	5196.7	5111.4
22.5°	6488.8	6428.6	6373.4	6364.4	6138.7	5957.1	5678.2	5551.8	5522.7	5489.6	5319.1
25°	6904.1	6897.1	6835.9	6825.9	6608.2	6372.4	6045.4	5883.9	5883.9	5844.7	5582.9
27.5°	7367.6	7377.7	7322.5	7310.4	7105.8	6845.0	6455.7	6301.2	6333.3	6263.1	5915.0
30°	7856.2	7835.1	7820.1	7833.1	7643.5	7367.6	6962.3	6831.9	6882.1	6801.8	6360.4
32.5°	8293.6	8277.6	8287.6	8337.7	8201.3	7946.5	7598.4	7517.1	7565.3	7615.4	7159.0
35°	8639.7	8605.6	8732.0	8842.4	8803.2	8561.5	8281.6	8453.1	8585.5	8814.3	8335.7
37.5°	8944.7	8919.6	9073.1	9298.8	9348.0	9213.6	9127.3	9605.8	9757.3	10065.3	9368.0
40°	9097.2	9092.2	9280.8	9574.7	9774.4	9861.6	10013.1	10665.2	10885.9	10970.2	10153.6
42.5°	9048.0	9064.1	9397.1	9850.6	10173.6	10547.8	10852.8	11570.1	11772.8	11703.5	10841.8
45°	8910.6	8918.6	9256.7	9964.0	10519.7	11253.1	11660.4	12408.8	12588.4	12344.6	11389.5
47.5°	8720.0	8723.0	9080.1	9885.7	10802.7	11891.1	12356.6	13079.0	13224.4	12880.3	11783.8
50°	8462.1	8467.2	8893.5	9787.4	11046.4	12413.8	12901.4	13598.6	13711.0	13260.5	12124.9
52.5°	8136.1	8180.2	8646.7	9629.9	11198.9	12785.0	13313.7	13979.8	14035.0	13715.0	12426.9
55°	7759.9	7806.0	8332.7	9416.2	11258.1	12995.7	13602.6	14449.3	14537.6	14222.6	12672.7
57.5°	7314.5	7377.7	7932.4	9069.1	11119.7	13084.0	13896.6	15029.2	15148.6	14753.3	12925.5
60°	6797.8	6876.1	7459.9	8635.7	10799.6	13177.3	14446.3	15806.7	15945.1	15324.2	13146.2
62.5°	6258.1	6308.2	6835.9	8044.8	10287.0	13249.5	15038.2	16764.8	16776.8	15824.8	13268.6
65°	5535.8	5588.9	6061.4	7298.4	9517.5	13019.8	15337.2	17436.9	17400.8	16217.0	13227.4
67.5°	4709.1	4759.3	5145.5	6370.4	8461.1	12375.7	15234.9	17704.8	17728.9	16501.9	12833.2
69°	4135.3	4201.5	4565.6	5665.2	7714.7	11716.6	15063.3	17913.5	17969.6	16475.8	12376.7
70°	3644.7	3730.0	4076.1	5042.2	7082.7	11117.7	14732.3	17795.1	17799.1	16212.0	11956.4
72.5°	2380.6	2432.8	2493.0	3271.5	5095.3	8810.3	13036.8	15781.6	15886.0	14466.4	10453.5
75°	1177.8	1223.9	1448.6	1730.6	2620.4	5901.9	10336.2	12929.5	13127.1	12285.4	8564.5
77.5°	650.1	659.1	738.4	1133.6	1358.4	2668.6	7064.7	10307.1	10653.2	10012.1	6150.7
80°	405.3	403.3	421.4	527.7	761.4	1265.1	2983.6	5784.6	6406.6	5227.8	2430.8
82.5°	316.0	310.0	311.0	341.1	322.0	595.9	1242.0	1684.4	1699.5	1508.8	946.0
85°	161.5	182.6	216.7	226.7	190.6	324.0	571.8	665.1	681.2	596.9	492.6
87.5°	54.2	55.2	58.2	57.2	51.2	111.4	211.7	246.8	219.7	124.4	168.5
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°	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5	4211.5
2.5°	4266.7	4257.7	4275.7	4316.8	4282.7	4313.8	4282.7	4387.1	4375.0	4368.0	4388.1
5°	4325.9	4324.9	4354.0	4420.2	4417.2	4472.3	4442.2	4545.6	4530.5	4528.5	4546.6
7.5°	4406.1	4425.2	4456.3	4524.5	4525.5	4570.7	4536.6	4617.8	4584.7	4576.7	4601.8
10°	4528.5	4533.5	4557.6	4604.8	4538.6	4558.6	4502.4	4566.6	4520.5	4515.5	4552.6
12.5°	4645.9	4652.9	4616.8	4601.8	4516.5	4490.4	4392.1	4426.2	4373.0	4368.0	4386.1
15°	4771.3	4724.2	4637.9	4588.7	4441.2	4346.9	4236.6	4169.4	4078.1	4035.9	4052.0
17.5°	4901.7	4810.4	4648.9	4529.5	4331.9	4194.5	3974.7	3860.4	3724.9	3655.7	3642.7
20°	5044.2	4915.8	4676.0	4499.4	4221.5	3950.7	3682.8	3421.0	3266.5	3195.2	3176.2
22.5°	5204.7	5048.2	4714.1	4399.1	4049.0	3719.9	3267.5	2937.4	2712.7	2643.5	2624.4
25°	5405.3	5196.7	4766.3	4374.0	3883.5	3342.7	2779.9	2405.7	2143.9	2038.5	2016.5
27.5°	5649.1	5401.3	4851.6	4254.6	3592.5	2922.4	2295.4	1865.0	1593.1	1468.7	1441.6
30°	6004.3	5663.2	4908.7	4184.4	3333.7	2486.0	1783.7	1303.2	1045.4	954.1	930.0
32.5°	6704.5	6112.6	5025.1	4022.9	2951.5	1978.3	1227.9	799.6	619.0	566.8	546.8
35°	7744.8	6959.3	5192.7	3831.3	2522.1	1407.5	729.3	463.5	372.2	353.1	347.1
37.5°	8692.9	7795.0	5516.7	3536.3	1958.3	865.8	422.4	297.0	273.9	276.9	276.9
40°	9408.2	8416.0	5894.9	3147.1	1328.3	485.6	289.9	246.8	251.8	252.8	251.8
42.5°	10078.3	8984.8	6077.5	2717.7	769.5	322.0	251.8	229.7	233.7	230.7	228.7
45°	10605.0	9392.1	6131.7	2139.9	421.4	287.9	236.8	213.7	211.7	213.7	215.7
47.5°	10947.1	9640.9	6008.3	1638.3	318.0	267.9	227.7	202.7	197.6	211.7	210.7
50°	11200.9	9811.5	5529.7	1246.0	310.0	250.8	216.7	189.6	191.6	208.7	206.7
52.5°	11385.5	9855.6	5005.1	999.2	295.9	238.8	206.7	183.6	181.6	194.6	195.6
55°	11532.0	9737.2	4678.0	786.5	283.9	226.7	198.6	177.6	167.5	171.6	170.5
57.5°	11623.3	9601.8	4304.8	656.1	272.9	213.7	187.6	161.5	146.5	147.5	146.5
60°	11603.2	9511.5	3876.4	537.7	258.8	201.6	172.6	144.5	129.4	125.4	125.4
62.5°	11563.1	9325.9	3434.0	468.5	246.8	197.6	154.5	131.4	120.4	116.4	116.4
65°	11290.2	8883.5	2842.1	401.3	234.8	186.6	144.5	126.4	113.4	109.4	109.4
67.5°	10613.0	8152.1	2201.1	349.1	225.7	168.5	141.5	123.4	109.4	104.3	104.3
69°	10041.2	7502.1	1807.8	321.0	216.7	160.5	141.5	124.4	107.3	101.3	101.3
70°	9594.8	6991.4	1495.8	304.0	207.7	155.5	141.5	125.4	106.3	99.3	98.3
72.5°	8233.4	5458.5	830.7	257.8	172.6	141.5	138.4	126.4	101.3	91.3	90.3
75°	6317.3	3837.3	494.6	217.7	145.5	129.4	131.4	121.4	93.3	82.3	82.3
77.5°	3947.7	1762.7	368.2	170.5	118.4	112.4	114.4	107.3	84.3	75.2	75.2
80°	1348.3	795.6	277.9	131.4	85.3	87.3	94.3	90.3	75.2	68.2	67.2
82.5°	738.4	517.7	196.6	91.3	59.2	72.2	72.2	73.2	65.2	60.2	59.2
85°	401.3	269.9	121.4	55.2	42.1	53.2	51.2	55.2	53.2	49.2	48.2
87.5°	139.4	92.3	40.1	20.1	17.1	18.1	21.1	28.1	27.1	28.1	29.1
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)