

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: STREETWORKS

Report Number: P237561

Luminaire Tested: **CST-8-4-D-U-T2-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237561  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-8-4-D-U-T2-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 4000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 39202 lumens  
Efficiency: N/A  
Efficacy: 120.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4

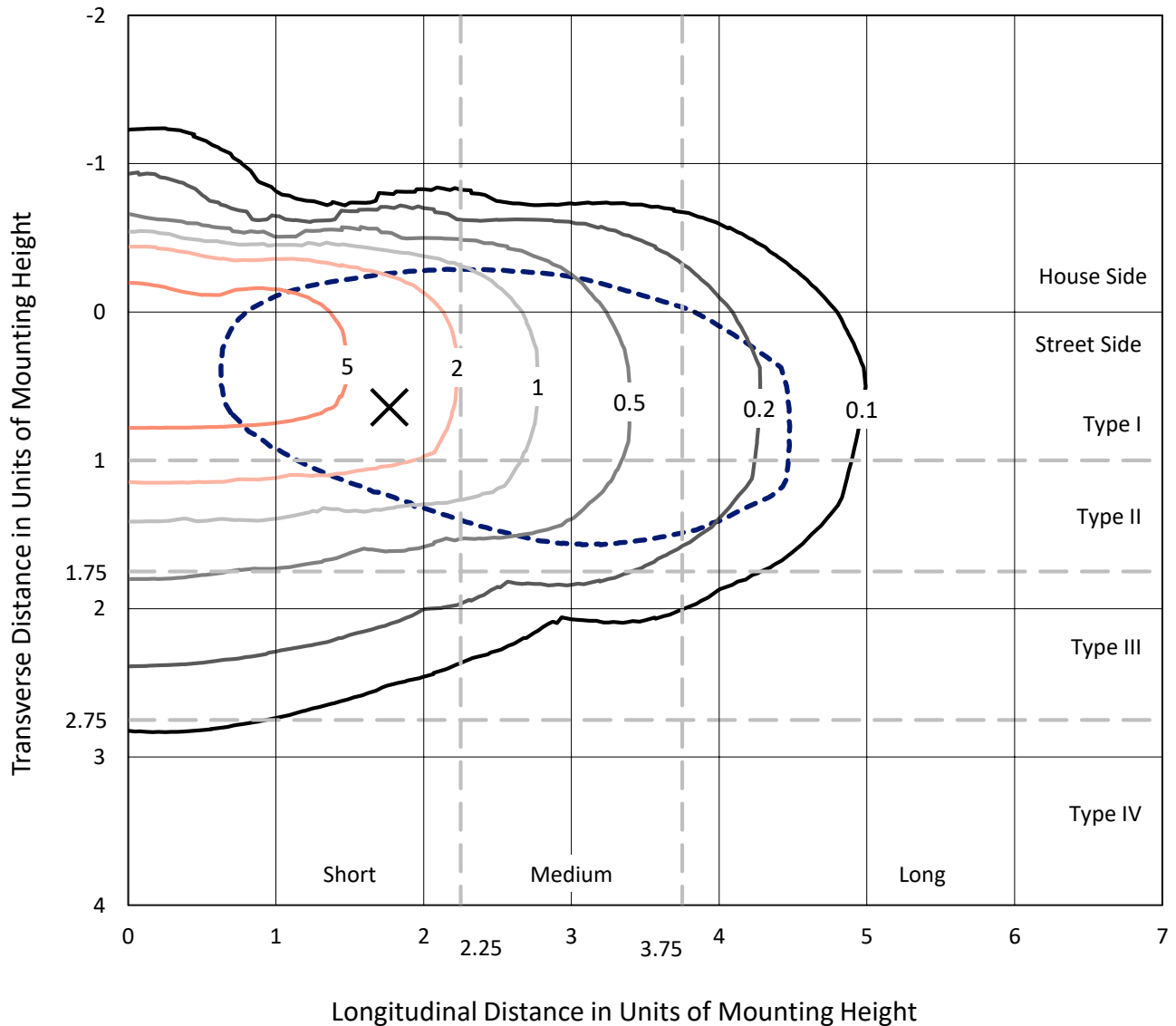
Input Watts (W): 325  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

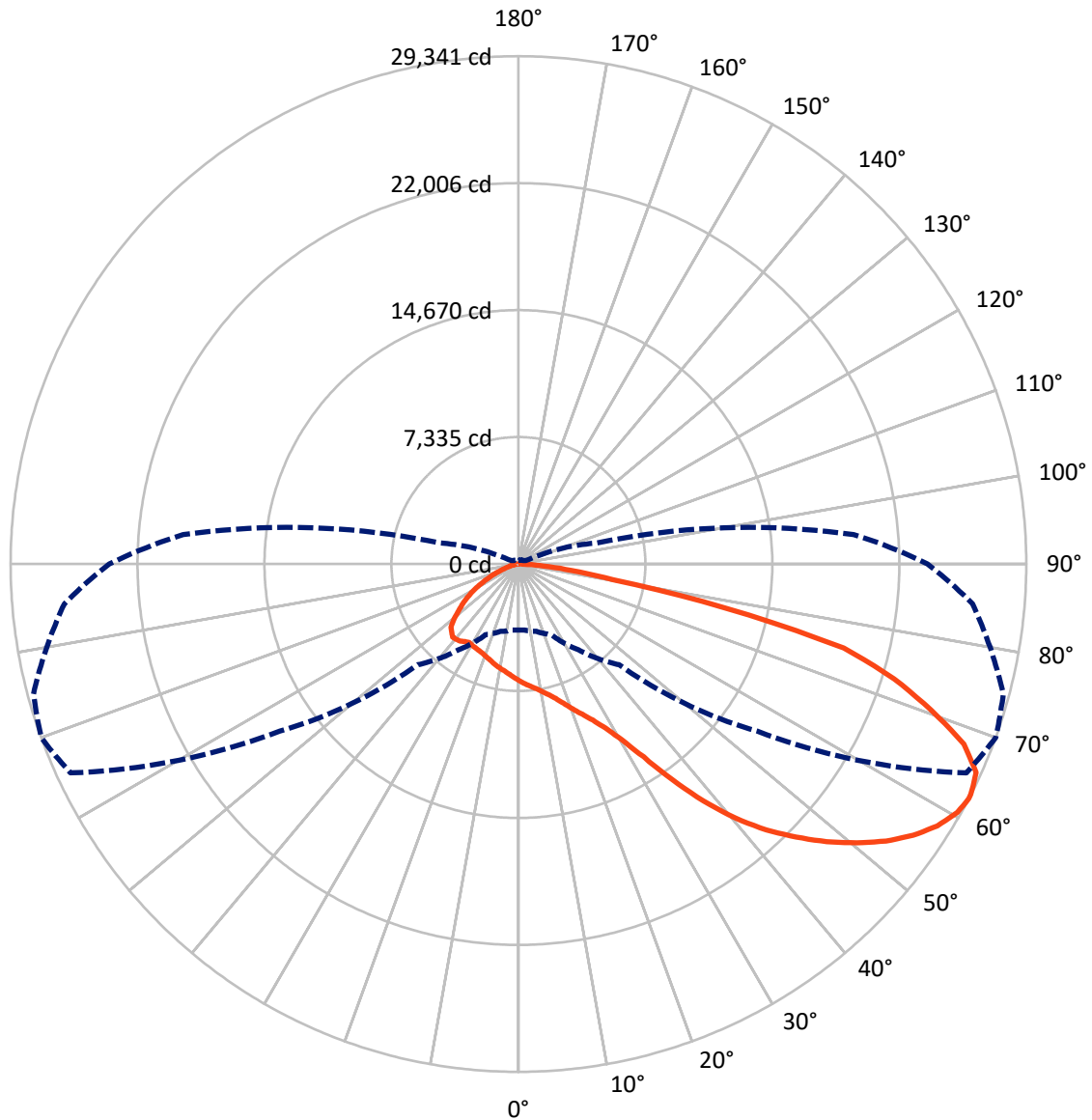
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.7 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 62-Deg Vertical



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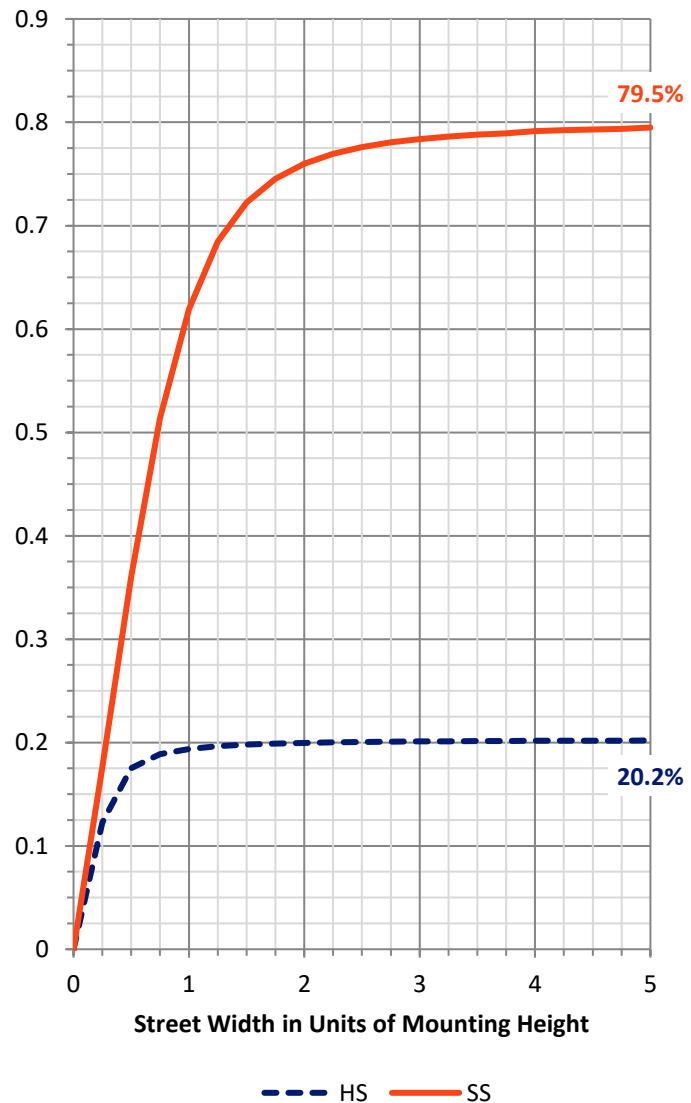
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8019.1	0.0	8019.1
	% Fixture	20.5	0.0	20.5
<b>Street Side</b>	Lumens	31182.9	0.0	31182.9
	% Fixture	79.5	0.0	79.5
<b>Total</b>	Lumens	39202.0	0.0	39202.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	642.4	1.6
10°-20°	1954.5	5.0
20°-30°	3290.7	8.4
30°-40°	4968.8	12.7
40°-50°	6967.8	17.8
50°-60°	8143.7	20.8
60°-70°	7900.9	20.2
70°-80°	4618.8	11.8
80°-90°	714.5	1.8
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°	39202.0	100.0
0°-180°	39202.0	100.0



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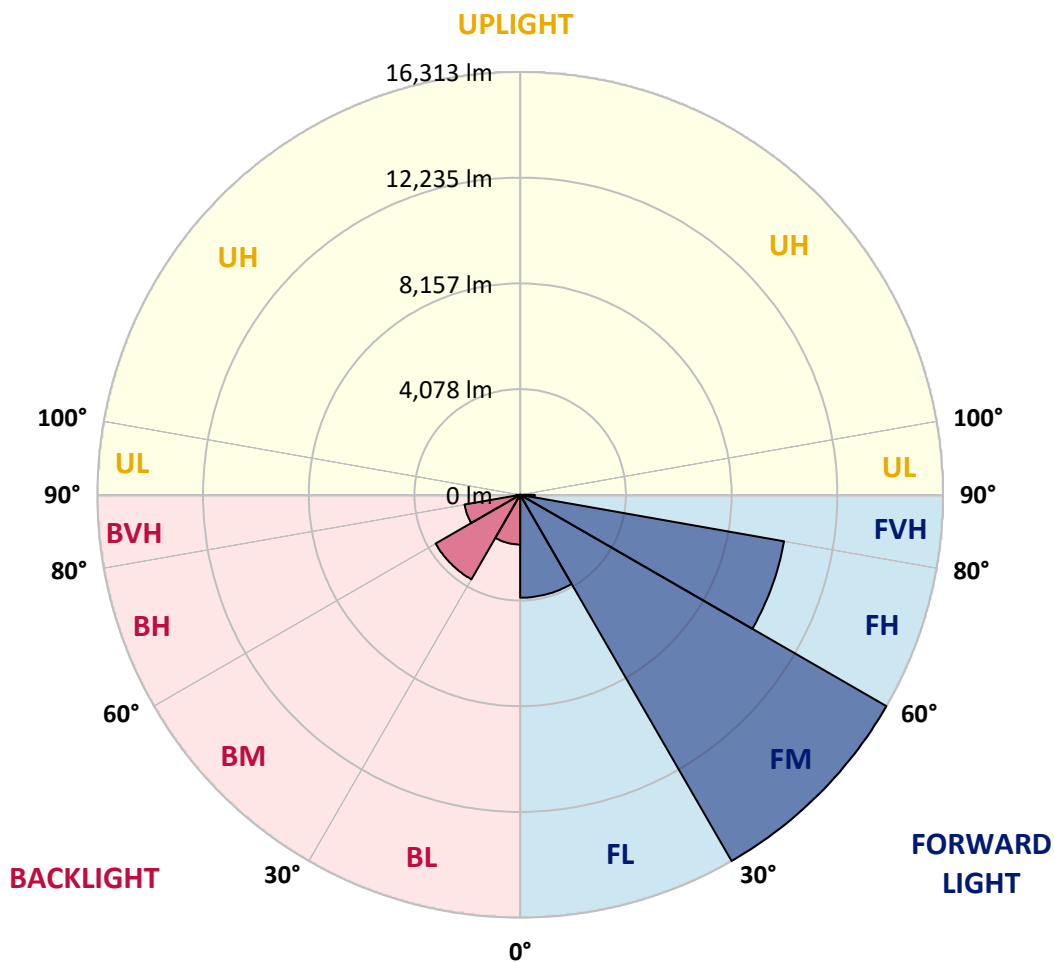
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3970.3	10.1			
FM	(30°-60°)	16313.4	41.6			
FH	(60°-80°)	10339.3	26.4			G4/12000
FVH	(80°-90°)	559.9	1.4			G4/750
BL	(0°-30°)	1917.3	4.9	B3/2500		
BM	(30°-60°)	3766.8	9.6	B3/5000		
BH	(60°-80°)	2180.4	5.6	B3/2500		G3/2500
BVH	(80°-90°)	154.6	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2
2.5°	7319.0	7270.5	7249.7	7280.2	7076.6	7080.8	6982.4	6967.2	6920.1	6853.7	6780.3
5°	7737.2	7680.4	7651.3	7669.3	7454.7	7417.3	7256.6	7177.7	7084.9	7001.8	6842.6
7.5°	8138.8	8080.6	8058.5	8048.8	7789.8	7733.0	7528.1	7388.2	7262.2	7155.5	6939.5
10°	8543.2	8483.6	8437.9	8450.4	8179.0	8077.9	7841.1	7648.6	7486.5	7348.0	7050.3
12.5°	8944.8	8872.8	8822.9	8822.9	8555.6	8457.3	8191.4	7944.9	7738.6	7564.1	7190.2
15°	9356.1	9261.9	9250.8	9250.8	8966.9	8847.8	8586.1	8313.3	8059.9	7835.5	7359.1
17.5°	9781.2	9662.1	9659.4	9677.4	9417.0	9282.7	9036.2	8781.4	8458.7	8174.8	7565.5
20°	10061.0	9954.3	9929.4	9983.4	9778.5	9691.2	9426.7	9248.1	8937.9	8600.0	7831.4
22.5°	10274.2	10209.2	10232.7	10321.3	10221.6	10146.8	9868.5	9707.8	9428.1	9081.9	8190.0
25°	10488.9	10446.0	10500.0	10656.5	10664.8	10685.5	10452.9	10247.9	9987.6	9678.8	8656.7
27.5°	10422.4	10410.0	10573.4	10896.0	11073.3	11167.5	11037.3	10965.3	10727.1	10401.6	9243.9
30°	10470.9	10440.4	10637.1	11045.6	11440.3	11713.1	11713.1	11876.5	11772.7	11445.8	10139.9
32.5°	10326.9	10270.1	10495.8	11081.6	11760.2	12290.6	12526.0	13104.9	13286.3	13168.6	11916.7
35°	9663.5	9706.5	10148.2	10937.6	11980.4	12855.6	13478.8	14719.6	15277.7	15410.7	13962.1
37.5°	9249.5	9267.5	9717.5	10702.2	12057.9	13410.9	14521.6	16583.6	17374.4	17456.1	15756.9
40°	8678.9	8746.7	9250.8	10386.4	12013.6	13880.4	15644.7	18421.3	19300.7	19232.9	17327.3
42.5°	8228.8	8248.2	8688.6	9885.1	11819.7	14254.3	16777.5	20090.1	21011.0	20821.3	18879.7
45°	7667.9	7704.0	8120.8	9261.9	11474.9	14444.0	17755.2	21655.0	22498.4	22261.6	20224.4
47.5°	6989.4	7147.2	7583.5	8590.3	10890.5	14424.7	18583.4	23009.4	23971.8	23607.6	21481.9
50°	5629.4	5821.9	6694.4	7985.1	10124.7	14153.2	19242.6	24500.9	25324.9	24957.9	22629.9
52.5°	4917.6	4955.0	5399.6	7305.1	9227.3	13546.7	19691.3	25733.4	26592.0	26205.6	23733.7
55°	4596.3	4635.1	4859.5	6204.2	8403.3	12472.0	19856.1	26909.1	27670.8	27227.6	24643.5
57.5°	4315.2	4327.7	4592.2	5247.2	7618.1	11056.7	19508.5	27889.6	28541.9	27939.5	25275.0
60°	3993.9	4043.8	4304.1	4790.2	6733.2	9412.9	18317.5	28516.9	29133.2	28597.3	25930.0
62°	3813.9	3826.4	4029.9	4506.3	6047.7	8224.7	16834.3	28553.0	29340.9	29001.6	26333.0
62.5°	3761.3	3769.6	3962.1	4434.3	5906.4	7989.2	16429.9	28523.9	29328.5	29072.3	26421.7
65°	3459.4	3478.8	3651.9	4093.6	5287.4	7071.1	14535.4	28048.9	29061.2	28953.2	26413.3
67.5°	3092.4	3097.9	3282.1	3679.6	4649.0	6208.3	12208.9	27140.4	27752.5	27612.6	25257.0
70°	2528.7	2629.8	2830.6	3181.0	3845.7	5150.3	9286.8	24311.1	25315.2	25453.6	23185.3
72.5°	1922.2	1915.3	1985.9	2229.6	2801.6	3956.5	6269.2	20369.8	22696.4	23445.6	20898.9
75°	1186.8	1232.5	1528.9	1724.1	2008.0	2790.5	3930.2	14179.5	19407.4	20702.2	18472.6
77.5°	922.3	930.6	1084.3	1422.2	1645.2	1977.6	2451.2	7726.1	12166.0	15385.7	14387.3
80°	702.1	717.4	818.4	891.8	1157.7	1204.8	1635.5	3996.7	5540.8	7760.7	9664.9
82.5°	423.8	447.3	541.5	584.4	638.4	603.8	879.4	2156.2	3071.6	3971.8	4921.8
85°	213.3	256.2	360.1	340.7	289.4	267.3	376.7	1042.8	1467.9	1943.0	2258.7
87.5°	54.0	65.1	84.5	101.1	85.9	70.6	102.5	282.5	290.8	278.4	779.7
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°	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2	6744.2
2.5°	6755.3	6698.5	6594.7	6535.1	6387.0	6330.2	6223.5	6262.3	6238.8	6215.2	6216.6
5°	6766.4	6663.9	6465.9	6323.3	6108.6	5999.2	5859.3	5837.2	5776.2	5738.8	5743.0
7.5°	6789.9	6643.2	6363.4	6136.3	5834.4	5662.7	5475.7	5443.9	5352.5	5310.9	5316.5
10°	6849.5	6676.4	6296.9	5963.2	5622.5	5384.3	5165.5	5094.9	5007.6	4960.6	4957.8
12.5°	6940.9	6726.2	6202.8	5831.6	5417.6	5108.7	4856.7	4743.1	4618.5	4576.9	4581.1
15°	7086.3	6789.9	6123.8	5650.2	5169.7	4848.4	4536.8	4399.7	4268.1	4219.7	4215.5
17.5°	7263.6	6848.1	6068.4	5436.9	4955.0	4570.0	4295.8	4108.9	3887.3	3855.4	3820.8
20°	7439.4	6964.4	6018.6	5281.8	4700.2	4290.3	3931.6	3740.5	3423.4	3304.3	3261.3
22.5°	7695.6	7148.6	6011.7	5097.7	4444.0	3984.2	3500.9	3192.1	2843.1	2640.9	2596.6
25°	8037.7	7350.8	6029.7	4957.8	4157.3	3595.1	2942.8	2496.9	2164.5	1936.0	1888.9
27.5°	8482.2	7626.4	6083.7	4804.1	3897.0	3128.4	2316.9	1858.5	1577.4	1386.2	1341.9
30°	9137.3	8088.9	6168.1	4661.4	3517.5	2520.4	1703.4	1339.2	1120.3	1002.6	1001.3
32.5°	10666.2	9122.0	6216.6	4484.2	3164.4	1905.6	1225.6	969.4	794.9	750.6	788.0
35°	12419.4	10585.8	6590.5	4293.1	2611.8	1401.5	875.2	689.7	617.6	628.7	649.5
37.5°	14036.9	11992.8	7161.1	3982.8	2091.1	987.4	628.7	548.4	533.2	573.3	610.7
40°	15468.8	13208.8	7649.9	3642.2	1479.0	689.7	504.1	506.9	491.6	509.6	522.1
42.5°	16873.1	14336.0	8166.5	3183.8	986.0	509.6	455.6	480.5	462.5	465.3	447.3
45°	18269.0	15525.6	8389.5	2617.4	660.6	441.8	426.5	455.6	454.2	443.2	416.8
47.5°	19473.8	16345.4	8672.0	1974.8	491.6	401.6	405.8	426.5	440.4	421.0	408.5
50°	20509.7	17215.1	8454.5	1307.3	439.0	375.3	390.5	390.5	412.7	379.5	364.2
52.5°	21499.9	18080.7	7896.4	861.4	403.0	357.3	372.5	362.8	372.5	339.3	335.1
55°	22094.0	18528.0	7222.0	671.7	380.8	342.1	349.0	346.2	337.9	303.3	310.2
57.5°	22747.6	19043.1	6382.8	563.6	371.1	324.1	325.4	321.3	296.4	272.8	274.2
60°	23269.7	19428.1	5485.4	497.2	360.1	314.4	295.0	288.0	253.4	239.6	241.0
62°	23635.3	19446.1	4703.0	462.5	346.2	307.4	277.0	261.7	223.0	211.9	210.5
62.5°	23675.5	19378.3	4511.9	454.2	340.7	304.7	275.6	253.4	214.7	206.3	203.6
65°	23525.9	18623.5	3599.2	408.5	317.1	288.0	256.2	220.2	184.2	173.1	169.0
67.5°	22412.5	17271.9	2748.9	371.1	288.0	277.0	236.8	193.9	163.4	149.6	146.8
70°	20241.0	15442.5	1962.3	324.1	259.0	252.0	238.2	177.3	150.9	131.6	128.8
72.5°	17828.6	13495.4	1335.0	288.0	229.9	207.7	175.9	167.6	141.3	116.3	113.6
75°	15172.5	10747.9	950.0	247.9	198.0	175.9	148.2	155.1	132.9	103.9	101.1
77.5°	11641.1	7904.8	704.9	203.6	153.7	142.6	124.6	137.1	120.5	94.2	92.8
80°	7949.1	5459.1	501.3	153.7	101.1	101.1	105.2	117.7	106.6	84.5	83.1
82.5°	4468.9	2873.6	296.4	110.8	69.2	69.2	81.7	95.6	88.6	73.4	72.0
85°	1851.6	1040.0	156.5	69.2	45.7	47.1	58.2	70.6	69.2	58.2	56.8
87.5°	644.0	261.7	45.7	23.5	19.4	20.8	23.5	33.2	33.2	29.1	30.5
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)