

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: P591341

Luminaire Tested: **CTN-CA6-230-730-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591341  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA6-230-730-U-T3-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20230 lumens  
Efficiency: N/A  
Efficacy: 88.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

Input Watts (W): 227.8  
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

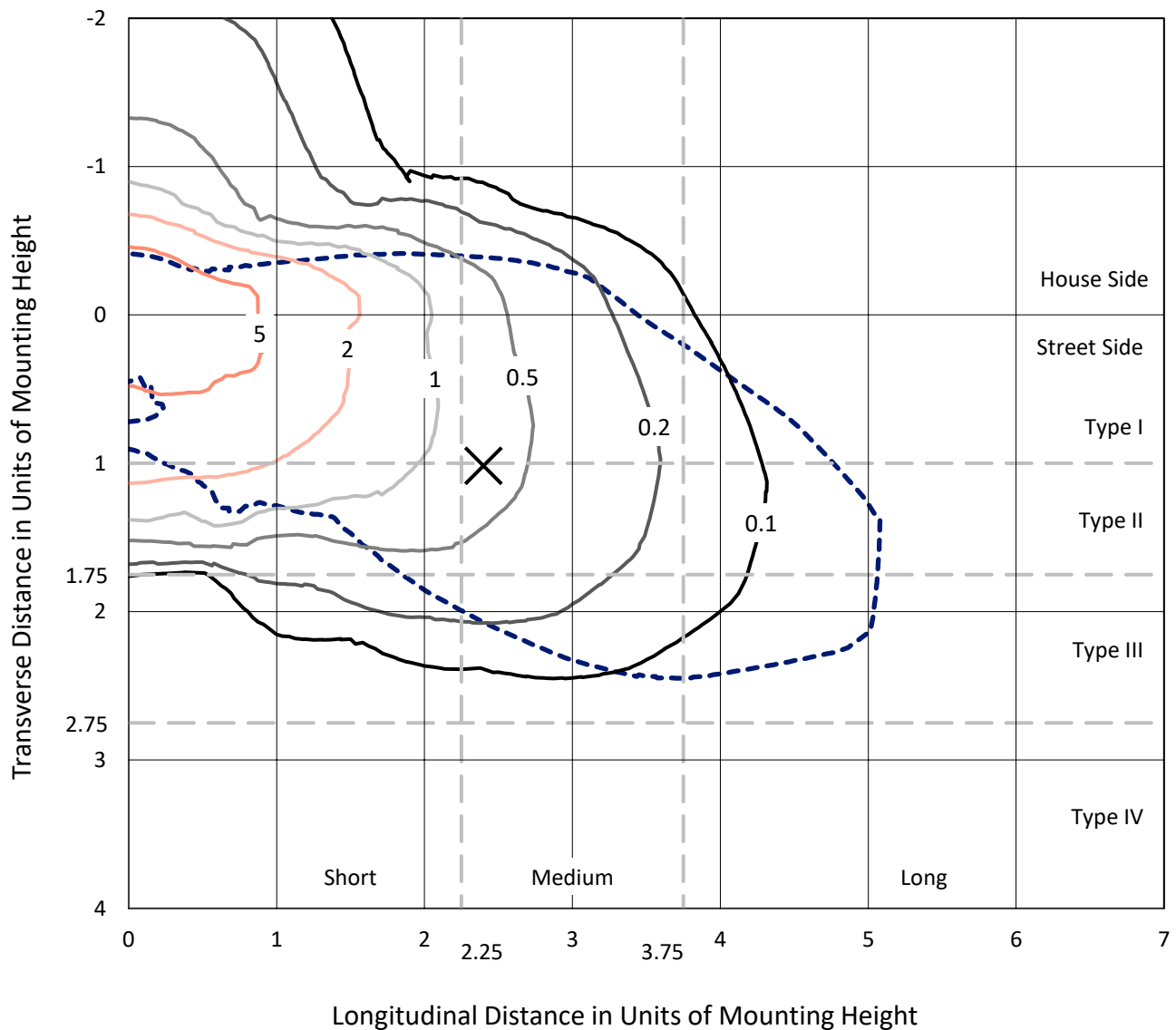


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## Iso-Footcandle Lines of Horizontal Illumination

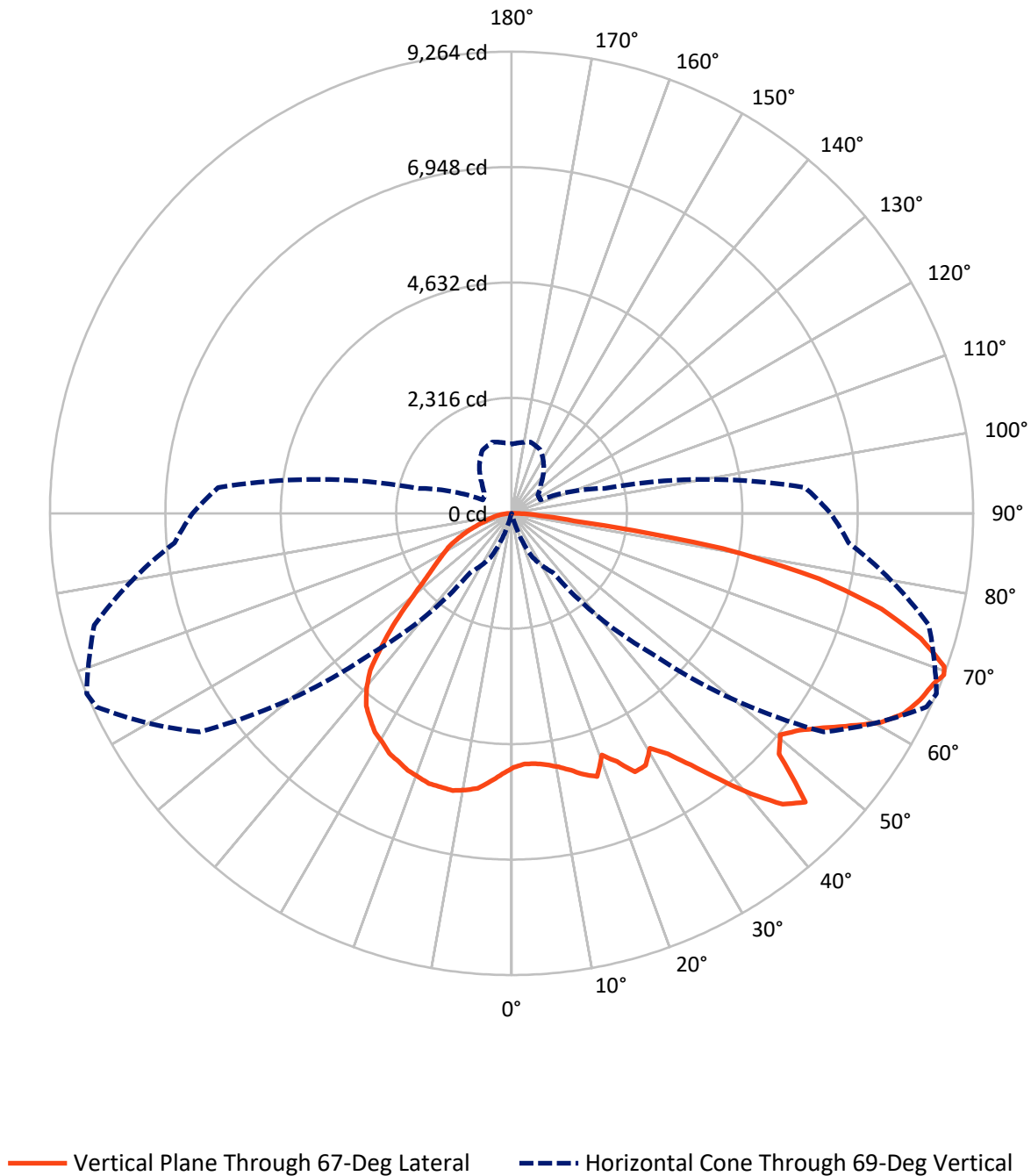
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc  
 Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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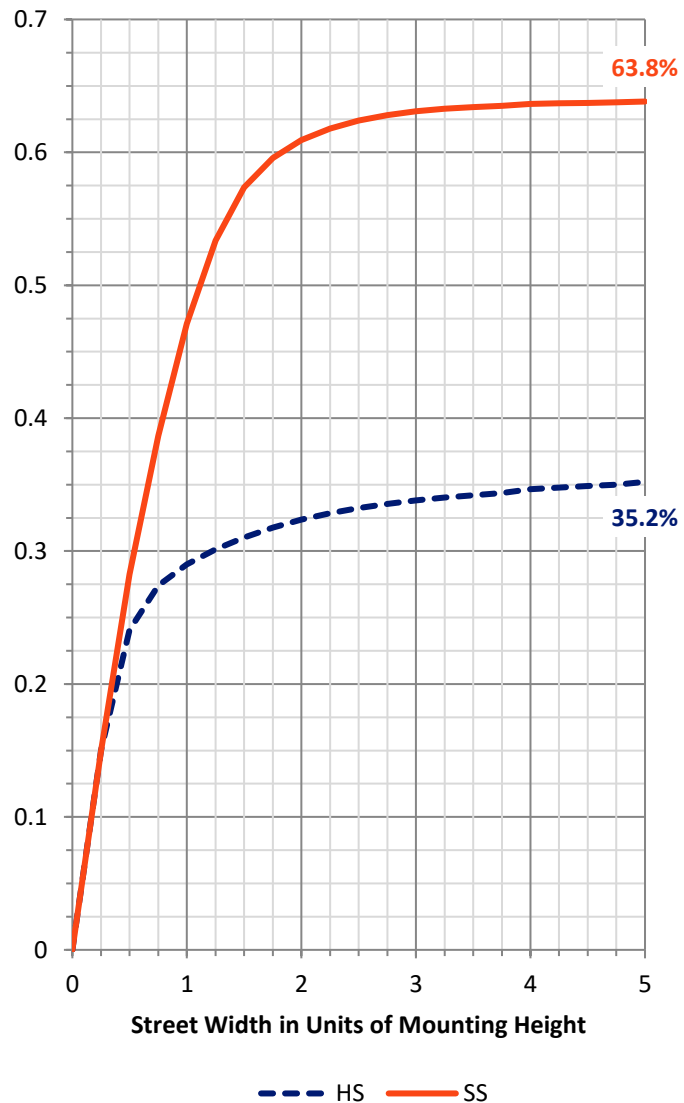
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7318.6	0.0	7318.6
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	12911.4	0.0	12911.4
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	20230.0	0.0	20230.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	509.6	2.5
10°-20°	1573.4	7.8
20°-30°	2322.2	11.5
30°-40°	2917.7	14.4
40°-50°	3422.3	16.9
50°-60°	3581.2	17.7
60°-70°	3199.4	15.8
70°-80°	2251.8	11.1
80°-90°	452.3	2.2
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°	20230.0	100.0
0°-180°	20230.0	100.0

**Coefficient of Utilization**



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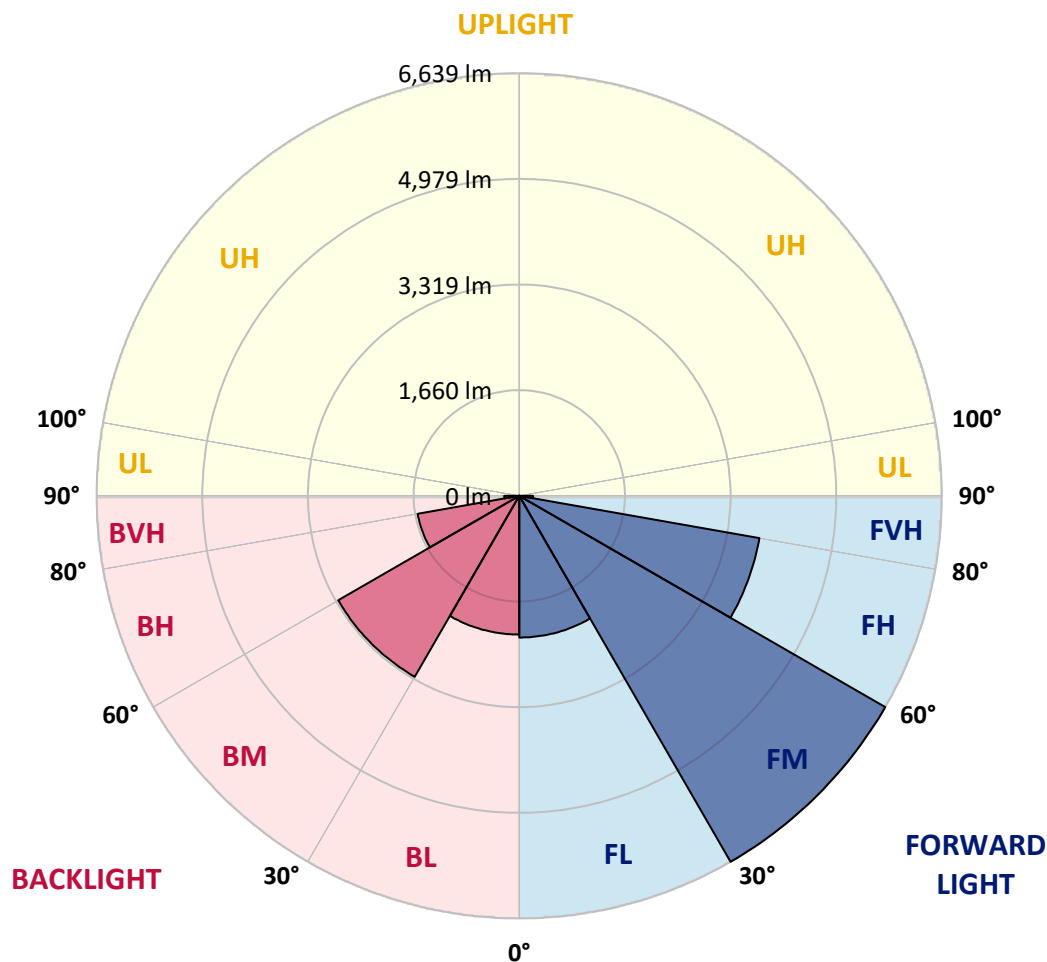
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2226.2	11.0			
FM	(30°-60°)	6638.6	32.8			
FH	(60°-80°)	3830.4	18.9			G2/5000
FVH	(80°-90°)	216.1	1.1			G2/225
BL	(0°-30°)	2179.0	10.8	B3/2500		
BM	(30°-60°)	3282.7	16.2	B3/5000		
BH	(60°-80°)	1620.8	8.0	B3/2500		G3/2500
BVH	(80°-90°)	236.2	1.2			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1
2.5°	4974.8	4945.5	4959.1	4997.8	4917.3	4974.8	4953.9	5012.5	5034.4	5031.3	5114.9
5°	5014.6	4982.1	4987.4	5016.6	4928.8	4973.8	4953.9	5018.7	5043.8	5036.5	5150.5
7.5°	5155.7	5120.2	5108.7	5118.1	5022.9	5057.4	5014.6	5066.8	5094.0	5094.0	5223.7
10°	5378.4	5335.5	5310.4	5309.4	5197.5	5181.8	5129.6	5153.6	5173.5	5190.2	5334.5
12.5°	5611.6	5576.0	5543.6	5525.8	5378.4	5341.8	5265.5	5283.3	5289.5	5312.5	5455.8
15°	5823.8	5788.3	5778.9	5750.6	5604.3	5543.6	5437.0	5428.6	5437.0	5450.6	5592.8
17.5°	5742.3	5744.4	5796.6	5801.9	5611.6	5471.5	5397.2	5538.4	5552.0	5659.7	5751.7
20°	5587.5	5511.2	5237.3	5087.7	5109.7	5291.6	5156.7	5150.5	5178.7	5370.0	5836.4
22.5°	4653.8	4612.0	4762.6	4810.7	4984.2	5053.2	5374.2	5382.6	5410.8	5410.8	5546.7
25°	4018.1	4234.6	4527.3	5050.1	4995.7	5009.3	5140.0	5695.2	5748.5	5747.5	5727.6
27.5°	4154.0	4126.9	4565.0	4893.3	5281.2	5257.1	5114.9	5492.4	5728.7	6134.4	6040.3
30°	4317.2	4297.3	4329.7	4884.9	5527.9	5560.3	5428.6	5389.9	5470.4	6322.6	6397.8
32.5°	4468.8	4444.7	4481.3	4566.0	5181.8	5873.0	5771.5	5724.5	5753.8	5925.2	6857.9
35°	4602.6	4600.5	4642.3	4742.7	5267.6	5981.7	6122.9	6119.7	6198.1	6345.6	6924.8
37.5°	4697.7	4696.7	4730.2	4847.3	4965.4	5524.8	6452.2	6639.4	6764.8	6983.4	6764.8
40°	4696.7	4713.4	4801.3	4951.8	5108.7	5277.0	6597.5	7250.0	7400.5	7556.3	7192.5
42.5°	4598.4	4607.8	4762.6	5041.7	5236.2	5381.5	6020.4	7811.4	7979.8	7968.3	7529.1
45°	4507.4	4511.6	4684.2	5027.1	5342.9	5605.3	5902.2	7809.4	8264.2	8335.3	7846.0
47.5°	4389.3	4389.3	4559.7	4942.4	5439.1	5857.3	6218.0	6746.0	7220.7	8653.1	8108.4
50°	4237.7	4256.5	4047.4	4854.6	5485.1	6096.7	6485.7	6920.6	6986.5	7738.3	8352.0
52.5°	3996.2	3985.7	3162.8	4757.3	5503.9	6270.3	6763.8	7193.5	7229.1	7153.8	8113.6
55°	2518.8	2808.4	2796.9	4643.4	5492.4	6382.2	6977.1	7493.6	7594.0	7502.0	6825.5
57.5°	1521.3	1452.3	2390.2	4317.2	4411.3	6468.9	7266.7	7949.5	8037.3	7824.0	6940.5
60°	593.9	560.4	605.4	1964.6	3164.9	6018.3	7660.9	8433.6	8517.2	8130.3	7037.7
62.5°	74.2	63.8	54.4	1360.3	2011.7	4470.9	7870.0	8823.6	8839.2	8352.0	7056.5
65°	10.5	11.5	20.9	1212.9	1827.7	4394.5	7943.2	8982.5	9014.9	8512.0	6992.8
67.5°	4.2	5.2	16.7	1055.0	1603.9	4191.7	7762.3	9092.3	9129.9	8666.7	6931.1
69°	4.2	5.2	16.7	948.3	1451.3	3967.9	7646.2	9189.5	9263.7	8669.9	6789.9
70°	4.2	5.2	15.7	872.0	1332.1	3778.7	7534.4	9151.9	9211.5	8586.2	6633.1
72.5°	4.2	5.2	15.7	671.3	1013.2	3034.2	6826.5	8618.6	8588.3	8059.2	6022.5
75°	5.2	5.2	15.7	471.6	702.6	2158.1	5761.1	7653.6	7667.2	7174.7	5065.8
77.5°	5.2	5.2	15.7	300.1	443.3	1248.4	4171.8	6276.6	6315.2	5977.5	3793.3
80°	5.2	5.2	15.7	137.0	275.0	652.4	2051.4	4090.3	4298.3	4012.9	2081.7
82.5°	5.2	5.2	14.6	85.7	150.6	293.8	809.3	1282.9	1270.4	1250.5	661.8
85°	4.2	4.2	11.5	60.6	100.4	170.4	449.6	575.1	567.7	502.9	341.9
87.5°	2.1	2.1	6.3	25.1	41.8	77.4	224.8	261.4	248.8	213.3	146.4
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°	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1	5096.1
2.5°	5153.6	5160.9	5195.4	5240.4	5254.0	5312.5	5321.9	5418.1	5432.8	5456.8	5467.3
5°	5205.9	5234.1	5309.4	5415.0	5504.9	5596.9	5600.1	5717.2	5747.5	5741.2	5771.5
7.5°	5280.1	5327.2	5442.2	5588.6	5621.0	5740.2	5731.8	5847.9	5850.0	5833.2	5879.2
10°	5394.1	5452.6	5557.2	5647.1	5708.8	5786.2	5775.7	5885.5	5869.8	5852.1	5903.3
12.5°	5511.2	5541.5	5605.3	5705.7	5719.3	5746.4	5732.9	5834.3	5817.5	5795.6	5845.8
15°	5613.7	5628.3	5628.3	5682.7	5648.2	5670.1	5624.1	5705.7	5667.0	5656.5	5704.6
17.5°	5746.4	5722.4	5673.3	5669.1	5579.2	5545.7	5476.7	5498.6	5425.5	5432.8	5457.9
20°	5896.0	5842.6	5713.0	5583.3	5417.1	5337.6	5200.7	5190.2	5122.2	5109.7	5133.7
22.5°	5951.4	5998.4	5761.1	5510.2	5223.7	5045.9	4883.9	4806.5	4707.2	4643.4	4651.7
25°	6119.7	6204.4	5834.3	5379.5	4995.7	4703.0	4459.4	4282.7	4133.1	4056.8	4072.5
27.5°	6347.7	6485.7	5876.1	5288.5	4696.7	4314.0	3906.2	3674.1	3519.4	3439.9	3437.8
30°	6673.9	6847.4	5956.6	5098.2	4364.2	3802.7	3299.8	3025.9	2899.4	2847.1	2851.3
32.5°	7081.6	7290.8	6123.9	4939.3	4002.4	3255.9	2682.9	2443.5	2386.0	2376.6	2371.4
35°	7622.2	7829.2	6256.7	4694.6	3533.0	2635.9	2153.9	1984.5	1993.9	1991.8	1998.1
37.5°	7534.4	8319.6	6408.3	4455.2	2971.5	2066.0	1740.9	1645.7	1648.9	1685.5	1692.8
40°	7204.0	7890.9	6634.1	4058.9	2314.9	1587.2	1372.8	1350.9	1440.8	1521.3	1535.9
42.5°	7463.3	7632.7	6664.5	3631.3	1693.8	1217.0	1148.0	1239.0	1384.3	1477.4	1494.1
45°	7722.6	7859.5	6488.8	2991.4	1215.0	1041.4	1092.6	1223.3	1384.3	1483.7	1495.2
47.5°	7986.1	7985.0	6283.9	2398.5	993.3	995.4	1079.0	1224.4	1392.7	1493.1	1499.3
50°	8153.4	8086.4	5748.5	1878.9	924.3	968.2	1071.7	1230.6	1390.6	1463.8	1466.9
52.5°	8237.0	8137.7	5275.9	1501.4	891.9	946.2	1072.8	1245.3	1379.1	1419.9	1417.8
55°	8095.8	8109.4	4884.9	1248.4	861.5	928.5	1078.0	1255.7	1384.3	1426.2	1426.2
57.5°	7920.2	7923.3	4573.3	1057.1	831.2	913.8	1084.3	1271.4	1480.5	1558.9	1547.4
60°	7796.8	7655.7	4132.1	936.8	796.7	900.2	1092.6	1339.4	1706.4	1785.8	1758.6
62.5°	7594.0	7402.6	3678.3	853.2	758.0	889.8	1097.8	1434.5	1736.7	1740.9	1674.0
65°	7238.5	6964.5	2969.4	770.6	718.3	875.1	1094.7	1470.1	1599.7	1537.0	1518.2
67.5°	6724.1	6366.5	2327.4	688.0	674.4	853.2	1115.6	1405.2	1510.8	1459.6	1434.5
69°	6403.1	5912.7	1932.2	638.8	646.2	836.5	1126.1	1392.7	1479.5	1416.7	1387.5
70°	6159.4	5519.6	1636.3	606.4	622.1	821.8	1105.2	1385.4	1464.8	1387.5	1353.0
72.5°	5229.9	4437.4	1047.7	531.1	559.4	785.2	1048.7	1339.4	1432.4	1380.2	1337.3
75°	4043.2	3259.0	668.1	462.1	495.6	730.9	990.2	1307.0	1447.1	1353.0	1258.9
77.5°	2721.6	1820.3	510.2	387.9	420.3	659.8	897.1	1216.0	1396.9	1314.3	1198.2
80°	1240.0	694.3	394.2	314.7	339.8	531.1	773.7	1075.9	1320.6	1319.5	1235.9
82.5°	496.6	464.2	292.8	240.5	267.7	396.3	612.7	921.1	1164.8	1215.0	1297.6
85°	289.6	292.8	194.5	167.3	199.7	291.7	437.0	712.0	947.3	1047.7	1117.7
87.5°	118.1	131.7	91.0	87.8	109.8	155.8	200.7	345.0	510.2	626.3	669.2
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)