

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: P579471

Luminaire Tested: **CTN-CA8-480-730-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579471  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-480-730-U-T5N-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 57534 lumens  
Efficiency: N/A  
Efficacy: 119.7 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B5 - U2 - G5

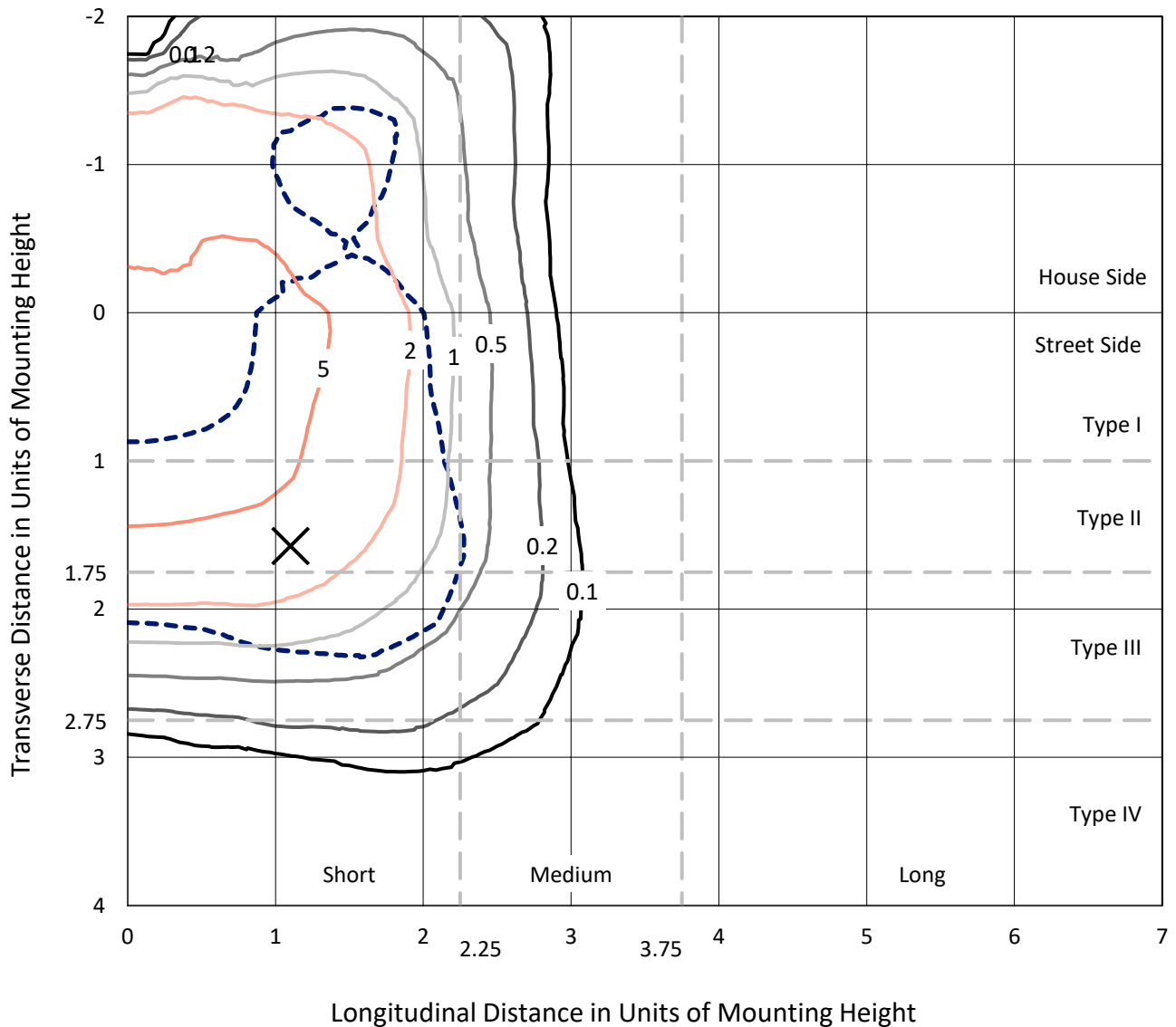
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

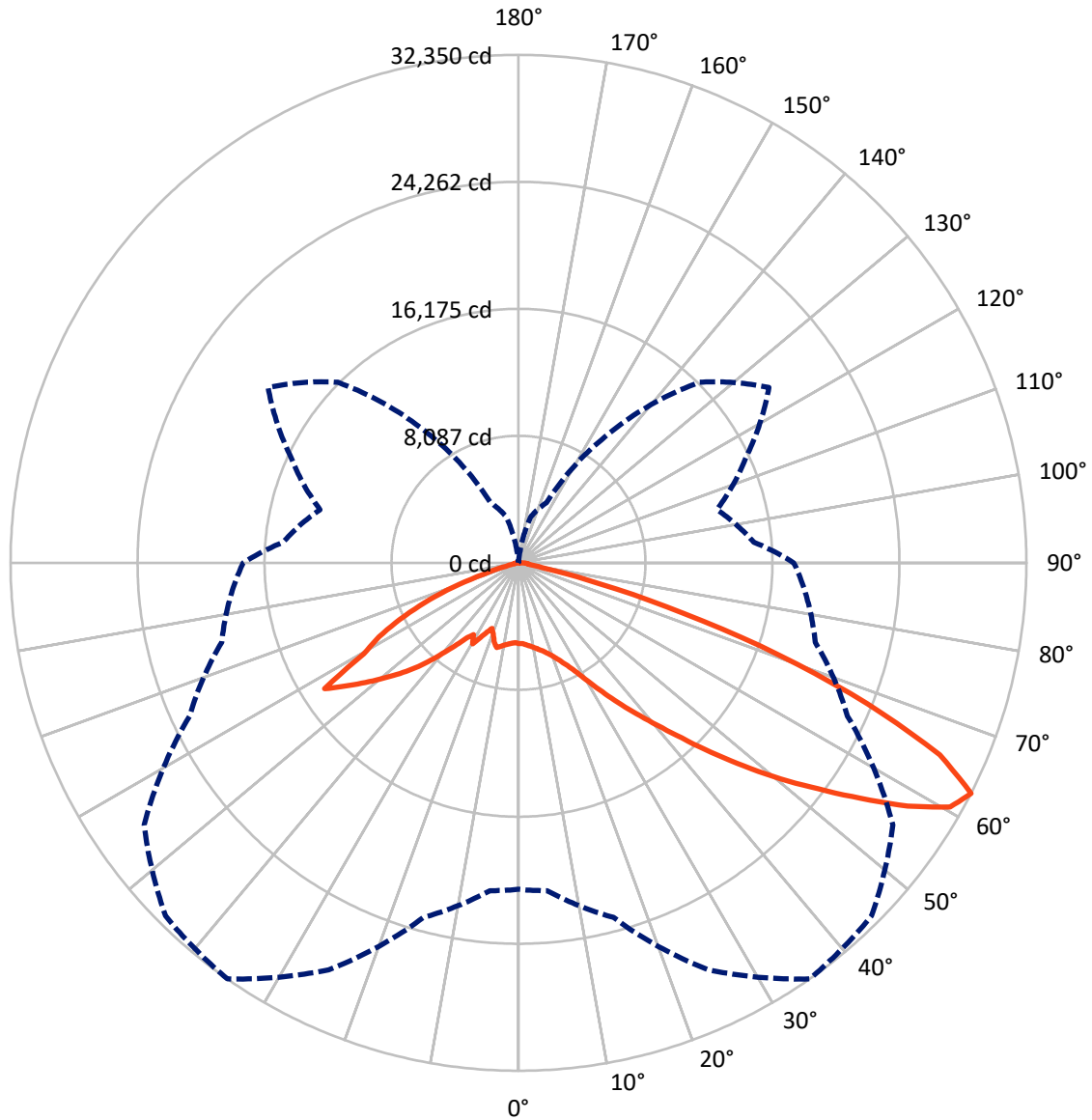
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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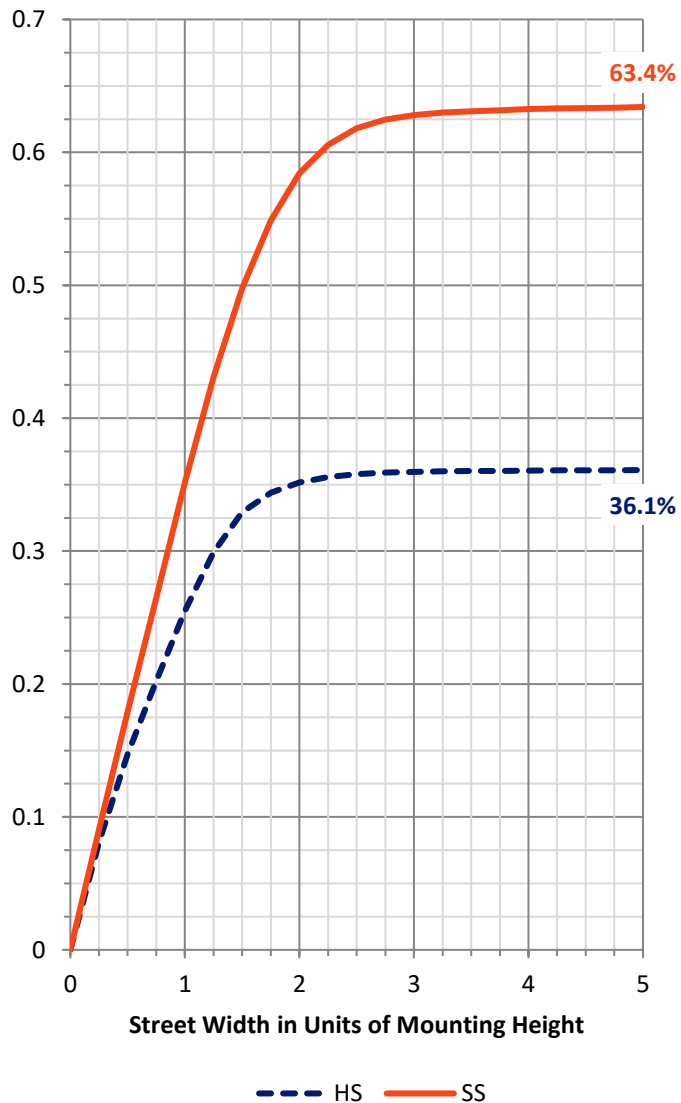
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	20883.5	0.0	20883.5
	% Fixture	36.3	0.0	36.3
<b>Street Side</b>	Lumens	36623.2	27.3	36650.5
	% Fixture	63.7	0.0	63.7
<b>Total</b>	Lumens	57506.7	27.3	57534.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	506.1	0.9
10°-20°	1635.7	2.8
20°-30°	3146.9	5.5
30°-40°	6277.7	10.9
40°-50°	11462.8	19.9
50°-60°	17129.4	29.8
60°-70°	14352.8	24.9
70°-80°	2686.0	4.7
80°-90°	309.2	0.5
90°-100°	24.6	0.0
100°-110°	2.7	0.0
110°-120°	0.1	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°	57506.7	100.0
0°-180°	57534.0	100.0

**Coefficient of Utilization**

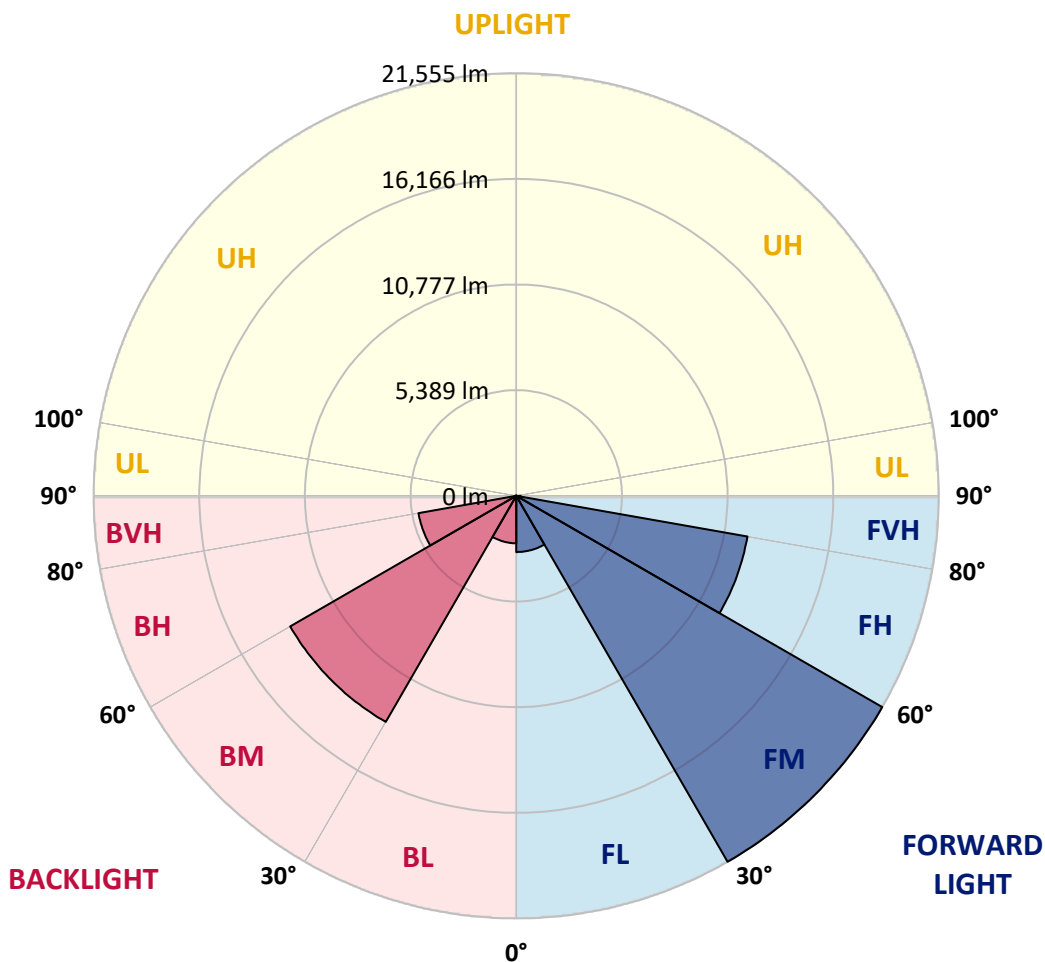


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2868.7	5.0			
FM (30°-60°)	21554.9	37.5			
FH (60°-80°)	11974.5	20.8			G4/12000
FVH (80°-90°)	225.2	0.4			G3/500
BL (0°-30°)	2420.0	4.2	B3/2500		
BM (30°-60°)	13315.1	23.1	B5		
BH (60°-80°)	5064.4	8.8	B5		G5
BVH (80°-90°)	84.0	0.1			G1/100
UL (90°-100°)	24.6	0.0		U2/50	
UH (100°-180°)	2.7	0.0		U1/10	

**BUG Rating: B5-U2-G5**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9
2.5°	5257.9	5214.8	5221.3	5251.5	5156.6	5195.4	5154.4	5193.2	5180.3	5197.5	5210.5
5°	5333.4	5279.5	5283.8	5318.3	5245.0	5277.3	5236.4	5262.2	5240.7	5264.4	5266.6
7.5°	5436.9	5391.6	5385.2	5419.7	5357.1	5385.2	5344.2	5357.1	5335.6	5363.6	5355.0
10°	5575.0	5534.0	5523.2	5546.9	5497.3	5512.4	5469.3	5486.5	5454.2	5486.5	5471.4
12.5°	5728.1	5674.2	5676.3	5702.2	5652.6	5663.4	5628.9	5648.3	5609.5	5644.0	5633.2
15°	5909.2	5831.6	5846.7	5874.7	5827.3	5859.6	5818.7	5846.7	5810.0	5846.7	5833.8
17.5°	6144.3	6055.9	6066.7	6112.0	6073.1	6124.9	6077.5	6112.0	6094.7	6118.4	6114.1
20°	6441.9	6383.7	6372.9	6429.0	6372.9	6437.6	6411.7	6472.1	6476.4	6500.2	6510.9
22.5°	6838.8	6799.9	6774.1	6812.9	6763.3	6808.6	6845.2	6948.8	6987.6	7050.1	7054.4
25°	7367.1	7365.0	7306.8	7308.9	7246.4	7306.8	7410.3	7572.0	7675.5	7755.3	7725.1
27.5°	8081.0	8093.9	8005.5	7971.0	7897.7	7988.3	8201.8	8402.3	8590.0	8702.1	8702.1
30°	9012.7	9025.6	8896.2	8827.2	8760.3	8917.8	9172.3	9433.2	9700.6	9862.4	9825.7
32.5°	10246.3	10205.3	10019.8	9894.7	9780.4	9961.6	10254.9	10550.4	10914.8	11147.8	11119.7
35°	11743.0	11594.2	11408.7	11175.8	10929.9	11072.3	11348.3	11719.3	12226.1	12575.5	12487.0
37.5°	13481.3	13334.6	13017.6	12616.4	12187.3	12204.5	12422.3	13065.0	13699.1	13983.8	13923.4
40°	15286.4	15172.1	14880.9	14365.5	13589.1	13410.1	13768.1	14542.3	15148.4	15506.4	15405.0
42.5°	17126.0	17009.6	16789.6	16272.0	15243.3	14811.9	15185.0	16028.3	16675.3	17026.8	16910.4
45°	18961.3	18827.6	18652.9	18195.7	17214.4	16582.5	16791.7	17566.0	18156.9	18555.9	18316.5
47.5°	20574.5	20486.1	20367.5	20182.0	19323.7	18624.9	18609.8	19120.9	19528.5	19791.6	19498.3
50°	21978.5	21916.0	21982.8	21944.0	21631.3	20995.1	20604.7	20570.2	20701.8	20893.7	20475.3
52.5°	23238.0	23128.0	23376.0	23684.4	23915.2	23785.8	22522.0	21812.4	21667.9	21732.6	21258.2
55°	24268.9	24217.1	24633.3	25407.6	26475.1	26759.8	24491.0	23020.2	22487.5	22453.0	21913.8
57.5°	24898.6	24971.9	25804.4	27279.6	29237.8	29328.4	26908.6	24312.0	23285.4	22914.5	22293.4
60°	23895.8	24178.3	25599.5	28642.6	31582.1	31638.2	28683.5	24549.2	22289.1	21458.7	20688.8
62.5°	20794.5	20962.7	23380.3	28597.3	32349.9	31802.1	29106.3	23117.2	19569.5	18245.3	17533.6
65°	14648.0	14962.9	17553.0	25728.9	29479.4	29548.4	26701.6	19987.9	15627.1	14162.8	13703.4
67.5°	8846.6	9148.5	11906.9	18573.1	23964.8	24739.0	22274.0	15133.3	11206.0	9355.6	8891.9
70°	2872.7	3200.5	5426.2	10947.2	17628.5	19485.4	16761.5	9849.5	5868.3	4110.6	3612.4
72.5°	1091.3	1190.5	1766.3	4781.3	10979.5	13009.0	10367.1	4940.9	1818.1	1082.6	951.1
75°	709.5	724.6	826.0	1675.7	5294.6	7162.3	4997.0	1447.1	729.0	647.0	599.6
77.5°	610.3	621.1	664.3	834.6	1686.5	2739.0	1434.2	739.7	608.2	539.2	506.8
80°	575.8	580.1	608.2	707.4	789.3	914.4	690.1	619.0	530.5	506.8	483.1
82.5°	545.6	560.7	575.8	642.7	640.5	657.8	554.3	485.2	450.7	474.5	465.8
85°	509.0	517.6	528.4	573.7	521.9	442.1	427.0	334.3	325.7	347.2	325.7
87.5°	358.0	379.6	366.6	386.0	362.3	282.5	239.4	189.8	151.0	125.1	120.8
90°	146.7	148.8	140.2	129.4	114.3	94.9	75.5	47.4	21.6	10.8	4.3
92.5°	114.3	114.3	110.0	99.2	86.3	71.2	53.9	30.2	15.1	6.5	2.2
95°	71.2	73.3	69.0	62.5	53.9	43.1	32.3	17.3	10.8	4.3	2.2
97.5°	45.3	45.3	41.0	36.7	30.2	21.6	15.1	12.9	8.6	4.3	0.0
100°	25.9	25.9	23.7	19.4	15.1	10.8	10.8	8.6	6.5	2.2	0.0
102.5°	15.1	15.1	10.8	8.6	6.5	6.5	6.5	6.5	4.3	2.2	0.0
105°	6.5	6.5	4.3	4.3	2.2	2.2	4.3	4.3	4.3	2.2	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.3	4.3	2.2	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.3	2.2	2.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9	5147.9
2.5°	5201.9	5163.0	5169.5	5132.8	5126.4	5089.7	5163.0	5171.7	5150.1	5169.5
5°	5262.2	5214.8	5229.9	5188.9	5182.4	5132.8	5197.5	5193.2	5176.0	5195.4
7.5°	5352.8	5303.2	5311.8	5266.6	5257.9	5204.0	5264.4	5245.0	5227.7	5251.5
10°	5480.1	5424.0	5428.3	5370.1	5376.5	5305.4	5378.7	5344.2	5322.6	5355.0
12.5°	5633.2	5570.6	5572.8	5512.4	5510.3	5441.2	5505.9	5486.5	5454.2	5503.8
15°	5831.6	5760.4	5754.0	5674.2	5652.6	5575.0	5635.3	5598.7	5577.1	5648.3
17.5°	6109.8	6030.0	6006.3	5909.2	5505.9	5273.0	5596.5	5706.5	5572.8	5551.2
20°	6480.8	6413.9	6360.0	6213.3	5536.1	4809.3	4272.3	4276.7	4841.7	5102.7
22.5°	6983.3	6903.5	6802.1	6592.9	5078.9	4505.3	4507.4	4500.9	3862.6	3593.0
25°	7671.2	7574.2	7367.1	6185.3	5391.6	4861.1	4848.2	4216.3	3864.7	3884.1
27.5°	8600.8	8402.3	7190.3	6700.7	5948.1	5322.6	5012.1	4244.3	4287.4	4317.6
30°	9782.6	8984.6	7770.4	7479.3	6616.6	5935.1	4634.7	4740.3	4826.6	4846.0
32.5°	10994.6	9010.5	8697.8	8389.4	7440.5	5400.3	5223.4	5424.0	5514.6	5525.4
35°	10983.9	10114.7	9711.4	9364.2	8203.9	5777.7	5889.8	6198.2	6429.0	6418.2
37.5°	11624.4	11333.2	10852.3	10412.3	7384.4	6508.8	6709.4	7058.7	7339.1	7330.5
40°	12963.7	12627.2	12118.3	11195.2	8175.9	7345.6	7625.9	8001.2	8199.6	8210.4
42.5°	14229.6	13951.4	13431.7	10459.8	9165.8	8352.7	8607.2	8859.5	8982.5	9021.3
45°	15489.1	15290.7	13561.1	11559.7	10362.7	9366.4	9534.6	9582.0	9711.4	9696.3
47.5°	16511.4	16291.4	13039.2	12939.9	11814.2	10328.2	10315.3	10252.8	10300.2	10311.0
50°	17445.2	14794.7	14087.3	14417.3	13336.8	11309.5	11063.7	10936.4	10871.7	10843.7
52.5°	18182.8	14799.0	15066.4	15944.2	15055.6	12374.9	11846.5	11488.5	10058.7	11178.0
55°	18810.4	15409.3	15993.8	17576.8	16537.3	13489.9	12553.9	11915.5	6713.7	5383.0
57.5°	19170.5	15873.0	16912.5	19105.8	17831.2	14730.0	11557.5	9994.0	3795.7	3791.4
60°	17779.5	15040.5	16886.6	19908.1	17458.1	11426.0	4705.8	3938.1	718.2	737.6
62.5°	15051.3	13084.4	16015.3	19468.1	16259.0	10052.2	4220.6	3032.3	23.7	19.4
65°	11661.0	10438.2	13485.6	17123.9	14792.5	8387.2	3146.6	2184.7	6.5	0.0
67.5°	7628.1	7356.4	9950.8	14199.4	12064.3	6498.0	2111.4	1046.0	4.3	0.0
70°	3252.2	3767.7	6303.9	10295.9	9234.8	4470.8	1017.9	377.4	2.2	0.0
72.5°	910.1	1205.6	2805.8	6032.2	5807.9	2350.8	396.8	159.6	2.2	0.0
75°	539.2	463.7	804.4	2406.8	2827.4	826.0	183.3	122.9	2.2	0.0
77.5°	448.6	362.3	461.5	614.6	856.2	297.6	155.3	110.0	0.0	0.0
80°	420.5	321.3	399.0	429.2	422.7	248.0	153.1	110.0	0.0	0.0
82.5°	399.0	280.4	330.0	330.0	353.7	228.6	144.5	107.8	0.0	0.0
85°	299.8	196.3	220.0	284.7	254.5	161.7	105.7	86.3	0.0	0.0
87.5°	114.3	71.2	86.3	90.6	73.3	36.7	8.6	8.6	0.0	0.0
90°	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P579471  
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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)