

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: P324938

Luminaire Tested: **GAN-SA4D-827-U-AFL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324938
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-30)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA4D-827-U-AFL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18836 lumens
Efficiency: N/A
Efficacy: 73.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

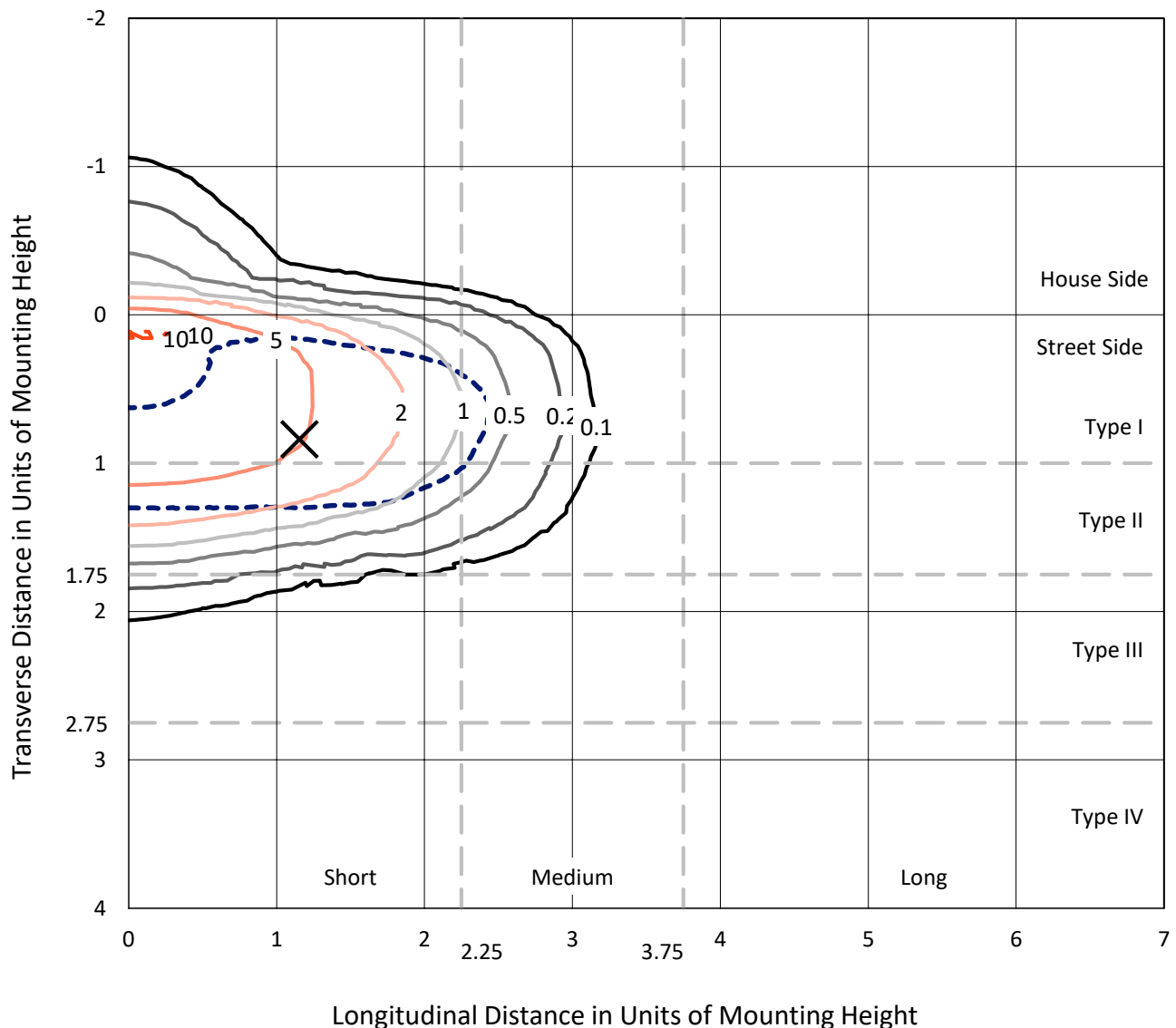
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

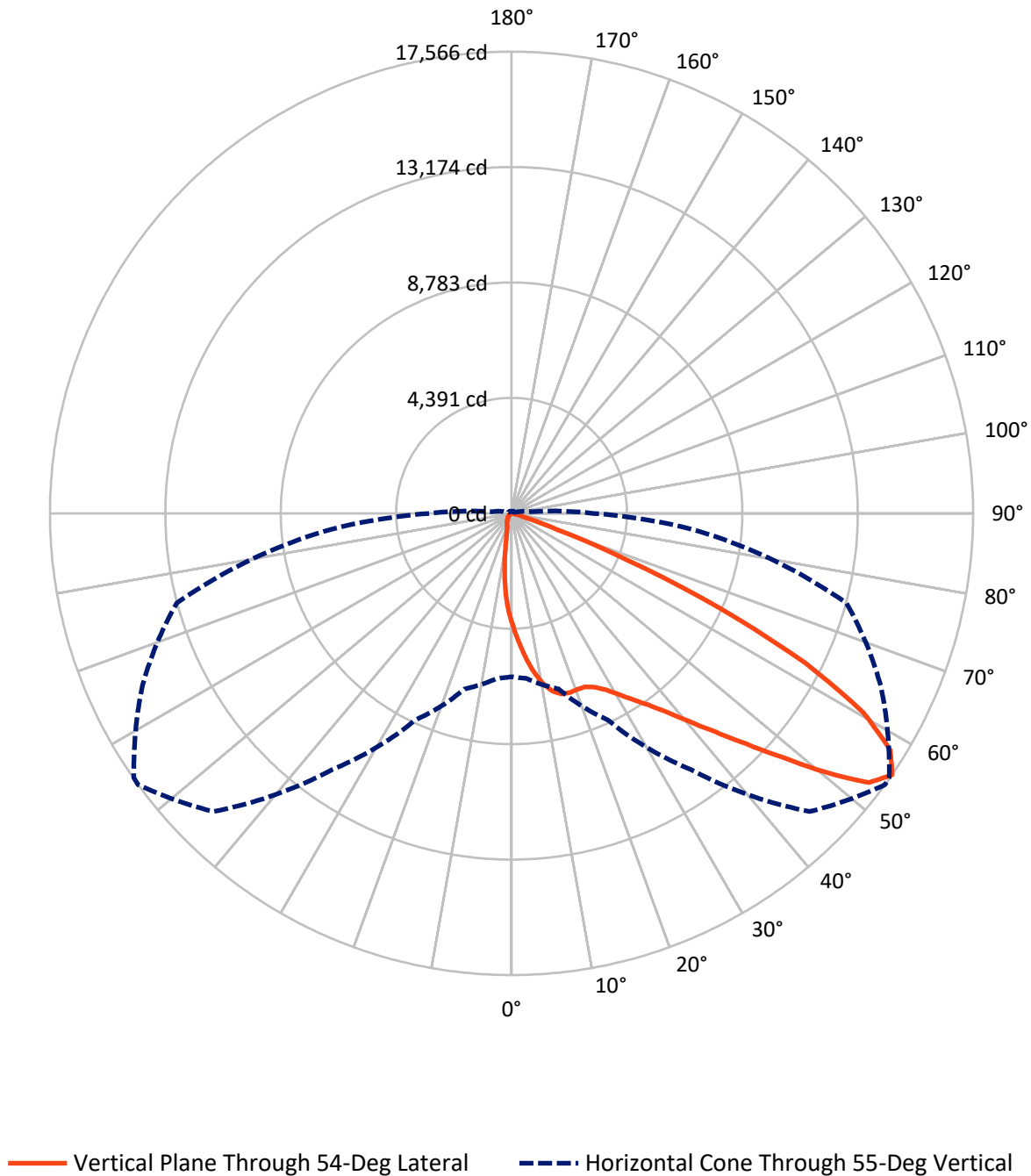
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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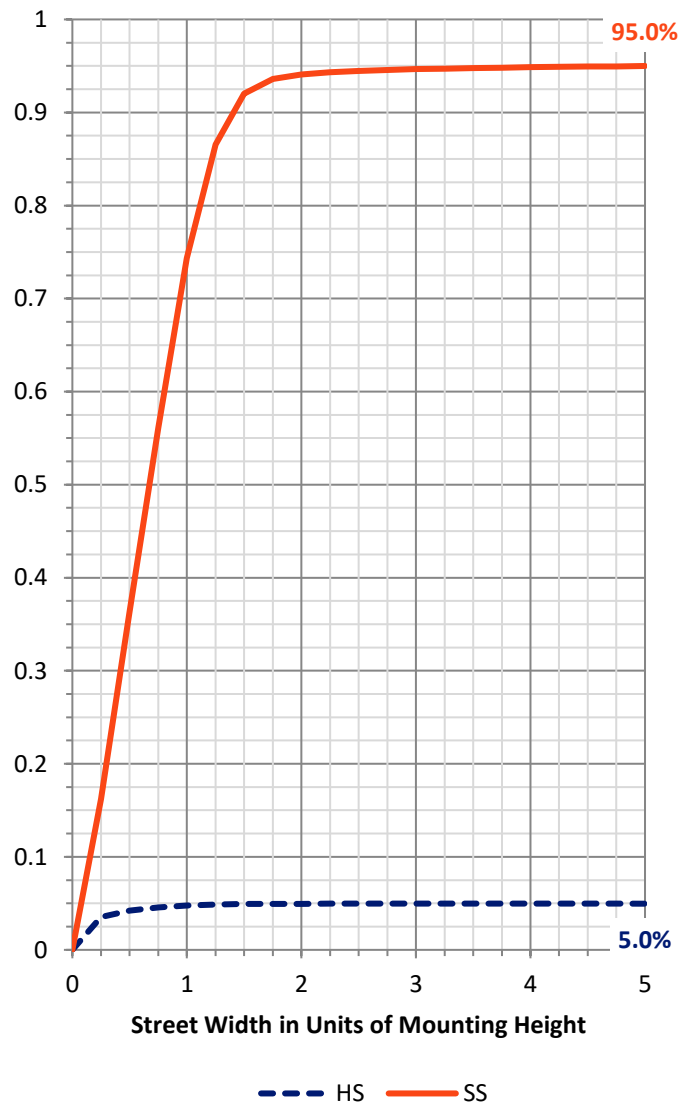
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	939.8	0.0	939.8
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	17896.2	0.0	17896.2
	% Fixture	95.0	0.0	95.0
Total	Lumens	18836.0	0.0	18836.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	388.5	2.1
10°-20°	1065.4	5.7
20°-30°	1819.0	9.7
30°-40°	2919.2	15.5
40°-50°	4664.9	24.8
50°-60°	4998.6	26.5
60°-70°	2566.4	13.6
70°-80°	388.7	2.1
80°-90°	25.3	0.1
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°	18836.0	100.0
0°-180°	18836.0	100.0

Coefficient of Utilization



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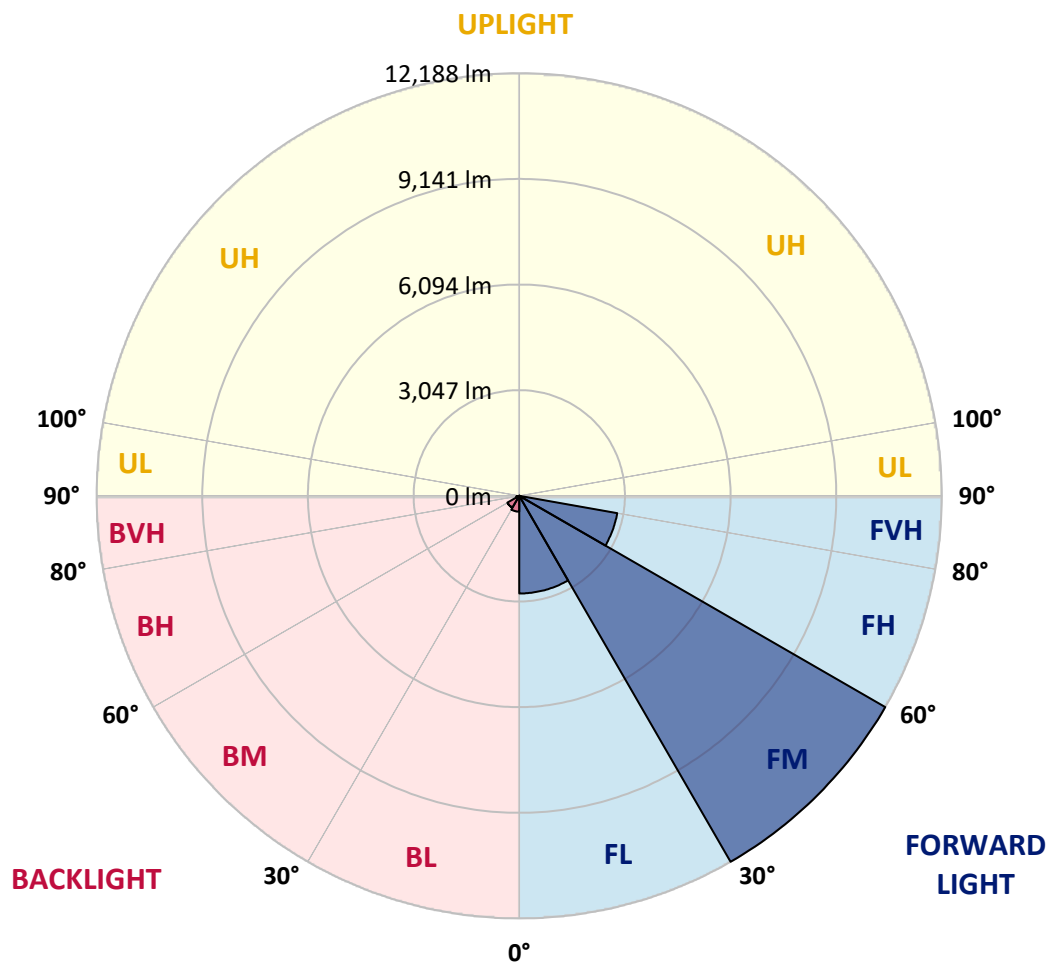
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2815.7	14.9			
FM	(30°-60°)	12187.7	64.7			
FH	(60°-80°)	2868.6	15.2			G2/5000
FVH	(80°-90°)	24.3	0.1			G1/100
BL	(0°-30°)	457.2	2.4	B1/500		
BM	(30°-60°)	394.9	2.1	B1/1000		
BH	(60°-80°)	86.6	0.5	B0/110		G0/110
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5
2.5°	5293.9	5215.0	5217.4	5181.6	5050.7	4948.2	4841.6	4816.4	4650.4	4476.4	4308.8
5°	6209.0	6151.2	6137.4	6068.3	5886.1	5693.3	5486.7	5438.7	5114.1	4757.8	4407.2
7.5°	6679.2	6680.0	6668.6	6643.4	6529.5	6342.4	6090.2	6039.8	5598.1	5063.7	4509.7
10°	6542.5	6573.4	6636.9	6720.7	6807.7	6784.1	6594.6	6549.0	6069.1	5387.4	4623.6
12.5°	6223.6	6227.7	6298.5	6435.9	6686.5	6943.5	6946.8	6931.3	6518.9	5725.8	4748.9
15°	6065.0	6080.5	6106.5	6195.2	6432.7	6844.3	7138.8	7160.7	6931.3	6085.4	4882.3
17.5°	6169.1	6191.1	6169.1	6179.7	6317.2	6687.3	7172.1	7228.2	7291.7	6440.8	5008.4
20°	6451.4	6471.7	6432.7	6389.6	6416.4	6641.8	7148.5	7224.2	7574.0	6756.4	5114.1
22.5°	6832.1	6840.2	6780.8	6710.1	6690.6	6796.3	7168.0	7246.1	7800.1	7042.0	5180.8
25°	7251.0	7258.3	7184.3	7103.0	7056.6	7099.7	7328.3	7386.9	7999.4	7314.5	5219.0
27.5°	7707.4	7713.9	7621.1	7521.1	7467.4	7469.0	7592.7	7655.3	8211.7	7625.2	5250.0
30°	8189.7	8186.5	8101.1	7962.0	7893.6	7892.0	7973.4	8036.8	8519.2	8023.8	5292.3
32.5°	8731.5	8725.0	8603.8	8431.3	8354.0	8365.4	8437.8	8474.4	8900.7	8448.4	5367.9
35°	9444.9	9426.2	9243.1	9029.2	8886.8	8882.8	8943.8	8973.1	9387.1	8962.5	5494.0
37.5°	10370.6	10353.5	10105.4	9794.7	9594.5	9519.7	9592.1	9629.5	10081.0	9622.2	5696.5
40°	11283.2	11266.2	11118.9	10834.2	10525.9	10346.2	10403.1	10443.0	10947.3	10422.6	5952.0
42.5°	11912.9	11927.5	11978.7	12002.3	11713.6	11336.1	11362.2	11403.6	11857.5	11278.4	6244.0
45°	12078.8	12110.5	12400.1	12968.7	13076.9	12782.4	12509.9	12532.7	12782.4	12134.1	6536.0
47.5°	11580.2	11638.7	12197.6	13255.0	14171.0	14379.2	13863.5	13833.4	13669.9	12826.3	6743.4
50°	10447.0	10500.7	11224.7	12788.9	14502.8	15903.6	15485.5	15396.8	14448.3	13240.4	6816.6
52.5°	8807.1	8872.2	9460.3	11321.5	13877.3	16583.6	17021.3	16947.2	15019.4	13272.9	6828.8
55°	6219.6	6298.5	6920.8	8677.0	11895.0	16042.7	17565.5	17543.5	15493.6	13186.7	6854.9
57.5°	3495.4	3552.3	4223.4	5562.3	8712.0	13973.3	16996.9	17142.5	15780.0	13037.0	6893.9
60°	1552.0	1567.5	1914.8	2769.0	5100.3	10678.9	15369.2	15614.8	15534.3	12836.9	6959.8
62.5°	860.6	847.6	847.6	1151.0	2216.6	6610.8	12532.7	12938.6	14485.8	12600.2	6963.1
65°	674.3	662.1	627.2	632.0	844.4	2934.1	8678.6	9400.1	12494.5	11906.3	6728.8
67.5°	571.8	561.3	526.3	512.5	524.7	968.0	4768.4	5517.6	9480.7	10102.9	5828.3
70°	483.2	475.9	458.0	440.9	410.0	478.3	1824.5	2333.8	5842.1	6720.7	3978.5
72.5°	388.8	385.6	392.1	377.4	340.0	318.9	623.9	755.7	2624.2	2999.2	1639.1
75°	335.1	333.5	336.8	322.1	279.8	222.1	317.2	346.5	740.2	733.7	331.9
77.5°	218.0	220.4	279.0	272.5	240.8	148.0	164.3	177.3	224.5	168.4	100.9
80°	139.1	137.5	141.5	226.1	216.4	113.1	82.2	86.2	108.2	83.0	48.8
82.5°	84.6	83.0	92.7	105.7	109.0	78.9	50.4	51.2	67.5	53.7	26.0
85°	7.3	9.8	56.1	52.1	37.4	24.4	24.4	26.0	35.8	31.7	14.6
87.5°	0.0	0.0	9.8	14.6	8.1	8.9	8.9	9.8	13.8	13.8	7.3
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°	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5	4218.5
2.5°	4221.8	4137.2	3966.3	3802.0	3662.9	3528.7	3375.8	3224.5	3153.7	3125.2	3096.0
5°	4229.1	4055.0	3702.8	3348.1	2980.4	2649.4	2367.1	2077.5	1932.7	1869.3	1840.0
7.5°	4238.8	3973.7	3404.3	2808.8	2216.6	1767.6	1375.5	1123.4	1014.4	997.3	955.0
10°	4240.5	3875.2	3057.7	2213.4	1486.2	1065.6	819.9	689.8	641.8	633.7	619.8
12.5°	4243.7	3758.9	2673.0	1639.1	990.8	712.6	593.0	549.9	536.9	536.1	536.1
15°	4253.5	3636.9	2273.6	1181.1	711.8	564.5	520.6	503.5	498.6	501.1	500.3
17.5°	4253.5	3492.9	1881.5	880.1	575.1	507.6	483.2	471.8	470.2	472.6	473.4
20°	4222.6	3318.0	1521.9	684.9	510.0	471.0	449.0	438.4	434.4	436.0	436.8
22.5°	4148.6	3103.3	1229.1	567.0	466.9	437.6	414.0	397.8	391.3	392.1	392.1
25°	4033.0	2848.7	961.5	490.5	431.9	401.8	374.2	355.5	351.4	350.6	352.2
27.5°	3885.0	2567.2	765.4	431.9	390.5	362.0	334.3	318.9	315.6	316.4	317.2
30°	3739.4	2275.2	603.6	382.3	344.1	317.2	296.1	288.8	288.8	291.2	292.0
32.5°	3606.0	1994.6	477.5	339.2	302.6	278.2	266.0	265.2	269.2	270.9	271.7
35°	3491.3	1735.1	395.3	305.9	270.1	248.9	244.8	248.1	253.0	256.2	257.0
37.5°	3409.9	1503.2	345.7	278.2	244.8	227.8	227.0	233.5	240.0	247.3	248.9
40°	3375.8	1307.2	311.5	253.8	224.5	211.5	209.1	218.0	230.2	240.8	242.4
42.5°	3347.3	1147.0	282.3	230.2	208.2	189.5	188.7	200.1	214.7	225.3	227.8
45°	3322.9	1018.4	255.4	205.0	187.1	162.7	165.1	179.8	191.2	202.5	205.0
47.5°	3272.5	912.7	226.1	178.1	154.6	139.1	144.0	157.0	165.9	183.0	185.5
50°	3182.2	826.5	196.0	145.6	126.1	120.4	127.7	136.7	148.0	162.7	164.3
52.5°	3121.2	761.4	170.0	122.0	104.1	105.7	113.1	116.3	122.8	128.5	126.9
55°	3086.2	725.6	148.9	105.7	88.7	93.5	95.2	91.1	87.9	82.2	79.7
57.5°	3082.1	693.1	132.6	91.9	78.1	80.5	74.8	61.0	49.6	43.1	41.5
60°	3075.6	653.2	119.6	77.3	69.1	65.9	53.7	33.4	23.6	22.0	22.0
62.5°	3004.9	591.4	109.8	65.1	58.6	49.6	30.9	15.5	13.0	13.8	13.8
65°	2779.5	505.1	100.1	52.9	46.4	35.8	15.5	8.9	4.9	5.7	5.7
67.5°	2363.0	402.7	89.5	40.7	35.0	22.8	8.9	4.1	0.0	0.0	0.0
70°	1582.1	249.7	75.7	28.5	22.8	13.8	6.5	0.8	0.0	0.0	0.0
72.5°	606.8	135.0	61.0	17.1	14.6	9.8	4.1	0.0	0.0	0.0	0.0
75°	136.7	88.7	42.3	12.2	10.6	6.5	1.6	0.0	0.0	0.0	0.0
77.5°	52.1	64.3	24.4	8.1	7.3	4.1	0.0	0.0	0.0	0.0	0.0
80°	25.2	38.2	11.4	4.9	4.1	1.6	0.0	0.0	0.0	0.0	0.0
82.5°	13.0	14.6	4.9	2.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.3	7.3	2.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.1	2.4	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)