

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: P231235

Luminaire Tested: **ARCH-M-AF48-80-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231235
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-80-D-U-T3-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8360 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 83
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



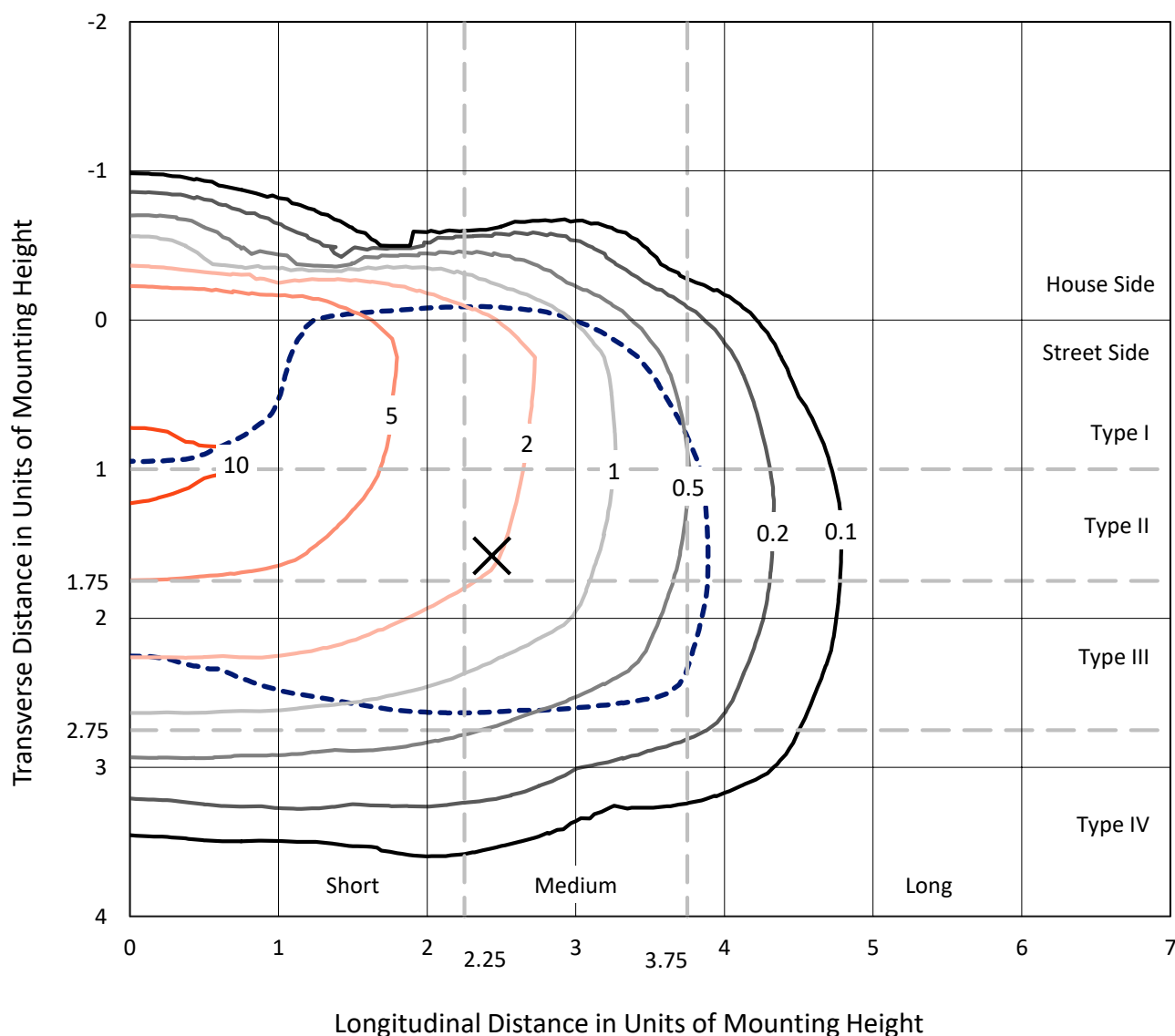
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

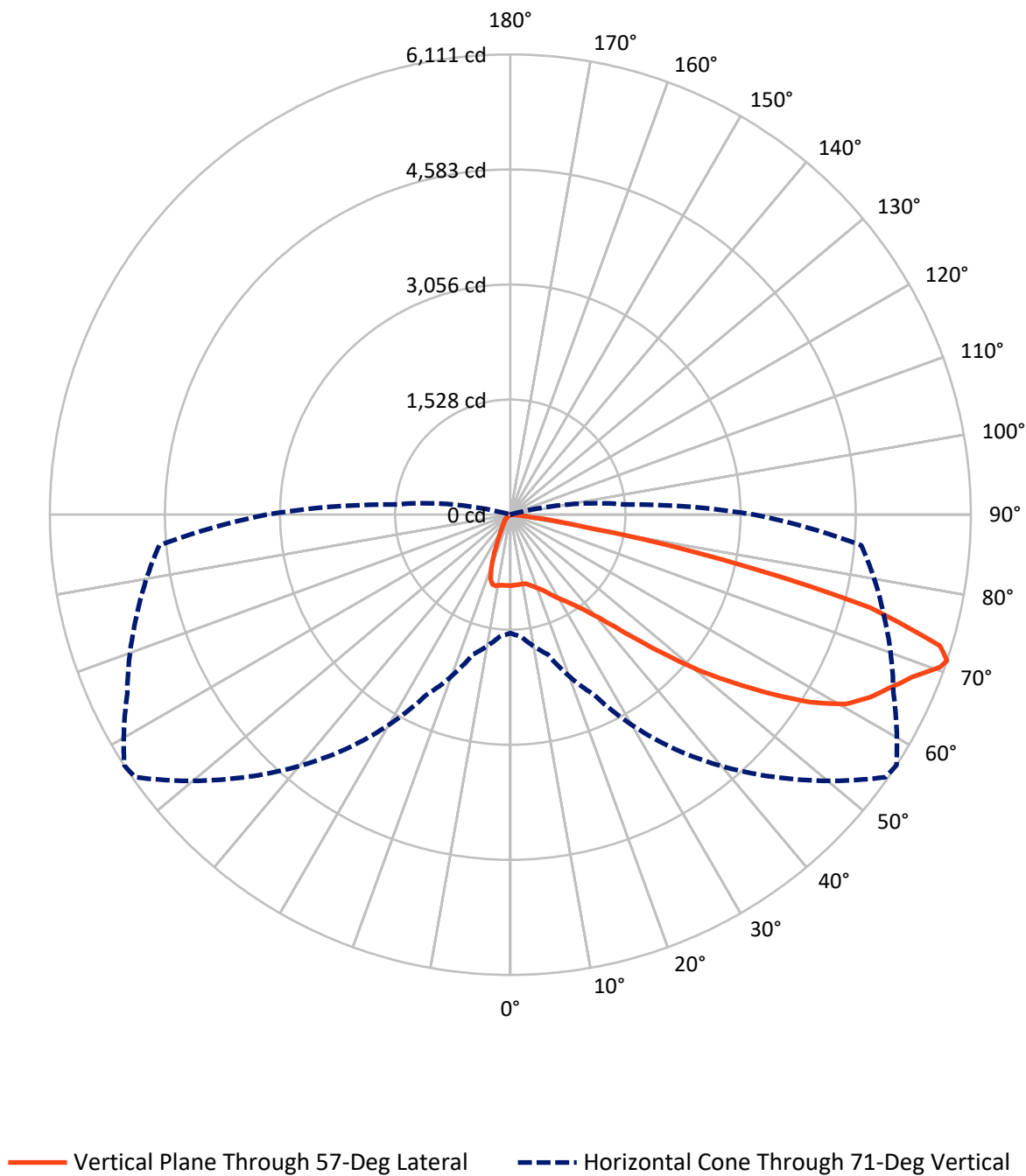


Based on 10 foot mounting height. Maximum calculated value = 11.7 fc
Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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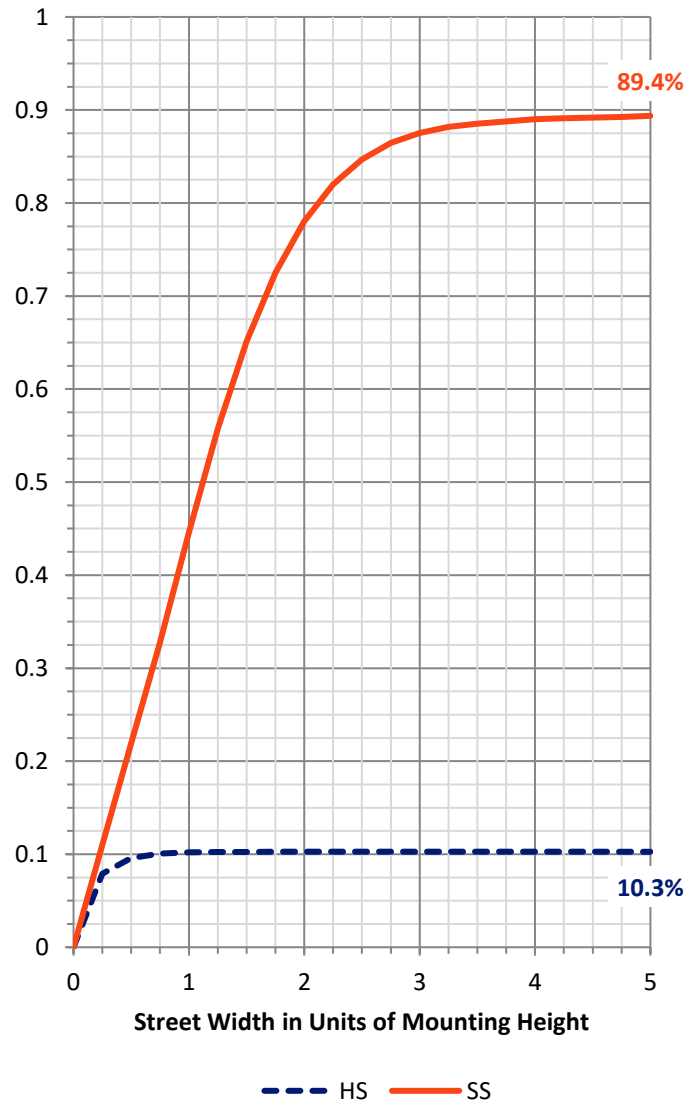
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	866.3	0.0	866.3
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	7493.6	0.0	7493.6
	% Fixture	89.6	0.0	89.6
Total	Lumens	8360.0	0.0	8360.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	1.1
10°-20°	237.2	2.8
20°-30°	370.1	4.4
30°-40°	625.5	7.5
40°-50°	1214.9	14.5
50°-60°	2040.2	24.4
60°-70°	2434.8	29.1
70°-80°	1283.2	15.3
80°-90°	65.2	0.8
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°	8360.0	100.0
0°-180°	8360.0	100.0

Coefficient of Utilization



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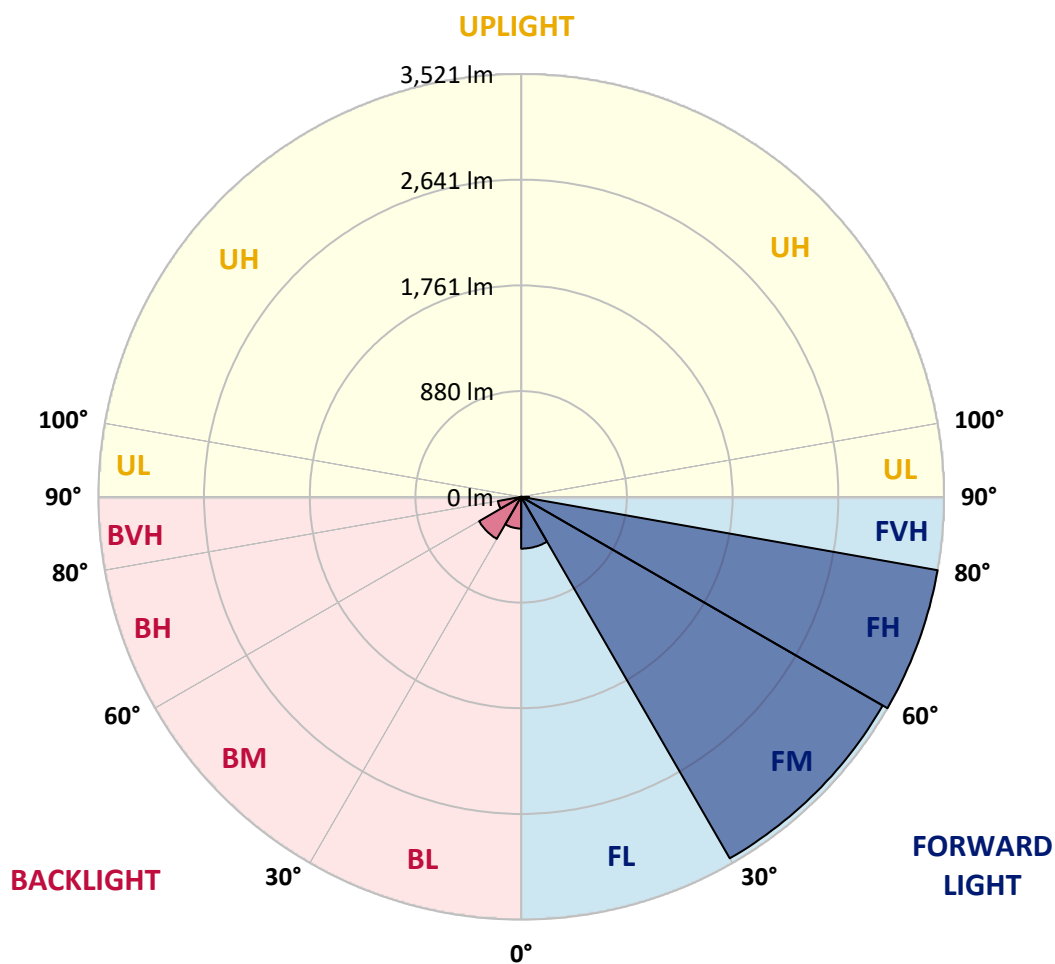
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	431.6	5.2			
FM	(30°-60°)	3476.2	41.6			
FH	(60°-80°)	3521.3	42.1			G2/5000
FVH	(80°-90°)	64.6	0.8			G1/100
BL	(0°-30°)	264.5	3.2	B1/500		
BM	(30°-60°)	404.5	4.8	B1/1000		
BH	(60°-80°)	196.7	2.4	B1/500		G1/500
BVH	(80°-90°)	0.6	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8
2.5°	931.2	931.2	931.2	933.1	935.1	935.1	939.0	937.0	937.0	937.0	940.9
5°	905.8	907.8	909.7	913.6	921.4	927.3	937.0	937.0	939.0	942.9	944.8
7.5°	870.8	872.7	878.6	886.4	901.9	915.6	931.2	935.1	940.9	950.7	954.5
10°	849.4	853.2	861.0	870.8	888.3	905.8	925.3	931.2	948.7	966.2	976.0
12.5°	843.5	845.5	853.2	868.8	890.3	911.7	937.0	942.9	968.2	995.5	1011.0
15°	853.2	855.2	859.1	876.6	901.9	929.2	962.3	970.1	1001.3	1032.5	1051.9
17.5°	870.8	870.8	874.7	890.3	917.5	948.7	991.6	1003.2	1038.3	1073.4	1094.8
20°	882.5	882.5	888.3	903.9	935.1	976.0	1026.6	1042.2	1081.2	1120.1	1139.6
22.5°	894.2	896.1	901.9	919.5	954.5	1011.0	1069.5	1085.1	1129.9	1170.8	1190.3
25°	927.3	925.3	927.3	942.9	983.8	1053.9	1127.9	1147.4	1194.2	1239.0	1248.7
27.5°	1018.8	1014.9	989.6	979.9	1011.0	1098.7	1202.0	1221.4	1276.0	1320.8	1320.8
30°	1229.2	1221.4	1159.1	1079.2	1053.9	1139.6	1272.1	1299.4	1369.5	1408.4	1396.8
32.5°	1496.1	1478.6	1398.7	1262.3	1161.0	1194.2	1346.1	1377.3	1466.9	1500.0	1474.7
35°	1788.3	1786.4	1687.0	1511.7	1367.5	1307.1	1441.6	1478.6	1591.6	1620.8	1579.9
37.5°	2098.1	2105.8	2039.6	1798.1	1628.6	1492.2	1568.2	1611.0	1749.4	1784.4	1745.5
40°	2442.9	2440.9	2415.6	2129.2	1942.2	1755.2	1751.3	1790.3	1957.8	2012.3	1957.8
42.5°	2879.2	2875.3	2783.8	2526.6	2322.1	2098.1	2018.2	2031.8	2218.8	2308.4	2228.6
45°	3323.4	3296.1	3190.9	2968.8	2787.7	2522.7	2370.8	2370.8	2530.5	2653.3	2528.6
47.5°	3570.8	3543.5	3500.7	3377.9	3323.4	3027.3	2803.3	2776.0	2900.7	3025.3	2850.0
50°	3896.1	3896.1	3789.0	3742.2	3835.7	3627.3	3280.5	3253.3	3313.6	3413.0	3183.1
52.5°	4153.3	4106.5	4030.5	4071.4	4338.3	4242.9	3757.8	3705.2	3752.0	3777.3	3473.4
55°	4260.4	4215.6	4209.7	4359.7	4772.7	4640.3	4246.8	4200.0	4196.1	4071.4	3726.6
57.5°	4281.8	4242.9	4316.9	4579.9	5195.5	4965.6	4733.8	4698.7	4589.6	4277.9	3985.7
60°	4100.7	4120.1	4299.4	4700.7	5444.8	5248.1	5144.8	5107.8	4856.5	4453.3	4274.0
62.5°	3728.6	3775.3	4110.4	4712.3	5353.3	5363.0	5372.7	5347.4	5063.0	4613.0	4564.3
65°	3288.3	3302.0	3705.2	4550.7	5193.5	5327.9	5540.3	5538.3	5220.8	4792.2	4891.6
67.5°	2709.7	2733.1	3081.8	4005.2	4874.0	5312.3	5760.4	5754.6	5400.0	4996.8	5086.4
70°	2016.2	2045.5	2327.9	3114.9	4161.0	5117.5	6048.7	6052.6	5589.0	5152.6	4952.0
71°	1572.1	1624.7	1920.8	2645.5	3796.8	4920.8	6076.0	6111.0	5610.4	5131.2	4675.3
72.5°	771.4	833.8	1205.8	1862.3	3124.7	4480.5	5896.8	5964.9	5476.0	4864.3	3997.4
75°	200.6	212.3	360.4	761.7	1675.3	2968.8	4755.2	4928.6	4476.6	3703.3	2442.9
77.5°	126.6	130.5	169.5	296.1	627.3	1127.9	2793.5	2879.2	2557.8	1876.0	861.0
80°	89.6	91.6	107.1	190.9	366.2	329.2	1005.2	1042.2	925.3	496.8	153.9
82.5°	54.5	54.5	77.9	122.7	226.0	179.2	264.9	282.5	249.4	138.3	50.6
85°	31.2	33.1	48.7	83.8	107.1	87.7	99.4	105.2	107.1	91.6	21.4
87.5°	25.3	27.3	42.9	70.1	58.4	42.9	42.9	44.8	46.8	54.5	9.7
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°	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8
2.5°	940.9	940.9	942.9	940.9	940.9	940.9	942.9	942.9	942.9	946.8	948.7
5°	944.8	944.8	944.8	942.9	940.9	940.9	944.8	946.8	946.8	952.6	952.6
7.5°	954.5	954.5	950.7	946.8	942.9	937.0	939.0	940.9	939.0	940.9	940.9
10°	976.0	976.0	970.1	962.3	950.7	933.1	909.7	880.5	853.2	843.5	839.6
12.5°	1011.0	1009.1	997.4	983.8	958.4	898.1	810.4	707.1	621.4	598.1	590.3
15°	1050.0	1046.1	1032.5	1009.1	940.9	781.2	598.1	465.6	383.8	364.3	360.4
17.5°	1090.9	1085.1	1065.6	1018.8	861.0	580.5	385.7	292.2	247.4	243.5	245.5
20°	1133.8	1126.0	1098.7	999.4	695.5	387.7	249.4	226.0	222.1	222.1	224.0
22.5°	1182.5	1172.7	1135.7	929.2	506.5	257.1	214.3	212.3	210.4	208.4	208.4
25°	1239.0	1227.3	1170.8	802.6	348.7	210.4	204.5	198.7	194.8	190.9	189.0
27.5°	1307.1	1291.6	1198.1	646.8	239.6	196.8	192.9	183.1	175.3	167.5	167.5
30°	1375.3	1355.8	1190.3	487.0	194.8	183.1	175.3	163.6	151.9	144.2	142.2
32.5°	1447.4	1427.9	1139.6	327.3	177.3	167.5	157.8	140.3	126.6	116.9	114.9
35°	1554.5	1539.0	1040.3	216.2	159.7	148.1	134.4	116.9	99.4	89.6	87.7
37.5°	1714.3	1694.8	917.5	165.6	140.3	122.7	111.0	91.6	74.0	64.3	62.3
40°	1928.6	1870.1	771.4	146.1	122.7	101.3	85.7	66.2	52.6	46.8	46.8
42.5°	2177.9	2039.6	613.6	132.5	109.1	83.8	62.3	44.8	37.0	35.1	35.1
45°	2442.9	2197.4	455.8	122.7	95.5	66.2	44.8	31.2	27.3	25.3	25.3
47.5°	2715.6	2326.0	317.5	111.0	79.9	50.6	31.2	23.4	19.5	17.5	17.5
50°	2970.8	2409.7	224.0	99.4	68.2	37.0	23.4	17.5	13.6	13.6	13.6
52.5°	3148.1	2402.0	161.7	85.7	52.6	25.3	15.6	11.7	11.7	11.7	11.7
55°	3303.9	2372.7	126.6	74.0	40.9	17.5	11.7	9.7	9.7	7.8	7.8
57.5°	3436.4	2326.0	107.1	60.4	29.2	13.6	7.8	7.8	5.8	5.8	5.8
60°	3549.4	2267.5	89.6	50.6	19.5	9.7	5.8	3.9	3.9	1.9	3.9
62.5°	3703.3	2230.5	77.9	39.0	13.6	5.8	3.9	1.9	1.9	0.0	0.0
65°	3816.2	2160.4	66.2	27.3	7.8	3.9	1.9	1.9	0.0	0.0	0.0
67.5°	3820.1	2033.8	48.7	15.6	5.8	3.9	1.9	0.0	0.0	0.0	0.0
70°	3512.3	1733.8	31.2	7.8	3.9	1.9	1.9	0.0	0.0	0.0	0.0
71°	3229.9	1535.1	25.3	5.8	3.9	1.9	0.0	0.0	0.0	0.0	0.0
72.5°	2661.0	1127.9	19.5	5.8	1.9	1.9	0.0	0.0	0.0	0.0	0.0
75°	1466.9	409.1	9.7	3.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	469.5	124.7	5.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	79.9	19.5	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	27.3	7.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.9	1.9	0.0	0.0	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)