

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: P231041

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231041
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-90-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12383 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 92
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



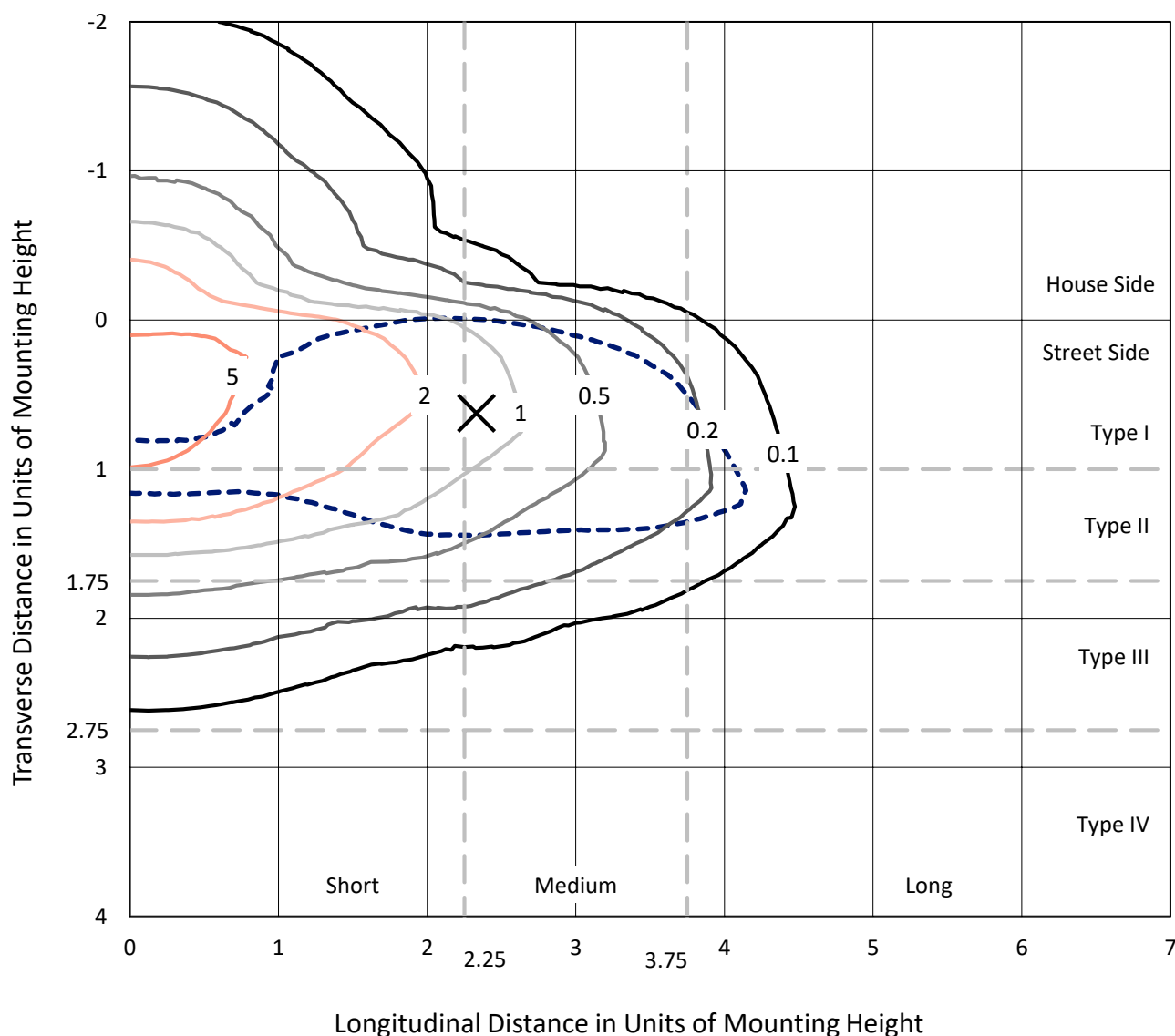
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

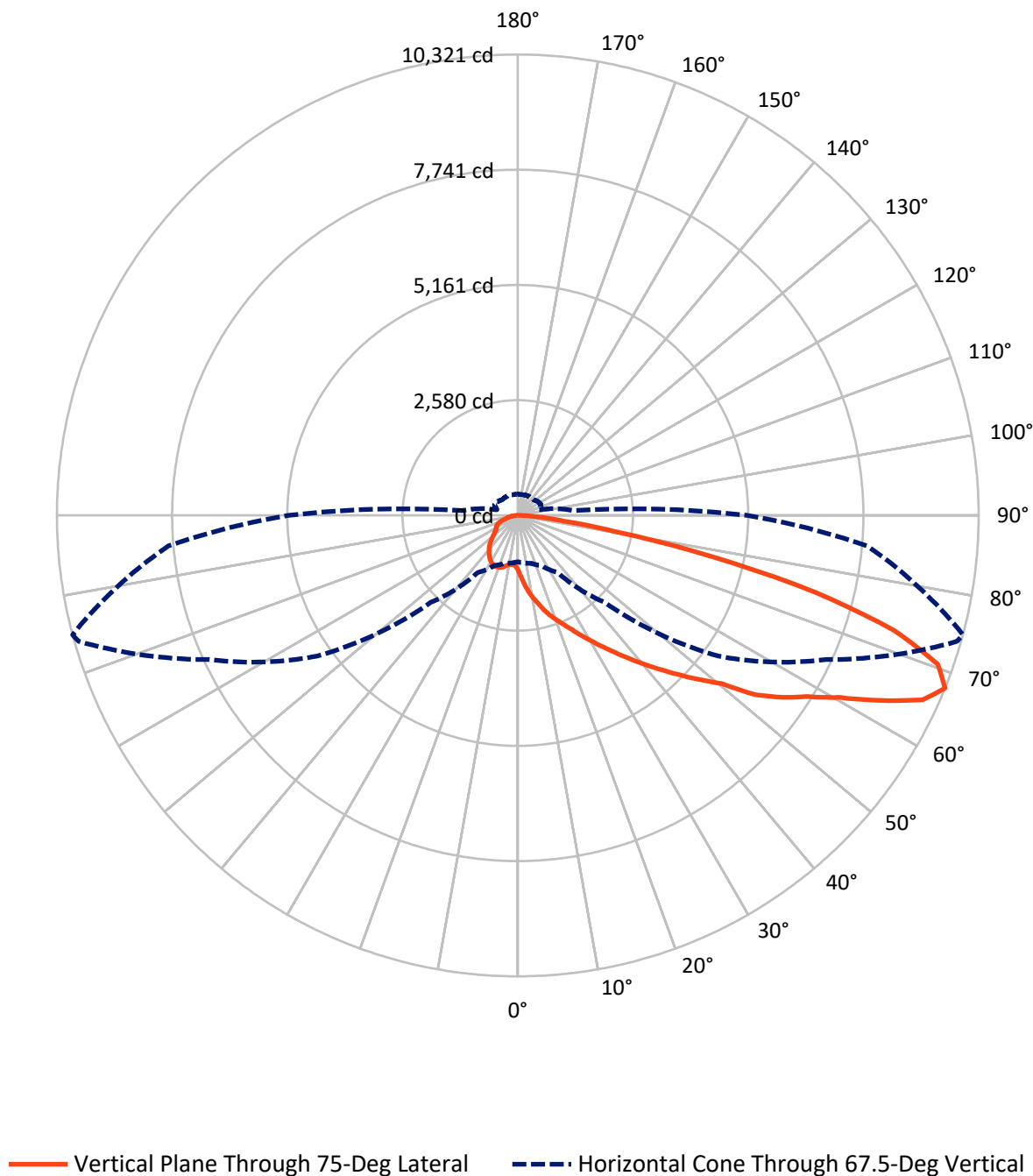


Based on 20 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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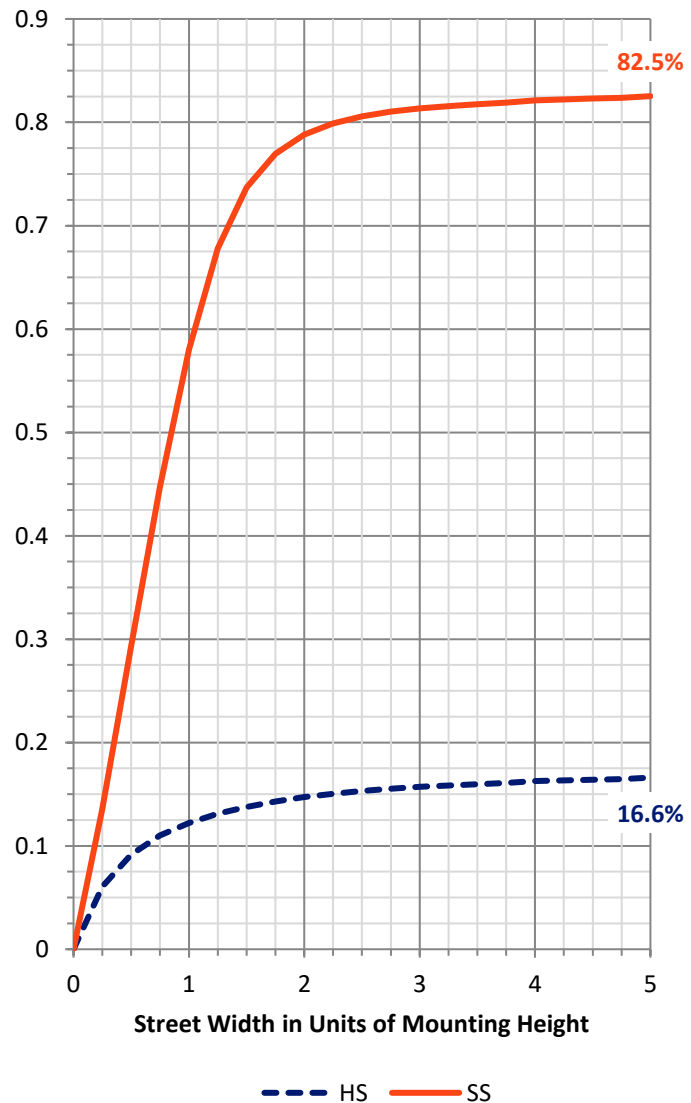
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2114.6	0.0	2114.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	10268.4	0.0	10268.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	12383.0	0.0	12383.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.2	1.2
10°-20°	520.9	4.2
20°-30°	950.2	7.7
30°-40°	1559.6	12.6
40°-50°	2255.4	18.2
50°-60°	2658.0	21.5
60°-70°	2582.9	20.9
70°-80°	1435.8	11.6
80°-90°	276.1	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°	12383.0	100.0
0°-180°	12383.0	100.0

Coefficient of Utilization



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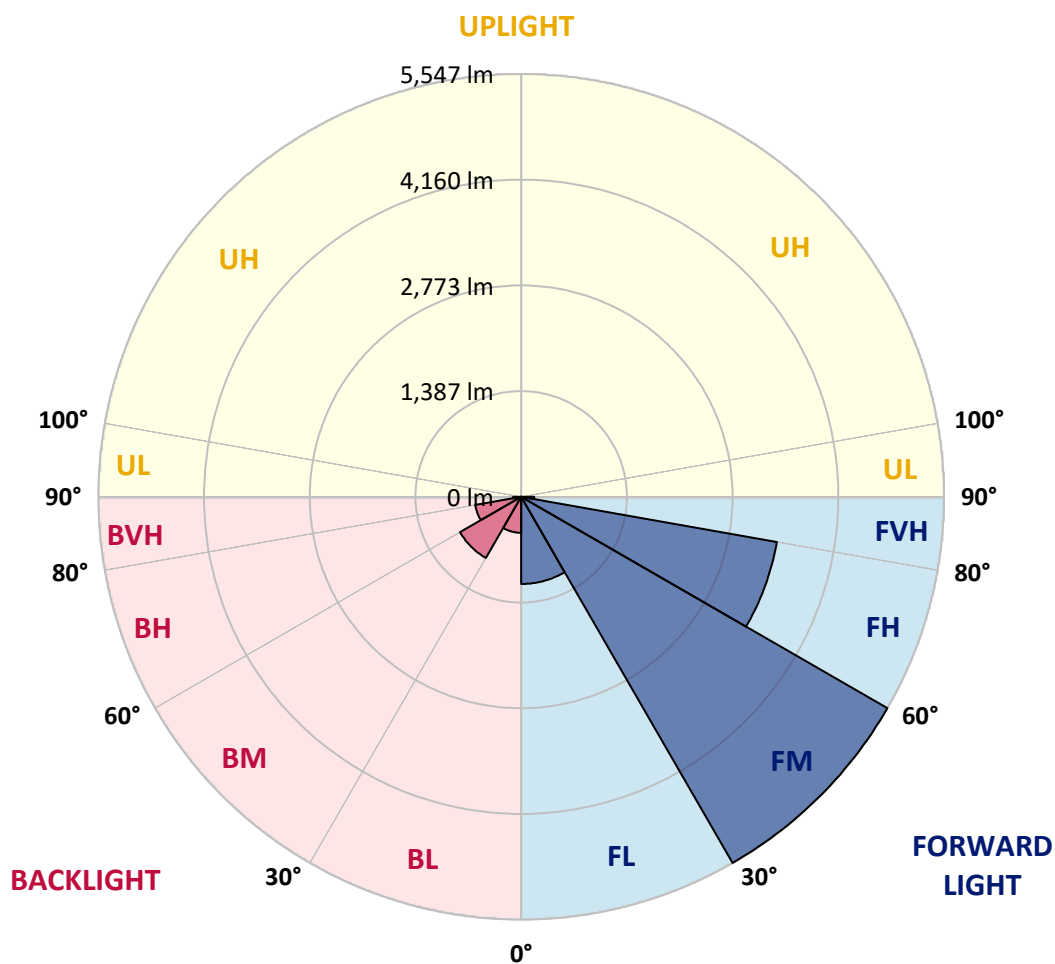
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1143.3	9.2			
FM	(30°-60°)	5546.9	44.8			
FH	(60°-80°)	3406.4	27.5			G2/5000
FVH	(80°-90°)	171.8	1.4			G2/225
BL	(0°-30°)	472.0	3.8	B1/500		
BM	(30°-60°)	926.1	7.5	B1/1000		
BH	(60°-80°)	612.3	4.9	B2/1000		G2/1000
BVH	(80°-90°)	104.3	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0
2.5°	1739.6	1744.8	1734.4	1711.1	1677.5	1615.3	1561.0	1465.2	1379.8	1369.4	1278.8
5°	2045.1	2050.2	2037.3	2008.8	1972.6	1905.3	1830.2	1705.9	1568.7	1542.9	1351.3
7.5°	2254.7	2257.3	2241.8	2213.3	2184.8	2117.5	2042.5	1902.7	1734.4	1713.7	1444.5
10°	2433.4	2438.5	2417.8	2399.7	2368.6	2301.3	2223.7	2076.1	1902.7	1874.2	1540.3
12.5°	2599.0	2604.2	2591.3	2575.7	2565.4	2503.3	2417.8	2241.8	2055.4	2024.3	1654.2
15°	2710.3	2715.5	2718.1	2738.8	2751.8	2707.8	2622.3	2430.8	2221.1	2192.6	1788.8
17.5°	2679.3	2692.2	2731.1	2806.1	2886.4	2889.0	2819.1	2617.2	2384.2	2353.1	1926.0
20°	2588.7	2599.0	2645.6	2759.5	2917.4	3008.0	3002.9	2806.1	2536.9	2503.3	2052.8
22.5°	2663.8	2676.7	2676.7	2746.6	2901.9	3070.2	3137.5	2992.5	2689.6	2658.6	2179.7
25°	2984.7	2992.5	2938.2	2909.7	2966.6	3121.9	3248.8	3194.4	2876.0	2839.8	2316.9
27.5°	3432.6	3419.6	3352.3	3238.4	3176.3	3217.7	3347.2	3386.0	3090.9	3046.9	2459.2
30°	3877.8	3870.1	3792.4	3639.7	3499.9	3411.9	3455.9	3556.8	3323.9	3272.1	2596.4
32.5°	4294.6	4281.7	4196.2	4017.6	3859.7	3696.6	3611.2	3712.2	3572.4	3512.8	2749.2
35°	4677.7	4644.1	4558.7	4372.3	4209.2	4053.9	3844.2	3859.7	3841.6	3779.5	2917.4
37.5°	4988.4	4962.5	4869.3	4695.9	4522.4	4374.9	4154.8	4028.0	4131.5	4072.0	3111.6
40°	5262.8	5234.3	5138.5	4965.1	4804.6	4664.8	4491.4	4232.5	4457.7	4390.4	3329.0
42.5°	5469.9	5449.2	5371.5	5200.7	5045.3	4918.5	4833.1	4491.4	4796.8	4732.1	3567.2
45°	5581.2	5560.5	5519.1	5381.9	5239.5	5141.1	5148.9	4799.4	5151.5	5097.1	3849.4
47.5°	5444.0	5459.5	5495.8	5469.9	5381.9	5335.3	5431.0	5117.8	5547.5	5495.8	4154.8
50°	5076.4	5091.9	5236.9	5415.5	5446.6	5503.5	5684.7	5485.4	5966.9	5925.5	4532.8
52.5°	4173.0	4258.4	4659.6	5086.8	5379.3	5614.8	5966.9	6031.6	6673.6	6673.6	5200.7
55°	3153.0	3228.1	3686.3	4431.8	5117.8	5625.2	6174.0	6401.8	7183.6	7193.9	5550.1
57.5°	2555.0	2601.6	2826.8	3590.5	4569.0	5495.8	6419.9	6720.2	7608.1	7654.7	6000.6
60°	2073.5	2099.4	2247.0	2777.7	3810.5	5146.3	6596.0	7175.8	8213.9	8278.6	6575.2
62.5°	1667.1	1693.0	1791.4	2109.8	2989.9	4491.4	6564.9	7649.5	9021.5	9127.7	7328.6
65°	1330.6	1359.1	1423.8	1620.5	2215.9	3678.5	6246.5	7892.9	9857.7	9961.2	7828.2
67.5°	1038.1	1063.9	1108.0	1237.4	1561.0	2751.8	5493.2	7636.6	10233.0	10321.1	7854.1
70°	784.4	797.3	833.6	916.4	1115.7	1827.6	4299.8	6777.2	9896.5	9976.8	7336.3
72.5°	608.3	605.8	626.5	667.9	779.2	1258.1	2850.1	5511.3	8749.7	8832.6	6259.4
75°	497.0	494.4	507.4	520.3	564.3	843.9	1682.6	4149.7	7061.9	6904.0	4695.9
77.5°	419.4	416.8	429.7	432.3	450.4	582.5	957.8	2731.1	4711.4	4439.6	2645.6
80°	354.6	352.1	367.6	372.8	385.7	427.1	551.4	1478.1	2366.1	2241.8	1263.3
82.5°	266.6	277.0	305.5	318.4	333.9	315.8	341.7	652.3	1097.6	1048.4	548.8
85°	129.4	152.7	230.4	256.3	274.4	199.3	233.0	308.1	494.4	471.1	222.6
87.5°	44.0	38.8	137.2	163.1	178.6	90.6	129.4	170.9	204.5	186.4	69.9
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°	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0	1227.0
2.5°	1240.0	1201.1	1144.2	1100.2	1071.7	1048.4	1038.1	1035.5	1030.3	1027.7	1027.7
5°	1265.9	1196.0	1108.0	1061.4	1048.4	1038.1	1043.2	1045.8	1045.8	1045.8	1045.8
7.5°	1304.7	1206.3	1100.2	1069.1	1066.5	1066.5	1082.1	1089.8	1095.0	1095.0	1095.0
10°	1356.5	1224.4	1113.1	1087.2	1095.0	1100.2	1118.3	1128.7	1133.8	1136.4	1139.0
12.5°	1426.4	1263.3	1139.0	1118.3	1128.7	1131.3	1144.2	1149.4	1154.6	1157.1	1157.1
15°	1519.6	1320.2	1180.4	1154.6	1157.1	1154.6	1154.6	1149.4	1146.8	1146.8	1152.0
17.5°	1615.3	1374.6	1216.7	1180.4	1170.1	1149.4	1133.8	1120.9	1113.1	1108.0	1110.5
20°	1711.1	1423.8	1237.4	1185.6	1157.1	1123.5	1095.0	1076.9	1066.5	1056.2	1061.4
22.5°	1806.9	1470.4	1245.2	1170.1	1128.7	1079.5	1048.4	1019.9	996.6	981.1	983.7
25°	1913.0	1522.1	1245.2	1152.0	1089.8	1038.1	999.2	952.6	919.0	906.0	911.2
27.5°	2019.2	1566.2	1232.2	1118.3	1045.8	994.1	937.1	882.7	862.0	854.3	856.9
30°	2125.3	1599.8	1203.7	1076.9	999.2	942.3	867.2	831.0	805.1	784.4	787.0
32.5°	2231.4	1623.1	1164.9	1025.1	950.0	877.6	815.4	774.0	727.4	701.5	704.1
35°	2353.1	1641.2	1118.3	973.3	895.7	820.6	774.0	706.7	657.5	636.8	631.6
37.5°	2480.0	1654.2	1069.1	916.4	841.3	779.2	732.6	649.8	603.2	574.7	572.1
40°	2617.2	1659.3	1009.6	856.9	789.5	753.3	678.2	616.1	535.9	517.7	517.7
42.5°	2780.2	1656.8	950.0	797.3	732.6	693.8	639.4	610.9	541.0	522.9	512.6
45°	2966.6	1656.8	885.3	727.4	675.6	618.7	595.4	577.3	530.7	538.4	543.6
47.5°	3178.9	1651.6	807.7	670.5	629.0	579.9	566.9	528.1	510.0	515.1	520.3
50°	3471.4	1659.3	737.8	623.9	595.4	554.0	538.4	517.7	510.0	512.6	510.0
52.5°	3877.8	1633.5	670.5	595.4	569.5	515.1	515.1	512.6	515.1	512.6	512.6
55°	4100.5	1576.5	621.3	579.9	551.4	497.0	507.4	512.6	517.7	515.1	515.1
57.5°	4416.3	1537.7	582.5	569.5	541.0	491.8	502.2	512.6	515.1	512.6	512.6
60°	4789.1	1511.8	556.6	572.1	533.3	491.8	504.8	512.6	510.0	507.4	507.4
62.5°	5221.4	1501.4	538.4	579.9	525.5	494.4	504.8	512.6	502.2	499.6	499.6
65°	5384.5	1408.2	515.1	585.0	530.7	494.4	502.2	504.8	491.8	489.3	486.7
67.5°	5133.4	1247.7	481.5	574.7	546.2	494.4	494.4	491.8	476.3	473.7	468.6
70°	4571.6	1035.5	429.7	541.0	556.6	497.0	484.1	471.1	455.6	455.6	445.3
72.5°	3743.2	815.4	362.4	481.5	548.8	504.8	463.4	445.3	427.1	427.1	416.8
75°	2697.4	608.3	289.9	401.2	515.1	502.2	437.5	414.2	393.5	390.9	377.9
77.5°	1537.7	427.1	235.6	313.2	458.2	489.3	414.2	377.9	354.6	346.9	339.1
80°	789.5	287.3	191.6	245.9	380.5	453.0	396.1	336.5	310.6	297.7	284.8
82.5°	375.4	191.6	147.6	181.2	287.3	396.1	372.8	289.9	261.5	245.9	230.4
85°	168.3	113.9	98.4	116.5	204.5	308.1	328.8	238.2	204.5	256.3	189.0
87.5°	54.4	51.8	51.8	54.4	98.4	134.6	240.7	176.0	163.1	134.6	113.9
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)