

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: P231049

Luminaire Tested: **ARCH-M-AF48-40-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231049
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-AF48-40-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5461 lumens
Efficiency: N/A
Efficacy: 143.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 38
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

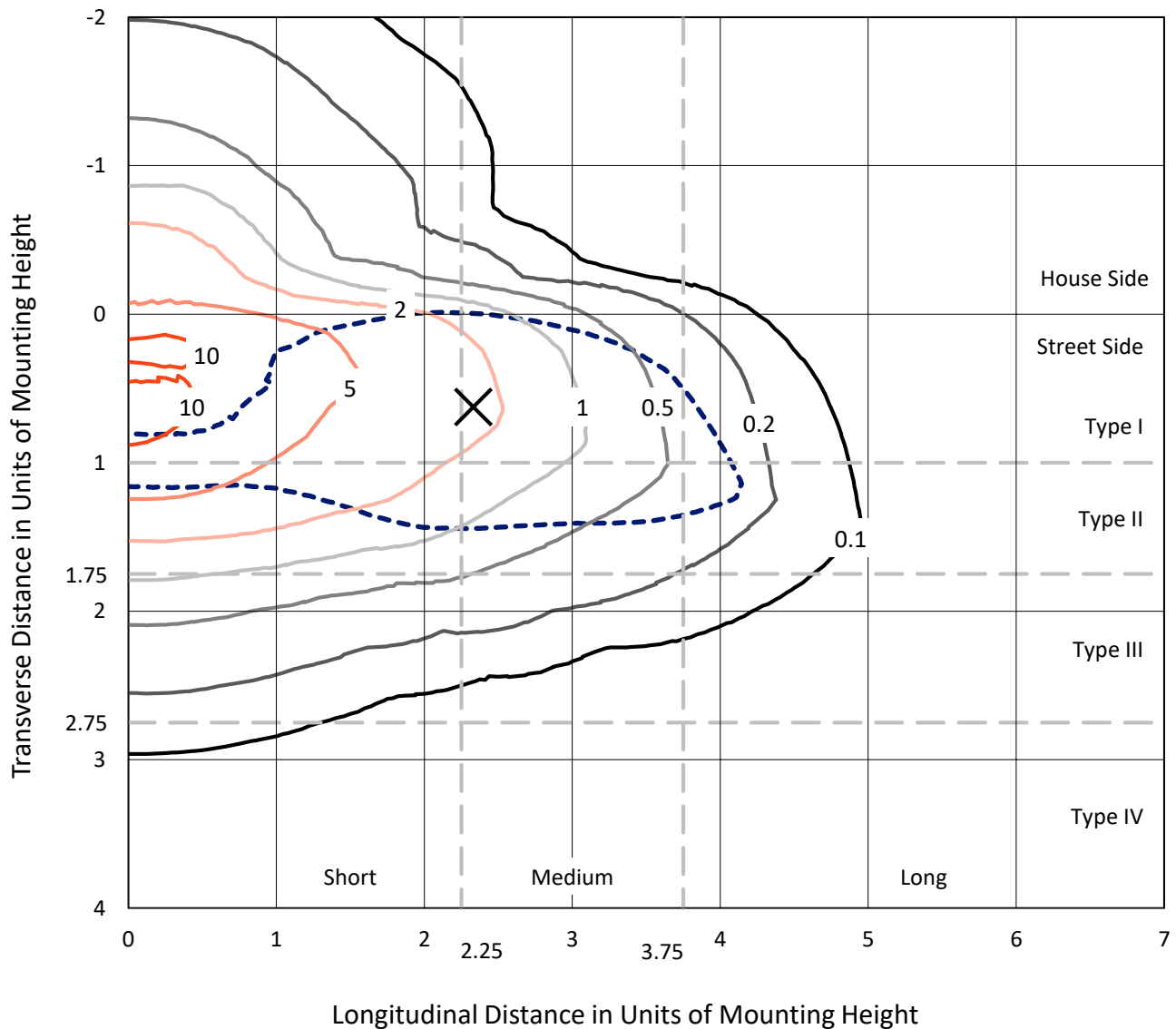


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

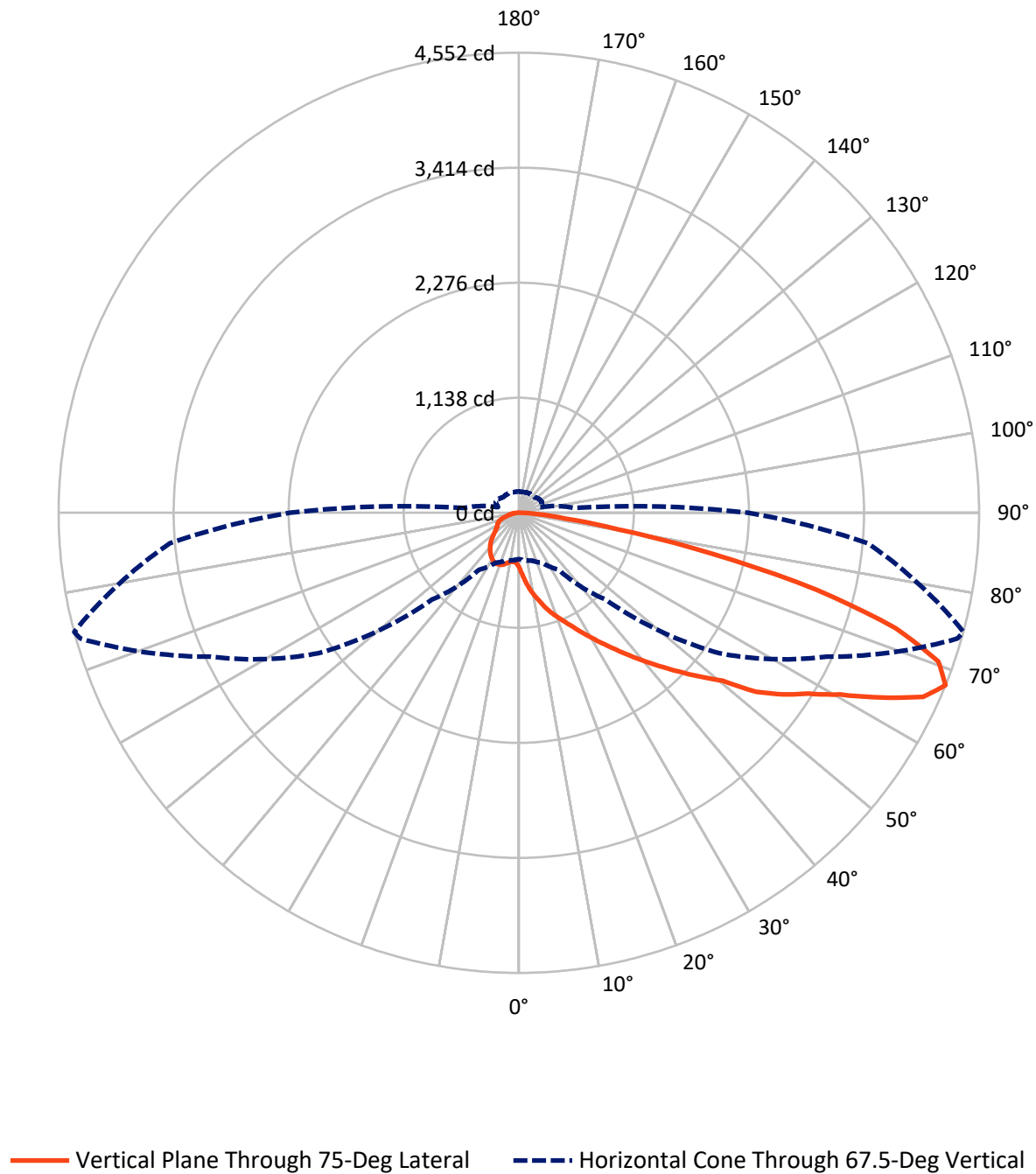


Based on 10 foot mounting height. Maximum calculated value = 11.3 fc
Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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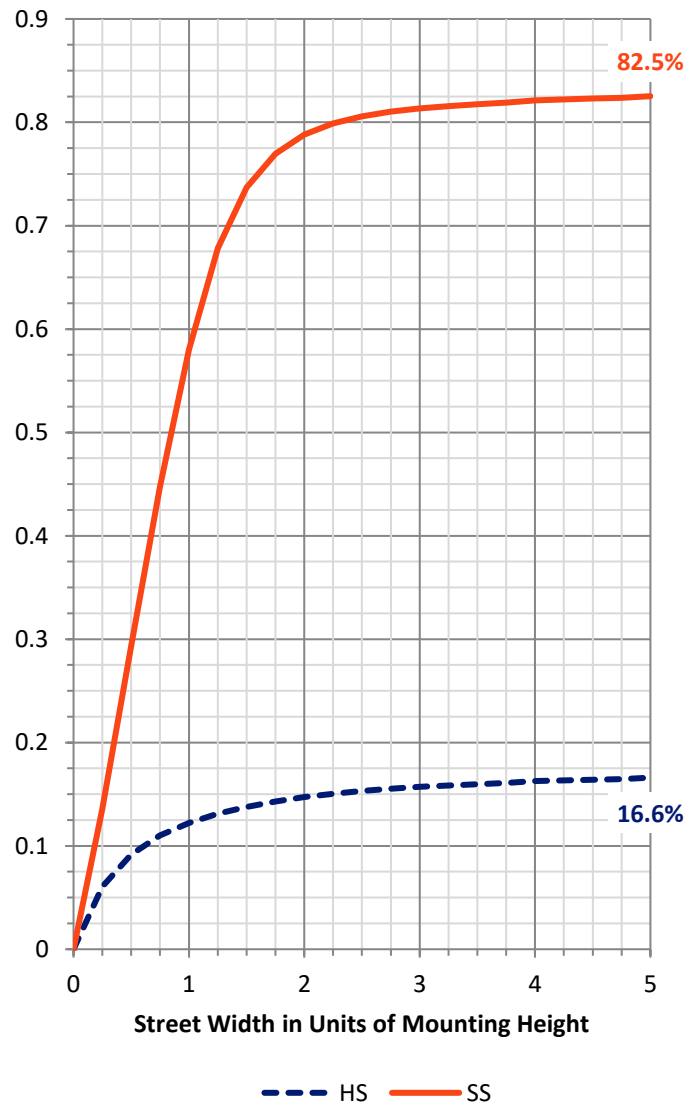
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	932.5	0.0	932.5
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	4528.5	0.0	4528.5
	% Fixture	82.9	0.0	82.9
Total	Lumens	5461.0	0.0	5461.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	1.2
10°-20°	229.7	4.2
20°-30°	419.0	7.7
30°-40°	687.8	12.6
40°-50°	994.6	18.2
50°-60°	1172.2	21.5
60°-70°	1139.1	20.9
70°-80°	633.2	11.6
80°-90°	121.8	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°	5461.0	100.0
0°-180°	5461.0	100.0

Coefficient of Utilization



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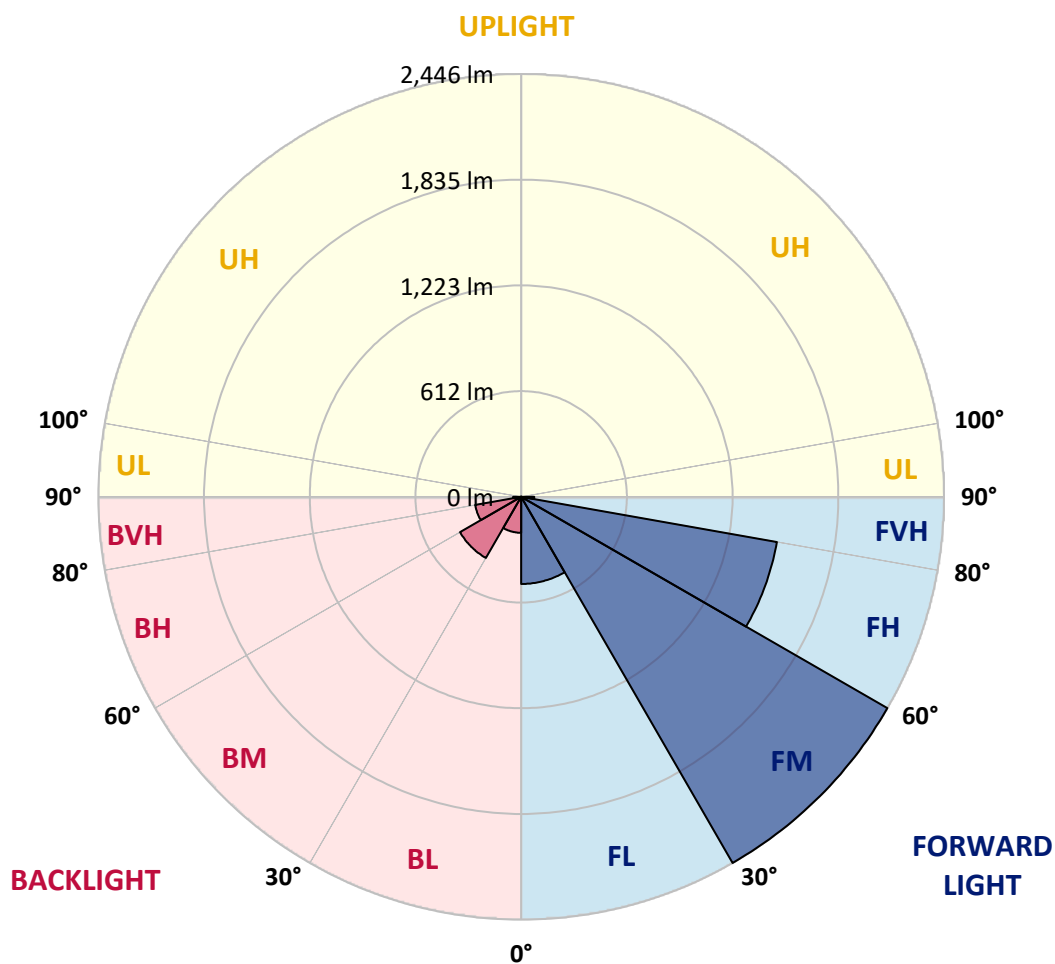
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	504.2	9.2			
FM	(30°-60°)	2446.2	44.8			
FH	(60°-80°)	1502.3	27.5			G1/1800
FVH	(80°-90°)	75.8	1.4			G1/100
BL	(0°-30°)	208.1	3.8	B1/500		
BM	(30°-60°)	408.4	7.5	B1/1000		
BH	(60°-80°)	270.0	4.9	B1/500		G1/500
BVH	(80°-90°)	46.0	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1
2.5°	767.2	769.5	764.9	754.6	739.8	712.4	688.4	646.2	608.5	603.9	564.0
5°	901.9	904.2	898.5	885.9	869.9	840.2	807.1	752.3	691.8	680.4	595.9
7.5°	994.4	995.5	988.6	976.1	963.5	933.9	900.7	839.1	764.9	755.8	637.0
10°	1073.1	1075.4	1066.3	1058.3	1044.6	1014.9	980.7	915.6	839.1	826.5	679.3
12.5°	1146.2	1148.5	1142.8	1135.9	1131.4	1104.0	1066.3	988.6	906.5	892.8	729.5
15°	1195.3	1197.6	1198.7	1207.8	1213.6	1194.1	1156.5	1072.0	979.5	967.0	788.9
17.5°	1181.6	1187.3	1204.4	1237.5	1272.9	1274.1	1243.2	1154.2	1051.4	1037.7	849.4
20°	1141.6	1146.2	1166.7	1217.0	1286.6	1326.6	1324.3	1237.5	1118.8	1104.0	905.3
22.5°	1174.7	1180.4	1180.4	1211.3	1279.8	1354.0	1383.7	1319.7	1186.2	1172.5	961.3
25°	1316.3	1319.7	1295.7	1283.2	1308.3	1376.8	1432.7	1408.8	1268.3	1252.4	1021.8
27.5°	1513.8	1508.1	1478.4	1428.2	1400.8	1419.0	1476.1	1493.2	1363.1	1343.7	1084.5
30°	1710.2	1706.7	1672.5	1605.1	1543.5	1504.7	1524.1	1568.6	1465.9	1443.0	1145.1
32.5°	1894.0	1888.3	1850.6	1771.8	1702.2	1630.2	1592.6	1637.1	1575.4	1549.2	1212.4
35°	2062.9	2048.1	2010.4	1928.2	1856.3	1787.8	1695.3	1702.2	1694.2	1666.8	1286.6
37.5°	2199.9	2188.5	2147.4	2070.9	1994.4	1929.4	1832.3	1776.4	1822.0	1795.8	1372.2
40°	2320.9	2308.4	2266.1	2189.6	2118.9	2057.2	1980.7	1866.6	1965.9	1936.2	1468.1
42.5°	2412.3	2403.1	2368.9	2293.5	2225.0	2169.1	2131.4	1980.7	2115.4	2086.9	1573.2
45°	2461.3	2452.2	2434.0	2373.4	2310.7	2267.3	2270.7	2116.6	2271.8	2247.9	1697.6
47.5°	2400.8	2407.7	2423.7	2412.3	2373.4	2352.9	2395.1	2257.0	2446.5	2423.7	1832.3
50°	2238.7	2245.6	2309.5	2388.3	2402.0	2427.1	2507.0	2419.1	2631.5	2613.2	1999.0
52.5°	1840.3	1878.0	2054.9	2243.3	2372.3	2476.2	2631.5	2660.0	2943.1	2943.1	2293.5
55°	1390.5	1423.6	1625.7	1954.5	2257.0	2480.8	2722.8	2823.2	3168.0	3172.6	2447.6
57.5°	1126.8	1147.3	1246.7	1583.4	2015.0	2423.7	2831.2	2963.7	3355.2	3375.8	2646.3
60°	914.4	925.9	990.9	1225.0	1680.5	2269.6	2908.9	3164.6	3622.4	3650.9	2899.7
62.5°	735.2	746.6	790.0	930.4	1318.6	1980.7	2895.2	3373.5	3978.6	4025.4	3231.9
65°	586.8	599.4	627.9	714.7	977.2	1622.3	2754.7	3480.8	4347.3	4393.0	3452.3
67.5°	457.8	469.2	488.6	545.7	688.4	1213.6	2422.5	3367.8	4512.9	4551.7	3463.7
70°	345.9	351.6	367.6	404.1	492.0	806.0	1896.2	2988.8	4364.4	4399.8	3235.4
72.5°	268.3	267.1	276.3	294.5	343.6	554.8	1256.9	2430.5	3858.7	3895.2	2760.5
75°	219.2	218.1	223.8	229.5	248.9	372.2	742.1	1830.0	3114.4	3044.7	2070.9
77.5°	184.9	183.8	189.5	190.7	198.6	256.9	422.4	1204.4	2077.8	1957.9	1166.7
80°	156.4	155.3	162.1	164.4	170.1	188.4	243.2	651.9	1043.4	988.6	557.1
82.5°	117.6	122.2	134.7	140.4	147.3	139.3	150.7	287.7	484.1	462.4	242.0
85°	57.1	67.4	101.6	113.0	121.0	87.9	102.7	135.9	218.1	207.8	98.2
87.5°	19.4	17.1	60.5	71.9	78.8	40.0	57.1	75.3	90.2	82.2	30.8
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°	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1
2.5°	546.8	529.7	504.6	485.2	472.6	462.4	457.8	456.7	454.4	453.2	453.2
5°	558.3	527.4	488.6	468.1	462.4	457.8	460.1	461.2	461.2	461.2	461.2
7.5°	575.4	532.0	485.2	471.5	470.4	470.4	477.2	480.6	482.9	482.9	482.9
10°	598.2	540.0	490.9	479.5	482.9	485.2	493.2	497.7	500.0	501.2	502.3
12.5°	629.0	557.1	502.3	493.2	497.7	498.9	504.6	506.9	509.2	510.3	510.3
15°	670.1	582.2	520.6	509.2	510.3	509.2	509.2	506.9	505.7	505.7	508.0
17.5°	712.4	606.2	536.6	520.6	516.0	506.9	500.0	494.3	490.9	488.6	489.8
20°	754.6	627.9	545.7	522.9	510.3	495.5	482.9	474.9	470.4	465.8	468.1
22.5°	796.9	648.4	549.1	516.0	497.7	476.1	462.4	449.8	439.5	432.7	433.8
25°	843.7	671.3	549.1	508.0	480.6	457.8	440.7	420.1	405.3	399.6	401.9
27.5°	890.5	690.7	543.4	493.2	461.2	438.4	413.3	389.3	380.2	376.7	377.9
30°	937.3	705.5	530.9	474.9	440.7	415.6	382.4	366.5	355.0	345.9	347.1
32.5°	984.1	715.8	513.7	452.1	419.0	387.0	359.6	341.3	320.8	309.4	310.5
35°	1037.7	723.8	493.2	429.3	395.0	361.9	341.3	311.7	290.0	280.8	278.6
37.5°	1093.7	729.5	471.5	404.1	371.0	343.6	323.1	286.5	266.0	253.4	252.3
40°	1154.2	731.8	445.2	377.9	348.2	332.2	299.1	271.7	236.3	228.3	228.3
42.5°	1226.1	730.6	419.0	351.6	323.1	306.0	282.0	269.4	238.6	230.6	226.0
45°	1308.3	730.6	390.4	320.8	298.0	272.8	262.6	254.6	234.0	237.5	239.7
47.5°	1401.9	728.4	356.2	295.7	277.4	255.7	250.0	232.9	224.9	227.2	229.5
50°	1530.9	731.8	325.4	275.1	262.6	244.3	237.5	228.3	224.9	226.0	224.9
52.5°	1710.2	720.4	295.7	262.6	251.2	227.2	227.2	226.0	227.2	226.0	226.0
55°	1808.3	695.3	274.0	255.7	243.2	219.2	223.8	226.0	228.3	227.2	227.2
57.5°	1947.6	678.1	256.9	251.2	238.6	216.9	221.5	226.0	227.2	226.0	226.0
60°	2112.0	666.7	245.4	252.3	235.2	216.9	222.6	226.0	224.9	223.8	223.8
62.5°	2302.7	662.1	237.5	255.7	231.8	218.1	222.6	226.0	221.5	220.3	220.3
65°	2374.6	621.0	227.2	258.0	234.0	218.1	221.5	222.6	216.9	215.8	214.6
67.5°	2263.8	550.3	212.3	253.4	240.9	218.1	218.1	216.9	210.1	208.9	206.6
70°	2016.1	456.7	189.5	238.6	245.4	219.2	213.5	207.8	200.9	200.9	196.4
72.5°	1650.8	359.6	159.8	212.3	242.0	222.6	204.4	196.4	188.4	188.4	183.8
75°	1189.6	268.3	127.9	177.0	227.2	221.5	192.9	182.7	173.5	172.4	166.7
77.5°	678.1	188.4	103.9	138.1	202.1	215.8	182.7	166.7	156.4	153.0	149.6
80°	348.2	126.7	84.5	108.5	167.8	199.8	174.7	148.4	137.0	131.3	125.6
82.5°	165.5	84.5	65.1	79.9	126.7	174.7	164.4	127.9	115.3	108.5	101.6
85°	74.2	50.2	43.4	51.4	90.2	135.9	145.0	105.0	90.2	113.0	83.3
87.5°	24.0	22.8	22.8	24.0	43.4	59.4	106.2	77.6	71.9	59.4	50.2
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)