

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: P154666

Luminaire Tested: **TMU-F02-LED-E-U-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P154666
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33671)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: TMU-F02-LED-E-U-T2-7050
Description: TALON MEDIUM LED AREA LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5190.6 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

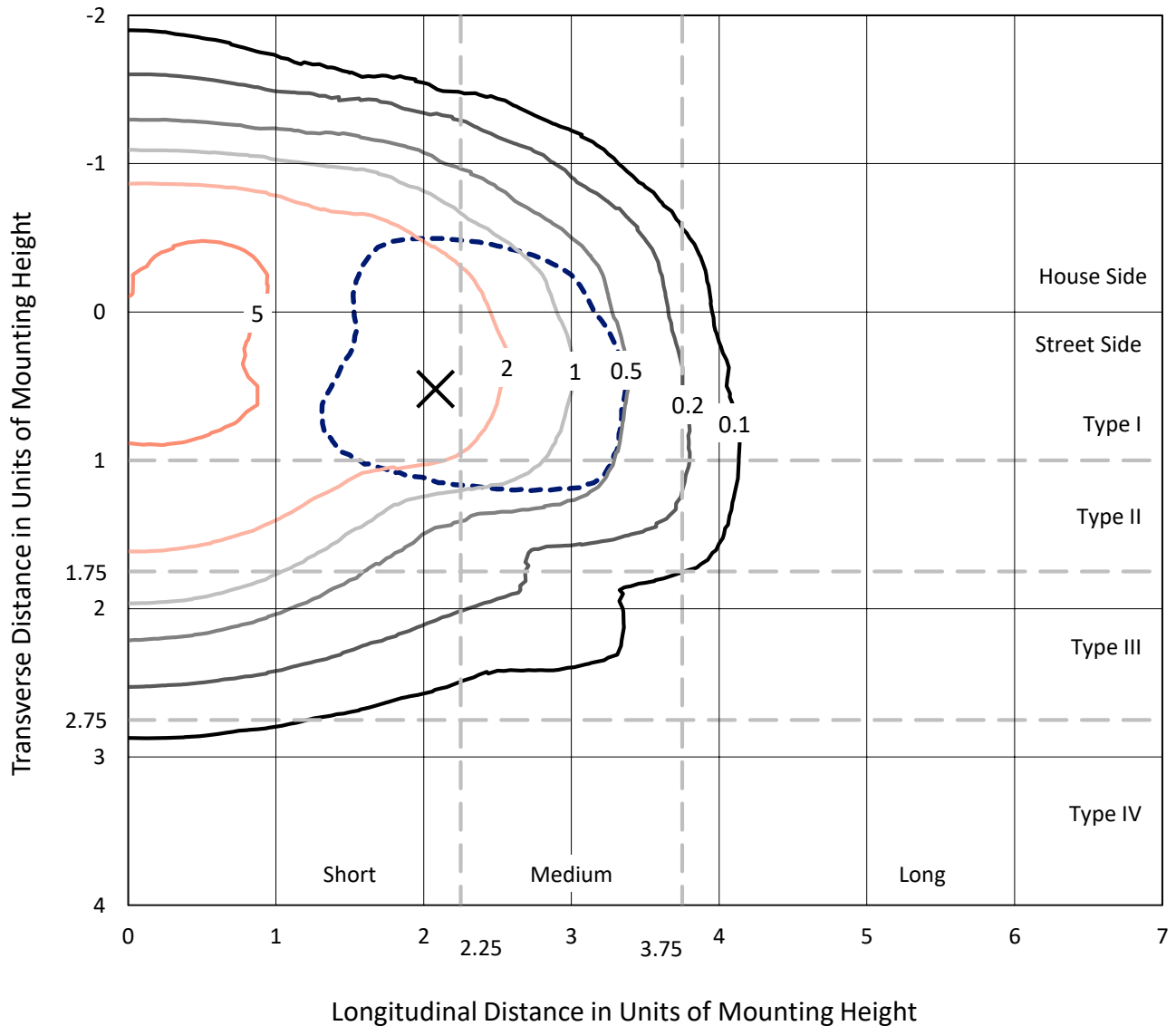
Input Watts (W): 55
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

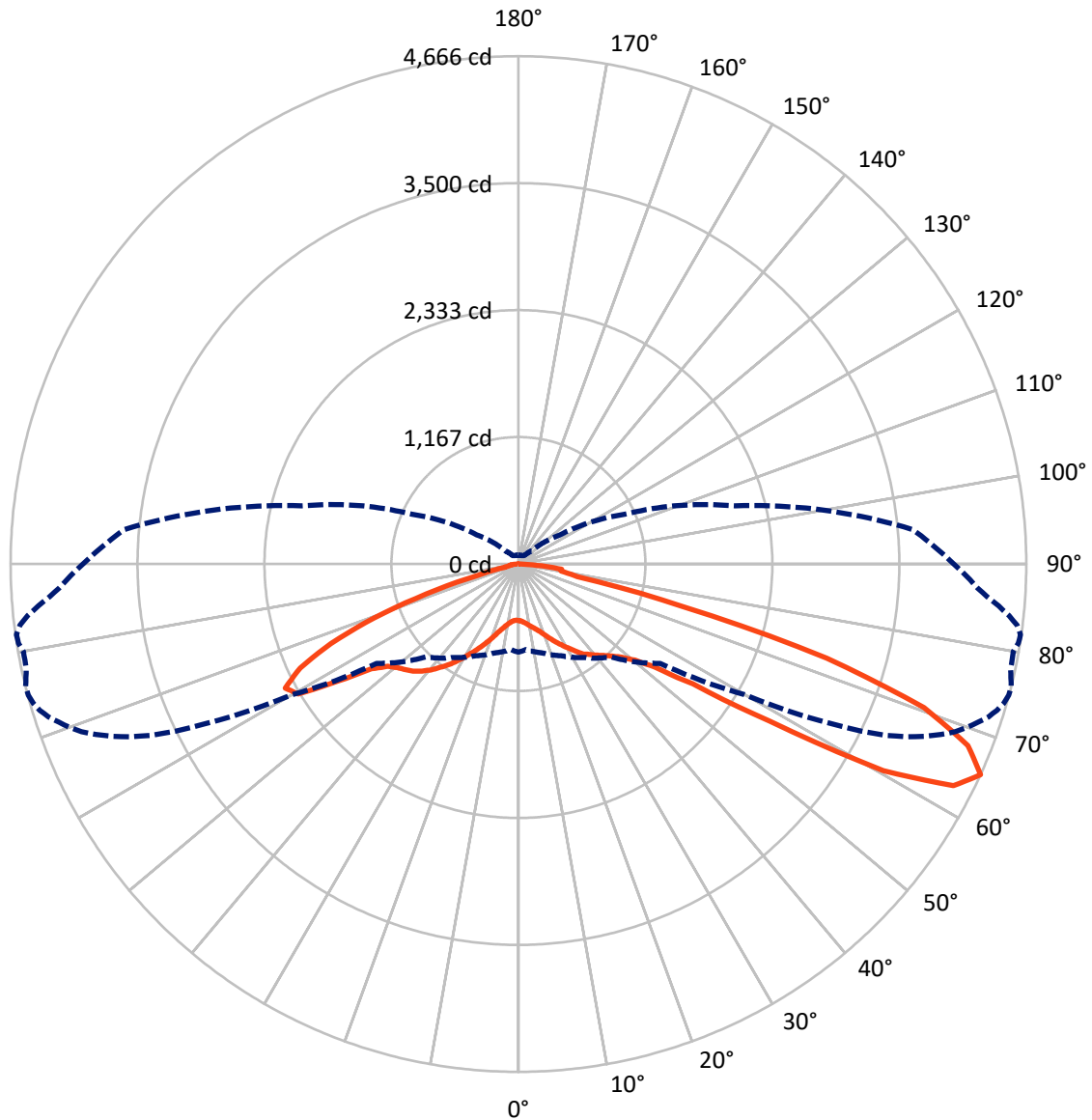
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1817.6	0.0	1817.6
	% Fixture	35.0	0.0	35.0
Street Side	Lumens	3373.0	0.0	3373.0
	% Fixture	65.0	0.0	65.0
Total	Lumens	5190.6	0.0	5190.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.0	1.0
10°-20°	178.5	3.4
20°-30°	350.7	6.8
30°-40°	582.7	11.2
40°-50°	856.2	16.5
50°-60°	1185.4	22.8
60°-70°	1414.9	27.3
70°-80°	500.4	9.6
80°-90°	69.9	1.3
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°	5190.6	100.0
0°-180°	5190.6	100.0



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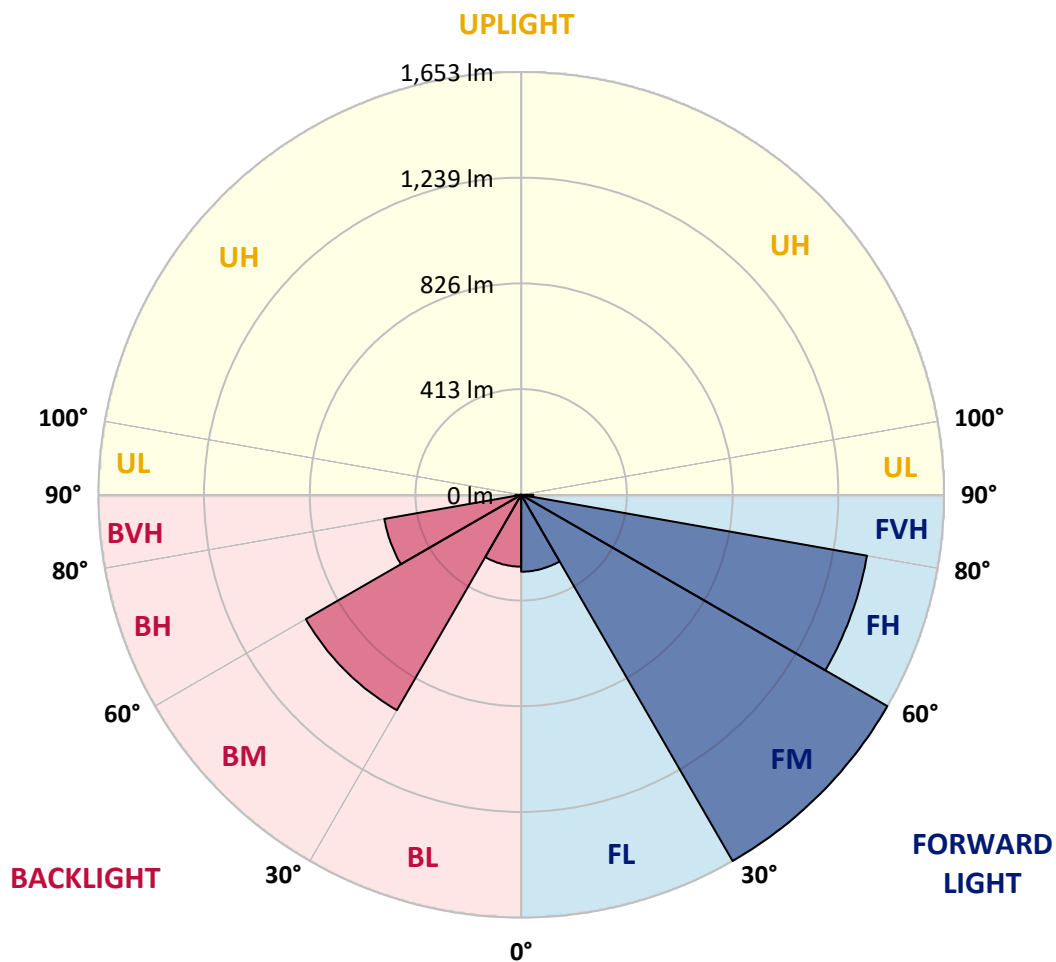
CATALOG NUMBER: TMU-F02-LED-E-U-T2-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	300.3	5.8			
FM	(30°-60°)	1652.5	31.8			
FH	(60°-80°)	1372.3	26.4			G1/1800
FVH	(80°-90°)	47.8	0.9			G1/100
BL	(0°-30°)	280.8	5.4	B1/500		
BM	(30°-60°)	971.8	18.7	B1/1000		
BH	(60°-80°)	542.9	10.5	B2/1000		G2/1000
BVH	(80°-90°)	22.1	0.4			G1/100
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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
2.5°	541.6	542.1	541.0	540.4	538.7	535.9	533.7	531.4	531.4	531.4	529.7
5°	565.3	566.4	564.2	562.5	557.4	554.6	550.6	547.8	546.6	546.1	544.4
7.5°	595.2	593.5	590.1	589.0	585.0	578.8	571.5	565.8	565.8	565.3	565.8
10°	625.1	620.6	618.9	617.2	611.0	603.1	594.6	588.4	587.9	587.3	585.6
12.5°	655.1	653.4	651.7	645.5	639.3	626.8	617.2	611.0	610.5	611.0	608.8
15°	694.6	690.6	689.0	678.2	664.7	651.1	639.3	633.6	631.9	632.5	630.8
17.5°	725.1	725.1	721.1	709.3	691.8	673.1	660.7	657.3	656.8	656.8	657.3
20°	749.4	748.8	744.9	735.3	714.4	695.7	689.5	688.4	687.8	687.8	689.5
22.5°	762.9	761.8	760.1	749.4	733.0	720.6	721.1	724.5	725.7	726.8	729.0
25°	769.7	768.0	767.5	760.1	748.3	746.6	756.7	765.8	768.0	770.3	773.1
27.5°	781.0	778.2	779.3	776.5	773.7	778.7	799.6	809.2	810.9	813.8	815.5
30°	812.1	810.9	815.5	816.6	818.8	826.2	845.4	854.4	858.4	858.4	866.3
32.5°	871.4	871.9	873.1	884.9	888.9	893.9	904.1	911.5	912.0	912.6	919.9
35°	951.0	954.4	964.0	974.1	983.7	983.2	977.0	980.9	978.1	981.5	982.0
37.5°	1051.5	1047.0	1061.1	1084.3	1098.9	1095.0	1067.3	1049.2	1054.3	1052.1	1050.4
40°	1128.9	1134.0	1161.1	1191.6	1202.8	1215.3	1179.1	1148.1	1143.6	1135.1	1130.0
42.5°	1235.6	1236.2	1258.2	1280.8	1313.5	1340.6	1317.5	1272.9	1259.3	1249.2	1227.1
45°	1334.4	1332.7	1350.8	1378.5	1417.4	1456.4	1464.9	1416.3	1411.2	1393.2	1364.4
47.5°	1400.5	1398.2	1410.7	1446.8	1510.1	1573.9	1608.9	1594.2	1584.6	1577.3	1532.1
50°	1445.1	1440.6	1454.7	1493.1	1563.7	1662.0	1753.4	1765.9	1761.9	1761.9	1733.1
52.5°	1478.4	1478.4	1488.6	1519.7	1591.4	1713.9	1877.7	1940.4	1945.5	1951.1	1949.4
55°	1459.8	1462.6	1488.0	1533.2	1608.9	1750.1	1980.5	2117.7	2145.9	2169.6	2196.7
57.5°	1396.0	1405.6	1439.5	1513.4	1613.4	1777.2	2094.5	2366.2	2445.8	2514.7	2622.0
60°	1302.8	1315.2	1364.4	1458.7	1580.1	1733.1	2134.6	2576.2	2702.7	2853.0	3133.1
62.5°	1143.0	1155.4	1203.4	1297.7	1401.6	1564.3	1968.6	2607.3	2809.5	3022.4	3445.9
65°	809.8	790.0	845.4	930.1	1049.2	1206.8	1590.8	2398.9	2689.7	2978.3	3501.2
67.5°	451.2	449.5	483.4	546.6	660.7	830.1	1096.1	1839.8	2107.5	2434.5	3076.6
70°	311.2	314.5	336.0	404.3	498.6	644.9	781.0	1155.4	1348.0	1569.9	2201.3
72.5°	218.5	225.9	237.7	278.4	375.0	543.3	797.9	690.6	786.7	938.0	1323.7
75°	128.2	133.3	141.7	161.5	213.5	363.1	826.2	607.1	607.1	642.6	800.8
77.5°	79.1	79.1	84.1	92.0	113.5	177.9	588.4	682.2	663.0	642.6	644.3
80°	40.7	43.5	50.8	54.8	63.2	81.3	264.3	636.4	698.0	739.2	710.4
82.5°	18.6	20.9	31.1	33.3	36.7	42.9	90.9	362.0	485.1	638.7	797.9
85°	9.6	9.6	16.4	20.3	22.0	19.8	33.3	146.3	221.4	337.7	528.6
87.5°	1.7	1.7	2.8	3.4	5.1	4.5	5.6	8.5	14.1	15.2	15.8
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
2.5°	529.1	529.7	529.1	528.6	527.4	527.4	527.4	526.9	526.9	526.9	526.3
5°	544.4	542.1	542.7	541.6	541.0	540.4	541.0	539.9	538.7	539.3	538.7
7.5°	563.6	562.5	560.2	560.2	559.6	558.5	558.5	556.8	556.2	555.1	554.6
10°	585.0	582.2	583.4	582.2	582.8	580.5	579.4	578.3	577.1	577.1	577.7
12.5°	607.1	606.5	604.8	603.7	603.7	602.0	602.6	602.0	600.3	599.7	598.0
15°	629.7	629.7	628.0	628.5	628.0	626.8	625.7	625.7	624.6	623.4	624.0
17.5°	656.2	656.2	656.2	656.2	656.8	655.1	655.6	654.5	653.4	655.6	655.6
20°	690.6	692.9	692.9	692.3	695.2	693.5	692.9	695.7	692.9	696.9	696.3
22.5°	730.2	732.4	732.4	734.7	735.3	737.0	738.1	737.0	739.2	741.5	741.5
25°	774.2	776.5	778.2	781.6	783.3	782.1	782.7	785.5	786.7	788.9	791.2
27.5°	820.5	821.1	823.4	827.3	830.1	831.3	831.8	836.3	836.9	838.0	840.3
30°	865.7	871.4	870.2	875.3	877.0	878.7	882.1	883.8	887.7	890.0	890.0
32.5°	918.8	917.7	922.2	926.1	929.0	931.8	934.6	936.9	939.1	940.3	945.9
35°	984.9	987.1	987.1	987.7	994.5	995.0	997.3	1002.4	1004.1	1007.5	1009.7
37.5°	1050.4	1046.4	1045.9	1045.9	1043.6	1045.3	1045.9	1046.4	1048.7	1049.2	1051.5
40°	1123.8	1118.7	1114.2	1111.4	1106.8	1100.6	1099.5	1096.7	1098.4	1097.8	1098.4
42.5°	1224.3	1210.2	1199.5	1191.6	1182.5	1175.7	1170.7	1163.3	1158.2	1152.0	1150.9
45°	1352.5	1326.0	1307.9	1294.9	1281.9	1263.3	1252.5	1241.2	1231.1	1220.9	1212.4
47.5°	1520.8	1492.5	1463.7	1440.0	1419.7	1389.8	1359.3	1342.3	1322.6	1305.1	1292.6
50°	1719.0	1685.1	1671.6	1638.2	1612.8	1567.7	1529.8	1502.1	1462.6	1436.1	1412.9
52.5°	1921.7	1913.3	1905.9	1877.7	1847.8	1821.8	1788.5	1739.9	1699.8	1669.3	1621.9
55°	2197.9	2201.8	2199.0	2183.8	2173.0	2148.2	2134.6	2092.3	2074.2	2030.2	1980.5
57.5°	2662.6	2694.3	2734.4	2750.2	2771.6	2751.3	2775.0	2803.8	2732.1	2756.9	2712.3
60°	3256.2	3401.3	3487.7	3593.9	3663.3	3760.5	3778.0	3803.4	3796.0	3810.1	3838.9
62.5°	3618.7	3790.9	3956.4	4076.7	4205.4	4276.6	4362.4	4422.3	4484.4	4526.2	4514.3
65°	3725.4	3902.8	4053.0	4184.6	4299.8	4386.7	4466.3	4541.5	4598.5	4638.6	4662.3
67.5°	3333.5	3565.1	3723.2	3877.3	4025.9	4117.4	4184.0	4256.8	4340.4	4409.9	4423.4
70°	2508.5	2855.8	3080.0	3264.6	3439.1	3562.2	3655.4	3723.2	3788.1	3837.8	3892.0
72.5°	1568.8	1872.6	2129.0	2368.4	2553.7	2723.1	2801.6	2951.8	2932.0	2969.8	3010.5
75°	940.3	1088.2	1229.4	1398.2	1495.4	1636.6	1662.0	1686.8	1673.8	1631.5	1663.1
77.5°	653.4	677.7	676.5	666.9	656.8	631.9	599.7	582.2	570.4	553.4	560.2
80°	657.3	604.8	524.6	441.0	364.2	313.4	293.1	293.1	314.0	343.9	373.8
82.5°	785.5	729.6	650.6	544.4	431.4	351.3	297.6	276.1	280.1	310.6	349.0
85°	529.7	542.1	475.5	434.8	344.5	268.2	224.8	182.4	161.5	166.6	188.6
87.5°	19.2	23.2	8.5	11.3	7.9	6.8	6.8	7.3	5.1	6.2	5.6
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
2.5°	525.8	525.2	525.2	524.1	524.1	523.5	523.5	522.9	522.4	522.4	521.8
5°	538.2	537.6	536.5	535.9	534.8	534.8	534.2	533.1	533.1	532.0	531.4
7.5°	555.7	554.6	553.4	552.9	552.3	550.6	550.6	549.5	549.5	548.3	547.8
10°	576.6	575.4	574.3	574.9	573.2	572.6	571.5	571.5	569.8	569.2	569.2
12.5°	599.2	598.6	598.6	596.9	596.3	595.8	593.5	593.5	593.5	592.4	593.0
15°	623.4	624.0	622.3	624.0	623.4	621.8	621.8	621.8	619.5	622.3	620.1
17.5°	656.2	657.9	656.8	657.3	656.2	656.2	656.8	656.2	657.3	657.3	660.7
20°	696.9	697.4	700.2	699.1	699.1	698.6	699.7	700.2	702.5	701.4	703.6
22.5°	741.5	744.3	744.9	747.1	747.1	746.6	747.7	749.9	751.1	752.8	752.2
25°	792.3	794.0	796.3	793.4	797.9	797.9	799.1	801.9	802.5	802.5	806.4
27.5°	839.7	844.3	844.8	847.6	845.9	847.1	851.0	852.7	855.0	855.0	856.1
30°	893.4	895.1	896.2	899.6	899.0	899.6	900.2	903.0	903.0	905.8	908.6
32.5°	948.7	949.9	951.0	954.4	955.5	957.8	956.6	958.9	961.7	962.3	964.0
35°	1014.8	1015.9	1017.1	1022.1	1022.7	1026.7	1027.8	1026.7	1031.2	1028.3	1031.2
37.5°	1053.2	1058.3	1059.4	1062.8	1061.7	1064.5	1066.2	1068.4	1069.6	1071.8	1076.4
40°	1100.1	1101.8	1105.2	1106.8	1109.1	1109.7	1111.9	1113.6	1115.3	1120.4	1125.5
42.5°	1148.1	1150.3	1152.0	1154.3	1157.1	1159.4	1161.1	1166.1	1167.3	1170.7	1180.3
45°	1206.2	1205.1	1205.7	1206.2	1207.4	1210.2	1215.3	1220.4	1223.7	1231.6	1239.6
47.5°	1278.5	1271.2	1268.4	1263.8	1265.0	1271.2	1272.3	1280.8	1287.6	1294.9	1304.5
50°	1388.1	1368.3	1356.5	1344.6	1343.5	1346.9	1351.4	1360.4	1368.3	1377.9	1391.5
52.5°	1572.2	1534.3	1510.6	1477.9	1468.8	1467.1	1463.7	1468.8	1471.1	1484.1	1509.5
55°	1944.9	1874.9	1829.7	1778.9	1731.4	1717.3	1690.2	1695.8	1690.2	1698.1	1735.9
57.5°	2723.1	2667.2	2623.1	2558.2	2476.8	2390.4	2369.0	2280.3	2297.8	2348.7	2315.9
60°	3853.1	3832.7	3801.1	3770.1	3658.8	3596.1	3493.9	3482.6	3410.9	3411.5	3364.6
62.5°	4485.5	4511.5	4492.3	4483.3	4477.1	4457.3	4406.5	4345.5	4254.0	4187.9	4090.8
65°	4666.3	4644.2	4623.3	4620.5	4618.8	4651.0	4658.4	4615.4	4532.4	4429.6	4317.8
67.5°	4455.6	4443.2	4444.3	4420.6	4435.3	4491.2	4530.2	4518.3	4442.1	4317.8	4175.5
70°	3954.1	3929.9	3954.7	3985.8	4007.8	4040.0	4079.0	4088.6	4019.1	3891.5	3746.3
72.5°	2960.8	2964.8	2988.5	2997.0	3085.6	3076.6	3111.6	2997.5	2947.3	2825.8	2751.3
75°	1558.1	1532.6	1598.7	1458.7	1401.1	1441.2	1328.8	1220.9	1243.5	1262.1	1127.7
77.5°	550.6	515.0	454.6	430.3	358.0	303.3	247.9	223.6	210.6	203.9	195.4
80°	395.3	406.6	394.2	364.8	310.0	248.5	196.0	154.7	132.7	120.8	112.9
82.5°	399.8	444.4	464.2	455.7	406.0	307.2	202.7	129.3	96.0	80.2	74.5
85°	214.6	234.9	225.9	190.3	171.1	102.2	70.0	46.9	39.5	36.1	33.3
87.5°	8.5	6.8	5.6	5.6	6.2	6.8	5.6	6.2	5.6	5.6	5.6
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):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
2.5°	520.7	520.7	520.7	520.1	519.0	516.2	513.3	511.1	509.4	507.7	505.4
5°	530.8	529.7	529.7	529.7	525.2	520.7	516.7	512.8	509.4	506.6	504.3
7.5°	547.8	547.2	545.0	544.4	541.0	533.7	529.1	522.4	518.4	514.5	513.3
10°	568.1	567.5	567.0	566.4	561.9	554.6	548.9	542.7	537.0	531.4	525.8
12.5°	591.8	591.3	590.7	589.0	587.3	583.4	577.1	570.4	563.6	551.7	545.5
15°	621.2	622.3	621.2	620.6	619.5	620.1	616.1	606.5	595.8	580.5	567.5
17.5°	660.2	659.0	658.5	660.7	660.2	663.0	661.8	649.4	633.0	608.8	586.2
20°	703.1	703.1	705.3	707.0	712.1	719.4	716.1	700.8	670.9	637.0	607.6
22.5°	754.5	755.6	757.9	756.7	764.6	776.5	777.6	756.2	717.2	670.3	629.1
25°	808.1	809.2	807.0	810.4	823.4	840.3	843.7	813.2	761.8	700.8	647.2
27.5°	858.9	860.1	860.1	864.6	877.0	905.8	909.2	875.3	807.0	727.4	660.2
30°	908.6	913.1	914.3	915.4	934.0	974.1	981.5	932.3	846.5	747.1	669.2
32.5°	971.3	973.0	975.3	978.1	999.5	1048.7	1048.7	981.5	871.9	759.5	670.9
35°	1038.5	1039.1	1044.2	1044.7	1075.2	1124.4	1114.8	1022.1	890.0	756.7	658.5
37.5°	1079.2	1081.4	1086.5	1093.3	1125.5	1194.9	1172.9	1057.2	893.4	738.1	630.2
40°	1129.4	1134.0	1139.0	1145.8	1193.8	1266.7	1222.0	1079.2	879.3	701.4	587.9
42.5°	1183.6	1189.9	1197.8	1210.2	1267.2	1329.9	1259.3	1082.6	847.1	660.2	537.6
45°	1244.6	1255.9	1265.0	1279.6	1344.0	1384.7	1281.9	1062.8	806.4	605.9	484.0
47.5°	1315.2	1324.3	1340.1	1355.9	1420.3	1422.0	1284.2	1024.4	751.1	551.7	426.9
50°	1402.2	1407.8	1431.6	1441.2	1501.6	1460.9	1267.8	972.4	692.9	490.7	363.7
52.5°	1518.0	1525.9	1556.4	1571.0	1614.0	1514.0	1244.6	916.0	626.3	422.4	298.7
55°	1746.7	1781.1	1802.6	1828.0	1855.7	1634.3	1234.5	855.5	551.2	343.3	236.6
57.5°	2388.8	2377.5	2424.9	2482.5	2481.9	1909.3	1295.5	803.6	462.5	262.6	181.8
60°	3345.4	3356.1	3331.8	3366.3	3256.7	2250.4	1379.0	748.8	362.5	195.4	138.9
62.5°	4056.4	3994.2	3959.8	3919.1	3678.0	2287.7	1318.0	636.4	263.7	137.2	106.7
65°	4224.6	4151.8	4077.8	4000.5	3636.8	2062.3	1081.4	467.0	170.5	94.3	84.7
67.5°	4058.6	3941.7	3847.4	3767.8	3332.4	1709.4	790.6	286.9	97.7	76.2	72.3
70°	3628.3	3499.0	3346.5	3257.3	2806.1	1259.9	506.6	154.7	75.1	67.8	66.1
72.5°	2655.9	2549.7	2383.1	2280.9	2014.9	765.8	282.9	87.0	70.0	64.9	62.7
75°	1034.6	979.2	909.8	915.4	817.1	338.8	128.2	75.1	68.3	63.8	61.6
77.5°	177.9	173.4	160.4	160.4	182.4	123.7	85.3	75.7	67.8	62.7	58.7
80°	106.7	104.5	99.4	98.3	94.9	87.0	81.9	76.8	66.6	59.3	54.2
82.5°	70.0	67.2	65.5	64.9	70.6	76.2	76.8	76.2	63.2	51.4	44.0
85°	29.9	29.9	29.9	30.5	40.7	61.6	63.2	67.8	52.0	40.1	31.6
87.5°	5.1	6.2	6.2	6.8	7.3	13.6	16.9	22.0	17.5	16.9	15.2
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):

	165°	175°	180°
0°	519.0	519.0	519.0
2.5°	504.9	503.7	503.7
5°	503.2	502.0	502.6
7.5°	509.9	507.7	508.2
10°	522.4	520.1	519.0
12.5°	538.2	535.4	535.4
15°	554.6	547.8	547.2
17.5°	568.1	559.6	558.5
20°	583.4	572.1	570.4
22.5°	597.5	582.2	580.0
25°	607.6	589.0	586.2
27.5°	612.2	590.1	587.9
30°	615.5	590.7	587.3
32.5°	612.2	585.6	582.8
35°	593.5	564.7	563.0
37.5°	561.3	529.1	526.9
40°	519.0	485.1	479.4
42.5°	464.8	433.1	426.9
45°	412.2	376.1	373.3
47.5°	355.8	321.3	323.0
50°	296.5	265.4	264.9
52.5°	240.0	212.9	211.2
55°	189.2	170.0	168.3
57.5°	149.7	139.5	137.8
60°	122.0	116.9	115.2
62.5°	98.3	96.6	96.0
65°	81.9	81.9	81.9
67.5°	71.2	71.7	71.7
70°	65.5	66.1	65.5
72.5°	63.2	64.9	64.9
75°	61.6	62.7	60.4
77.5°	60.4	61.0	57.0
80°	59.9	59.3	52.0
82.5°	52.0	50.3	44.0
85°	47.4	36.1	30.5
87.5°	24.3	16.9	13.0
90°	0.0	0.0	0.0

(END OF REPORT)