

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: io LED

Report Number: P273452

Luminaire Tested: **0.05-09W-835-30-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273452  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 0.05-09W-835-30-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 30 DEGREE OPTIC.  
VERY HIGH OUTPUT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1910.6 lumens  
Efficiency: N/A  
Efficacy: 65.2 lumens/watt  
Spacing Criteria (0/90/45): 0.73 / 1.67 / 0.84  
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')  
CIE Type: Direct

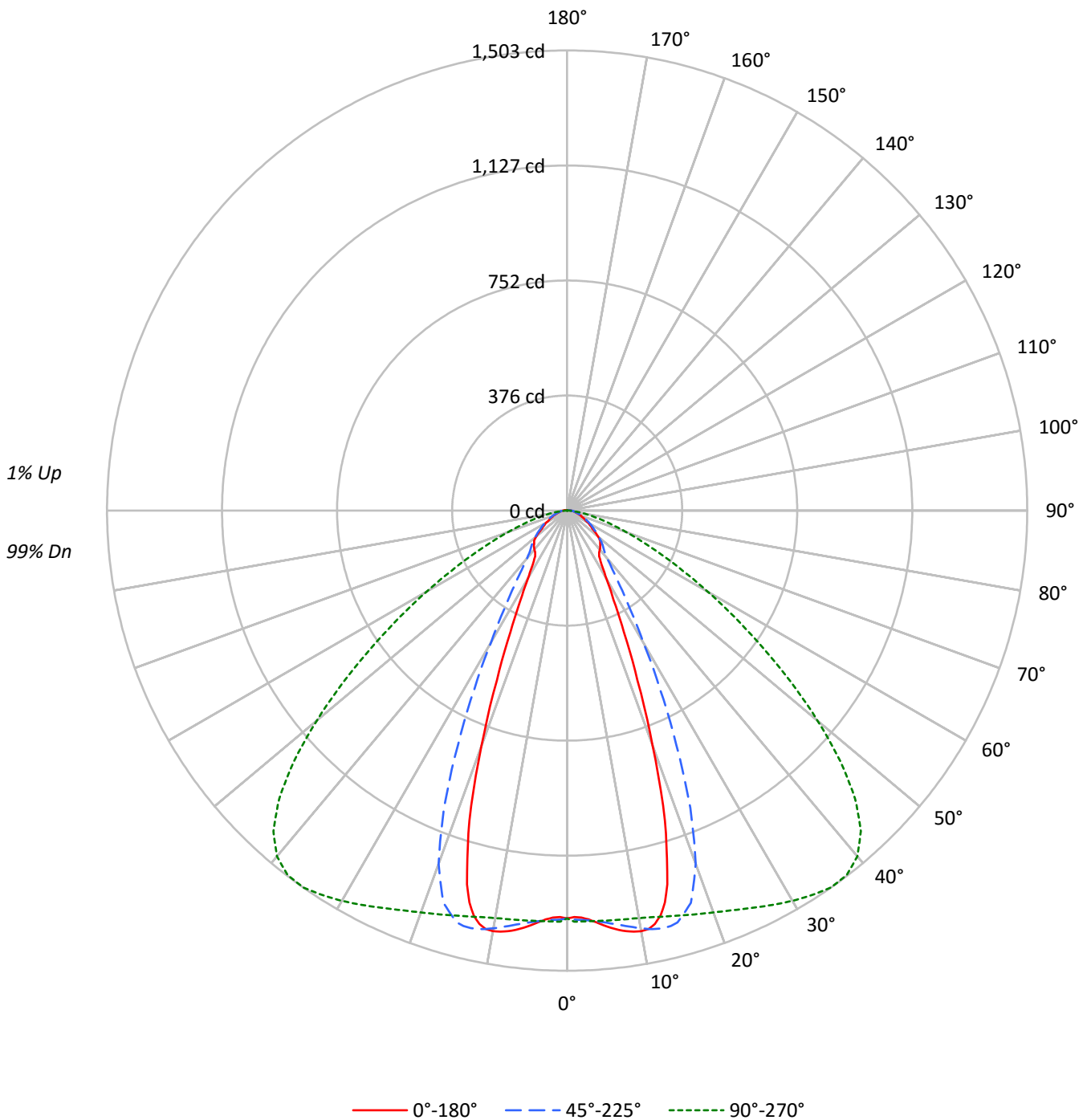
Input Watts (W): 29.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	99
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	82	80	78
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	71	69
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	79	67	60	55	77	67	59	54	65	59	54	63	58	53	62	57	53	51
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	52	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	54	47	42	52	46	42	51	46	42	50	45	41	40
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	47	42	39	37

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	23596	23596	23596
5°	24178	24000	23911
10°	25095	24924	24319
15°	23181	25543	25127
20°	15403	23144	26326
25°	8549	16485	27987
30°	5234	10191	30105
35°	3934	6494	32494
40°	3850	4690	34097
45°	3830	4149	33324
50°	3652	3740	29433
55°	3054	3348	24015
60°	2763	3086	18806
65°	2473	2758	14226
70°	2351	2564	10576
75°	2361	2546	7885
80°	2550	2775	5652
85°	3780	4065	3496



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.6	6.8
10°-20°	371.1	19.4
20°-30°	419.6	22.0
30°-40°	345.1	18.1
40°-50°	268.3	14.0
50°-60°	184.9	9.7
60°-70°	107.3	5.6
70°-80°	53.1	2.8
80°-90°	21.1	1.1
90°-100°	7.5	0.4
100°-110°	2.8	0.1
110°-120°	0.2	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°-30°	920.4	48.2
0°-40°	1265.4	66.2
0°-60°	1718.6	90.0
0°-90°	1900.1	99.5
90°-120°	10.5	0.5
90°-150°	10.5	0.5
90°-180°	10.0	0.5
0°-180°	1910.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1332	1332	1332	1332	1332	
5°	1360	1355	1350	1335	1345	131
15°	1264	1312	1393	1384	1370	332
25°	437	517	843	1351	1432	213
35°	182	194	300	830	1503	120
45°	153	150	166	373	1330	118
55°	99	101	108	204	778	91
65°	59	60	66	114	339	59
75°	34	35	37	52	115	37
85°	19	19	20	17	17	17
90°	13	14	14	9	1	7
95°	10	10	9	3	0	8
105°	5	5	3	0	0	6
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0
1°	1328.0	1327.5	1324.8	1326.6	1331.6	1336.1	1338.4	1337.5	1337.0	1336.1	1335.7
2°	1330.2	1329.8	1327.5	1329.3	1334.3	1338.8	1340.7	1339.8	1338.4	1337.9	1336.6
3°	1337.0	1336.6	1333.9	1335.2	1339.8	1342.9	1343.8	1342.9	1341.6	1340.7	1338.8
4°	1347.9	1347.0	1343.4	1343.4	1346.6	1348.4	1348.8	1347.5	1346.6	1344.7	1342.5
5°	1359.7	1357.9	1353.4	1352.9	1354.7	1356.1	1355.2	1353.8	1352.0	1349.7	1347.5
6°	1370.6	1369.2	1363.8	1362.9	1364.3	1364.3	1362.4	1360.2	1358.8	1355.6	1352.5
7°	1380.1	1378.3	1373.3	1372.4	1373.8	1373.3	1371.5	1368.8	1366.5	1362.4	1358.8
8°	1387.4	1385.6	1381.0	1380.1	1382.4	1381.9	1380.6	1377.9	1375.1	1370.1	1365.2
9°	1392.4	1390.1	1386.0	1386.0	1389.2	1389.7	1388.8	1386.5	1383.8	1377.4	1372.9
10°	1395.1	1391.9	1389.2	1389.2	1393.3	1395.6	1395.1	1393.3	1391.0	1385.6	1380.6
11°	1392.4	1388.3	1387.4	1388.8	1393.7	1397.4	1398.7	1398.7	1397.4	1392.4	1387.8
12°	1380.1	1376.5	1377.4	1378.3	1386.9	1393.3	1397.4	1400.1	1401.0	1396.9	1394.6
13°	1357.4	1353.4	1354.7	1359.7	1372.0	1381.5	1390.1	1396.5	1401.5	1399.6	1400.1
14°	1318.9	1313.9	1322.1	1325.7	1343.8	1358.8	1372.9	1385.1	1395.6	1398.3	1402.8
15°	1264.0	1259.4	1271.2	1276.2	1301.2	1323.0	1343.8	1364.3	1382.9	1392.8	1401.9
17.5°	1062.1	1057.1	1074.3	1096.6	1128.8	1175.1	1212.7	1259.9	1305.7	1343.8	1376.0
20°	817.1	820.3	832.1	853.8	897.4	948.2	1005.8	1078.0	1151.5	1227.7	1296.2
22.5°	600.2	603.9	613.8	634.3	673.3	726.4	780.8	859.7	946.4	1050.8	1155.6
25°	437.4	443.7	448.2	466.8	498.2	536.3	585.7	650.6	734.5	843.4	967.7
27.5°	328.9	332.6	337.1	350.3	371.1	399.2	439.6	490.0	561.2	656.0	771.3
30°	255.9	257.2	261.8	271.3	283.6	305.3	333.9	371.6	422.8	498.2	593.9
32.5°	207.8	208.7	211.4	216.0	226.4	240.5	261.3	289.9	326.7	384.7	459.6
35°	181.9	182.4	183.7	185.6	190.6	198.3	211.4	232.3	259.1	300.3	358.9
37.5°	171.9	171.9	172.4	172.9	174.2	176.9	183.3	194.6	212.3	243.2	286.7
40°	166.5	166.5	166.5	165.6	166.1	167.0	169.7	175.1	183.3	202.8	233.2
42.5°	160.2	159.7	159.2	158.3	157.9	158.8	162.0	164.7	169.2	179.2	197.8
45°	152.9	152.9	152.4	150.6	150.2	149.7	150.6	152.9	158.3	165.6	176.0
47.5°	146.1	145.6	144.3	141.6	140.6	140.6	141.6	142.0	144.3	151.5	161.1
50°	132.5	132.5	132.5	130.7	130.7	130.2	130.2	131.6	132.9	135.7	143.8
52.5°	114.3	114.3	114.8	114.3	117.1	117.5	118.0	118.4	119.8	123.0	127.9
55°	98.9	98.9	99.8	99.4	100.3	102.1	104.8	107.5	107.5	108.4	113.9
57.5°	88.5	88.5	88.9	88.0	88.5	88.9	90.3	93.5	96.2	97.5	100.7
60°	78.0	78.5	78.5	78.0	78.9	79.4	79.8	81.7	83.0	87.1	89.8
62.5°	67.1	67.6	67.6	67.6	68.5	69.4	69.9	71.2	72.6	74.9	79.4
65°	59.0	59.0	59.0	59.0	59.4	59.9	60.8	62.6	63.1	65.8	68.5
67.5°	51.7	51.7	52.2	51.7	52.2	52.6	52.6	54.0	55.4	57.6	59.4
70°	45.4	45.4	45.4	45.8	45.8	46.3	46.3	46.7	47.6	49.5	51.7
72.5°	39.5	39.9	39.9	40.4	40.4	40.4	40.4	41.3	41.3	42.6	44.5
75°	34.5	34.9	34.9	34.9	34.9	35.4	35.4	35.8	36.3	37.2	38.6
77.5°	29.9	29.9	29.9	29.9	30.4	30.4	30.9	30.9	31.3	32.2	33.1
80°	25.0	25.9	25.9	25.9	25.9	26.3	26.3	26.8	26.8	27.2	27.7
82.5°	21.8	21.8	21.8	22.2	22.2	22.2	22.2	23.1	23.1	23.6	23.6
85°	18.6	18.6	18.6	19.1	19.1	19.1	19.1	19.5	19.5	20.0	19.5
87.5°	15.9	15.9	15.9	15.9	15.9	16.3	16.3	16.3	16.3	16.3	15.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
90°	13.2	13.6	13.6	13.6	13.6	13.6	14.1	13.6	13.6	13.6	13.2
92.5°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	10.9	10.4
95°	10.0	10.0	10.0	10.0	10.0	10.0	9.5	9.5	9.1	8.6	7.7
97.5°	8.6	8.2	8.2	8.2	8.2	8.2	7.7	7.7	7.3	6.8	5.9
100°	7.3	7.3	7.3	7.3	7.3	6.8	6.4	6.4	5.9	5.0	4.1
102.5°	6.4	6.4	6.4	6.4	5.9	5.9	5.4	5.0	4.5	4.1	3.2
105°	5.0	5.0	5.0	5.0	5.0	4.5	4.1	4.1	3.2	2.7	1.8
107.5°	4.1	4.1	4.1	4.1	4.1	3.6	3.2	3.2	2.3	1.4	0.9
110°	3.2	3.2	3.2	3.2	3.2	3.2	2.3	1.8	1.4	0.9	0.9
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0	1332.0
1°	1328.0	1326.6	1327.0	1328.4	1330.7	1338.8	1340.7	1342.9
2°	1329.3	1328.0	1328.4	1329.3	1331.6	1339.8	1341.1	1342.9
3°	1331.6	1329.3	1330.2	1330.7	1331.6	1339.8	1341.6	1342.9
4°	1335.2	1332.0	1332.5	1332.0	1332.9	1340.2	1342.5	1343.8
5°	1339.3	1335.2	1335.7	1334.8	1334.3	1341.6	1343.4	1344.7
6°	1343.8	1339.3	1339.3	1337.5	1336.6	1342.9	1344.3	1345.7
7°	1349.7	1343.4	1342.9	1340.7	1339.3	1344.7	1345.2	1346.6
8°	1356.1	1348.4	1347.9	1345.2	1342.0	1346.6	1347.5	1348.4
9°	1362.4	1353.8	1352.5	1348.8	1345.2	1348.8	1349.3	1349.3
10°	1369.7	1359.7	1357.9	1353.8	1349.7	1351.5	1351.5	1352.0
11°	1377.0	1366.1	1363.8	1358.4	1353.8	1355.2	1354.3	1353.8
12°	1382.9	1372.0	1370.1	1363.8	1358.4	1358.8	1357.4	1357.4
13°	1389.2	1378.8	1375.6	1369.7	1363.3	1363.3	1361.5	1362.0
14°	1392.8	1384.2	1381.5	1375.1	1368.8	1368.3	1365.6	1365.6
15°	1395.1	1388.3	1386.5	1381.5	1374.7	1373.8	1369.7	1370.1
17.5°	1388.8	1394.6	1396.9	1396.9	1390.1	1387.8	1381.9	1382.9
20°	1346.6	1373.8	1397.4	1406.4	1403.7	1403.7	1396.9	1396.5
22.5°	1250.4	1319.8	1376.0	1407.4	1416.0	1419.6	1414.6	1412.8
25°	1095.2	1210.0	1315.7	1386.0	1419.6	1435.0	1431.9	1431.9
27.5°	902.4	1061.6	1209.5	1334.3	1406.4	1443.6	1449.5	1451.8
30°	723.2	882.0	1062.5	1234.5	1365.2	1441.4	1465.4	1471.8
32.5°	567.6	710.5	888.3	1103.4	1287.6	1421.0	1475.9	1489.0
35°	445.5	560.3	724.5	936.4	1175.1	1368.3	1472.2	1502.6
37.5°	351.6	446.0	584.4	782.6	1031.7	1279.4	1446.4	1499.9
40°	283.6	357.1	466.8	643.3	882.4	1164.6	1390.6	1474.5
42.5°	232.7	291.3	380.6	527.6	747.7	1037.1	1306.6	1420.1
45°	197.8	240.9	312.1	434.6	631.1	910.1	1200.0	1330.2
47.5°	176.5	206.0	262.7	364.3	535.8	794.4	1077.1	1209.5
50°	158.3	182.4	225.9	309.9	457.3	685.1	945.0	1068.0
52.5°	139.3	161.1	197.8	266.8	392.9	589.3	816.2	922.8
55°	123.4	140.6	173.3	233.7	338.9	503.1	689.2	777.6
57.5°	108.9	123.4	150.6	203.7	295.4	426.0	573.9	648.8
60°	95.3	108.0	131.6	175.6	251.3	353.9	468.2	530.8
62.5°	85.3	94.4	114.8	151.5	210.5	291.7	382.9	426.5
65°	75.3	83.5	98.9	128.8	174.7	235.5	306.2	339.4
67.5°	64.0	72.6	84.4	108.9	142.5	188.3	241.8	264.0
70°	55.4	60.8	71.7	89.8	115.2	149.3	187.8	204.2
72.5°	47.2	50.8	59.4	72.6	90.7	116.1	143.8	155.2
75°	40.4	43.1	47.6	56.7	70.3	88.0	106.6	115.2
77.5°	34.5	35.4	38.1	43.6	51.7	64.4	77.1	82.6
80°	28.6	29.5	29.5	32.2	36.7	44.5	51.7	55.4
82.5°	23.6	23.6	23.6	23.6	25.0	28.6	31.8	33.6
85°	19.1	18.6	17.7	16.8	16.3	15.9	16.8	17.2
87.5°	15.9	15.0	13.2	11.3	9.5	7.7	6.4	6.4





TEST NUMBER: P273452

CATALOG NUMBER: 0.05-09W-835-30-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
90°	12.2	11.3	9.5	7.7	5.4	3.2	1.8	0.9
92.5°	9.5	8.2	6.4	4.5	2.7	0.9	0.0	0.0
95°	6.8	5.9	4.1	2.7	0.9	0.0	0.0	0.0
97.5°	5.0	3.6	2.3	0.9	0.0	0.0	0.0	0.0
100°	3.2	2.3	0.9	0.0	0.0	0.0	0.0	0.0
102.5°	2.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)