

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: P273446

Luminaire Tested: **0.05-09W-830-30-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273446
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-830-30-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 30 DEGREE OPTIC.
VERY HIGH OUTPUT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1837.1 lumens
Efficiency: N/A
Efficacy: 62.7 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

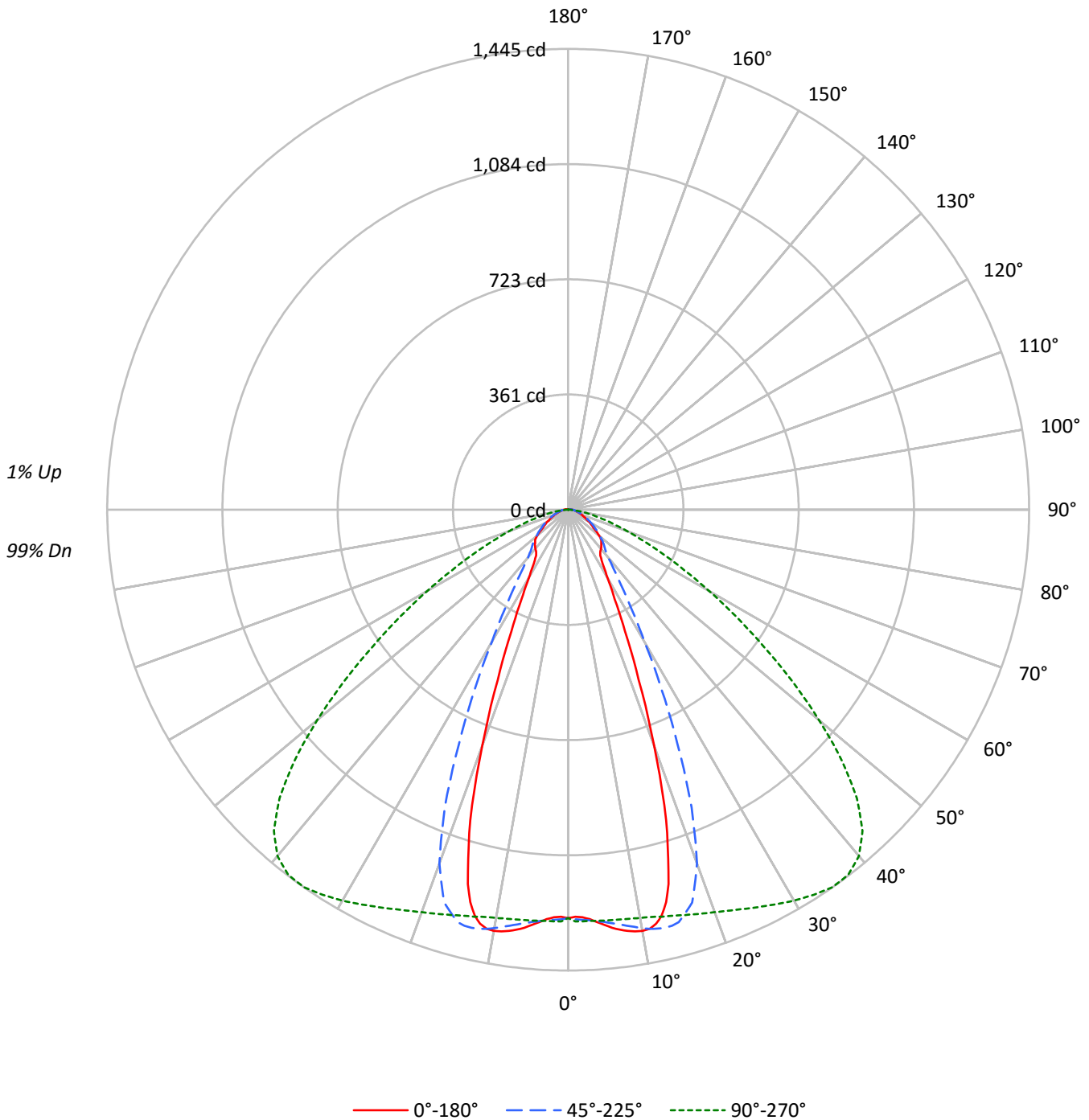
Input Watts (W): 29.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	22689	22689	22689
5°	23248	23078	22992
10°	24129	23965	23384
15°	22290	24562	24162
20°	14811	22254	25313
25°	8219	15852	26910
30°	5032	9798	28948
35°	3782	6245	31244
40°	3702	4509	32786
45°	3683	3988	32044
50°	3511	3594	28300
55°	2937	3221	23092
60°	2657	2969	18083
65°	2377	2653	13677
70°	2258	2465	10167
75°	2272	2450	7583
80°	2448	2673	5427
85°	3638	3902	3374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.6	6.8
10°-20°	356.8	19.4
20°-30°	403.5	22.0
30°-40°	331.8	18.1
40°-50°	258.0	14.0
50°-60°	177.8	9.7
60°-70°	103.2	5.6
70°-80°	51.1	2.8
80°-90°	20.3	1.1
90°-100°	7.2	0.4
100°-110°	2.6	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°	885.0	48.2
0°-40°	1216.7	66.2
0°-60°	1652.5	90.0
0°-90°	1827.0	99.5
90°-120°	10.1	0.5
90°-150°	10.1	0.5
90°-180°	10.0	0.5
0°-180°	1837.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1281	1281	1281	1281	1281	
5°	1307	1303	1298	1284	1293	126
15°	1215	1262	1339	1331	1318	320
25°	420	497	811	1299	1377	205
35°	175	187	289	799	1445	116
45°	147	144	159	359	1279	113
55°	95	97	104	196	748	87
65°	57	57	63	110	326	57
75°	33	34	36	50	111	35
85°	18	18	19	17	17	16
90°	13	13	13	8	1	7
95°	10	10	8	3	0	7
105°	5	5	3	0	0	5
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°	1280.8	1280.8	1280.8	1280.8	1280.8	1280.8	1280.8	1280.8	1280.8	1280.8	1280.8
1°	1276.9	1276.4	1273.8	1275.6	1280.4	1284.7	1286.9	1286.0	1285.6	1284.7	1284.3
2°	1279.1	1278.6	1276.4	1278.2	1283.0	1287.4	1289.1	1288.2	1286.9	1286.5	1285.2
3°	1285.6	1285.2	1282.6	1283.9	1288.2	1291.3	1292.1	1291.3	1290.0	1289.1	1287.4
4°	1296.1	1295.2	1291.7	1291.7	1294.8	1296.5	1296.9	1295.6	1294.8	1293.0	1290.8
5°	1307.4	1305.7	1301.3	1300.9	1302.6	1303.9	1303.1	1301.7	1300.0	1297.8	1295.6
6°	1317.9	1316.6	1311.3	1310.5	1311.8	1311.8	1310.0	1307.9	1306.5	1303.5	1300.4
7°	1327.0	1325.3	1320.5	1319.6	1320.9	1320.5	1318.8	1316.1	1314.0	1310.0	1306.5
8°	1334.0	1332.3	1327.9	1327.0	1329.2	1328.8	1327.5	1324.9	1322.3	1317.5	1312.7
9°	1338.8	1336.6	1332.7	1332.7	1335.8	1336.2	1335.3	1333.2	1330.5	1324.4	1320.1
10°	1341.4	1338.4	1335.8	1335.8	1339.7	1341.9	1341.4	1339.7	1337.5	1332.3	1327.5
11°	1338.8	1334.9	1334.0	1335.3	1340.1	1343.6	1344.9	1344.9	1343.6	1338.8	1334.5
12°	1327.0	1323.6	1324.4	1325.3	1333.6	1339.7	1343.6	1346.2	1347.1	1343.2	1341.0
13°	1305.2	1301.3	1302.6	1307.4	1319.2	1328.4	1336.6	1342.8	1347.6	1345.8	1346.2
14°	1268.2	1263.4	1271.2	1274.7	1292.1	1306.5	1320.1	1331.8	1341.9	1344.5	1348.9
15°	1215.4	1211.0	1222.4	1227.1	1251.1	1272.1	1292.1	1311.8	1329.7	1339.3	1348.0
17.5°	1021.2	1016.4	1033.0	1054.4	1085.4	1129.9	1166.1	1211.4	1255.5	1292.1	1323.1
20°	785.7	788.7	800.1	821.0	862.9	911.7	967.1	1036.5	1107.2	1180.5	1246.3
22.5°	577.1	580.6	590.2	609.9	647.4	698.4	750.8	826.7	910.0	1010.3	1111.1
25°	420.5	426.6	431.0	448.9	479.0	515.6	563.2	625.6	706.3	811.0	930.5
27.5°	316.3	319.8	324.1	336.8	356.8	383.9	422.7	471.1	539.6	630.8	741.6
30°	246.0	247.3	251.7	260.9	272.7	293.6	321.1	357.3	406.6	479.0	571.0
32.5°	199.8	200.7	203.3	207.7	217.7	231.2	251.3	278.8	314.1	369.9	441.9
35°	174.9	175.4	176.7	178.4	183.2	190.6	203.3	223.4	249.1	288.8	345.1
37.5°	165.3	165.3	165.8	166.2	167.5	170.1	176.2	187.1	204.2	233.8	275.7
40°	160.1	160.1	160.1	159.2	159.7	160.5	163.2	168.4	176.2	195.0	224.2
42.5°	154.0	153.6	153.1	152.2	151.8	152.7	155.7	158.4	162.7	172.3	190.2
45°	147.0	147.0	146.6	144.8	144.4	144.0	144.8	147.0	152.2	159.2	169.3
47.5°	140.5	140.0	138.7	136.1	135.2	135.2	136.1	136.5	138.7	145.7	154.9
50°	127.4	127.4	127.4	125.6	125.6	125.2	125.2	126.5	127.8	130.4	138.3
52.5°	109.9	109.9	110.4	109.9	112.6	113.0	113.4	113.9	115.2	118.2	123.0
55°	95.1	95.1	96.0	95.5	96.4	98.2	100.8	103.4	103.4	104.3	109.5
57.5°	85.1	85.1	85.5	84.6	85.1	85.5	86.8	89.9	92.5	93.8	96.8
60°	75.0	75.5	75.5	75.0	75.9	76.3	76.8	78.5	79.8	83.8	86.4
62.5°	64.6	65.0	65.0	65.0	65.9	66.7	67.2	68.5	69.8	72.0	76.3
65°	56.7	56.7	56.7	56.7	57.1	57.6	58.5	60.2	60.6	63.3	65.9
67.5°	49.7	49.7	50.2	49.7	50.2	50.6	50.6	51.9	53.2	55.4	57.1
70°	43.6	43.6	43.6	44.1	44.1	44.5	44.5	44.9	45.8	47.6	49.7
72.5°	38.0	38.4	38.4	38.8	38.8	38.8	38.8	39.7	39.7	41.0	42.8
75°	33.2	33.6	33.6	33.6	33.6	34.0	34.0	34.5	34.9	35.8	37.1
77.5°	28.8	28.8	28.8	28.8	29.2	29.2	29.7	29.7	30.1	31.0	31.8
80°	24.0	24.9	24.9	24.9	24.9	25.3	25.3	25.7	25.7	26.2	26.6
82.5°	20.9	20.9	20.9	21.4	21.4	21.4	21.4	22.2	22.2	22.7	22.7
85°	17.9	17.9	17.9	18.3	18.3	18.3	18.3	18.8	18.8	19.2	18.8
87.5°	15.3	15.3	15.3	15.3	15.3	15.7	15.7	15.7	15.7	15.7	15.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
90°	12.7	13.1	13.1	13.1	13.1	13.1	13.5	13.1	13.1	13.1	12.7
92.5°	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.5	10.0
95°	9.6	9.6	9.6	9.6	9.6	9.6	9.2	9.2	8.7	8.3	7.4
97.5°	8.3	7.9	7.9	7.9	7.9	7.9	7.4	7.4	7.0	6.5	5.7
100°	7.0	7.0	7.0	7.0	7.0	6.5	6.1	6.1	5.7	4.8	3.9
102.5°	6.1	6.1	6.1	6.1	5.7	5.7	5.2	4.8	4.4	3.9	3.1
105°	4.8	4.8	4.8	4.8	4.8	4.4	3.9	3.9	3.1	2.6	1.7
107.5°	3.9	3.9	3.9	3.9	3.9	3.5	3.1	3.1	2.2	1.3	0.9
110°	3.1	3.1	3.1	3.1	3.1	3.1	2.2	1.7	1.3	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°	1280.8	1280.8	1280.8	1280.8	1280.8	1280.8	1280.8	1280.8
1°	1276.9	1275.6	1276.0	1277.3	1279.5	1287.4	1289.1	1291.3
2°	1278.2	1276.9	1277.3	1278.2	1280.4	1288.2	1289.5	1291.3
3°	1280.4	1278.2	1279.1	1279.5	1280.4	1288.2	1290.0	1291.3
4°	1283.9	1280.8	1281.2	1280.8	1281.7	1288.7	1290.8	1292.1
5°	1287.8	1283.9	1284.3	1283.4	1283.0	1290.0	1291.7	1293.0
6°	1292.1	1287.8	1287.8	1286.0	1285.2	1291.3	1292.6	1293.9
7°	1297.8	1291.7	1291.3	1289.1	1287.8	1293.0	1293.5	1294.8
8°	1303.9	1296.5	1296.1	1293.5	1290.4	1294.8	1295.6	1296.5
9°	1310.0	1301.7	1300.4	1296.9	1293.5	1296.9	1297.4	1297.4
10°	1317.0	1307.4	1305.7	1301.7	1297.8	1299.6	1299.6	1300.0
11°	1324.0	1313.5	1311.3	1306.1	1301.7	1303.1	1302.2	1301.7
12°	1329.7	1319.2	1317.5	1311.3	1306.1	1306.5	1305.2	1305.2
13°	1335.8	1325.7	1322.7	1317.0	1310.9	1310.9	1309.2	1309.6
14°	1339.3	1331.0	1328.4	1322.3	1316.1	1315.7	1313.1	1313.1
15°	1341.4	1334.9	1333.2	1328.4	1321.8	1320.9	1317.0	1317.5
17.5°	1335.3	1341.0	1343.2	1343.2	1336.6	1334.5	1328.8	1329.7
20°	1294.8	1320.9	1343.6	1352.4	1349.7	1349.7	1343.2	1342.8
22.5°	1202.3	1269.0	1323.1	1353.2	1361.5	1365.0	1360.2	1358.5
25°	1053.1	1163.5	1265.1	1332.7	1365.0	1379.8	1376.8	1376.8
27.5°	867.7	1020.8	1163.0	1283.0	1352.4	1388.1	1393.8	1396.0
30°	695.4	848.1	1021.7	1187.0	1312.7	1385.9	1409.1	1415.2
32.5°	545.7	683.2	854.2	1060.9	1238.1	1366.3	1419.1	1431.7
35°	428.4	538.8	696.7	900.4	1129.9	1315.7	1415.6	1444.8
37.5°	338.1	428.8	561.9	752.5	992.0	1230.2	1390.7	1442.2
40°	272.7	343.3	448.9	618.6	848.5	1119.8	1337.1	1417.8
42.5°	223.8	280.1	366.0	507.3	718.9	997.2	1256.4	1365.4
45°	190.2	231.6	300.1	417.9	606.8	875.1	1153.9	1279.1
47.5°	169.7	198.1	252.6	350.3	515.2	763.9	1035.6	1163.0
50°	152.2	175.4	217.2	298.0	439.7	658.7	908.7	1026.9
52.5°	133.9	154.9	190.2	256.5	377.8	566.7	784.8	887.3
55°	118.7	135.2	166.6	224.7	325.9	483.8	662.7	747.7
57.5°	104.7	118.7	144.8	195.9	284.0	409.6	551.8	623.8
60°	91.6	103.8	126.5	168.8	241.7	340.3	450.2	510.4
62.5°	82.0	90.7	110.4	145.7	202.4	280.5	368.2	410.1
65°	72.4	80.3	95.1	123.9	168.0	226.4	294.5	326.3
67.5°	61.5	69.8	81.1	104.7	137.0	181.0	232.5	253.9
70°	53.2	58.5	68.9	86.4	110.8	143.5	180.6	196.3
72.5°	45.4	48.9	57.1	69.8	87.2	111.7	138.3	149.2
75°	38.8	41.4	45.8	54.5	67.6	84.6	102.5	110.8
77.5°	33.2	34.0	36.6	41.9	49.7	61.9	74.2	79.4
80°	27.5	28.4	28.4	31.0	35.3	42.8	49.7	53.2
82.5°	22.7	22.7	22.7	22.7	24.0	27.5	30.5	32.3
85°	18.3	17.9	17.0	16.1	15.7	15.3	16.1	16.6
87.5°	15.3	14.4	12.7	10.9	9.2	7.4	6.1	6.1



TEST NUMBER: P273446

CATALOG NUMBER: 0.05-09W-830-30-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
90°	11.8	10.9	9.2	7.4	5.2	3.1	1.7	0.9
92.5°	9.2	7.9	6.1	4.4	2.6	0.9	0.0	0.0
95°	6.5	5.7	3.9	2.6	0.9	0.0	0.0	0.0
97.5°	4.8	3.5	2.2	0.9	0.0	0.0	0.0	0.0
100°	3.1	2.2	0.9	0.0	0.0	0.0	0.0	0.0
102.5°	2.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.4	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)