

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: P273464

Luminaire Tested: **0.05-12W-827-30-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273464  
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: 0.05-12W-827-30-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 30 DEGREE OPTIC.  
V2 HIGH OUTPUT  
Light Source: 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1968.3 lumens  
Efficiency: N/A  
Efficacy: 55.9 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

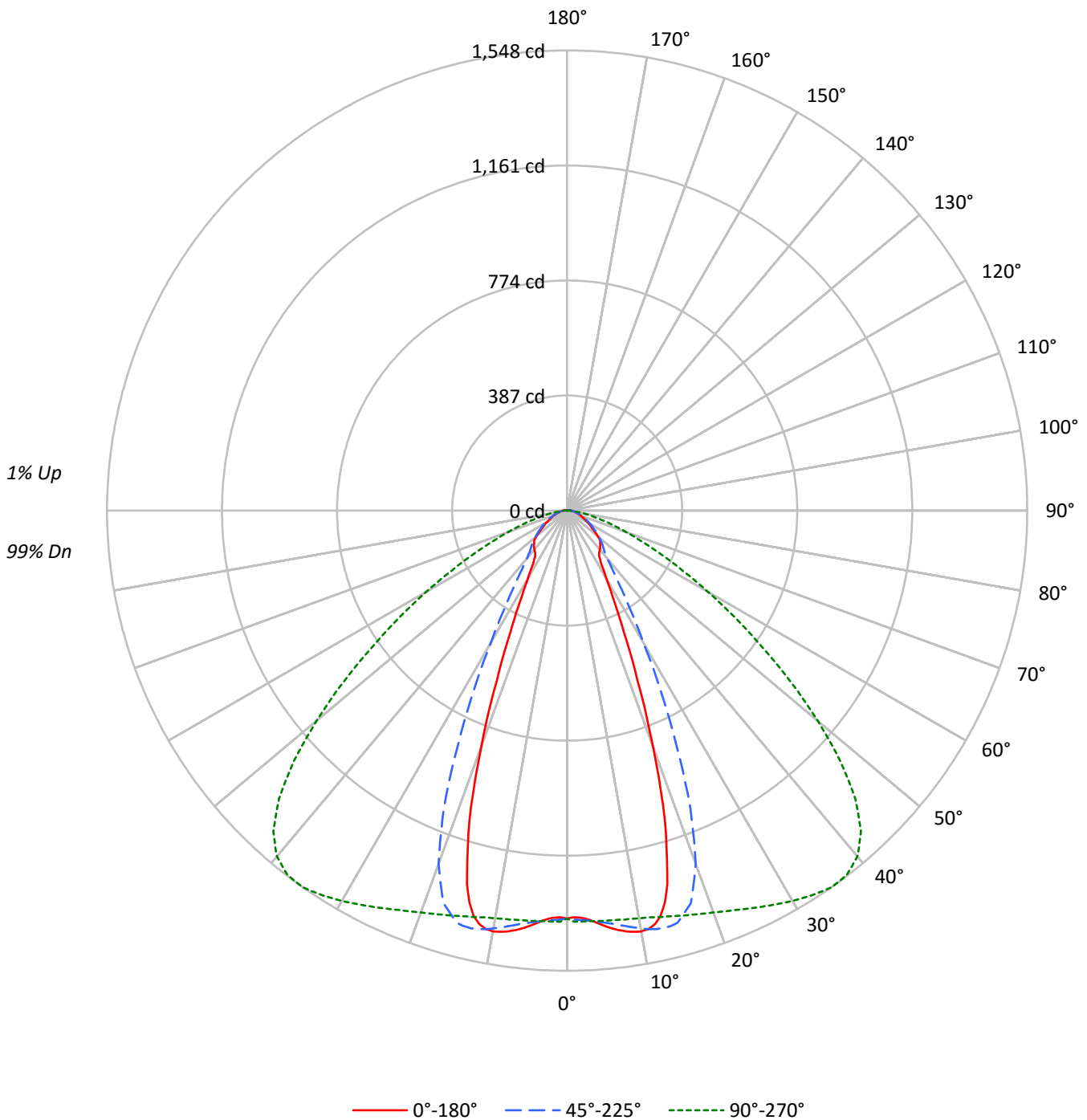
Input Watts (W): 35.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	24309	24309	24309
5°	24909	24728	24635
10°	25854	25677	25055
15°	23881	26317	25888
20°	15869	23843	27121
25°	8807	16983	28834
30°	5392	10497	31016
35°	4053	6691	33478
40°	3966	4831	35128
45°	3946	4274	34334
50°	3762	3853	30323
55°	3147	3450	24741
60°	2848	3178	19376
65°	2548	2842	14654
70°	2419	2636	10892
75°	2430	2621	8124
80°	2622	2856	5815
85°	3902	4187	3618



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.5	6.8
10°-20°	382.3	19.4
20°-30°	432.3	22.0
30°-40°	355.5	18.1
40°-50°	276.5	14.0
50°-60°	190.5	9.7
60°-70°	110.6	5.6
70°-80°	54.7	2.8
80°-90°	21.7	1.1
90°-100°	7.7	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°	948.2	48.2
0°-40°	1303.7	66.2
0°-60°	1770.6	90.0
0°-90°	1957.6	99.5
90°-120°	10.8	0.5
90°-150°	10.8	0.5
90°-180°	11.0	0.6
0°-180°	1968.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1401	1396	1391	1376	1385	135
15°	1302	1352	1435	1426	1412	342
25°	451	533	869	1392	1475	219
35°	187	200	309	856	1548	124
45°	158	154	171	385	1370	121
55°	102	104	112	210	801	94
65°	61	61	68	117	350	61
75°	36	36	38	54	119	38
85°	19	20	21	18	18	17
90°	14	14	14	9	1	8
95°	10	10	9	4	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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CATALOG NUMBER: 0.05-12W-827-30-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1372.3	1372.3	1372.3	1372.3	1372.3	1372.3	1372.3	1372.3	1372.3	1372.3	1372.3
1°	1368.1	1367.7	1364.9	1366.7	1371.9	1376.5	1378.9	1377.9	1377.5	1376.5	1376.1
2°	1370.5	1370.0	1367.7	1369.5	1374.7	1379.3	1381.2	1380.3	1378.9	1378.4	1377.0
3°	1377.5	1377.0	1374.2	1375.6	1380.3	1383.5	1384.5	1383.5	1382.1	1381.2	1379.3
4°	1388.7	1387.8	1384.0	1384.0	1387.3	1389.2	1389.6	1388.2	1387.3	1385.4	1383.1
5°	1400.8	1399.0	1394.3	1393.8	1395.7	1397.1	1396.2	1394.8	1392.9	1390.6	1388.2
6°	1412.1	1410.7	1405.0	1404.1	1405.5	1405.5	1403.6	1401.3	1399.9	1396.6	1393.4
7°	1421.9	1420.0	1414.9	1413.9	1415.3	1414.9	1413.0	1410.2	1407.9	1403.6	1399.9
8°	1429.4	1427.5	1422.8	1421.9	1424.2	1423.7	1422.3	1419.5	1416.7	1411.6	1406.5
9°	1434.5	1432.2	1428.0	1428.0	1431.2	1431.7	1430.8	1428.4	1425.6	1419.1	1414.4
10°	1437.3	1434.0	1431.2	1431.2	1435.4	1437.8	1437.3	1435.4	1433.1	1427.5	1422.3
11°	1434.5	1430.3	1429.4	1430.8	1435.9	1439.6	1441.0	1441.0	1439.6	1434.5	1429.8
12°	1421.9	1418.1	1419.1	1420.0	1428.9	1435.4	1439.6	1442.4	1443.4	1439.2	1436.8
13°	1398.5	1394.3	1395.7	1400.8	1413.5	1423.3	1432.2	1438.7	1443.8	1442.0	1442.4
14°	1358.8	1353.6	1362.0	1365.8	1384.5	1399.9	1414.4	1427.0	1437.8	1440.6	1445.2
15°	1302.2	1297.5	1309.7	1314.8	1340.5	1363.0	1384.5	1405.5	1424.7	1435.0	1444.3
17.5°	1094.2	1089.1	1106.8	1129.7	1162.9	1210.6	1249.4	1298.0	1345.2	1384.5	1417.7
20°	841.8	845.1	857.2	879.7	924.5	976.9	1036.3	1110.6	1186.3	1264.8	1335.4
22.5°	618.4	622.1	632.4	653.4	693.6	748.3	804.4	885.8	975.0	1082.5	1190.5
25°	450.6	457.1	461.8	481.0	513.2	552.5	603.4	670.3	756.7	868.9	997.0
27.5°	338.9	342.6	347.3	360.8	382.3	411.3	452.9	504.8	578.2	675.9	794.6
30°	263.6	265.0	269.7	279.5	292.1	314.6	344.0	382.8	435.6	513.2	611.8
32.5°	214.1	215.0	217.8	222.5	233.2	247.7	269.2	298.7	336.5	396.4	473.5
35°	187.4	187.9	189.3	191.2	196.3	204.3	217.8	239.3	266.9	309.4	369.7
37.5°	177.2	177.2	177.6	178.1	179.5	182.3	188.8	200.5	218.7	250.5	295.4
40°	171.5	171.5	171.5	170.6	171.1	172.0	174.8	180.4	188.8	208.9	240.3
42.5°	165.0	164.5	164.1	163.1	162.7	163.6	166.9	169.7	174.3	184.6	203.8
45°	157.5	157.5	157.1	155.2	154.7	154.2	155.2	157.5	163.1	170.6	181.4
47.5°	150.5	150.0	148.6	145.8	144.9	144.9	145.8	146.3	148.6	156.1	165.9
50°	136.5	136.5	136.5	134.6	134.6	134.1	134.1	135.6	137.0	139.8	148.2
52.5°	117.8	117.8	118.3	117.8	120.6	121.1	121.5	122.0	123.4	126.7	131.8
55°	101.9	101.9	102.8	102.4	103.3	105.2	108.0	110.8	110.8	111.7	117.3
57.5°	91.1	91.1	91.6	90.7	91.1	91.6	93.0	96.3	99.1	100.5	103.8
60°	80.4	80.9	80.9	80.4	81.3	81.8	82.3	84.1	85.5	89.7	92.5
62.5°	69.2	69.6	69.6	69.6	70.6	71.5	72.0	73.4	74.8	77.1	81.8
65°	60.8	60.8	60.8	60.8	61.2	61.7	62.6	64.5	65.0	67.8	70.6
67.5°	53.3	53.3	53.8	53.3	53.8	54.2	54.2	55.6	57.0	59.4	61.2
70°	46.7	46.7	46.7	47.2	47.2	47.7	47.7	48.1	49.1	50.9	53.3
72.5°	40.7	41.1	41.1	41.6	41.6	41.6	41.6	42.5	42.5	43.9	45.8
75°	35.5	36.0	36.0	36.0	36.0	36.5	36.5	36.9	37.4	38.3	39.7
77.5°	30.8	30.8	30.8	30.8	31.3	31.3	31.8	31.8	32.3	33.2	34.1
80°	25.7	26.6	26.6	26.6	26.6	27.1	27.1	27.6	27.6	28.0	28.5
82.5°	22.4	22.4	22.4	22.9	22.9	22.9	22.9	23.8	23.8	24.3	24.3
85°	19.2	19.2	19.2	19.6	19.6	19.6	19.6	20.1	20.1	20.6	20.1
87.5°	16.4	16.4	16.4	16.4	16.4	16.8	16.8	16.8	16.8	16.8	16.4



TEST NUMBER: P273464

CATALOG NUMBER: 0.05-12W-827-30-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
90°	13.6	14.0	14.0	14.0	14.0	14.0	14.5	14.0	14.0	14.0	13.6
92.5°	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.2	10.8
95°	10.3	10.3	10.3	10.3	10.3	10.3	9.8	9.8	9.3	8.9	7.9
97.5°	8.9	8.4	8.4	8.4	8.4	8.4	7.9	7.9	7.5	7.0	6.1
100°	7.5	7.5	7.5	7.5	7.5	7.0	6.5	6.5	6.1	5.1	4.2
102.5°	6.5	6.5	6.5	6.5	6.1	6.1	5.6	5.1	4.7	4.2	3.3
105°	5.1	5.1	5.1	5.1	5.1	4.7	4.2	4.2	3.3	2.8	1.9
107.5°	4.2	4.2	4.2	4.2	4.2	3.7	3.3	3.3	2.3	1.4	0.9
110°	3.3	3.3	3.3	3.3	3.3	3.3	2.3	1.9	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



TEST NUMBER: P273464

CATALOG NUMBER: 0.05-12W-827-30-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1372.3	1372.3	1372.3	1372.3	1372.3	1372.3	1372.3	1372.3
1°	1368.1	1366.7	1367.2	1368.6	1370.9	1379.3	1381.2	1383.5
2°	1369.5	1368.1	1368.6	1369.5	1371.9	1380.3	1381.7	1383.5
3°	1371.9	1369.5	1370.5	1370.9	1371.9	1380.3	1382.1	1383.5
4°	1375.6	1372.3	1372.8	1372.3	1373.3	1380.7	1383.1	1384.5
5°	1379.8	1375.6	1376.1	1375.1	1374.7	1382.1	1384.0	1385.4
6°	1384.5	1379.8	1379.8	1377.9	1377.0	1383.5	1384.9	1386.4
7°	1390.6	1384.0	1383.5	1381.2	1379.8	1385.4	1385.9	1387.3
8°	1397.1	1389.2	1388.7	1385.9	1382.6	1387.3	1388.2	1389.2
9°	1403.6	1394.8	1393.4	1389.6	1385.9	1389.6	1390.1	1390.1
10°	1411.1	1400.8	1399.0	1394.8	1390.6	1392.4	1392.4	1392.9
11°	1418.6	1407.4	1405.0	1399.4	1394.8	1396.2	1395.2	1394.8
12°	1424.7	1413.5	1411.6	1405.0	1399.4	1399.9	1398.5	1398.5
13°	1431.2	1420.5	1417.2	1411.1	1404.6	1404.6	1402.7	1403.2
14°	1435.0	1426.1	1423.3	1416.7	1410.2	1409.7	1406.9	1406.9
15°	1437.3	1430.3	1428.4	1423.3	1416.3	1415.3	1411.1	1411.6
17.5°	1430.8	1436.8	1439.2	1439.2	1432.2	1429.8	1423.7	1424.7
20°	1387.3	1415.3	1439.6	1449.0	1446.2	1446.2	1439.2	1438.7
22.5°	1288.2	1359.7	1417.7	1449.9	1458.8	1462.5	1457.4	1455.5
25°	1128.3	1246.6	1355.5	1428.0	1462.5	1478.4	1475.2	1475.2
27.5°	929.7	1093.7	1246.1	1374.7	1449.0	1487.3	1493.4	1495.7
30°	745.1	908.7	1094.7	1271.8	1406.5	1485.0	1509.7	1516.3
32.5°	584.7	732.0	915.2	1136.8	1326.5	1463.9	1520.5	1534.1
35°	459.0	577.3	746.5	964.7	1210.6	1409.7	1516.8	1548.1
37.5°	362.2	459.5	602.0	806.3	1062.9	1318.1	1490.1	1545.3
40°	292.1	367.9	481.0	662.8	909.1	1199.9	1432.6	1519.1
42.5°	239.8	300.1	392.2	543.6	770.3	1068.5	1346.2	1463.0
45°	203.8	248.2	321.6	447.8	650.2	937.6	1236.3	1370.5
47.5°	181.8	212.2	270.6	375.3	552.0	818.4	1109.6	1246.1
50°	163.1	187.9	232.8	319.2	471.2	705.8	973.6	1100.3
52.5°	143.5	165.9	203.8	274.8	404.8	607.2	840.9	950.7
55°	127.1	144.9	178.6	240.7	349.2	518.4	710.0	801.1
57.5°	112.2	127.1	155.2	209.9	304.3	438.9	591.3	668.4
60°	98.2	111.2	135.6	180.9	258.9	364.6	482.4	546.9
62.5°	87.9	97.2	118.3	156.1	216.9	300.5	394.5	439.4
65°	77.6	86.0	101.9	132.7	180.0	242.6	315.5	349.6
67.5°	65.9	74.8	86.9	112.2	146.8	194.0	249.1	272.0
70°	57.0	62.6	73.9	92.5	118.7	153.8	193.5	210.3
72.5°	48.6	52.4	61.2	74.8	93.5	119.7	148.2	159.9
75°	41.6	44.4	49.1	58.4	72.4	90.7	109.8	118.7
77.5°	35.5	36.5	39.3	44.9	53.3	66.4	79.5	85.1
80°	29.4	30.4	30.4	33.2	37.9	45.8	53.3	57.0
82.5°	24.3	24.3	24.3	24.3	25.7	29.4	32.7	34.6
85°	19.6	19.2	18.2	17.3	16.8	16.4	17.3	17.8
87.5°	16.4	15.4	13.6	11.7	9.8	7.9	6.5	6.5





TEST NUMBER: P273464

CATALOG NUMBER: 0.05-12W-827-30-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
90°	12.6	11.7	9.8	7.9	5.6	3.3	1.9	0.9
92.5°	9.8	8.4	6.5	4.7	2.8	0.9	0.0	0.0
95°	7.0	6.1	4.2	2.8	0.9	0.0	0.0	0.0
97.5°	5.1	3.7	2.3	0.9	0.0	0.0	0.0	0.0
100°	3.3	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)