

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: P273390

Luminaire Tested: **0.05-03W-827-5-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273390
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-1)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.05-03W-827-5-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 5 DEGREE OPTIC.
STANDARD OUTPUT
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

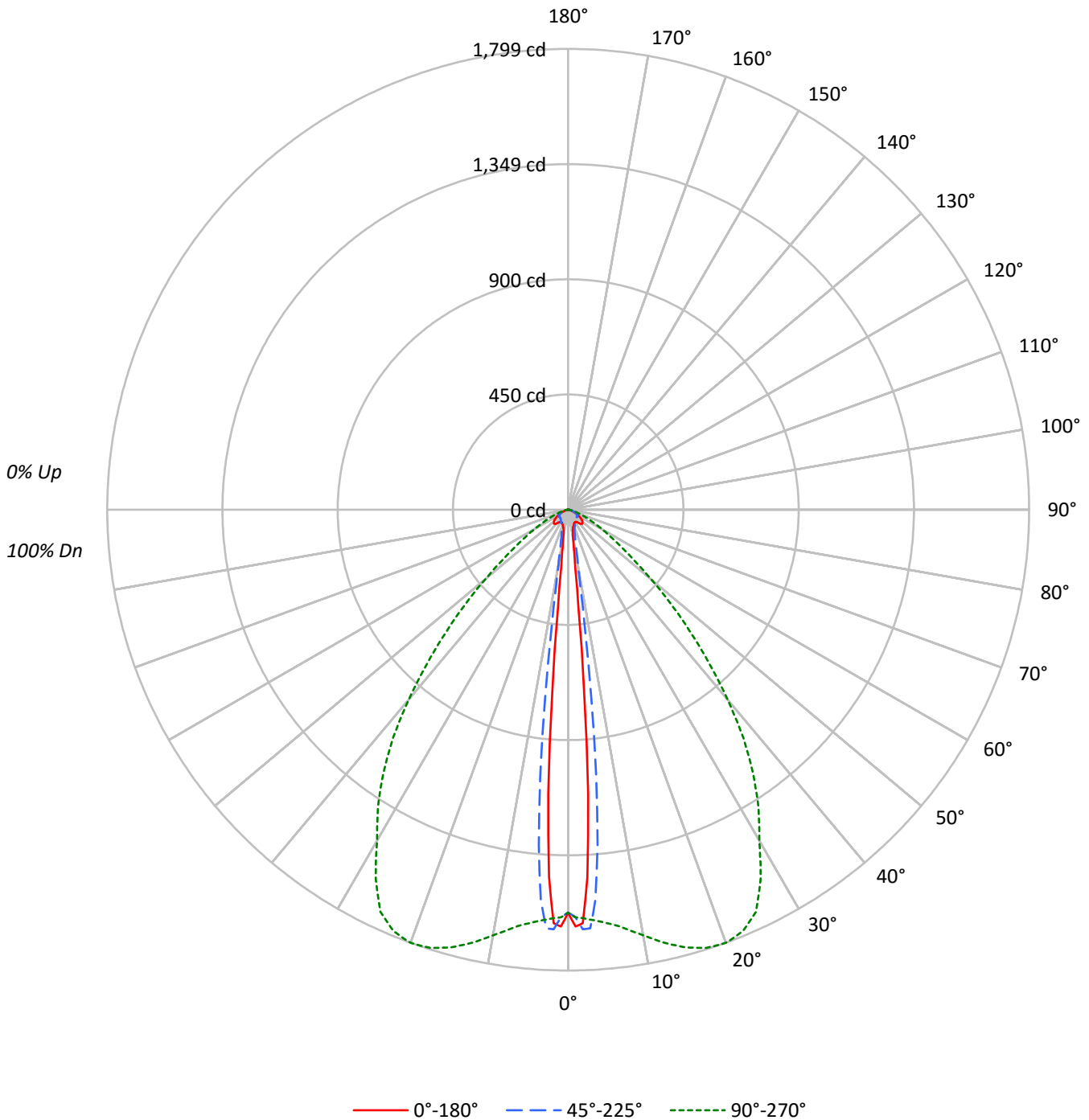
Lumens per Lamp: N/A
Luminaire Lumens: 638.9 lumens
Efficiency: N/A
Efficacy: 39.9 lumens/watt
Spacing Criteria (0/90/45): 0.17 / 1.31 / 0.22
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')
CIE Type: Direct

Input Watts (W): 16
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



TEST NUMBER: P273390
CATALOG NUMBER: 0.05-03W-827-5-STD-UNV-AN-3F0

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	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	100					100			
1	111	108	104	101	109	105	102	100	101	99	96	97	95	93	94	92	91	89					89			
2	104	97	92	87	101	95	91	86	92	88	84	89	85	82	86	83	81	79					79			
3	97	88	82	77	94	87	81	76	84	79	75	81	77	74	79	75	72	70					70			
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	63	60	58					58			
6	80	69	62	57	78	68	61	56	67	61	56	65	60	56	64	59	55	53					53			
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	49					49			
8	72	60	53	49	70	60	53	48	59	53	48	57	52	48	56	51	48	46					46			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43					43			
10	65	54	47	43	64	53	47	43	52	47	43	52	46	42	51	46	42	41					41			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27861	27861	27861
5°	12609	23398	28766
10°	1973	3907	30347
15°	1326	1794	32444
20°	1176	1376	33921
25°	1118	1227	33869
30°	1133	1152	30514
35°	1267	1086	27198
40°	1621	1061	22380
45°	1947	1105	16830
50°	1998	1218	11616
55°	1915	1362	7752
60°	1619	1389	5428
65°	1257	1371	3693
70°	979	1274	2496
75°	835	1109	1622
80°	826	990	1030
85°	1016	1098	650



TEST NUMBER: P273390

CATALOG NUMBER: 0.05-03W-827-5-STD-UNV-AN-3F0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	14.7
10°-20°	113.4	17.7
20°-30°	107.7	16.9
30°-40°	96.7	15.1
40°-50°	87.9	13.8
50°-60°	69.9	10.9
60°-70°	42.2	6.6
70°-80°	18.8	2.9
80°-90°	6.0	0.9
90°-100°	1.6	0.3
100°-110°	0.5	0.1
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°-30°	315.2	49.3
0°-40°	412.0	64.5
0°-60°	569.7	89.2
0°-90°	636.8	99.7
90°-120°	2.1	0.3
90°-150°	2.1	0.3
90°-180°	2.0	0.3
0°-180°	638.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1573	1573	1573	1573	1573	
5°	709	891	1316	1644	1618	47
15°	72	76	98	397	1769	21
25°	57	58	63	121	1733	27
35°	59	54	50	95	1258	38
45°	78	68	44	89	672	58
55°	62	60	44	73	251	54
65°	30	33	33	43	88	31
75°	12	14	16	21	24	13
85°	5	5	5	6	3	5
90°	3	3	3	2	0	2
95°	2	2	2	1	0	2
105°	1	1	0	0	0	1
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



TEST NUMBER: P273390

CATALOG NUMBER: 0.05-03W-827-5-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1572.8	1572.8	1572.8	1572.8	1572.8	1572.8	1572.8	1572.8	1572.8	1572.8	1572.8
1°	1627.3	1600.3	1598.7	1599.2	1604.1	1606.9	1612.2	1620.4	1600.6	1589.9	1588.1
2°	1615.4	1622.2	1624.6	1628.7	1640.6	1643.1	1647.6	1650.5	1647.8	1639.1	1633.2
3°	1435.0	1464.3	1478.7	1491.1	1523.9	1539.5	1560.5	1581.4	1616.5	1636.6	1644.7
4°	1111.0	1148.0	1165.1	1186.3	1241.5	1274.8	1326.4	1381.4	1460.2	1526.2	1569.7
5°	709.1	745.4	765.2	796.3	863.2	918.4	997.1	1081.8	1205.4	1315.8	1407.3
6°	382.1	409.5	424.2	447.2	499.2	551.2	638.2	741.4	884.8	1041.6	1187.4
7°	229.6	241.1	248.7	260.4	287.2	318.1	372.8	437.5	573.1	737.5	920.9
8°	166.9	170.1	174.4	180.5	192.6	208.1	237.2	273.2	352.8	473.5	646.3
9°	131.1	133.6	136.5	140.8	148.5	158.1	171.9	194.2	235.4	306.2	428.2
10°	109.7	111.3	113.5	116.5	121.9	128.8	138.8	153.8	177.8	217.2	282.3
12.5°	82.4	82.5	83.1	84.7	87.4	90.8	97.1	103.8	115.4	132.0	155.9
15°	72.3	72.7	72.8	73.5	74.8	76.2	78.8	82.2	87.8	97.8	110.8
17.5°	67.3	67.4	67.4	68.2	69.1	70.0	70.9	73.0	75.9	81.1	88.8
20°	62.4	62.2	62.4	62.6	63.8	64.7	66.0	67.8	69.8	73.0	77.5
22.5°	59.5	59.3	59.3	59.3	59.7	60.1	61.0	62.4	64.9	68.0	71.8
25°	57.2	57.0	56.8	56.8	57.2	57.9	58.3	58.6	60.1	62.8	66.9
27.5°	55.2	55.4	55.0	54.7	54.8	55.2	55.7	56.8	57.4	58.6	62.0
30°	55.4	55.2	54.7	54.1	53.4	53.0	53.2	53.6	54.8	56.3	58.1
32.5°	56.1	55.7	55.0	54.3	53.8	52.9	51.6	51.3	51.6	53.4	55.4
35°	58.6	58.3	57.0	55.6	54.3	52.9	51.4	50.2	49.3	50.2	52.5
37.5°	64.0	63.3	61.7	59.3	56.6	54.1	51.6	49.3	48.0	47.5	48.9
40°	70.1	69.6	67.6	64.9	61.5	57.4	52.9	49.5	46.9	45.9	46.4
42.5°	75.3	75.0	73.2	70.3	66.5	62.0	56.3	51.1	47.1	44.6	44.4
45°	77.7	77.0	75.7	73.5	70.3	65.8	60.1	53.6	47.7	44.1	42.6
47.5°	75.9	75.5	74.6	73.2	70.9	67.6	62.4	56.1	49.3	44.1	41.2
50°	72.5	72.3	71.6	70.1	68.5	66.2	62.6	57.4	50.9	44.2	40.3
52.5°	68.0	67.8	67.6	66.4	64.9	63.1	60.2	56.3	50.9	44.8	39.6
55°	62.0	62.0	61.9	61.9	60.8	59.2	56.6	53.4	49.3	44.1	38.8
57.5°	54.5	54.8	54.7	55.0	55.4	54.5	52.5	50.0	46.6	41.9	37.4
60°	45.7	46.0	46.2	46.8	47.8	48.6	47.7	45.9	43.0	39.2	35.1
62.5°	37.6	37.9	38.1	38.8	39.6	41.0	41.7	41.2	39.2	36.1	32.4
65°	30.0	30.6	30.8	31.3	32.4	33.6	34.9	35.8	34.7	32.7	29.7
67.5°	23.9	23.9	24.5	25.2	26.1	27.3	28.6	29.9	30.0	29.0	26.6
70°	18.9	19.2	19.4	20.0	20.9	21.8	22.7	24.1	25.0	24.6	23.6
72.5°	15.1	15.5	15.6	16.0	16.5	17.4	18.2	19.1	20.1	20.5	20.0
75°	12.2	12.4	12.4	12.8	13.3	13.8	14.4	14.9	15.6	16.2	16.4
77.5°	10.1	10.1	10.1	10.1	10.6	10.8	11.3	11.7	12.0	12.8	13.3
80°	8.1	8.1	8.1	7.9	8.3	8.5	8.6	8.8	9.2	9.7	10.4
82.5°	6.3	6.3	6.3	6.3	6.5	6.7	6.7	6.7	7.0	7.2	7.9
85°	5.0	5.0	5.0	5.0	5.0	5.2	5.2	5.2	5.2	5.4	5.8
87.5°	4.0	4.0	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
90°	3.2	3.1	3.1	3.1	3.2	3.2	3.2	3.1	3.1	3.1	3.1
92.5°	2.5	2.5	2.5	2.5	2.5	2.9	2.5	2.5	2.5	2.5	2.2
95°	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	1.8	1.8	1.8



TEST NUMBER: P273390

CATALOG NUMBER: 0.05-03W-827-5-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	1.8	1.8	1.8	1.8	1.8	2.0	1.8	1.8	1.4	1.4	1.1
100°	1.4	1.4	1.4	1.4	1.4	1.6	1.4	1.4	1.1	1.1	0.7
102.5°	1.1	1.1	1.1	1.1	1.1	1.4	1.1	1.1	0.7	0.7	0.4
105°	0.7	0.7	0.7	0.7	1.1	1.1	1.1	0.7	0.4	0.4	0.0
107.5°	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.0	0.0
110°	0.4	0.4	0.4	0.4	0.5	0.7	0.5	0.4	0.2	0.0	0.0
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: P273390

CATALOG NUMBER: 0.05-03W-827-5-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1572.8	1572.8	1572.8	1572.8	1572.8	1572.8	1572.8	1572.8
1°	1587.3	1580.0	1576.7	1578.2	1578.0	1581.2	1586.8	1591.5
2°	1625.5	1611.4	1602.6	1596.1	1589.5	1587.3	1592.0	1595.4
3°	1646.7	1642.4	1634.8	1622.6	1608.9	1599.6	1600.1	1601.9
4°	1607.1	1638.2	1652.3	1646.5	1631.0	1615.2	1610.4	1609.1
5°	1496.0	1579.4	1631.8	1655.8	1650.5	1633.4	1620.8	1617.7
6°	1320.7	1465.8	1567.9	1637.3	1661.1	1650.6	1632.5	1626.7
7°	1101.3	1303.4	1465.1	1590.9	1658.4	1665.7	1646.1	1638.2
8°	856.9	1110.8	1325.9	1517.4	1638.8	1678.9	1662.9	1654.1
9°	613.6	896.1	1162.0	1415.8	1601.0	1686.8	1681.7	1670.6
10°	421.2	678.1	979.0	1292.6	1544.2	1684.4	1700.8	1687.1
12.5°	197.8	293.5	517.4	916.2	1331.1	1626.9	1737.1	1731.7
15°	132.7	172.1	262.0	531.4	1037.4	1498.0	1751.0	1769.1
17.5°	103.2	126.1	172.1	297.1	717.0	1317.8	1724.4	1793.6
20°	86.0	103.0	133.6	203.2	448.7	1096.0	1656.6	1799.4
22.5°	77.1	88.7	112.2	164.0	307.3	870.5	1554.4	1781.0
25°	71.9	80.0	99.1	142.2	246.2	659.4	1425.9	1732.8
27.5°	67.1	74.6	90.6	128.6	218.1	494.3	1252.7	1626.4
30°	62.6	69.6	84.2	120.7	203.4	394.2	1064.9	1491.8
32.5°	58.4	65.3	79.7	116.0	196.0	345.4	906.9	1382.5
35°	55.4	61.5	75.9	113.7	191.9	313.6	755.8	1257.7
37.5°	52.9	58.4	72.8	111.9	187.9	287.4	640.5	1122.1
40°	49.5	55.9	70.9	111.0	182.5	260.7	542.9	967.8
42.5°	46.6	52.9	69.1	110.8	175.0	235.6	477.1	816.1
45°	44.1	50.0	67.8	110.1	164.5	212.0	420.8	671.8
47.5°	41.7	47.5	66.0	107.2	151.1	189.4	373.3	540.2
50°	39.6	45.1	64.0	102.3	136.3	167.8	328.9	421.5
52.5°	37.9	42.6	61.5	95.5	120.1	148.4	284.7	324.4
55°	36.5	40.8	58.8	86.9	105.0	130.6	248.2	251.0
57.5°	34.7	38.7	55.6	77.0	91.4	113.3	210.9	195.7
60°	32.7	36.3	51.3	66.4	78.2	96.7	172.8	153.2
62.5°	30.2	33.8	46.2	55.7	65.6	80.6	133.6	116.5
65°	27.5	30.6	40.3	46.6	54.3	68.5	102.3	88.1
67.5°	24.8	27.5	34.5	39.4	45.0	57.2	76.1	66.2
70°	22.1	23.7	29.0	33.1	37.0	45.9	54.5	48.2
72.5°	19.2	20.1	23.6	27.3	29.5	35.4	38.5	34.2
75°	16.0	16.5	19.1	22.1	23.0	26.8	26.4	23.7
77.5°	13.3	13.3	14.7	17.1	17.8	19.1	17.4	15.8
80°	10.6	10.4	10.8	12.2	12.9	12.4	11.1	10.1
82.5°	8.3	8.3	8.1	8.5	8.5	7.7	6.7	6.1
85°	6.1	6.1	5.9	5.4	5.0	4.1	3.2	3.2
87.5°	4.5	4.5	4.0	3.2	2.7	1.8	1.1	1.1
90°	3.1	2.9	2.5	1.8	1.1	0.5	0.0	0.0
92.5°	2.2	1.8	1.4	1.1	0.4	0.0	0.0	0.0
95°	1.4	1.1	0.7	0.4	0.0	0.0	0.0	0.0



TEST NUMBER: P273390

CATALOG NUMBER: 0.05-03W-827-5-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	1.1	0.7	0.4	0.0	0.0	0.0	0.0	0.0
100°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	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)