

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: P273402

Luminaire Tested: **0.05-03W-835-5-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273402
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-835-5-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 5 DEGREE OPTIC.
STANDARD OUTPUT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

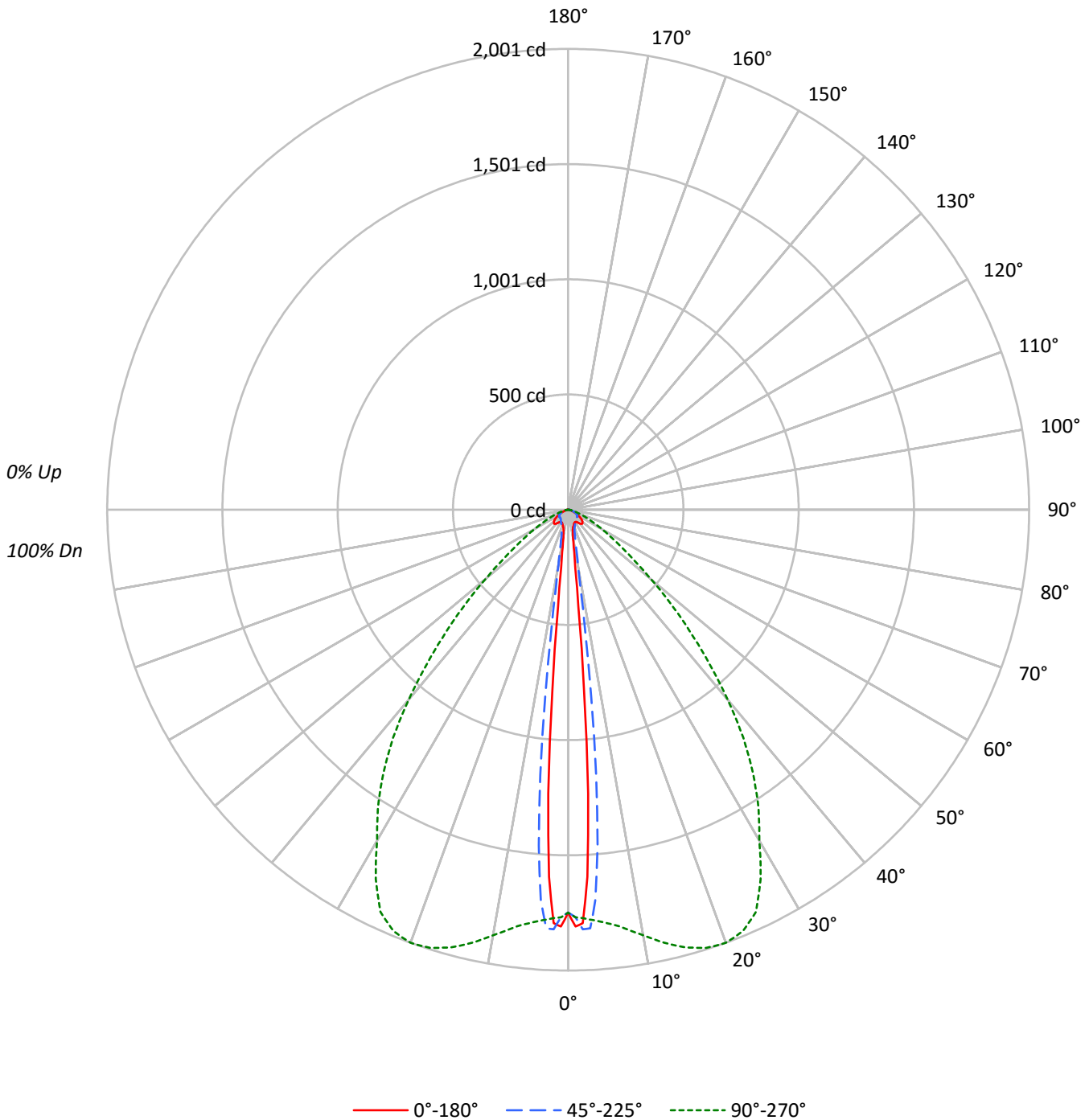
Lumens per Lamp: N/A
Luminaire Lumens: 710.6 lumens
Efficiency: N/A
Efficacy: 44.4 lumens/watt
Spacing Criteria (0/90/45): 0.17 / 1.31 / 0.22
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')
CIE Type: Direct

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: P273402
CATALOG NUMBER: 0.05-03W-835-5-STD-UNV-AN-3F0

Luminous Intensity Polar Plot





TEST NUMBER: P273402

CATALOG NUMBER: 0.05-03W-835-5-STD-UNV-AN-3F0

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°	30989	30989	30989
5°	14025	26026	31997
10°	2194	4346	33756
15°	1474	1995	36088
20°	1308	1531	37729
25°	1243	1364	37672
30°	1260	1280	33943
35°	1410	1207	30254
40°	1804	1179	24893
45°	2164	1228	18721
50°	2221	1356	12922
55°	2131	1513	8623
60°	1800	1545	6037
65°	1400	1526	4108
70°	1088	1419	2776
75°	931	1232	1807
80°	918	1102	1143
85°	1138	1219	732



TEST NUMBER: P273402

CATALOG NUMBER: 0.05-03W-835-5-STD-UNV-AN-3F0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	14.7
10°-20°	126.1	17.7
20°-30°	119.8	16.9
30°-40°	107.6	15.1
40°-50°	97.7	13.8
50°-60°	77.8	10.9
60°-70°	46.9	6.6
70°-80°	20.9	2.9
80°-90°	6.7	0.9
90°-100°	1.8	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°	350.6	49.3
0°-40°	458.2	64.5
0°-60°	633.7	89.2
0°-90°	708.2	99.7
90°-120°	2.4	0.3
90°-150°	2.4	0.3
90°-180°	2.0	0.3
0°-180°	710.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1749	1749	1749	1749	1749	
5°	789	991	1464	1828	1799	52
15°	80	84	109	441	1968	24
25°	64	64	70	134	1927	30
35°	65	60	56	105	1399	42
45°	86	76	49	99	747	65
55°	69	67	49	81	279	61
65°	33	37	36	48	98	34
75°	14	15	18	23	26	15
85°	6	6	6	6	4	5
90°	4	4	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: P273402

CATALOG NUMBER: 0.05-03W-835-5-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1749.4	1749.4	1749.4	1749.4	1749.4	1749.4	1749.4	1749.4	1749.4	1749.4	1749.4
1°	1810.0	1780.0	1778.2	1778.8	1784.2	1787.4	1793.2	1802.4	1780.4	1768.4	1766.4
2°	1796.8	1804.4	1807.0	1811.6	1824.8	1827.6	1832.6	1835.8	1832.8	1823.2	1816.6
3°	1596.2	1628.8	1644.8	1658.6	1695.0	1712.4	1735.8	1759.0	1798.0	1820.4	1829.4
4°	1235.7	1276.9	1295.9	1319.5	1381.0	1418.0	1475.4	1536.6	1624.2	1697.6	1746.0
5°	788.7	829.1	851.1	885.7	960.1	1021.5	1109.1	1203.3	1340.7	1463.6	1565.4
6°	425.0	455.4	471.9	497.5	555.3	613.1	709.9	824.7	984.1	1158.5	1320.7
7°	255.4	268.2	276.6	289.6	319.4	353.8	414.6	486.7	637.5	820.3	1024.3
8°	185.6	189.2	194.0	200.8	214.2	231.4	263.8	303.8	392.4	526.7	718.9
9°	145.8	148.6	151.8	156.6	165.2	175.8	191.2	216.0	261.8	340.6	476.3
10°	122.0	123.8	126.2	129.6	135.6	143.2	154.4	171.0	197.8	241.6	314.0
12.5°	91.6	91.8	92.4	94.2	97.2	101.0	108.0	115.4	128.4	146.8	173.4
15°	80.4	80.8	81.0	81.8	83.2	84.8	87.6	91.4	97.6	108.8	123.2
17.5°	74.8	75.0	75.0	75.8	76.8	77.8	78.8	81.2	84.4	90.2	98.8
20°	69.4	69.2	69.4	69.6	71.0	72.0	73.4	75.4	77.6	81.2	86.2
22.5°	66.2	66.0	66.0	66.0	66.4	66.8	67.8	69.4	72.2	75.6	79.8
25°	63.6	63.4	63.2	63.2	63.6	64.4	64.8	65.2	66.8	69.8	74.4
27.5°	61.4	61.6	61.2	60.8	61.0	61.4	62.0	63.2	63.8	65.2	69.0
30°	61.6	61.4	60.8	60.2	59.4	59.0	59.2	59.6	61.0	62.6	64.6
32.5°	62.4	62.0	61.2	60.4	59.8	58.8	57.4	57.0	57.4	59.4	61.6
35°	65.2	64.8	63.4	61.8	60.4	58.8	57.2	55.8	54.8	55.8	58.4
37.5°	71.2	70.4	68.6	66.0	63.0	60.2	57.4	54.8	53.4	52.8	54.4
40°	78.0	77.4	75.2	72.2	68.4	63.8	58.8	55.0	52.2	51.0	51.6
42.5°	83.8	83.4	81.4	78.2	74.0	69.0	62.6	56.8	52.4	49.6	49.4
45°	86.4	85.6	84.2	81.8	78.2	73.2	66.8	59.6	53.0	49.0	47.4
47.5°	84.4	84.0	83.0	81.4	78.8	75.2	69.4	62.4	54.8	49.0	45.8
50°	80.6	80.4	79.6	78.0	76.2	73.6	69.6	63.8	56.6	49.2	44.8
52.5°	75.6	75.4	75.2	73.8	72.2	70.2	67.0	62.6	56.6	49.8	44.0
55°	69.0	69.0	68.8	68.8	67.6	65.8	63.0	59.4	54.8	49.0	43.2
57.5°	60.6	61.0	60.8	61.2	61.6	60.6	58.4	55.6	51.8	46.6	41.6
60°	50.8	51.2	51.4	52.0	53.2	54.0	53.0	51.0	47.8	43.6	39.0
62.5°	41.8	42.2	42.4	43.2	44.0	45.6	46.4	45.8	43.6	40.2	36.0
65°	33.4	34.0	34.2	34.8	36.0	37.4	38.8	39.8	38.6	36.4	33.0
67.5°	26.6	26.6	27.2	28.0	29.0	30.4	31.8	33.2	33.4	32.2	29.6
70°	21.0	21.4	21.6	22.2	23.2	24.2	25.2	26.8	27.8	27.4	26.2
72.5°	16.8	17.2	17.4	17.8	18.4	19.4	20.2	21.2	22.4	22.8	22.2
75°	13.6	13.8	13.8	14.2	14.8	15.4	16.0	16.6	17.4	18.0	18.2
77.5°	11.2	11.2	11.2	11.2	11.8	12.0	12.6	13.0	13.4	14.2	14.8
80°	9.0	9.0	9.0	8.8	9.2	9.4	9.6	9.8	10.2	10.8	11.6
82.5°	7.0	7.0	7.0	7.0	7.2	7.4	7.4	7.4	7.8	8.0	8.8
85°	5.6	5.6	5.6	5.6	5.6	5.8	5.8	5.8	5.8	6.0	6.4
87.5°	4.4	4.4	4.4	4.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6
90°	3.6	3.4	3.4	3.4	3.6	3.6	3.6	3.4	3.4	3.4	3.4
92.5°	2.8	2.8	2.8	2.8	2.8	3.2	2.8	2.8	2.8	2.8	2.4
95°	2.4	2.4	2.4	2.4	2.4	2.6	2.4	2.4	2.0	2.0	2.0



TEST NUMBER: P273402

CATALOG NUMBER: 0.05-03W-835-5-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	1.6	1.6	1.2
100°	1.6	1.6	1.6	1.6	1.6	1.8	1.6	1.6	1.2	1.2	0.8
102.5°	1.2	1.2	1.2	1.2	1.2	1.6	1.2	1.2	0.8	0.8	0.4
105°	0.8	0.8	0.8	0.8	1.2	1.2	1.2	0.8	0.4	0.4	0.0
107.5°	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.0	0.0
110°	0.4	0.4	0.4	0.4	0.6	0.8	0.6	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: P273402

CATALOG NUMBER: 0.05-03W-835-5-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1749.4	1749.4	1749.4	1749.4	1749.4	1749.4	1749.4	1749.4
1°	1765.6	1757.4	1753.8	1755.4	1755.2	1758.8	1765.0	1770.2
2°	1808.0	1792.4	1782.6	1775.4	1768.0	1765.6	1770.8	1774.6
3°	1831.6	1826.8	1818.4	1804.8	1789.6	1779.2	1779.8	1781.8
4°	1787.6	1822.2	1837.8	1831.4	1814.2	1796.6	1791.2	1789.8
5°	1664.0	1756.8	1815.0	1841.8	1835.8	1816.8	1802.8	1799.4
6°	1469.0	1630.4	1744.0	1821.2	1847.6	1836.0	1815.8	1809.4
7°	1224.9	1449.8	1629.6	1769.6	1844.6	1852.8	1831.0	1822.2
8°	953.1	1235.5	1474.8	1687.8	1822.8	1867.4	1849.6	1839.8
9°	682.5	996.7	1292.5	1574.8	1780.8	1876.2	1870.6	1858.2
10°	468.5	754.3	1088.9	1437.8	1717.6	1873.6	1891.8	1876.6
12.5°	220.0	326.4	575.5	1019.1	1480.6	1809.6	1932.2	1926.2
15°	147.6	191.4	291.4	591.1	1153.9	1666.2	1947.6	1967.8
17.5°	114.8	140.2	191.4	330.4	797.5	1465.8	1918.0	1995.0
20°	95.6	114.6	148.6	226.0	499.1	1219.1	1842.6	2001.4
22.5°	85.8	98.6	124.8	182.4	341.8	968.3	1729.0	1981.0
25°	80.0	89.0	110.2	158.2	273.8	733.5	1586.0	1927.4
27.5°	74.6	83.0	100.8	143.0	242.6	549.9	1393.4	1809.0
30°	69.6	77.4	93.6	134.2	226.2	438.4	1184.5	1659.4
32.5°	65.0	72.6	88.6	129.0	218.0	384.2	1008.7	1537.8
35°	61.6	68.4	84.4	126.4	213.4	348.8	840.7	1399.0
37.5°	58.8	65.0	81.0	124.4	209.0	319.6	712.5	1248.1
40°	55.0	62.2	78.8	123.4	203.0	290.0	603.9	1076.5
42.5°	51.8	58.8	76.8	123.2	194.6	262.0	530.7	907.7
45°	49.0	55.6	75.4	122.4	183.0	235.8	468.1	747.3
47.5°	46.4	52.8	73.4	119.2	168.0	210.6	415.2	600.9
50°	44.0	50.2	71.2	113.8	151.6	186.6	365.8	468.9
52.5°	42.2	47.4	68.4	106.2	133.6	165.0	316.6	360.8
55°	40.6	45.4	65.4	96.6	116.8	145.2	276.0	279.2
57.5°	38.6	43.0	61.8	85.6	101.6	126.0	234.6	217.6
60°	36.4	40.4	57.0	73.8	87.0	107.6	192.2	170.4
62.5°	33.6	37.6	51.4	62.0	73.0	89.6	148.6	129.6
65°	30.6	34.0	44.8	51.8	60.4	76.2	113.8	98.0
67.5°	27.6	30.6	38.4	43.8	50.0	63.6	84.6	73.6
70°	24.6	26.4	32.2	36.8	41.2	51.0	60.6	53.6
72.5°	21.4	22.4	26.2	30.4	32.8	39.4	42.8	38.0
75°	17.8	18.4	21.2	24.6	25.6	29.8	29.4	26.4
77.5°	14.8	14.8	16.4	19.0	19.8	21.2	19.4	17.6
80°	11.8	11.6	12.0	13.6	14.4	13.8	12.4	11.2
82.5°	9.2	9.2	9.0	9.4	9.4	8.6	7.4	6.8
85°	6.8	6.8	6.6	6.0	5.6	4.6	3.6	3.6
87.5°	5.0	5.0	4.4	3.6	3.0	2.0	1.2	1.2
90°	3.4	3.2	2.8	2.0	1.2	0.6	0.0	0.0
92.5°	2.4	2.0	1.6	1.2	0.4	0.0	0.0	0.0
95°	1.6	1.2	0.8	0.4	0.0	0.0	0.0	0.0



TEST NUMBER: P273402

CATALOG NUMBER: 0.05-03W-835-5-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	1.2	0.8	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)