

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: P273482

Luminaire Tested: **0.05-12W-840-30-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273482
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-840-30-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 30 DEGREE OPTIC.
V2 HIGH OUTPUT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2231.5 lumens
Efficiency: N/A
Efficacy: 63.4 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

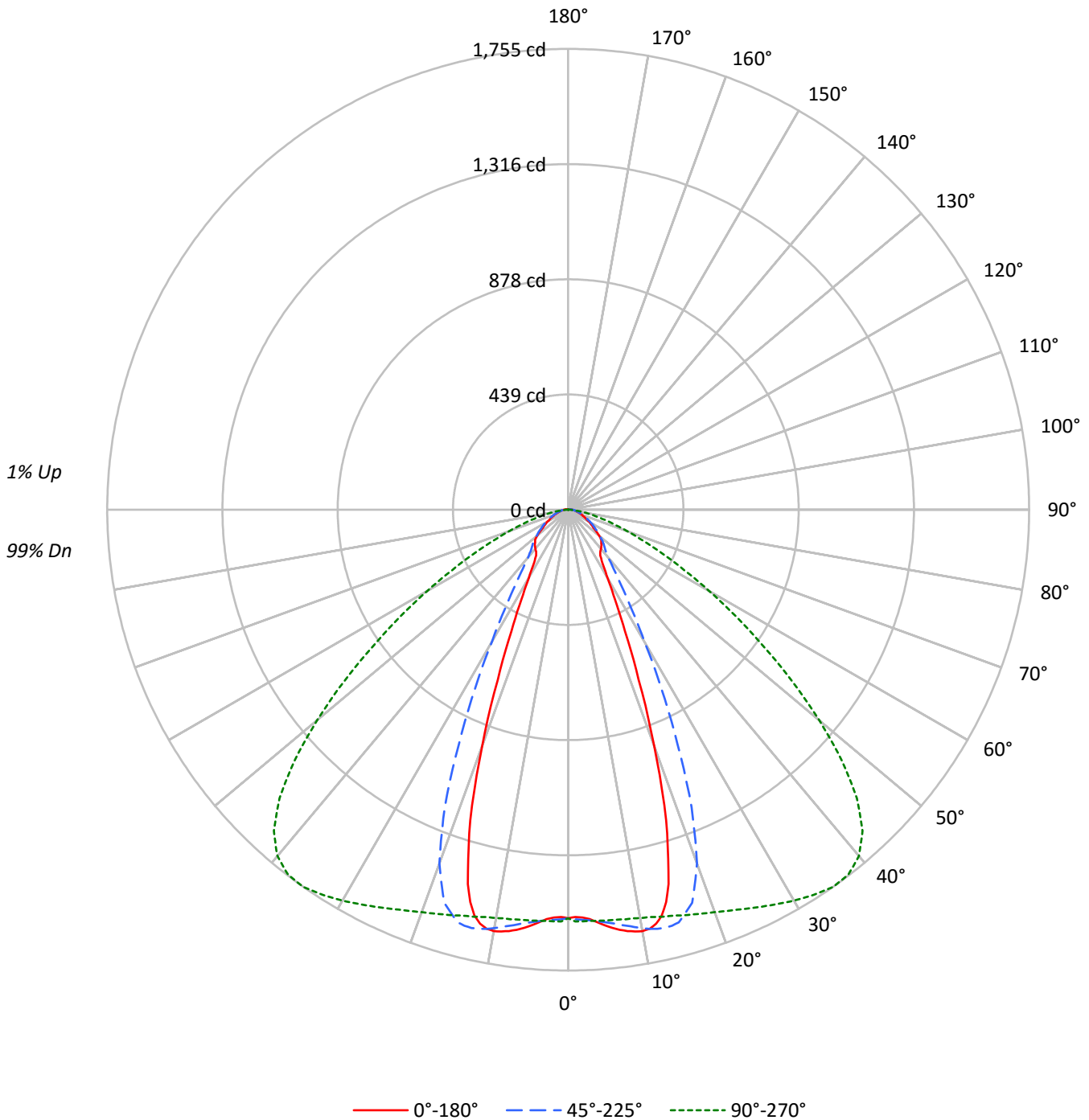
Input Watts (W): 35.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	27560	27560	27560
5°	28240	28033	27928
10°	29311	29109	28404
15°	27074	29834	29348
20°	17992	27031	30746
25°	9984	19254	32688
30°	6114	11901	35162
35°	4595	7586	37952
40°	4498	5478	39825
45°	4474	4845	38923
50°	4263	4365	34377
55°	3567	3910	28052
60°	3228	3603	21966
65°	2888	3219	16615
70°	2745	2994	12353
75°	2758	2977	9212
80°	2969	3244	6590
85°	4411	4736	4085



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.4	6.8
10°-20°	433.5	19.4
20°-30°	490.1	22.0
30°-40°	403.0	18.1
40°-50°	313.4	14.0
50°-60°	215.9	9.7
60°-70°	125.3	5.6
70°-80°	62.0	2.8
80°-90°	24.6	1.1
90°-100°	8.8	0.4
100°-110°	3.2	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°	1075.0	48.2
0°-40°	1478.0	66.2
0°-60°	2007.3	90.0
0°-90°	2219.3	99.5
90°-120°	12.2	0.5
90°-150°	12.2	0.5
90°-180°	12.0	0.5
0°-180°	2231.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1556	1556	1556	1556	1556	
5°	1588	1583	1576	1560	1571	153
15°	1476	1532	1627	1616	1600	388
25°	511	604	985	1578	1672	248
35°	212	227	351	970	1755	141
45°	179	175	193	436	1554	137
55°	116	118	127	238	908	106
65°	69	70	77	133	396	69
75°	40	41	44	61	135	43
85°	22	22	23	20	20	19
90°	15	16	16	10	1	9
95°	12	12	10	4	0	9
105°	6	6	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°	1555.8	1555.8	1555.8	1555.8	1555.8	1555.8	1555.8	1555.8	1555.8	1555.8	1555.8
1°	1551.0	1550.5	1547.3	1549.4	1555.3	1560.6	1563.2	1562.2	1561.6	1560.6	1560.0
2°	1553.7	1553.1	1550.5	1552.6	1558.4	1563.7	1565.9	1564.8	1563.2	1562.7	1561.1
3°	1561.6	1561.1	1557.9	1559.5	1564.8	1568.5	1569.6	1568.5	1566.9	1565.9	1563.7
4°	1574.3	1573.3	1569.0	1569.0	1572.8	1574.9	1575.4	1573.8	1572.8	1570.6	1568.0
5°	1588.1	1586.0	1580.7	1580.2	1582.3	1583.9	1582.8	1581.2	1579.1	1576.5	1573.8
6°	1600.8	1599.2	1592.9	1591.8	1593.4	1593.4	1591.3	1588.6	1587.1	1583.4	1579.6
7°	1612.0	1609.8	1604.0	1603.0	1604.5	1604.0	1601.9	1598.7	1596.1	1591.3	1587.1
8°	1620.4	1618.3	1613.0	1612.0	1614.6	1614.1	1612.5	1609.3	1606.1	1600.3	1594.5
9°	1626.3	1623.6	1618.9	1618.9	1622.6	1623.1	1622.0	1619.4	1616.2	1608.8	1603.5
10°	1629.5	1625.7	1622.6	1622.6	1627.3	1630.0	1629.5	1627.3	1624.7	1618.3	1612.5
11°	1626.3	1621.5	1620.4	1622.0	1627.9	1632.1	1633.7	1633.7	1632.1	1626.3	1621.0
12°	1612.0	1607.7	1608.8	1609.8	1619.9	1627.3	1632.1	1635.3	1636.3	1631.6	1628.9
13°	1585.5	1580.7	1582.3	1588.1	1602.4	1613.6	1623.6	1631.0	1636.9	1634.8	1635.3
14°	1540.4	1534.6	1544.1	1548.4	1569.6	1587.1	1603.5	1617.8	1630.0	1633.2	1638.5
15°	1476.3	1471.0	1484.8	1490.6	1519.8	1545.2	1569.6	1593.4	1615.1	1626.8	1637.4
17.5°	1240.5	1234.7	1254.8	1280.8	1318.4	1372.4	1416.4	1471.5	1525.1	1569.6	1607.2
20°	954.4	958.1	971.8	997.3	1048.1	1107.5	1174.8	1259.0	1344.9	1433.9	1513.9
22.5°	701.1	705.3	717.0	740.8	786.4	848.4	912.0	1004.2	1105.4	1227.3	1349.7
25°	510.8	518.2	523.5	545.3	581.8	626.3	684.1	759.9	857.9	985.1	1130.3
27.5°	384.2	388.4	393.7	409.1	433.5	466.3	513.5	572.3	655.5	766.2	900.8
30°	298.9	300.5	305.8	316.9	331.2	356.6	390.0	434.0	493.9	581.8	693.6
32.5°	242.7	243.8	246.9	252.2	264.4	280.8	305.2	338.6	381.5	449.4	536.8
35°	212.5	213.0	214.6	216.7	222.6	231.6	246.9	271.3	302.6	350.8	419.2
37.5°	200.8	200.8	201.4	201.9	203.5	206.7	214.1	227.3	248.0	284.0	334.9
40°	194.5	194.5	194.5	193.4	193.9	195.0	198.2	204.5	214.1	236.9	272.4
42.5°	187.1	186.5	186.0	184.9	184.4	185.5	189.2	192.4	197.7	209.3	231.0
45°	178.6	178.6	178.0	175.9	175.4	174.9	175.9	178.6	184.9	193.4	205.6
47.5°	170.6	170.1	168.5	165.3	164.3	164.3	165.3	165.9	168.5	177.0	188.1
50°	154.7	154.7	154.7	152.6	152.6	152.1	152.1	153.7	155.3	158.4	168.0
52.5°	133.5	133.5	134.1	133.5	136.7	137.2	137.8	138.3	139.9	143.6	149.4
55°	115.5	115.5	116.6	116.0	117.1	119.2	122.4	125.6	125.6	126.6	133.0
57.5°	103.3	103.3	103.9	102.8	103.3	103.9	105.5	109.2	112.3	113.9	117.6
60°	91.1	91.7	91.7	91.1	92.2	92.7	93.3	95.4	97.0	101.7	104.9
62.5°	78.4	79.0	79.0	79.0	80.0	81.1	81.6	83.2	84.8	87.4	92.7
65°	68.9	68.9	68.9	68.9	69.4	69.9	71.0	73.1	73.7	76.8	80.0
67.5°	60.4	60.4	60.9	60.4	60.9	61.5	61.5	63.1	64.6	67.3	69.4
70°	53.0	53.0	53.0	53.5	53.5	54.1	54.1	54.6	55.6	57.8	60.4
72.5°	46.1	46.6	46.6	47.2	47.2	47.2	47.2	48.2	48.2	49.8	51.9
75°	40.3	40.8	40.8	40.8	40.8	41.3	41.3	41.9	42.4	43.5	45.0
77.5°	35.0	35.0	35.0	35.0	35.5	35.5	36.0	36.0	36.6	37.6	38.7
80°	29.1	30.2	30.2	30.2	30.2	30.7	30.7	31.3	31.3	31.8	32.3
82.5°	25.4	25.4	25.4	26.0	26.0	26.0	26.0	27.0	27.0	27.6	27.6
85°	21.7	21.7	21.7	22.3	22.3	22.3	22.3	22.8	22.8	23.3	22.8
87.5°	18.5	18.5	18.5	18.5	18.5	19.1	19.1	19.1	19.1	19.1	18.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
90°	15.4	15.9	15.9	15.9	15.9	15.9	16.4	15.9	15.9	15.9	15.4
92.5°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	12.7	12.2
95°	11.7	11.7	11.7	11.7	11.7	11.7	11.1	11.1	10.6	10.1	9.0
97.5°	10.1	9.5	9.5	9.5	9.5	9.5	9.0	9.0	8.5	7.9	6.9
100°	8.5	8.5	8.5	8.5	8.5	7.9	7.4	7.4	6.9	5.8	4.8
102.5°	7.4	7.4	7.4	7.4	6.9	6.9	6.4	5.8	5.3	4.8	3.7
105°	5.8	5.8	5.8	5.8	5.8	5.3	4.8	4.8	3.7	3.2	2.1
107.5°	4.8	4.8	4.8	4.8	4.8	4.2	3.7	3.7	2.6	1.6	1.1
110°	3.7	3.7	3.7	3.7	3.7	3.7	2.6	2.1	1.6	1.1	1.1
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°	1555.8	1555.8	1555.8	1555.8	1555.8	1555.8	1555.8	1555.8
1°	1551.0	1549.4	1550.0	1551.6	1554.2	1563.7	1565.9	1568.5
2°	1552.6	1551.0	1551.6	1552.6	1555.3	1564.8	1566.4	1568.5
3°	1555.3	1552.6	1553.7	1554.2	1555.3	1564.8	1566.9	1568.5
4°	1559.5	1555.8	1556.3	1555.8	1556.9	1565.3	1568.0	1569.6
5°	1564.3	1559.5	1560.0	1559.0	1558.4	1566.9	1569.0	1570.6
6°	1569.6	1564.3	1564.3	1562.2	1561.1	1568.5	1570.1	1571.7
7°	1576.5	1569.0	1568.5	1565.9	1564.3	1570.6	1571.2	1572.8
8°	1583.9	1574.9	1574.3	1571.2	1567.5	1572.8	1573.8	1574.9
9°	1591.3	1581.2	1579.6	1575.4	1571.2	1575.4	1575.9	1575.9
10°	1599.8	1588.1	1586.0	1581.2	1576.5	1578.6	1578.6	1579.1
11°	1608.3	1595.5	1592.9	1586.5	1581.2	1582.8	1581.8	1581.2
12°	1615.1	1602.4	1600.3	1592.9	1586.5	1587.1	1585.5	1585.5
13°	1622.6	1610.4	1606.7	1599.8	1592.4	1592.4	1590.2	1590.8
14°	1626.8	1616.7	1613.6	1606.1	1598.7	1598.2	1595.0	1595.0
15°	1629.5	1621.5	1619.4	1613.6	1605.6	1604.5	1599.8	1600.3
17.5°	1622.0	1628.9	1631.6	1631.6	1623.6	1621.0	1614.1	1615.1
20°	1572.8	1604.5	1632.1	1642.7	1639.5	1639.5	1631.6	1631.0
22.5°	1460.4	1541.5	1607.2	1643.8	1653.8	1658.1	1652.2	1650.1
25°	1279.2	1413.3	1536.7	1618.9	1658.1	1676.1	1672.4	1672.4
27.5°	1054.0	1240.0	1412.7	1558.4	1642.7	1686.2	1693.0	1695.7
30°	844.7	1030.1	1241.0	1441.9	1594.5	1683.5	1711.6	1719.0
32.5°	662.9	829.8	1037.6	1288.7	1503.9	1659.7	1723.8	1739.1
35°	520.4	654.4	846.3	1093.7	1372.4	1598.2	1719.5	1755.0
37.5°	410.7	520.9	682.5	914.1	1205.0	1494.3	1689.3	1751.9
40°	331.2	417.0	545.3	751.4	1030.7	1360.3	1624.2	1722.2
42.5°	271.8	340.2	444.6	616.3	873.3	1211.4	1526.1	1658.6
45°	231.0	281.4	364.6	507.6	737.1	1063.0	1401.6	1553.7
47.5°	206.1	240.6	306.8	425.5	625.8	927.9	1258.0	1412.7
50°	184.9	213.0	263.9	361.9	534.1	800.2	1103.8	1247.4
52.5°	162.7	188.1	231.0	311.6	458.9	688.3	953.3	1077.8
55°	144.1	164.3	202.4	272.9	395.8	587.7	804.9	908.3
57.5°	127.2	144.1	175.9	237.9	345.0	497.6	670.3	757.8
60°	111.3	126.1	153.7	205.1	293.6	413.3	546.9	620.0
62.5°	99.6	110.2	134.1	177.0	245.9	340.7	447.2	498.1
65°	88.0	97.5	115.5	150.5	204.0	275.0	357.7	396.4
67.5°	74.7	84.8	98.6	127.2	166.4	219.9	282.4	308.4
70°	64.6	71.0	83.7	104.9	134.6	174.3	219.4	238.5
72.5°	55.1	59.3	69.4	84.8	106.0	135.7	168.0	181.2
75°	47.2	50.3	55.6	66.2	82.1	102.8	124.5	134.6
77.5°	40.3	41.3	44.5	50.9	60.4	75.2	90.1	96.4
80°	33.4	34.4	34.4	37.6	42.9	51.9	60.4	64.6
82.5°	27.6	27.6	27.6	27.6	29.1	33.4	37.1	39.2
85°	22.3	21.7	20.7	19.6	19.1	18.5	19.6	20.1
87.5°	18.5	17.5	15.4	13.2	11.1	9.0	7.4	7.4



TEST NUMBER: P273482

CATALOG NUMBER: 0.05-12W-840-30-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
90°	14.3	13.2	11.1	9.0	6.4	3.7	2.1	1.1
92.5°	11.1	9.5	7.4	5.3	3.2	1.1	0.0	0.0
95°	7.9	6.9	4.8	3.2	1.1	0.0	0.0	0.0
97.5°	5.8	4.2	2.6	1.1	0.0	0.0	0.0	0.0
100°	3.7	2.6	1.1	0.0	0.0	0.0	0.0	0.0
102.5°	2.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	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)