

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: P273470

Luminaire Tested: **0.05-12W-830-30-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273470  
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-830-30-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 30 DEGREE OPTIC.  
V2 HIGH OUTPUT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2105.3 lumens  
Efficiency: N/A  
Efficacy: 59.8 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

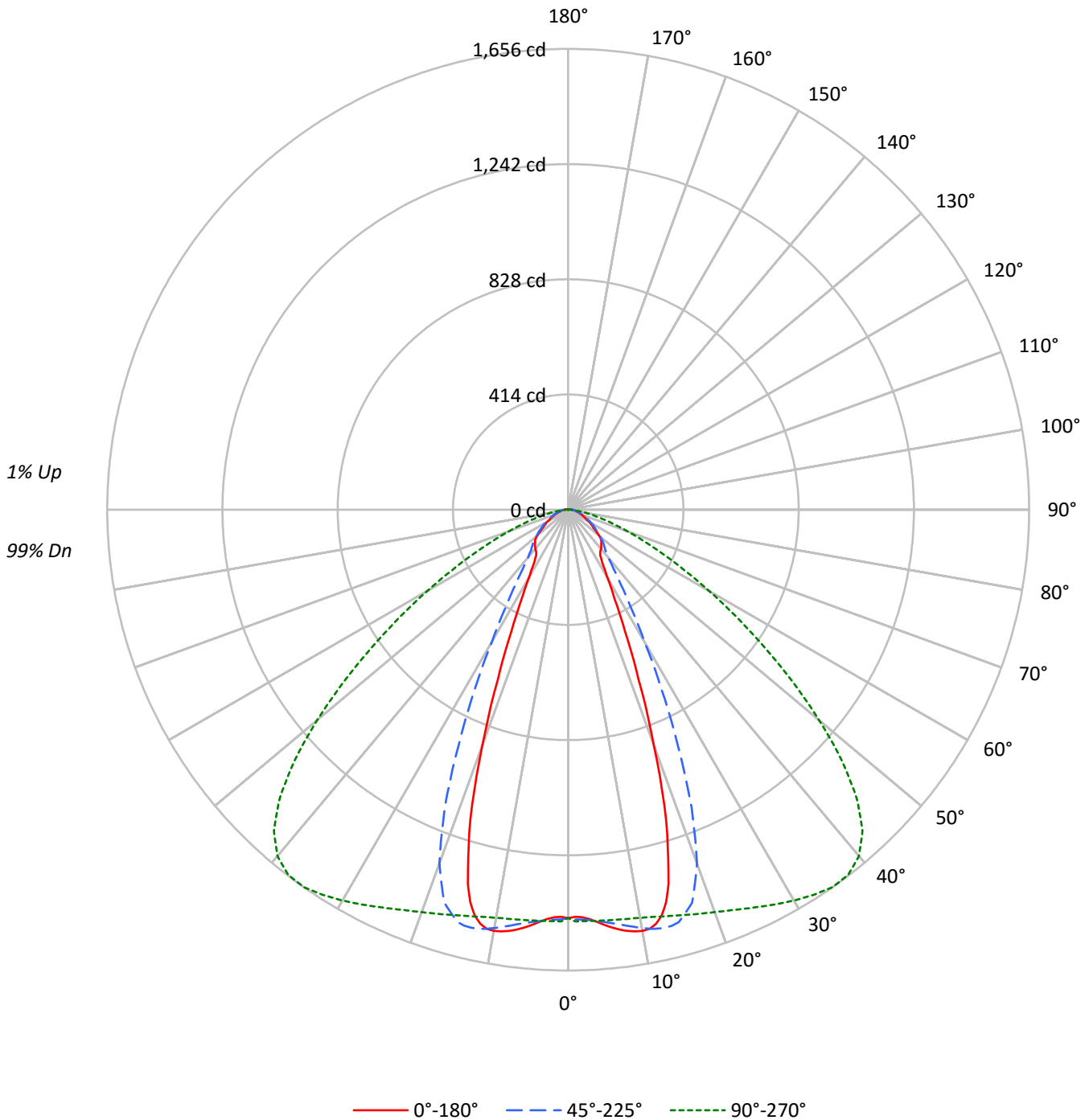
Input Watts (W): 35.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	25999	25999	25999
5°	26641	26445	26348
10°	27651	27462	26796
15°	25541	28145	27687
20°	16972	25502	29006
25°	9419	18164	30837
30°	5766	11228	33172
35°	4336	7156	35805
40°	4243	5168	37570
45°	4221	4572	36719
50°	4024	4120	32431
55°	3366	3691	26461
60°	3047	3401	20722
65°	2725	3039	15672
70°	2590	2823	11653
75°	2601	2806	8692
80°	2805	3060	6223
85°	4167	4471	3862



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.8	6.8
10°-20°	408.9	19.4
20°-30°	462.4	22.0
30°-40°	380.2	18.1
40°-50°	295.7	14.0
50°-60°	203.7	9.7
60°-70°	118.3	5.6
70°-80°	58.5	2.8
80°-90°	23.2	1.1
90°-100°	8.3	0.4
100°-110°	3.0	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°	1014.1	48.2
0°-40°	1394.3	66.2
0°-60°	1893.7	90.0
0°-90°	2093.7	99.5
90°-120°	11.5	0.5
90°-150°	11.5	0.5
90°-180°	12.0	0.6
0°-180°	2105.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1468	1468	1468	1468	1468	
5°	1498	1493	1487	1471	1482	144
15°	1393	1446	1535	1525	1510	366
25°	482	570	929	1488	1578	234
35°	200	214	331	915	1656	133
45°	168	165	182	411	1466	129
55°	109	112	120	224	857	100
65°	65	66	72	126	374	65
75°	38	39	41	58	127	40
85°	20	21	22	19	19	18
90°	14	15	15	10	1	8
95°	11	11	10	4	0	8
105°	6	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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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1467.7	1467.7	1467.7	1467.7	1467.7	1467.7	1467.7	1467.7	1467.7	1467.7	1467.7
1°	1463.2	1462.7	1459.7	1461.7	1467.2	1472.2	1474.7	1473.7	1473.2	1472.2	1471.7
2°	1465.7	1465.2	1462.7	1464.7	1470.2	1475.2	1477.2	1476.2	1474.7	1474.2	1472.7
3°	1473.2	1472.7	1469.7	1471.2	1476.2	1479.7	1480.7	1479.7	1478.2	1477.2	1475.2
4°	1485.2	1484.2	1480.2	1480.2	1483.7	1485.7	1486.2	1484.7	1483.7	1481.7	1479.2
5°	1498.2	1496.2	1491.2	1490.7	1492.7	1494.2	1493.2	1491.7	1489.7	1487.2	1484.7
6°	1510.2	1508.7	1502.7	1501.7	1503.2	1503.2	1501.2	1498.7	1497.2	1493.7	1490.2
7°	1520.7	1518.7	1513.2	1512.2	1513.7	1513.2	1511.2	1508.2	1505.7	1501.2	1497.2
8°	1528.7	1526.7	1521.7	1520.7	1523.2	1522.7	1521.2	1518.2	1515.2	1509.7	1504.2
9°	1534.2	1531.7	1527.2	1527.2	1530.7	1531.2	1530.2	1527.7	1524.7	1517.7	1512.7
10°	1537.2	1533.7	1530.7	1530.7	1535.2	1537.7	1537.2	1535.2	1532.7	1526.7	1521.2
11°	1534.2	1529.7	1528.7	1530.2	1535.7	1539.7	1541.2	1541.2	1539.7	1534.2	1529.2
12°	1520.7	1516.7	1517.7	1518.7	1528.2	1535.2	1539.7	1542.7	1543.7	1539.2	1536.7
13°	1495.7	1491.2	1492.7	1498.2	1511.7	1522.2	1531.7	1538.7	1544.2	1542.2	1542.7
14°	1453.2	1447.7	1456.7	1460.7	1480.7	1497.2	1512.7	1526.2	1537.7	1540.7	1545.7
15°	1392.7	1387.7	1400.7	1406.2	1433.7	1457.7	1480.7	1503.2	1523.7	1534.7	1544.7
17.5°	1170.3	1164.8	1183.8	1208.3	1243.8	1294.8	1336.3	1388.2	1438.7	1480.7	1516.2
20°	900.3	903.8	916.8	940.8	988.8	1044.8	1108.3	1187.8	1268.8	1352.8	1428.2
22.5°	661.4	665.4	676.4	698.9	741.9	800.4	860.3	947.3	1042.8	1157.8	1273.3
25°	481.9	488.9	493.9	514.4	548.9	590.9	645.4	716.9	809.4	929.3	1066.3
27.5°	362.4	366.4	371.4	385.9	408.9	439.9	484.4	539.9	618.4	722.9	849.8
30°	281.9	283.4	288.4	298.9	312.4	336.4	367.9	409.4	465.9	548.9	654.4
32.5°	229.0	230.0	233.0	238.0	249.5	265.0	287.9	319.4	359.9	423.9	506.4
35°	200.5	201.0	202.5	204.5	210.0	218.5	233.0	256.0	285.4	330.9	395.4
37.5°	189.5	189.5	190.0	190.5	192.0	195.0	202.0	214.5	234.0	268.0	315.9
40°	183.5	183.5	183.5	182.5	183.0	184.0	187.0	193.0	202.0	223.5	257.0
42.5°	176.5	176.0	175.5	174.5	174.0	175.0	178.5	181.5	186.5	197.5	218.0
45°	168.5	168.5	168.0	166.0	165.5	165.0	166.0	168.5	174.5	182.5	194.0
47.5°	161.0	160.5	159.0	156.0	155.0	155.0	156.0	156.5	159.0	167.0	177.5
50°	146.0	146.0	146.0	144.0	144.0	143.5	143.5	145.0	146.5	149.5	158.5
52.5°	126.0	126.0	126.5	126.0	129.0	129.5	130.0	130.5	132.0	135.5	141.0
55°	109.0	109.0	110.0	109.5	110.5	112.5	115.5	118.5	118.5	119.5	125.5
57.5°	97.5	97.5	98.0	97.0	97.5	98.0	99.5	103.0	106.0	107.5	111.0
60°	86.0	86.5	86.5	86.0	87.0	87.5	88.0	90.0	91.5	96.0	99.0
62.5°	74.0	74.5	74.5	74.5	75.5	76.5	77.0	78.5	80.0	82.5	87.5
65°	65.0	65.0	65.0	65.0	65.5	66.0	67.0	69.0	69.5	72.5	75.5
67.5°	57.0	57.0	57.5	57.0	57.5	58.0	58.0	59.5	61.0	63.5	65.5
70°	50.0	50.0	50.0	50.5	50.5	51.0	51.0	51.5	52.5	54.5	57.0
72.5°	43.5	44.0	44.0	44.5	44.5	44.5	44.5	45.5	45.5	47.0	49.0
75°	38.0	38.5	38.5	38.5	38.5	39.0	39.0	39.5	40.0	41.0	42.5
77.5°	33.0	33.0	33.0	33.0	33.5	33.5	34.0	34.0	34.5	35.5	36.5
80°	27.5	28.5	28.5	28.5	28.5	29.0	29.0	29.5	29.5	30.0	30.5
82.5°	24.0	24.0	24.0	24.5	24.5	24.5	24.5	25.5	25.5	26.0	26.0
85°	20.5	20.5	20.5	21.0	21.0	21.0	21.0	21.5	21.5	22.0	21.5
87.5°	17.5	17.5	17.5	17.5	17.5	18.0	18.0	18.0	18.0	18.0	17.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
90°	14.5	15.0	15.0	15.0	15.0	15.0	15.5	15.0	15.0	15.0	14.5
92.5°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.0	11.5
95°	11.0	11.0	11.0	11.0	11.0	11.0	10.5	10.5	10.0	9.5	8.5
97.5°	9.5	9.0	9.0	9.0	9.0	9.0	8.5	8.5	8.0	7.5	6.5
100°	8.0	8.0	8.0	8.0	8.0	7.5	7.0	7.0	6.5	5.5	4.5
102.5°	7.0	7.0	7.0	7.0	6.5	6.5	6.0	5.5	5.0	4.5	3.5
105°	5.5	5.5	5.5	5.5	5.5	5.0	4.5	4.5	3.5	3.0	2.0
107.5°	4.5	4.5	4.5	4.5	4.5	4.0	3.5	3.5	2.5	1.5	1.0
110°	3.5	3.5	3.5	3.5	3.5	3.5	2.5	2.0	1.5	1.0	1.0
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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1467.7	1467.7	1467.7	1467.7	1467.7	1467.7	1467.7	1467.7
1°	1463.2	1461.7	1462.2	1463.7	1466.2	1475.2	1477.2	1479.7
2°	1464.7	1463.2	1463.7	1464.7	1467.2	1476.2	1477.7	1479.7
3°	1467.2	1464.7	1465.7	1466.2	1467.2	1476.2	1478.2	1479.7
4°	1471.2	1467.7	1468.2	1467.7	1468.7	1476.7	1479.2	1480.7
5°	1475.7	1471.2	1471.7	1470.7	1470.2	1478.2	1480.2	1481.7
6°	1480.7	1475.7	1475.7	1473.7	1472.7	1479.7	1481.2	1482.7
7°	1487.2	1480.2	1479.7	1477.2	1475.7	1481.7	1482.2	1483.7
8°	1494.2	1485.7	1485.2	1482.2	1478.7	1483.7	1484.7	1485.7
9°	1501.2	1491.7	1490.2	1486.2	1482.2	1486.2	1486.7	1486.7
10°	1509.2	1498.2	1496.2	1491.7	1487.2	1489.2	1489.2	1489.7
11°	1517.2	1505.2	1502.7	1496.7	1491.7	1493.2	1492.2	1491.7
12°	1523.7	1511.7	1509.7	1502.7	1496.7	1497.2	1495.7	1495.7
13°	1530.7	1519.2	1515.7	1509.2	1502.2	1502.2	1500.2	1500.7
14°	1534.7	1525.2	1522.2	1515.2	1508.2	1507.7	1504.7	1504.7
15°	1537.2	1529.7	1527.7	1522.2	1514.7	1513.7	1509.2	1509.7
17.5°	1530.2	1536.7	1539.2	1539.2	1531.7	1529.2	1522.7	1523.7
20°	1483.7	1513.7	1539.7	1549.7	1546.7	1546.7	1539.2	1538.7
22.5°	1377.7	1454.2	1516.2	1550.7	1560.2	1564.2	1558.7	1556.7
25°	1206.8	1333.3	1449.7	1527.2	1564.2	1581.2	1577.7	1577.7
27.5°	994.3	1169.8	1332.8	1470.2	1549.7	1590.7	1597.2	1599.7
30°	796.9	971.8	1170.8	1360.3	1504.2	1588.2	1614.7	1621.7
32.5°	625.4	782.9	978.8	1215.8	1418.7	1565.7	1626.2	1640.7
35°	490.9	617.4	798.4	1031.8	1294.8	1507.7	1622.2	1655.7
37.5°	387.4	491.4	643.9	862.3	1136.8	1409.7	1593.7	1652.7
40°	312.4	393.4	514.4	708.9	972.3	1283.3	1532.2	1624.7
42.5°	256.5	320.9	419.4	581.4	823.8	1142.8	1439.7	1564.7
45°	218.0	265.5	343.9	478.9	695.4	1002.8	1322.3	1465.7
47.5°	194.5	227.0	289.4	401.4	590.4	875.3	1186.8	1332.8
50°	174.5	201.0	249.0	341.4	503.9	754.9	1041.3	1176.8
52.5°	153.5	177.5	218.0	293.9	432.9	649.4	899.3	1016.8
55°	136.0	155.0	191.0	257.5	373.4	554.4	759.4	856.8
57.5°	120.0	136.0	166.0	224.5	325.4	469.4	632.4	714.9
60°	105.0	119.0	145.0	193.5	276.9	389.9	515.9	584.9
62.5°	94.0	104.0	126.5	167.0	232.0	321.4	421.9	469.9
65°	83.0	92.0	109.0	142.0	192.5	259.5	337.4	373.9
67.5°	70.5	80.0	93.0	120.0	157.0	207.5	266.5	290.9
70°	61.0	67.0	79.0	99.0	127.0	164.5	207.0	225.0
72.5°	52.0	56.0	65.5	80.0	100.0	128.0	158.5	171.0
75°	44.5	47.5	52.5	62.5	77.5	97.0	117.5	127.0
77.5°	38.0	39.0	42.0	48.0	57.0	71.0	85.0	91.0
80°	31.5	32.5	32.5	35.5	40.5	49.0	57.0	61.0
82.5°	26.0	26.0	26.0	26.0	27.5	31.5	35.0	37.0
85°	21.0	20.5	19.5	18.5	18.0	17.5	18.5	19.0
87.5°	17.5	16.5	14.5	12.5	10.5	8.5	7.0	7.0





TEST NUMBER: P273470

CATALOG NUMBER: 0.05-12W-830-30-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
90°	13.5	12.5	10.5	8.5	6.0	3.5	2.0	1.0
92.5°	10.5	9.0	7.0	5.0	3.0	1.0	0.0	0.0
95°	7.5	6.5	4.5	3.0	1.0	0.0	0.0	0.0
97.5°	5.5	4.0	2.5	1.0	0.0	0.0	0.0	0.0
100°	3.5	2.5	1.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.0	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)