

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: P273409

Luminaire Tested: **0.05-03W-840-10-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273409
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-2)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.05-03W-840-10-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 10 DEGREE OPTIC.
STANDARD OUTPUT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 758.1 lumens
Efficiency: N/A
Efficacy: 47.4 lumens/watt
Spacing Criteria (0/90/45): 0.12 / 0.93 / 0.2
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')
CIE Type: Direct

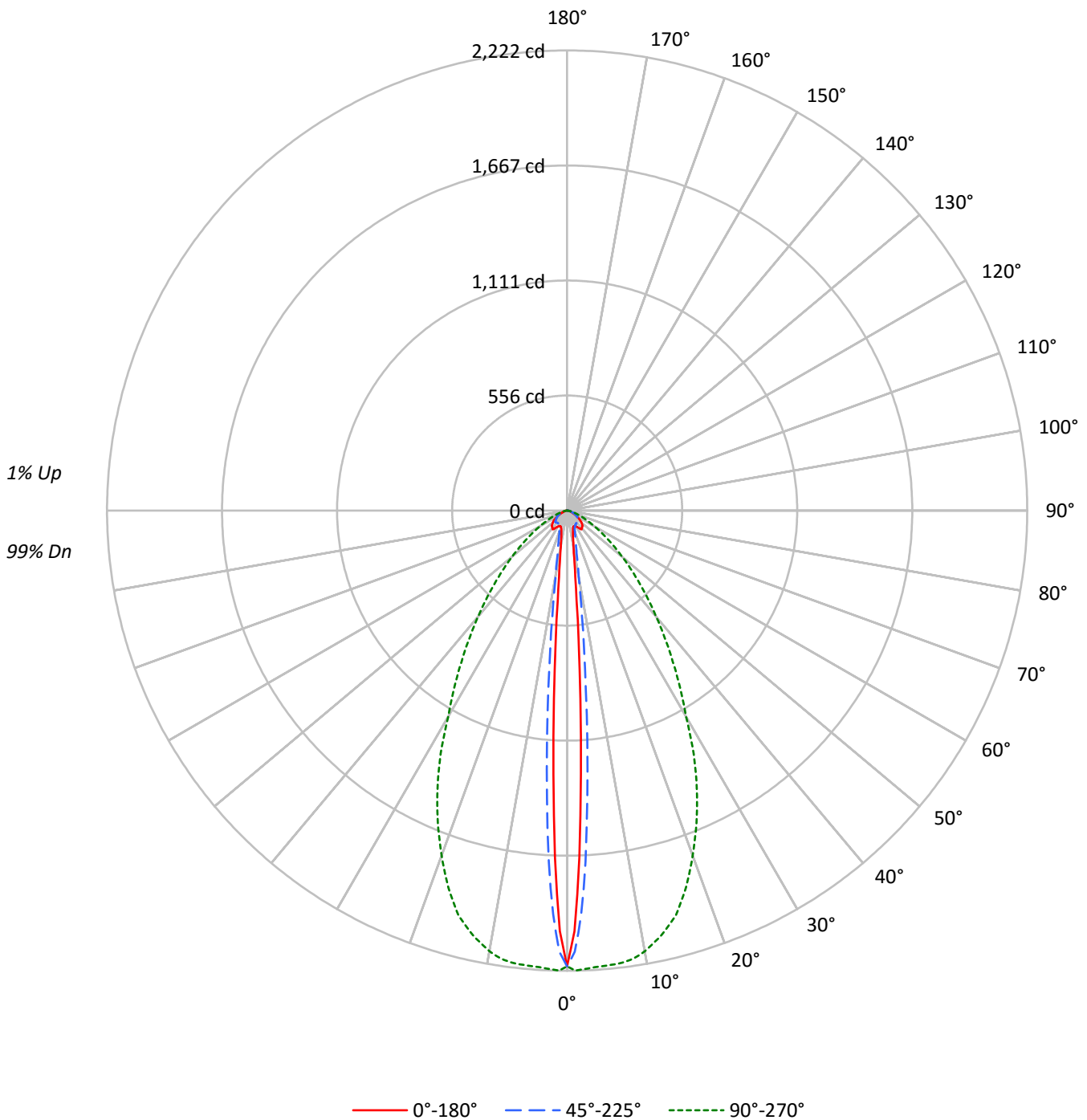
Input Watts (W): 16
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	70								
4	90	80	73	68	88	79	72	67	76	71	66	74	69	65	72	68	64	63								
5	84	74	66	61	82	73	66	61	71	65	60	69	63	59	67	62	59	57								
6	79	68	61	55	77	67	60	55	66	59	55	64	58	54	62	58	54	52								
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48								
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45								
9	67	56	49	44	66	55	48	44	54	48	44	53	47	44	52	47	43	42								
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38988	38988	38988
5°	11149	19825	39209
10°	3160	5742	38869
15°	1966	2920	37148
20°	1614	2059	33421
25°	1618	1708	28963
30°	1823	1634	23464
35°	2310	1639	19218
40°	2555	1753	15489
45°	2635	2002	12285
50°	2489	1959	9538
55°	2242	1952	7289
60°	1782	1856	5417
65°	1400	1727	3877
70°	1160	1554	2724
75°	1033	1383	1868
80°	1081	1306	1326
85°	1524	1667	833



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.3	13.5
10°-20°	129.4	17.1
20°-30°	125.6	16.6
30°-40°	119.7	15.8
40°-50°	110.3	14.6
50°-60°	85.1	11.2
60°-70°	50.2	6.6
70°-80°	23.0	3.0
80°-90°	8.6	1.1
90°-100°	3.0	0.4
100°-110°	0.9	0.1
110°-120°	0.1	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°	357.3	47.1
0°-40°	477.0	62.9
0°-60°	672.4	88.7
0°-90°	754.2	99.5
90°-120°	3.9	0.5
90°-150°	3.9	0.5
90°-180°	4.0	0.5
0°-180°	758.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2201	2201	2201	2201	2201	
5°	627	752	1115	1764	2205	50
15°	107	116	159	515	2026	31
25°	83	82	87	206	1482	39
35°	107	92	76	141	889	66
45°	105	96	80	132	490	79
55°	73	73	63	112	236	64
65°	33	37	41	65	92	34
75°	15	16	20	26	27	17
85°	8	8	8	8	4	7
90°	6	5	5	4	0	3
95°	4	4	4	1	0	3
105°	2	2	1	0	0	2
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°	2200.9	2200.9	2200.9	2200.9	2200.9	2200.9	2200.9	2200.9	2200.9	2200.9	2200.9
1°	2031.1	2048.2	2021.3	2072.7	2052.9	2068.6	2095.5	2113.2	2128.5	2130.2	2146.9
2°	1676.0	1722.1	1684.2	1758.6	1751.9	1784.5	1832.8	1872.5	1911.9	1950.6	1983.0
3°	1275.1	1326.7	1316.9	1368.5	1379.3	1426.2	1492.6	1554.2	1619.8	1696.8	1753.9
4°	910.9	949.8	962.0	989.0	1029.1	1067.4	1138.6	1214.8	1300.4	1393.3	1491.4
5°	627.0	659.2	668.3	691.2	730.9	772.5	837.9	916.0	1008.3	1114.9	1227.2
6°	436.0	459.2	467.2	484.9	514.5	550.1	604.3	671.8	757.4	866.5	982.4
7°	322.0	337.3	343.2	356.3	377.3	403.8	444.9	498.6	568.9	666.5	791.2
8°	254.8	259.9	264.2	273.9	289.2	308.0	338.3	378.7	433.3	514.2	620.2
9°	205.9	210.5	213.8	221.1	232.4	246.2	269.0	299.8	341.6	397.3	479.8
10°	175.7	178.3	180.8	186.3	194.4	204.8	221.8	244.6	277.2	319.2	394.0
12.5°	131.3	130.9	132.9	136.4	141.7	147.6	156.5	169.2	186.5	209.5	251.5
15°	107.2	107.4	108.8	111.1	113.9	117.4	122.9	131.3	142.3	159.2	182.6
17.5°	92.5	92.7	93.6	95.0	97.0	100.1	104.2	109.2	117.0	128.6	144.7
20°	85.6	85.4	85.8	86.6	87.8	89.5	91.7	94.6	100.3	109.2	121.7
22.5°	83.0	83.0	83.0	82.8	83.0	83.4	84.8	87.0	90.1	95.4	104.4
25°	82.8	83.0	82.8	82.1	82.1	81.9	81.7	82.3	83.8	87.4	93.1
27.5°	84.6	84.4	83.8	82.8	81.9	81.3	80.9	80.7	80.9	82.3	86.2
30°	89.1	88.7	87.4	85.6	83.8	81.9	80.3	79.5	79.3	79.9	81.5
32.5°	95.8	95.2	93.8	90.7	88.3	85.0	82.1	79.1	77.5	77.5	78.5
35°	106.8	105.6	103.3	99.7	94.6	89.9	85.6	81.1	77.7	75.8	76.0
37.5°	114.8	114.3	113.3	109.9	105.0	98.4	90.9	84.0	79.3	75.2	73.6
40°	110.5	109.9	108.4	106.6	105.2	103.7	97.8	89.1	81.9	75.8	72.4
42.5°	107.0	106.6	105.2	102.1	100.1	97.8	95.8	93.1	85.4	77.7	72.4
45°	105.2	104.8	103.5	100.9	97.6	94.0	90.3	87.6	85.4	79.9	73.0
47.5°	97.0	96.8	96.4	95.8	94.6	92.5	87.4	82.8	78.9	77.9	74.0
50°	90.3	90.3	90.1	88.9	87.6	86.0	84.6	80.1	74.4	71.1	70.7
52.5°	82.8	82.8	82.8	82.3	81.5	79.7	77.9	75.6	71.7	66.2	64.0
55°	72.6	72.8	73.2	73.4	73.6	72.6	71.5	68.9	66.7	63.2	58.7
57.5°	61.4	61.6	62.4	63.0	63.8	64.2	64.4	63.2	60.7	58.1	55.0
60°	50.3	50.5	51.4	52.4	53.8	55.0	56.1	56.5	54.8	52.4	50.3
62.5°	41.0	41.0	42.0	42.8	44.2	45.7	47.5	48.5	48.3	47.1	45.0
65°	33.4	33.6	34.2	34.9	35.9	37.3	39.3	41.0	41.8	41.2	39.7
67.5°	27.3	27.5	27.9	28.5	29.1	30.4	32.0	34.0	35.3	35.5	34.9
70°	22.4	22.6	22.8	23.2	23.8	24.7	25.9	27.7	29.1	30.0	30.0
72.5°	18.5	18.5	18.8	19.2	19.6	20.2	21.2	22.2	23.6	24.9	25.3
75°	15.1	15.3	15.5	15.5	15.9	16.1	16.9	17.7	18.8	20.2	20.8
77.5°	12.6	12.6	12.6	12.6	13.0	13.2	13.7	14.3	15.1	16.1	16.9
80°	10.6	10.6	10.6	10.6	10.6	10.8	11.2	11.4	11.8	12.8	13.7
82.5°	9.0	9.0	9.0	9.0	9.0	9.2	9.2	9.4	9.8	10.2	10.8
85°	7.5	7.5	7.5	7.5	7.5	7.5	7.7	7.7	7.9	8.2	8.4
87.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.5	6.5	6.5	6.5	6.7
90°	5.5	5.5	5.5	5.5	5.5	5.3	5.3	5.3	5.3	5.3	5.3
92.5°	4.7	4.7	4.7	4.7	4.7	4.5	4.5	4.3	4.3	4.3	4.3
95°	3.9	3.9	3.9	3.7	3.7	3.7	3.7	3.5	3.5	3.5	3.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	3.1	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.6	2.6	2.2
100°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.2	2.0	1.8	1.8
102.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.4	1.0
105°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.2	1.2	0.8	0.6
107.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.8	0.6	0.4	0.0
110°	1.2	1.2	1.2	1.0	1.2	1.0	0.8	0.6	0.4	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2200.9	2200.9	2200.9	2200.9	2200.9	2200.9	2200.9	2200.9
1°	2140.4	2154.6	2164.2	2178.1	2180.7	2198.8	2213.9	2221.7
2°	2012.6	2058.4	2090.6	2128.9	2148.5	2181.3	2205.6	2216.4
3°	1829.5	1915.1	1980.3	2054.5	2102.0	2157.9	2195.2	2211.1
4°	1608.6	1736.2	1842.4	1958.1	2041.5	2128.7	2185.8	2207.4
5°	1376.2	1536.8	1683.8	1843.8	1969.1	2094.1	2175.6	2205.0
6°	1146.3	1332.2	1512.0	1713.7	1893.1	2052.5	2164.4	2202.5
7°	940.8	1135.5	1337.5	1574.7	1790.2	2002.0	2148.1	2199.3
8°	760.5	952.7	1167.5	1430.8	1687.7	1943.3	2123.6	2191.1
9°	613.7	793.1	1011.4	1290.6	1578.8	1877.8	2096.7	2178.1
10°	494.9	655.1	867.9	1156.5	1471.4	1809.1	2063.7	2160.9
12.5°	311.2	416.2	586.2	858.5	1217.0	1626.1	1967.3	2100.6
15°	219.1	285.1	405.6	623.7	978.4	1440.2	1856.2	2025.6
17.5°	169.6	213.6	293.7	463.9	790.0	1268.2	1729.2	1907.8
20°	139.2	171.2	230.5	362.0	644.7	1114.1	1586.8	1772.9
22.5°	118.4	142.9	189.8	295.5	537.7	977.5	1446.1	1632.2
25°	102.9	122.9	160.8	251.3	466.3	861.4	1295.5	1481.8
27.5°	93.4	108.0	141.0	220.7	418.4	754.8	1144.9	1323.6
30°	86.6	98.7	124.9	198.7	382.2	651.8	976.9	1147.1
32.5°	81.7	90.5	114.1	184.7	360.4	571.3	847.9	1014.2
35°	78.3	85.2	106.4	176.3	344.5	502.6	740.3	888.7
37.5°	75.4	81.3	100.7	172.4	328.6	438.6	644.5	774.1
40°	72.6	78.1	97.2	170.8	307.0	377.9	562.1	669.8
42.5°	70.7	75.2	95.2	172.0	282.1	327.7	486.7	575.6
45°	69.9	72.6	93.1	171.8	253.8	282.1	418.2	490.4
47.5°	69.5	70.3	91.5	169.2	222.8	245.0	362.2	414.6
50°	68.9	69.1	91.1	161.0	192.6	211.4	309.2	346.1
52.5°	65.2	67.7	90.7	150.6	163.1	183.2	264.2	287.8
55°	58.5	65.0	90.1	134.3	137.6	158.2	222.2	236.0
57.5°	53.0	59.3	87.8	116.8	116.4	136.2	184.3	191.2
60°	48.9	53.8	81.7	99.5	97.4	116.0	149.2	152.9
62.5°	44.6	49.3	72.8	83.2	81.9	96.2	118.0	118.2
65°	39.5	45.0	62.6	67.9	68.9	80.1	92.9	92.5
67.5°	34.9	39.7	52.4	54.8	57.7	65.2	72.2	70.5
70°	30.2	33.8	42.4	44.2	47.3	52.4	54.4	52.6
72.5°	25.7	28.3	33.4	35.3	37.7	40.4	40.4	38.3
75°	21.6	23.0	25.7	27.3	29.4	30.2	28.9	27.3
77.5°	17.7	18.5	19.6	20.6	21.8	21.2	20.2	19.2
80°	14.5	14.9	14.9	15.3	15.3	14.7	13.2	13.0
82.5°	11.6	12.0	11.4	10.8	10.2	9.2	8.4	7.7
85°	9.2	9.2	8.6	7.5	6.3	5.3	4.5	4.1
87.5°	6.9	6.9	6.1	5.1	3.7	2.6	1.8	1.6
90°	5.3	5.3	4.3	3.3	2.0	1.0	0.4	0.0
92.5°	4.1	3.7	2.9	1.8	0.8	0.4	0.0	0.0
95°	3.1	2.6	1.6	0.8	0.4	0.0	0.0	0.0



TEST NUMBER: P273409

CATALOG NUMBER: 0.05-03W-840-10-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	2.0	1.6	0.8	0.4	0.0	0.0	0.0	0.0
100°	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0
102.5°	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.2	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)