

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: P273440

Luminaire Tested: **0.05-09W-827-30-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273440
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: 0.05-09W-827-30-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 30 DEGREE OPTIC.
VERY HIGH OUTPUT
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

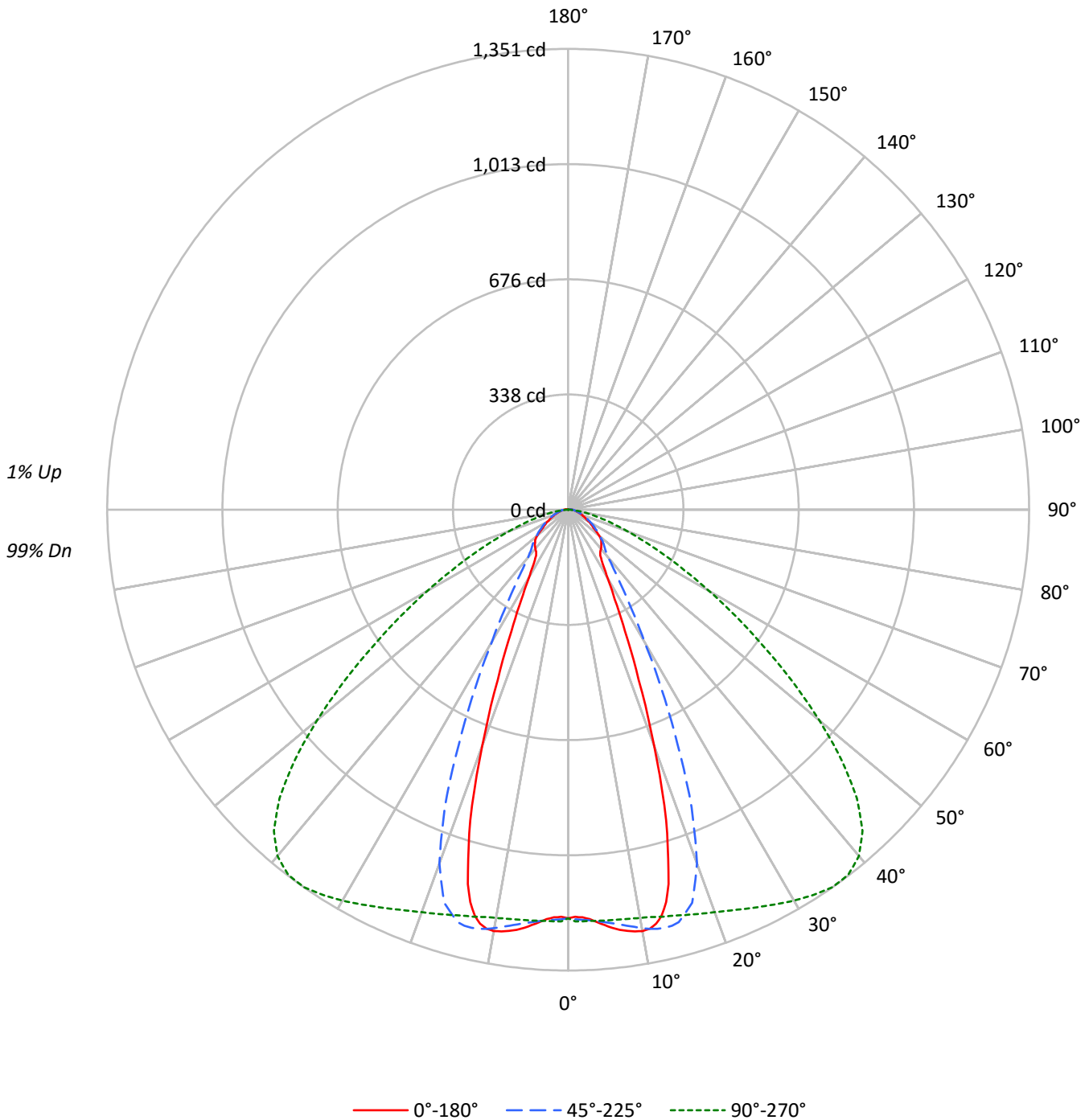
Lumens per Lamp: N/A
Luminaire Lumens: 1717.7 lumens
Efficiency: N/A
Efficacy: 58.6 lumens/watt
Spacing Criteria (0/90/45): 0.73 / 1.67 / 0.84
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')
CIE Type: Direct

Input Watts (W): 29.3
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	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°	21215	21215	21215
5°	21737	21578	21498
10°	22562	22407	21864
15°	20841	22964	22590
20°	13848	20806	23668
25°	7685	14821	25161
30°	4705	9162	27066
35°	3538	5839	29214
40°	3462	4216	30654
45°	3445	3730	29960
50°	3282	3362	26462
55°	2746	3011	21591
60°	2487	2774	16907
65°	2222	2477	12788
70°	2113	2305	9504
75°	2122	2286	7091
80°	2285	2499	5080
85°	3394	3638	3150



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.5	6.8
10°-20°	333.7	19.4
20°-30°	377.3	22.0
30°-40°	310.2	18.1
40°-50°	241.3	14.0
50°-60°	166.2	9.7
60°-70°	96.5	5.6
70°-80°	47.8	2.8
80°-90°	18.9	1.1
90°-100°	6.8	0.4
100°-110°	2.5	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°	827.4	48.2
0°-40°	1137.7	66.2
0°-60°	1545.1	90.0
0°-90°	1708.3	99.5
90°-120°	9.4	0.5
90°-150°	9.4	0.5
90°-180°	9.0	0.5
0°-180°	1717.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1222	1219	1214	1200	1209	118
15°	1136	1180	1252	1244	1232	299
25°	393	465	758	1214	1287	191
35°	164	175	270	747	1351	108
45°	138	135	149	336	1196	106
55°	89	91	98	183	699	82
65°	53	54	59	102	305	53
75°	31	32	33	47	104	33
85°	17	17	18	16	16	15
90°	12	12	12	8	1	7
95°	9	9	8	3	0	7
105°	4	4	2	0	0	5
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°	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6
1°	1193.9	1193.5	1191.0	1192.7	1197.1	1201.2	1203.3	1202.4	1202.0	1201.2	1200.8
2°	1195.9	1195.5	1193.5	1195.1	1199.6	1203.7	1205.3	1204.5	1203.3	1202.9	1201.6
3°	1202.0	1201.6	1199.2	1200.4	1204.5	1207.3	1208.2	1207.3	1206.1	1205.3	1203.7
4°	1211.8	1211.0	1207.8	1207.8	1210.6	1212.2	1212.6	1211.4	1210.6	1209.0	1206.9
5°	1222.4	1220.8	1216.7	1216.3	1217.9	1219.2	1218.4	1217.1	1215.5	1213.5	1211.4
6°	1232.2	1231.0	1226.1	1225.3	1226.5	1226.5	1224.9	1222.8	1221.6	1218.8	1215.9
7°	1240.8	1239.2	1234.7	1233.9	1235.1	1234.7	1233.0	1230.6	1228.6	1224.9	1221.6
8°	1247.3	1245.7	1241.6	1240.8	1242.8	1242.4	1241.2	1238.8	1236.3	1231.8	1227.3
9°	1251.8	1249.8	1246.1	1246.1	1248.9	1249.4	1248.5	1246.5	1244.1	1238.3	1234.3
10°	1254.3	1251.4	1248.9	1248.9	1252.6	1254.7	1254.3	1252.6	1250.6	1245.7	1241.2
11°	1251.8	1248.1	1247.3	1248.5	1253.0	1256.3	1257.5	1257.5	1256.3	1251.8	1247.7
12°	1240.8	1237.5	1238.3	1239.2	1246.9	1252.6	1256.3	1258.7	1259.6	1255.9	1253.8
13°	1220.4	1216.7	1217.9	1222.4	1233.4	1242.0	1249.8	1255.5	1260.0	1258.3	1258.7
14°	1185.7	1181.2	1188.6	1191.8	1208.2	1221.6	1234.3	1245.3	1254.7	1257.1	1261.2
15°	1136.4	1132.3	1142.9	1147.4	1169.8	1189.4	1208.2	1226.5	1243.2	1252.2	1260.4
17.5°	954.9	950.4	965.9	985.9	1014.8	1056.4	1090.3	1132.7	1173.9	1208.2	1237.1
20°	734.6	737.5	748.1	767.6	806.8	852.5	904.3	969.1	1035.2	1103.7	1165.3
22.5°	539.6	542.9	551.9	570.2	605.3	653.0	702.0	772.9	850.9	944.7	1038.9
25°	393.2	398.9	403.0	419.7	447.9	482.1	526.6	584.9	660.4	758.3	870.0
27.5°	295.7	299.0	303.1	314.9	333.7	358.9	395.2	440.5	504.6	589.8	693.4
30°	230.0	231.3	235.4	243.9	254.9	274.5	300.2	334.1	380.2	447.9	533.9
32.5°	186.8	187.6	190.1	194.2	203.5	216.2	234.9	260.6	293.7	345.9	413.2
35°	163.6	164.0	165.2	166.8	171.3	178.2	190.1	208.8	232.9	270.0	322.6
37.5°	154.6	154.6	155.0	155.4	156.6	159.1	164.8	175.0	190.9	218.6	257.8
40°	149.7	149.7	149.7	148.9	149.3	150.1	152.5	157.4	164.8	182.3	209.7
42.5°	144.0	143.6	143.2	142.4	141.9	142.8	145.6	148.1	152.1	161.1	177.8
45°	137.5	137.5	137.0	135.4	135.0	134.6	135.4	137.5	142.4	148.9	158.3
47.5°	131.3	130.9	129.7	127.3	126.4	126.4	127.3	127.7	129.7	136.2	144.8
50°	119.1	119.1	119.1	117.5	117.5	117.1	117.1	118.3	119.5	122.0	129.3
52.5°	102.8	102.8	103.2	102.8	105.2	105.6	106.1	106.5	107.7	110.5	115.0
55°	88.9	88.9	89.7	89.3	90.1	91.8	94.2	96.7	96.7	97.5	102.4
57.5°	79.5	79.5	79.9	79.1	79.5	79.9	81.2	84.0	86.5	87.7	90.6
60°	70.2	70.6	70.6	70.2	71.0	71.4	71.8	73.4	74.6	78.3	80.8
62.5°	60.4	60.8	60.8	60.8	61.6	62.4	62.8	64.0	65.3	67.3	71.4
65°	53.0	53.0	53.0	53.0	53.4	53.8	54.7	56.3	56.7	59.1	61.6
67.5°	46.5	46.5	46.9	46.5	46.9	47.3	47.3	48.5	49.8	51.8	53.4
70°	40.8	40.8	40.8	41.2	41.2	41.6	41.6	42.0	42.8	44.5	46.5
72.5°	35.5	35.9	35.9	36.3	36.3	36.3	36.3	37.1	37.1	38.3	40.0
75°	31.0	31.4	31.4	31.4	31.4	31.8	31.8	32.2	32.6	33.4	34.7
77.5°	26.9	26.9	26.9	26.9	27.3	27.3	27.7	27.7	28.1	29.0	29.8
80°	22.4	23.2	23.2	23.2	23.2	23.7	23.7	24.1	24.1	24.5	24.9
82.5°	19.6	19.6	19.6	20.0	20.0	20.0	20.0	20.8	20.8	21.2	21.2
85°	16.7	16.7	16.7	17.1	17.1	17.1	17.1	17.5	17.5	17.9	17.5
87.5°	14.3	14.3	14.3	14.3	14.3	14.7	14.7	14.7	14.7	14.7	14.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
90°	11.8	12.2	12.2	12.2	12.2	12.2	12.6	12.2	12.2	12.2	11.8
92.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	9.8	9.4
95°	9.0	9.0	9.0	9.0	9.0	9.0	8.6	8.6	8.2	7.7	6.9
97.5°	7.7	7.3	7.3	7.3	7.3	7.3	6.9	6.9	6.5	6.1	5.3
100°	6.5	6.5	6.5	6.5	6.5	6.1	5.7	5.7	5.3	4.5	3.7
102.5°	5.7	5.7	5.7	5.7	5.3	5.3	4.9	4.5	4.1	3.7	2.9
105°	4.5	4.5	4.5	4.5	4.5	4.1	3.7	3.7	2.9	2.4	1.6
107.5°	3.7	3.7	3.7	3.7	3.7	3.3	2.9	2.9	2.0	1.2	0.8
110°	2.9	2.9	2.9	2.9	2.9	2.9	2.0	1.6	1.2	0.8	0.8
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°	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6
1°	1193.9	1192.7	1193.1	1194.3	1196.3	1203.7	1205.3	1207.3
2°	1195.1	1193.9	1194.3	1195.1	1197.1	1204.5	1205.7	1207.3
3°	1197.1	1195.1	1195.9	1196.3	1197.1	1204.5	1206.1	1207.3
4°	1200.4	1197.6	1198.0	1197.6	1198.4	1204.9	1206.9	1208.2
5°	1204.1	1200.4	1200.8	1200.0	1199.6	1206.1	1207.8	1209.0
6°	1208.2	1204.1	1204.1	1202.4	1201.6	1207.3	1208.6	1209.8
7°	1213.5	1207.8	1207.3	1205.3	1204.1	1209.0	1209.4	1210.6
8°	1219.2	1212.2	1211.8	1209.4	1206.5	1210.6	1211.4	1212.2
9°	1224.9	1217.1	1215.9	1212.6	1209.4	1212.6	1213.1	1213.1
10°	1231.4	1222.4	1220.8	1217.1	1213.5	1215.1	1215.1	1215.5
11°	1237.9	1228.1	1226.1	1221.2	1217.1	1218.4	1217.5	1217.1
12°	1243.2	1233.4	1231.8	1226.1	1221.2	1221.6	1220.4	1220.4
13°	1248.9	1239.6	1236.7	1231.4	1225.7	1225.7	1224.1	1224.5
14°	1252.2	1244.5	1242.0	1236.3	1230.6	1230.2	1227.7	1227.7
15°	1254.3	1248.1	1246.5	1242.0	1235.9	1235.1	1231.4	1231.8
17.5°	1248.5	1253.8	1255.9	1255.9	1249.8	1247.7	1242.4	1243.2
20°	1210.6	1235.1	1256.3	1264.4	1262.0	1262.0	1255.9	1255.5
22.5°	1124.1	1186.5	1237.1	1265.3	1273.0	1276.3	1271.8	1270.2
25°	984.6	1087.8	1182.9	1246.1	1276.3	1290.1	1287.3	1287.3
27.5°	811.3	954.5	1087.4	1199.6	1264.4	1297.9	1303.2	1305.2
30°	650.2	792.9	955.3	1109.9	1227.3	1295.9	1317.5	1323.2
32.5°	510.3	638.8	798.6	992.0	1157.6	1277.5	1326.9	1338.7
35°	400.5	503.7	651.4	841.9	1056.4	1230.2	1323.6	1350.9
37.5°	316.1	401.0	525.4	703.6	927.5	1150.2	1300.3	1348.5
40°	254.9	321.0	419.7	578.4	793.3	1047.0	1250.2	1325.6
42.5°	209.2	261.9	342.2	474.4	672.2	932.4	1174.7	1276.7
45°	177.8	216.6	280.6	390.8	567.4	818.2	1078.9	1195.9
47.5°	158.7	185.2	236.2	327.5	481.7	714.2	968.3	1087.4
50°	142.4	164.0	203.1	278.6	411.1	615.9	849.6	960.2
52.5°	125.2	144.8	177.8	239.8	353.2	529.8	733.8	829.6
55°	110.9	126.4	155.8	210.1	304.7	452.3	619.6	699.1
57.5°	97.9	110.9	135.4	183.1	265.5	383.0	516.0	583.3
60°	85.7	97.1	118.3	157.9	226.0	318.2	420.9	477.2
62.5°	76.7	84.8	103.2	136.2	189.3	262.3	344.3	383.4
65°	67.7	75.1	88.9	115.8	157.0	211.7	275.3	305.1
67.5°	57.5	65.3	75.9	97.9	128.1	169.3	217.4	237.4
70°	49.8	54.7	64.4	80.8	103.6	134.2	168.9	183.5
72.5°	42.4	45.7	53.4	65.3	81.6	104.4	129.3	139.5
75°	36.3	38.7	42.8	51.0	63.2	79.1	95.9	103.6
77.5°	31.0	31.8	34.3	39.2	46.5	57.9	69.3	74.2
80°	25.7	26.5	26.5	29.0	33.0	40.0	46.5	49.8
82.5°	21.2	21.2	21.2	21.2	22.4	25.7	28.6	30.2
85°	17.1	16.7	15.9	15.1	14.7	14.3	15.1	15.5
87.5°	14.3	13.5	11.8	10.2	8.6	6.9	5.7	5.7



TEST NUMBER: P273440

CATALOG NUMBER: 0.05-09W-827-30-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
90°	11.0	10.2	8.6	6.9	4.9	2.9	1.6	0.8
92.5°	8.6	7.3	5.7	4.1	2.4	0.8	0.0	0.0
95°	6.1	5.3	3.7	2.4	0.8	0.0	0.0	0.0
97.5°	4.5	3.3	2.0	0.8	0.0	0.0	0.0	0.0
100°	2.9	2.0	0.8	0.0	0.0	0.0	0.0	0.0
102.5°	2.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.4	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)