

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: FAIL-SAFE

Report Number: P

Luminaire Tested: **4APN-24-26L930-UNV-NP**

Issue Date: 06/06/2024



Test Information

Test Method: LM-79-08
Report Number: P
Test Lab: INNOVATION CENTER(G2)
Issue Date: 06/06/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4APN-24-26L930-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient and Exam Light
w/ Nature Pattern Lens
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

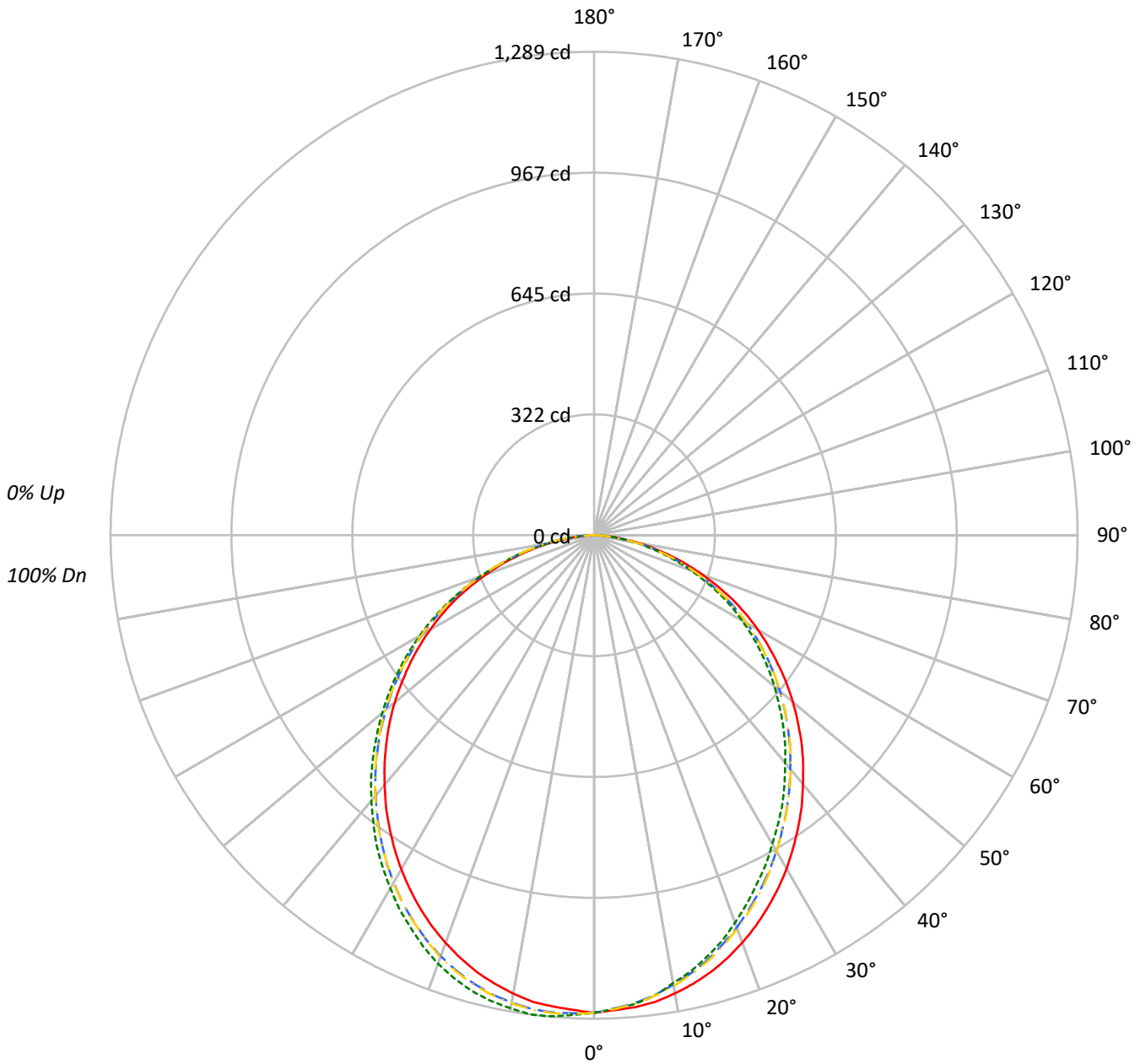
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3365.4 lumens
Efficiency: N/A
Efficacy: 60.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.32
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 56
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



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



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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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	62	62	62	59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	41	41	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	36	36	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	32	32	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	29	29	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	27	27	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11747	11747	11747	11747
5°	11694	11618	11681	11923
10°	11620	11360	11626	11998
15°	11511	11111	11518	12018
20°	11348	10789	11356	11935
25°	11149	10450	11173	11766
30°	10936	10123	10951	11572
35°	10685	9860	10711	11384
40°	10426	9545	10463	11120
45°	10202	9286	10213	10866
50°	9935	9014	9958	10580
55°	9621	8718	9656	10282
60°	9311	8414	9324	9905
65°	8927	8045	8927	9466
70°	8290	7443	8268	8791
75°	7518	6741	7461	7914
80°	6477	5802	6355	6796
85°	4986	4435	4827	5452



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.2	3.6
10°-20°	340.4	10.1
20°-30°	504.0	15.0
30°-40°	591.3	17.6
40°-50°	599.3	17.8
50°-60°	531.9	15.8
60°-70°	399.3	11.9
70°-80°	221.7	6.6
80°-90°	57.3	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
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°	964.6	28.7
0°-40°	1556.0	46.2
0°-60°	2687.1	79.8
0°-90°	3365.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3365.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1273	1273	1273	1273	1273	
5°	1263	1254	1261	1287	1263	120
15°	1205	1163	1206	1258	1205	340
25°	1095	1026	1098	1156	1095	505
35°	949	875	951	1011	949	594
45°	782	712	783	833	782	603
55°	598	542	600	639	598	535
65°	409	368	409	434	409	403
75°	211	189	209	222	211	224
85°	47	42	46	52	47	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2
2.5°	1267.2	1270.1	1273.9	1270.1	1264.2	1261.2	1261.2	1260.5	1262.7	1263.4	1262.7
5°	1262.7	1264.2	1264.9	1260.5	1253.7	1250.0	1248.5	1247.7	1250.7	1254.5	1250.7
7.5°	1254.5	1253.7	1253.0	1247.0	1239.5	1234.3	1232.1	1231.2	1234.3	1238.0	1235.0
10°	1240.3	1239.5	1237.2	1229.8	1220.1	1213.4	1211.1	1208.8	1211.1	1212.6	1211.1
12.5°	1224.5	1221.6	1218.6	1210.3	1199.9	1192.4	1188.6	1185.7	1188.6	1190.9	1189.4
15°	1205.1	1200.6	1195.4	1186.4	1175.9	1167.7	1163.3	1160.2	1162.5	1163.3	1163.3
17.5°	1181.9	1176.7	1171.5	1160.2	1147.5	1138.6	1133.3	1129.6	1132.6	1134.1	1134.1
20°	1155.8	1149.8	1143.1	1131.1	1117.6	1108.0	1102.0	1097.5	1098.2	1098.9	1098.9
22.5°	1127.3	1119.9	1111.7	1098.9	1084.7	1074.3	1068.3	1063.1	1063.1	1063.8	1063.8
25°	1095.2	1087.0	1078.7	1066.1	1051.1	1039.9	1032.5	1027.2	1027.2	1026.5	1027.9
27.5°	1062.3	1053.4	1045.1	1031.7	1016.0	1004.8	997.3	992.1	991.3	990.6	992.1
30°	1026.5	1016.0	1007.0	992.8	977.9	966.6	959.2	953.2	951.7	950.2	951.7
32.5°	988.3	978.6	968.8	953.9	939.0	927.7	920.2	914.3	913.5	912.8	914.3
35°	948.7	938.2	929.3	915.1	900.1	888.9	880.7	875.4	875.4	875.4	875.4
37.5°	909.8	899.3	889.6	875.4	860.5	849.3	841.0	835.8	834.3	833.6	834.3
40°	865.7	856.7	847.8	834.3	819.4	808.1	801.4	795.4	793.9	792.5	794.7
42.5°	825.4	816.3	806.7	793.9	779.0	767.7	760.3	755.0	754.3	753.6	754.3
45°	781.9	771.5	761.8	749.9	736.4	725.9	718.4	713.2	712.4	711.7	712.4
47.5°	736.4	728.2	719.9	708.0	694.5	684.0	677.3	671.3	669.8	668.4	669.8
50°	692.2	683.3	675.1	663.8	651.1	641.4	635.4	630.2	628.7	628.0	628.7
52.5°	646.0	637.7	630.2	619.0	608.5	598.8	592.1	587.6	586.9	586.1	586.9
55°	598.1	590.6	583.9	574.9	564.4	555.5	549.5	544.3	543.5	542.0	543.5
57.5°	551.7	545.7	539.0	529.3	519.5	511.3	506.1	501.7	500.9	500.1	500.9
60°	504.6	498.6	492.6	484.4	474.7	466.5	462.0	458.2	456.8	456.0	456.8
62.5°	457.5	451.5	447.1	438.9	429.8	423.1	418.7	414.9	413.4	412.7	413.4
65°	408.9	403.7	398.5	391.0	384.3	379.0	374.5	370.8	369.4	368.5	368.5
67.5°	357.4	352.8	349.2	342.4	335.0	329.7	325.2	322.2	320.7	319.9	320.7
70°	307.3	303.5	299.7	294.6	288.6	284.1	281.1	278.1	276.6	275.9	275.9
72.5°	259.5	256.4	252.7	248.2	243.7	239.3	236.2	234.0	232.5	231.8	231.8
75°	210.9	207.8	206.3	202.6	198.1	195.1	192.1	190.7	189.1	189.1	189.1
77.5°	165.2	163.7	162.3	158.5	155.5	152.5	150.3	149.5	148.0	148.0	148.0
80°	121.9	121.2	120.3	118.1	115.2	112.1	110.6	109.9	109.2	109.2	109.2
82.5°	82.2	82.2	81.5	79.2	77.0	76.2	74.8	74.0	74.0	74.0	74.0
85°	47.1	47.1	47.1	46.4	44.9	44.9	43.3	42.6	41.9	41.9	41.9
87.5°	18.7	19.5	20.2	19.5	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90°	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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2
2.5°	1260.5	1261.9	1262.7	1266.5	1270.9	1273.9	1270.1	1266.5	1272.4	1279.1	1279.1
5°	1247.7	1249.2	1251.4	1255.9	1261.9	1265.6	1264.2	1261.2	1270.1	1277.6	1278.4
7.5°	1232.1	1233.5	1236.5	1241.0	1248.5	1253.7	1253.7	1254.5	1262.7	1271.6	1273.9
10°	1208.8	1212.6	1217.0	1223.8	1231.2	1238.0	1240.3	1241.0	1251.4	1261.2	1264.2
12.5°	1187.2	1190.9	1195.4	1202.8	1211.9	1219.3	1221.6	1224.5	1235.8	1247.0	1251.4
15°	1162.5	1166.2	1171.5	1179.0	1188.6	1196.8	1201.4	1205.9	1217.0	1229.0	1234.3
17.5°	1133.3	1137.1	1142.4	1151.3	1162.5	1172.2	1177.5	1182.6	1195.4	1208.1	1213.4
20°	1098.9	1104.2	1111.7	1120.6	1133.3	1144.6	1150.6	1156.6	1170.0	1182.6	1188.6
22.5°	1063.8	1069.8	1078.0	1088.5	1102.0	1113.9	1121.4	1128.9	1142.4	1155.0	1161.7
25°	1028.7	1035.4	1043.6	1054.9	1067.6	1079.5	1088.5	1097.5	1110.9	1124.4	1131.1
27.5°	992.8	998.8	1007.0	1018.3	1032.5	1045.1	1054.1	1063.8	1077.3	1091.5	1098.2
30°	953.2	959.9	967.4	978.6	994.3	1008.5	1017.4	1027.9	1041.4	1055.6	1062.3
32.5°	915.1	921.0	928.5	939.7	955.4	970.4	980.1	990.6	1004.1	1018.3	1024.2
35°	875.4	881.4	889.6	900.9	916.6	930.8	940.4	951.0	963.7	977.1	983.9
37.5°	836.5	842.5	850.7	862.0	876.9	891.1	900.9	911.3	924.0	936.8	942.7
40°	796.1	802.1	808.9	820.1	835.1	849.3	858.2	868.7	881.4	894.9	900.9
42.5°	755.0	761.0	769.2	780.5	794.7	807.4	817.1	826.8	838.8	850.7	856.7
45°	713.9	719.2	727.4	737.9	751.3	763.3	773.0	782.7	793.9	805.2	811.2
47.5°	671.3	677.3	684.0	694.5	708.0	720.6	730.4	739.4	749.9	761.0	766.3
50°	630.2	635.4	642.2	651.9	664.6	676.6	684.8	693.8	703.5	713.9	718.4
52.5°	587.6	592.8	599.6	609.3	619.8	630.9	638.5	646.7	656.4	666.1	670.6
55°	544.3	547.9	553.9	563.0	574.1	584.6	592.1	600.3	608.5	616.7	622.0
57.5°	501.7	506.1	512.1	520.3	530.1	539.7	546.5	553.2	561.4	569.7	573.4
60°	458.2	462.0	466.5	474.0	483.7	491.9	498.6	505.3	512.1	519.5	523.3
62.5°	414.2	417.9	422.4	429.8	438.0	445.6	451.5	457.5	463.5	470.2	474.0
65°	370.1	373.8	378.3	383.6	390.3	397.0	402.9	408.9	413.4	417.9	421.6
67.5°	322.2	325.9	330.4	335.0	340.9	347.6	352.1	357.4	361.8	367.0	369.4
70°	277.3	280.4	284.8	288.6	293.8	298.3	302.0	306.5	309.5	314.0	317.7
72.5°	233.3	236.2	240.0	243.7	246.7	250.4	254.9	258.6	262.4	266.9	268.4
75°	190.7	192.1	195.1	198.1	201.1	204.1	206.3	209.3	212.3	215.3	217.6
77.5°	148.8	150.3	153.2	155.5	157.8	160.0	161.4	163.0	166.0	168.2	170.5
80°	109.2	110.6	112.9	115.2	117.4	119.6	119.6	119.6	123.4	126.3	127.1
82.5°	74.0	74.8	76.2	77.7	79.2	80.8	80.8	80.0	82.2	84.5	85.9
85°	42.6	43.3	44.9	44.9	45.6	45.6	45.6	45.6	47.1	49.3	50.8
87.5°	17.1	17.1	18.0	18.0	18.7	18.7	18.0	17.1	18.7	20.9	21.7
90°	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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2	1273.2
2.5°	1276.1	1275.4	1277.6	1278.4	1279.9	1279.9	1280.7	1280.7	1279.1	1276.9	1277.6
5°	1276.9	1276.9	1279.1	1281.4	1284.3	1287.4	1285.1	1282.9	1281.4	1279.1	1278.4
7.5°	1273.2	1274.7	1276.9	1280.7	1284.3	1288.9	1285.8	1282.9	1279.1	1276.1	1274.7
10°	1264.2	1265.6	1269.4	1273.2	1276.9	1280.7	1277.6	1274.7	1271.6	1267.9	1266.5
12.5°	1253.0	1255.2	1259.7	1263.4	1267.2	1271.6	1267.9	1264.2	1260.5	1256.7	1254.5
15°	1236.5	1239.5	1244.7	1249.2	1254.5	1258.2	1255.2	1252.2	1247.7	1242.5	1238.8
17.5°	1215.6	1220.1	1225.3	1230.5	1235.0	1238.8	1236.5	1233.5	1228.3	1222.3	1217.9
20°	1192.4	1196.8	1201.4	1206.6	1211.9	1215.6	1212.6	1208.8	1203.6	1199.2	1194.6
22.5°	1165.5	1170.0	1175.2	1179.7	1184.2	1187.9	1184.2	1179.7	1175.2	1170.8	1166.2
25°	1134.8	1139.3	1145.3	1149.8	1152.8	1155.8	1152.8	1149.1	1144.6	1140.1	1135.6
27.5°	1102.7	1107.1	1113.1	1117.6	1120.6	1123.6	1120.6	1116.9	1112.4	1108.0	1103.4
30°	1066.8	1071.3	1077.3	1081.8	1084.0	1086.2	1083.3	1080.3	1076.5	1072.0	1067.6
32.5°	1028.7	1033.2	1037.6	1042.1	1045.9	1048.9	1045.9	1042.9	1038.4	1032.5	1027.9
35°	988.3	992.8	998.1	1002.5	1007.0	1010.7	1006.3	1001.0	997.3	993.5	989.8
37.5°	945.7	951.0	956.9	962.1	963.7	966.6	963.7	960.6	956.9	953.2	948.7
40°	903.8	908.4	913.5	918.8	921.0	923.3	920.2	917.3	912.8	909.1	904.6
42.5°	860.5	864.9	869.4	874.0	876.9	880.0	876.9	872.4	869.4	866.5	862.7
45°	815.6	820.1	823.8	828.3	830.5	832.8	829.8	826.1	823.1	820.9	817.1
47.5°	770.1	773.7	777.5	781.2	782.7	785.0	781.9	779.7	777.5	775.2	772.3
50°	722.2	725.9	730.4	734.1	734.9	737.1	734.1	731.9	729.7	727.4	725.2
52.5°	675.1	678.0	681.8	685.5	687.1	688.5	685.5	682.6	680.3	678.8	676.6
55°	625.8	628.7	632.5	635.4	637.7	639.2	636.2	633.2	630.9	630.2	628.0
57.5°	576.4	579.4	583.2	586.1	587.6	589.1	586.1	583.2	581.6	580.1	578.6
60°	526.3	529.3	532.3	534.5	536.1	536.8	533.7	531.5	530.8	530.1	528.6
62.5°	477.0	478.4	481.5	482.9	484.4	485.2	482.9	481.5	480.7	480.0	479.2
65°	425.4	429.1	431.4	432.9	432.9	433.6	431.4	430.6	429.8	429.1	427.6
67.5°	372.3	375.3	376.8	378.3	378.3	378.3	378.3	378.3	377.6	376.1	374.5
70°	321.5	323.7	325.2	325.9	325.9	325.9	324.5	323.7	324.5	324.5	323.7
72.5°	269.9	271.3	272.1	272.9	272.1	272.1	272.1	273.6	273.6	272.9	271.3
75°	219.8	221.3	222.0	222.8	222.0	222.0	222.0	223.5	222.8	222.8	222.0
77.5°	172.7	173.4	173.4	174.2	173.4	173.4	174.2	175.6	174.9	174.9	174.9
80°	127.9	127.9	127.9	128.6	127.9	127.9	128.6	130.1	129.4	129.4	129.4
82.5°	86.8	87.5	87.5	87.5	88.2	89.0	89.0	89.0	89.0	89.0	88.2
85°	51.5	52.4	51.5	51.5	51.5	51.5	52.4	53.1	53.1	53.1	53.1
87.5°	22.4	23.1	22.4	21.7	20.9	20.9	22.4	23.9	23.9	23.1	23.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P
 CATALOG NUMBER: 4APN-24-26L930-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1273.2	1273.2	1273.2	1273.2
2.5°	1280.7	1280.7	1273.9	1267.2
5°	1279.9	1278.4	1270.9	1262.7
7.5°	1275.4	1273.2	1263.4	1254.5
10°	1264.9	1261.9	1251.4	1240.3
12.5°	1252.2	1247.7	1235.8	1224.5
15°	1235.8	1230.5	1217.9	1205.1
17.5°	1214.1	1208.1	1195.4	1181.9
20°	1190.9	1184.2	1170.0	1155.8
22.5°	1162.5	1156.6	1141.5	1127.3
25°	1131.8	1125.1	1110.2	1095.2
27.5°	1098.9	1091.5	1076.5	1062.3
30°	1063.1	1055.6	1040.7	1026.5
32.5°	1025.0	1019.0	1004.1	988.3
35°	986.1	978.6	963.7	948.7
37.5°	945.0	938.2	924.0	909.8
40°	901.6	894.9	880.0	865.7
42.5°	859.0	853.0	838.8	825.4
45°	813.4	807.4	793.9	781.9
47.5°	767.7	761.8	749.1	736.4
50°	721.5	715.5	703.5	692.2
52.5°	672.9	668.4	657.1	646.0
55°	624.2	619.0	607.8	598.1
57.5°	575.6	571.9	561.4	551.7
60°	525.5	521.1	512.8	504.6
62.5°	477.0	473.3	465.0	457.5
65°	425.4	422.4	415.6	408.9
67.5°	372.3	370.1	363.4	357.4
70°	321.5	317.7	312.5	307.3
72.5°	269.9	268.4	263.9	259.5
75°	220.5	219.1	214.5	210.9
77.5°	174.2	172.7	168.9	165.2
80°	128.6	127.9	124.8	121.9
82.5°	88.2	87.5	85.2	82.2
85°	53.1	51.5	49.3	47.1
87.5°	23.1	22.4	20.2	18.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)