

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-35L835-X-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-35L835-X-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient Light w/ Nature Pattern Lens
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

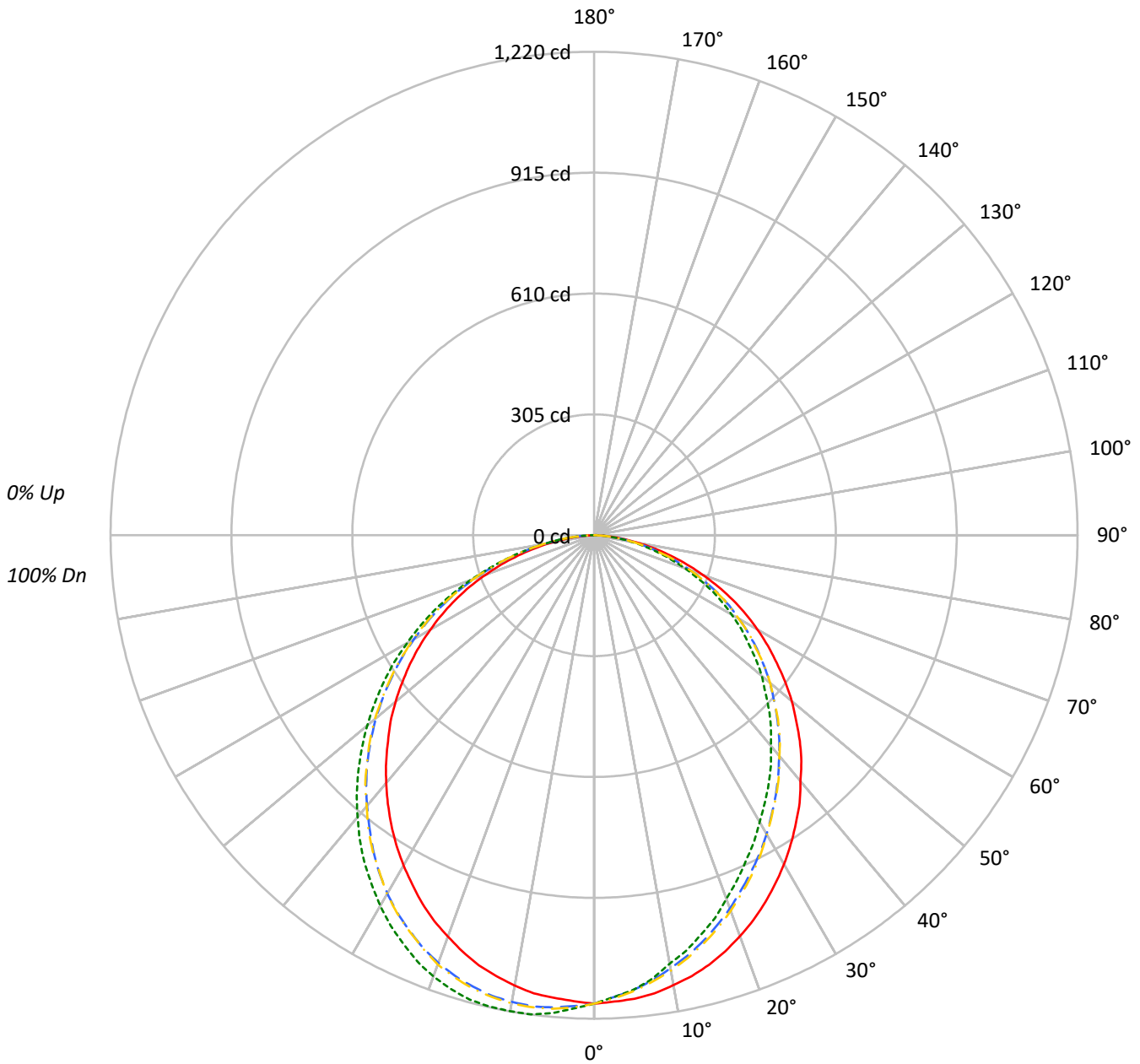
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3170.3 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
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



— 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	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	61	61	61	59
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	41	41	41	41	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	32	32	32	30
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	29	29	29	27
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°	10906	10906	10906	10906
5°	10874	10663	10849	11208
10°	10799	10285	10811	11425
15°	10716	9963	10729	11585
20°	10568	9584	10582	11633
25°	10401	9229	10441	11584
30°	10215	8904	10243	11496
35°	10001	8646	10046	11371
40°	9759	8359	9824	11177
45°	9578	8148	9597	10975
50°	9347	7927	9386	10729
55°	9056	7636	9119	10431
60°	8783	7403	8809	10066
65°	8436	7093	8436	9634
70°	7863	6566	7828	8980
75°	7151	5960	7055	8056
80°	6185	5117	5967	6891
85°	4817	3822	4531	5663



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.7	3.5
10°-20°	317.0	10.0
20°-30°	471.3	14.9
30°-40°	555.4	17.5
40°-50°	565.6	17.8
50°-60°	503.8	15.9
60°-70°	379.6	12.0
70°-80°	211.1	6.7
80°-90°	54.8	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°	899.9	28.4
0°-40°	1455.4	45.9
0°-60°	2524.8	79.6
0°-90°	3170.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3170.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1182	1182	1182	1182	1182	
5°	1174	1151	1171	1210	1174	111
15°	1122	1043	1123	1213	1122	316
25°	1022	907	1026	1138	1022	471
35°	888	768	892	1010	888	555
45°	734	624	736	841	734	566
55°	563	475	567	648	563	504
65°	386	325	386	441	386	381
75°	201	167	198	226	201	213
85°	46	36	43	54	46	55
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°	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1
2.5°	1178.0	1178.0	1179.4	1174.1	1167.3	1164.7	1163.4	1162.0	1164.7	1166.1	1164.7
5°	1174.1	1171.4	1168.7	1162.0	1154.0	1148.6	1146.0	1144.7	1147.3	1151.3	1147.3
7.5°	1166.1	1160.7	1155.4	1146.0	1136.6	1128.6	1124.6	1121.9	1124.6	1128.6	1125.9
10°	1152.7	1146.0	1137.9	1127.2	1113.9	1104.6	1100.5	1096.5	1097.8	1097.8	1097.8
12.5°	1139.3	1129.9	1120.6	1107.2	1092.5	1081.8	1075.1	1069.8	1072.5	1073.8	1073.8
15°	1121.9	1109.9	1096.5	1081.8	1067.1	1055.0	1047.0	1041.7	1043.1	1043.1	1044.3
17.5°	1100.5	1087.1	1073.8	1056.4	1039.0	1025.6	1016.3	1009.6	1012.3	1013.6	1014.9
20°	1076.4	1061.8	1047.0	1028.3	1009.6	994.9	985.5	977.5	976.1	976.1	977.5
22.5°	1051.1	1035.0	1017.6	997.6	977.5	961.5	952.1	944.0	942.7	942.7	944.0
25°	1021.7	1004.2	986.8	966.8	945.4	929.4	917.3	909.3	908.0	906.6	909.3
27.5°	990.9	973.4	956.1	936.0	913.3	897.3	885.2	877.2	874.5	873.2	875.9
30°	958.8	938.7	920.0	898.6	878.6	862.5	850.5	841.1	838.5	835.8	838.5
32.5°	924.0	903.9	883.9	862.5	842.4	826.4	814.4	805.0	802.3	801.0	803.7
35°	887.9	867.9	849.2	827.8	807.7	791.6	779.6	771.5	768.9	767.6	768.9
37.5°	851.8	831.7	813.0	791.6	771.5	755.5	743.5	735.5	734.1	732.8	734.1
40°	810.3	793.0	774.2	754.2	734.1	718.1	708.7	699.3	696.7	694.0	698.0
42.5°	774.2	756.9	738.2	719.4	699.3	683.3	672.6	664.6	661.9	660.6	661.9
45°	734.1	715.4	696.7	679.3	660.6	645.9	635.2	627.1	625.9	624.5	625.9
47.5°	691.3	675.3	659.2	641.9	623.2	608.4	599.1	591.0	588.3	585.7	588.3
50°	651.2	635.2	619.1	603.1	585.7	572.3	563.0	555.0	553.6	552.3	553.6
52.5°	608.4	592.4	577.6	561.6	546.9	533.6	524.2	517.5	516.1	514.8	516.1
55°	563.0	549.6	536.2	522.9	508.1	496.1	488.1	480.1	477.4	474.7	477.4
57.5°	520.2	508.1	494.7	481.4	468.0	457.3	449.3	442.7	441.3	440.0	441.3
60°	476.0	465.3	453.3	441.3	427.9	417.2	410.6	405.2	402.5	401.2	402.5
62.5°	432.0	421.3	411.9	399.9	387.8	379.8	373.0	367.7	365.0	363.7	365.0
65°	386.4	377.1	367.7	357.0	347.7	339.7	332.9	327.6	326.3	324.9	324.9
67.5°	339.7	331.6	323.6	314.2	303.5	295.5	288.9	284.8	283.5	282.1	283.5
70°	291.5	284.8	276.8	268.8	260.7	254.1	250.0	246.1	244.7	243.4	243.4
72.5°	246.1	240.7	234.0	227.4	220.6	214.0	209.9	207.3	206.0	204.6	204.6
75°	200.6	195.2	191.2	185.9	179.1	175.2	171.1	168.4	167.2	167.2	167.2
77.5°	157.8	153.8	149.7	144.4	140.4	136.4	133.7	132.4	131.0	131.0	131.0
80°	116.4	113.7	111.0	108.3	104.3	100.3	98.9	97.6	96.3	96.3	96.3
82.5°	78.9	77.5	74.9	72.2	69.5	68.2	66.8	65.6	65.6	65.6	65.6
85°	45.5	44.2	42.8	41.5	40.1	40.1	38.8	37.4	36.1	36.1	36.1
87.5°	18.7	18.7	18.7	17.4	16.0	16.0	16.0	16.0	16.0	16.0	16.0
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°	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1
2.5°	1162.0	1164.7	1167.3	1171.4	1175.4	1179.4	1178.0	1176.7	1182.1	1188.7	1190.1
5°	1144.7	1147.3	1151.3	1158.0	1164.7	1170.0	1171.4	1171.4	1182.1	1191.5	1194.2
7.5°	1123.3	1127.2	1132.6	1139.3	1148.6	1156.6	1160.7	1166.1	1176.7	1188.7	1194.2
10°	1096.5	1103.2	1111.2	1120.6	1129.9	1139.3	1147.3	1154.0	1167.3	1180.7	1188.7
12.5°	1072.5	1079.1	1087.1	1097.8	1109.9	1121.9	1129.9	1139.3	1155.4	1171.4	1180.7
15°	1045.7	1052.4	1061.8	1072.5	1085.8	1099.2	1111.2	1123.3	1139.3	1156.6	1167.3
17.5°	1016.3	1023.0	1032.4	1045.7	1060.4	1075.1	1088.5	1101.9	1120.6	1139.3	1151.3
20°	980.2	989.5	1001.6	1014.9	1032.4	1049.7	1063.1	1077.8	1097.8	1117.9	1131.3
22.5°	945.4	954.7	968.1	984.1	1003.0	1021.7	1037.7	1053.8	1075.1	1095.2	1109.9
25°	912.0	922.6	936.0	952.1	969.5	988.2	1006.9	1025.6	1047.0	1068.4	1083.2
27.5°	878.6	887.9	901.3	917.3	937.4	956.1	974.8	993.5	1016.3	1039.0	1055.0
30°	841.1	851.8	863.8	879.9	901.3	922.6	941.4	961.5	984.1	1006.9	1023.0
32.5°	806.4	815.7	827.8	843.8	865.2	886.6	906.6	928.0	949.4	972.2	988.2
35°	771.5	780.9	793.0	809.1	830.4	851.8	871.8	891.9	913.3	934.7	950.8
37.5°	736.8	746.2	758.2	774.2	794.3	815.7	834.4	854.5	875.9	897.3	912.0
40°	700.7	710.0	719.4	735.5	755.5	776.9	795.7	815.7	837.1	858.5	873.2
42.5°	664.6	674.0	686.0	702.0	720.7	739.4	758.2	776.9	797.0	817.1	831.7
45°	628.5	636.5	648.5	663.3	682.0	699.3	718.1	735.5	755.5	774.2	789.0
47.5°	591.0	599.1	608.4	623.2	641.9	660.6	679.3	696.7	714.1	732.8	746.2
50°	555.0	563.0	573.7	587.0	604.5	621.8	637.8	653.9	671.3	688.6	700.7
52.5°	517.5	525.5	534.9	548.2	563.0	579.0	593.7	609.8	625.9	641.9	653.9
55°	480.1	485.4	493.5	505.4	521.5	537.5	552.3	566.9	581.7	595.1	607.1
57.5°	442.7	449.3	458.7	469.4	482.8	496.1	509.5	522.9	536.2	549.6	560.3
60°	405.2	410.6	417.2	426.6	440.0	452.0	465.3	477.4	489.4	501.5	510.8
62.5°	366.4	371.8	378.4	387.8	398.5	409.2	421.3	432.0	442.7	453.3	462.7
65°	326.3	331.6	338.3	346.3	355.7	365.0	375.7	386.4	394.4	402.5	411.9
67.5°	284.8	290.2	296.9	303.5	311.5	320.9	330.3	339.7	347.7	355.7	362.3
70°	244.7	248.8	255.4	260.7	267.5	274.1	282.1	290.2	295.5	302.2	310.3
72.5°	206.0	209.9	215.3	220.6	224.7	230.0	238.1	244.7	251.4	259.5	263.4
75°	168.4	171.1	175.2	179.1	183.2	187.2	192.5	197.9	203.3	207.3	212.6
77.5°	131.0	133.7	137.7	140.4	143.1	145.8	149.7	153.8	157.8	160.4	165.8
80°	96.3	98.9	101.6	104.3	107.0	109.6	111.0	112.3	117.6	121.7	124.4
82.5°	65.6	66.8	68.2	70.9	72.2	73.6	74.9	74.9	77.5	80.2	84.3
85°	37.4	38.8	40.1	40.1	40.1	40.1	41.5	42.8	44.2	46.8	49.5
87.5°	14.8	14.8	16.0	16.0	16.0	16.0	16.0	16.0	17.4	20.1	21.4
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°	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1
2.5°	1188.7	1190.1	1192.8	1194.2	1195.5	1195.5	1196.8	1198.1	1195.5	1192.8	1191.5
5°	1195.5	1196.8	1200.8	1204.9	1207.5	1210.2	1208.8	1207.5	1204.9	1200.8	1198.1
7.5°	1196.8	1200.8	1204.9	1210.2	1214.2	1219.5	1216.9	1214.2	1208.8	1203.5	1199.5
10°	1192.8	1198.1	1204.9	1211.5	1215.6	1219.5	1216.9	1214.2	1208.8	1202.2	1196.8
12.5°	1187.4	1194.2	1202.2	1208.8	1212.9	1218.2	1214.2	1210.2	1203.5	1196.8	1190.1
15°	1175.4	1183.4	1192.8	1200.8	1207.5	1212.9	1208.8	1206.2	1198.1	1188.7	1179.4
17.5°	1160.7	1171.4	1180.7	1190.1	1195.5	1200.8	1198.1	1195.5	1186.1	1175.4	1164.7
20°	1143.3	1154.0	1163.4	1172.7	1179.4	1184.8	1180.7	1176.7	1167.3	1158.0	1147.3
22.5°	1121.9	1132.6	1143.3	1152.7	1159.3	1164.7	1159.3	1152.7	1143.3	1134.0	1123.3
25°	1095.2	1107.2	1119.2	1128.6	1132.6	1137.9	1132.6	1127.2	1117.9	1108.5	1096.5
27.5°	1068.4	1080.5	1092.5	1101.9	1105.8	1111.2	1105.8	1100.5	1091.2	1081.8	1069.8
30°	1037.7	1049.7	1061.8	1071.1	1075.1	1079.1	1073.8	1068.4	1060.4	1051.1	1039.0
32.5°	1003.0	1014.9	1024.3	1033.7	1039.0	1044.3	1039.0	1035.0	1025.6	1013.6	1001.6
35°	965.4	977.5	989.5	998.9	1004.2	1009.6	1003.0	996.2	988.2	978.8	968.1
37.5°	924.0	937.4	950.8	961.5	965.4	970.8	965.4	958.8	950.8	941.4	929.4
40°	885.2	897.3	909.3	920.0	924.0	928.0	922.6	917.3	908.0	898.6	886.6
42.5°	845.1	857.2	867.9	877.2	881.2	886.6	881.2	874.5	867.9	859.9	849.2
45°	802.3	814.4	823.7	833.1	837.1	841.1	835.8	829.1	822.4	815.7	805.0
47.5°	758.2	768.9	778.3	787.6	790.2	794.3	789.0	784.9	778.3	771.5	762.2
50°	712.7	723.4	732.8	740.8	743.5	747.5	742.1	736.8	731.4	726.1	718.1
52.5°	666.0	675.3	684.7	692.7	695.4	698.0	692.7	687.4	682.0	676.7	668.6
55°	617.8	627.1	636.5	643.2	645.9	648.5	643.2	639.2	633.9	629.8	621.8
57.5°	569.6	579.0	587.0	593.7	596.4	599.1	593.7	588.3	584.4	580.3	573.7
60°	520.2	529.5	536.2	541.6	544.3	545.5	540.2	536.2	533.6	530.9	524.2
62.5°	472.1	478.7	485.4	489.4	492.1	493.5	489.4	486.7	484.1	481.4	476.0
65°	421.3	429.3	434.6	438.6	440.0	441.3	437.3	434.6	432.0	429.3	425.2
67.5°	370.4	377.1	381.1	385.1	386.4	386.4	386.4	385.1	382.4	378.4	374.4
70°	319.6	324.9	329.0	331.6	332.9	332.9	330.3	327.6	327.6	326.3	323.6
72.5°	267.5	271.4	274.1	276.8	276.8	276.8	276.8	278.2	276.8	274.1	270.1
75°	218.0	222.0	224.7	226.0	226.0	226.0	226.0	227.4	226.0	224.7	222.0
77.5°	171.1	173.8	175.2	176.5	176.5	176.5	177.9	179.1	177.9	176.5	175.2
80°	127.1	128.3	129.7	131.0	129.7	129.7	131.0	133.7	132.4	131.0	129.7
82.5°	86.9	88.2	89.6	89.6	90.9	92.3	92.3	92.3	92.3	90.9	89.6
85°	52.2	53.5	53.5	53.5	53.5	53.5	54.9	56.1	56.1	54.9	54.9
87.5°	24.1	25.4	24.1	22.8	21.4	21.4	24.1	26.7	26.7	25.4	25.4
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-35L835-X-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1182.1	1182.1	1182.1	1182.1
2.5°	1192.8	1191.5	1184.8	1178.0
5°	1196.8	1192.8	1183.4	1174.1
7.5°	1196.8	1191.5	1178.0	1166.1
10°	1190.1	1182.1	1167.3	1152.7
12.5°	1182.1	1172.7	1155.4	1139.3
15°	1170.0	1159.3	1140.6	1121.9
17.5°	1152.7	1139.3	1120.6	1100.5
20°	1135.3	1120.6	1097.8	1076.4
22.5°	1111.2	1097.8	1073.8	1051.1
25°	1084.5	1069.8	1045.7	1021.7
27.5°	1056.4	1039.0	1014.9	990.9
30°	1024.3	1006.9	982.9	958.8
32.5°	989.5	973.4	949.4	924.0
35°	954.7	937.4	913.3	887.9
37.5°	916.0	900.0	875.9	851.8
40°	874.5	858.5	834.4	810.3
42.5°	835.8	821.0	797.0	774.2
45°	793.0	778.3	755.5	734.1
47.5°	748.8	734.1	712.7	691.3
50°	706.1	691.3	671.3	651.2
52.5°	657.9	645.9	627.1	608.4
55°	611.1	599.1	580.3	563.0
57.5°	564.3	553.6	536.2	520.2
60°	514.8	504.1	490.8	476.0
62.5°	468.0	458.7	445.3	432.0
65°	418.6	410.6	398.5	386.4
67.5°	367.7	361.1	350.4	339.7
70°	316.9	308.9	300.8	291.5
72.5°	266.1	262.1	254.1	246.1
75°	218.0	214.0	207.3	200.6
77.5°	172.5	168.4	163.1	157.8
80°	127.1	124.4	120.3	116.4
82.5°	88.2	85.6	82.9	78.9
85°	53.5	50.8	48.1	45.5
87.5°	24.1	22.8	20.1	18.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)