

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: METALUX

Report Number: P#

Luminaire Tested: **4SNLED-LD5-37SL-LN-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33519)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

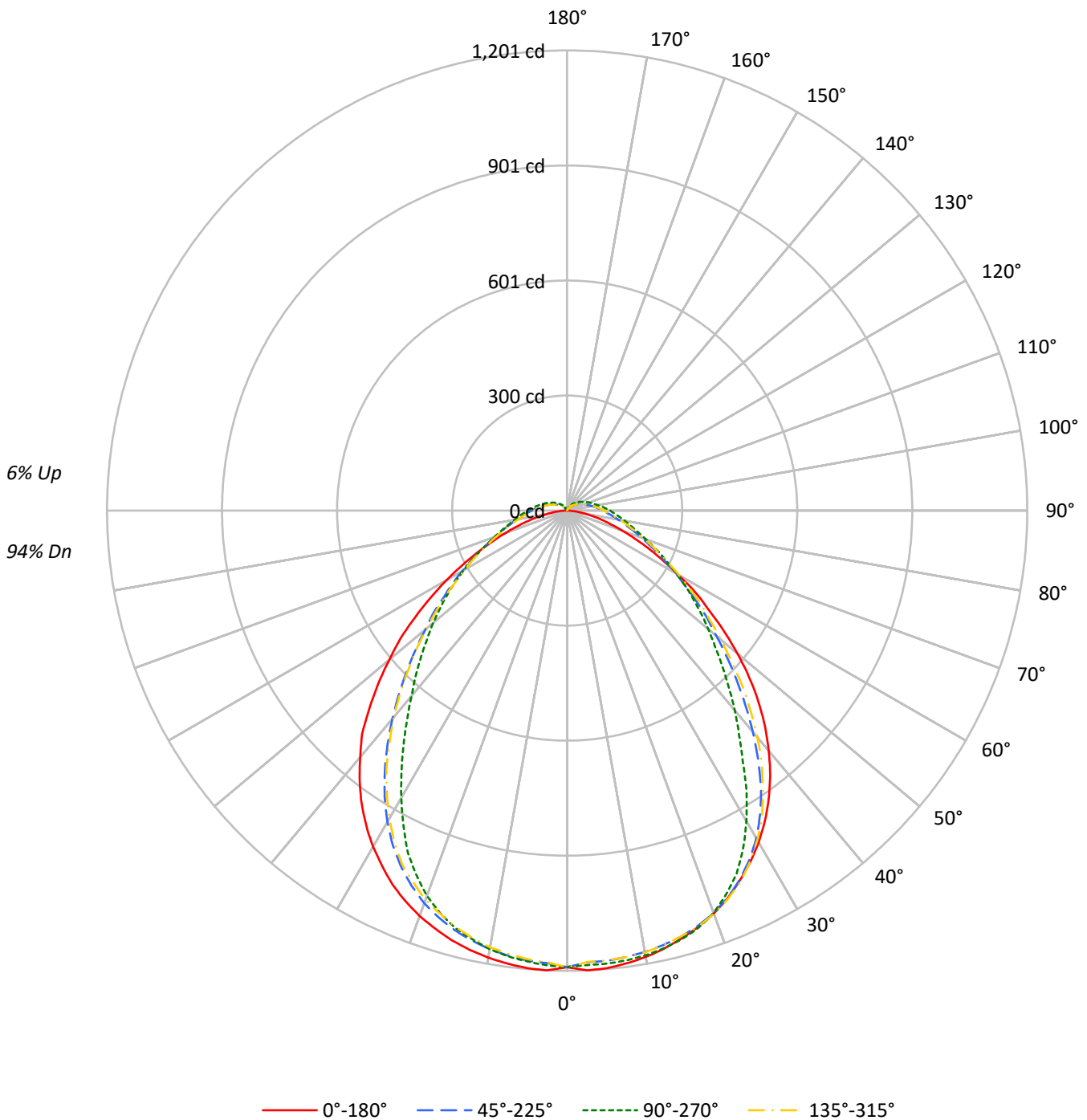
Lumens per Lamp: N/A
Luminaire Lumens: 3015.0 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 28
Input Voltage (V): NR
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	0
RCR																		
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81	79
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69	67
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60	57
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52	50
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46	44
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41	39
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37	35
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30	28
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9628	9628	9628	9628
5°	9696	9321	9696	9279
10°	9652	9073	9669	8947
15°	9591	8802	9634	8573
20°	9517	8453	9573	8096
25°	9364	7936	9468	7469
30°	9166	7177	9286	6644
35°	8856	6246	9027	5815
40°	8414	5462	8636	5068
45°	7828	4748	8083	4476
50°	7029	4172	7339	3962
55°	6081	3684	6522	3498
60°	5115	3235	5576	3049
65°	4192	2860	4614	2652
70°	3336	2538	3736	2347
75°	2620	2343	2950	2156
80°	1890	2261	2230	2066
85°	1161	2275	1564	2091



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.9	3.7
10°-20°	323.9	10.7
20°-30°	480.0	15.9
30°-40°	533.3	17.7
40°-50°	483.4	16.0
50°-60°	374.6	12.4
60°-70°	254.4	8.4
70°-80°	161.8	5.4
80°-90°	103.5	3.4
90°-100°	69.8	2.3
100°-110°	47.8	1.6
110°-120°	31.9	1.1
120°-130°	19.8	0.7
130°-140°	11.0	0.4
140°-150°	5.2	0.2
150°-160°	1.9	0.1
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	916.8	30.4
0°-40°	1450.1	48.1
0°-60°	2308.0	76.6
0°-90°	2827.7	93.8
90°-120°	149.4	5.0
90°-150°	185.4	6.1
90°-180°	187.0	6.2
0°-180°	3015.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1191	1191	1191	1191	1191	
5°	1199	1187	1199	1182	1199	114
15°	1156	1158	1161	1128	1156	326
25°	1066	1046	1077	984	1066	491
35°	917	800	935	744	917	572
45°	706	571	729	539	706	543
55°	451	402	484	381	451	406
65°	234	270	258	250	234	235
75°	94	180	106	166	94	101
85°	17	130	23	119	17	20
90°	0	112	1	102	0	1
95°	1	96	0	89	1	1
105°	1	70	0	66	1	1
115°	1	53	0	49	1	1
125°	1	39	1	35	1	1
135°	1	28	1	22	1	1
145°	1	18	1	12	1	0
155°	1	10	1	5	1	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1201.2	1199.9	1198.6	1196.6	1198.6	1203.8	1200.5	1193.3	1192.0	1180.2	1185.5
5°	1198.6	1196.6	1195.3	1193.3	1195.9	1202.5	1199.2	1192.7	1190.7	1179.6	1185.5
7.5°	1192.0	1190.7	1188.7	1188.7	1191.4	1197.9	1195.3	1188.1	1186.8	1175.6	1182.2
10°	1182.8	1182.2	1180.9	1180.9	1183.5	1191.4	1188.1	1181.5	1180.2	1169.7	1176.9
12.5°	1171.0	1171.7	1169.7	1169.7	1173.7	1181.5	1178.9	1171.7	1170.4	1161.2	1168.4
15°	1156.0	1156.6	1155.3	1156.0	1159.9	1169.1	1165.8	1159.2	1157.9	1150.7	1156.6
17.5°	1138.9	1139.6	1139.6	1138.9	1143.5	1152.7	1150.1	1144.2	1142.2	1136.3	1143.5
20°	1119.3	1119.3	1119.3	1119.3	1124.5	1133.7	1130.4	1125.8	1121.9	1117.3	1123.2
22.5°	1095.0	1094.4	1095.0	1097.0	1102.2	1109.4	1107.5	1102.2	1096.3	1093.7	1098.3
25°	1065.5	1067.5	1068.2	1070.1	1076.7	1082.6	1080.6	1075.4	1066.2	1064.2	1065.5
27.5°	1034.7	1036.0	1038.0	1037.4	1046.5	1052.4	1048.5	1043.9	1030.8	1028.8	1027.5
30°	1000.0	1002.0	1003.3	1002.6	1009.8	1016.4	1012.5	1006.6	988.9	987.6	977.1
32.5°	960.7	962.6	964.0	964.0	974.4	977.1	969.9	961.3	942.3	937.7	928.6
35°	917.4	919.4	920.1	920.1	930.5	929.9	920.7	908.9	887.9	882.0	866.3
37.5°	870.9	872.2	872.9	876.8	881.4	877.5	865.7	850.6	834.9	818.5	801.4
40°	818.5	820.4	821.8	824.4	829.0	824.4	807.3	789.0	772.0	753.6	736.6
42.5°	764.7	770.6	769.3	768.7	771.3	758.8	745.7	724.8	707.7	688.7	671.7
45°	706.4	705.8	709.0	710.4	709.7	699.2	680.9	661.9	644.8	625.2	610.7
47.5°	644.8	644.2	646.8	648.1	644.2	633.0	618.6	597.0	582.6	565.5	554.4
50°	579.9	579.9	583.9	579.9	578.0	566.8	555.0	533.4	522.3	507.2	500.7
52.5°	515.1	521.0	517.0	515.7	513.8	502.6	493.4	475.8	466.6	460.0	452.2
55°	450.9	457.4	454.8	452.8	452.2	443.0	434.5	421.4	415.5	410.9	406.3
57.5°	396.5	395.8	394.5	392.5	393.2	386.0	377.5	370.2	367.6	365.7	367.0
60°	333.6	338.8	336.8	337.5	338.1	336.8	329.6	325.0	325.7	326.3	328.3
62.5°	281.8	286.4	289.6	287.0	288.3	290.3	286.4	285.1	287.7	290.3	292.9
65°	233.9	238.5	241.8	241.2	245.1	249.0	248.4	249.7	255.6	258.8	262.1
67.5°	190.7	195.3	199.9	200.5	206.4	212.3	214.9	219.5	226.1	230.7	234.6
70°	153.3	157.3	162.5	165.8	173.7	181.5	186.1	195.3	199.2	205.8	208.4
72.5°	119.9	123.2	130.4	138.3	144.8	154.7	163.8	171.7	177.6	184.8	188.1
75°	93.7	95.0	102.9	112.1	121.2	132.4	142.2	150.7	158.6	165.8	171.0
77.5°	68.8	70.8	78.0	90.4	100.9	112.7	123.9	133.0	141.5	148.8	156.0
80°	47.8	51.8	59.6	72.1	83.9	97.0	107.5	118.0	127.1	134.3	141.5
82.5°	30.8	34.1	45.2	57.7	70.1	83.2	94.4	104.8	114.7	122.5	129.1
85°	17.0	21.6	32.8	45.9	58.3	71.4	83.2	93.7	103.5	110.7	117.3
87.5°	6.6	13.1	23.6	36.0	48.5	60.9	73.4	83.2	93.1	100.9	106.8
90°	0.0	7.9	17.7	30.1	42.6	55.0	66.8	77.3	86.5	93.7	100.3
92.5°	0.7	5.2	13.8	24.2	36.0	47.8	59.0	69.5	78.6	85.8	91.7
95°	0.7	3.9	11.1	21.0	31.5	42.6	53.1	62.9	71.4	78.6	84.5
97.5°	0.7	2.6	9.2	18.3	27.5	38.7	48.5	57.7	65.5	72.7	77.3
100°	0.7	2.6	7.9	15.7	24.9	34.7	43.9	53.1	60.3	66.2	71.4
102.5°	0.7	2.0	6.6	13.8	22.3	30.8	40.0	48.5	55.0	60.9	66.2
105°	0.7	2.0	5.9	11.8	19.7	28.2	36.0	43.9	51.1	56.4	60.9
107.5°	0.7	1.3	5.2	9.8	17.0	25.6	33.4	40.0	46.5	51.8	56.4
110°	0.7	1.3	4.6	9.2	15.1	22.9	30.1	36.7	42.6	47.8	51.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.7	1.3	3.9	8.5	13.8	20.3	27.5	33.4	39.3	43.9	47.8
115°	0.7	1.3	3.9	7.9	12.5	17.7	24.2	30.8	35.4	40.6	43.9
117.5°	0.7	1.3	3.3	6.6	11.8	16.4	22.3	27.5	32.8	37.4	40.6
120°	0.7	1.3	3.3	5.9	10.5	15.1	19.7	24.9	30.1	33.4	36.7
122.5°	0.7	1.3	2.6	5.9	9.2	13.8	17.7	22.3	26.9	30.8	34.1
125°	0.7	1.3	2.6	5.2	8.5	12.5	16.4	19.7	24.2	27.5	30.8
127.5°	0.7	1.3	2.6	4.6	7.9	11.1	15.1	18.3	21.6	24.9	27.5
130°	0.7	1.3	2.0	3.9	7.2	9.8	13.1	17.0	19.7	22.3	24.9
132.5°	0.7	1.3	2.0	3.9	5.9	8.5	11.8	15.1	17.7	20.3	22.3
135°	0.7	1.3	2.0	3.3	5.2	7.9	9.8	13.1	15.7	18.3	20.3
137.5°	0.7	1.3	2.0	3.3	4.6	6.6	8.5	11.1	13.8	15.7	18.3
140°	0.7	1.3	2.0	2.6	3.9	5.9	7.9	9.2	11.8	13.8	15.7
142.5°	0.7	1.3	2.0	2.6	3.9	5.2	6.6	7.9	9.8	11.8	13.8
145°	0.7	1.3	2.0	2.6	3.3	4.6	5.9	7.2	7.9	9.8	11.1
147.5°	0.7	1.3	2.0	2.6	2.6	3.9	5.2	5.9	7.2	7.9	9.2
150°	0.7	1.3	2.0	2.0	2.6	3.3	4.6	5.2	5.9	7.2	7.9
152.5°	0.7	1.3	2.0	2.0	2.6	3.3	3.9	4.6	5.2	5.9	6.6
155°	0.7	1.3	2.0	2.0	2.0	2.6	3.3	3.9	4.6	5.2	5.9
157.5°	1.3	1.3	1.3	2.0	2.0	2.6	2.6	3.3	3.9	3.9	4.6
160°	1.3	1.3	1.3	2.0	2.0	2.0	2.6	2.6	3.3	3.3	3.9
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°	95°	100°	105°
0°	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1184.1	1186.1	1192.0	1192.0	1190.7	1189.4	1189.4	1187.4	1188.7	1191.4	1190.0
5°	1184.1	1186.1	1192.0	1192.0	1190.7	1189.4	1188.7	1186.8	1188.7	1191.4	1190.0
7.5°	1180.2	1182.8	1188.7	1188.7	1187.4	1186.8	1185.5	1184.1	1186.1	1188.7	1187.4
10°	1175.0	1177.6	1183.5	1183.5	1182.2	1182.2	1180.2	1178.9	1181.5	1183.5	1182.8
12.5°	1167.1	1170.4	1175.6	1175.0	1173.7	1174.3	1172.3	1169.7	1172.3	1174.3	1175.0
15°	1156.0	1159.9	1165.1	1163.8	1161.9	1163.2	1159.9	1157.9	1159.9	1163.8	1163.2
17.5°	1141.5	1144.2	1148.1	1148.1	1146.1	1144.8	1143.5	1141.5	1142.9	1145.5	1146.1
20°	1121.2	1124.5	1126.5	1124.5	1123.9	1121.9	1119.3	1117.3	1119.9	1123.9	1124.5
22.5°	1094.4	1095.0	1099.6	1095.0	1091.7	1091.1	1088.5	1084.5	1088.5	1091.7	1092.4
25°	1060.9	1064.2	1062.3	1054.4	1054.4	1049.2	1047.8	1045.9	1046.5	1052.4	1055.0
27.5°	1018.4	1019.7	1014.4	1007.9	1002.0	998.7	994.1	994.8	994.8	1002.6	1005.2
30°	971.8	964.6	960.0	949.5	945.0	937.1	935.8	935.8	934.5	938.4	950.2
32.5°	916.1	906.3	899.1	889.3	881.4	873.5	869.6	871.6	870.9	880.7	884.7
35°	855.2	849.3	834.2	821.8	817.2	805.4	805.4	799.5	803.4	814.5	819.1
37.5°	791.0	781.8	769.3	755.6	752.3	743.1	739.8	736.6	745.1	747.1	751.6
40°	725.4	716.9	705.1	692.0	692.0	680.9	680.9	680.9	681.5	685.5	694.0
42.5°	663.2	654.0	643.5	634.3	633.0	624.5	624.5	623.9	625.2	628.4	636.3
45°	602.9	595.7	584.5	579.9	580.6	571.4	573.4	571.4	574.1	577.3	579.9
47.5°	547.2	542.6	538.0	531.5	529.5	528.8	525.6	522.9	527.5	527.5	531.5
50°	495.4	492.8	490.2	486.2	486.9	484.3	480.3	480.3	483.6	484.3	486.9
52.5°	450.2	446.9	443.6	444.3	445.0	443.6	441.7	439.7	441.7	443.0	446.3
55°	405.0	402.4	405.6	404.3	405.6	404.3	403.0	401.7	405.0	403.0	406.3
57.5°	364.4	367.0	368.3	365.7	367.6	366.3	367.0	365.0	367.6	368.9	368.3
60°	327.0	330.9	329.0	329.6	332.2	330.9	328.3	330.3	332.9	333.6	332.9
62.5°	292.9	297.5	299.5	298.2	298.8	297.5	299.5	296.9	300.1	301.4	299.5
65°	262.1	267.4	268.7	268.7	268.7	267.4	269.3	270.0	271.3	271.3	270.0
67.5°	235.9	240.5	241.8	243.1	241.8	240.5	240.5	241.2	243.8	245.1	243.8
70°	212.3	216.9	217.6	217.6	218.2	219.5	216.9	218.2	220.2	220.8	220.2
72.5°	192.0	196.6	197.9	197.2	197.9	198.6	198.6	197.2	199.2	200.5	200.5
75°	175.6	178.2	179.6	179.6	180.2	180.9	180.9	180.2	181.5	182.2	182.8
77.5°	160.6	162.5	164.5	164.5	165.1	164.5	165.8	165.8	166.4	167.1	167.8
80°	145.5	148.1	149.4	150.1	151.4	152.0	152.0	152.0	152.7	153.3	153.3
82.5°	133.7	135.6	137.6	139.6	139.6	140.2	140.2	140.2	140.9	140.9	141.5
85°	121.9	124.5	126.5	127.8	128.4	129.1	129.1	129.8	129.8	129.8	130.4
87.5°	111.4	114.7	116.0	117.3	118.0	119.3	119.3	119.3	119.9	119.9	119.9
90°	104.2	107.5	108.8	110.1	110.7	111.4	111.4	112.1	112.1	112.7	112.7
92.5°	95.7	99.0	101.6	101.6	102.2	103.5	102.9	102.9	103.5	104.2	104.2
95°	89.1	91.7	93.7	94.4	95.0	95.0	95.0	95.7	95.0	95.7	95.7
97.5°	81.3	83.9	85.8	87.2	87.8	87.8	87.8	88.5	87.8	88.5	88.5
100°	74.7	77.3	79.3	79.9	81.3	81.3	81.3	81.3	81.3	81.3	81.9
102.5°	69.5	72.1	73.4	74.0	74.7	75.4	75.4	75.4	75.4	76.0	76.0
105°	64.2	66.8	68.2	68.8	69.5	70.1	70.1	70.1	70.8	70.8	70.1
107.5°	59.6	61.6	62.9	64.2	64.9	64.9	65.5	65.5	65.5	65.5	65.5
110°	55.0	57.0	59.0	60.3	60.3	60.9	60.9	61.6	61.6	60.9	61.6



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	50.5	53.1	54.4	55.7	56.4	57.0	57.0	57.0	57.0	57.0	57.0
115°	46.5	49.1	50.5	51.8	52.4	53.1	53.1	53.1	53.1	53.1	53.1
117.5°	43.3	45.9	47.2	47.8	48.5	49.1	49.8	49.8	49.8	49.8	49.1
120°	40.0	41.9	43.3	44.6	45.2	45.9	45.9	45.9	45.9	45.9	45.9
122.5°	36.7	38.7	40.0	41.3	41.9	42.6	42.6	42.6	42.6	42.6	42.6
125°	33.4	35.4	36.7	38.0	38.7	39.3	39.3	39.3	39.3	39.3	39.3
127.5°	30.1	32.1	34.1	34.7	35.4	36.0	36.0	36.0	36.7	36.0	36.0
130°	26.9	28.8	30.8	31.5	32.1	32.8	33.4	33.4	33.4	33.4	32.8
132.5°	24.2	26.2	27.5	28.2	29.5	29.5	30.1	30.1	30.1	30.1	29.5
135°	22.3	23.6	24.9	25.6	26.9	26.9	26.9	27.5	27.5	26.9	26.2
137.5°	19.7	21.0	22.3	22.9	23.6	24.2	24.2	24.9	24.2	24.2	24.2
140°	18.3	19.0	20.3	21.0	21.6	21.6	21.6	22.3	22.3	21.6	21.6
142.5°	15.7	17.0	18.3	19.0	19.7	19.7	19.7	19.7	19.7	19.7	19.7
145°	13.1	15.1	15.7	17.0	17.0	17.7	17.7	17.7	17.7	17.7	17.0
147.5°	11.1	12.5	14.4	15.1	15.1	15.7	15.7	15.7	15.7	15.7	15.1
150°	8.5	9.8	11.8	13.1	13.1	13.8	13.8	13.8	13.8	13.8	13.1
152.5°	7.2	8.5	9.2	10.5	11.1	11.1	11.1	11.8	11.1	11.1	11.1
155°	6.6	7.2	7.9	8.5	9.2	9.8	9.8	9.8	9.8	9.8	9.2
157.5°	5.2	5.9	6.6	7.2	7.9	8.5	8.5	8.5	8.5	8.5	7.9
160°	3.9	4.6	5.2	5.2	5.9	6.6	7.2	6.6	6.6	6.6	6.6
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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1188.7	1188.1	1190.0	1186.8	1176.9	1179.6	1178.2	1184.1	1185.5	1186.8	1192.7
5°	1188.7	1188.1	1189.4	1186.8	1176.3	1178.2	1176.9	1182.8	1184.1	1184.8	1190.7
7.5°	1186.1	1185.5	1187.4	1184.1	1173.0	1175.6	1173.7	1179.6	1180.2	1180.9	1186.1
10°	1180.9	1180.2	1181.5	1178.9	1167.8	1170.4	1167.8	1173.7	1173.7	1175.0	1178.9
12.5°	1173.0	1171.7	1174.3	1171.0	1158.6	1161.9	1160.6	1164.5	1165.1	1165.8	1169.7
15°	1161.9	1160.6	1162.5	1160.6	1149.4	1150.1	1148.1	1154.0	1154.7	1153.3	1157.3
17.5°	1145.5	1144.2	1148.1	1146.8	1135.7	1138.3	1137.6	1138.9	1140.9	1137.6	1142.9
20°	1125.2	1126.5	1127.8	1128.4	1119.9	1119.9	1119.3	1121.9	1123.9	1121.2	1125.2
22.5°	1095.0	1098.3	1102.2	1103.5	1097.6	1097.0	1100.9	1099.6	1101.6	1100.3	1102.9
25°	1057.0	1063.6	1067.5	1071.4	1068.2	1069.5	1075.4	1076.7	1076.7	1076.0	1078.6
27.5°	1009.8	1018.4	1025.6	1034.1	1030.8	1033.4	1043.3	1044.6	1047.2	1044.6	1049.8
30°	953.5	961.3	975.1	987.6	988.9	992.8	1006.6	1007.9	1015.1	1012.5	1014.4
32.5°	897.1	901.1	916.8	929.2	937.1	946.9	962.0	964.6	974.4	976.4	976.4
35°	826.3	837.5	851.9	869.6	879.4	889.9	910.2	914.2	928.6	933.2	938.4
37.5°	766.7	777.2	786.4	804.7	822.4	834.2	850.6	860.4	875.5	884.0	890.6
40°	703.1	711.7	721.5	739.8	754.9	772.6	789.0	800.8	819.8	829.6	838.1
42.5°	642.9	649.4	659.9	673.0	688.7	708.4	724.1	737.9	758.2	772.0	781.8
45°	589.1	593.1	602.2	612.1	625.8	646.1	661.2	678.9	695.3	709.7	721.5
47.5°	538.7	543.9	548.5	555.0	567.5	579.9	597.6	614.7	631.1	646.8	658.6
50°	492.1	492.1	499.3	503.9	512.5	523.6	537.4	549.1	569.5	580.6	595.7
52.5°	446.9	449.5	453.5	456.1	462.6	469.9	481.0	490.8	507.9	518.3	532.8
55°	406.9	409.6	411.5	412.8	416.8	425.3	429.2	437.1	448.9	457.4	469.9
57.5°	368.9	370.2	372.2	372.9	373.5	378.8	382.0	384.0	395.8	404.3	414.8
60°	334.2	334.2	336.2	335.5	334.9	337.5	336.8	338.8	346.0	351.2	355.8
62.5°	301.4	301.4	302.1	300.8	300.1	300.1	297.5	299.5	301.4	302.1	305.4
65°	271.3	274.6	272.0	272.6	268.7	267.4	266.1	262.1	261.5	258.8	260.2
67.5°	244.4	247.1	244.4	244.4	241.2	238.5	235.3	228.7	226.7	221.5	220.2
70°	222.8	220.8	222.1	220.2	216.3	213.0	208.4	203.1	196.6	190.0	185.5
72.5°	201.8	201.8	200.5	198.6	196.6	190.0	184.8	178.9	171.0	162.5	156.0
75°	181.5	182.2	182.2	180.2	176.9	171.0	165.1	156.6	148.1	138.3	129.8
77.5°	167.1	167.1	167.1	163.8	160.6	155.3	148.1	138.9	129.8	118.0	108.1
80°	153.3	152.7	152.7	148.8	145.5	139.6	132.4	123.2	113.4	100.9	89.8
82.5°	142.2	141.5	140.2	137.0	132.4	126.5	119.3	109.4	99.0	87.8	74.0
85°	130.4	129.8	128.4	125.2	120.6	115.3	107.5	97.6	87.2	74.7	61.6
87.5°	119.9	119.3	117.3	115.3	110.1	104.2	96.3	87.2	76.0	64.2	51.1
90°	112.7	111.4	110.1	107.5	102.9	96.3	88.5	78.6	67.5	55.7	42.6
92.5°	104.2	103.5	101.6	99.0	95.0	88.5	80.6	71.4	60.3	49.1	36.7
95°	95.7	95.0	93.7	91.1	87.2	81.3	74.0	64.9	54.4	43.3	32.1
97.5°	87.8	87.8	85.8	83.9	79.3	74.7	67.5	59.0	49.1	39.3	28.8
100°	81.3	81.3	79.3	76.7	73.4	68.8	61.6	53.7	44.6	35.4	24.9
102.5°	75.4	74.7	73.4	70.8	67.5	62.9	56.4	49.1	40.6	31.5	22.3
105°	70.1	69.5	68.2	65.5	62.9	57.7	52.4	45.2	36.7	28.2	19.7
107.5°	64.9	64.2	63.6	60.9	57.7	53.1	47.8	40.6	33.4	25.6	17.7
110°	60.3	59.6	58.3	55.7	52.4	48.5	43.3	37.4	30.1	22.9	15.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	56.4	55.7	54.4	51.8	49.1	44.6	40.0	33.4	27.5	21.0	13.8
115°	52.4	51.8	50.5	47.8	44.6	40.6	36.0	30.8	24.2	18.3	12.5
117.5°	48.5	47.8	46.5	44.6	41.3	37.4	32.8	27.5	21.6	17.0	11.1
120°	45.2	43.9	42.6	40.6	37.4	34.1	29.5	24.9	19.7	15.1	9.8
122.5°	41.9	40.6	39.3	37.4	34.1	30.8	26.2	22.3	18.3	13.8	9.2
125°	38.0	37.4	36.0	34.1	30.8	27.5	24.2	20.3	16.4	12.5	7.9
127.5°	34.7	34.1	32.8	30.1	27.5	24.9	21.6	18.3	14.4	10.5	7.2
130°	32.1	30.8	29.5	27.5	25.6	22.9	19.7	16.4	13.1	9.2	6.6
132.5°	28.8	27.5	26.2	24.9	22.9	20.3	17.7	14.4	11.8	8.5	5.9
135°	26.2	24.9	23.6	22.3	20.3	18.3	15.7	13.1	10.5	7.9	5.2
137.5°	22.9	22.3	21.6	20.3	18.3	16.4	14.4	11.1	9.2	7.2	4.6
140°	21.0	20.3	19.7	17.7	16.4	14.4	12.5	9.8	7.9	5.9	3.9
142.5°	19.0	18.3	17.0	15.7	14.4	13.1	10.5	9.2	7.2	5.2	3.9
145°	16.4	15.7	15.1	13.8	12.5	10.5	9.2	7.9	6.6	4.6	3.3
147.5°	15.1	14.4	13.1	11.8	10.5	9.2	8.5	7.2	5.2	3.9	2.6
150°	12.5	11.8	11.1	9.8	9.2	8.5	7.2	5.9	4.6	3.3	2.6
152.5°	10.5	9.8	9.2	9.2	7.9	7.2	5.9	5.2	3.9	3.3	2.0
155°	9.2	9.2	8.5	7.9	6.6	5.9	5.2	3.9	3.3	2.6	2.0
157.5°	7.9	7.2	6.6	6.6	5.9	5.2	3.9	3.3	2.6	2.6	2.0
160°	6.6	5.9	5.9	5.2	4.6	3.9	3.3	3.3	2.6	2.0	2.0
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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1193.3	1186.1	1192.7	1201.2	1201.2	1199.9	1198.6	1201.2	1207.7	1205.1	1197.3
5°	1191.4	1184.1	1190.0	1198.6	1198.6	1196.6	1195.3	1197.3	1204.5	1201.2	1194.0
7.5°	1187.4	1180.9	1184.8	1192.7	1192.7	1190.7	1189.4	1192.0	1197.9	1194.6	1186.8
10°	1180.2	1173.0	1177.6	1184.8	1184.1	1182.8	1180.9	1184.1	1189.4	1184.8	1175.6
12.5°	1171.0	1163.8	1167.8	1174.3	1173.7	1171.0	1169.7	1171.7	1176.3	1173.7	1163.8
15°	1158.6	1151.4	1154.7	1161.2	1159.2	1157.3	1154.7	1155.3	1161.2	1156.6	1146.1
17.5°	1143.5	1135.7	1138.3	1144.2	1142.2	1140.2	1137.0	1137.6	1144.2	1137.6	1126.5
20°	1125.2	1116.6	1118.6	1125.8	1122.5	1119.3	1116.0	1116.0	1122.5	1115.3	1102.9
22.5°	1105.5	1097.0	1098.3	1103.5	1100.9	1095.0	1091.7	1093.7	1097.0	1087.8	1074.7
25°	1081.3	1070.1	1072.1	1077.3	1075.4	1067.5	1064.2	1065.5	1064.2	1057.0	1043.3
27.5°	1053.1	1041.3	1042.6	1045.9	1043.3	1036.0	1032.1	1032.8	1030.1	1021.0	1005.2
30°	1017.7	1011.8	1011.1	1013.1	1009.2	1002.0	997.4	996.1	995.4	982.3	963.3
32.5°	981.7	976.4	973.1	975.8	971.2	964.0	956.1	956.1	949.5	937.1	920.7
35°	945.0	936.4	933.2	935.1	929.9	920.7	914.2	910.9	901.1	885.3	867.6
37.5°	897.8	891.9	887.9	889.9	884.0	877.5	865.0	861.7	851.2	829.6	807.3
40°	846.7	842.1	838.1	840.1	833.6	823.7	812.6	807.3	795.5	771.3	753.6
42.5°	791.6	789.6	785.1	792.3	779.2	769.3	758.2	749.7	737.9	711.7	691.4
45°	733.3	737.9	727.4	729.4	720.8	712.3	700.5	688.1	676.3	651.4	628.4
47.5°	671.7	675.0	667.8	669.1	659.9	652.0	641.5	625.8	612.7	591.1	570.8
50°	608.1	606.8	606.8	605.5	598.3	588.5	578.0	563.6	550.5	530.8	513.8
52.5°	540.6	543.3	544.6	547.8	538.7	532.8	516.4	503.9	494.1	473.8	459.4
55°	475.8	484.9	482.3	483.6	473.1	468.5	455.4	445.6	431.2	419.4	410.2
57.5°	416.8	418.7	420.1	422.0	417.4	408.3	397.8	389.9	378.8	368.9	362.4
60°	359.8	359.8	360.4	363.7	359.1	351.2	343.4	337.5	329.6	323.7	319.8
62.5°	306.0	310.6	311.3	308.7	302.8	298.8	293.6	290.3	285.1	283.1	281.8
65°	256.2	256.2	256.2	257.5	254.3	251.6	248.4	247.7	249.7	247.1	248.4
67.5°	214.3	212.3	211.0	211.7	210.4	209.0	208.4	210.4	214.3	214.3	217.6
70°	178.2	174.3	171.7	171.7	171.7	172.3	174.3	178.2	184.8	187.4	192.0
72.5°	148.8	140.2	136.3	136.3	137.0	139.6	145.5	152.7	158.6	163.8	169.7
75°	120.6	112.1	106.2	105.5	106.8	110.7	119.3	125.8	135.6	142.9	150.1
77.5°	97.6	87.2	79.9	79.3	81.3	87.2	97.6	106.2	117.3	125.2	133.0
80°	78.0	66.2	60.3	56.4	59.6	66.8	78.6	89.1	99.6	110.1	119.9
82.5°	62.3	51.1	41.9	38.0	41.9	51.8	62.9	75.4	85.8	97.0	106.8
85°	49.1	37.4	26.9	22.9	27.5	38.0	50.5	62.9	74.7	85.8	95.7
87.5°	38.7	26.9	16.4	11.1	17.0	28.2	40.0	52.4	64.9	76.0	85.8
90°	30.1	19.0	9.2	1.3	9.8	20.3	32.1	43.9	56.4	67.5	77.3
92.5°	25.6	14.4	5.2	0.0	5.9	15.1	26.2	38.0	49.1	60.3	70.1
95°	21.6	11.8	3.9	0.0	3.9	11.8	21.6	32.1	43.3	54.4	64.2
97.5°	18.3	9.2	2.6	0.0	2.6	9.2	17.7	28.2	38.0	48.5	57.7
100°	15.7	7.9	2.0	0.0	2.0	7.2	15.1	24.2	34.1	43.9	52.4
102.5°	13.8	6.6	1.3	0.0	1.3	5.9	12.5	21.0	29.5	38.7	47.2
105°	11.8	5.2	1.3	0.0	0.7	4.6	10.5	18.3	26.2	34.7	42.6
107.5°	10.5	4.6	1.3	0.0	0.7	3.9	9.2	15.7	23.6	30.8	38.0
110°	9.2	3.9	1.3	0.0	0.7	2.6	7.9	13.8	20.3	27.5	34.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	7.9	3.3	0.7	0.0	0.0	2.0	6.6	11.8	17.7	24.9	30.8
115°	7.2	3.3	0.7	0.0	0.0	1.3	5.2	10.5	15.7	22.3	27.5
117.5°	6.6	2.6	0.7	0.0	0.7	1.3	4.6	9.2	13.8	19.0	24.9
120°	5.9	2.6	0.7	0.0	0.7	0.7	3.3	7.9	11.8	17.0	21.6
122.5°	5.2	2.6	0.7	0.0	0.7	0.7	2.6	6.6	10.5	15.1	19.0
125°	4.6	2.0	1.3	0.7	0.7	0.7	2.0	5.2	9.2	12.5	17.0
127.5°	4.6	2.0	1.3	0.7	0.7	0.7	1.3	4.6	7.2	11.1	15.1
130°	3.9	2.0	1.3	0.7	0.7	0.7	0.7	3.3	6.6	9.2	12.5
132.5°	3.3	2.0	1.3	0.7	0.7	0.7	0.7	2.0	4.6	7.9	10.5
135°	3.3	2.0	1.3	0.7	0.7	0.7	0.7	1.3	3.3	5.9	8.5
137.5°	2.6	1.3	1.3	0.7	0.7	0.7	0.7	0.7	2.6	4.6	6.6
140°	2.6	1.3	1.3	0.7	0.7	0.7	0.7	0.7	2.0	3.3	5.2
142.5°	2.0	1.3	1.3	0.7	0.7	0.7	0.7	0.7	1.3	2.6	3.9
145°	2.0	1.3	1.3	0.7	0.7	0.7	0.7	0.7	0.7	1.3	2.6
147.5°	2.0	2.0	1.3	0.7	0.7	0.7	0.7	0.7	0.7	1.3	2.0
150°	2.0	1.3	1.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3
152.5°	2.0	1.3	1.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3
155°	2.0	1.3	1.3	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3
157.5°	2.0	1.3	1.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3
160°	2.0	1.3	1.3	0.7	1.3	0.7	1.3	1.3	1.3	1.3	1.3
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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1194.6	1182.2	1188.7	1186.8	1189.4	1194.6	1194.0	1192.7	1192.7	1190.7	1188.1
5°	1190.7	1178.9	1184.8	1181.5	1184.8	1189.4	1188.7	1186.8	1188.1	1184.8	1181.5
7.5°	1182.8	1172.3	1177.6	1175.0	1177.6	1182.2	1180.2	1179.6	1180.9	1175.6	1173.7
10°	1173.7	1161.9	1167.8	1164.5	1167.8	1171.0	1169.7	1167.1	1169.7	1164.5	1162.5
12.5°	1159.2	1149.4	1153.3	1152.0	1154.0	1157.3	1154.7	1152.7	1154.0	1149.4	1145.5
15°	1143.5	1133.7	1137.0	1135.0	1136.3	1140.2	1135.7	1135.0	1133.7	1129.1	1127.8
17.5°	1123.2	1114.0	1117.3	1114.0	1116.0	1114.7	1114.0	1110.7	1110.7	1105.5	1101.6
20°	1098.3	1090.4	1088.5	1085.8	1088.5	1085.8	1081.9	1079.3	1078.6	1073.4	1070.1
22.5°	1069.5	1060.3	1061.6	1054.4	1055.0	1051.1	1044.6	1041.9	1039.3	1033.4	1028.8
25°	1034.7	1025.6	1019.0	1014.4	1008.5	1007.9	999.3	992.8	992.1	984.9	984.3
27.5°	995.4	984.9	979.7	968.5	961.3	955.4	948.2	941.7	938.4	930.5	925.3
30°	950.2	938.4	925.3	917.4	906.3	901.7	889.3	881.4	878.8	870.3	866.3
32.5°	899.1	886.6	876.1	861.1	848.6	842.1	829.6	821.8	818.5	809.3	804.1
35°	843.4	829.6	817.2	802.8	792.9	781.8	766.7	758.8	751.6	748.4	744.4
37.5°	785.1	770.0	755.6	741.2	732.6	719.5	706.4	701.2	692.7	689.4	685.5
40°	724.8	709.7	695.9	682.2	672.3	660.6	648.8	646.8	637.6	634.3	631.7
42.5°	665.1	649.4	633.7	623.9	616.6	604.9	597.0	595.0	587.2	585.2	585.2
45°	611.4	591.7	578.6	570.1	564.2	554.4	547.8	546.5	540.0	538.7	538.7
47.5°	553.7	535.4	525.6	520.3	515.1	507.9	503.9	503.9	497.4	496.1	495.4
50°	500.0	483.0	475.8	470.5	469.9	464.6	461.3	460.0	460.0	455.4	456.1
52.5°	448.9	440.4	434.5	431.2	427.3	424.0	421.4	421.4	419.4	416.1	417.4
55°	401.7	391.9	392.5	389.9	387.9	386.0	386.6	382.7	382.0	379.4	381.4
57.5°	354.5	354.5	353.2	351.2	348.0	349.3	349.3	349.3	346.0	344.0	346.0
60°	314.5	316.5	313.2	315.2	313.9	314.5	313.2	313.2	311.3	310.6	311.3
62.5°	279.2	282.4	281.1	283.7	282.4	283.1	284.4	281.8	280.5	279.2	280.5
65°	247.7	251.6	251.0	252.9	253.6	254.3	254.9	253.6	252.3	251.0	250.3
67.5°	220.2	224.1	226.7	227.4	228.0	230.0	229.4	228.0	226.7	224.8	224.1
70°	195.3	200.5	203.8	205.1	207.7	206.4	206.4	205.8	204.5	202.5	201.8
72.5°	174.3	180.2	183.5	184.8	187.4	187.4	186.8	186.1	184.8	182.8	182.2
75°	156.0	161.2	165.8	168.4	170.4	170.4	169.7	169.1	167.8	166.4	165.8
77.5°	141.5	146.1	150.1	153.3	154.7	155.3	154.7	153.3	153.3	152.7	152.0
80°	127.1	132.4	136.3	139.6	141.5	141.5	140.9	141.5	140.2	139.6	138.9
82.5°	114.7	120.6	125.2	128.4	129.8	130.4	129.8	130.4	129.1	129.1	129.1
85°	103.5	109.4	114.7	117.3	119.3	119.9	119.9	119.9	119.3	119.3	119.3
87.5°	94.4	100.3	105.5	108.1	110.1	110.7	110.7	111.4	110.1	110.1	110.1
90°	85.8	91.7	97.0	99.6	101.6	102.9	102.9	103.5	102.9	102.2	102.2
92.5°	78.0	84.5	89.8	92.4	94.4	96.3	96.3	97.0	95.7	95.7	95.7
95°	71.4	78.0	82.6	85.8	87.8	89.1	89.8	89.8	89.1	89.1	89.1
97.5°	65.5	71.4	76.0	79.3	81.3	81.9	82.6	83.2	82.6	82.6	82.6
100°	59.6	65.5	70.1	72.7	75.4	76.0	76.7	77.3	77.3	76.7	76.7
102.5°	54.4	60.3	64.2	67.5	69.5	70.8	71.4	71.4	71.4	71.4	71.4
105°	49.1	55.0	59.0	62.3	64.2	65.5	66.2	66.8	66.8	66.2	66.2
107.5°	44.6	49.8	54.4	57.0	59.6	60.9	61.6	61.6	62.3	61.6	61.6
110°	40.0	45.9	49.8	52.4	55.0	56.4	57.0	57.7	57.7	57.7	57.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	36.7	41.3	45.2	47.8	50.5	51.8	52.4	53.1	53.7	53.1	53.1
115°	32.8	37.4	41.3	43.9	45.9	47.2	48.5	49.1	49.1	49.8	49.1
117.5°	29.5	33.4	37.4	40.0	41.9	43.9	44.6	45.2	45.9	45.2	45.2
120°	26.2	30.1	33.4	36.0	38.0	40.0	40.6	41.3	41.9	41.3	41.3
122.5°	23.6	26.9	30.1	32.8	34.7	36.0	37.4	37.4	38.0	38.0	38.0
125°	21.0	24.2	26.9	29.5	31.5	32.8	33.4	34.1	34.1	34.7	34.7
127.5°	18.3	21.0	24.2	26.2	28.2	29.5	30.1	30.8	30.8	31.5	31.5
130°	15.7	18.3	21.0	22.9	24.9	26.2	26.9	27.5	28.2	28.2	28.2
132.5°	13.8	16.4	18.3	20.3	21.6	22.9	24.2	24.9	24.9	24.9	24.9
135°	11.1	13.8	15.7	17.7	19.0	20.3	21.0	22.3	22.3	22.3	22.3
137.5°	9.2	11.8	13.8	15.1	16.4	17.7	18.3	19.0	19.7	19.7	19.7
140°	7.2	9.2	11.1	13.1	14.4	15.1	16.4	16.4	17.0	17.0	17.0
142.5°	5.2	7.2	8.5	10.5	11.8	13.1	13.8	14.4	14.4	14.4	14.4
145°	3.9	5.2	6.6	7.9	9.8	10.5	11.1	11.8	12.5	12.5	12.5
147.5°	2.6	3.9	4.6	5.9	7.2	8.5	9.2	9.8	10.5	10.5	10.5
150°	2.0	2.6	3.9	4.6	5.2	6.6	7.9	7.9	8.5	8.5	7.9
152.5°	1.3	2.0	2.6	3.3	3.9	4.6	5.9	5.9	6.6	6.6	6.6
155°	1.3	1.3	1.3	2.0	2.6	3.3	3.9	4.6	4.6	4.6	4.6
157.5°	1.3	1.3	1.3	1.3	1.3	2.0	2.6	3.3	3.3	3.3	3.3
160°	1.3	1.3	0.7	0.7	1.3	1.3	1.3	1.3	2.0	2.0	2.0
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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1190.0	1191.4	1191.4	1190.0	1189.4	1192.0	1188.7	1176.3	1180.2	1181.5	1185.5
5°	1184.1	1185.5	1185.5	1185.5	1184.1	1186.8	1183.5	1171.0	1175.6	1177.6	1180.2
7.5°	1175.6	1176.3	1177.6	1176.9	1175.6	1179.6	1176.3	1163.8	1167.1	1170.4	1173.7
10°	1164.5	1164.5	1165.1	1166.5	1165.1	1168.4	1165.1	1154.0	1157.3	1159.2	1163.2
12.5°	1149.4	1150.7	1151.4	1150.7	1150.1	1152.7	1151.4	1140.9	1142.2	1146.1	1150.1
15°	1129.1	1129.1	1132.4	1131.1	1131.1	1133.7	1135.0	1123.2	1125.2	1131.1	1135.0
17.5°	1104.2	1104.9	1107.5	1108.8	1108.1	1112.7	1113.4	1104.2	1103.5	1110.7	1114.7
20°	1072.1	1073.4	1076.7	1079.3	1079.3	1084.5	1086.5	1080.6	1081.3	1089.1	1090.4
22.5°	1032.8	1032.8	1038.7	1042.6	1045.9	1049.2	1055.0	1049.8	1049.8	1060.3	1066.2
25°	984.3	988.9	990.8	998.7	1003.3	1012.5	1017.7	1018.4	1019.0	1028.8	1032.8
27.5°	930.5	931.9	937.7	946.9	952.2	960.7	970.5	972.5	975.8	988.9	994.8
30°	869.6	873.5	876.1	889.3	896.5	907.6	920.1	924.6	927.3	945.0	952.2
32.5°	807.3	808.7	819.8	827.0	835.5	847.3	861.7	870.3	875.5	893.8	904.3
35°	745.1	747.7	756.9	766.1	774.6	786.4	801.4	813.2	822.4	838.8	852.6
37.5°	688.1	694.6	696.6	705.8	712.3	724.1	734.6	751.6	760.8	777.9	795.5
40°	637.0	638.9	640.2	649.4	654.0	665.1	680.2	691.4	703.8	716.3	737.2
42.5°	586.5	587.8	589.8	595.0	600.3	608.1	619.3	630.4	643.5	661.9	675.6
45°	540.0	541.3	542.6	545.9	550.5	557.7	564.9	572.7	585.8	601.6	616.0
47.5°	496.7	499.3	499.3	500.0	503.3	509.2	514.4	524.2	531.5	540.0	556.4
50°	455.4	457.4	458.1	458.1	460.0	464.0	465.3	471.8	478.4	486.2	498.0
52.5°	416.8	416.8	416.1	418.7	418.7	421.4	422.0	426.0	430.5	439.1	444.3
55°	380.1	380.1	382.0	380.7	380.7	382.0	381.4	382.0	386.0	391.2	395.8
57.5°	344.7	344.0	346.0	344.7	344.0	345.3	346.7	344.0	344.7	349.9	349.9
60°	309.3	310.0	311.9	310.6	310.6	310.6	309.3	308.0	306.7	310.0	311.3
62.5°	281.1	279.2	281.1	279.2	280.5	279.8	278.5	275.9	276.5	275.2	273.9
65°	251.6	251.6	252.3	250.3	251.6	251.6	249.7	249.0	245.1	243.8	240.5
67.5°	226.1	226.1	226.7	225.4	225.4	226.1	224.1	222.1	218.2	216.3	211.7
70°	203.8	203.8	203.8	203.1	203.1	203.1	201.8	199.2	195.3	192.0	186.1
72.5°	183.5	184.1	183.5	183.5	185.5	183.5	181.5	178.9	175.6	169.1	163.8
75°	167.1	167.8	167.1	167.1	167.1	166.4	165.8	161.9	157.9	152.7	144.8
77.5°	152.7	152.7	153.3	152.7	152.7	152.0	150.1	146.8	142.2	137.6	128.4
80°	138.9	139.6	140.2	140.9	139.6	138.9	137.0	134.3	128.4	123.2	114.0
82.5°	129.1	128.4	129.1	129.8	128.4	127.8	125.8	122.5	118.0	110.7	101.6
85°	119.3	118.6	118.6	119.3	118.6	117.3	115.3	112.1	107.5	100.3	91.1
87.5°	109.4	110.1	110.7	110.1	109.4	108.1	106.2	102.9	97.6	91.7	81.9
90°	102.2	102.2	102.2	102.2	101.6	100.3	98.3	94.4	89.8	82.6	74.0
92.5°	95.7	95.7	95.7	95.7	95.0	93.1	91.1	87.8	82.6	75.4	67.5
95°	89.1	89.8	89.1	89.1	87.8	87.2	83.9	80.6	76.0	68.8	60.3
97.5°	81.9	82.6	81.9	81.9	81.3	79.9	78.0	74.0	69.5	62.9	55.0
100°	76.7	76.7	76.0	76.0	75.4	74.0	71.4	68.2	63.6	57.0	49.1
102.5°	70.8	71.4	70.8	70.8	69.5	68.2	66.2	62.9	58.3	51.8	44.6
105°	66.2	66.2	65.5	65.5	64.2	62.9	60.9	57.0	53.1	47.2	40.0
107.5°	61.6	61.6	60.9	60.9	59.6	58.3	55.7	52.4	48.5	42.6	36.0
110°	57.0	57.0	57.0	56.4	55.0	53.1	51.1	47.8	43.9	38.7	32.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	53.7	53.1	52.4	51.8	50.5	49.1	46.5	43.3	39.3	34.7	28.8
115°	49.1	49.1	48.5	47.8	46.5	44.6	42.6	40.0	36.0	30.8	25.6
117.5°	45.2	45.2	44.6	43.9	42.6	40.6	38.7	36.0	32.1	27.5	22.9
120°	41.3	41.3	40.6	40.0	38.7	36.7	35.4	32.1	28.8	24.2	20.3
122.5°	38.0	37.4	37.4	36.0	35.4	33.4	31.5	28.8	25.6	21.6	17.7
125°	34.1	34.1	33.4	32.8	32.1	30.1	28.2	25.6	22.3	19.0	15.7
127.5°	30.8	30.8	30.1	29.5	28.8	26.9	24.9	22.9	19.7	16.4	13.1
130°	27.5	27.5	26.9	26.2	25.6	23.6	22.3	19.7	17.0	14.4	11.1
132.5°	24.9	24.9	24.2	23.6	22.3	21.0	19.7	17.0	15.1	12.5	9.8
135°	22.3	21.6	21.6	21.0	19.7	18.3	17.0	15.1	12.5	10.5	7.9
137.5°	19.7	19.0	18.3	17.7	17.0	15.7	14.4	13.1	11.1	8.5	6.6
140°	17.0	16.4	16.4	15.7	14.4	13.8	12.5	10.5	9.2	7.2	5.2
142.5°	14.4	14.4	13.8	13.1	12.5	11.8	10.5	9.2	7.2	5.9	3.9
145°	12.5	11.8	11.8	11.1	10.5	9.2	8.5	7.2	5.9	4.6	3.3
147.5°	9.8	9.8	9.8	9.2	8.5	7.9	7.2	5.9	4.6	3.3	2.0
150°	7.9	7.9	7.9	7.2	6.6	5.9	5.2	4.6	3.3	2.0	1.3
152.5°	6.6	6.6	5.9	5.9	5.2	4.6	3.9	3.3	2.0	1.3	1.3
155°	4.6	4.6	4.6	3.9	3.9	3.3	2.6	2.0	1.3	1.3	1.3
157.5°	3.3	3.3	3.3	2.6	2.6	2.0	2.0	1.3	1.3	1.3	1.3
160°	2.0	2.0	2.0	2.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1183.5	1182.8	1188.1	1188.1	1182.2	1191.4	1201.2
5°	1179.6	1178.9	1184.1	1184.1	1178.9	1188.1	1198.6
7.5°	1171.7	1172.3	1177.6	1178.9	1172.3	1180.9	1192.0
10°	1163.2	1162.5	1168.4	1169.7	1164.5	1172.3	1182.8
12.5°	1149.4	1149.4	1155.3	1157.3	1152.0	1161.2	1171.0
15°	1135.0	1135.0	1138.9	1142.2	1137.6	1146.1	1156.0
17.5°	1116.6	1116.0	1119.9	1123.9	1119.3	1128.4	1138.9
20°	1093.1	1093.1	1097.6	1102.2	1099.0	1107.5	1119.3
22.5°	1068.2	1065.5	1073.4	1076.7	1074.7	1083.2	1095.0
25°	1036.7	1036.0	1043.9	1048.5	1045.9	1055.0	1065.5
27.5°	1002.6	1002.0	1009.8	1015.7	1014.4	1022.9	1034.7
30°	961.3	964.6	971.8	981.7	978.4	987.6	1000.0
32.5°	918.1	921.4	929.9	940.4	941.0	948.2	960.7
35°	866.3	874.8	880.7	894.5	897.1	904.3	917.4
37.5°	811.9	821.8	834.2	844.7	849.9	855.8	870.9
40°	751.0	765.4	779.2	791.6	798.2	804.1	818.5
42.5°	695.9	707.1	720.2	732.6	744.4	749.7	764.7
45°	633.7	646.8	658.6	673.7	685.5	691.4	706.4
47.5°	572.7	585.8	601.6	612.1	624.5	630.4	644.8
50°	514.4	526.2	539.3	551.8	562.3	567.5	579.9
52.5°	456.8	469.2	481.7	489.5	500.7	504.6	515.1
55°	405.6	414.2	425.3	429.9	441.0	443.6	450.9
57.5°	356.5	362.4	366.3	374.2	382.0	387.9	396.5
60°	311.9	314.5	317.2	321.8	328.3	330.3	333.6
62.5°	272.0	271.3	276.5	277.9	278.5	285.1	281.8
65°	236.6	237.2	232.6	230.7	233.3	235.3	233.9
67.5°	207.1	203.1	199.2	194.6	190.7	192.7	190.7
70°	178.2	175.0	168.4	161.9	159.2	155.3	153.3
72.5°	155.3	147.4	140.9	132.4	127.8	123.2	119.9
75°	137.6	126.5	117.3	108.1	101.6	95.0	93.7
77.5°	119.3	108.8	98.3	88.5	78.6	71.4	68.8
80°	104.8	95.0	82.6	70.8	60.3	51.1	47.8
82.5°	91.7	81.3	68.8	56.4	44.6	34.7	30.8
85°	80.6	69.5	57.0	44.6	32.8	22.3	17.0
87.5°	72.1	59.6	47.2	35.4	22.9	12.5	6.6
90°	64.2	52.4	40.6	28.2	16.4	6.6	0.0
92.5°	57.0	45.9	34.1	22.9	12.5	3.9	0.7
95°	50.5	40.6	28.8	18.3	9.2	2.6	0.7
97.5°	45.2	35.4	24.9	15.1	7.2	2.0	0.7
100°	40.6	30.8	21.6	12.5	5.9	1.3	0.7
102.5°	36.0	27.5	18.3	10.5	4.6	0.7	0.7
105°	32.1	24.2	15.7	9.2	3.9	0.7	0.7
107.5°	28.8	21.6	13.8	7.9	2.6	0.7	0.7
110°	25.6	18.3	11.8	6.6	2.0	0.7	0.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	22.9	16.4	10.5	5.2	1.3	0.7	0.7
115°	20.3	14.4	9.2	4.6	1.3	0.7	0.7
117.5°	17.7	12.5	7.9	3.3	0.7	0.7	0.7
120°	15.7	11.1	6.6	2.6	0.7	0.7	0.7
122.5°	13.8	9.2	5.2	2.0	0.7	0.7	0.7
125°	11.8	7.9	4.6	1.3	0.7	0.7	0.7
127.5°	9.8	6.6	3.3	1.3	0.7	0.7	0.7
130°	8.5	5.2	2.6	0.7	0.7	0.7	0.7
132.5°	7.2	3.9	2.0	0.7	0.7	0.7	0.7
135°	5.9	3.3	1.3	0.7	0.7	0.7	0.7
137.5°	4.6	2.6	1.3	0.7	0.7	0.7	0.7
140°	3.3	2.0	0.7	0.7	0.7	0.7	0.7
142.5°	2.6	1.3	0.7	0.7	0.7	0.7	0.7
145°	2.0	1.3	0.7	0.7	0.7	0.7	0.7
147.5°	1.3	1.3	1.3	1.3	0.7	0.7	0.7
150°	1.3	1.3	0.7	0.7	1.3	0.7	0.7
152.5°	1.3	0.7	0.7	0.7	1.3	0.7	0.7
155°	1.3	1.3	1.3	1.3	1.3	1.3	0.7
157.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3
160°	1.3	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	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
167.5°	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
172.5°	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
177.5°	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

(END OF REPORT)