

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-LD5-41SL-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-LD5-41SL-LN-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

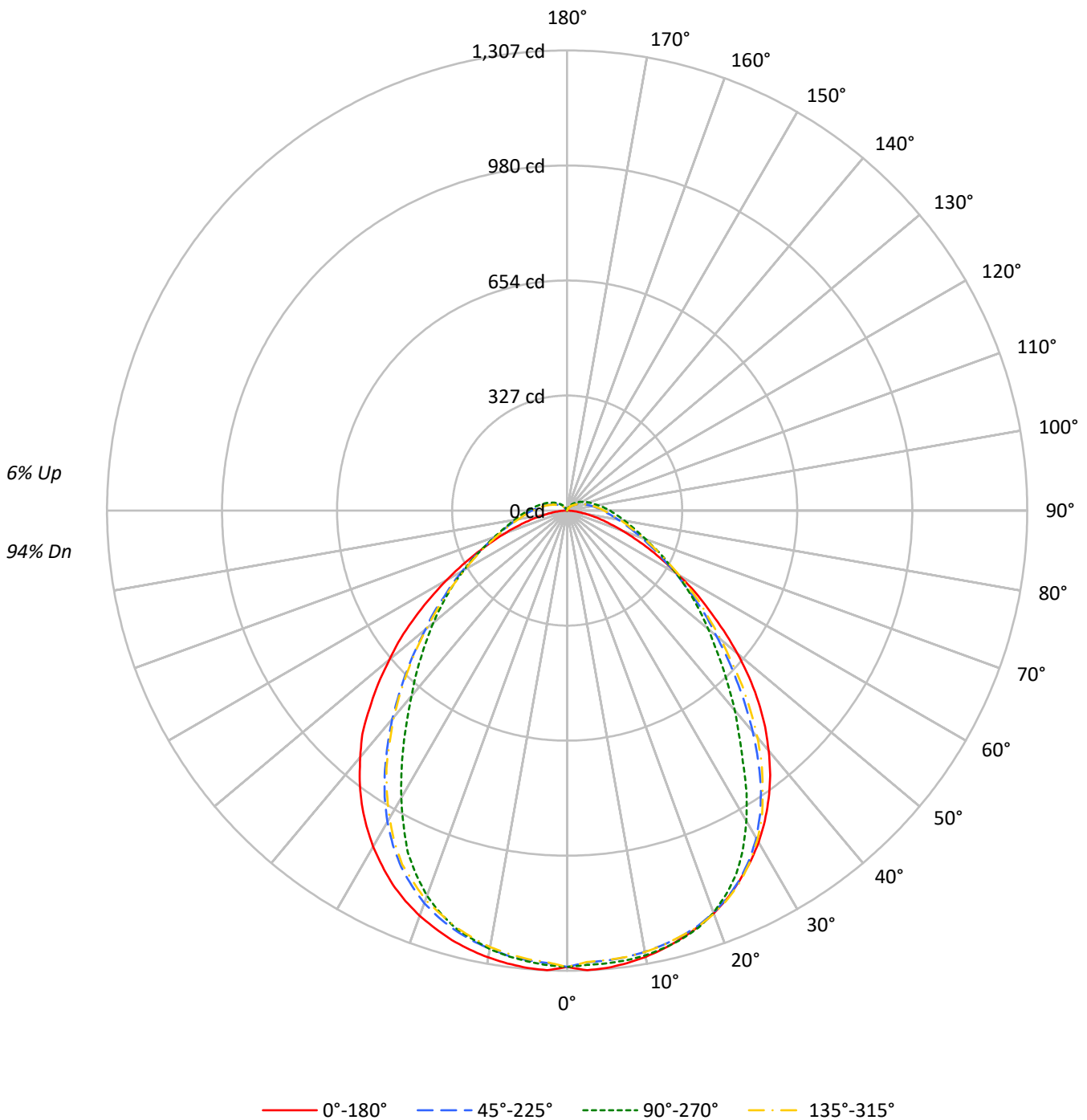
Lumens per Lamp: N/A
Luminaire Lumens: 3280.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 31
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	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°	10474	10474	10474	10474
5°	10548	10140	10548	10095
10°	10501	9870	10518	9733
15°	10434	9576	10481	9326
20°	10353	9196	10414	8808
25°	10187	8634	10300	8125
30°	9971	7807	10103	7228
35°	9636	6794	9821	6327
40°	9153	5942	9394	5513
45°	8516	5166	8794	4869
50°	7647	4539	7984	4310
55°	6615	4008	7095	3805
60°	5564	3519	6067	3316
65°	4561	3111	5021	2885
70°	3629	2761	4065	2554
75°	2849	2549	3210	2346
80°	2056	2460	2423	2247
85°	1264	2475	1708	2273



TEST NUMBER: P#

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.9	3.7
10°-20°	352.3	10.7
20°-30°	522.2	15.9
30°-40°	580.1	17.7
40°-50°	525.9	16.0
50°-60°	407.5	12.4
60°-70°	276.7	8.4
70°-80°	176.0	5.4
80°-90°	112.5	3.4
90°-100°	75.9	2.3
100°-110°	52.0	1.6
110°-120°	34.7	1.1
120°-130°	21.6	0.7
130°-140°	11.9	0.4
140°-150°	5.6	0.2
150°-160°	2.1	0.1
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	997.4	30.4
0°-40°	1577.5	48.1
0°-60°	2510.9	76.6
0°-90°	3076.2	93.8
90°-120°	162.5	5.0
90°-150°	201.6	6.1
90°-180°	204.0	6.2
0°-180°	3280.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1296	1296	1296	1296	1296	
5°	1304	1291	1304	1285	1304	124
15°	1258	1260	1263	1227	1258	355
25°	1159	1138	1172	1071	1159	534
35°	998	870	1017	810	998	623
45°	768	622	794	586	768	590
55°	490	437	526	415	490	442
65°	254	294	280	272	254	255
75°	102	196	115	180	102	110
85°	18	141	25	130	18	22
90°	0	122	1	111	0	1
95°	1	104	0	97	1	1
105°	1	76	0	72	1	1
115°	1	58	0	54	1	1
125°	1	43	1	38	1	1
135°	1	30	1	24	1	1
145°	1	19	1	14	1	0
155°	1	11	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-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1306.8	1305.3	1303.9	1301.8	1303.9	1309.6	1306.0	1298.2	1296.8	1283.9	1289.6
5°	1303.9	1301.8	1300.3	1298.2	1301.1	1308.2	1304.6	1297.5	1295.4	1283.2	1289.6
7.5°	1296.8	1295.4	1293.2	1293.2	1296.1	1303.2	1300.3	1292.5	1291.1	1279.0	1286.1
10°	1286.8	1286.1	1284.7	1284.7	1287.5	1296.1	1292.5	1285.4	1283.9	1272.5	1280.4
12.5°	1274.0	1274.7	1272.5	1272.5	1276.8	1285.4	1282.5	1274.7	1273.3	1263.3	1271.1
15°	1257.6	1258.3	1256.9	1257.6	1261.8	1271.8	1268.3	1261.1	1259.7	1251.9	1258.3
17.5°	1239.0	1239.7	1239.7	1239.0	1244.0	1254.0	1251.2	1244.7	1242.6	1236.2	1244.0
20°	1217.6	1217.6	1217.6	1217.6	1223.3	1233.3	1229.8	1224.8	1220.5	1215.5	1221.9
22.5°	1191.3	1190.6	1191.3	1193.4	1199.1	1207.0	1204.8	1199.1	1192.7	1189.8	1194.8
25°	1159.2	1161.3	1162.0	1164.2	1171.3	1177.7	1175.6	1169.9	1159.9	1157.8	1159.2
27.5°	1125.7	1127.1	1129.2	1128.5	1138.5	1144.9	1140.7	1135.7	1121.4	1119.3	1117.8
30°	1087.9	1090.0	1091.5	1090.7	1098.6	1105.7	1101.4	1095.0	1075.8	1074.4	1062.9
32.5°	1045.1	1047.3	1048.7	1048.7	1060.1	1062.9	1055.1	1045.8	1025.2	1020.2	1010.2
35°	998.1	1000.2	1000.9	1000.9	1012.3	1011.6	1001.6	988.8	966.0	959.6	942.5
37.5°	947.5	948.9	949.6	953.9	958.9	954.6	941.8	925.4	908.2	890.4	871.9
40°	890.4	892.6	894.0	896.8	901.8	896.8	878.3	858.3	839.8	819.8	801.3
42.5°	832.0	838.4	837.0	836.2	839.1	825.5	811.3	788.5	769.9	749.3	730.7
45°	768.5	767.8	771.4	772.8	772.1	760.7	740.7	720.0	701.5	680.1	664.4
47.5°	701.5	700.8	703.6	705.1	700.8	688.7	673.0	649.5	633.8	615.2	603.1
50°	630.9	630.9	635.2	630.9	628.8	616.7	603.8	580.3	568.2	551.8	544.7
52.5°	560.3	566.8	562.5	561.1	558.9	546.8	536.8	517.6	507.6	500.5	491.9
55°	490.5	497.6	494.8	492.6	491.9	481.9	472.7	458.4	452.0	447.0	442.0
57.5°	431.3	430.6	429.2	427.0	427.7	419.9	410.6	402.8	399.9	397.8	399.2
60°	362.9	368.6	366.4	367.1	367.9	366.4	358.6	353.6	354.3	355.0	357.2
62.5°	306.6	311.5	315.1	312.3	313.7	315.8	311.5	310.1	313.0	315.8	318.7
65°	254.5	259.5	263.1	262.3	266.6	270.9	270.2	271.6	278.0	281.6	285.2
67.5°	207.5	212.4	217.4	218.1	224.6	231.0	233.8	238.8	246.0	250.9	255.2
70°	166.8	171.1	176.8	180.4	188.9	197.5	202.5	212.4	216.7	223.9	226.7
72.5°	130.5	134.0	141.9	150.4	157.6	168.2	178.2	186.8	193.2	201.0	204.6
75°	101.9	103.4	111.9	121.9	131.9	144.0	154.7	164.0	172.5	180.4	186.1
77.5°	74.9	77.0	84.8	98.4	109.8	122.6	134.7	144.7	154.0	161.8	169.7
80°	52.0	56.3	64.9	78.4	91.3	105.5	116.9	128.3	138.3	146.1	154.0
82.5°	33.5	37.1	49.2	62.7	76.3	90.5	102.7	114.1	124.8	133.3	140.4
85°	18.5	23.5	35.6	49.9	63.4	77.7	90.5	101.9	112.6	120.5	127.6
87.5°	7.1	14.3	25.7	39.2	52.8	66.3	79.8	90.5	101.2	109.8	116.2
90°	0.0	8.6	19.2	32.8	46.3	59.9	72.7	84.1	94.1	101.9	109.1
92.5°	0.7	5.7	15.0	26.4	39.2	52.0	64.2	75.6	85.5	93.4	99.8
95°	0.7	4.3	12.1	22.8	34.2	46.3	57.7	68.4	77.7	85.5	92.0
97.5°	0.7	2.9	10.0	20.0	29.9	42.1	52.8	62.7	71.3	79.1	84.1
100°	0.7	2.9	8.6	17.1	27.1	37.8	47.8	57.7	65.6	72.0	77.7
102.5°	0.7	2.1	7.1	15.0	24.2	33.5	43.5	52.8	59.9	66.3	72.0
105°	0.7	2.1	6.4	12.8	21.4	30.7	39.2	47.8	55.6	61.3	66.3
107.5°	0.7	1.4	5.7	10.7	18.5	27.8	36.4	43.5	50.6	56.3	61.3
110°	0.7	1.4	5.0	10.0	16.4	25.0	32.8	39.9	46.3	52.0	56.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.7	1.4	4.3	9.3	15.0	22.1	29.9	36.4	42.8	47.8	52.0
115°	0.7	1.4	4.3	8.6	13.5	19.2	26.4	33.5	38.5	44.2	47.8
117.5°	0.7	1.4	3.6	7.1	12.8	17.8	24.2	29.9	35.6	40.6	44.2
120°	0.7	1.4	3.6	6.4	11.4	16.4	21.4	27.1	32.8	36.4	39.9
122.5°	0.7	1.4	2.9	6.4	10.0	15.0	19.2	24.2	29.2	33.5	37.1
125°	0.7	1.4	2.9	5.7	9.3	13.5	17.8	21.4	26.4	29.9	33.5
127.5°	0.7	1.4	2.9	5.0	8.6	12.1	16.4	20.0	23.5	27.1	29.9
130°	0.7	1.4	2.1	4.3	7.8	10.7	14.3	18.5	21.4	24.2	27.1
132.5°	0.7	1.4	2.1	4.3	6.4	9.3	12.8	16.4	19.2	22.1	24.2
135°	0.7	1.4	2.1	3.6	5.7	8.6	10.7	14.3	17.1	20.0	22.1
137.5°	0.7	1.4	2.1	3.6	5.0	7.1	9.3	12.1	15.0	17.1	20.0
140°	0.7	1.4	2.1	2.9	4.3	6.4	8.6	10.0	12.8	15.0	17.1
142.5°	0.7	1.4	2.1	2.9	4.3	5.7	7.1	8.6	10.7	12.8	15.0
145°	0.7	1.4	2.1	2.9	3.6	5.0	6.4	7.8	8.6	10.7	12.1
147.5°	0.7	1.4	2.1	2.9	2.9	4.3	5.7	6.4	7.8	8.6	10.0
150°	0.7	1.4	2.1	2.1	2.9	3.6	5.0	5.7	6.4	7.8	8.6
152.5°	0.7	1.4	2.1	2.1	2.9	3.6	4.3	5.0	5.7	6.4	7.1
155°	0.7	1.4	2.1	2.1	2.1	2.9	3.6	4.3	5.0	5.7	6.4
157.5°	1.4	1.4	1.4	2.1	2.1	2.9	2.9	3.6	4.3	4.3	5.0
160°	1.4	1.4	1.4	2.1	2.1	2.1	2.9	2.9	3.6	3.6	4.3
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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1288.2	1290.4	1296.8	1296.8	1295.4	1293.9	1293.9	1291.8	1293.2	1296.1	1294.6
5°	1288.2	1290.4	1296.8	1296.8	1295.4	1293.9	1293.2	1291.1	1293.2	1296.1	1294.6
7.5°	1283.9	1286.8	1293.2	1293.2	1291.8	1291.1	1289.6	1288.2	1290.4	1293.2	1291.8
10°	1278.2	1281.1	1287.5	1287.5	1286.1	1286.1	1283.9	1282.5	1285.4	1287.5	1286.8
12.5°	1269.7	1273.3	1279.0	1278.2	1276.8	1277.5	1275.4	1272.5	1275.4	1277.5	1278.2
15°	1257.6	1261.8	1267.5	1266.1	1264.0	1265.4	1261.8	1259.7	1261.8	1266.1	1265.4
17.5°	1241.9	1244.7	1249.0	1249.0	1246.9	1245.4	1244.0	1241.9	1243.3	1246.2	1246.9
20°	1219.8	1223.3	1225.5	1223.3	1222.6	1220.5	1217.6	1215.5	1218.4	1222.6	1223.3
22.5°	1190.6	1191.3	1196.3	1191.3	1187.7	1187.0	1184.1	1179.9	1184.1	1187.7	1188.4
25°	1154.2	1157.8	1155.6	1147.1	1147.1	1141.4	1139.9	1137.8	1138.5	1144.9	1147.8
27.5°	1107.9	1109.3	1103.6	1096.5	1090.0	1086.5	1081.5	1082.2	1082.2	1090.7	1093.6
30°	1057.2	1049.4	1044.4	1033.0	1028.0	1019.5	1018.0	1018.0	1016.6	1020.9	1033.7
32.5°	996.6	986.0	978.1	967.4	958.9	950.3	946.0	948.2	947.5	958.1	962.4
35°	930.3	923.9	907.5	894.0	889.0	876.2	876.2	869.7	874.0	886.1	891.1
37.5°	860.5	850.5	837.0	822.0	818.4	808.4	804.9	801.3	810.6	812.7	817.7
40°	789.2	779.9	767.1	752.8	752.8	740.7	740.7	740.7	741.4	745.7	755.0
42.5°	721.5	711.5	700.1	690.1	688.7	679.4	679.4	678.7	680.1	683.7	692.2
45°	655.9	648.0	635.9	630.9	631.6	621.7	623.8	621.7	624.5	628.1	630.9
47.5°	595.3	590.3	585.3	578.2	576.0	575.3	571.8	568.9	573.9	573.9	578.2
50°	539.0	536.1	533.3	529.0	529.7	526.8	522.6	522.6	526.1	526.8	529.7
52.5°	489.8	486.2	482.6	483.4	484.1	482.6	480.5	478.4	480.5	481.9	485.5
55°	440.6	437.7	441.3	439.9	441.3	439.9	438.4	437.0	440.6	438.4	442.0
57.5°	396.4	399.2	400.7	397.8	399.9	398.5	399.2	397.1	399.9	401.4	400.7
60°	355.7	360.0	357.9	358.6	361.4	360.0	357.2	359.3	362.2	362.9	362.2
62.5°	318.7	323.7	325.8	324.4	325.1	323.7	325.8	322.9	326.5	327.9	325.8
65°	285.2	290.9	292.3	292.3	292.3	290.9	293.0	293.7	295.1	295.1	293.7
67.5°	256.6	261.6	263.1	264.5	263.1	261.6	261.6	262.3	265.2	266.6	265.2
70°	231.0	236.0	236.7	236.7	237.4	238.8	236.0	237.4	239.5	240.2	239.5
72.5°	208.9	213.9	215.3	214.6	215.3	216.0	216.0	214.6	216.7	218.1	218.1
75°	191.1	193.9	195.3	195.3	196.0	196.8	196.8	196.0	197.5	198.2	198.9
77.5°	174.7	176.8	178.9	178.9	179.7	178.9	180.4	180.4	181.1	181.8	182.5
80°	158.3	161.1	162.5	163.3	164.7	165.4	165.4	165.4	166.1	166.8	166.8
82.5°	145.4	147.6	149.7	151.8	151.8	152.6	152.6	152.6	153.3	153.3	154.0
85°	132.6	135.5	137.6	139.0	139.7	140.4	140.4	141.2	141.2	141.2	141.9
87.5°	121.2	124.8	126.2	127.6	128.3	129.7	129.7	129.7	130.5	130.5	130.5
90°	113.4	116.9	118.3	119.8	120.5	121.2	121.2	121.9	121.9	122.6	122.6
92.5°	104.1	107.6	110.5	110.5	111.2	112.6	111.9	111.9	112.6	113.4	113.4
95°	97.0	99.8	101.9	102.7	103.4	103.4	103.4	104.1	103.4	104.1	104.1
97.5°	88.4	91.3	93.4	94.8	95.5	95.5	95.5	96.2	95.5	96.2	96.2
100°	81.3	84.1	86.3	87.0	88.4	88.4	88.4	88.4	88.4	88.4	89.1
102.5°	75.6	78.4	79.8	80.6	81.3	82.0	82.0	82.0	82.0	82.7	82.7
105°	69.9	72.7	74.1	74.9	75.6	76.3	76.3	76.3	77.0	77.0	76.3
107.5°	64.9	67.0	68.4	69.9	70.6	70.6	71.3	71.3	71.3	71.3	71.3
110°	59.9	62.0	64.2	65.6	65.6	66.3	66.3	67.0	67.0	66.3	67.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	54.9	57.7	59.2	60.6	61.3	62.0	62.0	62.0	62.0	62.0	62.0
115°	50.6	53.5	54.9	56.3	57.0	57.7	57.7	57.7	57.7	57.7	57.7
117.5°	47.1	49.9	51.3	52.0	52.8	53.5	54.2	54.2	54.2	54.2	53.5
120°	43.5	45.6	47.1	48.5	49.2	49.9	49.9	49.9	49.9	49.9	49.9
122.5°	39.9	42.1	43.5	44.9	45.6	46.3	46.3	46.3	46.3	46.3	46.3
125°	36.4	38.5	39.9	41.3	42.1	42.8	42.8	42.8	42.8	42.8	42.8
127.5°	32.8	34.9	37.1	37.8	38.5	39.2	39.2	39.2	39.9	39.2	39.2
130°	29.2	31.4	33.5	34.2	34.9	35.6	36.4	36.4	36.4	36.4	35.6
132.5°	26.4	28.5	29.9	30.7	32.1	32.1	32.8	32.8	32.8	32.8	32.1
135°	24.2	25.7	27.1	27.8	29.2	29.2	29.2	29.9	29.9	29.2	28.5
137.5°	21.4	22.8	24.2	25.0	25.7	26.4	26.4	27.1	26.4	26.4	26.4
140°	20.0	20.7	22.1	22.8	23.5	23.5	23.5	24.2	24.2	23.5	23.5
142.5°	17.1	18.5	20.0	20.7	21.4	21.4	21.4	21.4	21.4	21.4	21.4
145°	14.3	16.4	17.1	18.5	18.5	19.2	19.2	19.2	19.2	19.2	18.5
147.5°	12.1	13.5	15.7	16.4	16.4	17.1	17.1	17.1	17.1	17.1	16.4
150°	9.3	10.7	12.8	14.3	14.3	15.0	15.0	15.0	15.0	14.3	14.3
152.5°	7.8	9.3	10.0	11.4	12.1	12.1	12.1	12.8	12.1	12.1	12.1
155°	7.1	7.8	8.6	9.3	10.0	10.7	10.7	10.7	10.7	10.0	10.0
157.5°	5.7	6.4	7.1	7.8	8.6	9.3	9.3	9.3	9.3	9.3	8.6
160°	4.3	5.0	5.7	5.7	6.4	7.1	7.8	7.1	7.1	7.1	7.1
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-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1293.2	1292.5	1294.6	1291.1	1280.4	1283.2	1281.8	1288.2	1289.6	1291.1	1297.5
5°	1293.2	1292.5	1293.9	1291.1	1279.7	1281.8	1280.4	1286.8	1288.2	1288.9	1295.4
7.5°	1290.4	1289.6	1291.8	1288.2	1276.1	1279.0	1276.8	1283.2	1283.9	1284.7	1290.4
10°	1284.7	1283.9	1285.4	1282.5	1270.4	1273.3	1270.4	1276.8	1276.8	1278.2	1282.5
12.5°	1276.1	1274.7	1277.5	1274.0	1260.4	1264.0	1262.6	1266.8	1267.5	1268.3	1272.5
15°	1264.0	1262.6	1264.7	1262.6	1250.4	1251.2	1249.0	1255.4	1256.1	1254.7	1259.0
17.5°	1246.2	1244.7	1249.0	1247.6	1235.5	1238.3	1237.6	1239.0	1241.2	1237.6	1243.3
20°	1224.1	1225.5	1226.9	1227.6	1218.4	1218.4	1217.6	1220.5	1222.6	1219.8	1224.1
22.5°	1191.3	1194.8	1199.1	1200.5	1194.1	1193.4	1197.7	1196.3	1198.4	1197.0	1199.8
25°	1149.9	1157.0	1161.3	1165.6	1162.0	1163.5	1169.9	1171.3	1171.3	1170.6	1173.4
27.5°	1098.6	1107.9	1115.7	1125.0	1121.4	1124.3	1134.9	1136.4	1139.2	1136.4	1142.1
30°	1037.3	1045.8	1060.8	1074.4	1075.8	1080.1	1095.0	1096.5	1104.3	1101.4	1103.6
32.5°	976.0	980.2	997.4	1010.9	1019.5	1030.2	1046.5	1049.4	1060.1	1062.2	1062.2
35°	899.0	911.1	926.8	946.0	956.7	968.1	990.2	994.5	1010.2	1015.2	1020.9
37.5°	834.1	845.5	855.5	875.4	894.7	907.5	925.4	936.0	952.4	961.7	968.8
40°	764.9	774.2	784.9	804.9	821.3	840.5	858.3	871.2	891.8	902.5	911.8
42.5°	699.4	706.5	717.9	732.2	749.3	770.7	787.8	802.7	824.8	839.8	850.5
45°	640.9	645.2	655.2	665.9	680.8	702.9	719.3	738.6	756.4	772.1	784.9
47.5°	586.0	591.7	596.7	603.8	617.4	630.9	650.2	668.7	686.5	703.6	716.5
50°	535.4	535.4	543.2	548.2	557.5	569.6	584.6	597.4	619.5	631.6	648.0
52.5°	486.2	489.1	493.3	496.2	503.3	511.2	523.3	534.0	552.5	563.9	579.6
55°	442.7	445.6	447.7	449.1	453.4	462.7	467.0	475.5	488.3	497.6	511.2
57.5°	401.4	402.8	404.9	405.6	406.4	412.1	415.6	417.8	430.6	439.9	451.3
60°	363.6	363.6	365.7	365.0	364.3	367.1	366.4	368.6	376.4	382.1	387.1
62.5°	327.9	327.9	328.7	327.2	326.5	326.5	323.7	325.8	327.9	328.7	332.2
65°	295.1	298.7	295.9	296.6	292.3	290.9	289.4	285.2	284.4	281.6	283.0
67.5°	265.9	268.8	265.9	265.9	262.3	259.5	255.9	248.8	246.7	241.0	239.5
70°	242.4	240.2	241.7	239.5	235.3	231.7	226.7	221.0	213.9	206.7	201.8
72.5°	219.6	219.6	218.1	216.0	213.9	206.7	201.0	194.6	186.1	176.8	169.7
75°	197.5	198.2	198.2	196.0	192.5	186.1	179.7	170.4	161.1	150.4	141.2
77.5°	181.8	181.8	181.8	178.2	174.7	169.0	161.1	151.1	141.2	128.3	117.6
80°	166.8	166.1	166.1	161.8	158.3	151.8	144.0	134.0	123.3	109.8	97.7
82.5°	154.7	154.0	152.6	149.0	144.0	137.6	129.7	119.1	107.6	95.5	80.6
85°	141.9	141.2	139.7	136.2	131.2	125.5	116.9	106.2	94.8	81.3	67.0
87.5°	130.5	129.7	127.6	125.5	119.8	113.4	104.8	94.8	82.7	69.9	55.6
90°	122.6	121.2	119.8	116.9	111.9	104.8	96.2	85.5	73.4	60.6	46.3
92.5°	113.4	112.6	110.5	107.6	103.4	96.2	87.7	77.7	65.6	53.5	39.9
95°	104.1	103.4	101.9	99.1	94.8	88.4	80.6	70.6	59.2	47.1	34.9
97.5°	95.5	95.5	93.4	91.3	86.3	81.3	73.4	64.2	53.5	42.8	31.4
100°	88.4	88.4	86.3	83.4	79.8	74.9	67.0	58.5	48.5	38.5	27.1
102.5°	82.0	81.3	79.8	77.0	73.4	68.4	61.3	53.5	44.2	34.2	24.2
105°	76.3	75.6	74.1	71.3	68.4	62.7	57.0	49.2	39.9	30.7	21.4
107.5°	70.6	69.9	69.2	66.3	62.7	57.7	52.0	44.2	36.4	27.8	19.2
110°	65.6	64.9	63.4	60.6	57.0	52.8	47.1	40.6	32.8	25.0	17.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	61.3	60.6	59.2	56.3	53.5	48.5	43.5	36.4	29.9	22.8	15.0
115°	57.0	56.3	54.9	52.0	48.5	44.2	39.2	33.5	26.4	20.0	13.5
117.5°	52.8	52.0	50.6	48.5	44.9	40.6	35.6	29.9	23.5	18.5	12.1
120°	49.2	47.8	46.3	44.2	40.6	37.1	32.1	27.1	21.4	16.4	10.7
122.5°	45.6	44.2	42.8	40.6	37.1	33.5	28.5	24.2	20.0	15.0	10.0
125°	41.3	40.6	39.2	37.1	33.5	29.9	26.4	22.1	17.8	13.5	8.6
127.5°	37.8	37.1	35.6	32.8	29.9	27.1	23.5	20.0	15.7	11.4	7.8
130°	34.9	33.5	32.1	29.9	27.8	25.0	21.4	17.8	14.3	10.0	7.1
132.5°	31.4	29.9	28.5	27.1	25.0	22.1	19.2	15.7	12.8	9.3	6.4
135°	28.5	27.1	25.7	24.2	22.1	20.0	17.1	14.3	11.4	8.6	5.7
137.5°	25.0	24.2	23.5	22.1	20.0	17.8	15.7	12.1	10.0	7.8	5.0
140°	22.8	22.1	21.4	19.2	17.8	15.7	13.5	10.7	8.6	6.4	4.3
142.5°	20.7	20.0	18.5	17.1	15.7	14.3	11.4	10.0	7.8	5.7	4.3
145°	17.8	17.1	16.4	15.0	13.5	11.4	10.0	8.6	7.1	5.0	3.6
147.5°	16.4	15.7	14.3	12.8	11.4	10.0	9.3	7.8	5.7	4.3	2.9
150°	13.5	12.8	12.1	10.7	10.0	9.3	7.8	6.4	5.0	3.6	2.9
152.5°	11.4	10.7	10.0	10.0	8.6	7.8	6.4	5.7	4.3	3.6	2.1
155°	10.0	10.0	9.3	8.6	7.1	6.4	5.7	4.3	3.6	2.9	2.1
157.5°	8.6	7.8	7.1	7.1	6.4	5.7	4.3	3.6	2.9	2.9	2.1
160°	7.1	6.4	6.4	5.7	5.0	4.3	3.6	3.6	2.9	2.1	2.1
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-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1298.2	1290.4	1297.5	1306.8	1306.8	1305.3	1303.9	1306.8	1313.9	1311.0	1302.5
5°	1296.1	1288.2	1294.6	1303.9	1303.9	1301.8	1300.3	1302.5	1310.3	1306.8	1298.9
7.5°	1291.8	1284.7	1288.9	1297.5	1297.5	1295.4	1293.9	1296.8	1303.2	1299.6	1291.1
10°	1283.9	1276.1	1281.1	1288.9	1288.2	1286.8	1284.7	1288.2	1293.9	1288.9	1279.0
12.5°	1274.0	1266.1	1270.4	1277.5	1276.8	1274.0	1272.5	1274.7	1279.7	1276.8	1266.1
15°	1260.4	1252.6	1256.1	1263.3	1261.1	1259.0	1256.1	1256.9	1263.3	1258.3	1246.9
17.5°	1244.0	1235.5	1238.3	1244.7	1242.6	1240.5	1236.9	1237.6	1244.7	1237.6	1225.5
20°	1224.1	1214.8	1216.9	1224.8	1221.2	1217.6	1214.1	1214.1	1221.2	1213.4	1199.8
22.5°	1202.7	1193.4	1194.8	1200.5	1197.7	1191.3	1187.7	1189.8	1193.4	1183.4	1169.2
25°	1176.3	1164.2	1166.3	1172.0	1169.9	1161.3	1157.8	1159.2	1157.8	1149.9	1134.9
27.5°	1145.6	1132.8	1134.2	1137.8	1134.9	1127.1	1122.8	1123.5	1120.7	1110.7	1093.6
30°	1107.1	1100.7	1100.0	1102.2	1097.9	1090.0	1085.0	1083.6	1082.9	1068.6	1048.0
32.5°	1067.9	1062.2	1058.7	1061.5	1056.5	1048.7	1040.1	1040.1	1033.0	1019.5	1001.6
35°	1028.0	1018.7	1015.2	1017.3	1011.6	1001.6	994.5	990.9	980.2	963.1	943.9
37.5°	976.7	970.3	966.0	968.1	961.7	954.6	941.0	937.5	926.1	902.5	878.3
40°	921.1	916.1	911.8	913.9	906.8	896.1	884.0	878.3	865.5	839.1	819.8
42.5°	861.2	859.1	854.1	861.9	847.6	837.0	824.8	815.6	802.7	774.2	752.1
45°	797.7	802.7	791.3	793.5	784.2	774.9	762.1	748.6	735.7	708.6	683.7
47.5°	730.7	734.3	726.5	727.9	717.9	709.3	697.9	680.8	666.6	643.0	620.9
50°	661.6	660.2	660.2	658.7	650.9	640.2	628.8	613.1	598.8	577.5	558.9
52.5°	588.1	591.0	592.4	596.0	586.0	579.6	561.8	548.2	537.5	515.4	499.7
55°	517.6	527.6	524.7	526.1	514.7	509.7	495.5	484.8	469.1	456.3	446.3
57.5°	453.4	455.5	457.0	459.1	454.1	444.1	432.7	424.2	412.1	401.4	394.2
60°	391.4	391.4	392.1	395.7	390.7	382.1	373.6	367.1	358.6	352.2	347.9
62.5°	332.9	337.9	338.6	335.8	329.4	325.1	319.4	315.8	310.1	308.0	306.6
65°	278.7	278.7	278.7	280.2	276.6	273.8	270.2	269.5	271.6	268.8	270.2
67.5°	233.1	231.0	229.6	230.3	228.8	227.4	226.7	228.8	233.1	233.1	236.7
70°	193.9	189.6	186.8	186.8	186.8	187.5	189.6	193.9	201.0	203.9	208.9
72.5°	161.8	152.6	148.3	148.3	149.0	151.8	158.3	166.1	172.5	178.2	184.6
75°	131.2	121.9	115.5	114.8	116.2	120.5	129.7	136.9	147.6	155.4	163.3
77.5°	106.2	94.8	87.0	86.3	88.4	94.8	106.2	115.5	127.6	136.2	144.7
80°	84.8	72.0	65.6	61.3	64.9	72.7	85.5	97.0	108.4	119.8	130.5
82.5°	67.7	55.6	45.6	41.3	45.6	56.3	68.4	82.0	93.4	105.5	116.2
85°	53.5	40.6	29.2	25.0	29.9	41.3	54.9	68.4	81.3	93.4	104.1
87.5°	42.1	29.2	17.8	12.1	18.5	30.7	43.5	57.0	70.6	82.7	93.4
90°	32.8	20.7	10.0	1.4	10.7	22.1	34.9	47.8	61.3	73.4	84.1
92.5°	27.8	15.7	5.7	0.0	6.4	16.4	28.5	41.3	53.5	65.6	76.3
95°	23.5	12.8	4.3	0.0	4.3	12.8	23.5	34.9	47.1	59.2	69.9
97.5°	20.0	10.0	2.9	0.0	2.9	10.0	19.2	30.7	41.3	52.8	62.7
100°	17.1	8.6	2.1	0.0	2.1	7.8	16.4	26.4	37.1	47.8	57.0
102.5°	15.0	7.1	1.4	0.0	1.4	6.4	13.5	22.8	32.1	42.1	51.3
105°	12.8	5.7	1.4	0.0	0.7	5.0	11.4	20.0	28.5	37.8	46.3
107.5°	11.4	5.0	1.4	0.0	0.7	4.3	10.0	17.1	25.7	33.5	41.3
110°	10.0	4.3	1.4	0.0	0.7	2.9	8.6	15.0	22.1	29.9	37.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	8.6	3.6	0.7	0.0	0.0	2.1	7.1	12.8	19.2	27.1	33.5
115°	7.8	3.6	0.7	0.0	0.0	1.4	5.7	11.4	17.1	24.2	29.9
117.5°	7.1	2.9	0.7	0.0	0.7	1.4	5.0	10.0	15.0	20.7	27.1
120°	6.4	2.9	0.7	0.0	0.7	0.7	3.6	8.6	12.8	18.5	23.5
122.5°	5.7	2.9	0.7	0.0	0.7	0.7	2.9	7.1	11.4	16.4	20.7
125°	5.0	2.1	1.4	0.7	0.7	0.7	2.1	5.7	10.0	13.5	18.5
127.5°	5.0	2.1	1.4	0.7	0.7	0.7	1.4	5.0	7.8	12.1	16.4
130°	4.3	2.1	1.4	0.7	0.7	0.7	0.7	3.6	7.1	10.0	13.5
132.5°	3.6	2.1	1.4	0.7	0.7	0.7	0.7	2.1	5.0	8.6	11.4
135°	3.6	2.1	1.4	0.7	0.7	0.7	0.7	1.4	3.6	6.4	9.3
137.5°	2.9	1.4	1.4	0.7	0.7	0.7	0.7	0.7	2.9	5.0	7.1
140°	2.9	1.4	1.4	0.7	0.7	0.7	0.7	0.7	2.1	3.6	5.7
142.5°	2.1	1.4	1.4	0.7	0.7	0.7	0.7	0.7	1.4	2.9	4.3
145°	2.1	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	1.4	2.9
147.5°	2.1	2.1	1.4	0.7	0.7	0.7	0.7	0.7	0.7	1.4	2.1
150°	2.1	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.4
152.5°	2.1	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.4
155°	2.1	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	1.4	1.4
157.5°	2.1	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.4
160°	2.1	1.4	1.4	0.7	1.4	0.7	1.4	1.4	1.4	1.4	1.4
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-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1299.6	1286.1	1293.2	1291.1	1293.9	1299.6	1298.9	1297.5	1297.5	1295.4	1292.5
5°	1295.4	1282.5	1288.9	1285.4	1288.9	1293.9	1293.2	1291.1	1292.5	1288.9	1285.4
7.5°	1286.8	1275.4	1281.1	1278.2	1281.1	1286.1	1283.9	1283.2	1284.7	1279.0	1276.8
10°	1276.8	1264.0	1270.4	1266.8	1270.4	1274.0	1272.5	1269.7	1272.5	1266.8	1264.7
12.5°	1261.1	1250.4	1254.7	1253.3	1255.4	1259.0	1256.1	1254.0	1255.4	1250.4	1246.2
15°	1244.0	1233.3	1236.9	1234.8	1236.2	1240.5	1235.5	1234.8	1233.3	1228.3	1226.9
17.5°	1221.9	1211.9	1215.5	1211.9	1214.1	1212.7	1211.9	1208.4	1208.4	1202.7	1198.4
20°	1194.8	1186.3	1184.1	1181.3	1184.1	1181.3	1177.0	1174.2	1173.4	1167.7	1164.2
22.5°	1163.5	1153.5	1154.9	1147.1	1147.8	1143.5	1136.4	1133.5	1130.7	1124.3	1119.3
25°	1125.7	1115.7	1108.6	1103.6	1097.2	1096.5	1087.2	1080.1	1079.3	1071.5	1070.8
27.5°	1082.9	1071.5	1065.8	1053.7	1045.8	1039.4	1031.6	1024.4	1020.9	1012.3	1006.6
30°	1033.7	1020.9	1006.6	998.1	986.0	981.0	967.4	958.9	956.0	946.7	942.5
32.5°	978.1	964.6	953.2	936.8	923.2	916.1	902.5	894.0	890.4	880.4	874.7
35°	917.5	902.5	889.0	873.3	862.6	850.5	834.1	825.5	817.7	814.1	809.9
37.5°	854.1	837.7	822.0	806.3	797.0	782.8	768.5	762.8	753.5	750.0	745.7
40°	788.5	772.1	757.1	742.1	731.4	718.6	705.8	703.6	693.7	690.1	687.2
42.5°	723.6	706.5	689.4	678.7	670.8	658.0	649.5	647.3	638.8	636.6	636.6
45°	665.1	643.8	629.5	620.2	613.8	603.1	596.0	594.6	587.4	586.0	586.0
47.5°	602.4	582.4	571.8	566.0	560.3	552.5	548.2	548.2	541.1	539.7	539.0
50°	543.9	525.4	517.6	511.9	511.2	505.5	501.9	500.5	500.5	495.5	496.2
52.5°	488.3	479.1	472.7	469.1	464.8	461.3	458.4	458.4	456.3	452.7	454.1
55°	437.0	426.3	427.0	424.2	422.0	419.9	420.6	416.3	415.6	412.8	414.9
57.5°	385.7	385.7	384.3	382.1	378.6	380.0	380.0	380.0	376.4	374.3	376.4
60°	342.2	344.3	340.8	342.9	341.5	342.2	340.8	340.8	338.6	337.9	338.6
62.5°	303.7	307.3	305.8	308.7	307.3	308.0	309.4	306.6	305.1	303.7	305.1
65°	269.5	273.8	273.0	275.2	275.9	276.6	277.3	275.9	274.5	273.0	272.3
67.5°	239.5	243.8	246.7	247.4	248.1	250.2	249.5	248.1	246.7	244.5	243.8
70°	212.4	218.1	221.7	223.1	226.0	224.6	224.6	223.9	222.4	220.3	219.6
72.5°	189.6	196.0	199.6	201.0	203.9	203.9	203.2	202.5	201.0	198.9	198.2
75°	169.7	175.4	180.4	183.2	185.4	185.4	184.6	183.9	182.5	181.1	180.4
77.5°	154.0	159.0	163.3	166.8	168.2	169.0	168.2	166.8	166.8	166.1	165.4
80°	138.3	144.0	148.3	151.8	154.0	154.0	153.3	154.0	152.6	151.8	151.1
82.5°	124.8	131.2	136.2	139.7	141.2	141.9	141.2	141.9	140.4	140.4	140.4
85°	112.6	119.1	124.8	127.6	129.7	130.5	130.5	130.5	129.7	129.7	129.7
87.5°	102.7	109.1	114.8	117.6	119.8	120.5	120.5	121.2	119.8	119.8	119.8
90°	93.4	99.8	105.5	108.4	110.5	111.9	111.9	112.6	111.9	111.2	111.2
92.5°	84.8	92.0	97.7	100.5	102.7	104.8	104.8	105.5	104.1	104.1	104.1
95°	77.7	84.8	89.8	93.4	95.5	97.0	97.7	97.7	97.0	97.0	97.0
97.5°	71.3	77.7	82.7	86.3	88.4	89.1	89.8	90.5	89.8	89.8	89.8
100°	64.9	71.3	76.3	79.1	82.0	82.7	83.4	84.1	84.1	83.4	83.4
102.5°	59.2	65.6	69.9	73.4	75.6	77.0	77.7	77.7	77.7	77.7	77.7
105°	53.5	59.9	64.2	67.7	69.9	71.3	72.0	72.7	72.7	72.0	72.0
107.5°	48.5	54.2	59.2	62.0	64.9	66.3	67.0	67.0	67.7	67.0	67.0
110°	43.5	49.9	54.2	57.0	59.9	61.3	62.0	62.7	62.7	62.7	62.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	39.9	44.9	49.2	52.0	54.9	56.3	57.0	57.7	58.5	57.7	57.7
115°	35.6	40.6	44.9	47.8	49.9	51.3	52.8	53.5	53.5	54.2	53.5
117.5°	32.1	36.4	40.6	43.5	45.6	47.8	48.5	49.2	49.9	49.2	49.2
120°	28.5	32.8	36.4	39.2	41.3	43.5	44.2	44.9	45.6	44.9	44.9
122.5°	25.7	29.2	32.8	35.6	37.8	39.2	40.6	40.6	41.3	41.3	41.3
125°	22.8	26.4	29.2	32.1	34.2	35.6	36.4	37.1	37.1	37.8	37.8
127.5°	20.0	22.8	26.4	28.5	30.7	32.1	32.8	33.5	33.5	34.2	34.2
130°	17.1	20.0	22.8	25.0	27.1	28.5	29.2	29.9	30.7	30.7	30.7
132.5°	15.0	17.8	20.0	22.1	23.5	25.0	26.4	27.1	27.1	27.1	27.1
135°	12.1	15.0	17.1	19.2	20.7	22.1	22.8	24.2	24.2	24.2	24.2
137.5°	10.0	12.8	15.0	16.4	17.8	19.2	20.0	20.7	21.4	21.4	21.4
140°	7.8	10.0	12.1	14.3	15.7	16.4	17.8	17.8	18.5	18.5	18.5
142.5°	5.7	7.8	9.3	11.4	12.8	14.3	15.0	15.7	15.7	15.7	15.7
145°	4.3	5.7	7.1	8.6	10.7	11.4	12.1	12.8	13.5	13.5	13.5
147.5°	2.9	4.3	5.0	6.4	7.8	9.3	10.0	10.7	11.4	11.4	11.4
150°	2.1	2.9	4.3	5.0	5.7	7.1	8.6	8.6	9.3	9.3	8.6
152.5°	1.4	2.1	2.9	3.6	4.3	5.0	6.4	6.4	7.1	7.1	7.1
155°	1.4	1.4	1.4	2.1	2.9	3.6	4.3	5.0	5.0	5.0	5.0
157.5°	1.4	1.4	1.4	1.4	1.4	2.1	2.9	3.6	3.6	3.6	3.6
160°	1.4	1.4	0.7	0.7	1.4	1.4	1.4	1.4	2.1	2.1	2.1
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-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1294.6	1296.1	1296.1	1294.6	1293.9	1296.8	1293.2	1279.7	1283.9	1285.4	1289.6
5°	1288.2	1289.6	1289.6	1289.6	1288.2	1291.1	1287.5	1274.0	1279.0	1281.1	1283.9
7.5°	1279.0	1279.7	1281.1	1280.4	1279.0	1283.2	1279.7	1266.1	1269.7	1273.3	1276.8
10°	1266.8	1266.8	1267.5	1269.0	1267.5	1271.1	1267.5	1255.4	1259.0	1261.1	1265.4
12.5°	1250.4	1251.9	1252.6	1251.9	1251.2	1254.0	1252.6	1241.2	1242.6	1246.9	1251.2
15°	1228.3	1228.3	1231.9	1230.5	1230.5	1233.3	1234.8	1221.9	1224.1	1230.5	1234.8
17.5°	1201.2	1202.0	1204.8	1206.2	1205.5	1210.5	1211.2	1201.2	1200.5	1208.4	1212.7
20°	1166.3	1167.7	1171.3	1174.2	1174.2	1179.9	1182.0	1175.6	1176.3	1184.9	1186.3
22.5°	1123.5	1123.5	1130.0	1134.2	1137.8	1141.4	1147.8	1142.1	1142.1	1153.5	1159.9
25°	1070.8	1075.8	1077.9	1086.5	1091.5	1101.4	1107.1	1107.9	1108.6	1119.3	1123.5
27.5°	1012.3	1013.8	1020.2	1030.2	1035.9	1045.1	1055.8	1058.0	1061.5	1075.8	1082.2
30°	946.0	950.3	953.2	967.4	975.3	987.4	1000.9	1005.9	1008.8	1028.0	1035.9
32.5°	878.3	879.7	891.8	899.7	909.0	921.8	937.5	946.7	952.4	972.4	983.8
35°	810.6	813.4	823.4	833.4	842.7	855.5	871.9	884.7	894.7	912.5	927.5
37.5°	748.6	755.7	757.8	767.8	774.9	787.8	799.2	817.7	827.7	846.2	865.5
40°	692.9	695.1	696.5	706.5	711.5	723.6	740.0	752.1	765.7	779.2	802.0
42.5°	638.1	639.5	641.6	647.3	653.0	661.6	673.7	685.8	700.1	720.0	735.0
45°	587.4	588.9	590.3	593.9	598.8	606.7	614.5	623.1	637.3	654.4	670.1
47.5°	540.4	543.2	543.2	543.9	547.5	553.9	559.6	570.3	578.2	587.4	605.3
50°	495.5	497.6	498.3	498.3	500.5	504.7	506.2	513.3	520.4	529.0	541.8
52.5°	453.4	453.4	452.7	455.5	455.5	458.4	459.1	463.4	468.4	477.6	483.4
55°	413.5	413.5	415.6	414.2	414.2	415.6	414.9	415.6	419.9	425.6	430.6
57.5°	375.0	374.3	376.4	375.0	374.3	375.7	377.1	374.3	375.0	380.7	380.7
60°	336.5	337.2	339.3	337.9	337.9	337.9	336.5	335.1	333.6	337.2	338.6
62.5°	305.8	303.7	305.8	303.7	305.1	304.4	303.0	300.1	300.8	299.4	298.0
65°	273.8	273.8	274.5	272.3	273.8	273.8	271.6	270.9	266.6	265.2	261.6
67.5°	246.0	246.0	246.7	245.2	245.2	246.0	243.8	241.7	237.4	235.3	230.3
70°	221.7	221.7	221.7	221.0	221.0	221.0	219.6	216.7	212.4	208.9	202.5
72.5°	199.6	200.3	199.6	199.6	201.8	199.6	197.5	194.6	191.1	183.9	178.2
75°	181.8	182.5	181.8	181.8	181.8	181.1	180.4	176.1	171.8	166.1	157.6
77.5°	166.1	166.1	166.8	166.1	166.1	165.4	163.3	159.7	154.7	149.7	139.7
80°	151.1	151.8	152.6	153.3	151.8	151.1	149.0	146.1	139.7	134.0	124.0
82.5°	140.4	139.7	140.4	141.2	139.7	139.0	136.9	133.3	128.3	120.5	110.5
85°	129.7	129.0	129.0	129.7	129.0	127.6	125.5	121.9	116.9	109.1	99.1
87.5°	119.1	119.8	120.5	119.8	119.1	117.6	115.5	111.9	106.2	99.8	89.1
90°	111.2	111.2	111.2	111.2	110.5	109.1	106.9	102.7	97.7	89.8	80.6
92.5°	104.1	104.1	104.1	104.1	103.4	101.2	99.1	95.5	89.8	82.0	73.4
95°	97.0	97.7	97.0	97.0	95.5	94.8	91.3	87.7	82.7	74.9	65.6
97.5°	89.1	89.8	89.1	89.1	88.4	87.0	84.8	80.6	75.6	68.4	59.9
100°	83.4	83.4	82.7	82.7	82.0	80.6	77.7	74.1	69.2	62.0	53.5
102.5°	77.0	77.7	77.0	77.0	75.6	74.1	72.0	68.4	63.4	56.3	48.5
105°	72.0	72.0	71.3	71.3	69.9	68.4	66.3	62.0	57.7	51.3	43.5
107.5°	67.0	67.0	66.3	66.3	64.9	63.4	60.6	57.0	52.8	46.3	39.2
110°	62.0	62.0	62.0	61.3	59.9	57.7	55.6	52.0	47.8	42.1	34.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	58.5	57.7	57.0	56.3	54.9	53.5	50.6	47.1	42.8	37.8	31.4
115°	53.5	53.5	52.8	52.0	50.6	48.5	46.3	43.5	39.2	33.5	27.8
117.5°	49.2	49.2	48.5	47.8	46.3	44.2	42.1	39.2	34.9	29.9	25.0
120°	44.9	44.9	44.2	43.5	42.1	39.9	38.5	34.9	31.4	26.4	22.1
122.5°	41.3	40.6	40.6	39.2	38.5	36.4	34.2	31.4	27.8	23.5	19.2
125°	37.1	37.1	36.4	35.6	34.9	32.8	30.7	27.8	24.2	20.7	17.1
127.5°	33.5	33.5	32.8	32.1	31.4	29.2	27.1	25.0	21.4	17.8	14.3
130°	29.9	29.9	29.2	28.5	27.8	25.7	24.2	21.4	18.5	15.7	12.1
132.5°	27.1	27.1	26.4	25.7	24.2	22.8	21.4	18.5	16.4	13.5	10.7
135°	24.2	23.5	23.5	22.8	21.4	20.0	18.5	16.4	13.5	11.4	8.6
137.5°	21.4	20.7	20.0	19.2	18.5	17.1	15.7	14.3	12.1	9.3	7.1
140°	18.5	17.8	17.8	17.1	15.7	15.0	13.5	11.4	10.0	7.8	5.7
142.5°	15.7	15.7	15.0	14.3	13.5	12.8	11.4	10.0	7.8	6.4	4.3
145°	13.5	12.8	12.8	12.1	11.4	10.0	9.3	7.8	6.4	5.0	3.6
147.5°	10.7	10.7	10.7	10.0	9.3	8.6	7.8	6.4	5.0	3.6	2.1
150°	8.6	8.6	8.6	7.8	7.1	6.4	5.7	5.0	3.6	2.1	1.4
152.5°	7.1	7.1	6.4	6.4	5.7	5.0	4.3	3.6	2.1	1.4	1.4
155°	5.0	5.0	5.0	4.3	4.3	3.6	2.9	2.1	1.4	1.4	1.4
157.5°	3.6	3.6	3.6	2.9	2.9	2.1	2.1	1.4	1.4	1.4	1.4
160°	2.1	2.1	2.1	2.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1287.5	1286.8	1292.5	1292.5	1286.1	1296.1	1306.8
5°	1283.2	1282.5	1288.2	1288.2	1282.5	1292.5	1303.9
7.5°	1274.7	1275.4	1281.1	1282.5	1275.4	1284.7	1296.8
10°	1265.4	1264.7	1271.1	1272.5	1266.8	1275.4	1286.8
12.5°	1250.4	1250.4	1256.9	1259.0	1253.3	1263.3	1274.0
15°	1234.8	1234.8	1239.0	1242.6	1237.6	1246.9	1257.6
17.5°	1214.8	1214.1	1218.4	1222.6	1217.6	1227.6	1239.0
20°	1189.1	1189.1	1194.1	1199.1	1195.5	1204.8	1217.6
22.5°	1162.0	1159.2	1167.7	1171.3	1169.2	1178.4	1191.3
25°	1127.8	1127.1	1135.7	1140.7	1137.8	1147.8	1159.2
27.5°	1090.7	1090.0	1098.6	1105.0	1103.6	1112.8	1125.7
30°	1045.8	1049.4	1057.2	1067.9	1064.4	1074.4	1087.9
32.5°	998.8	1002.3	1011.6	1023.0	1023.7	1031.6	1045.1
35°	942.5	951.7	958.1	973.1	976.0	983.8	998.1
37.5°	883.3	894.0	907.5	918.9	924.6	931.1	947.5
40°	817.0	832.7	847.6	861.2	868.3	874.7	890.4
42.5°	757.1	769.2	783.5	797.0	809.9	815.6	832.0
45°	689.4	703.6	716.5	732.9	745.7	752.1	768.5
47.5°	623.1	637.3	654.4	665.9	679.4	685.8	701.5
50°	559.6	572.5	586.7	600.3	611.7	617.4	630.9
52.5°	496.9	510.4	524.0	532.5	544.7	548.9	560.3
55°	441.3	450.6	462.7	467.7	479.8	482.6	490.5
57.5°	387.8	394.2	398.5	407.1	415.6	422.0	431.3
60°	339.3	342.2	345.0	350.0	357.2	359.3	362.9
62.5°	295.9	295.1	300.8	302.3	303.0	310.1	306.6
65°	257.4	258.1	253.1	250.9	253.8	255.9	254.5
67.5°	225.3	221.0	216.7	211.7	207.5	209.6	207.5
70°	193.9	190.3	183.2	176.1	173.2	169.0	166.8
72.5°	169.0	160.4	153.3	144.0	139.0	134.0	130.5
75°	149.7	137.6	127.6	117.6	110.5	103.4	101.9
77.5°	129.7	118.3	106.9	96.2	85.5	77.7	74.9
80°	114.1	103.4	89.8	77.0	65.6	55.6	52.0
82.5°	99.8	88.4	74.9	61.3	48.5	37.8	33.5
85°	87.7	75.6	62.0	48.5	35.6	24.2	18.5
87.5°	78.4	64.9	51.3	38.5	25.0	13.5	7.1
90°	69.9	57.0	44.2	30.7	17.8	7.1	0.0
92.5°	62.0	49.9	37.1	25.0	13.5	4.3	0.7
95°	54.9	44.2	31.4	20.0	10.0	2.9	0.7
97.5°	49.2	38.5	27.1	16.4	7.8	2.1	0.7
100°	44.2	33.5	23.5	13.5	6.4	1.4	0.7
102.5°	39.2	29.9	20.0	11.4	5.0	0.7	0.7
105°	34.9	26.4	17.1	10.0	4.3	0.7	0.7
107.5°	31.4	23.5	15.0	8.6	2.9	0.7	0.7
110°	27.8	20.0	12.8	7.1	2.1	0.7	0.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-41SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	25.0	17.8	11.4	5.7	1.4	0.7	0.7
115°	22.1	15.7	10.0	5.0	1.4	0.7	0.7
117.5°	19.2	13.5	8.6	3.6	0.7	0.7	0.7
120°	17.1	12.1	7.1	2.9	0.7	0.7	0.7
122.5°	15.0	10.0	5.7	2.1	0.7	0.7	0.7
125°	12.8	8.6	5.0	1.4	0.7	0.7	0.7
127.5°	10.7	7.1	3.6	1.4	0.7	0.7	0.7
130°	9.3	5.7	2.9	0.7	0.7	0.7	0.7
132.5°	7.8	4.3	2.1	0.7	0.7	0.7	0.7
135°	6.4	3.6	1.4	0.7	0.7	0.7	0.7
137.5°	5.0	2.9	1.4	0.7	0.7	0.7	0.7
140°	3.6	2.1	0.7	0.7	0.7	0.7	0.7
142.5°	2.9	1.4	0.7	0.7	0.7	0.7	0.7
145°	2.1	1.4	0.7	0.7	0.7	0.7	0.7
147.5°	1.4	1.4	1.4	1.4	0.7	0.7	0.7
150°	1.4	1.4	0.7	0.7	1.4	0.7	0.7
152.5°	1.4	0.7	0.7	0.7	1.4	0.7	0.7
155°	1.4	1.4	1.4	1.4	1.4	1.4	0.7
157.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4
160°	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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)