

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1213722

Luminaire Tested: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213722
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33525)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

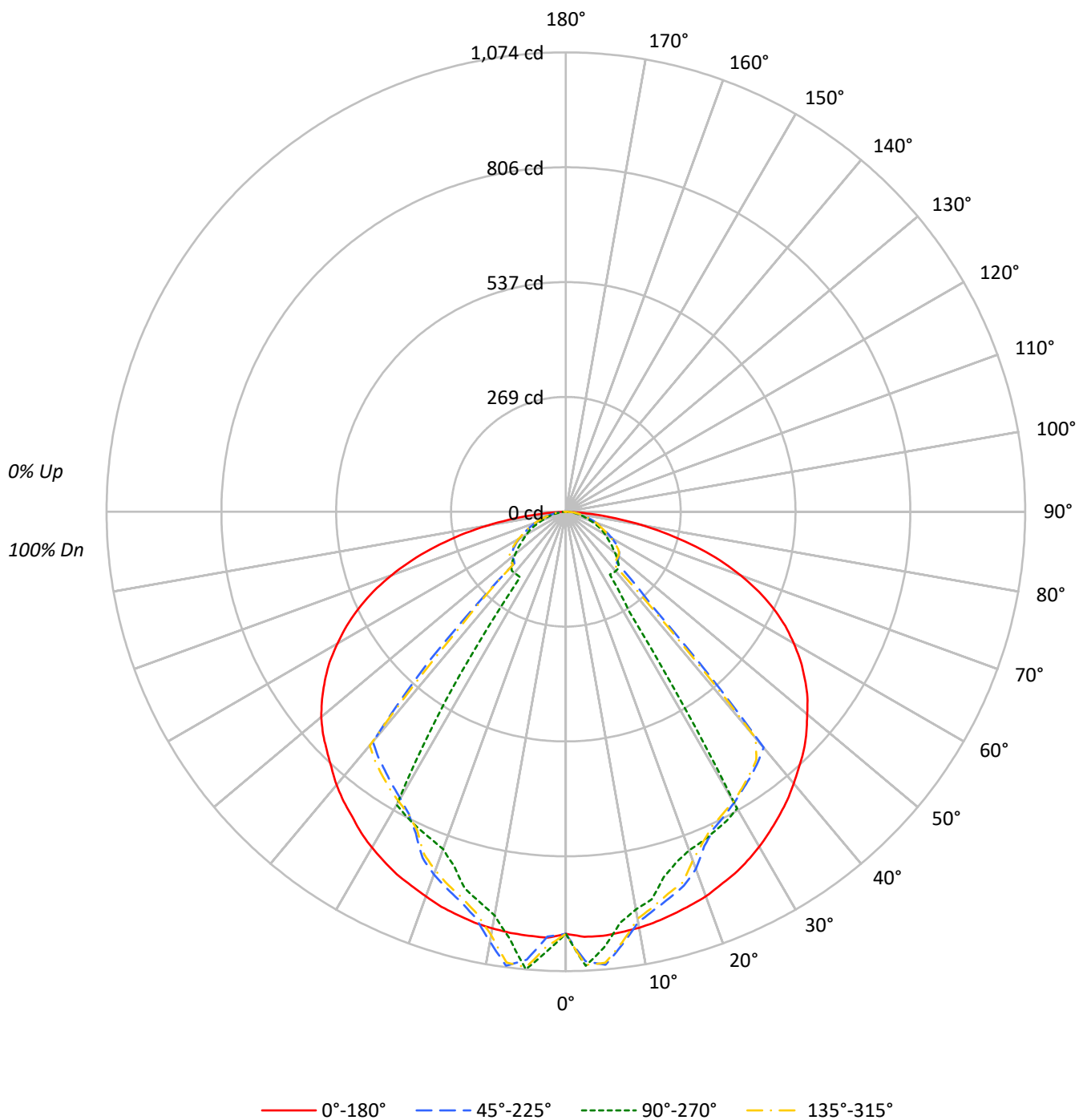
Lumens per Lamp: N/A
Luminaire Lumens: 1976.0 lumens
Efficiency: N/A
Efficacy: 123.5 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 16
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: 24 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77
3	94	84	77	72	91	83	76	71	80	74	70	77	73	69	75	71	67
4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39
9	62	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	7974	7974	7974	7974
5°	8053	8034	8049	8432
10°	8060	7264	8071	7375
15°	8078	6720	8097	6933
20°	8136	6374	8136	6350
25°	8207	6253	8219	6194
30°	8290	6142	8311	6069
35°	8386	1399	8404	1459
40°	8521	1454	8572	1502
45°	8725	1447	8755	1499
50°	8929	1308	9049	1344
55°	9203	1161	9276	1178
60°	9437	1032	9457	1045
65°	9604	900	9578	887
70°	9465	726	9437	699
75°	8788	559	8853	536
80°	7131	397	7420	363
85°	3860	238	4079	182

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 357.5°

Vertical Angle: 60°

Luminance: 9669 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.1	4.9
10°-20°	266.9	13.5
20°-30°	395.4	20.0
30°-40°	398.4	20.2
40°-50°	311.2	15.7
50°-60°	240.4	12.2
60°-70°	161.4	8.2
70°-80°	82.3	4.2
80°-90°	22.9	1.2
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°	759.4	38.4
0°-40°	1157.8	58.6
0°-60°	1709.4	86.5
0°-90°	1976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1976.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	987	987	987	987	987	
5°	995	1023	995	1074	995	95
15°	974	884	976	912	974	275
25°	934	824	935	816	934	431
35°	869	179	870	187	869	544
45°	787	174	790	180	787	607
55°	682	127	688	128	682	609
65°	536	85	534	84	536	527
75°	314	43	317	41	314	329
85°	56	14	60	10	56	78
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	994.5	998.1	1000.8	1002.6	1003.5	1003.5	1003.9	1004.4	1010.3	1013.0	1014.8
5°	995.4	999.0	1004.4	1011.6	1018.0	1023.4	1027.9	1034.2	1040.6	1047.4	1049.6
7.5°	991.3	995.8	1006.7	1019.8	1032.0	1040.6	1046.5	1050.5	1053.7	1054.1	1056.4
10°	987.7	995.8	1010.7	1027.9	1043.3	1053.7	1053.7	1051.4	1054.6	1042.4	1030.2
12.5°	981.3	990.4	1010.7	1033.3	1047.8	1051.9	1050.1	1041.0	1022.5	1007.6	1000.8
15°	973.6	985.9	1011.2	1036.5	1048.7	1050.1	1032.9	1009.8	995.8	986.8	975.5
17.5°	965.1	981.3	1011.6	1037.0	1041.5	1035.2	1002.6	988.1	973.6	952.4	937.0
20°	956.9	972.7	1008.0	1030.6	1033.3	1004.9	979.5	964.2	939.7	921.2	914.4
22.5°	944.3	962.8	1004.9	1022.0	1011.6	978.6	954.2	929.8	907.6	902.2	894.1
25°	933.9	953.3	997.6	1011.6	984.1	954.7	926.2	897.7	887.3	879.6	872.3
27.5°	919.8	943.8	988.1	992.6	954.7	928.9	887.3	874.6	865.1	856.5	853.4
30°	904.5	933.9	975.0	966.4	930.2	892.2	861.5	849.7	843.0	833.9	830.3
32.5°	886.8	918.9	960.5	936.1	904.0	856.5	836.6	827.6	818.5	811.8	789.1
35°	868.7	905.8	943.3	907.2	872.3	829.4	811.8	803.6	795.0	770.1	746.6
37.5°	850.2	891.3	922.5	876.0	830.3	801.3	786.4	777.4	757.9	726.3	714.5
40°	828.9	873.7	895.9	843.9	793.7	772.9	758.8	749.8	705.9	691.9	688.3
42.5°	807.7	856.5	863.3	812.7	763.4	742.6	730.8	701.0	671.1	663.9	665.2
45°	787.3	838.0	827.6	768.3	731.7	714.5	694.6	653.5	637.6	641.3	642.2
47.5°	762.9	815.8	790.0	724.0	699.1	682.0	637.6	612.8	610.5	615.5	618.2
50°	736.7	790.9	750.2	683.8	663.9	643.5	593.3	580.7	583.4	588.3	591.5
52.5°	712.3	762.9	709.1	646.2	629.1	582.5	548.6	550.8	555.3	561.2	563.0
55°	682.4	729.0	665.2	608.2	592.0	530.9	515.5	521.0	525.5	530.5	534.1
57.5°	651.2	690.1	613.2	565.7	539.5	485.2	486.6	490.2	493.4	499.3	206.2
60°	615.5	645.8	556.2	526.4	474.4	449.1	450.4	456.8	459.9	256.9	142.0
62.5°	578.4	594.2	504.7	481.6	414.7	412.9	419.2	421.9	287.2	135.7	133.0
65°	535.9	532.7	454.0	417.4	374.0	375.8	382.6	369.0	127.1	127.1	126.2
67.5°	488.9	469.9	404.7	345.5	334.6	338.7	346.0	120.7	117.6	118.5	115.3
70°	435.0	408.4	353.6	292.6	296.2	300.3	116.7	109.4	108.1	105.8	99.5
72.5°	378.1	341.4	289.4	254.2	256.4	161.0	102.2	98.6	94.1	89.5	82.8
75°	314.3	266.8	212.5	212.5	215.7	91.8	89.1	83.2	78.2	72.4	68.3
77.5°	246.5	205.3	165.1	171.4	83.7	76.9	71.9	65.6	61.5	57.9	55.6
80°	180.4	143.4	124.4	111.2	65.1	58.3	53.4	49.7	47.9	45.7	43.0
82.5°	118.5	86.4	86.4	52.5	45.7	40.2	38.9	36.2	34.4	33.0	31.7
85°	56.5	50.2	38.0	32.1	28.5	25.8	24.9	23.5	23.5	23.1	22.6
87.5°	20.8	22.6	16.7	16.3	15.4	14.9	15.4	15.4	15.8	15.4	14.9
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	1019.3	1022.9	1025.7	1030.2	1036.1	1041.0	1045.6	1051.9	1061.8	1064.5	1066.8
5°	1049.6	1051.0	1054.1	1057.8	1058.7	1060.9	1060.5	1063.2	1064.5	1067.7	1060.9
7.5°	1051.4	1044.2	1035.6	1027.9	1022.5	1017.5	1014.3	1019.3	1022.0	1024.3	1017.5
10°	1013.4	1004.9	999.9	995.4	989.9	982.2	971.8	974.1	973.2	973.2	970.9
12.5°	989.5	977.3	964.6	953.3	948.3	947.9	948.3	953.3	953.3	952.8	950.1
15°	951.9	940.2	933.9	931.1	931.1	929.8	929.8	935.2	933.9	933.9	932.5
17.5°	927.1	918.9	914.4	911.2	909.9	912.1	914.9	917.1	917.6	915.8	908.5
20°	906.7	899.0	893.6	894.5	894.1	895.4	896.8	889.1	879.6	866.9	861.0
22.5°	885.5	879.6	875.5	875.5	870.1	861.5	848.8	846.1	844.8	838.9	833.9
25°	865.1	858.3	852.5	834.4	823.1	824.4	822.2	817.6	817.2	816.7	818.5
27.5°	844.8	827.1	804.5	801.8	797.3	796.8	799.5	801.8	801.8	803.6	805.9
30°	802.7	782.4	778.3	773.3	775.1	781.5	782.8	786.0	786.9	790.0	791.9
32.5°	764.3	755.2	751.6	753.9	759.7	765.2	768.3	769.7	772.0	774.7	776.9
35°	733.1	730.3	733.5	738.5	744.4	748.9	751.6	754.3	756.6	758.8	760.6
37.5°	710.0	711.8	716.3	722.7	728.5	732.2	734.4	737.6	740.8	743.5	732.6
40°	688.3	692.8	697.8	704.6	709.5	713.2	715.4	719.5	692.4	313.4	171.8
42.5°	669.3	674.3	677.9	683.3	688.7	691.5	671.6	299.8	169.6	168.7	170.9
45°	646.2	650.3	656.2	660.3	665.2	436.9	166.9	168.7	166.0	167.8	168.7
47.5°	622.7	629.1	632.2	603.3	179.5	166.0	164.2	166.0	164.2	166.4	165.1
50°	596.0	603.7	429.6	162.4	161.0	160.1	161.9	161.0	162.4	164.2	160.5
52.5°	568.9	352.3	157.4	156.5	157.4	156.5	159.6	157.4	157.8	156.0	151.5
55°	192.6	152.4	151.0	150.6	153.3	153.3	153.3	149.7	147.4	142.9	139.7
57.5°	147.4	147.4	147.0	147.4	146.5	145.6	141.5	138.4	135.2	128.9	127.1
60°	139.7	139.7	139.7	139.7	135.7	133.9	127.5	124.8	119.4	116.2	114.4
62.5°	133.4	132.5	128.4	127.1	122.6	117.6	114.0	111.2	105.8	104.0	102.7
65°	124.4	121.2	116.2	110.8	108.5	103.1	101.3	97.2	94.5	93.2	92.3
67.5°	109.4	104.9	100.8	97.2	93.2	91.4	89.1	85.9	84.1	83.2	82.3
70°	93.6	90.4	86.4	84.1	81.4	80.0	76.9	76.0	74.6	73.3	71.9
72.5°	78.2	76.4	74.6	71.5	70.5	69.6	66.5	64.7	62.9	61.1	60.1
75°	65.6	64.2	63.3	60.6	59.2	56.5	54.3	52.9	51.6	50.2	49.3
77.5°	53.8	52.9	50.2	48.4	47.5	45.2	44.3	44.8	43.9	42.1	41.2
80°	42.1	41.2	38.9	38.9	38.0	37.1	36.2	35.3	34.4	33.0	32.1
82.5°	32.1	31.2	30.3	29.4	28.5	28.0	27.6	26.7	25.8	24.9	24.4
85°	22.6	22.2	21.7	21.3	20.8	20.4	19.9	19.0	18.1	17.6	17.2
87.5°	15.4	14.9	14.5	14.0	13.6	13.1	12.7	12.2	11.3	10.9	10.4
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):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	1066.8	1069.1	1066.8	1061.8	1058.7	1057.3	1060.0	1060.0	1061.8	1064.1	1064.5
5°	1050.1	1044.6	1038.3	1032.0	1028.8	1027.0	1022.0	1022.9	1024.3	1025.2	1026.1
7.5°	1008.5	1001.2	992.6	984.5	981.3	978.6	972.7	972.7	972.7	973.2	975.9
10°	966.0	962.8	959.2	953.8	949.7	948.3	943.3	944.7	943.8	945.2	948.3
12.5°	946.1	942.4	939.3	933.9	929.3	927.5	925.3	926.6	926.2	928.4	931.1
15°	928.0	926.2	922.5	918.5	914.4	910.8	902.6	899.9	898.1	895.9	899.0
17.5°	898.1	885.5	876.9	870.5	866.0	862.9	860.6	860.6	861.9	863.3	866.0
20°	857.4	853.8	849.7	843.0	838.4	836.6	835.3	835.3	837.5	839.3	844.3
22.5°	829.4	828.9	827.6	824.4	822.2	822.2	822.6	823.5	826.7	829.4	834.4
25°	816.3	818.1	817.2	815.4	814.0	814.5	813.6	814.5	817.6	820.3	824.4
27.5°	805.9	808.6	807.7	805.0	802.7	803.6	805.0	804.1	806.8	809.9	813.1
30°	791.9	792.3	794.1	790.9	790.0	791.4	791.9	792.8	795.5	797.7	800.4
32.5°	776.0	779.6	779.2	776.0	776.0	777.4	777.8	747.5	691.0	595.1	568.9
35°	760.6	764.7	757.9	639.0	442.3	236.1	182.2	175.9	177.3	178.2	179.1
37.5°	562.6	266.8	170.0	171.4	172.8	174.1	175.5	176.8	178.2	179.5	180.0
40°	169.1	168.7	170.0	171.8	173.2	174.1	175.9	177.3	178.6	180.0	180.4
42.5°	167.3	168.2	169.6	171.4	173.2	175.0	176.4	178.2	179.1	180.0	180.4
45°	166.4	168.2	170.0	171.4	172.8	173.7	174.6	175.0	174.6	174.6	175.5
47.5°	165.1	166.9	167.3	166.9	167.3	166.9	166.9	166.9	165.5	165.1	165.1
50°	160.1	160.1	159.2	157.4	156.9	156.5	155.6	155.1	153.3	152.9	152.9
52.5°	149.7	149.2	147.9	145.6	144.7	143.8	143.4	142.9	141.1	140.2	140.6
55°	137.5	136.6	135.2	132.5	132.1	131.1	130.7	130.2	128.4	129.3	128.0
57.5°	126.2	124.4	122.6	122.1	120.3	119.8	119.4	118.9	117.6	118.0	117.1
60°	112.6	112.2	111.2	109.4	109.4	109.0	109.0	108.1	107.2	106.7	106.7
62.5°	102.7	101.3	100.4	100.4	99.0	99.0	99.0	98.1	97.2	97.7	97.2
65°	91.8	91.4	90.9	90.0	90.0	89.5	89.5	88.6	87.3	87.7	86.8
67.5°	82.8	81.9	80.9	80.5	78.7	77.8	77.3	76.9	75.1	75.5	74.6
70°	71.5	70.1	69.2	68.3	66.9	66.0	66.0	65.1	63.8	64.2	63.3
72.5°	59.7	58.8	57.9	57.4	56.1	55.6	55.2	54.7	53.4	53.8	53.4
75°	49.7	49.7	49.3	48.8	47.5	46.1	45.2	44.8	43.9	44.3	43.4
77.5°	41.2	40.2	39.3	39.3	38.0	37.1	36.2	36.2	36.2	35.7	35.3
80°	32.1	31.2	31.2	30.8	29.8	28.9	28.5	28.5	28.0	28.0	27.6
82.5°	24.4	23.5	23.1	23.1	22.2	21.7	21.3	20.8	20.8	20.8	20.4
85°	17.2	16.3	15.8	15.8	14.9	14.5	14.5	14.0	14.0	13.6	13.6
87.5°	10.4	9.9	9.5	9.5	8.6	8.1	8.1	8.1	7.7	7.7	7.2
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	1064.5	1064.5	1061.4	1062.3	1060.9	1062.7	1060.5	1060.5	1063.2	1063.2	1065.0
5°	1026.6	1024.3	1023.8	1022.9	1018.4	1020.2	1018.0	1015.7	1018.9	1018.9	1022.9
7.5°	974.6	970.5	972.3	969.6	966.9	962.8	964.2	962.3	964.6	967.8	971.8
10°	947.9	944.3	946.5	943.8	945.2	939.3	939.7	940.2	942.4	943.3	947.0
12.5°	930.7	929.8	928.9	928.0	928.9	925.7	923.9	924.4	925.3	925.7	928.4
15°	894.5	888.6	890.4	884.1	884.6	885.0	881.4	885.0	884.6	890.4	895.9
17.5°	865.1	865.1	861.9	859.2	857.4	857.0	854.3	856.1	854.3	857.9	859.2
20°	844.8	844.3	843.9	842.5	838.0	838.4	839.8	835.7	835.3	834.8	837.5
22.5°	835.3	835.7	833.9	833.9	829.8	830.7	831.2	826.7	827.1	825.8	827.1
25°	825.3	826.2	824.0	824.0	823.1	822.6	820.3	821.2	818.5	816.3	818.5
27.5°	813.6	815.4	813.6	814.5	812.7	811.8	810.4	809.5	806.8	806.3	807.7
30°	802.7	803.6	803.2	800.9	800.4	797.7	799.1	796.4	793.7	794.1	795.0
32.5°	411.5	393.0	303.0	273.6	270.9	280.8	332.8	405.2	525.0	641.3	724.9
35°	179.5	179.5	179.5	179.1	179.1	178.6	178.2	177.7	177.3	176.8	176.4
37.5°	180.4	180.4	180.4	180.4	180.0	179.5	179.5	178.6	178.2	177.7	177.3
40°	180.9	181.3	181.3	181.3	180.9	180.9	180.4	179.5	179.1	178.2	177.3
42.5°	180.4	180.9	180.9	180.4	180.4	180.0	180.0	179.5	179.1	178.6	178.2
45°	174.6	175.0	174.1	174.1	173.7	173.7	173.7	173.7	173.7	174.1	174.1
47.5°	164.2	164.2	163.7	163.3	163.3	162.8	163.3	162.8	163.7	164.2	165.1
50°	151.9	151.9	151.0	150.6	150.6	150.6	150.6	151.0	151.5	152.4	153.3
52.5°	139.3	139.3	138.8	138.4	137.9	137.9	139.3	138.8	139.3	139.7	141.1
55°	127.1	127.5	126.6	126.6	126.2	126.2	126.2	126.6	127.1	127.5	128.9
57.5°	116.7	116.7	115.8	115.8	115.8	115.3	116.7	115.8	116.2	116.7	117.6
60°	106.3	105.8	105.8	105.4	105.4	105.4	106.3	105.8	105.8	106.3	107.2
62.5°	96.8	96.8	96.3	96.3	95.9	95.9	96.8	96.3	96.3	96.8	97.2
65°	85.9	85.9	85.5	85.0	86.4	85.0	86.4	85.5	86.4	86.8	87.7
67.5°	73.7	73.7	73.7	73.3	73.3	74.2	74.6	73.7	74.2	75.1	75.5
70°	62.9	62.9	62.4	62.4	62.4	63.3	63.8	62.9	63.3	63.8	64.7
72.5°	53.4	52.5	52.5	52.0	52.9	52.9	53.4	52.9	53.4	53.4	54.3
75°	43.9	43.0	43.0	43.0	43.9	43.4	43.9	43.4	43.9	43.9	44.3
77.5°	35.3	34.8	34.4	34.4	35.3	35.3	35.3	34.8	35.3	35.7	36.2
80°	27.6	27.1	26.7	26.7	27.6	27.6	27.6	28.0	27.6	28.0	28.5
82.5°	20.4	19.9	19.4	20.4	20.4	20.4	20.4	20.8	20.4	20.8	21.3
85°	13.6	13.1	12.7	13.6	13.6	13.6	13.6	14.0	13.6	14.0	14.5
87.5°	7.2	6.8	6.8	7.2	7.2	7.2	7.7	7.7	7.7	8.1	8.1
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	1067.7	1069.1	1068.6	1065.9	1063.2	1060.0	1057.8	1058.2	1062.7	1064.1	1060.0
5°	1022.9	1031.5	1031.5	1037.4	1034.2	1031.5	1033.3	1043.3	1048.3	1056.0	1058.7
7.5°	976.8	980.9	980.4	986.3	985.4	985.4	986.8	999.9	1006.2	1012.5	1014.3
10°	951.0	955.1	954.7	955.1	953.8	950.6	950.6	956.5	961.9	965.1	966.0
12.5°	932.5	934.8	934.3	934.3	933.4	930.7	930.2	935.2	941.1	945.2	945.6
15°	904.9	911.2	912.6	918.5	917.1	913.5	914.4	918.5	922.1	925.7	924.4
17.5°	863.8	866.9	867.4	869.6	868.7	868.7	874.2	889.1	899.0	907.6	908.5
20°	840.2	842.5	841.6	846.6	844.3	843.9	845.2	851.5	856.1	860.1	867.4
22.5°	828.9	830.7	829.4	829.8	825.8	822.2	821.2	826.2	831.2	836.6	836.6
25°	819.4	820.8	820.3	819.4	816.3	811.3	810.4	811.3	813.1	813.6	810.4
27.5°	808.1	809.0	809.0	809.5	805.4	800.9	800.0	799.1	800.9	800.4	795.5
30°	796.4	795.0	795.5	795.9	792.3	788.2	786.4	786.0	787.8	787.3	782.4
32.5°	768.3	778.7	779.6	780.5	777.4	773.8	772.0	770.6	771.5	771.1	766.5
35°	175.9	179.1	219.3	496.5	674.3	746.6	754.3	752.5	753.0	753.0	749.3
37.5°	176.4	175.9	175.5	174.1	172.8	171.8	297.1	633.6	734.0	734.4	731.3
40°	176.4	175.9	175.5	174.6	172.8	171.4	169.1	167.3	171.4	377.2	690.1
42.5°	177.3	176.4	175.5	174.6	172.8	170.9	169.1	166.9	168.2	167.3	165.1
45°	174.6	174.1	174.1	173.7	172.8	170.9	168.7	166.0	164.6	166.0	163.7
47.5°	166.0	166.4	167.8	168.2	168.2	168.7	167.3	165.5	163.3	164.6	161.9
50°	154.2	155.1	155.6	157.8	158.7	160.5	161.0	161.0	160.5	162.4	160.5
52.5°	141.5	142.5	144.7	145.6	146.5	149.2	150.1	151.5	152.4	155.1	156.9
55°	129.3	129.8	130.7	132.5	133.9	136.1	137.5	138.8	141.1	142.5	147.9
57.5°	118.0	118.5	120.3	120.7	121.6	123.5	124.8	126.6	128.4	129.3	135.7
60°	107.2	107.6	109.0	109.4	109.9	111.7	113.1	114.4	115.8	116.7	121.2
62.5°	97.7	97.7	99.0	99.0	99.5	100.8	101.8	102.7	104.0	104.5	106.7
65°	88.2	88.6	89.5	89.5	90.0	90.9	91.4	91.8	93.2	93.2	95.0
67.5°	76.4	76.9	78.2	79.1	79.6	81.4	81.9	82.3	83.2	83.7	84.6
70°	65.1	65.6	66.9	67.4	67.8	69.2	70.1	71.5	72.8	74.2	75.1
72.5°	54.7	55.2	56.5	56.5	57.9	58.3	59.2	59.7	61.1	62.0	63.3
75°	44.8	45.2	46.6	46.6	47.9	48.4	48.8	49.3	50.2	51.1	52.0
77.5°	36.6	36.6	38.4	39.3	40.2	40.2	40.7	40.7	40.7	41.2	42.1
80°	28.9	28.9	30.3	31.2	32.1	32.1	32.6	33.0	33.5	33.5	33.9
82.5°	21.7	21.7	23.1	23.5	24.4	24.4	24.4	24.9	25.3	24.9	25.8
85°	14.9	14.9	15.8	16.3	17.2	17.2	17.2	17.6	18.1	17.6	18.1
87.5°	8.6	9.0	9.5	9.9	10.4	10.9	10.9	10.9	11.3	11.3	11.8
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	1055.5	1050.1	1049.6	1043.3	1041.5	1041.9	1037.0	1035.2	1027.0	1025.2	1016.6
5°	1059.6	1062.3	1060.9	1060.5	1061.8	1060.9	1057.3	1055.5	1054.1	1050.5	1043.3
7.5°	1014.8	1016.6	1018.0	1023.8	1028.8	1037.4	1046.5	1052.3	1056.9	1057.8	1051.9
10°	969.1	977.7	983.6	992.6	999.9	1004.9	1010.3	1015.3	1028.4	1041.5	1049.2
12.5°	945.6	947.9	947.4	952.4	957.4	970.5	983.1	990.4	1000.3	1006.2	1020.2
15°	925.7	926.2	927.5	931.1	933.9	938.4	944.3	955.1	975.0	984.1	991.7
17.5°	907.6	907.6	908.5	911.7	915.3	919.4	923.0	927.5	937.5	952.4	971.4
20°	878.7	891.3	892.7	892.2	894.1	901.7	902.6	910.8	915.8	921.6	940.2
22.5°	835.7	843.4	854.3	871.0	877.3	880.9	883.7	887.3	895.0	901.7	909.4
25°	812.2	817.2	820.3	825.3	838.4	859.7	863.8	867.8	872.8	877.8	887.3
27.5°	791.4	790.9	793.2	797.7	801.3	812.7	832.6	848.4	849.3	856.5	864.7
30°	776.5	773.8	770.6	769.7	774.7	780.5	786.4	811.3	828.5	832.1	840.7
32.5°	762.5	757.9	753.4	749.8	746.6	751.6	755.2	766.1	788.2	809.0	813.6
35°	745.3	740.8	735.3	731.3	726.3	725.8	725.4	735.8	743.0	767.9	789.6
37.5°	727.6	722.7	718.1	713.6	708.6	705.0	702.8	705.5	712.3	723.1	759.3
40°	709.1	703.2	698.7	695.1	688.3	685.6	681.1	679.2	679.7	689.2	708.2
42.5°	423.7	675.6	677.9	673.8	667.9	664.3	659.3	657.1	652.6	657.1	667.9
45°	163.3	165.1	494.3	653.0	645.8	641.3	636.7	634.5	629.5	625.9	635.8
47.5°	160.1	161.9	158.3	224.3	616.4	617.7	612.3	610.1	605.1	602.4	599.7
50°	157.8	159.2	156.5	157.4	154.2	564.8	587.4	584.7	579.3	576.1	570.7
52.5°	155.6	155.6	153.8	151.5	150.6	151.0	475.3	559.0	552.6	549.5	542.2
55°	148.3	149.2	151.0	147.4	146.5	146.1	144.7	452.7	523.2	519.6	513.3
57.5°	137.5	139.3	144.3	143.4	143.4	139.7	138.8	138.8	420.1	489.3	483.0
60°	124.8	126.6	132.1	133.9	135.2	134.3	133.4	133.0	131.1	442.7	450.9
62.5°	111.7	113.5	115.3	121.2	123.0	125.3	128.0	126.6	124.8	124.8	417.0
65°	97.7	100.4	101.3	106.7	109.0	113.1	115.3	118.5	117.6	117.1	119.4
67.5°	85.5	88.6	89.1	91.4	95.4	97.2	99.9	105.8	108.5	109.4	110.3
70°	75.1	76.9	78.2	79.1	81.9	82.3	87.3	91.4	95.4	99.9	101.3
72.5°	64.7	66.0	68.7	67.8	68.7	70.5	73.3	76.0	80.0	86.4	90.4
75°	52.9	53.8	55.6	56.5	58.3	59.7	61.5	63.8	67.4	70.5	76.0
77.5°	42.5	43.0	44.3	44.8	46.6	47.9	51.1	52.5	54.7	57.0	60.1
80°	34.4	34.4	34.8	34.8	36.2	37.5	39.8	41.2	43.9	45.7	45.7
82.5°	26.2	26.2	27.6	27.6	28.5	28.5	29.8	29.8	31.2	32.1	33.0
85°	18.5	19.0	19.9	19.4	20.4	19.9	20.8	21.7	22.2	21.7	21.3
87.5°	12.2	12.2	13.1	12.7	13.1	13.1	14.0	14.0	14.5	14.5	14.0
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	1013.4	1006.7	1002.6	997.6	996.3	994.9	996.7	996.7	994.0	991.7	987.7
5°	1037.0	1029.7	1022.0	1013.9	1006.2	998.1	994.9	994.5	989.5	986.8	985.4
7.5°	1049.2	1045.6	1037.0	1025.7	1013.9	999.4	993.1	989.5	984.5	983.6	983.6
10°	1050.5	1046.5	1041.9	1033.8	1020.2	1001.2	989.0	981.8	977.3	980.4	986.3
12.5°	1037.4	1045.1	1041.0	1035.6	1024.8	1001.7	984.1	973.2	971.8	980.0	995.4
15°	1003.9	1026.6	1037.9	1032.4	1023.8	1000.8	975.9	963.2	963.2	980.0	999.9
17.5°	978.6	996.3	1023.8	1028.4	1018.4	999.0	968.2	953.3	957.4	981.8	1003.0
20°	957.8	968.7	995.4	1020.7	1011.2	994.9	956.9	941.5	949.7	979.1	1007.6
22.5°	925.3	947.0	963.2	1000.8	1003.9	987.2	945.6	927.1	943.3	979.1	1005.3
25°	893.6	919.8	937.0	973.6	993.1	977.7	935.2	911.7	936.6	977.7	1003.5
27.5°	871.4	883.7	914.9	941.1	976.8	965.1	921.2	895.0	928.0	970.5	993.1
30°	847.9	856.1	886.8	911.7	955.1	950.6	906.7	876.4	917.1	963.7	966.0
32.5°	822.2	831.2	847.0	883.2	924.8	937.0	890.4	857.9	905.4	953.3	934.3
35°	795.9	802.7	815.4	854.3	889.5	916.7	870.5	836.6	897.2	937.5	904.0
37.5°	769.7	776.9	787.8	820.3	852.5	897.7	853.4	815.4	882.3	909.4	872.3
40°	744.8	748.9	760.2	780.5	821.7	878.2	833.9	793.2	866.9	873.7	829.4
42.5°	699.1	719.5	729.9	746.2	786.9	851.5	811.3	769.7	849.7	838.0	786.4
45°	649.9	694.2	698.7	715.0	756.1	823.1	790.0	746.6	833.5	807.2	745.7
47.5°	609.6	641.7	667.9	681.5	719.5	789.6	770.1	727.2	809.0	768.3	705.9
50°	573.9	591.1	638.5	648.5	675.6	749.3	746.6	704.6	775.1	719.5	667.0
52.5°	539.1	551.3	594.2	615.5	637.6	705.9	718.6	682.4	738.0	670.7	627.7
55°	508.8	512.8	536.3	581.1	601.0	662.1	687.8	656.6	691.0	624.1	589.7
57.5°	477.6	473.9	491.1	548.6	563.0	617.3	655.3	630.4	653.0	576.6	550.4
60°	445.0	440.0	447.3	485.2	522.8	573.0	616.8	601.5	606.9	529.6	506.5
62.5°	411.1	406.1	403.8	427.8	483.4	527.3	577.9	569.4	550.4	486.6	452.2
65°	375.8	370.8	367.2	376.7	440.0	468.1	534.5	532.3	488.4	441.4	380.8
67.5°	114.4	337.4	329.7	329.2	370.8	414.2	487.5	483.9	426.0	393.0	327.9
70°	103.1	273.6	290.8	286.7	304.8	359.5	433.7	431.0	365.4	315.2	289.9
72.5°	94.5	96.8	256.9	252.3	256.4	305.7	377.6	370.4	309.8	248.7	250.5
75°	80.9	85.0	88.6	213.0	207.6	253.2	316.6	305.3	255.5	205.3	209.4
77.5°	66.0	71.0	73.7	155.1	167.8	180.4	252.8	237.9	175.9	164.2	78.2
80°	49.3	53.4	57.9	62.0	127.5	126.2	187.7	172.8	122.6	102.2	61.1
82.5°	36.2	37.5	40.2	44.8	50.6	84.6	120.7	106.3	85.0	46.6	42.1
85°	22.6	24.4	25.8	27.1	30.8	50.6	59.7	47.5	35.7	28.5	26.7
87.5°	14.5	14.5	14.0	14.5	14.9	18.1	20.4	19.4	15.4	14.5	14.5
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	983.1	976.8	976.8	975.0	976.4	976.4	975.9	976.4	979.5	981.3	984.5
5°	982.7	980.9	985.0	989.9	995.8	1003.0	1004.9	1011.2	1017.1	1024.8	1032.9
7.5°	988.6	994.9	1002.6	1010.7	1022.5	1031.1	1038.8	1046.5	1051.9	1059.1	1063.6
10°	997.2	1009.8	1022.9	1033.3	1046.0	1053.2	1058.2	1059.1	1051.4	1039.2	1029.3
12.5°	1009.4	1024.3	1036.5	1046.5	1052.3	1049.6	1035.2	1020.2	1011.6	999.0	981.3
15°	1019.8	1033.3	1046.0	1041.9	1026.1	1011.2	999.9	982.2	965.1	953.3	945.6
17.5°	1024.3	1037.4	1032.9	1011.6	996.7	979.5	956.5	942.9	931.6	922.5	918.0
20°	1027.0	1024.8	1000.3	985.0	956.0	940.2	925.3	912.6	904.0	899.5	898.6
22.5°	1019.8	992.2	971.4	943.8	922.5	909.4	897.7	887.3	881.4	877.8	875.5
25°	995.8	963.7	932.9	911.2	893.2	881.8	872.8	864.2	857.0	855.2	850.6
27.5°	962.3	936.1	895.4	878.7	862.9	857.4	847.5	838.9	832.6	827.1	812.7
30°	934.8	893.2	863.8	848.4	838.9	832.6	821.2	812.2	801.3	781.5	773.3
32.5°	900.8	859.7	831.6	823.1	811.3	805.9	793.2	773.3	756.6	748.4	748.0
35°	857.0	823.1	802.7	795.0	785.5	776.5	750.2	732.2	724.0	724.9	731.7
37.5°	820.3	790.0	776.9	766.1	755.2	732.2	710.0	701.4	703.7	708.2	711.4
40°	783.3	760.2	745.3	736.7	712.3	689.6	677.9	681.1	685.1	688.3	692.4
42.5°	747.1	730.8	715.9	699.1	665.7	653.5	656.2	660.3	663.9	668.4	672.5
45°	712.7	698.2	681.1	643.1	626.3	629.5	633.6	636.7	642.2	645.3	649.4
47.5°	680.2	664.8	634.5	601.0	599.2	605.5	609.2	613.2	617.3	609.2	336.0
50°	643.5	627.7	581.6	568.9	573.0	578.9	583.4	587.4	523.2	208.0	160.1
52.5°	607.3	567.1	537.7	541.3	545.4	552.2	555.3	412.4	164.2	156.5	156.9
55°	567.1	515.5	506.9	511.5	515.1	521.9	346.0	151.5	150.6	150.1	153.8
57.5°	503.8	472.6	476.2	480.7	484.3	341.9	147.4	146.5	147.0	147.4	147.9
60°	447.3	440.5	444.5	448.6	317.5	142.5	139.7	140.2	142.0	140.6	137.0
62.5°	402.5	407.9	412.0	360.9	135.2	133.9	135.2	133.9	130.7	128.4	123.9
65°	368.1	373.5	376.7	127.1	126.6	128.4	127.1	122.6	117.6	111.2	109.9
67.5°	331.9	337.4	120.7	117.6	119.4	117.1	111.7	106.3	102.7	97.2	95.0
70°	294.4	126.2	109.4	109.0	105.8	102.2	96.3	90.9	86.4	84.1	81.9
72.5°	212.5	99.9	98.6	95.0	89.5	84.6	79.6	76.4	74.2	72.8	71.5
75°	88.6	86.8	82.8	76.4	71.0	68.7	65.1	62.9	62.0	59.2	58.3
77.5°	74.2	70.5	64.7	60.1	57.0	55.6	52.9	50.2	48.8	48.4	46.6
80°	57.0	52.0	49.3	47.0	46.1	43.0	39.8	38.4	37.5	37.1	35.7
82.5°	38.9	37.1	35.3	32.1	32.1	30.8	29.4	28.5	27.6	27.6	26.7
85°	25.3	24.0	23.5	22.2	22.2	21.3	20.8	20.4	19.9	19.4	19.0
87.5°	14.5	14.5	14.9	14.5	14.5	14.0	13.6	13.1	12.7	12.7	11.8
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	988.6	993.1	994.0	1009.4	1018.0	1017.5	1014.8	1022.9	1018.0	1015.3	1018.0
5°	1041.0	1046.5	1051.0	1067.7	1073.6	1076.3	1075.9	1080.4	1076.8	1073.6	1073.6
7.5°	1066.8	1068.6	1070.4	1066.4	1063.6	1059.1	1052.3	1042.4	1037.4	1032.0	1025.2
10°	1024.3	1018.4	1020.7	1012.5	1005.8	1000.8	994.5	986.3	979.5	974.6	966.9
12.5°	972.3	971.8	972.7	974.1	967.3	963.2	958.3	952.4	947.4	942.0	935.7
15°	940.6	941.1	944.7	943.3	941.1	938.8	933.4	931.6	927.1	921.2	917.6
17.5°	918.0	920.3	923.9	922.1	918.5	916.2	912.1	908.1	904.0	899.5	894.1
20°	898.1	900.4	902.6	900.4	893.6	890.4	885.0	872.3	863.3	854.3	846.1
22.5°	876.4	877.8	876.0	868.7	851.5	843.4	837.1	833.5	825.8	820.8	815.8
25°	849.3	841.6	829.8	821.7	814.9	811.3	808.6	808.1	807.2	806.3	804.1
27.5°	805.0	802.3	795.9	792.8	793.2	794.6	795.0	796.4	795.0	793.2	791.4
30°	772.0	773.3	773.8	774.7	776.9	778.3	778.7	780.5	779.6	778.3	777.4
32.5°	751.2	754.3	756.1	758.8	760.2	762.5	762.5	765.2	762.5	762.0	761.1
35°	734.0	736.7	737.6	741.7	743.0	745.3	745.3	747.5	745.3	722.2	570.3
37.5°	716.8	719.5	721.3	724.9	725.4	726.7	670.7	490.7	316.6	245.1	187.2
40°	696.4	699.6	701.4	702.8	493.8	313.4	215.7	175.5	175.5	176.8	178.2
42.5°	674.7	677.0	471.7	274.5	170.9	170.5	171.8	173.2	174.6	176.4	178.2
45°	530.5	267.7	170.0	166.0	167.3	169.1	170.9	172.8	175.0	176.8	177.7
47.5°	174.1	163.3	165.5	163.7	166.0	168.2	170.0	171.8	172.3	172.8	172.3
50°	161.0	161.0	162.4	162.4	164.2	165.1	165.1	165.1	163.3	162.8	161.4
52.5°	155.6	159.2	157.4	158.3	157.4	156.0	154.7	153.3	150.6	149.7	147.9
55°	152.9	154.2	149.7	148.3	146.5	142.9	141.1	139.3	137.0	136.1	133.9
57.5°	146.5	143.4	138.4	136.1	133.0	129.3	127.5	126.2	123.9	123.0	121.6
60°	134.8	128.4	125.3	122.6	118.9	115.8	114.4	113.5	111.7	111.2	109.9
62.5°	120.3	114.9	112.2	108.5	105.8	104.0	102.7	102.2	100.4	100.4	99.5
65°	104.5	101.8	99.5	95.9	94.5	92.7	92.3	91.8	90.9	90.4	89.5
67.5°	91.8	90.0	86.8	85.0	84.1	82.8	81.9	80.9	79.1	78.2	76.9
70°	80.5	79.1	76.0	74.6	72.8	70.5	69.2	68.3	66.9	66.0	64.7
72.5°	69.6	65.6	63.3	62.0	60.6	58.3	57.9	57.0	55.6	55.2	53.8
75°	56.1	52.9	51.6	50.6	49.3	47.9	47.9	47.9	46.6	46.1	45.7
77.5°	44.8	43.0	42.1	41.2	40.7	39.8	38.4	38.0	36.6	36.6	36.2
80°	34.4	33.5	32.6	32.1	31.7	30.8	29.8	29.4	28.0	28.0	27.6
82.5°	25.3	24.9	24.4	24.0	23.5	23.1	21.7	21.3	20.4	20.4	19.9
85°	18.1	17.6	16.7	16.3	16.3	15.8	14.5	14.0	13.1	13.1	13.1
87.5°	11.3	10.9	10.4	9.9	9.5	9.0	8.1	7.7	7.7	6.8	6.3
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	1012.5	1020.2	1019.3	1024.8	1026.1	1028.8	1029.7	1030.2	1023.4	1028.8	1029.3
5°	1072.2	1073.6	1074.5	1076.8	1079.0	1079.5	1077.2	1074.5	1075.4	1073.6	1069.1
7.5°	1024.3	1017.5	1016.2	1014.3	1013.4	1012.5	1008.5	1012.1	1008.0	1006.2	999.9
10°	965.5	959.2	958.7	958.7	960.1	959.6	958.7	956.9	960.5	958.3	956.9
12.5°	934.8	932.5	933.9	932.9	936.6	937.5	936.6	936.6	935.7	933.9	934.8
15°	916.2	914.4	915.8	914.4	917.1	917.6	915.3	916.7	914.4	912.1	911.2
17.5°	891.8	887.7	884.6	880.0	880.5	879.6	876.9	876.9	874.6	868.7	869.2
20°	844.8	840.7	838.9	838.9	841.1	842.1	841.6	842.5	840.2	839.3	835.7
22.5°	815.4	814.9	815.8	818.1	821.7	826.7	827.1	827.1	827.1	826.7	822.2
25°	805.0	805.0	805.9	809.0	811.8	815.4	816.3	817.2	816.3	816.3	812.2
27.5°	793.2	792.3	794.1	797.3	800.4	803.2	805.4	805.9	804.5	804.5	805.9
30°	778.7	778.3	780.5	783.7	786.4	789.1	791.4	793.2	791.4	791.4	790.0
32.5°	763.8	763.8	764.7	745.7	691.5	622.7	624.1	584.3	556.7	521.9	568.0
35°	476.6	346.9	298.0	252.3	220.2	199.4	199.0	192.2	189.0	186.8	186.3
37.5°	180.0	180.9	182.7	183.6	185.0	185.9	186.3	186.3	186.3	186.3	185.9
40°	179.5	181.3	182.7	184.1	185.4	186.3	186.3	186.8	187.2	187.2	187.2
42.5°	180.0	181.8	183.6	185.0	185.9	186.3	186.8	187.2	187.2	187.2	187.2
45°	179.5	180.4	180.4	180.9	180.9	180.9	181.3	181.3	180.9	180.4	181.3
47.5°	172.8	172.8	171.4	170.9	170.5	169.6	170.0	169.6	169.1	168.7	169.6
50°	161.0	159.2	158.3	157.4	156.9	156.0	156.5	156.0	155.6	154.7	156.0
52.5°	147.0	146.5	144.7	143.8	143.4	143.8	142.9	142.5	142.0	141.5	142.0
55°	133.4	131.6	131.1	130.2	129.8	130.2	129.8	129.3	128.9	128.4	128.9
57.5°	121.2	119.8	119.4	118.5	118.5	118.5	118.5	118.0	117.6	117.1	117.6
60°	109.4	108.5	108.1	108.1	107.6	107.6	107.6	107.2	106.7	106.7	107.2
62.5°	99.5	99.5	98.1	97.7	97.7	98.1	97.7	97.2	96.8	96.3	97.2
65°	89.1	87.3	86.8	85.9	85.0	85.5	85.0	84.6	84.1	83.7	84.6
67.5°	76.4	76.0	74.2	73.3	72.8	73.3	72.8	72.4	71.9	71.5	72.4
70°	64.2	64.2	62.4	62.0	61.5	61.5	61.1	61.1	60.6	60.1	61.1
72.5°	53.4	53.4	52.9	52.0	51.6	51.1	50.6	50.2	50.2	50.6	50.6
75°	44.3	43.4	41.6	42.1	41.6	41.2	41.2	40.7	40.2	41.2	40.7
77.5°	34.8	34.4	33.0	33.5	33.0	32.6	32.6	32.1	31.7	32.1	32.1
80°	26.2	26.2	25.8	25.3	25.3	24.9	24.4	24.4	24.0	24.4	24.4
82.5°	19.0	19.0	18.5	18.1	17.6	17.6	17.2	17.2	17.2	17.2	17.2
85°	12.2	11.8	11.8	10.9	10.9	10.9	10.4	10.4	10.4	10.4	10.4
87.5°	5.9	5.9	5.4	5.4	5.0	4.5	4.5	4.1	4.1	4.5	4.5
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	1021.1	1027.0	1022.0	1024.3	1024.8	1032.4	1032.0	1033.8	1030.6	1027.0	1022.0
5°	1073.1	1070.4	1066.8	1075.4	1070.9	1076.3	1078.1	1081.7	1081.7	1081.3	1077.2
7.5°	1006.7	1000.8	1005.3	1008.5	1009.8	1006.2	1013.4	1021.6	1028.4	1032.4	1032.9
10°	954.7	956.5	956.0	957.4	960.5	960.1	964.6	969.1	970.9	973.6	974.6
12.5°	930.2	929.8	930.7	933.9	935.7	935.2	939.7	942.4	943.3	943.8	943.3
15°	910.8	907.6	909.9	910.3	911.7	911.7	917.1	921.2	923.0	923.9	923.0
17.5°	874.2	866.5	873.7	873.7	878.7	877.8	886.4	893.2	896.8	899.5	899.5
20°	838.0	834.4	837.1	836.2	839.8	839.3	844.8	849.3	852.5	854.7	857.4
22.5°	823.5	824.4	820.3	820.8	820.8	820.3	823.1	825.3	826.2	827.6	826.7
25°	814.0	814.9	813.6	811.3	810.4	811.3	812.7	815.4	815.8	814.9	811.8
27.5°	804.5	801.8	804.1	800.0	799.1	800.9	802.7	803.2	803.6	803.6	800.9
30°	790.0	787.8	790.0	788.2	786.4	788.2	789.6	789.6	790.5	790.9	787.8
32.5°	552.2	556.7	630.0	674.3	736.7	768.3	774.2	774.2	775.1	775.1	772.4
35°	188.1	188.6	204.0	221.1	257.8	303.0	362.2	393.0	497.0	621.4	741.7
37.5°	185.9	185.4	185.0	184.5	184.1	183.6	182.7	182.2	185.0	219.3	297.6
40°	186.8	186.3	185.4	185.0	184.5	183.6	183.2	182.2	181.3	180.4	179.5
42.5°	186.8	186.3	185.9	185.4	185.0	184.5	183.6	182.7	181.8	180.4	179.1
45°	180.4	180.4	180.9	180.9	181.3	181.3	181.3	180.9	180.9	180.4	178.6
47.5°	168.7	168.7	170.0	170.0	170.9	171.8	171.8	172.8	174.1	175.0	175.5
50°	155.1	155.1	156.5	156.9	157.8	159.2	160.5	161.0	162.4	164.2	166.0
52.5°	141.5	141.5	142.9	142.9	143.8	145.2	146.5	147.0	148.8	150.6	152.9
55°	128.9	128.9	129.8	130.2	130.7	131.6	133.0	133.0	134.8	136.1	138.4
57.5°	117.6	118.5	118.5	118.5	118.9	119.8	120.7	120.7	122.1	123.5	125.3
60°	106.7	107.6	107.6	107.6	108.1	108.5	109.4	109.4	110.3	111.2	113.1
62.5°	96.8	97.7	97.7	98.1	98.1	98.6	99.5	99.0	99.9	100.4	101.8
65°	84.1	85.0	85.5	85.9	86.4	87.3	88.6	88.2	89.5	90.4	91.8
67.5°	71.9	72.8	72.8	73.3	73.7	74.6	75.5	75.5	76.9	77.8	79.6
70°	60.6	61.5	61.5	62.0	62.4	63.3	64.2	63.8	65.1	66.0	67.4
72.5°	50.2	51.1	51.1	51.6	51.6	52.5	53.4	54.3	54.3	55.2	56.1
75°	40.7	41.2	41.6	41.6	42.1	42.5	43.4	44.3	44.8	45.2	46.1
77.5°	32.1	32.6	33.0	33.0	33.5	33.9	34.4	36.2	37.1	37.5	37.5
80°	24.4	24.9	24.9	24.9	25.3	25.8	26.7	26.7	28.5	28.5	28.9
82.5°	17.2	17.6	17.6	17.6	18.1	19.0	19.4	19.9	20.8	21.3	21.3
85°	10.4	10.9	10.9	10.9	11.3	11.8	12.7	13.1	13.6	13.6	14.0
87.5°	4.1	4.5	5.0	5.0	5.4	5.9	6.3	6.8	7.2	7.2	7.7
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	1016.6	1019.8	1016.6	1018.4	1020.7	1016.6	1007.1	1003.5	1002.1	996.7	993.1
5°	1073.1	1073.1	1071.8	1075.4	1074.9	1068.6	1058.7	1054.1	1049.6	1043.7	1039.2
7.5°	1032.9	1036.5	1038.8	1052.8	1061.8	1062.7	1069.1	1070.4	1072.2	1070.4	1067.7
10°	975.0	973.6	980.0	993.1	1000.8	1004.9	1017.1	1022.9	1027.9	1037.9	1048.3
12.5°	942.4	944.3	947.0	956.5	963.7	961.9	966.9	970.9	976.8	986.8	1001.7
15°	920.7	922.5	925.3	932.5	937.0	934.8	937.5	940.2	944.3	949.2	958.3
17.5°	897.2	900.4	903.6	911.2	915.3	914.9	917.1	918.0	919.4	922.5	928.9
20°	860.6	870.5	876.9	887.3	893.2	892.2	896.3	897.7	899.5	902.6	905.4
22.5°	827.1	829.8	833.0	844.3	854.3	866.5	869.2	872.8	877.3	880.5	883.2
25°	808.1	806.3	807.7	815.4	820.8	821.7	825.8	837.5	849.7	855.2	861.5
27.5°	796.8	795.0	794.6	798.2	799.1	796.8	795.9	799.5	808.6	817.6	836.6
30°	784.6	782.4	780.5	783.7	785.1	781.9	776.0	772.9	778.3	780.5	788.2
32.5°	770.1	767.9	767.0	768.8	769.7	767.0	760.6	757.0	756.1	754.3	756.1
35°	753.9	751.6	750.2	750.7	752.5	750.2	744.8	740.3	738.0	733.1	729.4
37.5°	388.5	550.4	714.5	731.7	733.5	733.1	727.6	722.7	720.4	714.5	712.7
40°	177.7	198.5	298.0	389.4	561.7	713.6	708.6	703.7	699.6	697.8	691.0
42.5°	177.3	177.7	178.2	175.9	218.0	371.3	548.1	684.2	681.5	677.0	672.0
45°	177.3	175.0	176.8	174.1	175.0	174.6	217.5	350.9	624.5	652.6	650.3
47.5°	175.5	174.1	175.9	173.7	170.9	172.3	170.5	172.8	269.5	457.2	626.3
50°	167.3	168.2	171.4	170.9	168.7	170.5	167.3	170.0	167.8	184.1	354.5
52.5°	155.1	156.9	160.1	162.8	163.7	166.0	165.1	166.0	164.2	164.6	165.1
55°	140.6	142.9	145.6	149.7	151.5	155.1	157.8	159.2	161.4	161.0	157.4
57.5°	127.1	129.3	131.6	135.7	139.7	141.5	146.5	149.2	155.1	153.8	152.9
60°	114.4	116.2	118.5	119.4	124.4	127.5	132.1	134.8	142.5	144.3	147.0
62.5°	103.1	104.0	105.8	107.2	110.3	113.5	115.8	120.3	124.4	130.2	134.3
65°	92.7	93.6	95.0	95.9	96.3	100.8	102.2	107.2	108.5	114.9	118.5
67.5°	80.9	82.8	84.6	85.5	86.4	89.1	90.0	92.3	95.4	98.1	102.7
70°	68.7	70.1	71.9	73.3	75.1	76.9	79.6	80.9	83.2	85.0	88.6
72.5°	57.4	58.8	59.7	61.1	62.4	63.8	66.0	69.2	71.0	74.2	75.1
75°	46.6	47.9	48.8	49.7	51.1	52.0	52.9	56.1	57.9	60.6	63.3
77.5°	38.4	38.4	39.3	42.1	41.6	41.6	42.5	44.3	45.7	47.5	50.2
80°	29.8	30.3	30.8	33.0	33.5	33.9	33.5	34.8	36.2	36.6	38.4
82.5°	22.2	22.6	22.6	24.0	25.3	25.3	25.3	25.8	27.1	27.6	28.5
85°	14.9	15.4	15.8	16.3	17.2	17.6	18.1	18.1	19.0	19.4	19.9
87.5°	8.1	9.0	9.5	9.9	10.4	10.9	11.3	11.8	12.2	12.7	13.1
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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CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8
2.5°	991.7	989.5	988.1	984.5	983.6	977.7	978.6	977.7	977.7	979.1	983.6
5°	1034.2	1023.4	1020.7	1013.0	1006.7	995.8	989.0	985.4	980.0	977.7	980.9
7.5°	1063.2	1055.1	1048.3	1041.5	1032.4	1019.8	1010.3	999.4	990.4	981.8	979.5
10°	1058.2	1067.3	1067.3	1063.2	1054.6	1041.9	1030.6	1017.1	1001.2	987.7	979.5
12.5°	1016.2	1032.0	1044.6	1054.1	1062.7	1054.1	1042.8	1032.0	1014.3	994.5	979.5
15°	970.0	986.3	1002.1	1022.0	1042.8	1051.4	1051.0	1038.3	1022.5	1001.7	980.9
17.5°	937.5	948.8	957.4	979.1	1004.4	1026.6	1041.5	1042.4	1027.0	1008.5	981.3
20°	913.1	921.2	928.4	940.6	962.8	989.9	1017.5	1032.9	1030.2	1009.8	982.7
22.5°	890.9	896.8	902.6	911.7	929.3	947.0	979.1	1010.7	1024.3	1007.6	981.3
25°	868.7	875.1	879.6	885.9	899.9	914.4	937.0	976.4	1006.7	1005.8	978.6
27.5°	842.5	851.1	856.5	865.1	874.6	885.5	900.8	937.9	981.3	996.7	971.4
30°	810.8	823.5	831.6	841.1	849.3	858.8	871.0	893.6	947.4	979.1	963.7
32.5°	765.2	787.8	805.9	814.9	824.0	832.1	843.0	861.9	905.8	955.1	955.1
35°	732.6	743.0	759.3	785.5	796.8	805.0	814.9	829.8	857.9	926.6	941.1
37.5°	707.3	711.4	719.5	745.3	766.5	779.6	789.6	799.1	826.7	887.7	923.0
40°	688.3	686.9	686.0	698.2	728.5	749.3	760.6	770.1	791.4	841.1	899.0
42.5°	666.1	664.8	660.3	663.4	678.3	713.2	730.3	740.8	758.4	792.3	872.8
45°	643.1	640.8	639.0	635.8	641.3	660.7	696.0	711.4	721.3	751.6	839.8
47.5°	619.6	616.4	614.1	611.4	608.2	617.3	650.8	678.3	695.5	714.5	800.0
50°	586.1	590.2	587.4	584.3	581.6	579.8	593.8	639.0	660.3	675.6	751.6
52.5°	276.3	537.2	559.9	556.7	553.1	549.9	553.1	587.4	625.9	638.1	693.3
55°	157.4	239.2	497.9	526.4	523.2	518.7	516.0	527.8	585.2	601.5	639.9
57.5°	151.5	151.9	219.8	474.4	492.0	488.0	484.8	487.5	536.3	563.9	593.3
60°	146.5	146.5	146.5	209.8	453.6	454.9	450.9	446.3	467.6	521.9	546.3
62.5°	135.7	138.4	139.7	139.7	207.1	420.1	416.1	414.7	415.6	471.2	499.3
65°	121.6	128.0	130.7	132.5	132.5	217.5	380.3	378.1	374.9	396.2	451.8
67.5°	106.3	112.6	118.5	122.1	122.6	126.6	227.0	340.5	336.0	336.5	401.1
70°	90.4	95.9	102.2	107.6	112.6	114.9	118.5	282.6	297.6	291.2	343.7
72.5°	78.2	80.5	85.0	90.4	96.3	101.8	104.9	112.6	258.2	251.4	261.4
75°	65.1	66.9	70.1	73.7	78.2	84.6	90.0	95.4	137.0	210.7	209.4
77.5°	50.6	53.8	57.4	59.7	62.0	66.5	73.7	79.1	84.6	142.5	167.8
80°	38.9	41.2	43.0	45.2	47.9	51.1	53.8	60.1	66.5	71.5	128.4
82.5°	28.9	30.3	31.7	32.6	33.5	35.3	40.2	42.5	46.6	51.1	60.6
85°	20.4	21.3	22.2	22.6	23.1	23.5	25.3	25.8	29.8	30.8	36.6
87.5°	13.1	13.6	14.5	14.9	14.9	15.4	15.8	15.8	15.8	14.9	18.1
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: P1213722

CATALOG NUMBER: 4SNLED-LD5-21SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	986.8	986.8
2.5°	987.2	994.5
5°	985.9	995.4
7.5°	982.2	991.3
10°	976.8	987.7
12.5°	970.9	981.3
15°	966.0	973.6
17.5°	960.5	965.1
20°	953.3	956.9
22.5°	946.1	944.3
25°	937.9	933.9
27.5°	927.5	919.8
30°	918.0	904.5
32.5°	909.0	886.8
35°	896.8	868.7
37.5°	884.1	850.2
40°	869.2	828.9
42.5°	853.4	807.7
45°	833.5	787.3
47.5°	815.8	762.9
50°	791.4	736.7
52.5°	761.6	712.3
55°	726.3	682.4
57.5°	688.3	651.2
60°	647.6	615.5
62.5°	598.3	578.4
65°	540.4	535.9
67.5°	464.9	488.9
70°	381.2	435.0
72.5°	318.8	378.1
75°	261.4	314.3
77.5°	207.1	246.5
80°	129.3	180.4
82.5°	86.8	118.5
85°	52.5	56.5
87.5°	20.4	20.8
90°	0.0	0.0

(END OF REPORT)