

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-LD5-20SL-LW-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 (P33520)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

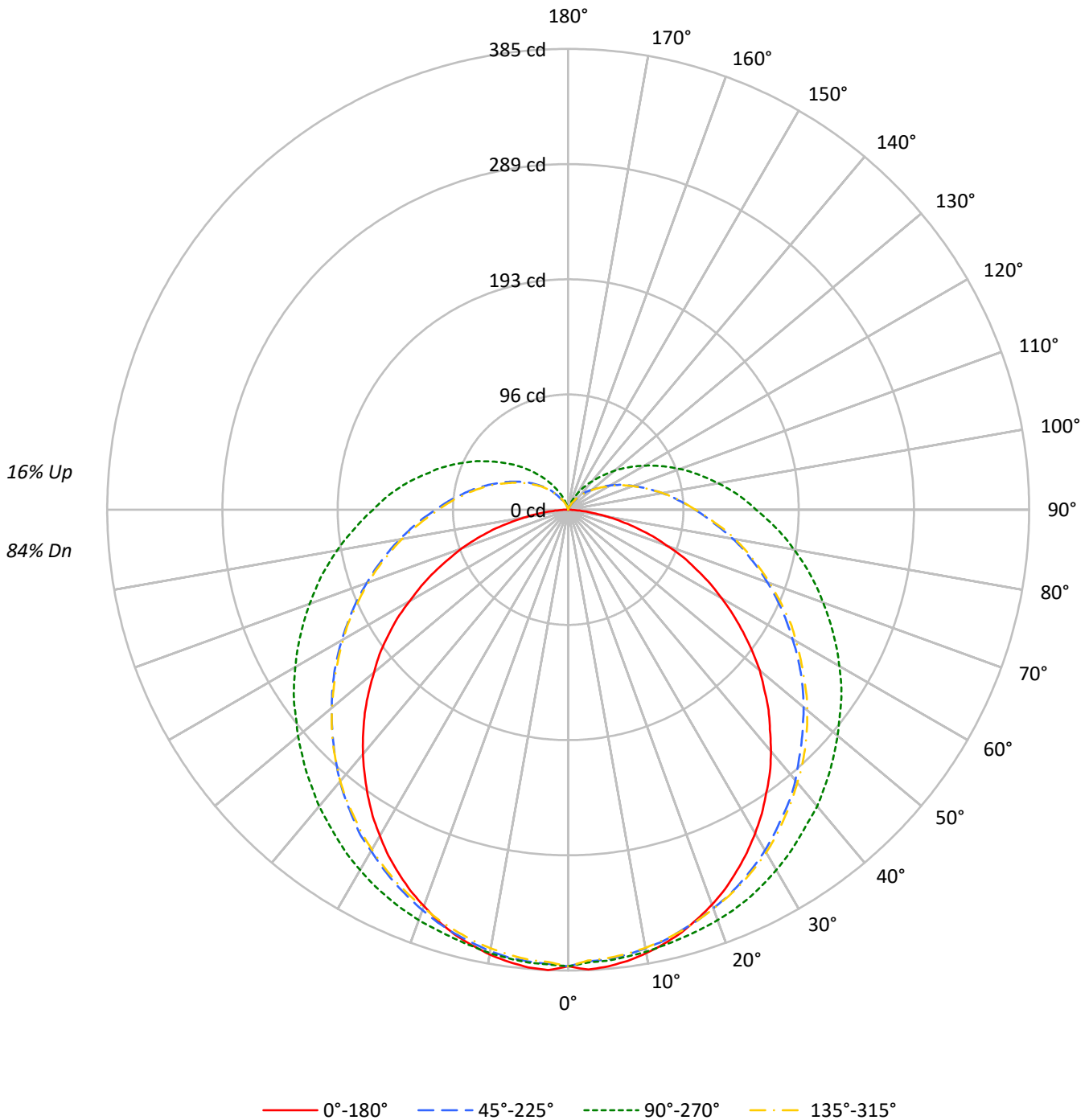
Lumens per Lamp: N/A
Luminaire Lumens: 1657.0 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

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: 25 FT



TEST NUMBER: P#
CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	115	115	115	115	111	111	111	111	102	102	102	94	94	94	87	87	87	84																												
1	102	96	91	86	98	92	87	83	85	81	77	78	75	72	72	70	67	64																												
2	92	82	74	68	87	79	72	66	73	67	62	67	62	58	62	58	54	51																												
3	83	71	62	55	79	69	60	54	63	56	51	58	52	48	54	49	45	42																												
4	76	63	53	46	72	60	52	45	56	48	42	51	45	40	47	42	38	35																												
5	69	56	46	39	66	54	45	38	50	42	36	46	39	34	42	37	33	30																												
6	64	50	41	34	61	48	39	33	45	37	31	41	35	30	38	33	28	26																												
7	59	45	36	30	56	43	35	29	40	33	28	38	31	26	35	29	25	23																												
8	55	41	32	26	52	40	31	26	37	30	24	34	28	23	32	26	22	20																												
9	51	37	29	23	49	36	28	23	34	27	22	32	25	21	30	24	20	18																												
10	48	34	26	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16																												

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	3082	3082	3082	3082
5°	3098	2970	3105	2983
10°	3070	2886	3080	2895
15°	3034	2813	3047	2816
20°	2986	2761	2996	2761
25°	2927	2714	2945	2711
30°	2862	2666	2884	2666
35°	2785	2621	2816	2624
40°	2709	2595	2742	2595
45°	2622	2568	2662	2571
50°	2531	2551	2565	2558
55°	2403	2553	2480	2564
60°	2271	2561	2344	2577
65°	2120	2587	2213	2612
70°	1908	2635	2056	2672
75°	1664	2721	1823	2773
80°	1289	2848	1463	2914
85°	772	3053	963	3137



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.1	2.2
10°-20°	103.8	6.3
20°-30°	159.2	9.6
30°-40°	196.4	11.9
40°-50°	213.1	12.9
50°-60°	210.0	12.7
60°-70°	189.9	11.5
70°-80°	158.2	9.5
80°-90°	122.5	7.4
90°-100°	92.9	5.6
100°-110°	68.8	4.1
110°-120°	47.8	2.9
120°-130°	30.5	1.8
130°-140°	17.1	1.0
140°-150°	7.8	0.5
150°-160°	2.4	0.1
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	299.2	18.1
0°-40°	495.6	29.9
0°-60°	918.7	55.4
0°-90°	1389.3	83.8
90°-120°	209.5	12.6
90°-150°	265.0	16.0
90°-180°	268.0	16.2
0°-180°	1657.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	381	381	381	381	381	
5°	383	378	384	380	383	36
15°	366	370	367	370	366	103
25°	333	358	335	357	333	153
35°	288	336	292	336	288	181
45°	237	309	240	309	237	182
55°	178	278	184	280	178	160
65°	118	244	124	247	118	117
75°	60	209	65	213	60	63
85°	11	174	14	179	11	14
90°	0	157	1	163	0	1
95°	0	142	0	149	0	0
105°	0	113	0	120	0	0
115°	0	86	0	94	0	0
125°	0	62	0	69	0	0
135°	0	40	0	48	0	0
145°	0	23	0	29	0	0
155°	0	10	0	13	0	0
165°	0	2	0	2	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4
2.5°	384.6	384.6	384.2	383.4	383.8	385.0	384.2	382.2	381.0	377.8	378.6
5°	383.0	383.0	382.6	381.8	382.2	383.8	383.0	381.4	379.8	377.0	378.2
7.5°	380.2	380.2	379.8	379.0	379.8	381.4	380.6	379.0	377.8	375.0	376.2
10°	376.2	376.6	376.2	375.0	376.6	378.2	377.8	375.8	374.6	372.1	373.3
12.5°	371.3	371.7	371.3	370.9	371.7	374.2	373.3	371.7	370.9	368.9	370.1
15°	365.7	366.1	365.3	365.3	366.1	368.5	368.5	366.9	366.1	364.1	366.5
17.5°	358.5	358.9	358.5	358.5	359.3	361.7	362.1	361.3	360.5	359.7	362.1
20°	351.2	350.8	350.8	350.4	352.0	355.6	355.2	355.2	354.4	354.4	357.3
22.5°	342.8	342.8	342.4	342.4	344.4	347.6	347.6	348.4	347.6	349.2	351.6
25°	333.1	333.5	333.1	333.9	335.5	339.1	339.6	340.8	341.2	342.8	345.6
27.5°	323.1	323.5	323.1	323.9	326.7	329.5	331.5	333.1	333.5	335.9	339.6
30°	312.2	312.2	312.6	313.4	316.6	321.0	322.7	324.7	324.7	328.7	332.3
32.5°	300.9	300.9	300.9	302.5	306.2	311.4	313.4	315.8	316.6	320.6	324.7
35°	288.5	288.9	288.9	290.1	294.9	300.1	302.9	305.8	307.4	312.2	316.2
37.5°	276.8	277.6	276.4	278.0	284.8	289.3	292.5	295.3	298.1	304.6	307.8
40°	263.5	264.3	263.9	267.1	272.8	278.4	282.0	284.8	288.9	295.3	298.9
42.5°	249.4	250.2	251.0	254.7	260.7	266.3	270.8	274.4	279.2	284.8	290.9
45°	236.6	236.6	237.8	242.2	248.6	254.7	259.9	263.9	269.5	275.6	281.6
47.5°	222.1	222.5	224.1	229.3	236.2	243.4	248.2	253.5	259.5	265.9	272.8
50°	208.8	208.8	211.2	216.8	223.3	231.3	236.6	242.6	249.0	256.7	263.5
52.5°	193.5	194.3	197.9	203.2	211.6	218.9	224.9	231.3	239.0	247.0	254.7
55°	178.2	179.8	182.7	189.9	198.7	205.6	212.8	220.9	228.1	237.0	245.8
57.5°	163.3	164.5	169.0	176.2	185.5	193.9	201.6	209.2	218.1	226.9	236.2
60°	148.1	149.7	154.9	162.1	172.2	181.0	189.9	197.9	207.2	216.4	226.1
62.5°	133.6	134.8	140.8	149.3	159.3	169.0	177.8	187.5	197.5	206.4	216.0
65°	118.3	120.3	127.1	134.8	146.4	156.1	166.2	176.6	187.1	196.7	206.0
67.5°	104.2	105.4	112.6	121.5	133.2	144.0	154.5	165.8	176.6	186.7	195.9
70°	87.7	91.7	99.0	108.2	120.7	132.0	143.2	154.9	166.6	177.0	185.9
72.5°	74.0	77.2	85.3	95.3	107.4	120.7	132.4	144.8	156.5	167.4	176.6
75°	59.5	62.8	72.0	83.3	95.8	109.8	121.9	134.8	146.8	157.7	167.4
77.5°	45.5	49.5	59.5	71.2	84.9	99.4	111.8	124.7	137.2	148.9	158.5
80°	32.6	37.0	47.9	61.2	74.4	88.9	102.6	115.5	127.9	139.6	149.7
82.5°	20.9	25.7	37.4	50.7	64.8	79.3	93.3	106.2	118.7	130.3	140.8
85°	11.3	16.5	28.6	41.8	55.9	70.4	84.5	98.2	110.2	121.1	132.4
87.5°	3.2	9.7	21.3	34.6	49.1	62.4	76.0	89.7	101.8	113.5	123.5
90°	0.4	5.6	16.1	28.6	42.6	55.5	69.2	82.1	94.1	105.8	115.9
92.5°	0.4	3.6	12.5	23.7	36.6	49.9	63.6	76.0	87.3	99.0	109.0
95°	0.4	2.8	10.1	20.1	32.2	44.7	57.5	69.6	81.3	92.1	102.2
97.5°	0.4	2.0	8.0	17.3	28.2	39.8	52.3	64.4	75.6	86.1	95.3
100°	0.4	1.6	6.4	14.9	24.5	35.8	47.1	58.7	69.6	79.7	89.3
102.5°	0.4	1.2	5.6	12.5	21.7	31.8	42.6	53.5	64.0	73.6	83.3
105°	0.4	1.2	4.8	10.9	19.3	28.6	38.6	49.1	58.7	68.0	76.8
107.5°	0.4	0.8	4.0	9.3	16.9	25.7	35.0	45.1	53.9	62.8	71.2
110°	0.4	0.8	3.2	8.4	14.9	22.9	31.8	41.0	49.5	57.9	66.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.4	0.8	2.8	7.2	12.9	20.5	28.6	37.0	45.1	53.5	60.7
115°	0.4	0.8	2.4	6.4	12.1	17.7	25.7	33.4	41.4	49.1	55.9
117.5°	0.4	0.8	2.0	5.2	10.5	16.1	22.5	30.2	37.4	44.7	51.1
120°	0.4	0.8	1.6	4.8	9.3	14.5	20.1	27.0	33.8	40.6	47.5
122.5°	0.4	0.4	1.6	4.0	8.0	12.9	18.5	23.7	30.2	36.6	42.6
125°	0.4	0.4	1.6	3.6	6.8	11.7	16.5	21.3	27.0	32.6	37.8
127.5°	0.4	0.4	1.2	2.8	6.0	10.1	14.5	19.7	23.7	29.0	34.2
130°	0.4	0.4	1.2	2.4	5.2	8.4	12.9	17.3	22.1	25.7	30.2
132.5°	0.4	0.4	1.2	2.0	4.0	6.8	10.9	14.9	19.3	23.3	27.0
135°	0.4	0.4	0.8	1.6	3.2	5.6	8.9	12.5	16.9	20.9	24.5
137.5°	0.4	0.4	0.8	1.6	2.4	4.8	6.8	10.1	14.1	17.7	21.3
140°	0.4	0.4	0.8	1.2	2.0	3.6	5.6	8.0	11.3	14.5	18.5
142.5°	0.4	0.4	0.4	1.2	1.6	2.8	4.4	6.4	8.9	11.7	14.9
145°	0.4	0.4	0.4	1.2	1.6	2.0	3.6	5.2	6.8	8.9	11.7
147.5°	0.4	0.4	0.4	0.8	1.2	1.6	2.8	4.0	5.2	6.8	8.4
150°	0.4	0.4	0.4	0.8	1.2	1.6	2.0	2.8	4.0	5.6	6.8
152.5°	0.4	0.4	0.4	0.8	0.8	1.2	1.6	2.0	2.8	4.0	4.8
155°	0.4	0.4	0.4	0.4	0.8	1.2	1.6	1.6	2.0	2.8	3.6
157.5°	0.4	0.4	0.4	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.4
160°	0.4	0.4	0.4	0.4	0.4	0.8	0.8	1.2	1.2	1.2	1.2
162.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8	0.8	1.2	1.2
165°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8	0.8
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-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4
2.5°	378.6	379.0	380.2	380.2	379.4	379.4	379.0	378.6	379.0	379.8	379.8
5°	377.8	378.2	379.4	379.8	379.0	378.6	378.6	378.2	378.6	379.4	379.4
7.5°	376.2	376.6	377.8	378.2	377.4	377.4	377.0	376.6	377.4	377.8	377.8
10°	373.7	374.2	375.8	376.2	375.8	375.4	375.4	375.0	375.4	376.2	376.2
12.5°	370.5	371.3	373.3	373.3	373.3	372.9	372.9	372.5	372.9	373.7	373.3
15°	366.9	368.5	370.1	370.9	370.9	370.9	370.5	370.1	370.9	371.3	370.9
17.5°	362.9	364.9	367.3	368.1	368.1	368.5	368.1	367.7	368.5	368.5	368.1
20°	358.9	360.9	363.3	364.1	364.9	365.3	365.3	364.9	365.3	365.7	365.3
22.5°	353.6	356.0	358.9	360.1	360.9	361.7	361.7	361.7	362.1	362.5	361.7
25°	348.0	350.8	354.0	355.2	356.9	357.3	357.7	357.7	358.1	358.5	357.3
27.5°	342.0	345.2	348.4	350.4	351.6	352.4	352.4	352.8	353.2	353.6	352.4
30°	334.7	339.6	342.4	344.0	345.6	346.8	347.2	347.6	348.0	348.4	347.2
32.5°	328.3	332.3	335.9	337.9	340.0	341.6	342.0	342.0	342.8	342.8	341.6
35°	320.6	325.5	329.1	331.1	333.5	334.7	335.5	335.5	336.3	336.3	335.1
37.5°	313.0	317.8	321.9	324.3	327.1	328.7	329.1	329.1	329.9	329.9	328.3
40°	305.0	310.2	314.6	317.4	319.8	321.9	322.3	323.5	323.5	323.1	321.4
42.5°	296.9	301.7	306.6	309.8	313.0	315.0	315.8	316.2	316.2	315.8	314.6
45°	288.1	293.7	298.1	302.1	305.4	307.4	308.6	309.0	309.0	308.2	307.0
47.5°	279.6	285.2	289.7	294.1	297.3	299.7	300.9	301.3	300.9	300.5	299.3
50°	270.8	277.2	281.6	286.0	289.3	291.3	293.3	293.7	293.3	292.9	290.5
52.5°	261.5	268.3	273.2	277.6	281.2	283.6	285.2	285.6	285.6	284.8	283.2
55°	252.3	258.3	264.3	269.1	273.2	275.6	277.6	278.4	277.6	276.8	274.8
57.5°	243.8	249.4	255.5	260.7	264.7	267.9	269.5	270.4	269.5	268.3	266.3
60°	233.7	239.8	246.6	251.4	255.9	259.1	259.9	261.5	260.7	259.5	257.5
62.5°	224.1	231.3	237.4	243.4	247.0	250.6	252.3	253.1	252.3	251.0	249.0
65°	214.0	222.1	228.1	234.1	238.2	241.8	243.8	244.2	243.4	242.2	240.2
67.5°	204.8	212.4	218.9	225.3	228.9	232.5	234.5	235.4	234.5	232.9	230.9
70°	195.5	203.2	210.8	215.6	220.1	224.1	225.3	226.5	225.7	224.1	221.7
72.5°	186.3	194.3	202.0	206.8	211.6	215.2	216.8	218.1	217.2	215.6	212.8
75°	176.6	185.1	192.7	197.9	202.8	206.4	208.0	209.2	208.4	206.8	203.6
77.5°	167.8	176.2	183.5	189.1	193.9	197.1	199.9	200.4	199.5	197.9	194.7
80°	158.5	167.0	174.6	180.2	185.1	188.3	190.3	191.5	190.7	189.1	185.9
82.5°	150.5	158.1	165.8	171.4	176.2	180.2	181.8	183.1	182.7	180.2	177.8
85°	141.6	150.5	156.5	162.5	167.4	171.4	172.6	174.2	173.8	171.8	168.6
87.5°	132.8	141.6	148.9	154.9	159.3	162.5	164.5	165.4	164.9	162.9	159.3
90°	125.5	133.6	140.8	147.2	150.9	154.5	156.5	156.9	156.9	154.5	151.7
92.5°	118.7	126.3	133.6	139.6	144.0	147.2	148.9	149.7	149.3	147.2	144.0
95°	111.0	119.5	126.3	132.4	136.8	140.0	141.6	142.4	142.0	140.0	136.8
97.5°	104.6	112.2	119.1	124.7	129.1	132.4	134.0	134.8	134.8	132.8	129.5
100°	98.2	105.8	112.2	117.9	121.9	125.1	126.7	127.1	126.7	125.1	121.9
102.5°	91.7	99.0	105.4	110.6	115.1	117.9	119.5	119.9	119.9	117.9	114.7
105°	85.3	92.5	98.6	104.2	107.8	110.6	111.8	113.0	112.6	111.0	107.8
107.5°	79.3	86.5	92.1	97.4	101.0	103.8	105.0	106.2	105.8	104.2	101.0
110°	73.6	80.5	85.7	90.9	94.1	97.0	99.0	99.4	98.6	97.0	94.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	68.4	74.4	79.7	84.5	88.1	90.1	91.7	92.5	91.7	90.1	88.1
115°	62.8	68.8	74.0	78.5	81.7	84.1	85.3	86.1	85.3	83.7	81.7
117.5°	57.5	63.2	68.4	72.8	75.6	77.6	78.9	79.7	78.9	77.6	75.6
120°	53.1	57.9	62.8	66.8	70.0	71.6	72.8	73.6	73.2	71.6	69.6
122.5°	47.9	53.1	57.5	61.6	64.4	66.0	66.8	67.6	67.2	66.0	64.0
125°	43.4	47.9	52.3	55.9	58.7	60.3	61.2	62.0	61.6	60.3	57.9
127.5°	38.6	43.4	47.1	50.7	52.7	55.1	55.5	56.3	55.9	54.7	52.7
130°	35.0	38.6	42.2	45.5	47.9	49.5	50.3	50.7	49.9	49.1	47.1
132.5°	30.6	34.6	37.8	40.6	42.2	43.9	44.7	45.1	45.1	43.9	42.2
135°	27.4	30.2	33.0	35.8	37.4	39.0	39.8	40.2	39.8	39.0	37.4
137.5°	24.5	27.0	29.0	31.4	33.4	34.2	35.0	35.0	34.6	34.2	33.0
140°	21.3	24.1	26.2	27.8	29.4	29.8	30.6	30.6	30.2	29.8	29.0
142.5°	18.1	20.5	22.5	24.5	25.7	26.6	27.0	27.4	27.0	26.6	25.3
145°	14.5	17.3	19.3	20.5	22.1	22.5	22.9	23.3	22.9	22.5	21.3
147.5°	11.3	13.7	15.7	17.3	18.5	18.9	19.3	19.7	19.3	18.5	18.1
150°	8.0	10.1	12.5	14.1	14.9	15.7	15.7	15.7	16.1	15.3	14.5
152.5°	6.4	7.2	8.9	10.5	11.7	12.1	12.5	12.5	12.1	12.1	11.3
155°	4.4	5.2	6.4	7.6	8.9	9.3	9.7	9.7	9.3	9.3	8.9
157.5°	2.8	3.6	4.4	5.2	6.4	6.8	7.2	7.2	7.2	6.8	6.4
160°	1.6	2.0	2.4	3.2	4.0	4.4	4.8	4.8	4.8	4.8	4.4
162.5°	1.2	1.2	1.2	1.6	2.0	2.4	2.8	2.8	2.8	2.8	2.4
165°	0.8	0.8	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.6	1.6
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-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4
2.5°	379.4	379.4	379.8	379.0	376.6	377.0	377.0	378.6	379.4	379.8	381.8
5°	378.6	378.6	379.4	378.2	376.2	376.2	376.2	377.8	378.2	379.0	380.6
7.5°	377.4	377.4	377.8	376.6	374.2	374.2	373.7	375.4	376.2	376.6	378.2
10°	375.4	375.4	375.8	374.6	371.7	371.7	371.3	372.5	372.9	373.7	375.0
12.5°	372.5	372.5	372.5	371.3	368.5	368.1	367.7	368.9	368.9	369.3	370.5
15°	370.1	369.3	369.3	368.1	365.3	364.5	363.7	364.1	364.9	364.5	365.3
17.5°	367.3	366.5	365.7	364.5	360.9	359.7	358.9	359.3	358.9	358.5	359.3
20°	364.1	362.9	362.5	360.5	356.9	354.8	353.2	352.4	352.8	351.6	352.0
22.5°	360.5	358.9	358.1	355.6	352.0	349.6	347.6	346.0	345.6	344.0	344.4
25°	356.0	354.0	352.8	350.8	346.8	344.0	341.6	339.1	337.9	335.9	335.5
27.5°	350.8	348.8	347.2	345.2	341.2	337.5	334.7	331.5	329.9	327.5	326.3
30°	345.6	343.2	340.8	339.1	334.7	330.7	326.3	323.5	321.0	318.2	316.2
32.5°	339.1	336.7	334.3	331.9	327.9	323.1	319.4	315.0	312.2	309.0	306.6
35°	332.7	329.5	327.1	323.9	320.2	314.6	310.2	305.8	302.1	298.5	295.7
37.5°	325.5	323.1	319.4	316.6	312.2	306.6	301.7	296.1	292.9	288.1	284.4
40°	318.6	315.8	312.2	308.6	304.1	297.7	292.5	286.0	282.4	276.8	273.2
42.5°	311.8	307.8	304.1	300.1	295.3	289.3	282.8	276.4	271.6	266.3	261.1
45°	304.1	299.7	295.3	290.9	286.0	280.0	273.2	266.3	260.3	255.5	249.0
47.5°	296.1	291.7	286.4	281.6	276.4	270.4	263.1	255.9	249.4	243.8	237.0
50°	288.1	283.6	278.0	272.8	266.7	260.7	253.1	244.6	237.8	230.5	224.5
52.5°	279.6	275.2	270.0	263.1	256.7	250.6	242.6	233.7	226.1	220.1	212.4
55°	271.2	266.7	260.7	253.9	247.4	239.8	232.1	223.3	214.8	207.6	199.9
57.5°	262.3	258.3	251.4	245.8	237.8	229.7	221.7	213.2	204.0	195.5	186.7
60°	253.5	249.0	242.6	235.8	227.7	219.7	211.2	202.0	192.3	183.1	175.0
62.5°	245.4	239.8	233.7	226.5	218.1	210.4	200.8	190.7	181.0	171.4	161.7
65°	236.2	230.1	224.5	217.2	208.4	199.5	189.9	179.8	169.4	158.9	149.3
67.5°	226.9	220.9	214.8	207.6	198.3	189.1	179.0	169.0	157.3	147.2	136.0
70°	217.7	212.8	205.2	197.5	189.1	179.0	169.0	158.1	146.0	135.2	123.5
72.5°	208.4	203.6	195.9	187.9	179.8	169.4	158.5	147.6	136.4	123.9	111.4
75°	199.5	193.5	186.7	179.0	170.6	159.7	148.9	137.6	124.3	112.6	99.8
77.5°	191.1	185.5	178.6	170.2	160.9	150.5	139.2	127.5	114.3	101.8	87.7
80°	181.8	176.2	169.4	160.9	151.7	141.6	129.5	117.5	104.6	90.9	76.4
82.5°	173.0	167.8	160.1	152.5	142.4	132.4	120.3	108.2	94.5	81.3	67.2
85°	163.7	158.5	151.3	143.2	133.6	122.7	111.4	99.4	85.7	72.0	57.9
87.5°	155.7	149.7	142.4	134.4	124.7	114.3	103.4	90.5	77.2	64.0	49.5
90°	147.2	141.6	134.4	126.3	116.7	106.2	94.9	82.9	70.0	56.3	42.6
92.5°	140.0	134.0	127.1	119.1	109.4	99.4	88.1	76.0	63.6	50.3	37.0
95°	132.8	126.7	120.3	112.2	102.6	92.5	81.3	69.6	57.5	44.7	32.2
97.5°	124.7	119.5	113.0	105.4	95.8	86.1	75.2	64.0	52.3	39.8	28.2
100°	118.3	112.2	106.2	98.2	89.3	80.1	69.2	58.3	47.1	35.4	24.5
102.5°	111.0	105.4	99.4	91.7	82.9	73.6	63.6	53.1	42.6	31.8	21.3
105°	104.2	99.0	92.5	85.3	76.8	68.0	58.3	48.7	38.6	28.2	18.9
107.5°	97.4	92.1	86.1	79.3	71.2	62.4	53.5	43.9	34.6	25.3	16.9
110°	90.5	85.7	80.1	73.2	65.6	57.5	49.1	40.2	31.0	22.5	14.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	84.5	79.7	74.0	67.6	60.3	52.7	44.7	36.2	27.8	20.1	12.9
115°	78.5	74.0	68.4	62.8	55.5	48.3	40.6	32.6	24.9	18.1	11.3
117.5°	72.4	68.0	62.8	57.1	50.7	43.9	36.6	29.0	22.5	16.1	10.1
120°	66.4	62.4	57.5	52.3	46.7	39.8	32.6	26.2	20.1	14.1	8.9
122.5°	60.7	57.1	52.7	47.9	41.8	35.4	29.4	23.7	18.1	12.5	7.2
125°	55.5	51.9	47.9	43.0	37.4	31.8	26.6	21.3	15.7	10.9	6.0
127.5°	50.3	46.7	42.6	38.2	33.8	28.6	23.7	18.9	14.1	9.7	5.2
130°	45.1	41.8	38.2	34.6	30.2	25.3	21.3	16.5	12.1	7.6	4.4
132.5°	39.8	37.4	34.2	30.6	26.6	22.9	18.5	14.5	10.5	6.8	4.0
135°	35.4	33.0	30.2	27.0	23.7	20.1	16.1	12.5	8.9	5.6	3.2
137.5°	31.4	29.4	26.6	23.7	20.9	17.3	14.1	10.5	7.2	4.8	2.4
140°	27.8	25.7	23.3	20.5	18.1	14.9	11.7	8.4	6.4	4.0	2.0
142.5°	24.1	22.1	20.1	17.7	15.3	12.5	9.7	7.2	5.2	3.2	2.0
145°	20.5	18.9	16.9	14.9	12.5	10.1	8.0	6.0	4.0	2.4	1.6
147.5°	16.9	15.7	13.7	12.1	10.1	8.0	6.4	4.8	3.2	2.0	1.2
150°	13.7	12.5	10.9	9.3	8.0	6.4	5.2	3.6	2.4	2.0	1.2
152.5°	10.5	9.7	8.4	7.6	6.4	4.8	3.6	2.8	2.0	1.6	0.8
155°	8.4	7.6	6.8	5.6	4.8	3.6	2.8	2.0	1.6	1.2	0.8
157.5°	6.0	5.6	4.8	4.0	3.2	2.4	2.0	2.0	1.2	0.8	0.4
160°	4.0	3.6	3.2	2.4	2.0	2.0	1.6	1.2	0.8	0.8	0.4
162.5°	2.4	2.0	2.0	2.0	1.6	1.6	1.2	0.8	0.8	0.4	0.4
165°	1.6	1.6	1.6	1.2	1.2	1.2	0.8	0.4	0.4	0.4	0.4
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-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4
2.5°	381.8	380.6	382.2	385.0	385.4	385.0	384.2	385.4	387.0	386.6	383.8
5°	381.0	379.4	381.0	383.8	383.8	383.4	383.0	384.2	385.8	385.4	383.0
7.5°	378.6	377.0	378.6	381.0	381.4	380.6	380.6	381.8	383.4	383.0	381.0
10°	375.4	373.7	374.6	377.4	378.2	377.4	377.4	378.6	380.6	380.2	377.8
12.5°	370.5	369.3	370.1	372.5	373.3	372.9	372.5	374.2	376.2	376.2	373.7
15°	365.3	363.7	364.5	367.3	367.7	366.9	367.3	368.5	370.9	370.9	368.9
17.5°	359.3	357.3	358.5	360.5	360.9	360.9	360.9	362.5	365.3	364.9	363.3
20°	352.4	349.6	350.4	352.4	353.2	353.2	353.2	356.0	358.1	358.1	356.4
22.5°	344.4	342.4	342.4	344.4	345.6	345.2	345.2	347.6	350.4	350.0	350.0
25°	335.1	333.5	332.7	335.1	335.5	335.9	336.7	339.1	342.4	342.4	342.8
27.5°	325.5	323.9	323.5	325.5	325.9	326.3	327.1	329.9	333.1	333.5	334.3
30°	316.2	313.8	313.0	314.6	315.4	315.8	315.8	320.2	323.1	324.3	325.9
32.5°	305.4	302.9	300.9	303.7	304.1	305.0	305.4	309.8	313.0	315.0	317.4
35°	294.5	290.5	289.7	291.7	292.5	292.9	293.7	298.5	302.9	304.6	307.8
37.5°	282.4	279.6	277.2	279.2	280.0	280.4	282.8	287.3	291.7	294.1	297.3
40°	271.2	267.5	265.5	266.7	267.5	267.9	270.8	275.6	280.8	283.6	287.7
42.5°	258.7	253.9	252.3	253.5	253.9	255.1	257.5	263.9	269.1	273.2	276.4
45°	246.2	242.6	239.0	240.2	240.6	241.4	245.0	251.8	257.5	262.3	265.9
47.5°	233.3	228.9	225.3	226.1	227.7	228.1	232.1	240.2	245.4	250.6	255.5
50°	220.5	214.4	211.6	211.6	212.4	214.4	219.7	227.7	233.3	239.4	244.6
52.5°	207.2	201.6	198.3	198.7	199.5	202.0	206.8	214.8	221.3	227.7	234.1
55°	193.9	187.9	184.7	183.9	184.7	187.9	193.5	202.0	208.4	216.0	222.9
57.5°	180.6	173.4	170.6	169.4	170.2	174.2	179.8	188.7	196.7	204.0	212.0
60°	166.2	160.5	155.7	152.9	154.9	160.1	166.2	175.4	183.9	191.9	200.8
62.5°	153.7	146.4	141.2	138.4	140.4	144.8	153.3	162.1	171.4	180.6	189.5
65°	139.6	132.4	126.3	123.5	125.5	130.8	139.2	148.9	158.9	168.2	178.6
67.5°	125.9	118.3	111.0	108.2	110.6	116.3	125.5	136.4	147.2	156.9	168.2
70°	112.6	104.2	96.6	94.5	96.2	103.8	112.6	123.5	134.8	146.0	157.7
72.5°	100.6	90.1	82.1	79.7	81.7	90.1	100.2	111.4	123.5	135.6	148.1
75°	86.5	76.8	68.0	65.2	67.6	75.2	87.7	99.8	112.6	125.5	137.2
77.5°	75.2	64.0	54.7	50.3	54.3	64.0	76.0	88.9	102.2	115.5	128.7
80°	63.6	51.9	41.8	37.0	41.4	51.9	64.0	78.0	92.9	106.2	118.3
82.5°	53.1	40.6	30.2	24.9	29.8	41.4	54.7	68.8	83.3	96.6	110.6
85°	43.4	30.6	19.7	14.1	20.9	31.4	45.5	59.9	74.8	88.5	102.2
87.5°	35.4	22.9	12.1	6.0	12.9	24.5	37.8	52.3	67.2	80.9	93.7
90°	29.0	16.5	6.4	0.8	7.6	18.5	31.4	45.5	59.5	73.6	86.5
92.5°	23.7	12.5	3.6	0.4	4.8	14.9	27.0	40.2	53.9	67.6	80.1
95°	19.7	9.7	2.4	0.4	3.6	11.7	22.9	35.8	48.7	62.0	74.4
97.5°	16.9	8.0	2.0	0.4	2.8	10.1	19.7	31.8	44.3	56.7	68.8
100°	14.5	6.4	1.6	0.4	2.4	8.4	17.3	28.2	39.8	51.9	63.6
102.5°	12.5	5.2	1.2	0.4	2.0	7.2	15.3	25.3	35.8	47.5	58.7
105°	10.9	4.4	1.2	0.4	1.6	6.4	13.7	22.5	33.0	43.4	54.3
107.5°	9.3	3.6	0.8	0.4	1.2	5.2	12.1	20.5	29.8	39.8	49.9
110°	8.0	3.2	0.8	0.4	1.2	4.8	10.5	18.5	27.0	36.2	45.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	6.8	2.4	0.8	0.4	0.8	4.0	9.3	16.5	24.5	33.0	42.2
115°	6.0	2.0	0.4	0.4	0.8	3.6	8.4	14.9	22.1	30.2	38.6
117.5°	4.8	1.6	0.4	0.4	0.4	2.8	7.2	13.3	20.1	27.8	35.4
120°	4.0	1.6	0.4	0.4	0.4	2.4	6.4	11.7	18.1	24.9	32.2
122.5°	3.6	1.2	0.4	0.4	0.4	2.0	5.6	10.5	16.1	22.5	29.4
125°	3.2	1.2	0.4	0.4	0.4	1.6	4.8	9.3	14.5	20.1	26.6
127.5°	2.4	1.2	0.4	0.4	0.4	1.2	4.4	8.0	12.9	18.1	23.7
130°	2.0	0.8	0.4	0.4	0.4	1.2	3.6	7.2	11.3	16.1	21.3
132.5°	1.6	0.8	0.4	0.4	0.4	0.8	2.8	5.6	9.7	14.1	18.9
135°	1.6	0.8	0.4	0.4	0.4	0.8	2.0	4.8	8.0	12.1	16.1
137.5°	1.6	0.4	0.4	0.4	0.4	0.8	1.6	3.6	6.4	9.7	13.3
140°	1.2	0.4	0.4	0.4	0.4	0.4	1.2	2.8	5.2	8.0	11.3
142.5°	1.2	0.4	0.4	0.4	0.4	0.4	1.2	2.0	4.0	6.4	8.9
145°	0.8	0.4	0.4	0.4	0.4	0.4	0.8	1.6	3.2	4.8	7.2
147.5°	0.8	0.4	0.4	0.4	0.4	0.4	0.8	1.2	2.4	4.0	5.6
150°	0.8	0.4	0.4	0.4	0.4	0.4	0.8	1.2	1.6	2.8	4.4
152.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8	1.2	2.0	2.8
155°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	1.2	1.6	2.0
157.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8	1.2	1.6
160°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8	1.2
162.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8
165°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4
2.5°	382.6	379.8	380.6	380.2	381.0	382.2	382.2	381.8	381.8	381.0	380.2
5°	381.8	379.0	380.2	379.8	380.6	381.8	381.8	381.4	381.4	380.2	379.8
7.5°	379.4	377.4	378.2	378.2	379.0	380.2	380.2	379.8	379.8	378.6	378.2
10°	377.0	374.6	375.8	375.8	376.6	378.2	378.2	377.8	377.8	376.6	376.2
12.5°	372.9	370.5	372.5	372.9	373.7	375.4	375.0	375.0	375.0	373.7	373.3
15°	368.1	366.5	368.5	368.9	370.1	372.1	372.1	372.1	372.1	370.9	370.5
17.5°	362.9	361.7	363.7	364.5	366.1	368.1	368.1	368.5	368.9	368.1	367.7
20°	356.9	356.0	358.1	359.7	362.1	364.1	364.9	365.3	366.1	365.3	364.9
22.5°	350.0	350.0	352.8	354.4	357.3	359.3	360.5	361.7	362.5	361.7	361.3
25°	342.4	343.6	346.4	349.2	352.4	354.4	355.6	357.3	358.1	357.7	357.3
27.5°	335.1	336.7	340.4	343.2	346.0	349.2	350.4	352.4	353.2	353.2	352.8
30°	326.7	329.1	333.1	336.3	340.0	343.2	344.8	346.8	348.0	347.2	347.6
32.5°	318.6	322.7	325.9	329.5	333.5	336.7	338.7	341.2	342.4	342.0	342.4
35°	309.8	313.8	318.2	321.9	326.7	329.9	332.7	334.7	336.3	335.9	335.9
37.5°	300.1	305.4	309.8	314.6	319.0	322.7	325.5	327.9	329.5	329.5	329.5
40°	290.9	296.5	300.9	306.6	312.2	315.4	318.6	321.0	322.7	323.1	323.5
42.5°	280.8	286.8	292.1	298.1	303.7	307.8	311.4	314.2	315.8	316.6	316.2
45°	271.6	277.2	283.2	290.1	295.3	299.3	303.7	307.0	308.6	309.0	309.4
47.5°	261.1	267.5	274.4	281.2	286.4	291.7	295.7	298.9	300.5	301.7	301.7
50°	251.0	257.9	265.5	272.8	278.4	283.6	287.7	291.3	293.3	294.1	294.5
52.5°	241.8	248.2	256.3	263.5	269.1	274.4	279.6	283.6	285.6	286.4	286.4
55°	230.5	238.6	247.4	254.3	260.3	266.3	271.6	275.6	277.6	278.8	279.6
57.5°	220.1	228.5	237.8	245.0	252.3	257.9	262.7	267.9	269.5	271.2	271.6
60°	210.0	218.5	227.3	235.4	242.6	248.6	254.3	258.7	261.5	262.3	263.1
62.5°	199.5	208.4	217.7	225.7	233.3	240.6	245.8	249.8	253.1	254.3	255.1
65°	189.5	198.7	208.0	216.4	224.5	231.7	237.0	241.0	244.2	246.2	246.6
67.5°	178.6	188.7	198.3	207.2	215.2	222.9	228.1	232.1	235.4	237.8	238.2
70°	168.6	179.0	188.7	198.3	206.4	214.0	219.7	223.7	227.3	228.9	229.7
72.5°	158.9	169.8	179.8	189.5	197.5	205.2	211.2	215.2	218.9	220.9	221.3
75°	149.7	160.5	171.4	180.6	189.1	196.7	202.8	207.2	210.4	212.4	213.2
77.5°	140.4	151.7	162.5	171.8	180.6	188.3	193.5	198.7	202.0	204.4	204.4
80°	131.2	142.8	154.1	163.3	172.2	179.0	185.1	190.3	193.5	195.9	195.9
82.5°	123.1	134.4	145.2	154.5	163.3	171.0	177.0	181.8	185.5	187.1	187.5
85°	113.9	126.3	136.4	146.4	154.9	162.1	168.2	173.4	176.6	178.2	179.0
87.5°	106.2	118.3	129.1	138.0	146.4	153.7	160.5	164.9	168.2	170.2	171.0
90°	99.0	110.6	121.5	130.3	139.2	146.0	152.5	156.9	160.5	162.1	162.9
92.5°	92.5	104.2	114.7	123.5	132.0	139.6	145.6	150.1	153.3	154.9	156.1
95°	86.5	97.8	107.8	117.5	125.5	132.4	138.8	143.2	146.8	148.1	149.3
97.5°	80.5	91.3	101.4	110.6	119.1	125.5	131.6	136.0	138.8	140.8	142.0
100°	75.2	85.7	95.3	104.2	112.2	118.3	124.7	128.7	131.6	133.2	134.8
102.5°	69.6	80.1	89.3	97.8	106.2	111.8	117.9	121.9	124.3	127.1	127.1
105°	64.8	74.4	83.7	91.7	99.0	105.8	111.0	115.1	117.9	119.9	119.9
107.5°	59.5	69.2	78.0	86.5	93.3	99.8	104.6	108.2	111.4	112.6	113.9
110°	55.5	64.0	72.8	80.9	87.3	93.3	98.2	102.2	105.0	106.2	107.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	50.7	59.5	67.6	75.2	81.7	87.3	92.1	95.3	98.2	99.8	100.2
115°	46.7	55.1	62.4	69.6	76.4	81.3	85.7	88.9	91.7	92.9	93.7
117.5°	43.0	50.7	57.9	64.0	70.4	75.6	80.1	82.9	85.3	86.9	87.7
120°	39.4	46.7	53.1	59.1	65.2	70.0	74.0	76.8	79.7	80.9	80.9
122.5°	35.8	42.6	48.7	54.3	59.9	64.4	68.8	71.2	73.6	74.8	74.8
125°	32.6	39.0	44.7	49.9	55.1	59.1	62.8	65.6	68.0	68.8	68.8
127.5°	29.4	35.4	40.6	45.5	49.9	53.9	57.5	60.3	62.4	63.2	63.2
130°	26.6	31.8	36.6	41.4	45.9	49.1	52.7	55.1	56.3	57.5	57.9
132.5°	23.7	28.6	33.0	37.0	41.4	44.7	47.5	49.9	51.1	52.3	52.7
135°	20.9	25.3	29.4	33.4	37.0	40.2	42.6	44.7	46.3	47.1	47.5
137.5°	17.7	22.5	26.2	29.4	33.4	35.8	38.6	39.8	41.4	42.2	42.2
140°	14.9	18.5	22.5	25.7	29.0	31.4	33.8	35.8	37.0	37.4	37.4
142.5°	12.1	15.3	18.5	22.5	25.3	27.4	29.8	31.4	32.2	32.6	33.0
145°	9.7	12.1	14.9	18.5	21.7	24.1	25.3	27.0	27.8	28.2	28.6
147.5°	7.2	9.7	12.1	14.5	17.7	20.1	21.3	22.9	23.7	24.1	24.1
150°	5.6	7.2	8.9	11.3	13.7	16.5	18.1	19.3	19.7	20.1	20.1
152.5°	4.0	5.6	6.8	8.4	10.1	12.5	14.9	15.7	16.1	16.5	16.5
155°	2.8	4.0	4.8	6.0	7.2	9.3	11.3	12.5	12.9	13.3	13.3
157.5°	2.0	2.8	3.2	4.4	5.2	6.0	7.6	9.7	10.1	10.1	10.1
160°	1.2	1.6	2.0	2.8	3.2	4.0	4.8	6.0	7.2	7.2	7.2
162.5°	0.8	1.2	1.2	1.6	1.6	2.4	2.8	3.2	4.4	4.8	4.8
165°	0.4	0.8	0.8	0.8	0.8	0.8	1.2	1.2	2.0	2.4	2.4
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-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4	381.4
2.5°	380.6	381.4	381.0	381.0	381.0	381.8	381.0	377.4	378.2	379.0	379.8
5°	380.2	380.6	380.6	380.2	380.2	381.0	380.2	376.6	377.4	378.2	378.6
7.5°	378.6	379.0	379.0	379.0	378.6	379.4	378.2	375.0	375.0	375.8	376.2
10°	376.6	377.4	377.0	376.6	376.6	376.6	375.8	372.1	372.1	372.5	372.9
12.5°	374.2	374.2	374.2	373.7	373.3	373.3	372.5	368.9	368.5	369.3	368.9
15°	370.9	371.7	370.9	370.5	369.7	369.7	368.5	364.9	364.1	364.5	364.1
17.5°	368.1	368.5	367.7	366.9	366.1	365.7	364.5	360.5	359.3	359.7	358.9
20°	365.3	365.3	364.5	363.7	362.5	361.3	359.7	355.6	353.6	353.6	352.0
22.5°	361.7	361.7	360.9	359.7	358.5	356.9	355.2	351.2	348.0	347.2	346.0
25°	357.7	357.3	356.9	355.6	353.2	351.6	350.0	345.6	342.0	340.4	338.3
27.5°	352.8	352.8	351.6	350.4	348.0	346.0	344.0	340.0	335.1	333.1	330.3
30°	347.6	347.6	346.4	344.8	342.4	340.0	337.5	332.7	327.9	325.1	321.9
32.5°	342.4	342.0	340.8	339.1	336.7	333.1	331.1	326.3	320.6	317.4	313.0
35°	335.9	335.5	334.3	332.3	329.1	326.3	323.1	318.6	312.2	308.2	303.3
37.5°	329.5	329.1	328.3	325.5	322.3	319.0	315.0	310.6	304.6	299.3	294.5
40°	323.1	322.7	321.0	319.0	315.0	311.0	307.0	302.5	296.1	290.1	284.8
42.5°	316.2	315.8	313.8	311.4	307.0	302.9	298.1	293.3	286.8	279.6	274.4
45°	309.4	308.6	306.6	303.7	298.9	294.5	289.7	284.0	277.6	270.8	263.9
47.5°	302.1	300.9	298.9	294.9	290.9	286.0	280.4	274.4	267.9	260.3	253.1
50°	294.1	293.3	290.9	287.3	282.4	277.6	271.2	265.1	257.5	250.2	241.4
52.5°	286.4	284.8	282.8	278.8	274.0	268.7	261.9	254.7	247.0	240.2	230.9
55°	278.4	277.6	274.8	271.6	265.5	259.5	253.1	245.4	237.0	228.9	220.1
57.5°	270.8	269.1	266.7	262.3	257.1	251.0	244.2	236.2	226.9	218.5	208.8
60°	263.1	260.7	257.9	253.9	248.2	241.8	234.5	226.1	216.8	207.6	197.5
62.5°	254.7	252.7	249.4	245.4	239.8	232.9	225.3	216.4	207.6	197.9	187.1
65°	246.2	244.2	241.0	237.0	231.3	223.7	215.6	206.8	196.7	187.5	175.8
67.5°	237.8	235.8	232.1	227.7	222.1	214.8	206.4	197.1	187.1	177.0	164.9
70°	229.3	226.9	223.7	218.9	213.2	205.6	197.1	187.5	177.4	166.6	154.5
72.5°	220.9	218.9	214.8	210.4	204.4	196.7	188.3	178.6	168.2	156.9	144.8
75°	212.4	210.0	207.2	202.0	195.5	188.3	179.4	169.8	158.5	147.6	135.2
77.5°	204.0	202.0	198.3	193.1	187.1	179.4	170.6	160.9	149.7	138.4	125.1
80°	195.5	193.1	190.3	185.5	178.6	171.0	161.7	152.1	140.8	129.1	115.9
82.5°	187.1	184.7	181.4	176.6	170.2	162.5	153.7	143.2	132.0	119.9	107.4
85°	178.6	176.6	173.0	168.2	161.3	153.7	144.8	135.6	123.5	111.4	99.0
87.5°	170.2	168.2	164.5	159.7	153.3	145.6	136.8	127.1	115.5	104.2	90.5
90°	162.1	160.5	156.9	152.1	145.6	138.0	129.9	119.5	108.2	97.0	84.1
92.5°	154.9	153.3	150.1	145.2	139.6	131.2	123.1	113.0	101.8	90.1	77.6
95°	148.5	146.4	143.2	138.8	132.0	124.7	116.7	106.6	95.8	84.1	72.0
97.5°	141.2	139.2	136.0	131.2	125.5	117.9	109.8	100.2	89.3	78.5	66.4
100°	134.0	132.0	128.3	124.3	118.7	111.0	103.4	93.7	83.7	73.2	61.6
102.5°	126.7	124.7	121.5	117.5	111.8	105.0	97.4	88.1	78.0	67.6	56.7
105°	119.9	117.9	114.7	110.6	105.4	98.6	90.5	82.5	72.8	62.8	52.3
107.5°	113.0	111.0	108.2	104.2	99.0	92.5	84.9	76.4	67.6	57.9	47.9
110°	106.2	104.6	101.4	97.8	92.5	86.1	79.3	71.2	62.4	53.5	43.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	99.8	98.2	94.9	90.9	86.5	80.5	73.6	66.0	57.5	49.1	39.8
115°	93.3	91.3	88.5	84.9	80.5	74.8	68.4	61.6	53.1	45.1	36.6
117.5°	86.9	85.3	82.5	78.9	74.8	69.2	63.2	56.7	48.7	41.0	33.4
120°	80.5	79.3	76.4	73.2	69.2	64.0	58.3	51.9	44.7	37.4	30.2
122.5°	74.4	73.2	70.4	67.6	63.6	58.7	53.5	47.5	41.0	34.2	27.8
125°	68.8	67.2	64.8	62.0	58.3	53.9	48.7	43.0	37.0	31.0	24.9
127.5°	62.8	61.6	59.9	56.7	53.1	49.1	44.3	39.4	33.8	28.2	22.5
130°	57.9	56.3	54.3	51.9	48.7	44.7	40.2	35.4	30.6	25.3	19.7
132.5°	52.3	50.7	49.1	46.7	43.9	40.2	36.2	31.8	27.4	22.5	17.7
135°	47.1	45.9	44.3	41.8	39.0	36.2	32.2	28.2	24.1	19.7	15.7
137.5°	42.2	41.0	39.4	37.8	35.0	32.2	28.6	24.9	21.3	17.3	13.7
140°	37.4	36.6	35.0	33.4	31.0	28.2	24.9	21.7	18.5	14.9	11.7
142.5°	32.6	31.8	30.6	29.0	27.0	24.5	21.7	18.9	15.7	12.9	10.1
145°	28.2	27.8	26.6	24.9	23.3	20.9	18.5	16.1	13.3	10.9	8.0
147.5°	23.7	23.3	22.5	21.3	19.7	17.7	15.7	13.3	11.3	8.9	6.4
150°	19.7	19.3	18.9	17.3	16.5	14.5	12.9	10.9	9.3	6.8	5.2
152.5°	16.1	16.1	15.3	14.1	13.3	11.7	10.5	8.9	7.2	5.6	4.0
155°	12.9	12.5	12.1	11.3	10.5	9.3	8.0	6.8	5.6	4.0	2.8
157.5°	10.1	9.7	9.3	8.4	7.6	7.2	6.0	4.8	3.6	2.8	2.0
160°	7.2	6.8	6.4	6.0	5.6	4.8	4.0	3.2	2.4	1.6	1.2
162.5°	4.8	4.4	4.4	4.0	3.6	2.8	2.4	2.0	1.6	1.2	0.8
165°	2.4	2.4	2.0	2.0	1.6	1.2	1.2	1.2	0.8	0.8	0.4
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-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	381.4	381.4	381.4	381.4	381.4	381.4	381.4
2.5°	379.4	379.4	381.0	380.6	379.4	381.8	384.6
5°	378.2	378.2	379.4	379.4	378.2	380.6	383.0
7.5°	376.2	375.8	377.0	377.0	375.4	377.4	380.2
10°	372.5	372.1	373.3	373.3	371.7	373.7	376.2
12.5°	368.5	367.7	368.9	368.5	366.9	368.9	371.3
15°	363.3	362.9	363.7	362.9	361.3	363.3	365.7
17.5°	358.1	356.9	357.3	357.3	354.4	356.4	358.5
20°	351.2	349.6	350.0	349.6	347.6	348.8	351.2
22.5°	344.4	342.0	342.0	341.6	339.1	340.8	342.8
25°	335.9	333.1	333.1	332.7	329.9	331.1	333.1
27.5°	327.5	324.7	323.5	323.1	320.2	320.2	323.1
30°	318.6	314.6	313.8	312.6	309.8	309.8	312.2
32.5°	310.2	304.6	302.9	301.3	298.5	298.1	300.9
35°	298.9	294.5	291.7	290.1	286.8	286.0	288.5
37.5°	289.7	284.0	280.0	278.0	274.8	273.6	276.8
40°	279.6	273.6	268.3	267.1	262.3	260.7	263.5
42.5°	268.3	261.9	256.7	254.3	250.6	249.0	249.4
45°	257.1	250.2	244.6	241.4	237.8	235.0	236.6
47.5°	245.4	239.4	232.5	227.7	223.3	221.3	222.1
50°	233.7	226.5	220.1	214.8	209.6	207.2	208.8
52.5°	222.1	214.4	207.2	201.6	195.5	193.1	193.5
55°	210.8	202.8	194.3	188.3	182.7	179.0	178.2
57.5°	199.5	190.7	181.8	175.0	167.8	164.5	163.3
60°	187.5	178.2	169.0	160.9	153.3	149.7	148.1
62.5°	176.2	166.2	155.7	147.2	139.6	134.8	133.6
65°	165.4	153.7	143.2	133.6	125.1	119.9	118.3
67.5°	153.7	141.6	130.3	119.9	111.8	105.0	104.2
70°	142.8	129.9	117.5	106.6	97.8	90.9	87.7
72.5°	132.0	118.7	105.8	94.1	82.9	76.4	74.0
75°	121.5	107.8	94.1	82.1	69.6	62.0	59.5
77.5°	111.8	97.8	83.3	70.0	58.3	48.7	45.5
80°	102.6	88.1	72.8	59.1	46.7	36.2	32.6
82.5°	92.9	79.3	63.6	49.1	36.2	25.3	20.9
85°	84.5	70.8	55.1	40.6	27.8	16.1	11.3
87.5°	77.6	62.8	48.7	34.2	20.9	9.3	3.2
90°	70.8	56.3	42.2	28.2	15.7	5.2	0.4
92.5°	64.8	51.1	37.0	24.1	12.1	3.6	0.4
95°	59.1	45.9	32.6	20.1	9.7	2.4	0.4
97.5°	53.9	41.4	29.0	17.3	8.0	2.0	0.4
100°	49.5	37.4	25.7	15.3	6.8	1.6	0.4
102.5°	45.1	33.8	22.9	13.3	6.0	1.2	0.4
105°	41.4	30.6	20.5	12.1	5.2	1.2	0.4
107.5°	37.8	27.8	18.5	10.5	4.4	0.8	0.4
110°	34.2	25.3	16.5	9.3	4.0	0.8	0.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-20SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	31.4	22.9	14.9	8.4	3.2	0.8	0.4
115°	28.6	20.5	13.3	7.2	2.8	0.4	0.4
117.5°	25.7	18.5	11.7	6.4	2.4	0.4	0.4
120°	23.3	16.5	10.5	5.6	2.0	0.4	0.4
122.5°	20.9	14.9	9.3	4.8	1.6	0.4	0.4
125°	18.9	13.3	8.0	4.0	1.2	0.4	0.4
127.5°	16.9	11.7	7.2	3.6	1.2	0.4	0.4
130°	14.9	10.5	6.0	2.8	0.8	0.4	0.4
132.5°	13.3	8.9	5.2	2.4	0.8	0.4	0.4
135°	11.7	7.6	4.4	1.6	0.8	0.4	0.4
137.5°	10.1	6.4	3.6	1.2	0.4	0.4	0.4
140°	8.4	5.6	2.8	1.2	0.4	0.4	0.4
142.5°	7.2	4.4	2.0	0.8	0.4	0.4	0.4
145°	5.6	3.6	1.6	0.8	0.4	0.4	0.4
147.5°	4.4	2.8	1.2	0.8	0.4	0.4	0.4
150°	3.2	2.0	1.2	0.4	0.4	0.4	0.4
152.5°	2.4	1.6	0.8	0.4	0.4	0.4	0.4
155°	1.6	1.2	0.8	0.4	0.4	0.4	0.4
157.5°	1.2	0.8	0.4	0.4	0.4	0.4	0.4
160°	0.8	0.4	0.4	0.4	0.4	0.4	0.4
162.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4
165°	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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)