

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-LD5-16SL-LW-UNV-L940-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-LD5-16SL-LW-UNV-L940-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
WIDE FROSTED LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

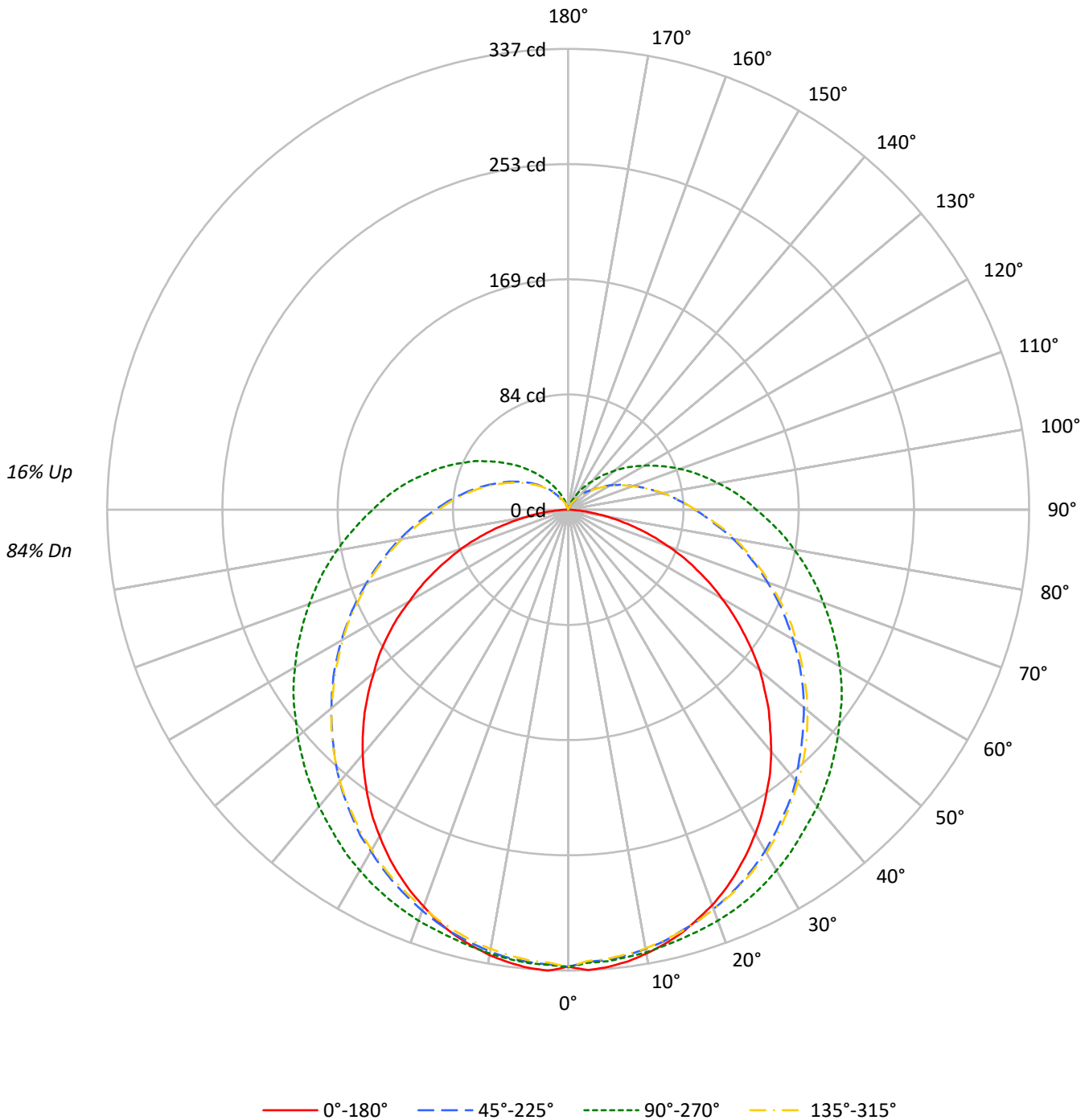
Lumens per Lamp: N/A  
Luminaire Lumens: 1452.0 lumens  
Efficiency: N/A  
Efficacy: 111.7 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Semi-Direct

Input Watts (W): 13  
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	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°	2701	2701	2701	2701
5°	2715	2603	2721	2614
10°	2690	2529	2699	2537
15°	2659	2465	2671	2468
20°	2617	2420	2626	2420
25°	2565	2378	2581	2376
30°	2508	2336	2527	2336
35°	2440	2297	2468	2300
40°	2374	2273	2402	2273
45°	2297	2250	2333	2253
50°	2218	2236	2247	2242
55°	2107	2238	2173	2247
60°	1989	2245	2055	2259
65°	1857	2267	1939	2289
70°	1673	2309	1802	2341
75°	1460	2384	1597	2429
80°	1131	2496	1281	2554
85°	676	2674	840	2750



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.7	2.2
10°-20°	91.0	6.3
20°-30°	139.5	9.6
30°-40°	172.1	11.9
40°-50°	186.7	12.9
50°-60°	184.0	12.7
60°-70°	166.4	11.5
70°-80°	138.6	9.5
80°-90°	107.4	7.4
90°-100°	81.4	5.6
100°-110°	60.3	4.2
110°-120°	41.9	2.9
120°-130°	26.7	1.8
130°-140°	15.0	1.0
140°-150°	6.9	0.5
150°-160°	2.1	0.1
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	262.2	18.1
0°-40°	434.3	29.9
0°-60°	805.0	55.4
0°-90°	1217.4	83.8
90°-120°	183.6	12.6
90°-150°	232.2	16.0
90°-180°	235.0	16.2
0°-180°	1452.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	334	334	334	334	334	
5°	336	331	336	333	336	32
15°	320	324	322	325	320	90
25°	292	313	294	313	292	134
35°	253	294	256	294	253	158
45°	207	271	210	271	207	160
55°	156	244	161	245	156	140
65°	104	214	108	216	104	103
75°	52	183	57	187	52	55
85°	10	153	12	157	10	12
90°	0	138	1	143	0	1
95°	0	125	0	131	0	0
105°	0	99	0	105	0	0
115°	0	75	0	82	0	0
125°	0	54	0	60	0	0
135°	0	35	0	42	0	0
145°	0	20	0	25	0	0
155°	0	8	0	12	0	0
165°	0	1	0	2	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2
2.5°	337.0	337.0	336.7	336.0	336.3	337.4	336.7	334.9	333.9	331.0	331.7
5°	335.6	335.6	335.3	334.6	334.9	336.3	335.6	334.2	332.8	330.3	331.4
7.5°	333.2	333.2	332.8	332.1	332.8	334.2	333.5	332.1	331.0	328.6	329.6
10°	329.6	330.0	329.6	328.6	330.0	331.4	331.0	329.3	328.2	326.1	327.2
12.5°	325.4	325.7	325.4	325.0	325.7	327.9	327.2	325.7	325.0	323.3	324.3
15°	320.5	320.8	320.1	320.1	320.8	322.9	322.9	321.5	320.8	319.0	321.2
17.5°	314.1	314.5	314.1	314.1	314.8	316.9	317.3	316.6	315.9	315.2	317.3
20°	307.8	307.4	307.4	307.1	308.5	311.6	311.3	311.3	310.6	310.6	313.1
22.5°	300.4	300.4	300.0	300.0	301.8	304.6	304.6	305.3	304.6	306.0	308.1
25°	291.9	292.3	291.9	292.6	294.0	297.2	297.5	298.6	299.0	300.4	302.8
27.5°	283.1	283.4	283.1	283.8	286.3	288.7	290.5	291.9	292.3	294.4	297.5
30°	273.6	273.6	273.9	274.6	277.4	281.3	282.7	284.5	284.5	288.0	291.2
32.5°	263.7	263.7	263.7	265.1	268.3	272.9	274.6	276.7	277.4	281.0	284.5
35°	252.8	253.1	253.1	254.2	258.4	263.0	265.5	267.9	269.3	273.6	277.1
37.5°	242.5	243.3	242.2	243.6	249.6	253.5	256.3	258.8	261.2	266.9	269.7
40°	230.9	231.6	231.3	234.1	239.0	244.0	247.1	249.6	253.1	258.8	261.9
42.5°	218.6	219.3	220.0	223.2	228.4	233.4	237.3	240.4	244.7	249.6	254.9
45°	207.3	207.3	208.4	212.2	217.9	223.2	227.7	231.3	236.2	241.5	246.8
47.5°	194.6	195.0	196.4	200.9	206.9	213.3	217.5	222.1	227.4	233.0	239.0
50°	183.0	183.0	185.1	190.0	195.7	202.7	207.3	212.6	218.2	224.9	230.9
52.5°	169.6	170.3	173.4	178.0	185.4	191.8	197.1	202.7	209.4	216.5	223.2
55°	156.2	157.6	160.1	166.4	174.2	180.1	186.5	193.5	199.9	207.6	215.4
57.5°	143.1	144.2	148.1	154.4	162.5	169.9	176.6	183.3	191.1	198.8	206.9
60°	129.7	131.1	135.7	142.1	150.9	158.6	166.4	173.4	181.6	189.7	198.1
62.5°	117.0	118.1	123.4	130.8	139.6	148.1	155.8	164.3	173.1	180.9	189.3
65°	103.6	105.4	111.4	118.1	128.3	136.8	145.6	154.8	163.9	172.4	180.5
67.5°	91.3	92.4	98.7	106.5	116.7	126.2	135.4	145.2	154.8	163.6	171.7
70°	76.9	80.4	86.7	94.8	105.8	115.6	125.5	135.7	146.0	155.1	162.9
72.5°	64.9	67.7	74.7	83.6	94.1	105.8	116.0	126.9	137.1	146.7	154.8
75°	52.2	55.0	63.1	73.0	83.9	96.2	106.8	118.1	128.7	138.2	146.7
77.5°	39.8	43.4	52.2	62.4	74.4	87.1	98.0	109.3	120.2	130.4	138.9
80°	28.6	32.4	42.0	53.6	65.2	77.9	89.9	101.2	112.1	122.3	131.1
82.5°	18.3	22.6	32.8	44.4	56.8	69.5	81.8	93.1	104.0	114.2	123.4
85°	9.9	14.5	25.0	36.7	49.0	61.7	74.0	86.0	96.6	106.1	116.0
87.5°	2.8	8.5	18.7	30.3	43.0	54.6	66.6	78.6	89.2	99.4	108.2
90°	0.4	4.9	14.1	25.0	37.4	48.7	60.6	71.9	82.5	92.7	101.5
92.5°	0.4	3.2	10.9	20.8	32.1	43.7	55.7	66.6	76.5	86.7	95.5
95°	0.4	2.5	8.8	17.6	28.2	39.1	50.4	61.0	71.2	80.7	89.5
97.5°	0.4	1.8	7.1	15.2	24.7	34.9	45.8	56.4	66.3	75.4	83.6
100°	0.4	1.4	5.6	13.0	21.5	31.4	41.2	51.5	61.0	69.8	78.3
102.5°	0.4	1.1	4.9	10.9	19.0	27.9	37.4	46.9	56.1	64.5	73.0
105°	0.4	1.1	4.2	9.5	16.9	25.0	33.8	43.0	51.5	59.6	67.3
107.5°	0.4	0.7	3.5	8.1	14.8	22.6	30.7	39.5	47.2	55.0	62.4
110°	0.4	0.7	2.8	7.4	13.0	20.1	27.9	36.0	43.4	50.8	57.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.4	0.7	2.5	6.3	11.3	18.0	25.0	32.4	39.5	46.9	53.2
115°	0.4	0.7	2.1	5.6	10.6	15.5	22.6	29.3	36.3	43.0	49.0
117.5°	0.4	0.7	1.8	4.6	9.2	14.1	19.7	26.4	32.8	39.1	44.8
120°	0.4	0.7	1.4	4.2	8.1	12.7	17.6	23.6	29.6	35.6	41.6
122.5°	0.4	0.4	1.4	3.5	7.1	11.3	16.2	20.8	26.4	32.1	37.4
125°	0.4	0.4	1.4	3.2	6.0	10.2	14.5	18.7	23.6	28.6	33.1
127.5°	0.4	0.4	1.1	2.5	5.3	8.8	12.7	17.3	20.8	25.4	30.0
130°	0.4	0.4	1.1	2.1	4.6	7.4	11.3	15.2	19.4	22.6	26.4
132.5°	0.4	0.4	1.1	1.8	3.5	6.0	9.5	13.0	16.9	20.4	23.6
135°	0.4	0.4	0.7	1.4	2.8	4.9	7.8	10.9	14.8	18.3	21.5
137.5°	0.4	0.4	0.7	1.4	2.1	4.2	6.0	8.8	12.3	15.5	18.7
140°	0.4	0.4	0.7	1.1	1.8	3.2	4.9	7.1	9.9	12.7	16.2
142.5°	0.4	0.4	0.4	1.1	1.4	2.5	3.9	5.6	7.8	10.2	13.0
145°	0.4	0.4	0.4	1.1	1.4	1.8	3.2	4.6	6.0	7.8	10.2
147.5°	0.4	0.4	0.4	0.7	1.1	1.4	2.5	3.5	4.6	6.0	7.4
150°	0.4	0.4	0.4	0.7	1.1	1.4	1.8	2.5	3.5	4.9	6.0
152.5°	0.4	0.4	0.4	0.7	0.7	1.1	1.4	1.8	2.5	3.5	4.2
155°	0.4	0.4	0.4	0.4	0.7	1.1	1.4	1.4	1.8	2.5	3.2
157.5°	0.4	0.4	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.4	2.1
160°	0.4	0.4	0.4	0.4	0.4	0.7	0.7	1.1	1.1	1.1	1.1
162.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7	1.1	1.1
165°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7
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°	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2
2.5°	331.7	332.1	333.2	333.2	332.4	332.4	332.1	331.7	332.1	332.8	332.8
5°	331.0	331.4	332.4	332.8	332.1	331.7	331.7	331.4	331.7	332.4	332.4
7.5°	329.6	330.0	331.0	331.4	330.7	330.7	330.3	330.0	330.7	331.0	331.0
10°	327.5	327.9	329.3	329.6	329.3	328.9	328.9	328.6	328.9	329.6	329.6
12.5°	324.7	325.4	327.2	327.2	327.2	326.8	326.8	326.5	326.8	327.5	327.2
15°	321.5	322.9	324.3	325.0	325.0	325.0	324.7	324.3	325.0	325.4	325.0
17.5°	318.0	319.8	321.9	322.6	322.6	322.9	322.6	322.2	322.9	322.9	322.6
20°	314.5	316.2	318.3	319.0	319.8	320.1	320.1	319.8	320.1	320.5	320.1
22.5°	309.9	312.0	314.5	315.5	316.2	316.9	316.9	316.9	317.3	317.6	316.9
25°	304.9	307.4	310.2	311.3	312.7	313.1	313.4	313.4	313.8	314.1	313.1
27.5°	299.7	302.5	305.3	307.1	308.1	308.8	308.8	309.2	309.5	309.9	308.8
30°	293.3	297.5	300.0	301.4	302.8	303.9	304.2	304.6	304.9	305.3	304.2
32.5°	287.7	291.2	294.4	296.1	297.9	299.3	299.7	299.7	300.4	300.4	299.3
35°	281.0	285.2	288.4	290.1	292.3	293.3	294.0	294.0	294.7	294.7	293.7
37.5°	274.3	278.5	282.0	284.1	286.6	288.0	288.4	288.4	289.1	289.1	287.7
40°	267.2	271.8	275.7	278.2	280.3	282.0	282.4	283.4	283.4	283.1	281.7
42.5°	260.2	264.4	268.6	271.5	274.3	276.0	276.7	277.1	277.1	276.7	275.7
45°	252.4	257.4	261.2	264.8	267.6	269.3	270.4	270.8	270.8	270.0	269.0
47.5°	245.0	250.0	253.8	257.7	260.5	262.6	263.7	264.1	263.7	263.3	262.3
50°	237.3	242.9	246.8	250.7	253.5	255.2	257.0	257.4	257.0	256.6	254.5
52.5°	229.2	235.1	239.4	243.3	246.4	248.5	250.0	250.3	250.3	249.6	248.2
55°	221.0	226.3	231.6	235.8	239.4	241.5	243.3	244.0	243.3	242.5	240.8
57.5°	213.6	218.6	223.9	228.4	232.0	234.8	236.2	236.9	236.2	235.1	233.4
60°	204.8	210.1	216.1	220.3	224.2	227.0	227.7	229.2	228.4	227.4	225.6
62.5°	196.4	202.7	208.0	213.3	216.5	219.6	221.0	221.7	221.0	220.0	218.2
65°	187.6	194.6	199.9	205.2	208.7	211.9	213.6	214.0	213.3	212.2	210.5
67.5°	179.4	186.1	191.8	197.4	200.6	203.8	205.5	206.2	205.5	204.1	202.4
70°	171.3	178.0	184.7	189.0	192.8	196.4	197.4	198.5	197.8	196.4	194.2
72.5°	163.2	170.3	177.0	181.2	185.4	188.6	190.0	191.1	190.4	189.0	186.5
75°	154.8	162.2	168.9	173.4	177.7	180.9	182.3	183.3	182.6	181.2	178.4
77.5°	147.0	154.4	160.8	165.7	169.9	172.7	175.2	175.6	174.9	173.4	170.6
80°	138.9	146.3	153.0	157.9	162.2	165.0	166.8	167.8	167.1	165.7	162.9
82.5°	131.8	138.5	145.2	150.2	154.4	157.9	159.3	160.4	160.1	157.9	155.8
85°	124.1	131.8	137.1	142.4	146.7	150.2	151.2	152.6	152.3	150.5	147.7
87.5°	116.3	124.1	130.4	135.7	139.6	142.4	144.2	144.9	144.5	142.8	139.6
90°	110.0	117.0	123.4	129.0	132.2	135.4	137.1	137.5	137.5	135.4	132.9
92.5°	104.0	110.7	117.0	122.3	126.2	129.0	130.4	131.1	130.8	129.0	126.2
95°	97.3	104.7	110.7	116.0	119.9	122.7	124.1	124.8	124.4	122.7	119.9
97.5°	91.7	98.4	104.4	109.3	113.2	116.0	117.4	118.1	118.1	116.3	113.5
100°	86.0	92.7	98.4	103.3	106.8	109.6	111.1	111.4	111.1	109.6	106.8
102.5°	80.4	86.7	92.4	96.9	100.8	103.3	104.7	105.1	105.1	103.3	100.5
105°	74.7	81.1	86.4	91.3	94.5	96.9	98.0	99.1	98.7	97.3	94.5
107.5°	69.5	75.8	80.7	85.3	88.5	91.0	92.0	93.1	92.7	91.3	88.5
110°	64.5	70.5	75.1	79.7	82.5	85.0	86.7	87.1	86.4	85.0	82.5





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	59.9	65.2	69.8	74.0	77.2	79.0	80.4	81.1	80.4	79.0	77.2
115°	55.0	60.3	64.9	68.7	71.6	73.7	74.7	75.4	74.7	73.3	71.6
117.5°	50.4	55.3	59.9	63.8	66.3	68.0	69.1	69.8	69.1	68.0	66.3
120°	46.5	50.8	55.0	58.5	61.3	62.8	63.8	64.5	64.2	62.8	61.0
122.5°	42.0	46.5	50.4	53.9	56.4	57.8	58.5	59.2	58.9	57.8	56.1
125°	38.1	42.0	45.8	49.0	51.5	52.9	53.6	54.3	53.9	52.9	50.8
127.5°	33.8	38.1	41.2	44.4	46.2	48.3	48.7	49.4	49.0	47.9	46.2
130°	30.7	33.8	37.0	39.8	42.0	43.4	44.1	44.4	43.7	43.0	41.2
132.5°	26.8	30.3	33.1	35.6	37.0	38.4	39.1	39.5	39.5	38.4	37.0
135°	24.0	26.4	28.9	31.4	32.8	34.2	34.9	35.3	34.9	34.2	32.8
137.5°	21.5	23.6	25.4	27.5	29.3	30.0	30.7	30.7	30.3	30.0	28.9
140°	18.7	21.2	22.9	24.3	25.7	26.1	26.8	26.8	26.4	26.1	25.4
142.5°	15.9	18.0	19.7	21.5	22.6	23.3	23.6	24.0	23.6	23.3	22.2
145°	12.7	15.2	16.9	18.0	19.4	19.7	20.1	20.4	20.1	19.7	18.7
147.5°	9.9	12.0	13.7	15.2	16.2	16.6	16.9	17.3	16.9	16.2	15.9
150°	7.1	8.8	10.9	12.3	13.0	13.7	13.7	13.7	14.1	13.4	12.7
152.5°	5.6	6.3	7.8	9.2	10.2	10.6	10.9	10.9	10.6	10.6	9.9
155°	3.9	4.6	5.6	6.7	7.8	8.1	8.5	8.5	8.1	8.1	7.8
157.5°	2.5	3.2	3.9	4.6	5.6	6.0	6.3	6.3	6.3	6.0	5.6
160°	1.4	1.8	2.1	2.8	3.5	3.9	4.2	4.2	4.2	4.2	3.9
162.5°	1.1	1.1	1.1	1.4	1.8	2.1	2.5	2.5	2.5	2.5	2.1
165°	0.7	0.7	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.4	1.4
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-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2
2.5°	332.4	332.4	332.8	332.1	330.0	330.3	330.3	331.7	332.4	332.8	334.6
5°	331.7	331.7	332.4	331.4	329.6	329.6	329.6	331.0	331.4	332.1	333.5
7.5°	330.7	330.7	331.0	330.0	327.9	327.9	327.5	328.9	329.6	330.0	331.4
10°	328.9	328.9	329.3	328.2	325.7	325.7	325.4	326.5	326.8	327.5	328.6
12.5°	326.5	326.5	326.5	325.4	322.9	322.6	322.2	323.3	323.3	323.6	324.7
15°	324.3	323.6	323.6	322.6	320.1	319.4	318.7	319.0	319.8	319.4	320.1
17.5°	321.9	321.2	320.5	319.4	316.2	315.2	314.5	314.8	314.5	314.1	314.8
20°	319.0	318.0	317.6	315.9	312.7	310.9	309.5	308.8	309.2	308.1	308.5
22.5°	315.9	314.5	313.8	311.6	308.5	306.4	304.6	303.2	302.8	301.4	301.8
25°	312.0	310.2	309.2	307.4	303.9	301.4	299.3	297.2	296.1	294.4	294.0
27.5°	307.4	305.7	304.2	302.5	299.0	295.8	293.3	290.5	289.1	287.0	285.9
30°	302.8	300.7	298.6	297.2	293.3	289.8	285.9	283.4	281.3	278.9	277.1
32.5°	297.2	295.1	293.0	290.8	287.3	283.1	279.9	276.0	273.6	270.8	268.6
35°	291.6	288.7	286.6	283.8	280.6	275.7	271.8	267.9	264.8	261.6	259.1
37.5°	285.2	283.1	279.9	277.4	273.6	268.6	264.4	259.5	256.6	252.4	249.2
40°	279.2	276.7	273.6	270.4	266.5	260.9	256.3	250.7	247.5	242.5	239.4
42.5°	273.2	269.7	266.5	263.0	258.8	253.5	247.8	242.2	238.0	233.4	228.8
45°	266.5	262.6	258.8	254.9	250.7	245.4	239.4	233.4	228.1	223.9	218.2
47.5°	259.5	255.6	251.0	246.8	242.2	236.9	230.6	224.2	218.6	213.6	207.6
50°	252.4	248.5	243.6	239.0	233.7	228.4	221.7	214.3	208.4	202.0	196.7
52.5°	245.0	241.1	236.6	230.6	224.9	219.6	212.6	204.8	198.1	192.8	186.1
55°	237.6	233.7	228.4	222.5	216.8	210.1	203.4	195.7	188.3	181.9	175.2
57.5°	229.9	226.3	220.3	215.4	208.4	201.3	194.2	186.8	178.7	171.3	163.6
60°	222.1	218.2	212.6	206.6	199.5	192.5	185.1	177.0	168.5	160.4	153.4
62.5°	215.0	210.1	204.8	198.5	191.1	184.4	175.9	167.1	158.6	150.2	141.7
65°	206.9	201.7	196.7	190.4	182.6	174.9	166.4	157.6	148.4	139.3	130.8
67.5°	198.8	193.5	188.3	181.9	173.8	165.7	156.9	148.1	137.8	129.0	119.2
70°	190.7	186.5	179.8	173.1	165.7	156.9	148.1	138.5	128.0	118.5	108.2
72.5°	182.6	178.4	171.7	164.6	157.6	148.4	138.9	129.4	119.5	108.6	97.7
75°	174.9	169.6	163.6	156.9	149.5	140.0	130.4	120.6	108.9	98.7	87.4
77.5°	167.5	162.5	156.5	149.1	141.0	131.8	122.0	111.8	100.1	89.2	76.9
80°	159.3	154.4	148.4	141.0	132.9	124.1	113.5	102.9	91.7	79.7	67.0
82.5°	151.6	147.0	140.3	133.6	124.8	116.0	105.4	94.8	82.8	71.2	58.9
85°	143.5	138.9	132.6	125.5	117.0	107.5	97.7	87.1	75.1	63.1	50.8
87.5°	136.4	131.1	124.8	117.7	109.3	100.1	90.6	79.3	67.7	56.1	43.4
90°	129.0	124.1	117.7	110.7	102.2	93.1	83.2	72.6	61.3	49.4	37.4
92.5°	122.7	117.4	111.4	104.4	95.9	87.1	77.2	66.6	55.7	44.1	32.4
95°	116.3	111.1	105.4	98.4	89.9	81.1	71.2	61.0	50.4	39.1	28.2
97.5°	109.3	104.7	99.1	92.4	83.9	75.4	65.9	56.1	45.8	34.9	24.7
100°	103.6	98.4	93.1	86.0	78.3	70.2	60.6	51.1	41.2	31.0	21.5
102.5°	97.3	92.4	87.1	80.4	72.6	64.5	55.7	46.5	37.4	27.9	18.7
105°	91.3	86.7	81.1	74.7	67.3	59.6	51.1	42.7	33.8	24.7	16.6
107.5°	85.3	80.7	75.4	69.5	62.4	54.6	46.9	38.4	30.3	22.2	14.8
110°	79.3	75.1	70.2	64.2	57.5	50.4	43.0	35.3	27.1	19.7	13.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	74.0	69.8	64.9	59.2	52.9	46.2	39.1	31.7	24.3	17.6	11.3
115°	68.7	64.9	59.9	55.0	48.7	42.3	35.6	28.6	21.9	15.9	9.9
117.5°	63.5	59.6	55.0	50.1	44.4	38.4	32.1	25.4	19.7	14.1	8.8
120°	58.2	54.6	50.4	45.8	40.9	34.9	28.6	22.9	17.6	12.3	7.8
122.5°	53.2	50.1	46.2	42.0	36.7	31.0	25.7	20.8	15.9	10.9	6.3
125°	48.7	45.5	42.0	37.7	32.8	27.9	23.3	18.7	13.7	9.5	5.3
127.5°	44.1	40.9	37.4	33.5	29.6	25.0	20.8	16.6	12.3	8.5	4.6
130°	39.5	36.7	33.5	30.3	26.4	22.2	18.7	14.5	10.6	6.7	3.9
132.5°	34.9	32.8	30.0	26.8	23.3	20.1	16.2	12.7	9.2	6.0	3.5
135°	31.0	28.9	26.4	23.6	20.8	17.6	14.1	10.9	7.8	4.9	2.8
137.5°	27.5	25.7	23.3	20.8	18.3	15.2	12.3	9.2	6.3	4.2	2.1
140°	24.3	22.6	20.4	18.0	15.9	13.0	10.2	7.4	5.6	3.5	1.8
142.5°	21.2	19.4	17.6	15.5	13.4	10.9	8.5	6.3	4.6	2.8	1.8
145°	18.0	16.6	14.8	13.0	10.9	8.8	7.1	5.3	3.5	2.1	1.4
147.5°	14.8	13.7	12.0	10.6	8.8	7.1	5.6	4.2	2.8	1.8	1.1
150°	12.0	10.9	9.5	8.1	7.1	5.6	4.6	3.2	2.1	1.8	1.1
152.5°	9.2	8.5	7.4	6.7	5.6	4.2	3.2	2.5	1.8	1.4	0.7
155°	7.4	6.7	6.0	4.9	4.2	3.2	2.5	1.8	1.4	1.1	0.7
157.5°	5.3	4.9	4.2	3.5	2.8	2.1	1.8	1.8	1.1	0.7	0.4
160°	3.5	3.2	2.8	2.1	1.8	1.8	1.4	1.1	0.7	0.7	0.4
162.5°	2.1	1.8	1.8	1.8	1.4	1.4	1.1	0.7	0.7	0.4	0.4
165°	1.4	1.4	1.4	1.1	1.1	1.1	0.7	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-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2
2.5°	334.6	333.5	334.9	337.4	337.7	337.4	336.7	337.7	339.1	338.8	336.3
5°	333.9	332.4	333.9	336.3	336.3	336.0	335.6	336.7	338.1	337.7	335.6
7.5°	331.7	330.3	331.7	333.9	334.2	333.5	333.5	334.6	336.0	335.6	333.9
10°	328.9	327.5	328.2	330.7	331.4	330.7	330.7	331.7	333.5	333.2	331.0
12.5°	324.7	323.6	324.3	326.5	327.2	326.8	326.5	327.9	329.6	329.6	327.5
15°	320.1	318.7	319.4	321.9	322.2	321.5	321.9	322.9	325.0	325.0	323.3
17.5°	314.8	313.1	314.1	315.9	316.2	316.2	316.2	317.6	320.1	319.8	318.3
20°	308.8	306.4	307.1	308.8	309.5	309.5	309.5	312.0	313.8	313.8	312.4
22.5°	301.8	300.0	300.0	301.8	302.8	302.5	302.5	304.6	307.1	306.7	306.7
25°	293.7	292.3	291.6	293.7	294.0	294.4	295.1	297.2	300.0	300.0	300.4
27.5°	285.2	283.8	283.4	285.2	285.6	285.9	286.6	289.1	291.9	292.3	293.0
30°	277.1	275.0	274.3	275.7	276.4	276.7	276.7	280.6	283.1	284.1	285.6
32.5°	267.6	265.5	263.7	266.2	266.5	267.2	267.6	271.5	274.3	276.0	278.2
35°	258.1	254.5	253.8	255.6	256.3	256.6	257.4	261.6	265.5	266.9	269.7
37.5°	247.5	245.0	242.9	244.7	245.4	245.7	247.8	251.7	255.6	257.7	260.5
40°	237.6	234.4	232.7	233.7	234.4	234.8	237.3	241.5	246.1	248.5	252.1
42.5°	226.7	222.5	221.0	222.1	222.5	223.5	225.6	231.3	235.8	239.4	242.2
45°	215.8	212.6	209.4	210.5	210.8	211.5	214.7	220.7	225.6	229.9	233.0
47.5°	204.5	200.6	197.4	198.1	199.5	199.9	203.4	210.5	215.0	219.6	223.9
50°	193.2	187.9	185.4	185.4	186.1	187.9	192.5	199.5	204.5	209.8	214.3
52.5°	181.6	176.6	173.8	174.2	174.9	177.0	181.2	188.3	193.9	199.5	205.2
55°	169.9	164.6	161.8	161.1	161.8	164.6	169.6	177.0	182.6	189.3	195.3
57.5°	158.3	151.9	149.5	148.4	149.1	152.6	157.6	165.3	172.4	178.7	185.8
60°	145.6	140.7	136.4	134.0	135.7	140.3	145.6	153.7	161.1	168.2	175.9
62.5°	134.7	128.3	123.7	121.3	123.0	126.9	134.3	142.1	150.2	158.3	166.0
65°	122.3	116.0	110.7	108.2	110.0	114.6	122.0	130.4	139.3	147.4	156.5
67.5°	110.3	103.6	97.3	94.8	96.9	101.9	110.0	119.5	129.0	137.5	147.4
70°	98.7	91.3	84.6	82.8	84.3	91.0	98.7	108.2	118.1	128.0	138.2
72.5°	88.1	79.0	71.9	69.8	71.6	79.0	87.8	97.7	108.2	118.8	129.7
75°	75.8	67.3	59.6	57.1	59.2	65.9	76.9	87.4	98.7	110.0	120.2
77.5°	65.9	56.1	47.9	44.1	47.6	56.1	66.6	77.9	89.5	101.2	112.8
80°	55.7	45.5	36.7	32.4	36.3	45.5	56.1	68.4	81.4	93.1	103.6
82.5°	46.5	35.6	26.4	21.9	26.1	36.3	47.9	60.3	73.0	84.6	96.9
85°	38.1	26.8	17.3	12.3	18.3	27.5	39.8	52.5	65.6	77.6	89.5
87.5°	31.0	20.1	10.6	5.3	11.3	21.5	33.1	45.8	58.9	70.9	82.1
90°	25.4	14.5	5.6	0.7	6.7	16.2	27.5	39.8	52.2	64.5	75.8
92.5°	20.8	10.9	3.2	0.4	4.2	13.0	23.6	35.3	47.2	59.2	70.2
95°	17.3	8.5	2.1	0.4	3.2	10.2	20.1	31.4	42.7	54.3	65.2
97.5°	14.8	7.1	1.8	0.4	2.5	8.8	17.3	27.9	38.8	49.7	60.3
100°	12.7	5.6	1.4	0.4	2.1	7.4	15.2	24.7	34.9	45.5	55.7
102.5°	10.9	4.6	1.1	0.4	1.8	6.3	13.4	22.2	31.4	41.6	51.5
105°	9.5	3.9	1.1	0.4	1.4	5.6	12.0	19.7	28.9	38.1	47.6
107.5°	8.1	3.2	0.7	0.4	1.1	4.6	10.6	18.0	26.1	34.9	43.7
110°	7.1	2.8	0.7	0.4	1.1	4.2	9.2	16.2	23.6	31.7	40.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	6.0	2.1	0.7	0.4	0.7	3.5	8.1	14.5	21.5	28.9	37.0
115°	5.3	1.8	0.4	0.4	0.7	3.2	7.4	13.0	19.4	26.4	33.8
117.5°	4.2	1.4	0.4	0.4	0.4	2.5	6.3	11.6	17.6	24.3	31.0
120°	3.5	1.4	0.4	0.4	0.4	2.1	5.6	10.2	15.9	21.9	28.2
122.5°	3.2	1.1	0.4	0.4	0.4	1.8	4.9	9.2	14.1	19.7	25.7
125°	2.8	1.1	0.4	0.4	0.4	1.4	4.2	8.1	12.7	17.6	23.3
127.5°	2.1	1.1	0.4	0.4	0.4	1.1	3.9	7.1	11.3	15.9	20.8
130°	1.8	0.7	0.4	0.4	0.4	1.1	3.2	6.3	9.9	14.1	18.7
132.5°	1.4	0.7	0.4	0.4	0.4	0.7	2.5	4.9	8.5	12.3	16.6
135°	1.4	0.7	0.4	0.4	0.4	0.7	1.8	4.2	7.1	10.6	14.1
137.5°	1.4	0.4	0.4	0.4	0.4	0.7	1.4	3.2	5.6	8.5	11.6
140°	1.1	0.4	0.4	0.4	0.4	0.4	1.1	2.5	4.6	7.1	9.9
142.5°	1.1	0.4	0.4	0.4	0.4	0.4	1.1	1.8	3.5	5.6	7.8
145°	0.7	0.4	0.4	0.4	0.4	0.4	0.7	1.4	2.8	4.2	6.3
147.5°	0.7	0.4	0.4	0.4	0.4	0.4	0.7	1.1	2.1	3.5	4.9
150°	0.7	0.4	0.4	0.4	0.4	0.4	0.7	1.1	1.4	2.5	3.9
152.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7	1.1	1.8	2.5
155°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	1.1	1.4	1.8
157.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7	1.1	1.4
160°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7	1.1
162.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7
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-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2
2.5°	335.3	332.8	333.5	333.2	333.9	334.9	334.9	334.6	334.6	333.9	333.2
5°	334.6	332.1	333.2	332.8	333.5	334.6	334.6	334.2	334.2	333.2	332.8
7.5°	332.4	330.7	331.4	331.4	332.1	333.2	333.2	332.8	332.8	331.7	331.4
10°	330.3	328.2	329.3	329.3	330.0	331.4	331.4	331.0	331.0	330.0	329.6
12.5°	326.8	324.7	326.5	326.8	327.5	328.9	328.6	328.6	328.6	327.5	327.2
15°	322.6	321.2	322.9	323.3	324.3	326.1	326.1	326.1	326.1	325.0	324.7
17.5°	318.0	316.9	318.7	319.4	320.8	322.6	322.6	322.9	323.3	322.6	322.2
20°	312.7	312.0	313.8	315.2	317.3	319.0	319.8	320.1	320.8	320.1	319.8
22.5°	306.7	306.7	309.2	310.6	313.1	314.8	315.9	316.9	317.6	316.9	316.6
25°	300.0	301.1	303.5	306.0	308.8	310.6	311.6	313.1	313.8	313.4	313.1
27.5°	293.7	295.1	298.2	300.7	303.2	306.0	307.1	308.8	309.5	309.5	309.2
30°	286.3	288.4	291.9	294.7	297.9	300.7	302.1	303.9	304.9	304.2	304.6
32.5°	279.2	282.7	285.6	288.7	292.3	295.1	296.8	299.0	300.0	299.7	300.0
35°	271.5	275.0	278.9	282.0	286.3	289.1	291.6	293.3	294.7	294.4	294.4
37.5°	263.0	267.6	271.5	275.7	279.6	282.7	285.2	287.3	288.7	288.7	288.7
40°	254.9	259.8	263.7	268.6	273.6	276.4	279.2	281.3	282.7	283.1	283.4
42.5°	246.1	251.4	255.9	261.2	266.2	269.7	272.9	275.3	276.7	277.4	277.1
45°	238.0	242.9	248.2	254.2	258.8	262.3	266.2	269.0	270.4	270.8	271.1
47.5°	228.8	234.4	240.4	246.4	251.0	255.6	259.1	261.9	263.3	264.4	264.4
50°	220.0	226.0	232.7	239.0	244.0	248.5	252.1	255.2	257.0	257.7	258.1
52.5°	211.9	217.5	224.6	230.9	235.8	240.4	245.0	248.5	250.3	251.0	251.0
55°	202.0	209.1	216.8	222.8	228.1	233.4	238.0	241.5	243.3	244.3	245.0
57.5°	192.8	200.2	208.4	214.7	221.0	226.0	230.2	234.8	236.2	237.6	238.0
60°	184.0	191.4	199.2	206.2	212.6	217.9	222.8	226.7	229.2	229.9	230.6
62.5°	174.9	182.6	190.7	197.8	204.5	210.8	215.4	218.9	221.7	222.8	223.5
65°	166.0	174.2	182.3	189.7	196.7	203.1	207.6	211.2	214.0	215.8	216.1
67.5°	156.5	165.3	173.8	181.6	188.6	195.3	199.9	203.4	206.2	208.4	208.7
70°	147.7	156.9	165.3	173.8	180.9	187.6	192.5	196.0	199.2	200.6	201.3
72.5°	139.3	148.8	157.6	166.0	173.1	179.8	185.1	188.6	191.8	193.5	193.9
75°	131.1	140.7	150.2	158.3	165.7	172.4	177.7	181.6	184.4	186.1	186.8
77.5°	123.0	132.9	142.4	150.5	158.3	165.0	169.6	174.2	177.0	179.1	179.1
80°	114.9	125.2	135.0	143.1	150.9	156.9	162.2	166.8	169.6	171.7	171.7
82.5°	107.9	117.7	127.3	135.4	143.1	149.8	155.1	159.3	162.5	163.9	164.3
85°	99.8	110.7	119.5	128.3	135.7	142.1	147.4	151.9	154.8	156.2	156.9
87.5°	93.1	103.6	113.2	120.9	128.3	134.7	140.7	144.5	147.4	149.1	149.8
90°	86.7	96.9	106.5	114.2	122.0	128.0	133.6	137.5	140.7	142.1	142.8
92.5°	81.1	91.3	100.5	108.2	115.6	122.3	127.6	131.5	134.3	135.7	136.8
95°	75.8	85.7	94.5	102.9	110.0	116.0	121.6	125.5	128.7	129.7	130.8
97.5°	70.5	80.0	88.8	96.9	104.4	110.0	115.3	119.2	121.6	123.4	124.4
100°	65.9	75.1	83.6	91.3	98.4	103.6	109.3	112.8	115.3	116.7	118.1
102.5°	61.0	70.2	78.3	85.7	93.1	98.0	103.3	106.8	108.9	111.4	111.4
105°	56.8	65.2	73.3	80.4	86.7	92.7	97.3	100.8	103.3	105.1	105.1
107.5°	52.2	60.6	68.4	75.8	81.8	87.4	91.7	94.8	97.7	98.7	99.8
110°	48.7	56.1	63.8	70.9	76.5	81.8	86.0	89.5	92.0	93.1	93.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	44.4	52.2	59.2	65.9	71.6	76.5	80.7	83.6	86.0	87.4	87.8
115°	40.9	48.3	54.6	61.0	67.0	71.2	75.1	77.9	80.4	81.4	82.1
117.5°	37.7	44.4	50.8	56.1	61.7	66.3	70.2	72.6	74.7	76.1	76.9
120°	34.5	40.9	46.5	51.8	57.1	61.3	64.9	67.3	69.8	70.9	70.9
122.5°	31.4	37.4	42.7	47.6	52.5	56.4	60.3	62.4	64.5	65.6	65.6
125°	28.6	34.2	39.1	43.7	48.3	51.8	55.0	57.5	59.6	60.3	60.3
127.5°	25.7	31.0	35.6	39.8	43.7	47.2	50.4	52.9	54.6	55.3	55.3
130°	23.3	27.9	32.1	36.3	40.2	43.0	46.2	48.3	49.4	50.4	50.8
132.5°	20.8	25.0	28.9	32.4	36.3	39.1	41.6	43.7	44.8	45.8	46.2
135°	18.3	22.2	25.7	29.3	32.4	35.3	37.4	39.1	40.5	41.2	41.6
137.5°	15.5	19.7	22.9	25.7	29.3	31.4	33.8	34.9	36.3	37.0	37.0
140°	13.0	16.2	19.7	22.6	25.4	27.5	29.6	31.4	32.4	32.8	32.8
142.5°	10.6	13.4	16.2	19.7	22.2	24.0	26.1	27.5	28.2	28.6	28.9
145°	8.5	10.6	13.0	16.2	19.0	21.2	22.2	23.6	24.3	24.7	25.0
147.5°	6.3	8.5	10.6	12.7	15.5	17.6	18.7	20.1	20.8	21.2	21.2
150°	4.9	6.3	7.8	9.9	12.0	14.5	15.9	16.9	17.3	17.6	17.6
152.5°	3.5	4.9	6.0	7.4	8.8	10.9	13.0	13.7	14.1	14.5	14.5
155°	2.5	3.5	4.2	5.3	6.3	8.1	9.9	10.9	11.3	11.6	11.6
157.5°	1.8	2.5	2.8	3.9	4.6	5.3	6.7	8.5	8.8	8.8	8.8
160°	1.1	1.4	1.8	2.5	2.8	3.5	4.2	5.3	6.3	6.3	6.3
162.5°	0.7	1.1	1.1	1.4	1.4	2.1	2.5	2.8	3.9	4.2	4.2
165°	0.4	0.7	0.7	0.7	0.7	0.7	1.1	1.1	1.8	2.1	2.1
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-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2
2.5°	333.5	334.2	333.9	333.9	333.9	334.6	333.9	330.7	331.4	332.1	332.8
5°	333.2	333.5	333.5	333.2	333.2	333.9	333.2	330.0	330.7	331.4	331.7
7.5°	331.7	332.1	332.1	332.1	331.7	332.4	331.4	328.6	328.6	329.3	329.6
10°	330.0	330.7	330.3	330.0	330.0	330.0	329.3	326.1	326.1	326.5	326.8
12.5°	327.9	327.9	327.9	327.5	327.2	327.2	326.5	323.3	322.9	323.6	323.3
15°	325.0	325.7	325.0	324.7	324.0	324.0	322.9	319.8	319.0	319.4	319.0
17.5°	322.6	322.9	322.2	321.5	320.8	320.5	319.4	315.9	314.8	315.2	314.5
20°	320.1	320.1	319.4	318.7	317.6	316.6	315.2	311.6	309.9	309.9	308.5
22.5°	316.9	316.9	316.2	315.2	314.1	312.7	311.3	307.8	304.9	304.2	303.2
25°	313.4	313.1	312.7	311.6	309.5	308.1	306.7	302.8	299.7	298.2	296.5
27.5°	309.2	309.2	308.1	307.1	304.9	303.2	301.4	297.9	293.7	291.9	289.4
30°	304.6	304.6	303.5	302.1	300.0	297.9	295.8	291.6	287.3	284.9	282.0
32.5°	300.0	299.7	298.6	297.2	295.1	291.9	290.1	285.9	281.0	278.2	274.3
35°	294.4	294.0	293.0	291.2	288.4	285.9	283.1	279.2	273.6	270.0	265.8
37.5°	288.7	288.4	287.7	285.2	282.4	279.6	276.0	272.2	266.9	262.3	258.1
40°	283.1	282.7	281.3	279.6	276.0	272.5	269.0	265.1	259.5	254.2	249.6
42.5°	277.1	276.7	275.0	272.9	269.0	265.5	261.2	257.0	251.4	245.0	240.4
45°	271.1	270.4	268.6	266.2	261.9	258.1	253.8	248.9	243.3	237.3	231.3
47.5°	264.8	263.7	261.9	258.4	254.9	250.7	245.7	240.4	234.8	228.1	221.7
50°	257.7	257.0	254.9	251.7	247.5	243.3	237.6	232.3	225.6	219.3	211.5
52.5°	251.0	249.6	247.8	244.3	240.1	235.5	229.5	223.2	216.5	210.5	202.4
55°	244.0	243.3	240.8	238.0	232.7	227.4	221.7	215.0	207.6	200.6	192.8
57.5°	237.3	235.8	233.7	229.9	225.3	220.0	214.0	206.9	198.8	191.4	183.0
60°	230.6	228.4	226.0	222.5	217.5	211.9	205.5	198.1	190.0	181.9	173.1
62.5°	223.2	221.4	218.6	215.0	210.1	204.1	197.4	189.7	181.9	173.4	163.9
65°	215.8	214.0	211.2	207.6	202.7	196.0	189.0	181.2	172.4	164.3	154.1
67.5°	208.4	206.6	203.4	199.5	194.6	188.3	180.9	172.7	163.9	155.1	144.5
70°	200.9	198.8	196.0	191.8	186.8	180.1	172.7	164.3	155.5	146.0	135.4
72.5°	193.5	191.8	188.3	184.4	179.1	172.4	165.0	156.5	147.4	137.5	126.9
75°	186.1	184.0	181.6	177.0	171.3	165.0	157.2	148.8	138.9	129.4	118.5
77.5°	178.7	177.0	173.8	169.2	163.9	157.2	149.5	141.0	131.1	121.3	109.6
80°	171.3	169.2	166.8	162.5	156.5	149.8	141.7	133.3	123.4	113.2	101.5
82.5°	163.9	161.8	159.0	154.8	149.1	142.4	134.7	125.5	115.6	105.1	94.1
85°	156.5	154.8	151.6	147.4	141.4	134.7	126.9	118.8	108.2	97.7	86.7
87.5°	149.1	147.4	144.2	140.0	134.3	127.6	119.9	111.4	101.2	91.3	79.3
90°	142.1	140.7	137.5	133.3	127.6	120.9	113.9	104.7	94.8	85.0	73.7
92.5°	135.7	134.3	131.5	127.3	122.3	114.9	107.9	99.1	89.2	79.0	68.0
95°	130.1	128.3	125.5	121.6	115.6	109.3	102.2	93.4	83.9	73.7	63.1
97.5°	123.7	122.0	119.2	114.9	110.0	103.3	96.2	87.8	78.3	68.7	58.2
100°	117.4	115.6	112.5	108.9	104.0	97.3	90.6	82.1	73.3	64.2	53.9
102.5°	111.1	109.3	106.5	102.9	98.0	92.0	85.3	77.2	68.4	59.2	49.7
105°	105.1	103.3	100.5	96.9	92.4	86.4	79.3	72.3	63.8	55.0	45.8
107.5°	99.1	97.3	94.8	91.3	86.7	81.1	74.4	67.0	59.2	50.8	42.0
110°	93.1	91.7	88.8	85.7	81.1	75.4	69.5	62.4	54.6	46.9	38.4





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	87.4	86.0	83.2	79.7	75.8	70.5	64.5	57.8	50.4	43.0	34.9
115°	81.8	80.0	77.6	74.4	70.5	65.6	59.9	53.9	46.5	39.5	32.1
117.5°	76.1	74.7	72.3	69.1	65.6	60.6	55.3	49.7	42.7	36.0	29.3
120°	70.5	69.5	67.0	64.2	60.6	56.1	51.1	45.5	39.1	32.8	26.4
122.5°	65.2	64.2	61.7	59.2	55.7	51.5	46.9	41.6	36.0	30.0	24.3
125°	60.3	58.9	56.8	54.3	51.1	47.2	42.7	37.7	32.4	27.1	21.9
127.5°	55.0	53.9	52.5	49.7	46.5	43.0	38.8	34.5	29.6	24.7	19.7
130°	50.8	49.4	47.6	45.5	42.7	39.1	35.3	31.0	26.8	22.2	17.3
132.5°	45.8	44.4	43.0	40.9	38.4	35.3	31.7	27.9	24.0	19.7	15.5
135°	41.2	40.2	38.8	36.7	34.2	31.7	28.2	24.7	21.2	17.3	13.7
137.5°	37.0	36.0	34.5	33.1	30.7	28.2	25.0	21.9	18.7	15.2	12.0
140°	32.8	32.1	30.7	29.3	27.1	24.7	21.9	19.0	16.2	13.0	10.2
142.5°	28.6	27.9	26.8	25.4	23.6	21.5	19.0	16.6	13.7	11.3	8.8
145°	24.7	24.3	23.3	21.9	20.4	18.3	16.2	14.1	11.6	9.5	7.1
147.5°	20.8	20.4	19.7	18.7	17.3	15.5	13.7	11.6	9.9	7.8	5.6
150°	17.3	16.9	16.6	15.2	14.5	12.7	11.3	9.5	8.1	6.0	4.6
152.5°	14.1	14.1	13.4	12.3	11.6	10.2	9.2	7.8	6.3	4.9	3.5
155°	11.3	10.9	10.6	9.9	9.2	8.1	7.1	6.0	4.9	3.5	2.5
157.5°	8.8	8.5	8.1	7.4	6.7	6.3	5.3	4.2	3.2	2.5	1.8
160°	6.3	6.0	5.6	5.3	4.9	4.2	3.5	2.8	2.1	1.4	1.1
162.5°	4.2	3.9	3.9	3.5	3.2	2.5	2.1	1.8	1.4	1.1	0.7
165°	2.1	2.1	1.8	1.8	1.4	1.1	1.1	1.1	0.7	0.7	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-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	334.2	334.2	334.2	334.2	334.2	334.2	334.2
2.5°	332.4	332.4	333.9	333.5	332.4	334.6	337.0
5°	331.4	331.4	332.4	332.4	331.4	333.5	335.6
7.5°	329.6	329.3	330.3	330.3	328.9	330.7	333.2
10°	326.5	326.1	327.2	327.2	325.7	327.5	329.6
12.5°	322.9	322.2	323.3	322.9	321.5	323.3	325.4
15°	318.3	318.0	318.7	318.0	316.6	318.3	320.5
17.5°	313.8	312.7	313.1	313.1	310.6	312.4	314.1
20°	307.8	306.4	306.7	306.4	304.6	305.7	307.8
22.5°	301.8	299.7	299.7	299.3	297.2	298.6	300.4
25°	294.4	291.9	291.9	291.6	289.1	290.1	291.9
27.5°	287.0	284.5	283.4	283.1	280.6	280.6	283.1
30°	279.2	275.7	275.0	273.9	271.5	271.5	273.6
32.5°	271.8	266.9	265.5	264.1	261.6	261.2	263.7
35°	261.9	258.1	255.6	254.2	251.4	250.7	252.8
37.5°	253.8	248.9	245.4	243.6	240.8	239.7	242.5
40°	245.0	239.7	235.1	234.1	229.9	228.4	230.9
42.5°	235.1	229.5	224.9	222.8	219.6	218.2	218.6
45°	225.3	219.3	214.3	211.5	208.4	205.9	207.3
47.5°	215.0	209.8	203.8	199.5	195.7	193.9	194.6
50°	204.8	198.5	192.8	188.3	183.7	181.6	183.0
52.5°	194.6	187.9	181.6	176.6	171.3	169.2	169.6
55°	184.7	177.7	170.3	165.0	160.1	156.9	156.2
57.5°	174.9	167.1	159.3	153.4	147.0	144.2	143.1
60°	164.3	156.2	148.1	141.0	134.3	131.1	129.7
62.5°	154.4	145.6	136.4	129.0	122.3	118.1	117.0
65°	144.9	134.7	125.5	117.0	109.6	105.1	103.6
67.5°	134.7	124.1	114.2	105.1	98.0	92.0	91.3
70°	125.2	113.9	102.9	93.4	85.7	79.7	76.9
72.5°	115.6	104.0	92.7	82.5	72.6	67.0	64.9
75°	106.5	94.5	82.5	71.9	61.0	54.3	52.2
77.5°	98.0	85.7	73.0	61.3	51.1	42.7	39.8
80°	89.9	77.2	63.8	51.8	40.9	31.7	28.6
82.5°	81.4	69.5	55.7	43.0	31.7	22.2	18.3
85°	74.0	62.0	48.3	35.6	24.3	14.1	9.9
87.5°	68.0	55.0	42.7	30.0	18.3	8.1	2.8
90°	62.0	49.4	37.0	24.7	13.7	4.6	0.4
92.5°	56.8	44.8	32.4	21.2	10.6	3.2	0.4
95°	51.8	40.2	28.6	17.6	8.5	2.1	0.4
97.5°	47.2	36.3	25.4	15.2	7.1	1.8	0.4
100°	43.4	32.8	22.6	13.4	6.0	1.4	0.4
102.5°	39.5	29.6	20.1	11.6	5.3	1.1	0.4
105°	36.3	26.8	18.0	10.6	4.6	1.1	0.4
107.5°	33.1	24.3	16.2	9.2	3.9	0.7	0.4
110°	30.0	22.2	14.5	8.1	3.5	0.7	0.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	27.5	20.1	13.0	7.4	2.8	0.7	0.4
115°	25.0	18.0	11.6	6.3	2.5	0.4	0.4
117.5°	22.6	16.2	10.2	5.6	2.1	0.4	0.4
120°	20.4	14.5	9.2	4.9	1.8	0.4	0.4
122.5°	18.3	13.0	8.1	4.2	1.4	0.4	0.4
125°	16.6	11.6	7.1	3.5	1.1	0.4	0.4
127.5°	14.8	10.2	6.3	3.2	1.1	0.4	0.4
130°	13.0	9.2	5.3	2.5	0.7	0.4	0.4
132.5°	11.6	7.8	4.6	2.1	0.7	0.4	0.4
135°	10.2	6.7	3.9	1.4	0.7	0.4	0.4
137.5°	8.8	5.6	3.2	1.1	0.4	0.4	0.4
140°	7.4	4.9	2.5	1.1	0.4	0.4	0.4
142.5°	6.3	3.9	1.8	0.7	0.4	0.4	0.4
145°	4.9	3.2	1.4	0.7	0.4	0.4	0.4
147.5°	3.9	2.5	1.1	0.7	0.4	0.4	0.4
150°	2.8	1.8	1.1	0.4	0.4	0.4	0.4
152.5°	2.1	1.4	0.7	0.4	0.4	0.4	0.4
155°	1.4	1.1	0.7	0.4	0.4	0.4	0.4
157.5°	1.1	0.7	0.4	0.4	0.4	0.4	0.4
160°	0.7	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)