

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-LD5-48HL-LW-UNV-L935-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-LD5-48HL-LW-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

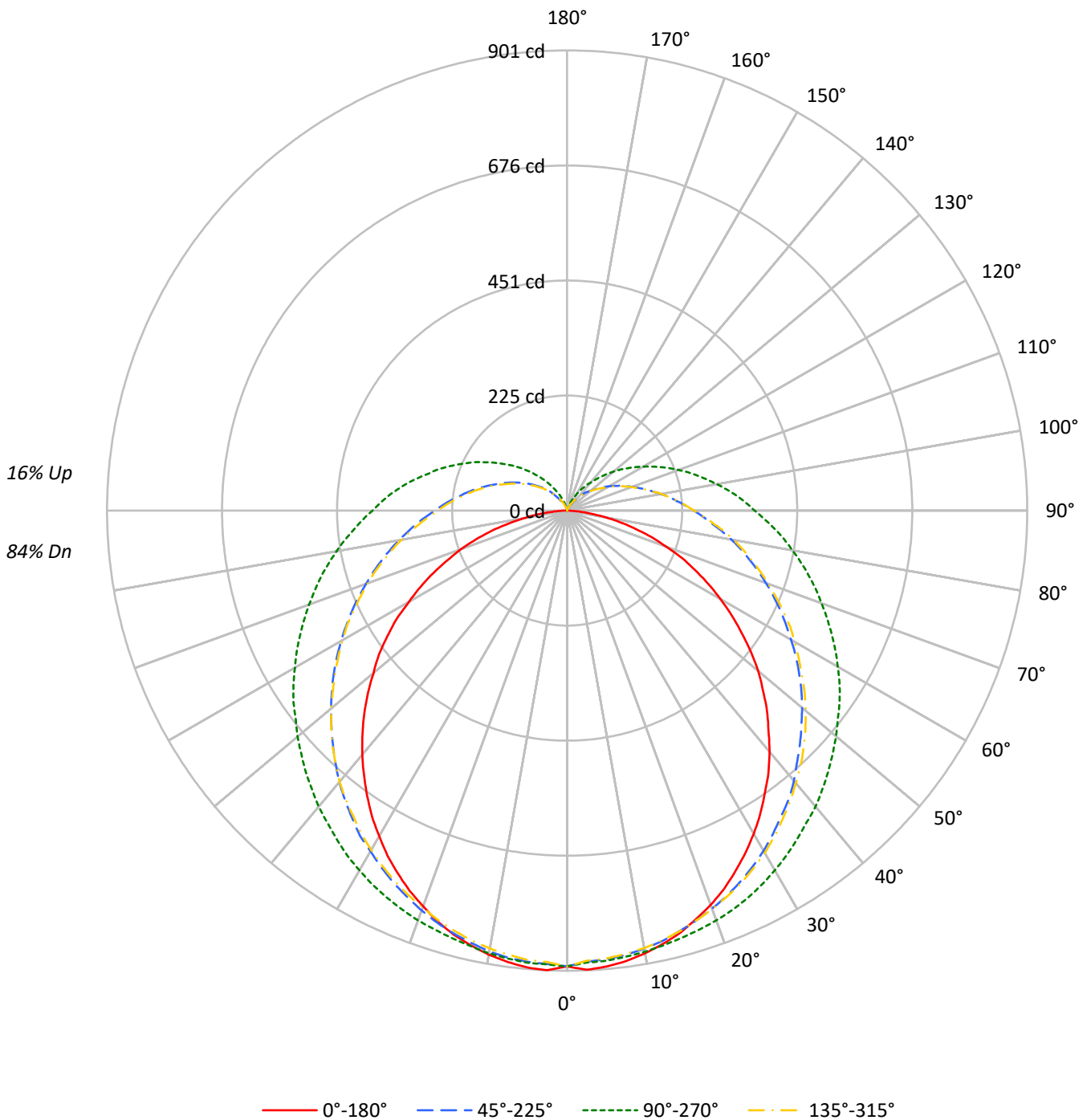
Lumens per Lamp: N/A
Luminaire Lumens: 3877.0 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	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°	7211	7211	7211	7211
5°	7249	6949	7265	6979
10°	7182	6752	7206	6773
15°	7099	6583	7130	6591
20°	6988	6460	7012	6460
25°	6850	6350	6891	6343
30°	6696	6237	6747	6237
35°	6515	6133	6589	6140
40°	6338	6071	6415	6071
45°	6134	6007	6228	6015
50°	5921	5969	6001	5985
55°	5624	5975	5802	6000
60°	5311	5993	5484	6029
65°	4959	6053	5179	6112
70°	4465	6165	4813	6252
75°	3895	6366	4264	6488
80°	3012	6665	3423	6818
85°	1804	7143	2248	7341



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.5	2.2
10°-20°	243.0	6.3
20°-30°	372.5	9.6
30°-40°	459.5	11.9
40°-50°	498.6	12.9
50°-60°	491.4	12.7
60°-70°	444.3	11.5
70°-80°	370.1	9.5
80°-90°	286.7	7.4
90°-100°	217.4	5.6
100°-110°	160.9	4.2
110°-120°	111.9	2.9
120°-130°	71.4	1.8
130°-140°	40.1	1.0
140°-150°	18.3	0.5
150°-160°	5.7	0.1
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	700.0	18.1
0°-40°	1159.5	29.9
0°-60°	2149.5	55.4
0°-90°	3250.6	83.8
90°-120°	490.2	12.6
90°-150°	620.0	16.0
90°-180°	626.0	16.1
0°-180°	3877.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	892	892	892	892	892	
5°	896	885	898	889	896	85
15°	856	866	859	867	856	241
25°	779	837	784	836	779	359
35°	675	785	682	786	675	423
45°	554	723	562	724	554	426
55°	417	651	430	654	417	373
65°	277	571	289	577	277	274
75°	139	490	152	499	139	147
85°	26	408	33	419	26	32
90°	1	367	2	381	1	1
95°	1	333	1	349	1	1
105°	1	264	1	280	1	1
115°	1	201	1	219	1	1
125°	1	145	1	161	1	1
135°	1	94	1	111	1	1
145°	1	55	1	67	1	1
155°	1	23	1	31	1	0
165°	1	4	1	6	1	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4
2.5°	899.9	899.9	899.0	897.1	898.0	900.8	899.0	894.3	891.4	883.9	885.8
5°	896.1	896.1	895.2	893.3	894.3	898.0	896.1	892.4	888.6	882.0	884.8
7.5°	889.5	889.5	888.6	886.7	888.6	892.4	890.5	886.7	883.9	877.3	880.1
10°	880.1	881.1	880.1	877.3	881.1	884.8	883.9	879.2	876.4	870.7	873.5
12.5°	868.8	869.8	868.8	867.9	869.8	875.4	873.5	869.8	867.9	863.2	866.0
15°	855.7	856.6	854.7	854.7	856.6	862.2	862.2	858.5	856.6	851.9	857.5
17.5°	838.7	839.7	838.7	838.7	840.6	846.2	847.2	845.3	843.4	841.5	847.2
20°	821.8	820.8	820.8	819.9	823.7	832.1	831.2	831.2	829.3	829.3	835.9
22.5°	802.0	802.0	801.1	801.1	805.8	813.3	813.3	815.2	813.3	817.1	822.7
25°	779.4	780.4	779.4	781.3	785.1	793.5	794.5	797.3	798.2	802.0	808.6
27.5°	755.9	756.8	755.9	757.8	764.4	770.9	775.6	779.4	780.4	786.0	794.5
30°	730.5	730.5	731.4	733.3	740.8	751.2	754.9	759.6	759.6	769.1	777.5
32.5°	704.1	704.1	704.1	707.9	716.3	728.6	733.3	738.9	740.8	750.2	759.6
35°	674.9	675.9	675.9	678.7	690.0	702.2	708.8	715.4	719.2	730.5	739.9
37.5°	647.6	649.5	646.7	650.5	666.5	676.8	684.3	690.9	697.5	712.6	720.1
40°	616.6	618.4	617.5	625.0	638.2	651.4	659.9	666.5	675.9	690.9	699.4
42.5°	583.6	585.5	587.4	595.9	610.0	623.2	633.5	642.0	653.3	666.5	680.6
45°	553.5	553.5	556.3	566.7	581.7	595.9	608.1	617.5	630.7	644.8	658.9
47.5°	519.6	520.6	524.3	536.6	552.6	569.5	580.8	593.0	607.2	622.2	638.2
50°	488.5	488.5	494.2	507.4	522.4	541.3	553.5	567.6	582.7	600.6	616.6
52.5°	452.8	454.7	463.1	475.4	495.1	512.1	526.2	541.3	559.1	578.0	595.9
55°	417.0	420.8	427.4	444.3	465.0	481.0	498.0	516.8	533.7	554.4	575.1
57.5°	382.2	385.0	395.4	412.3	433.9	453.7	471.6	489.5	510.2	530.9	552.6
60°	346.4	350.2	362.4	379.4	402.9	423.6	444.3	463.1	484.8	506.4	529.0
62.5°	312.5	315.3	329.5	349.2	372.8	395.4	416.1	438.7	462.2	482.9	505.5
65°	276.7	281.5	297.5	315.3	342.6	365.2	388.8	413.2	437.7	460.3	482.0
67.5°	243.8	246.6	263.6	284.3	311.6	337.0	361.5	387.8	413.2	436.8	458.4
70°	205.2	214.6	231.6	253.2	282.4	308.8	335.1	362.4	389.7	414.2	434.9
72.5°	173.2	180.7	199.6	223.1	251.3	282.4	309.7	338.9	366.2	391.6	413.2
75°	139.3	146.8	168.5	194.9	224.0	257.0	285.2	315.3	343.6	369.0	391.6
77.5°	106.4	115.8	139.3	166.6	198.6	232.5	261.7	291.8	321.0	348.3	370.9
80°	76.2	86.6	112.0	143.1	174.1	208.0	240.0	270.2	299.3	326.6	350.2
82.5°	48.9	60.2	87.5	118.6	151.6	185.4	218.4	248.5	277.7	305.0	329.5
85°	26.4	38.6	66.8	97.9	130.8	164.7	197.7	229.7	257.9	283.3	309.7
87.5°	7.5	22.6	49.9	81.0	114.8	145.9	177.9	209.9	238.2	265.5	289.0
90°	0.9	13.2	37.7	66.8	99.8	129.9	161.9	192.0	220.3	247.6	271.1
92.5°	0.9	8.5	29.2	55.5	85.7	116.7	148.7	177.9	204.3	231.6	255.1
95°	0.9	6.6	23.5	47.1	75.3	104.5	134.6	162.8	190.1	215.6	239.1
97.5°	0.9	4.7	18.8	40.5	65.9	93.2	122.4	150.6	177.0	201.4	223.1
100°	0.9	3.8	15.1	34.8	57.4	83.8	110.1	137.4	162.8	186.4	209.0
102.5°	0.9	2.8	13.2	29.2	50.8	74.4	99.8	125.2	149.7	172.3	194.9
105°	0.9	2.8	11.3	25.4	45.2	66.8	90.4	114.8	137.4	159.1	179.8
107.5°	0.9	1.9	9.4	21.7	39.5	60.2	81.9	105.4	126.1	146.8	166.6
110°	0.9	1.9	7.5	19.8	34.8	53.7	74.4	96.0	115.8	135.6	154.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	1.9	6.6	16.9	30.1	48.0	66.8	86.6	105.4	125.2	142.1
115°	0.9	1.9	5.6	15.1	28.2	41.4	60.2	78.1	97.0	114.8	130.8
117.5°	0.9	1.9	4.7	12.2	24.5	37.7	52.7	70.6	87.5	104.5	119.5
120°	0.9	1.9	3.8	11.3	21.7	33.9	47.1	63.1	79.1	95.1	111.1
122.5°	0.9	0.9	3.8	9.4	18.8	30.1	43.3	55.5	70.6	85.7	99.8
125°	0.9	0.9	3.8	8.5	16.0	27.3	38.6	49.9	63.1	76.2	88.5
127.5°	0.9	0.9	2.8	6.6	14.1	23.5	33.9	46.1	55.5	67.8	80.0
130°	0.9	0.9	2.8	5.6	12.2	19.8	30.1	40.5	51.8	60.2	70.6
132.5°	0.9	0.9	2.8	4.7	9.4	16.0	25.4	34.8	45.2	54.6	63.1
135°	0.9	0.9	1.9	3.8	7.5	13.2	20.7	29.2	39.5	48.9	57.4
137.5°	0.9	0.9	1.9	3.8	5.6	11.3	16.0	23.5	32.9	41.4	49.9
140°	0.9	0.9	1.9	2.8	4.7	8.5	13.2	18.8	26.4	33.9	43.3
142.5°	0.9	0.9	0.9	2.8	3.8	6.6	10.4	15.1	20.7	27.3	34.8
145°	0.9	0.9	0.9	2.8	3.8	4.7	8.5	12.2	16.0	20.7	27.3
147.5°	0.9	0.9	0.9	1.9	2.8	3.8	6.6	9.4	12.2	16.0	19.8
150°	0.9	0.9	0.9	1.9	2.8	3.8	4.7	6.6	9.4	13.2	16.0
152.5°	0.9	0.9	0.9	1.9	1.9	2.8	3.8	4.7	6.6	9.4	11.3
155°	0.9	0.9	0.9	0.9	1.9	2.8	3.8	3.8	4.7	6.6	8.5
157.5°	0.9	0.9	0.9	0.9	1.9	1.9	2.8	2.8	3.8	3.8	5.6
160°	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8	2.8	2.8	2.8
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	1.9	2.8	2.8
165°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	1.9
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°	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4
2.5°	885.8	886.7	889.5	889.5	887.7	887.7	886.7	885.8	886.7	888.6	888.6
5°	883.9	884.8	887.7	888.6	886.7	885.8	885.8	884.8	885.8	887.7	887.7
7.5°	880.1	881.1	883.9	884.8	883.0	883.0	882.0	881.1	883.0	883.9	883.9
10°	874.5	875.4	879.2	880.1	879.2	878.3	878.3	877.3	878.3	880.1	880.1
12.5°	867.0	868.8	873.5	873.5	873.5	872.6	872.6	871.7	872.6	874.5	873.5
15°	858.5	862.2	866.0	867.9	867.9	867.9	867.0	866.0	867.9	868.8	867.9
17.5°	849.1	853.8	859.4	861.3	861.3	862.2	861.3	860.4	862.2	862.2	861.3
20°	839.7	844.4	850.0	851.9	853.8	854.7	854.7	853.8	854.7	855.7	854.7
22.5°	827.4	833.1	839.7	842.5	844.4	846.2	846.2	846.2	847.2	848.1	846.2
25°	814.2	820.8	828.4	831.2	835.0	835.9	836.8	836.8	837.8	838.7	835.9
27.5°	800.1	807.7	815.2	819.9	822.7	824.6	824.6	825.5	826.5	827.4	824.6
30°	783.2	794.5	801.1	804.8	808.6	811.4	812.4	813.3	814.2	815.2	812.4
32.5°	768.1	777.5	786.0	790.7	795.4	799.2	800.1	800.1	802.0	802.0	799.2
35°	750.2	761.5	770.0	774.7	780.4	783.2	785.1	785.1	786.9	786.9	784.1
37.5°	732.3	743.6	753.1	758.7	765.3	769.1	770.0	770.0	771.9	771.9	768.1
40°	713.5	725.8	736.1	742.7	748.3	753.1	754.0	756.8	756.8	755.9	752.1
42.5°	694.7	706.0	717.3	724.8	732.3	737.1	738.9	739.9	739.9	738.9	736.1
45°	674.0	687.2	697.5	706.9	714.5	719.2	722.0	722.9	722.9	721.1	718.2
47.5°	654.2	667.4	677.8	688.1	695.6	701.3	704.1	705.0	704.1	703.2	700.3
50°	633.5	648.6	658.9	669.3	676.8	681.5	686.2	687.2	686.2	685.3	679.6
52.5°	611.9	627.9	639.2	649.5	658.0	663.6	667.4	668.3	668.3	666.5	662.7
55°	590.2	604.3	618.4	629.7	639.2	644.8	649.5	651.4	649.5	647.6	642.9
57.5°	570.4	583.6	597.7	610.0	619.4	626.9	630.7	632.6	630.7	627.9	623.2
60°	546.9	561.0	577.0	588.3	598.7	606.2	608.1	611.9	610.0	607.2	602.4
62.5°	524.3	541.3	555.4	569.5	578.0	586.4	590.2	592.1	590.2	587.4	582.7
65°	500.8	519.6	533.7	547.8	557.3	565.7	570.4	571.4	569.5	566.7	562.0
67.5°	479.1	497.0	512.1	527.1	535.6	544.1	548.8	550.7	548.8	545.0	540.3
70°	457.5	475.4	493.3	504.5	514.9	524.3	527.1	530.0	528.1	524.3	518.7
72.5°	435.8	454.7	472.5	483.8	495.1	503.6	507.4	510.2	508.3	504.5	498.0
75°	413.2	433.0	450.9	463.1	474.4	482.9	486.7	489.5	487.6	483.8	476.3
77.5°	392.5	412.3	429.2	442.4	453.7	461.2	467.8	468.8	466.9	463.1	455.6
80°	370.9	390.6	408.5	421.7	433.0	440.5	445.2	448.1	446.2	442.4	434.9
82.5°	352.1	369.9	387.8	401.0	412.3	421.7	425.5	428.3	427.4	421.7	416.1
85°	331.3	352.1	366.2	380.3	391.6	401.0	403.8	407.6	406.7	401.9	394.4
87.5°	310.6	331.3	348.3	362.4	372.8	380.3	385.0	386.9	385.9	381.2	372.8
90°	293.7	312.5	329.5	344.5	353.0	361.5	366.2	367.1	367.1	361.5	354.9
92.5°	277.7	295.6	312.5	326.6	337.0	344.5	348.3	350.2	349.2	344.5	337.0
95°	259.8	279.6	295.6	309.7	320.0	327.6	331.3	333.2	332.3	327.6	320.0
97.5°	244.7	262.6	278.6	291.8	302.2	309.7	313.5	315.3	315.3	310.6	303.1
100°	229.7	247.6	262.6	275.8	285.2	292.8	296.5	297.5	296.5	292.8	285.2
102.5°	214.6	231.6	246.6	258.9	269.2	275.8	279.6	280.5	280.5	275.8	268.3
105°	199.6	216.5	230.6	243.8	252.3	258.9	261.7	264.5	263.6	259.8	252.3
107.5°	185.4	202.4	215.6	227.8	236.3	242.9	245.7	248.5	247.6	243.8	236.3
110°	172.3	188.3	200.5	212.7	220.3	226.9	231.6	232.5	230.6	226.9	220.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	160.0	174.1	186.4	197.7	206.1	210.9	214.6	216.5	214.6	210.9	206.1
115°	146.8	161.0	173.2	183.6	191.1	196.7	199.6	201.4	199.6	195.8	191.1
117.5°	134.6	147.8	160.0	170.4	177.0	181.7	184.5	186.4	184.5	181.7	177.0
120°	124.3	135.6	146.8	156.3	163.8	167.6	170.4	172.3	171.3	167.6	162.8
122.5°	112.0	124.3	134.6	144.0	150.6	154.4	156.3	158.1	157.2	154.4	149.7
125°	101.7	112.0	122.4	130.8	137.4	141.2	143.1	145.0	144.0	141.2	135.6
127.5°	90.4	101.7	110.1	118.6	123.3	129.0	129.9	131.8	130.8	128.0	123.3
130°	81.9	90.4	98.8	106.4	112.0	115.8	117.7	118.6	116.7	114.8	110.1
132.5°	71.5	81.0	88.5	95.1	98.8	102.6	104.5	105.4	105.4	102.6	98.8
135°	64.0	70.6	77.2	83.8	87.5	91.3	93.2	94.1	93.2	91.3	87.5
137.5°	57.4	63.1	67.8	73.4	78.1	80.0	81.9	81.9	81.0	80.0	77.2
140°	49.9	56.5	61.2	65.0	68.7	69.7	71.5	71.5	70.6	69.7	67.8
142.5°	42.4	48.0	52.7	57.4	60.2	62.1	63.1	64.0	63.1	62.1	59.3
145°	33.9	40.5	45.2	48.0	51.8	52.7	53.7	54.6	53.7	52.7	49.9
147.5°	26.4	32.0	36.7	40.5	43.3	44.2	45.2	46.1	45.2	43.3	42.4
150°	18.8	23.5	29.2	32.9	34.8	36.7	36.7	36.7	37.7	35.8	33.9
152.5°	15.1	16.9	20.7	24.5	27.3	28.2	29.2	29.2	28.2	28.2	26.4
155°	10.4	12.2	15.1	17.9	20.7	21.7	22.6	22.6	21.7	21.7	20.7
157.5°	6.6	8.5	10.4	12.2	15.1	16.0	16.9	16.9	16.9	16.0	15.1
160°	3.8	4.7	5.6	7.5	9.4	10.4	11.3	11.3	11.3	11.3	10.4
162.5°	2.8	2.8	2.8	3.8	4.7	5.6	6.6	6.6	6.6	6.6	5.6
165°	1.9	1.9	1.9	1.9	1.9	2.8	3.8	3.8	3.8	3.8	3.8
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-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4
2.5°	887.7	887.7	888.6	886.7	881.1	882.0	882.0	885.8	887.7	888.6	893.3
5°	885.8	885.8	887.7	884.8	880.1	880.1	880.1	883.9	884.8	886.7	890.5
7.5°	883.0	883.0	883.9	881.1	875.4	875.4	874.5	878.3	880.1	881.1	884.8
10°	878.3	878.3	879.2	876.4	869.8	869.8	868.8	871.7	872.6	874.5	877.3
12.5°	871.7	871.7	871.7	868.8	862.2	861.3	860.4	863.2	863.2	864.1	867.0
15°	866.0	864.1	864.1	861.3	854.7	852.8	851.0	851.9	853.8	852.8	854.7
17.5°	859.4	857.5	855.7	852.8	844.4	841.5	839.7	840.6	839.7	838.7	840.6
20°	851.9	849.1	848.1	843.4	835.0	830.2	826.5	824.6	825.5	822.7	823.7
22.5°	843.4	839.7	837.8	832.1	823.7	818.0	813.3	809.5	808.6	804.8	805.8
25°	833.1	828.4	825.5	820.8	811.4	804.8	799.2	793.5	790.7	786.0	785.1
27.5°	820.8	816.1	812.4	807.7	798.2	789.8	783.2	775.6	771.9	766.2	763.4
30°	808.6	802.9	797.3	793.5	783.2	773.8	763.4	756.8	751.2	744.6	739.9
32.5°	793.5	787.9	782.2	776.6	767.2	755.9	747.4	737.1	730.5	722.9	717.3
35°	778.5	770.9	765.3	757.8	749.3	736.1	725.8	715.4	706.9	698.5	691.9
37.5°	761.5	755.9	747.4	740.8	730.5	717.3	706.0	692.8	685.3	674.0	665.5
40°	745.5	738.9	730.5	722.0	711.6	696.6	684.3	669.3	660.8	647.6	639.2
42.5°	729.5	720.1	711.6	702.2	690.9	676.8	661.7	646.7	635.4	623.2	610.9
45°	711.6	701.3	690.9	680.6	669.3	655.2	639.2	623.2	609.0	597.7	582.7
47.5°	692.8	682.5	670.2	658.9	646.7	632.6	615.6	598.7	583.6	570.4	554.4
50°	674.0	663.6	650.5	638.2	624.1	610.0	592.1	572.3	556.3	539.4	525.3
52.5°	654.2	643.9	631.6	615.6	600.6	586.4	567.6	546.9	529.0	514.9	497.0
55°	634.4	624.1	610.0	594.0	578.9	561.0	543.1	522.4	502.7	485.7	467.8
57.5°	613.7	604.3	588.3	575.1	556.3	537.5	518.7	498.9	477.2	457.5	436.8
60°	593.0	582.7	567.6	551.6	532.8	514.0	494.2	472.5	450.0	428.3	409.5
62.5°	574.2	561.0	546.9	530.0	510.2	492.3	469.7	446.2	423.6	401.0	378.4
65°	552.6	538.4	525.3	508.3	487.6	466.9	444.3	420.8	396.3	371.8	349.2
67.5°	530.9	516.8	502.7	485.7	464.1	442.4	418.9	395.4	368.1	344.5	318.2
70°	509.3	498.0	480.1	462.2	442.4	418.9	395.4	369.9	341.7	316.3	289.0
72.5°	487.6	476.3	458.4	439.6	420.8	396.3	370.9	345.5	319.1	289.9	260.7
75°	466.9	452.8	436.8	418.9	399.1	373.7	348.3	321.9	290.9	263.6	233.4
77.5°	447.1	433.9	417.9	398.2	376.5	352.1	325.7	298.4	267.3	238.2	205.2
80°	425.5	412.3	396.3	376.5	354.9	331.3	303.1	274.9	244.7	212.7	178.9
82.5°	404.8	392.5	374.6	356.8	333.2	309.7	281.5	253.2	221.2	190.1	157.2
85°	383.1	370.9	353.9	335.1	312.5	287.1	260.7	232.5	200.5	168.5	135.6
87.5°	364.3	350.2	333.2	314.4	291.8	267.3	241.9	211.8	180.7	149.7	115.8
90°	344.5	331.3	314.4	295.6	273.0	248.5	222.2	193.9	163.8	131.8	99.8
92.5°	327.6	313.5	297.5	278.6	256.0	232.5	206.1	177.9	148.7	117.7	86.6
95°	310.6	296.5	281.5	262.6	240.0	216.5	190.1	162.8	134.6	104.5	75.3
97.5°	291.8	279.6	264.5	246.6	224.0	201.4	176.0	149.7	122.4	93.2	65.9
100°	276.7	262.6	248.5	229.7	209.0	187.3	161.9	136.5	110.1	82.8	57.4
102.5°	259.8	246.6	232.5	214.6	193.9	172.3	148.7	124.3	99.8	74.4	49.9
105°	243.8	231.6	216.5	199.6	179.8	159.1	136.5	113.9	90.4	65.9	44.2
107.5°	227.8	215.6	201.4	185.4	166.6	145.9	125.2	102.6	81.0	59.3	39.5
110°	211.8	200.5	187.3	171.3	153.4	134.6	114.8	94.1	72.5	52.7	34.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	197.7	186.4	173.2	158.1	141.2	123.3	104.5	84.7	65.0	47.1	30.1
115°	183.6	173.2	160.0	146.8	129.9	113.0	95.1	76.2	58.4	42.4	26.4
117.5°	169.4	159.1	146.8	133.7	118.6	102.6	85.7	67.8	52.7	37.7	23.5
120°	155.3	145.9	134.6	122.4	109.2	93.2	76.2	61.2	47.1	32.9	20.7
122.5°	142.1	133.7	123.3	112.0	97.9	82.8	68.7	55.5	42.4	29.2	16.9
125°	129.9	121.4	112.0	100.7	87.5	74.4	62.1	49.9	36.7	25.4	14.1
127.5°	117.7	109.2	99.8	89.4	79.1	66.8	55.5	44.2	32.9	22.6	12.2
130°	105.4	97.9	89.4	81.0	70.6	59.3	49.9	38.6	28.2	17.9	10.4
132.5°	93.2	87.5	80.0	71.5	62.1	53.7	43.3	33.9	24.5	16.0	9.4
135°	82.8	77.2	70.6	63.1	55.5	47.1	37.7	29.2	20.7	13.2	7.5
137.5°	73.4	68.7	62.1	55.5	48.9	40.5	32.9	24.5	16.9	11.3	5.6
140°	65.0	60.2	54.6	48.0	42.4	34.8	27.3	19.8	15.1	9.4	4.7
142.5°	56.5	51.8	47.1	41.4	35.8	29.2	22.6	16.9	12.2	7.5	4.7
145°	48.0	44.2	39.5	34.8	29.2	23.5	18.8	14.1	9.4	5.6	3.8
147.5°	39.5	36.7	32.0	28.2	23.5	18.8	15.1	11.3	7.5	4.7	2.8
150°	32.0	29.2	25.4	21.7	18.8	15.1	12.2	8.5	5.6	4.7	2.8
152.5°	24.5	22.6	19.8	17.9	15.1	11.3	8.5	6.6	4.7	3.8	1.9
155°	19.8	17.9	16.0	13.2	11.3	8.5	6.6	4.7	3.8	2.8	1.9
157.5°	14.1	13.2	11.3	9.4	7.5	5.6	4.7	4.7	2.8	1.9	0.9
160°	9.4	8.5	7.5	5.6	4.7	4.7	3.8	2.8	1.9	1.9	0.9
162.5°	5.6	4.7	4.7	4.7	3.8	3.8	2.8	1.9	1.9	0.9	0.9
165°	3.8	3.8	3.8	2.8	2.8	2.8	1.9	0.9	0.9	0.9	0.9
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-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4
2.5°	893.3	890.5	894.3	900.8	901.8	900.8	899.0	901.8	905.6	904.6	898.0
5°	891.4	887.7	891.4	898.0	898.0	897.1	896.1	899.0	902.7	901.8	896.1
7.5°	885.8	882.0	885.8	891.4	892.4	890.5	890.5	893.3	897.1	896.1	891.4
10°	878.3	874.5	876.4	883.0	884.8	883.0	883.0	885.8	890.5	889.5	883.9
12.5°	867.0	864.1	866.0	871.7	873.5	872.6	871.7	875.4	880.1	880.1	874.5
15°	854.7	851.0	852.8	859.4	860.4	858.5	859.4	862.2	867.9	867.9	863.2
17.5°	840.6	835.9	838.7	843.4	844.4	844.4	844.4	848.1	854.7	853.8	850.0
20°	824.6	818.0	819.9	824.6	826.5	826.5	826.5	833.1	837.8	837.8	834.0
22.5°	805.8	801.1	801.1	805.8	808.6	807.7	807.7	813.3	819.9	818.9	818.9
25°	784.1	780.4	778.5	784.1	785.1	786.0	787.9	793.5	801.1	801.1	802.0
27.5°	761.5	757.8	756.8	761.5	762.5	763.4	765.3	771.9	779.4	780.4	782.2
30°	739.9	734.2	732.3	736.1	738.0	738.9	738.9	749.3	755.9	758.7	762.5
32.5°	714.5	708.8	704.1	710.7	711.6	713.5	714.5	724.8	732.3	737.1	742.7
35°	689.0	679.6	677.8	682.5	684.3	685.3	687.2	698.5	708.8	712.6	720.1
37.5°	660.8	654.2	648.6	653.3	655.2	656.1	661.7	672.1	682.5	688.1	695.6
40°	634.4	626.0	621.3	624.1	626.0	626.9	633.5	644.8	657.0	663.6	673.0
42.5°	605.3	594.0	590.2	593.0	594.0	596.8	602.4	617.5	629.7	639.2	646.7
45°	576.1	567.6	559.1	562.0	562.9	564.8	573.3	589.3	602.4	613.7	622.2
47.5°	546.0	535.6	527.1	529.0	532.8	533.7	543.1	562.0	574.2	586.4	597.7
50°	515.8	501.7	495.1	495.1	497.0	501.7	514.0	532.8	546.0	560.1	572.3
52.5°	484.8	471.6	464.1	465.0	466.9	472.5	483.8	502.7	517.7	532.8	547.8
55°	453.7	439.6	432.1	430.2	432.1	439.6	452.8	472.5	487.6	505.5	521.5
57.5°	422.7	405.7	399.1	396.3	398.2	407.6	420.8	441.5	460.3	477.2	496.1
60°	388.8	375.6	364.3	357.7	362.4	374.6	388.8	410.4	430.2	449.0	469.7
62.5°	359.6	342.6	330.4	323.8	328.5	338.9	358.6	379.4	401.0	422.7	443.4
65°	326.6	309.7	295.6	289.0	293.7	305.9	325.7	348.3	371.8	393.5	417.9
67.5°	294.6	276.7	259.8	253.2	258.9	272.0	293.7	319.1	344.5	367.1	393.5
70°	263.6	243.8	225.9	221.2	225.0	242.9	263.6	289.0	315.3	341.7	369.0
72.5°	235.3	210.9	192.0	186.4	191.1	210.9	234.4	260.7	289.0	317.2	346.4
75°	202.4	179.8	159.1	152.5	158.1	176.0	205.2	233.4	263.6	293.7	321.0
77.5°	176.0	149.7	128.0	117.7	127.1	149.7	177.9	208.0	239.1	270.2	301.2
80°	148.7	121.4	97.9	86.6	97.0	121.4	149.7	182.6	217.4	248.5	276.7
82.5°	124.3	95.1	70.6	58.4	69.7	97.0	128.0	161.0	194.9	225.9	258.9
85°	101.7	71.5	46.1	32.9	48.9	73.4	106.4	140.3	175.1	207.1	239.1
87.5°	82.8	53.7	28.2	14.1	30.1	57.4	88.5	122.4	157.2	189.2	219.3
90°	67.8	38.6	15.1	1.9	17.9	43.3	73.4	106.4	139.3	172.3	202.4
92.5°	55.5	29.2	8.5	0.9	11.3	34.8	63.1	94.1	126.1	158.1	187.3
95°	46.1	22.6	5.6	0.9	8.5	27.3	53.7	83.8	113.9	145.0	174.1
97.5°	39.5	18.8	4.7	0.9	6.6	23.5	46.1	74.4	103.5	132.7	161.0
100°	33.9	15.1	3.8	0.9	5.6	19.8	40.5	65.9	93.2	121.4	148.7
102.5°	29.2	12.2	2.8	0.9	4.7	16.9	35.8	59.3	83.8	111.1	137.4
105°	25.4	10.4	2.8	0.9	3.8	15.1	32.0	52.7	77.2	101.7	127.1
107.5°	21.7	8.5	1.9	0.9	2.8	12.2	28.2	48.0	69.7	93.2	116.7
110°	18.8	7.5	1.9	0.9	2.8	11.3	24.5	43.3	63.1	84.7	107.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	16.0	5.6	1.9	0.9	1.9	9.4	21.7	38.6	57.4	77.2	98.8
115°	14.1	4.7	0.9	0.9	1.9	8.5	19.8	34.8	51.8	70.6	90.4
117.5°	11.3	3.8	0.9	0.9	0.9	6.6	16.9	31.1	47.1	65.0	82.8
120°	9.4	3.8	0.9	0.9	0.9	5.6	15.1	27.3	42.4	58.4	75.3
122.5°	8.5	2.8	0.9	0.9	0.9	4.7	13.2	24.5	37.7	52.7	68.7
125°	7.5	2.8	0.9	0.9	0.9	3.8	11.3	21.7	33.9	47.1	62.1
127.5°	5.6	2.8	0.9	0.9	0.9	2.8	10.4	18.8	30.1	42.4	55.5
130°	4.7	1.9	0.9	0.9	0.9	2.8	8.5	16.9	26.4	37.7	49.9
132.5°	3.8	1.9	0.9	0.9	0.9	1.9	6.6	13.2	22.6	32.9	44.2
135°	3.8	1.9	0.9	0.9	0.9	1.9	4.7	11.3	18.8	28.2	37.7
137.5°	3.8	0.9	0.9	0.9	0.9	1.9	3.8	8.5	15.1	22.6	31.1
140°	2.8	0.9	0.9	0.9	0.9	0.9	2.8	6.6	12.2	18.8	26.4
142.5°	2.8	0.9	0.9	0.9	0.9	0.9	2.8	4.7	9.4	15.1	20.7
145°	1.9	0.9	0.9	0.9	0.9	0.9	1.9	3.8	7.5	11.3	16.9
147.5°	1.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	5.6	9.4	13.2
150°	1.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	3.8	6.6	10.4
152.5°	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8	4.7	6.6
155°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	3.8	4.7
157.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8	3.8
160°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4
2.5°	895.2	888.6	890.5	889.5	891.4	894.3	894.3	893.3	893.3	891.4	889.5
5°	893.3	886.7	889.5	888.6	890.5	893.3	893.3	892.4	892.4	889.5	888.6
7.5°	887.7	883.0	884.8	884.8	886.7	889.5	889.5	888.6	888.6	885.8	884.8
10°	882.0	876.4	879.2	879.2	881.1	884.8	884.8	883.9	883.9	881.1	880.1
12.5°	872.6	867.0	871.7	872.6	874.5	878.3	877.3	877.3	877.3	874.5	873.5
15°	861.3	857.5	862.2	863.2	866.0	870.7	870.7	870.7	870.7	867.9	867.0
17.5°	849.1	846.2	851.0	852.8	856.6	861.3	861.3	862.2	863.2	861.3	860.4
20°	835.0	833.1	837.8	841.5	847.2	851.9	853.8	854.7	856.6	854.7	853.8
22.5°	818.9	818.9	825.5	829.3	835.9	840.6	843.4	846.2	848.1	846.2	845.3
25°	801.1	803.9	810.5	817.1	824.6	829.3	832.1	835.9	837.8	836.8	835.9
27.5°	784.1	787.9	796.4	802.9	809.5	817.1	819.9	824.6	826.5	826.5	825.5
30°	764.4	770.0	779.4	786.9	795.4	802.9	806.7	811.4	814.2	812.4	813.3
32.5°	745.5	754.9	762.5	770.9	780.4	787.9	792.6	798.2	801.1	800.1	801.1
35°	724.8	734.2	744.6	753.1	764.4	771.9	778.5	783.2	786.9	786.0	786.0
37.5°	702.2	714.5	724.8	736.1	746.5	754.9	761.5	767.2	770.9	770.9	770.9
40°	680.6	693.8	704.1	717.3	730.5	738.0	745.5	751.2	754.9	755.9	756.8
42.5°	657.0	671.2	683.4	697.5	710.7	720.1	728.6	735.2	738.9	740.8	739.9
45°	635.4	648.6	662.7	678.7	690.9	700.3	710.7	718.2	722.0	722.9	723.9
47.5°	610.9	626.0	642.0	658.0	670.2	682.5	691.9	699.4	703.2	706.0	706.0
50°	587.4	603.4	621.3	638.2	651.4	663.6	673.0	681.5	686.2	688.1	689.0
52.5°	565.7	580.8	599.6	616.6	629.7	642.0	654.2	663.6	668.3	670.2	670.2
55°	539.4	558.2	578.9	594.9	609.0	623.2	635.4	644.8	649.5	652.3	654.2
57.5°	514.9	534.7	556.3	573.3	590.2	603.4	614.7	626.9	630.7	634.4	635.4
60°	491.4	511.1	531.8	550.7	567.6	581.7	594.9	605.3	611.9	613.7	615.6
62.5°	466.9	487.6	509.3	528.1	546.0	562.9	575.1	584.6	592.1	594.9	596.8
65°	443.4	465.0	486.7	506.4	525.3	542.2	554.4	563.9	571.4	576.1	577.0
67.5°	417.9	441.5	464.1	484.8	503.6	521.5	533.7	543.1	550.7	556.3	557.3
70°	394.4	418.9	441.5	464.1	482.9	500.8	514.0	523.4	531.8	535.6	537.5
72.5°	371.8	397.2	420.8	443.4	462.2	480.1	494.2	503.6	512.1	516.8	517.7
75°	350.2	375.6	401.0	422.7	442.4	460.3	474.4	484.8	492.3	497.0	498.9
77.5°	328.5	354.9	380.3	401.9	422.7	440.5	452.8	465.0	472.5	478.2	478.2
80°	306.9	334.2	360.5	382.2	402.9	418.9	433.0	445.2	452.8	458.4	458.4
82.5°	288.0	314.4	339.8	361.5	382.2	400.1	414.2	425.5	433.9	437.7	438.7
85°	266.4	295.6	319.1	342.6	362.4	379.4	393.5	405.7	413.2	417.0	418.9
87.5°	248.5	276.7	302.2	322.9	342.6	359.6	375.6	385.9	393.5	398.2	400.1
90°	231.6	258.9	284.3	305.0	325.7	341.7	356.8	367.1	375.6	379.4	381.2
92.5°	216.5	243.8	268.3	289.0	308.8	326.6	340.8	351.1	358.6	362.4	365.2
95°	202.4	228.7	252.3	274.9	293.7	309.7	324.8	335.1	343.6	346.4	349.2
97.5°	188.3	213.7	237.2	258.9	278.6	293.7	307.8	318.2	324.8	329.5	332.3
100°	176.0	200.5	223.1	243.8	262.6	276.7	291.8	301.2	307.8	311.6	315.3
102.5°	162.8	187.3	209.0	228.7	248.5	261.7	275.8	285.2	290.9	297.5	297.5
105°	151.6	174.1	195.8	214.6	231.6	247.6	259.8	269.2	275.8	280.5	280.5
107.5°	139.3	161.9	182.6	202.4	218.4	233.4	244.7	253.2	260.7	263.6	266.4
110°	129.9	149.7	170.4	189.2	204.3	218.4	229.7	239.1	245.7	248.5	250.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	118.6	139.3	158.1	176.0	191.1	204.3	215.6	223.1	229.7	233.4	234.4
115°	109.2	129.0	145.9	162.8	178.9	190.1	200.5	208.0	214.6	217.4	219.3
117.5°	100.7	118.6	135.6	149.7	164.7	177.0	187.3	193.9	199.6	203.3	205.2
120°	92.2	109.2	124.3	138.4	152.5	163.8	173.2	179.8	186.4	189.2	189.2
122.5°	83.8	99.8	113.9	127.1	140.3	150.6	161.0	166.6	172.3	175.1	175.1
125°	76.2	91.3	104.5	116.7	129.0	138.4	146.8	153.4	159.1	161.0	161.0
127.5°	68.7	82.8	95.1	106.4	116.7	126.1	134.6	141.2	145.9	147.8	147.8
130°	62.1	74.4	85.7	97.0	107.3	114.8	123.3	129.0	131.8	134.6	135.6
132.5°	55.5	66.8	77.2	86.6	97.0	104.5	111.1	116.7	119.5	122.4	123.3
135°	48.9	59.3	68.7	78.1	86.6	94.1	99.8	104.5	108.3	110.1	111.1
137.5°	41.4	52.7	61.2	68.7	78.1	83.8	90.4	93.2	97.0	98.8	98.8
140°	34.8	43.3	52.7	60.2	67.8	73.4	79.1	83.8	86.6	87.5	87.5
142.5°	28.2	35.8	43.3	52.7	59.3	64.0	69.7	73.4	75.3	76.2	77.2
145°	22.6	28.2	34.8	43.3	50.8	56.5	59.3	63.1	65.0	65.9	66.8
147.5°	16.9	22.6	28.2	33.9	41.4	47.1	49.9	53.7	55.5	56.5	56.5
150°	13.2	16.9	20.7	26.4	32.0	38.6	42.4	45.2	46.1	47.1	47.1
152.5°	9.4	13.2	16.0	19.8	23.5	29.2	34.8	36.7	37.7	38.6	38.6
155°	6.6	9.4	11.3	14.1	16.9	21.7	26.4	29.2	30.1	31.1	31.1
157.5°	4.7	6.6	7.5	10.4	12.2	14.1	17.9	22.6	23.5	23.5	23.5
160°	2.8	3.8	4.7	6.6	7.5	9.4	11.3	14.1	16.9	16.9	16.9
162.5°	1.9	2.8	2.8	3.8	3.8	5.6	6.6	7.5	10.4	11.3	11.3
165°	0.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8	4.7	5.6	5.6
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-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4	892.4
2.5°	890.5	892.4	891.4	891.4	891.4	893.3	891.4	883.0	884.8	886.7	888.6
5°	889.5	890.5	890.5	889.5	889.5	891.4	889.5	881.1	883.0	884.8	885.8
7.5°	885.8	886.7	886.7	886.7	885.8	887.7	884.8	877.3	877.3	879.2	880.1
10°	881.1	883.0	882.0	881.1	881.1	881.1	879.2	870.7	870.7	871.7	872.6
12.5°	875.4	875.4	875.4	874.5	873.5	873.5	871.7	863.2	862.2	864.1	863.2
15°	867.9	869.8	867.9	867.0	865.1	865.1	862.2	853.8	851.9	852.8	851.9
17.5°	861.3	862.2	860.4	858.5	856.6	855.7	852.8	843.4	840.6	841.5	839.7
20°	854.7	854.7	852.8	851.0	848.1	845.3	841.5	832.1	827.4	827.4	823.7
22.5°	846.2	846.2	844.4	841.5	838.7	835.0	831.2	821.8	814.2	812.4	809.5
25°	836.8	835.9	835.0	832.1	826.5	822.7	818.9	808.6	800.1	796.4	791.7
27.5°	825.5	825.5	822.7	819.9	814.2	809.5	804.8	795.4	784.1	779.4	772.8
30°	813.3	813.3	810.5	806.7	801.1	795.4	789.8	778.5	767.2	760.6	753.1
32.5°	801.1	800.1	797.3	793.5	787.9	779.4	774.7	763.4	750.2	742.7	732.3
35°	786.0	785.1	782.2	777.5	770.0	763.4	755.9	745.5	730.5	721.1	709.8
37.5°	770.9	770.0	768.1	761.5	754.0	746.5	737.1	726.7	712.6	700.3	689.0
40°	755.9	754.9	751.2	746.5	737.1	727.6	718.2	707.9	692.8	678.7	666.5
42.5°	739.9	738.9	734.2	728.6	718.2	708.8	697.5	686.2	671.2	654.2	642.0
45°	723.9	722.0	717.3	710.7	699.4	689.0	677.8	664.6	649.5	633.5	617.5
47.5°	706.9	704.1	699.4	690.0	680.6	669.3	656.1	642.0	626.9	609.0	592.1
50°	688.1	686.2	680.6	672.1	660.8	649.5	634.4	620.3	602.4	585.5	564.8
52.5°	670.2	666.5	661.7	652.3	641.0	628.8	612.8	595.9	578.0	562.0	540.3
55°	651.4	649.5	642.9	635.4	621.3	607.2	592.1	574.2	554.4	535.6	514.9
57.5°	633.5	629.7	624.1	613.7	601.5	587.4	571.4	552.6	530.9	511.1	488.5
60°	615.6	610.0	603.4	594.0	580.8	565.7	548.8	529.0	507.4	485.7	462.2
62.5°	595.9	591.1	583.6	574.2	561.0	545.0	527.1	506.4	485.7	463.1	437.7
65°	576.1	571.4	563.9	554.4	541.3	523.4	504.5	483.8	460.3	438.7	411.4
67.5°	556.3	551.6	543.1	532.8	519.6	502.7	482.9	461.2	437.7	414.2	385.9
70°	536.6	530.9	523.4	512.1	498.9	481.0	461.2	438.7	415.1	389.7	361.5
72.5°	516.8	512.1	502.7	492.3	478.2	460.3	440.5	417.9	393.5	367.1	338.9
75°	497.0	491.4	484.8	472.5	457.5	440.5	419.8	397.2	370.9	345.5	316.3
77.5°	477.2	472.5	464.1	451.8	437.7	419.8	399.1	376.5	350.2	323.8	292.8
80°	457.5	451.8	445.2	433.9	417.9	400.1	378.4	355.8	329.5	302.2	271.1
82.5°	437.7	432.1	424.5	413.2	398.2	380.3	359.6	335.1	308.8	280.5	251.3
85°	417.9	413.2	404.8	393.5	377.5	359.6	338.9	317.2	289.0	260.7	231.6
87.5°	398.2	393.5	385.0	373.7	358.6	340.8	320.0	297.5	270.2	243.8	211.8
90°	379.4	375.6	367.1	355.8	340.8	322.9	304.0	279.6	253.2	226.9	196.7
92.5°	362.4	358.6	351.1	339.8	326.6	306.9	288.0	264.5	238.2	210.9	181.7
95°	347.3	342.6	335.1	324.8	308.8	291.8	273.0	249.4	224.0	196.7	168.5
97.5°	330.4	325.7	318.2	306.9	293.7	275.8	257.0	234.4	209.0	183.6	155.3
100°	313.5	308.8	300.3	290.9	277.7	259.8	241.9	219.3	195.8	171.3	144.0
102.5°	296.5	291.8	284.3	274.9	261.7	245.7	227.8	206.1	182.6	158.1	132.7
105°	280.5	275.8	268.3	258.9	246.6	230.6	211.8	193.0	170.4	146.8	122.4
107.5°	264.5	259.8	253.2	243.8	231.6	216.5	198.6	178.9	158.1	135.6	112.0
110°	248.5	244.7	237.2	228.7	216.5	201.4	185.4	166.6	145.9	125.2	102.6



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	233.4	229.7	222.2	212.7	202.4	188.3	172.3	154.4	134.6	114.8	93.2
115°	218.4	213.7	207.1	198.6	188.3	175.1	160.0	144.0	124.3	105.4	85.7
117.5°	203.3	199.6	193.0	184.5	175.1	161.9	147.8	132.7	113.9	96.0	78.1
120°	188.3	185.4	178.9	171.3	161.9	149.7	136.5	121.4	104.5	87.5	70.6
122.5°	174.1	171.3	164.7	158.1	148.7	137.4	125.2	111.1	96.0	80.0	65.0
125°	161.0	157.2	151.6	145.0	136.5	126.1	113.9	100.7	86.6	72.5	58.4
127.5°	146.8	144.0	140.3	132.7	124.3	114.8	103.5	92.2	79.1	65.9	52.7
130°	135.6	131.8	127.1	121.4	113.9	104.5	94.1	82.8	71.5	59.3	46.1
132.5°	122.4	118.6	114.8	109.2	102.6	94.1	84.7	74.4	64.0	52.7	41.4
135°	110.1	107.3	103.5	97.9	91.3	84.7	75.3	65.9	56.5	46.1	36.7
137.5°	98.8	96.0	92.2	88.5	81.9	75.3	66.8	58.4	49.9	40.5	32.0
140°	87.5	85.7	81.9	78.1	72.5	65.9	58.4	50.8	43.3	34.8	27.3
142.5°	76.2	74.4	71.5	67.8	63.1	57.4	50.8	44.2	36.7	30.1	23.5
145°	65.9	65.0	62.1	58.4	54.6	48.9	43.3	37.7	31.1	25.4	18.8
147.5°	55.5	54.6	52.7	49.9	46.1	41.4	36.7	31.1	26.4	20.7	15.1
150°	46.1	45.2	44.2	40.5	38.6	33.9	30.1	25.4	21.7	16.0	12.2
152.5°	37.7	37.7	35.8	32.9	31.1	27.3	24.5	20.7	16.9	13.2	9.4
155°	30.1	29.2	28.2	26.4	24.5	21.7	18.8	16.0	13.2	9.4	6.6
157.5°	23.5	22.6	21.7	19.8	17.9	16.9	14.1	11.3	8.5	6.6	4.7
160°	16.9	16.0	15.1	14.1	13.2	11.3	9.4	7.5	5.6	3.8	2.8
162.5°	11.3	10.4	10.4	9.4	8.5	6.6	5.6	4.7	3.8	2.8	1.9
165°	5.6	5.6	4.7	4.7	3.8	2.8	2.8	2.8	1.9	1.9	0.9
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-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	892.4	892.4	892.4	892.4	892.4	892.4	892.4
2.5°	887.7	887.7	891.4	890.5	887.7	893.3	899.9
5°	884.8	884.8	887.7	887.7	884.8	890.5	896.1
7.5°	880.1	879.2	882.0	882.0	878.3	883.0	889.5
10°	871.7	870.7	873.5	873.5	869.8	874.5	880.1
12.5°	862.2	860.4	863.2	862.2	858.5	863.2	868.8
15°	850.0	849.1	851.0	849.1	845.3	850.0	855.7
17.5°	837.8	835.0	835.9	835.9	829.3	834.0	838.7
20°	821.8	818.0	818.9	818.0	813.3	816.1	821.8
22.5°	805.8	800.1	800.1	799.2	793.5	797.3	802.0
25°	786.0	779.4	779.4	778.5	771.9	774.7	779.4
27.5°	766.2	759.6	756.8	755.9	749.3	749.3	755.9
30°	745.5	736.1	734.2	731.4	724.8	724.8	730.5
32.5°	725.8	712.6	708.8	705.0	698.5	697.5	704.1
35°	699.4	689.0	682.5	678.7	671.2	669.3	674.9
37.5°	677.8	664.6	655.2	650.5	642.9	640.1	647.6
40°	654.2	640.1	627.9	625.0	613.7	610.0	616.6
42.5°	627.9	612.8	600.6	594.9	586.4	582.7	583.6
45°	601.5	585.5	572.3	564.8	556.3	549.7	553.5
47.5°	574.2	560.1	544.1	532.8	522.4	517.7	519.6
50°	546.9	530.0	514.9	502.7	490.4	484.8	488.5
52.5°	519.6	501.7	484.8	471.6	457.5	451.8	452.8
55°	493.3	474.4	454.7	440.5	427.4	418.9	417.0
57.5°	466.9	446.2	425.5	409.5	392.5	385.0	382.2
60°	438.7	417.0	395.4	376.5	358.6	350.2	346.4
62.5°	412.3	388.8	364.3	344.5	326.6	315.3	312.5
65°	386.9	359.6	335.1	312.5	292.8	280.5	276.7
67.5°	359.6	331.3	305.0	280.5	261.7	245.7	243.8
70°	334.2	304.0	274.9	249.4	228.7	212.7	205.2
72.5°	308.8	277.7	247.6	220.3	193.9	178.9	173.2
75°	284.3	252.3	220.3	192.0	162.8	145.0	139.3
77.5°	261.7	228.7	194.9	163.8	136.5	113.9	106.4
80°	240.0	206.1	170.4	138.4	109.2	84.7	76.2
82.5°	217.4	185.4	148.7	114.8	84.7	59.3	48.9
85°	197.7	165.7	129.0	95.1	65.0	37.7	26.4
87.5°	181.7	146.8	113.9	80.0	48.9	21.7	7.5
90°	165.7	131.8	98.8	65.9	36.7	12.2	0.9
92.5°	151.6	119.5	86.6	56.5	28.2	8.5	0.9
95°	138.4	107.3	76.2	47.1	22.6	5.6	0.9
97.5°	126.1	97.0	67.8	40.5	18.8	4.7	0.9
100°	115.8	87.5	60.2	35.8	16.0	3.8	0.9
102.5°	105.4	79.1	53.7	31.1	14.1	2.8	0.9
105°	97.0	71.5	48.0	28.2	12.2	2.8	0.9
107.5°	88.5	65.0	43.3	24.5	10.4	1.9	0.9
110°	80.0	59.3	38.6	21.7	9.4	1.9	0.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	73.4	53.7	34.8	19.8	7.5	1.9	0.9
115°	66.8	48.0	31.1	16.9	6.6	0.9	0.9
117.5°	60.2	43.3	27.3	15.1	5.6	0.9	0.9
120°	54.6	38.6	24.5	13.2	4.7	0.9	0.9
122.5°	48.9	34.8	21.7	11.3	3.8	0.9	0.9
125°	44.2	31.1	18.8	9.4	2.8	0.9	0.9
127.5°	39.5	27.3	16.9	8.5	2.8	0.9	0.9
130°	34.8	24.5	14.1	6.6	1.9	0.9	0.9
132.5°	31.1	20.7	12.2	5.6	1.9	0.9	0.9
135°	27.3	17.9	10.4	3.8	1.9	0.9	0.9
137.5°	23.5	15.1	8.5	2.8	0.9	0.9	0.9
140°	19.8	13.2	6.6	2.8	0.9	0.9	0.9
142.5°	16.9	10.4	4.7	1.9	0.9	0.9	0.9
145°	13.2	8.5	3.8	1.9	0.9	0.9	0.9
147.5°	10.4	6.6	2.8	1.9	0.9	0.9	0.9
150°	7.5	4.7	2.8	0.9	0.9	0.9	0.9
152.5°	5.6	3.8	1.9	0.9	0.9	0.9	0.9
155°	3.8	2.8	1.9	0.9	0.9	0.9	0.9
157.5°	2.8	1.9	0.9	0.9	0.9	0.9	0.9
160°	1.9	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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)