

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: P288458

Luminaire Tested: **4WNLED-LD4-40SL-F-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P288458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1902-121-2)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4WNLED-LD4-40SL-F-UNV-L835-CD1-U
Description: 4FT WNLED WRAPAROUND
Light Source: (112) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

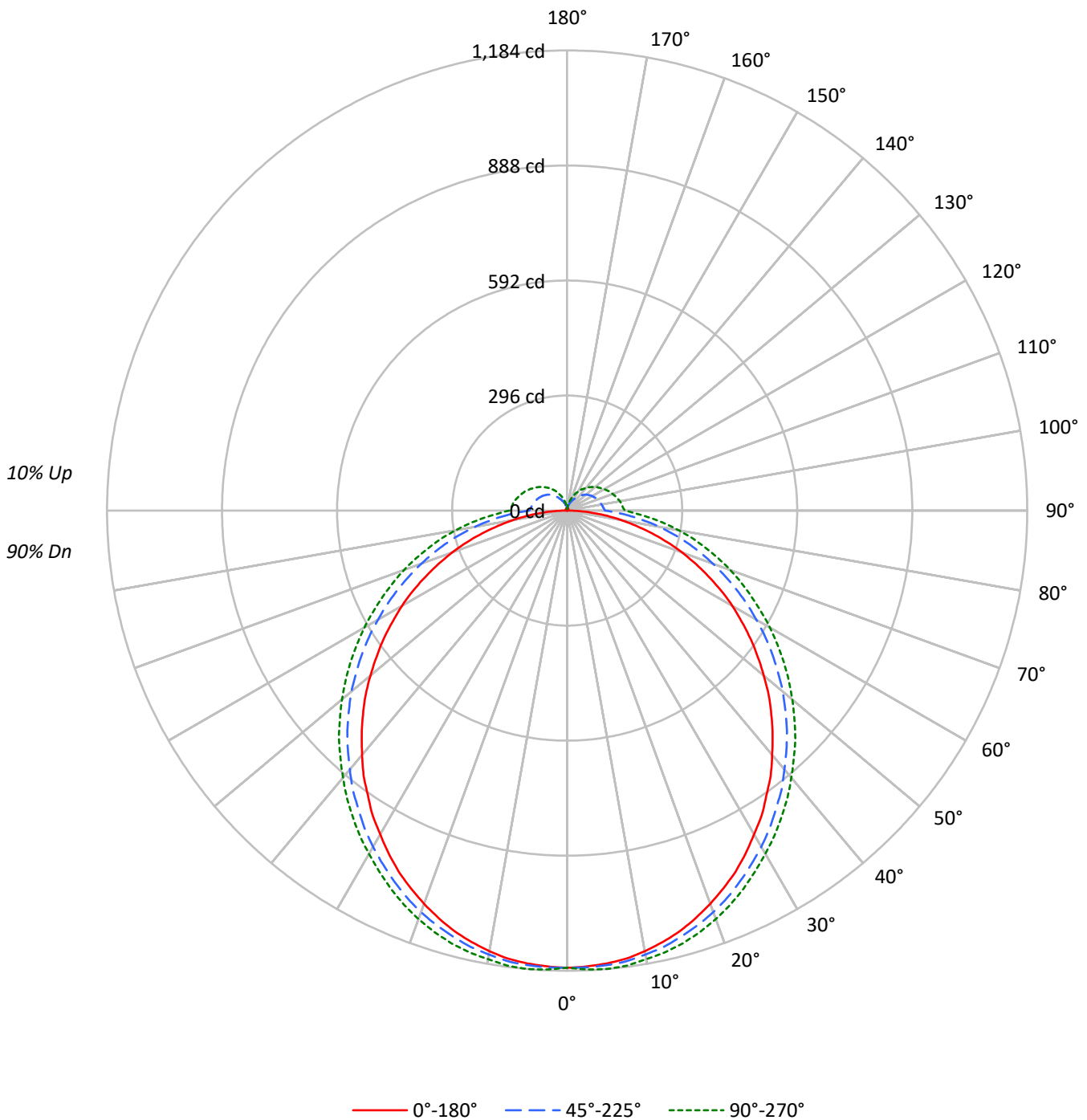
Lumens per Lamp: N/A
Luminaire Lumens: 4029.0 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 32.2
Input Voltage (V): 120
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: P288458

CATALOG NUMBER: 4WNLED-LD4-40SL-F-UNV-L835-CD1-U

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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	105	100	95	91	101	97	92	89	91	87	84	85	82	80	80	78	76	73
2	95	86	79	73	92	84	77	71	78	73	68	74	69	65	69	66	62	60
3	86	75	67	60	83	73	65	59	69	62	57	65	59	54	61	56	52	50
4	79	67	58	51	76	65	56	50	61	54	48	57	51	46	54	49	45	42
5	73	59	50	43	70	58	49	43	54	47	41	51	45	40	49	43	39	36
6	67	53	44	38	64	52	43	37	49	42	36	46	40	35	44	38	34	32
7	62	48	39	33	60	47	39	33	45	37	32	42	36	31	40	34	30	28
8	58	44	35	29	55	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3165	3165	3165
5°	3151	3141	3164
10°	3128	3109	3133
15°	3096	3070	3106
20°	3049	3027	3063
25°	3001	2972	3012
30°	2936	2918	2956
35°	2874	2856	2905
40°	2809	2797	2853
45°	2742	2741	2809
50°	2667	2680	2755
55°	2590	2612	2709
60°	2508	2541	2667
65°	2397	2473	2626
70°	2275	2404	2615
75°	2099	2352	2607
80°	1886	2293	2640
85°	1495	2254	2727



TEST NUMBER: P288458

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	2.8
10°-20°	319.8	7.9
20°-30°	483.2	12.0
30°-40°	582.4	14.5
40°-50°	610.7	15.2
50°-60°	569.2	14.1
60°-70°	468.5	11.6
70°-80°	327.4	8.1
80°-90°	170.2	4.2
90°-100°	92.5	2.3
100°-110°	83.2	2.1
110°-120°	70.8	1.8
120°-130°	56.2	1.4
130°-140°	40.3	1.0
140°-150°	25.1	0.6
150°-160°	12.8	0.3
160°-170°	4.6	0.1
170°-180°	0.8	0.0
0°-30°	914.5	22.7
0°-40°	1496.9	37.2
0°-60°	2676.8	66.4
0°-90°	3642.8	90.4
90°-120°	246.5	6.1
90°-150°	368.0	9.1
90°-180°	386.0	9.6
0°-180°	4029.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1170	1160	1174	1172	1184	111
15°	1120	1114	1135	1138	1152	316
25°	1025	1025	1053	1058	1074	472
35°	894	903	937	949	962	560
45°	743	762	800	817	830	573
55°	577	602	644	669	681	515
65°	402	433	480	512	523	398
75°	225	268	320	354	368	239
85°	66	112	165	201	214	70
90°	1	45	97	136	149	4
95°	1	43	93	130	142	1
105°	1	39	86	120	131	2
115°	2	37	79	108	118	2
125°	3	33	69	95	102	3
135°	3	26	57	80	85	3
145°	4	20	42	61	67	3
155°	6	14	27	40	46	3
165°	6	10	15	21	25	2
175°	6	7	8	7	8	1
180°	6	6	6	6	6	



TEST NUMBER: P288458

CATALOG NUMBER: 4WNLED-LD4-40SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3
2.5°	1174.1	1179.6	1173.0	1175.2	1168.7	1164.3	1182.9	1170.8	1171.9	1182.9	1176.3
5°	1169.7	1175.2	1168.7	1170.8	1165.4	1159.9	1179.6	1168.7	1169.7	1179.6	1174.1
7.5°	1163.2	1167.6	1161.0	1163.2	1158.8	1153.3	1171.9	1163.2	1164.3	1173.0	1169.7
10°	1151.1	1155.5	1152.2	1153.3	1149.0	1143.5	1163.2	1152.2	1154.4	1164.3	1159.9
12.5°	1136.9	1142.4	1136.9	1139.1	1135.8	1130.4	1149.0	1140.2	1142.4	1152.2	1150.0
15°	1120.5	1123.8	1120.5	1122.7	1119.4	1113.9	1132.5	1126.0	1128.2	1138.0	1134.7
17.5°	1099.7	1104.1	1100.8	1104.1	1100.8	1095.3	1113.9	1107.4	1109.6	1120.5	1118.3
20°	1076.7	1082.2	1077.8	1082.2	1078.9	1074.5	1093.1	1087.7	1089.9	1100.8	1099.7
22.5°	1051.6	1057.0	1052.7	1055.9	1055.9	1051.6	1069.1	1065.8	1068.0	1077.8	1077.8
25°	1025.3	1028.6	1026.4	1029.7	1028.6	1025.3	1042.8	1040.6	1041.7	1050.5	1052.7
27.5°	994.7	1000.1	996.9	1001.2	1000.1	997.9	1014.4	1012.2	1015.5	1025.3	1026.4
30°	961.8	967.3	965.1	970.6	969.5	967.3	984.8	983.7	985.9	994.7	999.0
32.5°	931.2	933.4	933.4	937.8	938.9	936.7	953.1	953.1	956.4	964.0	969.5
35°	894.0	899.5	897.3	906.0	904.9	902.8	919.2	920.3	923.5	932.3	936.7
37.5°	860.1	862.3	862.3	869.9	872.1	868.8	883.1	887.4	890.7	898.4	906.0
40°	820.7	825.1	825.1	833.8	836.0	833.8	849.1	853.5	856.8	865.5	869.9
42.5°	782.4	785.7	787.9	795.5	799.9	797.7	811.9	817.4	820.7	830.5	834.9
45°	743.0	746.3	747.4	757.2	761.6	761.6	773.6	781.3	785.7	793.3	799.9
47.5°	703.6	704.7	708.0	716.7	723.3	723.3	735.3	741.9	747.4	755.0	761.6
50°	660.9	663.1	667.5	677.3	682.8	682.8	694.8	703.6	709.1	716.7	724.4
52.5°	618.2	621.5	625.9	635.8	642.3	643.4	653.3	664.2	667.5	676.2	683.9
55°	576.7	578.9	584.3	595.3	601.8	601.8	613.9	623.7	629.2	636.8	644.5
57.5°	532.9	536.2	541.7	552.6	559.2	560.3	571.2	581.0	587.6	595.3	604.0
60°	491.3	491.3	497.9	511.0	517.6	519.8	528.5	539.5	546.0	553.7	562.4
62.5°	447.5	447.5	455.2	466.1	473.8	476.0	488.0	497.9	504.4	512.1	522.0
65°	401.6	404.9	411.4	423.5	432.2	433.3	442.1	454.1	462.9	470.5	480.4
67.5°	357.8	362.2	366.6	378.6	388.5	390.6	400.5	412.5	420.2	427.8	439.9
70°	314.0	318.4	323.9	335.9	344.7	350.2	357.8	369.9	378.6	387.4	398.3
72.5°	270.3	274.7	280.1	293.3	303.1	308.6	316.2	330.5	338.1	346.9	358.9
75°	225.4	228.7	237.5	250.6	261.5	268.1	274.7	287.8	297.6	306.4	319.5
77.5°	181.6	187.1	194.8	207.9	218.8	224.3	232.0	248.4	257.1	268.1	280.1
80°	143.3	146.6	154.3	167.4	178.4	186.0	192.6	207.9	216.7	227.6	240.7
82.5°	104.0	108.3	116.0	129.1	142.3	148.8	154.3	169.6	179.5	190.4	201.3
85°	65.7	71.1	78.8	91.9	105.0	111.6	118.2	131.3	143.3	153.2	165.2
87.5°	30.6	36.1	44.9	56.9	68.9	76.6	82.1	96.3	107.2	118.2	129.1
90°	1.1	5.5	14.2	26.3	39.4	44.9	51.4	64.6	75.5	86.4	97.4
92.5°	0.0	4.4	13.1	25.2	37.2	43.8	49.2	62.4	73.3	84.3	95.2
95°	1.1	4.4	13.1	24.1	36.1	42.7	48.1	61.3	72.2	83.2	93.0
97.5°	1.1	4.4	13.1	24.1	36.1	41.6	48.1	60.2	71.1	82.1	91.9
100°	1.1	4.4	13.1	24.1	35.0	41.6	47.1	59.1	70.0	79.9	89.7
102.5°	1.1	4.4	13.1	23.0	35.0	40.5	46.0	58.0	68.9	78.8	88.6
105°	1.1	5.5	13.1	23.0	33.9	39.4	46.0	56.9	66.7	76.6	86.4
107.5°	2.2	5.5	13.1	23.0	33.9	39.4	44.9	55.8	65.7	75.5	84.3
110°	2.2	5.5	13.1	21.9	32.8	38.3	43.8	54.7	64.6	73.3	83.2



TEST NUMBER: P288458

CATALOG NUMBER: 4WNLED-LD4-40SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2.2	5.5	13.1	21.9	32.8	38.3	42.7	53.6	63.5	72.2	81.0
115°	2.2	5.5	12.0	21.9	31.7	37.2	41.6	52.5	61.3	70.0	78.8
117.5°	2.2	5.5	12.0	20.8	30.6	36.1	40.5	51.4	60.2	67.8	76.6
120°	3.3	5.5	12.0	20.8	29.5	35.0	39.4	49.2	58.0	66.7	74.4
122.5°	3.3	6.6	12.0	19.7	29.5	33.9	38.3	48.1	55.8	64.6	72.2
125°	3.3	6.6	12.0	19.7	28.5	32.8	37.2	46.0	54.7	62.4	68.9
127.5°	3.3	6.6	12.0	18.6	27.4	30.6	35.0	43.8	52.5	59.1	66.7
130°	3.3	6.6	10.9	17.5	25.2	29.5	32.8	41.6	49.2	56.9	63.5
132.5°	3.3	6.6	10.9	17.5	24.1	27.4	31.7	39.4	47.1	53.6	60.2
135°	3.3	5.5	9.8	16.4	23.0	26.3	29.5	37.2	43.8	50.3	56.9
137.5°	3.3	5.5	9.8	15.3	20.8	24.1	27.4	33.9	40.5	47.1	52.5
140°	4.4	5.5	9.8	14.2	19.7	23.0	25.2	31.7	37.2	42.7	49.2
142.5°	4.4	5.5	8.8	13.1	18.6	20.8	23.0	29.5	35.0	39.4	44.9
145°	4.4	5.5	8.8	13.1	17.5	19.7	21.9	27.4	31.7	36.1	41.6
147.5°	4.4	5.5	8.8	12.0	16.4	18.6	19.7	25.2	29.5	32.8	37.2
150°	5.5	6.6	8.8	12.0	15.3	16.4	18.6	23.0	26.3	30.6	33.9
152.5°	5.5	6.6	8.8	10.9	14.2	15.3	17.5	20.8	24.1	27.4	30.6
155°	5.5	6.6	7.7	9.8	13.1	14.2	16.4	18.6	21.9	24.1	27.4
157.5°	5.5	6.6	7.7	9.8	12.0	13.1	14.2	17.5	19.7	21.9	24.1
160°	5.5	6.6	7.7	8.8	10.9	12.0	13.1	15.3	17.5	19.7	20.8
162.5°	5.5	6.6	7.7	8.8	9.8	10.9	12.0	13.1	15.3	16.4	18.6
165°	5.5	6.6	6.6	7.7	9.8	9.8	10.9	12.0	13.1	14.2	15.3
167.5°	5.5	5.5	6.6	7.7	8.8	8.8	9.8	10.9	12.0	12.0	13.1
170°	5.5	5.5	6.6	6.6	7.7	7.7	8.8	8.8	9.8	10.9	10.9
172.5°	5.5	5.5	6.6	6.6	6.6	7.7	7.7	7.7	8.8	8.8	8.8
175°	5.5	5.5	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	7.7
177.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
180°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3	1176.3
2.5°	1177.4	1179.6	1180.7	1177.4	1173.0	1176.3	1181.8	1175.2	1169.7	1181.8
5°	1175.2	1177.4	1177.4	1175.2	1171.9	1175.2	1180.7	1175.2	1169.7	1184.0
7.5°	1170.8	1171.9	1171.9	1169.7	1167.6	1171.9	1177.4	1171.9	1166.5	1180.7
10°	1163.2	1164.3	1164.3	1163.2	1159.9	1163.2	1168.7	1164.3	1158.8	1171.9
12.5°	1152.2	1153.3	1154.4	1152.2	1150.0	1155.5	1159.9	1154.4	1149.0	1164.3
15°	1138.0	1140.2	1140.2	1141.3	1138.0	1143.5	1147.9	1143.5	1138.0	1152.2
17.5°	1121.6	1123.8	1124.9	1124.9	1122.7	1127.1	1131.4	1127.1	1122.7	1136.9
20°	1101.9	1101.9	1105.2	1105.2	1104.1	1109.6	1113.9	1108.5	1104.1	1118.3
22.5°	1081.1	1081.1	1082.2	1082.2	1082.2	1087.7	1093.1	1087.7	1083.3	1097.5
25°	1054.9	1055.9	1057.0	1060.3	1058.1	1063.6	1069.1	1063.6	1058.1	1073.5
27.5°	1029.7	1029.7	1030.8	1034.1	1033.0	1038.4	1042.8	1037.3	1034.1	1047.2
30°	1002.3	1002.3	1003.4	1006.7	1006.7	1012.2	1015.5	1010.0	1007.8	1019.8
32.5°	972.8	972.8	973.9	978.3	978.3	982.6	987.0	982.6	980.4	992.5
35°	940.0	941.0	943.2	947.6	948.7	953.1	957.5	953.1	949.8	961.8
37.5°	908.2	908.2	909.3	915.9	917.0	922.4	926.8	922.4	919.2	931.2
40°	874.3	874.3	876.5	883.1	885.2	888.5	894.0	889.6	886.3	897.3
42.5°	839.3	840.4	843.7	849.1	851.3	855.7	860.1	856.8	852.4	863.4
45°	803.2	805.4	807.6	815.2	817.4	820.7	826.2	821.8	819.6	830.5
47.5°	767.1	767.1	770.3	779.1	781.3	783.5	788.9	786.8	783.5	793.3
50°	728.8	729.9	733.1	740.8	744.1	746.3	752.8	750.7	747.4	756.1
52.5°	689.4	690.5	695.9	703.6	706.9	710.2	715.6	714.5	710.2	718.9
55°	650.0	652.2	658.7	666.4	668.6	671.9	678.4	675.1	675.1	680.6
57.5°	609.5	612.8	619.3	627.0	629.2	632.5	639.0	636.8	635.8	641.2
60°	569.0	573.4	579.9	587.6	592.0	593.1	600.7	599.6	597.5	602.9
62.5°	529.6	534.0	540.6	549.3	551.5	554.8	562.4	560.3	559.2	562.4
65°	488.0	492.4	501.2	509.9	512.1	515.4	523.0	520.9	518.7	523.0
67.5°	447.5	454.1	460.7	469.4	472.7	474.9	483.7	482.6	480.4	484.7
70°	407.1	413.6	421.3	430.0	433.3	436.6	444.3	443.2	443.2	446.5
72.5°	367.7	374.2	383.0	391.7	396.1	397.2	403.8	403.8	404.9	407.1
75°	328.3	334.8	343.6	352.3	354.5	358.9	365.5	364.4	365.5	367.7
77.5°	288.9	296.5	305.3	314.0	317.3	318.4	326.1	326.1	327.2	330.5
80°	250.6	258.2	267.0	275.7	279.0	279.0	286.7	287.8	288.9	291.1
82.5°	211.2	218.8	227.6	236.4	240.7	242.9	249.5	249.5	250.6	252.8
85°	174.0	180.6	190.4	198.1	201.3	203.5	210.1	211.2	212.3	214.5
87.5°	137.9	146.6	154.3	163.0	166.3	168.5	174.0	175.1	177.3	178.4
90°	107.2	116.0	124.7	132.4	135.7	137.9	144.4	146.6	147.7	148.8
92.5°	105.0	113.8	121.5	129.1	132.4	134.6	140.1	142.3	144.4	144.4
95°	104.0	111.6	119.3	128.0	130.2	132.4	137.9	140.1	142.3	142.3
97.5°	101.8	109.4	118.2	125.8	128.0	131.3	135.7	137.9	140.1	140.1
100°	99.6	108.3	116.0	123.6	125.8	128.0	133.5	135.7	137.9	137.9
102.5°	97.4	106.1	113.8	120.4	123.6	125.8	130.2	132.4	134.6	134.6
105°	96.3	104.0	111.6	118.2	120.4	122.6	128.0	130.2	132.4	131.3
107.5°	94.1	100.7	108.3	116.0	118.2	120.4	124.7	126.9	129.1	128.0
110°	91.9	98.5	106.1	112.7	114.9	117.1	121.5	123.6	125.8	124.7



TEST NUMBER: P288458

CATALOG NUMBER: 4WNLED-LD4-40SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	89.7	96.3	102.9	109.4	111.6	113.8	118.2	120.4	122.6	121.5
115°	86.4	93.0	100.7	106.1	108.3	110.5	114.9	117.1	118.2	118.2
117.5°	84.3	90.8	97.4	104.0	105.0	107.2	110.5	112.7	114.9	113.8
120°	82.1	87.5	94.1	99.6	101.8	104.0	107.2	109.4	110.5	110.5
122.5°	78.8	85.4	90.8	96.3	98.5	99.6	104.0	105.0	107.2	106.1
125°	76.6	82.1	87.5	93.0	95.2	96.3	99.6	101.8	102.9	101.8
127.5°	73.3	78.8	84.3	89.7	90.8	93.0	95.2	97.4	98.5	98.5
130°	70.0	75.5	81.0	86.4	87.5	88.6	91.9	93.0	94.1	94.1
132.5°	66.7	72.2	77.7	82.1	83.2	85.4	87.5	89.7	90.8	89.7
135°	63.5	67.8	73.3	77.7	79.9	81.0	83.2	84.3	86.4	85.4
137.5°	59.1	64.6	68.9	73.3	75.5	76.6	78.8	79.9	81.0	81.0
140°	55.8	60.2	65.7	70.0	71.1	72.2	74.4	75.5	76.6	76.6
142.5°	51.4	55.8	60.2	64.6	66.7	67.8	70.0	71.1	72.2	71.1
145°	47.1	50.3	55.8	60.2	61.3	62.4	65.7	66.7	66.7	66.7
147.5°	42.7	46.0	50.3	54.7	56.9	58.0	60.2	61.3	62.4	62.4
150°	38.3	41.6	46.0	49.2	51.4	52.5	55.8	55.8	56.9	56.9
152.5°	33.9	37.2	40.5	44.9	46.0	48.1	50.3	51.4	51.4	51.4
155°	30.6	32.8	36.1	39.4	40.5	41.6	44.9	46.0	47.1	46.0
157.5°	26.3	29.5	31.7	33.9	35.0	36.1	39.4	40.5	41.6	41.6
160°	23.0	25.2	27.4	29.5	29.5	31.7	33.9	35.0	36.1	35.0
162.5°	19.7	20.8	23.0	24.1	25.2	26.3	28.5	29.5	30.6	30.6
165°	17.5	17.5	18.6	19.7	20.8	21.9	23.0	24.1	25.2	25.2
167.5°	14.2	15.3	15.3	16.4	16.4	17.5	17.5	19.7	20.8	20.8
170°	12.0	12.0	12.0	13.1	13.1	13.1	13.1	14.2	16.4	16.4
172.5°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	10.9	10.9	12.0
175°	7.7	7.7	7.7	7.7	6.6	7.7	6.6	6.6	7.7	7.7
177.5°	5.5	5.5	5.5	5.5	5.5	5.5	4.4	4.4	4.4	4.4
180°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5

(END OF REPORT)