

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: P288457

Luminaire Tested: **4WNLED-LD4-40SL-F-UNV-L830-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P288457
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-L830-CD1-U
Description: 4FT WNLED WRAPAROUND
Light Source: (112) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

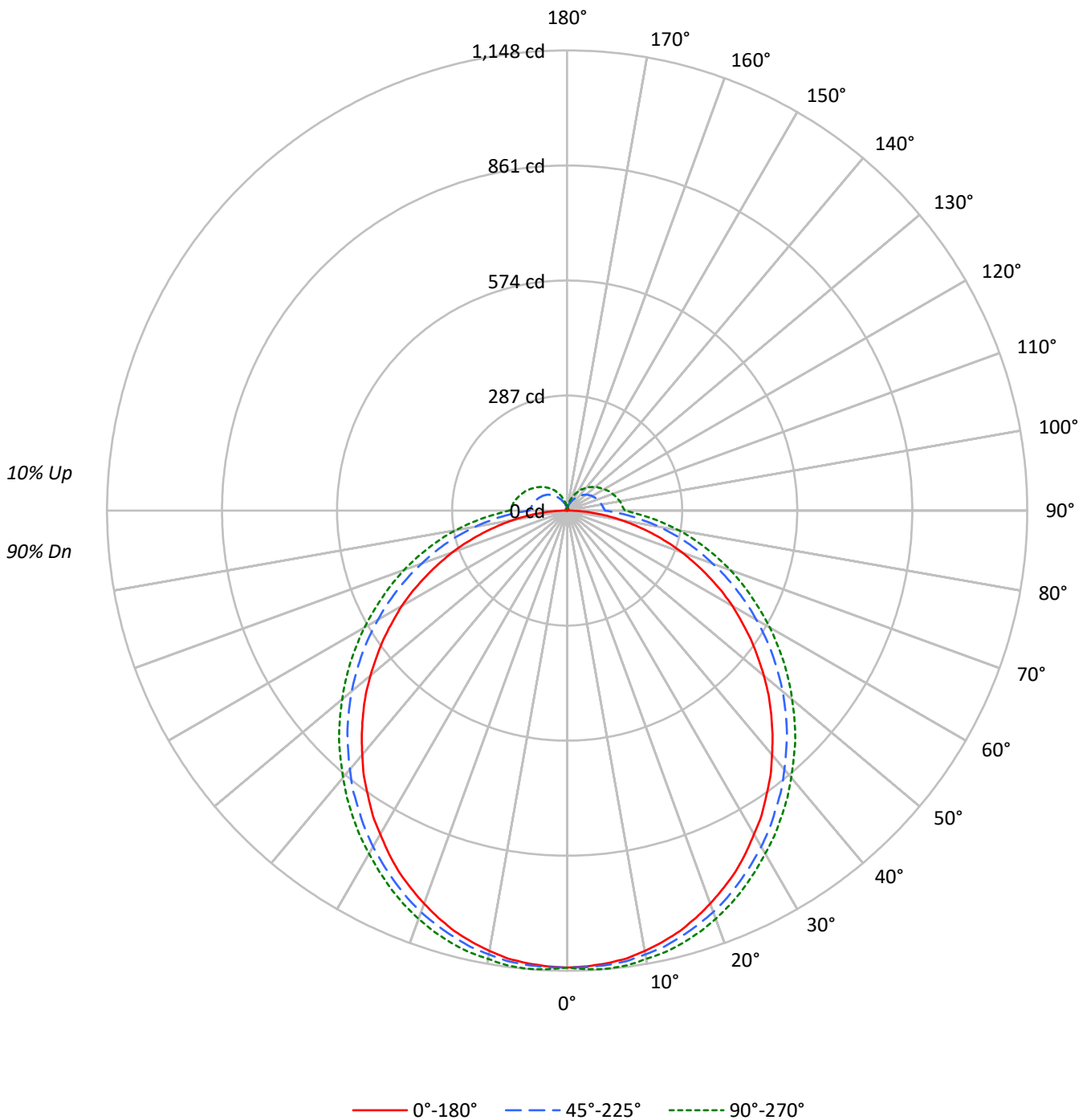
Lumens per Lamp: N/A
Luminaire Lumens: 3905.0 lumens
Efficiency: N/A
Efficacy: 121.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')
CIE Type: Direct

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

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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	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°	3068	3068	3068
5°	3054	3045	3066
10°	3032	3013	3037
15°	3000	2976	3010
20°	2955	2934	2969
25°	2908	2881	2919
30°	2845	2828	2865
35°	2786	2768	2816
40°	2723	2710	2765
45°	2657	2657	2723
50°	2586	2597	2670
55°	2510	2531	2626
60°	2431	2462	2585
65°	2323	2397	2546
70°	2206	2330	2534
75°	2034	2280	2527
80°	1828	2223	2558
85°	1447	2184	2643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	2.8
10°-20°	310.0	7.9
20°-30°	468.3	12.0
30°-40°	564.4	14.5
40°-50°	591.9	15.2
50°-60°	551.7	14.1
60°-70°	454.0	11.6
70°-80°	317.3	8.1
80°-90°	165.0	4.2
90°-100°	89.7	2.3
100°-110°	80.7	2.1
110°-120°	68.6	1.8
120°-130°	54.4	1.4
130°-140°	39.0	1.0
140°-150°	24.3	0.6
150°-160°	12.4	0.3
160°-170°	4.5	0.1
170°-180°	0.8	0.0
0°-30°	886.4	22.7
0°-40°	1450.8	37.2
0°-60°	2594.4	66.4
0°-90°	3530.7	90.4
90°-120°	239.0	6.1
90°-150°	356.7	9.1
90°-180°	374.0	9.6
0°-180°	3905.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1140	1140	1140	1140	1140	
5°	1134	1124	1138	1136	1148	108
15°	1086	1080	1100	1103	1117	306
25°	994	994	1020	1026	1040	457
35°	866	875	908	920	932	543
45°	720	738	775	792	805	556
55°	559	583	625	648	660	499
65°	389	420	466	496	507	386
75°	218	260	310	344	356	232
85°	64	108	160	195	208	68
90°	1	44	94	132	144	4
95°	1	41	90	126	138	1
105°	1	38	84	117	127	2
115°	2	36	76	105	114	2
125°	3	32	67	92	99	3
135°	3	26	55	77	83	3
145°	4	19	40	59	65	3
155°	5	14	26	39	44	2
165°	5	10	15	20	24	2
175°	5	6	7	6	7	1
180°	5	5	5	5	5	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1
2.5°	1138.0	1143.3	1136.9	1139.0	1132.7	1128.4	1146.5	1134.8	1135.9	1146.5	1140.1
5°	1133.7	1139.0	1132.7	1134.8	1129.5	1124.2	1143.3	1132.7	1133.7	1143.3	1138.0
7.5°	1127.4	1131.6	1125.3	1127.4	1123.1	1117.8	1135.9	1127.4	1128.4	1136.9	1133.7
10°	1115.7	1120.0	1116.8	1117.8	1113.6	1108.3	1127.4	1116.8	1118.9	1128.4	1124.2
12.5°	1101.9	1107.2	1101.9	1104.0	1100.9	1095.6	1113.6	1105.1	1107.2	1116.8	1114.7
15°	1086.0	1089.2	1086.0	1088.1	1085.0	1079.7	1097.7	1091.3	1093.4	1103.0	1099.8
17.5°	1065.9	1070.1	1066.9	1070.1	1066.9	1061.6	1079.7	1073.3	1075.4	1086.0	1083.9
20°	1043.6	1048.9	1044.7	1048.9	1045.7	1041.5	1059.5	1054.2	1056.3	1066.9	1065.9
22.5°	1019.2	1024.5	1020.3	1023.4	1023.4	1019.2	1036.2	1033.0	1035.1	1044.7	1044.7
25°	993.8	996.9	994.8	998.0	996.9	993.8	1010.7	1008.6	1009.7	1018.1	1020.3
27.5°	964.1	969.4	966.2	970.4	969.4	967.2	983.1	981.0	984.2	993.8	994.8
30°	932.2	937.5	935.4	940.7	939.7	937.5	954.5	953.4	955.6	964.1	968.3
32.5°	902.5	904.7	904.7	908.9	910.0	907.8	923.8	923.8	926.9	934.4	939.7
35°	866.5	871.8	869.7	878.1	877.1	875.0	890.9	891.9	895.1	903.6	907.8
37.5°	833.6	835.7	835.7	843.1	845.3	842.1	855.9	860.1	863.3	870.7	878.1
40°	795.4	799.7	799.7	808.2	810.3	808.2	823.0	827.2	830.4	838.9	843.1
42.5°	758.3	761.5	763.6	771.0	775.3	773.2	786.9	792.2	795.4	805.0	809.2
45°	720.1	723.3	724.4	733.9	738.2	738.2	749.8	757.2	761.5	768.9	775.3
47.5°	681.9	683.0	686.2	694.7	701.0	701.0	712.7	719.1	724.4	731.8	738.2
50°	640.6	642.7	646.9	656.5	661.8	661.8	673.5	681.9	687.2	694.7	702.1
52.5°	599.2	602.4	606.6	616.2	622.6	623.6	633.2	643.8	646.9	655.4	662.9
55°	558.9	561.0	566.3	576.9	583.3	583.3	595.0	604.5	609.8	617.2	624.7
57.5°	516.5	519.7	525.0	535.6	541.9	543.0	553.6	563.2	569.5	576.9	585.4
60°	476.2	476.2	482.6	495.3	501.6	503.8	512.3	522.9	529.2	536.6	545.1
62.5°	433.8	433.8	441.2	451.8	459.2	461.3	473.0	482.6	488.9	496.3	505.9
65°	389.2	392.4	398.8	410.4	418.9	420.0	428.5	440.1	448.6	456.0	465.6
67.5°	346.8	351.0	355.3	367.0	376.5	378.6	388.2	399.8	407.3	414.7	426.3
70°	304.4	308.6	313.9	325.6	334.1	339.4	346.8	358.5	367.0	375.4	386.0
72.5°	262.0	266.2	271.5	284.2	293.8	299.1	306.5	320.3	327.7	336.2	347.9
75°	218.5	221.7	230.1	242.9	253.5	259.8	266.2	278.9	288.5	297.0	309.7
77.5°	176.1	181.4	188.8	201.5	212.1	217.4	224.8	240.7	249.2	259.8	271.5
80°	138.9	142.1	149.5	162.3	172.9	180.3	186.7	201.5	210.0	220.6	233.3
82.5°	100.8	105.0	112.4	125.1	137.9	144.2	149.5	164.4	173.9	184.5	195.1
85°	63.6	68.9	76.4	89.1	101.8	108.2	114.5	127.3	138.9	148.5	160.1
87.5°	29.7	35.0	43.5	55.1	66.8	74.2	79.5	93.3	103.9	114.5	125.1
90°	1.1	5.3	13.8	25.5	38.2	43.5	49.8	62.6	73.2	83.8	94.4
92.5°	0.0	4.2	12.7	24.4	36.1	42.4	47.7	60.5	71.1	81.7	92.3
95°	1.1	4.2	12.7	23.3	35.0	41.4	46.7	59.4	70.0	80.6	90.1
97.5°	1.1	4.2	12.7	23.3	35.0	40.3	46.7	58.3	68.9	79.5	89.1
100°	1.1	4.2	12.7	23.3	33.9	40.3	45.6	57.3	67.9	77.4	87.0
102.5°	1.1	4.2	12.7	22.3	33.9	39.2	44.5	56.2	66.8	76.4	85.9
105°	1.1	5.3	12.7	22.3	32.9	38.2	44.5	55.1	64.7	74.2	83.8
107.5°	2.1	5.3	12.7	22.3	32.9	38.2	43.5	54.1	63.6	73.2	81.7
110°	2.1	5.3	12.7	21.2	31.8	37.1	42.4	53.0	62.6	71.1	80.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2.1	5.3	12.7	21.2	31.8	37.1	41.4	52.0	61.5	70.0	78.5
115°	2.1	5.3	11.7	21.2	30.8	36.1	40.3	50.9	59.4	67.9	76.4
117.5°	2.1	5.3	11.7	20.2	29.7	35.0	39.2	49.8	58.3	65.8	74.2
120°	3.2	5.3	11.7	20.2	28.6	33.9	38.2	47.7	56.2	64.7	72.1
122.5°	3.2	6.4	11.7	19.1	28.6	32.9	37.1	46.7	54.1	62.6	70.0
125°	3.2	6.4	11.7	19.1	27.6	31.8	36.1	44.5	53.0	60.5	66.8
127.5°	3.2	6.4	11.7	18.0	26.5	29.7	33.9	42.4	50.9	57.3	64.7
130°	3.2	6.4	10.6	17.0	24.4	28.6	31.8	40.3	47.7	55.1	61.5
132.5°	3.2	6.4	10.6	17.0	23.3	26.5	30.8	38.2	45.6	52.0	58.3
135°	3.2	5.3	9.5	15.9	22.3	25.5	28.6	36.1	42.4	48.8	55.1
137.5°	3.2	5.3	9.5	14.8	20.2	23.3	26.5	32.9	39.2	45.6	50.9
140°	4.2	5.3	9.5	13.8	19.1	22.3	24.4	30.8	36.1	41.4	47.7
142.5°	4.2	5.3	8.5	12.7	18.0	20.2	22.3	28.6	33.9	38.2	43.5
145°	4.2	5.3	8.5	12.7	17.0	19.1	21.2	26.5	30.8	35.0	40.3
147.5°	4.2	5.3	8.5	11.7	15.9	18.0	19.1	24.4	28.6	31.8	36.1
150°	5.3	6.4	8.5	11.7	14.8	15.9	18.0	22.3	25.5	29.7	32.9
152.5°	5.3	6.4	8.5	10.6	13.8	14.8	17.0	20.2	23.3	26.5	29.7
155°	5.3	6.4	7.4	9.5	12.7	13.8	15.9	18.0	21.2	23.3	26.5
157.5°	5.3	6.4	7.4	9.5	11.7	12.7	13.8	17.0	19.1	21.2	23.3
160°	5.3	6.4	7.4	8.5	10.6	11.7	12.7	14.8	17.0	19.1	20.2
162.5°	5.3	6.4	7.4	8.5	9.5	10.6	11.7	12.7	14.8	15.9	18.0
165°	5.3	6.4	6.4	7.4	9.5	9.5	10.6	11.7	12.7	13.8	14.8
167.5°	5.3	5.3	6.4	7.4	8.5	8.5	9.5	10.6	11.7	11.7	12.7
170°	5.3	5.3	6.4	6.4	7.4	7.4	8.5	8.5	9.5	10.6	10.6
172.5°	5.3	5.3	6.4	6.4	6.4	7.4	7.4	7.4	8.5	8.5	8.5
175°	5.3	5.3	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	7.4
177.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
180°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1	1140.1
2.5°	1141.2	1143.3	1144.4	1141.2	1136.9	1140.1	1145.4	1139.0	1133.7	1145.4
5°	1139.0	1141.2	1141.2	1139.0	1135.9	1139.0	1144.4	1139.0	1133.7	1147.5
7.5°	1134.8	1135.9	1135.9	1133.7	1131.6	1135.9	1141.2	1135.9	1130.6	1144.4
10°	1127.4	1128.4	1128.4	1127.4	1124.2	1127.4	1132.7	1128.4	1123.1	1135.9
12.5°	1116.8	1117.8	1118.9	1116.8	1114.7	1120.0	1124.2	1118.9	1113.6	1128.4
15°	1103.0	1105.1	1105.1	1106.2	1103.0	1108.3	1112.5	1108.3	1103.0	1116.8
17.5°	1087.1	1089.2	1090.3	1090.3	1088.1	1092.4	1096.6	1092.4	1088.1	1101.9
20°	1068.0	1068.0	1071.2	1071.2	1070.1	1075.4	1079.7	1074.4	1070.1	1083.9
22.5°	1047.8	1047.8	1048.9	1048.9	1048.9	1054.2	1059.5	1054.2	1050.0	1063.7
25°	1022.4	1023.4	1024.5	1027.7	1025.6	1030.9	1036.2	1030.9	1025.6	1040.4
27.5°	998.0	998.0	999.1	1002.2	1001.2	1006.5	1010.7	1005.4	1002.2	1015.0
30°	971.5	971.5	972.5	975.7	975.7	981.0	984.2	978.9	976.8	988.4
32.5°	942.8	942.8	943.9	948.1	948.1	952.4	956.6	952.4	950.3	961.9
35°	911.0	912.1	914.2	918.5	919.5	923.8	928.0	923.8	920.6	932.2
37.5°	880.3	880.3	881.3	887.7	888.8	894.1	898.3	894.1	890.9	902.5
40°	847.4	847.4	849.5	855.9	858.0	861.2	866.5	862.2	859.1	869.7
42.5°	813.5	814.5	817.7	823.0	825.1	829.4	833.6	830.4	826.2	836.8
45°	778.5	780.6	782.7	790.1	792.2	795.4	800.7	796.5	794.4	805.0
47.5°	743.5	743.5	746.6	755.1	757.2	759.4	764.7	762.5	759.4	768.9
50°	706.3	707.4	710.6	718.0	721.2	723.3	729.7	727.5	724.4	732.9
52.5°	668.2	669.2	674.5	681.9	685.1	688.3	693.6	692.5	688.3	696.8
55°	630.0	632.1	638.5	645.9	648.0	651.2	657.6	654.4	654.4	659.7
57.5°	590.7	593.9	600.3	607.7	609.8	613.0	619.4	617.2	616.2	621.5
60°	551.5	555.7	562.1	569.5	573.8	574.8	582.3	581.2	579.1	584.4
62.5°	513.3	517.6	523.9	532.4	534.5	537.7	545.1	543.0	541.9	545.1
65°	473.0	477.3	485.7	494.2	496.3	499.5	507.0	504.8	502.7	507.0
67.5°	433.8	440.1	446.5	455.0	458.2	460.3	468.8	467.7	465.6	469.8
70°	394.5	400.9	408.3	416.8	420.0	423.2	430.6	429.5	429.5	432.7
72.5°	356.4	362.7	371.2	379.7	383.9	385.0	391.3	391.3	392.4	394.5
75°	318.2	324.5	333.0	341.5	343.6	347.9	354.2	353.2	354.2	356.4
77.5°	280.0	287.4	295.9	304.4	307.6	308.6	316.0	316.0	317.1	320.3
80°	242.9	250.3	258.8	267.3	270.4	270.4	277.9	278.9	280.0	282.1
82.5°	204.7	212.1	220.6	229.1	233.3	235.4	241.8	241.8	242.9	245.0
85°	168.6	175.0	184.5	192.0	195.1	197.3	203.6	204.7	205.7	207.9
87.5°	133.6	142.1	149.5	158.0	161.2	163.3	168.6	169.7	171.8	172.9
90°	103.9	112.4	120.9	128.3	131.5	133.6	140.0	142.1	143.2	144.2
92.5°	101.8	110.3	117.7	125.1	128.3	130.4	135.8	137.9	140.0	140.0
95°	100.8	108.2	115.6	124.1	126.2	128.3	133.6	135.8	137.9	137.9
97.5°	98.6	106.1	114.5	122.0	124.1	127.3	131.5	133.6	135.8	135.8
100°	96.5	105.0	112.4	119.8	122.0	124.1	129.4	131.5	133.6	133.6
102.5°	94.4	102.9	110.3	116.7	119.8	122.0	126.2	128.3	130.4	130.4
105°	93.3	100.8	108.2	114.5	116.7	118.8	124.1	126.2	128.3	127.3
107.5°	91.2	97.6	105.0	112.4	114.5	116.7	120.9	123.0	125.1	124.1
110°	89.1	95.5	102.9	109.2	111.4	113.5	117.7	119.8	122.0	120.9



TEST NUMBER: P288457

CATALOG NUMBER: 4WNLED-LD4-40SL-F-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	87.0	93.3	99.7	106.1	108.2	110.3	114.5	116.7	118.8	117.7
115°	83.8	90.1	97.6	102.9	105.0	107.1	111.4	113.5	114.5	114.5
117.5°	81.7	88.0	94.4	100.8	101.8	103.9	107.1	109.2	111.4	110.3
120°	79.5	84.8	91.2	96.5	98.6	100.8	103.9	106.1	107.1	107.1
122.5°	76.4	82.7	88.0	93.3	95.5	96.5	100.8	101.8	103.9	102.9
125°	74.2	79.5	84.8	90.1	92.3	93.3	96.5	98.6	99.7	98.6
127.5°	71.1	76.4	81.7	87.0	88.0	90.1	92.3	94.4	95.5	95.5
130°	67.9	73.2	78.5	83.8	84.8	85.9	89.1	90.1	91.2	91.2
132.5°	64.7	70.0	75.3	79.5	80.6	82.7	84.8	87.0	88.0	87.0
135°	61.5	65.8	71.1	75.3	77.4	78.5	80.6	81.7	83.8	82.7
137.5°	57.3	62.6	66.8	71.1	73.2	74.2	76.4	77.4	78.5	78.5
140°	54.1	58.3	63.6	67.9	68.9	70.0	72.1	73.2	74.2	74.2
142.5°	49.8	54.1	58.3	62.6	64.7	65.8	67.9	68.9	70.0	68.9
145°	45.6	48.8	54.1	58.3	59.4	60.5	63.6	64.7	64.7	64.7
147.5°	41.4	44.5	48.8	53.0	55.1	56.2	58.3	59.4	60.5	60.5
150°	37.1	40.3	44.5	47.7	49.8	50.9	54.1	54.1	55.1	55.1
152.5°	32.9	36.1	39.2	43.5	44.5	46.7	48.8	49.8	49.8	49.8
155°	29.7	31.8	35.0	38.2	39.2	40.3	43.5	44.5	45.6	44.5
157.5°	25.5	28.6	30.8	32.9	33.9	35.0	38.2	39.2	40.3	40.3
160°	22.3	24.4	26.5	28.6	28.6	30.8	32.9	33.9	35.0	33.9
162.5°	19.1	20.2	22.3	23.3	24.4	25.5	27.6	28.6	29.7	29.7
165°	17.0	17.0	18.0	19.1	20.2	21.2	22.3	23.3	24.4	24.4
167.5°	13.8	14.8	14.8	15.9	15.9	17.0	17.0	19.1	20.2	20.2
170°	11.7	11.7	11.7	12.7	12.7	12.7	12.7	13.8	15.9	15.9
172.5°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	10.6	10.6	11.7
175°	7.4	7.4	7.4	7.4	6.4	7.4	6.4	6.4	7.4	7.4
177.5°	5.3	5.3	5.3	5.3	5.3	5.3	4.2	4.2	4.2	4.2
180°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3

(END OF REPORT)