

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: IRiS

Report Number: P108840

Luminaire Tested: **PN3LED12FL40830-E3LWWH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P108840  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13686)  
Test Lab: PEACHTREE CITY  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: IRiS  
Catalog Number: PN3LED12FL40830-E3LWWH  
Description: IRIS 3 INCH LED LENSED WALL WASH FIXTURE WITH  
SEMI SPECULAR CLEAR OPTICAL ELEMENT  
AND 40 DEGREE PRIMARY OPTIC, 20 DEGREE AIMING ANGLE  
Light Source: (1) 3000K 80CRI LED  
Ballast/Driver: (1) 450mA ELECTRONIC DRIVER

**Summary**

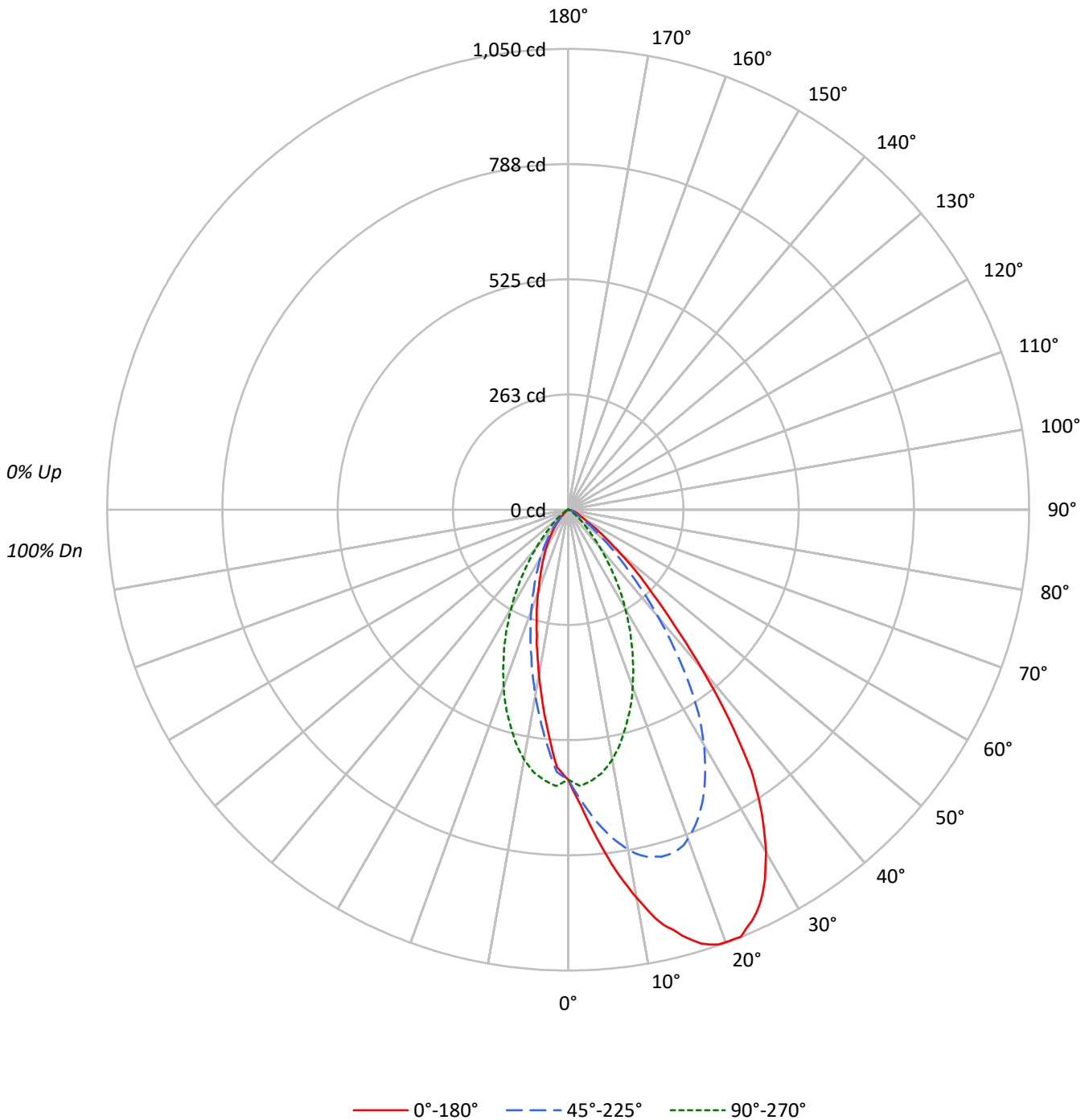
Lumens per Lamp: N/A  
Luminaire Lumens: 732.7 lumens  
Efficiency: N/A  
Efficacy: 39.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.82 / 0.99  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

Input Watts (W): 18.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P108840  
CATALOG NUMBER: PN3LED12FL40830-E3LWWH

### Luminous Intensity Polar Plot





TEST NUMBER: P108840

CATALOG NUMBER: PN3LED12FL40830-E3LWWH

**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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	103	102	100	100	98	97	96	95	94	92					92			
2	106	101	96	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84					84			
3	100	93	88	83	98	92	87	82	89	85	81	86	83	80	84	81	79	77					77			
4	94	86	80	75	93	85	79	75	83	78	74	81	76	73	79	75	72	70					70			
5	89	80	73	68	87	79	73	68	77	72	67	75	70	67	73	69	66	65					65			
6	84	74	67	63	82	73	67	62	72	66	62	70	65	61	69	64	61	59					59			
7	79	69	62	58	78	68	62	57	67	61	57	66	61	57	64	60	56	55					55			
8	75	64	58	53	74	64	58	53	63	57	53	62	56	53	61	56	52	51					51			
9	71	60	54	49	70	60	54	49	59	53	49	58	53	49	57	52	49	47					47			
10	67	57	50	46	66	56	50	46	55	50	46	54	49	46	54	49	46	44					44			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	99095	99095	99095
5°	121564	100120	82865
10°	146952	94587	62622
15°	167621	84978	46567
20°	179810	73498	34357
25°	180229	61149	25171
30°	167666	48218	18361
35°	143137	35499	12941
40°	99391	24122	8391
45°	62245	14308	4306
50°	39224	8747	2506
55°	22976	5028	1124
60°	13178	2578	644
65°	10254	2668	1525
70°	8432	942	471
75°	6847	622	0
80°	5567	928	0
85°	1848	0	0



TEST NUMBER: P108840

CATALOG NUMBER: PN3LED12FL40830-E3LWWH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.2	8.1
10°-20°	161.3	22.0
20°-30°	208.6	28.5
30°-40°	175.4	23.9
40°-50°	86.3	11.8
50°-60°	28.0	3.8
60°-70°	9.2	1.3
70°-80°	3.9	0.5
80°-90°	0.8	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	429.1	58.6
0°-40°	604.5	82.5
0°-60°	718.8	98.1
0°-90°	732.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	732.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	615	615	615	615	615	
5°	752	711	619	540	512	76
15°	1005	818	510	329	279	285
25°	1014	727	344	178	142	461
35°	728	476	180	84	66	440
45°	273	189	63	27	19	221
55°	82	55	18	7	4	76
65°	27	15	7	2	4	27
75°	11	5	1	1	0	12
85°	1	0	0	0	0	2
90°	0	0	0	0	0	



TEST NUMBER: P108840

CATALOG NUMBER: PN3LED12FL40830-E3LWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1
2.5°	675.9	675.9	675.9	674.0	673.0	671.0	669.0	667.0	665.0	662.0	659.0
5°	751.7	752.7	750.7	748.7	743.7	738.8	732.8	726.8	718.8	710.8	703.9
7.5°	828.5	826.5	823.5	818.5	812.5	802.6	792.6	779.6	766.7	752.7	736.8
10°	898.3	896.3	891.3	883.3	873.3	860.4	844.4	826.5	807.5	786.6	764.7
11°	924.2	920.2	916.2	907.2	896.3	879.3	864.4	842.4	820.5	797.6	771.7
12°	951.1	946.1	941.1	930.2	916.2	898.3	880.3	856.4	831.5	805.6	777.6
13°	972.0	969.1	961.1	949.1	935.2	915.2	893.3	868.4	840.4	812.5	782.6
14°	986.0	984.0	977.0	965.1	947.1	927.2	904.3	876.3	845.4	814.5	781.6
15°	1005.0	1003.0	995.0	981.0	964.1	941.1	915.2	885.3	852.4	818.5	782.6
16°	1019.9	1017.9	1008.9	997.0	973.0	949.1	922.2	888.3	854.4	818.5	779.6
17°	1033.9	1030.9	1020.9	1004.0	982.0	958.1	927.2	894.3	856.4	817.5	776.6
18°	1041.8	1037.9	1027.9	1011.9	990.0	962.1	929.2	894.3	855.4	813.5	771.7
19°	1047.8	1042.8	1031.9	1014.9	992.0	962.1	928.2	890.3	849.4	808.5	763.7
20°	1048.8	1045.8	1034.9	1015.9	991.0	960.1	925.2	885.3	843.4	797.6	752.7
21°	1048.8	1043.8	1031.9	1012.9	987.0	955.1	918.2	877.3	832.5	786.6	741.7
22°	1049.8	1039.8	1030.9	1009.9	981.0	948.1	910.2	867.4	821.5	774.6	727.8
23°	1036.9	1031.9	1018.9	999.0	970.1	936.2	898.3	852.4	808.5	759.7	710.8
24°	1026.9	1025.9	1009.9	989.0	958.1	924.2	884.3	840.4	793.6	743.7	694.9
25°	1013.9	1008.9	995.0	973.0	944.1	908.2	868.4	822.5	775.6	726.8	675.9
26°	997.0	992.0	979.0	956.1	927.2	891.3	851.4	805.6	757.7	706.9	658.0
27°	977.0	971.1	958.1	937.2	905.3	869.4	829.5	784.6	736.8	686.9	636.1
28°	954.1	949.1	935.2	912.2	882.3	847.4	806.6	760.7	713.8	664.0	614.1
29°	927.2	922.2	910.2	887.3	859.4	824.5	781.6	736.8	690.9	642.1	593.2
30°	901.3	898.3	886.3	863.4	832.5	798.6	756.7	713.8	667.0	618.1	569.3
32.5°	821.5	816.5	805.6	784.6	756.7	722.8	684.9	643.0	598.2	553.3	507.5
35°	727.8	719.8	706.9	687.9	661.0	630.1	595.2	556.3	517.4	475.6	434.7
37.5°	600.2	597.2	586.2	569.3	549.3	521.4	495.5	462.6	428.7	394.8	360.9
40°	472.6	468.6	461.6	449.6	435.7	417.7	394.8	369.9	345.0	318.0	292.1
42.5°	358.9	357.9	351.9	345.0	334.0	320.0	304.1	286.1	269.2	249.2	228.3
45°	273.2	272.2	268.2	262.2	253.2	243.3	230.3	217.3	203.4	189.4	174.5
47.5°	213.4	208.4	205.4	199.4	192.4	183.4	175.5	164.5	154.5	142.6	130.6
50°	156.5	155.5	152.5	148.5	142.6	136.6	130.6	121.6	113.7	104.7	97.7
52.5°	111.7	113.7	111.7	107.7	105.7	98.7	94.7	88.7	82.7	75.8	68.8
55°	81.8	80.8	79.8	77.8	74.8	71.8	68.8	64.8	59.8	54.8	49.8
57.5°	52.8	51.8	52.8	49.8	47.9	47.9	42.9	40.9	35.9	32.9	31.9
60°	40.9	39.9	38.9	37.9	35.9	34.9	32.9	29.9	27.9	24.9	23.9
62.5°	31.9	31.9	30.9	29.9	28.9	26.9	25.9	23.9	21.9	19.9	16.9
65°	26.9	25.9	25.9	24.9	23.9	22.9	20.9	19.9	16.9	15.0	15.0
67.5°	22.9	19.9	20.9	18.9	17.9	17.9	16.0	13.0	12.0	10.0	10.0
70°	17.9	17.9	17.9	17.9	16.0	15.0	13.0	15.0	12.0	10.0	9.0
72.5°	16.0	15.0	16.0	16.0	14.0	13.0	12.0	12.0	9.0	8.0	8.0
75°	11.0	10.0	12.0	9.0	9.0	8.0	6.0	6.0	7.0	5.0	5.0
77.5°	7.0	7.0	7.0	7.0	6.0	6.0	6.0	4.0	4.0	3.0	2.0
80°	6.0	6.0	7.0	5.0	5.0	5.0	4.0	5.0	3.0	3.0	3.0



TEST NUMBER: P108840

CATALOG NUMBER: PN3LED12FL40830-E3LWWH

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
82.5°	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	1.0	1.0	2.0
85°	1.0	2.0	1.0	0.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P108840

CATALOG NUMBER: PN3LED12FL40830-E3LWWH

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	112.5°	135°	157.5°
0°	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1
2.5°	656.0	652.0	649.0	646.0	641.1	637.1	634.1	630.1	613.1	598.2	589.2
5°	692.9	682.9	673.0	661.0	652.0	641.1	630.1	619.1	575.3	540.4	519.4
7.5°	721.8	703.9	686.9	671.0	654.0	636.1	618.1	603.2	534.4	484.5	455.6
10°	741.7	716.8	693.9	670.0	646.0	622.1	599.2	578.2	491.5	429.7	393.8
11°	745.7	718.8	692.9	666.0	640.1	615.1	589.2	565.3	472.6	407.8	371.9
12°	749.7	720.8	691.9	662.0	633.1	605.2	580.2	553.3	455.6	387.8	349.9
13°	750.7	718.8	687.9	656.0	626.1	595.2	567.3	539.4	436.7	367.9	329.0
14°	746.7	712.8	678.9	645.0	614.1	582.2	551.3	523.4	415.7	346.0	307.1
15°	746.7	708.8	675.0	638.1	605.2	571.3	539.4	509.5	399.8	329.0	291.1
16°	741.7	702.9	666.0	629.1	592.2	557.3	523.4	493.5	380.8	312.1	274.2
17°	735.8	695.9	658.0	619.1	581.2	543.4	510.5	479.5	363.9	294.1	258.2
18°	728.8	686.9	646.0	606.2	566.3	529.4	495.5	463.6	347.9	278.2	240.3
19°	718.8	673.0	632.1	591.2	552.3	513.4	479.5	447.6	332.0	261.2	225.3
20°	706.9	662.0	619.1	575.3	535.4	497.5	462.6	428.7	314.0	245.3	210.4
21°	694.9	646.0	602.2	558.3	518.4	479.5	444.7	411.8	297.1	230.3	197.4
22°	678.9	632.1	587.2	543.4	502.5	463.6	429.7	395.8	282.1	217.3	184.4
23°	662.0	613.1	569.3	526.4	484.5	444.7	409.8	376.9	264.2	202.4	171.5
24°	645.0	597.2	550.3	507.5	465.6	428.7	393.8	360.9	251.2	189.4	159.5
25°	628.1	578.2	534.4	489.5	447.6	410.8	375.9	344.0	236.3	178.5	148.5
26°	609.2	558.3	515.4	471.6	429.7	392.8	358.9	326.0	223.3	166.5	140.6
27°	587.2	538.4	495.5	450.6	411.8	372.9	341.0	310.1	208.4	154.5	130.6
28°	566.3	519.4	474.6	430.7	392.8	354.9	323.0	292.1	195.4	144.6	120.6
29°	547.3	498.5	454.6	413.7	372.9	337.0	305.1	276.2	182.4	134.6	112.7
30°	523.4	476.6	433.7	392.8	354.9	320.0	287.1	259.2	170.5	126.6	105.7
32.5°	462.6	418.7	377.9	340.0	305.1	271.2	244.3	220.3	141.6	103.7	86.7
35°	392.8	353.9	321.0	287.1	255.2	227.3	202.4	180.5	112.7	83.7	69.8
37.5°	328.0	294.1	264.2	235.3	208.4	184.4	163.5	144.6	88.7	65.8	53.8
40°	266.2	238.3	212.4	189.4	168.5	146.6	129.6	114.7	68.8	51.8	43.9
42.5°	207.4	186.4	166.5	146.6	128.6	112.7	97.7	85.7	52.8	37.9	31.9
45°	158.5	141.6	125.6	111.7	95.7	82.7	71.8	62.8	38.9	26.9	20.9
47.5°	118.6	105.7	95.7	82.7	72.8	62.8	54.8	46.9	29.9	20.9	15.0
50°	86.7	78.8	68.8	58.8	50.8	44.9	39.9	34.9	21.9	13.0	8.0
52.5°	61.8	53.8	48.9	43.9	36.9	31.9	26.9	23.9	15.0	8.0	8.0
55°	43.9	38.9	34.9	30.9	24.9	21.9	19.9	17.9	11.0	7.0	5.0
57.5°	25.9	22.9	17.9	15.0	13.0	12.0	10.0	8.0	2.0	0.0	0.0
60°	20.9	17.9	16.9	14.0	12.0	11.0	10.0	8.0	5.0	3.0	3.0
62.5°	16.0	14.0	13.0	12.0	11.0	10.0	9.0	7.0	4.0	3.0	3.0
65°	13.0	12.0	10.0	9.0	8.0	7.0	5.0	7.0	3.0	2.0	1.0
67.5°	8.0	5.0	5.0	4.0	3.0	3.0	3.0	1.0	0.0	0.0	0.0
70°	8.0	7.0	8.0	5.0	5.0	4.0	3.0	2.0	2.0	0.0	0.0
72.5°	6.0	5.0	6.0	4.0	4.0	3.0	3.0	2.0	1.0	2.0	2.0
75°	5.0	4.0	4.0	2.0	3.0	2.0	0.0	1.0	2.0	1.0	1.0
77.5°	3.0	1.0	2.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	1.0
80°	3.0	3.0	2.0	2.0	1.0	2.0	4.0	1.0	1.0	1.0	2.0





TEST NUMBER: P108840

CATALOG NUMBER: PN3LED12FL40830-E3LWWH

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	112.5°	135°	157.5°
82.5°	1.0	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0
85°	2.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
87.5°	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P108840

CATALOG NUMBER: PN3LED12FL40830-E3LWWH

**CANDELA DISTRIBUTION (continued):**

	180°
0°	615.1
2.5°	587.2
5°	512.4
7.5°	444.7
10°	382.8
11°	358.9
12°	337.0
13°	318.0
14°	295.1
15°	279.2
16°	260.2
17°	245.3
18°	231.3
19°	214.3
20°	200.4
21°	186.4
22°	174.5
23°	161.5
24°	150.5
25°	141.6
26°	132.6
27°	122.6
28°	114.7
29°	106.7
30°	98.7
32.5°	80.8
35°	65.8
37.5°	50.8
40°	39.9
42.5°	28.9
45°	18.9
47.5°	14.0
50°	10.0
52.5°	5.0
55°	4.0
57.5°	0.0
60°	2.0
62.5°	3.0
65°	4.0
67.5°	0.0
70°	1.0
72.5°	1.0
75°	0.0
77.5°	0.0
80°	0.0



TEST NUMBER: P108840

CATALOG NUMBER: PN3LED12FL40830-E3LWWH

**CANDELA DISTRIBUTION (continued):**

	180°
82.5°	1.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)