

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: P108842

Luminaire Tested: **PN3LED12FL40840-E3LWWH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P108842  
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: PN3LED12FL40840-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) 4000K 80CRI LED  
Ballast/Driver: (1) 450mA ELECTRONIC DRIVER

**Summary**

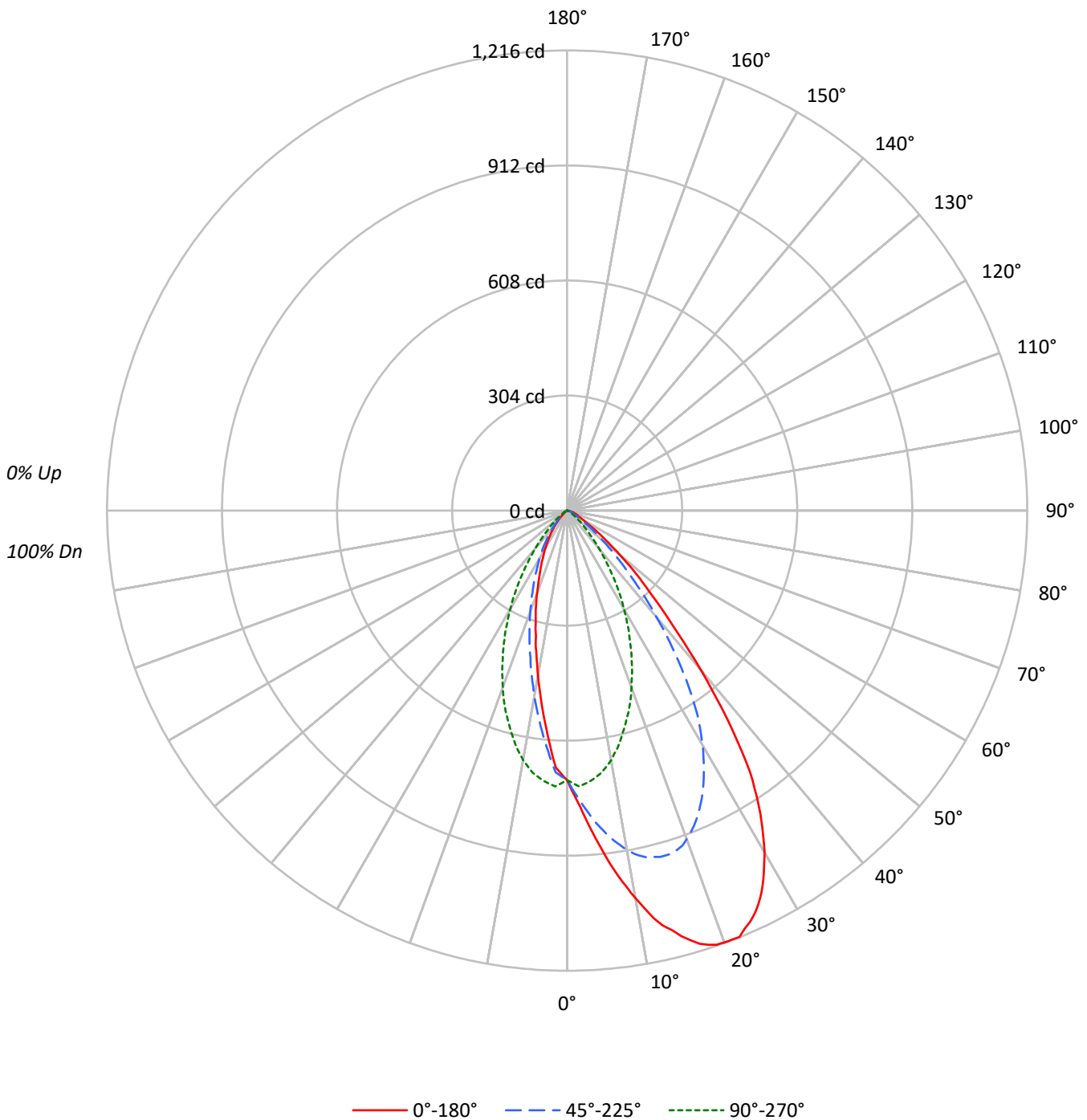
Lumens per Lamp: N/A  
Luminaire Lumens: 848.4 lumens  
Efficiency: N/A  
Efficacy: 45.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.82 / 0.99  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

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



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

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

	0°	90°	180°
0°	114754	114754	114754
5°	140777	115936	95964
10°	170165	109539	72519
15°	194090	98388	53922
20°	208218	85104	39792
25°	208706	70801	29135
30°	194156	55845	21263
35°	165755	41104	14986
40°	115079	27929	9716
45°	72064	16564	4990
50°	45440	10126	2882
55°	26599	5842	1292
60°	15240	2964	741
65°	11894	3088	1754
70°	9798	1083	565
75°	7905	747	0
80°	6402	1113	0
85°	2218	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	8.1
10°-20°	186.8	22.0
20°-30°	241.6	28.5
30°-40°	203.1	23.9
40°-50°	99.9	11.8
50°-60°	32.4	3.8
60°-70°	10.6	1.3
70°-80°	4.5	0.5
80°-90°	1.0	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°	496.9	58.6
0°-40°	700.0	82.5
0°-60°	832.3	98.1
0°-90°	848.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	848.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	712	712	712	712	712	
5°	870	823	717	626	593	88
15°	1164	948	590	381	323	329
25°	1174	842	398	207	164	534
35°	843	551	209	97	76	510
45°	316	219	73	31	22	256
55°	95	64	21	8	5	88
65°	31	17	8	2	5	32
75°	13	6	1	1	0	14
85°	1	0	0	0	0	2
90°	0	0	0	0	0	



TEST NUMBER: P108842

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	712.3	712.3	712.3	712.3	712.3	712.3	712.3	712.3	712.3	712.3	712.3
2.5°	782.7	782.7	782.7	780.4	779.3	777.0	774.7	772.3	770.0	766.6	763.1
5°	870.5	871.6	869.3	867.0	861.2	855.5	848.5	841.6	832.4	823.1	815.1
7.5°	959.4	957.1	953.6	947.8	940.9	929.4	917.8	902.8	887.8	871.6	853.2
10°	1040.2	1037.9	1032.1	1022.9	1011.3	996.3	977.8	957.1	935.1	910.9	885.5
11°	1070.2	1065.6	1061.0	1050.6	1037.9	1018.3	1000.9	975.5	950.1	923.6	893.6
12°	1101.4	1095.6	1089.8	1077.1	1061.0	1040.2	1019.4	991.7	962.8	932.8	900.5
13°	1125.6	1122.2	1112.9	1099.1	1082.9	1059.8	1034.4	1005.6	973.2	940.9	906.3
14°	1141.8	1139.5	1131.4	1117.5	1096.8	1073.7	1047.1	1014.8	979.0	943.2	905.1
15°	1163.7	1161.4	1152.2	1136.0	1116.4	1089.8	1059.8	1025.2	987.1	947.8	906.3
16°	1181.0	1178.7	1168.3	1154.5	1126.8	1099.1	1067.9	1028.6	989.4	947.8	902.8
17°	1197.2	1193.7	1182.2	1162.6	1137.2	1109.5	1073.7	1035.6	991.7	946.7	899.3
18°	1206.4	1201.8	1190.3	1171.8	1146.4	1114.1	1076.0	1035.6	990.5	942.1	893.6
19°	1213.4	1207.6	1194.9	1175.3	1148.7	1114.1	1074.8	1031.0	983.6	936.3	884.3
20°	1214.5	1211.1	1198.4	1176.4	1147.6	1111.8	1071.4	1025.2	976.7	923.6	871.6
21°	1214.5	1208.7	1194.9	1173.0	1142.9	1106.0	1063.3	1015.9	964.0	910.9	858.9
22°	1215.7	1204.1	1193.7	1169.5	1136.0	1097.9	1054.0	1004.4	951.3	897.0	842.8
23°	1200.7	1194.9	1179.9	1156.8	1123.3	1084.1	1040.2	987.1	936.3	879.7	823.1
24°	1189.1	1188.0	1169.5	1145.2	1109.5	1070.2	1024.0	973.2	919.0	861.2	804.7
25°	1174.1	1168.3	1152.2	1126.8	1093.3	1051.7	1005.6	952.4	898.2	841.6	782.7
26°	1154.5	1148.7	1133.7	1107.1	1073.7	1032.1	985.9	932.8	877.4	818.5	762.0
27°	1131.4	1124.5	1109.5	1085.2	1048.3	1006.7	960.5	908.6	853.2	795.4	736.6
28°	1104.8	1099.1	1082.9	1056.4	1021.7	981.3	934.0	880.9	826.6	768.9	711.2
29°	1073.7	1067.9	1054.0	1027.5	995.2	954.8	905.1	853.2	800.1	743.5	686.9
30°	1043.7	1040.2	1026.3	999.8	964.0	924.7	876.3	826.6	772.3	715.8	659.2
32.5°	951.3	945.5	932.8	908.6	876.3	837.0	793.1	744.6	692.7	640.7	587.6
35°	842.8	833.5	818.5	796.6	765.4	729.6	689.2	644.2	599.2	550.7	503.4
37.5°	695.0	691.5	678.8	659.2	636.1	603.8	573.8	535.7	496.4	457.2	417.9
40°	547.2	542.6	534.5	520.7	504.5	483.7	457.2	428.3	399.5	368.3	338.3
42.5°	415.6	414.5	407.5	399.5	386.8	370.6	352.1	331.3	311.7	288.6	264.4
45°	316.3	315.2	310.6	303.6	293.2	281.7	266.7	251.7	235.5	219.4	202.0
47.5°	247.1	241.3	237.8	230.9	222.8	212.4	203.2	190.5	178.9	165.1	151.2
50°	181.3	180.1	176.6	172.0	165.1	158.2	151.2	140.8	131.6	121.2	113.1
52.5°	129.3	131.6	129.3	124.7	122.4	114.3	109.7	102.7	95.8	87.7	79.7
55°	94.7	93.5	92.4	90.0	86.6	83.1	79.7	75.0	69.3	63.5	57.7
57.5°	61.2	60.0	61.2	57.7	55.4	55.4	49.6	47.3	41.6	38.1	36.9
60°	47.3	46.2	45.0	43.9	41.6	40.4	38.1	34.6	32.3	28.9	27.7
62.5°	36.9	36.9	35.8	34.6	33.5	31.2	30.0	27.7	25.4	23.1	19.6
65°	31.2	30.0	30.0	28.9	27.7	26.6	24.2	23.1	19.6	17.3	17.3
67.5°	26.6	23.1	24.2	21.9	20.8	20.8	18.5	15.0	13.9	11.5	11.5
70°	20.8	20.8	20.8	20.8	18.5	17.3	15.0	17.3	13.9	11.5	10.4
72.5°	18.5	17.3	18.5	18.5	16.2	15.0	13.9	13.9	10.4	9.2	9.2
75°	12.7	11.5	13.9	10.4	10.4	9.2	6.9	6.9	8.1	5.8	5.8
77.5°	8.1	8.1	8.1	8.1	6.9	6.9	6.9	4.6	4.6	3.5	2.3
80°	6.9	6.9	8.1	5.8	5.8	5.8	4.6	5.8	3.5	3.5	3.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
82.5°	2.3	3.5	3.5	2.3	3.5	3.5	2.3	2.3	1.2	1.2	2.3
85°	1.2	2.3	1.2	0.0	3.5	1.2	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	1.2	1.2	0.0	1.2	1.2	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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	112.5°	135°	157.5°
0°	712.3	712.3	712.3	712.3	712.3	712.3	712.3	712.3	712.3	712.3	712.3
2.5°	759.6	755.0	751.6	748.1	742.3	737.7	734.3	729.6	710.0	692.7	682.3
5°	802.4	790.8	779.3	765.4	755.0	742.3	729.6	716.9	666.1	625.7	601.5
7.5°	835.8	815.1	795.4	777.0	757.3	736.6	715.8	698.5	618.8	561.1	527.6
10°	858.9	830.1	803.5	775.8	748.1	720.4	693.8	669.6	569.2	497.6	456.0
11°	863.6	832.4	802.4	771.2	741.2	712.3	682.3	654.6	547.2	472.2	430.6
12°	868.2	834.7	801.2	766.6	733.1	700.8	671.9	640.7	527.6	449.1	405.2
13°	869.3	832.4	796.6	759.6	725.0	689.2	656.9	624.6	505.7	426.0	381.0
14°	864.7	825.5	786.2	747.0	711.2	674.2	638.4	606.1	481.4	400.6	355.6
15°	864.7	820.8	781.6	738.9	700.8	661.5	624.6	589.9	462.9	381.0	337.1
16°	858.9	813.9	771.2	728.5	685.8	645.4	606.1	571.5	441.0	361.4	317.5
17°	852.0	805.8	762.0	716.9	673.1	629.2	591.1	555.3	421.4	340.6	299.0
18°	843.9	795.4	748.1	701.9	655.7	613.0	573.8	536.8	402.9	322.1	278.2
19°	832.4	779.3	731.9	684.6	639.6	594.6	555.3	518.4	384.4	302.5	260.9
20°	818.5	766.6	716.9	666.1	620.0	576.1	535.7	496.4	363.7	284.0	243.6
21°	804.7	748.1	697.3	646.5	600.3	555.3	514.9	476.8	344.0	266.7	228.6
22°	786.2	731.9	680.0	629.2	581.9	536.8	497.6	458.3	326.7	251.7	213.6
23°	766.6	710.0	659.2	609.6	561.1	514.9	474.5	436.4	305.9	234.4	198.6
24°	747.0	691.5	637.3	587.6	539.1	496.4	456.0	417.9	290.9	219.4	184.7
25°	727.3	669.6	618.8	566.9	518.4	475.6	435.2	398.3	273.6	206.7	172.0
26°	705.4	646.5	596.9	546.1	497.6	454.9	415.6	377.5	258.6	192.8	162.8
27°	680.0	623.4	573.8	521.8	476.8	431.8	394.8	359.0	241.3	178.9	151.2
28°	655.7	601.5	549.5	498.7	454.9	411.0	374.1	338.3	226.3	167.4	139.7
29°	633.8	577.2	526.4	479.1	431.8	390.2	353.3	319.8	211.3	155.9	130.5
30°	606.1	551.8	502.2	454.9	411.0	370.6	332.5	300.2	197.4	146.6	122.4
32.5°	535.7	484.9	437.5	393.7	353.3	314.0	282.8	255.1	163.9	120.1	100.4
35°	454.9	409.8	371.7	332.5	295.5	263.2	234.4	209.0	130.5	97.0	80.8
37.5°	379.8	340.6	305.9	272.5	241.3	213.6	189.3	167.4	102.7	76.2	62.3
40°	308.2	275.9	245.9	219.4	195.1	169.7	150.1	132.8	79.7	60.0	50.8
42.5°	240.1	215.9	192.8	169.7	148.9	130.5	113.1	99.3	61.2	43.9	36.9
45°	183.6	163.9	145.5	129.3	110.8	95.8	83.1	72.7	45.0	31.2	24.2
47.5°	137.4	122.4	110.8	95.8	84.3	72.7	63.5	54.3	34.6	24.2	17.3
50°	100.4	91.2	79.7	68.1	58.9	52.0	46.2	40.4	25.4	15.0	9.2
52.5°	71.6	62.3	56.6	50.8	42.7	36.9	31.2	27.7	17.3	9.2	9.2
55°	50.8	45.0	40.4	35.8	28.9	25.4	23.1	20.8	12.7	8.1	5.8
57.5°	30.0	26.6	20.8	17.3	15.0	13.9	11.5	9.2	2.3	0.0	0.0
60°	24.2	20.8	19.6	16.2	13.9	12.7	11.5	9.2	5.8	3.5	3.5
62.5°	18.5	16.2	15.0	13.9	12.7	11.5	10.4	8.1	4.6	3.5	3.5
65°	15.0	13.9	11.5	10.4	9.2	8.1	5.8	8.1	3.5	2.3	1.2
67.5°	9.2	5.8	5.8	4.6	3.5	3.5	3.5	1.2	0.0	0.0	0.0
70°	9.2	8.1	9.2	5.8	5.8	4.6	3.5	2.3	2.3	0.0	0.0
72.5°	6.9	5.8	6.9	4.6	4.6	3.5	3.5	2.3	1.2	2.3	2.3
75°	5.8	4.6	4.6	2.3	3.5	2.3	0.0	1.2	2.3	1.2	1.2
77.5°	3.5	1.2	2.3	1.2	1.2	1.2	1.2	0.0	0.0	0.0	1.2
80°	3.5	3.5	2.3	2.3	1.2	2.3	4.6	1.2	1.2	1.2	2.3





TEST NUMBER: P108842

CATALOG NUMBER: PN3LED12FL40840-E3LWWH

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	112.5°	135°	157.5°
82.5°	1.2	0.0	1.2	1.2	1.2	1.2	0.0	0.0	0.0	1.2	1.2
85°	2.3	0.0	0.0	3.5	0.0	0.0	0.0	0.0	1.2	0.0	1.2
87.5°	0.0	0.0	1.2	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



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**CANDELA DISTRIBUTION (continued):**

	180°
0°	712.3
2.5°	680.0
5°	593.4
7.5°	514.9
10°	443.3
11°	415.6
12°	390.2
13°	368.3
14°	341.7
15°	323.3
16°	301.3
17°	284.0
18°	267.8
19°	248.2
20°	232.1
21°	215.9
22°	202.0
23°	187.0
24°	174.3
25°	163.9
26°	153.5
27°	142.0
28°	132.8
29°	123.5
30°	114.3
32.5°	93.5
35°	76.2
37.5°	58.9
40°	46.2
42.5°	33.5
45°	21.9
47.5°	16.2
50°	11.5
52.5°	5.8
55°	4.6
57.5°	0.0
60°	2.3
62.5°	3.5
65°	4.6
67.5°	0.0
70°	1.2
72.5°	1.2
75°	0.0
77.5°	0.0
80°	0.0



TEST NUMBER: P108842

CATALOG NUMBER: PN3LED12FL40840-E3LWWH

**CANDELA DISTRIBUTION (continued):**

	180°
82.5°	1.2
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)