

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: PORTFOLIO

Report Number: P840147

Luminaire Tested: **LD4C20D010 EU4209050 4LBCSSQMW**

Issue Date: 5/25/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P840147  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/25/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C20D010 EU4209050 4LBCSSQMW  
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

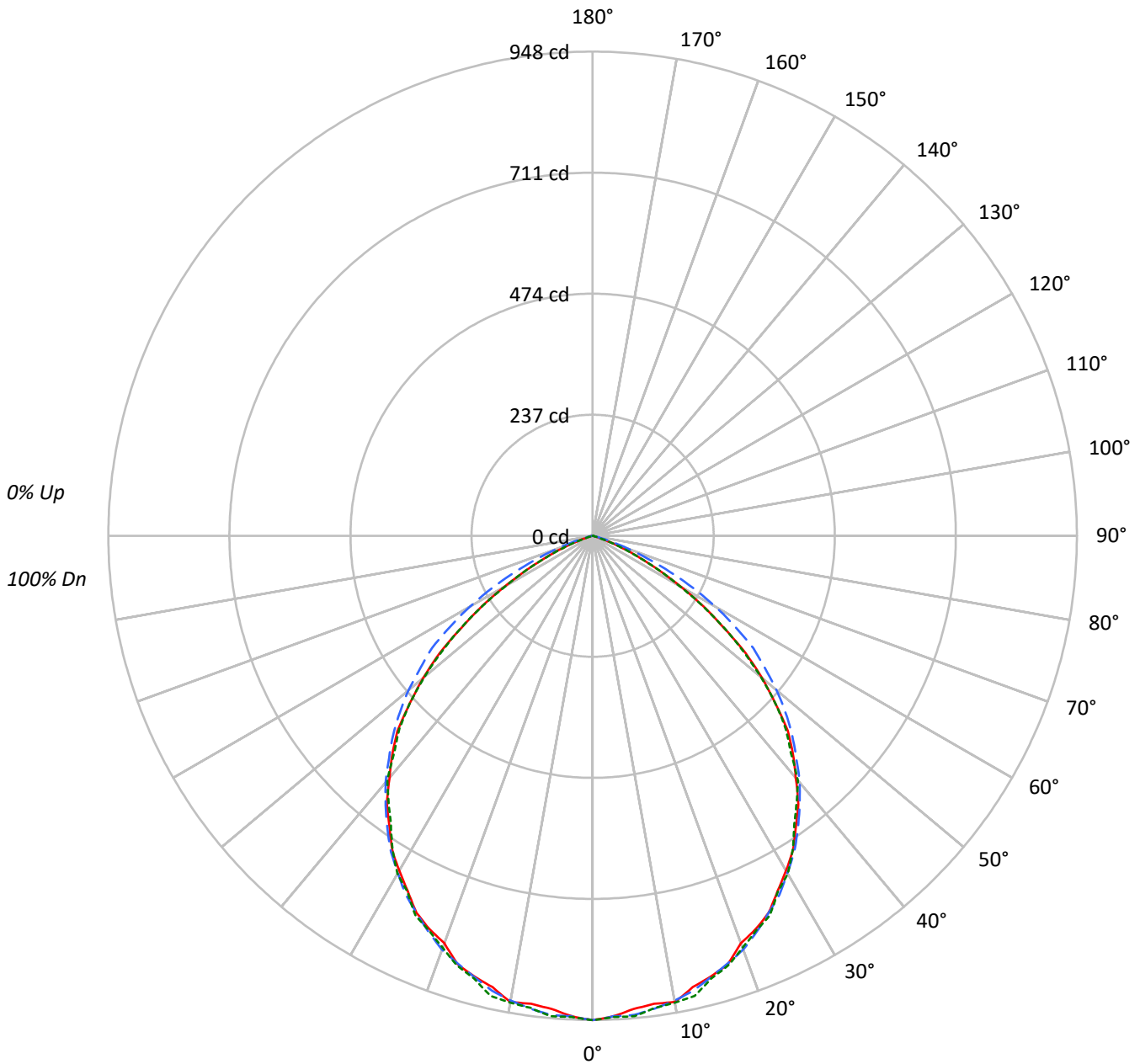
Lumens per Lamp: N/A  
Luminaire Lumens: 2026.0 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.8  
Input Voltage (V):  
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: P840147

CATALOG NUMBER: LD4C20D010 EU4209050 4LBCSSQMW

### Luminous Intensity Polar Plot





TEST NUMBER: P840147

CATALOG NUMBER: LD4C20D010 EU4209050 4LBCSSQMW

**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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89								
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77								
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67								
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59								
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52								
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46								
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33								
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31								

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

	0°	45°	90°
0°	91510	91510	91510
5°	90039	91211	91472
10°	90815	90551	90943
15°	89224	89354	89624
20°	87146	88532	88121
25°	86768	86768	87343
30°	84353	84955	85111
35°	81724	82513	81087
40°	77892	79416	78736
45°	73713	75378	72977
50°	64923	70582	64517
55°	52570	64581	52805
60°	38480	53551	37689
65°	23379	38128	22763
70°	9112	20538	8746
75°	1007	5518	1007
80°	778	778	778
85°	0	0	0



TEST NUMBER: P840147

CATALOG NUMBER: LD4C20D010 EU4209050 4LBCSSQMW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.5	4.4
10°-20°	253.3	12.5
20°-30°	375.9	18.6
30°-40°	435.5	21.5
40°-50°	417.6	20.6
50°-60°	307.0	15.2
60°-70°	132.6	6.5
70°-80°	14.3	0.7
80°-90°	0.2	0.0
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°	718.7	35.5
0°-40°	1154.3	57.0
0°-60°	1878.9	92.7
0°-90°	2026.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2026.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	930	939	942	943	944	89
15°	893	899	894	896	897	252
25°	815	814	815	816	820	373
35°	694	698	700	699	688	434
45°	540	542	552	544	535	411
55°	312	345	384	344	314	281
65°	102	128	167	127	100	105
75°	3	4	15	3	3	8
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P840147

CATALOG NUMBER: LD4C20D010 EU4209050 4LBCSSQMW

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	948.4	948.4	948.4	948.4	948.4	948.4	948.4	948.4	948.4	948.4	948.4
2.5°	941.7	952.4	953.8	947.1	944.4	940.4	949.8	943.0	945.7	943.0	941.7
5°	929.6	941.7	943.0	943.0	940.4	939.0	943.0	941.7	940.4	937.7	941.7
7.5°	924.2	930.9	937.7	929.6	933.6	932.3	941.7	937.7	936.3	936.3	933.6
10°	926.9	925.5	930.9	922.8	925.5	922.8	930.9	930.9	928.2	925.5	924.2
12.5°	905.3	916.1	916.1	914.7	912.0	908.0	916.1	921.5	913.4	913.4	912.0
15°	893.2	895.9	897.2	897.2	895.9	898.6	902.6	897.2	898.6	891.8	894.5
17.5°	879.7	874.3	878.4	875.7	877.0	879.7	885.1	885.1	877.0	875.7	878.4
20°	848.7	864.9	866.3	858.2	859.5	859.5	869.0	860.9	866.3	859.5	862.2
22.5°	833.9	844.7	846.0	835.3	842.0	833.9	843.3	831.2	844.7	835.3	839.3
25°	815.0	813.7	817.7	812.3	813.7	813.7	820.4	815.0	819.1	813.7	815.0
27.5°	784.1	794.9	793.5	788.1	790.8	789.5	802.9	788.1	796.2	789.5	792.2
30°	757.1	766.6	763.9	758.5	758.5	754.4	769.2	765.2	763.9	763.9	762.5
32.5°	730.2	731.5	728.8	730.2	731.5	726.2	738.2	732.9	731.5	732.9	734.2
35°	693.8	693.8	696.5	692.5	697.8	697.8	708.6	701.9	700.5	696.5	700.5
37.5°	661.5	657.4	658.8	658.8	661.5	664.2	669.5	666.8	666.8	662.8	665.5
40°	618.4	615.7	619.7	619.7	623.8	623.8	629.1	626.4	630.5	630.5	630.5
42.5°	580.7	580.7	578.0	582.0	583.4	582.0	591.4	590.1	591.4	588.7	590.1
45°	540.2	540.2	537.5	536.2	542.9	541.6	552.4	548.3	553.7	551.0	552.4
47.5°	485.0	491.7	487.7	491.7	499.8	501.2	507.9	505.2	510.6	506.6	512.0
50°	432.5	432.5	436.5	441.9	449.9	451.3	459.4	464.8	467.5	468.8	470.2
52.5°	377.2	375.9	379.9	386.6	393.4	398.8	406.9	414.9	420.3	428.4	424.3
55°	312.5	315.2	319.3	327.4	338.1	344.9	351.6	362.4	371.8	375.9	383.9
57.5°	257.3	254.6	257.3	268.1	280.2	285.6	295.1	305.8	319.3	327.4	330.1
60°	199.4	200.7	203.4	212.9	222.3	230.4	234.4	251.9	264.1	272.1	277.5
62.5°	146.9	149.6	152.3	160.3	169.7	176.5	183.2	198.0	208.8	216.9	222.3
65°	102.4	103.7	107.8	111.8	121.3	128.0	133.3	145.5	156.3	163.0	167.0
67.5°	63.3	64.6	67.3	72.8	79.5	84.9	90.3	98.3	107.8	114.5	115.9
70°	32.3	33.7	35.0	39.1	44.5	47.2	51.2	57.9	64.6	70.0	72.8
72.5°	10.8	10.8	12.1	14.8	17.5	20.2	21.5	28.3	33.7	36.4	37.7
75°	2.7	2.7	2.7	2.7	2.7	4.1	4.1	8.1	10.8	13.5	14.8
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.7	2.7
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	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: P840147

CATALOG NUMBER: LD4C20D010 EU4209050 4LBCSSQMW

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	948.4	948.4	948.4	948.4	948.4	948.4	948.4	948.4	948.4	948.4
2.5°	948.4	945.7	944.4	945.7	945.7	944.4	948.4	953.8	960.5	943.0
5°	947.1	944.4	947.1	939.0	943.0	940.4	945.7	944.4	949.8	944.4
7.5°	943.0	937.7	939.0	935.0	940.4	933.6	937.7	945.7	940.4	932.3
10°	929.6	926.9	936.3	922.8	920.1	925.5	936.3	928.2	925.5	928.2
12.5°	916.1	916.1	920.1	909.4	910.7	913.4	918.8	913.4	916.1	922.8
15°	901.3	898.6	905.3	897.2	895.9	893.2	898.6	898.6	901.3	897.2
17.5°	883.7	879.7	879.7	877.0	875.7	882.4	885.1	886.4	887.8	882.4
20°	862.2	860.9	864.9	860.9	862.2	863.6	863.6	860.9	873.0	858.2
22.5°	839.3	843.3	838.0	835.3	838.0	840.6	840.6	842.0	839.3	836.6
25°	816.4	819.1	820.4	812.3	816.4	812.3	821.8	823.1	817.7	820.4
27.5°	796.2	792.2	790.8	785.4	788.1	786.8	788.1	788.1	796.2	785.4
30°	765.2	761.2	762.5	758.5	759.8	758.5	759.8	759.8	765.2	763.9
32.5°	735.6	731.5	732.9	728.8	728.8	730.2	727.5	727.5	731.5	728.8
35°	707.2	697.8	699.2	697.8	699.2	693.8	693.8	692.5	695.2	688.4
37.5°	666.8	662.8	661.5	660.1	661.5	658.8	661.5	657.4	661.5	656.1
40°	630.5	627.8	629.1	621.1	621.1	622.4	619.7	618.4	619.7	625.1
42.5°	594.1	588.7	586.0	583.4	584.7	580.7	579.3	576.6	579.3	573.9
45°	551.0	551.0	549.7	542.9	544.3	544.3	538.9	533.5	534.8	534.8
47.5°	512.0	509.3	507.9	501.2	499.8	498.5	493.0	489.0	489.0	485.0
50°	468.8	466.1	462.1	455.3	452.6	444.6	440.5	435.2	429.8	429.8
52.5°	428.4	418.9	413.6	402.8	398.8	394.7	383.9	379.9	375.9	371.8
55°	379.9	371.8	361.1	348.9	343.5	336.8	326.0	317.9	312.5	313.9
57.5°	332.8	319.3	308.5	292.4	285.6	281.5	270.8	260.0	254.6	254.6
60°	274.8	264.1	250.6	235.7	230.4	223.7	210.1	203.4	199.4	195.3
62.5°	219.6	211.5	199.4	180.5	176.5	169.7	160.3	152.3	148.2	148.2
65°	164.3	156.3	145.5	132.0	126.6	121.3	113.2	105.1	101.0	99.7
67.5°	115.9	106.4	97.0	86.2	82.2	79.5	71.4	66.0	63.3	61.9
70°	70.0	64.6	57.9	49.9	45.8	43.1	37.7	33.7	32.3	31.0
72.5°	36.4	32.3	26.9	21.5	18.9	16.2	13.5	10.8	9.5	9.5
75°	13.5	10.8	6.8	4.1	2.7	2.7	2.7	2.7	2.7	2.7
77.5°	2.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°









(END OF REPORT)