

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: P840141

Luminaire Tested: **LD4C20D010 EU4209030 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: P840141  
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 EU4209030 4LBCSSQMW  
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

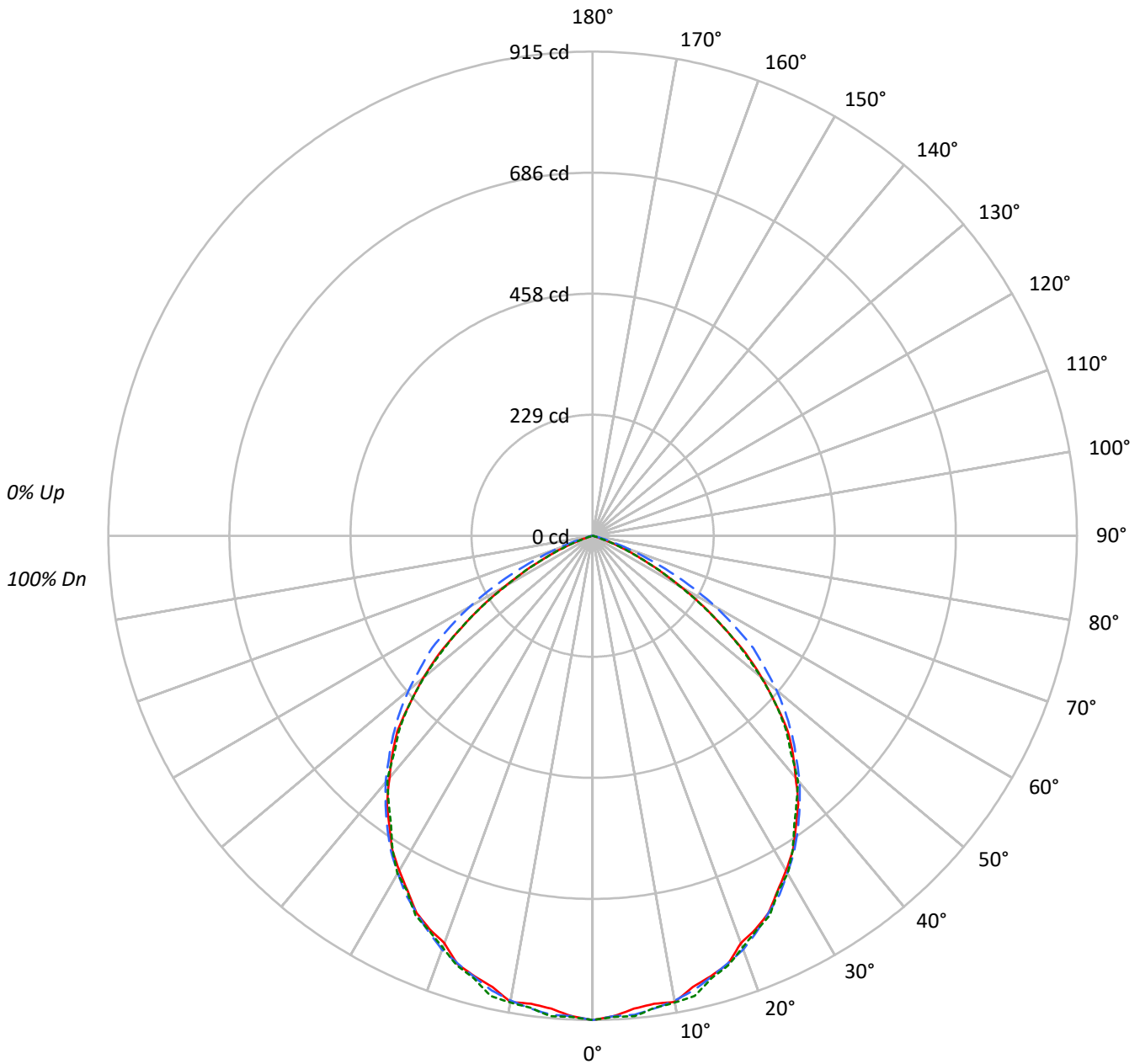
Lumens per Lamp: N/A  
Luminaire Lumens: 1955.0 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

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

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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	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°	88307	88307	88307
5°	86881	88014	88266
10°	87631	87376	87758
15°	86097	86227	86487
20°	84096	85431	85030
25°	83734	83734	84287
30°	81400	81980	82125
35°	78861	79627	78249
40°	75159	76632	75977
45°	71134	72731	70425
50°	62641	68105	62251
55°	50736	62327	50955
60°	37129	51679	36376
65°	22557	36804	21964
70°	8802	19804	8435
75°	969	5331	969
80°	722	722	722
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.4	4.4
10°-20°	244.5	12.5
20°-30°	362.7	18.6
30°-40°	420.3	21.5
40°-50°	403.0	20.6
50°-60°	296.3	15.2
60°-70°	128.0	6.5
70°-80°	13.8	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°	693.6	35.5
0°-40°	1113.8	57.0
0°-60°	1813.1	92.7
0°-90°	1955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1955.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	915	915	915	915	915	
5°	897	906	909	910	911	86
15°	862	867	863	864	866	243
25°	786	785	786	788	792	360
35°	670	673	676	675	664	419
45°	521	523	533	525	516	396
55°	302	333	370	332	303	271
65°	99	124	161	122	96	102
75°	3	4	14	3	3	8
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	915.2	915.2	915.2	915.2	915.2	915.2	915.2	915.2	915.2	915.2	915.2
2.5°	908.7	919.1	920.4	913.9	911.3	907.4	916.5	910.0	912.6	910.0	908.7
5°	897.0	908.7	910.0	910.0	907.4	906.1	910.0	908.7	907.4	904.8	908.7
7.5°	891.8	898.3	904.8	897.0	900.9	899.6	908.7	904.8	903.5	903.5	900.9
10°	894.4	893.1	898.3	890.5	893.1	890.5	898.3	898.3	895.7	893.1	891.8
12.5°	873.6	884.0	884.0	882.7	880.1	876.2	884.0	889.2	881.4	881.4	880.1
15°	861.9	864.5	865.8	865.8	864.5	867.1	871.0	865.8	867.1	860.6	863.2
17.5°	848.9	843.7	847.6	845.0	846.3	848.9	854.1	854.1	846.3	845.0	847.6
20°	819.0	834.6	835.9	828.1	829.4	829.4	838.5	830.7	835.9	829.4	832.0
22.5°	804.7	815.1	816.4	806.0	812.5	804.7	813.8	802.1	815.1	806.0	809.9
25°	786.5	785.2	789.1	783.9	785.2	785.2	791.7	786.5	790.4	785.2	786.5
27.5°	756.6	767.0	765.7	760.5	763.1	761.8	774.8	760.5	768.3	761.8	764.4
30°	730.6	739.7	737.1	731.9	731.9	728.0	742.3	738.4	737.1	737.1	735.8
32.5°	704.6	705.9	703.3	704.6	705.9	700.7	712.4	707.2	705.9	707.2	708.5
35°	669.5	669.5	672.1	668.2	673.4	673.4	683.8	677.3	676.0	672.1	676.0
37.5°	638.3	634.4	635.7	635.7	638.3	640.9	646.1	643.5	643.5	639.6	642.2
40°	596.7	594.1	598.0	598.0	601.9	601.9	607.1	604.5	608.4	608.4	608.4
42.5°	560.3	560.3	557.7	561.6	562.9	561.6	570.7	569.4	570.7	568.1	569.4
45°	521.3	521.3	518.7	517.4	523.9	522.6	533.0	529.1	534.3	531.7	533.0
47.5°	468.0	474.5	470.6	474.5	482.3	483.6	490.1	487.5	492.7	488.8	494.0
50°	417.3	417.3	421.2	426.4	434.2	435.5	443.3	448.5	451.1	452.4	453.7
52.5°	364.0	362.7	366.6	373.1	379.6	384.8	392.6	400.4	405.6	413.4	409.5
55°	301.6	304.2	308.1	315.9	326.3	332.8	339.3	349.7	358.8	362.7	370.5
57.5°	248.3	245.7	248.3	258.7	270.4	275.6	284.7	295.1	308.1	315.9	318.5
60°	192.4	193.7	196.3	205.4	214.5	222.3	226.2	243.1	254.8	262.6	267.8
62.5°	141.7	144.3	146.9	154.7	163.8	170.3	176.8	191.1	201.5	209.3	214.5
65°	98.8	100.1	104.0	107.9	117.0	123.5	128.7	140.4	150.8	157.3	161.2
67.5°	61.1	62.4	65.0	70.2	76.7	81.9	87.1	94.9	104.0	110.5	111.8
70°	31.2	32.5	33.8	37.7	42.9	45.5	49.4	55.9	62.4	67.6	70.2
72.5°	10.4	10.4	11.7	14.3	16.9	19.5	20.8	27.3	32.5	35.1	36.4
75°	2.6	2.6	2.6	2.6	2.6	3.9	3.9	7.8	10.4	13.0	14.3
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6	2.6
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	915.2	915.2	915.2	915.2	915.2	915.2	915.2	915.2	915.2	915.2
2.5°	915.2	912.6	911.3	912.6	912.6	911.3	915.2	920.4	926.9	910.0
5°	913.9	911.3	913.9	906.1	910.0	907.4	912.6	911.3	916.5	911.3
7.5°	910.0	904.8	906.1	902.2	907.4	900.9	904.8	912.6	907.4	899.6
10°	897.0	894.4	903.5	890.5	887.9	893.1	903.5	895.7	893.1	895.7
12.5°	884.0	884.0	887.9	877.5	878.8	881.4	886.6	881.4	884.0	890.5
15°	869.7	867.1	873.6	865.8	864.5	861.9	867.1	867.1	869.7	865.8
17.5°	852.8	848.9	848.9	846.3	845.0	851.5	854.1	855.4	856.7	851.5
20°	832.0	830.7	834.6	830.7	832.0	833.3	833.3	830.7	842.4	828.1
22.5°	809.9	813.8	808.6	806.0	808.6	811.2	811.2	812.5	809.9	807.3
25°	787.8	790.4	791.7	783.9	787.8	783.9	793.0	794.3	789.1	791.7
27.5°	768.3	764.4	763.1	757.9	760.5	759.2	760.5	760.5	768.3	757.9
30°	738.4	734.5	735.8	731.9	733.2	731.9	733.2	733.2	738.4	737.1
32.5°	709.8	705.9	707.2	703.3	703.3	704.6	702.0	702.0	705.9	703.3
35°	682.5	673.4	674.7	673.4	674.7	669.5	669.5	668.2	670.8	664.3
37.5°	643.5	639.6	638.3	637.0	638.3	635.7	638.3	634.4	638.3	633.1
40°	608.4	605.8	607.1	599.3	599.3	600.6	598.0	596.7	598.0	603.2
42.5°	573.3	568.1	565.5	562.9	564.2	560.3	559.0	556.4	559.0	553.8
45°	531.7	531.7	530.4	523.9	525.2	525.2	520.0	514.8	516.1	516.1
47.5°	494.0	491.4	490.1	483.6	482.3	481.0	475.8	471.9	471.9	468.0
50°	452.4	449.8	445.9	439.4	436.8	429.0	425.1	419.9	414.7	414.7
52.5°	413.4	404.3	399.1	388.7	384.8	380.9	370.5	366.6	362.7	358.8
55°	366.6	358.8	348.4	336.7	331.5	325.0	314.6	306.8	301.6	302.9
57.5°	321.1	308.1	297.7	282.1	275.6	271.7	261.3	250.9	245.7	245.7
60°	265.2	254.8	241.8	227.5	222.3	215.8	202.8	196.3	192.4	188.5
62.5°	211.9	204.1	192.4	174.2	170.3	163.8	154.7	146.9	143.0	143.0
65°	158.6	150.8	140.4	127.4	122.2	117.0	109.2	101.4	97.5	96.2
67.5°	111.8	102.7	93.6	83.2	79.3	76.7	68.9	63.7	61.1	59.8
70°	67.6	62.4	55.9	48.1	44.2	41.6	36.4	32.5	31.2	29.9
72.5°	35.1	31.2	26.0	20.8	18.2	15.6	13.0	10.4	9.1	9.1
75°	13.0	10.4	6.5	3.9	2.6	2.6	2.6	2.6	2.6	2.6
77.5°	2.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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)