

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: P#

Luminaire Tested: **LD4C20D010 EX4C209040 4LBCSSQMMS**

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: P#  
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 EX4C209040 4LBCSSQMMS  
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MMS FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

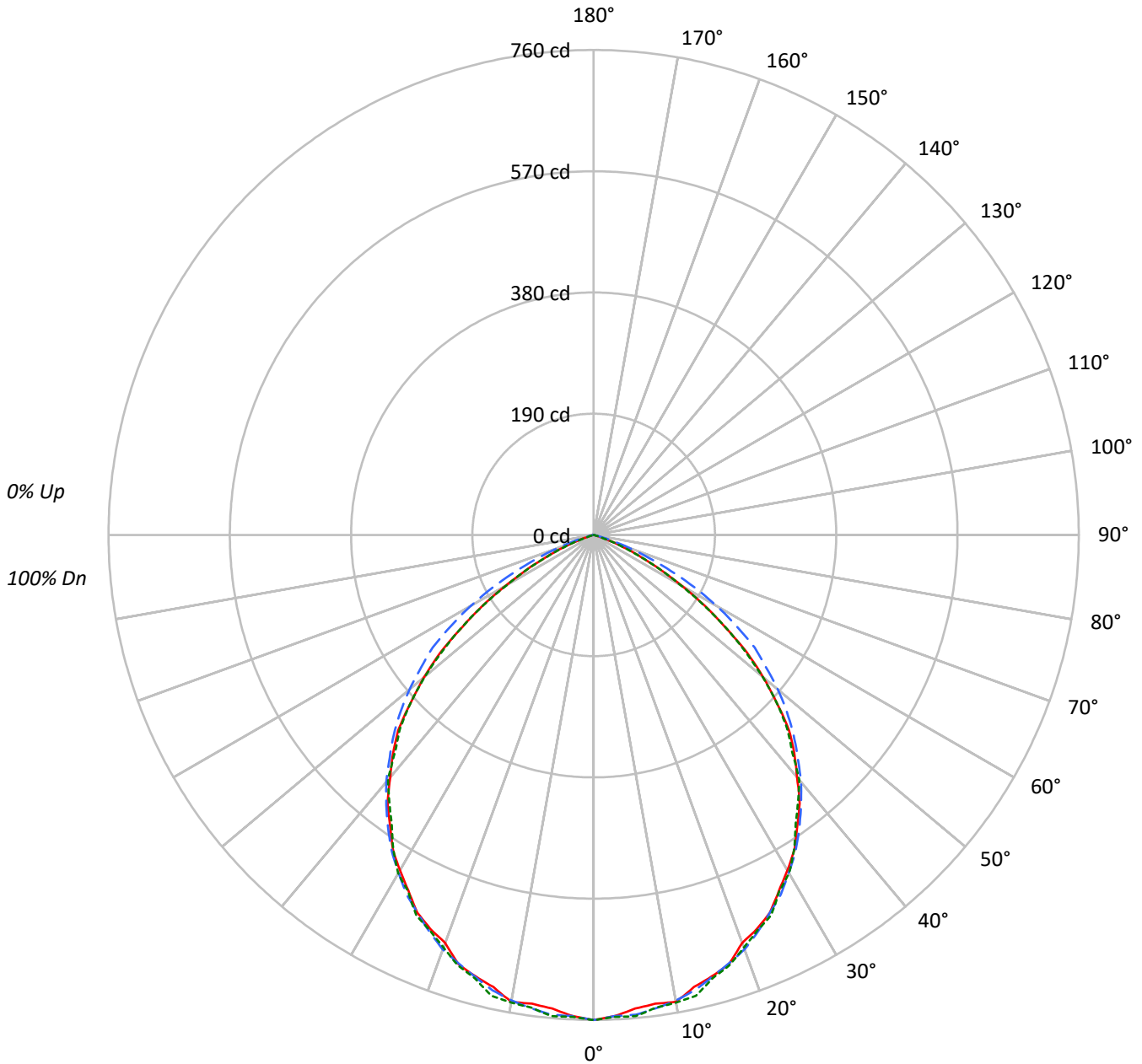
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1624.0 lumens  
Efficiency: N/A  
Efficacy: 74.5 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: P#  
CATALOG NUMBER: LD4C20D010 EX4C209040 4LBCSSQMMS

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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°	73351	73351	73351
5°	72168	73108	73321
10°	72797	72582	72895
15°	71523	71623	71843
20°	69854	70963	70634
25°	69553	69553	70011
30°	67618	68097	68220
35°	65504	66140	64997
40°	62437	63659	63105
45°	59085	60423	58499
50°	52043	56576	51713
55°	42140	51779	42325
60°	30838	42938	30220
65°	18744	30571	18242
70°	7307	16447	6996
75°	820	4436	820
80°	611	611	611
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.8	4.4
10°-20°	203.1	12.5
20°-30°	301.3	18.6
30°-40°	349.1	21.5
40°-50°	334.7	20.6
50°-60°	246.1	15.2
60°-70°	106.3	6.5
70°-80°	11.5	0.7
80°-90°	0.1	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°	576.1	35.5
0°-40°	925.2	57.0
0°-60°	1506.1	92.7
0°-90°	1624.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1624.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	760	760	760	760	760	
5°	745	753	755	756	757	71
15°	716	720	717	718	719	202
25°	653	652	653	654	658	299
35°	556	559	562	560	552	348
45°	433	434	443	436	429	329
55°	250	276	308	275	252	225
65°	82	103	134	102	80	84
75°	2	3	12	2	2	7
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°	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2
2.5°	754.8	763.5	764.6	759.1	757.0	753.8	761.3	755.9	758.1	755.9	754.8
5°	745.1	754.8	755.9	755.9	753.8	752.7	755.9	754.8	753.8	751.6	754.8
7.5°	740.8	746.2	751.6	745.1	748.3	747.3	754.8	751.6	750.5	750.5	748.3
10°	743.0	741.9	746.2	739.7	741.9	739.7	746.2	746.2	744.0	741.9	740.8
12.5°	725.7	734.3	734.3	733.2	731.1	727.8	734.3	738.7	732.1	732.1	731.1
15°	716.0	718.1	719.2	719.2	718.1	720.3	723.5	719.2	720.3	714.9	717.0
17.5°	705.2	700.9	704.1	701.9	703.0	705.2	709.5	709.5	703.0	701.9	704.1
20°	680.3	693.3	694.4	687.9	689.0	689.0	696.5	690.1	694.4	689.0	691.1
22.5°	668.4	677.1	678.2	669.5	674.9	668.4	676.0	666.3	677.1	669.5	672.7
25°	653.3	652.3	655.5	651.2	652.3	652.3	657.6	653.3	656.6	652.3	653.3
27.5°	628.5	637.1	636.0	631.7	633.9	632.8	643.6	631.7	638.2	632.8	635.0
30°	606.9	614.5	612.3	608.0	608.0	604.7	616.6	613.4	612.3	612.3	611.2
32.5°	585.3	586.4	584.2	585.3	586.4	582.1	591.8	587.4	586.4	587.4	588.5
35°	556.1	556.1	558.3	555.1	559.4	559.4	568.0	562.6	561.5	558.3	561.5
37.5°	530.2	527.0	528.1	528.1	530.2	532.4	536.7	534.5	534.5	531.3	533.5
40°	495.7	493.5	496.7	496.7	500.0	500.0	504.3	502.1	505.4	505.4	505.4
42.5°	465.4	465.4	463.3	466.5	467.6	466.5	474.1	473.0	474.1	471.9	473.0
45°	433.0	433.0	430.9	429.8	435.2	434.1	442.8	439.5	443.8	441.7	442.8
47.5°	388.7	394.2	390.9	394.2	400.6	401.7	407.1	405.0	409.3	406.1	410.4
50°	346.7	346.7	349.9	354.2	360.7	361.8	368.2	372.6	374.7	375.8	376.9
52.5°	302.4	301.3	304.5	309.9	315.3	319.7	326.1	332.6	336.9	343.4	340.1
55°	250.5	252.7	255.9	262.4	271.1	276.4	281.8	290.5	298.1	301.3	307.8
57.5°	206.2	204.1	206.2	214.9	224.6	228.9	236.5	245.1	255.9	262.4	264.6
60°	159.8	160.9	163.1	170.6	178.2	184.7	187.9	201.9	211.7	218.1	222.5
62.5°	117.7	119.9	122.0	128.5	136.1	141.5	146.9	158.7	167.4	173.9	178.2
65°	82.1	83.1	86.4	89.6	97.2	102.6	106.9	116.6	125.3	130.7	133.9
67.5°	50.8	51.8	54.0	58.3	63.7	68.0	72.3	78.8	86.4	91.8	92.9
70°	25.9	27.0	28.1	31.3	35.6	37.8	41.0	46.4	51.8	56.1	58.3
72.5°	8.6	8.6	9.7	11.9	14.1	16.2	17.3	22.7	27.0	29.2	30.2
75°	2.2	2.2	2.2	2.2	2.2	3.3	3.3	6.5	8.6	10.8	11.9
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P#

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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2
2.5°	760.2	758.1	757.0	758.1	758.1	757.0	760.2	764.6	769.9	755.9
5°	759.1	757.0	759.1	752.7	755.9	753.8	758.1	757.0	761.3	757.0
7.5°	755.9	751.6	752.7	749.4	753.8	748.3	751.6	758.1	753.8	747.3
10°	745.1	743.0	750.5	739.7	737.6	741.9	750.5	744.0	741.9	744.0
12.5°	734.3	734.3	737.6	728.9	730.0	732.1	736.5	732.1	734.3	739.7
15°	722.4	720.3	725.7	719.2	718.1	716.0	720.3	720.3	722.4	719.2
17.5°	708.4	705.2	705.2	703.0	701.9	707.3	709.5	710.5	711.6	707.3
20°	691.1	690.1	693.3	690.1	691.1	692.2	692.2	690.1	699.8	687.9
22.5°	672.7	676.0	671.7	669.5	671.7	673.8	673.8	674.9	672.7	670.6
25°	654.4	656.6	657.6	651.2	654.4	651.2	658.7	659.8	655.5	657.6
27.5°	638.2	635.0	633.9	629.6	631.7	630.7	631.7	631.7	638.2	629.6
30°	613.4	610.1	611.2	608.0	609.0	608.0	609.0	609.0	613.4	612.3
32.5°	589.6	586.4	587.4	584.2	584.2	585.3	583.1	583.1	586.4	584.2
35°	566.9	559.4	560.4	559.4	560.4	556.1	556.1	555.1	557.2	551.8
37.5°	534.5	531.3	530.2	529.2	530.2	528.1	530.2	527.0	530.2	525.9
40°	505.4	503.2	504.3	497.8	497.8	498.9	496.7	495.7	496.7	501.0
42.5°	476.2	471.9	469.8	467.6	468.7	465.4	464.3	462.2	464.3	460.0
45°	441.7	441.7	440.6	435.2	436.3	436.3	432.0	427.6	428.7	428.7
47.5°	410.4	408.2	407.1	401.7	400.6	399.6	395.2	392.0	392.0	388.7
50°	375.8	373.6	370.4	365.0	362.8	356.4	353.1	348.8	344.5	344.5
52.5°	343.4	335.8	331.5	322.9	319.7	316.4	307.8	304.5	301.3	298.1
55°	304.5	298.1	289.4	279.7	275.4	270.0	261.3	254.8	250.5	251.6
57.5°	266.7	255.9	247.3	234.4	228.9	225.7	217.0	208.4	204.1	204.1
60°	220.3	211.7	200.9	189.0	184.7	179.3	168.4	163.1	159.8	156.6
62.5°	176.0	169.5	159.8	144.7	141.5	136.1	128.5	122.0	118.8	118.8
65°	131.7	125.3	116.6	105.8	101.5	97.2	90.7	84.2	81.0	79.9
67.5°	92.9	85.3	77.8	69.1	65.9	63.7	57.2	52.9	50.8	49.7
70°	56.1	51.8	46.4	40.0	36.7	34.5	30.2	27.0	25.9	24.8
72.5°	29.2	25.9	21.6	17.3	15.1	13.0	10.8	8.6	7.6	7.6
75°	10.8	8.6	5.4	3.3	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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)