

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: P563795

Luminaire Tested: **LD4C20D010 EX4C20D2W 4LBCSSQMMS**

Issue Date: 5/25/2022

Test Information

Test Method: LM-79-08
Report Number: P563795
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 EX4C20D2W 4LBCSSQMMS
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

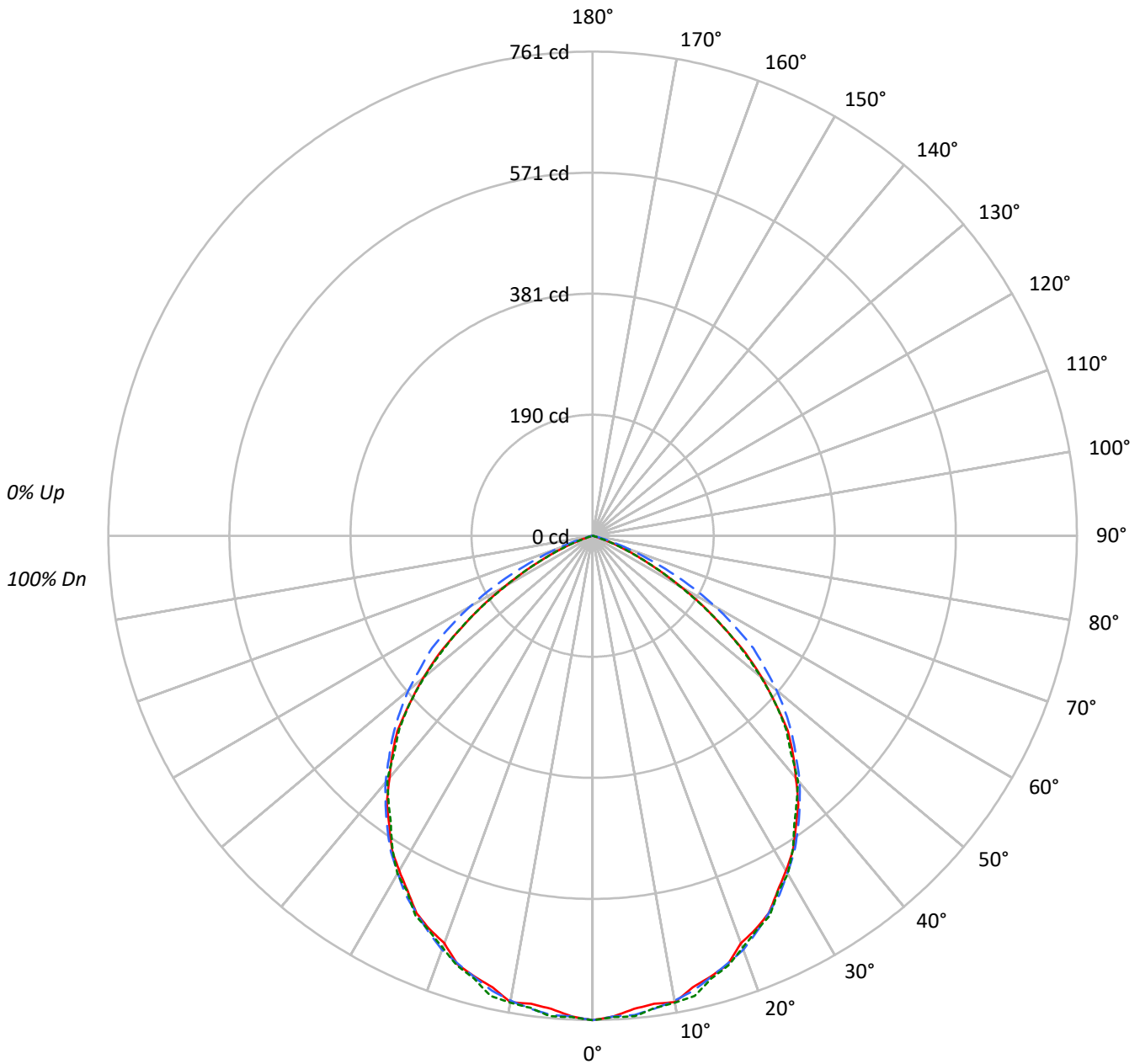
Lumens per Lamp: N/A
Luminaire Lumens: 1626.5 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
Input Voltage (V):
Input Current (A_{in}): 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									
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°	73467	73467	73467
5°	72285	73224	73428
10°	72905	72689	73013
15°	71623	71733	71953
20°	69957	71076	70737
25°	69670	69670	70117
30°	67719	68209	68331
35°	65610	66246	65091
40°	62525	63760	63205
45°	59181	60505	58594
50°	52118	56667	51788
55°	42207	51846	42392
60°	30876	42995	30278
65°	18767	30617	18288
70°	7307	16475	7025
75°	783	4436	783
80°	611	611	611
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	4.4
10°-20°	203.4	12.5
20°-30°	301.8	18.6
30°-40°	349.7	21.5
40°-50°	335.3	20.6
50°-60°	246.5	15.2
60°-70°	106.5	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°	577.0	35.5
0°-40°	926.7	57.0
0°-60°	1508.4	92.7
0°-90°	1626.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1626.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	746	754	756	757	758	71
15°	717	721	718	719	720	202
25°	654	653	654	655	659	300
35°	557	560	562	561	553	348
45°	434	435	443	437	429	330
55°	251	277	308	276	252	226
65°	82	103	134	102	80	85
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°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	756.0	764.6	765.7	760.4	758.1	755.0	762.5	757.1	759.2	757.1	756.0
5°	746.3	756.0	757.1	757.1	755.0	753.8	757.1	756.0	755.0	752.7	756.0
7.5°	741.9	747.3	752.7	746.3	749.5	748.5	756.0	752.7	751.7	751.7	749.5
10°	744.1	743.1	747.3	740.8	743.1	740.8	747.3	747.3	745.2	743.1	741.9
12.5°	726.8	735.4	735.4	734.3	732.2	728.9	735.4	739.8	733.3	733.3	732.2
15°	717.0	719.3	720.3	720.3	719.3	721.4	724.7	720.3	721.4	716.0	718.1
17.5°	706.2	702.0	705.1	703.0	704.1	706.2	710.6	710.6	704.1	703.0	705.1
20°	681.3	694.3	695.5	688.9	690.1	690.1	697.6	691.1	695.5	690.1	692.2
22.5°	669.4	678.1	679.2	670.5	675.9	669.4	677.0	667.3	678.1	670.5	673.8
25°	654.4	653.2	656.5	652.1	653.2	653.2	658.6	654.4	657.6	653.2	654.4
27.5°	629.4	638.1	637.1	632.7	634.8	633.8	644.6	632.7	639.2	633.8	636.0
30°	607.8	615.4	613.3	608.9	608.9	605.6	617.5	614.3	613.3	613.3	612.2
32.5°	586.2	587.3	585.1	586.2	587.3	583.0	592.7	588.3	587.3	588.3	589.5
35°	557.0	557.0	559.2	555.9	560.3	560.3	568.9	563.4	562.4	559.2	562.4
37.5°	531.0	527.8	528.8	528.8	531.0	533.2	537.5	535.4	535.4	532.1	534.3
40°	496.4	494.3	497.5	497.5	500.8	500.8	505.0	502.9	506.2	506.2	506.2
42.5°	466.2	466.2	464.0	467.2	468.3	467.2	474.8	473.7	474.8	472.7	473.7
45°	433.7	433.7	431.5	430.5	435.9	434.8	443.4	440.1	444.5	442.4	443.4
47.5°	389.4	394.8	391.5	394.8	401.3	402.3	407.7	405.6	409.9	406.7	411.1
50°	347.2	347.2	350.4	354.7	361.2	362.3	368.8	373.1	375.3	376.4	377.5
52.5°	302.8	301.7	305.1	310.3	315.8	320.1	326.6	333.1	337.4	343.9	340.7
55°	250.9	253.1	256.3	262.8	271.5	276.9	282.3	290.9	298.5	301.7	308.2
57.5°	206.6	204.4	206.6	215.2	225.0	229.3	236.9	245.6	256.3	262.8	265.0
60°	160.0	161.1	163.4	170.9	178.4	184.9	188.2	202.2	212.0	218.5	222.8
62.5°	117.9	120.0	122.3	128.7	136.3	141.7	147.1	159.0	167.6	174.1	178.4
65°	82.2	83.3	86.6	89.7	97.3	102.7	107.0	116.8	125.4	130.9	134.1
67.5°	50.9	51.9	54.0	58.4	63.8	68.2	72.4	78.9	86.6	92.0	93.0
70°	25.9	27.1	28.1	31.3	35.7	37.8	41.1	46.5	51.9	56.3	58.4
72.5°	8.6	8.6	9.8	11.9	14.0	16.3	17.3	22.7	27.1	29.2	30.3
75°	2.1	2.1	2.1	2.1	2.1	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	2.1	2.1
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	761.4	759.2	758.1	759.2	759.2	758.1	761.4	765.7	771.1	757.1
5°	760.4	758.1	760.4	753.8	757.1	755.0	759.2	758.1	762.5	758.1
7.5°	757.1	752.7	753.8	750.6	755.0	749.5	752.7	759.2	755.0	748.5
10°	746.3	744.1	751.7	740.8	738.7	743.1	751.7	745.2	743.1	745.2
12.5°	735.4	735.4	738.7	730.0	731.1	733.3	737.6	733.3	735.4	740.8
15°	723.5	721.4	726.8	720.3	719.3	717.0	721.4	721.4	723.5	720.3
17.5°	709.5	706.2	706.2	704.1	703.0	708.4	710.6	711.6	712.8	708.4
20°	692.2	691.1	694.3	691.1	692.2	693.3	693.3	691.1	700.9	688.9
22.5°	673.8	677.0	672.7	670.5	672.7	674.9	674.9	675.9	673.8	671.7
25°	655.4	657.6	658.6	652.1	655.4	652.1	659.8	660.8	656.5	658.6
27.5°	639.2	636.0	634.8	630.6	632.7	631.7	632.7	632.7	639.2	630.6
30°	614.3	611.0	612.2	608.9	610.0	608.9	610.0	610.0	614.3	613.3
32.5°	590.5	587.3	588.3	585.1	585.1	586.2	584.0	584.0	587.3	585.1
35°	567.8	560.3	561.3	560.3	561.3	557.0	557.0	555.9	558.0	552.6
37.5°	535.4	532.1	531.0	530.0	531.0	528.8	531.0	527.8	531.0	526.7
40°	506.2	504.0	505.0	498.6	498.6	499.6	497.5	496.4	497.5	501.8
42.5°	477.0	472.7	470.5	468.3	469.3	466.2	465.1	462.9	465.1	460.7
45°	442.4	442.4	441.3	435.9	437.0	437.0	432.6	428.3	429.4	429.4
47.5°	411.1	408.8	407.7	402.3	401.3	400.2	395.8	392.6	392.6	389.4
50°	376.4	374.2	371.0	365.6	363.3	356.9	353.7	349.3	345.0	345.0
52.5°	343.9	336.4	332.0	323.4	320.1	316.9	308.2	305.1	301.7	298.5
55°	305.1	298.5	289.9	280.1	275.8	270.4	261.7	255.2	250.9	252.0
57.5°	267.1	256.3	247.7	234.7	229.3	226.0	217.4	208.7	204.4	204.4
60°	220.6	212.0	201.2	189.3	184.9	179.5	168.7	163.4	160.0	156.9
62.5°	176.3	169.8	160.0	145.0	141.7	136.3	128.7	122.3	119.0	119.0
65°	131.9	125.4	116.8	106.0	101.7	97.3	90.8	84.3	81.1	80.1
67.5°	93.0	85.4	77.9	69.3	66.0	63.8	57.4	53.0	50.9	49.7
70°	56.3	51.9	46.5	40.0	36.7	34.6	30.3	27.1	25.9	24.9
72.5°	29.2	25.9	21.7	17.3	15.2	13.0	10.8	8.6	7.6	7.6
75°	10.8	8.6	5.4	3.3	2.1	2.1	2.1	2.1	2.1	2.1
77.5°	2.1	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)