

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: FAIL-SAFE

Report Number: P551617

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-82-94-ED1D-90**

Issue Date: 7/9/2021

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: P551617
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCC-X-2-LD4-2LO-40-UNV-82-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

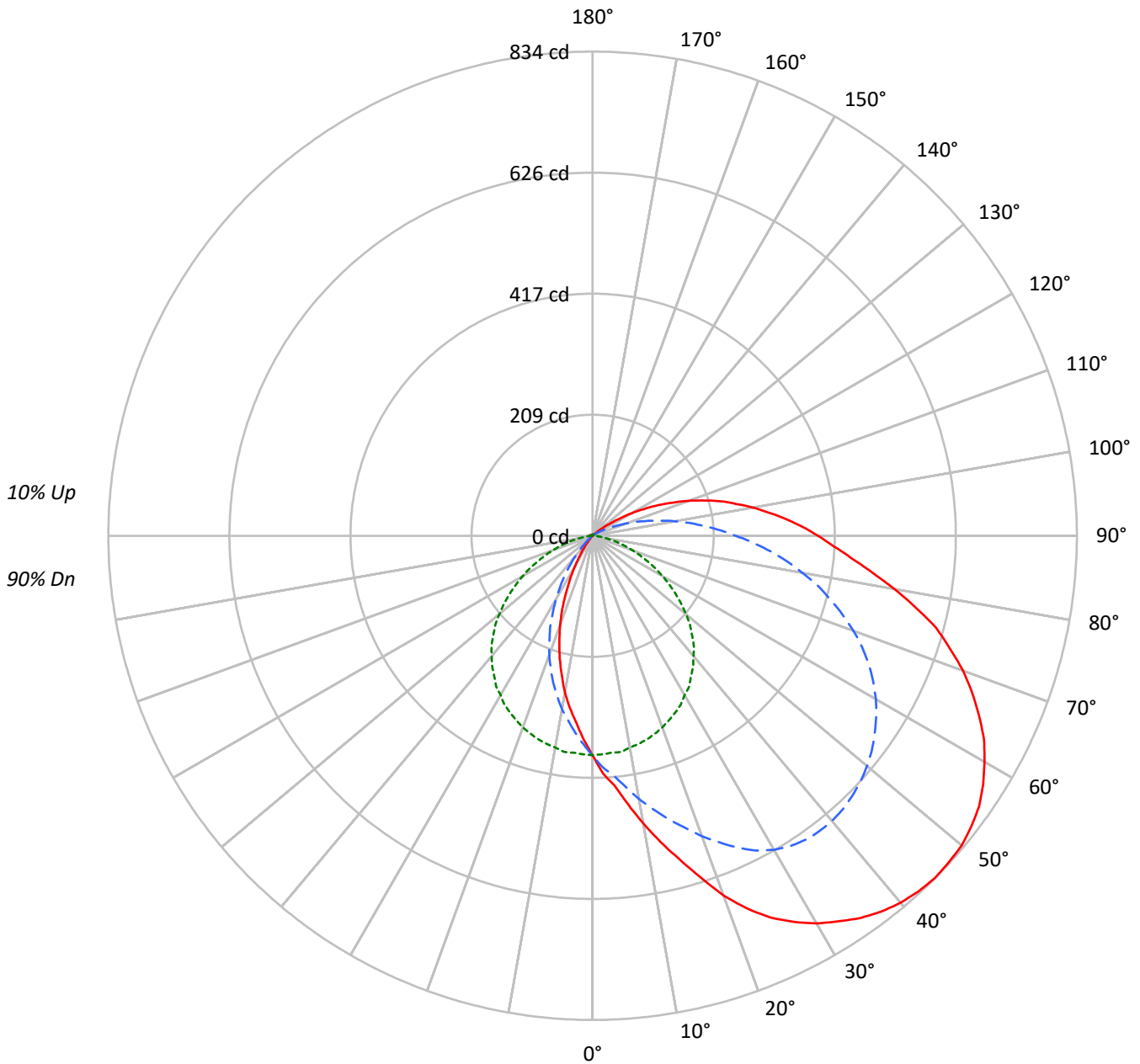
Lumens per Lamp: N/A
Luminaire Lumens: 1868.9 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
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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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-94-ED1D-90

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	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4070	4070	4070
5°	4467	4010	3346
10°	5055	3960	2757
15°	5665	3910	2148
20°	6389	3847	1583
25°	6990	3773	1039
30°	7436	3674	585
35°	7823	3567	258
40°	8166	3436	62
45°	8460	3272	0
50°	8707	3053	0
55°	8896	2775	0
60°	8989	2454	0
65°	9026	2089	0
70°	8997	1703	0
75°	8882	1256	7
80°	8522	769	39
85°	8238	366	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.2	1.9
10°-20°	108.4	5.8
20°-30°	175.6	9.4
30°-40°	225.6	12.1
40°-50°	255.3	13.7
50°-60°	264.5	14.2
60°-70°	249.5	13.3
70°-80°	209.1	11.2
80°-90°	151.5	8.1
90°-100°	99.6	5.3
100°-110°	57.5	3.1
110°-120°	25.4	1.4
120°-130°	6.9	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	320.2	17.1
0°-40°	545.8	29.2
0°-60°	1065.6	57.0
0°-90°	1675.7	89.7
90°-120°	182.5	9.8
90°-150°	191.9	10.3
90°-180°	193.0	10.3
0°-180°	1868.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	378	378	378	378	378	
5°	432	414	375	340	323	44
15°	576	505	363	262	219	166
25°	726	593	336	172	108	335
35°	804	639	295	84	26	504
45°	834	633	242	19	0	644
55°	812	593	174	0	0	726
65°	734	525	104	0	0	727
75°	612	424	44	0	0	642
85°	448	307	7	2	3	382
90°	388	246	2	3	3	213
95°	333	192	1	3	4	261
105°	229	99	1	2	4	242
115°	125	33	1	1	2	125
125°	37	5	2	1	2	37
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1	378.1
2.5°	409.8	409.4	407.9	405.5	402.1	396.4	391.5	387.2	381.4	376.6	367.5
5°	431.5	429.1	427.2	424.8	417.1	411.8	403.1	393.5	384.3	375.2	356.9
7.5°	466.2	462.3	459.4	452.7	442.1	430.1	416.6	407.4	401.2	375.6	344.3
10°	503.3	499.9	494.1	482.1	469.1	451.7	432.5	410.8	391.5	370.3	333.3
12.5°	539.9	535.1	526.9	511.5	493.2	471.5	445.0	419.5	392.0	367.0	320.3
15°	576.5	571.2	562.5	543.7	519.6	491.2	459.0	426.7	394.4	362.6	306.8
17.5°	616.4	609.2	596.2	575.0	544.7	509.5	471.5	432.5	393.5	357.3	292.3
20°	659.3	649.2	635.2	606.8	571.2	529.8	484.0	438.3	393.0	351.1	276.0
22.5°	694.9	684.8	669.4	640.0	597.2	546.6	494.6	442.1	391.1	343.9	260.5
25°	725.8	717.6	700.7	667.0	621.7	564.4	504.7	445.0	388.2	336.2	244.2
27.5°	749.8	742.1	723.4	688.7	642.5	580.3	512.4	446.4	384.3	328.4	227.3
30°	771.0	763.3	740.7	705.1	656.4	592.8	520.1	446.9	379.5	316.9	209.0
32.5°	787.4	780.2	757.1	719.0	666.0	601.5	524.5	446.4	373.2	308.7	189.3
35°	803.8	796.6	769.6	729.1	673.3	605.4	527.8	444.0	365.5	295.2	170.5
37.5°	816.3	808.1	780.7	735.9	676.6	606.3	527.3	440.7	357.3	284.1	151.7
40°	825.0	816.3	786.9	739.7	677.6	604.9	523.5	434.9	347.7	270.2	132.0
42.5°	830.8	821.1	789.8	745.5	675.7	601.0	517.7	427.7	337.1	258.1	113.2
45°	833.6	823.5	790.3	740.7	672.3	593.8	509.0	418.5	325.6	241.8	94.4
47.5°	832.2	821.1	787.9	735.4	666.0	586.1	499.4	407.4	311.6	227.3	76.6
50°	829.8	818.2	782.6	728.7	657.4	576.5	488.8	393.9	297.1	209.5	60.7
52.5°	822.1	810.5	776.8	719.0	647.3	565.4	474.4	380.0	281.7	192.2	46.2
55°	812.5	801.9	766.7	710.4	634.3	551.9	460.9	365.1	266.8	174.3	33.2
57.5°	797.5	787.9	754.2	696.4	621.3	537.0	446.0	348.7	248.0	156.5	23.1
60°	779.2	769.6	736.8	680.5	606.3	520.1	429.6	331.8	231.2	138.7	14.4
62.5°	760.0	750.8	716.6	660.8	587.5	502.3	411.8	315.0	213.3	122.3	8.7
65°	734.4	725.8	694.9	637.2	566.8	483.0	392.0	294.7	195.0	104.0	4.8
67.5°	707.5	699.8	668.5	615.5	542.8	461.9	371.8	275.0	175.8	88.1	2.4
70°	678.6	668.9	640.0	586.1	518.2	437.8	349.6	254.8	157.5	72.7	0.0
72.5°	644.9	637.6	609.7	558.7	489.8	412.2	327.0	232.6	137.3	57.8	0.5
75°	612.1	603.0	577.4	529.3	461.9	385.3	302.0	211.9	117.5	44.3	0.5
77.5°	569.7	566.8	542.8	496.0	435.4	359.3	274.5	186.9	98.7	31.8	0.5
80°	527.3	524.5	505.7	462.8	404.5	328.4	249.0	163.3	80.4	21.2	0.5
82.5°	485.5	481.6	463.8	428.1	373.2	302.4	222.5	139.7	63.6	13.0	0.5
85°	447.9	443.1	423.8	391.1	341.0	273.1	195.0	116.5	47.2	7.2	1.0
87.5°	415.6	412.2	391.1	357.3	308.2	245.6	171.0	94.4	33.2	3.4	1.4
90°	388.2	380.9	362.2	326.5	277.4	215.3	145.4	75.6	22.2	1.9	1.9
92.5°	361.2	354.9	334.2	297.6	249.9	189.3	120.9	57.8	14.0	1.0	2.4
95°	333.3	326.5	306.3	272.6	222.0	162.8	99.2	42.4	7.7	1.0	2.4
97.5°	305.8	299.6	278.4	244.7	197.0	139.7	78.5	29.9	3.9	1.0	1.9
100°	280.3	273.1	253.8	220.1	171.9	116.5	60.7	19.3	2.4	1.0	1.9
102.5°	253.3	247.5	227.8	195.0	145.9	94.9	45.3	12.0	1.0	1.0	1.4
105°	229.2	222.0	202.8	169.0	124.3	74.6	31.8	7.2	1.0	1.0	1.4



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	149.3	143.5	126.7	98.2	63.1	29.4	8.7	1.4	1.4	1.4	1.4
115°	124.7	116.1	101.1	76.1	46.7	19.3	4.3	1.4	1.4	1.4	1.4
117.5°	99.7	92.5	81.9	57.8	30.8	12.5	2.4	1.4	1.4	1.4	1.4
120°	78.0	71.3	59.2	40.0	20.7	7.2	1.0	1.4	1.4	1.4	1.4
122.5°	55.9	50.6	40.0	26.0	12.5	3.4	1.4	1.4	1.9	1.9	1.4
125°	37.1	34.2	26.5	15.9	7.7	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	24.1	21.7	15.4	9.2	3.4	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.5	12.0	9.2	5.3	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.7	7.2	4.8	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	378.1	378.1	378.1
2.5°	359.8	353.0	351.1
5°	340.5	329.4	323.2
7.5°	321.2	306.3	299.1
10°	303.4	282.2	274.5
12.5°	282.2	257.7	245.6
15°	262.0	230.2	218.6
17.5°	239.4	203.7	190.2
20°	218.2	177.2	163.3
22.5°	194.1	151.2	135.8
25°	172.4	125.2	107.9
27.5°	148.3	98.7	83.8
30°	125.7	75.6	60.7
32.5°	104.0	55.4	41.9
35°	83.8	37.6	26.5
37.5°	64.5	23.1	13.5
40°	46.7	12.0	6.3
42.5°	31.3	5.8	3.4
45°	19.3	2.9	0.0
47.5°	11.1	0.0	0.0
50°	5.8	0.0	0.0
52.5°	2.4	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	0.5	0.5	0.5
77.5°	0.5	1.0	1.4
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.3
97.5°	3.9	4.3	4.3
100°	3.4	4.3	4.8
102.5°	2.9	4.3	4.3
105°	2.4	3.4	3.9



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	1.0
152.5°	1.4	1.0	1.0
155°	1.4	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.4	1.0	0.5
162.5°	1.4	1.0	0.5
165°	1.4	1.0	0.0
167.5°	1.4	1.0	0.5
170°	1.4	1.0	0.5
172.5°	1.4	1.0	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	202.3	196.5	177.2	145.4	101.6	56.8	21.2	3.9	1.0	1.4	1.4
110°	176.3	171.4	151.7	120.9	81.9	42.4	14.0	2.4	1.4	1.4	1.4





107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)