

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: P551610

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D**

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: P551610
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-82-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

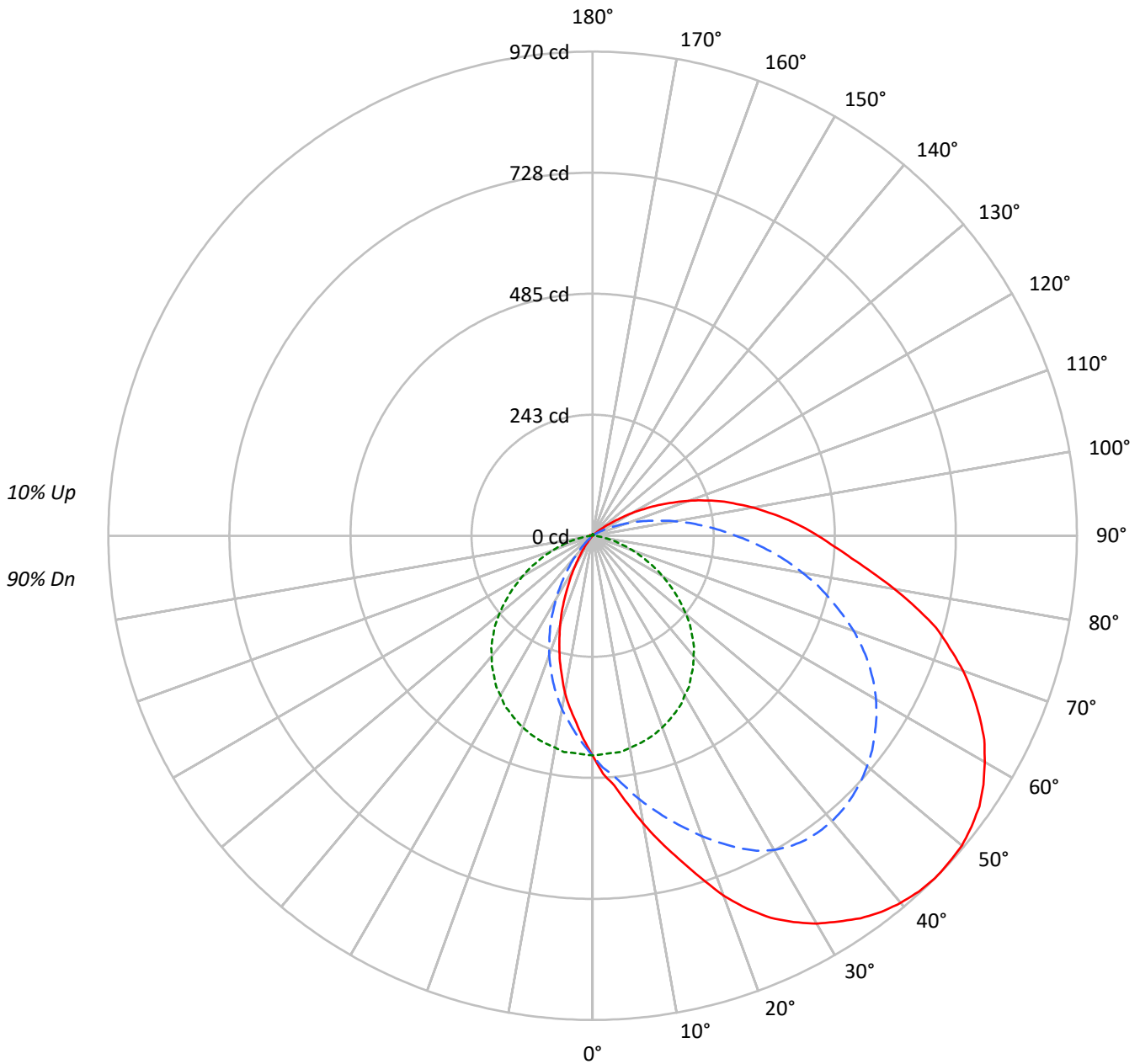
Lumens per Lamp: N/A
Luminaire Lumens: 2175.0 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551610

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551610

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D

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°	4736	4736	4736
5°	5199	4666	3893
10°	5883	4609	3209
15°	6593	4550	2500
20°	7436	4477	1841
25°	8134	4390	1209
30°	8654	4275	681
35°	9104	4152	300
40°	9502	3998	72
45°	9845	3806	0
50°	10132	3553	0
55°	10352	3231	0
60°	10462	2856	0
65°	10505	2432	0
70°	10470	1982	0
75°	10336	1463	9
80°	9918	896	45
85°	9586	427	63



TEST NUMBER: P551610

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.1	1.9
10°-20°	126.2	5.8
20°-30°	204.3	9.4
30°-40°	262.5	12.1
40°-50°	297.1	13.7
50°-60°	307.8	14.2
60°-70°	290.3	13.3
70°-80°	243.3	11.2
80°-90°	176.4	8.1
90°-100°	115.9	5.3
100°-110°	66.9	3.1
110°-120°	29.5	1.4
120°-130°	8.0	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	372.7	17.1
0°-40°	635.1	29.2
0°-60°	1240.1	57.0
0°-90°	1950.1	89.7
90°-120°	212.4	9.8
90°-150°	223.4	10.3
90°-180°	225.0	10.3
0°-180°	2175.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	440	440	440	440	440	
5°	502	482	437	396	376	51
15°	671	588	422	305	254	193
25°	845	690	391	201	126	390
35°	935	744	344	98	31	587
45°	970	737	281	22	0	749
55°	946	690	203	0	0	844
65°	855	611	121	0	0	846
75°	712	493	52	1	1	747
85°	521	357	8	2	3	445
90°	452	287	2	3	4	248
95°	388	224	1	4	5	304
105°	267	116	1	3	4	282
115°	145	38	2	2	3	145
125°	43	5	2	2	2	43
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	0
180°	2	2	2	2	2	



TEST NUMBER: P551610

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0
2.5°	476.9	476.4	474.7	471.9	468.0	461.2	455.6	450.6	443.9	438.3	427.6
5°	502.2	499.4	497.1	494.3	485.3	479.2	469.1	457.9	447.2	436.6	415.3
7.5°	542.5	538.0	534.7	526.8	514.5	500.5	484.8	474.1	466.9	437.1	400.7
10°	585.7	581.7	575.0	561.0	545.9	525.7	503.3	478.1	455.6	431.0	387.8
12.5°	628.3	622.7	613.1	595.2	573.9	548.7	517.9	488.1	456.2	427.1	372.7
15°	670.9	664.7	654.6	632.7	604.7	571.7	534.1	496.6	459.0	422.0	357.0
17.5°	717.4	709.0	693.8	669.2	633.9	593.0	548.7	503.3	457.9	415.9	340.2
20°	767.3	755.5	739.2	706.2	664.7	616.5	563.2	510.0	457.3	408.6	321.1
22.5°	808.7	797.0	779.0	744.8	695.0	636.1	575.6	514.5	455.1	400.2	303.2
25°	844.6	835.1	815.4	776.2	723.5	656.8	587.3	517.9	451.7	391.2	284.1
27.5°	872.6	863.6	841.8	801.4	747.6	675.3	596.3	519.5	447.2	382.2	264.5
30°	897.3	888.3	862.0	820.5	763.9	689.9	605.3	520.1	441.6	368.8	243.2
32.5°	916.3	907.9	881.0	836.7	775.1	700.0	610.3	519.5	434.3	359.2	220.3
35°	935.4	927.0	895.6	848.5	783.5	704.5	614.2	516.7	425.4	343.6	198.4
37.5°	950.0	940.4	908.5	856.4	787.4	705.6	613.7	512.8	415.9	330.7	176.5
40°	960.0	950.0	915.8	860.8	788.5	703.9	609.2	506.1	404.6	314.4	153.6
42.5°	966.8	955.6	919.1	867.6	786.3	699.4	602.5	497.7	392.3	300.4	131.7
45°	970.1	958.4	919.7	862.0	782.4	691.0	592.4	487.0	378.9	281.3	109.8
47.5°	968.5	955.6	916.9	855.8	775.1	682.1	581.2	474.1	362.6	264.5	89.1
50°	965.6	952.2	910.7	848.0	765.0	670.9	568.9	458.4	345.8	243.8	70.6
52.5°	956.7	943.2	904.0	836.7	753.2	658.0	552.0	442.2	327.9	223.6	53.8
55°	945.5	933.1	892.2	826.7	738.1	642.3	536.3	424.8	310.5	202.9	38.7
57.5°	928.1	916.9	877.7	810.4	723.0	624.9	519.0	405.8	288.6	182.1	26.9
60°	906.8	895.6	857.5	791.9	705.6	605.3	499.9	386.1	269.0	161.4	16.8
62.5°	884.4	873.7	833.9	768.9	683.7	584.5	479.2	366.5	248.3	142.4	10.1
65°	854.7	844.6	808.7	741.5	659.6	562.1	456.2	343.0	227.0	121.1	5.6
67.5°	823.3	814.3	777.9	716.3	631.6	537.5	432.7	320.0	204.6	102.6	2.8
70°	789.7	778.5	744.8	682.1	603.0	509.4	406.9	296.5	183.3	84.6	0.0
72.5°	750.4	742.0	709.5	650.1	570.0	479.7	380.5	270.7	159.7	67.3	0.6
75°	712.3	701.7	672.0	615.9	537.5	448.4	351.4	246.6	136.7	51.6	0.6
77.5°	663.0	659.6	631.6	577.3	506.6	418.1	319.5	217.5	114.9	37.0	0.6
80°	613.7	610.3	588.5	538.6	470.8	382.2	289.8	190.0	93.6	24.7	0.6
82.5°	564.9	560.4	539.7	498.2	434.3	352.0	258.9	162.5	74.0	15.1	0.6
85°	521.2	515.6	493.2	455.1	396.8	317.8	227.0	135.6	54.9	8.4	1.1
87.5°	483.7	479.7	455.1	415.9	358.7	285.8	199.0	109.8	38.7	3.9	1.7
90°	451.7	443.3	421.5	380.0	322.8	250.5	169.3	88.0	25.8	2.2	2.2
92.5°	420.3	413.0	388.9	346.4	290.9	220.3	140.7	67.3	16.3	1.1	2.8
95°	387.8	380.0	356.4	317.2	258.4	189.4	115.5	49.3	9.0	1.1	2.8
97.5°	355.9	348.6	323.9	284.7	229.2	162.5	91.4	34.7	4.5	1.1	2.2
100°	326.2	317.8	295.4	256.1	200.1	135.6	70.6	22.4	2.8	1.1	2.2
102.5°	294.8	288.1	265.1	227.0	169.8	110.4	52.7	14.0	1.1	1.1	1.7
105°	266.8	258.4	235.9	196.7	144.6	86.9	37.0	8.4	1.1	1.1	1.7



TEST NUMBER: P551610

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	173.7	167.0	147.4	114.3	73.4	34.2	10.1	1.7	1.7	1.7	1.7
115°	145.2	135.1	117.7	88.6	54.4	22.4	5.0	1.7	1.7	1.7	1.7
117.5°	116.0	107.6	95.3	67.3	35.9	14.6	2.8	1.7	1.7	1.7	1.7
120°	90.8	82.9	68.9	46.5	24.1	8.4	1.1	1.7	1.7	1.7	1.7
122.5°	65.0	58.8	46.5	30.3	14.6	3.9	1.7	1.7	2.2	2.2	1.7
125°	43.2	39.8	30.8	18.5	9.0	1.7	1.7	1.7	2.2	2.2	1.7
127.5°	28.0	25.2	17.9	10.6	3.9	1.7	1.7	2.2	2.2	2.2	1.7
130°	15.7	14.0	10.6	6.2	1.7	1.7	1.7	2.2	2.2	2.2	1.7
132.5°	9.0	8.4	5.6	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.2	2.8	2.8	2.8	2.2
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.2
142.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
145°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
150°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
152.5°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
157.5°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.2
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



TEST NUMBER: P551610

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	440.0	440.0	440.0
2.5°	418.7	410.8	408.6
5°	396.2	383.3	376.1
7.5°	373.8	356.4	348.0
10°	353.1	328.4	319.5
12.5°	328.4	299.8	285.8
15°	304.9	267.9	254.4
17.5°	278.5	237.1	221.4
20°	253.9	206.2	190.0
22.5°	225.9	176.0	158.0
25°	200.6	145.7	125.5
27.5°	172.6	114.9	97.5
30°	146.3	88.0	70.6
32.5°	121.1	64.5	48.8
35°	97.5	43.7	30.8
37.5°	75.1	26.9	15.7
40°	54.4	14.0	7.3
42.5°	36.4	6.7	3.9
45°	22.4	3.4	0.0
47.5°	12.9	0.0	0.0
50°	6.7	0.0	0.0
52.5°	2.8	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°	0.6	0.6	0.6
77.5°	0.6	1.1	1.7
80°	1.1	2.2	2.8
82.5°	2.2	2.8	2.8
85°	2.2	2.8	3.4
87.5°	2.8	3.4	3.9
90°	3.4	3.9	3.9
92.5°	3.4	4.5	4.5
95°	3.9	4.5	5.0
97.5°	4.5	5.0	5.0
100°	3.9	5.0	5.6
102.5°	3.4	5.0	5.0
105°	2.8	3.9	4.5



TEST NUMBER: P551610

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.2	2.8	2.8
115°	1.7	2.2	2.8
117.5°	1.7	2.2	2.2
120°	1.7	1.7	2.2
122.5°	1.7	1.7	2.2
125°	1.7	1.7	2.2
127.5°	2.2	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.2	1.7	1.7
135°	2.2	1.7	1.7
137.5°	2.2	1.7	1.7
140°	2.2	1.7	1.7
142.5°	2.2	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.2	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	235.4	228.7	206.2	169.3	118.3	66.1	24.7	4.5	1.1	1.7	1.7
110°	205.1	199.5	176.5	140.7	95.3	49.3	16.3	2.8	1.7	1.7	1.7





107.5°	2.2	3.4	3.9
110°	2.2	2.8	3.4



(END OF REPORT)