

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: P550594

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-82-94-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: P550594
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-LD4-1HI-40-UNV-82-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

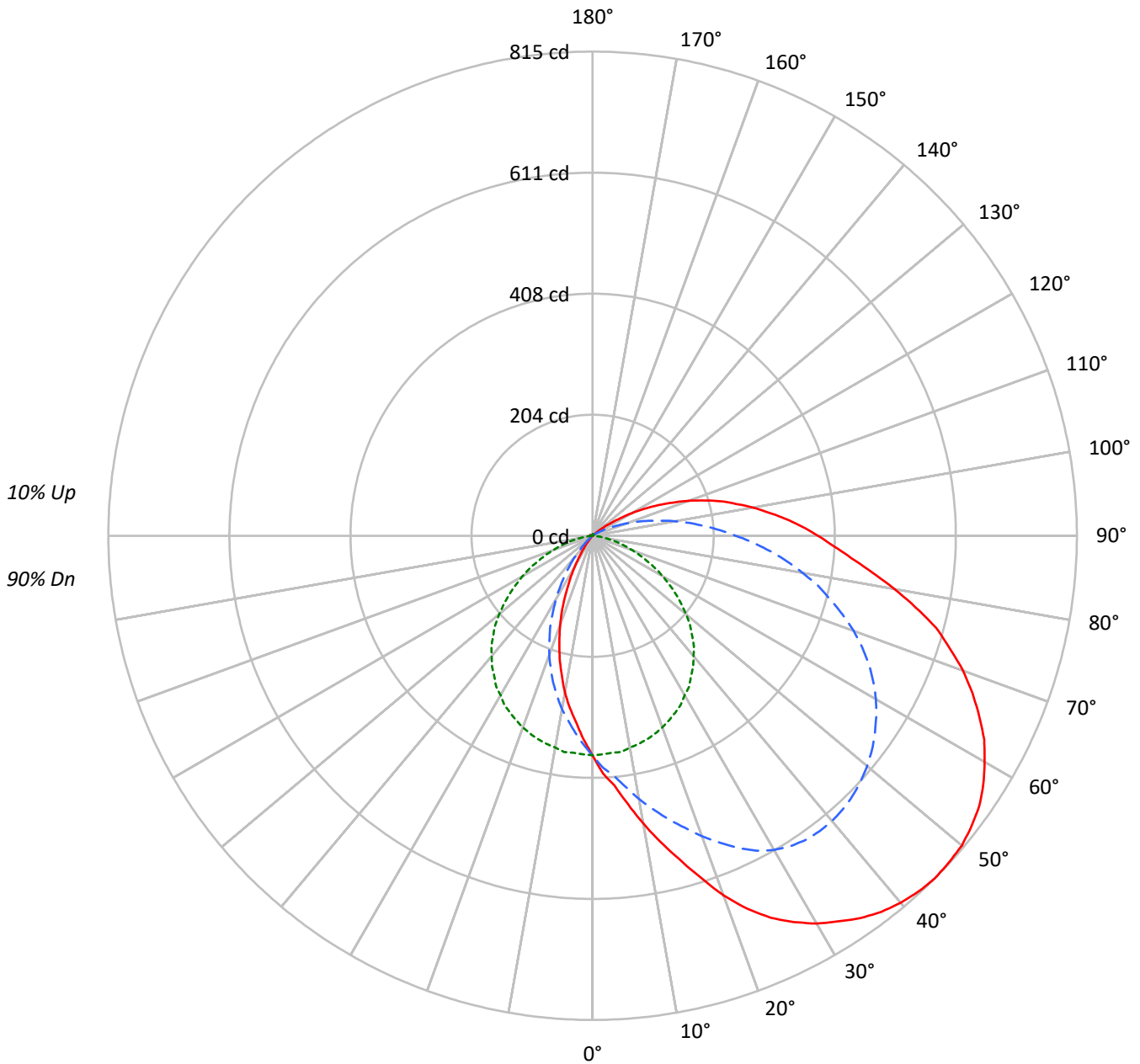
Lumens per Lamp: N/A
Luminaire Lumens: 1827.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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-LD4-1HI-40-UNV-82-94-ED1D

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°	3978	3978	3978
5°	4367	3919	3270
10°	4942	3871	2695
15°	5538	3822	2100
20°	6246	3760	1547
25°	6833	3688	1016
30°	7269	3591	572
35°	7647	3487	252
40°	7982	3359	60
45°	8270	3197	0
50°	8511	2985	0
55°	8695	2713	0
60°	8788	2400	0
65°	8824	2043	0
70°	8794	1666	0
75°	8683	1228	7
80°	8331	751	39
85°	8052	361	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	1.9
10°-20°	106.0	5.8
20°-30°	171.6	9.4
30°-40°	220.5	12.1
40°-50°	249.6	13.7
50°-60°	258.6	14.2
60°-70°	243.9	13.3
70°-80°	204.4	11.2
80°-90°	148.1	8.1
90°-100°	97.4	5.3
100°-110°	56.2	3.1
110°-120°	24.8	1.4
120°-130°	6.7	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	313.0	17.1
0°-40°	533.5	29.2
0°-60°	1041.7	57.0
0°-90°	1638.1	89.7
90°-120°	178.4	9.8
90°-150°	187.7	10.3
90°-180°	189.0	10.3
0°-180°	1827.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	370	370	370	370	370	
5°	422	405	367	333	316	43
15°	564	494	354	256	214	162
25°	710	580	329	168	106	328
35°	786	625	289	82	26	493
45°	815	619	236	19	0	629
55°	794	580	170	0	0	709
65°	718	513	102	0	0	710
75°	598	414	43	0	0	628
85°	438	300	7	2	3	374
90°	379	241	2	3	3	208
95°	326	188	1	3	4	256
105°	224	97	1	2	4	236
115°	122	32	1	1	2	122
125°	36	4	2	1	2	36
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°	369.6	369.6	369.6	369.6	369.6	369.6	369.6	369.6	369.6	369.6	369.6
2.5°	400.6	400.2	398.7	396.4	393.1	387.4	382.7	378.5	372.9	368.1	359.2
5°	421.8	419.5	417.6	415.2	407.7	402.5	394.0	384.6	375.7	366.7	348.8
7.5°	455.7	451.9	449.1	442.5	432.2	420.4	407.2	398.3	392.2	367.2	336.6
10°	492.0	488.7	483.0	471.2	458.5	441.6	422.8	401.6	382.7	362.0	325.8
12.5°	527.7	523.0	515.0	500.0	482.1	460.9	435.0	410.0	383.2	358.7	313.1
15°	563.5	558.3	549.9	531.5	508.0	480.2	448.6	417.1	385.6	354.5	299.9
17.5°	602.6	595.5	582.8	562.1	532.4	498.1	460.9	422.8	384.6	349.3	285.8
20°	644.5	634.6	621.0	593.2	558.3	517.9	473.1	428.4	384.2	343.2	269.8
22.5°	679.3	669.4	654.4	625.7	583.8	534.3	483.5	432.2	382.3	336.1	254.7
25°	709.5	701.5	685.0	652.0	607.8	551.7	493.4	435.0	379.4	328.6	238.7
27.5°	733.0	725.5	707.1	673.2	628.0	567.3	500.9	436.4	375.7	321.1	222.2
30°	753.7	746.2	724.1	689.2	641.7	579.5	508.4	436.9	371.0	309.8	204.3
32.5°	769.7	762.7	740.1	702.9	651.1	588.0	512.7	436.4	364.9	301.8	185.0
35°	785.7	778.7	752.3	712.8	658.1	591.8	516.0	434.1	357.3	288.6	166.7
37.5°	798.0	790.0	763.1	719.3	661.4	592.7	515.5	430.8	349.3	277.8	148.3
40°	806.4	798.0	769.2	723.1	662.4	591.3	511.7	425.1	339.9	264.1	129.0
42.5°	812.1	802.7	772.1	728.8	660.5	587.5	506.1	418.0	329.5	252.3	110.6
45°	814.9	805.0	772.5	724.1	657.2	580.5	497.6	409.1	318.2	236.3	92.3
47.5°	813.5	802.7	770.2	718.9	651.1	572.9	488.2	398.3	304.6	222.2	74.9
50°	811.1	799.8	765.0	712.3	642.6	563.5	477.8	385.1	290.5	204.8	59.3
52.5°	803.6	792.3	759.4	702.9	632.7	552.7	463.7	371.4	275.4	187.8	45.2
55°	794.2	783.8	749.5	694.4	620.0	539.5	450.5	356.8	260.8	170.4	32.5
57.5°	779.6	770.2	737.2	680.7	607.3	524.9	435.9	340.8	242.4	153.0	22.6
60°	761.7	752.3	720.3	665.2	592.7	508.4	419.9	324.4	226.0	135.6	14.1
62.5°	742.9	733.9	700.5	645.9	574.3	491.0	402.5	307.9	208.6	119.6	8.5
65°	717.9	709.5	679.3	622.8	554.1	472.2	383.2	288.1	190.7	101.7	4.7
67.5°	691.6	684.0	653.4	601.7	530.6	451.5	363.4	268.8	171.8	86.2	2.4
70°	663.3	653.9	625.7	572.9	506.6	427.9	341.8	249.0	153.9	71.1	0.0
72.5°	630.4	623.3	596.0	546.1	478.8	403.0	319.7	227.4	134.2	56.5	0.5
75°	598.4	589.4	564.5	517.4	451.5	376.6	295.2	207.1	114.9	43.3	0.5
77.5°	556.9	554.1	530.6	484.9	425.6	351.2	268.3	182.7	96.5	31.1	0.5
80°	515.5	512.7	494.3	452.4	395.5	321.1	243.4	159.6	78.6	20.7	0.5
82.5°	474.5	470.8	453.4	418.5	364.9	295.6	217.5	136.5	62.1	12.7	0.5
85°	437.8	433.1	414.3	382.3	333.3	266.9	190.7	113.9	46.1	7.1	0.9
87.5°	406.3	403.0	382.3	349.3	301.3	240.1	167.1	92.3	32.5	3.3	1.4
90°	379.4	372.4	354.0	319.2	271.2	210.4	142.2	73.9	21.7	1.9	1.9
92.5°	353.1	347.0	326.7	290.9	244.3	185.0	118.2	56.5	13.7	0.9	2.4
95°	325.8	319.2	299.4	266.5	217.0	159.1	97.0	41.4	7.5	0.9	2.4
97.5°	298.9	292.8	272.1	239.2	192.5	136.5	76.7	29.2	3.8	0.9	1.9
100°	274.0	266.9	248.1	215.1	168.1	113.9	59.3	18.8	2.4	0.9	1.9
102.5°	247.6	242.0	222.7	190.7	142.6	92.7	44.3	11.8	0.9	0.9	1.4
105°	224.1	217.0	198.2	165.2	121.5	73.0	31.1	7.1	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	145.9	140.3	123.8	96.0	61.7	28.7	8.5	1.4	1.4	1.4	1.4
115°	121.9	113.5	98.9	74.4	45.7	18.8	4.2	1.4	1.4	1.4	1.4
117.5°	97.5	90.4	80.0	56.5	30.1	12.2	2.4	1.4	1.4	1.4	1.4
120°	76.3	69.7	57.9	39.1	20.2	7.1	0.9	1.4	1.4	1.4	1.4
122.5°	54.6	49.4	39.1	25.4	12.2	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.2	33.4	25.9	15.5	7.5	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.5	21.2	15.1	8.9	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.2	11.8	8.9	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.5	7.1	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	0.9	0.9	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°	369.6	369.6	369.6
2.5°	351.7	345.1	343.2
5°	332.8	322.0	315.9
7.5°	314.0	299.4	292.4
10°	296.6	275.9	268.3
12.5°	275.9	251.9	240.1
15°	256.1	225.0	213.7
17.5°	234.0	199.1	186.0
20°	213.3	173.2	159.6
22.5°	189.7	147.8	132.8
25°	168.5	122.4	105.5
27.5°	145.0	96.5	81.9
30°	122.9	73.9	59.3
32.5°	101.7	54.1	41.0
35°	81.9	36.7	25.9
37.5°	63.1	22.6	13.2
40°	45.7	11.8	6.1
42.5°	30.6	5.6	3.3
45°	18.8	2.8	0.0
47.5°	10.8	0.0	0.0
50°	5.6	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	0.9	1.4
80°	0.9	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.8
87.5°	2.4	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.2
97.5°	3.8	4.2	4.2
100°	3.3	4.2	4.7
102.5°	2.8	4.2	4.2
105°	2.4	3.3	3.8



TEST NUMBER: P550594

CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-82-94-ED1D

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	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	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°	197.7	192.1	173.2	142.2	99.3	55.6	20.7	3.8	0.9	1.4	1.4
110°	172.3	167.6	148.3	118.2	80.0	41.4	13.7	2.4	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.4	2.8



(END OF REPORT)