

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: P551100

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-82-86-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: P551100
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-LD4-1STD-40-UNV-82-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

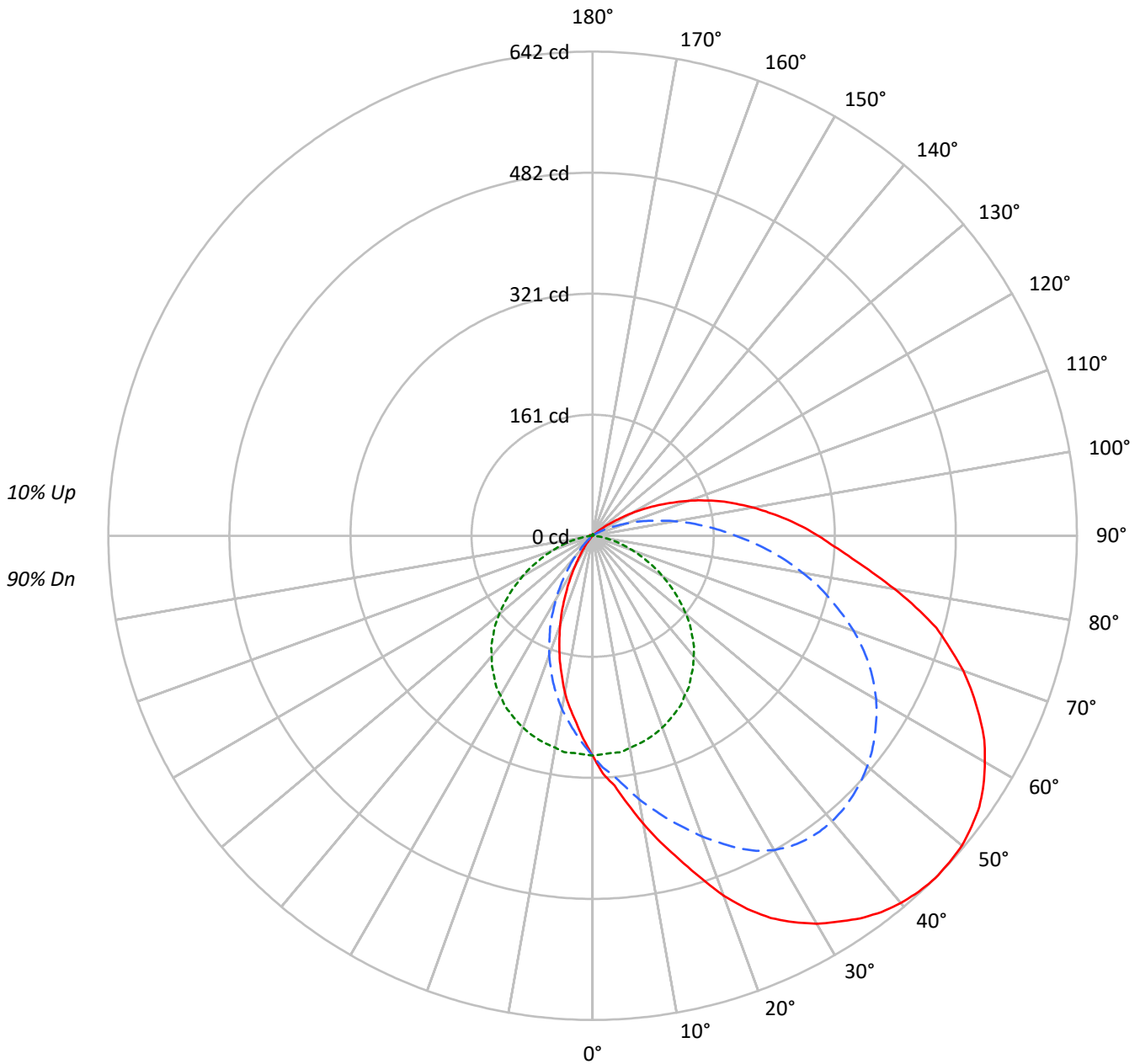
Lumens per Lamp: N/A
Luminaire Lumens: 1440.0 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): 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				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3136	3136	3136
5°	3442	3090	2578
10°	3895	3051	2124
15°	4365	3013	1656
20°	4923	2964	1219
25°	5386	2907	800
30°	5730	2831	451
35°	6028	2749	199
40°	6291	2648	48
45°	6518	2521	0
50°	6708	2352	0
55°	6854	2139	0
60°	6927	1892	0
65°	6955	1609	0
70°	6931	1312	0
75°	6843	967	6
80°	6566	591	31
85°	6347	285	40



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.9	1.9
10°-20°	83.5	5.8
20°-30°	135.3	9.4
30°-40°	173.8	12.1
40°-50°	196.7	13.7
50°-60°	203.8	14.2
60°-70°	192.2	13.3
70°-80°	161.1	11.2
80°-90°	116.8	8.1
90°-100°	76.7	5.3
100°-110°	44.3	3.1
110°-120°	19.6	1.4
120°-130°	5.3	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	246.7	17.1
0°-40°	420.5	29.2
0°-60°	821.0	57.0
0°-90°	1291.1	89.7
90°-120°	140.6	9.8
90°-150°	147.9	10.3
90°-180°	149.0	10.3
0°-180°	1440.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	291	291	291	291	291	
5°	332	319	289	262	249	34
15°	444	389	279	202	168	128
25°	559	457	259	133	83	258
35°	619	493	228	65	20	388
45°	642	488	186	15	0	496
55°	626	457	134	0	0	559
65°	566	404	80	0	0	560
75°	472	326	34	0	0	495
85°	345	237	6	2	2	295
90°	299	190	2	2	3	164
95°	257	148	1	3	3	201
105°	177	77	1	2	3	186
115°	96	25	1	1	2	96
125°	29	4	2	1	2	29
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	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°	291.3	291.3	291.3	291.3	291.3	291.3	291.3	291.3	291.3	291.3	291.3
2.5°	315.8	315.4	314.3	312.4	309.8	305.4	301.7	298.3	293.9	290.2	283.1
5°	332.5	330.6	329.1	327.3	321.3	317.3	310.6	303.2	296.1	289.1	275.0
7.5°	359.2	356.2	354.0	348.8	340.6	331.4	321.0	313.9	309.1	289.4	265.3
10°	387.8	385.2	380.7	371.4	361.4	348.0	333.2	316.5	301.7	285.3	256.8
12.5°	416.0	412.2	405.9	394.1	380.0	363.3	342.9	323.2	302.0	282.7	246.8
15°	444.2	440.1	433.4	418.9	400.4	378.5	353.6	328.8	303.9	279.4	236.4
17.5°	474.9	469.4	459.4	443.0	419.7	392.6	363.3	333.2	303.2	275.3	225.2
20°	508.0	500.2	489.4	467.5	440.1	408.2	372.9	337.7	302.8	270.5	212.6
22.5°	535.4	527.6	515.8	493.1	460.1	421.1	381.1	340.6	301.3	264.9	200.7
25°	559.2	552.9	539.9	513.9	479.0	434.9	388.9	342.9	299.1	259.0	188.1
27.5°	577.7	571.8	557.3	530.6	495.0	447.1	394.8	344.0	296.1	253.1	175.1
30°	594.1	588.1	570.7	543.2	505.7	456.8	400.7	344.3	292.4	244.2	161.0
32.5°	606.7	601.1	583.3	554.0	513.2	463.4	404.1	344.0	287.6	237.8	145.8
35°	619.3	613.7	592.9	561.8	518.7	466.4	406.7	342.1	281.6	227.5	131.4
37.5°	628.9	622.6	601.5	567.0	521.3	467.2	406.3	339.5	275.3	218.9	116.9
40°	635.6	628.9	606.3	569.9	522.1	466.0	403.3	335.1	267.9	208.2	101.7
42.5°	640.1	632.6	608.5	574.4	520.6	463.1	398.9	329.5	259.7	198.9	87.2
45°	642.3	634.5	608.9	570.7	518.0	457.5	392.2	322.4	250.8	186.3	72.7
47.5°	641.2	632.6	607.0	566.6	513.2	451.6	384.8	313.9	240.1	175.1	59.0
50°	639.3	630.4	603.0	561.4	506.5	444.2	376.6	303.5	228.9	161.4	46.8
52.5°	633.4	624.5	598.5	554.0	498.7	435.6	365.5	292.8	217.1	148.1	35.6
55°	626.0	617.8	590.7	547.3	488.7	425.2	355.1	281.3	205.6	134.3	25.6
57.5°	614.5	607.0	581.1	536.5	478.7	413.7	343.6	268.6	191.1	120.6	17.8
60°	600.4	592.9	567.7	524.3	467.2	400.7	331.0	255.7	178.1	106.9	11.1
62.5°	585.5	578.5	552.1	509.1	452.7	387.0	317.3	242.7	164.4	94.2	6.7
65°	565.9	559.2	535.4	490.9	436.7	372.2	302.0	227.1	150.3	80.1	3.7
67.5°	545.1	539.1	515.0	474.2	418.2	355.8	286.5	211.9	135.4	67.9	1.9
70°	522.8	515.4	493.1	451.6	399.3	337.3	269.4	196.3	121.3	56.0	0.0
72.5°	496.8	491.3	469.8	430.4	377.4	317.6	251.9	179.2	105.8	44.5	0.4
75°	471.6	464.6	444.9	407.8	355.8	296.8	232.7	163.3	90.5	34.1	0.4
77.5°	439.0	436.7	418.2	382.2	335.4	276.8	211.5	144.0	76.1	24.5	0.4
80°	406.3	404.1	389.6	356.6	311.7	253.1	191.8	125.8	62.0	16.3	0.4
82.5°	374.0	371.1	357.3	329.9	287.6	233.0	171.4	107.6	49.0	10.0	0.4
85°	345.1	341.4	326.5	301.3	262.7	210.4	150.3	89.8	36.4	5.6	0.7
87.5°	320.2	317.6	301.3	275.3	237.5	189.2	131.7	72.7	25.6	2.6	1.1
90°	299.1	293.5	279.0	251.6	213.7	165.9	112.1	58.3	17.1	1.5	1.5
92.5°	278.3	273.5	257.5	229.3	192.6	145.8	93.1	44.5	10.8	0.7	1.9
95°	256.8	251.6	236.0	210.0	171.1	125.4	76.4	32.7	5.9	0.7	1.9
97.5°	235.6	230.8	214.5	188.5	151.8	107.6	60.5	23.0	3.0	0.7	1.5
100°	216.0	210.4	195.5	169.6	132.5	89.8	46.8	14.8	1.9	0.7	1.5
102.5°	195.2	190.7	175.5	150.3	112.4	73.1	34.9	9.3	0.7	0.7	1.1
105°	176.6	171.1	156.2	130.2	95.7	57.5	24.5	5.6	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	115.0	110.6	97.6	75.7	48.6	22.6	6.7	1.1	1.1	1.1	1.1
115°	96.1	89.4	77.9	58.6	36.0	14.8	3.3	1.1	1.1	1.1	1.1
117.5°	76.8	71.2	63.1	44.5	23.7	9.6	1.9	1.1	1.1	1.1	1.1
120°	60.1	54.9	45.6	30.8	16.0	5.6	0.7	1.1	1.1	1.1	1.1
122.5°	43.0	39.0	30.8	20.0	9.6	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.6	26.3	20.4	12.2	5.9	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.6	16.7	11.9	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.4	9.3	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.9	5.6	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	291.3	291.3	291.3
2.5°	277.2	272.0	270.5
5°	262.3	253.8	249.0
7.5°	247.5	236.0	230.4
10°	233.8	217.4	211.5
12.5°	217.4	198.5	189.2
15°	201.9	177.4	168.5
17.5°	184.4	157.0	146.6
20°	168.1	136.5	125.8
22.5°	149.5	116.5	104.6
25°	132.8	96.5	83.1
27.5°	114.3	76.1	64.6
30°	96.8	58.3	46.8
32.5°	80.1	42.7	32.3
35°	64.6	28.9	20.4
37.5°	49.7	17.8	10.4
40°	36.0	9.3	4.8
42.5°	24.1	4.5	2.6
45°	14.8	2.2	0.0
47.5°	8.5	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.2
87.5°	1.9	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	3.0	3.0
95°	2.6	3.0	3.3
97.5°	3.0	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.9	2.6	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	155.8	151.4	136.5	112.1	78.3	43.8	16.3	3.0	0.7	1.1	1.1
110°	135.8	132.1	116.9	93.1	63.1	32.7	10.8	1.9	1.1	1.1	1.1





107.5°	1.5	2.2	2.6
110°	1.5	1.9	2.2



(END OF REPORT)