

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: P550526

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-82-87-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: P550526  
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-35-UNV-82-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

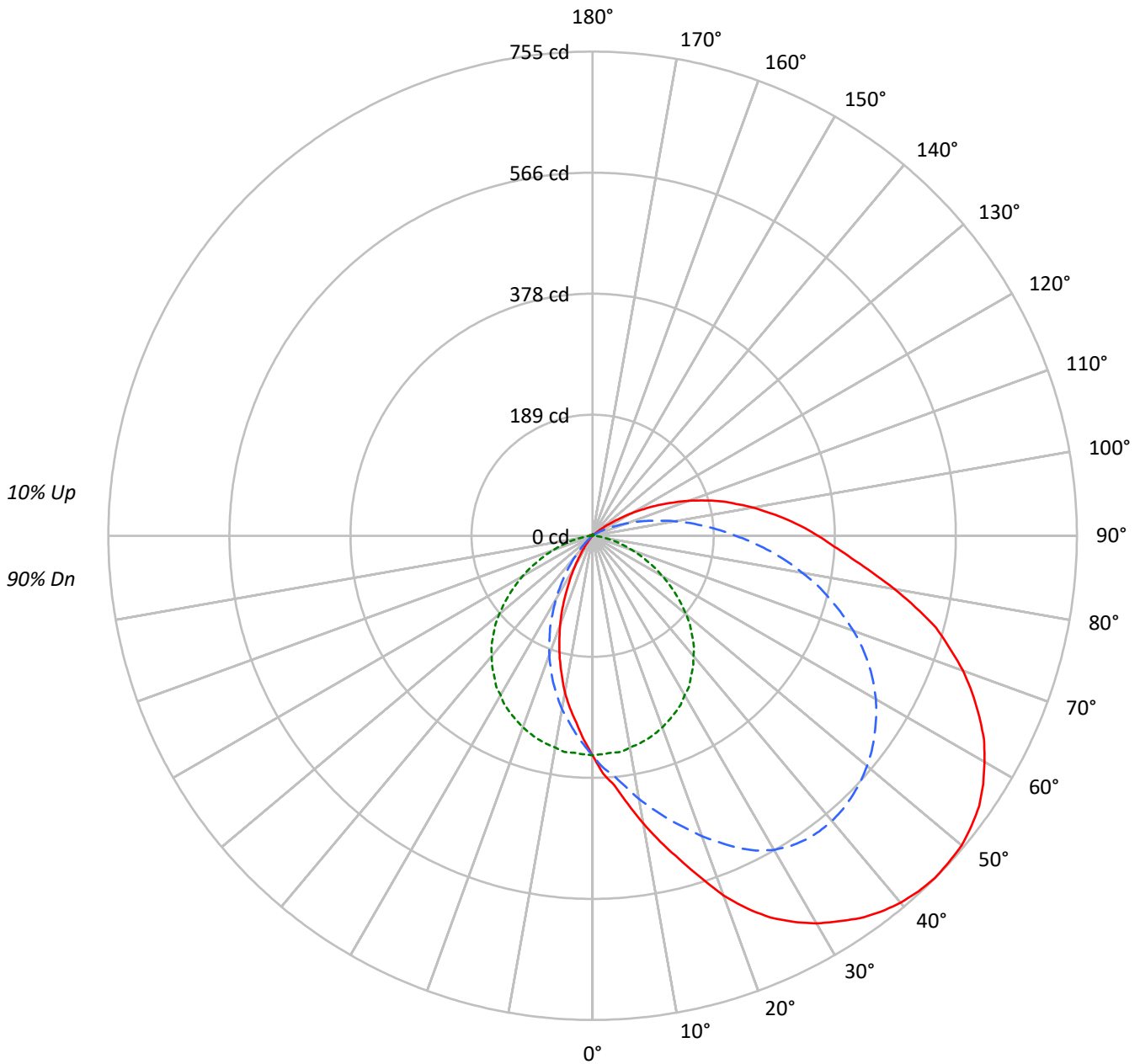
Lumens per Lamp: N/A  
Luminaire Lumens: 1691.9 lumens  
Efficiency: N/A  
Efficacy: 78.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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-35-UNV-82-87-ED1D

### 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°	3684	3684	3684
5°	4044	3630	3028
10°	4576	3586	2496
15°	5129	3540	1945
20°	5785	3482	1432
25°	6328	3415	941
30°	6732	3326	530
35°	7083	3230	234
40°	7392	3111	56
45°	7659	2962	0
50°	7882	2765	0
55°	8053	2513	0
60°	8138	2223	0
65°	8172	1892	0
70°	8145	1541	0
75°	8040	1137	6
80°	7715	696	36
85°	7458	331	48



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.8	1.9
10°-20°	98.2	5.8
20°-30°	159.0	9.4
30°-40°	204.2	12.1
40°-50°	231.1	13.7
50°-60°	239.5	14.2
60°-70°	225.8	13.3
70°-80°	189.3	11.2
80°-90°	137.2	8.1
90°-100°	90.2	5.3
100°-110°	52.1	3.1
110°-120°	23.0	1.4
120°-130°	6.2	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	289.9	17.1
0°-40°	494.1	29.2
0°-60°	964.7	57.0
0°-90°	1517.0	89.7
90°-120°	165.2	9.8
90°-150°	173.8	10.3
90°-180°	175.0	10.3
0°-180°	1691.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	342	342	342	342	342	
5°	391	375	340	308	292	39
15°	522	458	328	237	198	150
25°	657	537	304	156	98	304
35°	728	579	267	76	24	456
45°	755	573	219	17	0	583
55°	736	537	158	0	0	657
65°	665	475	94	0	0	658
75°	554	383	40	0	0	581
85°	406	278	6	2	3	346
90°	351	223	2	3	3	193
95°	302	174	1	3	4	237
105°	208	90	1	2	4	219
115°	113	30	1	1	2	113
125°	34	4	2	1	2	34
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°	342.3	342.3	342.3	342.3	342.3	342.3	342.3	342.3	342.3	342.3	342.3
2.5°	371.0	370.6	369.3	367.1	364.1	358.8	354.5	350.5	345.3	340.9	332.7
5°	390.6	388.5	386.7	384.5	377.6	372.8	364.9	356.2	347.9	339.6	323.1
7.5°	422.0	418.5	415.9	409.8	400.2	389.3	377.1	368.8	363.2	340.1	311.7
10°	455.6	452.6	447.3	436.4	424.7	409.0	391.5	371.9	354.5	335.3	301.7
12.5°	488.7	484.4	477.0	463.0	446.5	426.8	402.9	379.7	354.9	332.2	289.9
15°	521.9	517.1	509.2	492.2	470.4	444.7	415.5	386.3	357.1	328.3	277.7
17.5°	558.1	551.5	539.8	520.6	493.1	461.3	426.8	391.5	356.2	323.5	264.6
20°	596.9	587.7	575.1	549.3	517.1	479.6	438.2	396.7	355.8	317.8	249.8
22.5°	629.1	620.0	606.0	579.4	540.6	494.8	447.8	400.2	354.0	311.3	235.9
25°	657.0	649.6	634.4	603.8	562.9	511.0	456.9	402.9	351.4	304.3	221.0
27.5°	678.8	671.9	654.9	623.5	581.6	525.4	463.9	404.2	347.9	297.3	205.8
30°	698.0	691.0	670.6	638.3	594.3	536.7	470.9	404.6	343.6	286.9	189.2
32.5°	712.8	706.3	685.4	650.9	603.0	544.5	474.8	404.2	337.9	279.5	171.3
35°	727.7	721.1	696.7	660.1	609.5	548.0	477.8	402.0	330.9	267.3	154.3
37.5°	739.0	731.6	706.7	666.2	612.6	548.9	477.4	398.9	323.5	257.2	137.3
40°	746.8	739.0	712.4	669.7	613.4	547.6	473.9	393.7	314.8	244.6	119.5
42.5°	752.1	743.4	715.0	674.9	611.7	544.1	468.7	387.2	305.2	233.7	102.5
45°	754.7	745.5	715.5	670.6	608.6	537.6	460.8	378.9	294.7	218.9	85.5
47.5°	753.4	743.4	713.3	665.8	603.0	530.6	452.1	368.8	282.1	205.8	69.3
50°	751.2	740.7	708.5	659.7	595.1	521.9	442.5	356.6	269.0	189.7	54.9
52.5°	744.2	733.8	703.2	650.9	586.0	511.9	429.4	344.0	255.1	174.0	41.9
55°	735.5	725.9	694.1	643.1	574.2	499.6	417.2	330.5	241.5	157.8	30.1
57.5°	722.0	713.3	682.8	630.4	562.4	486.1	403.7	315.7	224.5	141.7	20.9
60°	705.4	696.7	667.1	616.1	548.9	470.9	388.9	300.4	209.3	125.6	13.1
62.5°	688.0	679.7	648.8	598.2	531.9	454.7	372.8	285.1	193.1	110.7	7.8
65°	664.9	657.0	629.1	576.8	513.2	437.3	354.9	266.8	176.6	94.2	4.4
67.5°	640.5	633.5	605.2	557.2	491.4	418.1	336.6	248.9	159.1	79.8	2.2
70°	614.3	605.6	579.4	530.6	469.1	396.3	316.5	230.6	142.6	65.8	0.0
72.5°	583.8	577.2	552.0	505.7	443.4	373.2	296.0	210.6	124.3	52.3	0.4
75°	554.1	545.9	522.8	479.2	418.1	348.8	273.4	191.8	106.4	40.1	0.4
77.5°	515.8	513.2	491.4	449.1	394.1	325.2	248.5	169.2	89.4	28.8	0.4
80°	477.4	474.8	457.8	419.0	366.2	297.3	225.4	147.8	72.8	19.2	0.4
82.5°	439.5	436.0	419.9	387.6	337.9	273.8	201.4	126.4	57.6	11.8	0.4
85°	405.5	401.1	383.7	354.0	308.7	247.2	176.6	105.5	42.7	6.5	0.9
87.5°	376.3	373.2	354.0	323.5	279.0	222.4	154.8	85.5	30.1	3.1	1.3
90°	351.4	344.9	327.9	295.6	251.1	194.9	131.7	68.5	20.1	1.7	1.7
92.5°	327.0	321.3	302.6	269.4	226.3	171.3	109.4	52.3	12.6	0.9	2.2
95°	301.7	295.6	277.3	246.8	201.0	147.4	89.8	38.4	7.0	0.9	2.2
97.5°	276.9	271.2	252.0	221.5	178.3	126.4	71.1	27.0	3.5	0.9	1.7
100°	253.7	247.2	229.8	199.2	155.6	105.5	54.9	17.4	2.2	0.9	1.7
102.5°	229.3	224.1	206.2	176.6	132.1	85.9	41.0	10.9	0.9	0.9	1.3
105°	207.5	201.0	183.6	153.0	112.5	67.6	28.8	6.5	0.9	0.9	1.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	135.2	129.9	114.7	88.9	57.1	26.6	7.8	1.3	1.3	1.3	1.3
115°	112.9	105.1	91.6	68.9	42.3	17.4	3.9	1.3	1.3	1.3	1.3
117.5°	90.2	83.7	74.1	52.3	27.9	11.3	2.2	1.3	1.3	1.3	1.3
120°	70.6	64.5	53.6	36.2	18.7	6.5	0.9	1.3	1.3	1.3	1.3
122.5°	50.6	45.8	36.2	23.5	11.3	3.1	1.3	1.3	1.7	1.7	1.3
125°	33.6	31.0	24.0	14.4	7.0	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.8	19.6	14.0	8.3	3.1	1.3	1.3	1.7	1.7	1.7	1.3
130°	12.2	10.9	8.3	4.8	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	7.0	6.5	4.4	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.7	2.2	2.2	2.2	1.7
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	1.7
142.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
145°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	1.7	1.7	1.7
147.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
150°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
152.5°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
155°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
157.5°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	342.3	342.3	342.3
2.5°	325.7	319.6	317.8
5°	308.2	298.2	292.5
7.5°	290.8	277.3	270.7
10°	274.7	255.5	248.5
12.5°	255.5	233.3	222.4
15°	237.2	208.4	197.9
17.5°	216.7	184.4	172.2
20°	197.5	160.4	147.8
22.5°	175.7	136.9	122.9
25°	156.1	113.4	97.7
27.5°	134.3	89.4	75.9
30°	113.8	68.5	54.9
32.5°	94.2	50.1	37.9
35°	75.9	34.0	24.0
37.5°	58.4	20.9	12.2
40°	42.3	10.9	5.7
42.5°	28.3	5.2	3.1
45°	17.4	2.6	0.0
47.5°	10.0	0.0	0.0
50°	5.2	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.7	2.2
82.5°	1.7	2.2	2.2
85°	1.7	2.2	2.6
87.5°	2.2	2.6	3.1
90°	2.6	3.1	3.1
92.5°	2.6	3.5	3.5
95°	3.1	3.5	3.9
97.5°	3.5	3.9	3.9
100°	3.1	3.9	4.4
102.5°	2.6	3.9	3.9
105°	2.2	3.1	3.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.7	2.2	2.2
115°	1.3	1.7	2.2
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.7	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	183.1	177.9	160.4	131.7	92.0	51.4	19.2	3.5	0.9	1.3	1.3
110°	159.6	155.2	137.3	109.4	74.1	38.4	12.6	2.2	1.3	1.3	1.3







107.5°	1.7	2.6	3.1
110°	1.7	2.2	2.6



(END OF REPORT)