

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: P550528

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-82-88-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: P550528  
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-82-88-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

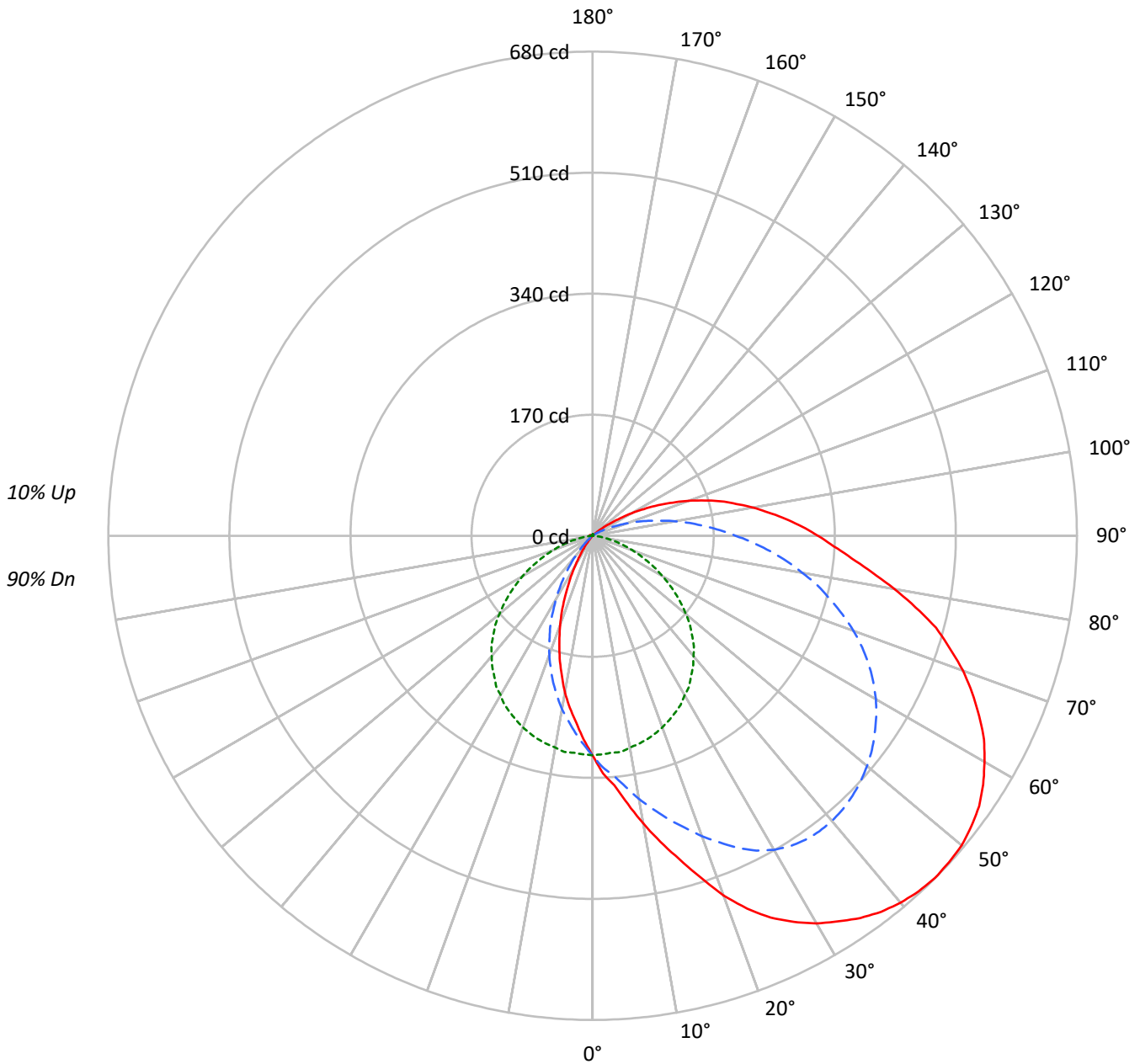
Lumens per Lamp: N/A  
Luminaire Lumens: 1524.1 lumens  
Efficiency: N/A  
Efficacy: 70.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
Input Voltage (V): NR  
Input Current (A<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

TEST NUMBER: P550528

CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-82-88-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°	3319	3319	3319
5°	3643	3270	2728
10°	4122	3230	2248
15°	4620	3188	1752
20°	5210	3137	1290
25°	5700	3076	848
30°	6064	2995	477
35°	6379	2908	210
40°	6659	2802	50
45°	6899	2667	0
50°	7100	2489	0
55°	7253	2264	0
60°	7330	2001	0
65°	7361	1703	0
70°	7336	1389	0
75°	7242	1024	6
80°	6949	628	32
85°	6717	300	44



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.5	1.9
10°-20°	88.4	5.8
20°-30°	143.2	9.4
30°-40°	183.9	12.1
40°-50°	208.2	13.7
50°-60°	215.7	14.2
60°-70°	203.4	13.3
70°-80°	170.5	11.2
80°-90°	123.6	8.1
90°-100°	81.2	5.3
100°-110°	46.9	3.1
110°-120°	20.7	1.4
120°-130°	5.6	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	261.1	17.1
0°-40°	445.0	29.2
0°-60°	868.9	57.0
0°-90°	1366.4	89.7
90°-120°	148.8	9.8
90°-150°	156.6	10.3
90°-180°	158.0	10.4
0°-180°	1524.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	308	308	308	308	308	
5°	352	338	306	278	264	35
15°	470	412	296	214	178	136
25°	592	484	274	141	88	274
35°	655	521	241	68	22	411
45°	680	516	197	16	0	525
55°	662	484	142	0	0	592
65°	599	428	85	0	0	593
75°	499	345	36	0	0	523
85°	365	250	6	2	2	312
90°	316	201	2	2	3	174
95°	272	157	1	3	4	213
105°	187	81	1	2	3	197
115°	102	27	1	1	2	102
125°	30	4	2	1	2	30
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°	308.3	308.3	308.3	308.3	308.3	308.3	308.3	308.3	308.3	308.3	308.3
2.5°	334.2	333.8	332.6	330.7	327.9	323.2	319.3	315.7	311.0	307.1	299.6
5°	351.9	349.9	348.3	346.4	340.1	335.8	328.7	320.8	313.4	305.9	291.0
7.5°	380.1	377.0	374.6	369.1	360.5	350.7	339.7	332.2	327.1	306.3	280.8
10°	410.4	407.6	402.9	393.1	382.5	368.4	352.6	335.0	319.3	302.0	271.7
12.5°	440.2	436.3	429.6	417.0	402.1	384.5	362.9	342.0	319.7	299.2	261.1
15°	470.1	465.7	458.7	443.4	423.7	400.6	374.2	347.9	321.6	295.7	250.1
17.5°	502.7	496.8	486.2	468.9	444.1	415.5	384.5	352.6	320.8	291.4	238.4
20°	537.6	529.4	518.0	494.8	465.7	432.0	394.7	357.4	320.4	286.3	225.0
22.5°	566.7	558.4	545.9	521.9	486.9	445.7	403.3	360.5	318.9	280.4	212.5
25°	591.8	585.1	571.4	543.9	507.0	460.2	411.5	362.9	316.5	274.1	199.1
27.5°	611.4	605.1	589.8	561.6	523.9	473.2	417.8	364.0	313.4	267.8	185.4
30°	628.7	622.4	604.0	574.9	535.2	483.4	424.1	364.4	309.4	258.4	170.4
32.5°	642.1	636.2	617.3	586.3	543.1	490.5	427.6	364.0	304.3	251.7	154.3
35°	655.4	649.5	627.5	594.5	549.0	493.6	430.4	362.1	298.1	240.7	139.0
37.5°	665.6	658.9	636.6	600.0	551.7	494.4	430.0	359.3	291.4	231.7	123.7
40°	672.7	665.6	641.7	603.2	552.5	493.2	426.9	354.6	283.5	220.3	107.6
42.5°	677.4	669.6	644.0	607.9	551.0	490.1	422.2	348.7	274.9	210.5	92.3
45°	679.8	671.5	644.4	604.0	548.2	484.2	415.1	341.3	265.5	197.1	77.0
47.5°	678.6	669.6	642.5	599.7	543.1	477.9	407.2	332.2	254.1	185.4	62.4
50°	676.6	667.2	638.1	594.2	536.0	470.1	398.6	321.2	242.3	170.8	49.5
52.5°	670.3	660.9	633.4	586.3	527.8	461.0	386.8	309.8	229.7	156.7	37.7
55°	662.5	653.8	625.2	579.2	517.2	450.0	375.8	297.7	217.6	142.2	27.1
57.5°	650.3	642.5	615.0	567.8	506.6	437.9	363.6	284.3	202.2	127.6	18.8
60°	635.4	627.5	600.8	554.9	494.4	424.1	350.3	270.6	188.5	113.1	11.8
62.5°	619.7	612.2	584.3	538.8	479.1	409.6	335.8	256.8	174.0	99.7	7.1
65°	598.9	591.8	566.7	519.5	462.2	393.9	319.7	240.3	159.0	84.8	3.9
67.5°	576.9	570.6	545.1	501.9	442.6	376.6	303.2	224.2	143.3	71.9	2.0
70°	553.3	545.5	521.9	477.9	422.5	357.0	285.1	207.7	128.4	59.3	0.0
72.5°	525.8	519.9	497.2	455.5	399.4	336.2	266.6	189.7	111.9	47.1	0.4
75°	499.1	491.7	470.8	431.6	376.6	314.2	246.2	172.8	95.8	36.1	0.4
77.5°	464.6	462.2	442.6	404.5	355.0	293.0	223.8	152.4	80.5	25.9	0.4
80°	430.0	427.6	412.3	377.4	329.9	267.8	203.0	133.1	65.6	17.3	0.4
82.5°	395.8	392.7	378.2	349.1	304.3	246.6	181.4	113.9	51.8	10.6	0.4
85°	365.2	361.3	345.6	318.9	278.0	222.7	159.0	95.0	38.5	5.9	0.8
87.5°	338.9	336.2	318.9	291.4	251.3	200.3	139.4	77.0	27.1	2.7	1.2
90°	316.5	310.6	295.3	266.2	226.2	175.5	118.6	61.7	18.1	1.6	1.6
92.5°	294.5	289.4	272.5	242.7	203.8	154.3	98.6	47.1	11.4	0.8	2.0
95°	271.7	266.2	249.8	222.3	181.0	132.7	80.9	34.6	6.3	0.8	2.0
97.5°	249.4	244.3	227.0	199.5	160.6	113.9	64.0	24.3	3.1	0.8	1.6
100°	228.6	222.7	207.0	179.5	140.2	95.0	49.5	15.7	2.0	0.8	1.6
102.5°	206.6	201.8	185.7	159.0	119.0	77.4	36.9	9.8	0.8	0.8	1.2
105°	186.9	181.0	165.3	137.8	101.3	60.9	25.9	5.9	0.8	0.8	1.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	121.7	117.0	103.3	80.1	51.4	24.0	7.1	1.2	1.2	1.2	1.2
115°	101.7	94.6	82.5	62.0	38.1	15.7	3.5	1.2	1.2	1.2	1.2
117.5°	81.3	75.4	66.8	47.1	25.1	10.2	2.0	1.2	1.2	1.2	1.2
120°	63.6	58.1	48.3	32.6	16.9	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.6	41.2	32.6	21.2	10.2	2.7	1.2	1.2	1.6	1.6	1.2
125°	30.2	27.9	21.6	13.0	6.3	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.6	17.7	12.6	7.5	2.7	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.0	9.8	7.5	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.3	5.9	3.9	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	308.3	308.3	308.3
2.5°	293.3	287.8	286.3
5°	277.6	268.6	263.5
7.5°	261.9	249.8	243.9
10°	247.4	230.1	223.8
12.5°	230.1	210.1	200.3
15°	213.6	187.7	178.3
17.5°	195.2	166.1	155.1
20°	177.9	144.5	133.1
22.5°	158.3	123.3	110.7
25°	140.6	102.1	88.0
27.5°	121.0	80.5	68.3
30°	102.5	61.7	49.5
32.5°	84.8	45.2	34.2
35°	68.3	30.6	21.6
37.5°	52.6	18.8	11.0
40°	38.1	9.8	5.1
42.5°	25.5	4.7	2.7
45°	15.7	2.4	0.0
47.5°	9.0	0.0	0.0
50°	4.7	0.0	0.0
52.5°	2.0	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	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.7
90°	2.4	2.7	2.7
92.5°	2.4	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.4	3.5	3.5
105°	2.0	2.7	3.1





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	164.9	160.2	144.5	118.6	82.9	46.3	17.3	3.1	0.8	1.2	1.2
110°	143.7	139.8	123.7	98.6	66.8	34.6	11.4	2.0	1.2	1.2	1.2







107.5°	1.6	2.4	2.7
110°	1.6	2.0	2.4



(END OF REPORT)