

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: P550830

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-81-87-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: P550830  
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-LD4-1LO-40-UNV-81-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

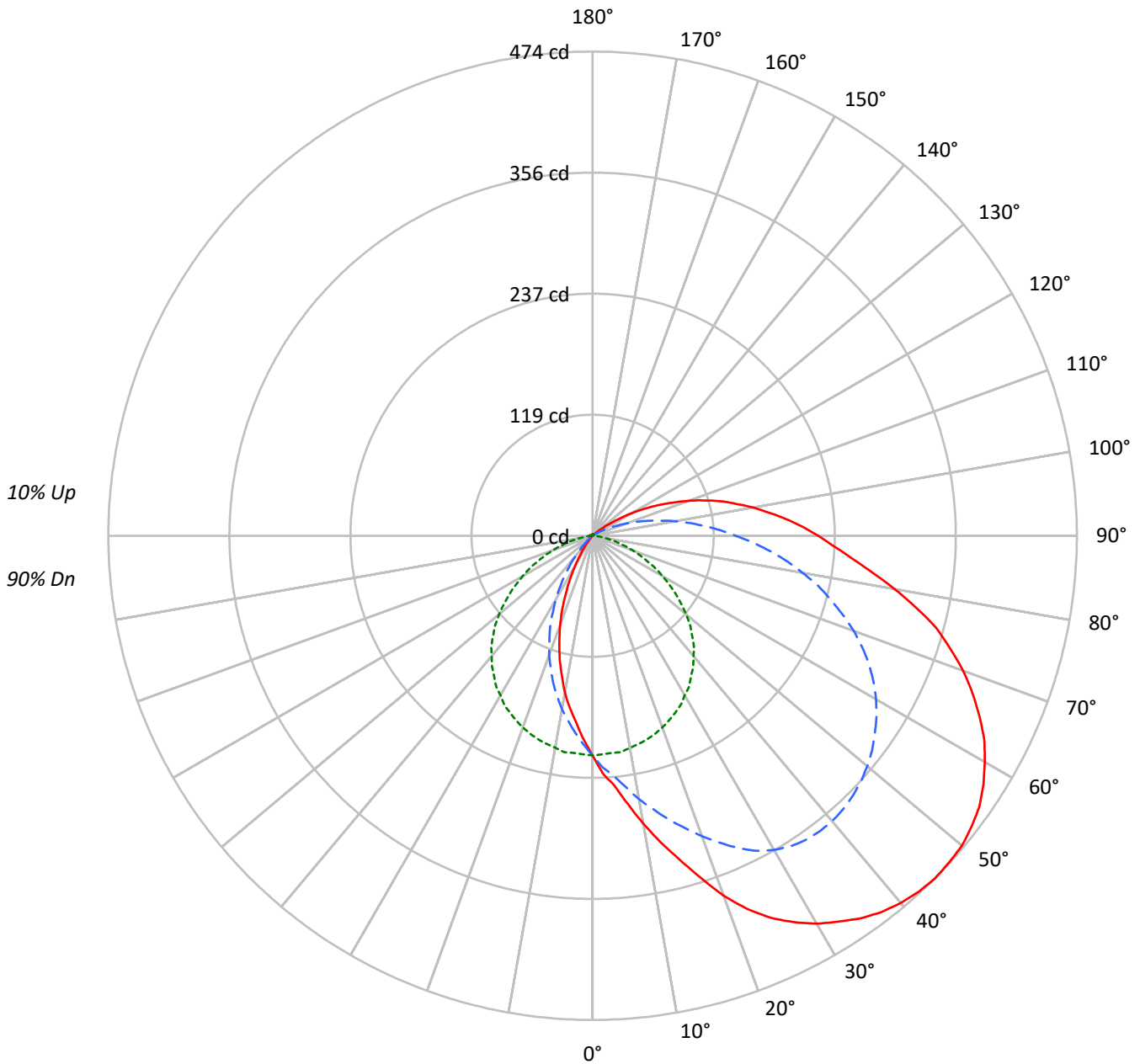
Lumens per Lamp: N/A  
Luminaire Lumens: 1063.0 lumens  
Efficiency: N/A  
Efficacy: 90.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 11.7  
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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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-87-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°	2314	2314	2314
5°	2540	2281	1903
10°	2875	2252	1568
15°	3222	2224	1222
20°	3634	2188	900
25°	3976	2146	591
30°	4229	2089	333
35°	4450	2029	147
40°	4644	1955	36
45°	4811	1861	0
50°	4952	1737	0
55°	5059	1580	0
60°	5113	1396	0
65°	5134	1189	0
70°	5116	970	0
75°	5051	715	4
80°	4847	439	23
85°	4684	208	29



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.6	1.9
10°-20°	61.7	5.8
20°-30°	99.9	9.4
30°-40°	128.3	12.1
40°-50°	145.2	13.7
50°-60°	150.4	14.2
60°-70°	141.9	13.3
70°-80°	118.9	11.2
80°-90°	86.2	8.1
90°-100°	56.6	5.3
100°-110°	32.7	3.1
110°-120°	14.4	1.4
120°-130°	3.9	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	182.1	17.1
0°-40°	310.4	29.2
0°-60°	606.1	57.0
0°-90°	953.1	89.7
90°-120°	103.8	9.8
90°-150°	109.2	10.3
90°-180°	110.0	10.3
0°-180°	1063.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	215	215	215	215	215	
5°	245	236	213	194	184	25
15°	328	287	206	149	124	95
25°	413	337	191	98	61	191
35°	457	364	168	48	15	287
45°	474	360	138	11	0	366
55°	462	337	99	0	0	413
65°	418	299	59	0	0	413
75°	348	241	25	0	0	365
85°	255	175	4	1	2	218
90°	221	140	1	2	2	121
95°	190	109	0	2	2	149
105°	130	57	0	1	2	138
115°	71	19	1	1	1	71
125°	21	3	1	1	1	21
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	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°	215.0	215.0	215.0	215.0	215.0	215.0	215.0	215.0	215.0	215.0	215.0
2.5°	233.1	232.8	232.0	230.6	228.7	225.4	222.7	220.2	216.9	214.2	209.0
5°	245.4	244.1	243.0	241.6	237.2	234.2	229.3	223.8	218.6	213.4	203.0
7.5°	265.1	263.0	261.3	257.5	251.4	244.6	236.9	231.7	228.2	213.6	195.8
10°	286.2	284.3	281.0	274.2	266.8	256.9	246.0	233.6	222.7	210.6	189.5
12.5°	307.1	304.3	299.7	290.9	280.5	268.2	253.1	238.6	223.0	208.7	182.2
15°	327.9	324.9	319.9	309.2	295.5	279.4	261.0	242.7	224.3	206.3	174.5
17.5°	350.6	346.5	339.1	327.0	309.8	289.8	268.2	246.0	223.8	203.2	166.3
20°	375.0	369.2	361.3	345.1	324.9	301.3	275.3	249.3	223.5	199.7	157.0
22.5°	395.3	389.5	380.7	364.0	339.6	310.9	281.3	251.4	222.4	195.6	148.2
25°	412.8	408.1	398.5	379.4	353.6	321.0	287.1	253.1	220.8	191.2	138.9
27.5°	426.5	422.1	411.4	391.7	365.4	330.1	291.4	253.9	218.6	186.8	129.3
30°	438.5	434.1	421.3	401.0	373.3	337.2	295.8	254.2	215.8	180.2	118.9
32.5°	447.8	443.7	430.6	408.9	378.8	342.1	298.3	253.9	212.3	175.6	107.6
35°	457.2	453.0	437.7	414.7	382.9	344.3	300.2	252.5	207.9	167.9	97.0
37.5°	464.3	459.6	444.0	418.5	384.8	344.9	299.9	250.6	203.2	161.6	86.3
40°	469.2	464.3	447.6	420.7	385.4	344.0	297.7	247.3	197.8	153.7	75.1
42.5°	472.5	467.0	449.2	424.0	384.3	341.8	294.5	243.2	191.7	146.8	64.4
45°	474.1	468.4	449.5	421.3	382.4	337.7	289.5	238.0	185.2	137.5	53.7
47.5°	473.3	467.0	448.1	418.3	378.8	333.3	284.0	231.7	177.2	129.3	43.6
50°	471.9	465.4	445.1	414.4	373.9	327.9	278.0	224.1	169.0	119.2	34.5
52.5°	467.6	461.0	441.8	408.9	368.1	321.6	269.8	216.1	160.2	109.3	26.3
55°	462.1	456.1	436.1	404.0	360.7	313.9	262.1	207.6	151.7	99.2	18.9
57.5°	453.6	448.1	428.9	396.1	353.3	305.4	253.6	198.3	141.1	89.0	13.1
60°	443.2	437.7	419.1	387.0	344.9	295.8	244.3	188.7	131.5	78.9	8.2
62.5°	432.2	427.0	407.6	375.8	334.2	285.7	234.2	179.1	121.3	69.6	4.9
65°	417.7	412.8	395.3	362.4	322.4	274.7	223.0	167.6	110.9	59.2	2.7
67.5°	402.4	398.0	380.2	350.1	308.7	262.7	211.5	156.4	100.0	50.1	1.4
70°	385.9	380.5	364.0	333.3	294.7	249.0	198.9	144.9	89.6	41.4	0.0
72.5°	366.8	362.7	346.8	317.7	278.6	234.5	186.0	132.3	78.1	32.9	0.3
75°	348.1	342.9	328.4	301.0	262.7	219.1	171.7	120.5	66.8	25.2	0.3
77.5°	324.0	322.4	308.7	282.1	247.6	204.3	156.1	106.3	56.2	18.1	0.3
80°	299.9	298.3	287.6	263.2	230.1	186.8	141.6	92.9	45.7	12.1	0.3
82.5°	276.1	273.9	263.8	243.5	212.3	172.0	126.5	79.4	36.2	7.4	0.3
85°	254.7	252.0	241.0	222.4	193.9	155.3	110.9	66.3	26.8	4.1	0.5
87.5°	236.4	234.5	222.4	203.2	175.3	139.7	97.2	53.7	18.9	1.9	0.8
90°	220.8	216.7	206.0	185.7	157.8	122.4	82.7	43.0	12.6	1.1	1.1
92.5°	205.4	201.9	190.1	169.3	142.2	107.6	68.8	32.9	7.9	0.5	1.4
95°	189.5	185.7	174.2	155.0	126.3	92.6	56.4	24.1	4.4	0.5	1.4
97.5°	173.9	170.4	158.3	139.1	112.0	79.4	44.6	17.0	2.2	0.5	1.1
100°	159.4	155.3	144.4	125.2	97.8	66.3	34.5	11.0	1.4	0.5	1.1
102.5°	144.1	140.8	129.6	110.9	83.0	54.0	25.7	6.8	0.5	0.5	0.8
105°	130.4	126.3	115.3	96.1	70.7	42.5	18.1	4.1	0.5	0.5	0.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	84.9	81.6	72.0	55.9	35.9	16.7	4.9	0.8	0.8	0.8	0.8
115°	70.9	66.0	57.5	43.3	26.6	11.0	2.5	0.8	0.8	0.8	0.8
117.5°	56.7	52.6	46.6	32.9	17.5	7.1	1.4	0.8	0.8	0.8	0.8
120°	44.4	40.5	33.7	22.7	11.8	4.1	0.5	0.8	0.8	0.8	0.8
122.5°	31.8	28.8	22.7	14.8	7.1	1.9	0.8	0.8	1.1	1.1	0.8
125°	21.1	19.4	15.1	9.0	4.4	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.7	12.3	8.8	5.2	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.7	6.8	5.2	3.0	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.4	4.1	2.7	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.4
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	215.0	215.0	215.0
2.5°	204.6	200.8	199.7
5°	193.7	187.4	183.8
7.5°	182.7	174.2	170.1
10°	172.6	160.5	156.1
12.5°	160.5	146.5	139.7
15°	149.0	130.9	124.4
17.5°	136.1	115.9	108.2
20°	124.1	100.8	92.9
22.5°	110.4	86.0	77.2
25°	98.1	71.2	61.4
27.5°	84.4	56.2	47.7
30°	71.5	43.0	34.5
32.5°	59.2	31.5	23.8
35°	47.7	21.4	15.1
37.5°	36.7	13.1	7.7
40°	26.6	6.8	3.6
42.5°	17.8	3.3	1.9
45°	11.0	1.6	0.0
47.5°	6.3	0.0	0.0
50°	3.3	0.0	0.0
52.5°	1.4	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°	0.3	0.3	0.3
77.5°	0.3	0.5	0.8
80°	0.5	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.6
87.5°	1.4	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.2	2.2
95°	1.9	2.2	2.5
97.5°	2.2	2.5	2.5
100°	1.9	2.5	2.7
102.5°	1.6	2.5	2.5
105°	1.4	1.9	2.2





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.8	1.1	1.4
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.1	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	115.0	111.8	100.8	82.7	57.8	32.3	12.1	2.2	0.5	0.8	0.8
110°	100.3	97.5	86.3	68.8	46.6	24.1	7.9	1.4	0.8	0.8	0.8







107.5°	1.1	1.6	1.9
110°	1.1	1.4	1.6



(END OF REPORT)