

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: P550986

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-85-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: P550986  
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-30-UNV-93-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

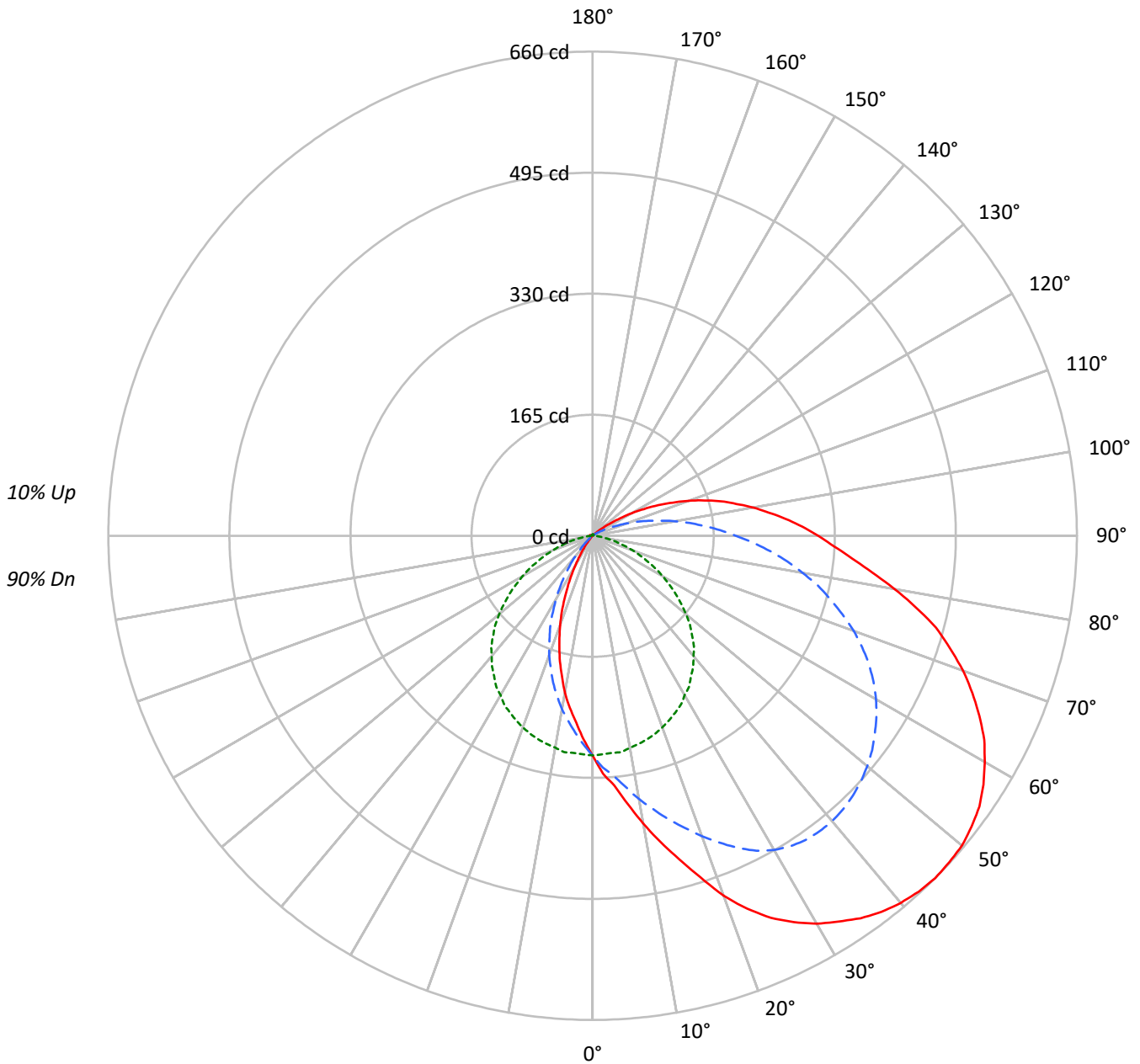
Lumens per Lamp: N/A  
Luminaire Lumens: 1479.9 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (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: P550986

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-85-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°	3223	3223	3223
5°	3537	3175	2649
10°	4003	3137	2184
15°	4486	3097	1701
20°	5060	3046	1253
25°	5535	2987	822
30°	5889	2909	464
35°	6195	2825	204
40°	6467	2720	49
45°	6699	2590	0
50°	6895	2418	0
55°	7044	2199	0
60°	7118	1943	0
65°	7148	1655	0
70°	7124	1349	0
75°	7033	995	6
80°	6749	609	31
85°	6524	290	42



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.7	1.9
10°-20°	85.9	5.8
20°-30°	139.0	9.4
30°-40°	178.6	12.1
40°-50°	202.2	13.7
50°-60°	209.5	14.2
60°-70°	197.6	13.3
70°-80°	165.6	11.2
80°-90°	120.0	8.1
90°-100°	78.9	5.3
100°-110°	45.5	3.1
110°-120°	20.1	1.4
120°-130°	5.4	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°	253.6	17.1
0°-40°	432.2	29.2
0°-60°	843.8	57.0
0°-90°	1327.0	89.7
90°-120°	144.5	9.8
90°-150°	152.0	10.3
90°-180°	153.0	10.3
0°-180°	1479.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	299	299	299	299	299	
5°	342	328	297	270	256	34
15°	456	400	287	208	173	132
25°	575	470	266	136	85	266
35°	636	506	234	66	21	399
45°	660	501	191	15	0	510
55°	643	470	138	0	0	575
65°	582	416	82	0	0	575
75°	485	335	35	0	0	508
85°	355	243	6	2	2	303
90°	307	195	2	2	3	169
95°	264	152	1	3	3	207
105°	182	79	1	2	3	192
115°	99	26	1	1	2	99
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°	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4
2.5°	324.5	324.2	323.0	321.1	318.4	313.9	310.0	306.6	302.0	298.2	291.0
5°	341.7	339.8	338.3	336.4	330.3	326.1	319.2	311.6	304.3	297.1	282.6
7.5°	369.2	366.1	363.8	358.5	350.1	340.6	329.9	322.6	317.7	297.5	272.7
10°	398.5	395.9	391.3	381.7	371.4	357.7	342.5	325.3	310.0	293.3	263.9
12.5°	427.5	423.7	417.2	405.0	390.5	373.4	352.4	332.2	310.4	290.6	253.6
15°	456.5	452.3	445.4	430.6	411.5	389.0	363.4	337.9	312.3	287.2	242.9
17.5°	488.1	482.4	472.1	455.3	431.3	403.5	373.4	342.5	311.6	283.0	231.5
20°	522.1	514.1	503.0	480.5	452.3	419.5	383.3	347.0	311.2	278.0	218.5
22.5°	550.3	542.3	530.1	506.8	472.9	432.8	391.7	350.1	309.7	272.3	206.3
25°	574.7	568.2	554.9	528.2	492.3	447.0	399.7	352.4	307.4	266.2	193.4
27.5°	593.8	587.7	572.8	545.3	508.7	459.5	405.8	353.5	304.3	260.1	180.0
30°	610.6	604.5	586.5	558.3	519.8	469.5	411.9	353.9	300.5	250.9	165.5
32.5°	623.5	617.8	599.5	569.4	527.4	476.3	415.3	353.5	295.6	244.5	149.9
35°	636.5	630.8	609.4	577.4	533.1	479.4	418.0	351.6	289.5	233.8	135.0
37.5°	646.4	639.9	618.2	582.7	535.8	480.1	417.6	348.9	283.0	225.0	120.1
40°	653.3	646.4	623.1	585.8	536.6	479.0	414.5	344.4	275.3	213.9	104.5
42.5°	657.8	650.2	625.4	590.3	535.0	475.9	410.0	338.6	267.0	204.4	89.6
45°	660.1	652.1	625.8	586.5	532.4	470.2	403.1	331.4	257.8	191.4	74.7
47.5°	659.0	650.2	623.9	582.3	527.4	464.1	395.5	322.6	246.7	180.0	60.6
50°	657.1	647.9	619.7	577.0	520.6	456.5	387.1	312.0	235.3	165.9	48.1
52.5°	651.0	641.8	615.1	569.4	512.5	447.7	375.6	300.9	223.1	152.2	36.6
55°	643.4	635.0	607.1	562.5	502.3	437.0	365.0	289.1	211.3	138.1	26.3
57.5°	631.5	623.9	597.2	551.4	492.0	425.2	353.1	276.1	196.4	123.9	18.3
60°	617.0	609.4	583.5	538.9	480.1	411.9	340.2	262.8	183.1	109.8	11.4
62.5°	601.8	594.5	567.5	523.2	465.3	397.8	326.1	249.4	168.9	96.9	6.9
65°	581.6	574.7	550.3	504.5	448.9	382.5	310.4	233.4	154.5	82.4	3.8
67.5°	560.2	554.1	529.3	487.4	429.8	365.7	294.4	217.8	139.2	69.8	1.9
70°	537.3	529.7	506.8	464.1	410.3	346.7	276.9	201.7	124.7	57.6	0.0
72.5°	510.6	504.9	482.8	442.4	387.8	326.4	258.9	184.2	108.7	45.8	0.4
75°	484.7	477.5	457.3	419.1	365.7	305.1	239.1	167.8	93.1	35.1	0.4
77.5°	451.2	448.9	429.8	392.8	344.8	284.5	217.4	148.0	78.2	25.2	0.4
80°	417.6	415.3	400.4	366.5	320.3	260.1	197.2	129.3	63.7	16.8	0.4
82.5°	384.4	381.4	367.3	339.0	295.6	239.5	176.2	110.6	50.3	10.3	0.4
85°	354.7	350.9	335.6	309.7	270.0	216.2	154.5	92.3	37.4	5.7	0.8
87.5°	329.1	326.4	309.7	283.0	244.1	194.5	135.4	74.7	26.3	2.7	1.1
90°	307.4	301.7	286.8	258.6	219.7	170.5	115.2	59.9	17.5	1.5	1.5
92.5°	286.0	281.1	264.7	235.7	197.9	149.9	95.7	45.8	11.1	0.8	1.9
95°	263.9	258.6	242.5	215.9	175.8	128.9	78.6	33.6	6.1	0.8	1.9
97.5°	242.2	237.2	220.4	193.7	156.0	110.6	62.2	23.6	3.1	0.8	1.5
100°	222.0	216.2	201.0	174.3	136.1	92.3	48.1	15.3	1.9	0.8	1.5
102.5°	200.6	196.0	180.4	154.5	115.6	75.1	35.8	9.5	0.8	0.8	1.1
105°	181.5	175.8	160.6	133.9	98.4	59.1	25.2	5.7	0.8	0.8	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	118.2	113.6	100.3	77.8	50.0	23.3	6.9	1.1	1.1	1.1	1.1
115°	98.8	91.9	80.1	60.3	37.0	15.3	3.4	1.1	1.1	1.1	1.1
117.5°	78.9	73.2	64.8	45.8	24.4	9.9	1.9	1.1	1.1	1.1	1.1
120°	61.8	56.4	46.9	31.7	16.4	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	44.2	40.0	31.7	20.6	9.9	2.7	1.1	1.1	1.5	1.5	1.1
125°	29.4	27.1	21.0	12.6	6.1	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	19.1	17.2	12.2	7.2	2.7	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.7	9.5	7.2	4.2	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.1	5.7	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	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°	299.4	299.4	299.4
2.5°	284.9	279.5	278.0
5°	269.6	260.9	255.9
7.5°	254.4	242.5	236.8
10°	240.3	223.5	217.4
12.5°	223.5	204.0	194.5
15°	207.5	182.3	173.1
17.5°	189.5	161.3	150.6
20°	172.8	140.3	129.3
22.5°	153.7	119.7	107.5
25°	136.5	99.2	85.4
27.5°	117.5	78.2	66.4
30°	99.5	59.9	48.1
32.5°	82.4	43.9	33.2
35°	66.4	29.7	21.0
37.5°	51.1	18.3	10.7
40°	37.0	9.5	5.0
42.5°	24.8	4.6	2.7
45°	15.3	2.3	0.0
47.5°	8.8	0.0	0.0
50°	4.6	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	0.8	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.4
97.5°	3.1	3.4	3.4
100°	2.7	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.7	3.1





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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	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	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°	160.2	155.6	140.3	115.2	80.5	45.0	16.8	3.1	0.8	1.1	1.1
110°	139.6	135.8	120.1	95.7	64.8	33.6	11.1	1.9	1.1	1.1	1.1







107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)