

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: P550980

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-82-96-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: P550980  
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-82-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

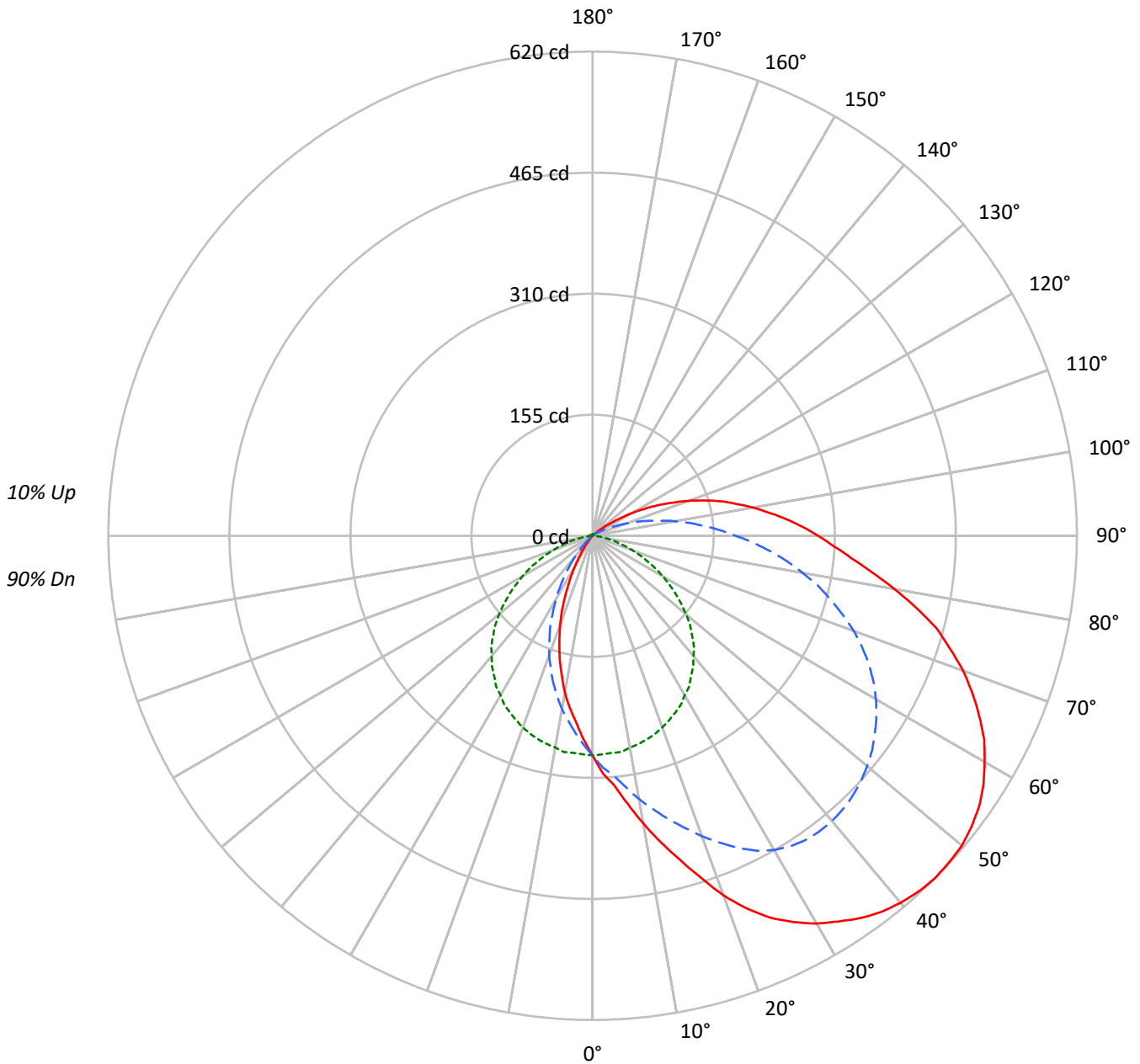
Lumens per Lamp: N/A  
Luminaire Lumens: 1390.0 lumens  
Efficiency: N/A  
Efficacy: 83.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (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: P550980

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-82-96-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°	3027	3027	3027
5°	3322	2982	2488
10°	3760	2945	2051
15°	4213	2908	1598
20°	4752	2861	1176
25°	5199	2806	772
30°	5530	2732	435
35°	5818	2653	192
40°	6073	2555	47
45°	6292	2433	0
50°	6475	2271	0
55°	6615	2065	0
60°	6686	1826	0
65°	6713	1555	0
70°	6691	1267	0
75°	6605	936	6
80°	6338	573	29
85°	6126	275	39



TEST NUMBER: P550980

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.9	1.9
10°-20°	80.6	5.8
20°-30°	130.6	9.4
30°-40°	167.7	12.1
40°-50°	189.9	13.7
50°-60°	196.7	14.2
60°-70°	185.5	13.3
70°-80°	155.5	11.2
80°-90°	112.7	8.1
90°-100°	74.1	5.3
100°-110°	42.8	3.1
110°-120°	18.9	1.4
120°-130°	5.1	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	238.2	17.1
0°-40°	405.9	29.2
0°-60°	792.5	57.0
0°-90°	1246.3	89.7
90°-120°	135.7	9.8
90°-150°	142.8	10.3
90°-180°	144.0	10.4
0°-180°	1390.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	281	281	281	281	281	
5°	321	308	279	253	240	32
15°	429	376	270	195	163	124
25°	540	441	250	128	80	249
35°	598	475	220	62	20	375
45°	620	471	180	14	0	479
55°	604	441	130	0	0	540
65°	546	390	77	0	0	540
75°	455	315	33	0	0	477
85°	333	228	5	1	2	284
90°	289	183	1	2	2	158
95°	248	143	1	2	3	194
105°	170	74	1	2	3	180
115°	93	24	1	1	2	93
125°	28	3	1	1	1	28
135°	1	1	2	1	1	3
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	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°	281.2	281.2	281.2	281.2	281.2	281.2	281.2	281.2	281.2	281.2	281.2
2.5°	304.8	304.4	303.4	301.6	299.1	294.8	291.2	288.0	283.7	280.1	273.3
5°	320.9	319.1	317.7	315.9	310.2	306.2	299.8	292.6	285.8	279.0	265.4
7.5°	346.7	343.8	341.7	336.7	328.8	319.8	309.8	303.0	298.4	279.4	256.1
10°	374.3	371.8	367.5	358.5	348.9	336.0	321.6	305.5	291.2	275.4	247.9
12.5°	401.5	397.9	391.8	380.4	366.8	350.6	330.9	312.0	291.6	272.9	238.2
15°	428.7	424.8	418.3	404.4	386.5	365.3	341.3	317.3	293.3	269.7	228.2
17.5°	458.5	453.1	443.4	427.7	405.1	378.9	350.6	321.6	292.6	265.8	217.4
20°	490.3	482.8	472.4	451.3	424.8	394.0	360.0	325.9	292.3	261.1	205.2
22.5°	516.8	509.3	497.9	476.0	444.1	406.5	367.8	328.8	290.8	255.7	193.8
25°	539.8	533.7	521.1	496.1	462.4	419.8	375.4	330.9	288.7	250.0	181.6
27.5°	557.7	551.9	538.0	512.2	477.8	431.6	381.1	332.0	285.8	244.3	169.1
30°	573.4	567.7	550.9	524.4	488.2	440.9	386.8	332.4	282.2	235.7	155.4
32.5°	585.6	580.2	563.0	534.7	495.3	447.4	390.0	332.0	277.6	229.6	140.8
35°	597.8	592.4	572.4	542.3	500.7	450.2	392.6	330.2	271.9	219.6	126.8
37.5°	607.1	601.0	580.6	547.3	503.2	450.9	392.2	327.7	265.8	211.3	112.8
40°	613.5	607.1	585.3	550.1	503.9	449.9	389.3	323.4	258.6	200.9	98.1
42.5°	617.8	610.7	587.4	554.4	502.5	447.0	385.0	318.1	250.7	192.0	84.2
45°	620.0	612.5	587.8	550.9	500.0	441.6	378.6	311.2	242.1	179.8	70.2
47.5°	618.9	610.7	586.0	546.9	495.3	435.9	371.4	303.0	231.7	169.1	56.9
50°	617.1	608.5	582.0	541.9	488.9	428.7	363.5	293.0	221.0	155.8	45.1
52.5°	611.4	602.8	577.7	534.7	481.4	420.5	352.8	282.6	209.5	142.9	34.4
55°	604.2	596.4	570.2	528.3	471.7	410.5	342.8	271.5	198.4	129.7	24.7
57.5°	593.1	586.0	560.9	517.9	462.0	399.4	331.7	259.3	184.5	116.4	17.2
60°	579.5	572.4	548.0	506.1	450.9	386.8	319.5	246.8	171.9	103.2	10.7
62.5°	565.2	558.4	533.0	491.4	437.0	373.6	306.2	234.2	158.7	91.0	6.4
65°	546.2	539.8	516.8	473.9	421.6	359.2	291.6	219.2	145.1	77.4	3.6
67.5°	526.2	520.4	497.1	457.7	403.7	343.5	276.5	204.5	130.7	65.5	1.8
70°	504.7	497.5	476.0	435.9	385.4	325.6	260.0	189.5	117.1	54.1	0.0
72.5°	479.6	474.2	453.4	415.5	364.3	306.6	243.2	173.0	102.1	43.0	0.4
75°	455.2	448.4	429.4	393.6	343.5	286.5	224.6	157.6	87.4	33.0	0.4
77.5°	423.7	421.6	403.7	368.9	323.8	267.2	204.2	139.0	73.4	23.6	0.4
80°	392.2	390.0	376.1	344.2	300.9	244.3	185.2	121.4	59.8	15.8	0.4
82.5°	361.0	358.2	344.9	318.4	277.6	224.9	165.5	103.9	47.3	9.7	0.4
85°	333.1	329.5	315.2	290.8	253.6	203.1	145.1	86.7	35.1	5.4	0.7
87.5°	309.1	306.6	290.8	265.8	229.2	182.7	127.2	70.2	24.7	2.5	1.1
90°	288.7	283.3	269.3	242.8	206.3	160.1	108.2	56.2	16.5	1.4	1.4
92.5°	268.6	264.0	248.6	221.3	185.9	140.8	89.9	43.0	10.4	0.7	1.8
95°	247.9	242.8	227.8	202.7	165.1	121.1	73.8	31.5	5.7	0.7	1.8
97.5°	227.4	222.8	207.0	182.0	146.5	103.9	58.4	22.2	2.9	0.7	1.4
100°	208.5	203.1	188.8	163.7	127.9	86.7	45.1	14.3	1.8	0.7	1.4
102.5°	188.4	184.1	169.4	145.1	108.5	70.6	33.7	9.0	0.7	0.7	1.1
105°	170.5	165.1	150.8	125.7	92.4	55.5	23.6	5.4	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-82-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	111.0	106.7	94.2	73.1	46.9	21.8	6.4	1.1	1.1	1.1	1.1
115°	92.8	86.3	75.2	56.6	34.7	14.3	3.2	1.1	1.1	1.1	1.1
117.5°	74.1	68.8	60.9	43.0	22.9	9.3	1.8	1.1	1.1	1.1	1.1
120°	58.0	53.0	44.1	29.7	15.4	5.4	0.7	1.1	1.1	1.1	1.1
122.5°	41.5	37.6	29.7	19.3	9.3	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.6	25.4	19.7	11.8	5.7	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	17.9	16.1	11.5	6.8	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	10.0	9.0	6.8	3.9	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.7	5.4	3.6	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
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°	281.2	281.2	281.2
2.5°	267.6	262.5	261.1
5°	253.2	245.0	240.3
7.5°	238.9	227.8	222.4
10°	225.6	209.9	204.2
12.5°	209.9	191.6	182.7
15°	194.8	171.2	162.6
17.5°	178.0	151.5	141.5
20°	162.3	131.8	121.4
22.5°	144.3	112.5	101.0
25°	128.2	93.1	80.2
27.5°	110.3	73.4	62.3
30°	93.5	56.2	45.1
32.5°	77.4	41.2	31.2
35°	62.3	27.9	19.7
37.5°	48.0	17.2	10.0
40°	34.7	9.0	4.7
42.5°	23.3	4.3	2.5
45°	14.3	2.1	0.0
47.5°	8.2	0.0	0.0
50°	4.3	0.0	0.0
52.5°	1.8	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	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.1
87.5°	1.8	2.1	2.5
90°	2.1	2.5	2.5
92.5°	2.1	2.9	2.9
95°	2.5	2.9	3.2
97.5°	2.9	3.2	3.2
100°	2.5	3.2	3.6
102.5°	2.1	3.2	3.2
105°	1.8	2.5	2.9





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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-82-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	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°	1.4	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°	150.4	146.1	131.8	108.2	75.6	42.3	15.8	2.9	0.7	1.1	1.1
110°	131.1	127.5	112.8	89.9	60.9	31.5	10.4	1.8	1.1	1.1	1.1







107.5°	1.4	2.1	2.5
110°	1.4	1.8	2.1



(END OF REPORT)