

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: P551568

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-93-88-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: P551568  
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-LD4-2LO-35-UNV-93-88-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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**

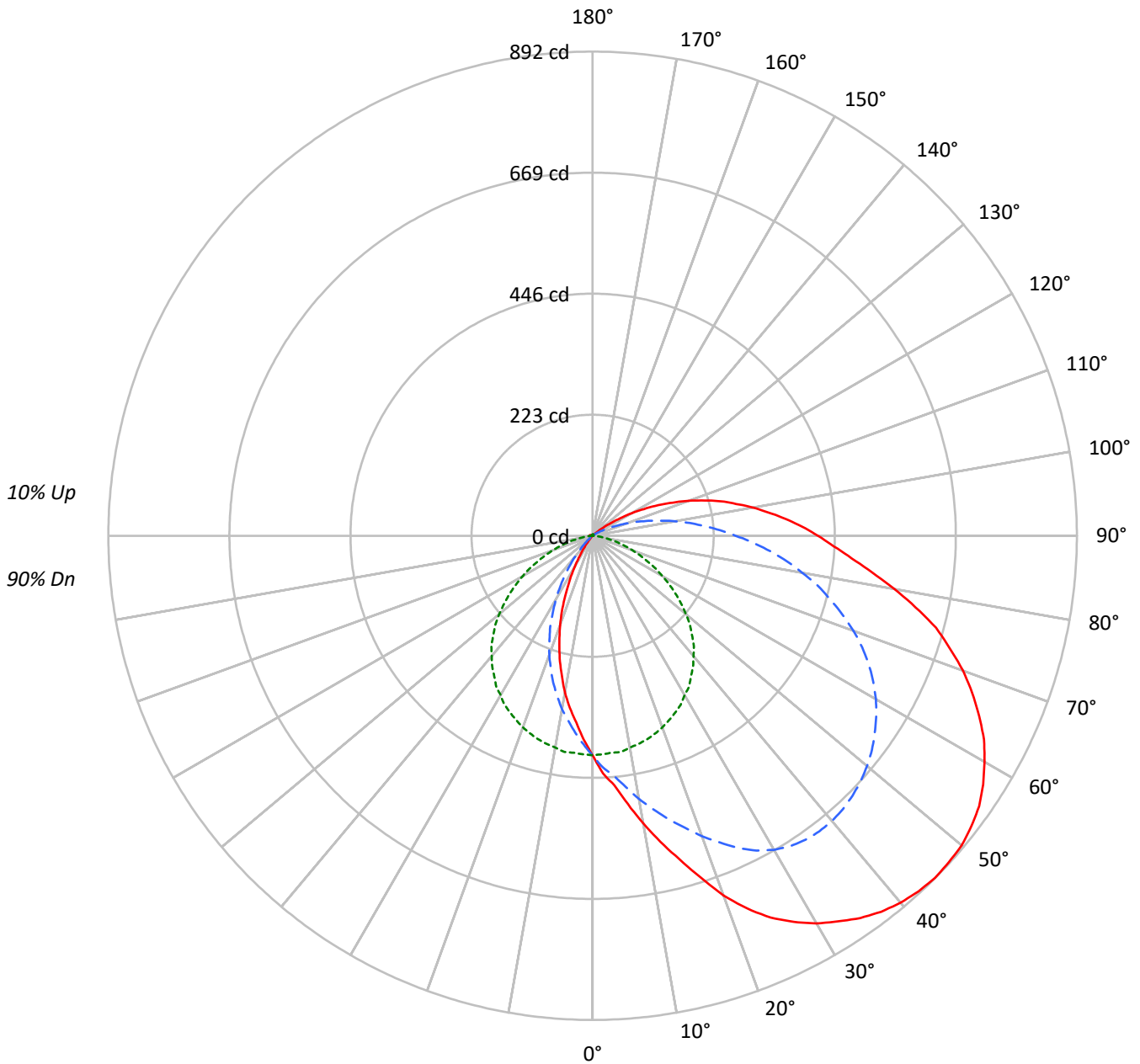
Lumens per Lamp: N/A  
Luminaire Lumens: 1999.0 lumens  
Efficiency: N/A  
Efficacy: 85.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
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-LD4-2LO-35-UNV-93-88-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	4352	4352	4352
5°	4778	4289	3578
10°	5407	4236	2949
15°	6059	4183	2299
20°	6834	4114	1692
25°	7476	4034	1111
30°	7954	3929	626
35°	8367	3816	275
40°	8734	3675	66
45°	9048	3499	0
50°	9313	3266	0
55°	9514	2970	0
60°	9615	2624	0
65°	9654	2236	0
70°	9623	1823	0
75°	9500	1344	7
80°	9115	823	42
85°	8810	392	57



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.7	1.9
10°-20°	116.0	5.8
20°-30°	187.8	9.4
30°-40°	241.2	12.1
40°-50°	273.1	13.7
50°-60°	282.9	14.2
60°-70°	266.8	13.3
70°-80°	223.6	11.2
80°-90°	162.1	8.1
90°-100°	106.5	5.3
100°-110°	61.5	3.1
110°-120°	27.1	1.4
120°-130°	7.3	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	342.5	17.1
0°-40°	583.8	29.2
0°-60°	1139.8	57.0
0°-90°	1792.3	89.7
90°-120°	195.2	9.8
90°-150°	205.3	10.3
90°-180°	207.0	10.4
0°-180°	1999.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	404	404	404	404	404	
5°	462	443	401	364	346	47
15°	617	541	388	280	234	178
25°	776	634	360	184	115	359
35°	860	684	316	90	28	539
45°	892	677	259	21	0	688
55°	869	634	186	0	0	776
65°	786	561	111	0	0	777
75°	655	453	47	0	0	687
85°	479	328	8	2	3	409
90°	415	263	2	3	4	228
95°	356	206	1	4	5	280
105°	245	106	1	3	4	259
115°	133	35	2	2	3	134
125°	40	5	2	2	2	40
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3	404.3
2.5°	438.3	437.8	436.3	433.7	430.1	423.9	418.8	414.1	408.0	402.8	393.0
5°	461.5	458.9	456.9	454.3	446.1	440.4	431.1	420.8	411.0	401.3	381.7
7.5°	498.6	494.5	491.4	484.2	472.9	460.0	445.6	435.8	429.1	401.8	368.3
10°	538.3	534.7	528.5	515.6	501.7	483.2	462.6	439.4	418.8	396.1	356.4
12.5°	577.4	572.3	563.5	547.0	527.5	504.3	475.9	448.6	419.3	392.5	342.5
15°	616.6	610.9	601.6	581.5	555.8	525.4	490.9	456.4	421.9	387.9	328.1
17.5°	659.3	651.6	637.7	615.0	582.6	545.0	504.3	462.6	420.8	382.2	312.7
20°	705.2	694.3	679.4	649.0	610.9	566.6	517.7	468.7	420.3	375.5	295.1
22.5°	743.3	732.5	716.0	684.6	638.7	584.6	529.0	472.9	418.3	367.8	278.7
25°	776.2	767.5	749.5	713.4	665.0	603.7	539.8	475.9	415.2	359.5	261.2
27.5°	802.0	793.8	773.7	736.6	687.1	620.7	548.1	477.5	411.0	351.3	243.1
30°	824.7	816.4	792.2	754.1	702.1	634.1	556.3	478.0	405.9	338.9	223.6
32.5°	842.2	834.5	809.7	769.0	712.4	643.4	560.9	477.5	399.2	330.2	202.4
35°	859.7	852.0	823.1	779.9	720.1	647.5	564.5	474.9	391.0	315.8	182.3
37.5°	873.1	864.3	835.0	787.1	723.7	648.5	564.0	471.3	382.2	303.9	162.3
40°	882.4	873.1	841.7	791.2	724.7	647.0	559.9	465.1	371.9	289.0	141.1
42.5°	888.5	878.2	844.8	797.4	722.7	642.8	553.7	457.4	360.6	276.1	121.0
45°	891.6	880.8	845.3	792.2	719.1	635.1	544.5	447.6	348.2	258.6	101.0
47.5°	890.1	878.2	842.7	786.6	712.4	626.9	534.2	435.8	333.3	243.1	81.9
50°	887.5	875.1	837.0	779.3	703.1	616.6	522.8	421.3	317.8	224.1	64.9
52.5°	879.3	866.9	830.8	769.0	692.3	604.7	507.4	406.4	301.3	205.5	49.4
55°	869.0	857.6	820.0	759.8	678.4	590.3	492.9	390.4	285.4	186.5	35.5
57.5°	853.0	842.7	806.6	744.8	664.5	574.3	477.0	372.9	265.3	167.4	24.7
60°	833.4	823.1	788.1	727.8	648.5	556.3	459.5	354.9	247.2	148.3	15.5
62.5°	812.8	803.0	766.5	706.7	628.4	537.2	440.4	336.9	228.2	130.8	9.3
65°	785.5	776.2	743.3	681.5	606.3	516.6	419.3	315.2	208.6	111.3	5.2
67.5°	756.7	748.4	715.0	658.3	580.5	494.0	397.7	294.1	188.0	94.3	2.6
70°	725.8	715.5	684.6	626.9	554.2	468.2	374.0	272.5	168.4	77.8	0.0
72.5°	689.7	682.0	652.1	597.5	523.9	440.9	349.7	248.8	146.8	61.8	0.5
75°	654.7	644.9	617.6	566.1	494.0	412.1	323.0	226.6	125.7	47.4	0.5
77.5°	609.4	606.3	580.5	530.5	465.6	384.3	293.6	199.9	105.6	34.0	0.5
80°	564.0	560.9	540.8	495.0	432.7	351.3	266.3	174.6	86.0	22.7	0.5
82.5°	519.2	515.1	496.0	457.9	399.2	323.5	238.0	149.4	68.0	13.9	0.5
85°	479.0	473.9	453.3	418.3	364.7	292.1	208.6	124.7	50.5	7.7	1.0
87.5°	444.5	440.9	418.3	382.2	329.7	262.7	182.9	101.0	35.5	3.6	1.5
90°	415.2	407.4	387.4	349.2	296.7	230.2	155.6	80.9	23.7	2.1	2.1
92.5°	386.3	379.6	357.5	318.3	267.3	202.4	129.3	61.8	14.9	1.0	2.6
95°	356.4	349.2	327.6	291.5	237.5	174.1	106.1	45.3	8.2	1.0	2.6
97.5°	327.1	320.4	297.7	261.7	210.7	149.4	84.0	31.9	4.1	1.0	2.1
100°	299.8	292.1	271.5	235.4	183.9	124.7	64.9	20.6	2.6	1.0	2.1
102.5°	270.9	264.8	243.6	208.6	156.1	101.5	48.4	12.9	1.0	1.0	1.5
105°	245.2	237.5	216.9	180.8	132.9	79.8	34.0	7.7	1.0	1.0	1.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	159.7	153.5	135.5	105.1	67.5	31.4	9.3	1.5	1.5	1.5	1.5
115°	133.4	124.1	108.2	81.4	50.0	20.6	4.6	1.5	1.5	1.5	1.5
117.5°	106.6	98.9	87.6	61.8	33.0	13.4	2.6	1.5	1.5	1.5	1.5
120°	83.4	76.2	63.4	42.8	22.1	7.7	1.0	1.5	1.5	1.5	1.5
122.5°	59.8	54.1	42.8	27.8	13.4	3.6	1.5	1.5	2.1	2.1	1.5
125°	39.7	36.6	28.3	17.0	8.2	1.5	1.5	1.5	2.1	2.1	1.5
127.5°	25.8	23.2	16.5	9.8	3.6	1.5	1.5	2.1	2.1	2.1	1.5
130°	14.4	12.9	9.8	5.7	1.5	1.5	1.5	2.1	2.1	2.1	1.5
132.5°	8.2	7.7	5.2	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1
135°	2.1	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1	2.1
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.1
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	404.3	404.3	404.3
2.5°	384.8	377.6	375.5
5°	364.2	352.3	345.6
7.5°	343.6	327.6	319.9
10°	324.5	301.8	293.6
12.5°	301.8	275.6	262.7
15°	280.2	246.2	233.9
17.5°	256.0	217.9	203.5
20°	233.3	189.6	174.6
22.5°	207.6	161.7	145.3
25°	184.4	133.9	115.4
27.5°	158.6	105.6	89.6
30°	134.4	80.9	64.9
32.5°	111.3	59.2	44.8
35°	89.6	40.2	28.3
37.5°	69.0	24.7	14.4
40°	50.0	12.9	6.7
42.5°	33.5	6.2	3.6
45°	20.6	3.1	0.0
47.5°	11.8	0.0	0.0
50°	6.2	0.0	0.0
52.5°	2.6	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.1
87.5°	2.6	3.1	3.6
90°	3.1	3.6	3.6
92.5°	3.1	4.1	4.1
95°	3.6	4.1	4.6
97.5°	4.1	4.6	4.6
100°	3.6	4.6	5.2
102.5°	3.1	4.6	4.6
105°	2.6	3.6	4.1





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.5	2.1	2.6
117.5°	1.5	2.1	2.1
120°	1.5	1.5	2.1
122.5°	1.5	1.5	2.1
125°	1.5	1.5	2.1
127.5°	2.1	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.1	1.5	1.5
135°	2.1	1.5	1.5
137.5°	2.1	1.5	1.5
140°	2.1	1.5	1.5
142.5°	2.1	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.1	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	216.3	210.2	189.6	155.6	108.7	60.8	22.7	4.1	1.0	1.5	1.5
110°	188.5	183.4	162.3	129.3	87.6	45.3	14.9	2.6	1.5	1.5	1.5







107.5°	2.1	3.1	3.6
110°	2.1	2.6	3.1



(END OF REPORT)