

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: P551451

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-80-86-ED1D-90**

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: P551451  
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-30-UNV-80-86-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

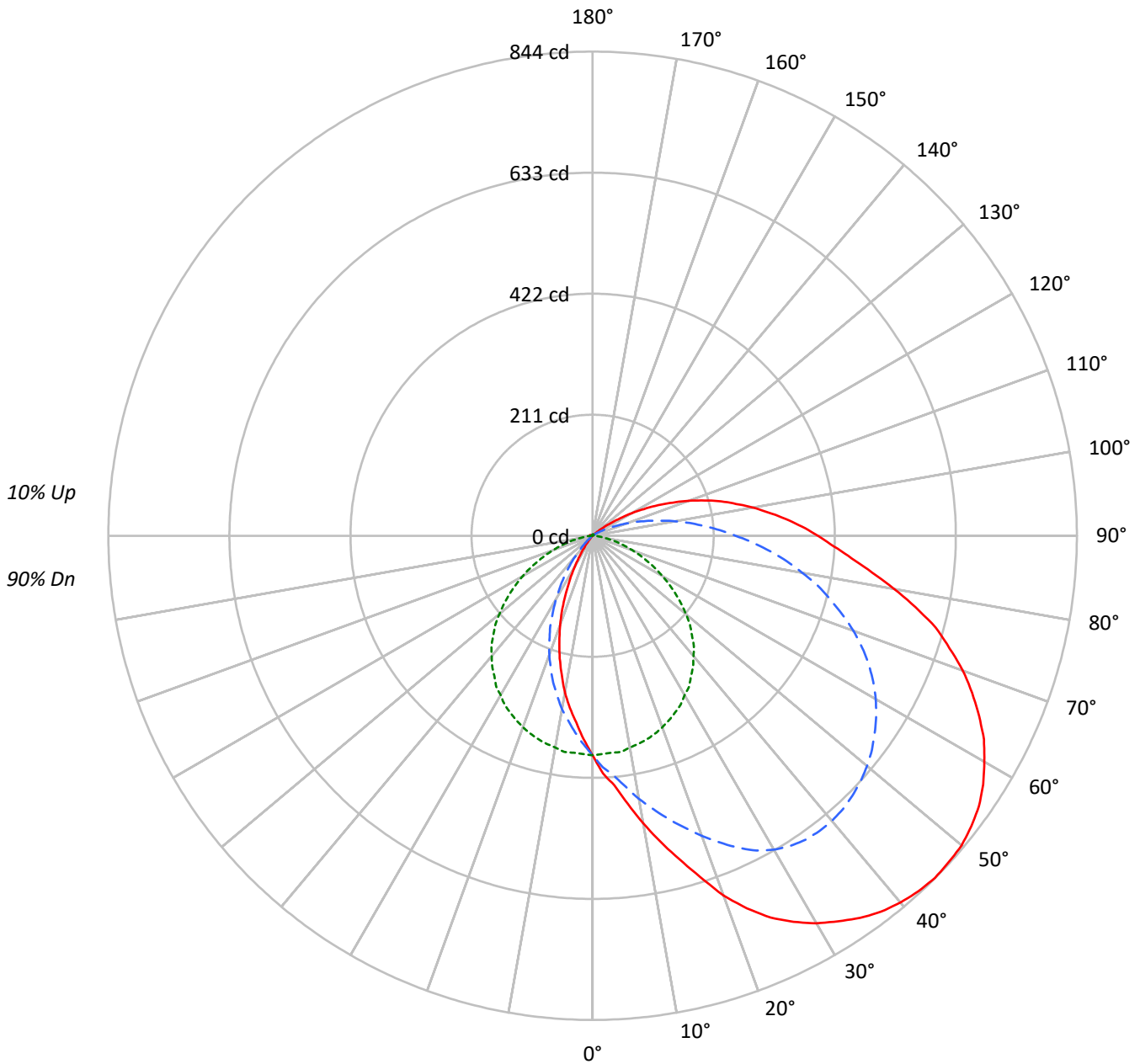
Lumens per Lamp: N/A  
Luminaire Lumens: 1891.0 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

TEST NUMBER: P551451

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-86-ED1D-90

### 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°	4117	4117	4117
5°	4520	4057	3385
10°	5115	4007	2789
15°	5732	3956	2174
20°	6465	3892	1601
25°	7072	3817	1051
30°	7524	3717	592
35°	7915	3609	261
40°	8262	3477	62
45°	8560	3310	0
50°	8810	3090	0
55°	9000	2809	0
60°	9096	2483	0
65°	9133	2113	0
70°	9103	1724	0
75°	8987	1270	7
80°	8623	776	39
85°	8335	371	53



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.6	1.9
10°-20°	109.7	5.8
20°-30°	177.7	9.4
30°-40°	228.2	12.1
40°-50°	258.3	13.7
50°-60°	267.6	14.2
60°-70°	252.4	13.3
70°-80°	211.5	11.2
80°-90°	153.3	8.1
90°-100°	100.8	5.3
100°-110°	58.2	3.1
110°-120°	25.7	1.4
120°-130°	7.0	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	324.0	17.1
0°-40°	552.2	29.2
0°-60°	1078.2	57.0
0°-90°	1695.4	89.7
90°-120°	184.7	9.8
90°-150°	194.3	10.3
90°-180°	196.0	10.4
0°-180°	1891.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	382	382	382	382	382	
5°	437	419	380	344	327	44
15°	583	511	367	265	221	168
25°	734	600	340	174	109	339
35°	813	647	299	85	27	510
45°	844	640	245	20	0	651
55°	822	600	176	0	0	734
65°	743	531	105	0	0	735
75°	619	429	45	0	0	650
85°	453	311	7	2	3	387
90°	393	249	2	3	3	215
95°	337	195	1	3	4	265
105°	232	101	1	2	4	245
115°	126	33	2	2	2	126
125°	38	5	2	2	2	37
135°	2	2	2	2	2	3
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	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°	382.5	382.5	382.5	382.5	382.5	382.5	382.5	382.5	382.5	382.5	382.5
2.5°	414.7	414.2	412.7	410.3	406.9	401.0	396.1	391.8	385.9	381.0	371.8
5°	436.6	434.2	432.2	429.8	422.0	416.6	407.8	398.1	388.8	379.6	361.1
7.5°	471.7	467.8	464.9	458.0	447.3	435.1	421.5	412.2	405.9	380.1	348.4
10°	509.2	505.8	499.9	487.8	474.6	457.1	437.6	415.6	396.1	374.7	337.2
12.5°	546.2	541.4	533.1	517.5	499.0	477.0	450.2	424.4	396.6	371.3	324.0
15°	583.3	577.9	569.1	550.1	525.8	497.0	464.4	431.7	399.1	366.9	310.4
17.5°	623.7	616.4	603.2	581.8	551.1	515.5	477.0	437.6	398.1	361.6	295.8
20°	667.1	656.8	642.7	614.0	577.9	536.0	489.7	443.4	397.6	355.2	279.2
22.5°	703.1	692.9	677.3	647.6	604.2	553.0	500.4	447.3	395.7	347.9	263.6
25°	734.3	726.0	709.0	674.9	629.1	571.1	510.7	450.2	392.7	340.1	247.0
27.5°	758.7	750.9	731.9	696.8	650.0	587.2	518.5	451.7	388.8	332.3	230.0
30°	780.1	772.3	749.4	713.4	664.1	599.8	526.2	452.2	384.0	320.6	211.5
32.5°	796.7	789.4	766.0	727.5	673.9	608.6	530.6	451.7	377.6	312.3	191.5
35°	813.2	805.9	778.7	737.7	681.2	612.5	534.0	449.3	369.8	298.7	172.5
37.5°	825.9	817.6	789.9	744.5	684.6	613.5	533.6	445.8	361.6	287.5	153.5
40°	834.7	825.9	796.2	748.4	685.6	612.0	529.7	440.0	351.8	273.4	133.5
42.5°	840.5	830.8	799.1	754.3	683.6	608.1	523.8	432.7	341.1	261.2	114.5
45°	843.5	833.2	799.6	749.4	680.2	600.8	515.0	423.4	329.4	244.6	95.5
47.5°	842.0	830.8	797.2	744.1	673.9	593.0	505.3	412.2	315.3	230.0	77.5
50°	839.6	827.9	791.8	737.2	665.1	583.3	494.6	398.6	300.6	212.0	61.4
52.5°	831.8	820.1	786.0	727.5	654.9	572.1	480.0	384.5	285.1	194.4	46.8
55°	822.0	811.3	775.7	718.7	641.7	558.4	466.3	369.3	269.9	176.4	33.6
57.5°	806.9	797.2	763.1	704.6	628.6	543.3	451.2	352.8	250.9	158.4	23.4
60°	788.4	778.7	745.5	688.5	613.5	526.2	434.6	335.7	233.9	140.3	14.6
62.5°	768.9	759.6	725.1	668.5	594.5	508.2	416.6	318.7	215.9	123.8	8.8
65°	743.1	734.3	703.1	644.7	573.5	488.7	396.6	298.2	197.3	105.2	4.9
67.5°	715.8	708.0	676.3	622.7	549.1	467.3	376.2	278.2	177.9	89.2	2.4
70°	686.6	676.8	647.6	593.0	524.3	442.9	353.8	257.8	159.3	73.6	0.0
72.5°	652.4	645.1	616.9	565.2	495.5	417.1	330.9	235.3	138.9	58.5	0.5
75°	619.3	610.1	584.2	535.5	467.3	389.8	305.5	214.4	118.9	44.8	0.5
77.5°	576.4	573.5	549.1	501.9	440.5	363.5	277.7	189.1	99.9	32.2	0.5
80°	533.6	530.6	511.6	468.3	409.3	332.3	251.9	165.2	81.4	21.4	0.5
82.5°	491.2	487.3	469.2	433.2	377.6	306.0	225.1	141.3	64.3	13.2	0.5
85°	453.2	448.3	428.8	395.7	345.0	276.3	197.3	117.9	47.8	7.3	1.0
87.5°	420.5	417.1	395.7	361.6	311.9	248.5	173.0	95.5	33.6	3.4	1.5
90°	392.7	385.4	366.4	330.4	280.7	217.8	147.2	76.5	22.4	1.9	1.9
92.5°	365.4	359.1	338.2	301.1	252.9	191.5	122.3	58.5	14.1	1.0	2.4
95°	337.2	330.4	309.9	275.8	224.6	164.7	100.4	42.9	7.8	1.0	2.4
97.5°	309.4	303.1	281.6	247.5	199.3	141.3	79.4	30.2	3.9	1.0	1.9
100°	283.6	276.3	256.8	222.7	174.0	117.9	61.4	19.5	2.4	1.0	1.9
102.5°	256.3	250.5	230.5	197.3	147.6	96.0	45.8	12.2	1.0	1.0	1.5
105°	231.9	224.6	205.1	171.0	125.7	75.5	32.2	7.3	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°	151.1	145.2	128.2	99.4	63.8	29.7	8.8	1.5	1.5	1.5	1.5
115°	126.2	117.4	102.3	77.0	47.3	19.5	4.4	1.5	1.5	1.5	1.5
117.5°	100.9	93.6	82.8	58.5	31.2	12.7	2.4	1.5	1.5	1.5	1.5
120°	78.9	72.1	59.9	40.4	21.0	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.5	51.2	40.4	26.3	12.7	3.4	1.5	1.5	1.9	1.9	1.5
125°	37.5	34.6	26.8	16.1	7.8	1.5	1.5	1.5	1.9	1.9	1.5
127.5°	24.4	21.9	15.6	9.3	3.4	1.5	1.5	1.9	1.9	1.9	1.5
130°	13.6	12.2	9.3	5.4	1.5	1.5	1.5	1.9	1.9	1.9	1.5
132.5°	7.8	7.3	4.9	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	1.9
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°	382.5	382.5	382.5
2.5°	364.0	357.2	355.2
5°	344.5	333.3	327.0
7.5°	325.0	309.9	302.6
10°	307.0	285.5	277.7
12.5°	285.5	260.7	248.5
15°	265.1	232.9	221.2
17.5°	242.2	206.1	192.5
20°	220.7	179.3	165.2
22.5°	196.4	153.0	137.4
25°	174.4	126.7	109.1
27.5°	150.1	99.9	84.8
30°	127.2	76.5	61.4
32.5°	105.2	56.0	42.4
35°	84.8	38.0	26.8
37.5°	65.3	23.4	13.6
40°	47.3	12.2	6.3
42.5°	31.7	5.8	3.4
45°	19.5	2.9	0.0
47.5°	11.2	0.0	0.0
50°	5.8	0.0	0.0
52.5°	2.4	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.9
102.5°	2.9	4.4	4.4
105°	2.4	3.4	3.9





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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-86-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.5	1.9	2.4
117.5°	1.5	1.9	1.9
120°	1.5	1.5	1.9
122.5°	1.5	1.5	1.9
125°	1.5	1.5	1.9
127.5°	1.9	1.5	1.5
130°	1.5	1.5	1.5
132.5°	1.9	1.5	1.5
135°	1.9	1.5	1.5
137.5°	1.9	1.5	1.5
140°	1.9	1.5	1.5
142.5°	1.9	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°	1.9	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°	204.7	198.8	179.3	147.2	102.8	57.5	21.4	3.9	1.0	1.5	1.5
110°	178.3	173.5	153.5	122.3	82.8	42.9	14.1	2.4	1.5	1.5	1.5







107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)