

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: P551069

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-80-87-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: P551069  
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-40-UNV-80-87-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

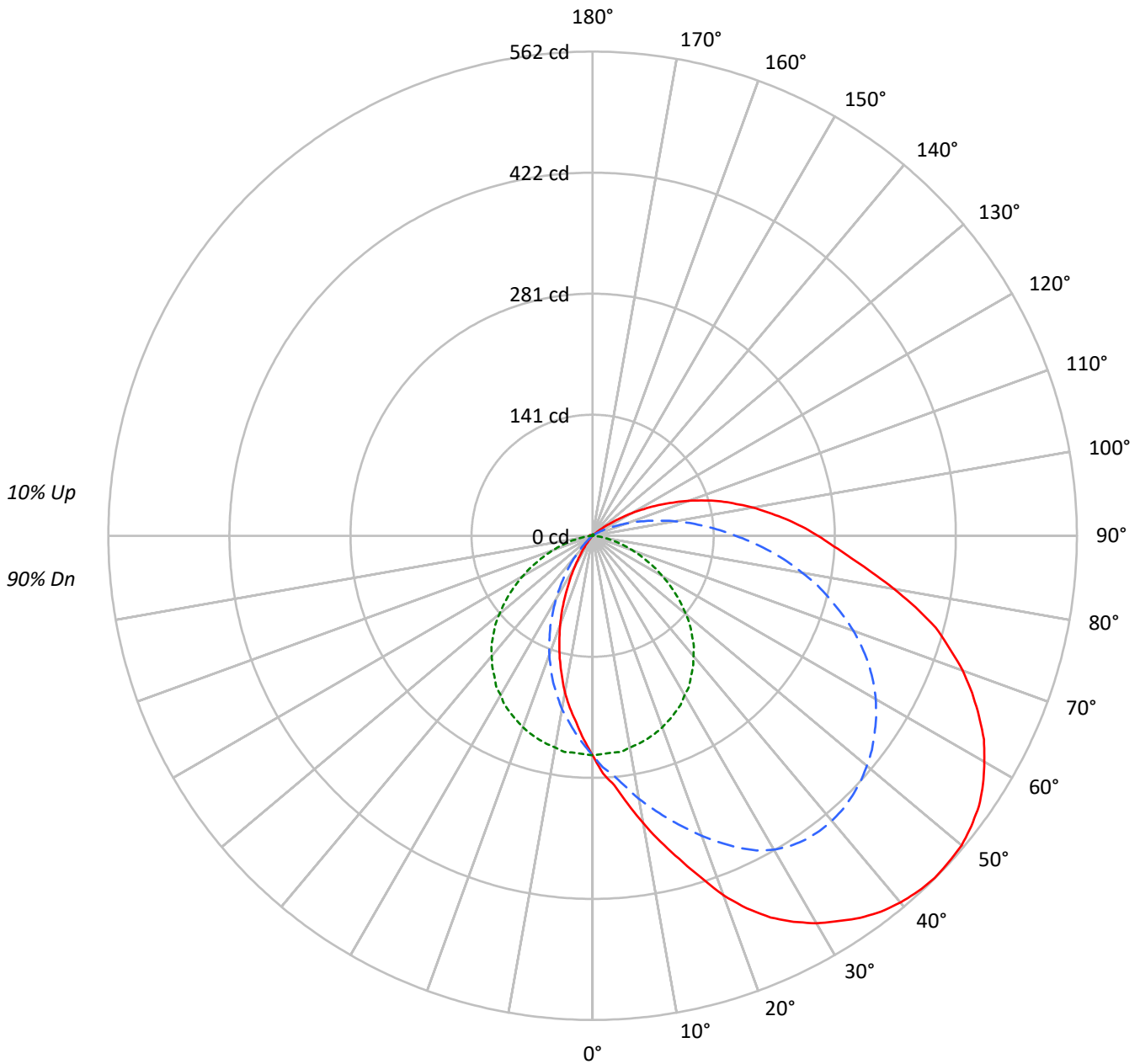
Lumens per Lamp: N/A  
Luminaire Lumens: 1259.0 lumens  
Efficiency: N/A  
Efficacy: 75.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (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-LD4-1STD-40-UNV-80-87-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°	2742	2742	2742
5°	3009	2701	2254
10°	3405	2668	1857
15°	3816	2634	1448
20°	4304	2591	1066
25°	4709	2541	700
30°	5010	2475	394
35°	5269	2403	173
40°	5501	2315	42
45°	5699	2204	0
50°	5866	2056	0
55°	5992	1869	0
60°	6056	1653	0
65°	6080	1408	0
70°	6060	1148	0
75°	5983	845	4
80°	5740	519	26
85°	5549	249	35



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.4	1.9
10°-20°	73.0	5.8
20°-30°	118.3	9.4
30°-40°	151.9	12.1
40°-50°	172.0	13.7
50°-60°	178.2	14.2
60°-70°	168.0	13.3
70°-80°	140.8	11.2
80°-90°	102.1	8.1
90°-100°	67.1	5.3
100°-110°	38.7	3.1
110°-120°	17.1	1.4
120°-130°	4.6	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	215.7	17.1
0°-40°	367.7	29.2
0°-60°	717.8	57.0
0°-90°	1128.8	89.7
90°-120°	122.9	9.8
90°-150°	129.3	10.3
90°-180°	130.0	10.3
0°-180°	1259.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	255	255	255	255	255	
5°	291	279	253	229	218	29
15°	388	340	244	176	147	112
25°	489	400	226	116	73	226
35°	541	431	199	56	18	340
45°	562	426	163	13	0	434
55°	547	400	117	0	0	489
65°	495	354	70	0	0	489
75°	412	285	30	0	0	432
85°	302	207	5	1	2	258
90°	262	166	1	2	2	143
95°	224	130	1	2	3	176
105°	154	67	1	2	3	163
115°	84	22	1	1	2	84
125°	25	3	1	1	1	25
135°	1	1	2	1	1	2
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°	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7
2.5°	276.1	275.8	274.8	273.2	270.9	267.0	263.7	260.8	256.9	253.7	247.5
5°	290.7	289.1	287.8	286.1	280.9	277.4	271.5	265.0	258.9	252.7	240.4
7.5°	314.0	311.4	309.5	304.9	297.8	289.7	280.6	274.5	270.2	253.0	232.0
10°	339.0	336.7	332.8	324.7	316.0	304.3	291.3	276.7	263.7	249.5	224.5
12.5°	363.7	360.4	354.9	344.5	332.2	317.6	299.8	282.6	264.1	247.2	215.7
15°	388.3	384.8	378.9	366.3	350.0	330.9	309.2	287.4	265.7	244.3	206.7
17.5°	415.3	410.4	401.6	387.4	366.9	343.2	317.6	291.3	265.0	240.7	196.9
20°	444.1	437.3	427.9	408.8	384.8	356.9	326.0	295.2	264.7	236.5	185.9
22.5°	468.1	461.3	450.9	431.1	402.3	368.2	333.2	297.8	263.4	231.6	175.5
25°	488.9	483.4	472.0	449.3	418.8	380.2	340.0	299.8	261.5	226.4	164.5
27.5°	505.1	499.9	487.3	463.9	432.8	390.9	345.2	300.7	258.9	221.3	153.1
30°	519.4	514.2	498.9	474.9	442.2	399.4	350.4	301.1	255.6	213.5	140.8
32.5°	530.4	525.6	510.0	484.4	448.7	405.2	353.3	300.7	251.4	207.9	127.5
35°	541.4	536.6	518.4	491.2	453.5	407.8	355.6	299.1	246.2	198.9	114.8
37.5°	549.9	544.4	525.9	495.7	455.8	408.4	355.2	296.8	240.7	191.4	102.2
40°	555.7	549.9	530.1	498.3	456.5	407.5	352.6	292.9	234.2	182.0	88.9
42.5°	559.6	553.1	532.0	502.2	455.2	404.9	348.7	288.1	227.1	173.9	76.2
45°	561.6	554.7	532.4	498.9	452.9	400.0	342.9	281.9	219.3	162.9	63.6
47.5°	560.6	553.1	530.7	495.4	448.7	394.8	336.4	274.5	209.9	153.1	51.6
50°	559.0	551.2	527.2	490.8	442.8	388.3	329.3	265.4	200.2	141.1	40.9
52.5°	553.8	546.0	523.3	484.4	436.0	380.9	319.5	256.0	189.8	129.4	31.1
55°	547.3	540.2	516.5	478.5	427.3	371.8	310.5	245.9	179.7	117.4	22.4
57.5°	537.2	530.7	508.0	469.1	418.5	361.7	300.4	234.9	167.1	105.4	15.6
60°	524.9	518.4	496.4	458.4	408.4	350.4	289.4	223.5	155.7	93.4	9.7
62.5°	511.9	505.8	482.7	445.1	395.8	338.4	277.4	212.2	143.7	82.4	5.8
65°	494.7	488.9	468.1	429.2	381.8	325.4	264.1	198.5	131.4	70.1	3.2
67.5°	476.6	471.4	450.3	414.6	365.6	311.1	250.4	185.2	118.4	59.4	1.6
70°	457.1	450.6	431.1	394.8	349.1	294.9	235.5	171.6	106.1	49.0	0.0
72.5°	434.4	429.5	410.7	376.3	329.9	277.7	220.3	156.7	92.5	38.9	0.3
75°	412.3	406.2	389.0	356.5	311.1	259.5	203.4	142.7	79.2	29.8	0.3
77.5°	383.8	381.8	365.6	334.1	293.3	242.0	184.9	125.9	66.5	21.4	0.3
80°	355.2	353.3	340.6	311.8	272.5	221.3	167.7	110.0	54.2	14.3	0.3
82.5°	327.0	324.4	312.4	288.4	251.4	203.7	149.9	94.1	42.8	8.8	0.3
85°	301.7	298.5	285.5	263.4	229.7	183.9	131.4	78.5	31.8	4.9	0.6
87.5°	280.0	277.7	263.4	240.7	207.6	165.5	115.2	63.6	22.4	2.3	1.0
90°	261.5	256.6	244.0	220.0	186.9	145.0	98.0	50.9	14.9	1.3	1.3
92.5°	243.3	239.1	225.1	200.5	168.4	127.5	81.4	38.9	9.4	0.6	1.6
95°	224.5	220.0	206.3	183.6	149.6	109.7	66.8	28.5	5.2	0.6	1.6
97.5°	206.0	201.8	187.5	164.8	132.7	94.1	52.9	20.1	2.6	0.6	1.3
100°	188.8	183.9	171.0	148.3	115.8	78.5	40.9	13.0	1.6	0.6	1.3
102.5°	170.6	166.7	153.4	131.4	98.3	63.9	30.5	8.1	0.6	0.6	1.0
105°	154.4	149.6	136.6	113.9	83.7	50.3	21.4	4.9	0.6	0.6	1.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	100.6	96.7	85.3	66.2	42.5	19.8	5.8	1.0	1.0	1.0	1.0
115°	84.0	78.2	68.1	51.3	31.5	13.0	2.9	1.0	1.0	1.0	1.0
117.5°	67.2	62.3	55.2	38.9	20.8	8.4	1.6	1.0	1.0	1.0	1.0
120°	52.6	48.0	39.9	26.9	13.9	4.9	0.6	1.0	1.0	1.0	1.0
122.5°	37.6	34.1	26.9	17.5	8.4	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.0	23.0	17.8	10.7	5.2	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.2	14.6	10.4	6.2	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.1	8.1	6.2	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.2	4.9	3.2	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	254.7	254.7	254.7
2.5°	242.3	237.8	236.5
5°	229.4	221.9	217.7
7.5°	216.4	206.3	201.5
10°	204.4	190.1	184.9
12.5°	190.1	173.6	165.5
15°	176.5	155.1	147.3
17.5°	161.2	137.2	128.1
20°	147.0	119.4	110.0
22.5°	130.7	101.9	91.5
25°	116.1	84.3	72.7
27.5°	99.9	66.5	56.4
30°	84.7	50.9	40.9
32.5°	70.1	37.3	28.2
35°	56.4	25.3	17.8
37.5°	43.5	15.6	9.1
40°	31.5	8.1	4.2
42.5°	21.1	3.9	2.3
45°	13.0	1.9	0.0
47.5°	7.5	0.0	0.0
50°	3.9	0.0	0.0
52.5°	1.6	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°	0.3	0.3	0.3
77.5°	0.3	0.6	1.0
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.3
90°	1.9	2.3	2.3
92.5°	1.9	2.6	2.6
95°	2.3	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.3	2.9	3.2
102.5°	1.9	2.9	2.9
105°	1.6	2.3	2.6





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.6
152.5°	1.0	0.6	0.6
155°	1.0	0.6	0.3
157.5°	1.3	0.6	0.3
160°	1.0	0.6	0.3
162.5°	1.0	0.6	0.3
165°	1.0	0.6	0.0
167.5°	1.0	0.6	0.3
170°	1.0	0.6	0.3
172.5°	1.0	0.6	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	136.3	132.4	119.4	98.0	68.5	38.3	14.3	2.6	0.6	1.0	1.0
110°	118.7	115.5	102.2	81.4	55.2	28.5	9.4	1.6	1.0	1.0	1.0







107.5°	1.3	1.9	2.3
110°	1.3	1.6	1.9



(END OF REPORT)