

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: P550572

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-81-86-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: P550572  
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-LD4-1HI-40-UNV-81-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

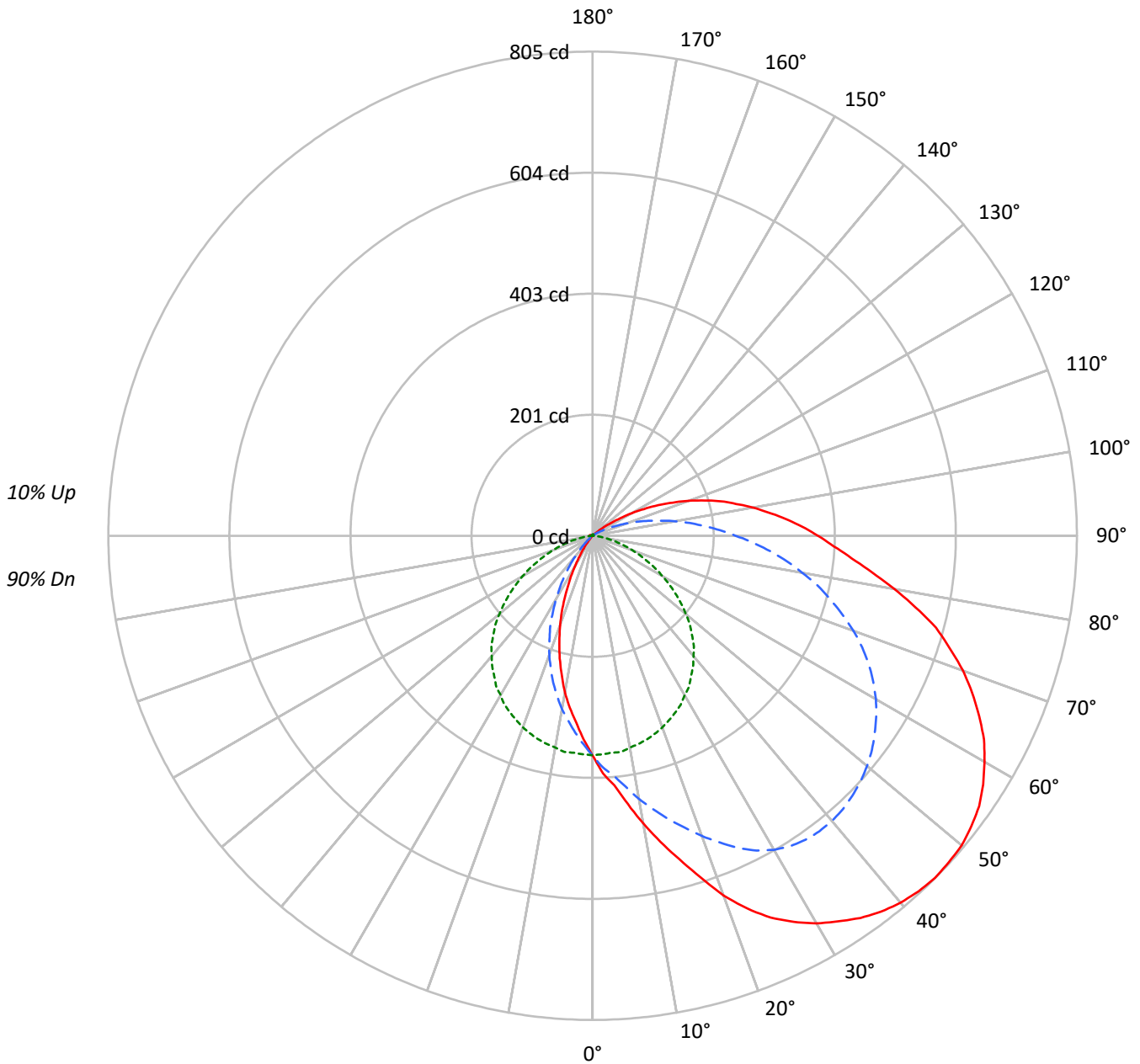
Lumens per Lamp: N/A  
Luminaire Lumens: 1804.1 lumens  
Efficiency: N/A  
Efficacy: 83.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
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

TEST NUMBER: P550572

CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-86-ED1D

### Luminous Intensity Polar Plot





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

RF	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°	3928	3928	3928
5°	4312	3870	3229
10°	4880	3823	2662
15°	5468	3774	2074
20°	6167	3713	1527
25°	6747	3642	1003
30°	7178	3546	565
35°	7551	3444	249
40°	7882	3317	59
45°	8166	3158	0
50°	8404	2947	0
55°	8586	2680	0
60°	8677	2370	0
65°	8713	2017	0
70°	8684	1645	0
75°	8573	1214	7
80°	8226	744	37
85°	7951	356	51



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.0	1.9
10°-20°	104.7	5.8
20°-30°	169.5	9.4
30°-40°	217.7	12.1
40°-50°	246.5	13.7
50°-60°	255.3	14.2
60°-70°	240.8	13.3
70°-80°	201.8	11.2
80°-90°	146.3	8.1
90°-100°	96.1	5.3
100°-110°	55.5	3.1
110°-120°	24.5	1.4
120°-130°	6.6	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	309.1	17.1
0°-40°	526.8	29.2
0°-60°	1028.6	57.0
0°-90°	1617.5	89.7
90°-120°	176.2	9.8
90°-150°	185.4	10.3
90°-180°	187.0	10.4
0°-180°	1804.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	365	365	365	365	365	
5°	416	400	362	329	312	42
15°	556	488	350	253	211	160
25°	700	572	324	166	104	324
35°	776	617	285	81	26	487
45°	805	611	233	19	0	621
55°	784	572	168	0	0	700
65°	709	507	100	0	0	701
75°	591	409	43	0	0	620
85°	432	296	7	2	3	369
90°	375	238	2	3	3	205
95°	322	186	1	3	4	252
105°	221	96	1	2	4	233
115°	120	32	1	1	2	121
125°	36	4	2	1	2	36
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9
2.5°	395.6	395.1	393.7	391.4	388.1	382.6	377.9	373.7	368.2	363.5	354.7
5°	416.5	414.2	412.3	410.0	402.6	397.4	389.1	379.8	370.9	362.1	344.5
7.5°	450.0	446.3	443.5	437.0	426.7	415.1	402.1	393.3	387.2	362.6	332.4
10°	485.8	482.5	476.9	465.3	452.8	436.0	417.4	396.5	377.9	357.5	321.7
12.5°	521.1	516.4	508.5	493.7	476.0	455.1	429.5	404.9	378.4	354.2	309.1
15°	556.4	551.3	542.9	524.8	501.6	474.1	443.0	411.9	380.7	350.0	296.1
17.5°	595.0	588.0	575.5	555.0	525.7	491.8	455.1	417.4	379.8	344.9	282.2
20°	636.4	626.6	613.1	585.7	551.3	511.3	467.2	423.0	379.3	338.9	266.4
22.5°	670.8	661.0	646.1	617.8	576.4	527.6	477.4	426.7	377.5	331.9	251.5
25°	700.5	692.6	676.4	643.8	600.1	544.8	487.2	429.5	374.7	324.5	235.7
27.5°	723.8	716.3	698.2	664.7	620.1	560.1	494.6	430.9	370.9	317.0	219.4
30°	744.2	736.8	714.9	680.5	633.6	572.2	502.0	431.4	366.3	305.9	201.7
32.5°	760.0	753.1	730.7	694.0	642.9	580.6	506.2	430.9	360.3	298.0	182.7
35°	775.8	768.9	742.8	703.8	649.9	584.3	509.5	428.6	352.8	285.0	164.6
37.5°	787.9	780.0	753.5	710.3	653.1	585.2	509.0	425.3	344.9	274.3	146.4
40°	796.3	787.9	759.6	714.0	654.0	583.8	505.3	419.8	335.6	260.8	127.4
42.5°	801.9	792.6	762.4	719.6	652.2	580.1	499.7	412.8	325.4	249.2	109.2
45°	804.7	794.9	762.8	714.9	648.9	573.2	491.3	404.0	314.2	233.4	91.1
47.5°	803.3	792.6	760.5	709.8	642.9	565.7	482.0	393.3	300.8	219.4	73.9
50°	800.9	789.8	755.4	703.3	634.5	556.4	471.8	380.2	286.8	202.2	58.6
52.5°	793.5	782.3	749.8	694.0	624.8	545.7	457.9	366.8	271.9	185.5	44.6
55°	784.2	774.0	740.0	685.7	612.2	532.7	444.9	352.4	257.5	168.3	32.1
57.5°	769.8	760.5	728.0	672.2	599.7	518.3	430.4	336.6	239.4	151.1	22.3
60°	752.1	742.8	711.2	656.8	585.2	502.0	414.6	320.3	223.1	133.9	13.9
62.5°	733.5	724.7	691.7	637.8	567.1	484.8	397.4	304.0	205.9	118.1	8.4
65°	708.9	700.5	670.8	615.0	547.1	466.2	378.4	284.5	188.3	100.4	4.6
67.5°	682.9	675.4	645.2	594.1	523.9	445.8	358.9	265.4	169.7	85.1	2.3
70°	655.0	645.7	617.8	565.7	500.2	422.5	337.5	245.9	152.0	70.2	0.0
72.5°	622.4	615.5	588.5	539.2	472.8	397.9	315.6	224.5	132.5	55.8	0.5
75°	590.8	582.0	557.4	510.9	445.8	371.9	291.5	204.5	113.4	42.8	0.5
77.5°	549.9	547.1	523.9	478.8	420.2	346.8	265.0	180.4	95.3	30.7	0.5
80°	509.0	506.2	488.1	446.7	390.5	317.0	240.3	157.6	77.6	20.5	0.5
82.5°	468.6	464.8	447.6	413.3	360.3	291.9	214.8	134.8	61.4	12.6	0.5
85°	432.3	427.7	409.1	377.5	329.1	263.6	188.3	112.5	45.6	7.0	0.9
87.5°	401.2	397.9	377.5	344.9	297.5	237.1	165.0	91.1	32.1	3.3	1.4
90°	374.7	367.7	349.6	315.2	267.8	207.8	140.4	73.0	21.4	1.9	1.9
92.5°	348.6	342.6	322.6	287.3	241.3	182.7	116.7	55.8	13.5	0.9	2.3
95°	321.7	315.2	295.6	263.1	214.3	157.1	95.8	40.9	7.4	0.9	2.3
97.5°	295.2	289.1	268.7	236.1	190.1	134.8	75.8	28.8	3.7	0.9	1.9
100°	270.5	263.6	245.0	212.4	166.0	112.5	58.6	18.6	2.3	0.9	1.9
102.5°	244.5	238.9	219.9	188.3	140.8	91.6	43.7	11.6	0.9	0.9	1.4
105°	221.3	214.3	195.7	163.2	119.9	72.1	30.7	7.0	0.9	0.9	1.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	144.1	138.5	122.3	94.8	60.9	28.4	8.4	1.4	1.4	1.4	1.4
115°	120.4	112.0	97.6	73.4	45.1	18.6	4.2	1.4	1.4	1.4	1.4
117.5°	96.2	89.3	79.0	55.8	29.8	12.1	2.3	1.4	1.4	1.4	1.4
120°	75.3	68.8	57.2	38.6	20.0	7.0	0.9	1.4	1.4	1.4	1.4
122.5°	53.9	48.8	38.6	25.1	12.1	3.3	1.4	1.4	1.9	1.9	1.4
125°	35.8	33.0	25.6	15.3	7.4	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.2	20.9	14.9	8.8	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.0	11.6	8.8	5.1	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.4	7.0	4.6	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.3	2.3	2.3	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	364.9	364.9	364.9
2.5°	347.2	340.7	338.9
5°	328.6	318.0	311.9
7.5°	310.1	295.6	288.7
10°	292.9	272.4	265.0
12.5°	272.4	248.7	237.1
15°	252.9	222.2	211.0
17.5°	231.0	196.6	183.6
20°	210.6	171.1	157.6
22.5°	187.3	146.0	131.1
25°	166.4	120.9	104.1
27.5°	143.2	95.3	80.9
30°	121.3	73.0	58.6
32.5°	100.4	53.5	40.4
35°	80.9	36.3	25.6
37.5°	62.3	22.3	13.0
40°	45.1	11.6	6.0
42.5°	30.2	5.6	3.3
45°	18.6	2.8	0.0
47.5°	10.7	0.0	0.0
50°	5.6	0.0	0.0
52.5°	2.3	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	0.9	1.4
80°	0.9	1.9	2.3
82.5°	1.9	2.3	2.3
85°	1.9	2.3	2.8
87.5°	2.3	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.7	3.7
95°	3.3	3.7	4.2
97.5°	3.7	4.2	4.2
100°	3.3	4.2	4.6
102.5°	2.8	4.2	4.2
105°	2.3	3.3	3.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.9	2.3	2.3
115°	1.4	1.9	2.3
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	195.2	189.7	171.1	140.4	98.1	54.9	20.5	3.7	0.9	1.4	1.4
110°	170.1	165.5	146.4	116.7	79.0	40.9	13.5	2.3	1.4	1.4	1.4







107.5°	1.9	2.8	3.3
110°	1.9	2.3	2.8



(END OF REPORT)