

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: P550430

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-80-87-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: P550430  
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-30-UNV-80-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

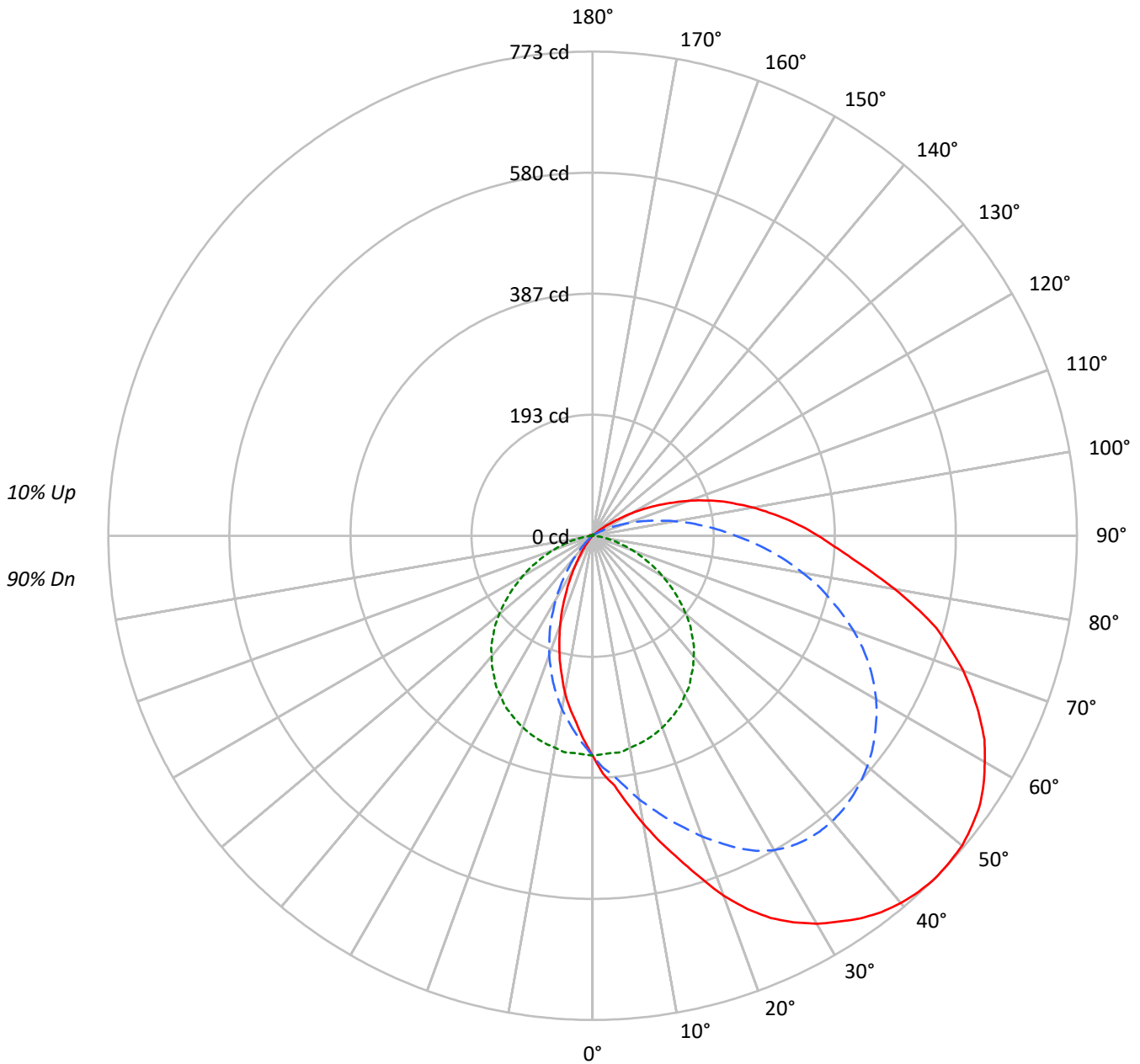
Lumens per Lamp: N/A  
Luminaire Lumens: 1733.9 lumens  
Efficiency: N/A  
Efficacy: 79.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-80-87-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°	3775	3775	3775
5°	4144	3721	3104
10°	4690	3675	2558
15°	5256	3627	1994
20°	5928	3568	1468
25°	6485	3500	964
30°	6899	3408	543
35°	7258	3309	239
40°	7576	3188	57
45°	7849	3035	0
50°	8079	2833	0
55°	8253	2575	0
60°	8340	2278	0
65°	8375	1938	0
70°	8347	1581	0
75°	8241	1166	6
80°	7907	715	36
85°	7642	341	50



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-80-87-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.6	1.9
10°-20°	100.6	5.8
20°-30°	162.9	9.4
30°-40°	209.3	12.1
40°-50°	236.9	13.7
50°-60°	245.4	14.2
60°-70°	231.5	13.3
70°-80°	194.0	11.2
80°-90°	140.6	8.1
90°-100°	92.4	5.3
100°-110°	53.4	3.1
110°-120°	23.5	1.4
120°-130°	6.4	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	297.1	17.1
0°-40°	506.4	29.2
0°-60°	988.7	57.0
0°-90°	1554.7	89.7
90°-120°	169.3	9.8
90°-150°	178.1	10.3
90°-180°	179.0	10.3
0°-180°	1733.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	351	351	351	351	351	
5°	400	384	348	316	300	40
15°	535	469	336	243	203	154
25°	673	550	312	160	100	311
35°	746	593	274	78	25	468
45°	773	587	224	18	0	597
55°	754	550	162	0	0	673
65°	681	487	96	0	0	674
75°	568	393	41	0	0	596
85°	416	285	7	2	3	355
90°	360	229	2	3	3	197
95°	309	178	1	3	4	243
105°	213	92	1	2	4	224
115°	116	31	1	1	2	116
125°	34	4	2	1	2	34
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°	350.7	350.7	350.7	350.7	350.7	350.7	350.7	350.7	350.7	350.7	350.7
2.5°	380.2	379.8	378.4	376.2	373.1	367.7	363.3	359.2	353.9	349.4	340.9
5°	400.3	398.1	396.3	394.1	386.9	382.0	374.0	365.0	356.6	348.1	331.1
7.5°	432.5	428.9	426.3	420.0	410.2	399.0	386.5	378.0	372.2	348.5	319.5
10°	466.9	463.8	458.4	447.3	435.2	419.1	401.2	381.1	363.3	343.6	309.2
12.5°	500.9	496.4	488.8	474.5	457.5	437.4	412.9	389.2	363.7	340.5	297.1
15°	534.8	529.9	521.9	504.4	482.1	455.7	425.8	395.9	365.9	336.4	284.6
17.5°	571.9	565.2	553.2	533.5	505.3	472.7	437.4	401.2	365.0	331.5	271.2
20°	611.7	602.3	589.3	563.0	529.9	491.5	449.0	406.6	364.6	325.7	256.0
22.5°	644.7	635.4	621.1	593.8	554.0	507.1	458.9	410.2	362.8	319.0	241.7
25°	673.3	665.7	650.1	618.8	576.8	523.7	468.3	412.9	360.1	311.9	226.5
27.5°	695.7	688.5	671.1	638.9	596.0	538.4	475.4	414.2	356.6	304.7	210.9
30°	715.3	708.2	687.2	654.1	609.0	550.0	482.6	414.6	352.1	294.0	193.9
32.5°	730.5	723.8	702.4	667.1	617.9	558.1	486.6	414.2	346.3	286.4	175.6
35°	745.7	739.0	714.0	676.5	624.6	561.6	489.7	412.0	339.1	273.9	158.2
37.5°	757.3	749.7	724.3	682.7	627.8	562.5	489.3	408.8	331.5	263.6	140.7
40°	765.4	757.3	730.1	686.3	628.7	561.2	485.7	403.5	322.6	250.7	122.4
42.5°	770.7	761.8	732.8	691.7	626.9	557.6	480.3	396.8	312.8	239.5	105.0
45°	773.4	764.0	733.2	687.2	623.7	550.9	472.3	388.3	302.0	224.3	87.6
47.5°	772.1	761.8	731.0	682.3	617.9	543.8	463.3	378.0	289.1	210.9	71.0
50°	769.9	759.1	726.1	676.0	609.9	534.8	453.5	365.5	275.7	194.4	56.3
52.5°	762.7	752.0	720.7	667.1	600.5	524.6	440.1	352.5	261.4	178.3	42.9
55°	753.8	743.9	711.3	659.0	588.4	512.0	427.6	338.7	247.5	161.7	30.8
57.5°	739.9	731.0	699.7	646.1	576.4	498.2	413.7	323.5	230.1	145.2	21.4
60°	722.9	714.0	683.6	631.3	562.5	482.6	398.6	307.9	214.5	128.7	13.4
62.5°	705.1	696.6	664.9	613.0	545.1	466.0	382.0	292.2	197.9	113.5	8.0
65°	681.4	673.3	644.7	591.1	525.9	448.2	363.7	273.4	181.0	96.5	4.5
67.5°	656.4	649.2	620.2	571.0	503.6	428.5	344.9	255.1	163.1	81.8	2.2
70°	629.6	620.6	593.8	543.8	480.8	406.2	324.4	236.4	146.1	67.5	0.0
72.5°	598.3	591.6	565.7	518.3	454.4	382.5	303.4	215.8	127.3	53.6	0.4
75°	567.9	559.4	535.7	491.0	428.5	357.4	280.2	196.6	109.0	41.1	0.4
77.5°	528.6	525.9	503.6	460.2	403.9	333.3	254.7	173.4	91.6	29.5	0.4
80°	489.3	486.6	469.2	429.4	375.3	304.7	231.0	151.5	74.6	19.7	0.4
82.5°	450.4	446.8	430.3	397.2	346.3	280.6	206.4	129.6	59.0	12.1	0.4
85°	415.5	411.1	393.2	362.8	316.3	253.3	181.0	108.1	43.8	6.7	0.9
87.5°	385.6	382.5	362.8	331.5	286.0	227.9	158.6	87.6	30.8	3.1	1.3
90°	360.1	353.4	336.0	302.9	257.4	199.7	134.9	70.1	20.6	1.8	1.8
92.5°	335.1	329.3	310.1	276.1	231.9	175.6	112.1	53.6	13.0	0.9	2.2
95°	309.2	302.9	284.2	252.9	206.0	151.0	92.0	39.3	7.1	0.9	2.2
97.5°	283.7	277.9	258.3	227.0	182.7	129.6	72.8	27.7	3.6	0.9	1.8
100°	260.0	253.3	235.5	204.2	159.5	108.1	56.3	17.9	2.2	0.9	1.8
102.5°	235.0	229.7	211.3	181.0	135.4	88.0	42.0	11.2	0.9	0.9	1.3
105°	212.7	206.0	188.1	156.8	115.3	69.3	29.5	6.7	0.9	0.9	1.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	138.5	133.1	117.5	91.1	58.5	27.3	8.0	1.3	1.3	1.3	1.3
115°	115.7	107.7	93.8	70.6	43.3	17.9	4.0	1.3	1.3	1.3	1.3
117.5°	92.5	85.8	76.0	53.6	28.6	11.6	2.2	1.3	1.3	1.3	1.3
120°	72.4	66.1	55.0	37.1	19.2	6.7	0.9	1.3	1.3	1.3	1.3
122.5°	51.8	46.9	37.1	24.1	11.6	3.1	1.3	1.3	1.8	1.8	1.3
125°	34.4	31.7	24.6	14.7	7.1	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	22.3	20.1	14.3	8.5	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.5	11.2	8.5	4.9	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.1	6.7	4.5	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.8	2.2	2.2	2.2	1.8
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	1.8
142.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
145°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
150°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
152.5°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
157.5°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	1.8
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



TEST NUMBER: P550430

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-80-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	350.7	350.7	350.7
2.5°	333.8	327.5	325.7
5°	315.9	305.6	299.8
7.5°	298.0	284.2	277.5
10°	281.5	261.8	254.7
12.5°	261.8	239.0	227.9
15°	243.1	213.6	202.9
17.5°	222.1	189.0	176.5
20°	202.4	164.4	151.5
22.5°	180.1	140.3	126.0
25°	160.0	116.2	100.1
27.5°	137.6	91.6	77.7
30°	116.6	70.1	56.3
32.5°	96.5	51.4	38.9
35°	77.7	34.9	24.6
37.5°	59.9	21.4	12.5
40°	43.3	11.2	5.8
42.5°	29.0	5.4	3.1
45°	17.9	2.7	0.0
47.5°	10.3	0.0	0.0
50°	5.4	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.8	2.2
82.5°	1.8	2.2	2.2
85°	1.8	2.2	2.7
87.5°	2.2	2.7	3.1
90°	2.7	3.1	3.1
92.5°	2.7	3.6	3.6
95°	3.1	3.6	4.0
97.5°	3.6	4.0	4.0
100°	3.1	4.0	4.5
102.5°	2.7	4.0	4.0
105°	2.2	3.1	3.6





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.8	2.2	2.2
115°	1.3	1.8	2.2
117.5°	1.3	1.8	1.8
120°	1.3	1.3	1.8
122.5°	1.3	1.3	1.8
125°	1.3	1.3	1.8
127.5°	1.8	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.8	1.3	1.3
135°	1.8	1.3	1.3
137.5°	1.8	1.3	1.3
140°	1.8	1.3	1.3
142.5°	1.8	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.8	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	187.7	182.3	164.4	134.9	94.3	52.7	19.7	3.6	0.9	1.3	1.3
110°	163.5	159.1	140.7	112.1	76.0	39.3	13.0	2.2	1.3	1.3	1.3







107.5°	1.8	2.7	3.1
110°	1.8	2.2	2.7



(END OF REPORT)