

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: P550546

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-93-94-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: P550546  
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-35-UNV-93-94-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K,  
AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

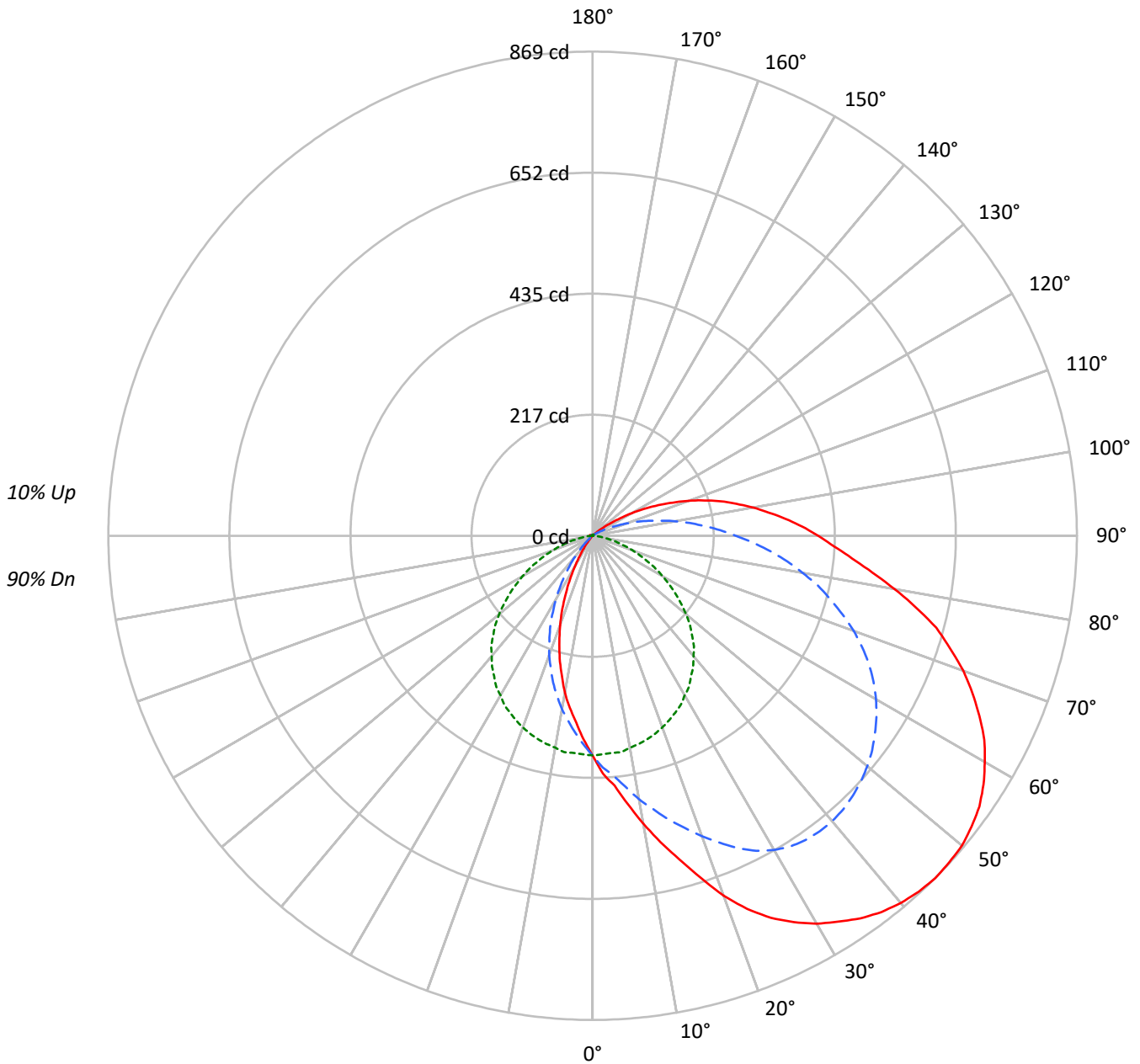
Lumens per Lamp: N/A  
Luminaire Lumens: 1949.0 lumens  
Efficiency: N/A  
Efficacy: 89.8 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
Input Voltage (V): NR  
Input Current (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-LD4-1HI-35-UNV-93-94-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°	4243	4243	4243
5°	4658	4181	3489
10°	5271	4130	2876
15°	5907	4078	2241
20°	6663	4011	1649
25°	7289	3933	1084
30°	7754	3831	611
35°	8158	3720	269
40°	8516	3582	64
45°	8822	3411	0
50°	9080	3185	0
55°	9275	2895	0
60°	9375	2559	0
65°	9414	2179	0
70°	9382	1776	0
75°	9262	1310	7
80°	8887	802	40
85°	8591	381	55



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.8	1.9
10°-20°	113.1	5.8
20°-30°	183.1	9.4
30°-40°	235.2	12.1
40°-50°	266.3	13.7
50°-60°	275.8	14.2
60°-70°	260.1	13.3
70°-80°	218.0	11.2
80°-90°	158.0	8.1
90°-100°	103.9	5.3
100°-110°	60.0	3.1
110°-120°	26.5	1.4
120°-130°	7.2	0.4
130°-140°	1.6	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°	333.9	17.1
0°-40°	569.2	29.2
0°-60°	1111.3	57.0
0°-90°	1747.4	89.7
90°-120°	190.3	9.8
90°-150°	200.2	10.3
90°-180°	202.0	10.4
0°-180°	1949.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	394	394	394	394	394	
5°	450	432	391	355	337	45
15°	601	527	378	273	228	173
25°	757	618	350	180	112	350
35°	838	667	308	87	28	526
45°	869	660	252	20	0	671
55°	847	618	182	0	0	757
65°	766	547	108	0	0	758
75°	638	442	46	0	0	669
85°	467	320	8	2	3	399
90°	405	257	2	3	4	222
95°	348	201	1	4	4	273
105°	239	104	1	2	4	252
115°	130	34	2	2	2	130
125°	39	5	2	2	2	39
135°	2	2	2	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	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°	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2	394.2
2.5°	427.4	426.9	425.4	422.9	419.3	413.3	408.3	403.8	397.8	392.7	383.2
5°	450.0	447.5	445.5	443.0	434.9	429.4	420.4	410.3	400.8	391.2	372.1
7.5°	486.1	482.1	479.1	472.1	461.0	448.5	434.4	424.9	418.3	391.7	359.1
10°	524.8	521.3	515.3	502.7	489.2	471.1	451.0	428.4	408.3	386.2	347.5
12.5°	563.0	558.0	549.4	533.3	514.3	491.7	464.0	437.4	408.8	382.7	334.0
15°	601.1	595.6	586.6	567.0	541.9	512.3	478.6	445.0	411.3	378.2	319.9
17.5°	642.8	635.3	621.7	599.6	568.0	531.3	491.7	451.0	410.3	372.6	304.8
20°	687.5	677.0	662.4	632.8	595.6	552.4	504.7	457.0	409.8	366.1	287.8
22.5°	724.7	714.1	698.1	667.4	622.7	570.0	515.8	461.0	407.8	358.6	271.7
25°	756.8	748.3	730.7	695.6	648.4	588.6	526.3	464.0	404.8	350.5	254.6
27.5°	781.9	773.9	754.3	718.2	669.9	605.2	534.4	465.5	400.8	342.5	237.0
30°	804.0	796.0	772.4	735.2	684.5	618.2	542.4	466.1	395.7	330.5	218.0
32.5°	821.1	813.6	789.5	749.8	694.6	627.3	546.9	465.5	389.2	321.9	197.4
35°	838.2	830.7	802.5	760.3	702.1	631.3	550.4	463.0	381.2	307.9	177.8
37.5°	851.2	842.7	814.1	767.4	705.6	632.3	549.9	459.5	372.6	296.3	158.2
40°	860.3	851.2	820.6	771.4	706.6	630.8	545.9	453.5	362.6	281.7	137.6
42.5°	866.3	856.3	823.6	777.4	704.6	626.8	539.9	446.0	351.5	269.2	118.0
45°	869.3	858.8	824.1	772.4	701.1	619.2	530.8	436.4	339.5	252.1	98.4
47.5°	867.8	856.3	821.6	766.9	694.6	611.2	520.8	424.9	324.9	237.0	79.9
50°	865.3	853.3	816.1	759.8	685.5	601.1	509.7	410.8	309.9	218.5	63.3
52.5°	857.3	845.2	810.1	749.8	675.0	589.6	494.7	396.2	293.8	200.4	48.2
55°	847.2	836.2	799.5	740.8	661.4	575.5	480.6	380.7	278.2	181.8	34.7
57.5°	831.7	821.6	786.5	726.2	647.9	560.0	465.0	363.6	258.6	163.2	24.1
60°	812.6	802.5	768.4	709.6	632.3	542.4	448.0	346.0	241.1	144.6	15.1
62.5°	792.5	782.9	747.3	689.0	612.7	523.8	429.4	328.4	222.5	127.6	9.0
65°	765.9	756.8	724.7	664.4	591.1	503.7	408.8	307.4	203.4	108.5	5.0
67.5°	737.7	729.7	697.1	641.8	566.0	481.6	387.7	286.8	183.3	91.9	2.5
70°	707.6	697.6	667.4	611.2	540.4	456.5	364.6	265.7	164.2	75.8	0.0
72.5°	672.5	664.9	635.8	582.6	510.7	429.9	341.0	242.6	143.1	60.3	0.5
75°	638.3	628.8	602.2	551.9	481.6	401.8	314.9	221.0	122.5	46.2	0.5
77.5°	594.1	591.1	566.0	517.3	454.0	374.6	286.3	194.9	103.0	33.1	0.5
80°	549.9	546.9	527.3	482.6	421.9	342.5	259.6	170.2	83.9	22.1	0.5
82.5°	506.2	502.2	483.6	446.5	389.2	315.4	232.0	145.6	66.3	13.6	0.5
85°	467.1	462.0	441.9	407.8	355.6	284.8	203.4	121.5	49.2	7.5	1.0
87.5°	433.4	429.9	407.8	372.6	321.4	256.1	178.3	98.4	34.7	3.5	1.5
90°	404.8	397.2	377.7	340.5	289.3	224.5	151.7	78.8	23.1	2.0	2.0
92.5°	376.7	370.1	348.5	310.4	260.6	197.4	126.1	60.3	14.6	1.0	2.5
95°	347.5	340.5	319.4	284.3	231.5	169.7	103.5	44.2	8.0	1.0	2.5
97.5°	318.9	312.4	290.3	255.1	205.4	145.6	81.9	31.1	4.0	1.0	2.0
100°	292.3	284.8	264.7	229.5	179.3	121.5	63.3	20.1	2.5	1.0	2.0
102.5°	264.2	258.1	237.5	203.4	152.2	98.9	47.2	12.6	1.0	1.0	1.5
105°	239.1	231.5	211.4	176.3	129.6	77.8	33.1	7.5	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°	155.7	149.7	132.1	102.5	65.8	30.6	9.0	1.5	1.5	1.5	1.5
115°	130.1	121.0	105.5	79.3	48.7	20.1	4.5	1.5	1.5	1.5	1.5
117.5°	104.0	96.4	85.4	60.3	32.1	13.1	2.5	1.5	1.5	1.5	1.5
120°	81.4	74.3	61.8	41.7	21.6	7.5	1.0	1.5	1.5	1.5	1.5
122.5°	58.3	52.7	41.7	27.1	13.1	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.7	35.7	27.6	16.6	8.0	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.1	22.6	16.1	9.5	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.1	12.6	9.5	5.5	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.0	7.5	5.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
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°	394.2	394.2	394.2
2.5°	375.2	368.1	366.1
5°	355.1	343.5	337.0
7.5°	335.0	319.4	311.9
10°	316.4	294.3	286.3
12.5°	294.3	268.7	256.1
15°	273.2	240.1	228.0
17.5°	249.6	212.4	198.4
20°	227.5	184.8	170.2
22.5°	202.4	157.7	141.6
25°	179.8	130.6	112.5
27.5°	154.7	103.0	87.4
30°	131.1	78.8	63.3
32.5°	108.5	57.8	43.7
35°	87.4	39.2	27.6
37.5°	67.3	24.1	14.1
40°	48.7	12.6	6.5
42.5°	32.6	6.0	3.5
45°	20.1	3.0	0.0
47.5°	11.6	0.0	0.0
50°	6.0	0.0	0.0
52.5°	2.5	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	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.5
90°	3.0	3.5	3.5
92.5°	3.0	4.0	4.0
95°	3.5	4.0	4.5
97.5°	4.0	4.5	4.5
100°	3.5	4.5	5.0
102.5°	3.0	4.5	4.5
105°	2.5	3.5	4.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	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°	2.0	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°	210.9	204.9	184.8	151.7	106.0	59.3	22.1	4.0	1.0	1.5	1.5
110°	183.8	178.8	158.2	126.1	85.4	44.2	14.6	2.5	1.5	1.5	1.5







107.5°	2.0	3.0	3.5
110°	2.0	2.5	3.0



(END OF REPORT)