

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: P551565

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-93-87-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: P551565  
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-35-UNV-93-87-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

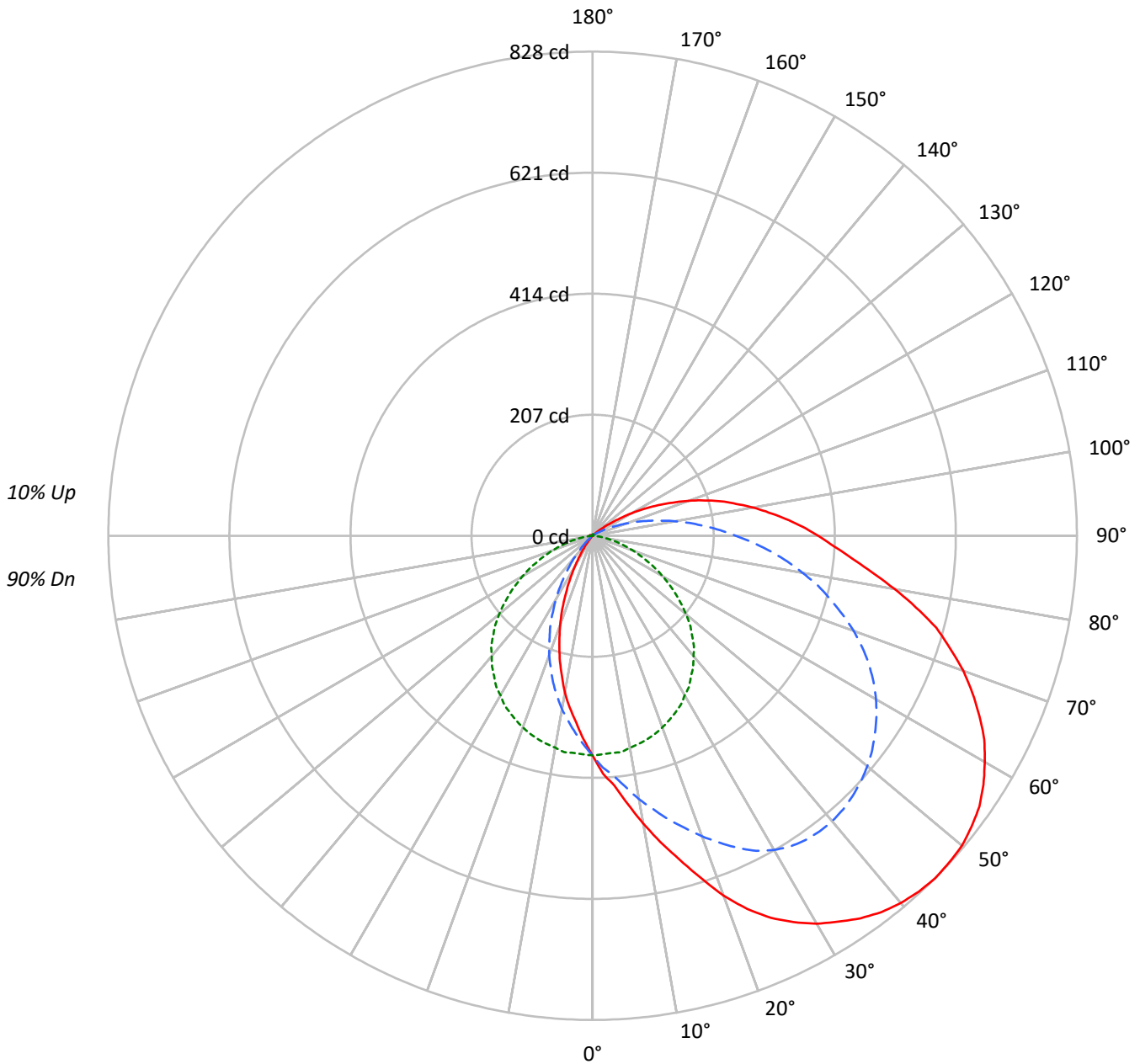
Lumens per Lamp: N/A  
Luminaire Lumens: 1856.9 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-87-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°	4043	4043	4043
5°	4438	3985	3324
10°	5022	3935	2739
15°	5629	3885	2134
20°	6349	3822	1572
25°	6945	3748	1032
30°	7389	3650	582
35°	7773	3544	256
40°	8114	3413	61
45°	8406	3250	0
50°	8652	3033	0
55°	8838	2758	0
60°	8932	2439	0
65°	8969	2077	0
70°	8939	1694	0
75°	8826	1248	7
80°	8468	765	39
85°	8184	366	53



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.0	1.9
10°-20°	107.7	5.8
20°-30°	174.5	9.4
30°-40°	224.1	12.1
40°-50°	253.7	13.7
50°-60°	262.8	14.2
60°-70°	247.9	13.3
70°-80°	207.7	11.2
80°-90°	150.6	8.1
90°-100°	99.0	5.3
100°-110°	57.2	3.1
110°-120°	25.2	1.4
120°-130°	6.8	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°	318.2	17.1
0°-40°	542.3	29.2
0°-60°	1058.8	57.0
0°-90°	1665.0	89.7
90°-120°	181.3	9.8
90°-150°	190.7	10.3
90°-180°	192.0	10.3
0°-180°	1856.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	376	376	376	376	376	
5°	429	412	373	338	321	43
15°	573	502	360	260	217	165
25°	721	589	334	171	107	333
35°	799	635	293	83	26	501
45°	828	629	240	19	0	639
55°	807	589	173	0	0	721
65°	730	522	103	0	0	722
75°	608	421	44	0	0	638
85°	445	305	7	2	3	380
90°	386	245	2	3	3	211
95°	331	191	1	3	4	260
105°	228	99	1	2	4	240
115°	124	33	1	1	2	124
125°	37	5	2	1	2	37
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°	375.6	375.6	375.6	375.6	375.6	375.6	375.6	375.6	375.6	375.6	375.6
2.5°	407.2	406.7	405.3	402.9	399.6	393.8	389.0	384.7	379.0	374.2	365.1
5°	428.7	426.3	424.4	422.0	414.4	409.1	400.5	390.9	381.8	372.8	354.6
7.5°	463.2	459.4	456.5	449.8	439.3	427.3	413.9	404.8	398.6	373.2	342.1
10°	500.0	496.7	490.9	479.0	466.1	448.8	429.7	408.2	389.0	368.0	331.1
12.5°	536.4	531.6	523.5	508.2	490.0	468.5	442.1	416.8	389.5	364.6	318.2
15°	572.8	567.5	558.9	540.2	516.3	488.1	456.0	424.0	391.9	360.3	304.8
17.5°	612.5	605.3	592.4	571.3	541.2	506.3	468.5	429.7	390.9	355.1	290.5
20°	655.1	645.0	631.1	602.9	567.5	526.4	480.9	435.4	390.5	348.8	274.2
22.5°	690.5	680.4	665.1	635.9	593.3	543.1	491.4	439.3	388.5	341.7	258.9
25°	721.1	713.0	696.2	662.7	617.8	560.8	501.5	442.1	385.7	334.0	242.6
27.5°	745.0	737.4	718.7	684.3	638.3	576.6	509.1	443.6	381.8	326.3	225.9
30°	766.1	758.4	735.9	700.5	652.2	589.0	516.8	444.1	377.1	314.9	207.7
32.5°	782.4	775.2	752.2	714.4	661.8	597.7	521.1	443.6	370.8	306.7	188.1
35°	798.6	791.4	764.7	724.5	669.0	601.5	524.4	441.2	363.2	293.3	169.4
37.5°	811.1	802.9	775.7	731.2	672.3	602.4	524.0	437.8	355.1	282.3	150.7
40°	819.7	811.1	781.9	735.0	673.3	601.0	520.1	432.1	345.5	268.4	131.1
42.5°	825.4	815.9	784.7	740.7	671.3	597.2	514.4	424.9	335.0	256.5	112.4
45°	828.3	818.2	785.2	735.9	668.0	590.0	505.8	415.8	323.5	240.2	93.8
47.5°	826.9	815.9	782.8	730.7	661.8	582.3	496.2	404.8	309.6	225.9	76.1
50°	824.5	813.0	777.6	724.0	653.2	572.8	485.7	391.4	295.2	208.1	60.3
52.5°	816.8	805.3	771.8	714.4	643.1	561.8	471.3	377.5	279.9	190.9	45.9
55°	807.2	796.7	761.8	705.8	630.2	548.4	457.9	362.7	265.1	173.2	33.0
57.5°	792.4	782.8	749.3	691.9	617.3	533.5	443.1	346.4	246.4	155.5	23.0
60°	774.2	764.7	732.1	676.1	602.4	516.8	426.8	329.7	229.7	137.8	14.4
62.5°	755.1	746.0	712.0	656.5	583.8	499.1	409.1	312.9	212.0	121.5	8.6
65°	729.7	721.1	690.5	633.1	563.2	479.9	389.5	292.8	193.8	103.4	4.8
67.5°	702.9	695.3	664.2	611.5	539.3	458.9	369.4	273.2	174.7	87.6	2.4
70°	674.2	664.6	635.9	582.3	514.9	435.0	347.4	253.1	156.5	72.3	0.0
72.5°	640.7	633.5	605.8	555.1	486.6	409.6	324.9	231.1	136.4	57.4	0.5
75°	608.2	599.1	573.7	525.9	458.9	382.8	300.0	210.5	116.8	44.0	0.5
77.5°	566.1	563.2	539.3	492.9	432.6	357.0	272.7	185.7	98.1	31.6	0.5
80°	524.0	521.1	502.4	459.8	401.9	326.3	247.4	162.2	79.9	21.1	0.5
82.5°	482.3	478.5	460.8	425.4	370.8	300.5	221.1	138.8	63.2	12.9	0.5
85°	445.0	440.2	421.1	388.5	338.8	271.3	193.8	115.8	46.9	7.2	1.0
87.5°	412.9	409.6	388.5	355.1	306.2	244.0	169.9	93.8	33.0	3.3	1.4
90°	385.7	378.5	359.8	324.4	275.6	213.9	144.5	75.1	22.0	1.9	1.9
92.5°	358.9	352.7	332.1	295.7	248.3	188.1	120.1	57.4	13.9	1.0	2.4
95°	331.1	324.4	304.3	270.8	220.6	161.7	98.6	42.1	7.7	1.0	2.4
97.5°	303.9	297.6	276.6	243.1	195.7	138.8	78.0	29.7	3.8	1.0	1.9
100°	278.5	271.3	252.2	218.7	170.8	115.8	60.3	19.1	2.4	1.0	1.9
102.5°	251.7	246.0	226.3	193.8	145.0	94.3	45.0	12.0	1.0	1.0	1.4
105°	227.8	220.6	201.5	168.0	123.5	74.2	31.6	7.2	1.0	1.0	1.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	148.3	142.6	125.8	97.6	62.7	29.2	8.6	1.4	1.4	1.4	1.4
115°	123.9	115.3	100.5	75.6	46.4	19.1	4.3	1.4	1.4	1.4	1.4
117.5°	99.1	91.9	81.3	57.4	30.6	12.4	2.4	1.4	1.4	1.4	1.4
120°	77.5	70.8	58.9	39.7	20.6	7.2	1.0	1.4	1.4	1.4	1.4
122.5°	55.5	50.2	39.7	25.8	12.4	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.8	34.0	26.3	15.8	7.7	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.9	21.5	15.3	9.1	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.4	12.0	9.1	5.3	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.7	7.2	4.8	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	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°	375.6	375.6	375.6
2.5°	357.4	350.7	348.8
5°	338.3	327.3	321.1
7.5°	319.2	304.3	297.2
10°	301.5	280.4	272.7
12.5°	280.4	256.0	244.0
15°	260.3	228.7	217.2
17.5°	237.8	202.4	189.0
20°	216.8	176.1	162.2
22.5°	192.8	150.3	134.9
25°	171.3	124.4	107.2
27.5°	147.4	98.1	83.3
30°	124.9	75.1	60.3
32.5°	103.4	55.0	41.6
35°	83.3	37.3	26.3
37.5°	64.1	23.0	13.4
40°	46.4	12.0	6.2
42.5°	31.1	5.7	3.3
45°	19.1	2.9	0.0
47.5°	11.0	0.0	0.0
50°	5.7	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	1.4
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	3.3
90°	2.9	3.3	3.3
92.5°	2.9	3.8	3.8
95°	3.3	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.3	4.3	4.8
102.5°	2.9	4.3	4.3
105°	2.4	3.3	3.8





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
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	1.0
152.5°	1.4	1.0	1.0
155°	1.4	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.4	1.0	0.5
162.5°	1.4	1.0	0.5
165°	1.4	1.0	0.0
167.5°	1.4	1.0	0.5
170°	1.4	1.0	0.5
172.5°	1.4	1.0	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°	201.0	195.2	176.1	144.5	101.0	56.5	21.1	3.8	1.0	1.4	1.4
110°	175.1	170.3	150.7	120.1	81.3	42.1	13.9	2.4	1.4	1.4	1.4







107.5°	1.9	2.9	3.3
110°	1.9	2.4	2.9



(END OF REPORT)