

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: P551545

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-82-85-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: P551545
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-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

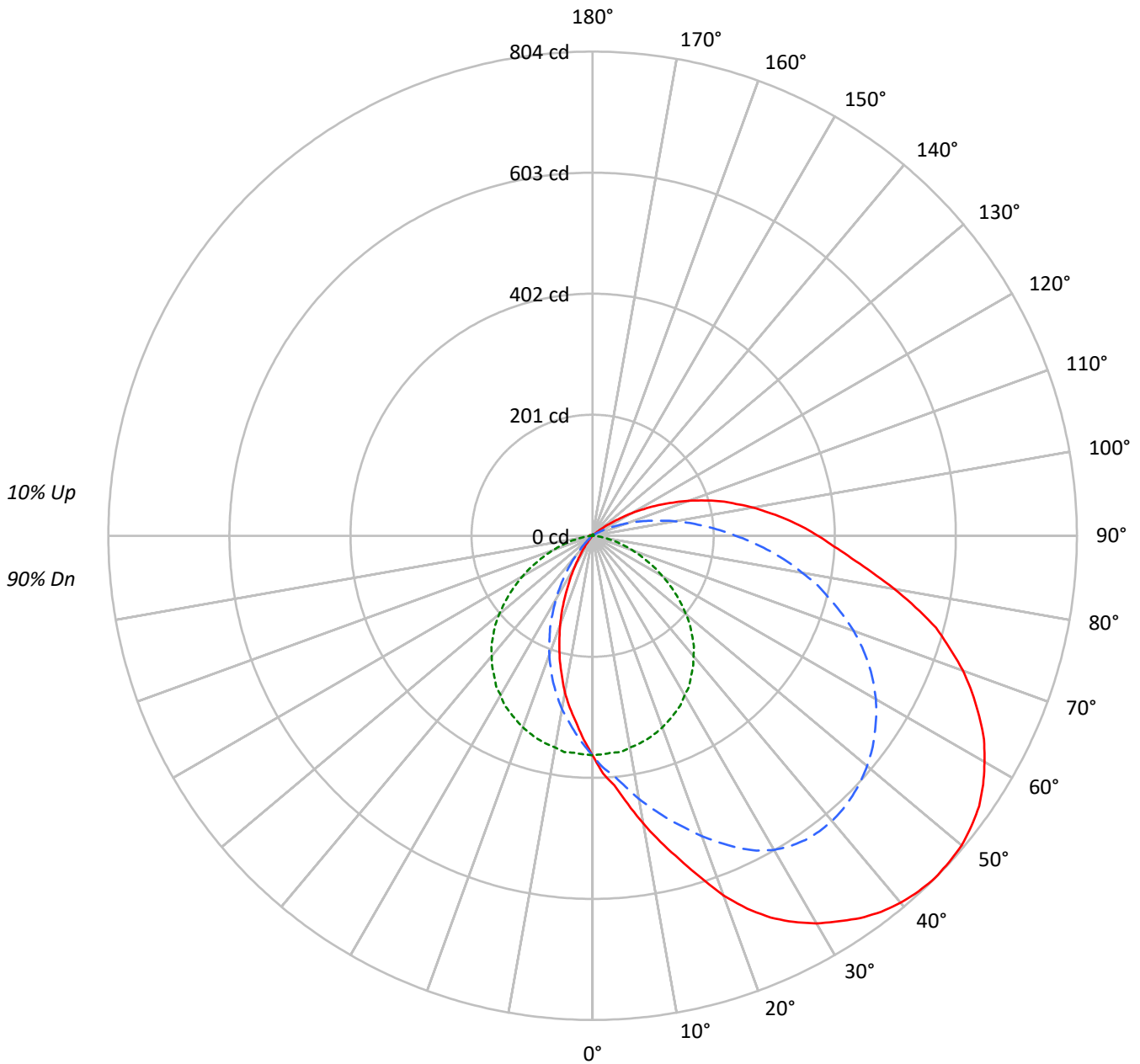
Lumens per Lamp: N/A
Luminaire Lumens: 1802.1 lumens
Efficiency: N/A
Efficacy: 76.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (A_{in}): 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-82-85-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°	3923	3923	3923
5°	4307	3866	3226
10°	4874	3819	2659
15°	5462	3770	2072
20°	6161	3709	1525
25°	6739	3637	1002
30°	7170	3542	564
35°	7543	3439	248
40°	7873	3313	59
45°	8157	3154	0
50°	8394	2944	0
55°	8576	2677	0
60°	8668	2366	0
65°	8703	2015	0
70°	8674	1642	0
75°	8564	1211	7
80°	8216	740	37
85°	7942	356	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.9	1.9
10°-20°	104.5	5.8
20°-30°	169.3	9.4
30°-40°	217.5	12.1
40°-50°	246.2	13.7
50°-60°	255.0	14.2
60°-70°	240.5	13.3
70°-80°	201.6	11.2
80°-90°	146.1	8.1
90°-100°	96.0	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°	308.8	17.1
0°-40°	526.2	29.2
0°-60°	1027.4	57.0
0°-90°	1615.7	89.7
90°-120°	176.0	9.8
90°-150°	185.2	10.3
90°-180°	186.0	10.3
0°-180°	1802.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	364	364	364	364	364	
5°	416	400	362	328	312	42
15°	556	487	350	253	211	160
25°	700	572	324	166	104	323
35°	775	616	285	81	26	486
45°	804	610	233	19	0	621
55°	783	572	168	0	0	699
65°	708	506	100	0	0	701
75°	590	408	43	0	0	619
85°	432	296	7	2	3	369
90°	374	238	2	3	3	205
95°	321	186	1	3	4	252
105°	221	96	1	2	4	233
115°	120	32	1	1	2	120
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°	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5
2.5°	395.1	394.7	393.3	391.0	387.7	382.1	377.5	373.3	367.8	363.1	354.3
5°	416.0	413.7	411.9	409.5	402.1	397.0	388.6	379.4	370.5	361.7	344.1
7.5°	449.5	445.8	443.0	436.5	426.3	414.6	401.6	392.8	386.8	362.2	332.0
10°	485.2	482.0	476.4	464.8	452.3	435.5	417.0	396.1	377.5	357.1	321.3
12.5°	520.5	515.9	508.0	493.1	475.5	454.6	429.0	404.4	378.0	353.8	308.8
15°	555.8	550.7	542.3	524.2	501.0	473.6	442.5	411.4	380.3	349.6	295.8
17.5°	594.3	587.4	574.8	554.4	525.2	491.3	454.6	417.0	379.4	344.5	281.9
20°	635.7	625.9	612.5	585.1	550.7	510.8	466.7	422.5	378.9	338.5	266.1
22.5°	670.0	660.3	645.4	617.1	575.8	527.0	476.9	426.3	377.0	331.5	251.2
25°	699.7	691.9	675.6	643.1	599.5	544.2	486.6	429.0	374.3	324.1	235.4
27.5°	723.0	715.5	697.4	664.0	619.4	559.5	494.1	430.4	370.5	316.7	219.2
30°	743.4	736.0	714.1	679.8	632.9	571.6	501.5	430.9	365.9	305.5	201.5
32.5°	759.2	752.2	729.9	693.2	642.2	580.0	505.7	430.4	359.9	297.6	182.5
35°	775.0	768.0	742.0	703.0	649.1	583.7	508.9	428.1	352.4	284.6	164.4
37.5°	787.0	779.2	752.7	709.5	652.4	584.6	508.4	424.9	344.5	274.0	146.3
40°	795.4	787.0	758.7	713.2	653.3	583.2	504.7	419.3	335.2	260.5	127.2
42.5°	801.0	791.7	761.5	718.8	651.5	579.5	499.2	412.3	325.0	248.9	109.1
45°	803.8	794.0	762.0	714.1	648.2	572.5	490.8	403.5	313.9	233.1	91.0
47.5°	802.4	791.7	759.6	709.0	642.2	565.1	481.5	392.8	300.4	219.2	73.8
50°	800.0	788.9	754.5	702.5	633.8	555.8	471.3	379.8	286.5	202.0	58.5
52.5°	792.6	781.5	749.0	693.2	624.1	545.1	457.4	366.4	271.6	185.3	44.6
55°	783.3	773.1	739.2	684.9	611.5	532.1	444.4	352.0	257.2	168.1	32.0
57.5°	768.9	759.6	727.1	671.4	599.0	517.7	430.0	336.2	239.1	150.9	22.3
60°	751.3	742.0	710.4	656.1	584.6	501.5	414.2	319.9	222.9	133.7	13.9
62.5°	732.7	723.9	690.9	637.1	566.5	484.3	397.0	303.7	205.7	117.9	8.4
65°	708.1	699.7	670.0	614.3	546.5	465.7	378.0	284.2	188.1	100.3	4.6
67.5°	682.1	674.7	644.5	593.4	523.3	445.3	358.5	265.1	169.5	85.0	2.3
70°	654.2	645.0	617.1	565.1	499.6	422.1	337.1	245.6	151.8	70.1	0.0
72.5°	621.7	614.8	587.8	538.6	472.2	397.5	315.3	224.3	132.3	55.7	0.5
75°	590.2	581.3	556.7	510.3	445.3	371.5	291.1	204.3	113.3	42.7	0.5
77.5°	549.3	546.5	523.3	478.3	419.8	346.4	264.7	180.2	95.2	30.6	0.5
80°	508.4	505.7	487.5	446.2	390.0	316.7	240.1	157.4	77.5	20.4	0.5
82.5°	468.0	464.3	447.2	412.8	359.9	291.6	214.5	134.7	61.3	12.5	0.5
85°	431.8	427.2	408.6	377.0	328.7	263.3	188.1	112.4	45.5	7.0	0.9
87.5°	400.7	397.5	377.0	344.5	297.2	236.8	164.8	91.0	32.0	3.3	1.4
90°	374.3	367.3	349.2	314.8	267.5	207.6	140.2	72.9	21.4	1.9	1.9
92.5°	348.2	342.2	322.2	287.0	241.0	182.5	116.5	55.7	13.5	0.9	2.3
95°	321.3	314.8	295.3	262.8	214.1	156.9	95.7	40.9	7.4	0.9	2.3
97.5°	294.9	288.8	268.4	235.9	189.9	134.7	75.7	28.8	3.7	0.9	1.9
100°	270.2	263.3	244.7	212.2	165.8	112.4	58.5	18.6	2.3	0.9	1.9
102.5°	244.2	238.7	219.6	188.1	140.7	91.5	43.6	11.6	0.9	0.9	1.4
105°	221.0	214.1	195.5	163.0	119.8	72.0	30.6	7.0	0.9	0.9	1.4



TEST NUMBER: P551545

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	143.9	138.4	122.1	94.7	60.8	28.3	8.4	1.4	1.4	1.4	1.4
115°	120.3	111.9	97.5	73.4	45.0	18.6	4.2	1.4	1.4	1.4	1.4
117.5°	96.1	89.2	78.9	55.7	29.7	12.1	2.3	1.4	1.4	1.4	1.4
120°	75.2	68.7	57.1	38.5	20.0	7.0	0.9	1.4	1.4	1.4	1.4
122.5°	53.9	48.8	38.5	25.1	12.1	3.3	1.4	1.4	1.9	1.9	1.4
125°	35.8	33.0	25.5	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°	364.5	364.5	364.5
2.5°	346.9	340.4	338.5
5°	328.3	317.6	311.6
7.5°	309.7	295.3	288.4
10°	292.5	272.1	264.7
12.5°	272.1	248.4	236.8
15°	252.6	222.0	210.8
17.5°	230.8	196.4	183.4
20°	210.3	170.9	157.4
22.5°	187.1	145.8	130.9
25°	166.2	120.7	104.0
27.5°	143.0	95.2	80.8
30°	121.2	72.9	58.5
32.5°	100.3	53.4	40.4
35°	80.8	36.2	25.5
37.5°	62.2	22.3	13.0
40°	45.0	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



TEST NUMBER: P551545

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-85-ED1D-90

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°	195.0	189.4	170.9	140.2	98.0	54.8	20.4	3.7	0.9	1.4	1.4
110°	169.9	165.3	146.3	116.5	78.9	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)