

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: P551673

Luminaire Tested: **FCC-X-2-LD4-2LO-50-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: P551673
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-50-UNV-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

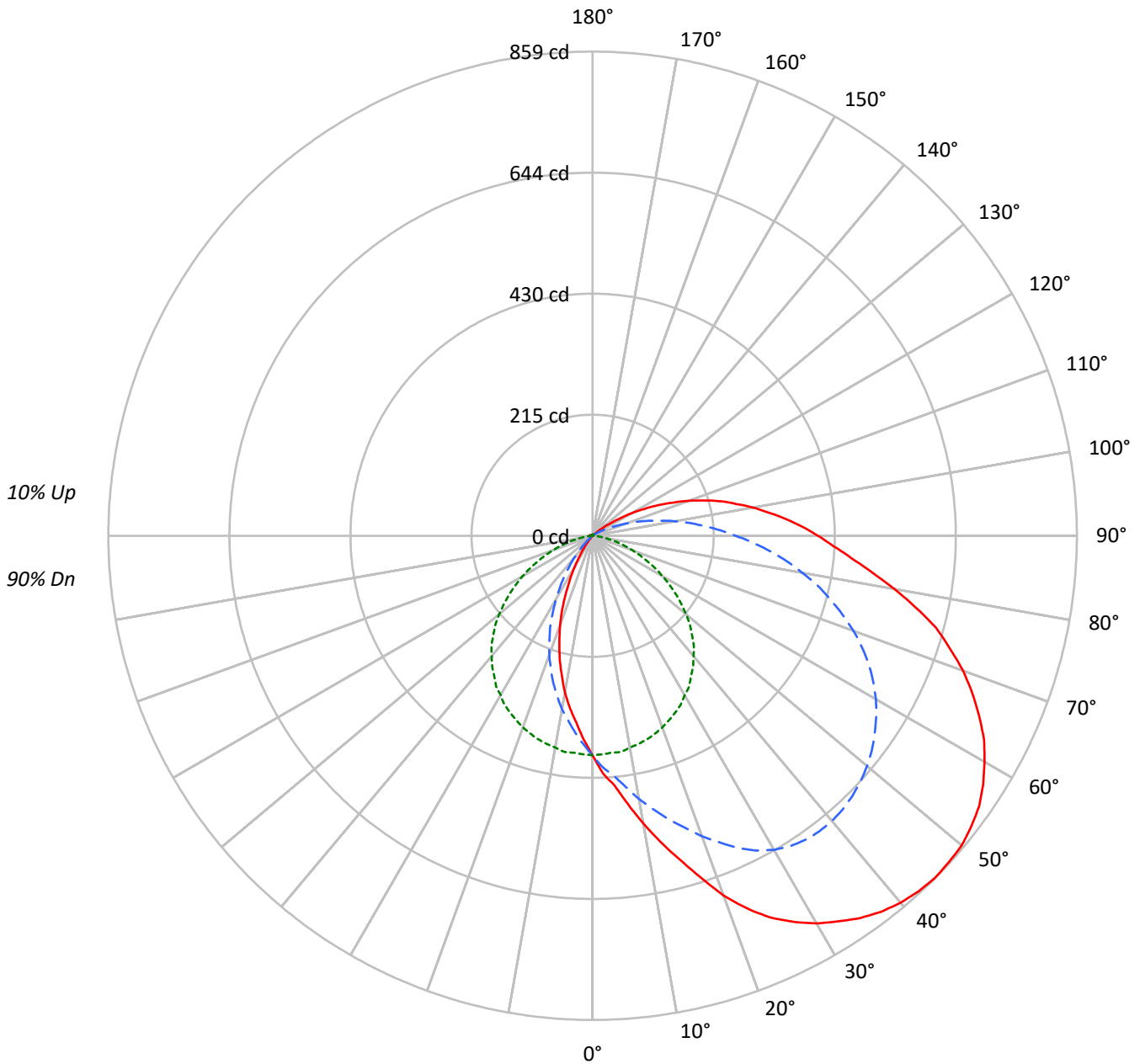
Lumens per Lamp: N/A
Luminaire Lumens: 1925.1 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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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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°	4191	4191	4191
5°	4601	4130	3445
10°	5206	4079	2840
15°	5834	4027	2213
20°	6581	3962	1630
25°	7199	3885	1070
30°	7659	3784	603
35°	8058	3674	266
40°	8411	3539	63
45°	8713	3369	0
50°	8968	3145	0
55°	9162	2860	0
60°	9259	2529	0
65°	9297	2151	0
70°	9266	1755	0
75°	9149	1293	7
80°	8777	791	40
85°	8484	376	55



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.3	1.9
10°-20°	111.7	5.8
20°-30°	180.9	9.4
30°-40°	232.3	12.1
40°-50°	263.0	13.7
50°-60°	272.5	14.2
60°-70°	256.9	13.3
70°-80°	215.3	11.2
80°-90°	156.1	8.1
90°-100°	102.6	5.3
100°-110°	59.3	3.1
110°-120°	26.2	1.4
120°-130°	7.1	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°	329.8	17.1
0°-40°	562.1	29.2
0°-60°	1097.6	57.0
0°-90°	1725.9	89.7
90°-120°	188.0	9.8
90°-150°	197.8	10.3
90°-180°	199.0	10.3
0°-180°	1925.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	389	389	389	389	389	
5°	444	427	386	351	333	45
15°	594	521	374	270	225	171
25°	748	611	346	178	111	345
35°	828	658	304	86	27	519
45°	859	652	249	20	0	663
55°	837	611	180	0	0	747
65°	756	541	107	0	0	748
75°	630	436	46	0	0	661
85°	461	316	7	2	3	394
90°	400	254	2	3	4	219
95°	343	198	1	4	4	269
105°	236	102	1	2	4	249
115°	128	34	2	2	2	129
125°	38	5	2	2	2	38
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°	389.4	389.4	389.4	389.4	389.4	389.4	389.4	389.4	389.4	389.4	389.4
2.5°	422.1	421.6	420.1	417.7	414.2	408.2	403.3	398.8	392.9	387.9	378.5
5°	444.4	442.0	440.0	437.5	429.6	424.1	415.2	405.3	395.8	386.4	367.6
7.5°	480.2	476.2	473.2	466.3	455.4	443.0	429.1	419.6	413.2	386.9	354.7
10°	518.3	514.9	508.9	496.5	483.1	465.3	445.4	423.1	403.3	381.4	343.3
12.5°	556.0	551.1	542.7	526.8	507.9	485.6	458.3	432.0	403.8	378.0	329.9
15°	593.7	588.3	579.4	560.0	535.2	505.9	472.7	439.5	406.2	373.5	316.0
17.5°	634.9	627.5	614.1	592.3	561.0	524.8	485.6	445.4	405.3	368.1	301.1
20°	679.1	668.6	654.3	625.0	588.3	545.6	498.5	451.4	404.8	361.6	284.2
22.5°	715.8	705.4	689.5	659.2	615.1	563.0	509.4	455.4	402.8	354.2	268.4
25°	747.5	739.1	721.7	687.0	640.4	581.3	519.8	458.3	399.8	346.2	251.5
27.5°	772.3	764.4	745.0	709.3	661.7	597.7	527.8	459.8	395.8	338.3	234.1
30°	794.1	786.2	762.9	726.2	676.1	610.6	535.7	460.3	390.9	326.4	215.3
32.5°	811.0	803.6	779.8	740.6	686.0	619.5	540.2	459.8	384.4	318.0	194.9
35°	827.9	820.4	792.7	751.0	693.4	623.5	543.6	457.3	376.5	304.1	175.6
37.5°	840.8	832.3	804.1	757.9	696.9	624.5	543.1	453.9	368.1	292.7	156.2
40°	849.7	840.8	810.5	761.9	697.9	623.0	539.2	447.9	358.1	278.3	135.9
42.5°	855.6	845.7	813.5	767.8	695.9	619.0	533.2	440.5	347.2	265.9	116.6
45°	858.6	848.2	814.0	762.9	692.5	611.6	524.3	431.0	335.3	249.0	97.2
47.5°	857.1	845.7	811.5	757.4	686.0	603.7	514.4	419.6	320.9	234.1	78.9
50°	854.7	842.8	806.0	750.5	677.1	593.7	503.5	405.8	306.0	215.8	62.5
52.5°	846.7	834.8	800.1	740.6	666.7	582.3	488.6	391.4	290.2	197.9	47.6
55°	836.8	825.9	789.7	731.6	653.3	568.4	474.7	376.0	274.8	179.6	34.2
57.5°	821.4	811.5	776.8	717.3	639.9	553.1	459.3	359.1	255.5	161.2	23.8
60°	802.6	792.7	758.9	700.9	624.5	535.7	442.5	341.8	238.1	142.9	14.9
62.5°	782.7	773.3	738.1	680.5	605.2	517.4	424.1	324.4	219.7	126.0	8.9
65°	756.4	747.5	715.8	656.2	583.8	497.5	403.8	303.6	200.9	107.1	5.0
67.5°	728.7	720.7	688.5	633.9	559.0	475.7	382.9	283.2	181.0	90.8	2.5
70°	698.9	689.0	659.2	603.7	533.7	450.9	360.1	262.4	162.2	74.9	0.0
72.5°	664.2	656.7	628.0	575.4	504.5	424.6	336.8	239.6	141.4	59.5	0.5
75°	630.5	621.0	594.7	545.1	475.7	396.8	311.0	218.3	121.0	45.6	0.5
77.5°	586.8	583.8	559.0	510.9	448.4	370.0	282.7	192.5	101.7	32.7	0.5
80°	543.1	540.2	520.8	476.7	416.7	338.3	256.4	168.2	82.8	21.8	0.5
82.5°	500.0	496.0	477.7	441.0	384.4	311.5	229.2	143.8	65.5	13.4	0.5
85°	461.3	456.3	436.5	402.8	351.2	281.2	200.9	120.0	48.6	7.4	1.0
87.5°	428.1	424.6	402.8	368.1	317.5	253.0	176.1	97.2	34.2	3.5	1.5
90°	399.8	392.4	373.0	336.3	285.7	221.7	149.8	77.9	22.8	2.0	2.0
92.5°	372.0	365.6	344.2	306.5	257.4	194.9	124.5	59.5	14.4	1.0	2.5
95°	343.3	336.3	315.5	280.8	228.7	167.7	102.2	43.7	7.9	1.0	2.5
97.5°	315.0	308.5	286.7	252.0	202.9	143.8	80.9	30.8	4.0	1.0	2.0
100°	288.7	281.2	261.4	226.7	177.1	120.0	62.5	19.8	2.5	1.0	2.0
102.5°	260.9	255.0	234.6	200.9	150.3	97.7	46.6	12.4	1.0	1.0	1.5
105°	236.1	228.7	208.8	174.1	128.0	76.9	32.7	7.4	1.0	1.0	1.5



TEST NUMBER: P551673

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	153.8	147.8	130.5	101.2	65.0	30.3	8.9	1.5	1.5	1.5	1.5
115°	128.5	119.5	104.2	78.4	48.1	19.8	4.5	1.5	1.5	1.5	1.5
117.5°	102.7	95.2	84.3	59.5	31.7	12.9	2.5	1.5	1.5	1.5	1.5
120°	80.4	73.4	61.0	41.2	21.3	7.4	1.0	1.5	1.5	1.5	1.5
122.5°	57.5	52.1	41.2	26.8	12.9	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.2	35.2	27.3	16.4	7.9	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.8	22.3	15.9	9.4	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.9	12.4	9.4	5.5	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.9	7.4	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°	389.4	389.4	389.4
2.5°	370.5	363.6	361.6
5°	350.7	339.3	332.8
7.5°	330.9	315.5	308.0
10°	312.5	290.7	282.7
12.5°	290.7	265.4	253.0
15°	269.8	237.1	225.2
17.5°	246.5	209.8	195.9
20°	224.7	182.5	168.2
22.5°	199.9	155.8	139.9
25°	177.6	129.0	111.1
27.5°	152.8	101.7	86.3
30°	129.5	77.9	62.5
32.5°	107.1	57.0	43.2
35°	86.3	38.7	27.3
37.5°	66.5	23.8	13.9
40°	48.1	12.4	6.4
42.5°	32.2	6.0	3.5
45°	19.8	3.0	0.0
47.5°	11.4	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°	208.3	202.4	182.5	149.8	104.7	58.5	21.8	4.0	1.0	1.5	1.5
110°	181.5	176.6	156.2	124.5	84.3	43.7	14.4	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)