

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: P550523

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-82-86-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: P550523
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-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

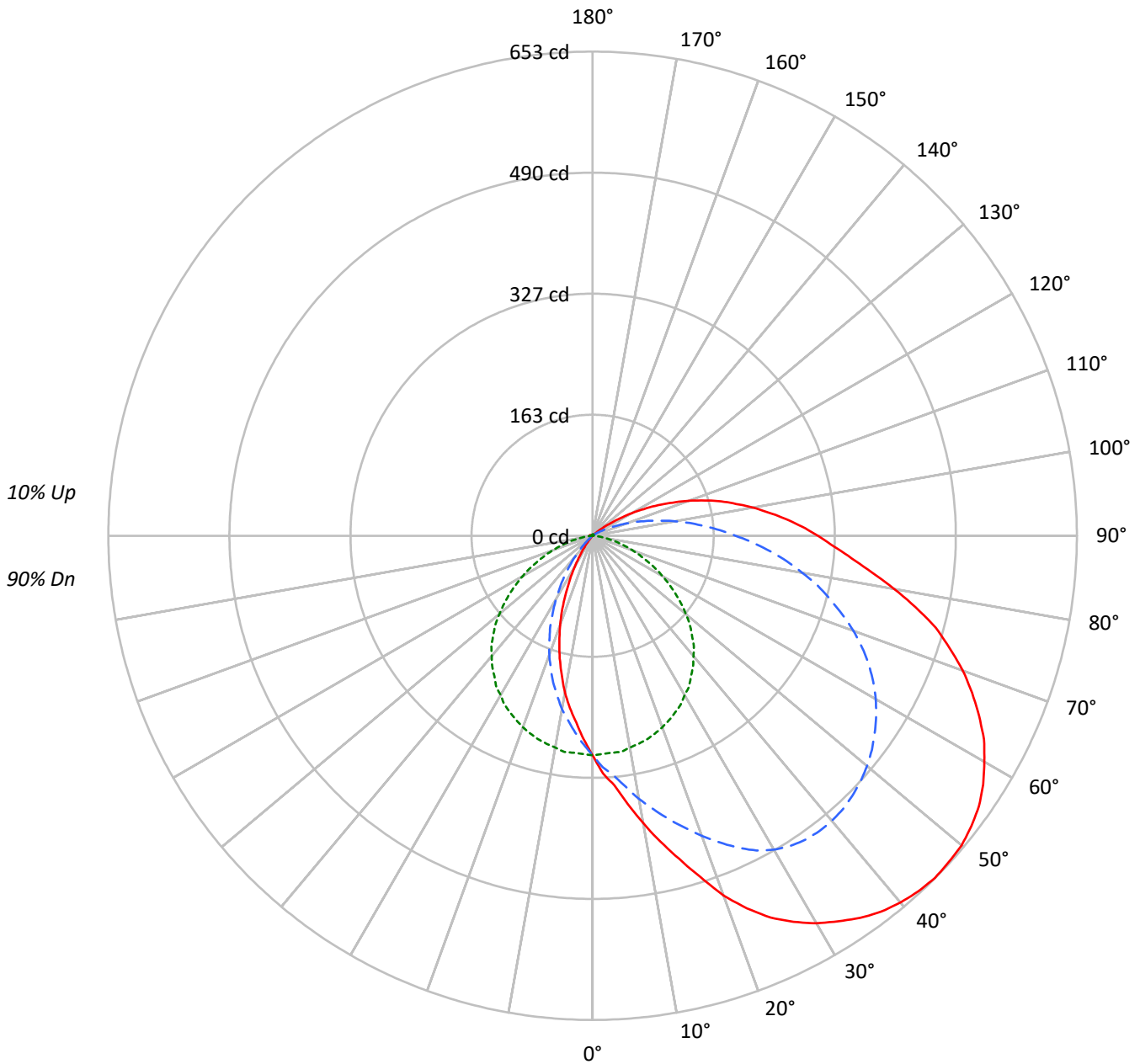
Lumens per Lamp: N/A
Luminaire Lumens: 1463.0 lumens
Efficiency: N/A
Efficacy: 67.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (A_{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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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°	3185	3185	3185
5°	3497	3139	2619
10°	3956	3100	2159
15°	4434	3061	1681
20°	5002	3011	1239
25°	5471	2953	813
30°	5821	2876	458
35°	6124	2792	201
40°	6392	2690	49
45°	6623	2560	0
50°	6815	2390	0
55°	6963	2174	0
60°	7037	1922	0
65°	7066	1635	0
70°	7043	1333	0
75°	6952	984	6
80°	6671	602	31
85°	6448	290	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.3	1.9
10°-20°	84.9	5.8
20°-30°	137.4	9.4
30°-40°	176.6	12.1
40°-50°	199.9	13.7
50°-60°	207.1	14.2
60°-70°	195.3	13.3
70°-80°	163.7	11.2
80°-90°	118.6	8.1
90°-100°	78.0	5.3
100°-110°	45.0	3.1
110°-120°	19.9	1.4
120°-130°	5.4	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	250.7	17.1
0°-40°	427.2	29.2
0°-60°	834.2	57.0
0°-90°	1311.7	89.7
90°-120°	142.9	9.8
90°-150°	150.2	10.3
90°-180°	151.0	10.3
0°-180°	1463.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	296	296	296	296	296	
5°	338	324	294	266	253	34
15°	451	396	284	205	171	130
25°	568	464	263	135	84	263
35°	629	500	231	66	21	395
45°	653	496	189	15	0	504
55°	636	464	136	0	0	568
65°	575	411	81	0	0	569
75°	479	332	35	0	0	503
85°	351	240	6	2	2	299
90°	304	193	2	2	3	167
95°	261	151	1	3	3	205
105°	179	78	1	2	3	189
115°	98	26	1	1	2	98
125°	29	4	2	1	2	29
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	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°	295.9	295.9	295.9	295.9	295.9	295.9	295.9	295.9	295.9	295.9	295.9
2.5°	320.8	320.4	319.3	317.4	314.8	310.3	306.5	303.1	298.6	294.8	287.6
5°	337.8	335.9	334.4	332.5	326.5	322.3	315.5	308.0	300.8	293.7	279.3
7.5°	364.9	361.9	359.6	354.4	346.1	336.6	326.1	318.9	314.0	294.0	269.5
10°	393.9	391.3	386.8	377.4	367.2	353.6	338.5	321.6	306.5	289.9	260.9
12.5°	422.6	418.8	412.4	400.4	386.0	369.1	348.3	328.4	306.9	287.3	250.7
15°	451.2	447.1	440.3	425.6	406.8	384.5	359.3	334.0	308.7	283.9	240.1
17.5°	482.5	476.9	466.7	450.1	426.4	398.8	369.1	338.5	308.0	279.7	228.8
20°	516.1	508.2	497.2	475.0	447.1	414.7	378.9	343.1	307.6	274.8	216.0
22.5°	544.0	536.1	524.0	501.0	467.5	427.9	387.2	346.1	306.1	269.2	203.9
25°	568.1	561.7	548.5	522.1	486.7	441.8	395.1	348.3	303.8	263.1	191.1
27.5°	587.0	580.9	566.2	539.1	502.9	454.3	401.1	349.5	300.8	257.1	177.9
30°	603.5	597.5	579.8	551.9	513.8	464.1	407.1	349.8	297.1	248.1	163.6
32.5°	616.4	610.7	592.6	562.8	521.4	470.8	410.5	349.5	292.2	241.6	148.2
35°	629.2	623.5	602.4	570.7	527.0	473.9	413.2	347.6	286.1	231.1	133.5
37.5°	639.0	632.6	611.1	576.0	529.7	474.6	412.8	344.9	279.7	222.4	118.7
40°	645.8	639.0	616.0	579.0	530.4	473.5	409.8	340.4	272.2	211.5	103.3
42.5°	650.3	642.8	618.2	583.6	528.9	470.5	405.3	334.8	263.9	202.1	88.6
45°	652.6	644.6	618.6	579.8	526.3	464.8	398.5	327.6	254.8	189.2	73.9
47.5°	651.4	642.8	616.7	575.6	521.4	458.8	390.9	318.9	243.9	177.9	59.9
50°	649.5	640.5	612.6	570.4	514.6	451.2	382.6	308.4	232.6	164.0	47.5
52.5°	643.5	634.5	608.1	562.8	506.7	442.6	371.3	297.4	220.5	150.4	36.2
55°	636.0	627.7	600.2	556.0	496.5	432.0	360.8	285.8	208.8	136.5	26.0
57.5°	624.3	616.7	590.4	545.1	486.3	420.3	349.1	272.9	194.1	122.5	18.1
60°	610.0	602.4	576.8	532.7	474.6	407.1	336.3	259.7	181.0	108.6	11.3
62.5°	594.9	587.7	560.9	517.2	459.9	393.2	322.3	246.5	167.0	95.8	6.8
65°	574.9	568.1	544.0	498.7	443.7	378.1	306.9	230.7	152.7	81.4	3.8
67.5°	553.8	547.8	523.2	481.8	424.9	361.5	291.0	215.3	137.6	69.0	1.9
70°	531.2	523.6	501.0	458.8	405.6	342.7	273.7	199.4	123.3	56.9	0.0
72.5°	504.8	499.1	477.3	437.3	383.4	322.7	256.0	182.1	107.4	45.2	0.4
75°	479.1	472.0	452.0	414.3	361.5	301.6	236.4	165.9	92.0	34.7	0.4
77.5°	446.0	443.7	424.9	388.3	340.8	281.2	214.9	146.3	77.3	24.9	0.4
80°	412.8	410.5	395.8	362.3	316.7	257.1	194.9	127.8	63.0	16.6	0.4
82.5°	380.0	377.0	363.0	335.1	292.2	236.7	174.2	109.3	49.8	10.2	0.4
85°	350.6	346.8	331.7	306.1	266.9	213.7	152.7	91.2	36.9	5.7	0.8
87.5°	325.3	322.7	306.1	279.7	241.3	192.3	133.8	73.9	26.0	2.6	1.1
90°	303.8	298.2	283.5	255.6	217.1	168.5	113.8	59.2	17.3	1.5	1.5
92.5°	282.7	277.8	261.6	233.0	195.7	148.2	94.6	45.2	10.9	0.8	1.9
95°	260.9	255.6	239.8	213.4	173.8	127.4	77.7	33.2	6.0	0.8	1.9
97.5°	239.4	234.5	217.9	191.5	154.2	109.3	61.4	23.4	3.0	0.8	1.5
100°	219.4	213.7	198.7	172.3	134.6	91.2	47.5	15.1	1.9	0.8	1.5
102.5°	198.3	193.8	178.3	152.7	114.2	74.3	35.4	9.4	0.8	0.8	1.1
105°	179.4	173.8	158.7	132.3	97.3	58.4	24.9	5.7	0.8	0.8	1.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	116.9	112.3	99.1	76.9	49.4	23.0	6.8	1.1	1.1	1.1	1.1
115°	97.6	90.9	79.2	59.6	36.6	15.1	3.4	1.1	1.1	1.1	1.1
117.5°	78.0	72.4	64.1	45.2	24.1	9.8	1.9	1.1	1.1	1.1	1.1
120°	61.1	55.8	46.4	31.3	16.2	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	43.7	39.6	31.3	20.4	9.8	2.6	1.1	1.1	1.5	1.5	1.1
125°	29.0	26.8	20.7	12.4	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.8	17.0	12.1	7.2	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.6	9.4	7.2	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.7	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	295.9	295.9	295.9
2.5°	281.6	276.3	274.8
5°	266.5	257.9	253.0
7.5°	251.4	239.8	234.1
10°	237.5	220.9	214.9
12.5°	220.9	201.7	192.3
15°	205.1	180.2	171.1
17.5°	187.4	159.5	148.9
20°	170.8	138.7	127.8
22.5°	151.9	118.4	106.3
25°	135.0	98.0	84.4
27.5°	116.1	77.3	65.6
30°	98.4	59.2	47.5
32.5°	81.4	43.4	32.8
35°	65.6	29.4	20.7
37.5°	50.5	18.1	10.6
40°	36.6	9.4	4.9
42.5°	24.5	4.5	2.6
45°	15.1	2.3	0.0
47.5°	8.7	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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	0.8	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.6
90°	2.3	2.6	2.6
92.5°	2.3	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.6	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	158.3	153.8	138.7	113.8	79.5	44.5	16.6	3.0	0.8	1.1	1.1
110°	138.0	134.2	118.7	94.6	64.1	33.2	10.9	1.9	1.1	1.1	1.1





107.5°	1.5	2.3	2.6
110°	1.5	1.9	2.3



(END OF REPORT)