

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: P550667

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-93-86-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: P550667
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-50-UNV-93-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

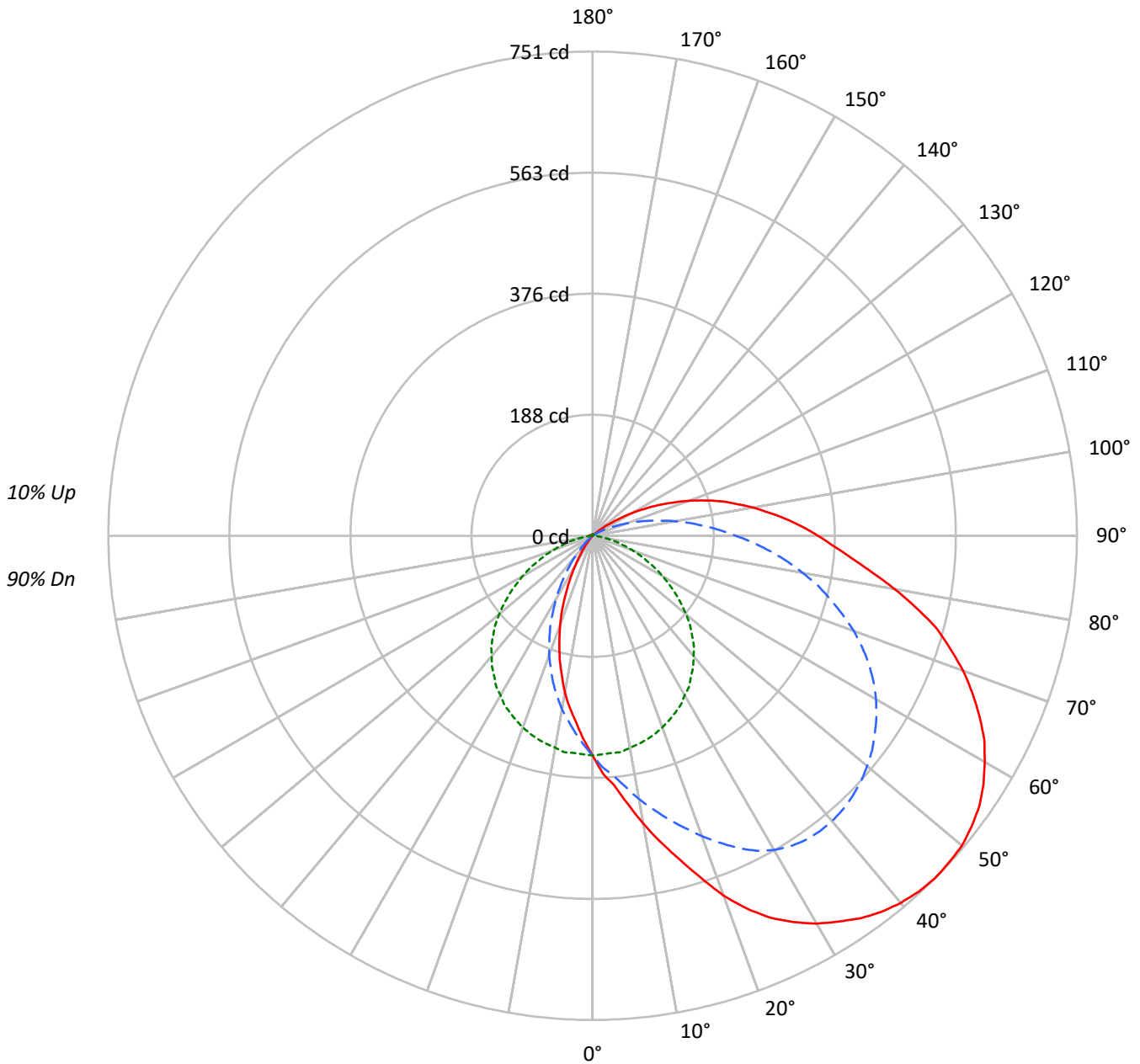
Lumens per Lamp: N/A
Luminaire Lumens: 1683.9 lumens
Efficiency: N/A
Efficacy: 77.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3666	3666	3666
5°	4025	3613	3015
10°	4555	3569	2484
15°	5104	3523	1936
20°	5757	3465	1426
25°	6298	3399	936
30°	6700	3310	528
35°	7049	3214	233
40°	7357	3095	55
45°	7622	2947	0
50°	7846	2752	0
55°	8014	2502	0
60°	8100	2212	0
65°	8133	1882	0
70°	8106	1534	0
75°	8003	1132	6
80°	7680	693	36
85°	7423	331	48



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.6	1.9
10°-20°	97.7	5.8
20°-30°	158.2	9.4
30°-40°	203.2	12.1
40°-50°	230.1	13.7
50°-60°	238.3	14.2
60°-70°	224.8	13.3
70°-80°	188.4	11.2
80°-90°	136.5	8.1
90°-100°	89.7	5.3
100°-110°	51.8	3.1
110°-120°	22.9	1.4
120°-130°	6.2	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	288.5	17.1
0°-40°	491.8	29.2
0°-60°	960.2	57.0
0°-90°	1509.8	89.7
90°-120°	164.4	9.8
90°-150°	173.0	10.3
90°-180°	174.0	10.3
0°-180°	1683.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	341	341	341	341	341	
5°	389	373	338	307	291	39
15°	519	455	327	236	197	150
25°	654	534	303	155	97	302
35°	724	576	266	76	24	454
45°	751	570	218	17	0	580
55°	732	534	157	0	0	654
65°	662	473	94	0	0	655
75°	552	382	40	0	0	578
85°	404	277	6	2	3	345
90°	350	222	2	3	3	192
95°	300	173	1	3	4	236
105°	206	90	1	2	4	218
115°	112	30	1	1	2	113
125°	33	4	2	1	2	33
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°	340.6	340.6	340.6	340.6	340.6	340.6	340.6	340.6	340.6	340.6	340.6
2.5°	369.3	368.8	367.5	365.4	362.3	357.1	352.8	348.9	343.7	339.3	331.1
5°	388.8	386.6	384.9	382.7	375.8	371.0	363.2	354.5	346.3	338.0	321.5
7.5°	420.0	416.6	414.0	407.9	398.3	387.5	375.3	367.1	361.5	338.5	310.3
10°	453.5	450.4	445.2	434.4	422.6	407.0	389.7	370.1	352.8	333.7	300.3
12.5°	486.4	482.1	474.7	460.8	444.3	424.8	400.9	378.0	353.2	330.7	288.6
15°	519.4	514.6	506.8	489.9	468.2	442.6	413.5	384.5	355.4	326.7	276.4
17.5°	555.4	548.9	537.2	518.1	490.8	459.1	424.8	389.7	354.5	322.0	263.4
20°	594.0	584.9	572.3	546.7	514.6	477.3	436.1	394.9	354.1	316.3	248.6
22.5°	626.2	617.0	603.2	576.7	538.1	492.5	445.6	398.3	352.3	309.8	234.8
25°	653.9	646.6	631.4	601.0	560.2	508.6	454.8	400.9	349.7	302.9	220.0
27.5°	675.6	668.7	651.8	620.5	578.9	522.9	461.7	402.3	346.3	295.9	204.8
30°	694.7	687.8	667.4	635.3	591.4	534.2	468.6	402.7	341.9	285.5	188.3
32.5°	709.5	703.0	682.1	647.9	600.1	542.0	472.5	402.3	336.3	278.1	170.5
35°	724.2	717.7	693.4	657.0	606.6	545.4	475.6	400.1	329.4	266.0	153.6
37.5°	735.5	728.1	703.4	663.0	609.7	546.3	475.2	397.0	322.0	256.0	136.7
40°	743.3	735.5	709.0	666.5	610.5	545.0	471.7	391.8	313.3	243.4	118.9
42.5°	748.5	739.8	711.6	671.7	608.8	541.5	466.5	385.3	303.7	232.6	102.0
45°	751.1	742.0	712.1	667.4	605.8	535.0	458.7	377.1	293.3	217.8	85.0
47.5°	749.8	739.8	709.9	662.6	600.1	528.1	450.0	367.1	280.8	204.8	69.0
50°	747.7	737.2	705.1	656.5	592.3	519.4	440.4	355.0	267.7	188.8	54.7
52.5°	740.7	730.3	699.9	647.9	583.2	509.4	427.4	342.4	253.8	173.1	41.7
55°	732.0	722.5	690.8	640.0	571.5	497.3	415.3	328.9	240.4	157.1	29.9
57.5°	718.6	709.9	679.5	627.5	559.8	483.8	401.8	314.2	223.5	141.0	20.8
60°	702.1	693.4	663.9	613.1	546.3	468.6	387.1	299.0	208.3	125.0	13.0
62.5°	684.7	676.5	645.7	595.3	529.4	452.6	371.0	283.8	192.2	110.2	7.8
65°	661.7	653.9	626.2	574.1	510.7	435.2	353.2	265.6	175.7	93.7	4.3
67.5°	637.4	630.5	602.3	554.6	489.0	416.1	335.0	247.8	158.4	79.4	2.2
70°	611.4	602.7	576.7	528.1	466.9	394.4	315.0	229.5	141.9	65.5	0.0
72.5°	581.0	574.5	549.4	503.4	441.3	371.4	294.6	209.6	123.7	52.1	0.4
75°	551.5	543.3	520.3	476.9	416.1	347.1	272.1	190.9	105.9	39.9	0.4
77.5°	513.3	510.7	489.0	446.9	392.3	323.7	247.3	168.4	89.0	28.6	0.4
80°	475.2	472.5	455.6	417.0	364.5	295.9	224.3	147.1	72.5	19.1	0.4
82.5°	437.4	433.9	417.9	385.8	336.3	272.5	200.5	125.8	57.3	11.7	0.4
85°	403.6	399.2	381.9	352.3	307.2	246.0	175.7	105.0	42.5	6.5	0.9
87.5°	374.5	371.4	352.3	322.0	277.7	221.3	154.0	85.0	29.9	3.0	1.3
90°	349.7	343.2	326.3	294.2	249.9	194.0	131.0	68.1	20.0	1.7	1.7
92.5°	325.4	319.8	301.1	268.2	225.2	170.5	108.9	52.1	12.6	0.9	2.2
95°	300.3	294.2	276.0	245.6	200.0	146.7	89.4	38.2	6.9	0.9	2.2
97.5°	275.5	269.9	250.8	220.4	177.5	125.8	70.7	26.9	3.5	0.9	1.7
100°	252.5	246.0	228.7	198.3	154.9	105.0	54.7	17.4	2.2	0.9	1.7
102.5°	228.2	223.0	205.2	175.7	131.5	85.5	40.8	10.8	0.9	0.9	1.3
105°	206.5	200.0	182.7	152.3	112.0	67.3	28.6	6.5	0.9	0.9	1.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	134.5	129.3	114.1	88.5	56.8	26.5	7.8	1.3	1.3	1.3	1.3
115°	112.4	104.6	91.1	68.6	42.1	17.4	3.9	1.3	1.3	1.3	1.3
117.5°	89.8	83.3	73.8	52.1	27.8	11.3	2.2	1.3	1.3	1.3	1.3
120°	70.3	64.2	53.4	36.0	18.7	6.5	0.9	1.3	1.3	1.3	1.3
122.5°	50.3	45.6	36.0	23.4	11.3	3.0	1.3	1.3	1.7	1.7	1.3
125°	33.4	30.8	23.9	14.3	6.9	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.7	19.5	13.9	8.2	3.0	1.3	1.3	1.7	1.7	1.7	1.3
130°	12.1	10.8	8.2	4.8	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	6.9	6.5	4.3	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.7	2.2	2.2	2.2	1.7
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	1.7
142.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
145°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	1.7	1.7	1.7
147.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
150°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
152.5°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
155°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
157.5°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	340.6	340.6	340.6
2.5°	324.1	318.1	316.3
5°	306.8	296.8	291.2
7.5°	289.4	276.0	269.5
10°	273.4	254.3	247.3
12.5°	254.3	232.2	221.3
15°	236.1	207.4	197.0
17.5°	215.7	183.6	171.4
20°	196.6	159.7	147.1
22.5°	174.9	136.3	122.4
25°	155.3	112.8	97.2
27.5°	133.6	89.0	75.5
30°	113.3	68.1	54.7
32.5°	93.7	49.9	37.8
35°	75.5	33.8	23.9
37.5°	58.1	20.8	12.1
40°	42.1	10.8	5.6
42.5°	28.2	5.2	3.0
45°	17.4	2.6	0.0
47.5°	10.0	0.0	0.0
50°	5.2	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.7	2.2
82.5°	1.7	2.2	2.2
85°	1.7	2.2	2.6
87.5°	2.2	2.6	3.0
90°	2.6	3.0	3.0
92.5°	2.6	3.5	3.5
95°	3.0	3.5	3.9
97.5°	3.5	3.9	3.9
100°	3.0	3.9	4.3
102.5°	2.6	3.9	3.9
105°	2.2	3.0	3.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.2	2.2
115°	1.3	1.7	2.2
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.7	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	182.2	177.0	159.7	131.0	91.6	51.2	19.1	3.5	0.9	1.3	1.3
110°	158.8	154.5	136.7	108.9	73.8	38.2	12.6	2.2	1.3	1.3	1.3





107.5°	1.7	2.6	3.0
110°	1.7	2.2	2.6



(END OF REPORT)