

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: P550543

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-93-88-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: P550543
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-93-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

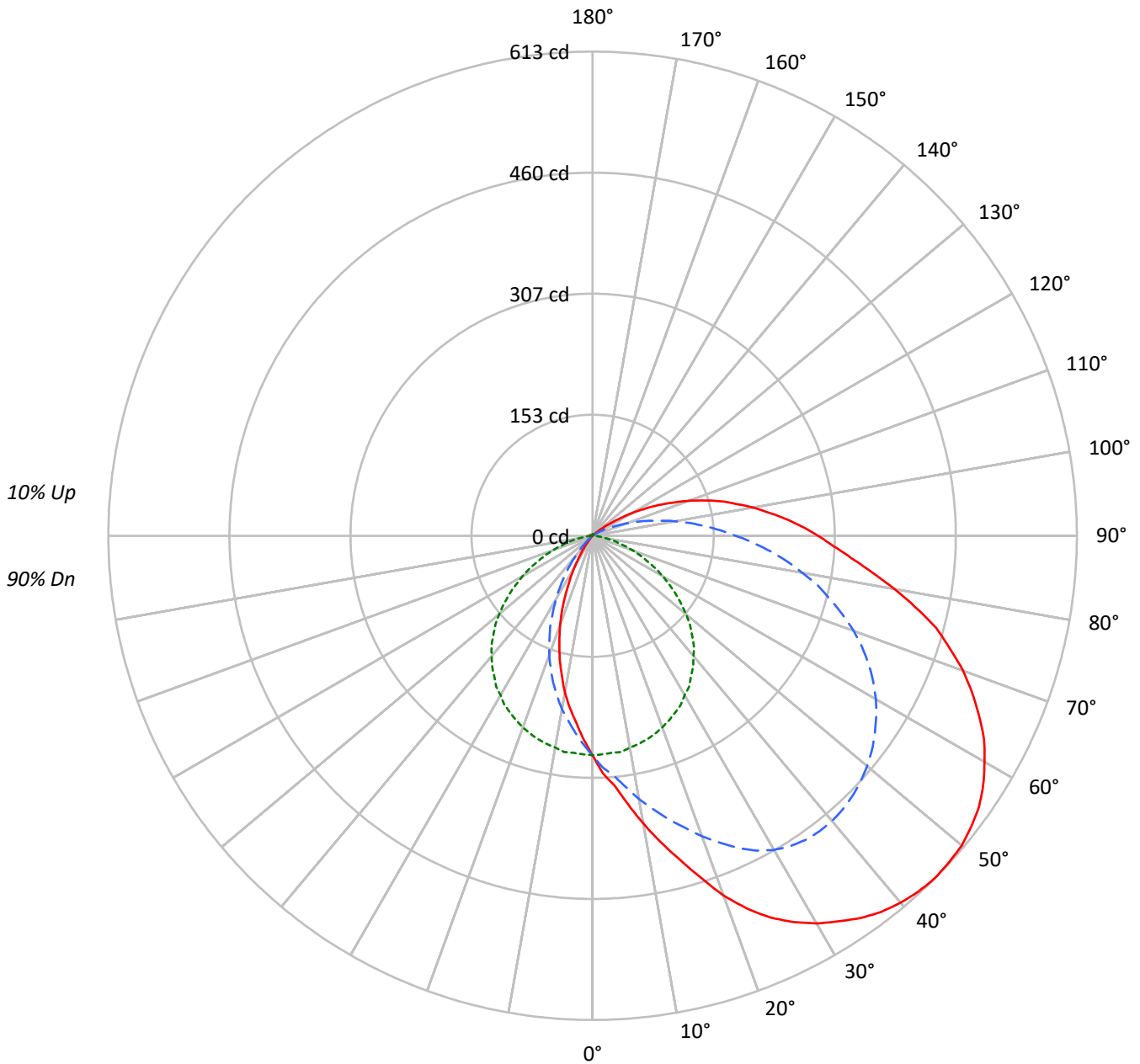
Lumens per Lamp: N/A
Luminaire Lumens: 1374.1 lumens
Efficiency: N/A
Efficacy: 63.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2991	2991	2991
5°	3284	2948	2460
10°	3716	2912	2027
15°	4165	2875	1579
20°	4697	2828	1163
25°	5138	2773	764
30°	5467	2701	430
35°	5751	2622	190
40°	6003	2526	46
45°	6220	2404	0
50°	6401	2244	0
55°	6539	2041	0
60°	6608	1805	0
65°	6636	1537	0
70°	6615	1253	0
75°	6530	925	6
80°	6266	566	29
85°	6056	270	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	1.9
10°-20°	79.7	5.8
20°-30°	129.1	9.4
30°-40°	165.8	12.1
40°-50°	187.7	13.7
50°-60°	194.5	14.2
60°-70°	183.4	13.3
70°-80°	153.7	11.2
80°-90°	111.4	8.1
90°-100°	73.2	5.3
100°-110°	42.3	3.1
110°-120°	18.7	1.4
120°-130°	5.1	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	235.4	17.1
0°-40°	401.2	29.2
0°-60°	783.4	57.0
0°-90°	1231.9	89.7
90°-120°	134.2	9.8
90°-150°	141.2	10.3
90°-180°	142.0	10.3
0°-180°	1374.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	278	278	278	278	278	
5°	317	305	276	250	238	32
15°	424	372	267	193	161	122
25°	534	436	247	127	79	247
35°	591	470	217	62	20	371
45°	613	465	178	14	0	473
55°	597	436	128	0	0	533
65°	540	386	76	0	0	534
75°	450	311	33	0	0	472
85°	329	226	5	1	2	281
90°	285	181	1	2	2	156
95°	245	141	1	2	3	192
105°	168	73	1	2	3	178
115°	92	24	1	1	2	92
125°	27	3	1	1	1	27
135°	1	1	2	1	1	3
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	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°	277.9	277.9	277.9	277.9	277.9	277.9	277.9	277.9	277.9	277.9	277.9
2.5°	301.3	300.9	299.9	298.1	295.6	291.4	287.8	284.7	280.4	276.9	270.1
5°	317.2	315.5	314.0	312.3	306.6	302.7	296.3	289.3	282.5	275.8	262.3
7.5°	342.7	339.9	337.8	332.8	325.0	316.2	306.3	299.5	294.9	276.2	253.1
10°	370.0	367.5	363.3	354.4	344.8	332.1	317.9	302.0	287.8	272.3	245.0
12.5°	396.9	393.3	387.3	376.0	362.5	346.6	327.1	308.4	288.2	269.8	235.4
15°	423.8	419.9	413.5	399.7	382.0	361.1	337.4	313.7	290.0	266.6	225.5
17.5°	453.2	447.9	438.3	422.7	400.4	374.6	346.6	317.9	289.3	262.7	214.9
20°	484.7	477.3	467.0	446.1	419.9	389.5	355.8	322.2	288.9	258.1	202.9
22.5°	510.9	503.5	492.1	470.5	439.0	401.8	363.6	325.0	287.5	252.8	191.5
25°	533.5	527.5	515.1	490.4	457.1	414.9	371.0	327.1	285.4	247.1	179.5
27.5°	551.3	545.6	531.8	506.3	472.3	426.6	376.7	328.2	282.5	241.5	167.1
30°	566.8	561.2	544.5	518.3	482.6	435.8	382.4	328.6	279.0	233.0	153.7
32.5°	578.9	573.6	556.6	528.6	489.6	442.2	385.6	328.2	274.4	226.9	139.1
35°	590.9	585.6	565.8	536.0	495.0	445.0	388.0	326.4	268.7	217.0	125.3
37.5°	600.1	594.1	573.9	541.0	497.4	445.7	387.7	324.0	262.7	208.9	111.5
40°	606.5	600.1	578.5	543.8	498.1	444.7	384.8	319.7	255.6	198.6	97.0
42.5°	610.7	603.7	580.6	548.1	496.7	441.9	380.6	314.4	247.8	189.8	83.2
45°	612.9	605.4	581.0	544.5	494.3	436.5	374.2	307.7	239.3	177.7	69.4
47.5°	611.8	603.7	579.2	540.6	489.6	430.9	367.1	299.5	229.1	167.1	56.3
50°	610.0	601.5	575.3	535.7	483.3	423.8	359.4	289.6	218.4	154.0	44.6
52.5°	604.4	595.9	571.1	528.6	475.8	415.7	348.7	279.3	207.1	141.3	34.0
55°	597.3	589.5	563.6	522.2	466.3	405.7	338.8	268.4	196.1	128.2	24.4
57.5°	586.3	579.2	554.4	512.0	456.7	394.8	327.8	256.3	182.3	115.1	17.0
60°	572.8	565.8	541.7	500.3	445.7	382.4	315.8	243.9	169.9	102.0	10.6
62.5°	558.7	552.0	526.8	485.8	431.9	369.3	302.7	231.5	156.8	89.9	6.4
65°	539.9	533.5	510.9	468.4	416.7	355.1	288.2	216.7	143.4	76.5	3.5
67.5°	520.1	514.4	491.4	452.5	399.0	339.5	273.3	202.2	129.2	64.8	1.8
70°	498.9	491.8	470.5	430.9	381.0	321.8	257.0	187.3	115.8	53.5	0.0
72.5°	474.1	468.8	448.2	410.7	360.1	303.1	240.4	171.0	100.9	42.5	0.4
75°	450.0	443.3	424.5	389.1	339.5	283.2	222.0	155.8	86.4	32.6	0.4
77.5°	418.8	416.7	399.0	364.7	320.1	264.1	201.8	137.4	72.6	23.4	0.4
80°	387.7	385.6	371.7	340.2	297.4	241.5	183.0	120.0	59.1	15.6	0.4
82.5°	356.9	354.0	340.9	314.7	274.4	222.3	163.6	102.7	46.7	9.6	0.4
85°	329.3	325.7	311.6	287.5	250.7	200.7	143.4	85.7	34.7	5.3	0.7
87.5°	305.5	303.1	287.5	262.7	226.6	180.6	125.7	69.4	24.4	2.5	1.1
90°	285.4	280.1	266.2	240.0	203.9	158.3	106.9	55.6	16.3	1.4	1.4
92.5°	265.5	260.9	245.7	218.8	183.8	139.1	88.9	42.5	10.3	0.7	1.8
95°	245.0	240.0	225.2	200.4	163.2	119.7	72.9	31.2	5.7	0.7	1.8
97.5°	224.8	220.2	204.6	179.9	144.8	102.7	57.7	22.0	2.8	0.7	1.4
100°	206.1	200.7	186.6	161.8	126.4	85.7	44.6	14.2	1.8	0.7	1.4
102.5°	186.2	182.0	167.5	143.4	107.3	69.7	33.3	8.9	0.7	0.7	1.1
105°	168.5	163.2	149.1	124.3	91.3	54.9	23.4	5.3	0.7	0.7	1.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	109.8	105.5	93.1	72.2	46.4	21.6	6.4	1.1	1.1	1.1	1.1
115°	91.7	85.3	74.3	55.9	34.3	14.2	3.2	1.1	1.1	1.1	1.1
117.5°	73.3	68.0	60.2	42.5	22.7	9.2	1.8	1.1	1.1	1.1	1.1
120°	57.4	52.4	43.5	29.4	15.2	5.3	0.7	1.1	1.1	1.1	1.1
122.5°	41.1	37.2	29.4	19.1	9.2	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.3	25.1	19.5	11.7	5.7	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	17.7	15.9	11.3	6.7	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	9.9	8.9	6.7	3.9	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.7	5.3	3.5	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
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°	277.9	277.9	277.9
2.5°	264.5	259.5	258.1
5°	250.3	242.2	237.6
7.5°	236.1	225.2	219.9
10°	223.0	207.5	201.8
12.5°	207.5	189.4	180.6
15°	192.6	169.2	160.7
17.5°	176.0	149.8	139.8
20°	160.4	130.3	120.0
22.5°	142.7	111.2	99.8
25°	126.7	92.1	79.3
27.5°	109.0	72.6	61.6
30°	92.4	55.6	44.6
32.5°	76.5	40.7	30.8
35°	61.6	27.6	19.5
37.5°	47.4	17.0	9.9
40°	34.3	8.9	4.6
42.5°	23.0	4.2	2.5
45°	14.2	2.1	0.0
47.5°	8.1	0.0	0.0
50°	4.2	0.0	0.0
52.5°	1.8	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	0.7	1.1
80°	0.7	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.1
87.5°	1.8	2.1	2.5
90°	2.1	2.5	2.5
92.5°	2.1	2.8	2.8
95°	2.5	2.8	3.2
97.5°	2.8	3.2	3.2
100°	2.5	3.2	3.5
102.5°	2.1	3.2	3.2
105°	1.8	2.5	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.4	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	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°	148.7	144.5	130.3	106.9	74.7	41.8	15.6	2.8	0.7	1.1	1.1
110°	129.6	126.0	111.5	88.9	60.2	31.2	10.3	1.8	1.1	1.1	1.1





107.5°	1.4	2.1	2.5
110°	1.4	1.8	2.1



(END OF REPORT)