

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: P551050

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-93-85-ED1D**

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: P551050
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-LD4-1STD-35-UNV-93-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

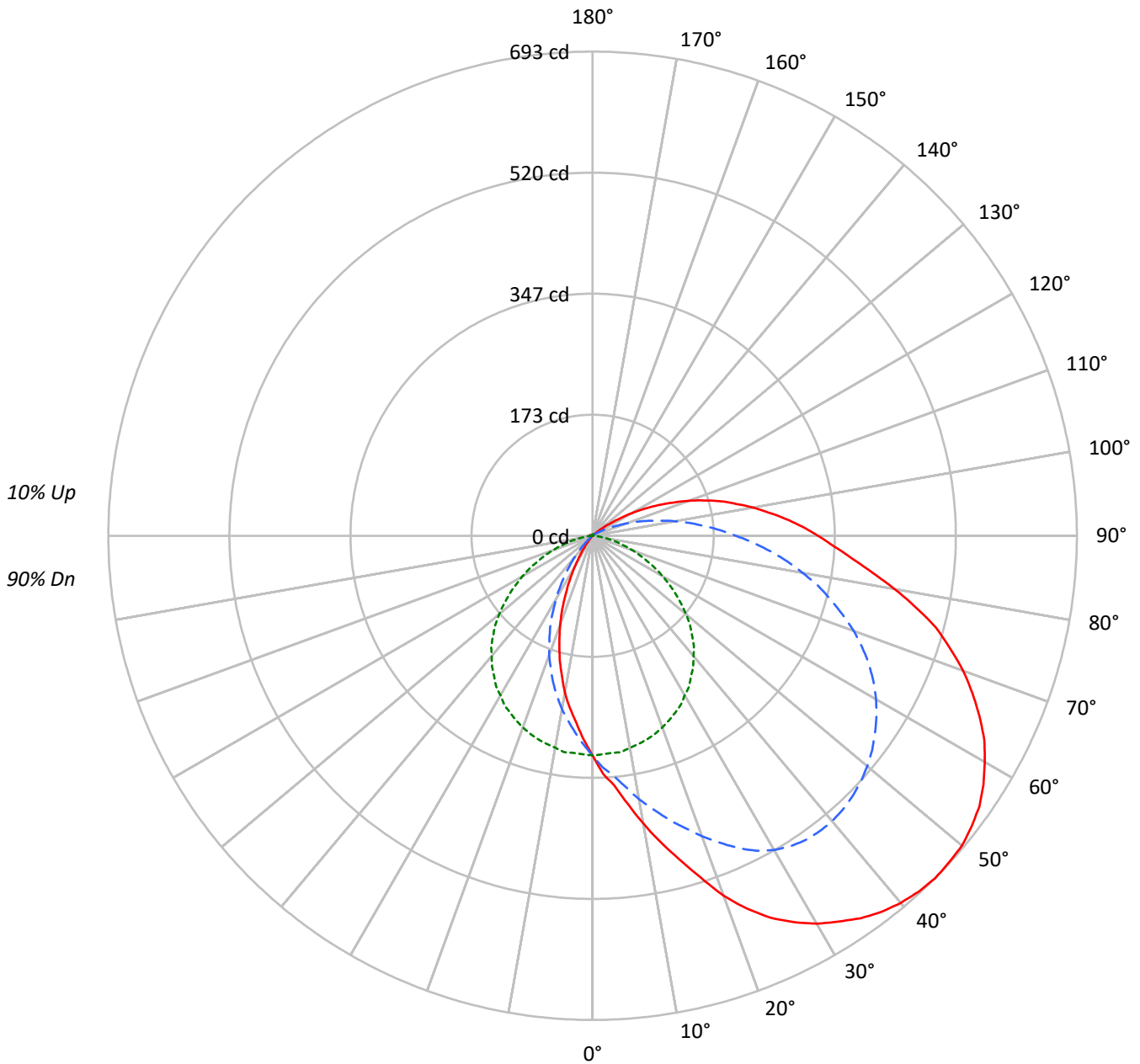
Lumens per Lamp: N/A
Luminaire Lumens: 1554.0 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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

TEST NUMBER: P551050

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-85-ED1D

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°	3383	3383	3383
5°	3714	3334	2782
10°	4203	3293	2292
15°	4710	3251	1787
20°	5313	3198	1315
25°	5811	3137	864
30°	6183	3055	487
35°	6504	2966	214
40°	6789	2856	51
45°	7034	2720	0
50°	7239	2539	0
55°	7396	2309	0
60°	7475	2040	0
65°	7506	1737	0
70°	7480	1417	0
75°	7385	1044	6
80°	7086	638	32
85°	6849	305	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.1	1.9
10°-20°	90.2	5.8
20°-30°	146.0	9.4
30°-40°	187.5	12.1
40°-50°	212.3	13.7
50°-60°	219.9	14.2
60°-70°	207.4	13.3
70°-80°	173.8	11.2
80°-90°	126.0	8.1
90°-100°	82.8	5.3
100°-110°	47.8	3.1
110°-120°	21.1	1.4
120°-130°	5.7	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	266.3	17.1
0°-40°	453.8	29.2
0°-60°	886.0	57.0
0°-90°	1393.3	89.7
90°-120°	151.7	9.8
90°-150°	159.6	10.3
90°-180°	161.0	10.4
0°-180°	1554.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	314	314	314	314	314	
5°	359	345	312	283	269	36
15°	479	420	302	218	182	138
25°	603	493	280	143	90	279
35°	668	532	246	70	22	419
45°	693	526	201	16	0	535
55°	676	493	145	0	0	603
65°	611	436	86	0	0	604
75°	509	352	37	0	0	534
85°	372	255	6	2	2	318
90°	323	205	2	2	3	177
95°	277	160	1	3	4	217
105°	191	83	1	2	3	201
115°	104	27	1	1	2	104
125°	31	4	2	1	2	31
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°	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3
2.5°	340.8	340.4	339.2	337.2	334.4	329.6	325.5	321.9	317.1	313.1	305.5
5°	358.8	356.8	355.2	353.2	346.8	342.4	335.2	327.2	319.5	311.9	296.7
7.5°	387.6	384.4	382.0	376.4	367.6	357.6	346.4	338.8	333.6	312.3	286.3
10°	418.4	415.6	410.8	400.8	390.0	375.6	359.6	341.6	325.5	307.9	277.1
12.5°	448.9	444.9	438.1	425.3	410.0	392.0	370.0	348.8	325.9	305.1	266.3
15°	479.3	474.9	467.7	452.1	432.1	408.4	381.6	354.8	328.0	301.5	255.1
17.5°	512.5	506.5	495.7	478.1	452.9	423.7	392.0	359.6	327.2	297.1	243.1
20°	548.2	539.8	528.2	504.5	474.9	440.5	402.4	364.4	326.8	291.9	229.4
22.5°	577.8	569.4	556.6	532.2	496.5	454.5	411.2	367.6	325.1	285.9	216.6
25°	603.4	596.6	582.6	554.6	517.0	469.3	419.6	370.0	322.7	279.5	203.0
27.5°	623.5	617.1	601.4	572.6	534.2	482.5	426.1	371.2	319.5	273.1	189.0
30°	641.1	634.7	615.9	586.2	545.8	492.9	432.5	371.6	315.5	263.5	173.8
32.5°	654.7	648.7	629.5	597.8	553.8	500.1	436.1	371.2	310.3	256.7	157.4
35°	668.3	662.3	639.9	606.2	559.8	503.3	438.9	369.2	303.9	245.5	141.8
37.5°	678.7	671.9	649.1	611.9	562.6	504.1	438.5	366.4	297.1	236.3	126.1
40°	685.9	678.7	654.3	615.1	563.4	502.9	435.3	361.6	289.1	224.6	109.7
42.5°	690.7	682.7	656.7	619.9	561.8	499.7	430.5	355.6	280.3	214.6	94.1
45°	693.1	684.7	657.1	615.9	559.0	493.7	423.3	348.0	270.7	201.0	78.5
47.5°	691.9	682.7	655.1	611.5	553.8	487.3	415.2	338.8	259.1	189.0	63.7
50°	689.9	680.3	650.7	605.8	546.6	479.3	406.4	327.6	247.1	174.2	50.5
52.5°	683.5	673.9	645.9	597.8	538.2	470.1	394.4	315.9	234.3	159.8	38.4
55°	675.5	666.7	637.5	590.6	527.4	458.9	383.2	303.5	221.8	145.0	27.6
57.5°	663.1	655.1	627.1	579.0	516.6	446.5	370.8	289.9	206.2	130.1	19.2
60°	647.9	639.9	612.7	565.8	504.1	432.5	357.2	275.9	192.2	115.3	12.0
62.5°	631.9	624.3	595.8	549.4	488.5	417.6	342.4	261.9	177.4	101.7	7.2
65°	610.7	603.4	577.8	529.8	471.3	401.6	325.9	245.1	162.2	86.5	4.0
67.5°	588.2	581.8	555.8	511.7	451.3	384.0	309.1	228.6	146.2	73.3	2.0
70°	564.2	556.2	532.2	487.3	430.9	364.0	290.7	211.8	130.9	60.5	0.0
72.5°	536.2	530.2	506.9	464.5	407.2	342.8	271.9	193.4	114.1	48.1	0.4
75°	508.9	501.3	480.1	440.1	384.0	320.3	251.1	176.2	97.7	36.8	0.4
77.5°	473.7	471.3	451.3	412.4	362.0	298.7	228.2	155.4	82.1	26.4	0.4
80°	438.5	436.1	420.5	384.8	336.4	273.1	207.0	135.7	66.9	17.6	0.4
82.5°	403.6	400.4	385.6	356.0	310.3	251.5	185.0	116.1	52.9	10.8	0.4
85°	372.4	368.4	352.4	325.1	283.5	227.0	162.2	96.9	39.2	6.0	0.8
87.5°	345.6	342.8	325.1	297.1	256.3	204.2	142.2	78.5	27.6	2.8	1.2
90°	322.7	316.7	301.1	271.5	230.6	179.0	120.9	62.9	18.4	1.6	1.6
92.5°	300.3	295.1	277.9	247.5	207.8	157.4	100.5	48.1	11.6	0.8	2.0
95°	277.1	271.5	254.7	226.6	184.6	135.3	82.5	35.2	6.4	0.8	2.0
97.5°	254.3	249.1	231.4	203.4	163.8	116.1	65.3	24.8	3.2	0.8	1.6
100°	233.0	227.0	211.0	183.0	143.0	96.9	50.5	16.0	2.0	0.8	1.6
102.5°	210.6	205.8	189.4	162.2	121.3	78.9	37.6	10.0	0.8	0.8	1.2
105°	190.6	184.6	168.6	140.6	103.3	62.1	26.4	6.0	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	124.1	119.3	105.3	81.7	52.5	24.4	7.2	1.2	1.2	1.2	1.2
115°	103.7	96.5	84.1	63.3	38.8	16.0	3.6	1.2	1.2	1.2	1.2
117.5°	82.9	76.9	68.1	48.1	25.6	10.4	2.0	1.2	1.2	1.2	1.2
120°	64.9	59.3	49.3	33.2	17.2	6.0	0.8	1.2	1.2	1.2	1.2
122.5°	46.4	42.0	33.2	21.6	10.4	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.8	28.4	22.0	13.2	6.4	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.0	18.0	12.8	7.6	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.2	10.0	7.6	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.4	6.0	4.0	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	314.3	314.3	314.3
2.5°	299.1	293.5	291.9
5°	283.1	273.9	268.7
7.5°	267.1	254.7	248.7
10°	252.3	234.7	228.2
12.5°	234.7	214.2	204.2
15°	217.8	191.4	181.8
17.5°	199.0	169.4	158.2
20°	181.4	147.4	135.7
22.5°	161.4	125.7	112.9
25°	143.4	104.1	89.7
27.5°	123.3	82.1	69.7
30°	104.5	62.9	50.5
32.5°	86.5	46.0	34.8
35°	69.7	31.2	22.0
37.5°	53.7	19.2	11.2
40°	38.8	10.0	5.2
42.5°	26.0	4.8	2.8
45°	16.0	2.4	0.0
47.5°	9.2	0.0	0.0
50°	4.8	0.0	0.0
52.5°	2.0	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	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	168.2	163.4	147.4	120.9	84.5	47.3	17.6	3.2	0.8	1.2	1.2
110°	146.6	142.6	126.1	100.5	68.1	35.2	11.6	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)