

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: P550474

Luminaire Tested: **FCC-X-2-LD4-1HI-30-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: P550474
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-30-UNV-93-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

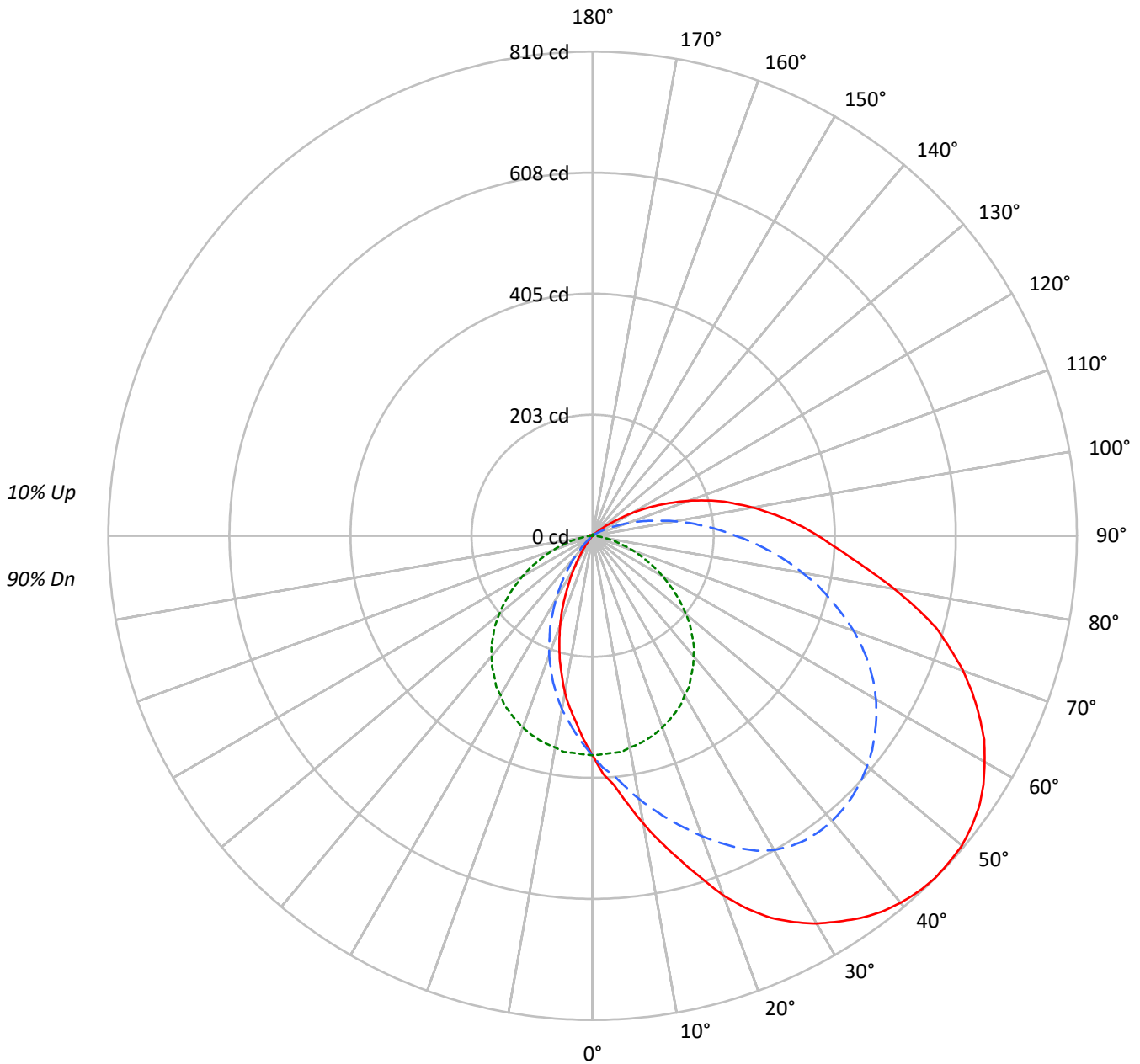
Lumens per Lamp: N/A
Luminaire Lumens: 1816.0 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550474

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-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°	3954	3954	3954
5°	4341	3896	3251
10°	4912	3848	2679
15°	5504	3800	2087
20°	6208	3737	1537
25°	6792	3665	1009
30°	7226	3569	569
35°	7601	3465	250
40°	7935	3338	60
45°	8220	3178	0
50°	8461	2967	0
55°	8643	2697	0
60°	8734	2385	0
65°	8771	2031	0
70°	8741	1656	0
75°	8631	1222	7
80°	8281	747	37
85°	8004	356	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.2	1.9
10°-20°	105.4	5.8
20°-30°	170.6	9.4
30°-40°	219.2	12.1
40°-50°	248.1	13.7
50°-60°	257.0	14.2
60°-70°	242.4	13.3
70°-80°	203.2	11.2
80°-90°	147.2	8.1
90°-100°	96.8	5.3
100°-110°	55.9	3.1
110°-120°	24.7	1.4
120°-130°	6.7	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	311.1	17.1
0°-40°	530.3	29.2
0°-60°	1035.4	57.0
0°-90°	1628.2	89.7
90°-120°	177.3	9.8
90°-150°	186.5	10.3
90°-180°	188.0	10.4
0°-180°	1816.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	367	367	367	367	367	
5°	419	403	364	331	314	42
15°	560	491	352	255	212	162
25°	705	576	327	168	105	326
35°	781	621	287	81	26	490
45°	810	615	235	19	0	625
55°	789	576	169	0	0	705
65°	714	510	101	0	0	706
75°	595	412	43	0	0	624
85°	435	298	7	2	3	372
90°	377	239	2	3	3	207
95°	324	187	1	3	4	254
105°	223	97	1	2	4	235
115°	121	32	1	1	2	121
125°	36	4	2	1	2	36
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°	367.3	367.3	367.3	367.3	367.3	367.3	367.3	367.3	367.3	367.3	367.3
2.5°	398.2	397.7	396.3	394.0	390.7	385.1	380.4	376.2	370.6	365.9	357.0
5°	419.3	416.9	415.1	412.7	405.2	400.1	391.7	382.3	373.4	364.5	346.7
7.5°	453.0	449.2	446.4	439.9	429.6	417.9	404.8	395.9	389.8	365.0	334.6
10°	489.0	485.7	480.1	468.4	455.8	438.9	420.2	399.2	380.4	359.8	323.8
12.5°	524.6	519.9	511.9	497.0	479.2	458.1	432.4	407.6	380.9	356.6	311.2
15°	560.1	555.0	546.6	528.3	504.9	477.3	445.9	414.6	383.2	352.4	298.1
17.5°	599.0	591.9	579.3	558.7	529.2	495.1	458.1	420.2	382.3	347.2	284.0
20°	640.6	630.8	617.2	589.6	555.0	514.7	470.3	425.8	381.8	341.1	268.1
22.5°	675.2	665.4	650.4	621.9	580.2	531.1	480.6	429.6	380.0	334.1	253.2
25°	705.2	697.2	680.9	648.1	604.1	548.4	490.4	432.4	377.2	326.6	237.2
27.5°	728.6	721.1	702.8	669.2	624.2	563.9	497.9	433.8	373.4	319.1	220.9
30°	749.2	741.7	719.7	685.1	637.8	576.0	505.4	434.2	368.7	307.9	203.1
32.5°	765.1	758.1	735.6	698.6	647.2	584.5	509.6	433.8	362.7	299.9	183.9
35°	781.0	774.0	747.8	708.5	654.2	588.2	512.9	431.4	355.2	286.8	165.7
37.5°	793.2	785.2	758.5	715.0	657.5	589.1	512.4	428.2	347.2	276.1	147.4
40°	801.6	793.2	764.6	718.8	658.4	587.7	508.7	422.6	337.9	262.5	128.2
42.5°	807.2	797.8	767.4	724.4	656.5	584.0	503.0	415.5	327.6	250.8	110.0
45°	810.0	800.2	767.9	719.7	653.2	577.0	494.6	406.6	316.3	234.9	91.7
47.5°	808.6	797.8	765.6	714.5	647.2	569.5	485.3	395.9	302.8	220.9	74.4
50°	806.3	795.0	760.4	708.0	638.7	560.1	475.0	382.8	288.7	203.6	59.0
52.5°	798.8	787.5	754.8	698.6	628.9	549.4	460.9	369.2	273.7	186.7	44.9
55°	789.4	779.1	745.0	690.2	616.3	536.3	447.8	354.7	259.2	169.4	32.3
57.5°	774.9	765.6	732.8	676.6	603.6	521.8	433.3	338.8	241.0	152.1	22.5
60°	757.1	747.8	715.9	661.2	589.1	505.4	417.4	322.4	224.6	134.8	14.0
62.5°	738.4	729.5	696.3	642.0	570.9	488.1	400.1	306.0	207.3	118.9	8.4
65°	713.6	705.2	675.2	619.1	550.8	469.3	380.9	286.4	189.5	101.1	4.7
67.5°	687.4	679.9	649.5	598.0	527.4	448.8	361.2	267.2	170.8	85.6	2.3
70°	659.3	650.0	621.9	569.5	503.5	425.4	339.7	247.5	153.0	70.7	0.0
72.5°	626.6	619.6	592.4	542.8	475.9	400.6	317.7	226.0	133.4	56.2	0.5
75°	594.8	585.9	561.1	514.3	448.8	374.4	293.4	205.9	114.2	43.1	0.5
77.5°	553.6	550.8	527.4	482.0	423.0	349.1	266.7	181.6	95.9	30.9	0.5
80°	512.4	509.6	491.3	449.7	393.1	319.1	241.9	158.6	78.1	20.6	0.5
82.5°	471.7	467.9	450.6	416.0	362.7	293.9	216.2	135.7	61.8	12.6	0.5
85°	435.2	430.5	411.8	380.0	331.3	265.3	189.5	113.2	45.9	7.0	0.9
87.5°	403.8	400.6	380.0	347.2	299.5	238.6	166.1	91.7	32.3	3.3	1.4
90°	377.2	370.1	351.9	317.3	269.5	209.2	141.3	73.5	21.5	1.9	1.9
92.5°	351.0	344.9	324.8	289.2	242.9	183.9	117.5	56.2	13.6	0.9	2.3
95°	323.8	317.3	297.6	264.9	215.7	158.2	96.4	41.2	7.5	0.9	2.3
97.5°	297.1	291.1	270.5	237.7	191.4	135.7	76.3	29.0	3.7	0.9	1.9
100°	272.3	265.3	246.6	213.8	167.1	113.2	59.0	18.7	2.3	0.9	1.9
102.5°	246.1	240.5	221.3	189.5	141.8	92.2	44.0	11.7	0.9	0.9	1.4
105°	222.7	215.7	197.0	164.2	120.7	72.5	30.9	7.0	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	145.1	139.4	123.1	95.5	61.3	28.5	8.4	1.4	1.4	1.4	1.4
115°	121.2	112.8	98.3	73.9	45.4	18.7	4.2	1.4	1.4	1.4	1.4
117.5°	96.9	89.8	79.5	56.2	29.9	12.2	2.3	1.4	1.4	1.4	1.4
120°	75.8	69.3	57.6	38.8	20.1	7.0	0.9	1.4	1.4	1.4	1.4
122.5°	54.3	49.1	38.8	25.3	12.2	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.0	33.2	25.7	15.4	7.5	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.4	21.1	15.0	8.9	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.1	11.7	8.9	5.1	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.5	7.0	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.3	2.3	2.3	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	367.3	367.3	367.3
2.5°	349.6	343.0	341.1
5°	330.8	320.1	314.0
7.5°	312.1	297.6	290.6
10°	294.8	274.2	266.7
12.5°	274.2	250.3	238.6
15°	254.6	223.7	212.4
17.5°	232.6	197.9	184.8
20°	212.0	172.2	158.6
22.5°	188.6	146.9	132.0
25°	167.5	121.7	104.8
27.5°	144.1	95.9	81.4
30°	122.1	73.5	59.0
32.5°	101.1	53.8	40.7
35°	81.4	36.5	25.7
37.5°	62.7	22.5	13.1
40°	45.4	11.7	6.1
42.5°	30.4	5.6	3.3
45°	18.7	2.8	0.0
47.5°	10.8	0.0	0.0
50°	5.6	0.0	0.0
52.5°	2.3	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	0.9	1.4
80°	0.9	1.9	2.3
82.5°	1.9	2.3	2.3
85°	1.9	2.3	2.8
87.5°	2.3	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.7	3.7
95°	3.3	3.7	4.2
97.5°	3.7	4.2	4.2
100°	3.3	4.2	4.7
102.5°	2.8	4.2	4.2
105°	2.3	3.3	3.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.3	2.3
115°	1.4	1.9	2.3
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	196.5	190.9	172.2	141.3	98.7	55.2	20.6	3.7	0.9	1.4	1.4
110°	171.3	166.6	147.4	117.5	79.5	41.2	13.6	2.3	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.3	2.8



(END OF REPORT)