

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: P551630

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-93-87-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: P551630
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-LD4-2LO-40-UNV-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

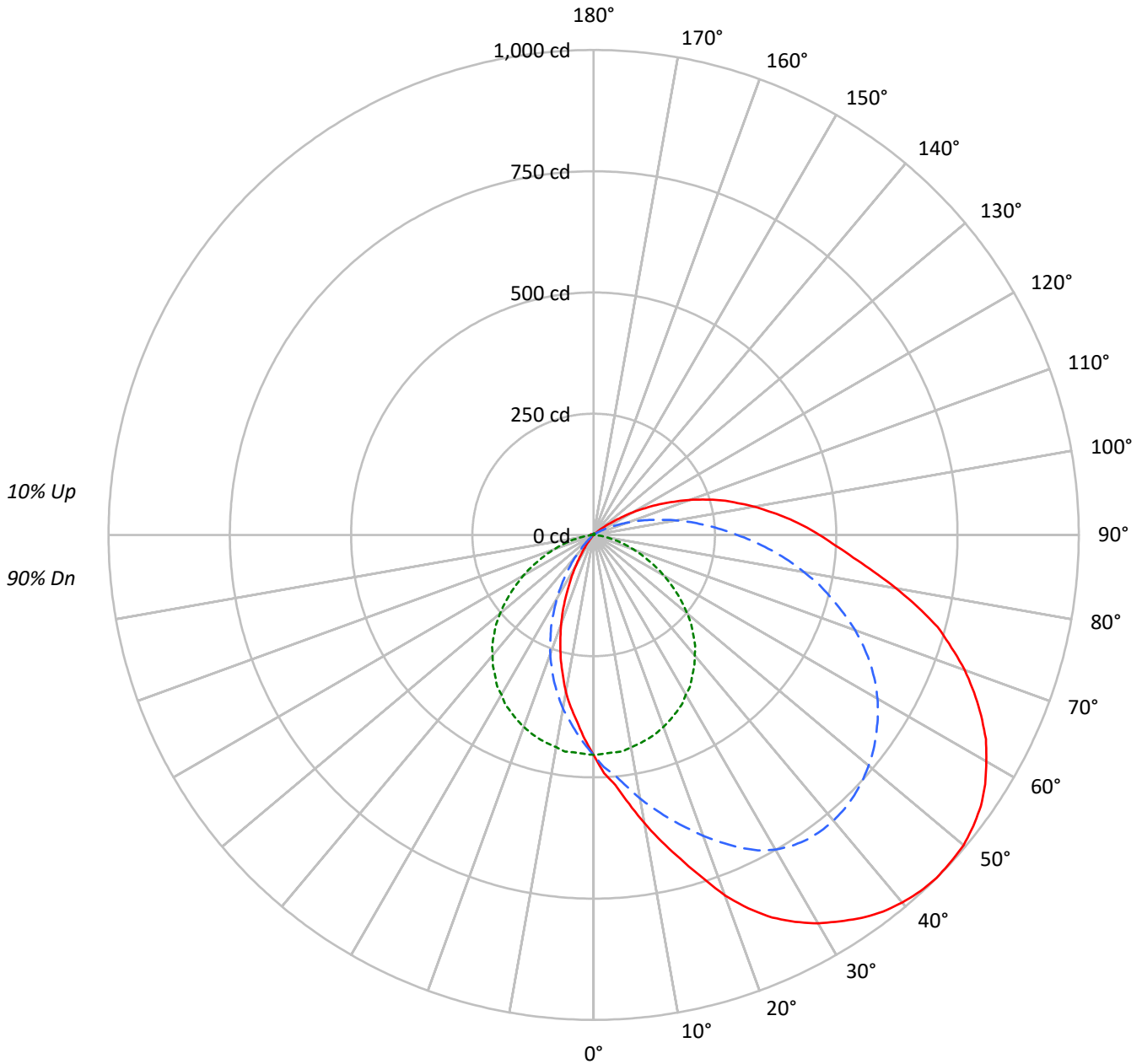
Lumens per Lamp: N/A
Luminaire Lumens: 2242.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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: P551630

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-87-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4881	4881	4881
5°	5358	4810	4013
10°	6064	4751	3308
15°	6795	4690	2578
20°	7665	4615	1898
25°	8385	4525	1246
30°	8921	4406	702
35°	9384	4279	310
40°	9795	4122	74
45°	10148	3924	0
50°	10445	3663	0
55°	10670	3330	0
60°	10783	2945	0
65°	10828	2507	0
70°	10792	2043	0
75°	10655	1506	9
80°	10223	921	47
85°	9882	442	64



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.4	1.9
10°-20°	130.1	5.8
20°-30°	210.6	9.4
30°-40°	270.6	12.1
40°-50°	306.3	13.7
50°-60°	317.3	14.2
60°-70°	299.3	13.3
70°-80°	250.8	11.2
80°-90°	181.8	8.1
90°-100°	119.5	5.3
100°-110°	69.0	3.1
110°-120°	30.4	1.4
120°-130°	8.2	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	384.1	17.1
0°-40°	654.7	29.2
0°-60°	1278.3	57.0
0°-90°	2010.1	89.7
90°-120°	218.9	9.8
90°-150°	230.3	10.3
90°-180°	232.0	10.3
0°-180°	2242.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	454	454	454	454	454	
5°	518	497	450	408	388	52
15°	692	606	435	314	262	199
25°	871	711	403	207	129	402
35°	964	767	354	100	32	605
45°	1000	759	290	23	0	772
55°	975	711	209	0	0	870
65°	881	630	125	0	0	872
75°	734	508	53	1	1	770
85°	537	368	9	2	4	459
90°	466	296	2	4	4	255
95°	400	231	1	4	5	314
105°	275	119	1	3	5	290
115°	150	40	2	2	3	150
125°	44	5	2	2	2	44
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	453.5	453.5	453.5	453.5	453.5	453.5	453.5	453.5	453.5	453.5	453.5
2.5°	491.6	491.1	489.3	486.4	482.4	475.5	469.7	464.5	457.5	451.8	440.8
5°	517.6	514.7	512.4	509.5	500.3	493.9	483.5	472.0	461.0	450.0	428.1
7.5°	559.2	554.6	551.1	543.0	530.3	515.9	499.7	488.7	481.2	450.6	413.1
10°	603.7	599.7	592.7	578.3	562.7	541.9	518.8	492.8	469.7	444.3	399.8
12.5°	647.6	641.8	632.0	613.5	591.6	565.6	533.8	503.2	470.3	440.2	384.2
15°	691.5	685.2	674.8	652.2	623.3	589.3	550.6	511.9	473.1	435.0	368.0
17.5°	739.5	730.8	715.2	689.8	653.4	611.2	565.6	518.8	472.0	428.7	350.7
20°	790.9	778.8	762.0	727.9	685.2	635.5	580.6	525.7	471.4	421.2	331.0
22.5°	833.6	821.5	803.0	767.8	716.4	655.7	593.3	530.3	469.1	412.5	312.5
25°	870.6	860.8	840.6	800.1	745.8	677.1	605.4	533.8	465.6	403.2	292.9
27.5°	899.5	890.3	867.7	826.1	770.7	696.1	614.7	535.5	461.0	394.0	272.7
30°	924.9	915.7	888.5	845.8	787.4	711.2	623.9	536.1	455.2	380.1	250.7
32.5°	944.6	935.9	908.2	862.5	799.0	721.6	629.1	535.5	447.7	370.3	227.0
35°	964.2	955.5	923.2	874.7	807.6	726.2	633.2	532.6	438.5	354.1	204.5
37.5°	979.2	969.4	936.5	882.7	811.7	727.3	632.6	528.6	428.7	340.8	182.0
40°	989.6	979.2	944.0	887.4	812.8	725.6	628.0	521.7	417.1	324.1	158.3
42.5°	996.6	985.0	947.4	894.3	810.5	721.0	621.0	513.0	404.4	309.7	135.8
45°	1000.0	987.9	948.0	888.5	806.5	712.3	610.6	502.0	390.5	290.0	113.2
47.5°	998.3	985.0	945.1	882.2	799.0	703.1	599.1	488.7	373.8	272.7	91.9
50°	995.4	981.5	938.8	874.1	788.6	691.5	586.4	472.6	356.4	251.3	72.8
52.5°	986.2	972.3	931.8	862.5	776.4	678.2	569.0	455.8	338.0	230.5	55.5
55°	974.6	961.9	919.7	852.1	760.8	662.1	552.9	437.9	320.1	209.1	39.9
57.5°	956.7	945.1	904.7	835.4	745.2	644.1	535.0	418.3	297.5	187.8	27.7
60°	934.7	923.2	883.9	816.3	727.3	623.9	515.3	398.0	277.3	166.4	17.3
62.5°	911.6	900.7	859.6	792.6	704.8	602.6	493.9	377.8	255.9	146.7	10.4
65°	881.0	870.6	833.6	764.3	680.0	579.4	470.3	353.6	234.0	124.8	5.8
67.5°	848.7	839.4	801.9	738.3	651.1	554.0	446.0	329.9	210.9	105.7	2.9
70°	814.0	802.4	767.8	703.1	621.6	525.1	419.4	305.6	188.9	87.2	0.0
72.5°	773.6	764.9	731.4	670.1	587.5	494.5	392.3	279.0	164.6	69.3	0.6
75°	734.3	723.3	692.7	634.9	554.0	462.2	362.2	254.2	141.0	53.1	0.6
77.5°	683.4	680.0	651.1	595.0	522.3	431.0	329.3	224.2	118.4	38.1	0.6
80°	632.6	629.1	606.6	555.2	485.3	394.0	298.7	195.8	96.5	25.4	0.6
82.5°	582.3	577.7	556.3	513.6	447.7	362.8	266.9	167.5	76.3	15.6	0.6
85°	537.3	531.5	508.4	469.1	409.0	327.6	234.0	139.8	56.6	8.7	1.2
87.5°	498.6	494.5	469.1	428.7	369.7	294.6	205.1	113.2	39.9	4.0	1.7
90°	465.6	457.0	434.4	391.7	332.8	258.2	174.5	90.7	26.6	2.3	2.3
92.5°	433.3	425.8	400.9	357.0	299.8	227.0	145.0	69.3	16.8	1.2	2.9
95°	399.8	391.7	367.4	327.0	266.3	195.3	119.0	50.8	9.2	1.2	2.9
97.5°	366.8	359.3	333.9	293.5	236.3	167.5	94.2	35.8	4.6	1.2	2.3
100°	336.2	327.6	304.5	264.0	206.2	139.8	72.8	23.1	2.9	1.2	2.3
102.5°	303.9	296.9	273.3	234.0	175.0	113.8	54.3	14.4	1.2	1.2	1.7
105°	275.0	266.3	243.2	202.8	149.0	89.5	38.1	8.7	1.2	1.2	1.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	179.1	172.2	151.9	117.9	75.7	35.2	10.4	1.7	1.7	1.7	1.7
115°	149.6	139.2	121.3	91.3	56.0	23.1	5.2	1.7	1.7	1.7	1.7
117.5°	119.6	110.9	98.2	69.3	37.0	15.0	2.9	1.7	1.7	1.7	1.7
120°	93.6	85.5	71.1	47.9	24.8	8.7	1.2	1.7	1.7	1.7	1.7
122.5°	67.0	60.7	47.9	31.2	15.0	4.0	1.7	1.7	2.3	2.3	1.7
125°	44.5	41.0	31.8	19.1	9.2	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.9	26.0	18.5	11.0	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.2	14.4	11.0	6.4	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.2	8.7	5.8	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.2	1.2	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.2	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	453.5	453.5	453.5
2.5°	431.5	423.5	421.2
5°	408.4	395.2	387.6
7.5°	385.3	367.4	358.8
10°	364.0	338.5	329.3
12.5°	338.5	309.1	294.6
15°	314.3	276.1	262.3
17.5°	287.1	244.4	228.2
20°	261.7	212.6	195.8
22.5°	232.8	181.4	162.9
25°	206.8	150.2	129.4
27.5°	177.9	118.4	100.5
30°	150.8	90.7	72.8
32.5°	124.8	66.4	50.3
35°	100.5	45.1	31.8
37.5°	77.4	27.7	16.2
40°	56.0	14.4	7.5
42.5°	37.6	6.9	4.0
45°	23.1	3.5	0.0
47.5°	13.3	0.0	0.0
50°	6.9	0.0	0.0
52.5°	2.9	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.7
80°	1.2	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.5
87.5°	2.9	3.5	4.0
90°	3.5	4.0	4.0
92.5°	3.5	4.6	4.6
95°	4.0	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.0	5.2	5.8
102.5°	3.5	5.2	5.2
105°	2.9	4.0	4.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.7	2.3	2.9
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.2
152.5°	1.7	1.2	1.2
155°	1.7	1.2	0.6
157.5°	2.3	1.2	0.6
160°	1.7	1.2	0.6
162.5°	1.7	1.2	0.6
165°	1.7	1.2	0.0
167.5°	1.7	1.2	0.6
170°	1.7	1.2	0.6
172.5°	1.7	1.2	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	242.6	235.7	212.6	174.5	121.9	68.2	25.4	4.6	1.2	1.7	1.7
110°	211.4	205.7	182.0	145.0	98.2	50.8	16.8	2.9	1.7	1.7	1.7





107.5°	2.3	3.5	4.0
110°	2.3	2.9	3.5



(END OF REPORT)