

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: P551501

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-93-87-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: P551501
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-30-UNV-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

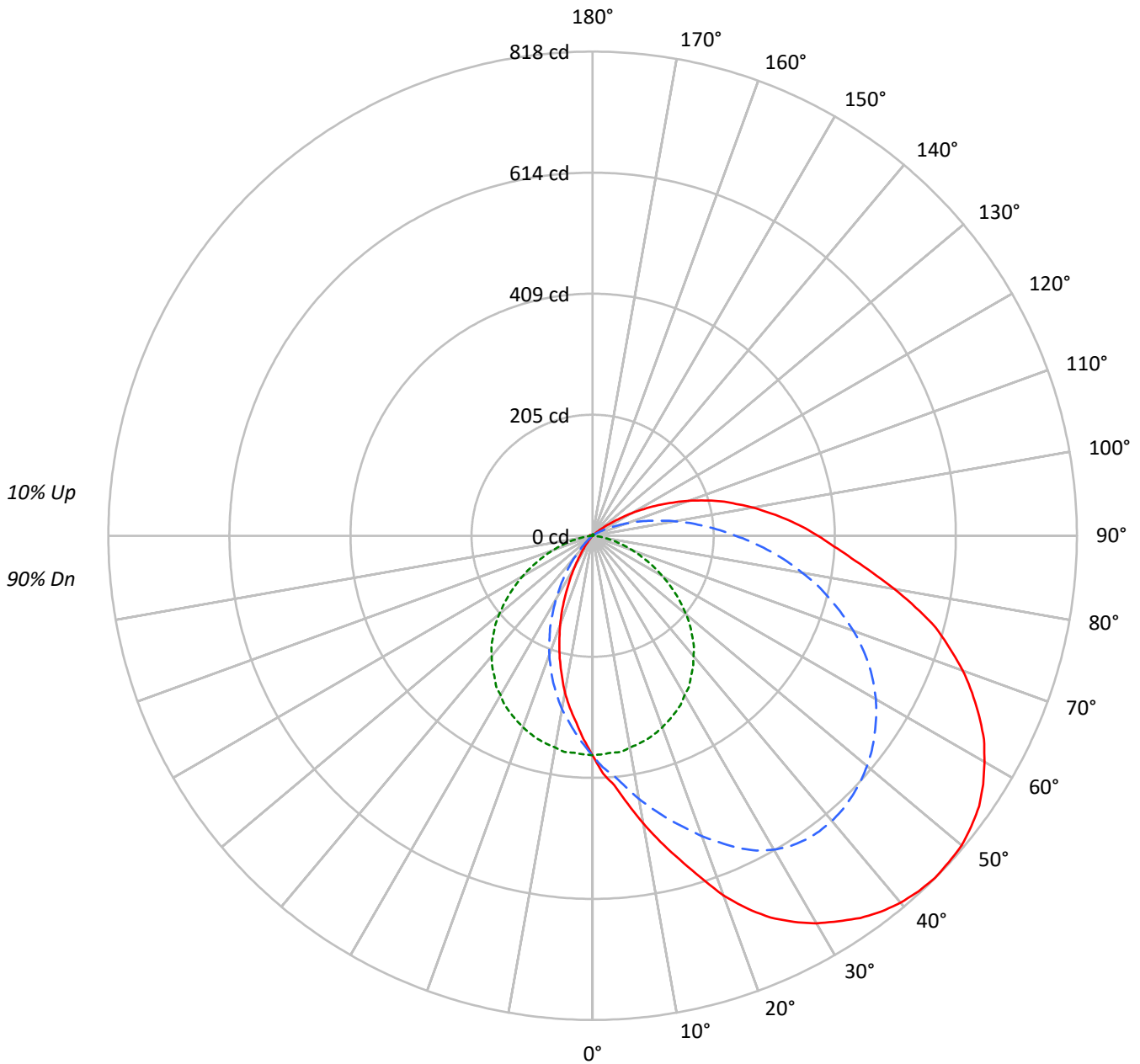
Lumens per Lamp: N/A
Luminaire Lumens: 1833.0 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	3991	3991	3991
5°	4381	3932	3281
10°	4958	3884	2704
15°	5556	3835	2107
20°	6266	3772	1552
25°	6855	3700	1019
30°	7293	3603	574
35°	7672	3498	253
40°	8009	3370	60
45°	8297	3208	0
50°	8539	2995	0
55°	8724	2723	0
60°	8816	2407	0
65°	8853	2049	0
70°	8823	1670	0
75°	8711	1234	7
80°	8358	754	39
85°	8080	361	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.5	1.9
10°-20°	106.3	5.8
20°-30°	172.2	9.4
30°-40°	221.2	12.1
40°-50°	250.4	13.7
50°-60°	259.4	14.2
60°-70°	244.7	13.3
70°-80°	205.0	11.2
80°-90°	148.6	8.1
90°-100°	97.7	5.3
100°-110°	56.4	3.1
110°-120°	24.9	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°	314.1	17.1
0°-40°	535.3	29.2
0°-60°	1045.1	57.0
0°-90°	1643.5	89.7
90°-120°	179.0	9.8
90°-150°	188.3	10.3
90°-180°	190.0	10.4
0°-180°	1833.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	371	371	371	371	371	
5°	423	406	368	334	317	43
15°	565	496	356	257	214	163
25°	712	582	330	169	106	329
35°	788	627	290	82	26	494
45°	818	621	237	19	0	631
55°	797	582	171	0	0	712
65°	720	515	102	0	0	713
75°	600	415	44	0	0	630
85°	439	301	7	2	3	375
90°	381	242	2	3	3	209
95°	327	189	1	3	4	256
105°	225	98	1	2	4	237
115°	122	32	1	1	2	123
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°	370.8	370.8	370.8	370.8	370.8	370.8	370.8	370.8	370.8	370.8	370.8
2.5°	401.9	401.5	400.1	397.7	394.4	388.7	384.0	379.7	374.1	369.4	360.4
5°	423.2	420.8	418.9	416.6	409.0	403.8	395.3	385.9	376.9	367.9	350.0
7.5°	457.2	453.4	450.6	444.0	433.6	421.8	408.6	399.6	393.4	368.4	337.7
10°	493.6	490.3	484.6	472.8	460.0	443.0	424.1	402.9	384.0	363.2	326.8
12.5°	529.5	524.7	516.7	501.6	483.7	462.4	436.4	411.4	384.5	359.9	314.1
15°	565.4	560.2	551.7	533.3	509.6	481.8	450.1	418.5	386.8	355.7	300.9
17.5°	604.6	597.5	584.7	564.0	534.2	499.7	462.4	424.1	385.9	350.5	286.7
20°	646.6	636.7	623.0	595.1	560.2	519.6	474.7	429.8	385.4	344.3	270.6
22.5°	681.6	671.6	656.5	627.7	585.7	536.1	485.1	433.6	383.5	337.2	255.5
25°	711.8	703.8	687.2	654.2	609.8	553.6	495.0	436.4	380.7	329.7	239.5
27.5°	735.4	727.8	709.4	675.4	630.1	569.1	502.5	437.8	376.9	322.1	222.9
30°	756.2	748.6	726.4	691.5	643.8	581.4	510.1	438.3	372.2	310.8	205.0
32.5°	772.2	765.2	742.5	705.2	653.2	589.9	514.4	437.8	366.0	302.8	185.6
35°	788.3	781.2	754.8	715.1	660.3	593.7	517.7	435.5	358.5	289.5	167.2
37.5°	800.6	792.6	765.6	721.7	663.6	594.7	517.2	432.2	350.5	278.7	148.8
40°	809.1	800.6	771.8	725.5	664.6	593.2	513.4	426.5	341.0	265.0	129.4
42.5°	814.8	805.3	774.6	731.2	662.7	589.5	507.7	419.4	330.6	253.2	111.0
45°	817.6	807.7	775.1	726.4	659.4	582.4	499.2	410.4	319.3	237.1	92.6
47.5°	816.2	805.3	772.7	721.2	653.2	574.8	489.8	399.6	305.6	222.9	75.1
50°	813.8	802.5	767.5	714.6	644.7	565.4	479.4	386.4	291.4	205.5	59.5
52.5°	806.3	794.9	761.9	705.2	634.8	554.5	465.2	372.7	276.3	188.5	45.3
55°	796.8	786.4	751.9	696.7	622.0	541.3	452.0	358.0	261.7	171.0	32.6
57.5°	782.2	772.7	739.7	683.0	609.3	526.6	437.4	342.0	243.2	153.5	22.7
60°	764.2	754.8	722.7	667.4	594.7	510.1	421.3	325.4	226.7	136.0	14.2
62.5°	745.3	736.3	702.8	648.0	576.2	492.6	403.8	308.9	209.2	120.0	8.5
65°	720.3	711.8	681.6	624.9	555.9	473.7	384.5	289.1	191.3	102.0	4.7
67.5°	693.8	686.3	655.6	603.6	532.3	453.0	364.6	269.7	172.4	86.4	2.4
70°	665.5	656.1	627.7	574.8	508.2	429.3	342.9	249.9	154.4	71.3	0.0
72.5°	632.4	625.4	598.0	547.9	480.4	404.3	320.7	228.1	134.6	56.7	0.5
75°	600.3	591.3	566.3	519.1	453.0	377.9	296.1	207.8	115.2	43.5	0.5
77.5°	558.8	555.9	532.3	486.5	427.0	352.4	269.2	183.3	96.8	31.2	0.5
80°	517.2	514.4	495.9	453.9	396.7	322.1	244.2	160.1	78.9	20.8	0.5
82.5°	476.1	472.3	454.8	419.9	366.0	296.6	218.2	137.0	62.3	12.8	0.5
85°	439.3	434.5	415.6	383.5	334.4	267.8	191.3	114.3	46.3	7.1	0.9
87.5°	407.6	404.3	383.5	350.5	302.3	240.9	167.7	92.6	32.6	3.3	1.4
90°	380.7	373.6	355.2	320.2	272.1	211.1	142.6	74.2	21.7	1.9	1.9
92.5°	354.2	348.1	327.8	291.9	245.1	185.6	118.6	56.7	13.7	0.9	2.4
95°	326.8	320.2	300.4	267.3	217.7	159.6	97.3	41.6	7.6	0.9	2.4
97.5°	299.9	293.8	273.0	239.9	193.2	137.0	77.0	29.3	3.8	0.9	1.9
100°	274.9	267.8	248.9	215.9	168.6	114.3	59.5	18.9	2.4	0.9	1.9
102.5°	248.4	242.8	223.4	191.3	143.1	93.0	44.4	11.8	0.9	0.9	1.4
105°	224.8	217.7	198.8	165.8	121.9	73.2	31.2	7.1	0.9	0.9	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	146.4	140.8	124.2	96.4	61.9	28.8	8.5	1.4	1.4	1.4	1.4
115°	122.3	113.8	99.2	74.6	45.8	18.9	4.3	1.4	1.4	1.4	1.4
117.5°	97.8	90.7	80.3	56.7	30.2	12.3	2.4	1.4	1.4	1.4	1.4
120°	76.5	69.9	58.1	39.2	20.3	7.1	0.9	1.4	1.4	1.4	1.4
122.5°	54.8	49.6	39.2	25.5	12.3	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.4	33.5	26.0	15.6	7.6	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.6	21.3	15.1	9.0	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.2	11.8	9.0	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.6	7.1	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	2.4	2.4	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
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	2.4	2.4	2.4	2.4
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	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°	370.8	370.8	370.8
2.5°	352.8	346.2	344.3
5°	333.9	323.1	316.9
7.5°	315.0	300.4	293.3
10°	297.6	276.8	269.2
12.5°	276.8	252.7	240.9
15°	256.9	225.8	214.4
17.5°	234.7	199.8	186.6
20°	214.0	173.8	160.1
22.5°	190.3	148.3	133.2
25°	169.1	122.8	105.8
27.5°	145.5	96.8	82.2
30°	123.3	74.2	59.5
32.5°	102.0	54.3	41.1
35°	82.2	36.8	26.0
37.5°	63.3	22.7	13.2
40°	45.8	11.8	6.1
42.5°	30.7	5.7	3.3
45°	18.9	2.8	0.0
47.5°	10.9	0.0	0.0
50°	5.7	0.0	0.0
52.5°	2.4	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	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.8
87.5°	2.4	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.3	4.3	4.7
102.5°	2.8	4.3	4.3
105°	2.4	3.3	3.8



TEST NUMBER: P551501

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
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°	198.4	192.7	173.8	142.6	99.7	55.7	20.8	3.8	0.9	1.4	1.4
110°	172.9	168.1	148.8	118.6	80.3	41.6	13.7	2.4	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.4	2.8



(END OF REPORT)