

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: P550674

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-93-94-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: P550674
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-50-UNV-93-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

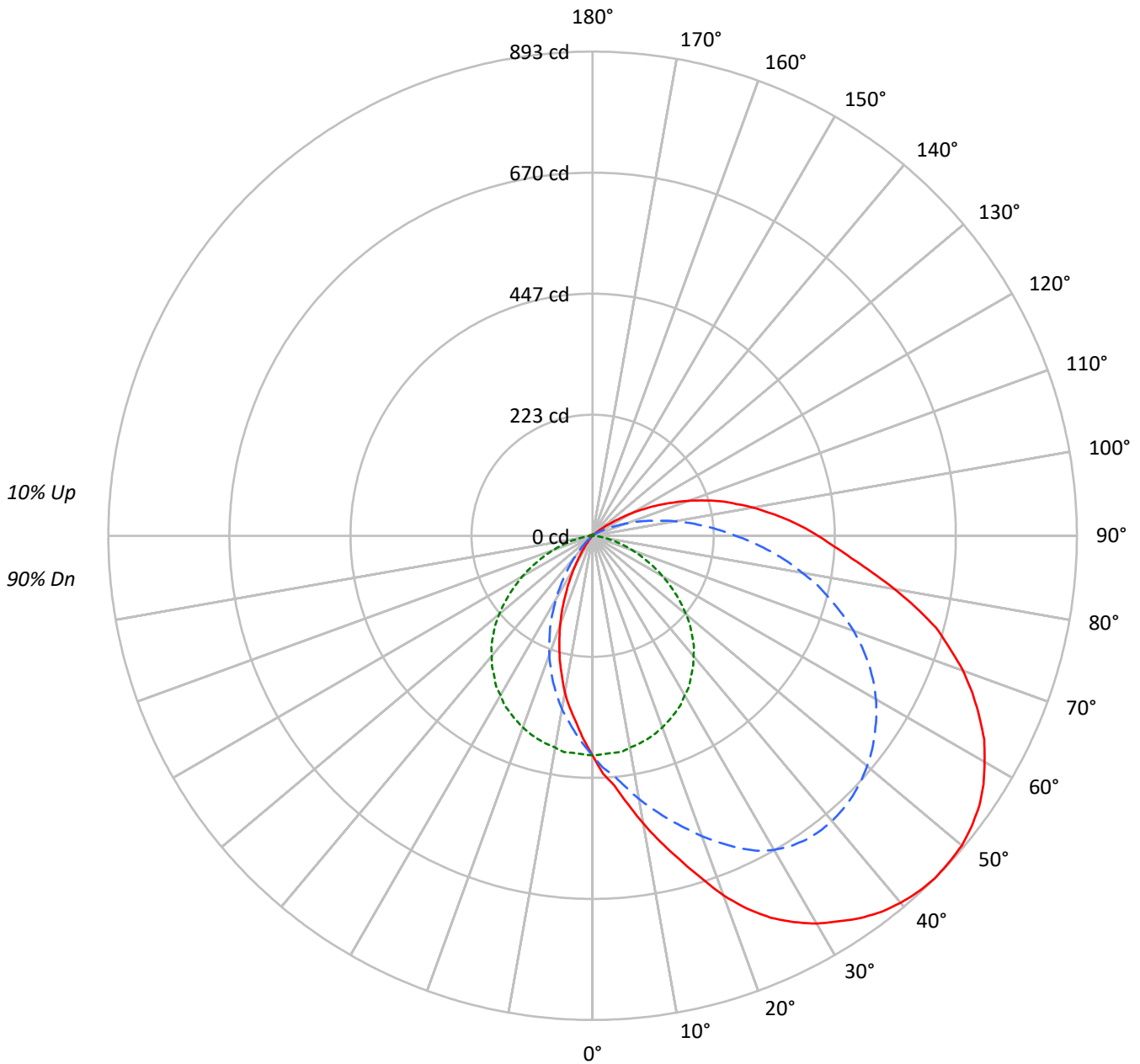
Lumens per Lamp: N/A
Luminaire Lumens: 2001.9 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550674

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-94-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°	4359	4359	4359
5°	4785	4296	3583
10°	5415	4242	2953
15°	6068	4188	2301
20°	6844	4121	1695
25°	7487	4041	1113
30°	7966	3934	627
35°	8380	3821	276
40°	8747	3680	66
45°	9062	3505	0
50°	9326	3271	0
55°	9528	2973	0
60°	9630	2630	0
65°	9669	2238	0
70°	9637	1825	0
75°	9515	1347	7
80°	9129	823	42
85°	8824	392	57



TEST NUMBER: P550674

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.8	1.9
10°-20°	116.1	5.8
20°-30°	188.1	9.4
30°-40°	241.6	12.1
40°-50°	273.5	13.7
50°-60°	283.3	14.2
60°-70°	267.2	13.3
70°-80°	223.9	11.2
80°-90°	162.3	8.1
90°-100°	106.7	5.3
100°-110°	61.6	3.1
110°-120°	27.2	1.4
120°-130°	7.3	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	343.0	17.1
0°-40°	584.6	29.2
0°-60°	1141.5	57.0
0°-90°	1795.0	89.7
90°-120°	195.5	9.8
90°-150°	205.6	10.3
90°-180°	207.0	10.3
0°-180°	2001.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	405	405	405	405	405	
5°	462	444	402	365	346	47
15°	618	541	388	281	234	178
25°	777	635	360	185	116	359
35°	861	685	316	90	28	540
45°	893	678	259	21	0	689
55°	870	635	187	0	0	777
65°	787	562	111	0	0	778
75°	656	454	48	0	0	688
85°	480	329	8	2	3	410
90°	416	264	2	3	4	228
95°	357	206	1	4	5	280
105°	246	107	1	3	4	259
115°	134	35	2	2	3	134
125°	40	5	2	2	2	40
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	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°	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0
2.5°	439.0	438.5	436.9	434.4	430.7	424.6	419.4	414.8	408.6	403.4	393.6
5°	462.2	459.6	457.6	455.0	446.7	441.1	431.8	421.5	411.7	401.9	382.3
7.5°	499.4	495.2	492.1	484.9	473.6	460.7	446.2	436.4	429.7	402.4	368.8
10°	539.1	535.5	529.3	516.4	502.5	483.9	463.2	440.0	419.4	396.7	357.0
12.5°	578.3	573.1	564.4	547.9	528.2	505.0	476.7	449.3	419.9	393.1	343.1
15°	617.5	611.8	602.5	582.4	556.6	526.2	491.6	457.1	422.5	388.4	328.6
17.5°	660.3	652.6	638.6	615.9	583.4	545.8	505.0	463.2	421.5	382.8	313.1
20°	706.2	695.4	680.4	650.0	611.8	567.5	518.4	469.4	420.9	376.1	295.6
22.5°	744.4	733.6	717.1	685.6	639.7	585.5	529.8	473.6	418.9	368.3	279.1
25°	777.4	768.6	750.6	714.5	666.0	604.6	540.6	476.7	415.8	360.1	261.5
27.5°	803.2	795.0	774.8	737.7	688.2	621.6	548.9	478.2	411.7	351.8	243.5
30°	825.9	817.7	793.4	755.2	703.1	635.0	557.1	478.7	406.5	339.4	223.9
32.5°	843.4	835.7	810.9	770.2	713.4	644.3	561.8	478.2	399.8	330.7	202.7
35°	861.0	853.2	824.4	781.0	721.2	648.4	565.4	475.6	391.5	316.2	182.6
37.5°	874.4	865.6	836.2	788.2	724.8	649.5	564.9	472.0	382.8	304.4	162.5
40°	883.7	874.4	842.9	792.4	725.8	647.9	560.7	465.8	372.5	289.4	141.3
42.5°	889.9	879.6	846.0	798.6	723.8	643.8	554.6	458.1	361.1	276.5	121.2
45°	893.0	882.1	846.5	793.4	720.2	636.1	545.3	448.3	348.7	259.0	101.1
47.5°	891.4	879.6	844.0	787.7	713.4	627.8	535.0	436.4	333.8	243.5	82.0
50°	888.8	876.5	838.3	780.5	704.2	617.5	523.6	422.0	318.3	224.4	65.0
52.5°	880.6	868.2	832.1	770.2	693.3	605.6	508.1	407.0	301.8	205.8	49.5
55°	870.3	858.9	821.3	760.9	679.4	591.2	493.7	391.0	285.8	186.7	35.6
57.5°	854.3	844.0	807.8	745.9	665.5	575.2	477.7	373.5	265.7	167.7	24.8
60°	834.7	824.4	789.3	728.9	649.5	557.1	460.2	355.4	247.6	148.6	15.5
62.5°	814.0	804.2	767.6	707.8	629.4	538.1	441.1	337.4	228.5	131.0	9.3
65°	786.7	777.4	744.4	682.5	607.2	517.4	419.9	315.7	208.9	111.4	5.2
67.5°	757.8	749.6	716.0	659.3	581.4	494.7	398.3	294.6	188.3	94.4	2.6
70°	726.9	716.5	685.6	627.8	555.1	468.9	374.5	272.9	168.7	77.9	0.0
72.5°	690.7	683.0	653.1	598.4	524.6	441.6	350.3	249.2	147.0	61.9	0.5
75°	655.7	645.9	618.5	566.9	494.7	412.7	323.4	227.0	125.9	47.5	0.5
77.5°	610.3	607.2	581.4	531.3	466.3	384.8	294.0	200.2	105.8	34.0	0.5
80°	564.9	561.8	541.7	495.7	433.3	351.8	266.7	174.9	86.1	22.7	0.5
82.5°	520.0	515.9	496.8	458.6	399.8	324.0	238.3	149.6	68.1	13.9	0.5
85°	479.8	474.6	454.0	418.9	365.2	292.5	208.9	124.8	50.6	7.7	1.0
87.5°	445.2	441.6	418.9	382.8	330.2	263.1	183.1	101.1	35.6	3.6	1.5
90°	415.8	408.1	387.9	349.8	297.1	230.6	155.8	81.0	23.7	2.1	2.1
92.5°	386.9	380.2	358.0	318.8	267.7	202.7	129.5	61.9	15.0	1.0	2.6
95°	357.0	349.8	328.1	292.0	237.8	174.4	106.3	45.4	8.3	1.0	2.6
97.5°	327.6	320.9	298.2	262.1	211.0	149.6	84.1	32.0	4.1	1.0	2.1
100°	300.2	292.5	271.9	235.8	184.2	124.8	65.0	20.6	2.6	1.0	2.1
102.5°	271.3	265.2	244.0	208.9	156.3	101.6	48.5	12.9	1.0	1.0	1.5
105°	245.6	237.8	217.2	181.1	133.1	80.0	34.0	7.7	1.0	1.0	1.5



TEST NUMBER: P550674

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	159.9	153.7	135.7	105.2	67.6	31.5	9.3	1.5	1.5	1.5	1.5
115°	133.6	124.3	108.3	81.5	50.0	20.6	4.6	1.5	1.5	1.5	1.5
117.5°	106.8	99.0	87.7	61.9	33.0	13.4	2.6	1.5	1.5	1.5	1.5
120°	83.6	76.3	63.5	42.8	22.2	7.7	1.0	1.5	1.5	1.5	1.5
122.5°	59.8	54.2	42.8	27.9	13.4	3.6	1.5	1.5	2.1	2.1	1.5
125°	39.7	36.6	28.4	17.0	8.3	1.5	1.5	1.5	2.1	2.1	1.5
127.5°	25.8	23.2	16.5	9.8	3.6	1.5	1.5	2.1	2.1	2.1	1.5
130°	14.4	12.9	9.8	5.7	1.5	1.5	1.5	2.1	2.1	2.1	1.5
132.5°	8.3	7.7	5.2	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1
135°	2.1	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1	2.1
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.1
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



TEST NUMBER: P550674

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	405.0	405.0	405.0
2.5°	385.4	378.1	376.1
5°	364.7	352.9	346.1
7.5°	344.1	328.1	320.4
10°	325.0	302.3	294.0
12.5°	302.3	276.0	263.1
15°	280.6	246.6	234.2
17.5°	256.4	218.2	203.8
20°	233.7	189.8	174.9
22.5°	207.9	162.0	145.5
25°	184.7	134.1	115.6
27.5°	158.9	105.8	89.8
30°	134.6	81.0	65.0
32.5°	111.4	59.3	44.9
35°	89.8	40.2	28.4
37.5°	69.1	24.8	14.4
40°	50.0	12.9	6.7
42.5°	33.5	6.2	3.6
45°	20.6	3.1	0.0
47.5°	11.9	0.0	0.0
50°	6.2	0.0	0.0
52.5°	2.6	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	1.0	1.5
80°	1.0	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.1
87.5°	2.6	3.1	3.6
90°	3.1	3.6	3.6
92.5°	3.1	4.1	4.1
95°	3.6	4.1	4.6
97.5°	4.1	4.6	4.6
100°	3.6	4.6	5.2
102.5°	3.1	4.6	4.6
105°	2.6	3.6	4.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.5	2.1	2.6
117.5°	1.5	2.1	2.1
120°	1.5	1.5	2.1
122.5°	1.5	1.5	2.1
125°	1.5	1.5	2.1
127.5°	2.1	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.1	1.5	1.5
135°	2.1	1.5	1.5
137.5°	2.1	1.5	1.5
140°	2.1	1.5	1.5
142.5°	2.1	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.1	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	216.7	210.5	189.8	155.8	108.8	60.9	22.7	4.1	1.0	1.5	1.5
110°	188.8	183.6	162.5	129.5	87.7	45.4	15.0	2.6	1.5	1.5	1.5





107.5°	2.1	3.1	3.6
110°	2.1	2.6	3.1



(END OF REPORT)