

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: P550522

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-82-85-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: P550522
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-35-UNV-82-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC 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

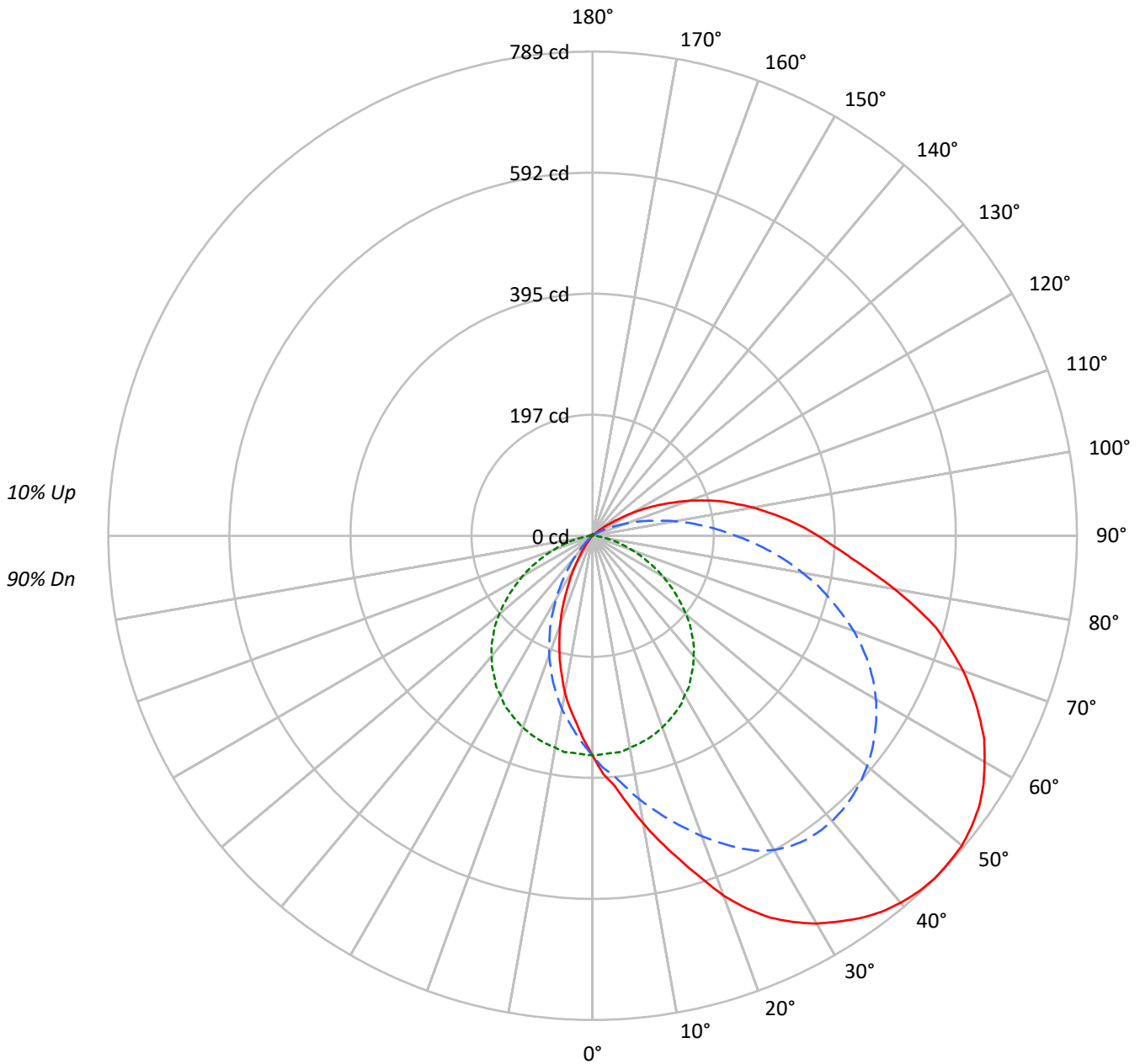
Lumens per Lamp: N/A
Luminaire Lumens: 1769.0 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	3851	3851	3851
5°	4228	3795	3167
10°	4784	3748	2610
15°	5362	3701	2033
20°	6047	3641	1497
25°	6616	3571	983
30°	7039	3477	554
35°	7405	3376	244
40°	7729	3252	58
45°	8007	3096	0
50°	8241	2890	0
55°	8419	2627	0
60°	8508	2324	0
65°	8543	1978	0
70°	8516	1612	0
75°	8408	1188	7
80°	8066	729	37
85°	7796	346	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.3	1.9
10°-20°	102.6	5.8
20°-30°	166.2	9.4
30°-40°	213.5	12.1
40°-50°	241.7	13.7
50°-60°	250.4	14.2
60°-70°	236.1	13.3
70°-80°	197.9	11.2
80°-90°	143.4	8.1
90°-100°	94.3	5.3
100°-110°	54.4	3.1
110°-120°	24.0	1.4
120°-130°	6.5	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°	303.1	17.1
0°-40°	516.6	29.2
0°-60°	1008.6	57.0
0°-90°	1586.1	89.7
90°-120°	172.7	9.8
90°-150°	181.7	10.3
90°-180°	183.0	10.3
0°-180°	1769.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	358	358	358	358	358	
5°	408	392	355	322	306	41
15°	546	478	343	248	207	157
25°	687	561	318	163	102	317
35°	761	605	279	79	25	477
45°	789	599	229	18	0	609
55°	769	561	165	0	0	687
65°	695	497	98	0	0	688
75°	579	401	42	0	0	608
85°	424	291	7	2	3	362
90°	367	233	2	3	3	201
95°	315	182	1	3	4	247
105°	217	94	1	2	4	229
115°	118	31	1	1	2	118
125°	35	4	2	1	2	35
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°	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8
2.5°	387.9	387.5	386.1	383.8	380.6	375.1	370.6	366.5	361.0	356.5	347.8
5°	408.4	406.1	404.3	402.0	394.7	389.7	381.5	372.4	363.8	355.1	337.8
7.5°	441.2	437.6	434.9	428.5	418.5	407.1	394.3	385.6	379.7	355.5	325.9
10°	476.3	473.2	467.7	456.3	444.0	427.6	409.3	388.8	370.6	350.5	315.4
12.5°	511.0	506.4	498.7	484.1	466.8	446.3	421.2	397.0	371.0	347.3	303.1
15°	545.6	540.6	532.4	514.6	491.8	464.9	434.4	403.9	373.3	343.2	290.4
17.5°	583.5	576.6	564.3	544.3	515.5	482.3	446.3	409.3	372.4	338.2	276.7
20°	624.0	614.5	601.2	574.3	540.6	501.4	458.1	414.8	372.0	332.3	261.2
22.5°	657.8	648.2	633.6	605.8	565.2	517.4	468.1	418.5	370.1	325.5	246.6
25°	686.9	679.2	663.2	631.3	588.5	534.2	477.7	421.2	367.4	318.2	231.1
27.5°	709.7	702.4	684.7	651.8	608.1	549.3	485.0	422.6	363.8	310.9	215.2
30°	729.8	722.5	701.1	667.3	621.3	561.1	492.3	423.0	359.2	299.9	197.8
32.5°	745.3	738.4	716.6	680.6	630.4	569.3	496.4	422.6	353.3	292.2	179.1
35°	760.8	753.9	728.4	690.1	637.2	573.0	499.6	420.3	346.0	279.4	161.4
37.5°	772.6	764.9	738.9	696.5	640.4	573.9	499.1	417.1	338.2	268.9	143.6
40°	780.8	772.6	744.8	700.2	641.4	572.5	495.5	411.6	329.1	255.7	124.9
42.5°	786.3	777.2	747.6	705.6	639.5	568.9	490.0	404.8	319.1	244.3	107.1
45°	789.0	779.5	748.0	701.1	636.3	562.0	481.8	396.1	308.1	228.8	89.3
47.5°	787.7	777.2	745.7	696.1	630.4	554.7	472.7	385.6	294.9	215.2	72.5
50°	785.4	774.5	740.7	689.7	622.2	545.6	462.7	372.9	281.2	198.3	57.4
52.5°	778.1	767.2	735.3	680.6	612.6	535.1	449.0	359.6	266.7	181.9	43.8
55°	769.0	759.0	725.7	672.3	600.3	522.4	436.2	345.5	252.5	165.0	31.5
57.5°	754.9	745.7	713.8	659.1	588.0	508.2	422.1	330.0	234.8	148.1	21.9
60°	737.5	728.4	697.4	644.1	573.9	492.3	406.6	314.1	218.8	131.3	13.7
62.5°	719.3	710.6	678.3	625.4	556.1	475.4	389.7	298.1	201.9	115.8	8.2
65°	695.1	686.9	657.8	603.1	536.5	457.2	371.0	279.0	184.6	98.5	4.6
67.5°	669.6	662.3	632.7	582.6	513.7	437.1	351.9	260.3	166.4	83.4	2.3
70°	642.3	633.1	605.8	554.7	490.5	414.3	330.9	241.1	149.1	68.8	0.0
72.5°	610.4	603.5	577.1	528.8	463.6	390.2	309.5	220.2	129.9	54.7	0.5
75°	579.4	570.7	546.5	501.0	437.1	364.7	285.8	200.6	111.2	41.9	0.5
77.5°	539.2	536.5	513.7	469.5	412.1	340.0	259.8	176.9	93.4	30.1	0.5
80°	499.1	496.4	478.6	438.1	382.9	310.9	235.7	154.5	76.1	20.1	0.5
82.5°	459.5	455.8	439.0	405.2	353.3	286.3	210.6	132.2	60.2	12.3	0.5
85°	423.9	419.4	401.1	370.1	322.7	258.5	184.6	110.3	44.7	6.8	0.9
87.5°	393.4	390.2	370.1	338.2	291.7	232.5	161.8	89.3	31.5	3.2	1.4
90°	367.4	360.6	342.8	309.1	262.6	203.8	137.7	71.6	21.0	1.8	1.8
92.5°	341.9	335.9	316.3	281.7	236.6	179.1	114.4	54.7	13.2	0.9	2.3
95°	315.4	309.1	289.9	258.0	210.1	154.1	93.9	40.1	7.3	0.9	2.3
97.5°	289.5	283.5	263.5	231.6	186.4	132.2	74.3	28.3	3.6	0.9	1.8
100°	265.3	258.5	240.2	208.3	162.7	110.3	57.4	18.2	2.3	0.9	1.8
102.5°	239.8	234.3	215.6	184.6	138.1	89.8	42.8	11.4	0.9	0.9	1.4
105°	217.0	210.1	191.9	160.0	117.6	70.7	30.1	6.8	0.9	0.9	1.4



TEST NUMBER: P550522

CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-82-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	141.3	135.8	119.9	93.0	59.7	27.8	8.2	1.4	1.4	1.4	1.4
115°	118.1	109.9	95.7	72.0	44.2	18.2	4.1	1.4	1.4	1.4	1.4
117.5°	94.4	87.5	77.5	54.7	29.2	11.9	2.3	1.4	1.4	1.4	1.4
120°	73.8	67.5	56.1	37.8	19.6	6.8	0.9	1.4	1.4	1.4	1.4
122.5°	52.9	47.9	37.8	24.6	11.9	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.1	32.4	25.1	15.0	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.8	20.5	14.6	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.8	11.4	8.7	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.8	4.6	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
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°	357.8	357.8	357.8
2.5°	340.5	334.1	332.3
5°	322.3	311.8	305.9
7.5°	304.0	289.9	283.1
10°	287.2	267.1	259.8
12.5°	267.1	243.9	232.5
15°	248.0	217.9	206.9
17.5°	226.5	192.8	180.1
20°	206.5	167.7	154.5
22.5°	183.7	143.1	128.5
25°	163.2	118.5	102.1
27.5°	140.4	93.4	79.3
30°	119.0	71.6	57.4
32.5°	98.5	52.4	39.7
35°	79.3	35.6	25.1
37.5°	61.1	21.9	12.8
40°	44.2	11.4	5.9
42.5°	29.6	5.5	3.2
45°	18.2	2.7	0.0
47.5°	10.5	0.0	0.0
50°	5.5	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	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.7
87.5°	2.3	2.7	3.2
90°	2.7	3.2	3.2
92.5°	2.7	3.6	3.6
95°	3.2	3.6	4.1
97.5°	3.6	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	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°	1.8	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°	191.4	186.0	167.7	137.7	96.2	53.8	20.1	3.6	0.9	1.4	1.4
110°	166.8	162.3	143.6	114.4	77.5	40.1	13.2	2.3	1.4	1.4	1.4





107.5°	1.8	2.7	3.2
110°	1.8	2.3	2.7



(END OF REPORT)