

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: P551600

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-81-88-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: P551600
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-81-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

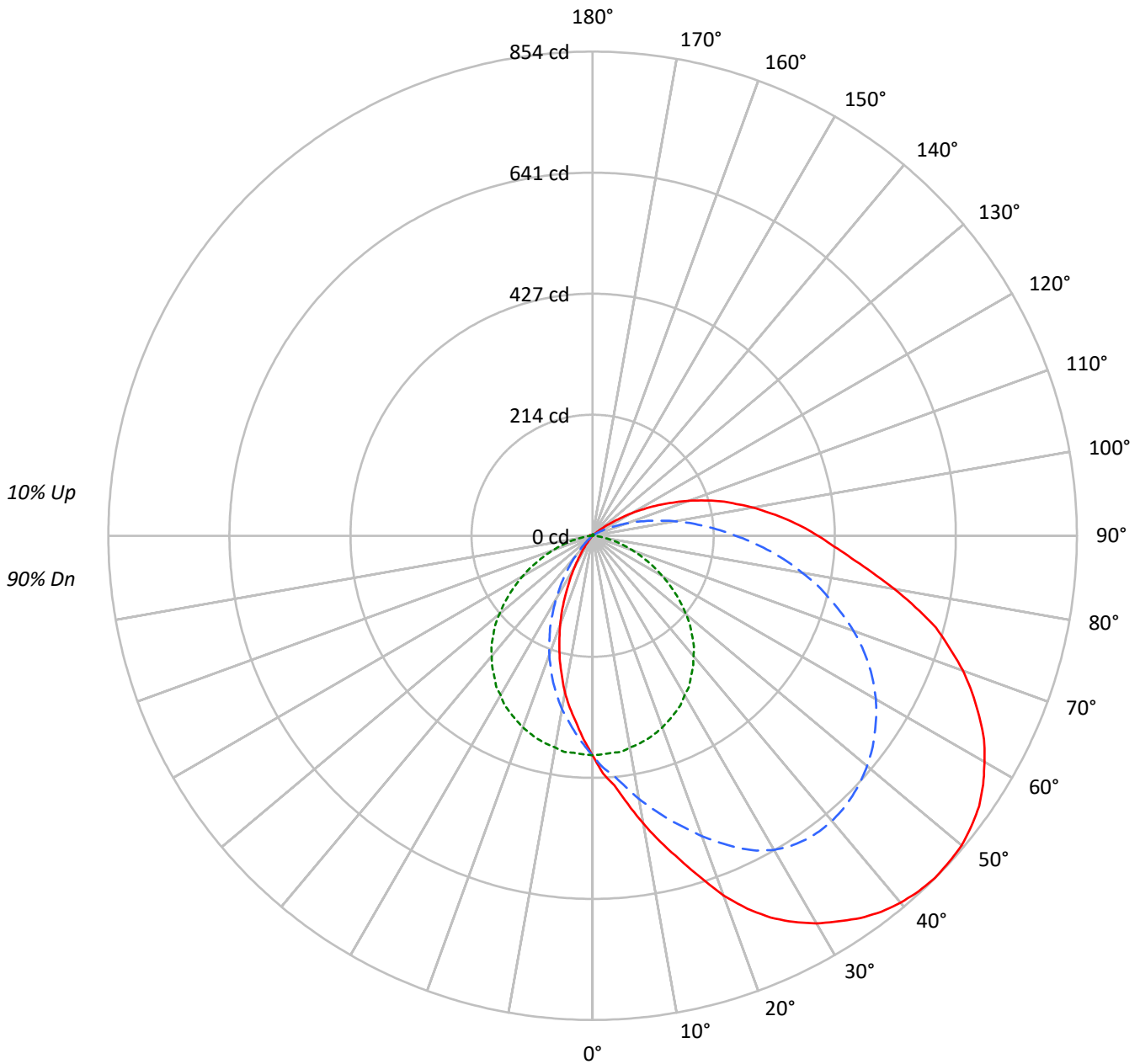
Lumens per Lamp: N/A
Luminaire Lumens: 1914.1 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): 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°	4168	4168	4168
5°	4575	4106	3426
10°	5177	4056	2823
15°	5802	4005	2200
20°	6543	3939	1620
25°	7158	3863	1064
30°	7616	3762	599
35°	8011	3653	264
40°	8362	3519	63
45°	8664	3350	0
50°	8917	3126	0
55°	9109	2842	0
60°	9206	2513	0
65°	9244	2139	0
70°	9213	1745	0
75°	9095	1287	7
80°	8727	787	40
85°	8436	376	55



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	1.9
10°-20°	111.0	5.8
20°-30°	179.8	9.4
30°-40°	231.0	12.1
40°-50°	261.5	13.7
50°-60°	270.9	14.2
60°-70°	255.5	13.3
70°-80°	214.1	11.2
80°-90°	155.2	8.1
90°-100°	102.0	5.3
100°-110°	58.9	3.1
110°-120°	26.0	1.4
120°-130°	7.1	0.4
130°-140°	1.6	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°	327.9	17.1
0°-40°	558.9	29.2
0°-60°	1091.3	57.0
0°-90°	1716.1	89.7
90°-120°	186.9	9.8
90°-150°	196.7	10.3
90°-180°	198.0	10.3
0°-180°	1914.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	387	387	387	387	387	
5°	442	424	384	349	331	45
15°	590	518	371	268	224	170
25°	743	607	344	177	110	344
35°	823	655	302	86	27	516
45°	854	648	248	20	0	659
55°	832	607	178	0	0	743
65°	752	538	106	0	0	744
75°	627	434	45	0	0	657
85°	459	314	7	2	3	392
90°	398	252	2	3	4	218
95°	341	197	1	4	4	268
105°	235	102	1	2	4	248
115°	128	34	2	2	2	128
125°	38	5	2	2	2	38
135°	2	2	2	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	2	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°	387.2	387.2	387.2	387.2	387.2	387.2	387.2	387.2	387.2	387.2	387.2
2.5°	419.7	419.2	417.7	415.3	411.8	405.9	401.0	396.5	390.6	385.7	376.3
5°	441.9	439.4	437.5	435.0	427.1	421.7	412.8	402.9	393.6	384.2	365.5
7.5°	477.4	473.5	470.5	463.6	452.8	440.4	426.6	417.2	410.8	384.7	352.6
10°	515.4	511.9	506.0	493.7	480.4	462.6	442.9	420.7	401.0	379.3	341.3
12.5°	552.9	547.9	539.6	523.8	505.0	482.8	455.7	429.6	401.5	375.8	328.0
15°	590.4	584.9	576.0	556.8	532.2	503.1	470.0	437.0	403.9	371.4	314.2
17.5°	631.3	623.9	610.6	588.9	557.8	521.8	482.8	442.9	402.9	365.9	299.4
20°	675.2	664.8	650.5	621.4	584.9	542.5	495.7	448.8	402.4	359.5	282.6
22.5°	711.7	701.3	685.5	655.5	611.6	559.8	506.5	452.8	400.5	352.1	266.8
25°	743.2	734.9	717.6	683.1	636.7	578.0	516.9	455.7	397.5	344.2	250.0
27.5°	767.9	760.0	740.8	705.3	657.9	594.3	524.8	457.2	393.6	336.4	232.8
30°	789.6	781.7	758.5	722.0	672.2	607.1	532.6	457.7	388.6	324.5	214.0
32.5°	806.4	799.0	775.3	736.3	682.1	616.0	537.1	457.2	382.2	316.1	193.8
35°	823.1	815.7	788.1	746.7	689.5	619.9	540.5	454.7	374.3	302.3	174.6
37.5°	836.0	827.6	799.5	753.6	692.9	620.9	540.0	451.3	365.9	291.0	155.4
40°	844.8	836.0	805.9	757.5	693.9	619.4	536.1	445.4	356.1	276.7	135.1
42.5°	850.8	840.9	808.8	763.5	691.9	615.5	530.2	438.0	345.2	264.4	115.9
45°	853.7	843.4	809.3	758.5	688.5	608.1	521.3	428.6	333.4	247.6	96.7
47.5°	852.2	840.9	806.9	753.1	682.1	600.2	511.4	417.2	319.1	232.8	78.4
50°	849.8	837.9	801.4	746.2	673.2	590.4	500.6	403.4	304.3	214.5	62.1
52.5°	841.9	830.0	795.5	736.3	662.9	579.0	485.8	389.1	288.5	196.8	47.3
55°	832.0	821.2	785.2	727.5	649.5	565.2	472.0	373.8	273.2	178.5	34.0
57.5°	816.7	806.9	772.3	713.2	636.2	549.9	456.7	357.1	254.0	160.3	23.7
60°	798.0	788.1	754.6	696.9	620.9	532.6	439.9	339.8	236.7	142.0	14.8
62.5°	778.3	768.9	733.9	676.7	601.7	514.4	421.7	322.5	218.5	125.3	8.9
65°	752.1	743.2	711.7	652.5	580.5	494.7	401.5	301.8	199.7	106.5	4.9
67.5°	724.5	716.6	684.6	630.3	555.8	473.0	380.7	281.6	180.0	90.3	2.5
70°	694.9	685.0	655.5	600.2	530.7	448.3	358.1	260.9	161.3	74.5	0.0
72.5°	660.4	653.0	624.4	572.1	501.6	422.2	334.9	238.2	140.6	59.2	0.5
75°	626.8	617.5	591.3	542.0	473.0	394.6	309.2	217.0	120.3	45.4	0.5
77.5°	583.4	580.5	555.8	508.0	445.8	367.9	281.1	191.4	101.1	32.6	0.5
80°	540.0	537.1	517.9	474.0	414.3	336.4	255.0	167.2	82.4	21.7	0.5
82.5°	497.1	493.2	474.9	438.4	382.2	309.7	227.9	143.0	65.1	13.3	0.5
85°	458.7	453.7	434.0	400.5	349.2	279.6	199.7	119.4	48.3	7.4	1.0
87.5°	425.6	422.2	400.5	365.9	315.6	251.5	175.1	96.7	34.0	3.5	1.5
90°	397.5	390.1	370.9	334.4	284.1	220.5	148.9	77.4	22.7	2.0	2.0
92.5°	369.9	363.5	342.3	304.8	256.0	193.8	123.8	59.2	14.3	1.0	2.5
95°	341.3	334.4	313.7	279.1	227.4	166.7	101.6	43.4	7.9	1.0	2.5
97.5°	313.2	306.8	285.1	250.5	201.7	143.0	80.4	30.6	3.9	1.0	2.0
100°	287.0	279.6	259.9	225.4	176.1	119.4	62.1	19.7	2.5	1.0	2.0
102.5°	259.4	253.5	233.3	199.7	149.4	97.2	46.4	12.3	1.0	1.0	1.5
105°	234.8	227.4	207.6	173.1	127.2	76.4	32.6	7.4	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	152.9	147.0	129.7	100.6	64.6	30.1	8.9	1.5	1.5	1.5	1.5
115°	127.7	118.9	103.6	77.9	47.8	19.7	4.4	1.5	1.5	1.5	1.5
117.5°	102.1	94.7	83.8	59.2	31.6	12.8	2.5	1.5	1.5	1.5	1.5
120°	79.9	73.0	60.7	40.9	21.2	7.4	1.0	1.5	1.5	1.5	1.5
122.5°	57.2	51.8	40.9	26.6	12.8	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.0	35.0	27.1	16.3	7.9	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.7	22.2	15.8	9.4	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.8	12.3	9.4	5.4	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.9	7.4	4.9	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	387.2	387.2	387.2
2.5°	368.4	361.5	359.5
5°	348.7	337.3	330.9
7.5°	329.0	313.7	306.3
10°	310.7	289.0	281.1
12.5°	289.0	263.9	251.5
15°	268.3	235.7	223.9
17.5°	245.1	208.6	194.8
20°	223.4	181.5	167.2
22.5°	198.8	154.9	139.1
25°	176.6	128.2	110.5
27.5°	151.9	101.1	85.8
30°	128.7	77.4	62.1
32.5°	106.5	56.7	42.9
35°	85.8	38.5	27.1
37.5°	66.1	23.7	13.8
40°	47.8	12.3	6.4
42.5°	32.1	5.9	3.5
45°	19.7	3.0	0.0
47.5°	11.3	0.0	0.0
50°	5.9	0.0	0.0
52.5°	2.5	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	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.5
90°	3.0	3.5	3.5
92.5°	3.0	3.9	3.9
95°	3.5	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.5	4.4	4.9
102.5°	3.0	4.4	4.4
105°	2.5	3.5	3.9



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	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°	2.0	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°	207.1	201.2	181.5	148.9	104.1	58.2	21.7	3.9	1.0	1.5	1.5
110°	180.5	175.6	155.4	123.8	83.8	43.4	14.3	2.5	1.5	1.5	1.5





107.5°	2.0	3.0	3.5
110°	2.0	2.5	3.0



(END OF REPORT)