

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: P550956

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-81-86-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: P550956
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-LD4-1STD-30-UNV-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

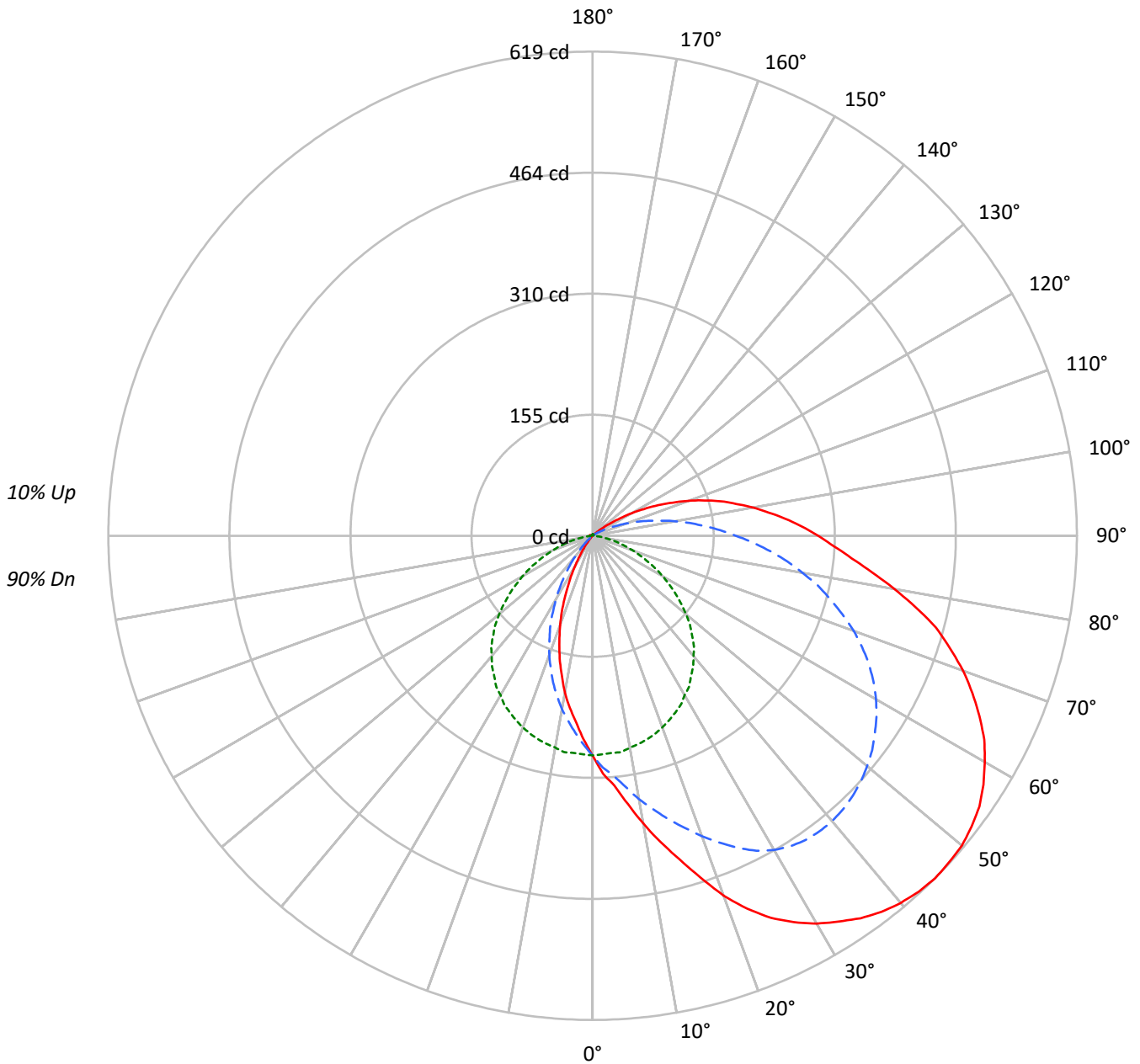
Lumens per Lamp: N/A
Luminaire Lumens: 1388.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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°	3023	3023	3023
5°	3318	2978	2485
10°	3754	2941	2048
15°	4207	2904	1596
20°	4745	2856	1175
25°	5191	2801	771
30°	5523	2728	435
35°	5810	2649	192
40°	6065	2551	46
45°	6283	2429	0
50°	6466	2268	0
55°	6606	2062	0
60°	6676	1823	0
65°	6703	1553	0
70°	6681	1265	0
75°	6597	933	6
80°	6329	569	29
85°	6117	275	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.9	1.9
10°-20°	80.5	5.8
20°-30°	130.4	9.4
30°-40°	167.5	12.1
40°-50°	189.6	13.7
50°-60°	196.4	14.2
60°-70°	185.3	13.3
70°-80°	155.3	11.2
80°-90°	112.5	8.1
90°-100°	74.0	5.3
100°-110°	42.7	3.1
110°-120°	18.9	1.4
120°-130°	5.1	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	237.8	17.1
0°-40°	405.3	29.2
0°-60°	791.4	57.0
0°-90°	1244.5	89.7
90°-120°	135.5	9.8
90°-150°	142.6	10.3
90°-180°	144.0	10.4
0°-180°	1388.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	281	281	281	281	281	
5°	320	308	279	253	240	32
15°	428	375	269	195	162	123
25°	539	440	250	128	80	249
35°	597	475	219	62	20	374
45°	619	470	180	14	0	478
55°	603	440	130	0	0	539
65°	545	390	77	0	0	540
75°	455	315	33	0	0	477
85°	333	228	5	1	2	284
90°	288	183	1	2	2	158
95°	248	143	1	2	3	194
105°	170	74	1	2	3	180
115°	93	24	1	1	2	93
125°	28	3	1	1	1	28
135°	1	1	2	1	1	3
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	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°	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8
2.5°	304.4	304.0	302.9	301.1	298.6	294.3	290.8	287.6	283.3	279.7	272.9
5°	320.5	318.7	317.2	315.5	309.7	305.8	299.4	292.2	285.4	278.6	265.0
7.5°	346.2	343.3	341.2	336.2	328.3	319.4	309.4	302.6	297.9	279.0	255.7
10°	373.7	371.2	367.0	358.0	348.4	335.5	321.2	305.1	290.8	275.0	247.5
12.5°	400.9	397.4	391.3	379.8	366.2	350.1	330.5	311.5	291.1	272.5	237.8
15°	428.1	424.2	417.7	403.8	385.9	364.8	340.8	316.9	292.9	269.3	227.8
17.5°	457.8	452.4	442.8	427.0	404.5	378.4	350.1	321.2	292.2	265.4	217.1
20°	489.6	482.1	471.7	450.6	424.2	393.4	359.4	325.5	291.8	260.7	204.9
22.5°	516.1	508.6	497.1	475.3	443.5	405.9	367.3	328.3	290.4	255.4	193.5
25°	539.0	532.9	520.4	495.4	461.7	419.2	374.8	330.5	288.3	249.6	181.3
27.5°	556.9	551.1	537.2	511.4	477.1	431.0	380.5	331.5	285.4	243.9	168.8
30°	572.6	566.9	550.1	523.6	487.5	440.3	386.3	331.9	281.8	235.3	155.2
32.5°	584.8	579.4	562.2	534.0	494.6	446.7	389.5	331.5	277.2	229.3	140.6
35°	596.9	591.6	571.5	541.5	500.0	449.6	392.0	329.8	271.5	219.2	126.6
37.5°	606.2	600.1	579.8	546.5	502.5	450.3	391.6	327.3	265.4	211.0	112.7
40°	612.7	606.2	584.4	549.4	503.2	449.2	388.8	323.0	258.2	200.6	98.0
42.5°	617.0	609.8	586.6	553.6	501.8	446.4	384.5	317.6	250.4	191.7	84.0
45°	619.1	611.6	586.9	550.1	499.3	441.0	378.0	310.8	241.8	179.5	70.1
47.5°	618.0	609.8	585.1	546.1	494.6	435.3	370.9	302.6	231.4	168.8	56.9
50°	616.2	607.7	581.2	541.1	488.2	428.1	363.0	292.6	220.7	155.6	45.1
52.5°	610.5	601.9	576.9	534.0	480.7	419.9	352.3	282.2	209.2	142.7	34.3
55°	603.4	595.5	569.4	527.5	471.0	409.9	342.3	271.1	198.1	129.5	24.7
57.5°	592.3	585.1	560.1	517.2	461.4	398.8	331.2	258.9	184.2	116.2	17.2
60°	578.7	571.5	547.2	505.4	450.3	386.3	319.0	246.4	171.7	103.0	10.7
62.5°	564.4	557.6	532.2	490.7	436.3	373.0	305.8	233.9	158.4	90.8	6.4
65°	545.4	539.0	516.1	473.2	421.0	358.7	291.1	218.9	144.9	77.3	3.6
67.5°	525.4	519.7	496.4	457.1	403.1	343.0	276.1	204.2	130.5	65.5	1.8
70°	503.9	496.8	475.3	435.3	384.8	325.1	259.7	189.2	117.0	54.0	0.0
72.5°	478.9	473.5	452.8	414.9	363.7	306.2	242.8	172.7	101.9	42.9	0.4
75°	454.6	447.8	428.8	393.1	343.0	286.1	224.2	157.4	87.3	32.9	0.4
77.5°	423.1	421.0	403.1	368.4	323.3	266.8	203.9	138.8	73.3	23.6	0.4
80°	391.6	389.5	375.5	343.7	300.4	243.9	184.9	121.2	59.7	15.7	0.4
82.5°	360.5	357.7	344.4	318.0	277.2	224.6	165.2	103.7	47.2	9.7	0.4
85°	332.6	329.0	314.7	290.4	253.2	202.8	144.9	86.6	35.1	5.4	0.7
87.5°	308.7	306.2	290.4	265.4	228.9	182.4	127.0	70.1	24.7	2.5	1.1
90°	288.3	282.9	269.0	242.5	206.0	159.9	108.0	56.2	16.5	1.4	1.4
92.5°	268.2	263.6	248.2	221.0	185.6	140.6	89.8	42.9	10.4	0.7	1.8
95°	247.5	242.5	227.5	202.4	164.9	120.9	73.7	31.5	5.7	0.7	1.8
97.5°	227.1	222.5	206.7	181.7	146.3	103.7	58.3	22.2	2.9	0.7	1.4
100°	208.2	202.8	188.5	163.4	127.7	86.6	45.1	14.3	1.8	0.7	1.4
102.5°	188.1	183.8	169.2	144.9	108.4	70.5	33.6	8.9	0.7	0.7	1.1
105°	170.2	164.9	150.6	125.5	92.3	55.4	23.6	5.4	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	110.9	106.6	94.1	73.0	46.9	21.8	6.4	1.1	1.1	1.1	1.1
115°	92.6	86.2	75.1	56.5	34.7	14.3	3.2	1.1	1.1	1.1	1.1
117.5°	74.0	68.7	60.8	42.9	22.9	9.3	1.8	1.1	1.1	1.1	1.1
120°	57.9	52.9	44.0	29.7	15.4	5.4	0.7	1.1	1.1	1.1	1.1
122.5°	41.5	37.6	29.7	19.3	9.3	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.5	25.4	19.7	11.8	5.7	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	17.9	16.1	11.4	6.8	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	10.0	8.9	6.8	3.9	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.7	5.4	3.6	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	280.8	280.8	280.8
2.5°	267.2	262.2	260.7
5°	252.9	244.6	240.0
7.5°	238.6	227.5	222.1
10°	225.3	209.6	203.9
12.5°	209.6	191.3	182.4
15°	194.6	171.0	162.4
17.5°	177.8	151.3	141.3
20°	162.0	131.6	121.2
22.5°	144.1	112.3	100.9
25°	128.0	93.0	80.1
27.5°	110.2	73.3	62.2
30°	93.3	56.2	45.1
32.5°	77.3	41.1	31.1
35°	62.2	27.9	19.7
37.5°	47.9	17.2	10.0
40°	34.7	8.9	4.6
42.5°	23.2	4.3	2.5
45°	14.3	2.1	0.0
47.5°	8.2	0.0	0.0
50°	4.3	0.0	0.0
52.5°	1.8	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.1
87.5°	1.8	2.1	2.5
90°	2.1	2.5	2.5
92.5°	2.1	2.9	2.9
95°	2.5	2.9	3.2
97.5°	2.9	3.2	3.2
100°	2.5	3.2	3.6
102.5°	2.1	3.2	3.2
105°	1.8	2.5	2.9



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.4	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	150.2	145.9	131.6	108.0	75.5	42.2	15.7	2.9	0.7	1.1	1.1
110°	130.9	127.3	112.7	89.8	60.8	31.5	10.4	1.8	1.1	1.1	1.1





107.5°	1.4	2.1	2.5
110°	1.4	1.8	2.1



(END OF REPORT)