

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: P551581

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-80-87-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: P551581
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-80-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

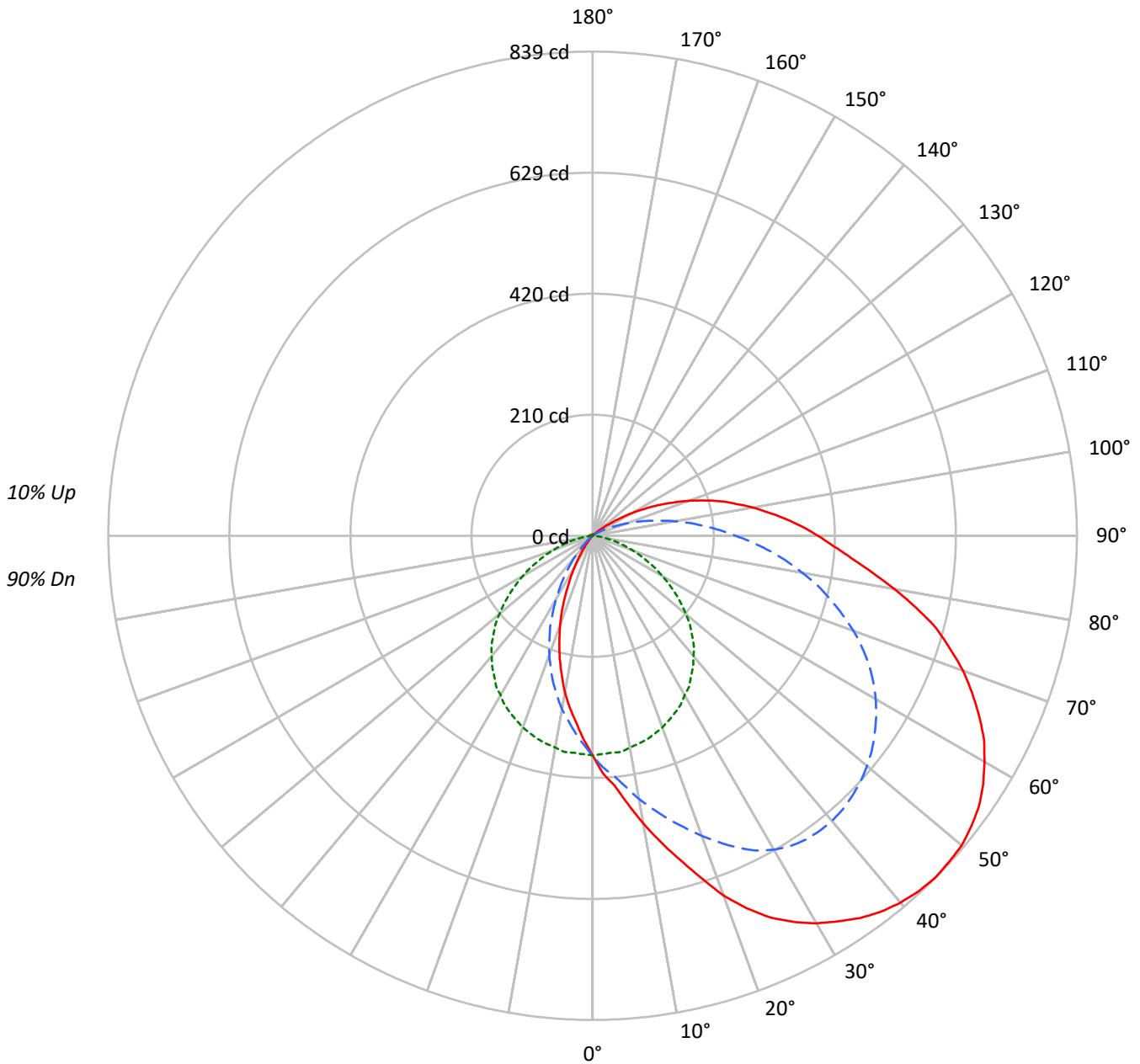
Lumens per Lamp: N/A
Luminaire Lumens: 1880.0 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-87-ED1D-90

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°	4094	4094	4094
5°	4494	4034	3365
10°	5084	3984	2773
15°	5699	3933	2161
20°	6427	3870	1591
25°	7031	3794	1045
30°	7481	3696	588
35°	7869	3589	259
40°	8214	3457	62
45°	8510	3291	0
50°	8759	3071	0
55°	8947	2793	0
60°	9042	2469	0
65°	9080	2101	0
70°	9050	1712	0
75°	8934	1265	7
80°	8573	773	39
85°	8286	371	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	1.9
10°-20°	109.1	5.8
20°-30°	176.6	9.4
30°-40°	226.9	12.1
40°-50°	256.8	13.7
50°-60°	266.1	14.2
60°-70°	250.9	13.3
70°-80°	210.3	11.2
80°-90°	152.4	8.1
90°-100°	100.2	5.3
100°-110°	57.9	3.1
110°-120°	25.5	1.4
120°-130°	6.9	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	322.1	17.1
0°-40°	549.0	29.2
0°-60°	1071.9	57.0
0°-90°	1685.6	89.7
90°-120°	183.6	9.8
90°-150°	193.2	10.3
90°-180°	194.0	10.3
0°-180°	1880.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	380	380	380	380	380	
5°	434	417	377	342	325	44
15°	580	508	365	264	220	167
25°	730	597	338	173	108	337
35°	808	643	297	84	27	507
45°	839	637	243	19	0	647
55°	817	597	175	0	0	730
65°	739	528	105	0	0	731
75°	616	426	45	0	0	646
85°	450	309	7	2	3	385
90°	390	248	2	3	3	214
95°	335	194	1	3	4	263
105°	231	100	1	2	4	243
115°	126	33	2	2	2	126
125°	37	5	2	2	2	37
135°	2	2	2	2	2	3
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°	380.3	380.3	380.3	380.3	380.3	380.3	380.3	380.3	380.3	380.3	380.3
2.5°	412.3	411.8	410.3	407.9	404.5	398.7	393.8	389.5	383.7	378.8	369.6
5°	434.1	431.6	429.7	427.3	419.5	414.2	405.5	395.8	386.6	377.4	359.0
7.5°	468.9	465.1	462.1	455.4	444.7	432.6	419.0	409.8	403.5	377.9	346.4
10°	506.2	502.8	497.0	484.9	471.8	454.4	435.0	413.2	393.8	372.5	335.2
12.5°	543.0	538.2	530.0	514.5	496.1	474.3	447.6	421.9	394.3	369.1	322.1
15°	579.9	574.5	565.8	546.9	522.7	494.1	461.7	429.2	396.7	364.8	308.6
17.5°	620.1	612.8	599.7	578.4	547.9	512.5	474.3	435.0	395.8	359.4	294.1
20°	663.2	653.0	639.0	610.4	574.5	532.9	486.9	440.8	395.3	353.2	277.6
22.5°	699.0	688.9	673.4	643.8	600.7	549.8	497.5	444.7	393.4	345.9	262.1
25°	730.0	721.8	704.8	670.9	625.4	567.8	507.7	447.6	390.5	338.1	245.6
27.5°	754.3	746.5	727.6	692.7	646.2	583.7	515.4	449.1	386.6	330.4	228.7
30°	775.6	767.8	745.1	709.2	660.3	596.3	523.2	449.6	381.7	318.8	210.2
32.5°	792.0	784.8	761.5	723.3	670.0	605.1	527.5	449.1	375.4	310.5	190.4
35°	808.5	801.2	774.1	733.4	677.2	608.9	530.9	446.6	367.7	297.0	171.5
37.5°	821.1	812.9	785.3	740.2	680.6	609.9	530.5	443.3	359.4	285.8	152.6
40°	829.8	821.1	791.6	744.1	681.6	608.4	526.6	437.4	349.8	271.8	132.7
42.5°	835.6	826.0	794.5	749.9	679.7	604.6	520.8	430.2	339.1	259.7	113.8
45°	838.6	828.4	795.0	745.1	676.3	597.3	512.0	421.0	327.5	243.2	94.9
47.5°	837.1	826.0	792.5	739.7	670.0	589.6	502.4	409.8	313.4	228.7	77.0
50°	834.7	823.0	787.2	732.9	661.2	579.9	491.7	396.3	298.9	210.7	61.0
52.5°	826.9	815.3	781.4	723.3	651.1	568.7	477.2	382.2	283.4	193.3	46.5
55°	817.2	806.6	771.2	714.5	638.0	555.2	463.6	367.2	268.4	175.4	33.4
57.5°	802.2	792.5	758.6	700.5	624.9	540.1	448.6	350.7	249.5	157.4	23.3
60°	783.8	774.1	741.2	684.5	609.9	523.2	432.1	333.8	232.5	139.5	14.5
62.5°	764.4	755.2	720.8	664.6	591.0	505.3	414.2	316.8	214.6	123.0	8.7
65°	738.8	730.0	699.0	640.9	570.2	485.9	394.3	296.5	196.2	104.6	4.8
67.5°	711.6	703.9	672.4	619.1	546.0	464.6	374.0	276.6	176.8	88.7	2.4
70°	682.6	672.9	643.8	589.6	521.2	440.3	351.7	256.3	158.4	73.1	0.0
72.5°	648.7	641.4	613.3	561.9	492.7	414.7	328.9	234.0	138.1	58.1	0.5
75°	615.7	606.5	580.8	532.4	464.6	387.5	303.7	213.1	118.2	44.6	0.5
77.5°	573.1	570.2	546.0	499.0	437.9	361.4	276.1	188.0	99.3	32.0	0.5
80°	530.5	527.5	508.7	465.5	406.9	330.4	250.5	164.2	80.9	21.3	0.5
82.5°	488.3	484.4	466.5	430.7	375.4	304.2	223.8	140.5	63.9	13.1	0.5
85°	450.5	445.7	426.3	393.4	343.0	274.7	196.2	117.2	47.5	7.3	1.0
87.5°	418.1	414.7	393.4	359.4	310.0	247.1	172.0	94.9	33.4	3.4	1.5
90°	390.5	383.2	364.3	328.4	279.0	216.5	146.3	76.1	22.3	1.9	1.9
92.5°	363.3	357.0	336.2	299.4	251.4	190.4	121.6	58.1	14.0	1.0	2.4
95°	335.2	328.4	308.1	274.2	223.3	163.7	99.8	42.6	7.8	1.0	2.4
97.5°	307.6	301.3	280.0	246.1	198.1	140.5	79.0	30.0	3.9	1.0	1.9
100°	281.9	274.7	255.3	221.4	172.9	117.2	61.0	19.4	2.4	1.0	1.9
102.5°	254.8	249.0	229.1	196.2	146.8	95.4	45.5	12.1	1.0	1.0	1.5
105°	230.6	223.3	203.9	170.0	125.0	75.1	32.0	7.3	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	150.2	144.4	127.4	98.8	63.5	29.6	8.7	1.5	1.5	1.5	1.5
115°	125.5	116.7	101.7	76.5	47.0	19.4	4.4	1.5	1.5	1.5	1.5
117.5°	100.3	93.0	82.4	58.1	31.0	12.6	2.4	1.5	1.5	1.5	1.5
120°	78.5	71.7	59.6	40.2	20.8	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.2	50.9	40.2	26.2	12.6	3.4	1.5	1.5	1.9	1.9	1.5
125°	37.3	34.4	26.6	16.0	7.8	1.5	1.5	1.5	1.9	1.9	1.5
127.5°	24.2	21.8	15.5	9.2	3.4	1.5	1.5	1.9	1.9	1.9	1.5
130°	13.6	12.1	9.2	5.3	1.5	1.5	1.5	1.9	1.9	1.9	1.5
132.5°	7.8	7.3	4.8	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	1.9
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°	380.3	380.3	380.3
2.5°	361.9	355.1	353.2
5°	342.5	331.4	325.1
7.5°	323.1	308.1	300.8
10°	305.2	283.9	276.1
12.5°	283.9	259.2	247.1
15°	263.5	231.6	219.9
17.5°	240.8	204.9	191.4
20°	219.4	178.3	164.2
22.5°	195.2	152.1	136.6
25°	173.4	126.0	108.5
27.5°	149.2	99.3	84.3
30°	126.4	76.1	61.0
32.5°	104.6	55.7	42.1
35°	84.3	37.8	26.6
37.5°	64.9	23.3	13.6
40°	47.0	12.1	6.3
42.5°	31.5	5.8	3.4
45°	19.4	2.9	0.0
47.5°	11.1	0.0	0.0
50°	5.8	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	1.0	1.5
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.8
102.5°	2.9	4.4	4.4
105°	2.4	3.4	3.9



TEST NUMBER: P551581

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.5	1.9	2.4
117.5°	1.5	1.9	1.9
120°	1.5	1.5	1.9
122.5°	1.5	1.5	1.9
125°	1.5	1.5	1.9
127.5°	1.9	1.5	1.5
130°	1.5	1.5	1.5
132.5°	1.9	1.5	1.5
135°	1.9	1.5	1.5
137.5°	1.9	1.5	1.5
140°	1.9	1.5	1.5
142.5°	1.9	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°	1.9	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°	203.5	197.6	178.3	146.3	102.2	57.2	21.3	3.9	1.0	1.5	1.5
110°	177.3	172.5	152.6	121.6	82.4	42.6	14.0	2.4	1.5	1.5	1.5





107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)