

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: P551597

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-81-87-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: P551597
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-81-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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

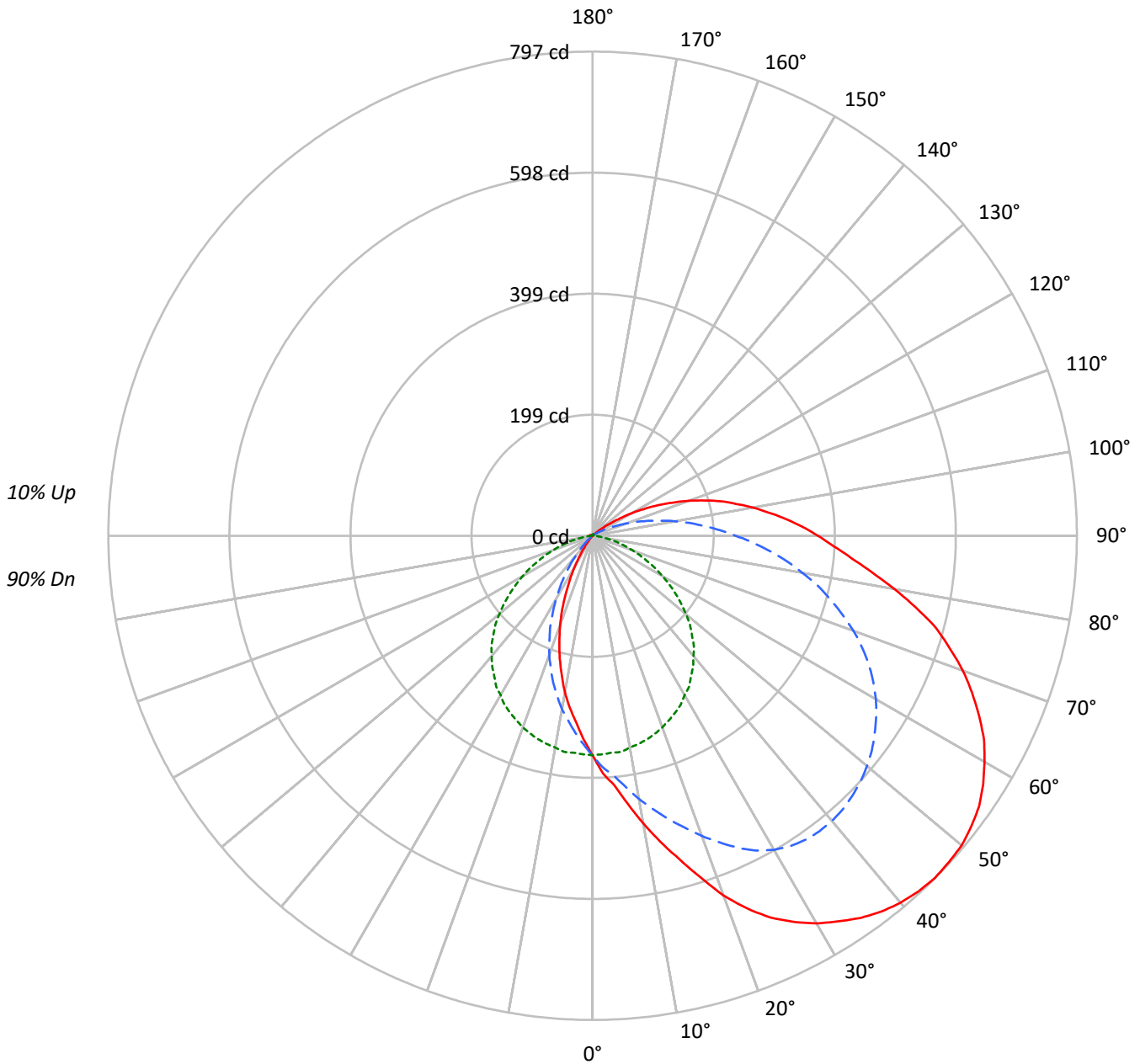
Lumens per Lamp: N/A
Luminaire Lumens: 1786.0 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	3889	3889	3889
5°	4268	3832	3197
10°	4830	3785	2635
15°	5414	3736	2053
20°	6105	3676	1512
25°	6679	3605	993
30°	7106	3510	559
35°	7476	3409	246
40°	7803	3284	59
45°	8084	3126	0
50°	8320	2918	0
55°	8500	2653	0
60°	8590	2345	0
65°	8626	1996	0
70°	8597	1628	0
75°	8487	1200	7
80°	8143	733	37
85°	7872	351	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.6	1.9
10°-20°	103.6	5.8
20°-30°	167.8	9.4
30°-40°	215.5	12.1
40°-50°	244.0	13.7
50°-60°	252.8	14.2
60°-70°	238.4	13.3
70°-80°	199.8	11.2
80°-90°	144.8	8.1
90°-100°	95.2	5.3
100°-110°	55.0	3.1
110°-120°	24.3	1.4
120°-130°	6.6	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°	306.0	17.1
0°-40°	521.6	29.2
0°-60°	1018.3	57.0
0°-90°	1601.3	89.7
90°-120°	174.4	9.8
90°-150°	183.4	10.3
90°-180°	185.0	10.4
0°-180°	1786.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	361	361	361	361	361	
5°	412	396	358	325	309	42
15°	551	483	346	250	209	159
25°	694	567	321	165	103	321
35°	768	611	282	80	25	482
45°	797	605	231	18	0	615
55°	776	567	167	0	0	693
65°	702	502	99	0	0	694
75°	585	405	42	0	0	613
85°	428	293	7	2	3	365
90°	371	235	2	3	3	203
95°	318	184	1	3	4	250
105°	219	95	1	2	4	231
115°	119	32	1	1	2	119
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°	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3
2.5°	391.6	391.2	389.8	387.5	384.3	378.8	374.2	370.0	364.5	359.9	351.1
5°	412.3	410.0	408.2	405.9	398.5	393.5	385.2	376.0	367.2	358.5	341.0
7.5°	445.5	441.8	439.0	432.6	422.5	411.0	398.1	389.3	383.4	359.0	329.1
10°	480.9	477.7	472.2	460.7	448.2	431.7	413.3	392.6	374.2	353.9	318.5
12.5°	515.9	511.3	503.5	488.7	471.3	450.5	425.2	400.8	374.6	350.7	306.0
15°	550.9	545.8	537.5	519.6	496.6	469.4	438.6	407.7	376.9	346.5	293.2
17.5°	589.1	582.2	569.7	549.5	520.5	486.9	450.5	413.3	376.0	341.5	279.3
20°	630.0	620.4	607.0	579.9	545.8	506.2	462.5	418.8	375.5	335.5	263.7
22.5°	664.1	654.4	639.7	611.6	570.7	522.3	472.6	422.5	373.7	328.6	249.0
25°	693.5	685.7	669.6	637.4	594.1	539.4	482.3	425.2	370.9	321.2	233.3
27.5°	716.5	709.2	691.2	658.1	613.9	554.6	489.7	426.6	367.2	313.9	217.2
30°	736.8	729.4	707.8	673.7	627.3	566.5	497.0	427.1	362.6	302.8	199.7
32.5°	752.4	745.5	723.5	687.1	636.5	574.8	501.2	426.6	356.7	295.0	180.9
35°	768.1	761.2	735.4	696.8	643.4	578.5	504.4	424.3	349.3	282.1	162.9
37.5°	780.1	772.2	746.0	703.2	646.6	579.4	503.9	421.1	341.5	271.5	145.0
40°	788.3	780.1	752.0	706.9	647.5	578.0	500.2	415.6	332.3	258.2	126.1
42.5°	793.9	784.7	754.7	712.4	645.7	574.3	494.7	408.7	322.1	246.7	108.1
45°	796.6	787.0	755.2	707.8	642.5	567.4	486.4	399.9	311.1	231.0	90.2
47.5°	795.2	784.7	752.9	702.7	636.5	560.1	477.2	389.3	297.8	217.2	73.2
50°	792.9	781.9	747.8	696.3	628.2	550.9	467.1	376.5	283.9	200.2	58.0
52.5°	785.6	774.5	742.3	687.1	618.5	540.3	453.3	363.1	269.2	183.6	44.2
55°	776.4	766.2	732.7	678.8	606.1	527.4	440.4	348.8	255.0	166.6	31.8
57.5°	762.1	752.9	720.7	665.5	593.7	513.1	426.2	333.2	237.0	149.6	22.1
60°	744.6	735.4	704.1	650.3	579.4	497.0	410.5	317.1	220.9	132.5	13.8
62.5°	726.2	717.5	684.8	631.4	561.5	480.0	393.5	301.0	203.9	116.9	8.3
65°	701.8	693.5	664.1	608.9	541.7	461.6	374.6	281.6	186.4	99.4	4.6
67.5°	676.0	668.7	638.8	588.1	518.7	441.3	355.3	262.8	168.0	84.2	2.3
70°	648.4	639.2	611.6	560.1	495.2	418.3	334.1	243.5	150.5	69.5	0.0
72.5°	616.2	609.3	582.6	533.8	468.0	393.9	312.5	222.3	131.2	55.2	0.5
75°	584.9	576.2	551.8	505.8	441.3	368.2	288.6	202.5	112.3	42.3	0.5
77.5°	544.4	541.7	518.7	474.0	416.0	343.3	262.3	178.6	94.3	30.4	0.5
80°	503.9	501.2	483.2	442.3	386.6	313.9	237.9	156.0	76.9	20.2	0.5
82.5°	463.9	460.2	443.2	409.1	356.7	289.0	212.6	133.5	60.7	12.4	0.5
85°	428.0	423.4	405.0	373.7	325.8	260.9	186.4	111.4	45.1	6.9	0.9
87.5°	397.2	393.9	373.7	341.5	294.5	234.7	163.4	90.2	31.8	3.2	1.4
90°	370.9	364.0	346.1	312.0	265.1	205.7	139.0	72.3	21.2	1.8	1.8
92.5°	345.2	339.2	319.4	284.4	238.8	180.9	115.5	55.2	13.3	0.9	2.3
95°	318.5	312.0	292.7	260.5	212.2	155.6	94.8	40.5	7.4	0.9	2.3
97.5°	292.2	286.3	266.0	233.8	188.2	133.5	75.0	28.5	3.7	0.9	1.8
100°	267.8	260.9	242.5	210.3	164.3	111.4	58.0	18.4	2.3	0.9	1.8
102.5°	242.1	236.5	217.7	186.4	139.4	90.7	43.3	11.5	0.9	0.9	1.4
105°	219.1	212.2	193.7	161.5	118.7	71.3	30.4	6.9	0.9	0.9	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	142.7	137.1	121.0	93.9	60.3	28.1	8.3	1.4	1.4	1.4	1.4
115°	119.2	110.9	96.6	72.7	44.6	18.4	4.1	1.4	1.4	1.4	1.4
117.5°	95.3	88.4	78.2	55.2	29.5	12.0	2.3	1.4	1.4	1.4	1.4
120°	74.6	68.1	56.6	38.2	19.8	6.9	0.9	1.4	1.4	1.4	1.4
122.5°	53.4	48.3	38.2	24.9	12.0	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.4	32.7	25.3	15.2	7.4	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	23.0	20.7	14.7	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.9	11.5	8.7	5.1	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.4	6.9	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°	361.3	361.3	361.3
2.5°	343.8	337.3	335.5
5°	325.4	314.8	308.8
7.5°	307.0	292.7	285.8
10°	289.9	269.7	262.3
12.5°	269.7	246.2	234.7
15°	250.4	220.0	208.9
17.5°	228.7	194.7	181.8
20°	208.5	169.4	156.0
22.5°	185.5	144.5	129.8
25°	164.8	119.7	103.1
27.5°	141.7	94.3	80.1
30°	120.1	72.3	58.0
32.5°	99.4	52.9	40.0
35°	80.1	35.9	25.3
37.5°	61.7	22.1	12.9
40°	44.6	11.5	6.0
42.5°	29.9	5.5	3.2
45°	18.4	2.8	0.0
47.5°	10.6	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	2.8
87.5°	2.3	2.8	3.2
90°	2.8	3.2	3.2
92.5°	2.8	3.7	3.7
95°	3.2	3.7	4.1
97.5°	3.7	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.8	4.1	4.1
105°	2.3	3.2	3.7



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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°	193.3	187.8	169.4	139.0	97.1	54.3	20.2	3.7	0.9	1.4	1.4
110°	168.4	163.8	145.0	115.5	78.2	40.5	13.3	2.3	1.4	1.4	1.4





107.5°	1.8	2.8	3.2
110°	1.8	2.3	2.8



(END OF REPORT)