

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: P551079

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-81-84-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: P551079
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-40-UNV-81-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

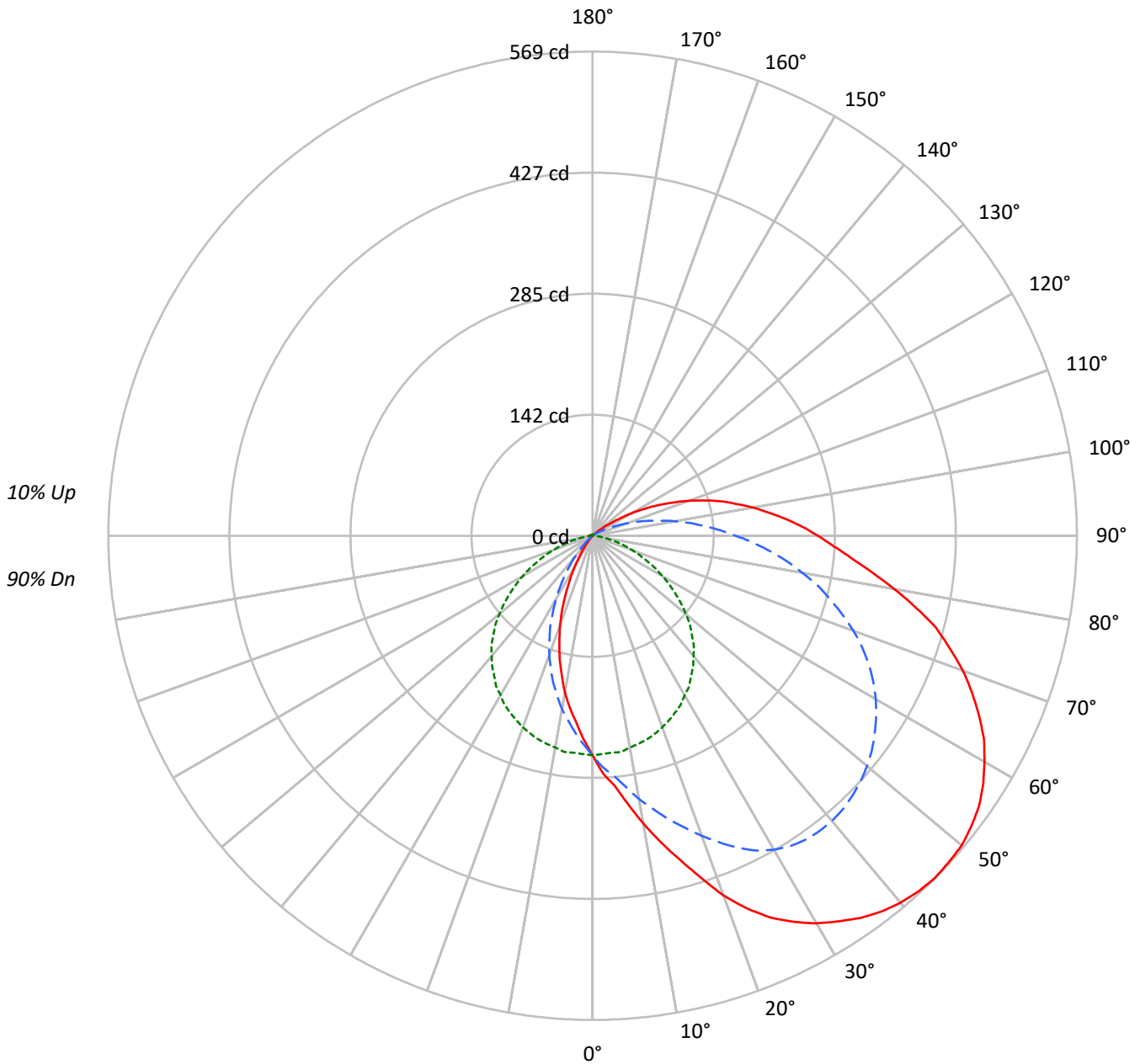
Lumens per Lamp: N/A
Luminaire Lumens: 1275.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2776	2776	2776
5°	3048	2735	2282
10°	3448	2701	1881
15°	3865	2668	1466
20°	4359	2624	1080
25°	4768	2573	709
30°	5073	2506	399
35°	5337	2433	176
40°	5571	2344	43
45°	5771	2231	0
50°	5940	2083	0
55°	6068	1893	0
60°	6133	1674	0
65°	6158	1426	0
70°	6137	1162	0
75°	6060	856	4
80°	5813	526	26
85°	5619	249	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.7	1.9
10°-20°	74.0	5.8
20°-30°	119.8	9.4
30°-40°	153.9	12.1
40°-50°	174.2	13.7
50°-60°	180.5	14.2
60°-70°	170.2	13.3
70°-80°	142.6	11.2
80°-90°	103.4	8.1
90°-100°	67.9	5.3
100°-110°	39.2	3.1
110°-120°	17.3	1.4
120°-130°	4.7	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	218.5	17.1
0°-40°	372.3	29.2
0°-60°	727.0	57.0
0°-90°	1143.2	89.7
90°-120°	124.5	9.8
90°-150°	131.0	10.3
90°-180°	132.0	10.4
0°-180°	1275.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	258	258	258	258	258	
5°	294	283	256	232	220	30
15°	393	345	247	179	149	113
25°	495	405	229	118	74	229
35°	548	436	201	57	18	344
45°	569	432	165	13	0	439
55°	554	405	119	0	0	495
65°	501	358	71	0	0	496
75°	418	289	30	0	0	438
85°	306	209	5	1	2	261
90°	265	168	1	2	2	145
95°	227	131	1	2	3	178
105°	156	68	1	2	3	165
115°	85	22	1	1	2	85
125°	25	3	1	1	1	25
135°	1	1	2	1	1	2
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°	257.9	257.9	257.9	257.9	257.9	257.9	257.9	257.9	257.9	257.9	257.9
2.5°	279.6	279.3	278.3	276.6	274.3	270.4	267.1	264.1	260.2	256.9	250.7
5°	294.4	292.7	291.4	289.8	284.5	280.9	275.0	268.4	262.2	255.9	243.4
7.5°	318.0	315.4	313.4	308.8	301.6	293.4	284.2	277.9	273.7	256.3	234.9
10°	343.3	341.0	337.1	328.9	320.0	308.2	295.0	280.2	267.1	252.6	227.3
12.5°	368.3	365.0	359.4	348.9	336.4	321.6	303.6	286.2	267.4	250.3	218.5
15°	393.3	389.6	383.7	370.9	354.5	335.1	313.1	291.1	269.1	247.4	209.3
17.5°	420.5	415.6	406.7	392.3	371.6	347.6	321.6	295.0	268.4	243.8	199.4
20°	449.8	442.9	433.3	414.0	389.6	361.4	330.2	299.0	268.1	239.5	188.3
22.5°	474.1	467.2	456.7	436.6	407.4	372.9	337.4	301.6	266.8	234.6	177.7
25°	495.1	489.5	478.0	455.0	424.1	385.0	344.3	303.6	264.8	229.3	166.6
27.5°	511.5	506.3	493.5	469.8	438.3	395.9	349.6	304.6	262.2	224.1	155.1
30°	526.0	520.7	505.3	481.0	447.8	404.4	354.8	304.9	258.9	216.2	142.6
32.5°	537.2	532.2	516.5	490.5	454.4	410.3	357.8	304.6	254.6	210.6	129.1
35°	548.3	543.4	525.0	497.4	459.3	413.0	360.1	302.9	249.4	201.4	116.3
37.5°	556.9	551.3	532.6	502.0	461.6	413.6	359.7	300.6	243.8	193.8	103.5
40°	562.8	556.9	536.8	504.6	462.3	412.6	357.1	296.7	237.2	184.3	90.0
42.5°	566.7	560.2	538.8	508.6	460.9	410.0	353.2	291.7	230.0	176.1	77.2
45°	568.7	561.8	539.1	505.3	458.6	405.1	347.3	285.5	222.1	164.9	64.4
47.5°	567.7	560.2	537.5	501.7	454.4	399.8	340.7	277.9	212.6	155.1	52.2
50°	566.1	558.2	533.9	497.1	448.5	393.3	333.5	268.7	202.7	142.9	41.4
52.5°	560.8	552.9	529.9	490.5	441.6	385.7	323.6	259.2	192.2	131.1	31.5
55°	554.2	547.0	523.0	484.6	432.7	376.5	314.4	249.0	182.0	118.9	22.7
57.5°	544.1	537.5	514.5	475.1	423.8	366.3	304.2	237.9	169.2	106.8	15.8
60°	531.6	525.0	502.7	464.2	413.6	354.8	293.1	226.4	157.7	94.6	9.9
62.5°	518.4	512.2	488.9	450.8	400.8	342.7	280.9	214.9	145.5	83.4	5.9
65°	501.0	495.1	474.1	434.7	386.7	329.5	267.4	201.1	133.1	71.0	3.3
67.5°	482.6	477.4	456.0	419.9	370.3	315.1	253.6	187.6	119.9	60.1	1.6
70°	462.9	456.3	436.6	399.8	353.5	298.6	238.5	173.8	107.4	49.6	0.0
72.5°	439.9	435.0	415.9	381.1	334.1	281.2	223.1	158.7	93.6	39.4	0.3
75°	417.6	411.3	393.9	361.1	315.1	262.8	206.0	144.6	80.2	30.2	0.3
77.5°	388.7	386.7	370.3	338.4	297.0	245.1	187.3	127.5	67.4	21.7	0.3
80°	359.7	357.8	345.0	315.7	276.0	224.1	169.9	111.4	54.9	14.5	0.3
82.5°	331.2	328.5	316.4	292.1	254.6	206.3	151.8	95.3	43.4	8.9	0.3
85°	305.5	302.3	289.1	266.8	232.6	186.3	133.1	79.5	32.2	4.9	0.7
87.5°	283.5	281.2	266.8	243.8	210.3	167.6	116.6	64.4	22.7	2.3	1.0
90°	264.8	259.9	247.1	222.7	189.2	146.9	99.2	51.6	15.1	1.3	1.3
92.5°	246.4	242.1	228.0	203.0	170.5	129.1	82.5	39.4	9.5	0.7	1.6
95°	227.3	222.7	208.9	186.0	151.5	111.0	67.7	28.9	5.3	0.7	1.6
97.5°	208.6	204.4	189.9	166.9	134.4	95.3	53.6	20.4	2.6	0.7	1.3
100°	191.2	186.3	173.1	150.1	117.3	79.5	41.4	13.1	1.6	0.7	1.3
102.5°	172.8	168.9	155.4	133.1	99.5	64.7	30.9	8.2	0.7	0.7	1.0
105°	156.4	151.5	138.3	115.3	84.8	50.9	21.7	4.9	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	101.8	97.9	86.4	67.0	43.0	20.0	5.9	1.0	1.0	1.0	1.0
115°	85.1	79.2	69.0	51.9	31.9	13.1	3.0	1.0	1.0	1.0	1.0
117.5°	68.0	63.1	55.9	39.4	21.0	8.5	1.6	1.0	1.0	1.0	1.0
120°	53.2	48.6	40.4	27.3	14.1	4.9	0.7	1.0	1.0	1.0	1.0
122.5°	38.1	34.5	27.3	17.7	8.5	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.3	23.3	18.1	10.8	5.3	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.4	14.8	10.5	6.2	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.2	8.2	6.2	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.3	4.9	3.3	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	257.9	257.9	257.9
2.5°	245.4	240.8	239.5
5°	232.3	224.7	220.4
7.5°	219.1	208.9	204.0
10°	207.0	192.5	187.3
12.5°	192.5	175.8	167.6
15°	178.7	157.0	149.2
17.5°	163.3	139.0	129.8
20°	148.8	120.9	111.4
22.5°	132.4	103.2	92.6
25°	117.6	85.4	73.6
27.5°	101.2	67.4	57.2
30°	85.7	51.6	41.4
32.5°	71.0	37.8	28.6
35°	57.2	25.6	18.1
37.5°	44.0	15.8	9.2
40°	31.9	8.2	4.3
42.5°	21.4	3.9	2.3
45°	13.1	2.0	0.0
47.5°	7.6	0.0	0.0
50°	3.9	0.0	0.0
52.5°	1.6	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°	0.3	0.3	0.3
77.5°	0.3	0.7	1.0
80°	0.7	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	2.0
87.5°	1.6	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.6	2.6
95°	2.3	2.6	3.0
97.5°	2.6	3.0	3.0
100°	2.3	3.0	3.3
102.5°	2.0	3.0	3.0
105°	1.6	2.3	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	138.0	134.0	120.9	99.2	69.3	38.8	14.5	2.6	0.7	1.0	1.0
110°	120.2	117.0	103.5	82.5	55.9	28.9	9.5	1.6	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.6	2.0



(END OF REPORT)