

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: P551635

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-93-96-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: P551635
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-93-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

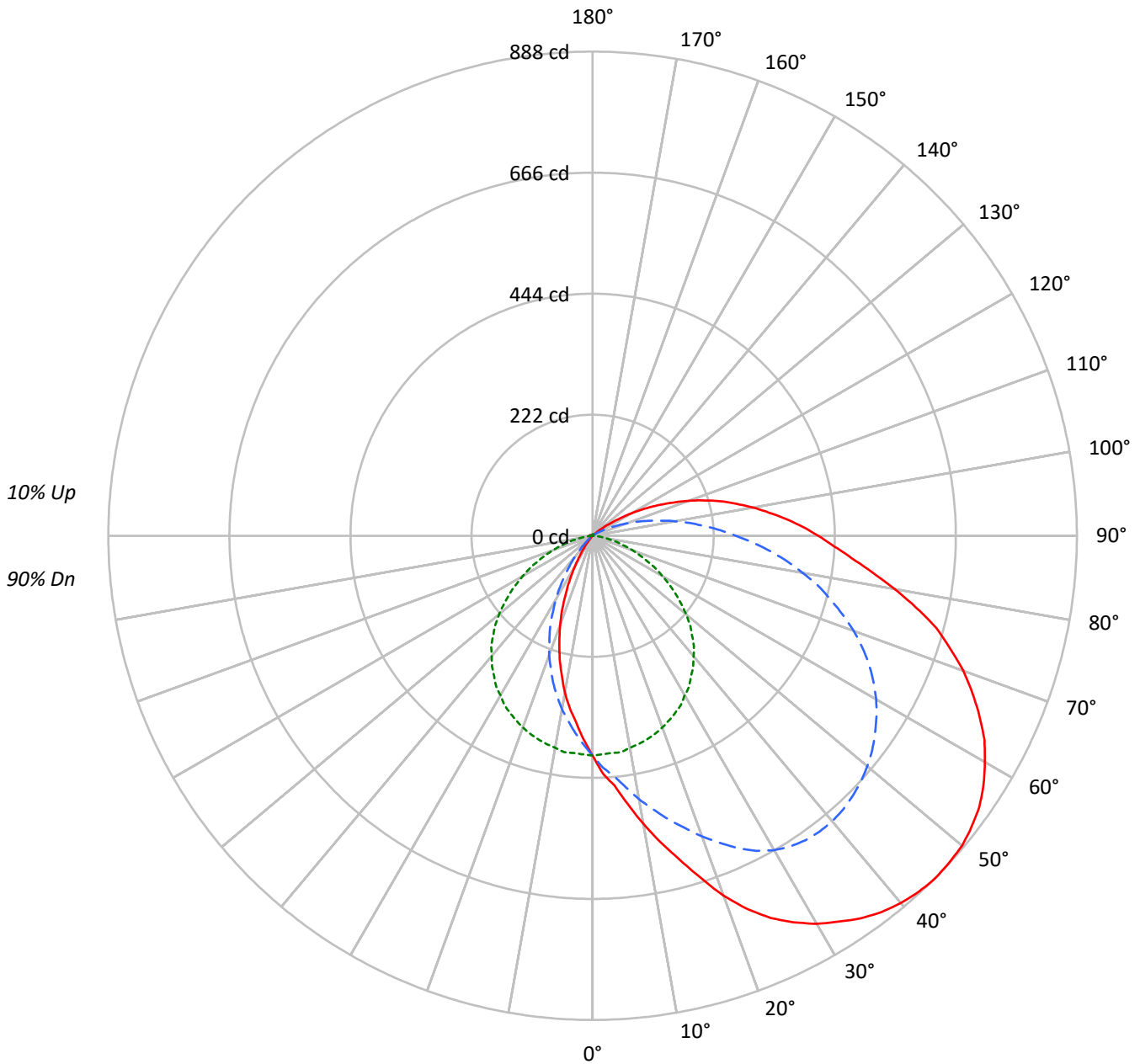
Lumens per Lamp: N/A
Luminaire Lumens: 1992.0 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P551635

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-96-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°	4337	4337	4337
5°	4761	4274	3565
10°	5388	4221	2939
15°	6038	4167	2290
20°	6810	4100	1686
25°	7450	4021	1108
30°	7926	3915	624
35°	8338	3801	274
40°	8704	3663	66
45°	9017	3487	0
50°	9280	3254	0
55°	9480	2959	0
60°	9581	2616	0
65°	9621	2227	0
70°	9588	1816	0
75°	9467	1339	7
80°	9084	820	42
85°	8780	392	57



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	1.9
10°-20°	115.6	5.8
20°-30°	187.1	9.4
30°-40°	240.4	12.1
40°-50°	272.1	13.7
50°-60°	281.9	14.2
60°-70°	265.9	13.3
70°-80°	222.8	11.2
80°-90°	161.5	8.1
90°-100°	106.2	5.3
100°-110°	61.3	3.1
110°-120°	27.0	1.4
120°-130°	7.3	0.4
130°-140°	1.7	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°	341.3	17.1
0°-40°	581.7	29.2
0°-60°	1135.8	57.0
0°-90°	1786.0	89.7
90°-120°	194.5	9.8
90°-150°	204.6	10.3
90°-180°	206.0	10.3
0°-180°	1992.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	403	403	403	403	403	
5°	460	442	400	363	344	46
15°	614	539	386	279	233	177
25°	774	632	358	184	115	358
35°	857	681	315	89	28	537
45°	888	675	258	20	0	686
55°	866	632	186	0	0	773
65°	783	559	111	0	0	774
75°	652	451	47	0	0	684
85°	477	327	8	2	3	408
90°	414	263	2	3	4	227
95°	355	205	1	4	5	279
105°	244	106	1	3	4	258
115°	133	35	2	2	3	133
125°	40	5	2	2	2	39
135°	2	2	3	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	3	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°	402.9	402.9	402.9	402.9	402.9	402.9	402.9	402.9	402.9	402.9	402.9
2.5°	436.8	436.3	434.8	432.2	428.6	422.4	417.3	412.7	406.5	401.4	391.6
5°	459.9	457.3	455.3	452.7	444.5	438.9	429.6	419.4	409.6	399.9	380.3
7.5°	496.9	492.8	489.7	482.5	471.2	458.4	444.0	434.2	427.6	400.4	367.0
10°	536.4	532.8	526.6	513.8	499.9	481.5	460.9	437.8	417.3	394.7	355.2
12.5°	575.4	570.3	561.5	545.1	525.6	502.5	474.3	447.1	417.8	391.1	341.3
15°	614.4	608.8	599.5	579.5	553.8	523.6	489.2	454.8	420.4	386.5	327.0
17.5°	657.0	649.3	635.5	612.9	580.5	543.1	502.5	460.9	419.4	380.9	311.6
20°	702.7	691.9	677.0	646.7	608.8	564.6	515.9	467.1	418.8	374.2	294.1
22.5°	740.7	729.9	713.5	682.2	636.5	582.6	527.2	471.2	416.8	366.5	277.7
25°	773.5	764.8	746.8	710.9	662.7	601.6	537.9	474.3	413.7	358.3	260.2
27.5°	799.2	791.0	771.0	734.0	684.7	618.5	546.1	475.8	409.6	350.1	242.3
30°	821.8	813.6	789.4	751.5	699.6	631.9	554.4	476.3	404.5	337.7	222.8
32.5°	839.2	831.5	806.9	766.3	709.9	641.1	559.0	475.8	397.8	329.0	201.7
35°	856.7	849.0	820.2	777.1	717.6	645.2	562.6	473.3	389.6	314.6	181.7
37.5°	870.0	861.3	832.0	784.3	721.2	646.2	562.1	469.7	380.9	302.8	161.7
40°	879.3	870.0	838.7	788.4	722.2	644.7	557.9	463.5	370.6	288.0	140.6
42.5°	885.4	875.2	841.8	794.6	720.1	640.6	551.8	455.8	359.3	275.1	120.6
45°	888.5	877.7	842.3	789.4	716.6	632.9	542.5	446.1	347.0	257.7	100.6
47.5°	887.0	875.2	839.7	783.8	709.9	624.7	532.3	434.2	332.1	242.3	81.6
50°	884.4	872.1	834.1	776.6	700.6	614.4	521.0	419.9	316.7	223.3	64.7
52.5°	876.2	863.9	827.9	766.3	689.9	602.6	505.6	405.0	300.3	204.8	49.3
55°	865.9	854.6	817.2	757.1	676.0	588.2	491.2	389.1	284.4	185.8	35.4
57.5°	850.0	839.7	803.8	742.2	662.1	572.3	475.3	371.6	264.3	166.8	24.6
60°	830.5	820.2	785.3	725.3	646.2	554.4	457.9	353.7	246.4	147.8	15.4
62.5°	810.0	800.2	763.8	704.2	626.2	535.4	438.9	335.7	227.4	130.4	9.2
65°	782.8	773.5	740.7	679.1	604.1	514.8	417.8	314.1	207.9	110.9	5.1
67.5°	754.0	745.8	712.4	656.0	578.5	492.2	396.3	293.1	187.4	93.9	2.6
70°	723.2	713.0	682.2	624.7	552.3	466.6	372.6	271.5	167.8	77.5	0.0
72.5°	687.3	679.6	649.8	595.4	522.0	439.4	348.5	247.9	146.3	61.6	0.5
75°	652.4	642.6	615.4	564.1	492.2	410.6	321.8	225.8	125.2	47.2	0.5
77.5°	607.2	604.1	578.5	528.7	464.0	382.9	292.6	199.2	105.2	33.9	0.5
80°	562.1	559.0	539.0	493.3	431.2	350.1	265.4	174.0	85.7	22.6	0.5
82.5°	517.4	513.3	494.3	456.3	397.8	322.3	237.1	148.9	67.8	13.9	0.5
85°	477.4	472.2	451.7	416.8	363.4	291.0	207.9	124.2	50.3	7.7	1.0
87.5°	443.0	439.4	416.8	380.9	328.5	261.8	182.2	100.6	35.4	3.6	1.5
90°	413.7	406.0	386.0	348.0	295.7	229.4	155.0	80.6	23.6	2.1	2.1
92.5°	385.0	378.3	356.2	317.2	266.4	201.7	128.8	61.6	14.9	1.0	2.6
95°	355.2	348.0	326.5	290.5	236.6	173.5	105.7	45.2	8.2	1.0	2.6
97.5°	325.9	319.3	296.7	260.8	209.9	148.9	83.7	31.8	4.1	1.0	2.1
100°	298.7	291.0	270.5	234.6	183.2	124.2	64.7	20.5	2.6	1.0	2.1
102.5°	270.0	263.8	242.8	207.9	155.5	101.1	48.2	12.8	1.0	1.0	1.5
105°	244.3	236.6	216.1	180.2	132.4	79.6	33.9	7.7	1.0	1.0	1.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	159.1	153.0	135.0	104.7	67.2	31.3	9.2	1.5	1.5	1.5	1.5
115°	132.9	123.7	107.8	81.1	49.8	20.5	4.6	1.5	1.5	1.5	1.5
117.5°	106.3	98.6	87.3	61.6	32.9	13.3	2.6	1.5	1.5	1.5	1.5
120°	83.2	76.0	63.1	42.6	22.1	7.7	1.0	1.5	1.5	1.5	1.5
122.5°	59.5	53.9	42.6	27.7	13.3	3.6	1.5	1.5	2.1	2.1	1.5
125°	39.5	36.4	28.2	16.9	8.2	1.5	1.5	1.5	2.1	2.1	1.5
127.5°	25.7	23.1	16.4	9.8	3.6	1.5	1.5	2.1	2.1	2.1	1.5
130°	14.4	12.8	9.8	5.6	1.5	1.5	1.5	2.1	2.1	2.1	1.5
132.5°	8.2	7.7	5.1	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1
135°	2.1	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1	2.1
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.1
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°	402.9	402.9	402.9
2.5°	383.4	376.2	374.2
5°	362.9	351.1	344.4
7.5°	342.4	326.5	318.8
10°	323.4	300.8	292.6
12.5°	300.8	274.6	261.8
15°	279.2	245.4	233.0
17.5°	255.1	217.1	202.8
20°	232.5	188.9	174.0
22.5°	206.9	161.2	144.7
25°	183.8	133.5	115.0
27.5°	158.1	105.2	89.3
30°	134.0	80.6	64.7
32.5°	110.9	59.0	44.7
35°	89.3	40.0	28.2
37.5°	68.8	24.6	14.4
40°	49.8	12.8	6.7
42.5°	33.4	6.2	3.6
45°	20.5	3.1	0.0
47.5°	11.8	0.0	0.0
50°	6.2	0.0	0.0
52.5°	2.6	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.1
87.5°	2.6	3.1	3.6
90°	3.1	3.6	3.6
92.5°	3.1	4.1	4.1
95°	3.6	4.1	4.6
97.5°	4.1	4.6	4.6
100°	3.6	4.6	5.1
102.5°	3.1	4.6	4.6
105°	2.6	3.6	4.1



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.5	2.1	2.6
117.5°	1.5	2.1	2.1
120°	1.5	1.5	2.1
122.5°	1.5	1.5	2.1
125°	1.5	1.5	2.1
127.5°	2.1	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.1	1.5	1.5
135°	2.1	1.5	1.5
137.5°	2.1	1.5	1.5
140°	2.1	1.5	1.5
142.5°	2.1	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°	2.1	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°	215.6	209.4	188.9	155.0	108.3	60.6	22.6	4.1	1.0	1.5	1.5
110°	187.9	182.7	161.7	128.8	87.3	45.2	14.9	2.6	1.5	1.5	1.5





107.5°	2.1	3.1	3.6
110°	2.1	2.6	3.1



(END OF REPORT)