

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: P551502

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-93-87-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: P551502
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-30-UNV-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

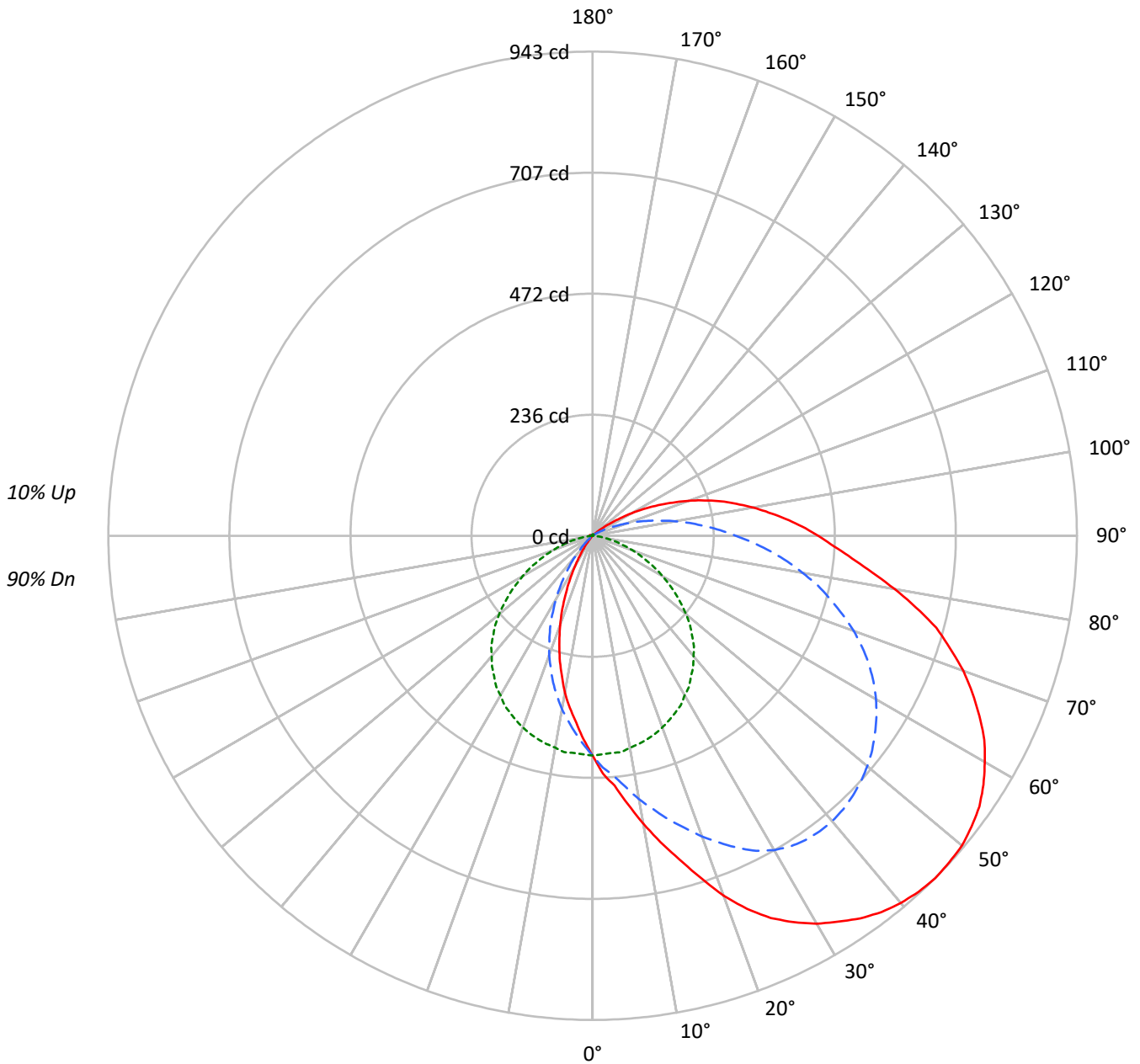
Lumens per Lamp: N/A
Luminaire Lumens: 2114.9 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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: P551502

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-87-ED1D

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°	4605	4605	4605
5°	5055	4537	3786
10°	5720	4482	3120
15°	6410	4425	2431
20°	7231	4353	1791
25°	7910	4269	1176
30°	8415	4157	663
35°	8853	4037	292
40°	9241	3888	70
45°	9574	3702	0
50°	9853	3456	0
55°	10066	3142	0
60°	10173	2778	0
65°	10215	2364	0
70°	10181	1928	0
75°	10052	1421	7
80°	9645	871	44
85°	9321	417	61



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	1.9
10°-20°	122.7	5.8
20°-30°	198.7	9.4
30°-40°	255.2	12.1
40°-50°	288.9	13.7
50°-60°	299.3	14.2
60°-70°	282.3	13.3
70°-80°	236.6	11.2
80°-90°	171.5	8.1
90°-100°	112.7	5.3
100°-110°	65.1	3.1
110°-120°	28.7	1.4
120°-130°	7.8	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	362.4	17.1
0°-40°	617.6	29.2
0°-60°	1205.9	57.0
0°-90°	1896.3	89.7
90°-120°	206.5	9.8
90°-150°	217.2	10.3
90°-180°	219.0	10.4
0°-180°	2114.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	428	428	428	428	428	
5°	488	469	424	385	366	49
15°	652	572	410	296	247	188
25°	821	671	380	195	122	380
35°	910	723	334	95	30	570
45°	943	716	274	22	0	728
55°	919	671	197	0	0	821
65°	831	594	118	0	0	822
75°	693	479	50	0	0	727
85°	507	347	8	2	3	433
90°	439	279	2	3	4	241
95°	377	218	1	4	5	296
105°	259	113	1	3	4	274
115°	141	37	2	2	3	141
125°	42	5	2	2	2	42
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°	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8
2.5°	463.8	463.2	461.6	458.9	455.1	448.5	443.1	438.2	431.6	426.2	415.8
5°	488.3	485.6	483.4	480.7	472.0	466.0	456.2	445.3	434.9	424.5	403.8
7.5°	527.5	523.2	519.9	512.3	500.3	486.7	471.4	461.1	454.0	425.1	389.7
10°	569.5	565.7	559.2	545.5	530.8	511.2	489.4	464.9	443.1	419.1	377.1
12.5°	610.9	605.5	596.2	578.8	558.1	533.5	503.6	474.7	443.6	415.3	362.4
15°	652.3	646.4	636.5	615.3	588.0	555.9	519.4	482.9	446.3	410.4	347.2
17.5°	697.6	689.4	674.7	650.7	616.4	576.6	533.5	489.4	445.3	404.4	330.8
20°	746.1	734.6	718.8	686.7	646.4	599.5	547.7	495.9	444.7	397.3	312.3
22.5°	786.4	775.0	757.5	724.3	675.8	618.6	559.7	500.3	442.5	389.1	294.8
25°	821.3	812.0	793.0	754.8	703.6	638.7	571.1	503.6	439.3	380.4	276.3
27.5°	848.5	839.8	818.6	779.3	727.0	656.7	579.9	505.2	434.9	371.7	257.2
30°	872.5	863.8	838.2	797.9	742.8	670.9	588.6	505.7	429.4	358.6	236.5
32.5°	891.1	882.9	856.7	813.7	753.7	680.7	593.5	505.2	422.4	349.3	214.2
35°	909.6	901.4	870.9	825.1	761.9	685.0	597.3	502.5	413.6	334.1	192.9
37.5°	923.8	914.5	883.4	832.7	765.7	686.1	596.8	498.7	404.4	321.5	171.7
40°	933.6	923.8	890.5	837.1	766.8	684.5	592.4	492.1	393.5	305.7	149.3
42.5°	940.1	929.2	893.8	843.6	764.6	680.1	585.9	483.9	381.5	292.1	128.1
45°	943.4	931.9	894.3	838.2	760.8	672.0	576.0	473.6	368.4	273.6	106.8
47.5°	941.7	929.2	891.6	832.2	753.7	663.2	565.2	461.1	352.6	257.2	86.7
50°	939.0	925.9	885.6	824.6	743.9	652.3	553.2	445.8	336.3	237.1	68.7
52.5°	930.3	917.2	879.1	813.7	732.5	639.8	536.8	430.0	318.8	217.4	52.3
55°	919.4	907.4	867.6	803.9	717.7	624.6	521.6	413.1	301.9	197.3	37.6
57.5°	902.5	891.6	853.4	788.0	703.0	607.7	504.7	394.6	280.7	177.1	26.2
60°	881.8	870.9	833.8	770.1	686.1	588.6	486.1	375.5	261.6	157.0	16.3
62.5°	860.0	849.6	810.9	747.7	664.9	568.4	466.0	356.4	241.4	138.4	9.8
65°	831.1	821.3	786.4	721.0	641.4	546.6	443.6	333.5	220.7	117.7	5.4
67.5°	800.6	791.9	756.4	696.5	614.2	522.6	420.7	311.2	198.9	99.7	2.7
70°	767.9	757.0	724.3	663.2	586.4	495.4	395.7	288.3	178.2	82.3	0.0
72.5°	729.7	721.6	690.0	632.2	554.3	466.5	370.0	263.2	155.3	65.4	0.5
75°	692.7	682.3	653.4	598.9	522.6	436.0	341.7	239.8	133.0	50.1	0.5
77.5°	644.7	641.4	614.2	561.3	492.7	406.6	310.6	211.5	111.7	36.0	0.5
80°	596.8	593.5	572.2	523.7	457.8	371.7	281.8	184.8	91.0	24.0	0.5
82.5°	549.3	545.0	524.8	484.5	422.4	342.3	251.8	158.0	71.9	14.7	0.5
85°	506.8	501.4	479.6	442.5	385.8	309.0	220.7	131.9	53.4	8.2	1.1
87.5°	470.3	466.5	442.5	404.4	348.8	277.9	193.5	106.8	37.6	3.8	1.6
90°	439.3	431.1	409.8	369.5	313.9	243.6	164.6	85.6	25.1	2.2	2.2
92.5°	408.7	401.7	378.2	336.8	282.8	214.2	136.8	65.4	15.8	1.1	2.7
95°	377.1	369.5	346.6	308.5	251.2	184.2	112.3	48.0	8.7	1.1	2.7
97.5°	346.1	339.0	315.0	276.9	222.9	158.0	88.8	33.8	4.4	1.1	2.2
100°	317.2	309.0	287.2	249.1	194.6	131.9	68.7	21.8	2.7	1.1	2.2
102.5°	286.7	280.1	257.8	220.7	165.1	107.4	51.2	13.6	1.1	1.1	1.6
105°	259.4	251.2	229.4	191.3	140.6	84.5	36.0	8.2	1.1	1.1	1.6



TEST NUMBER: P551502

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	168.9	162.4	143.3	111.2	71.4	33.2	9.8	1.6	1.6	1.6	1.6
115°	141.2	131.3	114.4	86.1	52.9	21.8	4.9	1.6	1.6	1.6	1.6
117.5°	112.8	104.6	92.6	65.4	34.9	14.2	2.7	1.6	1.6	1.6	1.6
120°	88.3	80.7	67.0	45.2	23.4	8.2	1.1	1.6	1.6	1.6	1.6
122.5°	63.2	57.2	45.2	29.4	14.2	3.8	1.6	1.6	2.2	2.2	1.6
125°	42.0	38.7	30.0	18.0	8.7	1.6	1.6	1.6	2.2	2.2	1.6
127.5°	27.2	24.5	17.4	10.4	3.8	1.6	1.6	2.2	2.2	2.2	1.6
130°	15.3	13.6	10.4	6.0	1.6	1.6	1.6	2.2	2.2	2.2	1.6
132.5°	8.7	8.2	5.4	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.2	2.7	2.7	2.7	2.2
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.2
142.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
145°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
150°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
152.5°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
157.5°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.2
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



TEST NUMBER: P551502

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	427.8	427.8	427.8
2.5°	407.1	399.5	397.3
5°	385.3	372.8	365.7
7.5°	363.5	346.6	338.4
10°	343.3	319.4	310.6
12.5°	319.4	291.6	277.9
15°	296.5	260.5	247.4
17.5°	270.9	230.5	215.3
20°	246.9	200.6	184.8
22.5°	219.6	171.1	153.7
25°	195.1	141.7	122.1
27.5°	167.9	111.7	94.8
30°	142.2	85.6	68.7
32.5°	117.7	62.7	47.4
35°	94.8	42.5	30.0
37.5°	73.0	26.2	15.3
40°	52.9	13.6	7.1
42.5°	35.4	6.5	3.8
45°	21.8	3.3	0.0
47.5°	12.5	0.0	0.0
50°	6.5	0.0	0.0
52.5°	2.7	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	1.1	1.6
80°	1.1	2.2	2.7
82.5°	2.2	2.7	2.7
85°	2.2	2.7	3.3
87.5°	2.7	3.3	3.8
90°	3.3	3.8	3.8
92.5°	3.3	4.4	4.4
95°	3.8	4.4	4.9
97.5°	4.4	4.9	4.9
100°	3.8	4.9	5.4
102.5°	3.3	4.9	4.9
105°	2.7	3.8	4.4



TEST NUMBER: P551502

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.2	2.7	2.7
115°	1.6	2.2	2.7
117.5°	1.6	2.2	2.2
120°	1.6	1.6	2.2
122.5°	1.6	1.6	2.2
125°	1.6	1.6	2.2
127.5°	2.2	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.2	1.6	1.6
135°	2.2	1.6	1.6
137.5°	2.2	1.6	1.6
140°	2.2	1.6	1.6
142.5°	2.2	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.2	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	228.9	222.4	200.6	164.6	115.0	64.3	24.0	4.4	1.1	1.6	1.6
110°	199.5	194.0	171.7	136.8	92.6	48.0	15.8	2.7	1.6	1.6	1.6





107.5°	2.2	3.3	3.8
110°	2.2	2.7	3.3



(END OF REPORT)