

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: P551624

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-93-84-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: P551624
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-93-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

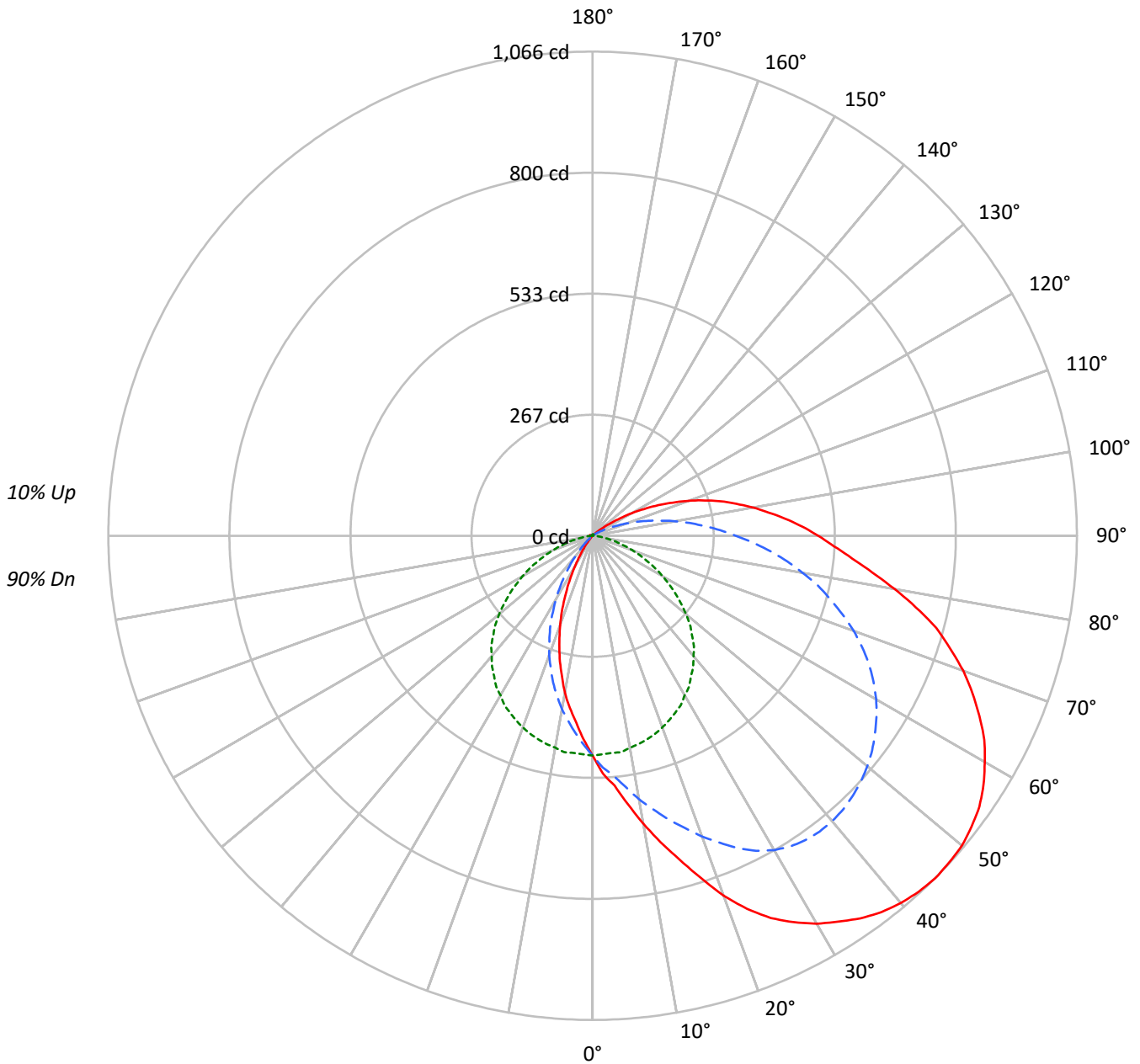
Lumens per Lamp: N/A
Luminaire Lumens: 2390.9 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551624

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-84-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5205	5205	5205
5°	5714	5129	4280
10°	6467	5067	3528
15°	7247	5002	2749
20°	8173	4920	2024
25°	8943	4826	1329
30°	9514	4700	748
35°	10008	4564	330
40°	10447	4395	79
45°	10823	4185	0
50°	11138	3906	0
55°	11380	3551	0
60°	11501	3139	0
65°	11548	2673	0
70°	11509	2179	0
75°	11363	1608	9
80°	10902	983	50
85°	10539	468	68



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.3	1.9
10°-20°	138.7	5.8
20°-30°	224.6	9.4
30°-40°	288.6	12.1
40°-50°	326.6	13.7
50°-60°	338.4	14.2
60°-70°	319.2	13.3
70°-80°	267.5	11.2
80°-90°	193.9	8.1
90°-100°	127.4	5.3
100°-110°	73.6	3.1
110°-120°	32.5	1.4
120°-130°	8.8	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	409.7	17.1
0°-40°	698.2	29.2
0°-60°	1363.3	57.0
0°-90°	2143.7	89.7
90°-120°	233.4	9.8
90°-150°	245.5	10.3
90°-180°	247.0	10.3
0°-180°	2390.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	484	484	484	484	484	
5°	552	530	480	436	413	56
15°	738	647	464	335	280	213
25°	928	759	430	221	138	429
35°	1028	818	378	107	34	645
45°	1066	810	309	25	0	823
55°	1039	759	223	0	0	928
65°	940	672	133	0	0	930
75°	783	542	57	1	1	821
85°	573	393	9	2	4	489
90°	497	315	2	4	4	272
95°	426	246	1	4	6	334
105°	293	127	1	3	5	309
115°	160	42	2	2	3	160
125°	47	6	2	2	2	47
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	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°	483.6	483.6	483.6	483.6	483.6	483.6	483.6	483.6	483.6	483.6	483.6
2.5°	524.3	523.7	521.8	518.8	514.4	507.1	500.9	495.3	488.0	481.8	470.1
5°	552.0	548.9	546.5	543.4	533.5	526.8	515.7	503.4	491.7	479.9	456.5
7.5°	596.4	591.5	587.8	579.1	565.6	550.2	532.9	521.2	513.2	480.6	440.5
10°	643.8	639.5	632.1	616.7	600.1	577.9	553.3	525.5	500.9	473.8	426.3
12.5°	690.7	684.5	674.0	654.3	630.9	603.2	569.3	536.6	501.5	469.5	409.7
15°	737.5	730.7	719.6	695.6	664.8	628.4	587.1	545.9	504.6	463.9	392.5
17.5°	788.6	779.4	762.7	735.6	696.8	651.8	603.2	553.3	503.4	457.1	374.0
20°	843.4	830.5	812.6	776.3	730.7	677.7	619.2	560.7	502.7	449.1	353.0
22.5°	889.0	876.1	856.4	818.8	764.0	699.3	632.7	565.6	500.3	439.9	333.3
25°	928.5	918.0	896.4	853.3	795.4	722.1	645.7	569.3	496.6	430.0	312.4
27.5°	959.3	949.4	925.4	881.0	821.9	742.4	655.5	571.1	491.7	420.2	290.8
30°	986.4	976.5	947.6	902.0	839.8	758.4	665.4	571.7	485.5	405.4	267.4
32.5°	1007.3	998.1	968.5	919.8	852.1	769.5	670.9	571.1	477.5	394.9	242.1
35°	1028.3	1019.0	984.5	932.8	861.3	774.4	675.3	568.0	467.6	377.7	218.1
37.5°	1044.3	1033.8	998.7	941.4	865.6	775.7	674.6	563.7	457.1	363.5	194.1
40°	1055.4	1044.3	1006.7	946.3	866.9	773.8	669.7	556.3	444.8	345.6	168.8
42.5°	1062.8	1050.5	1010.4	953.7	864.4	768.9	662.3	547.1	431.3	330.2	144.8
45°	1066.5	1053.5	1011.0	947.6	860.1	759.7	651.2	535.4	416.5	309.3	120.8
47.5°	1064.6	1050.5	1007.9	940.8	852.1	749.8	638.9	521.2	398.6	290.8	98.0
50°	1061.5	1046.8	1001.2	932.2	841.0	737.5	625.3	504.0	380.1	268.0	77.6
52.5°	1051.7	1036.9	993.8	919.8	828.0	723.3	606.9	486.1	360.4	245.8	59.1
55°	1039.4	1025.8	980.8	908.8	811.4	706.1	589.6	467.0	341.3	223.0	42.5
57.5°	1020.3	1007.9	964.8	890.9	794.8	687.0	570.5	446.1	317.3	200.2	29.6
60°	996.9	984.5	942.6	870.6	775.7	665.4	549.6	424.5	295.7	177.4	18.5
62.5°	972.2	960.5	916.8	845.3	751.6	642.6	526.8	402.9	272.9	156.5	11.1
65°	939.6	928.5	889.0	815.1	725.2	618.0	501.5	377.1	249.5	133.1	6.2
67.5°	905.1	895.2	855.2	787.4	694.3	590.8	475.6	351.8	224.9	112.7	3.1
70°	868.1	855.8	818.8	749.8	662.9	560.0	447.3	325.9	201.5	93.0	0.0
72.5°	825.0	815.7	780.0	714.7	626.6	527.4	418.3	297.6	175.6	73.9	0.6
75°	783.1	771.4	738.7	677.1	590.8	492.9	386.3	271.1	150.3	56.7	0.6
77.5°	728.9	725.2	694.3	634.6	557.0	459.6	351.2	239.0	126.3	40.7	0.6
80°	674.6	670.9	646.9	592.1	517.5	420.2	318.5	208.9	102.9	27.1	0.6
82.5°	621.0	616.1	593.3	547.7	477.5	386.9	284.6	178.7	81.3	16.6	0.6
85°	573.0	566.8	542.2	500.3	436.2	349.3	249.5	149.1	60.4	9.2	1.2
87.5°	531.7	527.4	500.3	457.1	394.3	314.2	218.7	120.8	42.5	4.3	1.8
90°	496.6	487.3	463.3	417.7	354.9	275.4	186.1	96.7	28.3	2.5	2.5
92.5°	462.1	454.1	427.6	380.8	319.8	242.1	154.6	73.9	17.9	1.2	3.1
95°	426.3	417.7	391.8	348.7	284.0	208.2	126.9	54.2	9.9	1.2	3.1
97.5°	391.2	383.2	356.1	313.0	252.0	178.7	100.4	38.2	4.9	1.2	2.5
100°	358.6	349.3	324.7	281.6	219.9	149.1	77.6	24.6	3.1	1.2	2.5
102.5°	324.1	316.7	291.4	249.5	186.7	121.4	57.9	15.4	1.2	1.2	1.8
105°	293.3	284.0	259.4	216.3	159.0	95.5	40.7	9.2	1.2	1.2	1.8



TEST NUMBER: P551624

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	191.0	183.6	162.0	125.7	80.7	37.6	11.1	1.8	1.8	1.8	1.8
115°	159.6	148.5	129.4	97.3	59.8	24.6	5.5	1.8	1.8	1.8	1.8
117.5°	127.5	118.3	104.7	73.9	39.4	16.0	3.1	1.8	1.8	1.8	1.8
120°	99.8	91.2	75.8	51.1	26.5	9.2	1.2	1.8	1.8	1.8	1.8
122.5°	71.5	64.7	51.1	33.3	16.0	4.3	1.8	1.8	2.5	2.5	1.8
125°	47.4	43.7	33.9	20.3	9.9	1.8	1.8	1.8	2.5	2.5	1.8
127.5°	30.8	27.7	19.7	11.7	4.3	1.8	1.8	2.5	2.5	2.5	1.8
130°	17.3	15.4	11.7	6.8	1.8	1.8	1.8	2.5	2.5	2.5	1.8
132.5°	9.9	9.2	6.2	1.2	1.8	1.8	1.8	2.5	2.5	2.5	2.5
135°	2.5	1.2	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	2.5
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.5	3.1	3.1	3.1	2.5
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.5	3.1	3.1	3.1	2.5
142.5°	0.6	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	2.5	2.5
145°	0.6	1.2	1.2	1.8	1.8	2.5	2.5	3.1	2.5	2.5	2.5
147.5°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	2.5	2.5
150°	0.6	1.2	1.2	1.8	2.5	2.5	2.5	3.1	2.5	2.5	2.5
152.5°	0.6	1.2	1.2	1.8	2.5	2.5	2.5	3.1	2.5	2.5	2.5
155°	1.2	1.2	1.2	1.8	2.5	2.5	2.5	3.1	2.5	2.5	3.1
157.5°	1.2	1.2	1.2	1.8	2.5	2.5	2.5	3.1	2.5	2.5	3.1
160°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	2.5	2.5	2.5	2.5
162.5°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	2.5	2.5	2.5	2.5
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.5	2.5	2.5	2.5	2.5
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.5	2.5	2.5	2.5	2.5
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.5	3.1	3.1	3.1	3.1
172.5°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	3.1	3.1
175°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	3.1	3.1
177.5°	0.6	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	3.1	2.5
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



TEST NUMBER: P551624

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	483.6	483.6	483.6
2.5°	460.2	451.6	449.1
5°	435.6	421.4	413.4
7.5°	410.9	391.8	382.6
10°	388.1	361.0	351.2
12.5°	361.0	329.6	314.2
15°	335.2	294.5	279.7
17.5°	306.2	260.6	243.4
20°	279.1	226.7	208.9
22.5°	248.3	193.5	173.7
25°	220.6	160.2	138.0
27.5°	189.8	126.3	107.2
30°	160.8	96.7	77.6
32.5°	133.1	70.9	53.6
35°	107.2	48.1	33.9
37.5°	82.6	29.6	17.3
40°	59.8	15.4	8.0
42.5°	40.0	7.4	4.3
45°	24.6	3.7	0.0
47.5°	14.2	0.0	0.0
50°	7.4	0.0	0.0
52.5°	3.1	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.8
80°	1.2	2.5	3.1
82.5°	2.5	3.1	3.1
85°	2.5	3.1	3.7
87.5°	3.1	3.7	4.3
90°	3.7	4.3	4.3
92.5°	3.7	4.9	4.9
95°	4.3	4.9	5.5
97.5°	4.9	5.5	5.5
100°	4.3	5.5	6.2
102.5°	3.7	5.5	5.5
105°	3.1	4.3	4.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.5	3.1	3.1
115°	1.8	2.5	3.1
117.5°	1.8	2.5	2.5
120°	1.8	1.8	2.5
122.5°	1.8	1.8	2.5
125°	1.8	1.8	2.5
127.5°	2.5	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.5	1.8	1.8
135°	2.5	1.8	1.8
137.5°	2.5	1.8	1.8
140°	2.5	1.8	1.8
142.5°	2.5	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.5	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	258.8	251.4	226.7	186.1	130.0	72.7	27.1	4.9	1.2	1.8	1.8
110°	225.5	219.3	194.1	154.6	104.7	54.2	17.9	3.1	1.8	1.8	1.8





107.5°	2.5	3.7	4.3
110°	2.5	3.1	3.7



(END OF REPORT)