

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: P551607

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-82-84-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: P551607
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-82-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 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

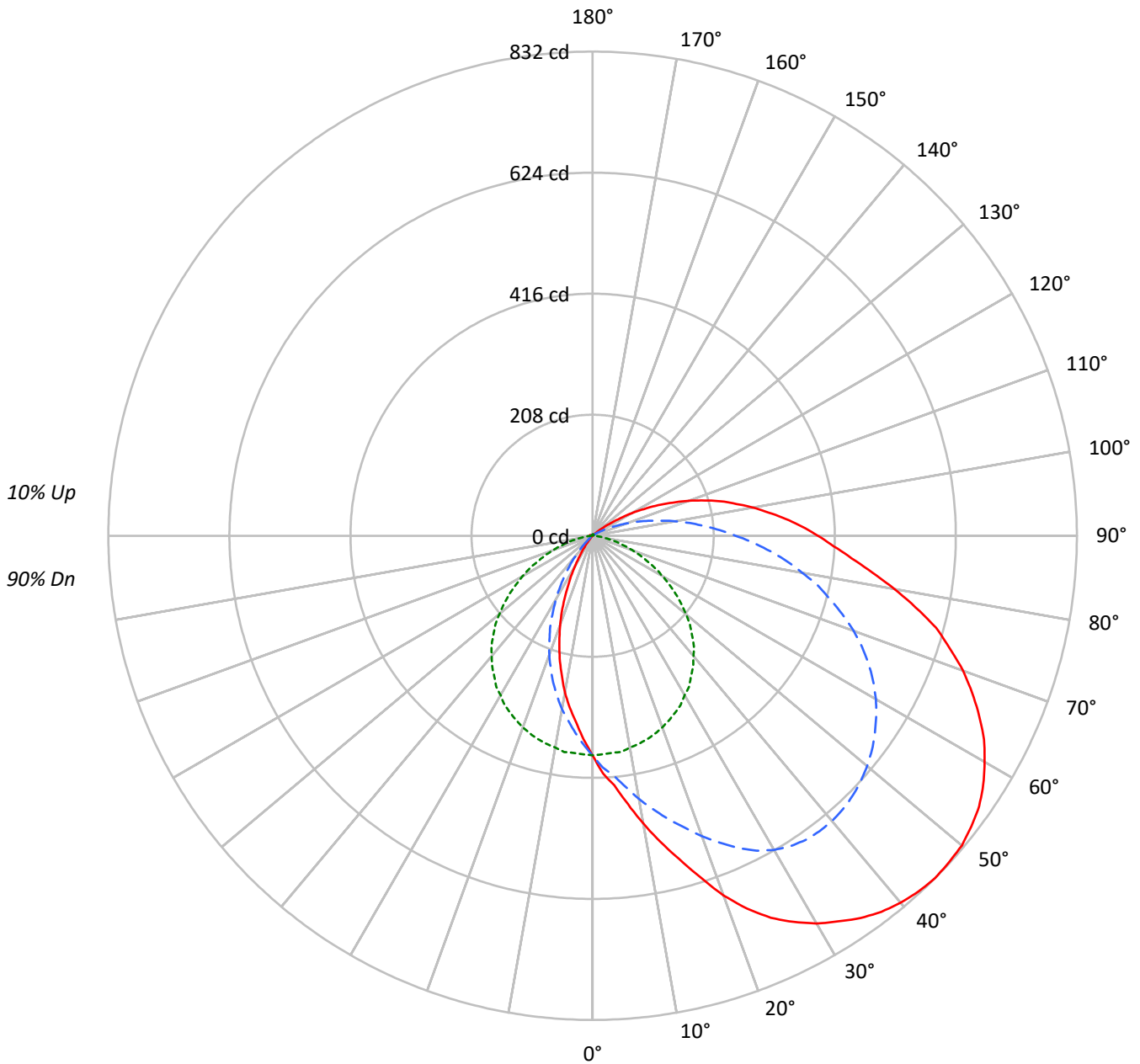
Lumens per Lamp: N/A
Luminaire Lumens: 1864.9 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-84-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°	4060	4060	4060
5°	4458	4002	3339
10°	5044	3953	2751
15°	5653	3902	2144
20°	6376	3838	1579
25°	6975	3764	1036
30°	7421	3666	584
35°	7807	3560	257
40°	8148	3429	61
45°	8442	3264	0
50°	8688	3046	0
55°	8876	2771	0
60°	8971	2449	0
65°	9008	2085	0
70°	8977	1701	0
75°	8863	1253	7
80°	8504	765	39
85°	8219	366	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.1	1.9
10°-20°	108.2	5.8
20°-30°	175.2	9.4
30°-40°	225.1	12.1
40°-50°	254.8	13.7
50°-60°	264.0	14.2
60°-70°	248.9	13.3
70°-80°	208.6	11.2
80°-90°	151.2	8.1
90°-100°	99.4	5.3
100°-110°	57.4	3.1
110°-120°	25.3	1.4
120°-130°	6.8	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	319.5	17.1
0°-40°	544.6	29.2
0°-60°	1063.4	57.0
0°-90°	1672.1	89.7
90°-120°	182.1	9.8
90°-150°	191.5	10.3
90°-180°	193.0	10.3
0°-180°	1864.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	377	377	377	377	377	
5°	431	414	374	340	322	43
15°	575	504	362	261	218	166
25°	724	592	335	172	108	335
35°	802	638	295	84	26	503
45°	832	632	241	19	0	642
55°	811	592	174	0	0	724
65°	733	524	104	0	0	725
75°	611	423	44	0	0	641
85°	447	306	7	2	3	382
90°	387	246	2	3	3	212
95°	333	192	1	3	4	261
105°	229	99	1	2	4	241
115°	124	33	1	1	2	125
125°	37	5	2	1	2	37
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°	377.2	377.2	377.2	377.2	377.2	377.2	377.2	377.2	377.2	377.2	377.2
2.5°	409.0	408.5	407.0	404.6	401.3	395.5	390.7	386.4	380.6	375.8	366.7
5°	430.6	428.2	426.3	423.9	416.2	410.9	402.2	392.6	383.5	374.4	356.1
7.5°	465.2	461.3	458.5	451.7	441.2	429.1	415.7	406.6	400.3	374.8	343.6
10°	502.2	498.8	493.1	481.0	468.1	450.8	431.5	409.9	390.7	369.6	332.6
12.5°	538.7	533.9	525.7	510.4	492.1	470.5	444.0	418.6	391.2	366.2	319.6
15°	575.2	570.0	561.3	542.6	518.5	490.2	458.0	425.8	393.6	361.9	306.1
17.5°	615.1	607.9	594.9	573.8	543.5	508.4	470.5	431.5	392.6	356.6	291.7
20°	657.9	647.8	633.9	605.5	570.0	528.6	483.0	437.3	392.1	350.3	275.4
22.5°	693.5	683.4	668.0	638.7	595.9	545.4	493.5	441.2	390.2	343.1	260.0
25°	724.2	716.0	699.2	665.6	620.4	563.2	503.6	444.0	387.3	335.4	243.6
27.5°	748.2	740.6	721.8	687.2	641.1	579.1	511.3	445.5	383.5	327.7	226.8
30°	769.4	761.7	739.1	703.5	655.0	591.6	519.0	446.0	378.7	316.2	208.6
32.5°	785.7	778.5	755.5	717.5	664.6	600.2	523.3	445.5	372.4	308.0	188.9
35°	802.1	794.9	767.9	727.6	671.8	604.1	526.7	443.1	364.7	294.6	170.1
37.5°	814.6	806.4	779.0	734.3	675.2	605.0	526.2	439.7	356.6	283.5	151.4
40°	823.2	814.6	785.2	738.2	676.2	603.6	522.4	434.0	347.0	269.6	131.7
42.5°	829.0	819.4	788.1	743.9	674.2	599.7	516.6	426.7	336.4	257.6	112.9
45°	831.9	821.8	788.6	739.1	670.9	592.5	508.0	417.6	324.9	241.2	94.2
47.5°	830.4	819.4	786.2	733.8	664.6	584.8	498.3	406.6	310.9	226.8	76.4
50°	828.0	816.5	780.9	727.1	656.0	575.2	487.8	393.1	296.5	209.0	60.6
52.5°	820.3	808.8	775.2	717.5	645.9	564.2	473.4	379.2	281.1	191.7	46.1
55°	810.7	800.1	765.1	708.8	632.9	550.7	459.9	364.3	266.2	174.0	33.2
57.5°	795.8	786.2	752.6	694.9	619.9	535.8	445.0	347.9	247.5	156.2	23.1
60°	777.6	767.9	735.3	679.0	605.0	519.0	428.7	331.1	230.7	138.4	14.4
62.5°	758.3	749.2	715.1	659.3	586.3	501.2	410.9	314.3	212.9	122.1	8.7
65°	732.9	724.2	693.5	635.8	565.6	482.0	391.2	294.1	194.6	103.8	4.8
67.5°	706.0	698.3	667.0	614.2	541.6	460.9	371.0	274.4	175.4	87.9	2.4
70°	677.1	667.5	638.7	584.8	517.1	436.8	348.9	254.2	157.1	72.6	0.0
72.5°	643.5	636.3	608.4	557.5	488.7	411.4	326.3	232.1	137.0	57.7	0.5
75°	610.8	601.7	576.2	528.1	460.9	384.5	301.3	211.4	117.3	44.2	0.5
77.5°	568.5	565.6	541.6	495.0	434.4	358.5	273.9	186.5	98.5	31.7	0.5
80°	526.2	523.3	504.6	461.8	403.7	327.7	248.5	162.9	80.3	21.1	0.5
82.5°	484.4	480.6	462.8	427.2	372.4	301.8	222.0	139.4	63.4	13.0	0.5
85°	446.9	442.1	422.9	390.2	340.2	272.5	194.6	116.3	47.1	7.2	1.0
87.5°	414.7	411.4	390.2	356.6	307.6	245.1	170.6	94.2	33.2	3.4	1.4
90°	387.3	380.1	361.4	325.8	276.8	214.8	145.1	75.4	22.1	1.9	1.9
92.5°	360.4	354.2	333.5	297.0	249.4	188.9	120.6	57.7	13.9	1.0	2.4
95°	332.6	325.8	305.6	272.0	221.5	162.4	99.0	42.3	7.7	1.0	2.4
97.5°	305.2	298.9	277.8	244.1	196.6	139.4	78.3	29.8	3.8	1.0	1.9
100°	279.7	272.5	253.3	219.6	171.6	116.3	60.6	19.2	2.4	1.0	1.9
102.5°	252.8	247.0	227.3	194.6	145.6	94.7	45.2	12.0	1.0	1.0	1.4
105°	228.7	221.5	202.3	168.7	124.0	74.5	31.7	7.2	1.0	1.0	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	149.0	143.2	126.4	98.0	63.0	29.3	8.7	1.4	1.4	1.4	1.4
115°	124.5	115.8	100.9	75.9	46.6	19.2	4.3	1.4	1.4	1.4	1.4
117.5°	99.5	92.3	81.7	57.7	30.8	12.5	2.4	1.4	1.4	1.4	1.4
120°	77.9	71.1	59.1	39.9	20.7	7.2	1.0	1.4	1.4	1.4	1.4
122.5°	55.7	50.5	39.9	26.0	12.5	3.4	1.4	1.4	1.9	1.9	1.4
125°	37.0	34.1	26.4	15.9	7.7	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	24.0	21.6	15.4	9.1	3.4	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.5	12.0	9.1	5.3	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.7	7.2	4.8	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	1.9
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°	377.2	377.2	377.2
2.5°	359.0	352.3	350.3
5°	339.8	328.7	322.5
7.5°	320.5	305.6	298.4
10°	302.8	281.6	273.9
12.5°	281.6	257.1	245.1
15°	261.4	229.7	218.2
17.5°	238.8	203.3	189.8
20°	217.7	176.8	162.9
22.5°	193.7	150.9	135.5
25°	172.0	124.9	107.6
27.5°	148.0	98.5	83.6
30°	125.4	75.4	60.6
32.5°	103.8	55.3	41.8
35°	83.6	37.5	26.4
37.5°	64.4	23.1	13.5
40°	46.6	12.0	6.2
42.5°	31.2	5.8	3.4
45°	19.2	2.9	0.0
47.5°	11.1	0.0	0.0
50°	5.8	0.0	0.0
52.5°	2.4	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	1.4
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.8	3.8
95°	3.4	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.4	4.3	4.8
102.5°	2.9	4.3	4.3
105°	2.4	3.4	3.8



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	1.0
152.5°	1.4	1.0	1.0
155°	1.4	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.4	1.0	0.5
162.5°	1.4	1.0	0.5
165°	1.4	1.0	0.0
167.5°	1.4	1.0	0.5
170°	1.4	1.0	0.5
172.5°	1.4	1.0	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°	201.8	196.1	176.8	145.1	101.4	56.7	21.1	3.8	1.0	1.4	1.4
110°	175.9	171.1	151.4	120.6	81.7	42.3	13.9	2.4	1.4	1.4	1.4





107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)