

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: P551480

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-84-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: P551480
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-82-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

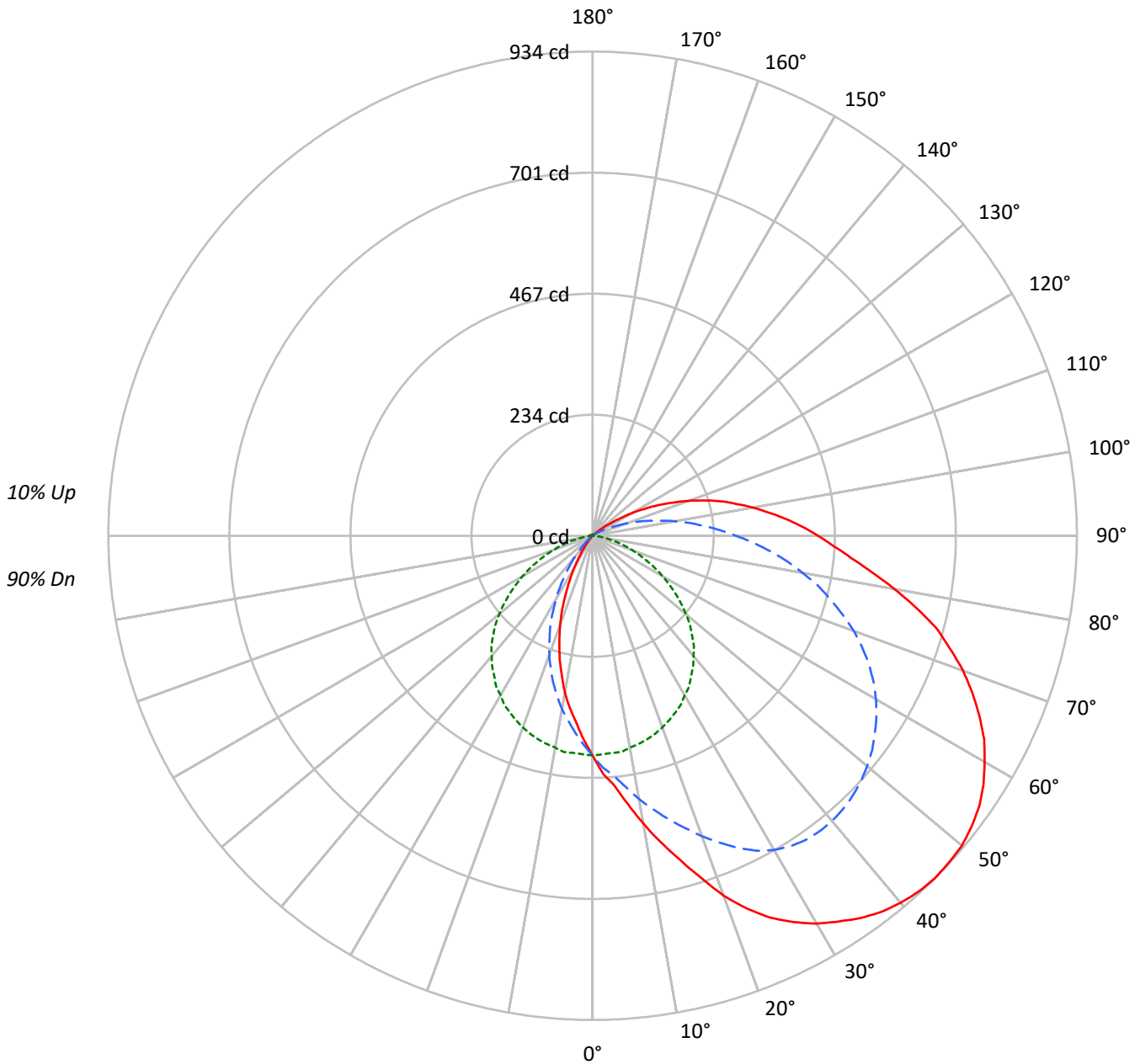
Lumens per Lamp: N/A
Luminaire Lumens: 2094.0 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551480

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-84-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°	4560	4560	4560
5°	5005	4492	3749
10°	5664	4437	3090
15°	6347	4381	2408
20°	7159	4309	1772
25°	7831	4226	1164
30°	8332	4115	656
35°	8764	3997	289
40°	9149	3850	69
45°	9479	3666	0
50°	9755	3421	0
55°	9966	3110	0
60°	10072	2750	0
65°	10114	2340	0
70°	10080	1909	0
75°	9952	1407	7
80°	9548	860	44
85°	9229	412	59



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	1.9
10°-20°	121.5	5.8
20°-30°	196.7	9.4
30°-40°	252.7	12.1
40°-50°	286.1	13.7
50°-60°	296.4	14.2
60°-70°	279.5	13.3
70°-80°	234.2	11.2
80°-90°	169.8	8.1
90°-100°	111.6	5.3
100°-110°	64.4	3.1
110°-120°	28.4	1.4
120°-130°	7.7	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°	358.8	17.1
0°-40°	611.5	29.2
0°-60°	1193.9	57.0
0°-90°	1877.5	89.7
90°-120°	204.5	9.8
90°-150°	215.1	10.3
90°-180°	217.0	10.4
0°-180°	2094.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	424	424	424	424	424	
5°	484	464	420	382	362	49
15°	646	566	406	294	245	186
25°	813	664	377	193	121	376
35°	900	716	331	94	30	565
45°	934	709	271	22	0	721
55°	910	664	195	0	0	813
65°	823	588	116	0	0	814
75°	686	475	50	0	0	719
85°	502	344	8	2	3	429
90°	435	276	2	3	4	238
95°	373	216	1	4	5	293
105°	257	111	1	3	4	271
115°	140	37	2	2	3	140
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°	423.6	423.6	423.6	423.6	423.6	423.6	423.6	423.6	423.6	423.6	423.6
2.5°	459.2	458.6	457.0	454.3	450.5	444.1	438.7	433.8	427.3	421.9	411.7
5°	483.5	480.8	478.6	475.9	467.3	461.3	451.6	440.8	430.6	420.3	399.8
7.5°	522.3	518.0	514.8	507.2	495.3	481.8	466.7	456.5	449.5	420.9	385.8
10°	563.9	560.1	553.6	540.1	525.5	506.1	484.5	460.3	438.7	414.9	373.4
12.5°	604.9	599.5	590.3	573.0	552.5	528.2	498.6	470.0	439.2	411.2	358.8
15°	645.9	639.9	630.2	609.2	582.2	550.4	514.2	478.1	441.9	406.3	343.7
17.5°	690.7	682.6	668.0	644.3	610.3	570.9	528.2	484.5	440.8	400.4	327.5
20°	738.7	727.3	711.7	679.9	639.9	593.5	542.3	491.0	440.3	393.3	309.2
22.5°	778.6	767.3	750.0	717.1	669.1	612.4	554.1	495.3	438.1	385.3	291.9
25°	813.1	804.0	785.1	747.3	696.6	632.4	565.5	498.6	434.9	376.6	273.6
27.5°	840.1	831.5	810.4	771.6	719.8	650.2	574.1	500.2	430.6	368.0	254.7
30°	863.9	855.2	829.9	789.9	735.4	664.2	582.7	500.7	425.2	355.0	234.2
32.5°	882.2	874.1	848.2	805.6	746.2	673.9	587.6	500.2	418.2	345.9	212.1
35°	900.5	892.5	862.2	816.9	754.3	678.2	591.4	497.5	409.5	330.8	191.0
37.5°	914.6	905.4	874.7	824.5	758.1	679.3	590.8	493.7	400.4	318.3	170.0
40°	924.3	914.6	881.7	828.8	759.2	677.7	586.5	487.2	389.6	302.7	147.8
42.5°	930.8	920.0	884.9	835.3	757.0	673.4	580.0	479.1	377.7	289.2	126.8
45°	934.0	922.7	885.4	829.9	753.2	665.3	570.3	468.9	364.8	270.9	105.8
47.5°	932.4	920.0	882.7	823.9	746.2	656.7	559.5	456.5	349.1	254.7	85.8
50°	929.7	916.7	876.8	816.4	736.5	645.9	547.7	441.4	332.9	234.7	68.0
52.5°	921.1	908.1	870.3	805.6	725.2	633.5	531.5	425.7	315.7	215.3	51.8
55°	910.3	898.4	859.0	795.9	710.6	618.4	516.4	409.0	298.9	195.3	37.2
57.5°	893.5	882.7	845.0	780.2	696.1	601.6	499.6	390.7	277.9	175.4	25.9
60°	873.0	862.2	825.5	762.4	679.3	582.7	481.3	371.8	259.0	155.4	16.2
62.5°	851.4	841.2	802.9	740.3	658.3	562.8	461.3	352.9	239.0	137.1	9.7
65°	822.9	813.1	778.6	713.9	635.1	541.2	439.2	330.2	218.5	116.5	5.4
67.5°	792.6	784.0	748.9	689.6	608.1	517.5	416.6	308.1	196.9	98.7	2.7
70°	760.3	749.5	717.1	656.7	580.6	490.5	391.7	285.4	176.4	81.5	0.0
72.5°	722.5	714.4	683.1	625.9	548.7	461.9	366.4	260.6	153.8	64.7	0.5
75°	685.8	675.5	646.9	593.0	517.5	431.7	338.3	237.4	131.7	49.6	0.5
77.5°	638.3	635.1	608.1	555.8	487.8	402.5	307.6	209.4	110.6	35.6	0.5
80°	590.8	587.6	566.6	518.5	453.2	368.0	279.0	182.9	90.1	23.7	0.5
82.5°	543.9	539.6	519.6	479.7	418.2	338.9	249.3	156.5	71.2	14.6	0.5
85°	501.8	496.4	474.8	438.1	382.0	305.9	218.5	130.6	52.9	8.1	1.1
87.5°	465.7	461.9	438.1	400.4	345.3	275.2	191.5	105.8	37.2	3.8	1.6
90°	434.9	426.8	405.8	365.8	310.8	241.2	163.0	84.7	24.8	2.2	2.2
92.5°	404.7	397.7	374.5	333.5	280.0	212.1	135.4	64.7	15.6	1.1	2.7
95°	373.4	365.8	343.2	305.4	248.7	182.4	111.2	47.5	8.6	1.1	2.7
97.5°	342.6	335.6	311.9	274.1	220.7	156.5	88.0	33.5	4.3	1.1	2.2
100°	314.0	305.9	284.4	246.6	192.6	130.6	68.0	21.6	2.7	1.1	2.2
102.5°	283.8	277.3	255.2	218.5	163.5	106.3	50.7	13.5	1.1	1.1	1.6
105°	256.8	248.7	227.2	189.4	139.2	83.6	35.6	8.1	1.1	1.1	1.6



TEST NUMBER: P551480

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	167.3	160.8	141.9	110.1	70.7	32.9	9.7	1.6	1.6	1.6	1.6
115°	139.7	130.0	113.3	85.3	52.3	21.6	4.9	1.6	1.6	1.6	1.6
117.5°	111.7	103.6	91.7	64.7	34.5	14.0	2.7	1.6	1.6	1.6	1.6
120°	87.4	79.9	66.4	44.8	23.2	8.1	1.1	1.6	1.6	1.6	1.6
122.5°	62.6	56.7	44.8	29.1	14.0	3.8	1.6	1.6	2.2	2.2	1.6
125°	41.5	38.3	29.7	17.8	8.6	1.6	1.6	1.6	2.2	2.2	1.6
127.5°	27.0	24.3	17.3	10.3	3.8	1.6	1.6	2.2	2.2	2.2	1.6
130°	15.1	13.5	10.3	5.9	1.6	1.6	1.6	2.2	2.2	2.2	1.6
132.5°	8.6	8.1	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: P551480

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	423.6	423.6	423.6
2.5°	403.1	395.5	393.3
5°	381.5	369.1	362.1
7.5°	359.9	343.2	335.1
10°	339.9	316.2	307.6
12.5°	316.2	288.7	275.2
15°	293.5	257.9	245.0
17.5°	268.2	228.2	213.1
20°	244.4	198.6	182.9
22.5°	217.4	169.4	152.2
25°	193.2	140.3	120.9
27.5°	166.2	110.6	93.9
30°	140.8	84.7	68.0
32.5°	116.5	62.1	46.9
35°	93.9	42.1	29.7
37.5°	72.3	25.9	15.1
40°	52.3	13.5	7.0
42.5°	35.1	6.5	3.8
45°	21.6	3.2	0.0
47.5°	12.4	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	3.2
87.5°	2.7	3.2	3.8
90°	3.2	3.8	3.8
92.5°	3.2	4.3	4.3
95°	3.8	4.3	4.9
97.5°	4.3	4.9	4.9
100°	3.8	4.9	5.4
102.5°	3.2	4.9	4.9
105°	2.7	3.8	4.3



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-84-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°	226.6	220.1	198.6	163.0	113.9	63.7	23.7	4.3	1.1	1.6	1.6
110°	197.5	192.1	170.0	135.4	91.7	47.5	15.6	2.7	1.6	1.6	1.6





107.5°	2.2	3.2	3.8
110°	2.2	2.7	3.2



(END OF REPORT)