

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: P550440

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-81-84-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: P550440
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-LD4-1HI-30-UNV-81-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 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

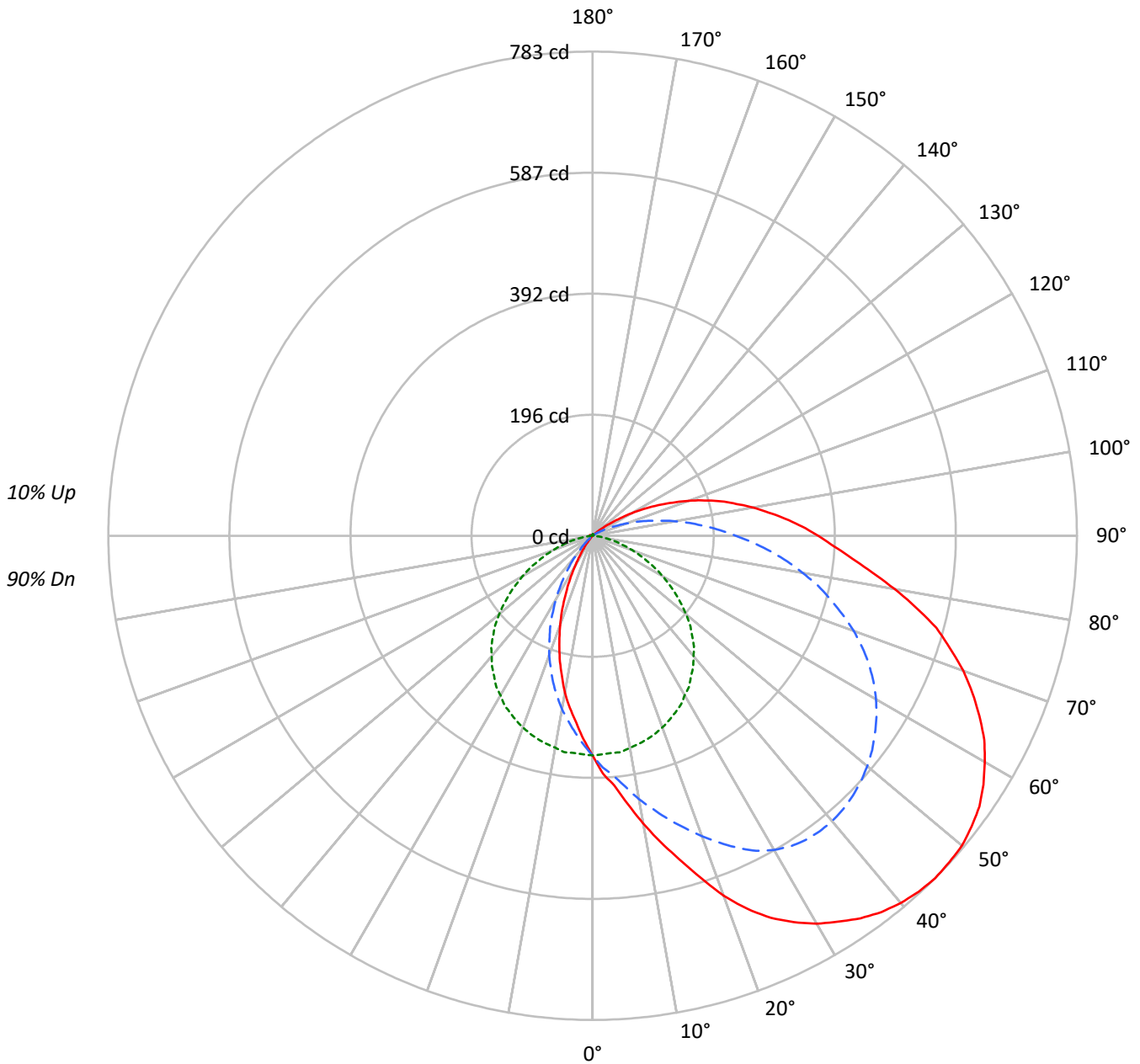
Lumens per Lamp: N/A
Luminaire Lumens: 1756.1 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): 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: P550440

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-84-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°	3823	3823	3823
5°	4197	3768	3143
10°	4749	3722	2590
15°	5322	3674	2018
20°	6003	3614	1487
25°	6567	3544	977
30°	6987	3451	550
35°	7350	3352	242
40°	7672	3228	58
45°	7948	3073	0
50°	8180	2868	0
55°	8357	2608	0
60°	8446	2306	0
65°	8481	1962	0
70°	8452	1600	0
75°	8345	1180	7
80°	8008	722	37
85°	7739	346	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.0	1.9
10°-20°	101.9	5.8
20°-30°	165.0	9.4
30°-40°	211.9	12.1
40°-50°	239.9	13.7
50°-60°	248.5	14.2
60°-70°	234.4	13.3
70°-80°	196.4	11.2
80°-90°	142.4	8.1
90°-100°	93.6	5.3
100°-110°	54.1	3.1
110°-120°	23.9	1.4
120°-130°	6.5	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	300.9	17.1
0°-40°	512.8	29.2
0°-60°	1001.2	57.0
0°-90°	1574.4	89.7
90°-120°	171.5	9.8
90°-150°	180.5	10.3
90°-180°	182.0	10.4
0°-180°	1756.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	355	355	355	355	355	
5°	405	389	352	320	304	41
15°	542	475	341	246	205	156
25°	682	557	316	162	101	315
35°	755	601	277	79	25	474
45°	783	595	227	18	0	605
55°	763	557	164	0	0	682
65°	690	493	98	0	0	683
75°	575	398	42	0	0	603
85°	421	288	7	2	3	359
90°	365	231	2	3	3	200
95°	313	181	1	3	4	246
105°	215	93	1	2	4	227
115°	117	31	1	1	2	117
125°	35	4	2	1	2	35
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	



TEST NUMBER: P550440

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	355.2	355.2	355.2	355.2	355.2	355.2	355.2	355.2	355.2	355.2	355.2
2.5°	385.1	384.6	383.3	381.0	377.8	372.4	367.9	363.8	358.4	353.8	345.2
5°	405.4	403.2	401.3	399.1	391.8	386.9	378.7	369.7	361.1	352.5	335.3
7.5°	438.0	434.4	431.7	425.3	415.4	404.1	391.4	382.8	376.9	352.9	323.5
10°	472.8	469.7	464.2	452.9	440.7	424.4	406.3	386.0	367.9	348.0	313.1
12.5°	507.2	502.7	495.0	480.5	463.3	443.0	418.1	394.1	368.3	344.8	300.9
15°	541.6	536.6	528.5	510.8	488.2	461.5	431.2	400.9	370.6	340.7	288.2
17.5°	579.2	572.4	560.2	540.3	511.8	478.7	443.0	406.3	369.7	335.7	274.7
20°	619.4	609.9	596.8	570.1	536.6	497.7	454.7	411.8	369.2	329.9	259.3
22.5°	652.9	643.4	628.9	601.3	561.1	513.6	464.7	415.4	367.4	323.1	244.8
25°	681.9	674.2	658.4	626.7	584.2	530.3	474.2	418.1	364.7	315.8	229.4
27.5°	704.5	697.3	679.6	647.0	603.6	545.2	481.4	419.4	361.1	308.6	213.6
30°	724.4	717.2	695.9	662.4	616.7	557.0	488.7	419.9	356.6	297.7	196.4
32.5°	739.8	733.0	711.3	675.6	625.8	565.1	492.8	419.4	350.7	290.0	177.8
35°	755.2	748.4	723.1	685.1	632.6	568.8	495.9	417.2	343.4	277.4	160.2
37.5°	767.0	759.3	733.5	691.4	635.7	569.7	495.5	414.0	335.7	267.0	142.5
40°	775.1	767.0	739.4	695.0	636.6	568.3	491.8	408.6	326.7	253.8	124.0
42.5°	780.5	771.5	742.1	700.4	634.8	564.7	486.4	401.8	316.7	242.5	106.3
45°	783.2	773.7	742.5	695.9	631.7	557.9	478.3	393.2	305.9	227.1	88.7
47.5°	781.9	771.5	740.3	690.9	625.8	550.7	469.2	382.8	292.8	213.6	71.9
50°	779.6	768.8	735.3	684.6	617.6	541.6	459.3	370.1	279.2	196.8	57.0
52.5°	772.4	761.5	729.8	675.6	608.1	531.2	445.7	357.0	264.7	180.5	43.4
55°	763.3	753.4	720.3	667.4	595.9	518.5	433.0	343.0	250.7	163.8	31.2
57.5°	749.3	740.3	708.6	654.3	583.7	504.5	419.0	327.6	233.0	147.1	21.7
60°	732.1	723.1	692.3	639.4	569.7	488.7	403.6	311.8	217.2	130.3	13.6
62.5°	714.0	705.4	673.3	620.8	552.0	471.9	386.9	295.9	200.4	114.9	8.1
65°	690.0	681.9	652.9	598.6	532.6	453.8	368.3	276.9	183.3	97.7	4.5
67.5°	664.7	657.5	628.0	578.3	509.9	433.9	349.3	258.4	165.2	82.8	2.3
70°	637.5	628.5	601.3	550.7	486.9	411.3	328.5	239.4	148.0	68.3	0.0
72.5°	605.9	599.1	572.8	524.9	460.2	387.3	307.2	218.5	129.0	54.3	0.5
75°	575.1	566.5	542.5	497.3	433.9	362.0	283.7	199.1	110.4	41.6	0.5
77.5°	535.3	532.6	509.9	466.1	409.0	337.5	257.9	175.6	92.8	29.9	0.5
80°	495.5	492.8	475.1	434.8	380.1	308.6	233.9	153.4	75.6	19.9	0.5
82.5°	456.1	452.5	435.7	402.3	350.7	284.2	209.0	131.2	59.7	12.2	0.5
85°	420.8	416.3	398.2	367.4	320.4	256.6	183.3	109.5	44.3	6.8	0.9
87.5°	390.5	387.3	367.4	335.7	289.6	230.8	160.6	88.7	31.2	3.2	1.4
90°	364.7	357.9	340.3	306.8	260.6	202.3	136.6	71.0	20.8	1.8	1.8
92.5°	339.4	333.5	314.0	279.6	234.8	177.8	113.6	54.3	13.1	0.9	2.3
95°	313.1	306.8	287.8	256.1	208.6	152.9	93.2	39.8	7.2	0.9	2.3
97.5°	287.3	281.4	261.5	229.9	185.1	131.2	73.8	28.1	3.6	0.9	1.8
100°	263.3	256.6	238.5	206.8	161.5	109.5	57.0	18.1	2.3	0.9	1.8
102.5°	238.0	232.6	214.0	183.3	137.1	89.1	42.5	11.3	0.9	0.9	1.4
105°	215.4	208.6	190.5	158.8	116.7	70.1	29.9	6.8	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	140.3	134.8	119.0	92.3	59.3	27.6	8.1	1.4	1.4	1.4	1.4
115°	117.2	109.0	95.0	71.5	43.9	18.1	4.1	1.4	1.4	1.4	1.4
117.5°	93.7	86.9	76.9	54.3	29.0	11.8	2.3	1.4	1.4	1.4	1.4
120°	73.3	67.0	55.7	37.6	19.5	6.8	0.9	1.4	1.4	1.4	1.4
122.5°	52.5	47.5	37.6	24.4	11.8	3.2	1.4	1.4	1.8	1.8	1.4
125°	34.8	32.1	24.9	14.9	7.2	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.6	20.4	14.5	8.6	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.7	11.3	8.6	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.2	6.8	4.5	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



TEST NUMBER: P550440

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	355.2	355.2	355.2
2.5°	338.0	331.7	329.9
5°	319.9	309.5	303.6
7.5°	301.8	287.8	281.0
10°	285.1	265.2	257.9
12.5°	265.2	242.1	230.8
15°	246.1	216.3	205.4
17.5°	224.9	191.4	178.7
20°	205.0	166.5	153.4
22.5°	182.3	142.1	127.6
25°	162.0	117.6	101.4
27.5°	139.4	92.8	78.7
30°	118.1	71.0	57.0
32.5°	97.7	52.0	39.4
35°	78.7	35.3	24.9
37.5°	60.6	21.7	12.7
40°	43.9	11.3	5.9
42.5°	29.4	5.4	3.2
45°	18.1	2.7	0.0
47.5°	10.4	0.0	0.0
50°	5.4	0.0	0.0
52.5°	2.3	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	0.9	1.4
80°	0.9	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.7
87.5°	2.3	2.7	3.2
90°	2.7	3.2	3.2
92.5°	2.7	3.6	3.6
95°	3.2	3.6	4.1
97.5°	3.6	4.1	4.1
100°	3.2	4.1	4.5
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.6



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.8	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	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°	190.0	184.6	166.5	136.6	95.5	53.4	19.9	3.6	0.9	1.4	1.4
110°	165.6	161.1	142.5	113.6	76.9	39.8	13.1	2.3	1.4	1.4	1.4





107.5°	1.8	2.7	3.2
110°	1.8	2.3	2.7



(END OF REPORT)