

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: P550460

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-82-86-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: P550460
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-82-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

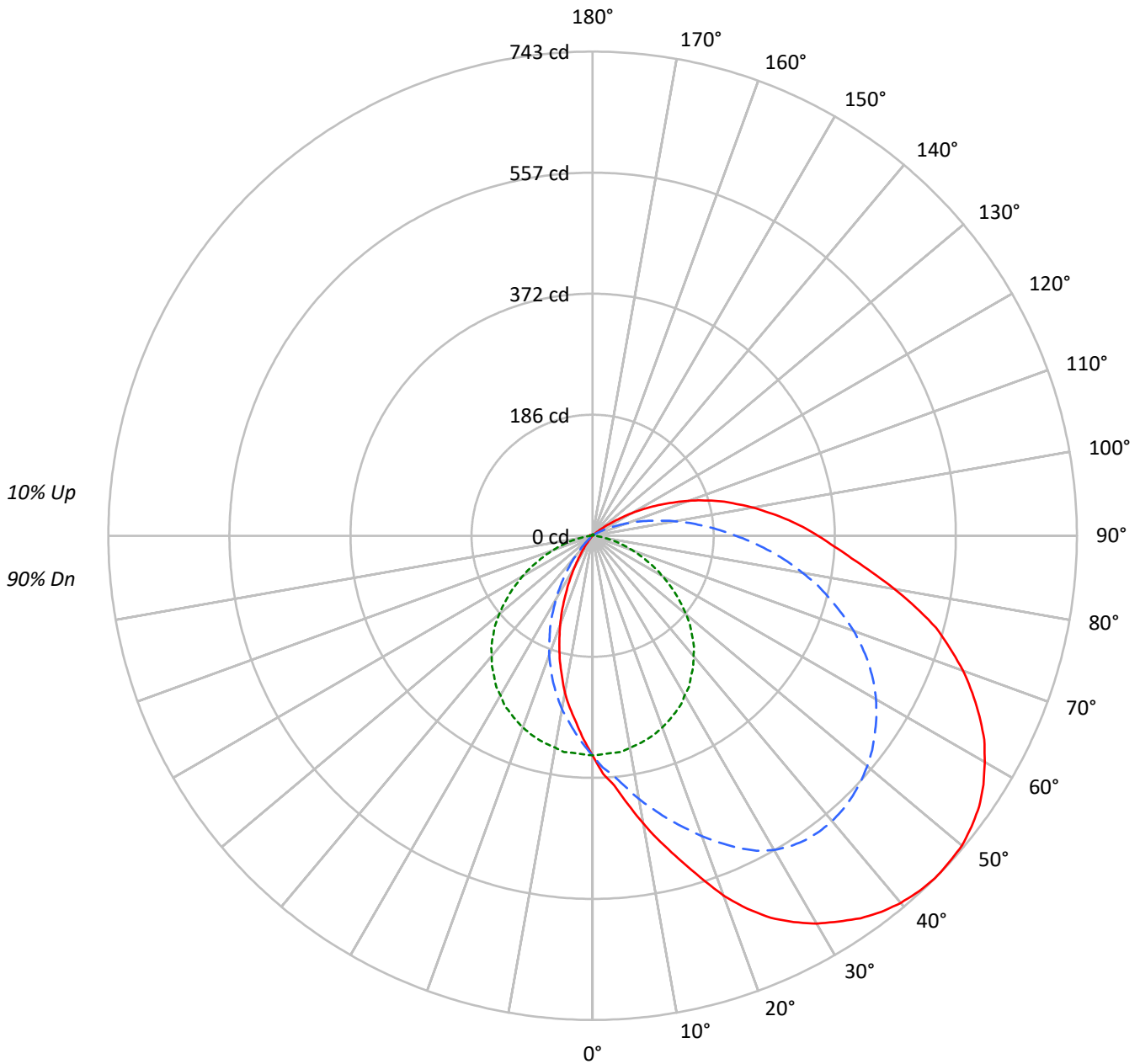
Lumens per Lamp: N/A
Luminaire Lumens: 1666.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (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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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°	3627	3627	3627
5°	3981	3574	2982
10°	4506	3530	2458
15°	5050	3486	1915
20°	5695	3429	1410
25°	6230	3362	927
30°	6629	3275	522
35°	6974	3180	230
40°	7279	3062	55
45°	7541	2916	0
50°	7762	2721	0
55°	7929	2475	0
60°	8013	2187	0
65°	8047	1862	0
70°	8020	1518	0
75°	7917	1120	6
80°	7597	686	34
85°	7342	325	48



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.3	1.9
10°-20°	96.7	5.8
20°-30°	156.5	9.4
30°-40°	201.1	12.1
40°-50°	227.6	13.7
50°-60°	235.8	14.2
60°-70°	222.4	13.3
70°-80°	186.4	11.2
80°-90°	135.1	8.1
90°-100°	88.8	5.3
100°-110°	51.3	3.1
110°-120°	22.6	1.4
120°-130°	6.1	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	285.4	17.1
0°-40°	486.5	29.2
0°-60°	949.9	57.0
0°-90°	1493.7	89.7
90°-120°	162.7	9.8
90°-150°	171.1	10.3
90°-180°	172.0	10.3
0°-180°	1666.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	337	337	337	337	337	
5°	385	369	334	304	288	39
15°	514	451	323	234	195	148
25°	647	529	300	154	96	299
35°	716	570	263	75	24	449
45°	743	564	216	17	0	574
55°	724	529	155	0	0	647
65°	655	468	93	0	0	648
75°	546	378	40	0	0	572
85°	399	274	6	2	3	341
90°	346	220	2	3	3	190
95°	297	172	1	3	4	233
105°	204	89	1	2	3	216
115°	111	29	1	1	2	111
125°	33	4	2	1	2	33
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°	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0
2.5°	365.3	364.9	363.6	361.5	358.5	353.3	349.0	345.1	340.0	335.7	327.5
5°	384.6	382.5	380.8	378.6	371.8	367.0	359.3	350.7	342.6	334.4	318.1
7.5°	415.6	412.1	409.5	403.5	394.1	383.4	371.3	363.2	357.6	334.8	306.9
10°	448.6	445.6	440.5	429.7	418.1	402.7	385.5	366.2	349.0	330.1	297.1
12.5°	481.2	476.9	469.6	455.9	439.6	420.3	396.7	373.9	349.4	327.1	285.5
15°	513.9	509.1	501.4	484.7	463.2	437.9	409.1	380.3	351.6	323.3	273.5
17.5°	549.5	543.1	531.5	512.6	485.5	454.2	420.3	385.5	350.7	318.5	260.6
20°	587.7	578.7	566.2	540.9	509.1	472.2	431.4	390.7	350.3	313.0	246.0
22.5°	619.5	610.4	596.7	570.5	532.3	487.2	440.9	394.1	348.6	306.5	232.2
25°	646.9	639.6	624.6	594.6	554.2	503.1	449.9	396.7	346.0	299.6	217.6
27.5°	668.4	661.5	644.8	613.9	572.7	517.3	456.8	398.0	342.6	292.8	202.6
30°	687.3	680.4	660.2	628.5	585.1	528.5	463.6	398.4	338.3	282.5	186.3
32.5°	701.9	695.4	674.8	640.9	593.7	536.2	467.5	398.0	332.7	275.2	168.7
35°	716.5	710.0	686.0	649.9	600.1	539.6	470.5	395.8	325.8	263.2	152.0
37.5°	727.6	720.3	695.9	656.0	603.2	540.5	470.1	392.8	318.5	253.3	135.2
40°	735.4	727.6	701.5	659.4	604.0	539.2	466.6	387.6	309.9	240.8	117.6
42.5°	740.5	731.9	704.0	664.5	602.3	535.8	461.5	381.2	300.5	230.1	100.9
45°	743.1	734.1	704.5	660.2	599.3	529.3	453.8	373.1	290.2	215.5	84.1
47.5°	741.8	731.9	702.3	655.5	593.7	522.4	445.2	363.2	277.7	202.6	68.3
50°	739.7	729.4	697.6	649.5	586.0	513.9	435.7	351.2	264.9	186.7	54.1
52.5°	732.8	722.5	692.4	640.9	577.0	504.0	422.8	338.7	251.1	171.3	41.2
55°	724.2	714.8	683.4	633.2	565.4	492.0	410.8	325.4	237.8	155.4	29.6
57.5°	710.9	702.3	672.3	620.8	553.8	478.7	397.5	310.8	221.1	139.5	20.6
60°	694.6	686.0	656.8	606.6	540.5	463.6	382.9	295.8	206.1	123.6	12.9
62.5°	677.4	669.3	638.8	589.0	523.7	447.7	367.0	280.8	190.2	109.0	7.7
65°	654.7	646.9	619.5	567.9	505.3	430.6	349.4	262.7	173.9	92.7	4.3
67.5°	630.6	623.8	595.9	548.6	483.8	411.7	331.4	245.1	156.7	78.6	2.1
70°	604.9	596.3	570.5	522.4	461.9	390.2	311.7	227.1	140.4	64.8	0.0
72.5°	574.8	568.4	543.5	498.0	436.6	367.5	291.5	207.3	122.3	51.5	0.4
75°	545.6	537.5	514.7	471.8	411.7	343.4	269.2	188.9	104.7	39.5	0.4
77.5°	507.8	505.3	483.8	442.2	388.1	320.2	244.7	166.6	88.0	28.3	0.4
80°	470.1	467.5	450.8	412.5	360.6	292.8	221.9	145.5	71.7	18.9	0.4
82.5°	432.7	429.3	413.4	381.6	332.7	269.6	198.3	124.5	56.7	11.6	0.4
85°	399.2	394.9	377.8	348.6	303.9	243.4	173.9	103.9	42.1	6.4	0.9
87.5°	370.5	367.5	348.6	318.5	274.7	218.9	152.4	84.1	29.6	3.0	1.3
90°	346.0	339.6	322.8	291.1	247.3	191.9	129.6	67.4	19.7	1.7	1.7
92.5°	322.0	316.4	297.9	265.3	222.8	168.7	107.8	51.5	12.4	0.9	2.1
95°	297.1	291.1	273.0	243.0	197.9	145.1	88.4	37.8	6.9	0.9	2.1
97.5°	272.6	267.0	248.1	218.1	175.6	124.5	70.0	26.6	3.4	0.9	1.7
100°	249.8	243.4	226.2	196.2	153.3	103.9	54.1	17.2	2.1	0.9	1.7
102.5°	225.8	220.7	203.1	173.9	130.1	84.6	40.4	10.7	0.9	0.9	1.3
105°	204.3	197.9	180.7	150.7	110.8	66.5	28.3	6.4	0.9	0.9	1.3



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	133.1	127.9	112.9	87.6	56.2	26.2	7.7	1.3	1.3	1.3	1.3
115°	111.2	103.5	90.2	67.8	41.6	17.2	3.9	1.3	1.3	1.3	1.3
117.5°	88.9	82.4	73.0	51.5	27.5	11.2	2.1	1.3	1.3	1.3	1.3
120°	69.5	63.5	52.8	35.6	18.5	6.4	0.9	1.3	1.3	1.3	1.3
122.5°	49.8	45.1	35.6	23.2	11.2	3.0	1.3	1.3	1.7	1.7	1.3
125°	33.1	30.5	23.6	14.2	6.9	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.5	19.3	13.7	8.2	3.0	1.3	1.3	1.7	1.7	1.7	1.3
130°	12.0	10.7	8.2	4.7	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	6.9	6.4	4.3	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	2.1	2.1	2.1	2.1
172.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	337.0	337.0	337.0
2.5°	320.7	314.7	313.0
5°	303.5	293.6	288.1
7.5°	286.3	273.0	266.6
10°	270.5	251.6	244.7
12.5°	251.6	229.7	218.9
15°	233.5	205.2	194.9
17.5°	213.4	181.6	169.6
20°	194.5	158.0	145.5
22.5°	173.0	134.8	121.1
25°	153.7	111.6	96.2
27.5°	132.2	88.0	74.7
30°	112.0	67.4	54.1
32.5°	92.7	49.4	37.3
35°	74.7	33.5	23.6
37.5°	57.5	20.6	12.0
40°	41.6	10.7	5.6
42.5°	27.9	5.2	3.0
45°	17.2	2.6	0.0
47.5°	9.9	0.0	0.0
50°	5.2	0.0	0.0
52.5°	2.1	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°	0.4	0.4	0.4
77.5°	0.4	0.9	1.3
80°	0.9	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.6
87.5°	2.1	2.6	3.0
90°	2.6	3.0	3.0
92.5°	2.6	3.4	3.4
95°	3.0	3.4	3.9
97.5°	3.4	3.9	3.9
100°	3.0	3.9	4.3
102.5°	2.6	3.9	3.9
105°	2.1	3.0	3.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.3	1.7	2.1
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.7	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	180.3	175.1	158.0	129.6	90.6	50.7	18.9	3.4	0.9	1.3	1.3
110°	157.1	152.8	135.2	107.8	73.0	37.8	12.4	2.1	1.3	1.3	1.3





107.5°	1.7	2.6	3.0
110°	1.7	2.1	2.6



(END OF REPORT)