

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: P551113

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-85-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: P551113
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-LD4-1STD-40-UNV-93-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

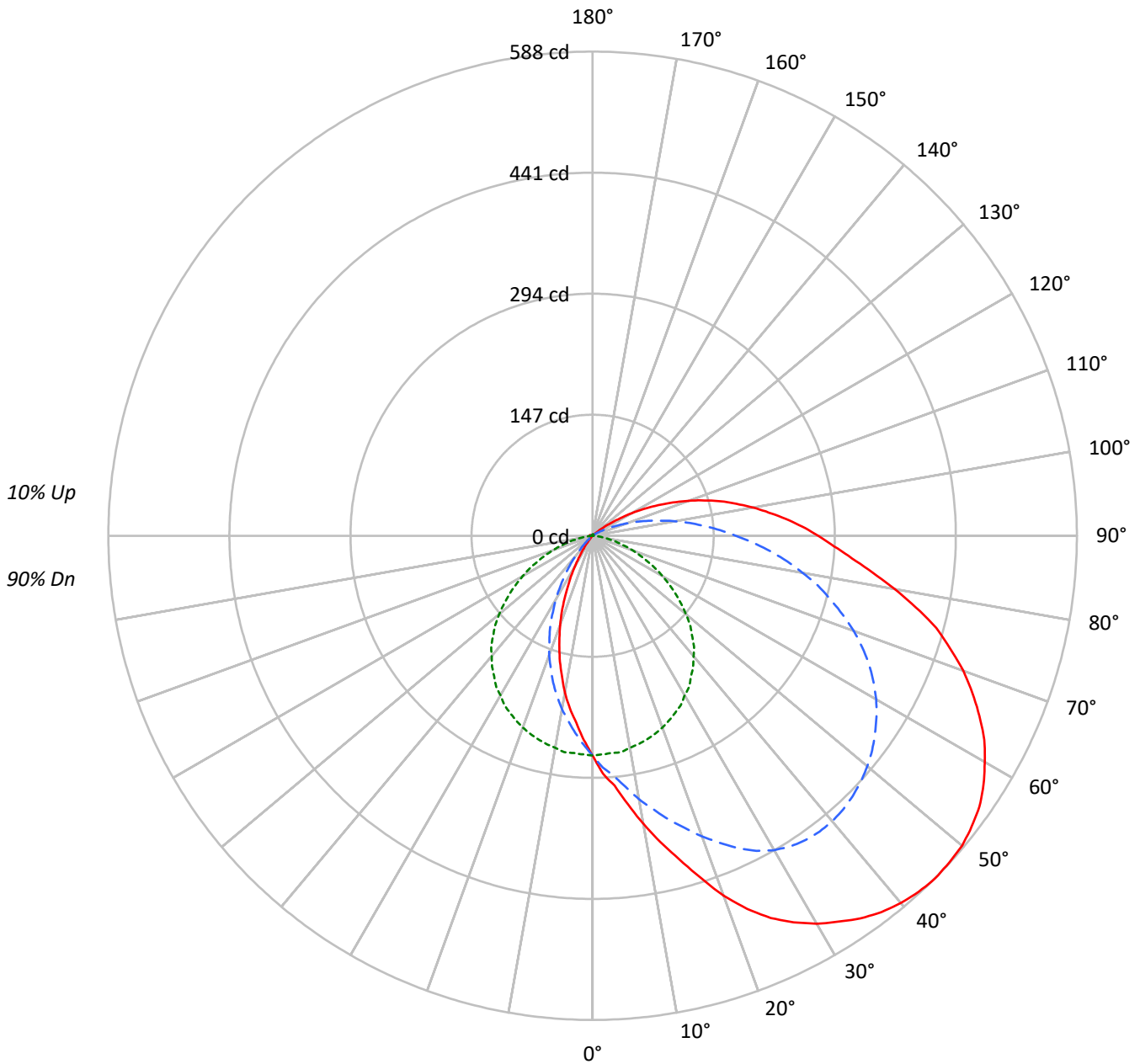
Lumens per Lamp: N/A
Luminaire Lumens: 1319.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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





TEST NUMBER: P551113

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-85-ED1D-90

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°	2872	2872	2872
5°	3152	2830	2361
10°	3568	2795	1946
15°	3998	2759	1516
20°	4509	2715	1116
25°	4933	2662	733
30°	5248	2592	413
35°	5521	2517	182
40°	5763	2425	44
45°	5970	2308	0
50°	6145	2154	0
55°	6278	1959	0
60°	6344	1732	0
65°	6370	1474	0
70°	6349	1202	0
75°	6269	888	4
80°	6015	544	27
85°	5814	259	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.6	1.9
10°-20°	76.5	5.8
20°-30°	123.9	9.4
30°-40°	159.2	12.1
40°-50°	180.2	13.7
50°-60°	186.7	14.2
60°-70°	176.1	13.3
70°-80°	147.5	11.2
80°-90°	106.9	8.1
90°-100°	70.3	5.3
100°-110°	40.6	3.1
110°-120°	17.9	1.4
120°-130°	4.9	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	226.0	17.1
0°-40°	385.2	29.2
0°-60°	752.0	57.0
0°-90°	1182.6	89.7
90°-120°	128.8	9.8
90°-150°	135.5	10.3
90°-180°	136.0	10.3
0°-180°	1319.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	267	267	267	267	267	
5°	304	292	265	240	228	31
15°	407	357	256	185	154	117
25°	512	419	237	122	76	237
35°	567	451	208	59	19	356
45°	588	447	171	14	0	454
55°	573	419	123	0	0	512
65°	518	370	73	0	0	513
75°	432	299	31	0	0	453
85°	316	217	5	1	2	270
90°	274	174	1	2	2	150
95°	235	136	1	2	3	185
105°	162	70	1	2	3	171
115°	88	23	1	1	2	88
125°	26	3	1	1	1	26
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	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°	266.8	266.8	266.8	266.8	266.8	266.8	266.8	266.8	266.8	266.8	266.8
2.5°	289.2	288.9	287.9	286.2	283.8	279.7	276.3	273.3	269.2	265.8	259.3
5°	304.5	302.8	301.5	299.8	294.3	290.6	284.5	277.7	271.2	264.8	251.8
7.5°	329.0	326.3	324.2	319.5	312.0	303.5	294.0	287.5	283.1	265.1	243.0
10°	355.2	352.8	348.7	340.2	331.0	318.8	305.2	289.9	276.3	261.4	235.2
12.5°	381.0	377.6	371.8	360.9	348.0	332.7	314.0	296.0	276.7	259.0	226.0
15°	406.8	403.1	397.0	383.7	366.7	346.7	323.9	301.1	278.4	255.9	216.5
17.5°	435.0	429.9	420.8	405.8	384.4	359.6	332.7	305.2	277.7	252.2	206.3
20°	465.3	458.2	448.3	428.2	403.1	373.9	341.6	309.3	277.3	247.8	194.7
22.5°	490.4	483.3	472.4	451.7	421.4	385.8	349.1	312.0	276.0	242.7	183.9
25°	512.2	506.4	494.5	470.7	438.8	398.3	356.2	314.0	273.9	237.2	172.3
27.5°	529.2	523.7	510.5	486.0	453.4	409.5	361.6	315.1	271.2	231.8	160.4
30°	544.1	538.7	522.7	497.6	463.2	418.4	367.1	315.4	267.8	223.6	147.5
32.5°	555.7	550.6	534.3	507.4	470.0	424.5	370.1	315.1	263.4	217.9	133.6
35°	567.3	562.2	543.1	514.6	475.1	427.2	372.5	313.4	258.0	208.3	120.3
37.5°	576.1	570.3	550.9	519.3	477.5	427.9	372.2	311.0	252.2	200.5	107.1
40°	582.2	576.1	555.4	522.0	478.2	426.9	369.4	306.9	245.4	190.7	93.1
42.5°	586.3	579.5	557.4	526.1	476.8	424.2	365.4	301.8	237.9	182.2	79.9
45°	588.3	581.2	557.7	522.7	474.5	419.1	359.2	295.4	229.8	170.6	66.6
47.5°	587.3	579.5	556.0	519.0	470.0	413.6	352.5	287.5	219.9	160.4	54.0
50°	585.6	577.4	552.3	514.2	463.9	406.8	345.0	278.0	209.7	147.8	42.8
52.5°	580.2	572.0	548.2	507.4	456.8	399.0	334.8	268.2	198.8	135.6	32.6
55°	573.4	565.9	541.1	501.3	447.6	389.5	325.3	257.6	188.3	123.0	23.5
57.5°	562.8	556.0	532.2	491.5	438.4	379.0	314.7	246.1	175.0	110.5	16.3
60°	549.9	543.1	520.0	480.2	427.9	367.1	303.2	234.2	163.1	97.9	10.2
62.5°	536.3	529.9	505.7	466.3	414.6	354.5	290.6	222.3	150.6	86.3	6.1
65°	518.3	512.2	490.4	449.7	400.0	340.9	276.7	208.0	137.6	73.4	3.4
67.5°	499.3	493.8	471.7	434.4	383.0	325.9	262.4	194.1	124.1	62.2	1.7
70°	478.9	472.1	451.7	413.6	365.7	308.9	246.7	179.8	111.1	51.3	0.0
72.5°	455.1	450.0	430.3	394.3	345.7	290.9	230.8	164.2	96.9	40.8	0.3
75°	432.0	425.5	407.5	373.5	325.9	271.9	213.1	149.5	82.9	31.3	0.3
77.5°	402.1	400.0	383.0	350.1	307.2	253.5	193.7	131.9	69.7	22.4	0.3
80°	372.2	370.1	356.9	326.6	285.5	231.8	175.7	115.2	56.8	15.0	0.3
82.5°	342.6	339.9	327.3	302.1	263.4	213.4	157.0	98.6	44.9	9.2	0.3
85°	316.1	312.7	299.1	276.0	240.6	192.7	137.6	82.2	33.3	5.1	0.7
87.5°	293.3	290.9	276.0	252.2	217.5	173.3	120.7	66.6	23.5	2.4	1.0
90°	273.9	268.8	255.6	230.4	195.8	151.9	102.6	53.4	15.6	1.4	1.4
92.5°	254.9	250.5	235.9	210.0	176.4	133.6	85.3	40.8	9.9	0.7	1.7
95°	235.2	230.4	216.2	192.4	156.7	114.9	70.0	29.9	5.4	0.7	1.7
97.5°	215.8	211.4	196.4	172.7	139.0	98.6	55.4	21.1	2.7	0.7	1.4
100°	197.8	192.7	179.1	155.3	121.3	82.2	42.8	13.6	1.7	0.7	1.4
102.5°	178.8	174.7	160.8	137.6	103.0	67.0	31.9	8.5	0.7	0.7	1.0
105°	161.8	156.7	143.1	119.3	87.7	52.7	22.4	5.1	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	105.4	101.3	89.4	69.3	44.5	20.7	6.1	1.0	1.0	1.0	1.0
115°	88.0	81.9	71.4	53.7	33.0	13.6	3.1	1.0	1.0	1.0	1.0
117.5°	70.4	65.3	57.8	40.8	21.8	8.8	1.7	1.0	1.0	1.0	1.0
120°	55.1	50.3	41.8	28.2	14.6	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.4	35.7	28.2	18.4	8.8	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.2	24.1	18.7	11.2	5.4	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.0	15.3	10.9	6.5	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.5	8.5	6.5	3.7	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.4	5.1	3.4	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.4	1.7	1.7	1.7	1.4
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.4
142.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
145°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
150°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
152.5°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
157.5°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.4
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	266.8	266.8	266.8
2.5°	253.9	249.1	247.8
5°	240.3	232.5	228.1
7.5°	226.7	216.2	211.1
10°	214.1	199.2	193.7
12.5°	199.2	181.8	173.3
15°	184.9	162.5	154.3
17.5°	168.9	143.8	134.3
20°	154.0	125.1	115.2
22.5°	137.0	106.7	95.8
25°	121.7	88.4	76.1
27.5°	104.7	69.7	59.1
30°	88.7	53.4	42.8
32.5°	73.4	39.1	29.6
35°	59.1	26.5	18.7
37.5°	45.5	16.3	9.5
40°	33.0	8.5	4.4
42.5°	22.1	4.1	2.4
45°	13.6	2.0	0.0
47.5°	7.8	0.0	0.0
50°	4.1	0.0	0.0
52.5°	1.7	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°	0.3	0.3	0.3
77.5°	0.3	0.7	1.0
80°	0.7	1.4	1.7
82.5°	1.4	1.7	1.7
85°	1.4	1.7	2.0
87.5°	1.7	2.0	2.4
90°	2.0	2.4	2.4
92.5°	2.0	2.7	2.7
95°	2.4	2.7	3.1
97.5°	2.7	3.1	3.1
100°	2.4	3.1	3.4
102.5°	2.0	3.1	3.1
105°	1.7	2.4	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.7	1.7
115°	1.0	1.4	1.7
117.5°	1.0	1.4	1.4
120°	1.0	1.0	1.4
122.5°	1.0	1.0	1.4
125°	1.0	1.0	1.4
127.5°	1.4	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.4	1.0	1.0
135°	1.4	1.0	1.0
137.5°	1.4	1.0	1.0
140°	1.4	1.0	1.0
142.5°	1.4	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.4	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	142.7	138.7	125.1	102.6	71.7	40.1	15.0	2.7	0.7	1.0	1.0
110°	124.4	121.0	107.1	85.3	57.8	29.9	9.9	1.7	1.0	1.0	1.0





107.5°	1.4	2.0	2.4
110°	1.4	1.7	2.0



(END OF REPORT)