

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: P550479

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-93-88-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: P550479  
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-93-88-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

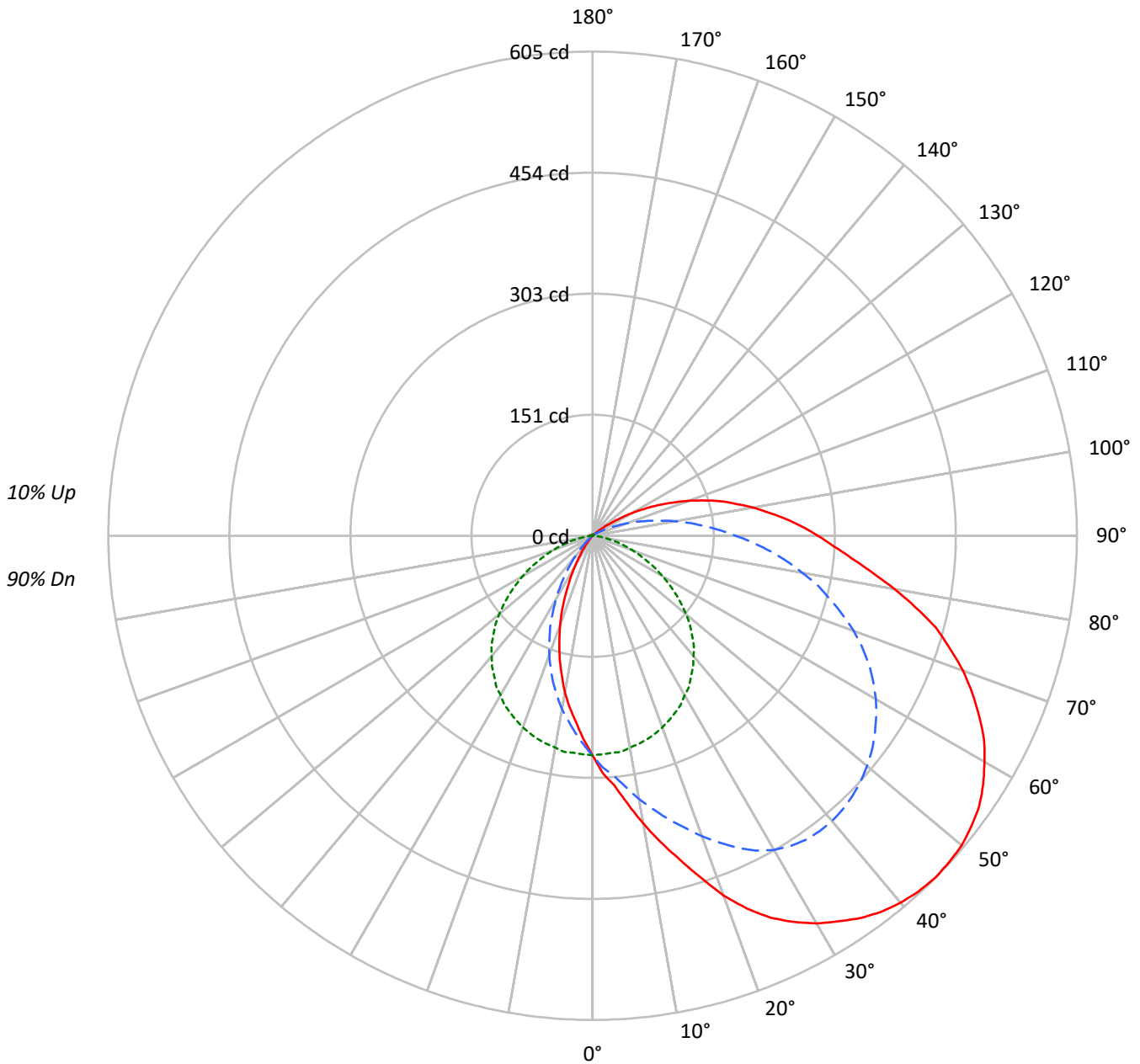
Lumens per Lamp: N/A  
Luminaire Lumens: 1355.9 lumens  
Efficiency: N/A  
Efficacy: 62.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-93-88-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°	2953	2953	2953
5°	3241	2909	2428
10°	3667	2874	2001
15°	4110	2837	1559
20°	4635	2791	1147
25°	5072	2737	754
30°	5395	2665	424
35°	5676	2588	187
40°	5924	2493	45
45°	6138	2373	0
50°	6317	2215	0
55°	6454	2014	0
60°	6522	1780	0
65°	6549	1516	0
70°	6527	1237	0
75°	6444	910	4
80°	6183	559	27
85°	5977	264	39



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.3	1.9
10°-20°	78.7	5.8
20°-30°	127.4	9.4
30°-40°	163.6	12.1
40°-50°	185.2	13.7
50°-60°	191.9	14.2
60°-70°	181.0	13.3
70°-80°	151.7	11.2
80°-90°	109.9	8.1
90°-100°	72.3	5.3
100°-110°	41.7	3.1
110°-120°	18.4	1.4
120°-130°	5.0	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°	232.3	17.1
0°-40°	396.0	29.2
0°-60°	773.1	57.0
0°-90°	1215.7	89.7
90°-120°	132.4	9.8
90°-150°	139.2	10.3
90°-180°	140.0	10.3
0°-180°	1355.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	274	274	274	274	274	
5°	313	301	272	247	234	32
15°	418	367	263	190	159	121
25°	527	430	244	125	78	243
35°	583	464	214	61	19	366
45°	605	459	175	14	0	467
55°	590	430	126	0	0	526
65°	533	381	76	0	0	527
75°	444	307	32	0	0	466
85°	325	223	5	1	2	278
90°	282	179	1	2	2	154
95°	242	140	1	2	3	190
105°	166	72	1	2	3	176
115°	90	24	1	1	2	91
125°	27	3	1	1	1	27
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°	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3
2.5°	297.3	297.0	295.9	294.2	291.8	287.6	284.1	280.9	276.7	273.2	266.6
5°	313.1	311.3	309.9	308.2	302.6	298.7	292.5	285.5	278.8	272.2	258.9
7.5°	338.2	335.4	333.3	328.4	320.8	312.0	302.2	295.6	291.1	272.5	249.8
10°	365.1	362.7	358.5	349.8	340.3	327.7	313.8	298.0	284.1	268.7	241.8
12.5°	391.7	388.2	382.3	371.1	357.8	342.1	322.9	304.3	284.4	266.2	232.4
15°	418.2	414.4	408.1	394.5	377.0	356.4	333.0	309.6	286.2	263.1	222.6
17.5°	447.2	442.0	432.6	417.2	395.2	369.7	342.1	313.8	285.5	259.3	212.1
20°	478.3	471.0	460.9	440.3	414.4	384.4	351.2	318.0	285.1	254.7	200.2
22.5°	504.2	496.9	485.7	464.4	433.3	396.6	358.8	320.8	283.7	249.5	189.0
25°	526.6	520.6	508.4	483.9	451.1	409.5	366.2	322.9	281.6	243.9	177.2
27.5°	544.0	538.4	524.8	499.7	466.1	421.0	371.8	323.9	278.8	238.3	164.9
30°	559.4	553.8	537.4	511.5	476.2	430.1	377.4	324.3	275.3	229.9	151.6
32.5°	571.3	566.0	549.3	521.7	483.2	436.4	380.5	323.9	270.8	224.0	137.3
35°	583.2	577.9	558.4	529.0	488.5	439.2	383.0	322.2	265.2	214.2	123.7
37.5°	592.2	586.3	566.4	533.9	490.9	439.9	382.6	319.7	259.3	206.2	110.1
40°	598.5	592.2	570.9	536.7	491.6	438.9	379.8	315.5	252.3	196.0	95.7
42.5°	602.7	595.7	573.0	540.9	490.2	436.1	375.6	310.3	244.6	187.3	82.1
45°	604.8	597.5	573.4	537.4	487.8	430.8	369.3	303.6	236.2	175.4	68.5
47.5°	603.8	595.7	571.6	533.5	483.2	425.2	362.3	295.6	226.1	164.9	55.6
50°	602.0	593.6	567.8	528.7	476.9	418.2	354.7	285.8	215.6	152.0	44.0
52.5°	596.4	588.1	563.6	521.7	469.6	410.2	344.2	275.7	204.4	139.4	33.5
55°	589.5	581.8	556.3	515.4	460.2	400.4	334.4	264.9	193.6	126.5	24.1
57.5°	578.6	571.6	547.2	505.2	450.7	389.6	323.6	253.0	179.9	113.6	16.8
60°	565.3	558.4	534.6	493.7	439.9	377.4	311.7	240.7	167.7	100.6	10.5
62.5°	551.4	544.7	519.9	479.4	426.3	364.4	298.7	228.5	154.8	88.7	6.3
65°	532.8	526.6	504.2	462.3	411.3	350.5	284.4	213.8	141.5	75.5	3.5
67.5°	513.3	507.7	485.0	446.5	393.8	335.1	269.7	199.5	127.5	63.9	1.7
70°	492.3	485.3	464.4	425.2	376.0	317.6	253.7	184.8	114.3	52.8	0.0
72.5°	467.9	462.6	442.4	405.3	355.3	299.1	237.2	168.8	99.6	41.9	0.3
75°	444.1	437.5	418.9	384.0	335.1	279.5	219.1	153.7	85.3	32.1	0.3
77.5°	413.4	411.3	393.8	359.9	315.9	260.7	199.2	135.6	71.6	23.1	0.3
80°	382.6	380.5	366.9	335.8	293.5	238.3	180.6	118.4	58.4	15.4	0.3
82.5°	352.2	349.4	336.5	310.6	270.8	219.4	161.4	101.3	46.1	9.4	0.3
85°	325.0	321.5	307.5	283.7	247.4	198.1	141.5	84.6	34.2	5.2	0.7
87.5°	301.5	299.1	283.7	259.3	223.6	178.2	124.0	68.5	24.1	2.4	1.0
90°	281.6	276.4	262.8	236.9	201.3	156.2	105.5	54.9	16.1	1.4	1.4
92.5°	262.1	257.5	242.5	215.9	181.3	137.3	87.7	41.9	10.1	0.7	1.7
95°	241.8	236.9	222.2	197.8	161.1	118.1	72.0	30.7	5.6	0.7	1.7
97.5°	221.9	217.3	202.0	177.5	142.9	101.3	57.0	21.7	2.8	0.7	1.4
100°	203.4	198.1	184.1	159.7	124.7	84.6	44.0	14.0	1.7	0.7	1.4
102.5°	183.8	179.6	165.3	141.5	105.9	68.8	32.8	8.7	0.7	0.7	1.0
105°	166.3	161.1	147.1	122.6	90.1	54.2	23.1	5.2	0.7	0.7	1.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	108.3	104.1	91.9	71.3	45.8	21.3	6.3	1.0	1.0	1.0	1.0
115°	90.5	84.2	73.4	55.2	33.9	14.0	3.1	1.0	1.0	1.0	1.0
117.5°	72.3	67.1	59.4	41.9	22.4	9.1	1.7	1.0	1.0	1.0	1.0
120°	56.6	51.7	43.0	29.0	15.0	5.2	0.7	1.0	1.0	1.0	1.0
122.5°	40.5	36.7	29.0	18.9	9.1	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.9	24.8	19.2	11.5	5.6	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.5	15.7	11.2	6.6	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.8	8.7	6.6	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.6	5.2	3.5	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°	274.3	274.3	274.3
2.5°	261.0	256.1	254.7
5°	247.0	239.0	234.5
7.5°	233.1	222.2	217.0
10°	220.1	204.8	199.2
12.5°	204.8	186.9	178.2
15°	190.1	167.0	158.6
17.5°	173.7	147.8	138.0
20°	158.3	128.6	118.4
22.5°	140.8	109.7	98.5
25°	125.1	90.8	78.3
27.5°	107.6	71.6	60.8
30°	91.2	54.9	44.0
32.5°	75.5	40.2	30.4
35°	60.8	27.3	19.2
37.5°	46.8	16.8	9.8
40°	33.9	8.7	4.5
42.5°	22.7	4.2	2.4
45°	14.0	2.1	0.0
47.5°	8.0	0.0	0.0
50°	4.2	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	2.1
87.5°	1.7	2.1	2.4
90°	2.1	2.4	2.4
92.5°	2.1	2.8	2.8
95°	2.4	2.8	3.1
97.5°	2.8	3.1	3.1
100°	2.4	3.1	3.5
102.5°	2.1	3.1	3.1
105°	1.7	2.4	2.8





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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°	146.8	142.6	128.6	105.5	73.7	41.2	15.4	2.8	0.7	1.0	1.0
110°	127.9	124.4	110.1	87.7	59.4	30.7	10.1	1.7	1.0	1.0	1.0







107.5°	1.4	2.1	2.4
110°	1.4	1.7	2.1



(END OF REPORT)