

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: P551120

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-88-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: P551120
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-93-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

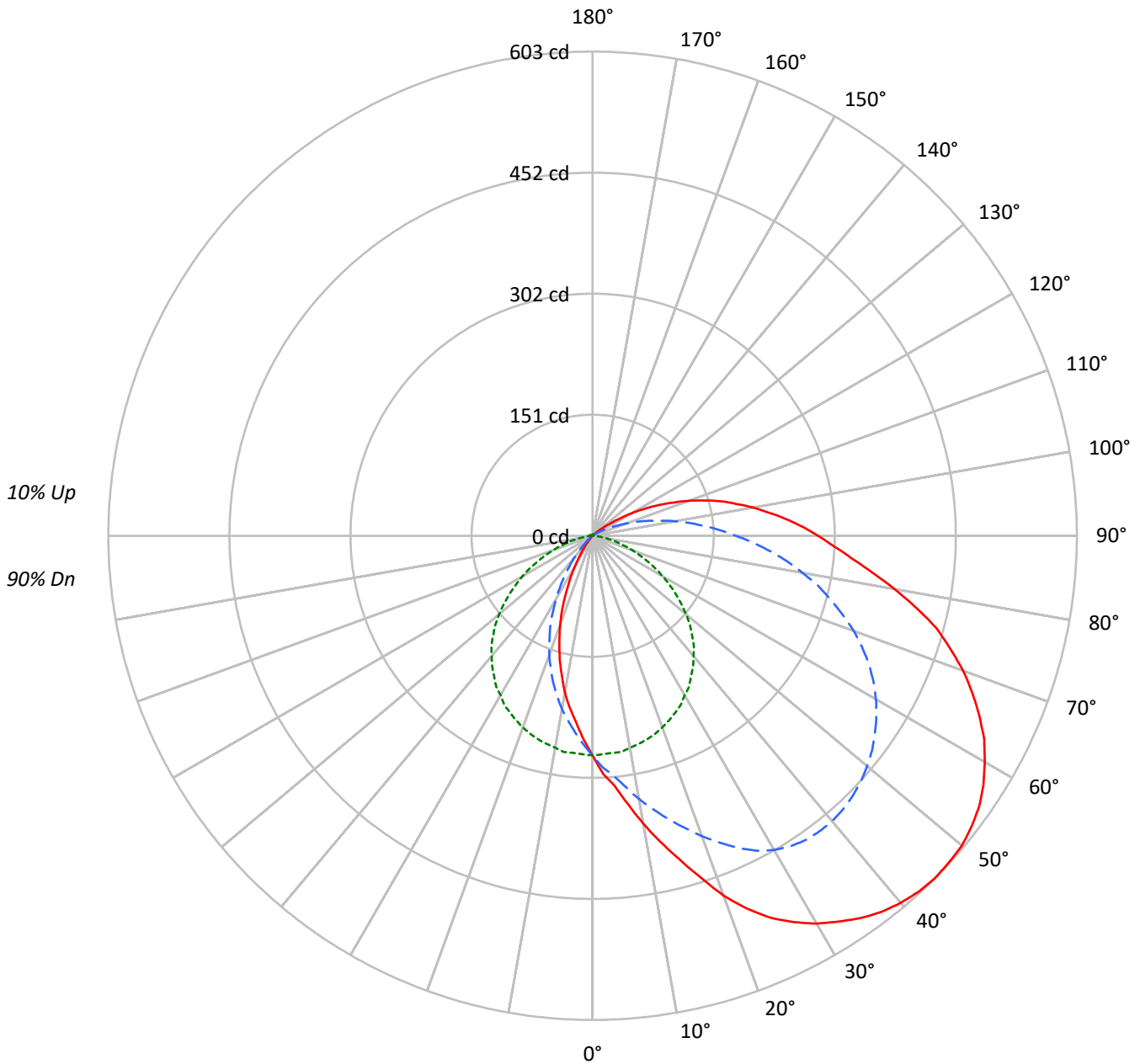
Lumens per Lamp: N/A
Luminaire Lumens: 1351.9 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551120

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-88-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°	2944	2944	2944
5°	3231	2901	2420
10°	3657	2865	1995
15°	4098	2828	1555
20°	4622	2783	1145
25°	5056	2729	751
30°	5380	2657	423
35°	5659	2581	187
40°	5907	2485	45
45°	6119	2367	0
50°	6299	2208	0
55°	6434	2008	0
60°	6503	1775	0
65°	6530	1510	0
70°	6508	1232	0
75°	6425	910	4
80°	6165	555	27
85°	5959	264	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	1.9
10°-20°	78.4	5.8
20°-30°	127.0	9.4
30°-40°	163.2	12.1
40°-50°	184.7	13.7
50°-60°	191.3	14.2
60°-70°	180.5	13.3
70°-80°	151.2	11.2
80°-90°	109.6	8.1
90°-100°	72.0	5.3
100°-110°	41.6	3.1
110°-120°	18.3	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°	231.6	17.1
0°-40°	394.8	29.2
0°-60°	770.9	57.0
0°-90°	1212.2	89.7
90°-120°	132.0	9.8
90°-150°	138.8	10.3
90°-180°	140.0	10.4
0°-180°	1351.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	274	274	274	274	274	
5°	312	300	271	246	234	31
15°	417	366	262	190	158	120
25°	525	429	243	125	78	243
35°	581	462	214	61	19	365
45°	603	458	175	14	0	466
55°	588	429	126	0	0	525
65°	531	380	75	0	0	526
75°	443	306	32	0	0	464
85°	324	222	5	1	2	277
90°	281	178	1	2	2	154
95°	241	139	1	2	3	189
105°	166	72	1	2	3	175
115°	90	24	1	1	2	90
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°	273.5	273.5	273.5	273.5	273.5	273.5	273.5	273.5	273.5	273.5	273.5
2.5°	296.5	296.1	295.1	293.3	290.9	286.7	283.2	280.1	275.9	272.4	265.8
5°	312.1	310.4	309.0	307.3	301.7	297.9	291.6	284.6	278.0	271.4	258.1
7.5°	337.2	334.4	332.4	327.5	319.8	311.1	301.3	294.7	290.2	271.7	249.1
10°	364.1	361.6	357.4	348.7	339.3	326.8	312.8	297.2	283.2	267.9	241.1
12.5°	390.5	387.0	381.1	370.0	356.7	341.1	321.9	303.4	283.6	265.5	231.7
15°	417.0	413.2	406.9	393.3	375.9	355.3	332.0	308.7	285.3	262.3	221.9
17.5°	445.9	440.7	431.3	416.0	394.0	368.6	341.1	312.8	284.6	258.5	211.5
20°	476.9	469.6	459.5	439.0	413.2	383.2	350.1	317.0	284.3	254.0	199.6
22.5°	502.7	495.4	484.2	463.0	432.0	395.4	357.8	319.8	282.9	248.7	188.5
25°	525.0	519.1	506.9	482.5	449.8	408.3	365.1	321.9	280.8	243.2	176.6
27.5°	542.4	536.9	523.3	498.2	464.7	419.8	370.7	322.9	278.0	237.6	164.4
30°	557.8	552.2	535.8	510.0	474.8	428.9	376.2	323.3	274.5	229.2	151.2
32.5°	569.6	564.4	547.7	520.1	481.8	435.1	379.4	322.9	270.0	223.3	136.9
35°	581.4	576.2	556.7	527.4	487.0	437.9	381.8	321.2	264.4	213.6	123.3
37.5°	590.5	584.6	564.7	532.3	489.5	438.6	381.5	318.8	258.5	205.5	109.7
40°	596.8	590.5	569.3	535.1	490.2	437.6	378.7	314.6	251.5	195.4	95.5
42.5°	601.0	594.0	571.3	539.3	488.8	434.8	374.5	309.4	243.9	186.7	81.9
45°	603.0	595.7	571.7	535.8	486.3	429.6	368.2	302.7	235.5	174.9	68.3
47.5°	602.0	594.0	569.9	532.0	481.8	424.0	361.3	294.7	225.4	164.4	55.4
50°	600.3	591.9	566.1	527.1	475.5	417.0	353.6	285.0	214.9	151.5	43.9
52.5°	594.7	586.3	561.9	520.1	468.2	409.0	343.2	274.9	203.8	139.0	33.4
55°	587.7	580.1	554.6	513.9	458.8	399.2	333.4	264.1	193.0	126.1	24.0
57.5°	576.9	569.9	545.6	503.8	449.4	388.4	322.6	252.2	179.4	113.2	16.7
60°	563.7	556.7	533.0	492.3	438.6	376.2	310.8	240.0	167.2	100.3	10.5
62.5°	549.7	543.1	518.4	478.0	425.0	363.4	297.9	227.8	154.3	88.5	6.3
65°	531.3	525.0	502.7	460.9	410.0	349.4	283.6	213.2	141.1	75.2	3.5
67.5°	511.8	506.2	483.5	445.2	392.6	334.1	268.9	198.9	127.2	63.8	1.7
70°	490.9	483.9	463.0	424.0	374.9	316.7	252.9	184.3	113.9	52.6	0.0
72.5°	466.5	461.3	441.0	404.1	354.3	298.2	236.5	168.3	99.3	41.8	0.3
75°	442.8	436.2	417.7	382.9	334.1	278.7	218.4	153.3	85.0	32.1	0.3
77.5°	412.1	410.0	392.6	358.8	314.9	259.9	198.6	135.2	71.4	23.0	0.3
80°	381.5	379.4	365.8	334.8	292.6	237.6	180.1	118.1	58.2	15.3	0.3
82.5°	351.2	348.4	335.5	309.7	270.0	218.8	161.0	101.0	46.0	9.4	0.3
85°	324.0	320.5	306.6	282.9	246.7	197.5	141.1	84.3	34.1	5.2	0.7
87.5°	300.7	298.2	282.9	258.5	223.0	177.7	123.7	68.3	24.0	2.4	1.0
90°	280.8	275.6	262.0	236.2	200.7	155.7	105.2	54.7	16.0	1.4	1.4
92.5°	261.3	256.8	241.8	215.3	180.8	136.9	87.4	41.8	10.1	0.7	1.7
95°	241.1	236.2	221.6	197.2	160.6	117.8	71.8	30.7	5.6	0.7	1.7
97.5°	221.2	216.7	201.4	177.0	142.5	101.0	56.8	21.6	2.8	0.7	1.4
100°	202.8	197.5	183.6	159.2	124.4	84.3	43.9	13.9	1.7	0.7	1.4
102.5°	183.2	179.1	164.8	141.1	105.6	68.6	32.7	8.7	0.7	0.7	1.0
105°	165.8	160.6	146.7	122.3	89.9	54.0	23.0	5.2	0.7	0.7	1.0



TEST NUMBER: P551120

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	108.0	103.8	91.6	71.1	45.6	21.3	6.3	1.0	1.0	1.0	1.0
115°	90.2	84.0	73.2	55.0	33.8	13.9	3.1	1.0	1.0	1.0	1.0
117.5°	72.1	66.9	59.2	41.8	22.3	9.1	1.7	1.0	1.0	1.0	1.0
120°	56.4	51.6	42.9	28.9	15.0	5.2	0.7	1.0	1.0	1.0	1.0
122.5°	40.4	36.6	28.9	18.8	9.1	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.8	24.7	19.2	11.5	5.6	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.4	15.7	11.1	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°	273.5	273.5	273.5
2.5°	260.2	255.4	254.0
5°	246.3	238.3	233.8
7.5°	232.4	221.6	216.3
10°	219.5	204.1	198.6
12.5°	204.1	186.4	177.7
15°	189.5	166.5	158.2
17.5°	173.1	147.4	137.6
20°	157.8	128.2	118.1
22.5°	140.4	109.4	98.2
25°	124.7	90.6	78.0
27.5°	107.3	71.4	60.6
30°	90.9	54.7	43.9
32.5°	75.2	40.1	30.3
35°	60.6	27.2	19.2
37.5°	46.7	16.7	9.8
40°	33.8	8.7	4.5
42.5°	22.6	4.2	2.4
45°	13.9	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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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-88-ED1D

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°	146.3	142.1	128.2	105.2	73.5	41.1	15.3	2.8	0.7	1.0	1.0
110°	127.5	124.0	109.7	87.4	59.2	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)