

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: P551626

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-93-85-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: P551626
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-LD4-2LO-40-UNV-93-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

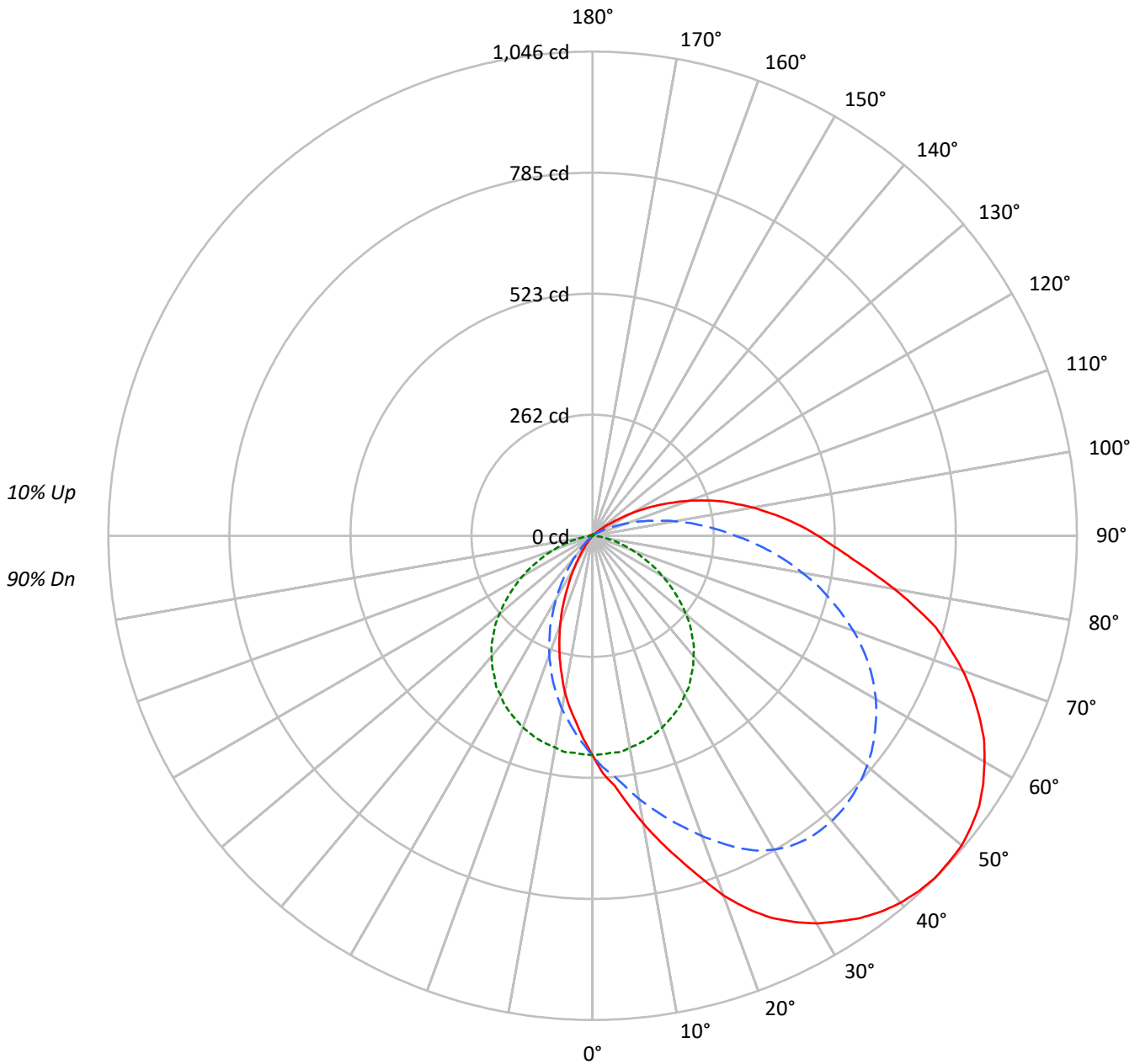
Lumens per Lamp: N/A
Luminaire Lumens: 2343.9 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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: P551626

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-85-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551626

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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°	5103	5103	5103
5°	5603	5029	4196
10°	6340	4967	3458
15°	7105	4904	2695
20°	8014	4824	1985
25°	8766	4731	1303
30°	9327	4607	734
35°	9812	4473	323
40°	10241	4309	78
45°	10610	4103	0
50°	10920	3829	0
55°	11155	3481	0
60°	11275	3079	0
65°	11321	2621	0
70°	11283	2136	0
75°	11140	1577	9
80°	10689	965	48
85°	10331	463	66



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	1.9
10°-20°	136.0	5.8
20°-30°	220.2	9.4
30°-40°	282.9	12.1
40°-50°	320.2	13.7
50°-60°	331.8	14.2
60°-70°	312.9	13.3
70°-80°	262.2	11.2
80°-90°	190.0	8.1
90°-100°	124.9	5.3
100°-110°	72.1	3.1
110°-120°	31.8	1.4
120°-130°	8.6	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	401.6	17.1
0°-40°	684.5	29.2
0°-60°	1336.5	57.0
0°-90°	2101.6	89.7
90°-120°	228.9	9.8
90°-150°	240.7	10.3
90°-180°	242.0	10.3
0°-180°	2343.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	474	474	474	474	474	
5°	541	520	470	427	405	55
15°	723	634	455	329	274	208
25°	910	744	422	216	135	421
35°	1008	802	370	105	33	632
45°	1046	794	303	24	0	807
55°	1019	744	219	0	0	910
65°	921	658	130	0	0	911
75°	768	531	56	1	1	805
85°	562	385	9	2	4	480
90°	487	309	2	4	4	267
95°	418	241	1	4	5	328
105°	288	125	1	3	5	303
115°	156	41	2	2	3	157
125°	46	6	2	2	2	46
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	474.1	474.1	474.1	474.1	474.1	474.1	474.1	474.1	474.1	474.1	474.1
2.5°	514.0	513.4	511.6	508.6	504.3	497.1	491.0	485.6	478.4	472.3	460.8
5°	541.2	538.2	535.7	532.7	523.1	516.4	505.5	493.5	482.0	470.5	447.6
7.5°	584.7	579.8	576.2	567.8	554.5	539.4	522.5	511.0	503.1	471.1	431.9
10°	631.2	626.9	619.7	604.6	588.3	566.5	542.4	515.2	491.0	464.5	418.0
12.5°	677.1	671.0	660.8	641.4	618.5	591.3	558.1	526.1	491.7	460.2	401.7
15°	723.0	716.3	705.5	681.9	651.7	616.1	575.6	535.1	494.7	454.8	384.7
17.5°	773.1	764.1	747.7	721.2	683.1	639.0	591.3	542.4	493.5	448.2	366.6
20°	826.9	814.2	796.7	761.0	716.3	664.4	607.0	549.6	492.9	440.3	346.1
22.5°	871.6	858.9	839.6	802.7	749.0	685.5	620.3	554.5	490.4	431.3	326.8
25°	910.2	900.0	878.8	836.5	779.8	707.9	633.0	558.1	486.8	421.6	306.2
27.5°	940.4	930.8	907.2	863.7	805.7	727.8	642.6	559.9	482.0	411.9	285.1
30°	967.0	957.3	928.9	884.2	823.2	743.5	652.3	560.5	475.9	397.4	262.1
32.5°	987.5	978.5	949.5	901.8	835.3	754.4	657.7	559.9	468.1	387.2	237.4
35°	1008.1	999.0	965.2	914.4	844.4	759.2	662.0	556.9	458.4	370.2	213.8
37.5°	1023.8	1013.5	979.1	922.9	848.6	760.4	661.4	552.7	448.2	356.4	190.3
40°	1034.6	1023.8	986.9	927.7	849.8	758.6	656.5	545.4	436.1	338.8	165.5
42.5°	1041.9	1029.8	990.5	935.0	847.4	753.8	649.3	536.3	422.8	323.7	141.9
45°	1045.5	1032.8	991.2	928.9	843.2	744.7	638.4	524.9	408.3	303.2	118.4
47.5°	1043.7	1029.8	988.1	922.3	835.3	735.1	626.3	511.0	390.8	285.1	96.0
50°	1040.7	1026.2	981.5	913.8	824.5	723.0	613.1	494.1	372.7	262.7	76.1
52.5°	1031.0	1016.5	974.2	901.8	811.8	709.1	594.9	476.6	353.3	241.0	58.0
55°	1018.9	1005.6	961.6	890.9	795.5	692.2	578.0	457.8	334.6	218.6	41.7
57.5°	1000.2	988.1	945.9	873.4	779.2	673.5	559.3	437.3	311.1	196.3	29.0
60°	977.3	965.2	924.1	853.4	760.4	652.3	538.8	416.2	289.9	174.0	18.1
62.5°	953.1	941.6	898.7	828.7	736.9	630.0	516.4	395.0	267.6	153.4	10.9
65°	921.1	910.2	871.6	799.1	710.9	605.8	491.7	369.6	244.6	130.5	6.0
67.5°	887.3	877.6	838.3	771.9	680.7	579.2	466.3	344.9	220.5	110.5	3.0
70°	851.0	838.9	802.7	735.1	649.9	549.0	438.5	319.5	197.5	91.2	0.0
72.5°	808.7	799.7	764.7	700.6	614.3	517.0	410.1	291.7	172.1	72.5	0.6
75°	767.7	756.2	724.2	663.8	579.2	483.2	378.7	265.8	147.4	55.6	0.6
77.5°	714.5	710.9	680.7	622.1	546.0	450.6	344.3	234.3	123.8	39.9	0.6
80°	661.4	657.7	634.2	580.4	507.4	411.9	312.3	204.8	100.9	26.6	0.6
82.5°	608.8	604.0	581.6	537.0	468.1	379.3	279.0	175.2	79.7	16.3	0.6
85°	561.7	555.7	531.5	490.4	427.6	342.5	244.6	146.2	59.2	9.1	1.2
87.5°	521.2	517.0	490.4	448.2	386.6	308.0	214.4	118.4	41.7	4.2	1.8
90°	486.8	477.8	454.2	409.5	347.9	270.0	182.4	94.8	27.8	2.4	2.4
92.5°	453.0	445.1	419.2	373.3	313.5	237.4	151.6	72.5	17.5	1.2	3.0
95°	418.0	409.5	384.1	341.9	278.4	204.1	124.4	53.2	9.7	1.2	3.0
97.5°	383.5	375.7	349.1	306.8	247.0	175.2	98.5	37.4	4.8	1.2	2.4
100°	351.5	342.5	318.3	276.0	215.6	146.2	76.1	24.2	3.0	1.2	2.4
102.5°	317.7	310.5	285.7	244.6	183.0	119.0	56.8	15.1	1.2	1.2	1.8
105°	287.5	278.4	254.3	212.0	155.8	93.6	39.9	9.1	1.2	1.2	1.8



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	187.2	180.0	158.9	123.2	79.1	36.8	10.9	1.8	1.8	1.8	1.8
115°	156.4	145.6	126.8	95.4	58.6	24.2	5.4	1.8	1.8	1.8	1.8
117.5°	125.0	116.0	102.7	72.5	38.7	15.7	3.0	1.8	1.8	1.8	1.8
120°	97.8	89.4	74.3	50.1	26.0	9.1	1.2	1.8	1.8	1.8	1.8
122.5°	70.1	63.4	50.1	32.6	15.7	4.2	1.8	1.8	2.4	2.4	1.8
125°	46.5	42.9	33.2	19.9	9.7	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	30.2	27.2	19.3	11.5	4.2	1.8	1.8	2.4	2.4	2.4	1.8
130°	16.9	15.1	11.5	6.6	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.7	9.1	6.0	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	3.0	3.0	3.0	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	3.0
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



TEST NUMBER: P551626

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	474.1	474.1	474.1
2.5°	451.2	442.7	440.3
5°	427.0	413.1	405.3
7.5°	402.9	384.1	375.1
10°	380.5	353.9	344.3
12.5°	353.9	323.1	308.0
15°	328.6	288.7	274.2
17.5°	300.2	255.5	238.6
20°	273.6	222.3	204.8
22.5°	243.4	189.7	170.3
25°	216.2	157.0	135.3
27.5°	186.0	123.8	105.1
30°	157.6	94.8	76.1
32.5°	130.5	69.5	52.5
35°	105.1	47.1	33.2
37.5°	80.9	29.0	16.9
40°	58.6	15.1	7.9
42.5°	39.3	7.2	4.2
45°	24.2	3.6	0.0
47.5°	13.9	0.0	0.0
50°	7.2	0.0	0.0
52.5°	3.0	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.8
80°	1.2	2.4	3.0
82.5°	2.4	3.0	3.0
85°	2.4	3.0	3.6
87.5°	3.0	3.6	4.2
90°	3.6	4.2	4.2
92.5°	3.6	4.8	4.8
95°	4.2	4.8	5.4
97.5°	4.8	5.4	5.4
100°	4.2	5.4	6.0
102.5°	3.6	5.4	5.4
105°	3.0	4.2	4.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.4	3.0	3.0
115°	1.8	2.4	3.0
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.4	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	253.7	246.4	222.3	182.4	127.4	71.3	26.6	4.8	1.2	1.8	1.8
110°	221.1	215.0	190.3	151.6	102.7	53.2	17.5	3.0	1.8	1.8	1.8





107.5°	2.4	3.6	4.2
110°	2.4	3.0	3.6



(END OF REPORT)