

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: P551577

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-80-85-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: P551577
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-80-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC 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

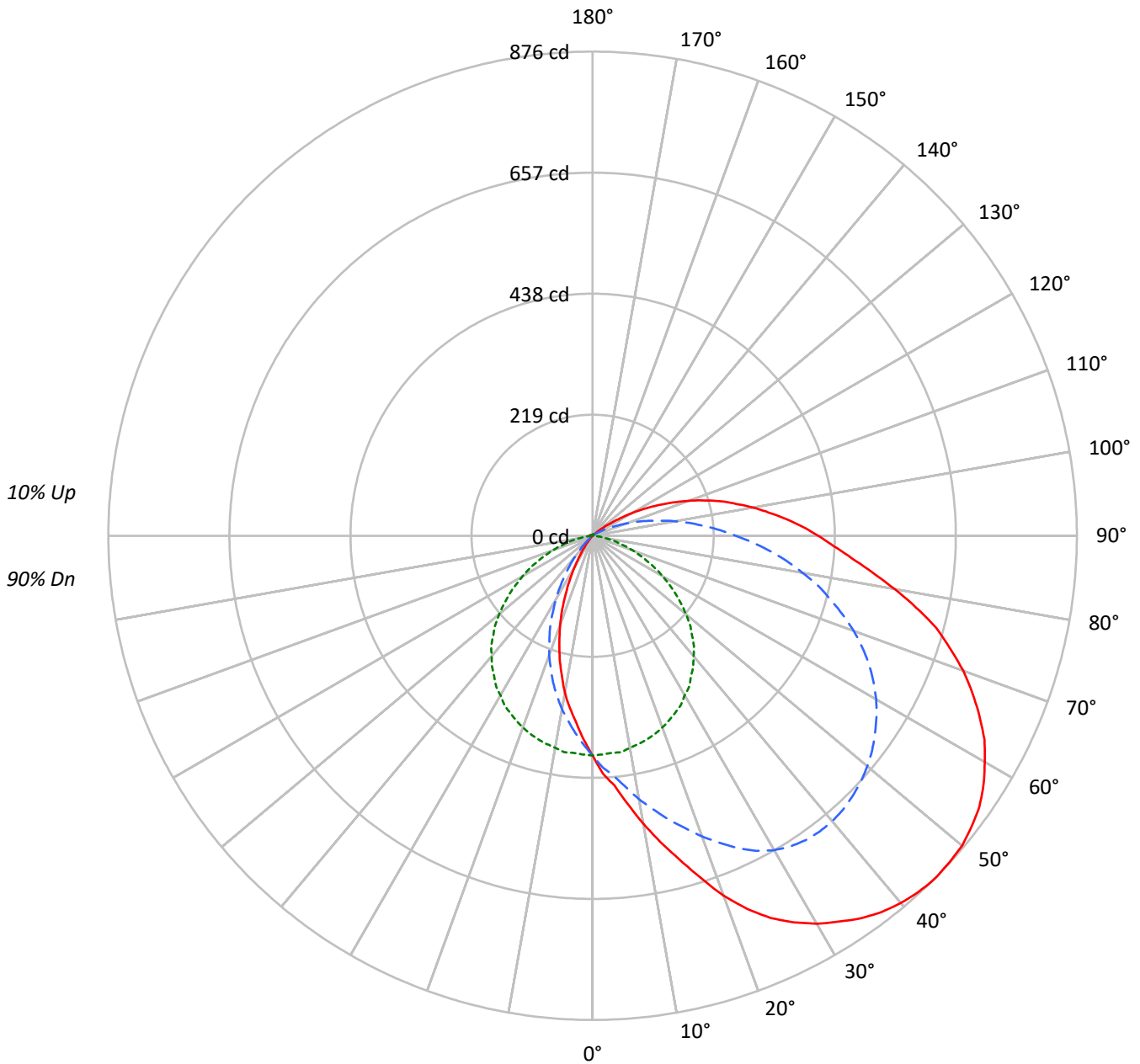
Lumens per Lamp: N/A
Luminaire Lumens: 1964.9 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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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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°	4279	4279	4279
5°	4697	4215	3518
10°	5315	4164	2899
15°	5956	4111	2259
20°	6718	4044	1663
25°	7349	3966	1092
30°	7818	3863	615
35°	8225	3750	271
40°	8586	3613	65
45°	8895	3440	0
50°	9154	3211	0
55°	9352	2919	0
60°	9451	2580	0
65°	9491	2197	0
70°	9458	1792	0
75°	9339	1322	7
80°	8960	809	40
85°	8661	386	55



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.1	1.9
10°-20°	114.0	5.8
20°-30°	184.6	9.4
30°-40°	237.1	12.1
40°-50°	268.4	13.7
50°-60°	278.1	14.2
60°-70°	262.3	13.3
70°-80°	219.8	11.2
80°-90°	159.3	8.1
90°-100°	104.7	5.3
100°-110°	60.5	3.1
110°-120°	26.7	1.4
120°-130°	7.2	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	336.7	17.1
0°-40°	573.8	29.2
0°-60°	1120.4	57.0
0°-90°	1761.8	89.7
90°-120°	191.9	9.8
90°-150°	201.8	10.3
90°-180°	203.0	10.3
0°-180°	1964.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	398	398	398	398	398	
5°	454	436	394	358	340	46
15°	606	531	381	275	230	175
25°	763	624	353	181	113	353
35°	845	672	310	88	28	530
45°	876	666	254	20	0	677
55°	854	624	183	0	0	763
65°	772	552	109	0	0	764
75°	644	445	47	0	0	675
85°	471	323	8	2	3	402
90°	408	259	2	3	4	224
95°	350	202	1	4	5	275
105°	241	105	1	2	4	254
115°	131	35	2	2	2	131
125°	39	5	2	2	2	39
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	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°	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5
2.5°	430.9	430.4	428.9	426.3	422.8	416.7	411.6	407.1	401.0	396.0	386.3
5°	453.7	451.1	449.1	446.6	438.5	432.9	423.8	413.7	404.1	394.4	375.2
7.5°	490.1	486.1	483.0	476.0	464.8	452.2	438.0	428.4	421.8	394.9	362.0
10°	529.1	525.6	519.5	506.8	493.2	474.9	454.7	431.9	411.6	389.4	350.4
12.5°	567.6	562.5	553.9	537.7	518.5	495.7	467.9	441.0	412.2	385.8	336.7
15°	606.1	600.5	591.4	571.7	546.3	516.5	482.5	448.6	414.7	381.3	322.5
17.5°	648.1	640.5	626.8	604.6	572.7	535.7	495.7	454.7	413.7	375.7	307.3
20°	693.2	682.5	667.9	638.0	600.5	557.0	508.9	460.8	413.2	369.1	290.1
22.5°	730.6	720.0	703.8	672.9	627.9	574.7	520.0	464.8	411.1	361.5	273.9
25°	763.0	754.4	736.7	701.3	653.7	593.4	530.6	467.9	408.1	353.4	256.7
27.5°	788.4	780.3	760.5	724.1	675.4	610.1	538.7	469.4	404.1	345.3	239.0
30°	810.6	802.5	778.7	741.3	690.1	623.3	546.8	469.9	399.0	333.2	219.7
32.5°	827.9	820.3	796.0	756.0	700.3	632.4	551.4	469.4	392.4	324.6	199.0
35°	845.1	837.5	809.1	766.6	707.9	636.5	554.9	466.8	384.3	310.4	179.2
37.5°	858.2	849.6	820.8	773.7	711.4	637.5	554.4	463.3	375.7	298.7	159.5
40°	867.4	858.2	827.4	777.7	712.4	636.0	550.4	457.2	365.6	284.1	138.7
42.5°	873.4	863.3	830.4	783.8	710.4	631.9	544.3	449.6	354.4	271.4	119.0
45°	876.5	865.8	830.9	778.7	706.8	624.3	535.2	440.0	342.3	254.2	99.2
47.5°	874.9	863.3	828.4	773.2	700.3	616.2	525.1	428.4	327.6	239.0	80.5
50°	872.4	860.3	822.8	766.1	691.1	606.1	513.9	414.2	312.4	220.3	63.8
52.5°	864.3	852.2	816.7	756.0	680.5	594.4	498.7	399.5	296.2	202.0	48.6
55°	854.2	843.0	806.1	746.8	666.8	580.3	484.6	383.8	280.5	183.3	34.9
57.5°	838.5	828.4	792.9	732.2	653.2	564.6	468.9	366.6	260.8	164.6	24.3
60°	819.2	809.1	774.7	715.5	637.5	546.8	451.7	348.9	243.0	145.8	15.2
62.5°	799.0	789.4	753.4	694.7	617.7	528.1	432.9	331.1	224.3	128.6	9.1
65°	772.2	763.0	730.6	669.9	596.0	507.9	412.2	309.9	205.1	109.4	5.1
67.5°	743.8	735.7	702.8	647.1	570.6	485.6	390.9	289.1	184.8	92.7	2.5
70°	713.4	703.3	672.9	616.2	544.8	460.3	367.6	267.9	165.6	76.5	0.0
72.5°	678.0	670.4	641.0	587.3	514.9	433.4	343.8	244.6	144.3	60.8	0.5
75°	643.6	633.9	607.1	556.5	485.6	405.1	317.5	222.8	123.5	46.6	0.5
77.5°	599.0	596.0	570.6	521.5	457.7	377.7	288.6	196.5	103.8	33.4	0.5
80°	554.4	551.4	531.7	486.6	425.3	345.3	261.8	171.6	84.6	22.3	0.5
82.5°	510.4	506.3	487.6	450.1	392.4	318.0	233.9	146.8	66.8	13.7	0.5
85°	470.9	465.8	445.6	411.1	358.5	287.1	205.1	122.5	49.6	7.6	1.0
87.5°	437.0	433.4	411.1	375.7	324.1	258.2	179.7	99.2	34.9	3.5	1.5
90°	408.1	400.5	380.8	343.3	291.6	226.3	152.9	79.5	23.3	2.0	2.0
92.5°	379.8	373.2	351.4	312.9	262.8	199.0	127.1	60.8	14.7	1.0	2.5
95°	350.4	343.3	322.0	286.6	233.4	171.1	104.3	44.6	8.1	1.0	2.5
97.5°	321.5	314.9	292.7	257.2	207.1	146.8	82.5	31.4	4.1	1.0	2.0
100°	294.7	287.1	266.8	231.4	180.8	122.5	63.8	20.3	2.5	1.0	2.0
102.5°	266.3	260.3	239.5	205.1	153.4	99.7	47.6	12.7	1.0	1.0	1.5
105°	241.0	233.4	213.2	177.7	130.6	78.5	33.4	7.6	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	157.0	150.9	133.2	103.3	66.3	30.9	9.1	1.5	1.5	1.5	1.5
115°	131.1	122.0	106.3	80.0	49.1	20.3	4.6	1.5	1.5	1.5	1.5
117.5°	104.8	97.2	86.1	60.8	32.4	13.2	2.5	1.5	1.5	1.5	1.5
120°	82.0	74.9	62.3	42.0	21.8	7.6	1.0	1.5	1.5	1.5	1.5
122.5°	58.7	53.2	42.0	27.3	13.2	3.5	1.5	1.5	2.0	2.0	1.5
125°	39.0	35.9	27.8	16.7	8.1	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.3	22.8	16.2	9.6	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.2	12.7	9.6	5.6	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.1	7.6	5.1	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



TEST NUMBER: P551577

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	397.5	397.5	397.5
2.5°	378.2	371.1	369.1
5°	358.0	346.3	339.8
7.5°	337.7	322.0	314.4
10°	319.0	296.7	288.6
12.5°	296.7	270.9	258.2
15°	275.4	242.0	229.9
17.5°	251.6	214.2	200.0
20°	229.4	186.3	171.6
22.5°	204.1	159.0	142.8
25°	181.3	131.6	113.4
27.5°	156.0	103.8	88.1
30°	132.2	79.5	63.8
32.5°	109.4	58.2	44.1
35°	88.1	39.5	27.8
37.5°	67.8	24.3	14.2
40°	49.1	12.7	6.6
42.5°	32.9	6.1	3.5
45°	20.3	3.0	0.0
47.5°	11.6	0.0	0.0
50°	6.1	0.0	0.0
52.5°	2.5	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.5
90°	3.0	3.5	3.5
92.5°	3.0	4.1	4.1
95°	3.5	4.1	4.6
97.5°	4.1	4.6	4.6
100°	3.5	4.6	5.1
102.5°	3.0	4.6	4.6
105°	2.5	3.5	4.1



TEST NUMBER: P551577

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	212.7	206.6	186.3	152.9	106.8	59.7	22.3	4.1	1.0	1.5	1.5
110°	185.3	180.3	159.5	127.1	86.1	44.6	14.7	2.5	1.5	1.5	1.5





107.5°	2.0	3.0	3.5
110°	2.0	2.5	3.0



(END OF REPORT)