

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: P551575

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-80-84-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: P551575  
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-80-84-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

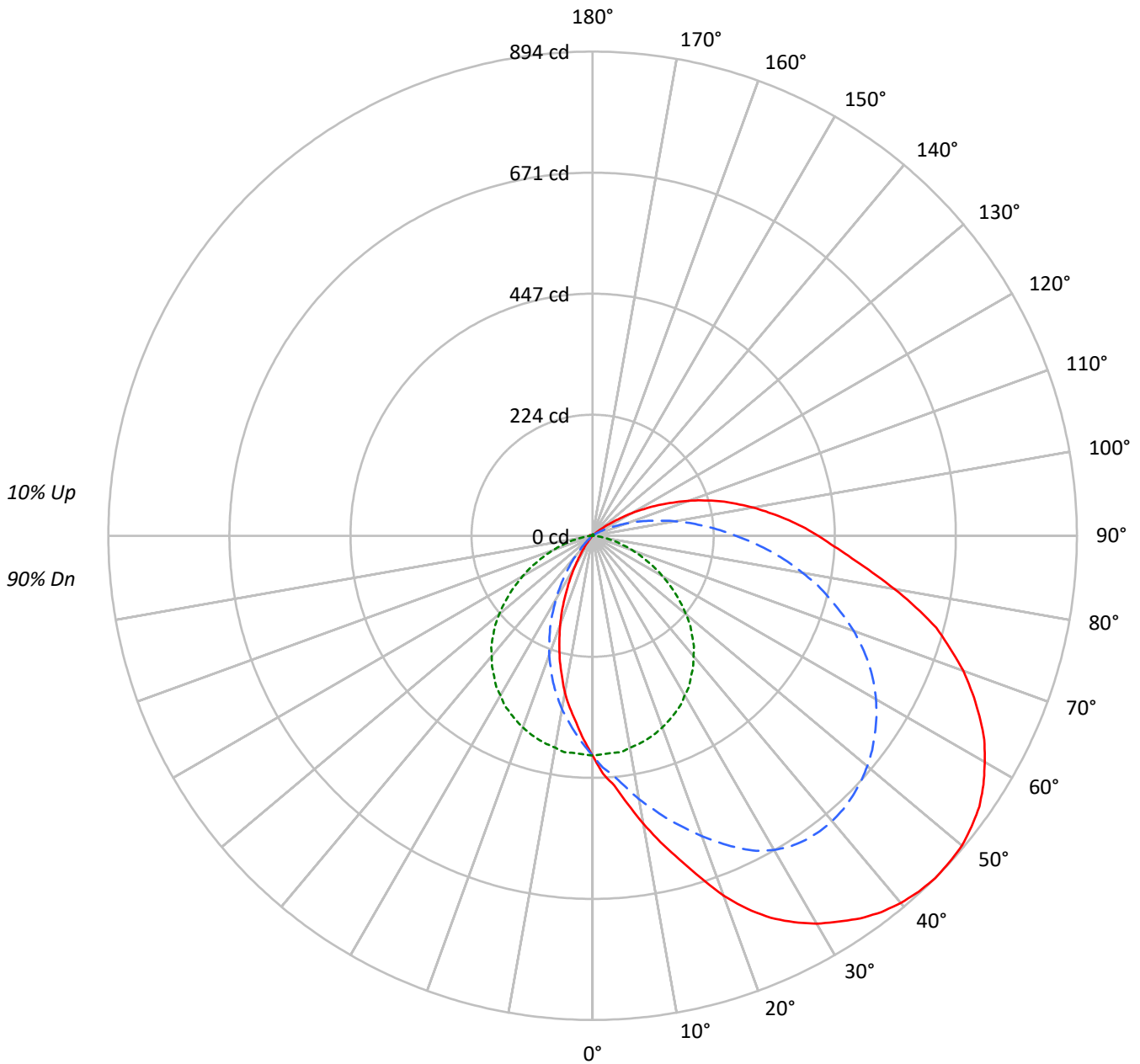
Lumens per Lamp: N/A  
Luminaire Lumens: 2004.9 lumens  
Efficiency: N/A  
Efficacy: 85.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

TEST NUMBER: P551575

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-84-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551575

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-84-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°	4366	4366	4366
5°	4792	4302	3589
10°	5423	4249	2958
15°	6077	4194	2305
20°	6855	4126	1697
25°	7499	4047	1114
30°	7977	3940	628
35°	8393	3827	276
40°	8760	3686	66
45°	9076	3510	0
50°	9341	3275	0
55°	9543	2978	0
60°	9644	2633	0
65°	9684	2242	0
70°	9651	1827	0
75°	9529	1347	7
80°	9142	823	42
85°	8837	392	57



TEST NUMBER: P551575

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-84-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.8	1.9
10°-20°	116.3	5.8
20°-30°	188.4	9.4
30°-40°	242.0	12.1
40°-50°	273.9	13.7
50°-60°	283.8	14.2
60°-70°	267.6	13.3
70°-80°	224.3	11.2
80°-90°	162.6	8.1
90°-100°	106.8	5.3
100°-110°	61.7	3.1
110°-120°	27.2	1.4
120°-130°	7.4	0.4
130°-140°	1.7	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°	343.5	17.1
0°-40°	585.5	29.2
0°-60°	1143.2	57.0
0°-90°	1797.6	89.7
90°-120°	195.7	9.8
90°-150°	205.9	10.3
90°-180°	207.0	10.3
0°-180°	2004.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	406	406	406	406	406	
5°	463	445	402	365	347	47
15°	618	542	389	281	235	178
25°	779	636	361	185	116	360
35°	862	686	317	90	28	541
45°	894	679	259	21	0	690
55°	872	636	187	0	0	778
65°	788	563	112	0	0	780
75°	657	454	48	0	0	689
85°	480	329	8	2	3	410
90°	416	264	2	3	4	228
95°	358	206	1	4	5	280
105°	246	107	1	3	4	260
115°	134	35	2	2	3	134
125°	40	5	2	2	2	40
135°	2	2	3	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	3	2	0	0
180°	2	2	2	2	2	



TEST NUMBER: P551575

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-84-ED1D-90

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6
2.5°	439.7	439.1	437.6	435.0	431.4	425.2	420.0	415.4	409.2	404.0	394.2
5°	462.9	460.3	458.3	455.7	447.4	441.7	432.4	422.1	412.3	402.5	382.8
7.5°	500.1	496.0	492.9	485.6	474.3	461.4	446.9	437.1	430.4	403.0	369.4
10°	539.9	536.3	530.1	517.2	503.2	484.6	463.9	440.7	420.0	397.3	357.5
12.5°	579.2	574.0	565.2	548.7	529.0	505.8	477.4	450.0	420.5	393.7	343.6
15°	618.4	612.7	603.4	583.3	557.5	527.0	492.4	457.7	423.1	389.0	329.1
17.5°	661.3	653.6	639.6	616.9	584.3	546.6	505.8	463.9	422.1	383.3	313.6
20°	707.3	696.4	681.4	651.0	612.7	568.3	519.2	470.1	421.6	376.6	296.0
22.5°	745.5	734.7	718.1	686.6	640.6	586.4	530.6	474.3	419.5	368.9	279.5
25°	778.6	769.8	751.7	715.5	667.0	605.5	541.4	477.4	416.4	360.6	261.9
27.5°	804.4	796.1	776.0	738.8	689.2	622.6	549.7	478.9	412.3	352.3	243.9
30°	827.1	818.9	794.6	756.4	704.2	636.0	558.0	479.4	407.1	339.9	224.2
32.5°	844.7	837.0	812.2	771.3	714.5	645.3	562.6	478.9	400.4	331.2	203.0
35°	862.3	854.5	825.6	782.2	722.3	649.4	566.2	476.3	392.1	316.7	182.9
37.5°	875.7	866.9	837.5	789.4	725.9	650.5	565.7	472.7	383.3	304.8	162.7
40°	885.0	875.7	844.2	793.6	726.9	648.9	561.6	466.5	373.0	289.8	141.6
42.5°	891.2	880.9	847.3	799.8	724.8	644.8	555.4	458.8	361.6	276.9	121.4
45°	894.3	883.5	847.8	794.6	721.2	637.0	546.1	449.0	349.2	259.4	101.3
47.5°	892.8	880.9	845.2	788.9	714.5	628.8	535.8	437.1	334.3	243.9	82.1
50°	890.2	877.8	839.5	781.7	705.2	618.4	524.4	422.6	318.8	224.7	65.1
52.5°	881.9	869.5	833.3	771.3	694.4	606.5	508.9	407.6	302.2	206.1	49.6
55°	871.6	860.2	822.5	762.0	680.4	592.1	494.4	391.6	286.2	187.0	35.6
57.5°	855.6	845.2	809.1	747.1	666.5	576.1	478.4	374.0	266.1	167.9	24.8
60°	835.9	825.6	790.5	730.0	650.5	558.0	460.8	356.0	248.0	148.8	15.5
62.5°	815.3	805.4	768.8	708.8	630.3	538.9	441.7	337.9	228.9	131.2	9.3
65°	787.9	778.6	745.5	683.5	608.1	518.2	420.5	316.2	209.2	111.6	5.2
67.5°	758.9	750.7	717.1	660.3	582.3	495.5	398.8	295.0	188.6	94.5	2.6
70°	727.9	717.6	686.6	628.8	555.9	469.6	375.1	273.3	168.9	78.0	0.0
72.5°	691.8	684.0	654.1	599.3	525.4	442.2	350.8	249.5	147.2	62.0	0.5
75°	656.7	646.8	619.5	567.8	495.5	413.3	323.9	227.3	126.1	47.5	0.5
77.5°	611.2	608.1	582.3	532.1	467.0	385.4	294.5	200.5	105.9	34.1	0.5
80°	565.7	562.6	542.5	496.5	434.0	352.3	267.1	175.1	86.3	22.7	0.5
82.5°	520.8	516.6	497.5	459.3	400.4	324.5	238.7	149.8	68.2	13.9	0.5
85°	480.5	475.3	454.6	419.5	365.8	292.9	209.2	125.0	50.6	7.7	1.0
87.5°	445.9	442.2	419.5	383.3	330.7	263.5	183.4	101.3	35.6	3.6	1.5
90°	416.4	408.7	388.5	350.3	297.6	230.9	156.0	81.1	23.8	2.1	2.1
92.5°	387.5	380.8	358.5	319.3	268.1	203.0	129.7	62.0	15.0	1.0	2.6
95°	357.5	350.3	328.6	292.4	238.2	174.6	106.4	45.5	8.3	1.0	2.6
97.5°	328.1	321.4	298.6	262.5	211.3	149.8	84.2	32.0	4.1	1.0	2.1
100°	300.7	292.9	272.3	236.1	184.4	125.0	65.1	20.7	2.6	1.0	2.1
102.5°	271.8	265.6	244.4	209.2	156.5	101.8	48.6	12.9	1.0	1.0	1.5
105°	245.9	238.2	217.5	181.3	133.3	80.1	34.1	7.7	1.0	1.0	1.5



TEST NUMBER: P551575

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-84-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	160.2	154.0	135.9	105.4	67.7	31.5	9.3	1.5	1.5	1.5	1.5
115°	133.8	124.5	108.5	81.6	50.1	20.7	4.6	1.5	1.5	1.5	1.5
117.5°	106.9	99.2	87.8	62.0	33.1	13.4	2.6	1.5	1.5	1.5	1.5
120°	83.7	76.5	63.5	42.9	22.2	7.7	1.0	1.5	1.5	1.5	1.5
122.5°	59.9	54.2	42.9	27.9	13.4	3.6	1.5	1.5	2.1	2.1	1.5
125°	39.8	36.7	28.4	17.0	8.3	1.5	1.5	1.5	2.1	2.1	1.5
127.5°	25.8	23.2	16.5	9.8	3.6	1.5	1.5	2.1	2.1	2.1	1.5
130°	14.5	12.9	9.8	5.7	1.5	1.5	1.5	2.1	2.1	2.1	1.5
132.5°	8.3	7.7	5.2	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1
135°	2.1	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1	2.1
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.1
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: P551575

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-84-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	405.6	405.6	405.6
2.5°	385.9	378.7	376.6
5°	365.3	353.4	346.7
7.5°	344.6	328.6	320.8
10°	325.5	302.8	294.5
12.5°	302.8	276.4	263.5
15°	281.1	247.0	234.6
17.5°	256.8	218.5	204.1
20°	234.0	190.1	175.1
22.5°	208.2	162.2	145.7
25°	185.0	134.3	115.7
27.5°	159.1	105.9	89.9
30°	134.8	81.1	65.1
32.5°	111.6	59.4	44.9
35°	89.9	40.3	28.4
37.5°	69.2	24.8	14.5
40°	50.1	12.9	6.7
42.5°	33.6	6.2	3.6
45°	20.7	3.1	0.0
47.5°	11.9	0.0	0.0
50°	6.2	0.0	0.0
52.5°	2.6	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	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.1
87.5°	2.6	3.1	3.6
90°	3.1	3.6	3.6
92.5°	3.1	4.1	4.1
95°	3.6	4.1	4.6
97.5°	4.1	4.6	4.6
100°	3.6	4.6	5.2
102.5°	3.1	4.6	4.6
105°	2.6	3.6	4.1





TEST NUMBER: P551575

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-84-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.5	2.1	2.6
117.5°	1.5	2.1	2.1
120°	1.5	1.5	2.1
122.5°	1.5	1.5	2.1
125°	1.5	1.5	2.1
127.5°	2.1	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.1	1.5	1.5
135°	2.1	1.5	1.5
137.5°	2.1	1.5	1.5
140°	2.1	1.5	1.5
142.5°	2.1	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°	2.1	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°	217.0	210.8	190.1	156.0	109.0	61.0	22.7	4.1	1.0	1.5	1.5
110°	189.1	183.9	162.7	129.7	87.8	45.5	15.0	2.6	1.5	1.5	1.5







107.5°	2.1	3.1	3.6
110°	2.1	2.6	3.1



(END OF REPORT)