

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: P551247

Luminaire Tested: **FCC-X-2-LD4-2HI-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: P551247
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-LD4-2HI-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

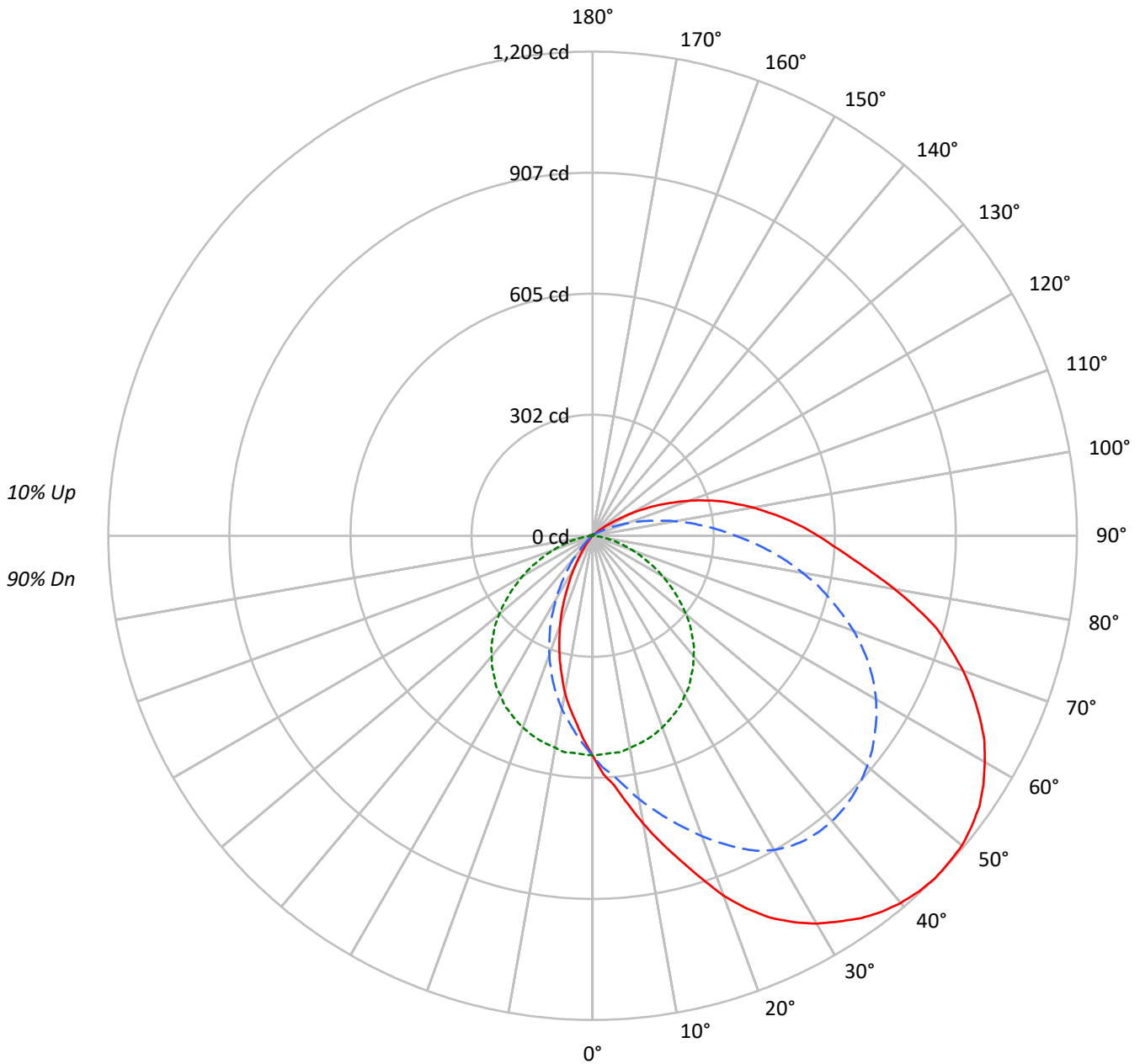
Lumens per Lamp: N/A
Luminaire Lumens: 2711.0 lumens
Efficiency: N/A
Efficacy: 62.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
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: P551247

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-88-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551247

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-88-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°	5903	5903	5903
5°	6479	5816	4852
10°	7332	5745	4000
15°	8217	5672	3116
20°	9268	5580	2295
25°	10139	5472	1507
30°	10787	5329	849
35°	11347	5174	374
40°	11844	4984	90
45°	12271	4745	0
50°	12629	4429	0
55°	12903	4027	0
60°	13040	3561	0
65°	13093	3031	0
70°	13050	2471	0
75°	12884	1823	10
80°	12361	1114	57
85°	11949	534	77



TEST NUMBER: P551247

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-88-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.5	1.9
10°-20°	157.3	5.8
20°-30°	254.7	9.4
30°-40°	327.2	12.1
40°-50°	370.4	13.7
50°-60°	383.7	14.2
60°-70°	361.9	13.3
70°-80°	303.2	11.2
80°-90°	219.8	8.1
90°-100°	144.5	5.3
100°-110°	83.4	3.1
110°-120°	36.8	1.4
120°-130°	10.0	0.4
130°-140°	2.3	0.1
140°-150°	1.5	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	464.5	17.1
0°-40°	791.7	29.2
0°-60°	1545.7	57.0
0°-90°	2430.7	89.7
90°-120°	264.7	9.8
90°-150°	278.5	10.3
90°-180°	280.0	10.3
0°-180°	2711.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	548	548	548	548	548	
5°	626	601	544	494	469	63
15°	836	733	526	380	317	241
25°	1053	860	488	250	156	487
35°	1166	927	428	122	38	731
45°	1209	918	351	28	0	934
55°	1178	860	253	0	0	1052
65°	1065	761	151	0	0	1054
75°	888	614	64	1	1	931
85°	650	445	10	3	4	555
90°	563	357	3	4	5	309
95°	483	279	1	5	6	379
105°	332	144	1	4	6	351
115°	181	48	2	2	4	181
125°	54	7	3	2	3	54
135°	3	2	4	3	2	5
145°	1	2	3	2	2	1
155°	1	3	3	2	1	1
165°	1	2	3	2	0	0
175°	1	2	4	2	1	0
180°	2	2	2	2	2	



TEST NUMBER: P551247

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-88-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	548.4	548.4	548.4	548.4	548.4	548.4	548.4	548.4	548.4	548.4	548.4
2.5°	594.5	593.8	591.7	588.2	583.3	574.9	567.9	561.6	553.3	546.3	533.0
5°	625.9	622.4	619.6	616.1	605.0	597.3	584.7	570.7	557.5	544.2	517.6
7.5°	676.2	670.6	666.4	656.6	641.3	623.8	604.3	591.0	581.9	544.9	499.5
10°	730.0	725.1	716.7	699.3	680.4	655.2	627.3	595.9	567.9	537.2	483.4
12.5°	783.1	776.1	764.2	741.9	715.3	683.9	645.5	608.4	568.6	532.3	464.5
15°	836.2	828.5	815.9	788.7	753.7	712.5	665.7	618.9	572.1	526.0	445.0
17.5°	894.2	883.7	864.8	834.1	790.1	739.1	683.9	627.3	570.7	518.3	424.0
20°	956.3	941.7	921.4	880.2	828.5	768.4	702.1	635.7	570.0	509.3	400.3
22.5°	1008.0	993.4	971.0	928.4	866.2	792.9	717.4	641.3	567.2	498.8	377.9
25°	1052.7	1040.9	1016.4	967.5	901.8	818.7	732.1	645.5	563.0	487.6	354.2
27.5°	1087.7	1076.5	1049.2	998.9	931.9	841.8	743.3	647.6	557.5	476.4	329.7
30°	1118.4	1107.2	1074.4	1022.7	952.1	859.9	754.4	648.3	550.5	459.7	303.2
32.5°	1142.1	1131.7	1098.1	1043.0	966.1	872.5	760.7	647.6	541.4	447.8	274.5
35°	1165.9	1155.4	1116.3	1057.6	976.6	878.1	765.6	644.1	530.2	428.2	247.3
37.5°	1184.1	1172.2	1132.4	1067.4	981.5	879.5	764.9	639.2	518.3	412.2	220.0
40°	1196.6	1184.1	1141.4	1073.0	982.9	877.4	759.3	630.8	504.4	391.9	191.4
42.5°	1205.0	1191.0	1145.6	1081.4	980.1	871.8	751.0	620.3	489.0	374.4	164.2
45°	1209.2	1194.5	1146.3	1074.4	975.2	861.3	738.4	607.0	472.2	350.7	136.9
47.5°	1207.1	1191.0	1142.8	1066.7	966.1	850.1	724.4	591.0	452.0	329.7	111.1
50°	1203.6	1186.9	1135.2	1056.9	953.5	836.2	709.0	571.4	431.0	303.9	88.0
52.5°	1192.4	1175.7	1126.8	1043.0	938.9	820.1	688.1	551.2	408.7	278.7	67.1
55°	1178.5	1163.1	1112.1	1030.4	920.0	800.6	668.5	529.5	387.0	252.9	48.2
57.5°	1156.8	1142.8	1093.9	1010.1	901.1	778.9	646.9	505.8	359.8	227.0	33.5
60°	1130.3	1116.3	1068.8	987.1	879.5	754.4	623.1	481.3	335.3	201.2	21.0
62.5°	1102.3	1089.1	1039.5	958.4	852.2	728.6	597.3	456.9	309.5	177.4	12.6
65°	1065.3	1052.7	1008.0	924.2	822.2	700.7	568.6	427.5	282.9	150.9	7.0
67.5°	1026.2	1015.0	969.6	892.8	787.3	669.9	539.3	398.9	255.0	127.8	3.5
70°	984.3	970.3	928.4	850.1	751.7	635.0	507.2	369.5	228.4	105.5	0.0
72.5°	935.4	924.9	884.4	810.3	710.4	598.0	474.3	337.4	199.1	83.8	0.7
75°	887.9	874.6	837.6	767.7	669.9	558.8	438.0	307.4	170.4	64.3	0.7
77.5°	826.4	822.2	787.3	719.5	631.5	521.1	398.2	271.0	143.2	46.1	0.7
80°	764.9	760.7	733.5	671.3	586.8	476.4	361.2	236.8	116.7	30.7	0.7
82.5°	704.1	698.6	672.7	621.0	541.4	438.7	322.7	202.6	92.2	18.9	0.7
85°	649.7	642.7	614.7	567.2	494.6	396.1	282.9	169.1	68.5	10.5	1.4
87.5°	602.9	598.0	567.2	518.3	447.1	356.3	248.0	136.9	48.2	4.9	2.1
90°	563.0	552.6	525.3	473.6	402.4	312.3	211.0	109.7	32.1	2.8	2.8
92.5°	523.9	514.8	484.8	431.7	362.6	274.5	175.3	83.8	20.3	1.4	3.5
95°	483.4	473.6	444.3	395.4	322.0	236.1	143.9	61.5	11.2	1.4	3.5
97.5°	443.6	434.5	403.8	354.9	285.7	202.6	113.9	43.3	5.6	1.4	2.8
100°	406.6	396.1	368.1	319.2	249.4	169.1	88.0	27.9	3.5	1.4	2.8
102.5°	367.4	359.1	330.4	282.9	211.7	137.6	65.7	17.5	1.4	1.4	2.1
105°	332.5	322.0	294.1	245.2	180.2	108.3	46.1	10.5	1.4	1.4	2.1



TEST NUMBER: P551247

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	216.6	208.2	183.7	142.5	91.5	42.6	12.6	2.1	2.1	2.1	2.1
115°	180.9	168.4	146.7	110.4	67.8	27.9	6.3	2.1	2.1	2.1	2.1
117.5°	144.6	134.1	118.8	83.8	44.7	18.2	3.5	2.1	2.1	2.1	2.1
120°	113.2	103.4	85.9	58.0	30.0	10.5	1.4	2.1	2.1	2.1	2.1
122.5°	81.0	73.3	58.0	37.7	18.2	4.9	2.1	2.1	2.8	2.8	2.1
125°	53.8	49.6	38.4	23.1	11.2	2.1	2.1	2.1	2.8	2.8	2.1
127.5°	34.9	31.4	22.4	13.3	4.9	2.1	2.1	2.8	2.8	2.8	2.1
130°	19.6	17.5	13.3	7.7	2.1	2.1	2.1	2.8	2.8	2.8	2.1
132.5°	11.2	10.5	7.0	1.4	2.1	2.1	2.1	2.8	2.8	2.8	2.8
135°	2.8	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	2.8
137.5°	0.7	0.7	1.4	1.4	2.1	2.1	2.8	3.5	3.5	3.5	2.8
140°	0.7	0.7	1.4	2.1	2.1	2.1	2.8	3.5	3.5	3.5	2.8
142.5°	0.7	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	2.8	2.8
145°	0.7	1.4	1.4	2.1	2.1	2.8	2.8	3.5	2.8	2.8	2.8
147.5°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	2.8	2.8
150°	0.7	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	2.8
152.5°	0.7	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	2.8
155°	1.4	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	3.5
157.5°	1.4	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	3.5
160°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	2.8	2.8	2.8	2.8
162.5°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	2.8	2.8	2.8	2.8
165°	1.4	1.4	1.4	1.4	2.1	2.1	2.8	2.8	2.8	2.8	2.8
167.5°	1.4	1.4	1.4	2.1	2.1	2.1	2.8	2.8	2.8	2.8	2.8
170°	1.4	1.4	1.4	2.1	2.1	2.1	2.8	3.5	3.5	3.5	3.5
172.5°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	3.5	3.5
175°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	3.5	3.5
177.5°	0.7	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	3.5	2.8
180°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1



TEST NUMBER: P551247

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	548.4	548.4	548.4
2.5°	521.8	512.0	509.3
5°	493.9	477.8	468.7
7.5°	465.9	444.3	433.8
10°	440.1	409.4	398.2
12.5°	409.4	373.7	356.3
15°	380.0	333.9	317.1
17.5°	347.2	295.5	275.9
20°	316.4	257.1	236.8
22.5°	281.5	219.3	197.0
25°	250.1	181.6	156.5
27.5°	215.2	143.2	121.5
30°	182.3	109.7	88.0
32.5°	150.9	80.3	60.8
35°	121.5	54.5	38.4
37.5°	93.6	33.5	19.6
40°	67.8	17.5	9.1
42.5°	45.4	8.4	4.9
45°	27.9	4.2	0.0
47.5°	16.1	0.0	0.0
50°	8.4	0.0	0.0
52.5°	3.5	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°	0.7	0.7	0.7
77.5°	0.7	1.4	2.1
80°	1.4	2.8	3.5
82.5°	2.8	3.5	3.5
85°	2.8	3.5	4.2
87.5°	3.5	4.2	4.9
90°	4.2	4.9	4.9
92.5°	4.2	5.6	5.6
95°	4.9	5.6	6.3
97.5°	5.6	6.3	6.3
100°	4.9	6.3	7.0
102.5°	4.2	6.3	6.3
105°	3.5	4.9	5.6



TEST NUMBER: P551247

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.8	3.5	3.5
115°	2.1	2.8	3.5
117.5°	2.1	2.8	2.8
120°	2.1	2.1	2.8
122.5°	2.1	2.1	2.8
125°	2.1	2.1	2.8
127.5°	2.8	2.1	2.1
130°	2.1	2.1	2.1
132.5°	2.8	2.1	2.1
135°	2.8	2.1	2.1
137.5°	2.8	2.1	2.1
140°	2.8	2.1	2.1
142.5°	2.8	2.1	2.1
145°	2.1	2.1	2.1
147.5°	2.1	2.1	2.1
150°	2.1	2.1	1.4
152.5°	2.1	1.4	1.4
155°	2.1	1.4	0.7
157.5°	2.8	1.4	0.7
160°	2.1	1.4	0.7
162.5°	2.1	1.4	0.7
165°	2.1	1.4	0.0
167.5°	2.1	1.4	0.7
170°	2.1	1.4	0.7
172.5°	2.1	1.4	0.7
175°	2.1	0.7	0.7
177.5°	2.1	0.7	0.7
180°	2.1	2.1	2.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	293.4	285.0	257.1	211.0	147.4	82.4	30.7	5.6	1.4	2.1	2.1
110°	255.7	248.7	220.0	175.3	118.8	61.5	20.3	3.5	2.1	2.1	2.1





107.5°	2.8	4.2	4.9
110°	2.8	3.5	4.2



(END OF REPORT)