

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: P551227

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-86-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: P551227
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-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

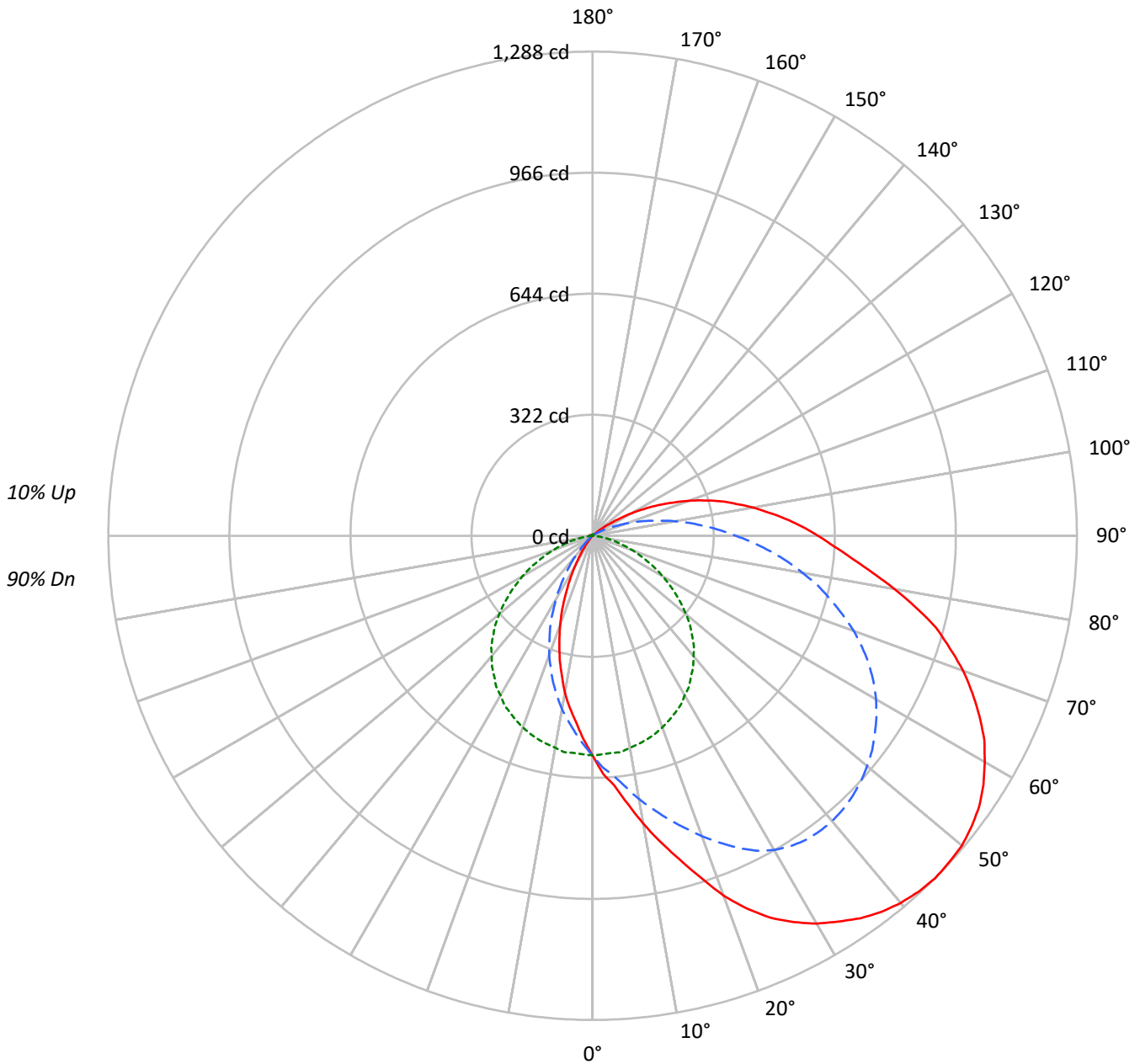
Lumens per Lamp: N/A
Luminaire Lumens: 2888.0 lumens
Efficiency: N/A
Efficacy: 66.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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: P551227

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-86-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551227

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-86-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°	6288	6288	6288
5°	6903	6196	5169
10°	7812	6120	4261
15°	8754	6043	3321
20°	9873	5944	2445
25°	10801	5829	1606
30°	11491	5677	905
35°	12088	5512	398
40°	12618	5310	96
45°	13073	5055	0
50°	13454	4718	0
55°	13745	4290	0
60°	13891	3792	0
65°	13949	3228	0
70°	13901	2633	0
75°	13724	1943	10
80°	13169	1186	60
85°	12729	570	83



TEST NUMBER: P551227

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-86-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.0	1.9
10°-20°	167.5	5.8
20°-30°	271.3	9.4
30°-40°	348.5	12.1
40°-50°	394.5	13.7
50°-60°	408.7	14.2
60°-70°	385.5	13.3
70°-80°	323.0	11.2
80°-90°	234.2	8.1
90°-100°	153.9	5.3
100°-110°	88.9	3.1
110°-120°	39.2	1.4
120°-130°	10.6	0.4
130°-140°	2.4	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	494.8	17.1
0°-40°	843.4	29.2
0°-60°	1646.6	57.0
0°-90°	2589.3	89.7
90°-120°	282.0	9.8
90°-150°	296.6	10.3
90°-180°	299.0	10.4
0°-180°	2888.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	584	584	584	584	584	
5°	667	640	580	526	499	67
15°	891	781	560	405	338	257
25°	1122	916	519	266	167	518
35°	1242	988	456	130	41	779
45°	1288	978	374	30	0	995
55°	1255	916	269	0	0	1121
65°	1135	811	161	0	0	1123
75°	946	654	68	1	1	992
85°	692	474	11	3	4	591
90°	600	381	3	4	5	329
95°	515	297	2	5	7	404
105°	354	154	2	4	6	374
115°	193	51	2	2	4	193
125°	57	7	3	2	3	57
135°	3	2	4	3	2	5
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	2	1	0
180°	2	2	2	2	2	



TEST NUMBER: P551227

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	584.2	584.2	584.2	584.2	584.2	584.2	584.2	584.2	584.2	584.2	584.2
2.5°	633.3	632.5	630.3	626.6	621.4	612.5	605.0	598.3	589.4	581.9	567.8
5°	666.8	663.1	660.1	656.4	644.5	636.3	622.9	608.0	593.8	579.7	551.4
7.5°	720.4	714.4	709.9	699.5	683.1	664.5	643.7	629.6	619.9	580.5	532.1
10°	777.7	772.4	763.5	744.9	724.8	698.0	668.3	634.8	605.0	572.3	515.0
12.5°	834.2	826.8	814.1	790.3	762.0	728.5	687.6	648.2	605.8	567.1	494.9
15°	890.8	882.6	869.2	840.2	803.0	759.1	709.2	659.3	609.5	560.4	474.0
17.5°	952.5	941.4	921.3	888.5	841.7	787.3	728.5	668.3	608.0	552.2	451.7
20°	1018.8	1003.1	981.6	937.7	882.6	818.6	747.9	677.2	607.2	542.5	426.4
22.5°	1073.8	1058.2	1034.4	989.0	922.8	844.6	764.3	683.1	604.3	531.3	402.6
25°	1121.5	1108.8	1082.8	1030.7	960.7	872.2	779.9	687.6	599.8	519.4	377.3
27.5°	1158.7	1146.8	1117.7	1064.2	992.7	896.7	791.8	689.8	593.8	507.5	351.2
30°	1191.4	1179.5	1144.5	1089.5	1014.3	916.1	803.7	690.6	586.4	489.7	323.0
32.5°	1216.7	1205.6	1169.8	1111.0	1029.2	929.5	810.4	689.8	576.7	477.0	292.5
35°	1242.0	1230.9	1189.2	1126.7	1040.3	935.4	815.6	686.1	564.8	456.2	263.4
37.5°	1261.4	1248.7	1206.3	1137.1	1045.6	936.9	814.9	680.9	552.2	439.1	234.4
40°	1274.8	1261.4	1216.0	1143.0	1047.0	934.7	808.9	672.0	537.3	417.5	203.9
42.5°	1283.7	1268.8	1220.4	1152.0	1044.1	928.7	800.0	660.8	520.9	398.9	174.9
45°	1288.2	1272.5	1221.2	1144.5	1038.9	917.6	786.6	646.7	503.1	373.6	145.9
47.5°	1285.9	1268.8	1217.5	1136.3	1029.2	905.7	771.7	629.6	481.5	351.2	118.3
50°	1282.2	1264.3	1209.3	1125.9	1015.8	890.8	755.3	608.7	459.2	323.7	93.8
52.5°	1270.3	1252.4	1200.3	1111.0	1000.2	873.7	733.0	587.1	435.3	296.9	71.4
55°	1255.4	1239.0	1184.7	1097.6	980.1	852.8	712.2	564.1	412.3	269.4	51.3
57.5°	1232.3	1217.5	1165.4	1076.1	960.0	829.7	689.1	538.8	383.2	241.9	35.7
60°	1204.1	1189.2	1138.6	1051.5	936.9	803.7	663.8	512.7	357.2	214.3	22.3
62.5°	1174.3	1160.2	1107.3	1021.0	907.9	776.2	636.3	486.7	329.7	189.0	13.4
65°	1134.9	1121.5	1073.8	984.5	875.9	746.4	605.8	455.4	301.4	160.7	7.4
67.5°	1093.2	1081.3	1032.9	951.0	838.7	713.7	574.5	424.9	271.6	136.2	3.7
70°	1048.5	1033.7	989.0	905.7	800.7	676.5	540.3	393.7	243.3	112.4	0.0
72.5°	996.4	985.3	942.1	863.2	756.8	637.0	505.3	359.4	212.1	89.3	0.7
75°	945.8	931.7	892.3	817.8	713.7	595.3	466.6	327.4	181.6	68.5	0.7
77.5°	880.4	875.9	838.7	766.5	672.7	555.2	424.2	288.7	152.6	49.1	0.7
80°	814.9	810.4	781.4	715.1	625.1	507.5	384.7	252.3	124.3	32.7	0.7
82.5°	750.1	744.2	716.6	661.6	576.7	467.3	343.8	215.8	98.2	20.1	0.7
85°	692.1	684.6	654.9	604.3	526.9	421.9	301.4	180.1	72.9	11.2	1.5
87.5°	642.2	637.0	604.3	552.2	476.3	379.5	264.2	145.9	51.3	5.2	2.2
90°	599.8	588.6	559.6	504.5	428.6	332.6	224.7	116.8	34.2	3.0	3.0
92.5°	558.1	548.5	516.5	459.9	386.2	292.5	186.8	89.3	21.6	1.5	3.7
95°	515.0	504.5	473.3	421.2	343.1	251.5	153.3	65.5	11.9	1.5	3.7
97.5°	472.5	462.9	430.1	378.0	304.4	215.8	121.3	46.1	6.0	1.5	3.0
100°	433.1	421.9	392.2	340.1	265.7	180.1	93.8	29.8	3.7	1.5	3.0
102.5°	391.4	382.5	352.0	301.4	225.5	146.6	70.0	18.6	1.5	1.5	2.2
105°	354.2	343.1	313.3	261.2	192.0	115.3	49.1	11.2	1.5	1.5	2.2



TEST NUMBER: P551227

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	230.7	221.8	195.7	151.8	97.5	45.4	13.4	2.2	2.2	2.2	2.2
115°	192.7	179.3	156.3	117.6	72.2	29.8	6.7	2.2	2.2	2.2	2.2
117.5°	154.0	142.9	126.5	89.3	47.6	19.3	3.7	2.2	2.2	2.2	2.2
120°	120.6	110.1	91.5	61.8	32.0	11.2	1.5	2.2	2.2	2.2	2.2
122.5°	86.3	78.1	61.8	40.2	19.3	5.2	2.2	2.2	3.0	3.0	2.2
125°	57.3	52.8	40.9	24.6	11.9	2.2	2.2	2.2	3.0	3.0	2.2
127.5°	37.2	33.5	23.8	14.1	5.2	2.2	2.2	3.0	3.0	3.0	2.2
130°	20.8	18.6	14.1	8.2	2.2	2.2	2.2	3.0	3.0	3.0	2.2
132.5°	11.9	11.2	7.4	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0
135°	3.0	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0
137.5°	0.7	0.7	1.5	1.5	2.2	2.2	3.0	3.7	3.7	3.7	3.0
140°	0.7	0.7	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.0
142.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
145°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
150°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
152.5°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
155°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
157.5°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
160°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0
167.5°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0
170°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.7
172.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
175°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
177.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.0
180°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2



TEST NUMBER: P551227

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	584.2	584.2	584.2
2.5°	555.9	545.5	542.5
5°	526.1	509.0	499.3
7.5°	496.4	473.3	462.1
10°	468.8	436.1	424.2
12.5°	436.1	398.1	379.5
15°	404.8	355.7	337.9
17.5°	369.9	314.8	293.9
20°	337.1	273.9	252.3
22.5°	299.9	233.7	209.9
25°	266.4	193.5	166.7
27.5°	229.2	152.6	129.5
30°	194.2	116.8	93.8
32.5°	160.7	85.6	64.7
35°	129.5	58.0	40.9
37.5°	99.7	35.7	20.8
40°	72.2	18.6	9.7
42.5°	48.4	8.9	5.2
45°	29.8	4.5	0.0
47.5°	17.1	0.0	0.0
50°	8.9	0.0	0.0
52.5°	3.7	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°	0.7	0.7	0.7
77.5°	0.7	1.5	2.2
80°	1.5	3.0	3.7
82.5°	3.0	3.7	3.7
85°	3.0	3.7	4.5
87.5°	3.7	4.5	5.2
90°	4.5	5.2	5.2
92.5°	4.5	6.0	6.0
95°	5.2	6.0	6.7
97.5°	6.0	6.7	6.7
100°	5.2	6.7	7.4
102.5°	4.5	6.7	6.7
105°	3.7	5.2	6.0



TEST NUMBER: P551227

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.0	3.7	3.7
115°	2.2	3.0	3.7
117.5°	2.2	3.0	3.0
120°	2.2	2.2	3.0
122.5°	2.2	2.2	3.0
125°	2.2	2.2	3.0
127.5°	3.0	2.2	2.2
130°	2.2	2.2	2.2
132.5°	3.0	2.2	2.2
135°	3.0	2.2	2.2
137.5°	3.0	2.2	2.2
140°	3.0	2.2	2.2
142.5°	3.0	2.2	2.2
145°	2.2	2.2	2.2
147.5°	2.2	2.2	2.2
150°	2.2	2.2	1.5
152.5°	2.2	1.5	1.5
155°	2.2	1.5	0.7
157.5°	3.0	1.5	0.7
160°	2.2	1.5	0.7
162.5°	2.2	1.5	0.7
165°	2.2	1.5	0.0
167.5°	2.2	1.5	0.7
170°	2.2	1.5	0.7
172.5°	2.2	1.5	0.7
175°	2.2	0.7	0.7
177.5°	2.2	0.7	0.7
180°	2.2	2.2	2.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	312.6	303.6	273.9	224.7	157.0	87.8	32.7	6.0	1.5	2.2	2.2
110°	272.4	264.9	234.4	186.8	126.5	65.5	21.6	3.7	2.2	2.2	2.2





107.5°	3.0	4.5	5.2
110°	3.0	3.7	4.5



(END OF REPORT)