

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: P551417

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-85-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: P551417
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-50-UNV-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

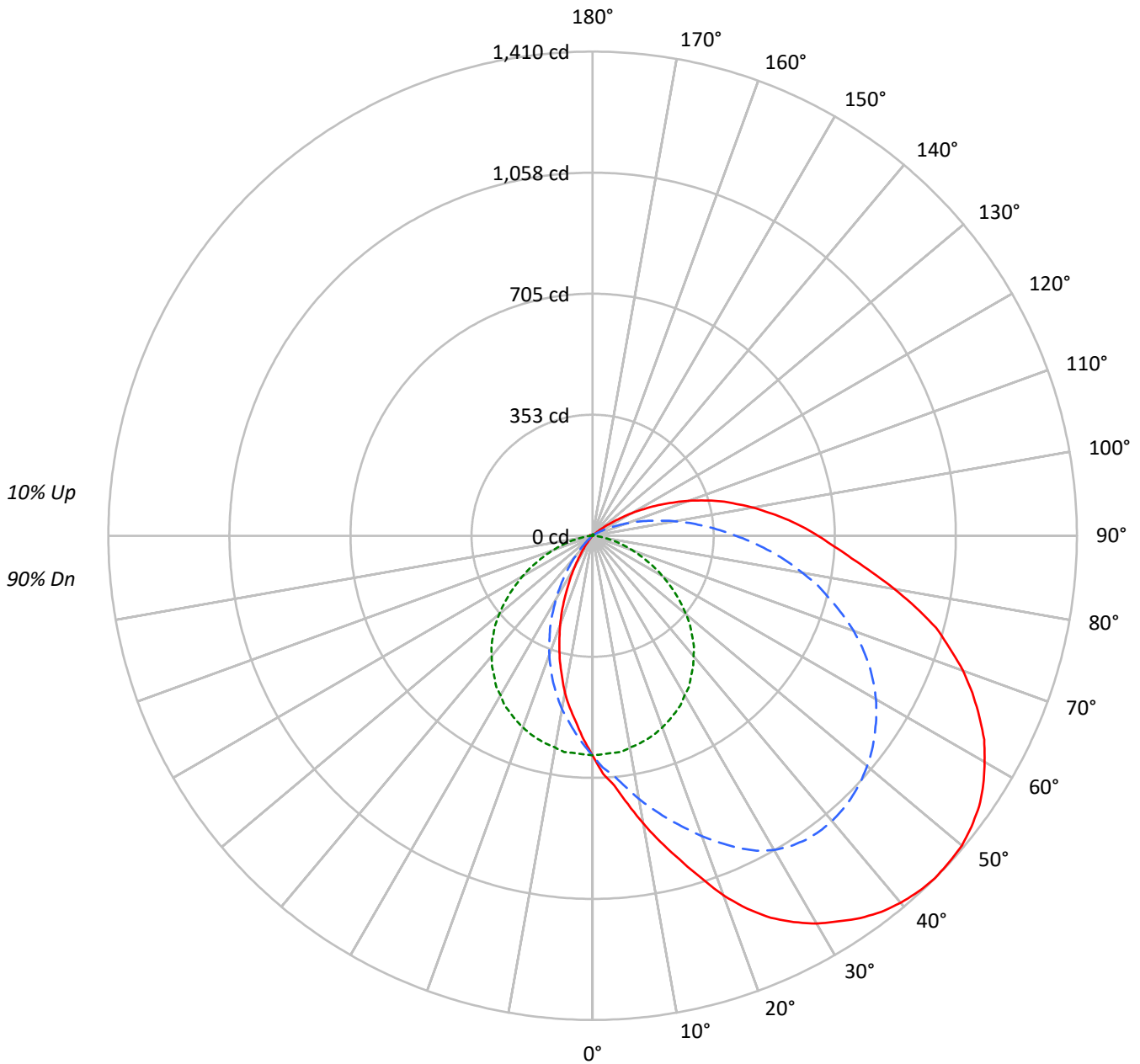
Lumens per Lamp: N/A
Luminaire Lumens: 3161.0 lumens
Efficiency: N/A
Efficacy: 73.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (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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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-85-ED1D-90

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°	6882	6882	6882
5°	7555	6782	5657
10°	8550	6699	4664
15°	9581	6613	3634
20°	10807	6506	2676
25°	11822	6380	1758
30°	12577	6214	990
35°	13231	6033	436
40°	13811	5811	105
45°	14308	5533	0
50°	14726	5164	0
55°	15044	4696	0
60°	15204	4152	0
65°	15266	3533	0
70°	15216	2881	0
75°	15022	2124	12
80°	14414	1299	66
85°	13932	620	90



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	1.9
10°-20°	183.4	5.8
20°-30°	297.0	9.4
30°-40°	381.5	12.1
40°-50°	431.8	13.7
50°-60°	447.4	14.2
60°-70°	421.9	13.3
70°-80°	353.6	11.2
80°-90°	256.3	8.1
90°-100°	168.4	5.3
100°-110°	97.3	3.1
110°-120°	42.9	1.4
120°-130°	11.6	0.4
130°-140°	2.7	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	541.6	17.1
0°-40°	923.1	29.2
0°-60°	1802.3	57.0
0°-90°	2834.1	89.7
90°-120°	308.6	9.8
90°-150°	324.7	10.3
90°-180°	327.0	10.3
0°-180°	3161.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	639	639	639	639	639	
5°	730	701	634	576	546	74
15°	975	855	613	443	370	281
25°	1228	1003	568	292	182	567
35°	1359	1081	499	142	45	853
45°	1410	1071	409	33	0	1089
55°	1374	1003	295	0	0	1227
65°	1242	888	176	0	0	1229
75°	1035	716	75	1	1	1086
85°	758	519	12	3	5	647
90°	656	417	3	5	6	360
95°	564	325	2	6	7	442
105°	388	168	2	4	6	409
115°	211	56	2	2	4	211
125°	63	8	3	2	3	63
135°	3	2	4	3	2	6
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4
2.5°	693.2	692.3	689.9	685.8	680.1	670.3	662.2	654.9	645.1	637.0	621.5
5°	729.8	725.7	722.5	718.4	705.4	696.4	681.7	665.5	650.0	634.5	603.6
7.5°	788.5	781.9	777.0	765.6	747.7	727.4	704.6	689.1	678.5	635.3	582.4
10°	851.2	845.5	835.7	815.3	793.3	764.0	731.4	694.8	662.2	626.4	563.6
12.5°	913.1	904.9	891.1	865.0	834.1	797.4	752.6	709.4	663.0	620.7	541.7
15°	975.0	966.0	951.4	919.6	878.9	830.8	776.2	721.7	667.1	613.3	518.8
17.5°	1042.6	1030.4	1008.4	972.5	921.2	861.8	797.4	731.4	665.5	604.4	494.4
20°	1115.1	1098.0	1074.3	1026.3	966.0	896.0	818.6	741.2	664.6	593.8	466.7
22.5°	1175.3	1158.2	1132.2	1082.5	1010.0	924.5	836.5	747.7	661.4	581.6	440.7
25°	1227.5	1213.6	1185.1	1128.1	1051.5	954.6	853.6	752.6	656.5	568.5	413.0
27.5°	1268.2	1255.2	1223.4	1164.8	1086.6	981.5	866.6	755.1	650.0	555.5	384.5
30°	1304.0	1291.0	1252.7	1192.5	1110.2	1002.7	879.7	755.9	641.8	536.0	353.5
32.5°	1331.7	1319.5	1280.4	1216.1	1126.5	1017.3	887.0	755.1	631.2	522.1	320.1
35°	1359.4	1347.2	1301.6	1233.2	1138.7	1023.8	892.7	751.0	618.2	499.3	288.3
37.5°	1380.6	1366.8	1320.3	1244.6	1144.4	1025.5	891.9	745.3	604.4	480.6	256.6
40°	1395.3	1380.6	1330.9	1251.1	1146.0	1023.0	885.4	735.5	588.1	456.9	223.2
42.5°	1405.0	1388.7	1335.8	1260.9	1142.8	1016.5	875.6	723.3	570.2	436.6	191.4
45°	1409.9	1392.8	1336.6	1252.7	1137.1	1004.3	860.9	707.8	550.6	408.9	159.6
47.5°	1407.5	1388.7	1332.5	1243.8	1126.5	991.3	844.7	689.1	527.0	384.5	129.5
50°	1403.4	1383.9	1323.6	1232.4	1111.8	975.0	826.7	666.3	502.6	354.3	102.6
52.5°	1390.4	1370.8	1313.8	1216.1	1094.7	956.2	802.3	642.7	476.5	325.0	78.2
55°	1374.1	1356.2	1296.7	1201.4	1072.7	933.4	779.5	617.4	451.2	294.9	56.2
57.5°	1348.8	1332.5	1275.5	1177.8	1050.7	908.2	754.2	589.7	419.5	264.7	39.1
60°	1317.9	1301.6	1246.2	1150.9	1025.5	879.7	726.5	561.2	391.0	234.6	24.4
62.5°	1285.3	1269.8	1212.0	1117.5	993.7	849.5	696.4	532.7	360.8	206.9	14.7
65°	1242.1	1227.5	1175.3	1077.6	958.7	817.0	663.0	498.5	329.9	175.9	8.1
67.5°	1196.5	1183.5	1130.5	1041.0	918.0	781.1	628.8	465.1	297.3	149.1	4.1
70°	1147.7	1131.4	1082.5	991.3	876.4	740.4	591.3	430.9	266.3	123.0	0.0
72.5°	1090.6	1078.4	1031.2	944.8	828.4	697.2	553.1	393.4	232.1	97.7	0.8
75°	1035.2	1019.8	976.6	895.2	781.1	651.6	510.7	358.4	198.7	74.9	0.8
77.5°	963.6	958.7	918.0	839.0	736.3	607.6	464.3	316.0	167.0	53.8	0.8
80°	891.9	887.0	855.2	782.7	684.2	555.5	421.1	276.1	136.0	35.8	0.8
82.5°	821.0	814.5	784.4	724.1	631.2	511.5	376.3	236.2	107.5	22.0	0.8
85°	757.5	749.4	716.8	661.4	576.7	461.8	329.9	197.1	79.8	12.2	1.6
87.5°	702.9	697.2	661.4	604.4	521.3	415.4	289.2	159.6	56.2	5.7	2.4
90°	656.5	644.3	612.5	552.2	469.2	364.1	246.0	127.9	37.5	3.3	3.3
92.5°	610.9	600.3	565.3	503.4	422.7	320.1	204.4	97.7	23.6	1.6	4.1
95°	563.6	552.2	518.0	461.0	375.5	275.3	167.8	71.7	13.0	1.6	4.1
97.5°	517.2	506.6	470.8	413.8	333.1	236.2	132.8	50.5	6.5	1.6	3.3
100°	474.0	461.8	429.2	372.2	290.8	197.1	102.6	32.6	4.1	1.6	3.3
102.5°	428.4	418.7	385.3	329.9	246.8	160.5	76.6	20.4	1.6	1.6	2.4
105°	387.7	375.5	342.9	285.9	210.1	126.2	53.8	12.2	1.6	1.6	2.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	252.5	242.7	214.2	166.2	106.7	49.7	14.7	2.4	2.4	2.4	2.4
115°	211.0	196.3	171.0	128.7	79.0	32.6	7.3	2.4	2.4	2.4	2.4
117.5°	168.6	156.4	138.5	97.7	52.1	21.2	4.1	2.4	2.4	2.4	2.4
120°	132.0	120.5	100.2	67.6	35.0	12.2	1.6	2.4	2.4	2.4	2.4
122.5°	94.5	85.5	67.6	44.0	21.2	5.7	2.4	2.4	3.3	3.3	2.4
125°	62.7	57.8	44.8	26.9	13.0	2.4	2.4	2.4	3.3	3.3	2.4
127.5°	40.7	36.7	26.1	15.5	5.7	2.4	2.4	3.3	3.3	3.3	2.4
130°	22.8	20.4	15.5	9.0	2.4	2.4	2.4	3.3	3.3	3.3	2.4
132.5°	13.0	12.2	8.1	1.6	2.4	2.4	2.4	3.3	3.3	3.3	3.3
135°	3.3	1.6	1.6	1.6	2.4	2.4	3.3	3.3	4.1	4.1	3.3
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.3	4.1	4.1	4.1	3.3
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.3	4.1	4.1	4.1	3.3
142.5°	0.8	1.6	1.6	2.4	2.4	3.3	3.3	4.1	4.1	3.3	3.3
145°	0.8	1.6	1.6	2.4	2.4	3.3	3.3	4.1	3.3	3.3	3.3
147.5°	1.6	1.6	1.6	2.4	2.4	3.3	3.3	4.1	4.1	3.3	3.3
150°	0.8	1.6	1.6	2.4	3.3	3.3	3.3	4.1	3.3	3.3	3.3
152.5°	0.8	1.6	1.6	2.4	3.3	3.3	3.3	4.1	3.3	3.3	3.3
155°	1.6	1.6	1.6	2.4	3.3	3.3	3.3	4.1	3.3	3.3	4.1
157.5°	1.6	1.6	1.6	2.4	3.3	3.3	3.3	4.1	3.3	3.3	4.1
160°	1.6	1.6	1.6	2.4	2.4	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.6	1.6	1.6	2.4	2.4	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.3	3.3	3.3	3.3	3.3
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.3	3.3	3.3	3.3	3.3
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.3	4.1	4.1	4.1	4.1
172.5°	1.6	1.6	1.6	2.4	2.4	3.3	3.3	4.1	4.1	4.1	4.1
175°	1.6	1.6	1.6	2.4	2.4	3.3	3.3	4.1	4.1	4.1	4.1
177.5°	0.8	1.6	1.6	2.4	2.4	3.3	3.3	4.1	4.1	4.1	3.3
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	639.4	639.4	639.4
2.5°	608.4	597.0	593.8
5°	575.9	557.1	546.5
7.5°	543.3	518.0	505.8
10°	513.1	477.3	464.3
12.5°	477.3	435.8	415.4
15°	443.1	389.3	369.8
17.5°	404.8	344.5	321.7
20°	369.0	299.7	276.1
22.5°	328.2	255.8	229.7
25°	291.6	211.8	182.5
27.5°	250.9	167.0	141.7
30°	212.6	127.9	102.6
32.5°	175.9	93.7	70.9
35°	141.7	63.5	44.8
37.5°	109.1	39.1	22.8
40°	79.0	20.4	10.6
42.5°	52.9	9.8	5.7
45°	32.6	4.9	0.0
47.5°	18.7	0.0	0.0
50°	9.8	0.0	0.0
52.5°	4.1	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°	0.8	0.8	0.8
77.5°	0.8	1.6	2.4
80°	1.6	3.3	4.1
82.5°	3.3	4.1	4.1
85°	3.3	4.1	4.9
87.5°	4.1	4.9	5.7
90°	4.9	5.7	5.7
92.5°	4.9	6.5	6.5
95°	5.7	6.5	7.3
97.5°	6.5	7.3	7.3
100°	5.7	7.3	8.1
102.5°	4.9	7.3	7.3
105°	4.1	5.7	6.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.3	4.1	4.1
115°	2.4	3.3	4.1
117.5°	2.4	3.3	3.3
120°	2.4	2.4	3.3
122.5°	2.4	2.4	3.3
125°	2.4	2.4	3.3
127.5°	3.3	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.3	2.4	2.4
135°	3.3	2.4	2.4
137.5°	3.3	2.4	2.4
140°	3.3	2.4	2.4
142.5°	3.3	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.3	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	342.1	332.3	299.7	246.0	171.9	96.1	35.8	6.5	1.6	2.4	2.4
110°	298.1	290.0	256.6	204.4	138.5	71.7	23.6	4.1	2.4	2.4	2.4





107.5°	3.3	4.9	5.7
110°	3.3	4.1	4.9



(END OF REPORT)