

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: P551212

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-86-ED1D**

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: P551212
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-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

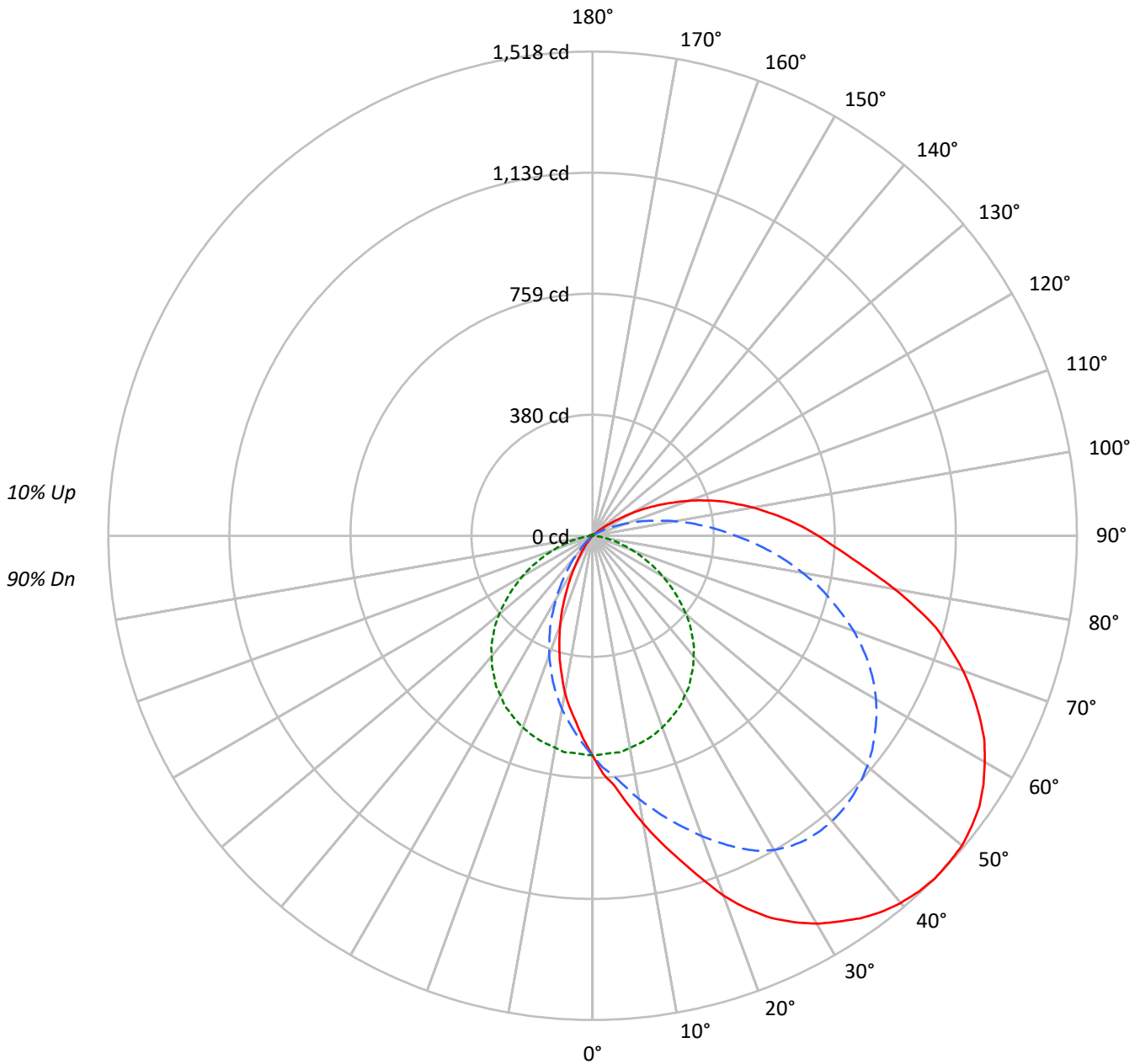
Lumens per Lamp: N/A
Luminaire Lumens: 3404.0 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551212

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-86-ED1D

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°	7411	7411	7411
5°	8136	7303	6093
10°	9207	7213	5022
15°	10317	7122	3913
20°	11637	7005	2881
25°	12730	6870	1893
30°	13544	6691	1066
35°	14248	6497	469
40°	14872	6258	113
45°	15408	5958	0
50°	15858	5562	0
55°	16200	5056	0
60°	16373	4470	0
65°	16440	3806	0
70°	16386	3102	0
75°	16177	2289	13
80°	15522	1400	71
85°	15002	671	97



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	1.9
10°-20°	197.5	5.8
20°-30°	319.8	9.4
30°-40°	410.8	12.1
40°-50°	465.0	13.7
50°-60°	481.8	14.2
60°-70°	454.4	13.3
70°-80°	380.8	11.2
80°-90°	276.0	8.1
90°-100°	181.4	5.3
100°-110°	104.8	3.1
110°-120°	46.2	1.4
120°-130°	12.5	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.3	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	583.2	17.1
0°-40°	994.0	29.2
0°-60°	1940.8	57.0
0°-90°	3052.0	89.7
90°-120°	332.4	9.8
90°-150°	349.6	10.3
90°-180°	352.0	10.3
0°-180°	3404.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	688	688	688	688	688	
5°	786	755	683	620	589	79
15°	1050	921	660	477	398	303
25°	1322	1080	612	314	196	611
35°	1464	1164	538	153	48	918
45°	1518	1153	440	35	0	1172
55°	1480	1080	318	0	0	1321
65°	1338	956	190	0	0	1323
75°	1115	771	81	1	1	1169
85°	816	559	13	4	5	697
90°	707	449	4	5	6	388
95°	607	350	2	6	8	476
105°	418	181	2	4	7	441
115°	227	60	3	3	4	228
125°	68	8	4	3	4	67
135°	4	3	4	4	3	6
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	4	3	1	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5
2.5°	746.4	745.6	742.9	738.5	732.4	721.9	713.1	705.2	694.7	685.9	669.3
5°	785.9	781.5	778.0	773.6	759.6	749.9	734.2	716.6	700.0	683.3	650.0
7.5°	849.1	842.0	836.8	824.5	805.2	783.3	758.7	742.1	730.6	684.2	627.1
10°	916.6	910.5	899.9	878.0	854.3	822.7	787.7	748.2	713.1	674.5	607.0
12.5°	983.3	974.5	959.6	931.5	898.2	858.7	810.5	764.0	714.0	668.4	583.3
15°	1049.9	1040.3	1024.5	990.3	946.4	894.7	835.9	777.1	718.4	660.5	558.7
17.5°	1122.7	1109.6	1085.9	1047.3	992.0	928.0	858.7	787.7	716.6	650.8	532.4
20°	1200.8	1182.4	1156.9	1105.2	1040.3	964.8	881.5	798.2	715.7	639.4	502.6
22.5°	1265.7	1247.3	1219.2	1165.7	1087.6	995.5	900.8	805.2	712.2	626.3	474.5
25°	1321.8	1306.9	1276.2	1214.8	1132.4	1028.0	919.2	810.5	707.0	612.2	444.7
27.5°	1365.7	1351.7	1317.5	1254.3	1170.1	1056.9	933.3	813.1	700.0	598.2	414.0
30°	1404.3	1390.3	1349.0	1284.1	1195.5	1079.7	947.3	814.0	691.2	577.2	380.7
32.5°	1434.1	1421.0	1378.8	1309.6	1213.1	1095.5	955.2	813.1	679.8	562.2	344.7
35°	1463.9	1450.8	1401.7	1328.0	1226.2	1102.6	961.3	808.7	665.7	537.7	310.5
37.5°	1486.7	1471.8	1421.8	1340.3	1232.4	1104.3	960.5	802.6	650.8	517.5	276.3
40°	1502.5	1486.7	1433.2	1347.3	1234.1	1101.7	953.4	792.0	633.3	492.1	240.3
42.5°	1513.1	1495.5	1438.5	1357.8	1230.6	1094.7	942.9	778.9	614.0	470.1	206.1
45°	1518.3	1499.9	1439.4	1349.0	1224.5	1081.5	927.1	762.2	592.9	440.3	171.9
47.5°	1515.7	1495.5	1435.0	1339.4	1213.1	1067.5	909.6	742.1	567.5	414.0	139.5
50°	1511.3	1490.2	1425.3	1327.1	1197.3	1049.9	890.3	717.5	541.2	381.6	110.5
52.5°	1497.3	1476.2	1414.8	1309.6	1178.9	1029.8	864.0	692.1	513.1	350.0	84.2
55°	1479.7	1460.4	1396.4	1293.8	1155.2	1005.2	839.4	664.9	485.9	317.5	60.5
57.5°	1452.5	1435.0	1373.6	1268.3	1131.5	978.0	812.2	635.0	451.7	285.1	42.1
60°	1419.2	1401.7	1342.0	1239.4	1104.3	947.3	782.4	604.3	421.0	252.6	26.3
62.5°	1384.1	1367.4	1305.2	1203.4	1070.1	914.8	749.9	573.6	388.6	222.8	15.8
65°	1337.6	1321.8	1265.7	1160.4	1032.4	879.8	714.0	536.8	355.2	189.5	8.8
67.5°	1288.5	1274.5	1217.5	1121.0	988.5	841.2	677.1	500.8	320.2	160.5	4.4
70°	1235.9	1218.3	1165.7	1067.5	943.8	797.3	636.8	464.0	286.8	132.4	0.0
72.5°	1174.5	1161.3	1110.4	1017.5	892.0	750.8	595.6	423.7	250.0	105.3	0.9
75°	1114.8	1098.2	1051.7	964.0	841.2	701.7	550.0	385.9	214.0	80.7	0.9
77.5°	1037.6	1032.4	988.5	903.4	792.9	654.3	500.0	340.3	179.8	57.9	0.9
80°	960.5	955.2	921.0	842.9	736.8	598.2	453.5	297.3	146.5	38.6	0.9
82.5°	884.1	877.1	844.7	779.8	679.8	550.8	405.2	254.4	115.8	23.7	0.9
85°	815.7	807.0	771.9	712.2	621.0	497.3	355.2	212.3	86.0	13.2	1.8
87.5°	757.0	750.8	712.2	650.8	561.4	447.3	311.4	171.9	60.5	6.1	2.6
90°	707.0	693.8	659.6	594.7	505.2	392.1	264.9	137.7	40.3	3.5	3.5
92.5°	657.8	646.4	608.7	542.1	455.2	344.7	220.2	105.3	25.4	1.8	4.4
95°	607.0	594.7	557.9	496.5	404.4	296.5	180.7	77.2	14.0	1.8	4.4
97.5°	557.0	545.6	507.0	445.6	358.7	254.4	143.0	54.4	7.0	1.8	3.5
100°	510.5	497.3	462.2	400.8	313.1	212.3	110.5	35.1	4.4	1.8	3.5
102.5°	461.4	450.8	414.9	355.2	265.8	172.8	82.5	21.9	1.8	1.8	2.6
105°	417.5	404.4	369.3	307.9	226.3	136.0	57.9	13.2	1.8	1.8	2.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	271.9	261.4	230.7	178.9	114.9	53.5	15.8	2.6	2.6	2.6	2.6
115°	227.2	211.4	184.2	138.6	85.1	35.1	7.9	2.6	2.6	2.6	2.6
117.5°	181.6	168.4	149.1	105.3	56.1	22.8	4.4	2.6	2.6	2.6	2.6
120°	142.1	129.8	107.9	72.8	37.7	13.2	1.8	2.6	2.6	2.6	2.6
122.5°	101.7	92.1	72.8	47.4	22.8	6.1	2.6	2.6	3.5	3.5	2.6
125°	67.5	62.3	48.2	28.9	14.0	2.6	2.6	2.6	3.5	3.5	2.6
127.5°	43.9	39.5	28.1	16.7	6.1	2.6	2.6	3.5	3.5	3.5	2.6
130°	24.6	21.9	16.7	9.6	2.6	2.6	2.6	3.5	3.5	3.5	2.6
132.5°	14.0	13.2	8.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5
135°	3.5	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5
137.5°	0.9	0.9	1.8	1.8	2.6	2.6	3.5	4.4	4.4	4.4	3.5
140°	0.9	0.9	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	3.5
142.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
145°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	3.5	3.5	3.5
147.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
150°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
152.5°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
155°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
157.5°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
160°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
162.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
165°	1.8	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5
167.5°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5	3.5
170°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	4.4
172.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
175°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
177.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	3.5
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	688.5	688.5	688.5
2.5°	655.2	642.9	639.4
5°	620.1	600.0	588.6
7.5°	585.0	557.9	544.7
10°	552.6	514.0	500.0
12.5°	514.0	469.3	447.3
15°	477.2	419.3	398.2
17.5°	435.9	371.0	346.5
20°	397.3	322.8	297.3
22.5°	353.5	275.4	247.4
25°	314.0	228.1	196.5
27.5°	270.2	179.8	152.6
30°	228.9	137.7	110.5
32.5°	189.5	100.9	76.3
35°	152.6	68.4	48.2
37.5°	117.5	42.1	24.6
40°	85.1	21.9	11.4
42.5°	57.0	10.5	6.1
45°	35.1	5.3	0.0
47.5°	20.2	0.0	0.0
50°	10.5	0.0	0.0
52.5°	4.4	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°	0.9	0.9	0.9
77.5°	0.9	1.8	2.6
80°	1.8	3.5	4.4
82.5°	3.5	4.4	4.4
85°	3.5	4.4	5.3
87.5°	4.4	5.3	6.1
90°	5.3	6.1	6.1
92.5°	5.3	7.0	7.0
95°	6.1	7.0	7.9
97.5°	7.0	7.9	7.9
100°	6.1	7.9	8.8
102.5°	5.3	7.9	7.9
105°	4.4	6.1	7.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.5	4.4	4.4
115°	2.6	3.5	4.4
117.5°	2.6	3.5	3.5
120°	2.6	2.6	3.5
122.5°	2.6	2.6	3.5
125°	2.6	2.6	3.5
127.5°	3.5	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.5	2.6	2.6
135°	3.5	2.6	2.6
137.5°	3.5	2.6	2.6
140°	3.5	2.6	2.6
142.5°	3.5	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.8
152.5°	2.6	1.8	1.8
155°	2.6	1.8	0.9
157.5°	3.5	1.8	0.9
160°	2.6	1.8	0.9
162.5°	2.6	1.8	0.9
165°	2.6	1.8	0.0
167.5°	2.6	1.8	0.9
170°	2.6	1.8	0.9
172.5°	2.6	1.8	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	368.4	357.9	322.8	264.9	185.1	103.5	38.6	7.0	1.8	2.6	2.6
110°	321.0	312.3	276.3	220.2	149.1	77.2	25.4	4.4	2.6	2.6	2.6





107.5°	3.5	5.3	6.1
110°	3.5	4.4	5.3



(END OF REPORT)