

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: P551340

Luminaire Tested: **FCC-X-2-LD4-2HI-40-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: P551340
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-40-UNV-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

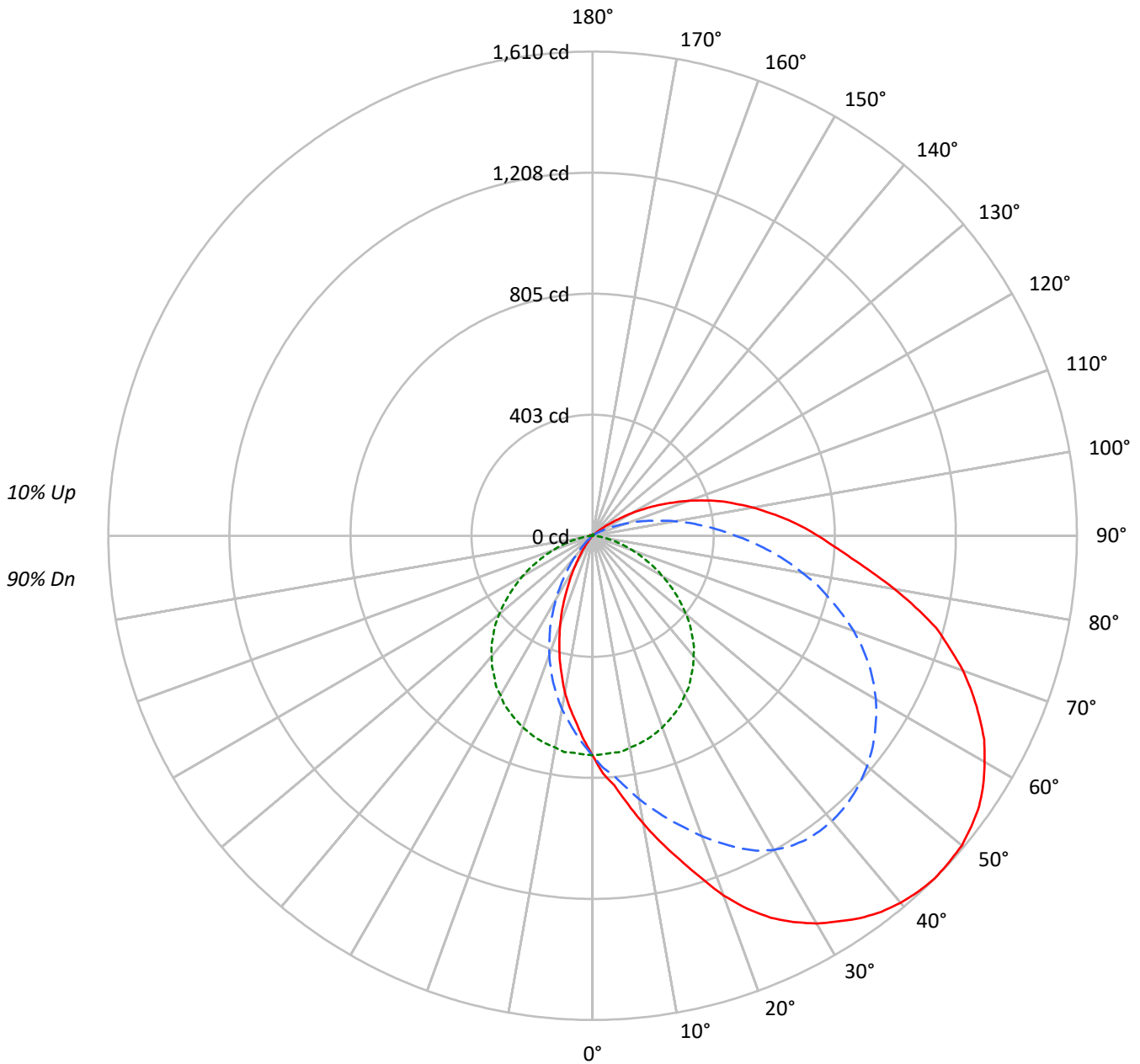
Lumens per Lamp: N/A
Luminaire Lumens: 3609.0 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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: P551340

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7858	7858	7858
5°	8625	7742	6460
10°	9761	7647	5325
15°	10939	7551	4149
20°	12338	7427	3056
25°	13497	7285	2006
30°	14360	7093	1130
35°	15106	6888	497
40°	15768	6635	120
45°	16337	6316	0
50°	16813	5895	0
55°	17176	5360	0
60°	17359	4739	0
65°	17431	4035	0
70°	17372	3289	0
75°	17152	2428	13
80°	16457	1484	74
85°	15907	707	103



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.9	1.9
10°-20°	209.4	5.8
20°-30°	339.1	9.4
30°-40°	435.5	12.1
40°-50°	493.0	13.7
50°-60°	510.8	14.2
60°-70°	481.7	13.3
70°-80°	403.7	11.2
80°-90°	292.6	8.1
90°-100°	192.3	5.3
100°-110°	111.1	3.1
110°-120°	49.0	1.4
120°-130°	13.3	0.4
130°-140°	3.0	0.1
140°-150°	2.0	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	618.4	17.1
0°-40°	1053.9	29.2
0°-60°	2057.7	57.0
0°-90°	3235.8	89.7
90°-120°	352.4	9.8
90°-150°	370.7	10.3
90°-180°	373.0	10.3
0°-180°	3609.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	730	730	730	730	730	
5°	833	800	724	658	624	84
15°	1113	976	700	506	422	321
25°	1401	1145	649	333	208	648
35°	1552	1235	570	162	51	973
45°	1610	1222	467	37	0	1243
55°	1569	1145	337	0	0	1401
65°	1418	1014	201	0	0	1403
75°	1182	818	86	1	1	1240
85°	865	593	14	4	6	739
90°	750	476	4	6	6	411
95°	644	372	2	6	8	505
105°	443	192	2	5	7	467
115°	241	64	3	3	5	241
125°	72	9	4	3	4	72
135°	4	3	5	4	3	7
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	5	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°	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
2.5°	791.4	790.5	787.7	783.0	776.5	765.4	756.1	747.7	736.5	727.2	709.6
5°	833.2	828.6	824.9	820.2	805.3	795.1	778.4	759.8	742.1	724.4	689.1
7.5°	900.2	892.8	887.2	874.2	853.7	830.4	804.4	786.7	774.7	725.4	664.9
10°	971.8	965.3	954.1	930.9	905.8	872.3	835.1	793.3	756.1	715.1	643.5
12.5°	1042.5	1033.2	1017.4	987.6	952.3	910.4	859.3	810.0	757.0	708.6	618.4
15°	1113.2	1102.9	1086.2	1049.9	1003.4	948.6	886.2	823.9	761.6	700.3	592.4
17.5°	1190.3	1176.4	1151.3	1110.4	1051.8	983.9	910.4	835.1	759.8	690.0	564.5
20°	1273.1	1253.6	1226.6	1171.7	1102.9	1022.9	934.6	846.3	758.8	677.9	532.9
22.5°	1341.9	1322.4	1292.6	1235.9	1153.1	1055.5	955.1	853.7	755.1	664.0	503.1
25°	1401.4	1385.6	1353.1	1288.0	1200.6	1089.9	974.6	859.3	749.5	649.1	471.5
27.5°	1447.9	1433.1	1396.8	1329.8	1240.6	1120.6	989.5	862.1	742.1	634.2	438.9
30°	1488.9	1474.0	1430.3	1361.5	1267.5	1144.8	1004.4	863.0	732.8	611.9	403.6
32.5°	1520.5	1506.5	1461.9	1388.4	1286.1	1161.5	1012.7	862.1	720.7	596.1	365.5
35°	1552.1	1538.1	1486.1	1408.0	1300.1	1169.0	1019.2	857.4	705.8	570.1	329.2
37.5°	1576.3	1560.5	1507.5	1421.0	1306.6	1170.8	1018.3	850.9	690.0	548.7	292.9
40°	1593.0	1576.3	1519.5	1428.4	1308.4	1168.0	1010.9	839.7	671.4	521.7	254.8
42.5°	1604.2	1585.6	1525.1	1439.6	1304.7	1160.6	999.7	825.8	651.0	498.5	218.5
45°	1609.8	1590.2	1526.1	1430.3	1298.2	1146.6	983.0	808.1	628.6	466.8	182.3
47.5°	1607.0	1585.6	1521.4	1420.0	1286.1	1131.8	964.4	786.7	601.7	438.9	147.9
50°	1602.3	1580.0	1511.2	1407.0	1269.4	1113.2	943.9	760.7	573.8	404.5	117.2
52.5°	1587.4	1565.1	1500.0	1388.4	1249.9	1091.8	916.0	733.7	544.0	371.1	89.3
55°	1568.8	1548.4	1480.5	1371.7	1224.7	1065.7	890.0	704.9	515.2	336.6	64.2
57.5°	1540.0	1521.4	1456.3	1344.7	1199.6	1036.9	861.1	673.3	478.9	302.2	44.6
60°	1504.7	1486.1	1422.8	1314.0	1170.8	1004.4	829.5	640.7	446.4	267.8	27.9
62.5°	1467.5	1449.8	1383.8	1275.9	1134.5	969.9	795.1	608.2	412.0	236.2	16.7
65°	1418.2	1401.4	1341.9	1230.3	1094.6	932.7	757.0	569.1	376.6	200.9	9.3
67.5°	1366.1	1351.2	1290.8	1188.5	1048.1	891.8	717.9	531.0	339.4	170.2	4.6
70°	1310.3	1291.7	1235.9	1131.8	1000.6	845.3	675.1	491.9	304.1	140.4	0.0
72.5°	1245.2	1231.3	1177.3	1078.7	945.8	796.0	631.4	449.2	265.0	111.6	0.9
75°	1182.0	1164.3	1115.0	1022.0	891.8	744.0	583.1	409.2	226.9	85.6	0.9
77.5°	1100.1	1094.6	1048.1	957.9	840.7	693.7	530.1	360.8	190.6	61.4	0.9
80°	1018.3	1012.7	976.5	893.7	781.2	634.2	480.8	315.3	155.3	40.9	0.9
82.5°	937.4	930.0	895.5	826.7	720.7	584.0	429.6	269.7	122.8	25.1	0.9
85°	864.9	855.6	818.4	755.1	658.4	527.3	376.6	225.0	91.1	13.9	1.9
87.5°	802.6	796.0	755.1	690.0	595.2	474.3	330.1	182.3	64.2	6.5	2.8
90°	749.5	735.6	699.3	630.5	535.7	415.7	280.8	146.0	42.8	3.7	3.7
92.5°	697.5	685.4	645.4	574.7	482.6	365.5	233.4	111.6	27.0	1.9	4.6
95°	643.5	630.5	591.5	526.4	428.7	314.3	191.6	81.8	14.9	1.9	4.6
97.5°	590.5	578.4	537.5	472.4	380.4	269.7	151.6	57.7	7.4	1.9	3.7
100°	541.2	527.3	490.1	425.0	332.0	225.0	117.2	37.2	4.6	1.9	3.7
102.5°	489.2	478.0	439.9	376.6	281.8	183.2	87.4	23.2	1.9	1.9	2.8
105°	442.7	428.7	391.5	326.4	239.9	144.1	61.4	13.9	1.9	1.9	2.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	288.3	277.1	244.6	189.7	121.8	56.7	16.7	2.8	2.8	2.8	2.8
115°	240.9	224.1	195.3	146.9	90.2	37.2	8.4	2.8	2.8	2.8	2.8
117.5°	192.5	178.6	158.1	111.6	59.5	24.2	4.6	2.8	2.8	2.8	2.8
120°	150.7	137.6	114.4	77.2	40.0	13.9	1.9	2.8	2.8	2.8	2.8
122.5°	107.9	97.6	77.2	50.2	24.2	6.5	2.8	2.8	3.7	3.7	2.8
125°	71.6	66.0	51.1	30.7	14.9	2.8	2.8	2.8	3.7	3.7	2.8
127.5°	46.5	41.8	29.8	17.7	6.5	2.8	2.8	3.7	3.7	3.7	2.8
130°	26.0	23.2	17.7	10.2	2.8	2.8	2.8	3.7	3.7	3.7	2.8
132.5°	14.9	13.9	9.3	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7
135°	3.7	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	3.7
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.7	4.6	4.6	4.6	3.7
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.7	4.6	4.6	4.6	3.7
142.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
145°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	3.7	3.7	3.7
147.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
150°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
152.5°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
155°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
157.5°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
160°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
162.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	4.6	4.6	4.6	4.6
172.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
175°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
177.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	4.6	3.7
180°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	730.0	730.0	730.0
2.5°	694.7	681.7	677.9
5°	657.5	636.1	624.0
7.5°	620.3	591.5	577.5
10°	585.9	545.0	530.1
12.5°	545.0	497.5	474.3
15°	505.9	444.5	422.2
17.5°	462.2	393.4	367.3
20°	421.3	342.2	315.3
22.5°	374.8	292.0	262.2
25°	332.9	241.8	208.3
27.5°	286.4	190.6	161.8
30°	242.7	146.0	117.2
32.5°	200.9	106.9	80.9
35°	161.8	72.5	51.1
37.5°	124.6	44.6	26.0
40°	90.2	23.2	12.1
42.5°	60.4	11.2	6.5
45°	37.2	5.6	0.0
47.5°	21.4	0.0	0.0
50°	11.2	0.0	0.0
52.5°	4.6	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°	0.9	0.9	0.9
77.5°	0.9	1.9	2.8
80°	1.9	3.7	4.6
82.5°	3.7	4.6	4.6
85°	3.7	4.6	5.6
87.5°	4.6	5.6	6.5
90°	5.6	6.5	6.5
92.5°	5.6	7.4	7.4
95°	6.5	7.4	8.4
97.5°	7.4	8.4	8.4
100°	6.5	8.4	9.3
102.5°	5.6	8.4	8.4
105°	4.6	6.5	7.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.7	4.6	4.6
115°	2.8	3.7	4.6
117.5°	2.8	3.7	3.7
120°	2.8	2.8	3.7
122.5°	2.8	2.8	3.7
125°	2.8	2.8	3.7
127.5°	3.7	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.7	2.8	2.8
135°	3.7	2.8	2.8
137.5°	3.7	2.8	2.8
140°	3.7	2.8	2.8
142.5°	3.7	2.8	2.8
145°	2.8	2.8	2.8
147.5°	2.8	2.8	2.8
150°	2.8	2.8	1.9
152.5°	2.8	1.9	1.9
155°	2.8	1.9	0.9
157.5°	3.7	1.9	0.9
160°	2.8	1.9	0.9
162.5°	2.8	1.9	0.9
165°	2.8	1.9	0.0
167.5°	2.8	1.9	0.9
170°	2.8	1.9	0.9
172.5°	2.8	1.9	0.9
175°	2.8	0.9	0.9
177.5°	2.8	0.9	0.9
180°	2.8	2.8	2.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	390.6	379.4	342.2	280.8	196.2	109.7	40.9	7.4	1.9	2.8	2.8
110°	340.4	331.1	292.9	233.4	158.1	81.8	27.0	4.6	2.8	2.8	2.8





107.5°	3.7	5.6	6.5
110°	3.7	4.6	5.6



(END OF REPORT)