

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: P551364

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-96-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: P551364
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-82-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

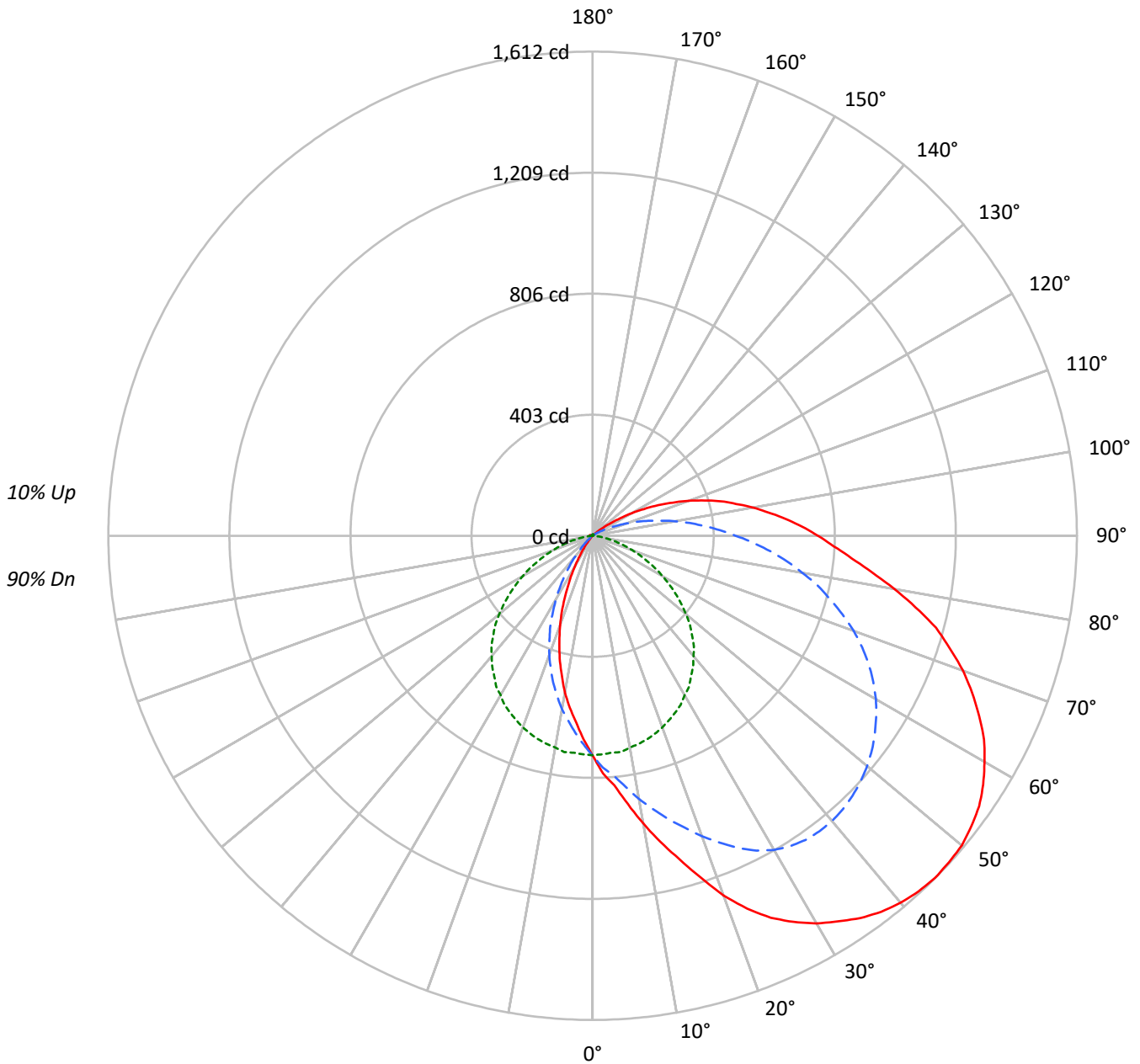
Lumens per Lamp: N/A
Luminaire Lumens: 3613.0 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7866	7866	7866
5°	8636	7751	6467
10°	9772	7656	5331
15°	10951	7559	4154
20°	12351	7436	3059
25°	13512	7292	2008
30°	14376	7102	1131
35°	15123	6896	498
40°	15786	6642	120
45°	16354	6324	0
50°	16832	5903	0
55°	17196	5366	0
60°	17378	4744	0
65°	17450	4039	0
70°	17392	3294	0
75°	17171	2430	13
80°	16474	1487	76
85°	15924	712	103



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	1.9
10°-20°	209.6	5.8
20°-30°	339.4	9.4
30°-40°	436.0	12.1
40°-50°	493.6	13.7
50°-60°	511.4	14.2
60°-70°	482.3	13.3
70°-80°	404.1	11.2
80°-90°	293.0	8.1
90°-100°	192.5	5.3
100°-110°	111.2	3.1
110°-120°	49.1	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°	619.0	17.1
0°-40°	1055.1	29.2
0°-60°	2060.0	57.0
0°-90°	3239.4	89.7
90°-120°	352.8	9.8
90°-150°	371.1	10.3
90°-180°	374.0	10.4
0°-180°	3613.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	731	731	731	731	731	
5°	834	801	725	658	625	84
15°	1114	977	701	506	423	321
25°	1403	1146	650	333	208	648
35°	1554	1236	571	162	51	974
45°	1612	1224	467	37	0	1244
55°	1571	1146	337	0	0	1402
65°	1420	1015	201	0	0	1405
75°	1183	819	86	1	1	1241
85°	866	594	14	4	6	739
90°	750	476	4	6	6	411
95°	644	372	2	6	8	505
105°	443	192	2	5	7	468
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°	730.8	730.8	730.8	730.8	730.8	730.8	730.8	730.8	730.8	730.8	730.8
2.5°	792.3	791.3	788.5	783.9	777.4	766.2	756.9	748.5	737.3	728.0	710.3
5°	834.2	829.5	825.8	821.1	806.2	796.0	779.2	760.6	742.9	725.2	689.9
7.5°	901.2	893.7	888.2	875.1	854.6	831.4	805.3	787.6	775.5	726.2	665.7
10°	972.9	966.4	955.2	931.9	906.8	873.3	836.0	794.1	756.9	715.9	644.2
12.5°	1043.6	1034.3	1018.5	988.7	953.3	911.4	860.2	810.9	757.8	709.4	619.1
15°	1114.4	1104.1	1087.4	1051.1	1004.5	949.6	887.2	824.9	762.5	701.0	593.0
17.5°	1191.7	1177.7	1152.6	1111.6	1052.9	985.0	911.4	836.0	760.6	690.8	565.1
20°	1274.5	1255.0	1228.0	1173.0	1104.1	1024.1	935.6	847.2	759.7	678.7	533.5
22.5°	1343.4	1323.9	1294.1	1237.3	1154.4	1056.7	956.1	854.6	756.0	664.7	503.7
25°	1403.0	1387.2	1354.6	1289.4	1201.9	1091.1	975.7	860.2	750.4	649.8	472.0
27.5°	1449.5	1434.6	1398.3	1331.3	1241.9	1121.8	990.6	863.0	742.9	634.9	439.4
30°	1490.5	1475.6	1431.9	1363.0	1268.9	1146.0	1005.5	864.0	733.6	612.6	404.0
32.5°	1522.2	1508.2	1463.5	1390.0	1287.6	1162.8	1013.8	863.0	721.5	596.8	365.9
35°	1553.8	1539.8	1487.7	1409.5	1301.5	1170.2	1020.4	858.4	706.6	570.7	329.6
37.5°	1578.0	1562.2	1509.1	1422.5	1308.0	1172.1	1019.4	851.9	690.8	549.3	293.3
40°	1594.8	1578.0	1521.2	1430.0	1309.9	1169.3	1012.0	840.7	672.2	522.3	255.1
42.5°	1605.9	1587.3	1526.8	1441.2	1306.2	1161.9	1000.8	826.7	651.7	499.0	218.8
45°	1611.5	1592.0	1527.7	1431.9	1299.7	1147.9	984.1	809.0	629.3	467.4	182.5
47.5°	1608.7	1587.3	1523.1	1421.6	1287.6	1133.0	965.4	787.6	602.3	439.4	148.0
50°	1604.1	1581.7	1512.9	1408.6	1270.8	1114.4	944.9	761.5	574.4	405.0	117.3
52.5°	1589.2	1566.8	1501.7	1390.0	1251.2	1093.0	917.0	734.5	544.6	371.5	89.4
55°	1570.6	1550.1	1482.1	1373.2	1226.1	1066.9	891.0	705.7	515.8	337.0	64.2
57.5°	1541.7	1523.1	1457.9	1346.2	1201.0	1038.0	862.1	674.0	479.5	302.6	44.7
60°	1506.3	1487.7	1424.4	1315.5	1172.1	1005.5	830.4	641.4	446.9	268.1	27.9
62.5°	1469.1	1451.4	1385.3	1277.3	1135.8	971.0	796.0	608.9	412.4	236.5	16.8
65°	1419.8	1403.0	1343.4	1231.7	1095.8	933.8	757.8	569.8	377.0	201.1	9.3
67.5°	1367.6	1352.7	1292.2	1189.8	1049.2	892.8	718.7	531.6	339.8	170.4	4.7
70°	1311.8	1293.1	1237.3	1133.0	1001.7	846.3	675.9	492.5	304.4	140.6	0.0
72.5°	1246.6	1232.6	1178.6	1079.9	946.8	796.9	632.1	449.7	265.3	111.7	0.9
75°	1183.3	1165.6	1116.3	1023.2	892.8	744.8	583.7	409.6	227.2	85.7	0.9
77.5°	1101.4	1095.8	1049.2	958.9	841.6	694.5	530.7	361.2	190.9	61.4	0.9
80°	1019.4	1013.8	977.5	894.7	782.0	634.9	481.3	315.6	155.5	41.0	0.9
82.5°	938.4	931.0	896.5	827.6	721.5	584.7	430.1	270.0	122.9	25.1	0.9
85°	865.8	856.5	819.3	756.0	659.1	527.9	377.0	225.3	91.2	14.0	1.9
87.5°	803.4	796.9	756.0	690.8	595.8	474.8	330.5	182.5	64.2	6.5	2.8
90°	750.4	736.4	700.1	631.2	536.2	416.2	281.2	146.2	42.8	3.7	3.7
92.5°	698.2	686.1	646.1	575.3	483.2	365.9	233.7	111.7	27.0	1.9	4.7
95°	644.2	631.2	592.1	526.9	429.2	314.7	191.8	81.9	14.9	1.9	4.7
97.5°	591.2	579.1	538.1	472.9	380.8	270.0	151.8	57.7	7.4	1.9	3.7
100°	541.8	527.9	490.6	425.5	332.4	225.3	117.3	37.2	4.7	1.9	3.7
102.5°	489.7	478.5	440.4	377.0	282.1	183.4	87.5	23.3	1.9	1.9	2.8
105°	443.1	429.2	391.9	326.8	240.2	144.3	61.4	14.0	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°	288.6	277.4	244.8	189.9	122.0	56.8	16.8	2.8	2.8	2.8	2.8
115°	241.1	224.4	195.5	147.1	90.3	37.2	8.4	2.8	2.8	2.8	2.8
117.5°	192.7	178.7	158.3	111.7	59.6	24.2	4.7	2.8	2.8	2.8	2.8
120°	150.8	137.8	114.5	77.3	40.0	14.0	1.9	2.8	2.8	2.8	2.8
122.5°	108.0	97.8	77.3	50.3	24.2	6.5	2.8	2.8	3.7	3.7	2.8
125°	71.7	66.1	51.2	30.7	14.9	2.8	2.8	2.8	3.7	3.7	2.8
127.5°	46.5	41.9	29.8	17.7	6.5	2.8	2.8	3.7	3.7	3.7	2.8
130°	26.1	23.3	17.7	10.2	2.8	2.8	2.8	3.7	3.7	3.7	2.8
132.5°	14.9	14.0	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	4.7	4.7	3.7
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.7	4.7	4.7	4.7	3.7
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.7	4.7	4.7	4.7	3.7
142.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	3.7	3.7
145°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	3.7	3.7	3.7
147.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	3.7	3.7
150°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	3.7
152.5°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	3.7
155°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	4.7
157.5°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	4.7
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	4.7	4.7	4.7	4.7
172.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	4.7	4.7
175°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	4.7	4.7
177.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	4.7	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



TEST NUMBER: P551364

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	730.8	730.8	730.8
2.5°	695.4	682.4	678.7
5°	658.2	636.8	624.7
7.5°	621.0	592.1	578.1
10°	586.5	545.6	530.7
12.5°	545.6	498.1	474.8
15°	506.5	445.0	422.7
17.5°	462.7	393.8	367.7
20°	421.7	342.6	315.6
22.5°	375.2	292.3	262.5
25°	333.3	242.1	208.5
27.5°	286.7	190.9	162.0
30°	243.0	146.2	117.3
32.5°	201.1	107.1	81.0
35°	162.0	72.6	51.2
37.5°	124.8	44.7	26.1
40°	90.3	23.3	12.1
42.5°	60.5	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°	4.7	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°	0.9	0.9	0.9
77.5°	0.9	1.9	2.8
80°	1.9	3.7	4.7
82.5°	3.7	4.7	4.7
85°	3.7	4.7	5.6
87.5°	4.7	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°	4.7	6.5	7.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.7	4.7	4.7
115°	2.8	3.7	4.7
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°	391.0	379.8	342.6	281.2	196.4	109.9	41.0	7.4	1.9	2.8	2.8
110°	340.7	331.4	293.3	233.7	158.3	81.9	27.0	4.7	2.8	2.8	2.8





107.5°	3.7	5.6	6.5
110°	3.7	4.7	5.6



(END OF REPORT)