

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: P551362

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-94-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: P551362
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-82-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

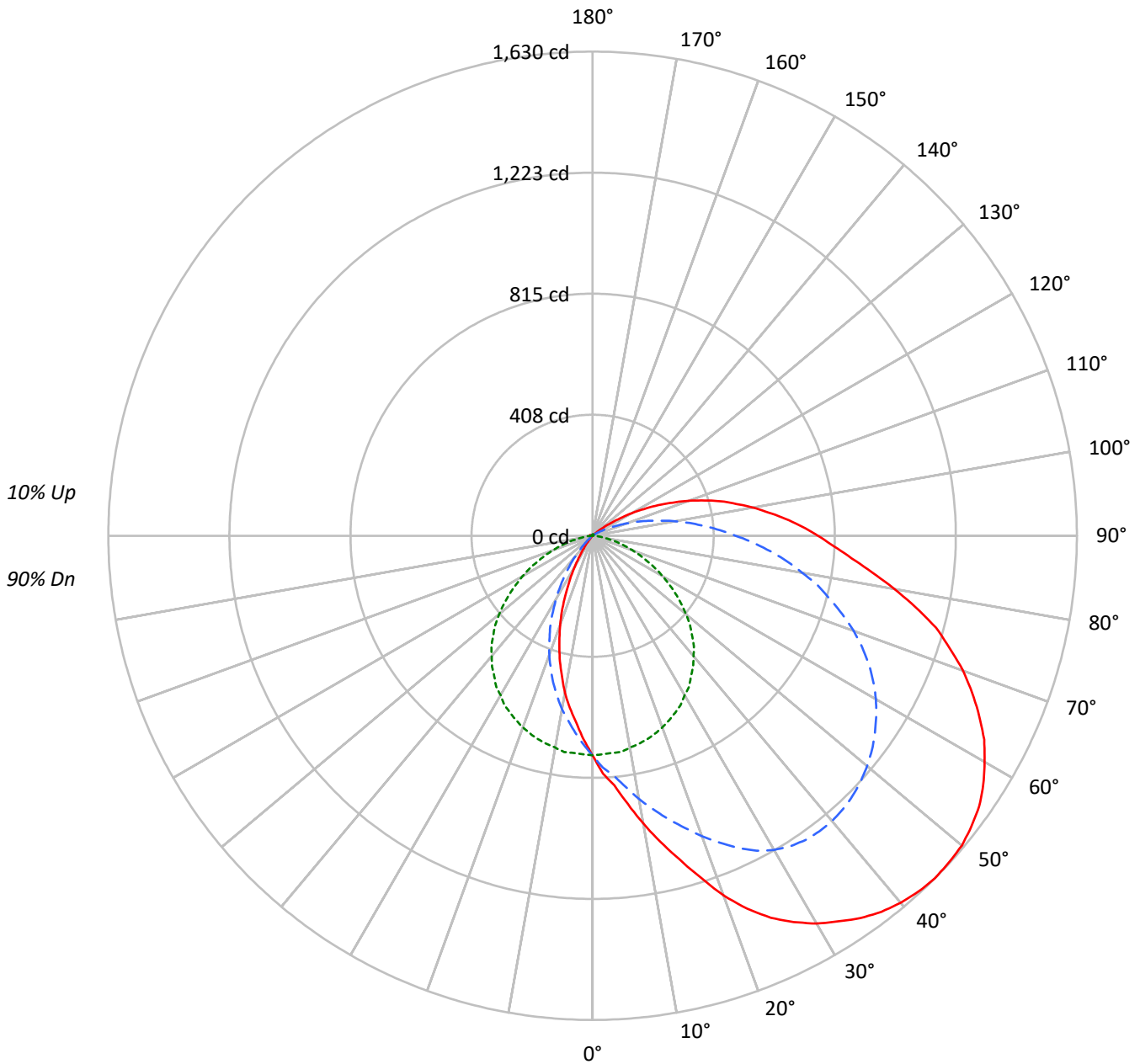
Lumens per Lamp: N/A
Luminaire Lumens: 3654.0 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551362

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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°	7956	7956	7956
5°	8733	7840	6541
10°	9883	7744	5391
15°	11075	7645	4201
20°	12492	7520	3093
25°	13666	7375	2031
30°	14539	7182	1144
35°	15294	6974	504
40°	15965	6717	121
45°	16540	6396	0
50°	17023	5970	0
55°	17390	5427	0
60°	17575	4799	0
65°	17648	4085	0
70°	17588	3331	0
75°	17365	2456	13
80°	16662	1502	76
85°	16104	717	103



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	1.9
10°-20°	212.0	5.8
20°-30°	343.3	9.4
30°-40°	441.0	12.1
40°-50°	499.2	13.7
50°-60°	517.2	14.2
60°-70°	487.7	13.3
70°-80°	408.7	11.2
80°-90°	296.3	8.1
90°-100°	194.7	5.3
100°-110°	112.5	3.1
110°-120°	49.6	1.4
120°-130°	13.4	0.4
130°-140°	3.1	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°	626.1	17.1
0°-40°	1067.0	29.2
0°-60°	2083.4	57.0
0°-90°	3276.1	89.7
90°-120°	356.8	9.8
90°-150°	375.3	10.3
90°-180°	378.0	10.3
0°-180°	3654.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	739	739	739	739	739	
5°	844	810	734	666	632	85
15°	1127	988	709	512	428	325
25°	1419	1160	657	337	211	656
35°	1571	1250	577	164	52	986
45°	1630	1238	473	38	0	1258
55°	1588	1160	341	0	0	1418
65°	1436	1026	203	0	0	1421
75°	1197	828	87	1	1	1255
85°	876	600	14	4	6	748
90°	759	482	4	6	7	416
95°	652	376	2	7	8	511
105°	448	194	2	5	8	473
115°	244	64	3	3	5	244
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°	739.1	739.1	739.1	739.1	739.1	739.1	739.1	739.1	739.1	739.1	739.1
2.5°	801.3	800.3	797.5	792.8	786.2	774.9	765.5	757.0	745.7	736.3	718.4
5°	843.6	838.9	835.2	830.4	815.4	805.0	788.1	769.2	751.4	733.5	697.7
7.5°	911.4	903.9	898.2	885.1	864.3	840.8	814.4	796.6	784.3	734.4	673.2
10°	983.9	977.3	966.0	942.5	917.1	883.2	845.5	803.1	765.5	724.1	651.6
12.5°	1055.5	1046.1	1030.1	999.9	964.1	921.8	870.0	820.1	766.4	717.5	626.1
15°	1127.0	1116.7	1099.7	1063.0	1015.9	960.4	897.3	834.2	771.1	709.0	599.8
17.5°	1205.2	1191.1	1165.6	1124.2	1064.9	996.2	921.8	845.5	769.2	698.6	571.5
20°	1289.0	1269.2	1241.9	1186.4	1116.7	1035.7	946.3	856.8	768.3	686.4	539.5
22.5°	1358.7	1338.9	1308.8	1251.3	1167.5	1068.7	967.0	864.3	764.5	672.3	509.4
25°	1418.9	1402.9	1370.0	1304.0	1215.5	1103.5	986.7	870.0	758.9	657.2	477.4
27.5°	1466.0	1450.9	1414.2	1346.4	1256.0	1134.6	1001.8	872.8	751.4	642.1	444.4
30°	1507.4	1492.4	1448.1	1378.4	1283.3	1159.0	1016.9	873.8	741.9	619.5	408.6
32.5°	1539.4	1525.3	1480.1	1405.7	1302.2	1176.0	1025.3	872.8	729.7	603.5	370.0
35°	1571.4	1557.3	1504.6	1425.5	1316.3	1183.5	1031.9	868.1	714.6	577.2	333.3
37.5°	1595.9	1579.9	1526.3	1438.7	1322.9	1185.4	1031.0	861.5	698.6	555.5	296.6
40°	1612.9	1595.9	1538.5	1446.2	1324.8	1182.6	1023.5	850.2	679.8	528.2	258.0
42.5°	1624.2	1605.3	1544.1	1457.5	1321.0	1175.1	1012.2	836.1	659.1	504.7	221.3
45°	1629.8	1610.0	1545.1	1448.1	1314.4	1160.9	995.2	818.2	636.5	472.7	184.5
47.5°	1627.0	1605.3	1540.4	1437.7	1302.2	1145.9	976.4	796.6	609.2	444.4	149.7
50°	1622.3	1599.7	1530.0	1424.6	1285.2	1127.0	955.7	770.2	580.9	409.6	118.6
52.5°	1607.2	1584.6	1518.7	1405.7	1265.4	1105.4	927.4	742.9	550.8	375.7	90.4
55°	1588.4	1567.7	1498.9	1388.8	1240.0	1079.0	901.1	713.7	521.6	340.8	65.0
57.5°	1559.2	1540.4	1474.5	1361.5	1214.6	1049.8	871.9	681.7	484.9	306.0	45.2
60°	1523.4	1504.6	1440.6	1330.4	1185.4	1016.9	839.9	648.7	451.9	271.2	28.2
62.5°	1485.8	1467.9	1401.0	1291.8	1148.7	982.0	805.0	615.8	417.1	239.2	16.9
65°	1435.9	1418.9	1358.7	1245.7	1108.2	944.4	766.4	576.2	381.3	203.4	9.4
67.5°	1383.1	1368.1	1306.9	1203.3	1061.1	902.9	726.9	537.6	343.7	172.3	4.7
70°	1326.6	1307.8	1251.3	1145.9	1013.1	855.9	683.6	498.1	307.9	142.2	0.0
72.5°	1260.7	1246.6	1192.0	1092.2	957.6	806.0	639.3	454.8	268.3	113.0	0.9
75°	1196.7	1178.8	1128.9	1034.8	902.9	753.2	590.4	414.3	229.7	86.6	0.9
77.5°	1113.9	1108.2	1061.1	969.8	851.2	702.4	536.7	365.3	193.0	62.1	0.9
80°	1031.0	1025.3	988.6	904.8	790.9	642.1	486.8	319.2	157.2	41.4	0.9
82.5°	949.1	941.5	906.7	837.0	729.7	591.3	435.0	273.0	124.3	25.4	0.9
85°	875.6	866.2	828.6	764.5	666.6	533.9	381.3	227.9	92.3	14.1	1.9
87.5°	812.6	806.0	764.5	698.6	602.6	480.2	334.3	184.5	65.0	6.6	2.8
90°	758.9	744.8	708.0	638.4	542.3	420.9	284.3	147.8	43.3	3.8	3.8
92.5°	706.2	693.9	653.4	581.9	488.7	370.0	236.3	113.0	27.3	1.9	4.7
95°	651.6	638.4	598.8	532.9	434.1	318.2	194.0	82.9	15.1	1.9	4.7
97.5°	597.9	585.6	544.2	478.3	385.1	273.0	153.5	58.4	7.5	1.9	3.8
100°	548.0	533.9	496.2	430.3	336.1	227.9	118.6	37.7	4.7	1.9	3.8
102.5°	495.3	484.0	445.4	381.3	285.3	185.5	88.5	23.5	1.9	1.9	2.8
105°	448.2	434.1	396.4	330.5	242.9	145.9	62.1	14.1	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°	291.9	280.6	247.6	192.1	123.3	57.4	16.9	2.8	2.8	2.8	2.8
115°	243.9	226.9	197.7	148.8	91.3	37.7	8.5	2.8	2.8	2.8	2.8
117.5°	194.9	180.8	160.1	113.0	60.3	24.5	4.7	2.8	2.8	2.8	2.8
120°	152.5	139.3	115.8	78.1	40.5	14.1	1.9	2.8	2.8	2.8	2.8
122.5°	109.2	98.9	78.1	50.8	24.5	6.6	2.8	2.8	3.8	3.8	2.8
125°	72.5	66.9	51.8	31.1	15.1	2.8	2.8	2.8	3.8	3.8	2.8
127.5°	47.1	42.4	30.1	17.9	6.6	2.8	2.8	3.8	3.8	3.8	2.8
130°	26.4	23.5	17.9	10.4	2.8	2.8	2.8	3.8	3.8	3.8	2.8
132.5°	15.1	14.1	9.4	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8
135°	3.8	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.8	4.7	4.7	4.7	3.8
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	3.8
142.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
145°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	3.8	3.8	3.8
147.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
150°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
152.5°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
155°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
157.5°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
160°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
162.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8	3.8
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	4.7
172.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
175°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
177.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	3.8
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°	739.1	739.1	739.1
2.5°	703.3	690.2	686.4
5°	665.7	644.0	631.8
7.5°	628.0	598.8	584.7
10°	593.2	551.7	536.7
12.5°	551.7	503.7	480.2
15°	512.2	450.1	427.5
17.5°	468.0	398.3	371.9
20°	426.5	346.5	319.2
22.5°	379.4	295.6	265.5
25°	337.1	244.8	210.9
27.5°	290.0	193.0	163.8
30°	245.7	147.8	118.6
32.5°	203.4	108.3	81.9
35°	163.8	73.4	51.8
37.5°	126.2	45.2	26.4
40°	91.3	23.5	12.2
42.5°	61.2	11.3	6.6
45°	37.7	5.6	0.0
47.5°	21.7	0.0	0.0
50°	11.3	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	3.8	4.7
82.5°	3.8	4.7	4.7
85°	3.8	4.7	5.6
87.5°	4.7	5.6	6.6
90°	5.6	6.6	6.6
92.5°	5.6	7.5	7.5
95°	6.6	7.5	8.5
97.5°	7.5	8.5	8.5
100°	6.6	8.5	9.4
102.5°	5.6	8.5	8.5
105°	4.7	6.6	7.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.8	4.7	4.7
115°	2.8	3.8	4.7
117.5°	2.8	3.8	3.8
120°	2.8	2.8	3.8
122.5°	2.8	2.8	3.8
125°	2.8	2.8	3.8
127.5°	3.8	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.8	2.8	2.8
135°	3.8	2.8	2.8
137.5°	3.8	2.8	2.8
140°	3.8	2.8	2.8
142.5°	3.8	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°	3.8	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°	395.5	384.2	346.5	284.3	198.7	111.1	41.4	7.5	1.9	2.8	2.8
110°	344.6	335.2	296.6	236.3	160.1	82.9	27.3	4.7	2.8	2.8	2.8





107.5°	3.8	5.6	6.6
110°	3.8	4.7	5.6



(END OF REPORT)