

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: P551356

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-86-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: P551356
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-82-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 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

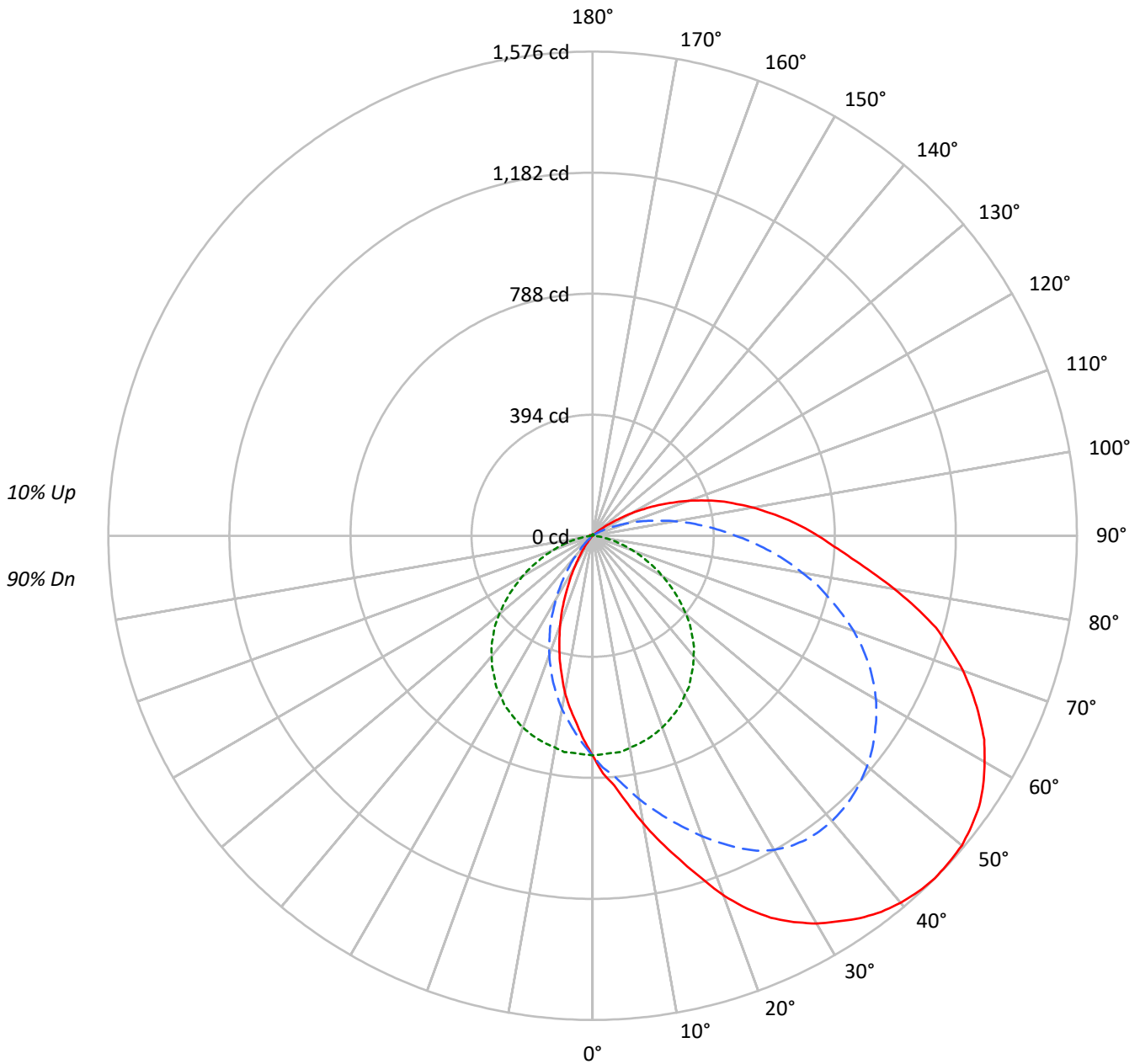
Lumens per Lamp: N/A
Luminaire Lumens: 3532.9 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551356

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Luminous Intensity Polar Plot





TEST NUMBER: P551356

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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°	7692	7692	7692
5°	8444	7580	6324
10°	9555	7487	5212
15°	10709	7391	4062
20°	12078	7272	2991
25°	13213	7131	1964
30°	14057	6944	1106
35°	14788	6743	488
40°	15437	6495	117
45°	15993	6184	0
50°	16459	5772	0
55°	16815	5248	0
60°	16994	4640	0
65°	17063	3949	0
70°	17006	3221	0
75°	16791	2376	13
80°	16111	1455	74
85°	15571	697	101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	1.9
10°-20°	205.0	5.8
20°-30°	331.9	9.4
30°-40°	426.4	12.1
40°-50°	482.7	13.7
50°-60°	500.0	14.2
60°-70°	471.6	13.3
70°-80°	395.2	11.2
80°-90°	286.5	8.1
90°-100°	188.3	5.3
100°-110°	108.7	3.1
110°-120°	48.0	1.4
120°-130°	13.0	0.4
130°-140°	3.0	0.1
140°-150°	1.9	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	605.3	17.1
0°-40°	1031.7	29.2
0°-60°	2014.4	57.0
0°-90°	3167.6	89.7
90°-120°	345.0	9.8
90°-150°	362.9	10.3
90°-180°	365.0	10.3
0°-180°	3532.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	715	715	715	715	715	
5°	816	783	709	644	611	82
15°	1090	955	686	495	413	314
25°	1372	1121	635	326	204	634
35°	1519	1208	558	158	50	953
45°	1576	1197	457	36	0	1217
55°	1536	1121	330	0	0	1371
65°	1388	992	197	0	0	1374
75°	1157	801	84	1	1	1214
85°	847	580	14	4	6	723
90°	734	466	4	6	6	402
95°	630	364	2	6	8	494
105°	433	188	2	5	7	457
115°	236	62	3	3	5	236
125°	70	9	4	3	4	70
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°	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6
2.5°	774.7	773.8	771.1	766.5	760.2	749.2	740.1	731.9	721.0	711.9	694.6
5°	815.7	811.1	807.5	802.9	788.4	778.4	762.0	743.8	726.5	709.2	674.6
7.5°	881.2	874.0	868.5	855.7	835.7	813.0	787.5	770.2	758.3	710.1	650.9
10°	951.3	945.0	934.0	911.3	886.7	853.9	817.5	776.5	740.1	700.1	630.0
12.5°	1020.5	1011.4	995.9	966.8	932.2	891.3	841.2	792.9	741.0	693.7	605.4
15°	1089.7	1079.7	1063.3	1027.8	982.3	928.6	867.6	806.6	745.6	685.5	579.9
17.5°	1165.3	1151.6	1127.0	1087.0	1029.6	963.2	891.3	817.5	743.8	675.5	552.6
20°	1246.3	1227.2	1200.8	1147.1	1079.7	1001.4	914.9	828.4	742.9	663.7	521.6
22.5°	1313.7	1294.5	1265.4	1209.9	1128.9	1033.3	935.0	835.7	739.2	650.0	492.5
25°	1371.9	1356.5	1324.6	1260.9	1175.3	1067.0	954.1	841.2	733.8	635.4	461.6
27.5°	1417.4	1402.9	1367.4	1301.8	1214.4	1097.0	968.6	843.9	726.5	620.9	429.7
30°	1457.5	1442.9	1400.2	1332.8	1240.8	1120.7	983.2	844.8	717.4	599.0	395.1
32.5°	1488.5	1474.8	1431.1	1359.2	1259.0	1137.1	991.4	843.9	705.5	583.5	357.8
35°	1519.4	1505.8	1454.8	1378.3	1272.7	1144.3	997.8	839.4	691.0	558.1	322.3
37.5°	1543.1	1527.6	1475.7	1391.0	1279.1	1146.2	996.9	833.0	675.5	537.1	286.8
40°	1559.5	1543.1	1487.5	1398.3	1280.9	1143.4	989.6	822.1	657.3	510.7	249.4
42.5°	1570.4	1552.2	1493.0	1409.3	1277.3	1136.1	978.6	808.4	637.3	488.0	213.9
45°	1575.9	1556.7	1493.9	1400.2	1270.9	1122.5	962.3	791.1	615.4	457.0	178.4
47.5°	1573.1	1552.2	1489.4	1390.1	1259.0	1107.9	944.1	770.2	589.0	429.7	144.7
50°	1568.6	1546.7	1479.4	1377.4	1242.7	1089.7	924.0	744.7	561.7	396.0	114.7
52.5°	1554.0	1532.2	1468.4	1359.2	1223.5	1068.8	896.7	718.3	532.6	363.2	87.4
55°	1535.8	1515.8	1449.3	1342.8	1199.0	1043.3	871.2	690.1	504.3	329.6	62.8
57.5°	1507.6	1489.4	1425.6	1316.4	1174.4	1015.1	843.0	659.1	468.8	295.9	43.7
60°	1473.0	1454.8	1392.9	1286.4	1146.2	983.2	812.1	627.2	437.0	262.2	27.3
62.5°	1436.6	1419.3	1354.6	1249.0	1110.7	949.5	778.4	595.4	403.3	231.2	16.4
65°	1388.3	1371.9	1313.7	1204.4	1071.5	913.1	741.0	557.1	368.7	196.6	9.1
67.5°	1337.3	1322.8	1263.6	1163.5	1026.0	873.0	702.8	519.8	332.3	166.6	4.6
70°	1282.7	1264.5	1209.9	1107.9	979.6	827.5	660.9	481.6	297.7	137.5	0.0
72.5°	1219.0	1205.3	1152.5	1056.0	925.8	779.3	618.1	439.7	259.5	109.2	0.9
75°	1157.1	1139.8	1091.5	1000.5	873.0	728.3	570.8	400.6	222.1	83.8	0.9
77.5°	1077.0	1071.5	1026.0	937.7	823.0	679.1	518.9	353.2	186.6	60.1	0.9
80°	996.9	991.4	955.9	874.9	764.7	620.9	470.7	308.6	152.0	40.1	0.9
82.5°	917.7	910.4	876.7	809.3	705.5	571.7	420.6	264.0	120.2	24.6	0.9
85°	846.6	837.5	801.1	739.2	644.5	516.2	368.7	220.3	89.2	13.7	1.8
87.5°	785.6	779.3	739.2	675.5	582.6	464.3	323.2	178.4	62.8	6.4	2.7
90°	733.8	720.1	684.6	617.2	524.4	406.9	274.9	142.9	41.9	3.6	3.6
92.5°	682.8	670.9	631.8	562.6	472.5	357.8	228.5	109.2	26.4	1.8	4.6
95°	630.0	617.2	579.0	515.3	419.7	307.7	187.5	80.1	14.6	1.8	4.6
97.5°	578.1	566.3	526.2	462.5	372.3	264.0	148.4	56.4	7.3	1.8	3.6
100°	529.8	516.2	479.8	416.0	325.0	220.3	114.7	36.4	4.6	1.8	3.6
102.5°	478.9	467.9	430.6	368.7	275.8	179.3	85.6	22.8	1.8	1.8	2.7
105°	433.3	419.7	383.3	319.5	234.9	141.1	60.1	13.7	1.8	1.8	2.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	282.2	271.3	239.4	185.7	119.3	55.5	16.4	2.7	2.7	2.7	2.7
115°	235.8	219.4	191.2	143.8	88.3	36.4	8.2	2.7	2.7	2.7	2.7
117.5°	188.4	174.8	154.8	109.2	58.3	23.7	4.6	2.7	2.7	2.7	2.7
120°	147.5	134.7	112.0	75.6	39.1	13.7	1.8	2.7	2.7	2.7	2.7
122.5°	105.6	95.6	75.6	49.2	23.7	6.4	2.7	2.7	3.6	3.6	2.7
125°	70.1	64.6	50.1	30.0	14.6	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	45.5	41.0	29.1	17.3	6.4	2.7	2.7	3.6	3.6	3.6	2.7
130°	25.5	22.8	17.3	10.0	2.7	2.7	2.7	3.6	3.6	3.6	2.7
132.5°	14.6	13.7	9.1	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6
135°	3.6	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.6	4.6	3.6
137.5°	0.9	0.9	1.8	1.8	2.7	2.7	3.6	4.6	4.6	4.6	3.6
140°	0.9	0.9	1.8	2.7	2.7	2.7	3.6	4.6	4.6	4.6	3.6
142.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.6	4.6	3.6	3.6
145°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.6	3.6	3.6	3.6
147.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.6	4.6	3.6	3.6
150°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.6	3.6	3.6	3.6
152.5°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.6	3.6	3.6	3.6
155°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.6	3.6	3.6	4.6
157.5°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.6	3.6	3.6	4.6
160°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
162.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
165°	1.8	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6
167.5°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6	3.6
170°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	4.6	4.6	4.6	4.6
172.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.6	4.6	4.6	4.6
175°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.6	4.6	4.6	4.6
177.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.6	4.6	4.6	3.6
180°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	714.6	714.6	714.6
2.5°	680.0	667.3	663.7
5°	643.6	622.7	610.9
7.5°	607.2	579.0	565.3
10°	573.5	533.5	518.9
12.5°	533.5	487.0	464.3
15°	495.2	435.2	413.3
17.5°	452.5	385.1	359.6
20°	412.4	335.0	308.6
22.5°	366.9	285.9	256.7
25°	325.9	236.7	203.9
27.5°	280.4	186.6	158.4
30°	237.6	142.9	114.7
32.5°	196.6	104.7	79.2
35°	158.4	71.0	50.1
37.5°	122.0	43.7	25.5
40°	88.3	22.8	11.8
42.5°	59.2	10.9	6.4
45°	36.4	5.5	0.0
47.5°	20.9	0.0	0.0
50°	10.9	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	1.8	2.7
80°	1.8	3.6	4.6
82.5°	3.6	4.6	4.6
85°	3.6	4.6	5.5
87.5°	4.6	5.5	6.4
90°	5.5	6.4	6.4
92.5°	5.5	7.3	7.3
95°	6.4	7.3	8.2
97.5°	7.3	8.2	8.2
100°	6.4	8.2	9.1
102.5°	5.5	8.2	8.2
105°	4.6	6.4	7.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.6	4.6	4.6
115°	2.7	3.6	4.6
117.5°	2.7	3.6	3.6
120°	2.7	2.7	3.6
122.5°	2.7	2.7	3.6
125°	2.7	2.7	3.6
127.5°	3.6	2.7	2.7
130°	2.7	2.7	2.7
132.5°	3.6	2.7	2.7
135°	3.6	2.7	2.7
137.5°	3.6	2.7	2.7
140°	3.6	2.7	2.7
142.5°	3.6	2.7	2.7
145°	2.7	2.7	2.7
147.5°	2.7	2.7	2.7
150°	2.7	2.7	1.8
152.5°	2.7	1.8	1.8
155°	2.7	1.8	0.9
157.5°	3.6	1.8	0.9
160°	2.7	1.8	0.9
162.5°	2.7	1.8	0.9
165°	2.7	1.8	0.0
167.5°	2.7	1.8	0.9
170°	2.7	1.8	0.9
172.5°	2.7	1.8	0.9
175°	2.7	0.9	0.9
177.5°	2.7	0.9	0.9
180°	2.7	2.7	2.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	382.4	371.4	335.0	274.9	192.1	107.4	40.1	7.3	1.8	2.7	2.7
110°	333.2	324.1	286.8	228.5	154.8	80.1	26.4	4.6	2.7	2.7	2.7





107.5°	3.6	5.5	6.4
110°	3.6	4.6	5.5



(END OF REPORT)