

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: P551230

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-87-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: P551230
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-82-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

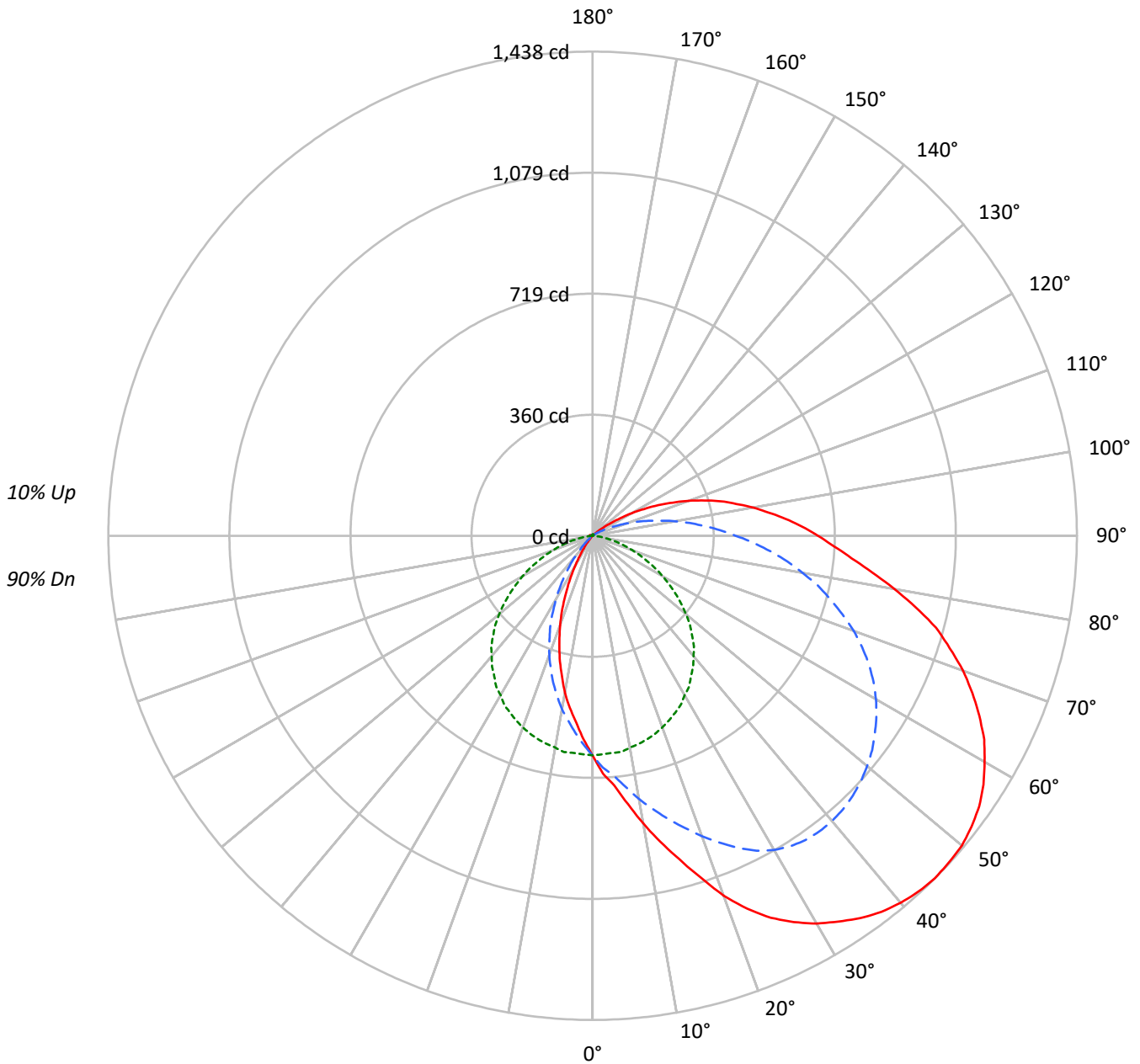
Lumens per Lamp: N/A
Luminaire Lumens: 3224.0 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-87-ED1D

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°	7019	7019	7019
5°	7706	6917	5770
10°	8720	6831	4756
15°	9772	6746	3707
20°	11022	6635	2729
25°	12057	6508	1792
30°	12828	6336	1010
35°	13495	6153	445
40°	14086	5928	107
45°	14593	5642	0
50°	15020	5267	0
55°	15344	4788	0
60°	15508	4235	0
65°	15571	3603	0
70°	15519	2938	0
75°	15322	2167	12
80°	14701	1328	68
85°	14210	636	92



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.5	1.9
10°-20°	187.0	5.8
20°-30°	302.9	9.4
30°-40°	389.1	12.1
40°-50°	440.4	13.7
50°-60°	456.3	14.2
60°-70°	430.3	13.3
70°-80°	360.6	11.2
80°-90°	261.4	8.1
90°-100°	171.8	5.3
100°-110°	99.2	3.1
110°-120°	43.8	1.4
120°-130°	11.9	0.4
130°-140°	2.7	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	552.4	17.1
0°-40°	941.5	29.2
0°-60°	1838.2	57.0
0°-90°	2890.6	89.7
90°-120°	314.8	9.8
90°-150°	331.2	10.3
90°-180°	333.0	10.3
0°-180°	3224.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	652	652	652	652	652	
5°	744	715	647	587	557	75
15°	994	872	626	452	377	287
25°	1252	1023	580	297	186	579
35°	1386	1103	509	145	46	870
45°	1438	1092	417	33	0	1110
55°	1402	1023	301	0	0	1251
65°	1267	906	179	0	0	1253
75°	1056	731	76	1	1	1107
85°	773	530	12	3	5	660
90°	670	425	3	5	6	367
95°	575	332	2	6	8	451
105°	395	172	2	4	7	417
115°	215	57	2	2	4	215
125°	64	8	3	2	3	64
135°	3	2	4	3	2	6
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	2	1	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1
2.5°	707.0	706.1	703.6	699.5	693.7	683.7	675.4	667.9	658.0	649.6	633.9
5°	744.4	740.2	736.9	732.7	719.4	710.3	695.3	678.7	662.9	647.2	615.6
7.5°	804.2	797.5	792.5	780.9	762.6	741.9	718.6	702.8	692.0	648.0	594.0
10°	868.1	862.3	852.3	831.6	809.1	779.2	746.0	708.6	675.4	638.8	574.9
12.5°	931.3	923.0	908.8	882.3	850.7	813.3	767.6	723.6	676.2	633.0	552.4
15°	994.4	985.3	970.3	937.9	896.4	847.4	791.7	736.0	680.4	625.6	529.2
17.5°	1063.4	1050.9	1028.5	991.9	939.6	878.9	813.3	746.0	678.7	616.4	504.3
20°	1137.3	1119.8	1095.8	1046.7	985.3	913.8	834.9	756.0	677.9	605.6	476.0
22.5°	1198.8	1181.3	1154.7	1104.1	1030.1	942.9	853.2	762.6	674.6	593.2	449.4
25°	1251.9	1237.8	1208.7	1150.6	1072.5	973.6	870.6	767.6	669.6	579.9	421.2
27.5°	1293.5	1280.2	1247.8	1188.0	1108.2	1001.1	883.9	770.1	662.9	566.6	392.1
30°	1330.0	1316.7	1277.7	1216.2	1132.3	1022.7	897.2	770.9	654.6	546.6	360.5
32.5°	1358.3	1345.8	1305.9	1240.3	1148.9	1037.6	904.7	770.1	643.8	532.5	326.5
35°	1386.5	1374.1	1327.5	1257.8	1161.4	1044.3	910.5	766.0	630.5	509.2	294.1
37.5°	1408.1	1394.0	1346.6	1269.4	1167.2	1045.9	909.7	760.1	616.4	490.1	261.7
40°	1423.1	1408.1	1357.4	1276.0	1168.9	1043.4	903.0	750.2	599.8	466.1	227.6
42.5°	1433.0	1416.4	1362.4	1286.0	1165.5	1036.8	893.1	737.7	581.5	445.3	195.2
45°	1438.0	1420.6	1363.3	1277.7	1159.7	1024.3	878.1	721.9	561.6	417.0	162.8
47.5°	1435.5	1416.4	1359.1	1268.6	1148.9	1011.0	861.5	702.8	537.5	392.1	132.1
50°	1431.4	1411.4	1350.0	1256.9	1134.0	994.4	843.2	679.6	512.6	361.4	104.7
52.5°	1418.1	1398.2	1340.0	1240.3	1116.5	975.3	818.3	655.5	486.0	331.5	79.8
55°	1401.5	1383.2	1322.6	1225.4	1094.1	952.0	795.0	629.7	460.2	300.7	57.3
57.5°	1375.7	1359.1	1301.0	1201.3	1071.7	926.3	769.3	601.5	427.8	270.0	39.9
60°	1344.2	1327.5	1271.0	1173.8	1045.9	897.2	741.0	572.4	398.8	239.3	24.9
62.5°	1310.9	1295.1	1236.2	1139.8	1013.5	866.5	710.3	543.3	368.0	211.0	15.0
65°	1266.9	1251.9	1198.8	1099.1	977.8	833.2	676.2	508.4	336.5	179.4	8.3
67.5°	1220.4	1207.1	1153.1	1061.7	936.3	796.7	641.3	474.4	303.2	152.0	4.2
70°	1170.5	1153.9	1104.1	1011.0	893.9	755.2	603.1	439.5	271.7	125.4	0.0
72.5°	1112.4	1099.9	1051.7	963.7	844.9	711.1	564.1	401.3	236.8	99.7	0.8
75°	1055.9	1040.1	996.1	913.0	796.7	664.6	520.9	365.5	202.7	76.4	0.8
77.5°	982.8	977.8	936.3	855.7	751.0	619.7	473.5	322.3	170.3	54.8	0.8
80°	909.7	904.7	872.3	798.3	697.8	566.6	429.5	281.6	138.7	36.6	0.8
82.5°	837.4	830.7	800.0	738.5	643.8	521.7	383.8	240.9	109.7	22.4	0.8
85°	772.6	764.3	731.1	674.6	588.2	471.0	336.5	201.0	81.4	12.5	1.7
87.5°	716.9	711.1	674.6	616.4	531.7	423.7	294.9	162.8	57.3	5.8	2.5
90°	669.6	657.1	624.7	563.2	478.5	371.3	250.9	130.4	38.2	3.3	3.3
92.5°	623.1	612.3	576.5	513.4	431.2	326.5	208.5	99.7	24.1	1.7	4.2
95°	574.9	563.2	528.4	470.2	383.0	280.8	171.1	73.1	13.3	1.7	4.2
97.5°	527.5	516.7	480.2	422.0	339.8	240.9	135.4	51.5	6.6	1.7	3.3
100°	483.5	471.0	437.8	379.7	296.6	201.0	104.7	33.2	4.2	1.7	3.3
102.5°	437.0	427.0	392.9	336.5	251.7	163.7	78.1	20.8	1.7	1.7	2.5
105°	395.4	383.0	349.7	291.6	214.3	128.8	54.8	12.5	1.7	1.7	2.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	257.5	247.6	218.5	169.5	108.8	50.7	15.0	2.5	2.5	2.5	2.5
115°	215.2	200.2	174.5	131.3	80.6	33.2	7.5	2.5	2.5	2.5	2.5
117.5°	172.0	159.5	141.2	99.7	53.2	21.6	4.2	2.5	2.5	2.5	2.5
120°	134.6	123.0	102.2	69.0	35.7	12.5	1.7	2.5	2.5	2.5	2.5
122.5°	96.4	87.2	69.0	44.9	21.6	5.8	2.5	2.5	3.3	3.3	2.5
125°	64.0	59.0	45.7	27.4	13.3	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.5	37.4	26.6	15.8	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.3	20.8	15.8	9.1	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.3	12.5	8.3	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.3	4.2	4.2	4.2	3.3
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.3	4.2	4.2	4.2	3.3
142.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3	3.3
145°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	3.3	3.3	3.3
147.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3	3.3
150°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	3.3
152.5°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	3.3
155°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	4.2
157.5°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	4.2
160°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	4.2	4.2	4.2	4.2
172.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	4.2
175°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	4.2
177.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	3.3
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	652.1	652.1	652.1
2.5°	620.6	608.9	605.6
5°	587.3	568.2	557.4
7.5°	554.1	528.4	515.9
10°	523.4	486.8	473.5
12.5°	486.8	444.5	423.7
15°	451.9	397.1	377.2
17.5°	412.9	351.4	328.1
20°	376.3	305.7	281.6
22.5°	334.8	260.9	234.3
25°	297.4	216.0	186.1
27.5°	255.9	170.3	144.6
30°	216.8	130.4	104.7
32.5°	179.4	95.5	72.3
35°	144.6	64.8	45.7
37.5°	111.3	39.9	23.3
40°	80.6	20.8	10.8
42.5°	54.0	10.0	5.8
45°	33.2	5.0	0.0
47.5°	19.1	0.0	0.0
50°	10.0	0.0	0.0
52.5°	4.2	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°	0.8	0.8	0.8
77.5°	0.8	1.7	2.5
80°	1.7	3.3	4.2
82.5°	3.3	4.2	4.2
85°	3.3	4.2	5.0
87.5°	4.2	5.0	5.8
90°	5.0	5.8	5.8
92.5°	5.0	6.6	6.6
95°	5.8	6.6	7.5
97.5°	6.6	7.5	7.5
100°	5.8	7.5	8.3
102.5°	5.0	7.5	7.5
105°	4.2	5.8	6.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.3	4.2	4.2
115°	2.5	3.3	4.2
117.5°	2.5	3.3	3.3
120°	2.5	2.5	3.3
122.5°	2.5	2.5	3.3
125°	2.5	2.5	3.3
127.5°	3.3	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.3	2.5	2.5
135°	3.3	2.5	2.5
137.5°	3.3	2.5	2.5
140°	3.3	2.5	2.5
142.5°	3.3	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.3	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	348.9	338.9	305.7	250.9	175.3	98.0	36.6	6.6	1.7	2.5	2.5
110°	304.1	295.7	261.7	208.5	141.2	73.1	24.1	4.2	2.5	2.5	2.5





107.5°	3.3	5.0	5.8
110°	3.3	4.2	5.0



(END OF REPORT)