

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: P551256

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-80-84-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: P551256  
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-35-UNV-80-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

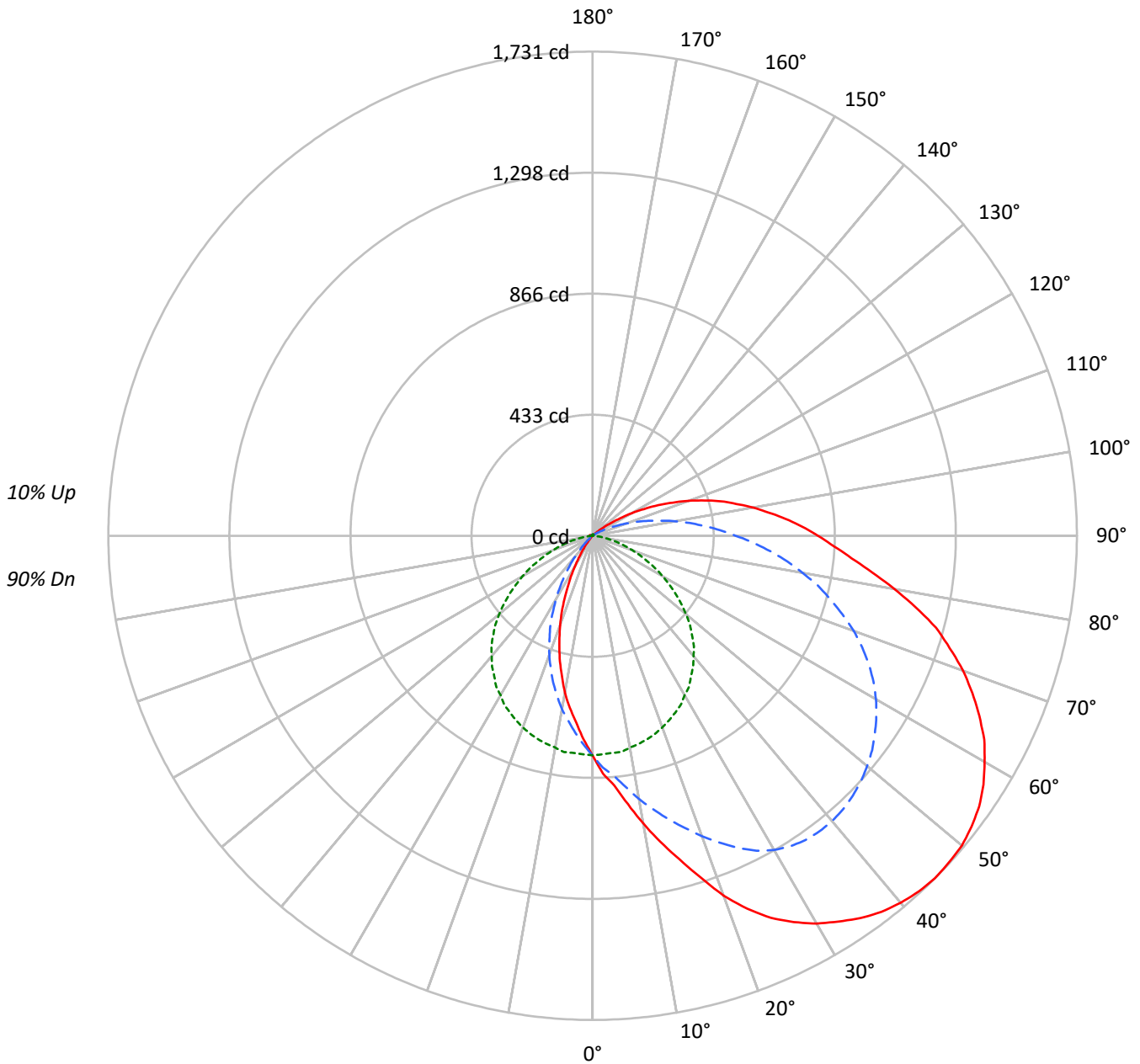
Lumens per Lamp: N/A  
Luminaire Lumens: 3880.9 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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-35-UNV-80-84-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	8450	8450	8450
5°	9276	8326	6946
10°	10496	8224	5725
15°	11764	8119	4461
20°	13268	7987	3285
25°	14515	7833	2157
30°	15442	7628	1215
35°	16245	7407	535
40°	16957	7134	129
45°	17568	6793	0
50°	18081	6340	0
55°	18471	5764	0
60°	18668	5097	0
65°	18745	4338	0
70°	18682	3537	0
75°	18445	2609	15
80°	17696	1596	81
85°	17104	763	110



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.2	1.9
10°-20°	225.1	5.8
20°-30°	364.6	9.4
30°-40°	468.4	12.1
40°-50°	530.2	13.7
50°-60°	549.3	14.2
60°-70°	518.0	13.3
70°-80°	434.1	11.2
80°-90°	314.7	8.1
90°-100°	206.8	5.3
100°-110°	119.4	3.1
110°-120°	52.7	1.4
120°-130°	14.3	0.4
130°-140°	3.3	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	664.9	17.1
0°-40°	1133.3	29.2
0°-60°	2212.8	57.0
0°-90°	3479.6	89.7
90°-120°	379.0	9.8
90°-150°	398.6	10.3
90°-180°	401.0	10.3
0°-180°	3880.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	785	785	785	785	785	
5°	896	860	779	707	671	90
15°	1197	1050	753	544	454	345
25°	1507	1232	698	358	224	697
35°	1669	1328	613	174	55	1047
45°	1731	1315	502	40	0	1336
55°	1687	1232	362	0	0	1507
65°	1525	1090	216	0	0	1509
75°	1271	880	92	1	1	1333
85°	930	638	15	4	6	794
90°	806	512	4	6	7	442
95°	692	400	2	7	9	543
105°	476	206	2	5	8	502
115°	259	68	3	3	5	259
125°	77	10	4	3	4	77
135°	4	3	5	4	3	7
145°	1	4	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	4	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°	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0
2.5°	851.0	850.0	847.0	842.0	835.0	823.0	813.0	804.0	792.0	782.0	763.0
5°	896.0	891.0	887.0	882.0	866.0	855.0	837.0	817.0	798.0	779.0	741.0
7.5°	968.0	960.0	954.0	940.0	918.0	893.0	865.0	846.0	833.0	780.0	715.0
10°	1045.0	1038.0	1026.0	1001.0	974.0	938.0	898.0	853.0	813.0	769.0	692.0
12.5°	1121.0	1111.0	1094.0	1062.0	1024.0	979.0	924.0	871.0	814.0	762.0	665.0
15°	1197.1	1186.1	1168.0	1129.0	1079.0	1020.0	953.0	886.0	819.0	753.0	637.0
17.5°	1280.1	1265.1	1238.1	1194.1	1131.0	1058.0	979.0	898.0	817.0	742.0	607.0
20°	1369.1	1348.1	1319.1	1260.1	1186.1	1100.0	1005.0	910.0	816.0	729.0	573.0
22.5°	1443.1	1422.1	1390.1	1329.1	1240.1	1135.0	1027.0	918.0	812.0	714.0	541.0
25°	1507.1	1490.1	1455.1	1385.1	1291.1	1172.0	1048.0	924.0	806.0	698.0	507.0
27.5°	1557.1	1541.1	1502.1	1430.1	1334.1	1205.1	1064.0	927.0	798.0	682.0	472.0
30°	1601.1	1585.1	1538.1	1464.1	1363.1	1231.1	1080.0	928.0	788.0	658.0	434.0
32.5°	1635.1	1620.1	1572.1	1493.1	1383.1	1249.1	1089.0	927.0	775.0	641.0	393.0
35°	1669.1	1654.1	1598.1	1514.1	1398.1	1257.1	1096.0	922.0	759.0	613.0	354.0
37.5°	1695.1	1678.1	1621.1	1528.1	1405.1	1259.1	1095.0	915.0	742.0	590.0	315.0
40°	1713.1	1695.1	1634.1	1536.1	1407.1	1256.1	1087.0	903.0	722.0	561.0	274.0
42.5°	1725.1	1705.1	1640.1	1548.1	1403.1	1248.1	1075.0	888.0	700.0	536.0	235.0
45°	1731.1	1710.1	1641.1	1538.1	1396.1	1233.1	1057.0	869.0	676.0	502.0	196.0
47.5°	1728.1	1705.1	1636.1	1527.1	1383.1	1217.1	1037.0	846.0	647.0	472.0	159.0
50°	1723.1	1699.1	1625.1	1513.1	1365.1	1197.1	1015.0	818.0	617.0	435.0	126.0
52.5°	1707.1	1683.1	1613.1	1493.1	1344.1	1174.0	985.0	789.0	585.0	399.0	96.0
55°	1687.1	1665.1	1592.1	1475.1	1317.1	1146.0	957.0	758.0	554.0	362.0	69.0
57.5°	1656.1	1636.1	1566.1	1446.1	1290.1	1115.0	926.0	724.0	515.0	325.0	48.0
60°	1618.1	1598.1	1530.1	1413.1	1259.1	1080.0	892.0	689.0	480.0	288.0	30.0
62.5°	1578.1	1559.1	1488.1	1372.1	1220.1	1043.0	855.0	654.0	443.0	254.0	18.0
65°	1525.1	1507.1	1443.1	1323.1	1177.0	1003.0	814.0	612.0	405.0	216.0	10.0
67.5°	1469.1	1453.1	1388.1	1278.1	1127.0	959.0	772.0	571.0	365.0	183.0	5.0
70°	1409.1	1389.1	1329.1	1217.1	1076.0	909.0	726.0	529.0	327.0	151.0	0.0
72.5°	1339.1	1324.1	1266.1	1160.0	1017.0	856.0	679.0	483.0	285.0	120.0	1.0
75°	1271.1	1252.1	1199.1	1099.0	959.0	800.0	627.0	440.0	244.0	92.0	1.0
77.5°	1183.0	1177.0	1127.0	1030.0	904.0	746.0	570.0	388.0	205.0	66.0	1.0
80°	1095.0	1089.0	1050.0	961.0	840.0	682.0	517.0	339.0	167.0	44.0	1.0
82.5°	1008.0	1000.0	963.0	889.0	775.0	628.0	462.0	290.0	132.0	27.0	1.0
85°	930.0	920.0	880.0	812.0	708.0	567.0	405.0	242.0	98.0	15.0	2.0
87.5°	863.0	856.0	812.0	742.0	640.0	510.0	355.0	196.0	69.0	7.0	3.0
90°	806.0	791.0	752.0	678.0	576.0	447.0	302.0	157.0	46.0	4.0	4.0
92.5°	750.0	737.0	694.0	618.0	519.0	393.0	251.0	120.0	29.0	2.0	5.0
95°	692.0	678.0	636.0	566.0	461.0	338.0	206.0	88.0	16.0	2.0	5.0
97.5°	635.0	622.0	578.0	508.0	409.0	290.0	163.0	62.0	8.0	2.0	4.0
100°	582.0	567.0	527.0	457.0	357.0	242.0	126.0	40.0	5.0	2.0	4.0
102.5°	526.0	514.0	473.0	405.0	303.0	197.0	94.0	25.0	2.0	2.0	3.0
105°	476.0	461.0	421.0	351.0	258.0	155.0	66.0	15.0	2.0	2.0	3.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	310.0	298.0	263.0	204.0	131.0	61.0	18.0	3.0	3.0	3.0	3.0
115°	259.0	241.0	210.0	158.0	97.0	40.0	9.0	3.0	3.0	3.0	3.0
117.5°	207.0	192.0	170.0	120.0	64.0	26.0	5.0	3.0	3.0	3.0	3.0
120°	162.0	148.0	123.0	83.0	43.0	15.0	2.0	3.0	3.0	3.0	3.0
122.5°	116.0	105.0	83.0	54.0	26.0	7.0	3.0	3.0	4.0	4.0	3.0
125°	77.0	71.0	55.0	33.0	16.0	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	50.0	45.0	32.0	19.0	7.0	3.0	3.0	4.0	4.0	4.0	3.0
130°	28.0	25.0	19.0	11.0	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	16.0	15.0	10.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
135°	4.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
140°	1.0	1.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
142.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
145°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
150°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
152.5°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
155°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
157.5°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
160°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
162.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
165°	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
167.5°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
170°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	5.0
172.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
175°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
177.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	4.0
180°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	785.0	785.0	785.0
2.5°	747.0	733.0	729.0
5°	707.0	684.0	671.0
7.5°	667.0	636.0	621.0
10°	630.0	586.0	570.0
12.5°	586.0	535.0	510.0
15°	544.0	478.0	454.0
17.5°	497.0	423.0	395.0
20°	453.0	368.0	339.0
22.5°	403.0	314.0	282.0
25°	358.0	260.0	224.0
27.5°	308.0	205.0	174.0
30°	261.0	157.0	126.0
32.5°	216.0	115.0	87.0
35°	174.0	78.0	55.0
37.5°	134.0	48.0	28.0
40°	97.0	25.0	13.0
42.5°	65.0	12.0	7.0
45°	40.0	6.0	0.0
47.5°	23.0	0.0	0.0
50°	12.0	0.0	0.0
52.5°	5.0	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°	1.0	1.0	1.0
77.5°	1.0	2.0	3.0
80°	2.0	4.0	5.0
82.5°	4.0	5.0	5.0
85°	4.0	5.0	6.0
87.5°	5.0	6.0	7.0
90°	6.0	7.0	7.0
92.5°	6.0	8.0	8.0
95°	7.0	8.0	9.0
97.5°	8.0	9.0	9.0
100°	7.0	9.0	10.0
102.5°	6.0	9.0	9.0
105°	5.0	7.0	8.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	4.0	5.0	5.0
115°	3.0	4.0	5.0
117.5°	3.0	4.0	4.0
120°	3.0	3.0	4.0
122.5°	3.0	3.0	4.0
125°	3.0	3.0	4.0
127.5°	4.0	3.0	3.0
130°	3.0	3.0	3.0
132.5°	4.0	3.0	3.0
135°	4.0	3.0	3.0
137.5°	4.0	3.0	3.0
140°	4.0	3.0	3.0
142.5°	4.0	3.0	3.0
145°	3.0	3.0	3.0
147.5°	3.0	3.0	3.0
150°	3.0	3.0	2.0
152.5°	3.0	2.0	2.0
155°	3.0	2.0	1.0
157.5°	4.0	2.0	1.0
160°	3.0	2.0	1.0
162.5°	3.0	2.0	1.0
165°	3.0	2.0	0.0
167.5°	3.0	2.0	1.0
170°	3.0	2.0	1.0
172.5°	3.0	2.0	1.0
175°	3.0	1.0	1.0
177.5°	3.0	1.0	1.0
180°	3.0	3.0	3.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	420.0	408.0	368.0	302.0	211.0	118.0	44.0	8.0	2.0	3.0	3.0
110°	366.0	356.0	315.0	251.0	170.0	88.0	29.0	5.0	3.0	3.0	3.0







107.5°	4.0	6.0	7.0
110°	4.0	5.0	6.0



(END OF REPORT)