

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: P551327

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-80-88-ED1D-90**

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: P551327  
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-80-88-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

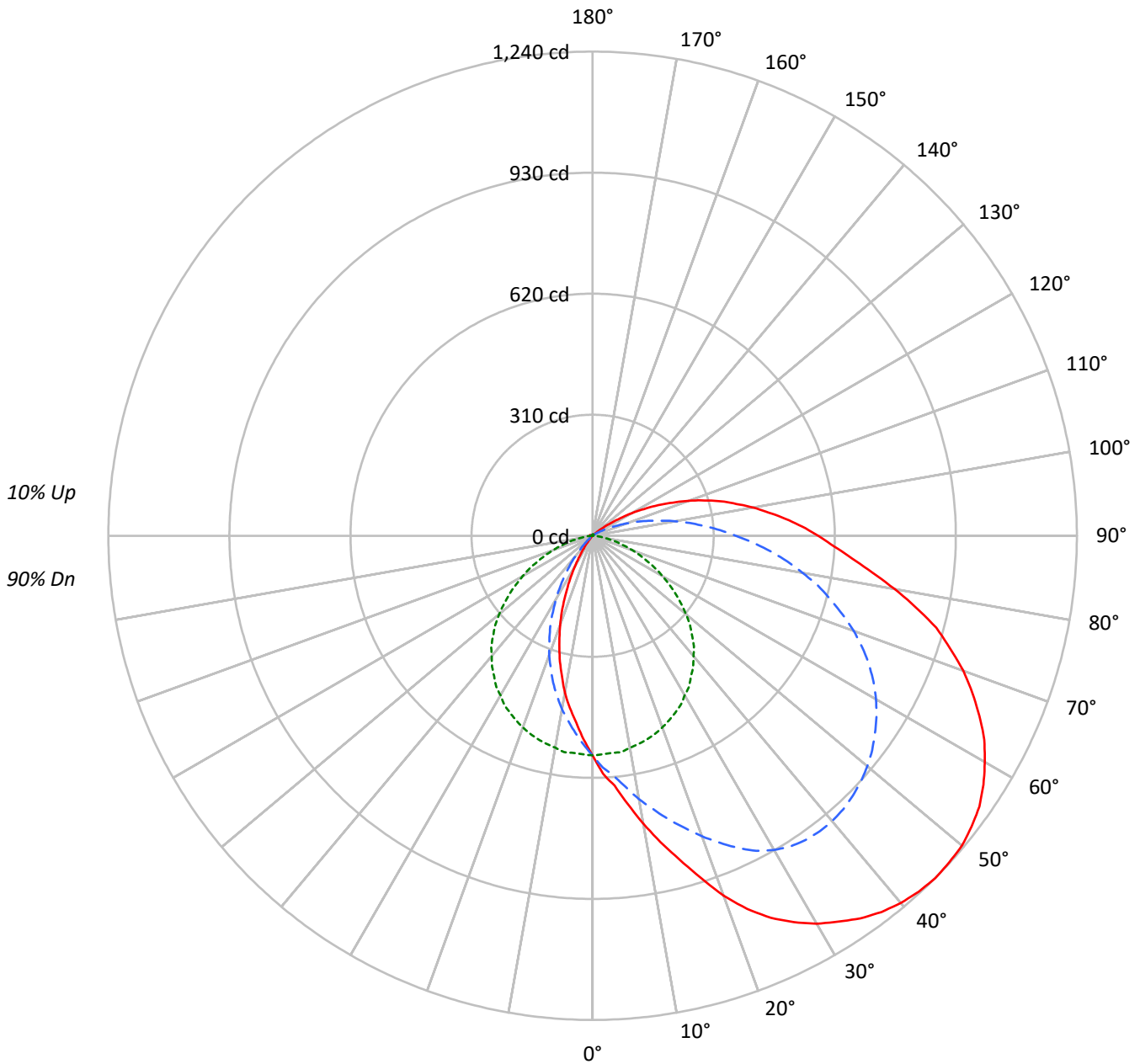
Lumens per Lamp: N/A  
Luminaire Lumens: 2780.9 lumens  
Efficiency: N/A  
Efficacy: 64.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (Ain): 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-40-UNV-80-88-ED1D-90

### 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°	6055	6055	6055
5°	6647	5966	4977
10°	7521	5894	4103
15°	8430	5818	3197
20°	9507	5724	2354
25°	10401	5614	1546
30°	11066	5466	871
35°	11640	5308	383
40°	12150	5112	92
45°	12588	4867	0
50°	12956	4543	0
55°	13235	4131	0
60°	13377	3653	0
65°	13431	3109	0
70°	13387	2535	0
75°	13217	1869	10
80°	12681	1143	58
85°	12256	544	79



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.9	1.9
10°-20°	161.3	5.8
20°-30°	261.3	9.4
30°-40°	335.6	12.1
40°-50°	379.9	13.7
50°-60°	393.6	14.2
60°-70°	371.2	13.3
70°-80°	311.1	11.2
80°-90°	225.5	8.1
90°-100°	148.2	5.3
100°-110°	85.6	3.1
110°-120°	37.8	1.4
120°-130°	10.2	0.4
130°-140°	2.3	0.1
140°-150°	1.5	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	476.5	17.1
0°-40°	812.1	29.2
0°-60°	1585.6	57.0
0°-90°	2493.4	89.7
90°-120°	271.5	9.8
90°-150°	285.6	10.3
90°-180°	288.0	10.4
0°-180°	2780.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	562	562	562	562	562	
5°	642	617	558	507	481	65
15°	858	752	540	390	325	247
25°	1080	882	500	256	160	499
35°	1196	951	439	125	39	750
45°	1240	942	360	29	0	958
55°	1209	882	259	0	0	1080
65°	1093	781	155	0	0	1081
75°	911	630	66	1	1	955
85°	666	457	11	3	4	569
90°	578	367	3	4	5	317
95°	496	286	1	5	6	389
105°	341	148	1	4	6	360
115°	186	49	2	2	4	186
125°	55	7	3	2	3	55
135°	3	2	4	3	2	5
145°	1	2	3	2	2	1
155°	1	3	3	2	1	1
165°	1	2	3	2	0	0
175°	1	2	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°	562.5	562.5	562.5	562.5	562.5	562.5	562.5	562.5	562.5	562.5	562.5
2.5°	609.8	609.1	607.0	603.4	598.4	589.8	582.6	576.1	567.5	560.4	546.8
5°	642.1	638.5	635.6	632.0	620.6	612.7	599.8	585.5	571.8	558.2	531.0
7.5°	693.7	687.9	683.6	673.6	657.8	639.9	619.9	606.2	596.9	558.9	512.4
10°	748.8	743.8	735.2	717.3	698.0	672.2	643.5	611.3	582.6	551.1	495.9
12.5°	803.3	796.1	784.0	761.0	733.8	701.5	662.1	624.2	583.3	546.0	476.5
15°	857.8	849.9	837.0	809.0	773.2	730.9	682.9	634.9	586.9	539.6	456.5
17.5°	917.2	906.5	887.1	855.6	810.5	758.2	701.5	643.5	585.5	531.7	435.0
20°	981.0	966.0	945.2	902.9	849.9	788.3	720.2	652.1	584.7	522.4	410.6
22.5°	1034.1	1019.0	996.1	952.4	888.6	813.3	735.9	657.8	581.9	511.7	387.7
25°	1079.9	1067.7	1042.7	992.5	925.1	839.9	751.0	662.1	577.6	500.2	363.3
27.5°	1115.7	1104.3	1076.3	1024.7	955.9	863.5	762.5	664.3	571.8	488.7	338.2
30°	1147.3	1135.8	1102.1	1049.1	976.7	882.1	773.9	665.0	564.7	471.5	311.0
32.5°	1171.6	1160.9	1126.5	1069.9	991.1	895.0	780.4	664.3	555.4	459.3	281.6
35°	1196.0	1185.3	1145.1	1084.9	1001.8	900.8	785.4	660.7	543.9	439.3	253.7
37.5°	1214.6	1202.5	1161.6	1095.0	1006.8	902.2	784.7	655.7	531.7	422.8	225.7
40°	1227.5	1214.6	1170.9	1100.7	1008.3	900.0	778.9	647.1	517.4	402.0	196.3
42.5°	1236.1	1221.8	1175.2	1109.3	1005.4	894.3	770.3	636.3	501.6	384.1	168.4
45°	1240.4	1225.4	1175.9	1102.1	1000.4	883.6	757.4	622.7	484.4	359.7	140.5
47.5°	1238.3	1221.8	1172.4	1094.2	991.1	872.1	743.1	606.2	463.6	338.2	113.9
50°	1234.7	1217.5	1164.5	1084.2	978.2	857.8	727.3	586.2	442.1	311.7	90.3
52.5°	1223.2	1206.0	1155.9	1069.9	963.1	841.3	705.8	565.4	419.2	285.9	68.8
55°	1208.9	1193.1	1140.8	1057.0	943.8	821.2	685.8	543.2	397.0	259.4	49.4
57.5°	1186.7	1172.4	1122.2	1036.2	924.4	799.0	663.6	518.8	369.0	232.9	34.4
60°	1159.5	1145.1	1096.4	1012.6	902.2	773.9	639.2	493.7	344.0	206.4	21.5
62.5°	1130.8	1117.2	1066.3	983.2	874.2	747.4	612.7	468.7	317.5	182.0	12.9
65°	1092.8	1079.9	1034.1	948.1	843.4	718.7	583.3	438.6	290.2	154.8	7.2
67.5°	1052.7	1041.2	994.6	915.8	807.6	687.2	553.2	409.2	261.6	131.1	3.6
70°	1009.7	995.4	952.4	872.1	771.1	651.4	520.3	379.1	234.3	108.2	0.0
72.5°	959.5	948.8	907.2	831.3	728.8	613.4	486.6	346.1	204.2	86.0	0.7
75°	910.8	897.2	859.2	787.5	687.2	573.3	449.3	315.3	174.8	65.9	0.7
77.5°	847.7	843.4	807.6	738.1	647.8	534.6	408.5	278.0	146.9	47.3	0.7
80°	784.7	780.4	752.4	688.7	601.9	488.7	370.5	242.9	119.7	31.5	0.7
82.5°	722.3	716.6	690.1	637.1	555.4	450.0	331.1	207.8	94.6	19.3	0.7
85°	666.4	659.3	630.6	581.9	507.4	406.3	290.2	173.4	70.2	10.7	1.4
87.5°	618.4	613.4	581.9	531.7	458.6	365.5	254.4	140.5	49.4	5.0	2.1
90°	577.6	566.8	538.9	485.9	412.8	320.3	216.4	112.5	33.0	2.9	2.9
92.5°	537.4	528.1	497.3	442.9	371.9	281.6	179.9	86.0	20.8	1.4	3.6
95°	495.9	485.9	455.8	405.6	330.4	242.2	147.6	63.1	11.5	1.4	3.6
97.5°	455.0	445.7	414.2	364.0	293.1	207.8	116.8	44.4	5.7	1.4	2.9
100°	417.1	406.3	377.6	327.5	255.8	173.4	90.3	28.7	3.6	1.4	2.9
102.5°	376.9	368.3	339.0	290.2	217.1	141.2	67.4	17.9	1.4	1.4	2.1
105°	341.1	330.4	301.7	251.5	184.9	111.1	47.3	10.7	1.4	1.4	2.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	222.1	213.5	188.5	146.2	93.9	43.7	12.9	2.1	2.1	2.1	2.1
115°	185.6	172.7	150.5	113.2	69.5	28.7	6.4	2.1	2.1	2.1	2.1
117.5°	148.3	137.6	121.8	86.0	45.9	18.6	3.6	2.1	2.1	2.1	2.1
120°	116.1	106.1	88.1	59.5	30.8	10.7	1.4	2.1	2.1	2.1	2.1
122.5°	83.1	75.2	59.5	38.7	18.6	5.0	2.1	2.1	2.9	2.9	2.1
125°	55.2	50.9	39.4	23.6	11.5	2.1	2.1	2.1	2.9	2.9	2.1
127.5°	35.8	32.2	22.9	13.6	5.0	2.1	2.1	2.9	2.9	2.9	2.1
130°	20.1	17.9	13.6	7.9	2.1	2.1	2.1	2.9	2.9	2.9	2.1
132.5°	11.5	10.7	7.2	1.4	2.1	2.1	2.1	2.9	2.9	2.9	2.9
135°	2.9	1.4	1.4	1.4	2.1	2.1	2.9	2.9	3.6	3.6	2.9
137.5°	0.7	0.7	1.4	1.4	2.1	2.1	2.9	3.6	3.6	3.6	2.9
140°	0.7	0.7	1.4	2.1	2.1	2.1	2.9	3.6	3.6	3.6	2.9
142.5°	0.7	1.4	1.4	2.1	2.1	2.9	2.9	3.6	3.6	2.9	2.9
145°	0.7	1.4	1.4	2.1	2.1	2.9	2.9	3.6	2.9	2.9	2.9
147.5°	1.4	1.4	1.4	2.1	2.1	2.9	2.9	3.6	3.6	2.9	2.9
150°	0.7	1.4	1.4	2.1	2.9	2.9	2.9	3.6	2.9	2.9	2.9
152.5°	0.7	1.4	1.4	2.1	2.9	2.9	2.9	3.6	2.9	2.9	2.9
155°	1.4	1.4	1.4	2.1	2.9	2.9	2.9	3.6	2.9	2.9	3.6
157.5°	1.4	1.4	1.4	2.1	2.9	2.9	2.9	3.6	2.9	2.9	3.6
160°	1.4	1.4	1.4	2.1	2.1	2.9	2.9	2.9	2.9	2.9	2.9
162.5°	1.4	1.4	1.4	2.1	2.1	2.9	2.9	2.9	2.9	2.9	2.9
165°	1.4	1.4	1.4	1.4	2.1	2.1	2.9	2.9	2.9	2.9	2.9
167.5°	1.4	1.4	1.4	2.1	2.1	2.1	2.9	2.9	2.9	2.9	2.9
170°	1.4	1.4	1.4	2.1	2.1	2.1	2.9	3.6	3.6	3.6	3.6
172.5°	1.4	1.4	1.4	2.1	2.1	2.9	2.9	3.6	3.6	3.6	3.6
175°	1.4	1.4	1.4	2.1	2.1	2.9	2.9	3.6	3.6	3.6	3.6
177.5°	0.7	1.4	1.4	2.1	2.1	2.9	2.9	3.6	3.6	3.6	2.9
180°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	562.5	562.5	562.5
2.5°	535.3	525.3	522.4
5°	506.6	490.2	480.8
7.5°	478.0	455.8	445.0
10°	451.5	419.9	408.5
12.5°	419.9	383.4	365.5
15°	389.8	342.5	325.3
17.5°	356.1	303.1	283.1
20°	324.6	263.7	242.9
22.5°	288.8	225.0	202.1
25°	256.5	186.3	160.5
27.5°	220.7	146.9	124.7
30°	187.0	112.5	90.3
32.5°	154.8	82.4	62.3
35°	124.7	55.9	39.4
37.5°	96.0	34.4	20.1
40°	69.5	17.9	9.3
42.5°	46.6	8.6	5.0
45°	28.7	4.3	0.0
47.5°	16.5	0.0	0.0
50°	8.6	0.0	0.0
52.5°	3.6	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°	0.7	0.7	0.7
77.5°	0.7	1.4	2.1
80°	1.4	2.9	3.6
82.5°	2.9	3.6	3.6
85°	2.9	3.6	4.3
87.5°	3.6	4.3	5.0
90°	4.3	5.0	5.0
92.5°	4.3	5.7	5.7
95°	5.0	5.7	6.4
97.5°	5.7	6.4	6.4
100°	5.0	6.4	7.2
102.5°	4.3	6.4	6.4
105°	3.6	5.0	5.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.9	3.6	3.6
115°	2.1	2.9	3.6
117.5°	2.1	2.9	2.9
120°	2.1	2.1	2.9
122.5°	2.1	2.1	2.9
125°	2.1	2.1	2.9
127.5°	2.9	2.1	2.1
130°	2.1	2.1	2.1
132.5°	2.9	2.1	2.1
135°	2.9	2.1	2.1
137.5°	2.9	2.1	2.1
140°	2.9	2.1	2.1
142.5°	2.9	2.1	2.1
145°	2.1	2.1	2.1
147.5°	2.1	2.1	2.1
150°	2.1	2.1	1.4
152.5°	2.1	1.4	1.4
155°	2.1	1.4	0.7
157.5°	2.9	1.4	0.7
160°	2.1	1.4	0.7
162.5°	2.1	1.4	0.7
165°	2.1	1.4	0.0
167.5°	2.1	1.4	0.7
170°	2.1	1.4	0.7
172.5°	2.1	1.4	0.7
175°	2.1	0.7	0.7
177.5°	2.1	0.7	0.7
180°	2.1	2.1	2.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	301.0	292.4	263.7	216.4	151.2	84.6	31.5	5.7	1.4	2.1	2.1
110°	262.3	255.1	225.7	179.9	121.8	63.1	20.8	3.6	2.1	2.1	2.1







107.5°	2.9	4.3	5.0
110°	2.9	3.6	4.3



(END OF REPORT)