

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: P551293

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-82-87-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: P551293  
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-82-87-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

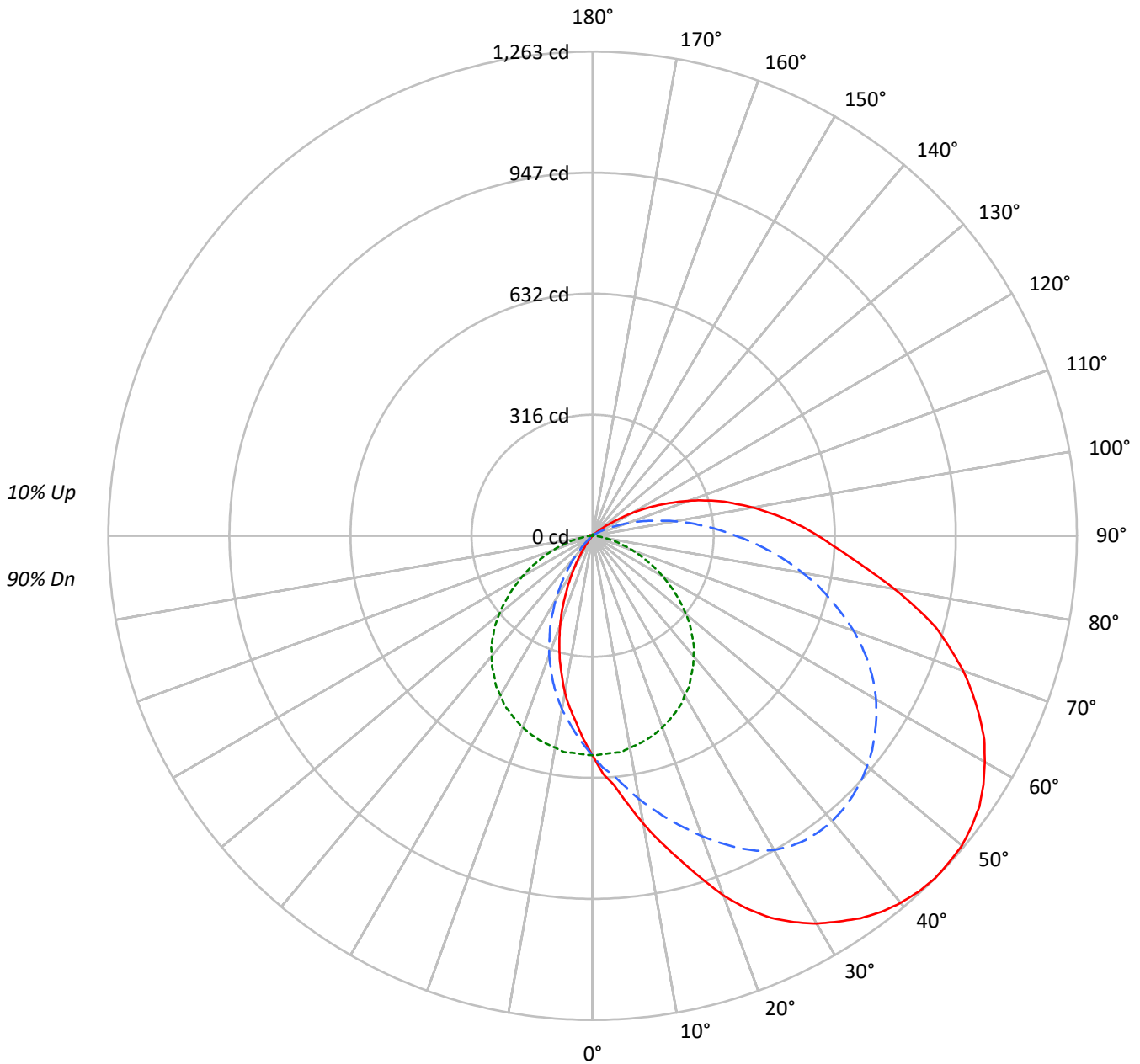
Lumens per Lamp: N/A  
Luminaire Lumens: 2832.0 lumens  
Efficiency: N/A  
Efficacy: 65.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<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-82-87-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°	6166	6166	6166
5°	6768	6076	5069
10°	7660	6002	4178
15°	8584	5925	3256
20°	9681	5829	2398
25°	10591	5717	1575
30°	11268	5567	886
35°	11854	5405	390
40°	12373	5207	94
45°	12819	4956	0
50°	13193	4626	0
55°	13479	4207	0
60°	13621	3720	0
65°	13678	3165	0
70°	13632	2582	0
75°	13459	1903	10
80°	12914	1164	58
85°	12483	554	81



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.9	1.9
10°-20°	164.3	5.8
20°-30°	266.1	9.4
30°-40°	341.8	12.1
40°-50°	386.9	13.7
50°-60°	400.8	14.2
60°-70°	378.0	13.3
70°-80°	316.8	11.2
80°-90°	229.6	8.1
90°-100°	150.9	5.3
100°-110°	87.2	3.1
110°-120°	38.5	1.4
120°-130°	10.4	0.4
130°-140°	2.4	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	485.2	17.1
0°-40°	827.0	29.2
0°-60°	1614.7	57.0
0°-90°	2539.1	89.7
90°-120°	276.5	9.8
90°-150°	290.9	10.3
90°-180°	293.0	10.3
0°-180°	2832.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	573	573	573	573	573	
5°	654	628	568	516	490	66
15°	874	766	550	397	331	252
25°	1100	899	509	261	164	508
35°	1218	969	447	127	40	764
45°	1263	959	366	29	0	975
55°	1231	899	264	0	0	1099
65°	1113	795	158	0	0	1101
75°	928	642	67	1	1	973
85°	679	465	11	3	4	580
90°	588	373	3	4	5	323
95°	505	292	2	5	7	396
105°	347	151	2	4	6	367
115°	189	50	2	2	4	189
125°	56	7	3	2	3	56
135°	3	2	4	3	2	5
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°	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8
2.5°	621.0	620.3	618.1	614.4	609.3	600.6	593.3	586.7	578.0	570.7	556.8
5°	653.8	650.2	647.3	643.6	632.0	623.9	610.8	596.2	582.3	568.5	540.7
7.5°	706.4	700.6	696.2	686.0	669.9	651.7	631.2	617.4	607.9	569.2	521.8
10°	762.6	757.5	748.7	730.5	710.8	684.5	655.3	622.5	593.3	561.2	505.0
12.5°	818.0	810.7	798.3	775.0	747.3	714.4	674.3	635.6	594.0	556.1	485.3
15°	873.5	865.5	852.3	823.9	787.4	744.3	695.4	646.5	597.7	549.5	464.8
17.5°	934.1	923.1	903.4	871.3	825.3	772.1	714.4	655.3	596.2	541.5	443.0
20°	999.0	983.7	962.5	919.5	865.5	802.7	733.4	664.1	595.5	532.0	418.1
22.5°	1053.0	1037.7	1014.3	969.8	904.9	828.3	749.4	669.9	592.5	521.0	394.8
25°	1099.7	1087.3	1061.8	1010.7	942.1	855.3	764.8	674.3	588.2	509.4	370.0
27.5°	1136.2	1124.5	1096.1	1043.5	973.5	879.3	776.4	676.5	582.3	497.7	344.4
30°	1168.3	1156.6	1122.3	1068.3	994.6	898.3	788.1	677.2	575.0	480.2	316.7
32.5°	1193.1	1182.2	1147.2	1089.5	1009.2	911.4	794.7	676.5	565.5	467.8	286.8
35°	1217.9	1207.0	1166.1	1104.8	1020.2	917.3	799.8	672.8	553.9	447.3	258.3
37.5°	1236.9	1224.5	1182.9	1115.0	1025.3	918.7	799.1	667.7	541.5	430.5	229.9
40°	1250.0	1236.9	1192.4	1120.9	1026.7	916.6	793.2	659.0	526.9	409.4	199.9
42.5°	1258.8	1244.2	1196.8	1129.6	1023.8	910.7	784.5	648.0	510.8	391.1	171.5
45°	1263.2	1247.9	1197.5	1122.3	1018.7	899.8	771.3	634.1	493.3	366.3	143.0
47.5°	1261.0	1244.2	1193.9	1114.3	1009.2	888.1	756.7	617.4	472.1	344.4	116.0
50°	1257.3	1239.8	1185.8	1104.1	996.1	873.5	740.7	596.9	450.2	317.4	91.9
52.5°	1245.7	1228.2	1177.1	1089.5	980.8	856.7	718.8	575.8	426.9	291.2	70.1
55°	1231.1	1215.0	1161.7	1076.4	961.1	836.3	698.4	553.1	404.3	264.2	50.4
57.5°	1208.4	1193.9	1142.8	1055.2	941.4	813.7	675.7	528.3	375.8	237.2	35.0
60°	1180.7	1166.1	1116.5	1031.1	918.7	788.1	650.9	502.8	350.3	210.2	21.9
62.5°	1151.5	1137.7	1085.9	1001.2	890.3	761.1	623.9	477.2	323.3	185.4	13.1
65°	1112.9	1099.7	1053.0	965.4	858.9	731.9	594.0	446.6	295.5	157.6	7.3
67.5°	1072.0	1060.3	1012.9	932.6	822.4	699.8	563.4	416.7	266.4	133.5	3.6
70°	1028.2	1013.6	969.8	888.1	785.2	663.3	529.8	386.0	238.6	110.2	0.0
72.5°	977.1	966.2	923.9	846.5	742.1	624.7	495.5	352.5	208.0	87.6	0.7
75°	927.5	913.6	875.0	802.0	699.8	583.8	457.5	321.1	178.1	67.1	0.7
77.5°	863.3	858.9	822.4	751.6	659.7	544.4	416.0	283.1	149.6	48.2	0.7
80°	799.1	794.7	766.2	701.3	613.0	497.7	377.3	247.4	121.9	32.1	0.7
82.5°	735.6	729.7	702.7	648.7	565.5	458.3	337.1	211.6	96.3	19.7	0.7
85°	678.7	671.4	642.2	592.5	516.7	413.8	295.5	176.6	71.5	10.9	1.5
87.5°	629.8	624.7	592.5	541.5	467.0	372.2	259.1	143.0	50.4	5.1	2.2
90°	588.2	577.2	548.8	494.8	420.3	326.2	220.4	114.6	33.6	2.9	2.9
92.5°	547.3	537.8	506.4	451.0	378.7	286.8	183.2	87.6	21.2	1.5	3.6
95°	505.0	494.8	464.1	413.0	336.4	246.7	150.3	64.2	11.7	1.5	3.6
97.5°	463.4	453.9	421.8	370.7	298.5	211.6	118.9	45.2	5.8	1.5	2.9
100°	424.7	413.8	384.6	333.5	260.5	176.6	91.9	29.2	3.6	1.5	2.9
102.5°	383.8	375.1	345.2	295.5	221.1	143.8	68.6	18.2	1.5	1.5	2.2
105°	347.4	336.4	307.2	256.1	188.3	113.1	48.2	10.9	1.5	1.5	2.2



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CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-82-87-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	226.2	217.5	191.9	148.9	95.6	44.5	13.1	2.2	2.2	2.2	2.2
115°	189.0	175.9	153.2	115.3	70.8	29.2	6.6	2.2	2.2	2.2	2.2
117.5°	151.1	140.1	124.1	87.6	46.7	19.0	3.6	2.2	2.2	2.2	2.2
120°	118.2	108.0	89.8	60.6	31.4	10.9	1.5	2.2	2.2	2.2	2.2
122.5°	84.6	76.6	60.6	39.4	19.0	5.1	2.2	2.2	2.9	2.9	2.2
125°	56.2	51.8	40.1	24.1	11.7	2.2	2.2	2.2	2.9	2.9	2.2
127.5°	36.5	32.8	23.4	13.9	5.1	2.2	2.2	2.9	2.9	2.9	2.2
130°	20.4	18.2	13.9	8.0	2.2	2.2	2.2	2.9	2.9	2.9	2.2
132.5°	11.7	10.9	7.3	1.5	2.2	2.2	2.2	2.9	2.9	2.9	2.9
135°	2.9	1.5	1.5	1.5	2.2	2.2	2.9	2.9	3.6	3.6	2.9
137.5°	0.7	0.7	1.5	1.5	2.2	2.2	2.9	3.6	3.6	3.6	2.9
140°	0.7	0.7	1.5	2.2	2.2	2.2	2.9	3.6	3.6	3.6	2.9
142.5°	0.7	1.5	1.5	2.2	2.2	2.9	2.9	3.6	3.6	2.9	2.9
145°	0.7	1.5	1.5	2.2	2.2	2.9	2.9	3.6	2.9	2.9	2.9
147.5°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	3.6	3.6	2.9	2.9
150°	0.7	1.5	1.5	2.2	2.9	2.9	2.9	3.6	2.9	2.9	2.9
152.5°	0.7	1.5	1.5	2.2	2.9	2.9	2.9	3.6	2.9	2.9	2.9
155°	1.5	1.5	1.5	2.2	2.9	2.9	2.9	3.6	2.9	2.9	3.6
157.5°	1.5	1.5	1.5	2.2	2.9	2.9	2.9	3.6	2.9	2.9	3.6
160°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	2.9	2.9	2.9	2.9
162.5°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	2.9	2.9	2.9	2.9
165°	1.5	1.5	1.5	1.5	2.2	2.2	2.9	2.9	2.9	2.9	2.9
167.5°	1.5	1.5	1.5	2.2	2.2	2.2	2.9	2.9	2.9	2.9	2.9
170°	1.5	1.5	1.5	2.2	2.2	2.2	2.9	3.6	3.6	3.6	3.6
172.5°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	3.6	3.6	3.6	3.6
175°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	3.6	3.6	3.6	3.6
177.5°	0.7	1.5	1.5	2.2	2.2	2.9	2.9	3.6	3.6	3.6	2.9
180°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	572.8	572.8	572.8
2.5°	545.1	534.9	532.0
5°	515.9	499.1	489.7
7.5°	486.7	464.1	453.2
10°	459.7	427.6	416.0
12.5°	427.6	390.4	372.2
15°	397.0	348.8	331.3
17.5°	362.7	308.7	288.2
20°	330.6	268.5	247.4
22.5°	294.1	229.1	205.8
25°	261.2	189.7	163.5
27.5°	224.8	149.6	127.0
30°	190.5	114.6	91.9
32.5°	157.6	83.9	63.5
35°	127.0	56.9	40.1
37.5°	97.8	35.0	20.4
40°	70.8	18.2	9.5
42.5°	47.4	8.8	5.1
45°	29.2	4.4	0.0
47.5°	16.8	0.0	0.0
50°	8.8	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	1.5	2.2
80°	1.5	2.9	3.6
82.5°	2.9	3.6	3.6
85°	2.9	3.6	4.4
87.5°	3.6	4.4	5.1
90°	4.4	5.1	5.1
92.5°	4.4	5.8	5.8
95°	5.1	5.8	6.6
97.5°	5.8	6.6	6.6
100°	5.1	6.6	7.3
102.5°	4.4	6.6	6.6
105°	3.6	5.1	5.8





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.9	3.6	3.6
115°	2.2	2.9	3.6
117.5°	2.2	2.9	2.9
120°	2.2	2.2	2.9
122.5°	2.2	2.2	2.9
125°	2.2	2.2	2.9
127.5°	2.9	2.2	2.2
130°	2.2	2.2	2.2
132.5°	2.9	2.2	2.2
135°	2.9	2.2	2.2
137.5°	2.9	2.2	2.2
140°	2.9	2.2	2.2
142.5°	2.9	2.2	2.2
145°	2.2	2.2	2.2
147.5°	2.2	2.2	2.2
150°	2.2	2.2	1.5
152.5°	2.2	1.5	1.5
155°	2.2	1.5	0.7
157.5°	2.9	1.5	0.7
160°	2.2	1.5	0.7
162.5°	2.2	1.5	0.7
165°	2.2	1.5	0.0
167.5°	2.2	1.5	0.7
170°	2.2	1.5	0.7
172.5°	2.2	1.5	0.7
175°	2.2	0.7	0.7
177.5°	2.2	0.7	0.7
180°	2.2	2.2	2.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	306.5	297.7	268.5	220.4	154.0	86.1	32.1	5.8	1.5	2.2	2.2
110°	267.1	259.8	229.9	183.2	124.1	64.2	21.2	3.6	2.2	2.2	2.2







107.5°	2.9	4.4	5.1
110°	2.9	3.6	4.4



(END OF REPORT)