

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: P551289

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-82-85-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: P551289  
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-82-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

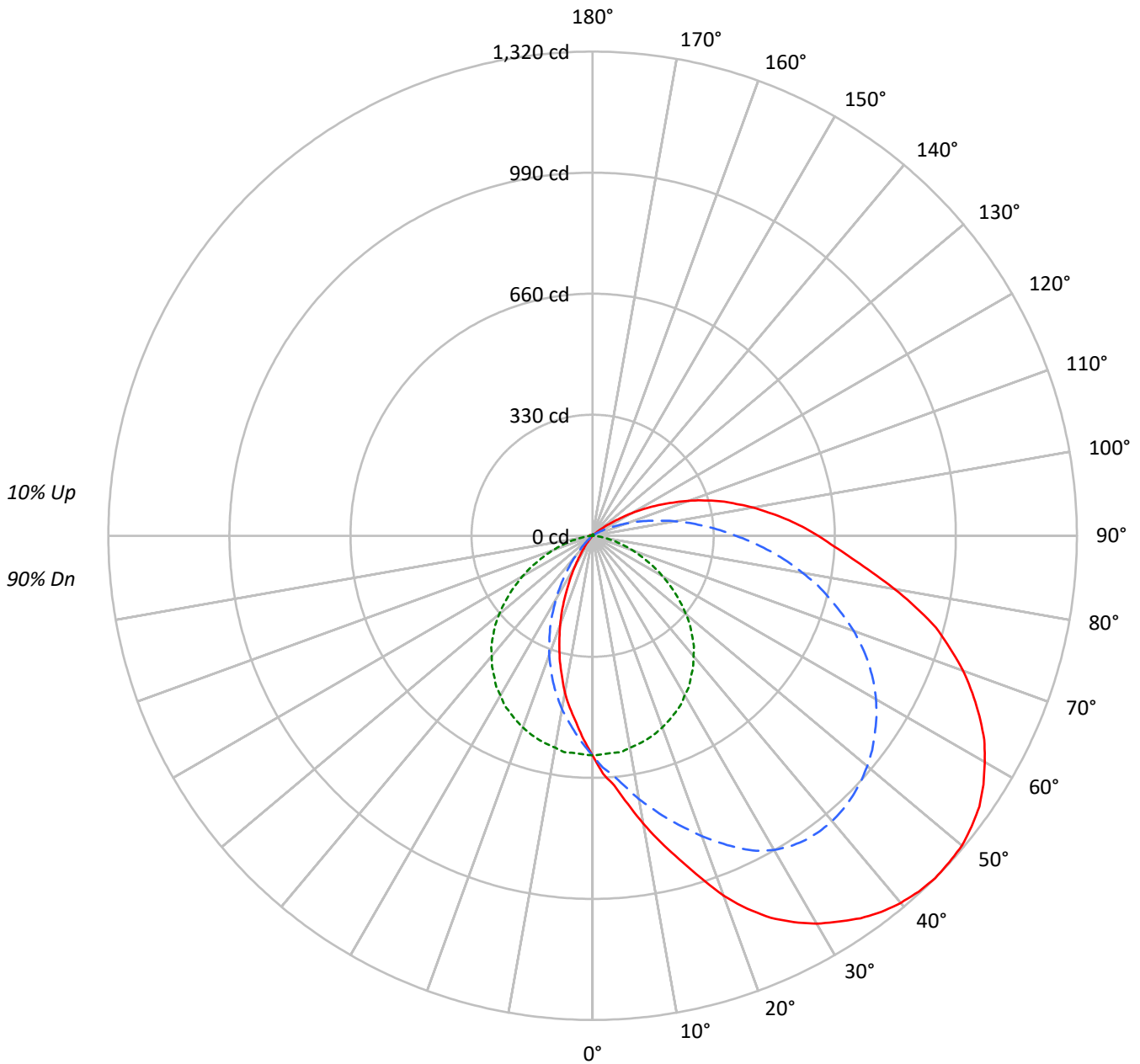
Lumens per Lamp: N/A  
Luminaire Lumens: 2960.1 lumens  
Efficiency: N/A  
Efficacy: 68.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

TEST NUMBER: P551289

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-82-85-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551289

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

RF	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°	6444	6444	6444
5°	7075	6351	5298
10°	8005	6272	4367
15°	8972	6192	3403
20°	10119	6092	2506
25°	11070	5975	1645
30°	11777	5818	927
35°	12390	5649	408
40°	12932	5442	98
45°	13399	5181	0
50°	13790	4836	0
55°	14087	4397	0
60°	14237	3888	0
65°	14297	3308	0
70°	14249	2699	0
75°	14067	1991	12
80°	13497	1219	61
85°	13045	580	85



TEST NUMBER: P551289

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.4	1.9
10°-20°	171.7	5.8
20°-30°	278.1	9.4
30°-40°	357.2	12.1
40°-50°	404.4	13.7
50°-60°	418.9	14.2
60°-70°	395.1	13.3
70°-80°	331.1	11.2
80°-90°	240.0	8.1
90°-100°	157.7	5.3
100°-110°	91.1	3.1
110°-120°	40.2	1.4
120°-130°	10.9	0.4
130°-140°	2.5	0.1
140°-150°	1.6	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	507.2	17.1
0°-40°	864.4	29.2
0°-60°	1687.7	57.0
0°-90°	2653.9	89.7
90°-120°	289.1	9.8
90°-150°	304.1	10.3
90°-180°	306.0	10.3
0°-180°	2960.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	599	599	599	599	599	
5°	683	656	594	539	512	69
15°	913	800	574	415	346	263
25°	1149	939	532	273	171	531
35°	1273	1012	468	133	42	798
45°	1320	1003	383	30	0	1019
55°	1287	939	276	0	0	1149
65°	1163	831	165	0	0	1151
75°	969	671	70	1	1	1017
85°	709	486	11	3	5	606
90°	615	390	3	5	5	337
95°	528	305	2	5	7	414
105°	363	158	2	4	6	383
115°	198	52	2	2	4	198
125°	59	7	3	2	3	59
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°	598.7	598.7	598.7	598.7	598.7	598.7	598.7	598.7	598.7	598.7	598.7
2.5°	649.1	648.3	646.0	642.2	636.9	627.7	620.1	613.2	604.1	596.4	582.0
5°	683.4	679.6	676.5	672.7	660.5	652.1	638.4	623.1	608.7	594.2	565.2
7.5°	738.3	732.2	727.6	717.0	700.2	681.1	659.8	645.3	635.3	594.9	545.3
10°	797.0	791.7	782.6	763.5	742.9	715.4	684.9	650.6	620.1	586.5	527.8
12.5°	855.0	847.4	834.4	810.0	781.0	746.7	704.8	664.3	620.9	581.2	507.2
15°	913.0	904.6	890.9	861.1	823.0	778.0	726.9	675.8	624.7	574.3	485.9
17.5°	976.3	964.8	944.3	910.7	862.6	807.0	746.7	684.9	623.1	565.9	463.0
20°	1044.2	1028.1	1006.0	961.0	904.6	839.0	766.5	694.1	622.4	556.0	437.0
22.5°	1100.6	1084.6	1060.2	1013.7	945.8	865.7	783.3	700.2	619.3	544.6	412.6
25°	1149.4	1136.5	1109.8	1056.4	984.7	893.9	799.3	704.8	614.8	532.4	386.7
27.5°	1187.6	1175.4	1145.6	1090.7	1017.5	919.1	811.5	707.0	608.7	520.2	360.0
30°	1221.1	1208.9	1173.1	1116.6	1039.6	938.9	823.7	707.8	601.0	501.9	331.0
32.5°	1247.1	1235.6	1199.0	1138.7	1054.8	952.6	830.6	707.0	591.1	488.9	299.7
35°	1273.0	1261.5	1218.8	1154.8	1066.3	958.7	835.9	703.2	578.9	467.5	270.0
37.5°	1292.8	1279.8	1236.4	1165.4	1071.6	960.3	835.2	697.9	565.9	450.0	240.3
40°	1306.5	1292.8	1246.3	1171.5	1073.2	958.0	829.1	688.7	550.7	427.9	209.0
42.5°	1315.7	1300.4	1250.9	1180.7	1070.1	951.9	819.9	677.3	533.9	408.8	179.2
45°	1320.3	1304.3	1251.6	1173.1	1064.8	940.4	806.2	662.8	515.6	382.9	149.5
47.5°	1318.0	1300.4	1247.8	1164.7	1054.8	928.2	790.9	645.3	493.5	360.0	121.3
50°	1314.2	1295.9	1239.4	1154.0	1041.1	913.0	774.2	623.9	470.6	331.8	96.1
52.5°	1302.0	1283.7	1230.3	1138.7	1025.1	895.4	751.3	601.8	446.2	304.3	73.2
55°	1286.7	1269.9	1214.3	1125.0	1004.5	874.1	729.9	578.1	422.5	276.1	52.6
57.5°	1263.1	1247.8	1194.4	1102.9	983.9	850.4	706.3	552.2	392.8	247.9	36.6
60°	1234.1	1218.8	1167.0	1077.7	960.3	823.7	680.3	525.5	366.1	219.7	22.9
62.5°	1203.6	1189.1	1134.9	1046.5	930.5	795.5	652.1	498.8	337.9	193.7	13.7
65°	1163.2	1149.4	1100.6	1009.1	897.7	765.0	620.9	466.8	308.9	164.7	7.6
67.5°	1120.4	1108.2	1058.7	974.8	859.6	731.5	588.8	435.5	278.4	139.6	3.8
70°	1074.7	1059.4	1013.7	928.2	820.7	693.3	553.7	403.5	249.4	115.2	0.0
72.5°	1021.3	1009.8	965.6	884.8	775.7	652.9	517.9	368.4	217.4	91.5	0.8
75°	969.4	954.9	914.5	838.2	731.5	610.2	478.2	335.6	186.1	70.2	0.8
77.5°	902.3	897.7	859.6	785.6	689.5	569.0	434.8	295.9	156.4	50.3	0.8
80°	835.2	830.6	800.9	733.0	640.7	520.2	394.3	258.6	127.4	33.6	0.8
82.5°	768.8	762.7	734.5	678.1	591.1	479.0	352.4	221.2	100.7	20.6	0.8
85°	709.3	701.7	671.2	619.3	540.0	432.5	308.9	184.6	74.7	11.4	1.5
87.5°	658.2	652.9	619.3	565.9	488.1	389.0	270.8	149.5	52.6	5.3	2.3
90°	614.8	603.3	573.6	517.1	439.3	340.9	230.3	119.7	35.1	3.1	3.1
92.5°	572.0	562.1	529.3	471.4	395.9	299.7	191.4	91.5	22.1	1.5	3.8
95°	527.8	517.1	485.1	431.7	351.6	257.8	157.1	67.1	12.2	1.5	3.8
97.5°	484.3	474.4	440.9	387.5	312.0	221.2	124.3	47.3	6.1	1.5	3.1
100°	443.9	432.5	402.0	348.6	272.3	184.6	96.1	30.5	3.8	1.5	3.1
102.5°	401.2	392.0	360.8	308.9	231.1	150.3	71.7	19.1	1.5	1.5	2.3
105°	363.1	351.6	321.1	267.7	196.8	118.2	50.3	11.4	1.5	1.5	2.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	236.4	227.3	200.6	155.6	99.9	46.5	13.7	2.3	2.3	2.3	2.3
115°	197.5	183.8	160.2	120.5	74.0	30.5	6.9	2.3	2.3	2.3	2.3
117.5°	157.9	146.4	129.7	91.5	48.8	19.8	3.8	2.3	2.3	2.3	2.3
120°	123.6	112.9	93.8	63.3	32.8	11.4	1.5	2.3	2.3	2.3	2.3
122.5°	88.5	80.1	63.3	41.2	19.8	5.3	2.3	2.3	3.1	3.1	2.3
125°	58.7	54.2	41.9	25.2	12.2	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.1	34.3	24.4	14.5	5.3	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.4	19.1	14.5	8.4	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.2	11.4	7.6	1.5	2.3	2.3	2.3	3.1	3.1	3.1	3.1
135°	3.1	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1
137.5°	0.8	0.8	1.5	1.5	2.3	2.3	3.1	3.8	3.8	3.8	3.1
140°	0.8	0.8	1.5	2.3	2.3	2.3	3.1	3.8	3.8	3.8	3.1
142.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1	3.1
145°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.1	3.1	3.1
147.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1	3.1
150°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.1
152.5°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.1
155°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.8
157.5°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.8
160°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
162.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
165°	1.5	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1
167.5°	1.5	1.5	1.5	2.3	2.3	2.3	3.1	3.1	3.1	3.1	3.1
170°	1.5	1.5	1.5	2.3	2.3	2.3	3.1	3.8	3.8	3.8	3.8
172.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.8
175°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.8
177.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.1
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



TEST NUMBER: P551289

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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	598.7	598.7	598.7
2.5°	569.8	559.1	556.0
5°	539.2	521.7	511.8
7.5°	508.7	485.1	473.7
10°	480.5	447.0	434.8
12.5°	447.0	408.1	389.0
15°	414.9	364.6	346.3
17.5°	379.1	322.6	301.3
20°	345.5	280.7	258.6
22.5°	307.4	239.5	215.1
25°	273.1	198.3	170.8
27.5°	234.9	156.4	132.7
30°	199.1	119.7	96.1
32.5°	164.7	87.7	66.4
35°	132.7	59.5	41.9
37.5°	102.2	36.6	21.4
40°	74.0	19.1	9.9
42.5°	49.6	9.2	5.3
45°	30.5	4.6	0.0
47.5°	17.5	0.0	0.0
50°	9.2	0.0	0.0
52.5°	3.8	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	1.5	2.3
80°	1.5	3.1	3.8
82.5°	3.1	3.8	3.8
85°	3.1	3.8	4.6
87.5°	3.8	4.6	5.3
90°	4.6	5.3	5.3
92.5°	4.6	6.1	6.1
95°	5.3	6.1	6.9
97.5°	6.1	6.9	6.9
100°	5.3	6.9	7.6
102.5°	4.6	6.9	6.9
105°	3.8	5.3	6.1





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.1	3.8	3.8
115°	2.3	3.1	3.8
117.5°	2.3	3.1	3.1
120°	2.3	2.3	3.1
122.5°	2.3	2.3	3.1
125°	2.3	2.3	3.1
127.5°	3.1	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.1	2.3	2.3
135°	3.1	2.3	2.3
137.5°	3.1	2.3	2.3
140°	3.1	2.3	2.3
142.5°	3.1	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.5
152.5°	2.3	1.5	1.5
155°	2.3	1.5	0.8
157.5°	3.1	1.5	0.8
160°	2.3	1.5	0.8
162.5°	2.3	1.5	0.8
165°	2.3	1.5	0.0
167.5°	2.3	1.5	0.8
170°	2.3	1.5	0.8
172.5°	2.3	1.5	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	320.3	311.2	280.7	230.3	160.9	90.0	33.6	6.1	1.5	2.3	2.3
110°	279.2	271.5	240.3	191.4	129.7	67.1	22.1	3.8	2.3	2.3	2.3







107.5°	3.1	4.6	5.3
110°	3.1	3.8	4.6



(END OF REPORT)