

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: P551197

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-80-87-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: P551197  
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-80-87-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

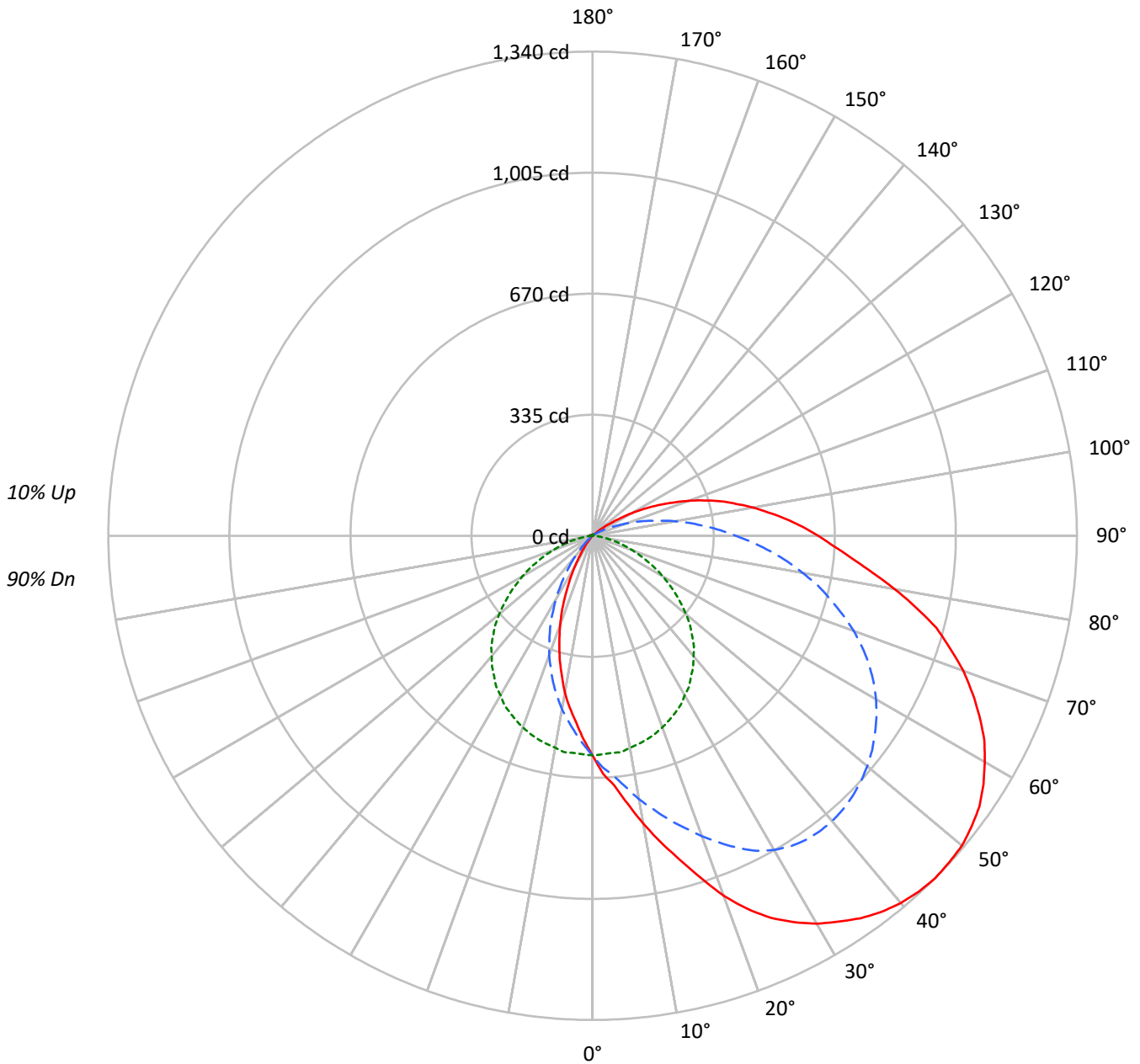
Lumens per Lamp: N/A  
Luminaire Lumens: 3005.0 lumens  
Efficiency: N/A  
Efficacy: 69.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (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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### 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°	6542	6542	6542
5°	7182	6447	5379
10°	8128	6368	4434
15°	9109	6287	3454
20°	10273	6185	2544
25°	11239	6066	1670
30°	11957	5906	941
35°	12578	5736	415
40°	13129	5524	100
45°	13602	5260	0
50°	13999	4909	0
55°	14302	4463	0
60°	14453	3946	0
65°	14513	3360	0
70°	14465	2739	0
75°	14282	2019	12
80°	13703	1237	63
85°	13244	590	85



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.2	1.9
10°-20°	174.3	5.8
20°-30°	282.3	9.4
30°-40°	362.7	12.1
40°-50°	410.5	13.7
50°-60°	425.3	14.2
60°-70°	401.1	13.3
70°-80°	336.1	11.2
80°-90°	243.6	8.1
90°-100°	160.1	5.3
100°-110°	92.5	3.1
110°-120°	40.8	1.4
120°-130°	11.0	0.4
130°-140°	2.5	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	514.9	17.1
0°-40°	877.5	29.2
0°-60°	1713.4	57.0
0°-90°	2694.3	89.7
90°-120°	293.4	9.8
90°-150°	308.6	10.3
90°-180°	311.0	10.3
0°-180°	3005.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	608	608	608	608	608	
5°	694	666	603	547	520	70
15°	927	813	583	421	352	267
25°	1167	954	540	277	173	539
35°	1292	1028	475	135	43	811
45°	1340	1018	389	31	0	1035
55°	1306	954	280	0	0	1166
65°	1181	844	167	0	0	1168
75°	984	681	71	1	1	1032
85°	720	494	12	3	5	615
90°	624	396	3	5	5	342
95°	536	309	2	5	7	420
105°	369	160	2	4	6	389
115°	200	53	2	2	4	201
125°	60	7	3	2	3	60
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°	607.8	607.8	607.8	607.8	607.8	607.8	607.8	607.8	607.8	607.8	607.8
2.5°	658.9	658.2	655.8	652.0	646.6	637.3	629.5	622.6	613.3	605.5	590.8
5°	693.8	689.9	686.8	682.9	670.6	662.0	648.1	632.6	617.9	603.2	573.8
7.5°	749.5	743.3	738.7	727.9	710.8	691.5	669.8	655.1	645.0	604.0	553.6
10°	809.2	803.7	794.4	775.1	754.2	726.3	695.3	660.5	629.5	595.5	535.8
12.5°	868.0	860.3	847.1	822.3	792.9	758.1	715.5	674.4	630.3	590.0	514.9
15°	926.9	918.3	904.4	874.2	835.5	789.8	737.9	686.0	634.2	583.1	493.2
17.5°	991.1	979.5	958.6	924.5	875.8	819.2	758.1	695.3	632.6	574.5	470.0
20°	1060.0	1043.8	1021.3	975.6	918.3	851.7	778.2	704.6	631.8	564.5	443.7
22.5°	1117.3	1101.1	1076.3	1029.1	960.2	878.9	795.2	710.8	628.7	552.9	418.9
25°	1166.9	1153.7	1126.6	1072.4	999.6	907.5	811.5	715.5	624.1	540.5	392.6
27.5°	1205.6	1193.2	1163.0	1107.3	1032.9	933.1	823.9	717.8	617.9	528.1	365.5
30°	1239.7	1227.3	1190.9	1133.6	1055.4	953.2	836.3	718.6	610.2	509.5	336.1
32.5°	1266.0	1254.4	1217.2	1156.1	1070.9	967.1	843.2	717.8	600.1	496.3	304.3
35°	1292.3	1280.7	1237.4	1172.3	1082.5	973.3	848.7	713.9	587.7	474.7	274.1
37.5°	1312.5	1299.3	1255.2	1183.2	1087.9	974.9	847.9	708.5	574.5	456.8	243.9
40°	1326.4	1312.5	1265.2	1189.4	1089.5	972.5	841.7	699.2	559.1	434.4	212.2
42.5°	1335.7	1320.2	1269.9	1198.6	1086.4	966.3	832.4	687.6	542.0	415.0	182.0
45°	1340.3	1324.1	1270.7	1190.9	1080.9	954.7	818.5	672.9	523.4	388.7	151.8
47.5°	1338.0	1320.2	1266.8	1182.4	1070.9	942.3	803.0	655.1	501.0	365.5	123.1
50°	1334.1	1315.6	1258.3	1171.5	1056.9	926.9	785.9	633.4	477.8	336.8	97.6
52.5°	1321.8	1303.2	1249.0	1156.1	1040.7	909.0	762.7	610.9	453.0	309.0	74.3
55°	1306.3	1289.2	1232.7	1142.1	1019.8	887.4	741.0	586.9	429.0	280.3	53.4
57.5°	1282.3	1266.8	1212.6	1119.7	998.9	863.4	717.0	560.6	398.8	251.7	37.2
60°	1252.8	1237.4	1184.7	1094.1	974.9	836.3	690.7	533.5	371.7	223.0	23.2
62.5°	1221.9	1207.2	1152.2	1062.4	944.7	807.6	662.0	506.4	343.0	196.7	13.9
65°	1180.8	1166.9	1117.3	1024.4	911.4	776.6	630.3	473.9	313.6	167.3	7.7
67.5°	1137.5	1125.1	1074.8	989.6	872.7	742.6	597.8	442.1	282.6	141.7	3.9
70°	1091.0	1075.5	1029.1	942.3	833.2	703.9	562.2	409.6	253.2	116.9	0.0
72.5°	1036.8	1025.2	980.3	898.2	787.5	662.8	525.8	374.0	220.7	92.9	0.8
75°	984.2	969.4	928.4	851.0	742.6	619.5	485.5	340.7	188.9	71.2	0.8
77.5°	916.0	911.4	872.7	797.5	700.0	577.6	441.4	300.4	158.7	51.1	0.8
80°	847.9	843.2	813.0	744.1	650.4	528.1	400.3	262.5	129.3	34.1	0.8
82.5°	780.5	774.3	745.7	688.4	600.1	486.3	357.7	224.6	102.2	20.9	0.8
85°	720.1	712.4	681.4	628.7	548.2	439.0	313.6	187.4	75.9	11.6	1.5
87.5°	668.2	662.8	628.7	574.5	495.6	394.9	274.9	151.8	53.4	5.4	2.3
90°	624.1	612.5	582.3	525.0	446.0	346.1	233.8	121.6	35.6	3.1	3.1
92.5°	580.7	570.7	537.4	478.5	401.9	304.3	194.4	92.9	22.5	1.5	3.9
95°	535.8	525.0	492.5	438.3	357.0	261.7	159.5	68.1	12.4	1.5	3.9
97.5°	491.7	481.6	447.6	393.4	316.7	224.6	126.2	48.0	6.2	1.5	3.1
100°	450.7	439.0	408.1	353.9	276.4	187.4	97.6	31.0	3.9	1.5	3.1
102.5°	407.3	398.0	366.3	313.6	234.6	152.5	72.8	19.4	1.5	1.5	2.3
105°	368.6	357.0	326.0	271.8	199.8	120.0	51.1	11.6	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°	240.0	230.7	203.6	158.0	101.4	47.2	13.9	2.3	2.3	2.3	2.3
115°	200.5	186.6	162.6	122.3	75.1	31.0	7.0	2.3	2.3	2.3	2.3
117.5°	160.3	148.7	131.6	92.9	49.6	20.1	3.9	2.3	2.3	2.3	2.3
120°	125.4	114.6	95.2	64.3	33.3	11.6	1.5	2.3	2.3	2.3	2.3
122.5°	89.8	81.3	64.3	41.8	20.1	5.4	2.3	2.3	3.1	3.1	2.3
125°	59.6	55.0	42.6	25.6	12.4	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.7	34.8	24.8	14.7	5.4	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.7	19.4	14.7	8.5	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.4	11.6	7.7	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	3.9	3.9	3.1
137.5°	0.8	0.8	1.5	1.5	2.3	2.3	3.1	3.9	3.9	3.9	3.1
140°	0.8	0.8	1.5	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.1
142.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
145°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.1	3.1	3.1
147.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
150°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
152.5°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
155°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
157.5°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
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	3.9	3.9	3.9	3.9
172.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
175°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
177.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.9	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



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	607.8	607.8	607.8
2.5°	578.4	567.6	564.5
5°	547.4	529.6	519.6
7.5°	516.5	492.5	480.9
10°	487.8	453.8	441.4
12.5°	453.8	414.3	394.9
15°	421.2	370.1	351.5
17.5°	384.8	327.5	305.9
20°	350.8	284.9	262.5
22.5°	312.1	243.1	218.4
25°	277.2	201.3	173.4
27.5°	238.5	158.7	134.7
30°	202.1	121.6	97.6
32.5°	167.3	89.0	67.4
35°	134.7	60.4	42.6
37.5°	103.8	37.2	21.7
40°	75.1	19.4	10.1
42.5°	50.3	9.3	5.4
45°	31.0	4.6	0.0
47.5°	17.8	0.0	0.0
50°	9.3	0.0	0.0
52.5°	3.9	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	3.9
82.5°	3.1	3.9	3.9
85°	3.1	3.9	4.6
87.5°	3.9	4.6	5.4
90°	4.6	5.4	5.4
92.5°	4.6	6.2	6.2
95°	5.4	6.2	7.0
97.5°	6.2	7.0	7.0
100°	5.4	7.0	7.7
102.5°	4.6	7.0	7.0
105°	3.9	5.4	6.2





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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-80-87-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.1	3.9	3.9
115°	2.3	3.1	3.9
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°	325.2	315.9	284.9	233.8	163.4	91.4	34.1	6.2	1.5	2.3	2.3
110°	283.4	275.7	243.9	194.4	131.6	68.1	22.5	3.9	2.3	2.3	2.3







107.5°	3.1	4.6	5.4
110°	3.1	3.9	4.6



(END OF REPORT)