

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: P551349

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-81-97-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: P551349  
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-81-97-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

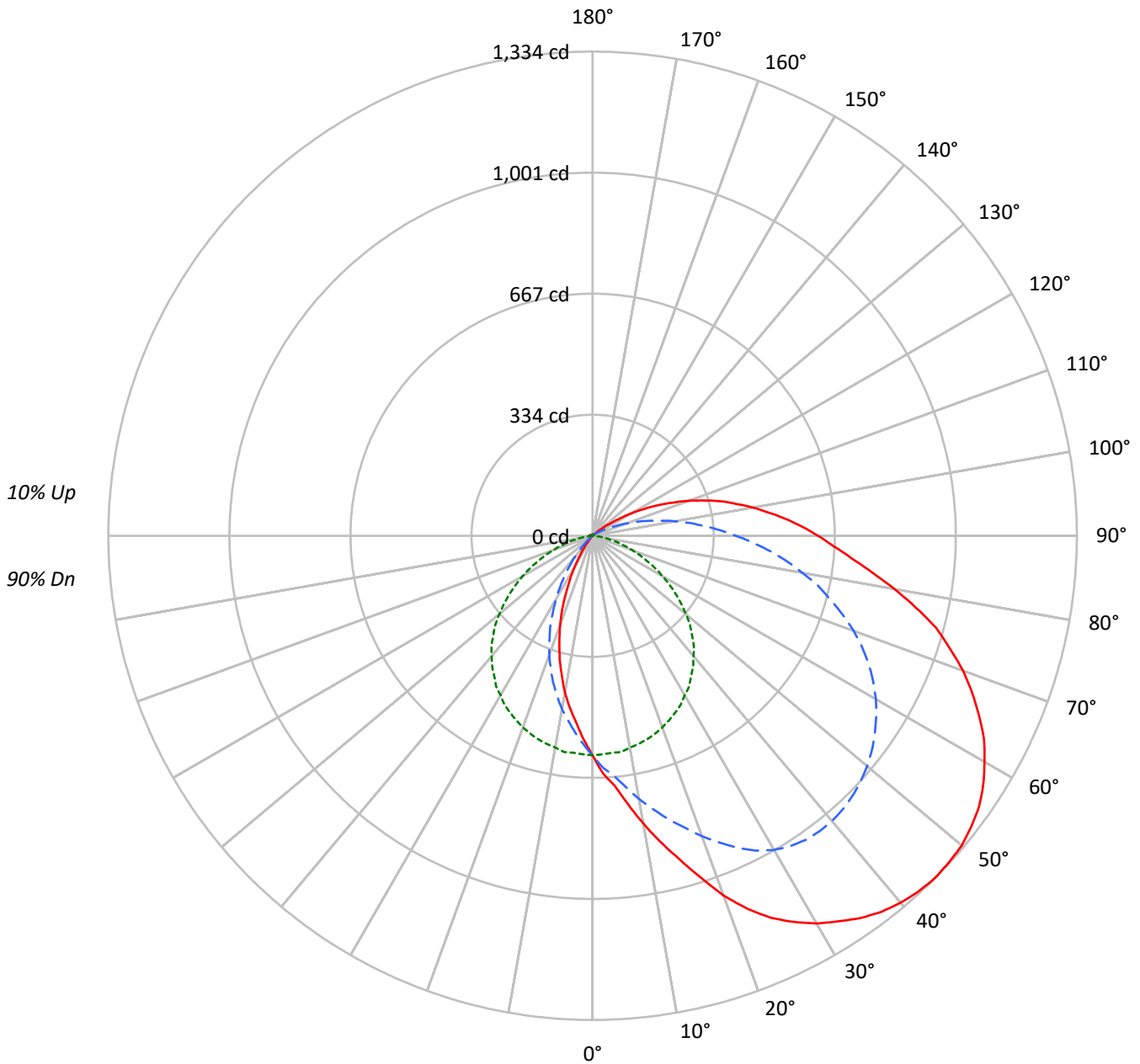
Lumens per Lamp: N/A  
Luminaire Lumens: 2990.0 lumens  
Efficiency: N/A  
Efficacy: 69.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551349

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-97-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°	6510	6510	6510
5°	7146	6415	5352
10°	8087	6336	4412
15°	9063	6256	3438
20°	10221	6154	2531
25°	11183	6035	1662
30°	11897	5877	937
35°	12515	5707	413
40°	13064	5496	99
45°	13535	5234	0
50°	13930	4884	0
55°	14231	4441	0
60°	14382	3927	0
65°	14440	3342	0
70°	14393	2724	0
75°	14209	2011	12
80°	13633	1230	63
85°	13178	590	85



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.9	1.9
10°-20°	173.5	5.8
20°-30°	280.9	9.4
30°-40°	360.8	12.1
40°-50°	408.5	13.7
50°-60°	423.2	14.2
60°-70°	399.1	13.3
70°-80°	334.5	11.2
80°-90°	242.4	8.1
90°-100°	159.3	5.3
100°-110°	92.0	3.1
110°-120°	40.6	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°	512.3	17.1
0°-40°	873.1	29.2
0°-60°	1704.8	57.0
0°-90°	2680.8	89.7
90°-120°	292.0	9.8
90°-150°	307.1	10.3
90°-180°	309.0	10.3
0°-180°	2990.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	605	605	605	605	605	
5°	690	663	600	545	517	70
15°	922	809	580	419	350	266
25°	1161	949	538	276	173	537
35°	1286	1023	472	134	42	806
45°	1334	1013	387	31	0	1030
55°	1300	949	279	0	0	1161
65°	1175	840	166	0	0	1162
75°	979	678	71	1	1	1027
85°	716	491	12	3	5	612
90°	621	394	3	5	5	340
95°	533	308	2	5	7	418
105°	367	159	2	4	6	387
115°	200	53	2	2	4	200
125°	59	7	3	2	3	59
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°	604.8	604.8	604.8	604.8	604.8	604.8	604.8	604.8	604.8	604.8	604.8
2.5°	655.7	654.9	652.6	648.7	643.3	634.1	626.4	619.4	610.2	602.5	587.9
5°	690.3	686.5	683.4	679.5	667.2	658.7	644.9	629.5	614.8	600.2	570.9
7.5°	745.8	739.6	735.0	724.2	707.3	688.0	666.4	651.8	641.8	601.0	550.9
10°	805.1	799.7	790.5	771.2	750.4	722.7	691.9	657.2	626.4	592.5	533.2
12.5°	863.7	856.0	842.9	818.2	788.9	754.3	711.9	671.1	627.1	587.1	512.4
15°	922.2	913.8	899.9	869.8	831.3	785.9	734.2	682.6	631.0	580.2	490.8
17.5°	986.2	974.6	953.8	919.9	871.4	815.1	754.3	691.9	629.5	571.7	467.7
20°	1054.7	1038.6	1016.2	970.8	913.8	847.5	774.3	701.1	628.7	561.7	441.5
22.5°	1111.8	1095.6	1070.9	1023.9	955.4	874.5	791.3	707.3	625.6	550.1	416.8
25°	1161.1	1148.0	1121.0	1067.1	994.7	903.0	807.4	711.9	621.0	537.8	390.6
27.5°	1199.6	1187.3	1157.2	1101.7	1027.8	928.4	819.8	714.2	614.8	525.4	363.7
30°	1233.5	1221.2	1185.0	1127.9	1050.1	948.4	832.1	715.0	607.1	507.0	334.4
32.5°	1259.7	1248.1	1211.2	1150.3	1065.5	962.3	839.0	714.2	597.1	493.9	302.8
35°	1285.9	1274.3	1231.2	1166.5	1077.1	968.5	844.4	710.4	584.8	472.3	272.7
37.5°	1305.9	1292.8	1248.9	1177.3	1082.5	970.0	843.6	705.0	571.7	454.6	242.7
40°	1319.8	1305.9	1258.9	1183.4	1084.0	967.7	837.5	695.7	556.3	432.2	211.1
42.5°	1329.0	1313.6	1263.5	1192.7	1080.9	961.5	828.2	684.2	539.3	413.0	181.1
45°	1333.7	1317.5	1264.3	1185.0	1075.6	950.0	814.4	669.5	520.8	386.8	151.0
47.5°	1331.3	1313.6	1260.5	1176.5	1065.5	937.6	799.0	651.8	498.5	363.7	122.5
50°	1327.5	1309.0	1252.0	1165.7	1051.7	922.2	782.0	630.2	475.4	335.1	97.1
52.5°	1315.2	1296.7	1242.7	1150.3	1035.5	904.5	758.9	607.9	450.7	307.4	74.0
55°	1299.8	1282.8	1226.6	1136.4	1014.7	882.9	737.3	584.0	426.8	278.9	53.2
57.5°	1275.9	1260.5	1206.5	1114.1	993.9	859.1	713.4	557.8	396.8	250.4	37.0
60°	1246.6	1231.2	1178.8	1088.6	970.0	832.1	687.2	530.8	369.8	221.9	23.1
62.5°	1215.8	1201.1	1146.4	1057.1	940.0	803.6	658.7	503.9	341.3	195.7	13.9
65°	1174.9	1161.1	1111.8	1019.3	906.8	772.8	627.1	471.5	312.0	166.4	7.7
67.5°	1131.8	1119.5	1069.4	984.6	868.3	738.9	594.8	439.9	281.2	141.0	3.9
70°	1085.6	1070.2	1023.9	937.6	829.0	700.3	559.3	407.6	251.9	116.3	0.0
72.5°	1031.6	1020.1	975.4	893.7	783.6	659.5	523.1	372.1	219.6	92.5	0.8
75°	979.2	964.6	923.8	846.7	738.9	616.4	483.1	339.0	188.0	70.9	0.8
77.5°	911.4	906.8	868.3	793.6	696.5	574.8	439.2	298.9	157.9	50.8	0.8
80°	843.6	839.0	809.0	740.4	647.2	525.4	398.3	261.2	128.7	33.9	0.8
82.5°	776.6	770.5	741.9	684.9	597.1	483.8	355.9	223.4	101.7	20.8	0.8
85°	716.5	708.8	678.0	625.6	545.5	436.8	312.0	186.4	75.5	11.6	1.5
87.5°	664.9	659.5	625.6	571.7	493.1	392.9	273.5	151.0	53.2	5.4	2.3
90°	621.0	609.4	579.4	522.4	443.8	344.4	232.7	121.0	35.4	3.1	3.1
92.5°	577.8	567.8	534.7	476.1	399.9	302.8	193.4	92.5	22.3	1.5	3.9
95°	533.2	522.4	490.0	436.1	355.2	260.4	158.7	67.8	12.3	1.5	3.9
97.5°	489.2	479.2	445.3	391.4	315.1	223.4	125.6	47.8	6.2	1.5	3.1
100°	448.4	436.8	406.0	352.1	275.1	186.4	97.1	30.8	3.9	1.5	3.1
102.5°	405.3	396.0	364.4	312.0	233.4	151.8	72.4	19.3	1.5	1.5	2.3
105°	366.7	355.2	324.4	270.4	198.8	119.4	50.8	11.6	1.5	1.5	2.3



TEST NUMBER: P551349

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-97-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	238.8	229.6	202.6	157.2	100.9	47.0	13.9	2.3	2.3	2.3	2.3
115°	199.5	185.7	161.8	121.7	74.7	30.8	6.9	2.3	2.3	2.3	2.3
117.5°	159.5	147.9	131.0	92.5	49.3	20.0	3.9	2.3	2.3	2.3	2.3
120°	124.8	114.0	94.8	63.9	33.1	11.6	1.5	2.3	2.3	2.3	2.3
122.5°	89.4	80.9	63.9	41.6	20.0	5.4	2.3	2.3	3.1	3.1	2.3
125°	59.3	54.7	42.4	25.4	12.3	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.5	34.7	24.7	14.6	5.4	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.6	19.3	14.6	8.5	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.3	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



TEST NUMBER: P551349

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-97-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	604.8	604.8	604.8
2.5°	575.5	564.7	561.7
5°	544.7	527.0	517.0
7.5°	513.9	490.0	478.5
10°	485.4	451.5	439.2
12.5°	451.5	412.2	392.9
15°	419.1	368.3	349.8
17.5°	382.9	325.9	304.3
20°	349.0	283.5	261.2
22.5°	310.5	241.9	217.3
25°	275.8	200.3	172.6
27.5°	237.3	157.9	134.1
30°	201.1	121.0	97.1
32.5°	166.4	88.6	67.0
35°	134.1	60.1	42.4
37.5°	103.2	37.0	21.6
40°	74.7	19.3	10.0
42.5°	50.1	9.2	5.4
45°	30.8	4.6	0.0
47.5°	17.7	0.0	0.0
50°	9.2	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	6.9
97.5°	6.2	6.9	6.9
100°	5.4	6.9	7.7
102.5°	4.6	6.9	6.9
105°	3.9	5.4	6.2





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**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°	323.6	314.3	283.5	232.7	162.6	90.9	33.9	6.2	1.5	2.3	2.3
110°	282.0	274.3	242.7	193.4	131.0	67.8	22.3	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)