

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: P551279

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-81-88-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: P551279  
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-81-88-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

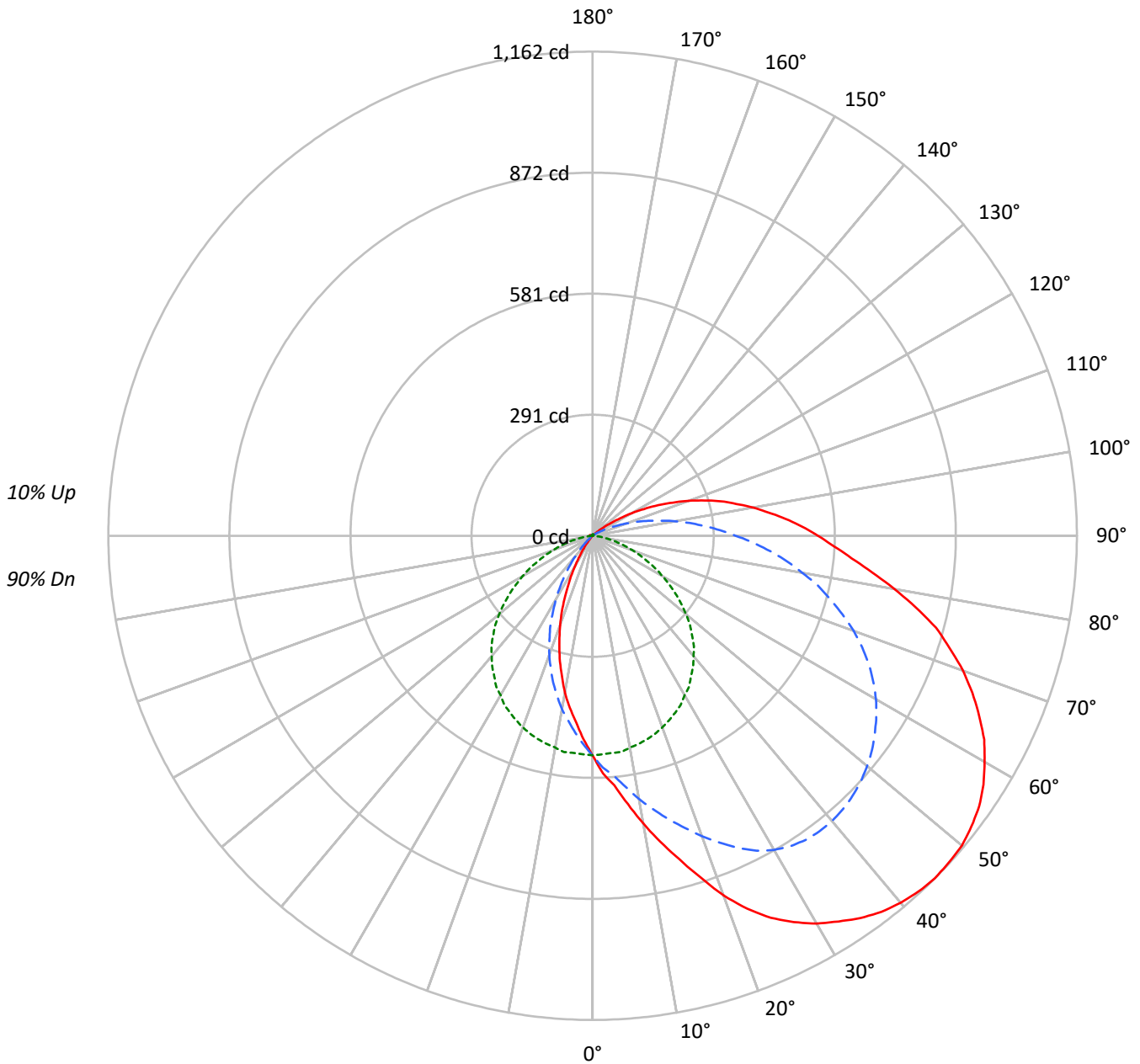
Lumens per Lamp: N/A  
Luminaire Lumens: 2605.0 lumens  
Efficiency: N/A  
Efficacy: 60.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-35-UNV-81-88-ED1D-90

### Luminous Intensity Polar Plot





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

RF	20				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°	5672	5672	5672
5°	6226	5589	4663
10°	7046	5520	3843
15°	7896	5449	2994
20°	8905	5361	2206
25°	9743	5258	1449
30°	10365	5120	816
35°	10904	4972	359
40°	11381	4789	86
45°	11791	4560	0
50°	12136	4256	0
55°	12398	3869	0
60°	12530	3421	0
65°	12582	2912	0
70°	12540	2375	0
75°	12381	1753	10
80°	11878	1070	55
85°	11482	514	74



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.5	1.9
10°-20°	151.1	5.8
20°-30°	244.7	9.4
30°-40°	314.4	12.1
40°-50°	355.9	13.7
50°-60°	368.7	14.2
60°-70°	347.7	13.3
70°-80°	291.4	11.2
80°-90°	211.2	8.1
90°-100°	138.8	5.3
100°-110°	80.2	3.1
110°-120°	35.4	1.4
120°-130°	9.6	0.4
130°-140°	2.2	0.1
140°-150°	1.4	0.1
150°-160°	1.0	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	446.3	17.1
0°-40°	760.7	29.2
0°-60°	1485.3	57.0
0°-90°	2335.6	89.7
90°-120°	254.4	9.8
90°-150°	267.6	10.3
90°-180°	269.0	10.3
0°-180°	2605.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	527	527	527	527	527	
5°	601	578	523	475	450	61
15°	804	704	505	365	305	232
25°	1012	827	468	240	150	468
35°	1120	891	412	117	37	703
45°	1162	882	337	27	0	897
55°	1132	827	243	0	0	1011
65°	1024	732	145	0	0	1013
75°	853	590	62	1	1	895
85°	624	428	10	3	4	533
90°	541	343	3	4	5	297
95°	464	268	1	5	6	364
105°	320	139	1	3	5	337
115°	174	46	2	2	3	174
125°	52	6	3	2	3	52
135°	3	2	3	3	2	5
145°	1	2	3	2	2	1
155°	1	3	3	2	1	0
165°	1	2	3	2	0	0
175°	1	2	3	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°	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9
2.5°	571.2	570.6	568.5	565.2	560.5	552.4	545.7	539.7	531.6	524.9	512.2
5°	601.4	598.1	595.4	592.0	581.3	573.9	561.8	548.4	535.7	522.9	497.4
7.5°	649.8	644.4	640.4	631.0	616.2	599.4	580.6	567.9	559.1	523.6	479.9
10°	701.5	696.8	688.7	671.9	653.8	629.6	602.8	572.6	545.7	516.2	464.5
12.5°	752.5	745.8	734.3	712.9	687.4	657.2	620.2	584.7	546.4	511.5	446.4
15°	803.5	796.1	784.0	757.8	724.3	684.7	639.7	594.7	549.8	505.4	427.6
17.5°	859.2	849.1	831.0	801.5	759.2	710.2	657.2	602.8	548.4	498.1	407.4
20°	918.9	904.8	885.4	845.8	796.1	738.4	674.6	610.8	547.7	489.3	384.6
22.5°	968.6	954.5	933.0	892.1	832.3	761.9	689.4	616.2	545.1	479.3	363.1
25°	1011.6	1000.2	976.7	929.7	866.6	786.7	703.5	620.2	541.0	468.5	340.3
27.5°	1045.1	1034.4	1008.2	959.9	895.4	808.9	714.2	622.2	535.7	457.8	316.8
30°	1074.7	1063.9	1032.4	982.7	914.9	826.3	724.9	622.9	528.9	441.7	291.3
32.5°	1097.5	1087.4	1055.2	1002.2	928.3	838.4	731.0	622.2	520.2	430.3	263.8
35°	1120.3	1110.2	1072.7	1016.3	938.4	843.8	735.7	618.9	509.5	411.5	237.6
37.5°	1137.8	1126.4	1088.1	1025.7	943.1	845.1	735.0	614.2	498.1	396.0	211.4
40°	1149.8	1137.8	1096.8	1031.0	944.4	843.1	729.6	606.1	484.6	376.6	183.9
42.5°	1157.9	1144.5	1100.8	1039.1	941.8	837.7	721.6	596.1	469.9	359.8	157.7
45°	1161.9	1147.8	1101.5	1032.4	937.1	827.6	709.5	583.3	453.8	337.0	131.6
47.5°	1159.9	1144.5	1098.2	1025.0	928.3	816.9	696.1	567.9	434.3	316.8	106.7
50°	1156.6	1140.4	1090.8	1015.6	916.3	803.5	681.3	549.1	414.2	292.0	84.6
52.5°	1145.8	1129.7	1082.7	1002.2	902.2	788.0	661.2	529.6	392.7	267.8	64.4
55°	1132.4	1117.6	1068.6	990.1	884.0	769.2	642.4	508.8	371.9	243.0	46.3
57.5°	1111.6	1098.2	1051.2	970.6	865.9	748.4	621.6	486.0	345.7	218.2	32.2
60°	1086.1	1072.7	1027.0	948.5	845.1	724.9	598.8	462.5	322.2	193.3	20.1
62.5°	1059.2	1046.5	998.8	921.0	818.9	700.1	573.9	439.0	297.4	170.5	12.1
65°	1023.7	1011.6	968.6	888.1	790.1	673.3	546.4	410.8	271.9	145.0	6.7
67.5°	986.1	975.3	931.7	857.9	756.5	643.7	518.2	383.3	245.0	122.8	3.4
70°	945.8	932.4	892.1	816.9	722.3	610.2	487.3	355.1	219.5	101.4	0.0
72.5°	898.8	888.7	849.8	778.6	682.7	574.6	455.8	324.2	191.3	80.5	0.7
75°	853.2	840.4	804.8	737.7	643.7	537.0	420.9	295.3	163.8	61.8	0.7
77.5°	794.1	790.1	756.5	691.4	606.8	500.8	382.6	260.4	137.6	44.3	0.7
80°	735.0	731.0	704.8	645.1	563.8	457.8	347.0	227.6	112.1	29.5	0.7
82.5°	676.6	671.2	646.4	596.7	520.2	421.5	310.1	194.7	88.6	18.1	0.7
85°	624.3	617.5	590.7	545.1	475.2	380.6	271.9	162.4	65.8	10.1	1.3
87.5°	579.3	574.6	545.1	498.1	429.6	342.3	238.3	131.6	46.3	4.7	2.0
90°	541.0	531.0	504.8	455.1	386.6	300.0	202.7	105.4	30.9	2.7	2.7
92.5°	503.4	494.7	465.8	414.8	348.4	263.8	168.5	80.5	19.5	1.3	3.4
95°	464.5	455.1	426.9	379.9	309.4	226.9	138.3	59.1	10.7	1.3	3.4
97.5°	426.2	417.5	388.0	341.0	274.5	194.7	109.4	41.6	5.4	1.3	2.7
100°	390.7	380.6	353.7	306.8	239.6	162.4	84.6	26.8	3.4	1.3	2.7
102.5°	353.1	345.0	317.5	271.9	203.4	132.2	63.1	16.8	1.3	1.3	2.0
105°	319.5	309.4	282.6	235.6	173.2	104.0	44.3	10.1	1.3	1.3	2.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	208.1	200.0	176.5	136.9	87.9	40.9	12.1	2.0	2.0	2.0	2.0
115°	173.9	161.8	141.0	106.1	65.1	26.8	6.0	2.0	2.0	2.0	2.0
117.5°	138.9	128.9	114.1	80.5	43.0	17.5	3.4	2.0	2.0	2.0	2.0
120°	108.7	99.3	82.6	55.7	28.9	10.1	1.3	2.0	2.0	2.0	2.0
122.5°	77.9	70.5	55.7	36.2	17.5	4.7	2.0	2.0	2.7	2.7	2.0
125°	51.7	47.7	36.9	22.2	10.7	2.0	2.0	2.0	2.7	2.7	2.0
127.5°	33.6	30.2	21.5	12.8	4.7	2.0	2.0	2.7	2.7	2.7	2.0
130°	18.8	16.8	12.8	7.4	2.0	2.0	2.0	2.7	2.7	2.7	2.0
132.5°	10.7	10.1	6.7	1.3	2.0	2.0	2.0	2.7	2.7	2.7	2.7
135°	2.7	1.3	1.3	1.3	2.0	2.0	2.7	2.7	3.4	3.4	2.7
137.5°	0.7	0.7	1.3	1.3	2.0	2.0	2.7	3.4	3.4	3.4	2.7
140°	0.7	0.7	1.3	2.0	2.0	2.0	2.7	3.4	3.4	3.4	2.7
142.5°	0.7	1.3	1.3	2.0	2.0	2.7	2.7	3.4	3.4	2.7	2.7
145°	0.7	1.3	1.3	2.0	2.0	2.7	2.7	3.4	2.7	2.7	2.7
147.5°	1.3	1.3	1.3	2.0	2.0	2.7	2.7	3.4	3.4	2.7	2.7
150°	0.7	1.3	1.3	2.0	2.7	2.7	2.7	3.4	2.7	2.7	2.7
152.5°	0.7	1.3	1.3	2.0	2.7	2.7	2.7	3.4	2.7	2.7	2.7
155°	1.3	1.3	1.3	2.0	2.7	2.7	2.7	3.4	2.7	2.7	3.4
157.5°	1.3	1.3	1.3	2.0	2.7	2.7	2.7	3.4	2.7	2.7	3.4
160°	1.3	1.3	1.3	2.0	2.0	2.7	2.7	2.7	2.7	2.7	2.7
162.5°	1.3	1.3	1.3	2.0	2.0	2.7	2.7	2.7	2.7	2.7	2.7
165°	1.3	1.3	1.3	1.3	2.0	2.0	2.7	2.7	2.7	2.7	2.7
167.5°	1.3	1.3	1.3	2.0	2.0	2.0	2.7	2.7	2.7	2.7	2.7
170°	1.3	1.3	1.3	2.0	2.0	2.0	2.7	3.4	3.4	3.4	3.4
172.5°	1.3	1.3	1.3	2.0	2.0	2.7	2.7	3.4	3.4	3.4	3.4
175°	1.3	1.3	1.3	2.0	2.0	2.7	2.7	3.4	3.4	3.4	3.4
177.5°	0.7	1.3	1.3	2.0	2.0	2.7	2.7	3.4	3.4	3.4	2.7
180°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	526.9	526.9	526.9
2.5°	501.4	492.0	489.3
5°	474.6	459.1	450.4
7.5°	447.7	426.9	416.8
10°	422.9	393.4	382.6
12.5°	393.4	359.1	342.3
15°	365.2	320.9	304.7
17.5°	333.6	283.9	265.1
20°	304.1	247.0	227.6
22.5°	270.5	210.8	189.3
25°	240.3	174.5	150.4
27.5°	206.7	137.6	116.8
30°	175.2	105.4	84.6
32.5°	145.0	77.2	58.4
35°	116.8	52.4	36.9
37.5°	89.9	32.2	18.8
40°	65.1	16.8	8.7
42.5°	43.6	8.1	4.7
45°	26.8	4.0	0.0
47.5°	15.4	0.0	0.0
50°	8.1	0.0	0.0
52.5°	3.4	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	1.3	2.0
80°	1.3	2.7	3.4
82.5°	2.7	3.4	3.4
85°	2.7	3.4	4.0
87.5°	3.4	4.0	4.7
90°	4.0	4.7	4.7
92.5°	4.0	5.4	5.4
95°	4.7	5.4	6.0
97.5°	5.4	6.0	6.0
100°	4.7	6.0	6.7
102.5°	4.0	6.0	6.0
105°	3.4	4.7	5.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.7	3.4	3.4
115°	2.0	2.7	3.4
117.5°	2.0	2.7	2.7
120°	2.0	2.0	2.7
122.5°	2.0	2.0	2.7
125°	2.0	2.0	2.7
127.5°	2.7	2.0	2.0
130°	2.0	2.0	2.0
132.5°	2.7	2.0	2.0
135°	2.7	2.0	2.0
137.5°	2.7	2.0	2.0
140°	2.7	2.0	2.0
142.5°	2.7	2.0	2.0
145°	2.0	2.0	2.0
147.5°	2.0	2.0	2.0
150°	2.0	2.0	1.3
152.5°	2.0	1.3	1.3
155°	2.0	1.3	0.7
157.5°	2.7	1.3	0.7
160°	2.0	1.3	0.7
162.5°	2.0	1.3	0.7
165°	2.0	1.3	0.0
167.5°	2.0	1.3	0.7
170°	2.0	1.3	0.7
172.5°	2.0	1.3	0.7
175°	2.0	0.7	0.7
177.5°	2.0	0.7	0.7
180°	2.0	2.0	2.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	281.9	273.9	247.0	202.7	141.6	79.2	29.5	5.4	1.3	2.0	2.0
110°	245.7	239.0	211.4	168.5	114.1	59.1	19.5	3.4	2.0	2.0	2.0







107.5°	2.7	4.0	4.7
110°	2.7	3.4	4.0



(END OF REPORT)