

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: P551353

Luminaire Tested: **FCC-X-2-LD4-2HI-40-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: P551353
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-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

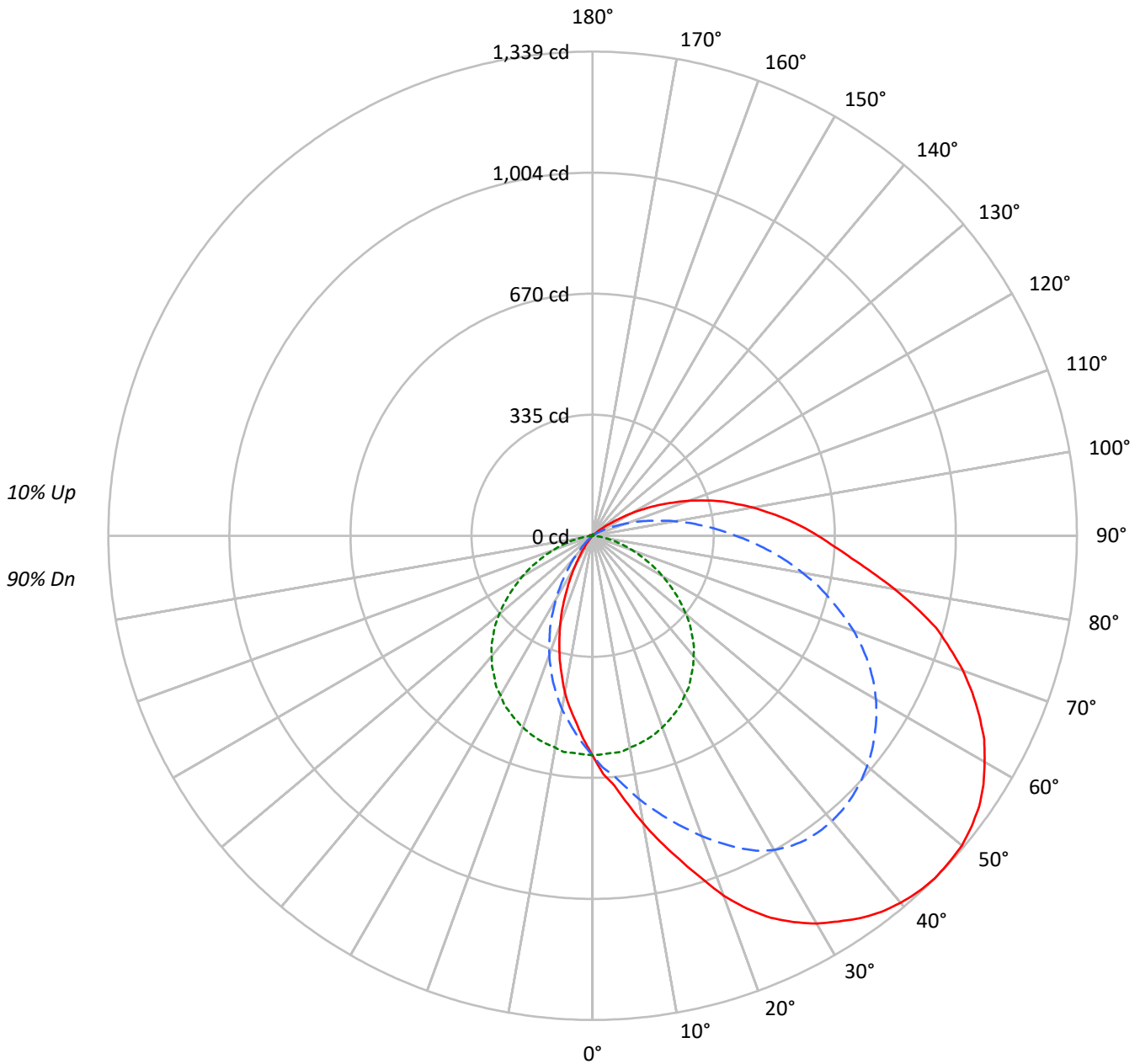
Lumens per Lamp: N/A
Luminaire Lumens: 3002.0 lumens
Efficiency: N/A
Efficacy: 69.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (A_{in}): 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					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	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°	6536	6536	6536
5°	7175	6441	5373
10°	8120	6362	4429
15°	9099	6281	3451
20°	10263	6178	2541
25°	11227	6059	1669
30°	11944	5901	940
35°	12565	5730	414
40°	13116	5519	100
45°	13589	5254	0
50°	13985	4904	0
55°	14288	4459	0
60°	14439	3943	0
65°	14499	3356	0
70°	14450	2736	0
75°	14267	2019	12
80°	13688	1233	63
85°	13231	590	85



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.2	1.9
10°-20°	174.2	5.8
20°-30°	282.0	9.4
30°-40°	362.3	12.1
40°-50°	410.1	13.7
50°-60°	424.9	14.2
60°-70°	400.7	13.3
70°-80°	335.8	11.2
80°-90°	243.4	8.1
90°-100°	160.0	5.3
100°-110°	92.4	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°	514.4	17.1
0°-40°	876.6	29.2
0°-60°	1711.6	57.0
0°-90°	2691.6	89.7
90°-120°	293.1	9.8
90°-150°	308.3	10.3
90°-180°	310.0	10.3
0°-180°	3002.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	607	607	607	607	607	
5°	693	666	603	547	519	70
15°	926	812	582	421	351	267
25°	1166	953	540	277	173	539
35°	1291	1027	474	135	42	810
45°	1339	1017	388	31	0	1034
55°	1305	953	280	0	0	1165
65°	1180	843	167	0	0	1167
75°	983	680	71	1	1	1031
85°	719	493	12	3	5	614
90°	624	396	3	5	5	342
95°	535	309	2	5	7	420
105°	368	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°	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2
2.5°	658.3	657.5	655.2	651.3	645.9	636.6	628.9	621.9	612.6	604.9	590.2
5°	693.1	689.2	686.1	682.3	669.9	661.4	647.5	632.0	617.3	602.6	573.2
7.5°	748.8	742.6	738.0	727.1	710.1	690.8	669.1	654.4	644.4	603.4	553.1
10°	808.4	802.9	793.7	774.3	753.4	725.6	694.6	659.8	628.9	594.9	535.3
12.5°	867.1	859.4	846.3	821.5	792.1	757.3	714.8	673.8	629.7	589.4	514.4
15°	925.9	917.4	903.5	873.3	834.7	789.0	737.2	685.4	633.5	582.5	492.7
17.5°	990.1	978.5	957.6	923.6	874.9	818.4	757.3	694.6	632.0	574.0	469.5
20°	1059.0	1042.7	1020.3	974.7	917.4	850.9	777.4	703.9	631.2	563.9	443.2
22.5°	1116.2	1100.0	1075.2	1028.0	959.2	878.0	794.4	710.1	628.1	552.3	418.5
25°	1165.7	1152.6	1125.5	1071.4	998.6	906.6	810.7	714.8	623.5	539.9	392.2
27.5°	1204.4	1192.0	1161.9	1106.2	1031.9	932.1	823.1	717.1	617.3	527.6	365.1
30°	1238.4	1226.1	1189.7	1132.5	1054.3	952.2	835.4	717.8	609.6	509.0	335.7
32.5°	1264.7	1253.1	1216.0	1154.9	1069.8	966.2	842.4	717.1	599.5	495.8	304.0
35°	1291.0	1279.4	1236.1	1171.1	1081.4	972.3	847.8	713.2	587.1	474.2	273.8
37.5°	1311.2	1298.0	1253.9	1182.0	1086.8	973.9	847.0	707.8	574.0	456.4	243.7
40°	1325.1	1311.2	1264.0	1188.2	1088.4	971.6	840.8	698.5	558.5	434.0	212.0
42.5°	1334.4	1318.9	1268.6	1197.4	1085.3	965.4	831.6	686.9	541.5	414.6	181.8
45°	1339.0	1322.8	1269.4	1189.7	1079.9	953.8	817.6	672.2	522.9	388.3	151.6
47.5°	1336.7	1318.9	1265.5	1181.2	1069.8	941.4	802.2	654.4	500.5	365.1	123.0
50°	1332.8	1314.3	1257.0	1170.4	1055.9	925.9	785.1	632.8	477.3	336.5	97.5
52.5°	1320.4	1301.9	1247.7	1154.9	1039.6	908.1	761.9	610.3	452.5	308.6	74.3
55°	1305.0	1288.0	1231.5	1141.0	1018.8	886.5	740.3	586.3	428.5	280.0	53.4
57.5°	1281.0	1265.5	1211.4	1118.5	997.9	862.5	716.3	560.0	398.4	251.4	37.1
60°	1251.6	1236.1	1183.5	1093.0	973.9	835.4	690.0	533.0	371.3	222.8	23.2
62.5°	1220.7	1206.0	1151.0	1061.3	943.7	806.8	661.4	505.9	342.7	196.5	13.9
65°	1179.7	1165.7	1116.2	1023.4	910.5	775.9	629.7	473.4	313.3	167.1	7.7
67.5°	1136.3	1124.0	1073.7	988.6	871.8	741.8	597.2	441.7	282.3	141.6	3.9
70°	1089.9	1074.5	1028.0	941.4	832.3	703.2	561.6	409.2	252.9	116.8	0.0
72.5°	1035.8	1024.2	979.3	897.3	786.7	662.2	525.2	373.6	220.5	92.8	0.8
75°	983.2	968.5	927.5	850.1	741.8	618.8	485.0	340.4	188.7	71.2	0.8
77.5°	915.1	910.5	871.8	796.8	699.3	577.1	440.9	300.1	158.6	51.1	0.8
80°	847.0	842.4	812.2	743.4	649.8	527.6	399.9	262.2	129.2	34.0	0.8
82.5°	779.7	773.5	744.9	687.7	599.5	485.8	357.4	224.3	102.1	20.9	0.8
85°	719.4	711.7	680.7	628.1	547.7	438.6	313.3	187.2	75.8	11.6	1.5
87.5°	667.6	662.2	628.1	574.0	495.1	394.5	274.6	151.6	53.4	5.4	2.3
90°	623.5	611.9	581.7	524.5	445.6	345.8	233.6	121.4	35.6	3.1	3.1
92.5°	580.2	570.1	536.8	478.1	401.5	304.0	194.2	92.8	22.4	1.5	3.9
95°	535.3	524.5	492.0	437.8	356.6	261.5	159.4	68.1	12.4	1.5	3.9
97.5°	491.2	481.1	447.1	393.0	316.4	224.3	126.1	48.0	6.2	1.5	3.1
100°	450.2	438.6	407.7	353.5	276.2	187.2	97.5	30.9	3.9	1.5	3.1
102.5°	406.9	397.6	365.9	313.3	234.4	152.4	72.7	19.3	1.5	1.5	2.3
105°	368.2	356.6	325.7	271.5	199.6	119.9	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°	239.8	230.5	203.4	157.8	101.3	47.2	13.9	2.3	2.3	2.3	2.3
115°	200.3	186.4	162.4	122.2	75.0	30.9	7.0	2.3	2.3	2.3	2.3
117.5°	160.1	148.5	131.5	92.8	49.5	20.1	3.9	2.3	2.3	2.3	2.3
120°	125.3	114.5	95.1	64.2	33.3	11.6	1.5	2.3	2.3	2.3	2.3
122.5°	89.7	81.2	64.2	41.8	20.1	5.4	2.3	2.3	3.1	3.1	2.3
125°	59.6	54.9	42.5	25.5	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	19.3	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°	607.2	607.2	607.2
2.5°	577.8	567.0	563.9
5°	546.9	529.1	519.0
7.5°	516.0	492.0	480.4
10°	487.3	453.3	440.9
12.5°	453.3	413.8	394.5
15°	420.8	369.8	351.2
17.5°	384.5	327.2	305.6
20°	350.4	284.7	262.2
22.5°	311.7	242.9	218.1
25°	276.9	201.1	173.3
27.5°	238.3	158.6	134.6
30°	201.9	121.4	97.5
32.5°	167.1	89.0	67.3
35°	134.6	60.3	42.5
37.5°	103.7	37.1	21.7
40°	75.0	19.3	10.1
42.5°	50.3	9.3	5.4
45°	30.9	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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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°	324.9	315.6	284.7	233.6	163.2	91.3	34.0	6.2	1.5	2.3	2.3
110°	283.1	275.4	243.7	194.2	131.5	68.1	22.4	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)