

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: P551373

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-93-87-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: P551373
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-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

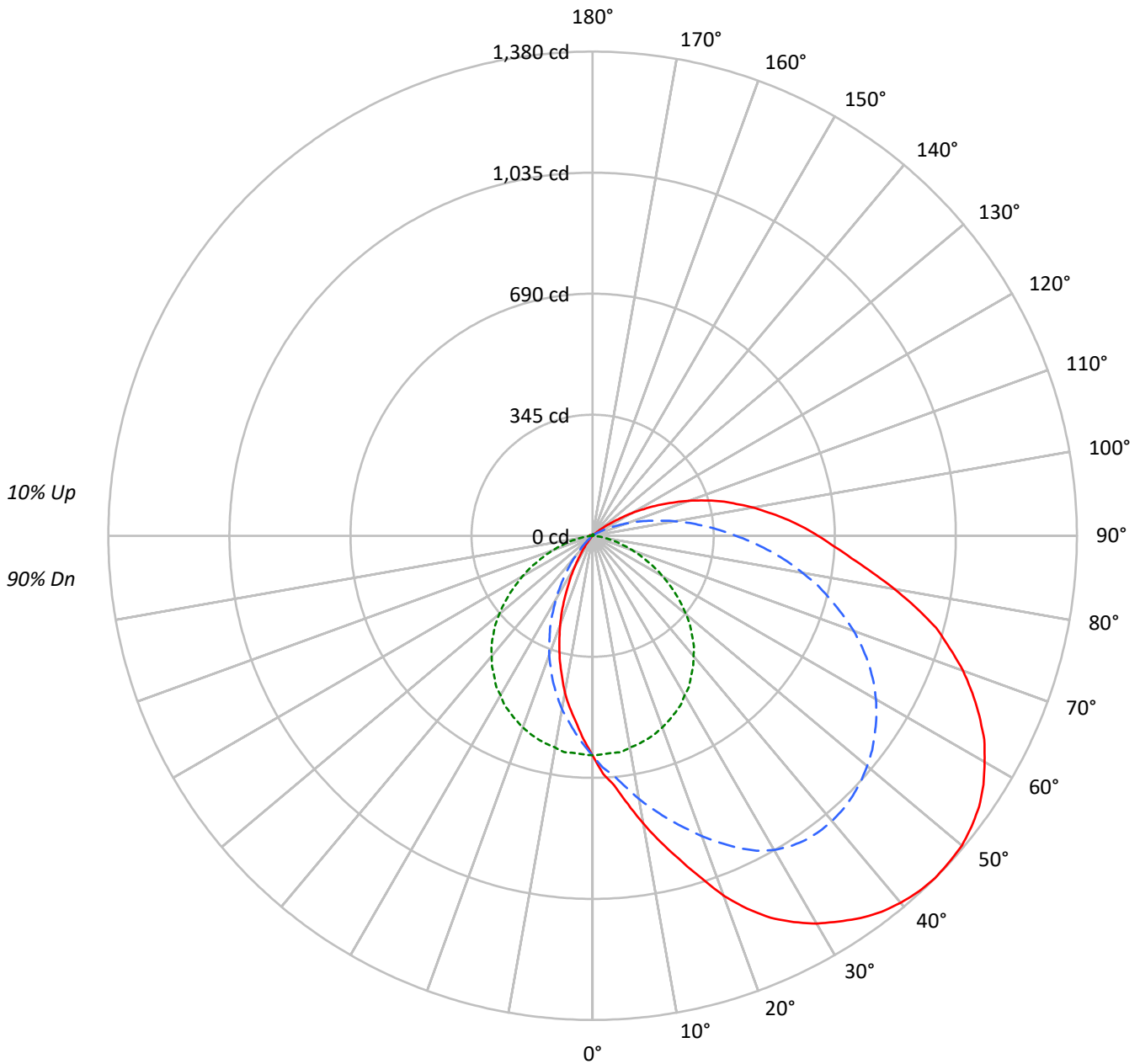
Lumens per Lamp: N/A
Luminaire Lumens: 3094.1 lumens
Efficiency: N/A
Efficacy: 71.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-87-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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6736	6736	6736
5°	7395	6638	5538
10°	8368	6557	4564
15°	9378	6473	3557
20°	10577	6368	2620
25°	11572	6245	1720
30°	12311	6081	969
35°	12950	5905	426
40°	13518	5688	103
45°	14005	5415	0
50°	14414	5054	0
55°	14726	4596	0
60°	14882	4063	0
65°	14943	3459	0
70°	14893	2821	0
75°	14704	2079	12
80°	14108	1273	65
85°	13636	610	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	1.9
10°-20°	179.5	5.8
20°-30°	290.7	9.4
30°-40°	373.4	12.1
40°-50°	422.7	13.7
50°-60°	437.9	14.2
60°-70°	413.0	13.3
70°-80°	346.1	11.2
80°-90°	250.9	8.1
90°-100°	164.9	5.3
100°-110°	95.2	3.1
110°-120°	42.0	1.4
120°-130°	11.4	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	530.1	17.1
0°-40°	903.5	29.2
0°-60°	1764.1	57.0
0°-90°	2774.0	89.7
90°-120°	302.2	9.8
90°-150°	317.9	10.3
90°-180°	320.0	10.3
0°-180°	3094.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	626	626	626	626	626	
5°	714	686	621	564	535	72
15°	954	837	600	434	362	275
25°	1202	982	556	285	179	555
35°	1331	1058	489	139	44	835
45°	1380	1048	400	32	0	1065
55°	1345	982	289	0	0	1201
65°	1216	869	172	0	0	1203
75°	1013	701	73	1	1	1063
85°	741	508	12	3	5	633
90°	643	408	3	5	6	352
95°	552	318	2	6	7	433
105°	380	165	2	4	6	400
115°	206	55	2	2	4	207
125°	61	8	3	2	3	61
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°	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8
2.5°	678.5	677.7	675.3	671.3	665.7	656.1	648.2	641.0	631.4	623.5	608.3
5°	714.3	710.4	707.2	703.2	690.4	681.6	667.3	651.4	636.2	621.1	590.8
7.5°	771.7	765.4	760.6	749.4	731.9	711.9	689.6	674.5	664.1	621.9	570.0
10°	833.1	827.5	818.0	798.0	776.5	747.8	715.9	680.1	648.2	613.1	551.7
12.5°	893.7	885.7	872.2	846.7	816.4	780.5	736.7	694.4	649.0	607.5	530.2
15°	954.3	945.5	931.2	900.1	860.2	813.2	759.8	706.4	652.9	600.3	507.8
17.5°	1020.5	1008.5	987.0	951.9	901.7	843.5	780.5	715.9	651.4	591.6	483.9
20°	1091.4	1074.7	1051.6	1004.5	945.5	877.0	801.2	725.5	650.6	581.2	456.8
22.5°	1150.4	1133.7	1108.2	1059.5	988.6	904.9	818.8	731.9	647.4	569.2	431.3
25°	1201.5	1187.9	1160.0	1104.2	1029.3	934.4	835.5	736.7	642.6	556.5	404.2
27.5°	1241.3	1228.6	1197.5	1140.1	1063.5	960.7	848.3	739.1	636.2	543.7	376.3
30°	1276.4	1263.6	1226.2	1167.2	1086.7	981.4	861.0	739.8	628.2	524.6	346.0
32.5°	1303.5	1291.5	1253.3	1190.3	1102.6	995.8	868.2	739.1	617.9	511.0	313.3
35°	1330.6	1318.7	1274.0	1207.0	1114.6	1002.1	873.8	735.1	605.1	488.7	282.2
37.5°	1351.3	1337.8	1292.3	1218.2	1120.1	1003.7	873.0	729.5	591.6	470.4	251.1
40°	1365.7	1351.3	1302.7	1224.6	1121.7	1001.3	866.6	719.9	575.6	447.3	218.4
42.5°	1375.3	1359.3	1307.5	1234.1	1118.5	995.0	857.0	708.0	558.1	427.3	187.4
45°	1380.0	1363.3	1308.3	1226.2	1113.0	983.0	842.7	692.8	538.9	400.2	156.3
47.5°	1377.6	1359.3	1304.3	1217.4	1102.6	970.3	826.7	674.5	515.8	376.3	126.8
50°	1373.7	1354.5	1295.5	1206.2	1088.2	954.3	809.2	652.2	491.9	346.8	100.5
52.5°	1360.9	1341.8	1286.0	1190.3	1071.5	936.0	785.3	629.0	466.4	318.1	76.5
55°	1345.0	1327.4	1269.2	1175.9	1050.0	913.6	763.0	604.3	441.7	288.6	55.0
57.5°	1320.2	1304.3	1248.5	1152.8	1028.5	888.9	738.3	577.2	410.6	259.1	38.3
60°	1290.0	1274.0	1219.8	1126.5	1003.7	861.0	711.1	549.3	382.7	229.6	23.9
62.5°	1258.1	1242.9	1186.3	1093.8	972.6	831.5	681.6	521.4	353.2	202.5	14.4
65°	1215.8	1201.5	1150.4	1054.8	938.4	799.6	649.0	487.9	322.9	172.2	8.0
67.5°	1171.2	1158.4	1106.6	1018.9	898.5	764.6	615.5	455.2	291.0	145.9	4.0
70°	1123.3	1107.4	1059.5	970.3	857.8	724.7	578.8	421.7	260.7	120.4	0.0
72.5°	1067.5	1055.6	1009.3	924.8	810.8	682.4	541.3	385.1	227.2	95.7	0.8
75°	1013.3	998.2	955.9	876.2	764.6	637.8	499.9	350.8	194.5	73.3	0.8
77.5°	943.1	938.4	898.5	821.2	720.7	594.7	454.4	309.3	163.4	52.6	0.8
80°	873.0	868.2	837.1	766.2	669.7	543.7	412.2	270.3	133.1	35.1	0.8
82.5°	803.6	797.3	767.8	708.8	617.9	500.7	368.3	231.2	105.2	21.5	0.8
85°	741.4	733.5	701.6	647.4	564.5	452.0	322.9	192.9	78.1	12.0	1.6
87.5°	688.0	682.4	647.4	591.6	510.2	406.6	283.0	156.3	55.0	5.6	2.4
90°	642.6	630.6	599.5	540.5	459.2	356.4	240.8	125.2	36.7	3.2	3.2
92.5°	597.9	587.6	553.3	492.7	413.8	313.3	200.1	95.7	23.1	1.6	4.0
95°	551.7	540.5	507.1	451.2	367.5	269.5	164.2	70.2	12.8	1.6	4.0
97.5°	506.3	495.9	460.8	405.0	326.1	231.2	130.0	49.4	6.4	1.6	3.2
100°	464.0	452.0	420.2	364.3	284.6	192.9	100.5	31.9	4.0	1.6	3.2
102.5°	419.4	409.8	377.1	322.9	241.6	157.1	74.9	19.9	1.6	1.6	2.4
105°	379.5	367.5	335.6	279.8	205.7	123.6	52.6	12.0	1.6	1.6	2.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	247.1	237.6	209.7	162.6	104.4	48.6	14.4	2.4	2.4	2.4	2.4
115°	206.5	192.1	167.4	126.0	77.3	31.9	7.2	2.4	2.4	2.4	2.4
117.5°	165.0	153.1	135.5	95.7	51.0	20.7	4.0	2.4	2.4	2.4	2.4
120°	129.2	118.0	98.1	66.2	34.3	12.0	1.6	2.4	2.4	2.4	2.4
122.5°	92.5	83.7	66.2	43.1	20.7	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.4	56.6	43.8	26.3	12.8	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	39.9	35.9	25.5	15.1	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.3	19.9	15.1	8.8	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.8	12.0	8.0	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.0	4.0	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	4.0
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	625.8	625.8	625.8
2.5°	595.5	584.4	581.2
5°	563.7	545.3	535.0
7.5°	531.8	507.1	495.1
10°	502.3	467.2	454.4
12.5°	467.2	426.5	406.6
15°	433.7	381.1	362.0
17.5°	396.2	337.2	314.9
20°	361.2	293.4	270.3
22.5°	321.3	250.3	224.8
25°	285.4	207.3	178.6
27.5°	245.6	163.4	138.7
30°	208.1	125.2	100.5
32.5°	172.2	91.7	69.4
35°	138.7	62.2	43.8
37.5°	106.8	38.3	22.3
40°	77.3	19.9	10.4
42.5°	51.8	9.6	5.6
45°	31.9	4.8	0.0
47.5°	18.3	0.0	0.0
50°	9.6	0.0	0.0
52.5°	4.0	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	1.6	2.4
80°	1.6	3.2	4.0
82.5°	3.2	4.0	4.0
85°	3.2	4.0	4.8
87.5°	4.0	4.8	5.6
90°	4.8	5.6	5.6
92.5°	4.8	6.4	6.4
95°	5.6	6.4	7.2
97.5°	6.4	7.2	7.2
100°	5.6	7.2	8.0
102.5°	4.8	7.2	7.2
105°	4.0	5.6	6.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.2	4.0	4.0
115°	2.4	3.2	4.0
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	334.8	325.3	293.4	240.8	168.2	94.1	35.1	6.4	1.6	2.4	2.4
110°	291.8	283.8	251.1	200.1	135.5	70.2	23.1	4.0	2.4	2.4	2.4





107.5°	3.2	4.8	5.6
110°	3.2	4.0	4.8



(END OF REPORT)