

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: P551280

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-81-88-ED1D**

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: P551280
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
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

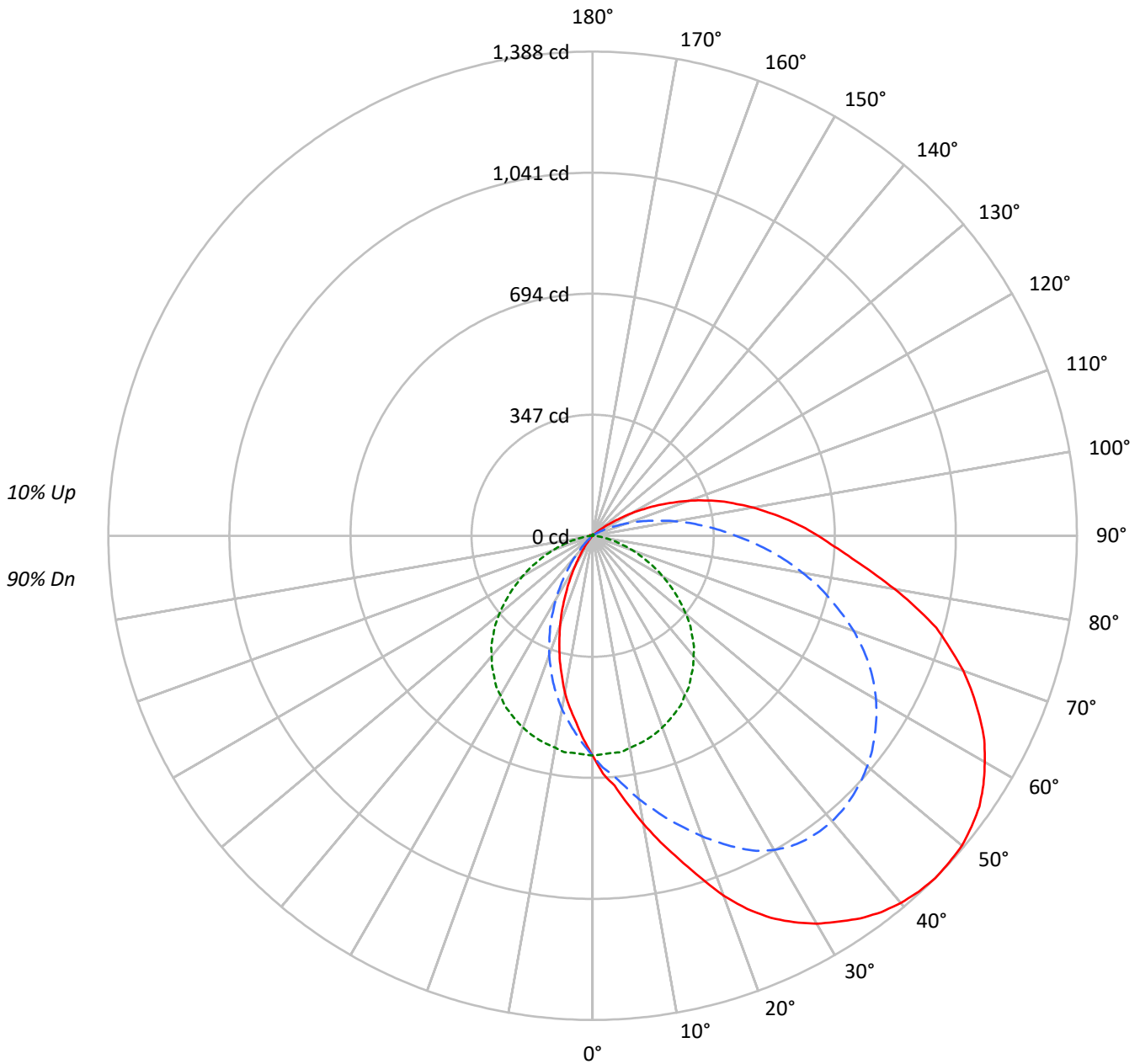
Lumens per Lamp: N/A
Luminaire Lumens: 3113.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-35-UNV-81-88-ED1D

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°	6778	6778	6778
5°	7440	6679	5572
10°	8419	6597	4592
15°	9436	6513	3579
20°	10642	6407	2635
25°	11642	6283	1731
30°	12386	6119	975
35°	13030	5941	429
40°	13601	5723	103
45°	14091	5449	0
50°	14502	5085	0
55°	14815	4624	0
60°	14974	4088	0
65°	15035	3481	0
70°	14984	2837	0
75°	14794	2093	12
80°	14196	1280	65
85°	13720	610	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	1.9
10°-20°	180.6	5.8
20°-30°	292.5	9.4
30°-40°	375.7	12.1
40°-50°	425.3	13.7
50°-60°	440.6	14.2
60°-70°	415.5	13.3
70°-80°	348.2	11.2
80°-90°	252.4	8.1
90°-100°	165.9	5.3
100°-110°	95.8	3.1
110°-120°	42.3	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°	533.4	17.1
0°-40°	909.1	29.2
0°-60°	1774.9	57.0
0°-90°	2791.1	89.7
90°-120°	304.0	9.8
90°-150°	319.7	10.3
90°-180°	322.0	10.3
0°-180°	3113.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	630	630	630	630	630	
5°	719	690	625	567	538	72
15°	960	842	604	436	364	277
25°	1209	988	560	287	180	559
35°	1339	1065	492	140	44	840
45°	1388	1054	403	32	0	1072
55°	1353	988	290	0	0	1208
65°	1223	874	173	0	0	1210
75°	1020	706	74	1	1	1069
85°	746	511	12	3	5	637
90°	646	410	3	5	6	354
95°	555	320	2	6	7	435
105°	382	166	2	4	6	403
115°	208	55	2	2	4	208
125°	62	8	3	2	3	62
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°	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7
2.5°	682.6	681.8	679.4	675.4	669.8	660.2	652.1	644.9	635.3	627.3	612.0
5°	718.7	714.7	711.5	707.5	694.7	685.8	671.4	655.4	640.1	624.9	594.4
7.5°	776.5	770.1	765.2	754.0	736.4	716.3	693.9	678.6	668.2	625.7	573.5
10°	838.2	832.6	823.0	802.9	781.3	752.4	720.3	684.2	652.1	616.9	555.1
12.5°	899.2	891.2	877.5	851.9	821.4	785.3	741.2	698.7	652.9	611.2	533.4
15°	960.2	951.3	936.9	905.6	865.5	818.2	764.4	710.7	657.0	604.0	511.0
17.5°	1026.7	1014.7	993.1	957.8	907.2	848.7	785.3	720.3	655.4	595.2	486.9
20°	1098.1	1081.3	1058.0	1010.7	951.3	882.4	806.2	730.0	654.6	584.8	459.6
22.5°	1157.5	1140.7	1115.0	1066.1	994.7	910.4	823.8	736.4	651.3	572.7	434.0
25°	1208.8	1195.2	1167.1	1111.0	1035.6	940.1	840.6	741.2	646.5	559.9	406.7
27.5°	1248.9	1236.1	1204.8	1147.1	1070.1	966.6	853.5	743.6	640.1	547.1	378.6
30°	1284.2	1271.4	1233.7	1174.3	1093.3	987.4	866.3	744.4	632.1	527.8	348.1
32.5°	1311.5	1299.5	1261.0	1197.6	1109.4	1001.9	873.5	743.6	621.7	514.2	315.2
35°	1338.8	1326.8	1281.8	1214.5	1121.4	1008.3	879.2	739.6	608.8	491.7	284.0
37.5°	1359.6	1346.0	1300.3	1225.7	1127.0	1009.9	878.4	734.0	595.2	473.3	252.7
40°	1374.1	1359.6	1310.7	1232.1	1128.6	1007.5	871.9	724.3	579.1	450.0	219.8
42.5°	1383.7	1367.7	1315.5	1241.7	1125.4	1001.1	862.3	712.3	561.5	430.0	188.5
45°	1388.5	1371.7	1316.3	1233.7	1119.8	989.0	847.9	697.1	542.3	402.7	157.2
47.5°	1386.1	1367.7	1312.3	1224.9	1109.4	976.2	831.8	678.6	519.0	378.6	127.5
50°	1382.1	1362.8	1303.5	1213.6	1094.9	960.2	814.2	656.2	494.9	348.9	101.1
52.5°	1369.3	1350.0	1293.9	1197.6	1078.1	941.7	790.1	632.9	469.3	320.1	77.0
55°	1353.2	1335.6	1277.0	1183.2	1056.4	919.3	767.7	608.0	444.4	290.4	55.3
57.5°	1328.4	1312.3	1256.2	1159.9	1034.8	894.4	742.8	580.8	413.1	260.7	38.5
60°	1297.9	1281.8	1227.3	1133.4	1009.9	866.3	715.5	552.7	385.0	231.0	24.1
62.5°	1265.8	1250.5	1193.6	1100.5	978.6	836.6	685.8	524.6	355.4	203.7	14.4
65°	1223.3	1208.8	1157.5	1061.2	944.1	804.6	652.9	490.9	324.9	173.3	8.0
67.5°	1178.4	1165.5	1113.4	1025.1	904.0	769.3	619.3	458.0	292.8	146.8	4.0
70°	1130.2	1114.2	1066.1	976.2	863.1	729.2	582.4	424.3	262.3	121.1	0.0
72.5°	1074.1	1062.0	1015.5	930.5	815.8	686.6	544.7	387.4	228.6	96.3	0.8
75°	1019.5	1004.3	961.8	881.6	769.3	641.7	502.9	352.9	195.7	73.8	0.8
77.5°	948.9	944.1	904.0	826.2	725.1	598.4	457.2	311.2	164.4	52.9	0.8
80°	878.4	873.5	842.3	770.9	673.8	547.1	414.7	271.9	134.0	35.3	0.8
82.5°	808.6	802.1	772.5	713.1	621.7	503.7	370.6	232.6	105.9	21.7	0.8
85°	746.0	738.0	705.9	651.3	567.9	454.8	324.9	194.1	78.6	12.0	1.6
87.5°	692.3	686.6	651.3	595.2	513.4	409.1	284.8	157.2	55.3	5.6	2.4
90°	646.5	634.5	603.2	543.9	462.0	358.6	242.2	125.9	36.9	3.2	3.2
92.5°	601.6	591.2	556.7	495.7	416.3	315.2	201.3	96.3	23.3	1.6	4.0
95°	555.1	543.9	510.2	454.0	369.8	271.1	165.2	70.6	12.8	1.6	4.0
97.5°	509.4	498.9	463.6	407.5	328.1	232.6	130.7	49.7	6.4	1.6	3.2
100°	466.8	454.8	422.7	366.6	286.4	194.1	101.1	32.1	4.0	1.6	3.2
102.5°	421.9	412.3	379.4	324.9	243.1	158.0	75.4	20.1	1.6	1.6	2.4
105°	381.8	369.8	337.7	281.6	207.0	124.3	52.9	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°	248.7	239.0	211.0	163.6	105.1	48.9	14.4	2.4	2.4	2.4	2.4
115°	207.8	193.3	168.5	126.7	77.8	32.1	7.2	2.4	2.4	2.4	2.4
117.5°	166.0	154.0	136.4	96.3	51.3	20.9	4.0	2.4	2.4	2.4	2.4
120°	129.9	118.7	98.7	66.6	34.5	12.0	1.6	2.4	2.4	2.4	2.4
122.5°	93.0	84.2	66.6	43.3	20.9	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.8	57.0	44.1	26.5	12.8	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.1	36.1	25.7	15.2	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.5	20.1	15.2	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°	629.7	629.7	629.7
2.5°	599.2	588.0	584.8
5°	567.1	548.7	538.2
7.5°	535.0	510.2	498.1
10°	505.4	470.1	457.2
12.5°	470.1	429.1	409.1
15°	436.4	383.4	364.2
17.5°	398.7	339.3	316.8
20°	363.4	295.2	271.9
22.5°	323.3	251.9	226.2
25°	287.2	208.6	179.7
27.5°	247.1	164.4	139.6
30°	209.4	125.9	101.1
32.5°	173.3	92.2	69.8
35°	139.6	62.6	44.1
37.5°	107.5	38.5	22.5
40°	77.8	20.1	10.4
42.5°	52.1	9.6	5.6
45°	32.1	4.8	0.0
47.5°	18.4	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°	336.9	327.3	295.2	242.2	169.3	94.7	35.3	6.4	1.6	2.4	2.4
110°	293.6	285.6	252.7	201.3	136.4	70.6	23.3	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)