

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: P551305

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-93-85-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: P551305
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-93-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

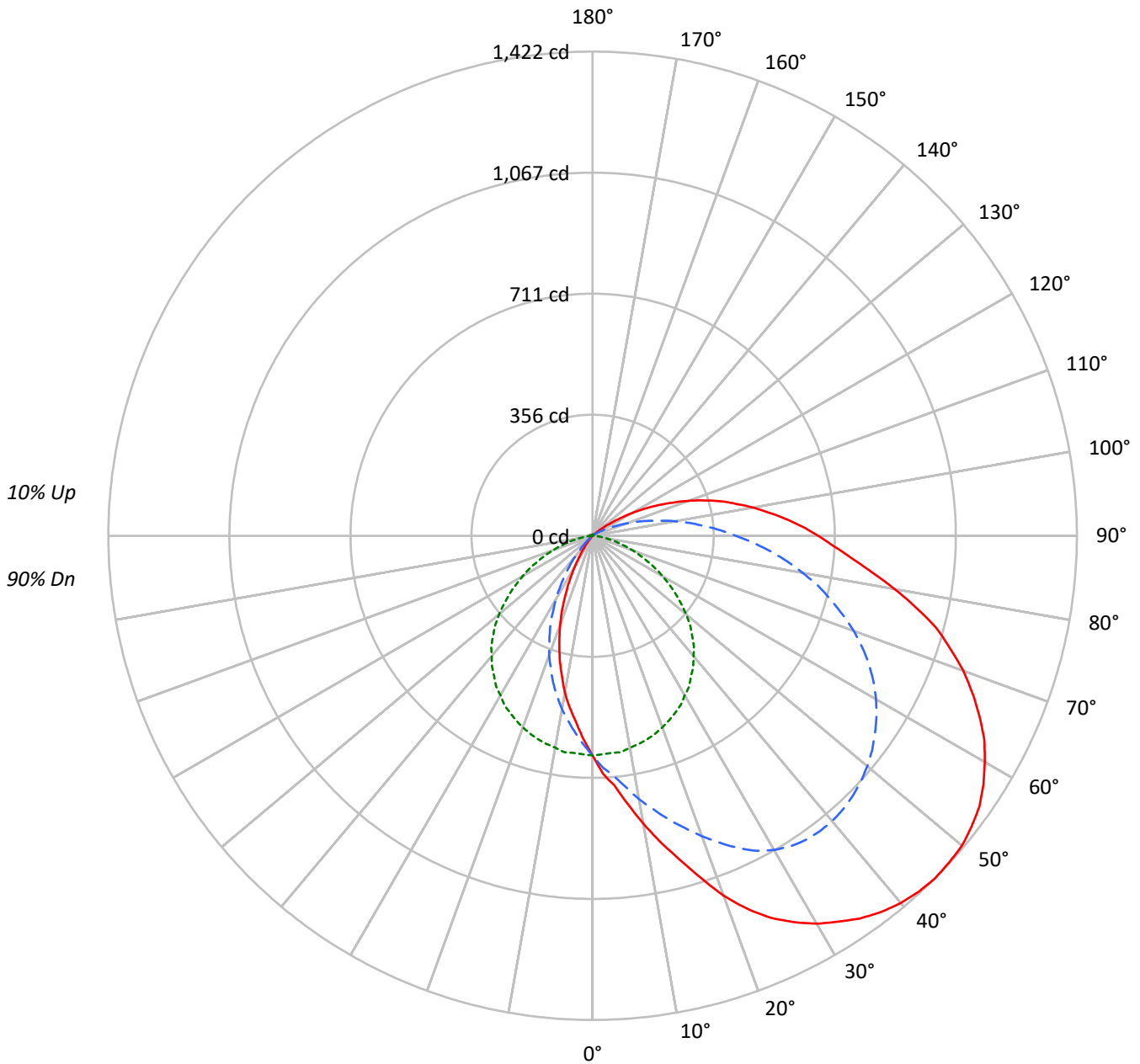
Lumens per Lamp: N/A
Luminaire Lumens: 3189.0 lumens
Efficiency: N/A
Efficacy: 73.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551305

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-93-85-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551305

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-93-85-ED1D-90

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°	6944	6944	6944
5°	7622	6841	5708
10°	8625	6758	4705
15°	9666	6672	3666
20°	10902	6563	2700
25°	11926	6437	1773
30°	12689	6268	998
35°	13349	6086	440
40°	13933	5863	106
45°	14435	5582	0
50°	14856	5210	0
55°	15178	4737	0
60°	15339	4189	0
65°	15402	3565	0
70°	15350	2907	0
75°	15155	2144	12
80°	14541	1313	66
85°	14055	625	90



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	1.9
10°-20°	185.0	5.8
20°-30°	299.6	9.4
30°-40°	384.9	12.1
40°-50°	435.7	13.7
50°-60°	451.3	14.2
60°-70°	425.7	13.3
70°-80°	356.7	11.2
80°-90°	258.6	8.1
90°-100°	169.9	5.3
100°-110°	98.2	3.1
110°-120°	43.3	1.4
120°-130°	11.7	0.4
130°-140°	2.7	0.1
140°-150°	1.8	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	546.4	17.1
0°-40°	931.3	29.2
0°-60°	1818.3	57.0
0°-90°	2859.2	89.7
90°-120°	311.4	9.8
90°-150°	327.6	10.3
90°-180°	330.0	10.3
0°-180°	3189.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	645	645	645	645	645	
5°	736	707	640	581	551	74
15°	984	862	619	447	373	284
25°	1238	1012	574	294	184	572
35°	1372	1091	504	143	45	860
45°	1422	1080	412	33	0	1098
55°	1386	1012	298	0	0	1238
65°	1253	896	178	0	0	1240
75°	1044	723	76	1	1	1095
85°	764	524	12	3	5	653
90°	662	420	3	5	6	363
95°	569	328	2	6	7	446
105°	391	170	2	4	7	413
115°	213	56	2	2	4	213
125°	63	8	3	2	3	63
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	



TEST NUMBER: P551305

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1	645.1
2.5°	699.3	698.5	696.0	691.9	686.1	676.3	668.1	660.7	650.8	642.6	627.0
5°	736.3	732.2	728.9	724.8	711.6	702.6	687.8	671.4	655.7	640.1	608.9
7.5°	795.4	788.9	783.9	772.4	754.3	733.8	710.8	695.2	684.5	640.9	587.5
10°	858.7	853.0	843.1	822.6	800.4	770.8	737.9	700.9	668.1	631.9	568.6
12.5°	921.2	912.9	899.0	872.7	841.5	804.5	759.3	715.7	668.9	626.2	546.5
15°	983.6	974.6	959.8	927.7	886.6	838.2	783.1	728.1	673.0	618.8	523.4
17.5°	1051.8	1039.5	1017.3	981.1	929.4	869.4	804.5	737.9	671.4	609.7	498.8
20°	1124.9	1107.7	1083.9	1035.4	974.6	903.9	825.8	747.8	670.5	599.0	470.9
22.5°	1185.8	1168.5	1142.2	1092.1	1018.9	932.7	843.9	754.3	667.2	586.7	444.6
25°	1238.3	1224.4	1195.6	1138.1	1060.9	963.1	861.2	759.3	662.3	573.6	416.6
27.5°	1279.4	1266.3	1234.2	1175.1	1096.2	990.2	874.3	761.7	655.7	560.4	387.9
30°	1315.6	1302.4	1263.8	1203.0	1120.0	1011.5	887.5	762.6	647.5	540.7	356.6
32.5°	1343.5	1331.2	1291.8	1226.8	1136.5	1026.3	894.9	761.7	636.8	526.7	322.9
35°	1371.5	1359.1	1313.1	1244.1	1148.8	1032.9	900.6	757.6	623.7	503.7	290.9
37.5°	1392.8	1378.9	1332.0	1255.6	1154.5	1034.6	899.8	751.9	609.7	484.8	258.8
40°	1407.6	1392.8	1342.7	1262.2	1156.2	1032.1	893.2	742.0	593.3	461.0	225.2
42.5°	1417.5	1401.0	1347.6	1272.0	1152.9	1025.5	883.4	729.7	575.2	440.4	193.1
45°	1422.4	1405.2	1348.5	1263.8	1147.1	1013.2	868.6	714.1	555.5	412.5	161.1
47.5°	1419.9	1401.0	1344.4	1254.8	1136.5	1000.0	852.1	695.2	531.7	387.9	130.7
50°	1415.8	1396.1	1335.3	1243.3	1121.7	983.6	834.1	672.2	507.0	357.5	103.5
52.5°	1402.7	1383.0	1325.5	1226.8	1104.4	964.7	809.4	648.3	480.7	327.9	78.9
55°	1386.3	1368.2	1308.2	1212.1	1082.2	941.7	786.4	622.9	455.2	297.5	56.7
57.5°	1360.8	1344.4	1286.8	1188.2	1060.0	916.2	760.9	594.9	423.2	267.1	39.4
60°	1329.6	1313.1	1257.2	1161.1	1034.6	887.5	733.0	566.2	394.4	236.7	24.7
62.5°	1296.7	1281.1	1222.7	1127.4	1002.5	857.1	702.6	537.4	364.0	208.7	14.8
65°	1253.1	1238.3	1185.8	1087.1	967.2	824.2	668.9	502.9	332.8	177.5	8.2
67.5°	1207.1	1194.0	1140.6	1050.2	926.1	788.0	634.4	469.2	299.9	150.4	4.1
70°	1157.8	1141.4	1092.1	1000.0	884.2	747.0	596.6	434.7	268.7	124.1	0.0
72.5°	1100.3	1088.0	1040.3	953.2	835.7	703.4	558.0	396.9	234.2	98.6	0.8
75°	1044.4	1028.8	985.3	903.1	788.0	657.4	515.2	361.6	200.5	75.6	0.8
77.5°	972.1	967.2	926.1	846.4	742.8	613.0	468.4	318.8	168.5	54.2	0.8
80°	899.8	894.9	862.8	789.7	690.3	560.4	424.8	278.6	137.2	36.2	0.8
82.5°	828.3	821.7	791.3	730.5	636.8	516.0	379.6	238.3	108.5	22.2	0.8
85°	764.2	756.0	723.1	667.2	581.8	465.9	332.8	198.9	80.5	12.3	1.6
87.5°	709.2	703.4	667.2	609.7	525.9	419.1	291.7	161.1	56.7	5.8	2.5
90°	662.3	650.0	617.9	557.1	473.3	367.3	248.2	129.0	37.8	3.3	3.3
92.5°	616.3	605.6	570.3	507.8	426.5	322.9	206.3	98.6	23.8	1.6	4.1
95°	568.6	557.1	522.6	465.1	378.8	277.7	169.3	72.3	13.1	1.6	4.1
97.5°	521.8	511.1	475.0	417.4	336.1	238.3	133.9	50.9	6.6	1.6	3.3
100°	478.2	465.9	433.1	375.5	293.4	198.9	103.5	32.9	4.1	1.6	3.3
102.5°	432.2	422.4	388.7	332.8	249.0	161.9	77.2	20.5	1.6	1.6	2.5
105°	391.1	378.8	345.9	288.4	212.0	127.4	54.2	12.3	1.6	1.6	2.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	254.7	244.9	216.1	167.6	107.6	50.1	14.8	2.5	2.5	2.5	2.5
115°	212.8	198.0	172.6	129.8	79.7	32.9	7.4	2.5	2.5	2.5	2.5
117.5°	170.1	157.8	139.7	98.6	52.6	21.4	4.1	2.5	2.5	2.5	2.5
120°	133.1	121.6	101.1	68.2	35.3	12.3	1.6	2.5	2.5	2.5	2.5
122.5°	95.3	86.3	68.2	44.4	21.4	5.8	2.5	2.5	3.3	3.3	2.5
125°	63.3	58.3	45.2	27.1	13.1	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.1	37.0	26.3	15.6	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.0	20.5	15.6	9.0	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.1	12.3	8.2	1.6	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3
137.5°	0.8	0.8	1.6	1.6	2.5	2.5	3.3	4.1	4.1	4.1	3.3
140°	0.8	0.8	1.6	2.5	2.5	2.5	3.3	4.1	4.1	4.1	3.3
142.5°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
145°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	3.3	3.3	3.3
147.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
150°	0.8	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
152.5°	0.8	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
155°	1.6	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
157.5°	1.6	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
160°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.6	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.6	1.6	1.6	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.6	1.6	1.6	2.5	2.5	2.5	3.3	4.1	4.1	4.1	4.1
172.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
175°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
177.5°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	3.3
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	645.1	645.1	645.1
2.5°	613.8	602.3	599.0
5°	581.0	562.1	551.4
7.5°	548.1	522.6	510.3
10°	517.7	481.5	468.4
12.5°	481.5	439.6	419.1
15°	447.0	392.8	373.1
17.5°	408.4	347.6	324.6
20°	372.2	302.4	278.6
22.5°	331.2	258.0	231.7
25°	294.2	213.6	184.1
27.5°	253.1	168.5	143.0
30°	214.5	129.0	103.5
32.5°	177.5	94.5	71.5
35°	143.0	64.1	45.2
37.5°	110.1	39.4	23.0
40°	79.7	20.5	10.7
42.5°	53.4	9.9	5.8
45°	32.9	4.9	0.0
47.5°	18.9	0.0	0.0
50°	9.9	0.0	0.0
52.5°	4.1	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	2.5
80°	1.6	3.3	4.1
82.5°	3.3	4.1	4.1
85°	3.3	4.1	4.9
87.5°	4.1	4.9	5.8
90°	4.9	5.8	5.8
92.5°	4.9	6.6	6.6
95°	5.8	6.6	7.4
97.5°	6.6	7.4	7.4
100°	5.8	7.4	8.2
102.5°	4.9	7.4	7.4
105°	4.1	5.8	6.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.3	4.1	4.1
115°	2.5	3.3	4.1
117.5°	2.5	3.3	3.3
120°	2.5	2.5	3.3
122.5°	2.5	2.5	3.3
125°	2.5	2.5	3.3
127.5°	3.3	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.3	2.5	2.5
135°	3.3	2.5	2.5
137.5°	3.3	2.5	2.5
140°	3.3	2.5	2.5
142.5°	3.3	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.6
152.5°	2.5	1.6	1.6
155°	2.5	1.6	0.8
157.5°	3.3	1.6	0.8
160°	2.5	1.6	0.8
162.5°	2.5	1.6	0.8
165°	2.5	1.6	0.0
167.5°	2.5	1.6	0.8
170°	2.5	1.6	0.8
172.5°	2.5	1.6	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	345.1	335.3	302.4	248.2	173.4	97.0	36.2	6.6	1.6	2.5	2.5
110°	300.8	292.5	258.8	206.3	139.7	72.3	23.8	4.1	2.5	2.5	2.5





107.5°	3.3	4.9	5.8
110°	3.3	4.1	4.9



(END OF REPORT)