

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: P550554

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-80-85-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: P550554
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-LD4-1HI-40-UNV-80-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

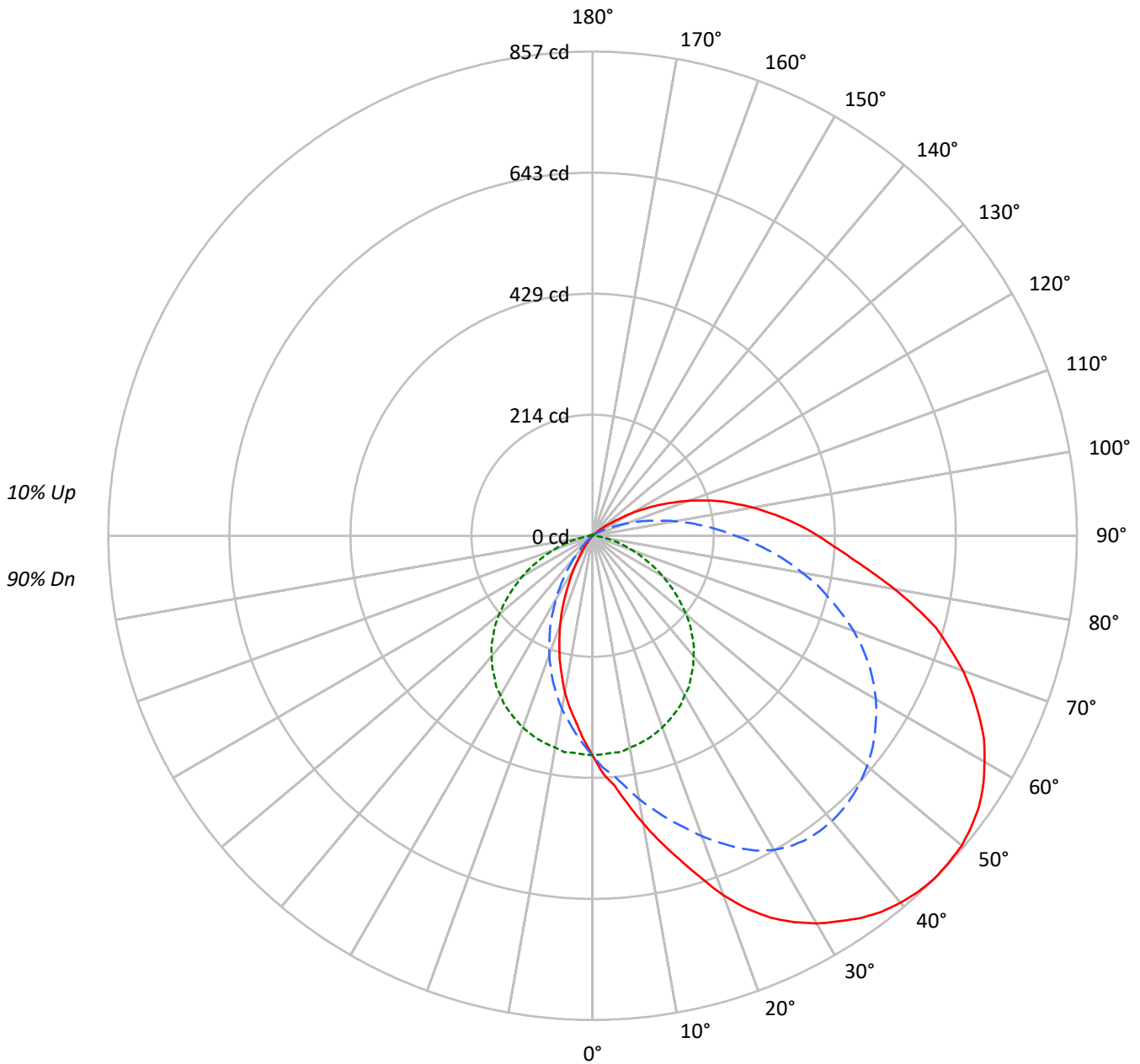
Lumens per Lamp: N/A
Luminaire Lumens: 1921.1 lumens
Efficiency: N/A
Efficacy: 88.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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									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°	4183	4183	4183
5°	4591	4121	3438
10°	5196	4071	2834
15°	5823	4019	2208
20°	6568	3954	1626
25°	7185	3877	1068
30°	7644	3776	602
35°	8040	3666	265
40°	8393	3532	63
45°	8695	3362	0
50°	8950	3138	0
55°	9143	2854	0
60°	9240	2524	0
65°	9278	2147	0
70°	9246	1750	0
75°	9129	1290	7
80°	8759	791	40
85°	8466	376	55



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	1.9
10°-20°	111.4	5.8
20°-30°	180.5	9.4
30°-40°	231.8	12.1
40°-50°	262.4	13.7
50°-60°	271.9	14.2
60°-70°	256.4	13.3
70°-80°	214.9	11.2
80°-90°	155.8	8.1
90°-100°	102.4	5.3
100°-110°	59.1	3.1
110°-120°	26.1	1.4
120°-130°	7.1	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	329.1	17.1
0°-40°	561.0	29.2
0°-60°	1095.3	57.0
0°-90°	1722.4	89.7
90°-120°	187.6	9.8
90°-150°	197.4	10.3
90°-180°	199.0	10.4
0°-180°	1921.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	389	389	389	389	389	
5°	444	426	386	350	332	45
15°	592	520	373	269	225	171
25°	746	610	346	177	111	345
35°	826	657	303	86	27	518
45°	857	651	248	20	0	662
55°	835	610	179	0	0	746
65°	755	540	107	0	0	747
75°	629	435	46	0	0	660
85°	460	316	7	2	3	393
90°	399	253	2	3	4	219
95°	342	198	1	4	4	269
105°	236	102	1	2	4	249
115°	128	34	2	2	2	128
125°	38	5	2	2	2	38
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	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°	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6
2.5°	421.2	420.7	419.3	416.8	413.3	407.4	402.4	398.0	392.0	387.1	377.7
5°	443.5	441.0	439.1	436.6	428.7	423.2	414.3	404.4	395.0	385.6	366.8
7.5°	479.2	475.2	472.2	465.3	454.4	442.0	428.2	418.8	412.3	386.1	353.9
10°	517.3	513.8	507.9	495.5	482.1	464.3	444.5	422.2	402.4	380.7	342.5
12.5°	554.9	549.9	541.5	525.7	506.9	484.6	457.4	431.1	402.9	377.2	329.2
15°	592.5	587.1	578.2	558.9	534.1	504.9	471.7	438.6	405.4	372.7	315.3
17.5°	633.6	626.2	612.8	591.0	559.8	523.7	484.6	444.5	404.4	367.3	300.5
20°	677.7	667.3	652.9	623.7	587.1	544.5	497.5	450.4	403.9	360.9	283.6
22.5°	714.3	703.9	688.0	657.9	613.8	561.8	508.4	454.4	401.9	353.4	267.8
25°	746.0	737.5	720.2	685.6	639.0	580.1	518.8	457.4	399.0	345.5	251.0
27.5°	770.7	762.8	743.5	707.8	660.3	596.5	526.7	458.9	395.0	337.6	233.6
30°	792.5	784.6	761.3	724.7	674.7	609.3	534.6	459.4	390.1	325.7	214.8
32.5°	809.3	801.9	778.1	739.0	684.6	618.3	539.1	458.9	383.6	317.3	194.5
35°	826.1	818.7	791.0	749.4	692.0	622.2	542.5	456.4	375.7	303.4	175.2
37.5°	839.0	830.6	802.4	756.4	695.5	623.2	542.0	452.9	367.3	292.0	155.9
40°	847.9	839.0	808.8	760.3	696.5	621.7	538.1	447.0	357.4	277.7	135.6
42.5°	853.9	844.0	811.8	766.3	694.5	617.8	532.1	439.6	346.5	265.3	116.3
45°	856.8	846.4	812.3	761.3	691.0	610.3	523.2	430.2	334.6	248.5	97.0
47.5°	855.4	844.0	809.8	755.9	684.6	602.4	513.3	418.8	320.3	233.6	78.7
50°	852.9	841.0	804.4	748.9	675.7	592.5	502.4	404.9	305.4	215.3	62.4
52.5°	845.0	833.1	798.4	739.0	665.3	581.1	487.6	390.6	289.6	197.5	47.5
55°	835.1	824.2	788.0	730.1	651.9	567.3	473.7	375.2	274.2	179.2	34.2
57.5°	819.7	809.8	775.2	715.8	638.5	551.9	458.4	358.4	254.9	160.9	23.8
60°	800.9	791.0	757.3	699.4	623.2	534.6	441.5	341.1	237.6	142.6	14.8
62.5°	781.1	771.7	736.6	679.1	603.9	516.3	423.2	323.7	219.3	125.7	8.9
65°	754.9	746.0	714.3	654.9	582.6	496.5	402.9	302.9	200.5	106.9	4.9
67.5°	727.1	719.2	687.1	632.6	557.9	474.7	382.1	282.6	180.7	90.6	2.5
70°	697.4	687.5	657.9	602.4	532.6	450.0	359.4	261.9	161.9	74.7	0.0
72.5°	662.8	655.4	626.7	574.2	503.4	423.7	336.1	239.1	141.1	59.4	0.5
75°	629.1	619.7	593.5	544.0	474.7	396.0	310.4	217.8	120.8	45.5	0.5
77.5°	585.6	582.6	557.9	509.8	447.5	369.3	282.1	192.1	101.5	32.7	0.5
80°	542.0	539.1	519.7	475.7	415.8	337.6	255.9	167.8	82.7	21.8	0.5
82.5°	499.0	495.0	476.7	440.1	383.6	310.9	228.7	143.5	65.3	13.4	0.5
85°	460.3	455.4	435.6	401.9	350.5	280.7	200.5	119.8	48.5	7.4	1.0
87.5°	427.2	423.7	401.9	367.3	316.8	252.4	175.7	97.0	34.2	3.5	1.5
90°	399.0	391.5	372.2	335.6	285.1	221.3	149.5	77.7	22.8	2.0	2.0
92.5°	371.2	364.8	343.5	305.9	256.9	194.5	124.2	59.4	14.4	1.0	2.5
95°	342.5	335.6	314.8	280.2	228.2	167.3	102.0	43.6	7.9	1.0	2.5
97.5°	314.3	307.9	286.1	251.5	202.5	143.5	80.7	30.7	4.0	1.0	2.0
100°	288.1	280.7	260.9	226.2	176.7	119.8	62.4	19.8	2.5	1.0	2.0
102.5°	260.4	254.4	234.1	200.5	150.0	97.5	46.5	12.4	1.0	1.0	1.5
105°	235.6	228.2	208.4	173.7	127.7	76.7	32.7	7.4	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-80-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	153.4	147.5	130.2	101.0	64.8	30.2	8.9	1.5	1.5	1.5	1.5
115°	128.2	119.3	103.9	78.2	48.0	19.8	4.5	1.5	1.5	1.5	1.5
117.5°	102.5	95.0	84.1	59.4	31.7	12.9	2.5	1.5	1.5	1.5	1.5
120°	80.2	73.3	60.9	41.1	21.3	7.4	1.0	1.5	1.5	1.5	1.5
122.5°	57.4	52.0	41.1	26.7	12.9	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.1	35.1	27.2	16.3	7.9	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.7	22.3	15.8	9.4	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.9	12.4	9.4	5.4	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.9	7.4	4.9	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	388.6	388.6	388.6
2.5°	369.8	362.8	360.9
5°	350.0	338.6	332.1
7.5°	330.2	314.8	307.4
10°	311.8	290.1	282.1
12.5°	290.1	264.8	252.4
15°	269.3	236.6	224.7
17.5°	246.0	209.4	195.5
20°	224.2	182.2	167.8
22.5°	199.5	155.4	139.6
25°	177.2	128.7	110.9
27.5°	152.5	101.5	86.1
30°	129.2	77.7	62.4
32.5°	106.9	56.9	43.1
35°	86.1	38.6	27.2
37.5°	66.3	23.8	13.9
40°	48.0	12.4	6.4
42.5°	32.2	5.9	3.5
45°	19.8	3.0	0.0
47.5°	11.4	0.0	0.0
50°	5.9	0.0	0.0
52.5°	2.5	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.5
90°	3.0	3.5	3.5
92.5°	3.0	4.0	4.0
95°	3.5	4.0	4.5
97.5°	4.0	4.5	4.5
100°	3.5	4.5	4.9
102.5°	3.0	4.5	4.5
105°	2.5	3.5	4.0



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-80-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	207.9	202.0	182.2	149.5	104.4	58.4	21.8	4.0	1.0	1.5	1.5
110°	181.2	176.2	155.9	124.2	84.1	43.6	14.4	2.5	1.5	1.5	1.5





107.5°	2.0	3.0	3.5
110°	2.0	2.5	3.0



(END OF REPORT)