

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: P550632

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-81-84-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: P550632
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-50-UNV-81-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

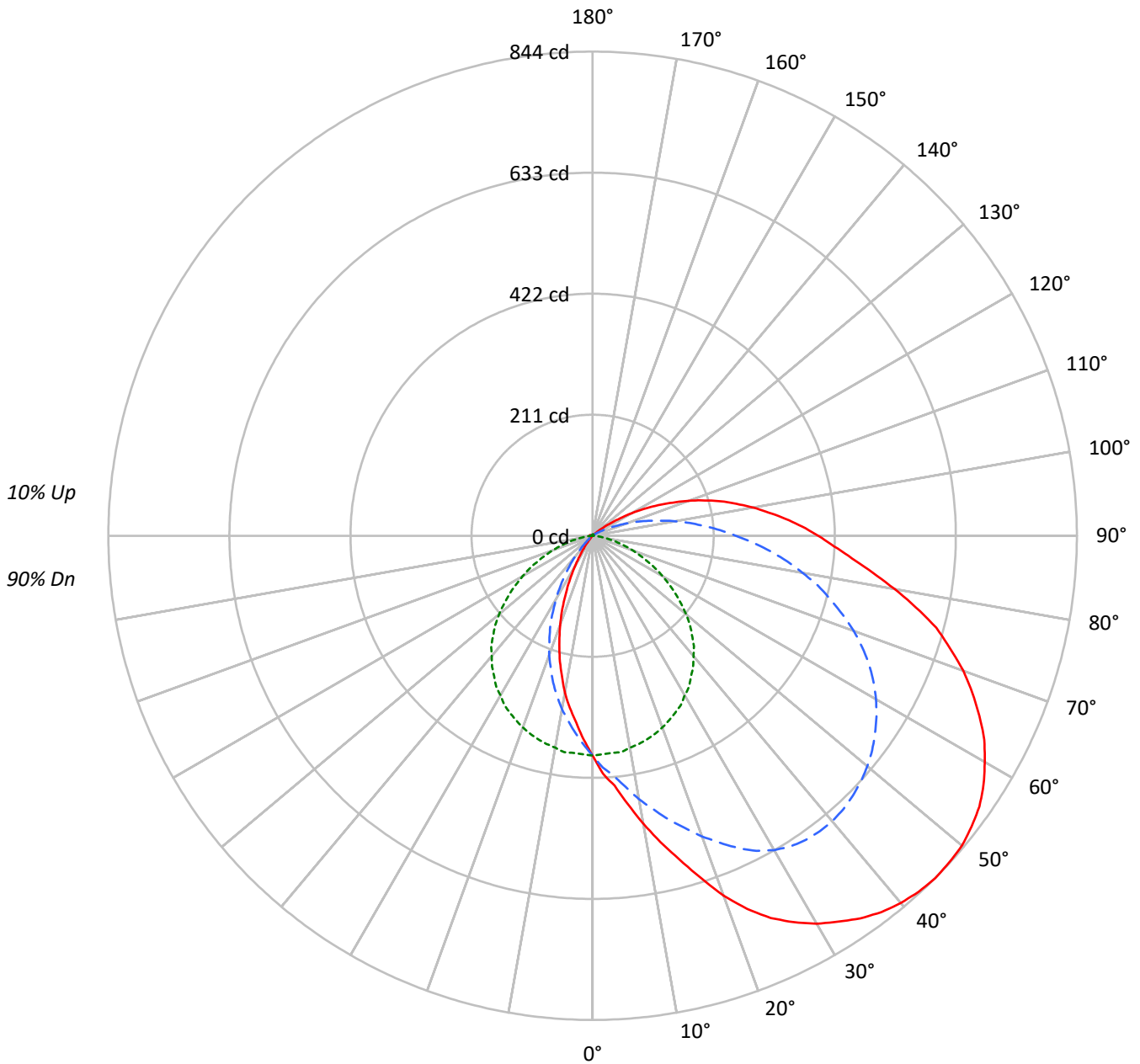
Lumens per Lamp: N/A
Luminaire Lumens: 1893.1 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-84-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°	4122	4122	4122
5°	4525	4061	3388
10°	5120	4011	2792
15°	5738	3960	2177
20°	6472	3896	1603
25°	7080	3821	1053
30°	7532	3721	593
35°	7923	3613	261
40°	8271	3479	62
45°	8568	3314	0
50°	8818	3093	0
55°	9009	2812	0
60°	9105	2486	0
65°	9143	2117	0
70°	9112	1727	0
75°	8997	1273	7
80°	8631	780	39
85°	8343	371	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	1.9
10°-20°	109.8	5.8
20°-30°	177.8	9.4
30°-40°	228.5	12.1
40°-50°	258.6	13.7
50°-60°	267.9	14.2
60°-70°	252.7	13.3
70°-80°	211.8	11.2
80°-90°	153.5	8.1
90°-100°	100.9	5.3
100°-110°	58.3	3.1
110°-120°	25.7	1.4
120°-130°	7.0	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°	324.3	17.1
0°-40°	552.8	29.2
0°-60°	1079.3	57.0
0°-90°	1697.3	89.7
90°-120°	184.9	9.8
90°-150°	194.5	10.3
90°-180°	196.0	10.4
0°-180°	1893.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	383	383	383	383	383	
5°	437	420	380	345	327	44
15°	584	512	367	265	222	168
25°	735	601	340	175	109	340
35°	814	648	299	85	27	511
45°	844	641	245	20	0	652
55°	823	601	177	0	0	735
65°	744	532	105	0	0	736
75°	620	429	45	0	0	650
85°	454	311	7	2	3	387
90°	393	250	2	3	3	216
95°	338	195	1	3	4	265
105°	232	101	1	2	4	245
115°	126	33	2	2	2	127
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	



TEST NUMBER: P550632

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	382.9	382.9	382.9	382.9	382.9	382.9	382.9	382.9	382.9	382.9	382.9
2.5°	415.1	414.6	413.2	410.7	407.3	401.4	396.6	392.2	386.3	381.4	372.2
5°	437.1	434.6	432.7	430.2	422.4	417.1	408.3	398.5	389.2	380.0	361.4
7.5°	472.2	468.3	465.3	458.5	447.8	435.6	421.9	412.7	406.3	380.5	348.8
10°	509.7	506.3	500.5	488.3	475.1	457.5	438.0	416.1	396.6	375.1	337.5
12.5°	546.8	541.9	533.6	518.0	499.5	477.5	450.7	424.9	397.1	371.7	324.4
15°	583.9	578.5	569.7	550.7	526.3	497.5	464.9	432.2	399.5	367.3	310.7
17.5°	624.4	617.0	603.9	582.4	551.7	516.1	477.5	438.0	398.5	361.9	296.1
20°	667.8	657.5	643.4	614.6	578.5	536.6	490.2	443.9	398.0	355.6	279.5
22.5°	703.9	693.6	678.0	648.3	604.8	553.6	501.0	447.8	396.1	348.3	263.9
25°	735.1	726.8	709.7	675.6	629.7	571.7	511.2	450.7	393.2	340.5	247.3
27.5°	759.5	751.7	732.6	697.5	650.7	587.8	519.0	452.2	389.2	332.7	230.2
30°	780.9	773.1	750.2	714.1	664.8	600.5	526.8	452.7	384.4	321.0	211.7
32.5°	797.5	790.2	766.8	728.3	674.6	609.2	531.2	452.2	378.0	312.7	191.7
35°	814.1	806.8	779.5	738.5	681.9	613.1	534.6	449.7	370.2	299.0	172.7
37.5°	826.8	818.5	790.7	745.3	685.3	614.1	534.1	446.3	361.9	287.8	153.7
40°	835.6	826.8	797.0	749.2	686.3	612.7	530.2	440.5	352.2	273.6	133.7
42.5°	841.4	831.7	800.0	755.1	684.4	608.8	524.4	433.1	341.4	261.5	114.6
45°	844.3	834.1	800.4	750.2	680.9	601.4	515.6	423.9	329.7	244.9	95.6
47.5°	842.9	831.7	798.0	744.8	674.6	593.6	505.8	412.7	315.6	230.2	77.6
50°	840.4	828.7	792.6	738.0	665.8	583.9	495.1	399.0	301.0	212.2	61.5
52.5°	832.6	820.9	786.8	728.3	655.6	572.7	480.5	384.9	285.4	194.6	46.8
55°	822.9	812.2	776.5	719.5	642.4	559.0	466.8	369.7	270.2	176.6	33.7
57.5°	807.8	798.0	763.9	705.3	629.2	543.9	451.7	353.2	251.2	158.5	23.4
60°	789.2	779.5	746.3	689.2	614.1	526.8	435.1	336.1	234.1	140.5	14.6
62.5°	769.7	760.5	725.8	669.2	595.1	508.8	417.1	319.0	216.1	123.9	8.8
65°	743.9	735.1	703.9	645.3	574.1	489.2	397.1	298.5	197.6	105.4	4.9
67.5°	716.6	708.7	677.0	623.4	549.7	467.8	376.6	278.5	178.0	89.3	2.4
70°	687.3	677.5	648.3	593.6	524.9	443.4	354.1	258.0	159.5	73.7	0.0
72.5°	653.1	645.8	617.5	565.8	496.1	417.5	331.2	235.6	139.0	58.5	0.5
75°	620.0	610.7	584.8	536.1	467.8	390.2	305.8	214.6	119.0	44.9	0.5
77.5°	577.0	574.1	549.7	502.4	441.0	363.9	278.0	189.3	100.0	32.2	0.5
80°	534.1	531.2	512.2	468.8	409.7	332.7	252.2	165.4	81.5	21.5	0.5
82.5°	491.7	487.8	469.7	433.6	378.0	306.3	225.4	141.5	64.4	13.2	0.5
85°	453.6	448.8	429.2	396.1	345.3	276.6	197.6	118.0	47.8	7.3	1.0
87.5°	421.0	417.5	396.1	361.9	312.2	248.8	173.2	95.6	33.7	3.4	1.5
90°	393.2	385.8	366.8	330.7	281.0	218.0	147.3	76.6	22.4	2.0	2.0
92.5°	365.8	359.5	338.5	301.4	253.2	191.7	122.4	58.5	14.1	1.0	2.4
95°	337.5	330.7	310.2	276.1	224.9	164.9	100.5	42.9	7.8	1.0	2.4
97.5°	309.7	303.4	281.9	247.8	199.5	141.5	79.5	30.2	3.9	1.0	2.0
100°	283.9	276.6	257.1	222.9	174.1	118.0	61.5	19.5	2.4	1.0	2.0
102.5°	256.6	250.7	230.7	197.6	147.8	96.1	45.9	12.2	1.0	1.0	1.5
105°	232.2	224.9	205.4	171.2	125.8	75.6	32.2	7.3	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	151.2	145.4	128.3	99.5	63.9	29.8	8.8	1.5	1.5	1.5	1.5
115°	126.3	117.6	102.4	77.1	47.3	19.5	4.4	1.5	1.5	1.5	1.5
117.5°	101.0	93.7	82.9	58.5	31.2	12.7	2.4	1.5	1.5	1.5	1.5
120°	79.0	72.2	60.0	40.5	21.0	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.6	51.2	40.5	26.3	12.7	3.4	1.5	1.5	2.0	2.0	1.5
125°	37.6	34.6	26.8	16.1	7.8	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.4	22.0	15.6	9.3	3.4	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.7	12.2	9.3	5.4	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.8	7.3	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	2.4	2.4	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.4	2.4	2.4	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.4	2.4	2.4	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.4
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.4
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	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.4	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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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	382.9	382.9	382.9
2.5°	364.4	357.5	355.6
5°	344.9	333.6	327.3
7.5°	325.4	310.2	302.9
10°	307.3	285.8	278.0
12.5°	285.8	261.0	248.8
15°	265.4	233.2	221.5
17.5°	242.4	206.3	192.7
20°	221.0	179.5	165.4
22.5°	196.6	153.2	137.6
25°	174.6	126.8	109.3
27.5°	150.2	100.0	84.9
30°	127.3	76.6	61.5
32.5°	105.4	56.1	42.4
35°	84.9	38.0	26.8
37.5°	65.4	23.4	13.7
40°	47.3	12.2	6.3
42.5°	31.7	5.9	3.4
45°	19.5	2.9	0.0
47.5°	11.2	0.0	0.0
50°	5.9	0.0	0.0
52.5°	2.4	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	2.4
82.5°	2.0	2.4	2.4
85°	2.0	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.9
102.5°	2.9	4.4	4.4
105°	2.4	3.4	3.9



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.4	2.4
115°	1.5	2.0	2.4
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°	204.9	199.0	179.5	147.3	102.9	57.6	21.5	3.9	1.0	1.5	1.5
110°	178.5	173.7	153.7	122.4	82.9	42.9	14.1	2.4	1.5	1.5	1.5





107.5°	2.0	2.9	3.4
110°	2.0	2.4	2.9



(END OF REPORT)