

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: P551020

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-81-86-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: P551020
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-LD4-1STD-35-UNV-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

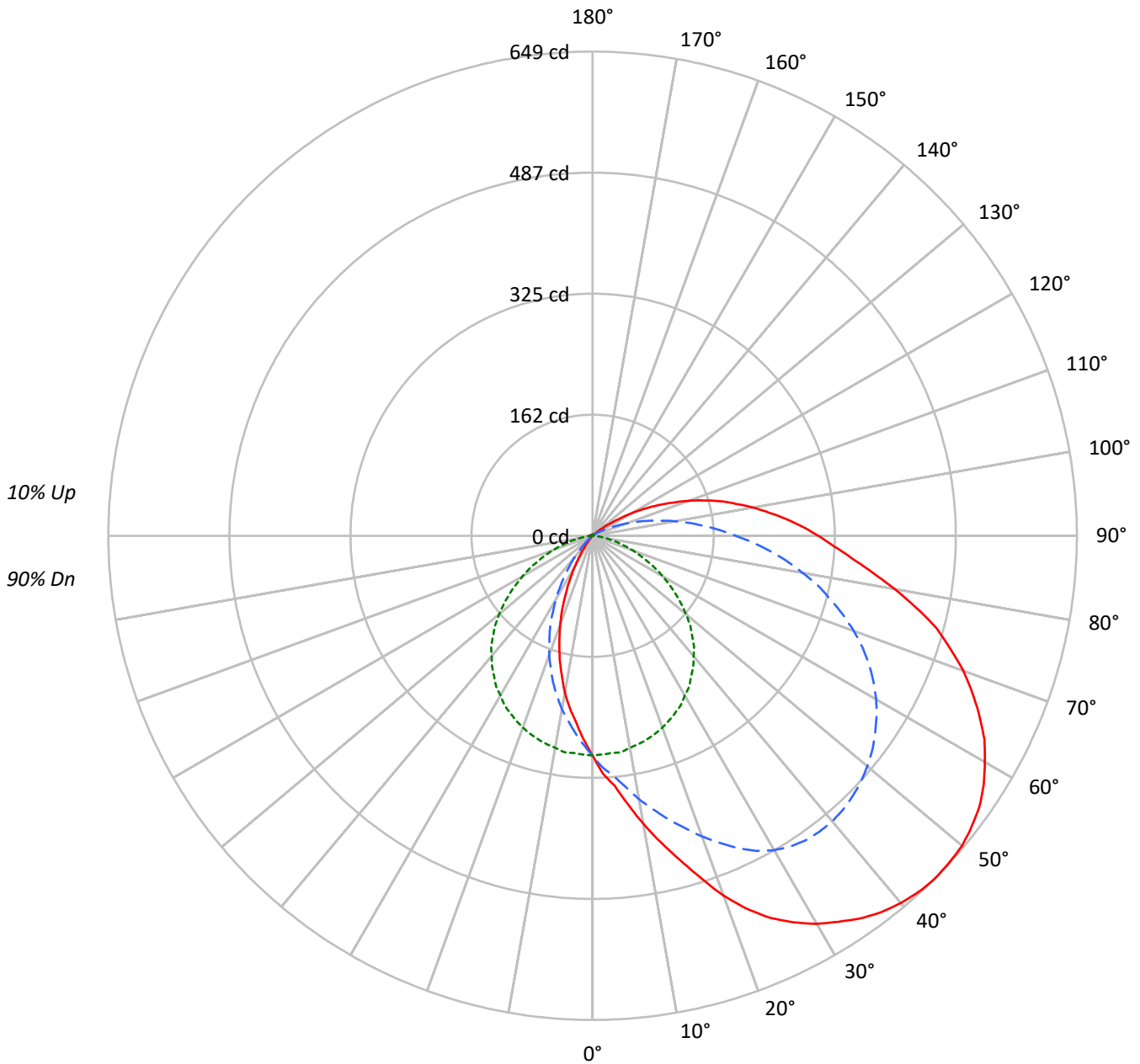
Lumens per Lamp: N/A
Luminaire Lumens: 1456.0 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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

TEST NUMBER: P551020

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-86-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°	3170	3170	3170
5°	3480	3124	2606
10°	3938	3085	2149
15°	4413	3046	1674
20°	4977	2997	1233
25°	5445	2939	809
30°	5794	2862	456
35°	6095	2779	200
40°	6362	2677	49
45°	6590	2548	0
50°	6783	2379	0
55°	6929	2162	0
60°	7003	1913	0
65°	7032	1627	0
70°	7008	1328	0
75°	6919	978	6
80°	6639	599	31
85°	6417	285	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.2	1.9
10°-20°	84.5	5.8
20°-30°	136.8	9.4
30°-40°	175.7	12.1
40°-50°	198.9	13.7
50°-60°	206.1	14.2
60°-70°	194.3	13.3
70°-80°	162.9	11.2
80°-90°	118.1	8.1
90°-100°	77.6	5.3
100°-110°	44.8	3.1
110°-120°	19.8	1.4
120°-130°	5.3	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	249.5	17.1
0°-40°	425.2	29.2
0°-60°	830.2	57.0
0°-90°	1305.5	89.7
90°-120°	142.2	9.8
90°-150°	149.6	10.3
90°-180°	151.0	10.4
0°-180°	1456.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	294	294	294	294	294	
5°	336	323	292	265	252	34
15°	449	394	282	204	170	129
25°	565	462	262	134	84	261
35°	626	498	230	65	21	393
45°	649	493	188	15	0	501
55°	633	462	136	0	0	565
65°	572	409	81	0	0	566
75°	477	330	34	0	0	500
85°	349	239	6	2	2	298
90°	302	192	2	2	3	166
95°	260	150	1	3	3	204
105°	179	78	1	2	3	188
115°	97	26	1	1	2	97
125°	29	4	2	1	2	29
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551020

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-86-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	294.5	294.5	294.5	294.5	294.5	294.5	294.5	294.5	294.5	294.5	294.5
2.5°	319.3	318.9	317.8	315.9	313.3	308.8	305.0	301.6	297.1	293.4	286.3
5°	336.2	334.3	332.8	330.9	324.9	320.8	314.0	306.5	299.4	292.3	278.0
7.5°	363.2	360.2	357.9	352.7	344.4	335.0	324.5	317.4	312.5	292.6	268.3
10°	392.1	389.4	384.9	375.6	365.4	351.9	336.9	320.0	305.0	288.5	259.6
12.5°	420.6	416.8	410.4	398.4	384.2	367.3	346.7	326.8	305.4	285.9	249.5
15°	449.1	445.0	438.2	423.6	404.8	382.7	357.5	332.4	307.3	282.5	239.0
17.5°	480.2	474.6	464.5	448.0	424.3	396.9	367.3	336.9	306.5	278.4	227.7
20°	513.6	505.7	494.9	472.7	445.0	412.7	377.1	341.4	306.1	273.5	215.0
22.5°	541.4	533.5	521.5	498.6	465.2	425.8	385.3	344.4	304.6	267.9	203.0
25°	565.4	559.0	545.9	519.6	484.4	439.7	393.2	346.7	302.4	261.9	190.2
27.5°	584.2	578.1	563.5	536.5	500.5	452.1	399.2	347.8	299.4	255.9	177.1
30°	600.7	594.7	577.0	549.3	511.4	461.8	405.2	348.2	295.6	246.9	162.8
32.5°	613.4	607.8	589.8	560.1	518.9	468.6	408.6	347.8	290.8	240.5	147.4
35°	626.2	620.5	599.5	568.0	524.5	471.6	411.2	345.9	284.8	230.0	132.8
37.5°	635.9	629.5	608.2	573.3	527.1	472.3	410.8	343.3	278.4	221.4	118.2
40°	642.7	635.9	613.0	576.3	527.9	471.2	407.8	338.8	270.9	210.5	102.8
42.5°	647.2	639.7	615.3	580.8	526.4	468.2	403.3	333.2	262.6	201.1	88.2
45°	649.4	641.6	615.7	577.0	523.7	462.6	396.6	326.0	253.6	188.3	73.5
47.5°	648.3	639.7	613.8	572.9	518.9	456.6	389.1	317.4	242.7	177.1	59.7
50°	646.4	637.4	609.7	567.6	512.1	449.1	380.8	306.9	231.5	163.2	47.3
52.5°	640.4	631.4	605.2	560.1	504.2	440.5	369.5	296.0	219.5	149.7	36.0
55°	632.9	624.7	597.3	553.4	494.1	430.0	359.0	284.4	207.8	135.8	25.9
57.5°	621.3	613.8	587.5	542.5	484.0	418.3	347.4	271.6	193.2	121.9	18.0
60°	607.0	599.5	574.0	530.1	472.3	405.2	334.7	258.5	180.1	108.1	11.3
62.5°	592.0	584.9	558.3	514.7	457.7	391.3	320.8	245.4	166.2	95.3	6.8
65°	572.1	565.4	541.4	496.4	441.6	376.3	305.4	229.6	151.9	81.0	3.8
67.5°	551.1	545.1	520.7	479.5	422.8	359.8	289.6	214.2	136.9	68.7	1.9
70°	528.6	521.1	498.6	456.6	403.7	341.0	272.4	198.5	122.7	56.7	0.0
72.5°	502.4	496.7	475.0	435.2	381.6	321.2	254.7	181.2	106.9	45.0	0.4
75°	476.8	469.7	449.8	412.3	359.8	300.1	235.2	165.1	91.5	34.5	0.4
77.5°	443.8	441.6	422.8	386.4	339.2	279.9	213.9	145.6	76.9	24.8	0.4
80°	410.8	408.6	393.9	360.5	315.1	255.9	194.0	127.2	62.7	16.5	0.4
82.5°	378.2	375.2	361.3	333.5	290.8	235.6	173.3	108.8	49.5	10.1	0.4
85°	348.9	345.2	330.2	304.6	265.6	212.7	151.9	90.8	36.8	5.6	0.8
87.5°	323.8	321.2	304.6	278.4	240.1	191.3	133.2	73.5	25.9	2.6	1.1
90°	302.4	296.8	282.1	254.4	216.1	167.7	113.3	58.9	17.3	1.5	1.5
92.5°	281.4	276.5	260.4	231.9	194.7	147.4	94.2	45.0	10.9	0.8	1.9
95°	259.6	254.4	238.6	212.4	173.0	126.8	77.3	33.0	6.0	0.8	1.9
97.5°	238.2	233.4	216.9	190.6	153.4	108.8	61.2	23.3	3.0	0.8	1.5
100°	218.4	212.7	197.7	171.5	133.9	90.8	47.3	15.0	1.9	0.8	1.5
102.5°	197.3	192.8	177.5	151.9	113.7	73.9	35.3	9.4	0.8	0.8	1.1
105°	178.6	173.0	157.9	131.7	96.8	58.2	24.8	5.6	0.8	0.8	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	116.3	111.8	98.7	76.5	49.1	22.9	6.8	1.1	1.1	1.1	1.1
115°	97.2	90.4	78.8	59.3	36.4	15.0	3.4	1.1	1.1	1.1	1.1
117.5°	77.7	72.0	63.8	45.0	24.0	9.8	1.9	1.1	1.1	1.1	1.1
120°	60.8	55.5	46.1	31.1	16.1	5.6	0.8	1.1	1.1	1.1	1.1
122.5°	43.5	39.4	31.1	20.3	9.8	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.9	26.6	20.6	12.4	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.8	16.9	12.0	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.5	9.4	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.6	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	294.5	294.5	294.5
2.5°	280.3	275.0	273.5
5°	265.3	256.6	251.7
7.5°	250.2	238.6	233.0
10°	236.4	219.9	213.9
12.5°	219.9	200.7	191.3
15°	204.1	179.3	170.3
17.5°	186.5	158.7	148.2
20°	170.0	138.1	127.2
22.5°	151.2	117.8	105.8
25°	134.3	97.5	84.0
27.5°	115.6	76.9	65.3
30°	97.9	58.9	47.3
32.5°	81.0	43.1	32.6
35°	65.3	29.3	20.6
37.5°	50.3	18.0	10.5
40°	36.4	9.4	4.9
42.5°	24.4	4.5	2.6
45°	15.0	2.3	0.0
47.5°	8.6	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.6
90°	2.3	2.6	2.6
92.5°	2.3	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.6	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	157.6	153.1	138.1	113.3	79.2	44.3	16.5	3.0	0.8	1.1	1.1
110°	137.3	133.6	118.2	94.2	63.8	33.0	10.9	1.9	1.1	1.1	1.1





107.5°	1.5	2.3	2.6
110°	1.5	1.9	2.3



(END OF REPORT)