

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: P550634

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-81-85-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: P550634
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-81-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

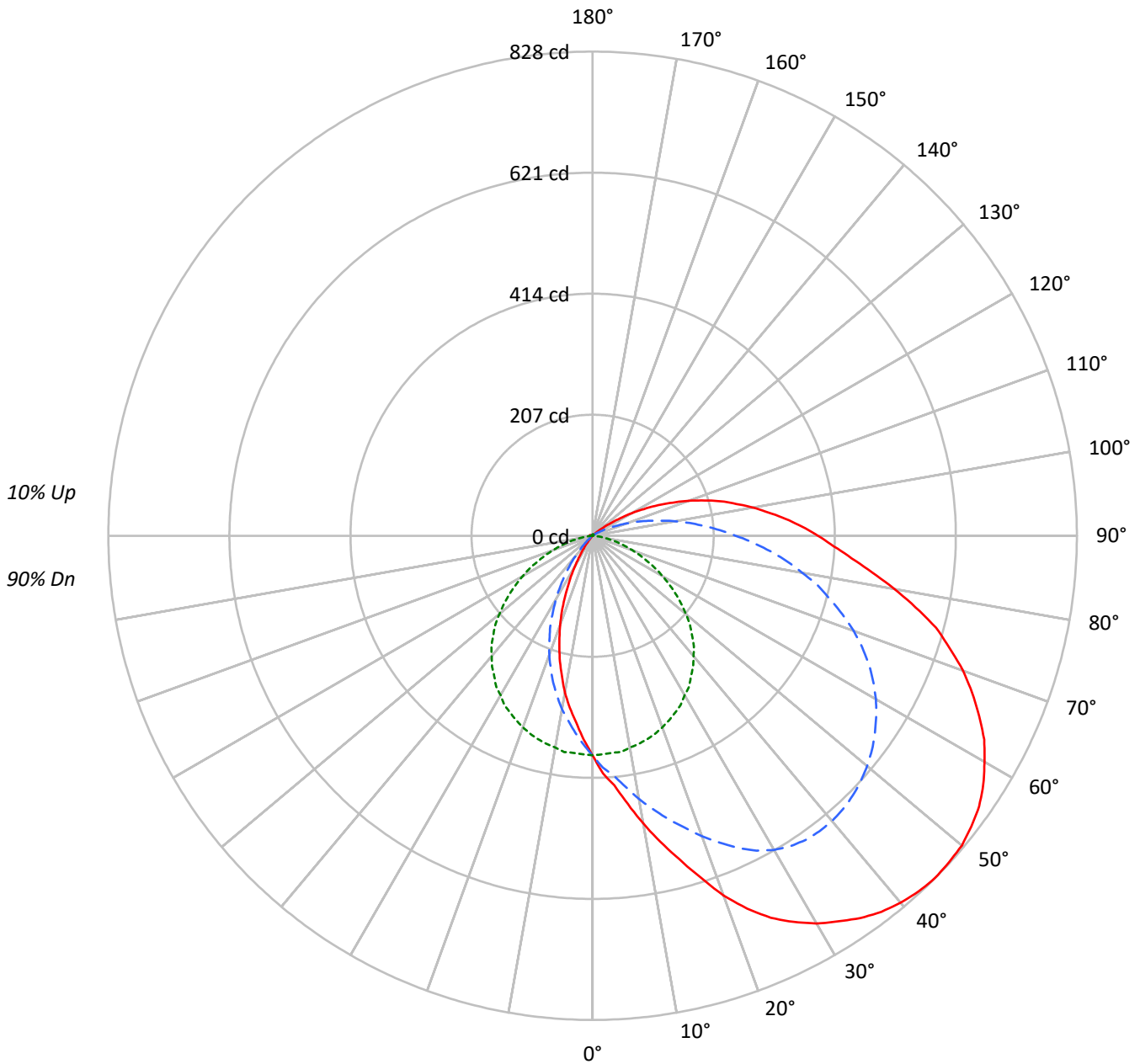
Lumens per Lamp: N/A
Luminaire Lumens: 1856.0 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-85-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°	4041	4041	4041
5°	4436	3982	3322
10°	5020	3933	2738
15°	5626	3883	2133
20°	6345	3819	1571
25°	6941	3746	1031
30°	7385	3648	582
35°	7769	3543	256
40°	8109	3412	61
45°	8401	3249	0
50°	8646	3032	0
55°	8833	2756	0
60°	8927	2437	0
65°	8964	2075	0
70°	8935	1691	0
75°	8821	1248	7
80°	8463	762	39
85°	8181	366	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.0	1.9
10°-20°	107.7	5.8
20°-30°	174.4	9.4
30°-40°	224.0	12.1
40°-50°	253.5	13.7
50°-60°	262.7	14.2
60°-70°	247.7	13.3
70°-80°	207.6	11.2
80°-90°	150.5	8.1
90°-100°	98.9	5.3
100°-110°	57.1	3.1
110°-120°	25.2	1.4
120°-130°	6.8	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	318.0	17.1
0°-40°	542.0	29.2
0°-60°	1058.2	57.0
0°-90°	1664.1	89.7
90°-120°	181.2	9.8
90°-150°	190.6	10.3
90°-180°	192.0	10.3
0°-180°	1856.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	375	375	375	375	375	
5°	428	412	373	338	321	43
15°	572	502	360	260	217	165
25°	721	589	334	171	107	333
35°	798	635	293	83	26	501
45°	828	629	240	19	0	639
55°	807	589	173	0	0	720
65°	729	521	103	0	0	722
75°	608	421	44	0	0	638
85°	445	305	7	2	3	380
90°	386	245	2	3	3	211
95°	331	191	1	3	4	260
105°	228	99	1	2	4	240
115°	124	33	1	1	2	124
125°	37	5	2	1	2	37
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	375.4	375.4	375.4	375.4	375.4	375.4	375.4	375.4	375.4	375.4	375.4
2.5°	407.0	406.5	405.1	402.7	399.3	393.6	388.8	384.5	378.8	374.0	364.9
5°	428.5	426.1	424.2	421.8	414.2	408.9	400.3	390.7	381.6	372.6	354.4
7.5°	462.9	459.1	456.2	449.6	439.0	427.1	413.7	404.6	398.4	373.0	341.9
10°	499.8	496.4	490.7	478.7	465.8	448.6	429.5	407.9	388.8	367.8	330.9
12.5°	536.1	531.3	523.2	507.9	489.7	468.2	441.9	416.6	389.3	364.4	318.0
15°	572.5	567.2	558.6	539.9	516.0	487.8	455.8	423.7	391.7	360.1	304.6
17.5°	612.2	605.0	592.1	571.0	540.9	506.0	468.2	429.5	390.7	354.9	290.3
20°	654.7	644.7	630.8	602.6	567.2	526.1	480.6	435.2	390.2	348.6	274.0
22.5°	690.1	680.1	664.8	635.6	593.0	542.8	491.2	439.0	388.3	341.5	258.7
25°	720.7	712.6	695.9	662.4	617.4	560.5	501.2	441.9	385.5	333.8	242.5
27.5°	744.6	737.0	718.3	683.9	638.0	576.3	508.9	443.3	381.6	326.2	225.7
30°	765.7	758.0	735.5	700.2	651.9	588.7	516.5	443.8	376.9	314.7	207.6
32.5°	781.9	774.8	751.8	714.0	661.4	597.3	520.8	443.3	370.6	306.6	188.0
35°	798.2	791.0	764.2	724.1	668.6	601.2	524.2	440.9	363.0	293.2	169.3
37.5°	810.6	802.5	775.2	730.8	671.9	602.1	523.7	437.6	354.9	282.2	150.6
40°	819.2	810.6	781.5	734.6	672.9	600.7	519.9	431.9	345.3	268.3	131.0
42.5°	825.0	815.4	784.3	740.3	671.0	596.9	514.1	424.7	334.8	256.3	112.4
45°	827.8	817.8	784.8	735.5	667.6	589.7	505.5	415.6	323.3	240.1	93.7
47.5°	826.4	815.4	782.4	730.3	661.4	582.0	495.9	404.6	309.4	225.7	76.0
50°	824.0	812.5	777.2	723.6	652.8	572.5	485.4	391.2	295.1	208.0	60.3
52.5°	816.4	804.9	771.4	714.0	642.8	561.5	471.1	377.3	279.8	190.8	45.9
55°	806.8	796.3	761.4	705.4	629.9	548.1	457.7	362.5	264.9	173.1	33.0
57.5°	792.0	782.4	748.9	691.5	616.9	533.2	442.9	346.3	246.3	155.4	23.0
60°	773.8	764.2	731.7	675.8	602.1	516.5	426.6	329.5	229.6	137.7	14.3
62.5°	754.7	745.6	711.6	656.2	583.5	498.8	408.9	312.8	211.9	121.5	8.6
65°	729.3	720.7	690.1	632.7	562.9	479.7	389.3	292.7	193.7	103.3	4.8
67.5°	702.5	694.9	663.8	611.2	539.0	458.6	369.2	273.1	174.6	87.5	2.4
70°	673.9	664.3	635.6	582.0	514.6	434.7	347.2	253.0	156.4	72.2	0.0
72.5°	640.4	633.2	605.5	554.8	486.4	409.4	324.7	231.0	136.3	57.4	0.5
75°	607.9	598.8	573.4	525.6	458.6	382.6	299.9	210.4	116.7	44.0	0.5
77.5°	565.8	562.9	539.0	492.6	432.3	356.8	272.6	185.6	98.0	31.6	0.5
80°	523.7	520.8	502.2	459.6	401.7	326.2	247.3	162.1	79.9	21.0	0.5
82.5°	482.1	478.2	460.6	425.2	370.6	300.3	221.0	138.7	63.1	12.9	0.5
85°	444.8	440.0	420.9	388.3	338.6	271.2	193.7	115.7	46.9	7.2	1.0
87.5°	412.7	409.4	388.3	354.9	306.1	243.9	169.8	93.7	33.0	3.3	1.4
90°	385.5	378.3	359.6	324.3	275.5	213.8	144.4	75.1	22.0	1.9	1.9
92.5°	358.7	352.5	331.9	295.6	248.2	188.0	120.0	57.4	13.9	1.0	2.4
95°	330.9	324.3	304.2	270.7	220.5	161.6	98.5	42.1	7.7	1.0	2.4
97.5°	303.7	297.5	276.4	242.9	195.6	138.7	78.0	29.7	3.8	1.0	1.9
100°	278.3	271.2	252.0	218.6	170.7	115.7	60.3	19.1	2.4	1.0	1.9
102.5°	251.6	245.8	226.2	193.7	144.9	94.2	45.0	12.0	1.0	1.0	1.4
105°	227.6	220.5	201.3	167.9	123.4	74.1	31.6	7.2	1.0	1.0	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	148.3	142.5	125.8	97.6	62.7	29.2	8.6	1.4	1.4	1.4	1.4
115°	123.9	115.3	100.4	75.6	46.4	19.1	4.3	1.4	1.4	1.4	1.4
117.5°	99.0	91.8	81.3	57.4	30.6	12.4	2.4	1.4	1.4	1.4	1.4
120°	77.5	70.8	58.8	39.7	20.6	7.2	1.0	1.4	1.4	1.4	1.4
122.5°	55.5	50.2	39.7	25.8	12.4	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.8	34.0	26.3	15.8	7.7	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.9	21.5	15.3	9.1	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.4	12.0	9.1	5.3	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.7	7.2	4.8	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	375.4	375.4	375.4
2.5°	357.3	350.6	348.6
5°	338.1	327.1	320.9
7.5°	319.0	304.2	297.0
10°	301.3	280.3	272.6
12.5°	280.3	255.9	243.9
15°	260.2	228.6	217.1
17.5°	237.7	202.3	188.9
20°	216.6	176.0	162.1
22.5°	192.7	150.2	134.9
25°	171.2	124.3	107.1
27.5°	147.3	98.0	83.2
30°	124.8	75.1	60.3
32.5°	103.3	55.0	41.6
35°	83.2	37.3	26.3
37.5°	64.1	23.0	13.4
40°	46.4	12.0	6.2
42.5°	31.1	5.7	3.3
45°	19.1	2.9	0.0
47.5°	11.0	0.0	0.0
50°	5.7	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	1.4
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.3
90°	2.9	3.3	3.3
92.5°	2.9	3.8	3.8
95°	3.3	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.3	4.3	4.8
102.5°	2.9	4.3	4.3
105°	2.4	3.3	3.8



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	1.0
152.5°	1.4	1.0	1.0
155°	1.4	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.4	1.0	0.5
162.5°	1.4	1.0	0.5
165°	1.4	1.0	0.0
167.5°	1.4	1.0	0.5
170°	1.4	1.0	0.5
172.5°	1.4	1.0	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	200.9	195.1	176.0	144.4	100.9	56.4	21.0	3.8	1.0	1.4	1.4
110°	175.0	170.3	150.6	120.0	81.3	42.1	13.9	2.4	1.4	1.4	1.4





107.5°	1.9	2.9	3.3
110°	1.9	2.4	2.9



(END OF REPORT)