

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: P550564

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-80-96-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: P550564
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-80-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

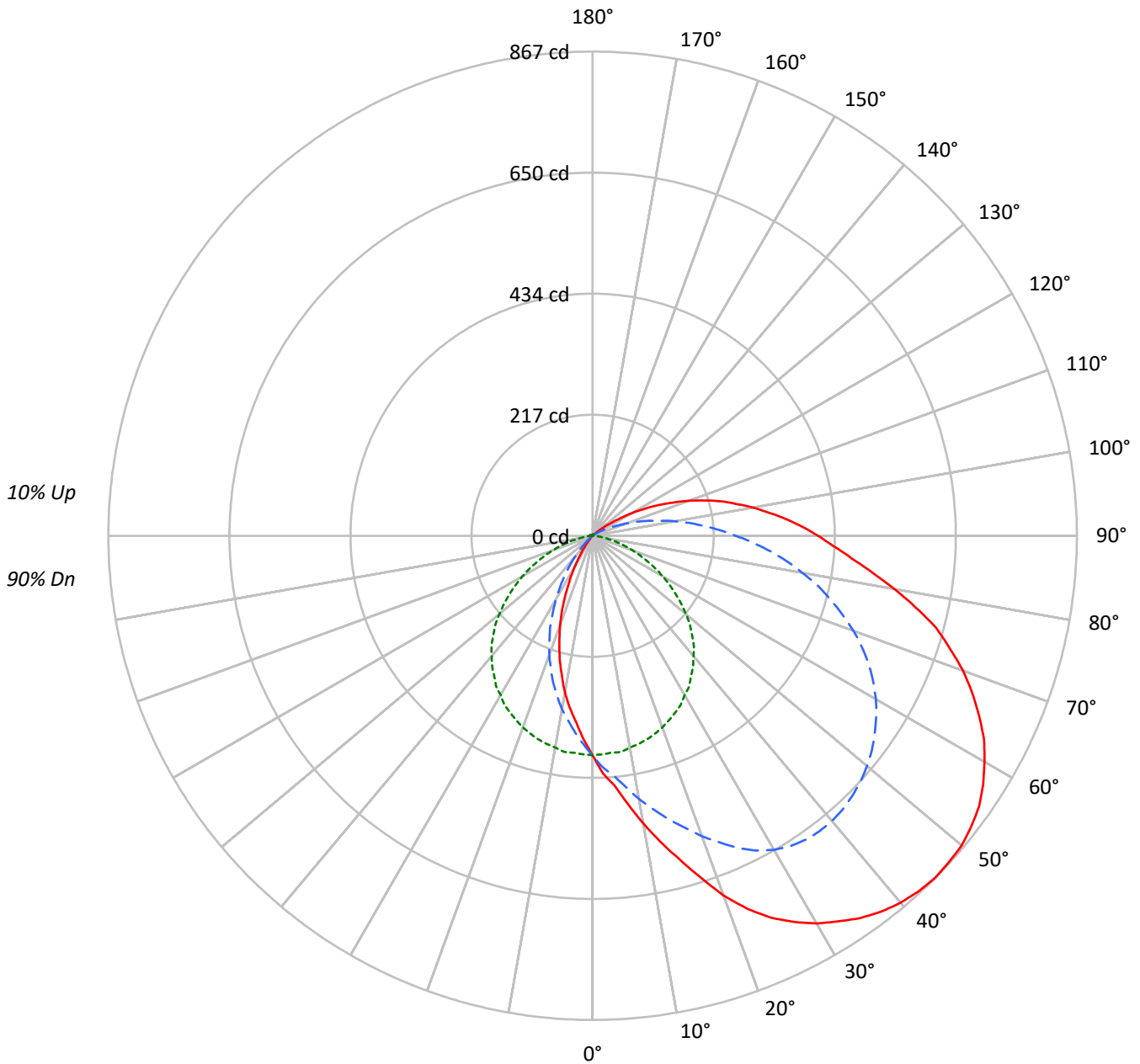
Lumens per Lamp: N/A
Luminaire Lumens: 1943.0 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-40-UNV-80-96-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°	4230	4230	4230
5°	4644	4168	3477
10°	5255	4117	2867
15°	5889	4065	2234
20°	6642	3999	1645
25°	7267	3922	1080
30°	7731	3819	609
35°	8133	3708	268
40°	8489	3572	64
45°	8796	3400	0
50°	9051	3174	0
55°	9247	2885	0
60°	9346	2552	0
65°	9384	2171	0
70°	9352	1771	0
75°	9233	1307	7
80°	8859	798	40
85°	8563	381	55



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.6	1.9
10°-20°	112.7	5.8
20°-30°	182.5	9.4
30°-40°	234.5	12.1
40°-50°	265.4	13.7
50°-60°	275.0	14.2
60°-70°	259.3	13.3
70°-80°	217.3	11.2
80°-90°	157.5	8.1
90°-100°	103.5	5.3
100°-110°	59.8	3.1
110°-120°	26.4	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°	332.9	17.1
0°-40°	567.4	29.2
0°-60°	1107.8	57.0
0°-90°	1742.0	89.7
90°-120°	189.7	9.8
90°-150°	199.6	10.3
90°-180°	201.0	10.3
0°-180°	1943.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	393	393	393	393	393	
5°	449	431	390	354	336	45
15°	599	525	377	272	227	173
25°	754	617	350	179	112	349
35°	836	665	307	87	28	524
45°	867	658	251	20	0	669
55°	845	617	181	0	0	754
65°	764	546	108	0	0	755
75°	636	440	46	0	0	667
85°	466	319	8	2	3	398
90°	404	256	2	3	4	221
95°	346	200	1	4	4	272
105°	238	103	1	2	4	251
115°	130	34	2	2	2	130
125°	39	5	2	2	2	39
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°	393.0	393.0	393.0	393.0	393.0	393.0	393.0	393.0	393.0	393.0	393.0
2.5°	426.1	425.6	424.1	421.6	418.1	412.0	407.0	402.5	396.5	391.5	382.0
5°	448.6	446.1	444.1	441.6	433.6	428.1	419.1	409.0	399.5	390.0	371.0
7.5°	484.6	480.6	477.6	470.6	459.6	447.1	433.1	423.6	417.1	390.5	358.0
10°	523.2	519.7	513.7	501.2	487.6	469.6	449.6	427.1	407.0	385.0	346.5
12.5°	561.2	556.2	547.7	531.7	512.7	490.2	462.6	436.1	407.5	381.5	332.9
15°	599.3	593.8	584.8	565.3	540.2	510.7	477.1	443.6	410.0	377.0	318.9
17.5°	640.9	633.3	619.8	597.8	566.3	529.7	490.2	449.6	409.0	371.5	303.9
20°	685.4	674.9	660.4	630.8	593.8	550.7	503.2	455.6	408.5	365.0	286.9
22.5°	722.5	711.9	695.9	665.4	620.8	568.3	514.2	459.6	406.5	357.5	270.9
25°	754.5	746.0	728.5	693.4	646.4	586.8	524.7	462.6	403.5	349.5	253.8
27.5°	779.5	771.5	752.0	716.0	667.9	603.3	532.7	464.1	399.5	341.5	236.3
30°	801.6	793.6	770.0	733.0	682.4	616.3	540.7	464.6	394.5	329.4	217.3
32.5°	818.6	811.1	787.0	747.5	692.4	625.3	545.2	464.1	388.0	320.9	196.8
35°	835.6	828.1	800.1	758.0	699.9	629.3	548.7	461.6	380.0	306.9	177.2
37.5°	848.6	840.1	811.6	765.0	703.4	630.3	548.2	458.1	371.5	295.4	157.7
40°	857.6	848.6	818.1	769.0	704.4	628.8	544.2	452.1	361.5	280.9	137.2
42.5°	863.6	853.6	821.1	775.0	702.4	624.8	538.2	444.6	350.5	268.4	117.7
45°	866.7	856.1	821.6	770.0	698.9	617.3	529.2	435.1	338.4	251.3	98.1
47.5°	865.1	853.6	819.1	764.5	692.4	609.3	519.2	423.6	323.9	236.3	79.6
50°	862.6	850.6	813.6	757.5	683.4	599.3	508.2	409.5	308.9	217.8	63.1
52.5°	854.6	842.6	807.6	747.5	672.9	587.8	493.2	395.0	292.9	199.8	48.1
55°	844.6	833.6	797.1	738.5	659.4	573.8	479.1	379.5	277.4	181.2	34.5
57.5°	829.1	819.1	784.0	724.0	645.9	558.2	463.6	362.5	257.8	162.7	24.0
60°	810.1	800.1	766.0	707.4	630.3	540.7	446.6	345.0	240.3	144.2	15.0
62.5°	790.0	780.5	745.0	686.9	610.8	522.2	428.1	327.4	221.8	127.2	9.0
65°	763.5	754.5	722.5	662.4	589.3	502.2	407.5	306.4	202.8	108.1	5.0
67.5°	735.5	727.5	694.9	639.9	564.2	480.1	386.5	285.9	182.7	91.6	2.5
70°	705.4	695.4	665.4	609.3	538.7	455.1	363.5	264.9	163.7	75.6	0.0
72.5°	670.4	662.9	633.8	580.8	509.2	428.6	340.0	241.8	142.7	60.1	0.5
75°	636.3	626.8	600.3	550.2	480.1	400.5	313.9	220.3	122.2	46.1	0.5
77.5°	592.3	589.3	564.2	515.7	452.6	373.5	285.4	194.3	102.6	33.0	0.5
80°	548.2	545.2	525.7	481.1	420.6	341.5	258.8	169.7	83.6	22.0	0.5
82.5°	504.7	500.7	482.1	445.1	388.0	314.4	231.3	145.2	66.1	13.5	0.5
85°	465.6	460.6	440.6	406.5	354.5	283.9	202.8	121.2	49.1	7.5	1.0
87.5°	432.1	428.6	406.5	371.5	320.4	255.3	177.7	98.1	34.5	3.5	1.5
90°	403.5	396.0	376.5	339.5	288.4	223.8	151.2	78.6	23.0	2.0	2.0
92.5°	375.5	369.0	347.5	309.4	259.8	196.8	125.7	60.1	14.5	1.0	2.5
95°	346.5	339.5	318.4	283.4	230.8	169.2	103.1	44.1	8.0	1.0	2.5
97.5°	317.9	311.4	289.4	254.3	204.8	145.2	81.6	31.0	4.0	1.0	2.0
100°	291.4	283.9	263.9	228.8	178.7	121.2	63.1	20.0	2.5	1.0	2.0
102.5°	263.3	257.3	236.8	202.8	151.7	98.6	47.1	12.5	1.0	1.0	1.5
105°	238.3	230.8	210.8	175.7	129.2	77.6	33.0	7.5	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-80-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	155.2	149.2	131.7	102.1	65.6	30.5	9.0	1.5	1.5	1.5	1.5
115°	129.7	120.7	105.1	79.1	48.6	20.0	4.5	1.5	1.5	1.5	1.5
117.5°	103.6	96.1	85.1	60.1	32.0	13.0	2.5	1.5	1.5	1.5	1.5
120°	81.1	74.1	61.6	41.6	21.5	7.5	1.0	1.5	1.5	1.5	1.5
122.5°	58.1	52.6	41.6	27.0	13.0	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.6	35.5	27.5	16.5	8.0	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.0	22.5	16.0	9.5	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.0	12.5	9.5	5.5	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.0	7.5	5.0	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°	393.0	393.0	393.0
2.5°	374.0	367.0	365.0
5°	354.0	342.5	335.9
7.5°	333.9	318.4	310.9
10°	315.4	293.4	285.4
12.5°	293.4	267.9	255.3
15°	272.4	239.3	227.3
17.5°	248.8	211.8	197.8
20°	226.8	184.2	169.7
22.5°	201.8	157.2	141.2
25°	179.2	130.2	112.1
27.5°	154.2	102.6	87.1
30°	130.7	78.6	63.1
32.5°	108.1	57.6	43.6
35°	87.1	39.1	27.5
37.5°	67.1	24.0	14.0
40°	48.6	12.5	6.5
42.5°	32.5	6.0	3.5
45°	20.0	3.0	0.0
47.5°	11.5	0.0	0.0
50°	6.0	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	5.0
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-80-96-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°	210.3	204.3	184.2	151.2	105.6	59.1	22.0	4.0	1.0	1.5	1.5
110°	183.2	178.2	157.7	125.7	85.1	44.1	14.5	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)