

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: P551634

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-93-94-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: P551634
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-LD4-2LO-40-UNV-93-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

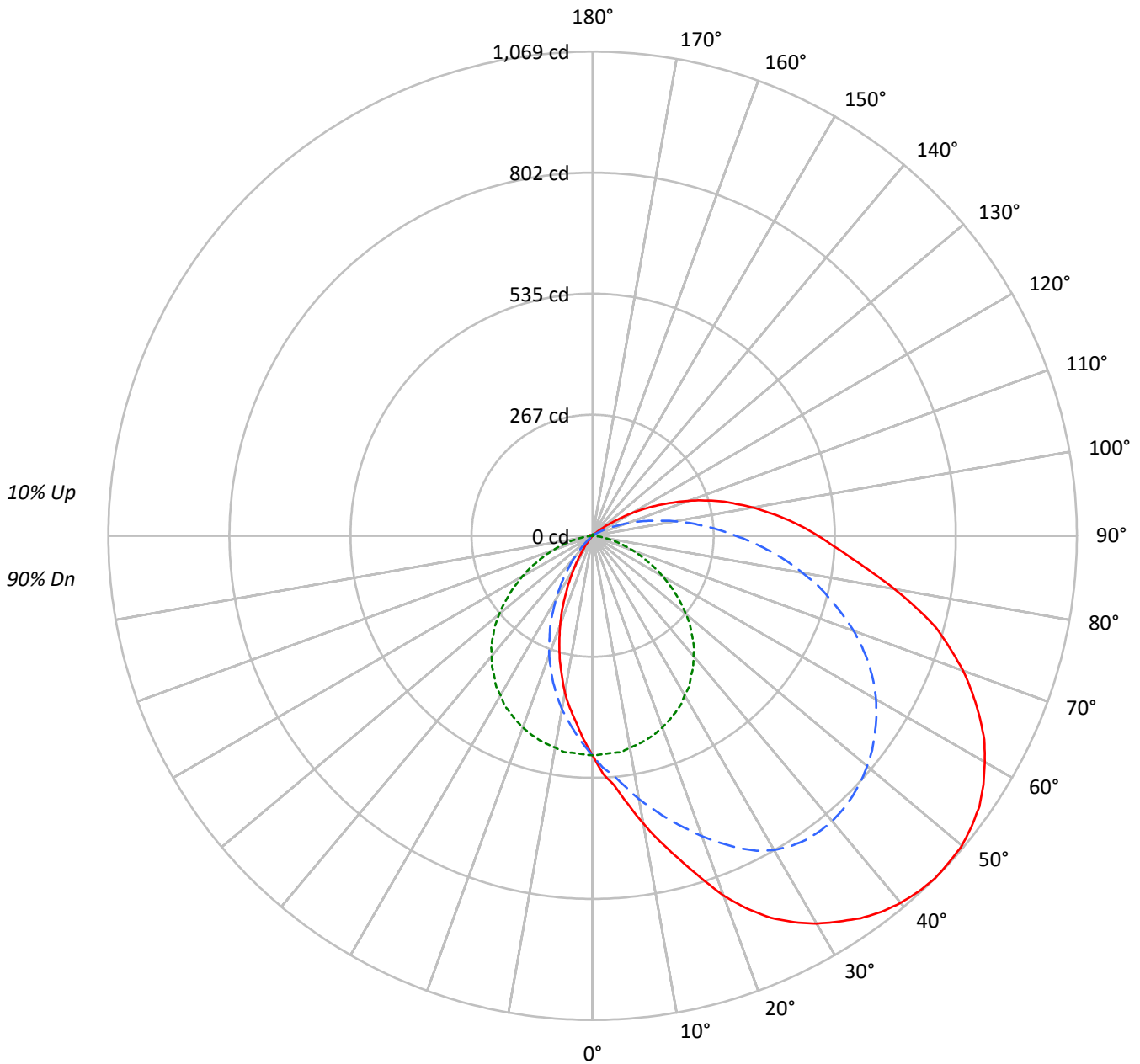
Lumens per Lamp: N/A
Luminaire Lumens: 2397.1 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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: P551634

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-94-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°	5219	5219	5219
5°	5729	5142	4290
10°	6483	5080	3537
15°	7265	5015	2756
20°	8195	4934	2029
25°	8965	4838	1333
30°	9538	4711	750
35°	10034	4575	331
40°	10473	4407	79
45°	10851	4196	0
50°	11167	3916	0
55°	11408	3561	0
60°	11530	3148	0
65°	11577	2679	0
70°	11539	2186	0
75°	11391	1611	9
80°	10930	987	50
85°	10564	473	68



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.4	1.9
10°-20°	139.1	5.8
20°-30°	225.2	9.4
30°-40°	289.3	12.1
40°-50°	327.5	13.7
50°-60°	339.2	14.2
60°-70°	320.0	13.3
70°-80°	268.1	11.2
80°-90°	194.4	8.1
90°-100°	127.7	5.3
100°-110°	73.8	3.1
110°-120°	32.6	1.4
120°-130°	8.8	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	410.7	17.1
0°-40°	700.0	29.2
0°-60°	1366.7	57.0
0°-90°	2149.1	89.7
90°-120°	234.1	9.8
90°-150°	246.3	10.3
90°-180°	248.0	10.3
0°-180°	2397.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	485	485	485	485	485	
5°	553	532	481	437	414	56
15°	739	648	465	336	280	213
25°	931	761	431	221	138	430
35°	1031	820	379	108	34	647
45°	1069	812	310	25	0	825
55°	1042	761	224	0	0	930
65°	942	673	133	0	0	932
75°	785	543	57	1	1	823
85°	574	394	9	2	4	491
90°	498	316	2	4	4	273
95°	427	247	1	4	6	335
105°	294	128	1	3	5	310
115°	160	42	2	2	3	160
125°	48	6	2	2	2	48
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	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°	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9
2.5°	525.6	525.0	523.1	520.1	515.7	508.3	502.1	496.6	489.2	483.0	471.3
5°	553.4	550.3	547.9	544.8	534.9	528.1	517.0	504.6	492.9	481.1	457.7
7.5°	597.9	592.9	589.2	580.6	567.0	551.6	534.3	522.5	514.5	481.8	441.6
10°	645.4	641.1	633.7	618.3	601.6	579.4	554.7	526.9	502.1	475.0	427.4
12.5°	692.4	686.2	675.7	655.9	632.5	604.7	570.7	538.0	502.8	470.6	410.7
15°	739.3	732.5	721.4	697.3	666.4	630.0	588.6	547.2	505.9	465.1	393.4
17.5°	790.6	781.3	764.7	737.5	698.6	653.5	604.7	554.7	504.6	458.3	374.9
20°	845.6	832.6	814.7	778.2	732.5	679.4	620.7	562.1	504.0	450.3	353.9
22.5°	891.3	878.3	858.5	820.9	765.9	701.0	634.3	567.0	501.5	441.0	334.1
25°	930.8	920.3	898.7	855.4	797.4	723.9	647.3	570.7	497.8	431.1	313.1
27.5°	961.7	951.8	927.7	883.2	823.9	744.3	657.2	572.6	492.9	421.2	291.5
30°	988.9	979.0	949.9	904.2	841.9	760.3	667.1	573.2	486.7	406.4	268.1
32.5°	1009.9	1000.6	970.9	922.2	854.2	771.4	672.6	572.6	478.7	395.9	242.7
35°	1030.9	1021.6	987.0	935.1	863.5	776.4	676.9	569.5	468.8	378.6	218.6
37.5°	1046.9	1036.4	1001.2	943.8	867.8	777.6	676.3	565.2	458.3	364.4	194.6
40°	1058.0	1046.9	1009.2	948.7	869.0	775.8	671.4	557.7	445.9	346.5	169.2
42.5°	1065.4	1053.1	1012.9	956.1	866.6	770.8	664.0	548.5	432.4	331.1	145.1
45°	1069.2	1056.2	1013.6	949.9	862.2	761.6	652.9	536.7	417.5	310.1	121.1
47.5°	1067.3	1053.1	1010.5	943.2	854.2	751.7	640.5	522.5	399.6	291.5	98.2
50°	1064.2	1049.4	1003.7	934.5	843.1	739.3	626.9	505.2	381.1	268.7	77.8
52.5°	1054.3	1039.5	996.3	922.2	830.1	725.1	608.4	487.3	361.3	246.4	59.3
55°	1042.0	1028.4	983.3	911.0	813.4	707.8	591.1	468.2	342.2	223.6	42.6
57.5°	1022.8	1010.5	967.2	893.1	796.8	688.7	571.9	447.2	318.1	200.7	29.6
60°	999.4	987.0	945.0	872.7	777.6	667.1	550.9	425.6	296.5	177.9	18.5
62.5°	974.7	962.9	919.1	847.4	753.5	644.2	528.1	403.9	273.6	156.9	11.1
65°	941.9	930.8	891.3	817.2	727.0	619.5	502.8	378.0	250.1	133.4	6.2
67.5°	907.3	897.4	857.3	789.4	696.1	592.3	476.8	352.7	225.4	113.0	3.1
70°	870.3	857.9	820.9	751.7	664.6	561.4	448.4	326.7	202.0	93.3	0.0
72.5°	827.0	817.8	781.9	716.5	628.2	528.7	419.4	298.3	176.0	74.1	0.6
75°	785.0	773.3	740.6	678.8	592.3	494.1	387.3	271.8	150.7	56.8	0.6
77.5°	730.7	727.0	696.1	636.2	558.4	460.8	352.1	239.6	126.6	40.8	0.6
80°	676.3	672.6	648.5	593.6	518.8	421.2	319.3	209.4	103.1	27.2	0.6
82.5°	622.6	617.7	594.8	549.1	478.7	387.9	285.4	179.1	81.5	16.7	0.6
85°	574.4	568.2	543.5	501.5	437.3	350.2	250.1	149.5	60.5	9.3	1.2
87.5°	533.0	528.7	501.5	458.3	395.3	315.0	219.3	121.1	42.6	4.3	1.9
90°	497.8	488.6	464.5	418.8	355.8	276.1	186.5	97.0	28.4	2.5	2.5
92.5°	463.2	455.2	428.6	381.7	320.6	242.7	155.0	74.1	17.9	1.2	3.1
95°	427.4	418.8	392.8	349.6	284.7	208.8	127.2	54.4	9.9	1.2	3.1
97.5°	392.2	384.2	357.0	313.8	252.6	179.1	100.7	38.3	4.9	1.2	2.5
100°	359.5	350.2	325.5	282.3	220.5	149.5	77.8	24.7	3.1	1.2	2.5
102.5°	324.9	317.5	292.1	250.1	187.1	121.7	58.1	15.4	1.2	1.2	1.9
105°	294.0	284.7	260.0	216.8	159.4	95.7	40.8	9.3	1.2	1.2	1.9



TEST NUMBER: P551634

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	191.5	184.1	162.4	126.0	80.9	37.7	11.1	1.9	1.9	1.9	1.9
115°	160.0	148.9	129.7	97.6	59.9	24.7	5.6	1.9	1.9	1.9	1.9
117.5°	127.9	118.6	105.0	74.1	39.5	16.1	3.1	1.9	1.9	1.9	1.9
120°	100.1	91.4	76.0	51.3	26.6	9.3	1.2	1.9	1.9	1.9	1.9
122.5°	71.6	64.9	51.3	33.4	16.1	4.3	1.9	1.9	2.5	2.5	1.9
125°	47.6	43.9	34.0	20.4	9.9	1.9	1.9	1.9	2.5	2.5	1.9
127.5°	30.9	27.8	19.8	11.7	4.3	1.9	1.9	2.5	2.5	2.5	1.9
130°	17.3	15.4	11.7	6.8	1.9	1.9	1.9	2.5	2.5	2.5	1.9
132.5°	9.9	9.3	6.2	1.2	1.9	1.9	1.9	2.5	2.5	2.5	2.5
135°	2.5	1.2	1.2	1.2	1.9	1.9	2.5	2.5	3.1	3.1	2.5
137.5°	0.6	0.6	1.2	1.2	1.9	1.9	2.5	3.1	3.1	3.1	2.5
140°	0.6	0.6	1.2	1.9	1.9	1.9	2.5	3.1	3.1	3.1	2.5
142.5°	0.6	1.2	1.2	1.9	1.9	2.5	2.5	3.1	3.1	2.5	2.5
145°	0.6	1.2	1.2	1.9	1.9	2.5	2.5	3.1	2.5	2.5	2.5
147.5°	1.2	1.2	1.2	1.9	1.9	2.5	2.5	3.1	3.1	2.5	2.5
150°	0.6	1.2	1.2	1.9	2.5	2.5	2.5	3.1	2.5	2.5	2.5
152.5°	0.6	1.2	1.2	1.9	2.5	2.5	2.5	3.1	2.5	2.5	2.5
155°	1.2	1.2	1.2	1.9	2.5	2.5	2.5	3.1	2.5	2.5	3.1
157.5°	1.2	1.2	1.2	1.9	2.5	2.5	2.5	3.1	2.5	2.5	3.1
160°	1.2	1.2	1.2	1.9	1.9	2.5	2.5	2.5	2.5	2.5	2.5
162.5°	1.2	1.2	1.2	1.9	1.9	2.5	2.5	2.5	2.5	2.5	2.5
165°	1.2	1.2	1.2	1.2	1.9	1.9	2.5	2.5	2.5	2.5	2.5
167.5°	1.2	1.2	1.2	1.9	1.9	1.9	2.5	2.5	2.5	2.5	2.5
170°	1.2	1.2	1.2	1.9	1.9	1.9	2.5	3.1	3.1	3.1	3.1
172.5°	1.2	1.2	1.2	1.9	1.9	2.5	2.5	3.1	3.1	3.1	3.1
175°	1.2	1.2	1.2	1.9	1.9	2.5	2.5	3.1	3.1	3.1	3.1
177.5°	0.6	1.2	1.2	1.9	1.9	2.5	2.5	3.1	3.1	3.1	2.5
180°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9



TEST NUMBER: P551634

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	484.9	484.9	484.9
2.5°	461.4	452.7	450.3
5°	436.7	422.5	414.4
7.5°	412.0	392.8	383.6
10°	389.1	361.9	352.1
12.5°	361.9	330.4	315.0
15°	336.0	295.2	280.4
17.5°	307.0	261.3	244.0
20°	279.8	227.3	209.4
22.5°	248.9	193.9	174.2
25°	221.1	160.6	138.4
27.5°	190.2	126.6	107.5
30°	161.2	97.0	77.8
32.5°	133.4	71.0	53.7
35°	107.5	48.2	34.0
37.5°	82.8	29.6	17.3
40°	59.9	15.4	8.0
42.5°	40.1	7.4	4.3
45°	24.7	3.7	0.0
47.5°	14.2	0.0	0.0
50°	7.4	0.0	0.0
52.5°	3.1	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.9
80°	1.2	2.5	3.1
82.5°	2.5	3.1	3.1
85°	2.5	3.1	3.7
87.5°	3.1	3.7	4.3
90°	3.7	4.3	4.3
92.5°	3.7	4.9	4.9
95°	4.3	4.9	5.6
97.5°	4.9	5.6	5.6
100°	4.3	5.6	6.2
102.5°	3.7	5.6	5.6
105°	3.1	4.3	4.9



TEST NUMBER: P551634

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.5	3.1	3.1
115°	1.9	2.5	3.1
117.5°	1.9	2.5	2.5
120°	1.9	1.9	2.5
122.5°	1.9	1.9	2.5
125°	1.9	1.9	2.5
127.5°	2.5	1.9	1.9
130°	1.9	1.9	1.9
132.5°	2.5	1.9	1.9
135°	2.5	1.9	1.9
137.5°	2.5	1.9	1.9
140°	2.5	1.9	1.9
142.5°	2.5	1.9	1.9
145°	1.9	1.9	1.9
147.5°	1.9	1.9	1.9
150°	1.9	1.9	1.2
152.5°	1.9	1.2	1.2
155°	1.9	1.2	0.6
157.5°	2.5	1.2	0.6
160°	1.9	1.2	0.6
162.5°	1.9	1.2	0.6
165°	1.9	1.2	0.0
167.5°	1.9	1.2	0.6
170°	1.9	1.2	0.6
172.5°	1.9	1.2	0.6
175°	1.9	0.6	0.6
177.5°	1.9	0.6	0.6
180°	1.9	1.9	1.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	259.4	252.0	227.3	186.5	130.3	72.9	27.2	4.9	1.2	1.9	1.9
110°	226.1	219.9	194.6	155.0	105.0	54.4	17.9	3.1	1.9	1.9	1.9





107.5°	2.5	3.7	4.3
110°	2.5	3.1	3.7



(END OF REPORT)