

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: P551500

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-93-86-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: P551500
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-30-UNV-93-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

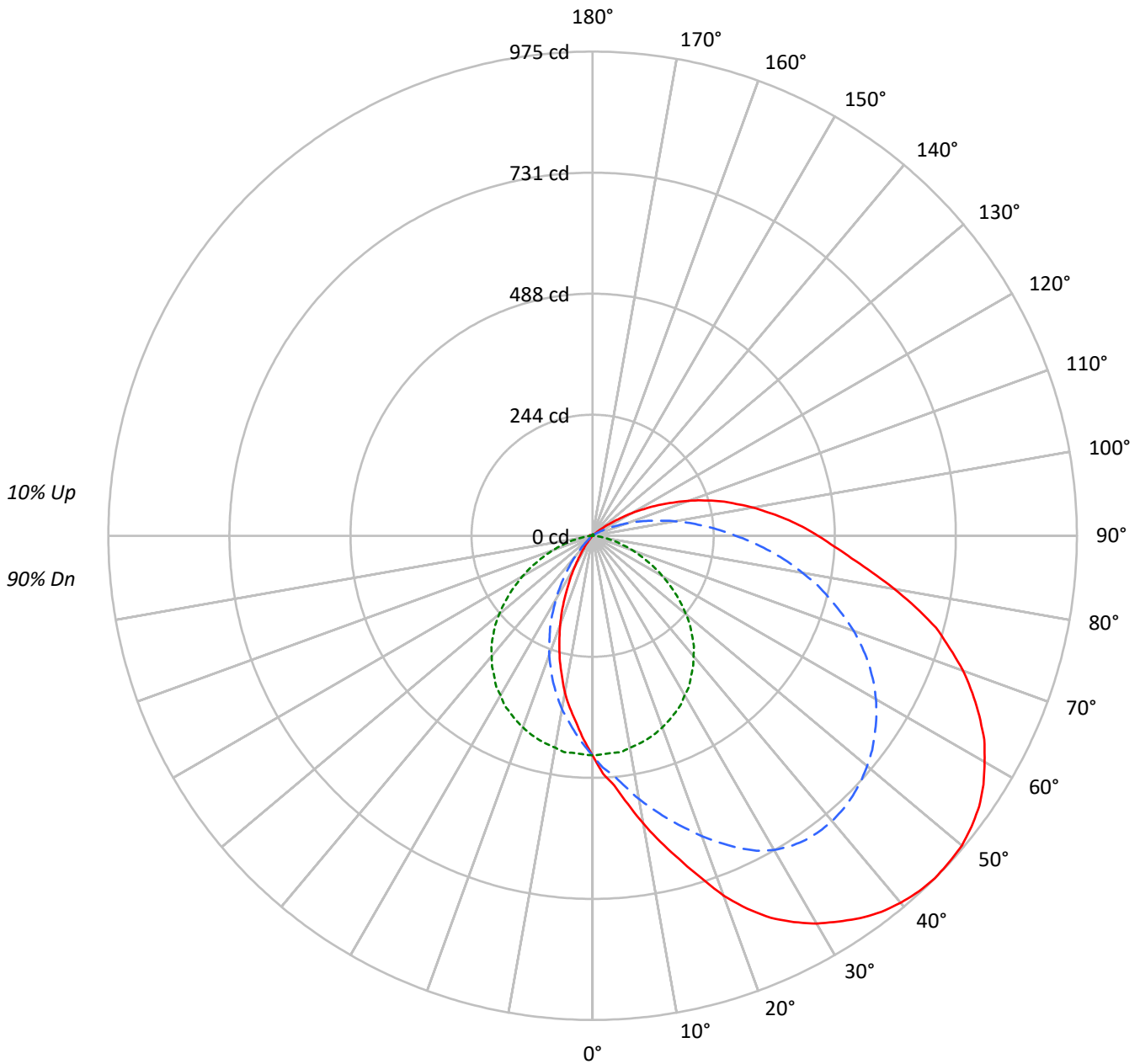
Lumens per Lamp: N/A
Luminaire Lumens: 2186.1 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-86-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°	4760	4760	4760
5°	5225	4690	3913
10°	5912	4633	3225
15°	6625	4574	2513
20°	7473	4499	1851
25°	8176	4413	1215
30°	8698	4296	685
35°	9150	4172	302
40°	9551	4019	72
45°	9895	3827	0
50°	10184	3571	0
55°	10404	3247	0
60°	10515	2870	0
65°	10558	2444	0
70°	10523	1994	0
75°	10388	1469	9
80°	9968	900	45
85°	9636	427	63



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.4	1.9
10°-20°	126.8	5.8
20°-30°	205.4	9.4
30°-40°	263.8	12.1
40°-50°	298.6	13.7
50°-60°	309.4	14.2
60°-70°	291.8	13.3
70°-80°	244.5	11.2
80°-90°	177.3	8.1
90°-100°	116.5	5.3
100°-110°	67.3	3.1
110°-120°	29.7	1.4
120°-130°	8.1	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	374.5	17.1
0°-40°	638.4	29.2
0°-60°	1246.4	57.0
0°-90°	1960.0	89.7
90°-120°	213.5	9.8
90°-150°	224.6	10.3
90°-180°	226.0	10.3
0°-180°	2186.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	442	442	442	442	442	
5°	505	485	439	398	378	51
15°	674	591	424	306	256	194
25°	849	694	393	202	126	392
35°	940	748	345	98	31	590
45°	975	740	283	22	0	753
55°	950	694	204	0	0	849
65°	859	614	122	0	0	850
75°	716	495	52	1	1	751
85°	524	359	8	2	3	447
90°	454	288	2	3	4	249
95°	390	225	1	4	5	306
105°	268	116	1	3	4	283
115°	146	39	2	2	3	146
125°	43	5	2	2	2	43
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°	442.2	442.2	442.2	442.2	442.2	442.2	442.2	442.2	442.2	442.2	442.2
2.5°	479.4	478.8	477.1	474.3	470.3	463.6	457.9	452.9	446.1	440.5	429.8
5°	504.7	501.9	499.6	496.8	487.8	481.6	471.5	460.2	449.5	438.8	417.4
7.5°	545.3	540.7	537.4	529.5	517.1	503.0	487.2	476.5	469.2	439.4	402.7
10°	588.6	584.7	577.9	563.8	548.6	528.4	505.8	480.5	457.9	433.2	389.8
12.5°	631.4	625.8	616.2	598.2	576.8	551.5	520.5	490.6	458.5	429.2	374.6
15°	674.2	668.1	657.9	635.9	607.8	574.5	536.8	499.1	461.3	424.2	358.8
17.5°	721.0	712.6	697.3	672.6	637.1	596.0	551.5	505.8	460.2	418.0	341.9
20°	771.1	759.3	743.0	709.7	668.1	619.6	566.1	512.6	459.6	410.6	322.8
22.5°	812.8	801.0	783.0	748.6	698.5	639.3	578.5	517.1	457.4	402.2	304.7
25°	848.9	839.3	819.6	780.1	727.2	660.2	590.3	520.5	454.0	393.2	285.6
27.5°	877.0	868.0	846.0	805.5	751.4	678.8	599.3	522.2	449.5	384.2	265.9
30°	901.8	892.8	866.3	824.6	767.8	693.4	608.3	522.7	443.9	370.6	244.5
32.5°	921.0	912.5	885.5	841.0	779.0	703.5	613.4	522.2	436.5	361.1	221.4
35°	940.1	931.7	900.1	852.8	787.5	708.0	617.4	519.3	427.5	345.3	199.4
37.5°	954.8	945.2	913.1	860.7	791.4	709.2	616.8	515.4	418.0	332.3	177.4
40°	964.9	954.8	920.4	865.2	792.5	707.5	612.3	508.6	406.7	316.0	154.3
42.5°	971.7	960.4	923.8	872.0	790.3	703.0	605.5	500.2	394.3	301.9	132.4
45°	975.0	963.2	924.3	866.3	786.3	694.5	595.4	489.5	380.8	282.8	110.4
47.5°	973.3	960.4	921.5	860.1	779.0	685.5	584.1	476.5	364.4	265.9	89.6
50°	970.5	957.0	915.3	852.2	768.9	674.2	571.7	460.8	347.5	245.0	71.0
52.5°	961.5	948.0	908.6	841.0	757.0	661.3	554.8	444.4	329.5	224.7	54.1
55°	950.3	937.9	896.7	830.8	741.8	645.5	539.1	427.0	312.1	203.9	38.9
57.5°	932.8	921.5	882.1	814.5	726.6	628.1	521.6	407.8	290.1	183.1	27.0
60°	911.4	900.1	861.8	795.9	709.2	608.3	502.4	388.1	270.4	162.2	16.9
62.5°	888.9	878.2	838.2	772.8	687.2	587.5	481.6	368.4	249.5	143.1	10.1
65°	859.0	848.9	812.8	745.2	663.0	565.0	458.5	344.7	228.1	121.7	5.6
67.5°	827.5	818.4	781.8	719.9	634.8	540.2	434.9	321.6	205.6	103.1	2.8
70°	793.7	782.4	748.6	685.5	606.1	512.0	408.9	298.0	184.2	85.1	0.0
72.5°	754.2	745.8	713.1	653.4	572.9	482.2	382.5	272.1	160.5	67.6	0.6
75°	715.9	705.2	675.4	619.0	540.2	450.6	353.2	247.8	137.4	51.8	0.6
77.5°	666.4	663.0	634.8	580.2	509.2	420.2	321.1	218.6	115.5	37.2	0.6
80°	616.8	613.4	591.4	541.3	473.2	384.2	291.2	191.0	94.1	24.8	0.6
82.5°	567.8	563.3	542.4	500.8	436.5	353.7	260.2	163.4	74.4	15.2	0.6
85°	523.9	518.2	495.7	457.4	398.8	319.4	228.1	136.3	55.2	8.4	1.1
87.5°	486.1	482.2	457.4	418.0	360.5	287.3	200.0	110.4	38.9	3.9	1.7
90°	454.0	445.6	423.6	381.9	324.4	251.8	170.1	88.4	25.9	2.3	2.3
92.5°	422.5	415.1	390.9	348.1	292.3	221.4	141.4	67.6	16.3	1.1	2.8
95°	389.8	381.9	358.2	318.8	259.7	190.4	116.0	49.6	9.0	1.1	2.8
97.5°	357.7	350.4	325.6	286.1	230.4	163.4	91.8	34.9	4.5	1.1	2.3
100°	327.8	319.4	296.8	257.4	201.1	136.3	71.0	22.5	2.8	1.1	2.3
102.5°	296.3	289.5	266.4	228.1	170.7	111.0	52.9	14.1	1.1	1.1	1.7
105°	268.1	259.7	237.1	197.7	145.3	87.3	37.2	8.4	1.1	1.1	1.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	174.6	167.9	148.1	114.9	73.8	34.4	10.1	1.7	1.7	1.7	1.7
115°	145.9	135.8	118.3	89.0	54.6	22.5	5.1	1.7	1.7	1.7	1.7
117.5°	116.6	108.1	95.8	67.6	36.0	14.6	2.8	1.7	1.7	1.7	1.7
120°	91.3	83.4	69.3	46.8	24.2	8.4	1.1	1.7	1.7	1.7	1.7
122.5°	65.3	59.1	46.8	30.4	14.6	3.9	1.7	1.7	2.3	2.3	1.7
125°	43.4	40.0	31.0	18.6	9.0	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.2	25.3	18.0	10.7	3.9	1.7	1.7	2.3	2.3	2.3	1.7
130°	15.8	14.1	10.7	6.2	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.0	8.4	5.6	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.8	2.8	2.8	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	442.2	442.2	442.2
2.5°	420.8	412.9	410.6
5°	398.2	385.3	378.0
7.5°	375.7	358.2	349.8
10°	354.9	330.1	321.1
12.5°	330.1	301.4	287.3
15°	306.4	269.2	255.7
17.5°	280.0	238.3	222.5
20°	255.2	207.3	191.0
22.5°	227.0	176.9	158.8
25°	201.7	146.5	126.2
27.5°	173.5	115.5	98.0
30°	147.0	88.4	71.0
32.5°	121.7	64.8	49.0
35°	98.0	43.9	31.0
37.5°	75.5	27.0	15.8
40°	54.6	14.1	7.3
42.5°	36.6	6.8	3.9
45°	22.5	3.4	0.0
47.5°	13.0	0.0	0.0
50°	6.8	0.0	0.0
52.5°	2.8	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	1.1	1.7
80°	1.1	2.3	2.8
82.5°	2.3	2.8	2.8
85°	2.3	2.8	3.4
87.5°	2.8	3.4	3.9
90°	3.4	3.9	3.9
92.5°	3.4	4.5	4.5
95°	3.9	4.5	5.1
97.5°	4.5	5.1	5.1
100°	3.9	5.1	5.6
102.5°	3.4	5.1	5.1
105°	2.8	3.9	4.5



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.3	2.8	2.8
115°	1.7	2.3	2.8
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.3	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	236.6	229.8	207.3	170.1	118.9	66.5	24.8	4.5	1.1	1.7	1.7
110°	206.2	200.5	177.4	141.4	95.8	49.6	16.3	2.8	1.7	1.7	1.7





107.5°	2.3	3.4	3.9
110°	2.3	2.8	3.4



(END OF REPORT)