

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: P551578

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-80-85-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: P551578
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-80-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

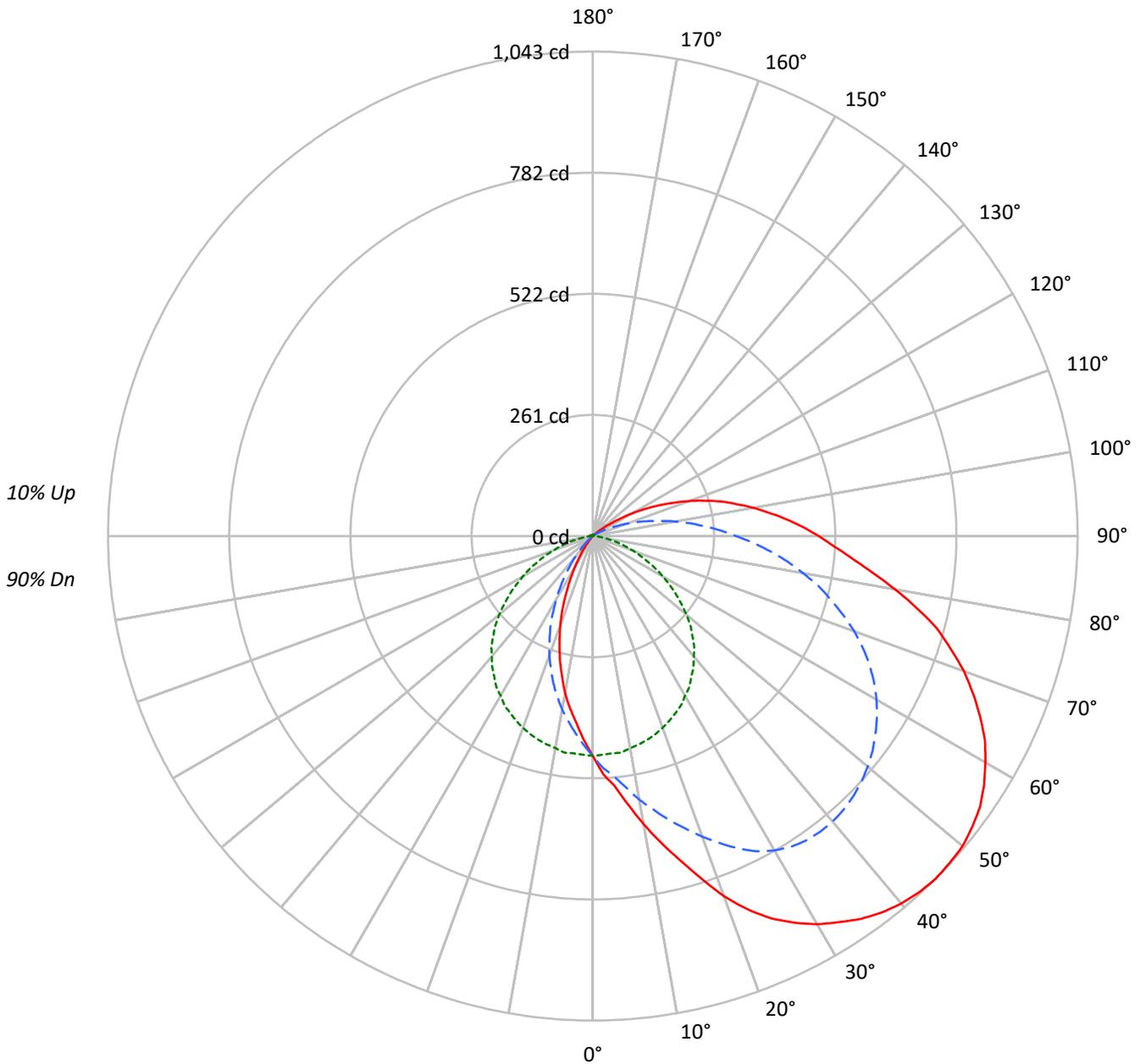
Lumens per Lamp: N/A
Luminaire Lumens: 2338.9 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): 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-40-UNV-80-85-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5092	5092	5092
5°	5590	5018	4186
10°	6326	4957	3450
15°	7089	4893	2689
20°	7996	4814	1980
25°	8748	4721	1300
30°	9306	4598	732
35°	9790	4465	322
40°	10219	4300	77
45°	10588	4095	0
50°	10897	3821	0
55°	11132	3475	0
60°	11251	3072	0
65°	11296	2615	0
70°	11259	2132	0
75°	11115	1571	9
80°	10666	961	48
85°	10309	458	66



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.3	1.9
10°-20°	135.7	5.8
20°-30°	219.7	9.4
30°-40°	282.3	12.1
40°-50°	319.5	13.7
50°-60°	331.0	14.2
60°-70°	312.2	13.3
70°-80°	261.6	11.2
80°-90°	189.6	8.1
90°-100°	124.6	5.3
100°-110°	72.0	3.1
110°-120°	31.8	1.4
120°-130°	8.6	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°	400.8	17.1
0°-40°	683.0	29.2
0°-60°	1333.6	57.0
0°-90°	2097.1	89.7
90°-120°	228.4	9.8
90°-150°	240.2	10.3
90°-180°	242.0	10.3
0°-180°	2338.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	473	473	473	473	473	
5°	540	519	470	426	404	54
15°	721	633	454	328	274	208
25°	908	742	421	216	135	420
35°	1006	800	370	105	33	631
45°	1043	792	303	24	0	805
55°	1017	742	218	0	0	908
65°	919	657	130	0	0	909
75°	766	530	55	1	1	803
85°	560	384	9	2	4	479
90°	486	308	2	4	4	266
95°	417	241	1	4	5	327
105°	287	124	1	3	5	303
115°	156	41	2	2	3	156
125°	46	6	2	2	2	46
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°	473.1	473.1	473.1	473.1	473.1	473.1	473.1	473.1	473.1	473.1	473.1
2.5°	512.9	512.3	510.5	507.5	503.3	496.0	490.0	484.6	477.3	471.3	459.9
5°	540.0	537.0	534.6	531.6	521.9	515.3	504.5	492.4	481.0	469.5	446.6
7.5°	583.4	578.6	575.0	566.5	553.3	538.2	521.3	509.9	502.1	470.1	430.9
10°	629.8	625.6	618.4	603.3	587.0	565.3	541.2	514.1	490.0	463.5	417.1
12.5°	675.6	669.6	659.4	640.1	617.2	590.0	556.9	525.0	490.6	459.3	400.8
15°	721.4	714.8	704.0	680.5	650.3	614.8	574.4	534.0	493.6	453.8	383.9
17.5°	771.5	762.4	746.1	719.6	681.7	637.7	590.0	541.2	492.4	447.2	365.8
20°	825.1	812.4	795.0	759.4	714.8	663.0	605.7	548.5	491.8	439.4	345.4
22.5°	869.7	857.0	837.8	801.0	747.4	684.1	619.0	553.3	489.4	430.3	326.1
25°	908.3	898.0	876.9	834.7	778.1	706.4	631.6	556.9	485.8	420.7	305.6
27.5°	938.4	928.8	905.3	861.9	804.0	726.3	641.3	558.7	481.0	411.0	284.5
30°	964.9	955.3	927.0	882.4	821.5	741.9	650.9	559.3	474.9	396.6	261.6
32.5°	985.4	976.4	947.5	899.8	833.5	752.8	656.3	558.7	467.1	386.3	236.9
35°	1005.9	996.9	963.1	912.5	842.6	757.6	660.6	555.7	457.5	369.5	213.4
37.5°	1021.6	1011.3	977.0	920.9	846.8	758.8	660.0	551.5	447.2	355.6	189.9
40°	1032.4	1021.6	984.8	925.8	848.0	757.0	655.1	544.2	435.2	338.1	165.1
42.5°	1039.7	1027.6	988.4	933.0	845.6	752.2	647.9	535.2	421.9	323.0	141.6
45°	1043.3	1030.6	989.0	927.0	841.4	743.1	637.1	523.8	407.4	302.6	118.1
47.5°	1041.5	1027.6	986.0	920.3	833.5	733.5	625.0	509.9	390.0	284.5	95.8
50°	1038.5	1024.0	979.4	911.9	822.7	721.4	611.7	493.0	371.9	262.2	75.9
52.5°	1028.8	1014.4	972.2	899.8	810.0	707.6	593.7	475.5	352.6	240.5	57.9
55°	1016.8	1003.5	959.5	889.0	793.8	690.7	576.8	456.9	333.9	218.2	41.6
57.5°	998.1	986.0	943.8	871.5	777.5	672.0	558.1	436.4	310.4	195.9	28.9
60°	975.2	963.1	922.1	851.6	758.8	650.9	537.6	415.3	289.3	173.6	18.1
62.5°	951.1	939.6	896.8	826.9	735.3	628.6	515.3	394.2	267.0	153.1	10.8
65°	919.1	908.3	869.7	797.4	709.4	604.5	490.6	368.9	244.1	130.2	6.0
67.5°	885.4	875.7	836.6	770.3	679.2	578.0	465.3	344.1	220.0	110.3	3.0
70°	849.2	837.2	801.0	733.5	648.5	547.9	437.6	318.8	197.1	91.0	0.0
72.5°	807.0	798.0	763.0	699.1	613.0	515.9	409.2	291.1	171.8	72.3	0.6
75°	766.0	754.6	722.6	662.4	578.0	482.2	377.9	265.2	147.1	55.4	0.6
77.5°	713.0	709.4	679.2	620.8	544.8	449.6	343.5	233.8	123.6	39.8	0.6
80°	660.0	656.3	632.8	579.2	506.3	411.0	311.6	204.3	100.7	26.5	0.6
82.5°	607.5	602.7	580.4	535.8	467.1	378.5	278.4	174.8	79.6	16.3	0.6
85°	560.5	554.5	530.4	489.4	426.7	341.7	244.1	145.9	59.1	9.0	1.2
87.5°	520.1	515.9	489.4	447.2	385.7	307.4	214.0	118.1	41.6	4.2	1.8
90°	485.8	476.7	453.2	408.6	347.2	269.4	182.0	94.6	27.7	2.4	2.4
92.5°	452.0	444.2	418.3	372.5	312.8	236.9	151.3	72.3	17.5	1.2	3.0
95°	417.1	408.6	383.3	341.1	277.8	203.7	124.2	53.0	9.6	1.2	3.0
97.5°	382.7	374.9	348.4	306.2	246.5	174.8	98.2	37.4	4.8	1.2	2.4
100°	350.8	341.7	317.6	275.4	215.2	145.9	75.9	24.1	3.0	1.2	2.4
102.5°	317.0	309.8	285.1	244.1	182.6	118.7	56.7	15.1	1.2	1.2	1.8
105°	286.9	277.8	253.7	211.5	155.5	93.4	39.8	9.0	1.2	1.2	1.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	186.8	179.6	158.5	123.0	79.0	36.8	10.8	1.8	1.8	1.8	1.8
115°	156.1	145.3	126.6	95.2	58.5	24.1	5.4	1.8	1.8	1.8	1.8
117.5°	124.8	115.7	102.5	72.3	38.6	15.7	3.0	1.8	1.8	1.8	1.8
120°	97.6	89.2	74.1	50.0	25.9	9.0	1.2	1.8	1.8	1.8	1.8
122.5°	69.9	63.3	50.0	32.5	15.7	4.2	1.8	1.8	2.4	2.4	1.8
125°	46.4	42.8	33.1	19.9	9.6	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	30.1	27.1	19.3	11.5	4.2	1.8	1.8	2.4	2.4	2.4	1.8
130°	16.9	15.1	11.5	6.6	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.6	9.0	6.0	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	3.0	3.0	3.0	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	3.0
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	473.1	473.1	473.1
2.5°	450.2	441.8	439.4
5°	426.1	412.3	404.4
7.5°	402.0	383.3	374.3
10°	379.7	353.2	343.5
12.5°	353.2	322.4	307.4
15°	327.9	288.1	273.6
17.5°	299.5	254.9	238.1
20°	273.0	221.8	204.3
22.5°	242.9	189.2	170.0
25°	215.8	156.7	135.0
27.5°	185.6	123.6	104.9
30°	157.3	94.6	75.9
32.5°	130.2	69.3	52.4
35°	104.9	47.0	33.1
37.5°	80.8	28.9	16.9
40°	58.5	15.1	7.8
42.5°	39.2	7.2	4.2
45°	24.1	3.6	0.0
47.5°	13.9	0.0	0.0
50°	7.2	0.0	0.0
52.5°	3.0	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	1.8
80°	1.2	2.4	3.0
82.5°	2.4	3.0	3.0
85°	2.4	3.0	3.6
87.5°	3.0	3.6	4.2
90°	3.6	4.2	4.2
92.5°	3.6	4.8	4.8
95°	4.2	4.8	5.4
97.5°	4.8	5.4	5.4
100°	4.2	5.4	6.0
102.5°	3.6	5.4	5.4
105°	3.0	4.2	4.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.4	3.0	3.0
115°	1.8	2.4	3.0
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.4	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	253.1	245.9	221.8	182.0	127.2	71.1	26.5	4.8	1.2	1.8	1.8
110°	220.6	214.6	189.9	151.3	102.5	53.0	17.5	3.0	1.8	1.8	1.8





107.5°	2.4	3.6	4.2
110°	2.4	3.0	3.6



(END OF REPORT)