

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: P551213

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-87-ED1D-90**

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: P551213
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-LD4-2HI-30-UNV-81-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

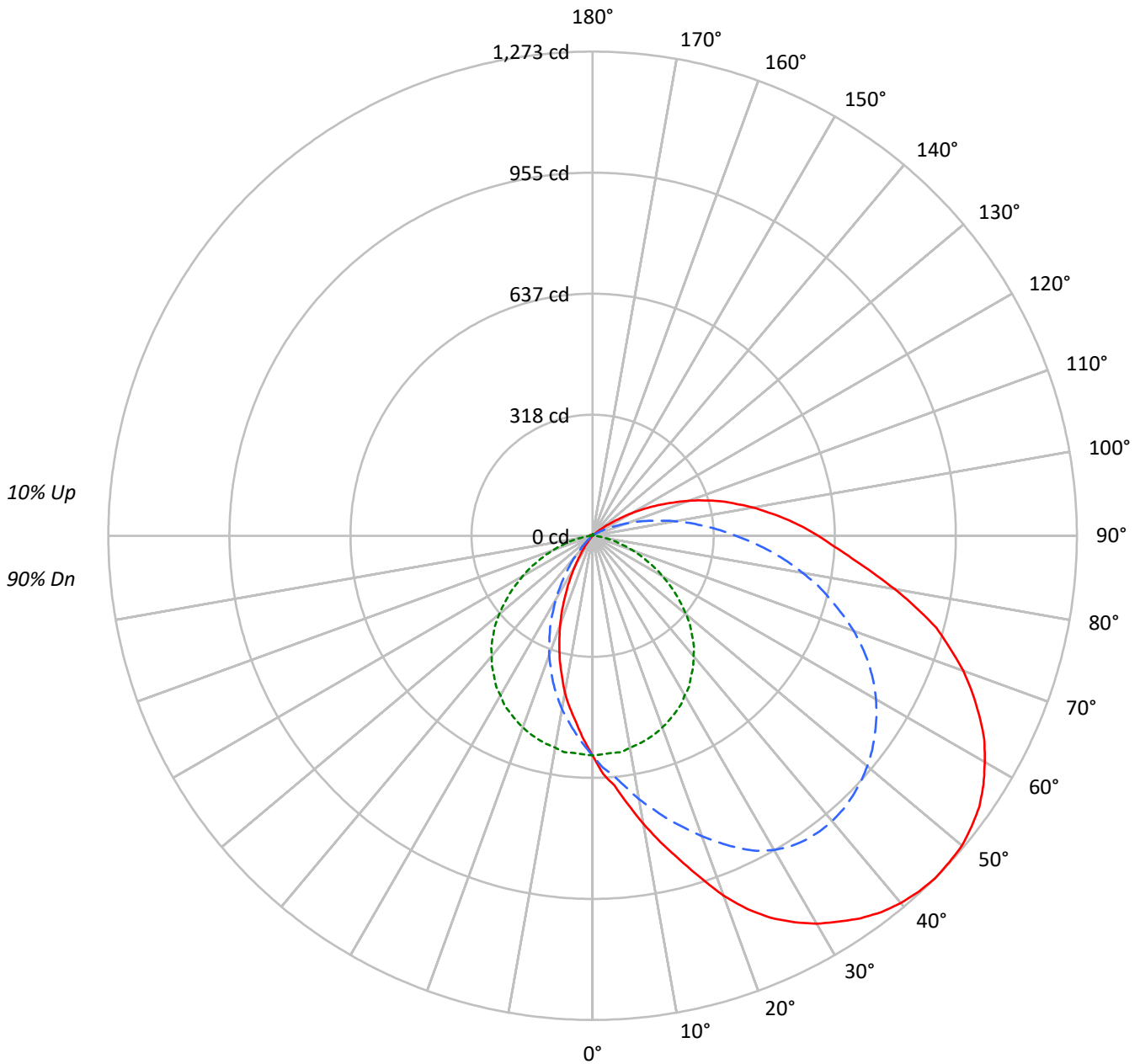
Lumens per Lamp: N/A
Luminaire Lumens: 2854.9 lumens
Efficiency: N/A
Efficacy: 65.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
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-LD4-2HI-30-UNV-81-87-ED1D-90

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°	6216	6216	6216
5°	6824	6125	5110
10°	7722	6050	4212
15°	8654	5973	3282
20°	9760	5876	2417
25°	10677	5763	1587
30°	11360	5612	894
35°	11950	5449	394
40°	12474	5248	95
45°	12923	4997	0
50°	13301	4664	0
55°	13588	4240	0
60°	13732	3750	0
65°	13789	3192	0
70°	13743	2603	0
75°	13568	1920	10
80°	13019	1175	60
85°	12584	559	81



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.3	1.9
10°-20°	165.6	5.8
20°-30°	268.2	9.4
30°-40°	344.6	12.1
40°-50°	390.0	13.7
50°-60°	404.1	14.2
60°-70°	381.1	13.3
70°-80°	319.4	11.2
80°-90°	231.5	8.1
90°-100°	152.1	5.3
100°-110°	87.9	3.1
110°-120°	38.8	1.4
120°-130°	10.5	0.4
130°-140°	2.4	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	489.2	17.1
0°-40°	833.7	29.2
0°-60°	1627.8	57.0
0°-90°	2559.7	89.7
90°-120°	278.8	9.8
90°-150°	293.2	10.3
90°-180°	295.0	10.3
0°-180°	2854.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	578	578	578	578	578	
5°	659	633	573	520	494	66
15°	881	772	554	400	334	254
25°	1109	906	514	263	165	512
35°	1228	977	451	128	40	770
45°	1273	967	369	29	0	983
55°	1241	906	266	0	0	1108
65°	1122	802	159	0	0	1110
75°	935	647	68	1	1	981
85°	684	469	11	3	4	584
90°	593	376	3	4	5	325
95°	509	294	2	5	7	399
105°	350	152	2	4	6	370
115°	190	50	2	2	4	191
125°	57	7	3	2	3	57
135°	3	2	4	3	2	5
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	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°	577.5	577.5	577.5	577.5	577.5	577.5	577.5	577.5	577.5	577.5	577.5
2.5°	626.1	625.3	623.1	619.4	614.3	605.5	598.1	591.5	582.6	575.3	561.3
5°	659.2	655.5	652.5	648.9	637.1	629.0	615.8	601.0	587.1	573.1	545.1
7.5°	712.1	706.2	701.8	691.5	675.3	656.9	636.4	622.4	612.8	573.8	526.0
10°	768.8	763.6	754.8	736.4	716.5	690.1	660.6	627.5	598.1	565.7	509.1
12.5°	824.7	817.3	804.8	781.3	753.3	720.2	679.8	640.8	598.8	560.6	489.2
15°	880.6	872.5	859.3	830.6	793.8	750.4	701.1	651.8	602.5	554.0	468.6
17.5°	941.7	930.6	910.8	878.4	832.0	778.3	720.2	660.6	601.0	545.9	446.5
20°	1007.1	991.7	970.3	926.9	872.5	809.2	739.3	669.5	600.3	536.3	421.5
22.5°	1061.6	1046.1	1022.6	977.7	912.2	835.0	755.5	675.3	597.4	525.3	398.0
25°	1108.6	1096.1	1070.4	1018.9	949.7	862.2	771.0	679.8	592.9	513.5	373.0
27.5°	1145.4	1133.7	1105.0	1052.0	981.4	886.5	782.7	682.0	587.1	501.7	347.2
30°	1177.8	1166.0	1131.5	1077.0	1002.7	905.6	794.5	682.7	579.7	484.1	319.3
32.5°	1202.8	1191.8	1156.5	1098.3	1017.4	918.8	801.1	682.0	570.1	471.6	289.1
35°	1227.8	1216.8	1175.6	1113.8	1028.5	924.7	806.3	678.3	558.4	451.0	260.4
37.5°	1247.0	1234.4	1192.5	1124.1	1033.6	926.2	805.6	673.1	545.9	434.0	231.7
40°	1260.2	1247.0	1202.1	1130.0	1035.1	924.0	799.7	664.3	531.2	412.7	201.6
42.5°	1269.0	1254.3	1206.5	1138.8	1032.1	918.1	790.8	653.3	515.0	394.3	172.9
45°	1273.4	1258.0	1207.2	1131.5	1027.0	907.1	777.6	639.3	497.3	369.3	144.2
47.5°	1271.2	1254.3	1203.5	1123.4	1017.4	895.3	762.9	622.4	476.0	347.2	117.0
50°	1267.6	1249.9	1195.5	1113.1	1004.2	880.6	746.7	601.8	453.9	320.0	92.7
52.5°	1255.8	1238.1	1186.6	1098.3	988.7	863.7	724.6	580.4	430.4	293.5	70.6
55°	1241.1	1224.9	1171.2	1085.1	968.9	843.1	704.0	557.6	407.6	266.3	50.8
57.5°	1218.3	1203.5	1152.1	1063.8	949.0	820.3	681.2	532.6	378.9	239.1	35.3
60°	1190.3	1175.6	1125.6	1039.5	926.2	794.5	656.2	506.9	353.1	211.9	22.1
62.5°	1160.9	1146.9	1094.7	1009.3	897.5	767.3	629.0	481.1	325.9	186.9	13.2
65°	1121.9	1108.6	1061.6	973.3	865.9	737.9	598.8	450.2	297.9	158.9	7.4
67.5°	1080.7	1068.9	1021.1	940.2	829.1	705.5	567.9	420.1	268.5	134.6	3.7
70°	1036.6	1021.8	977.7	895.3	791.6	668.7	534.1	389.2	240.6	111.1	0.0
72.5°	985.1	974.0	931.4	853.4	748.2	629.7	499.5	355.3	209.7	88.3	0.7
75°	935.0	921.1	882.1	808.5	705.5	588.5	461.3	323.7	179.5	67.7	0.7
77.5°	870.3	865.9	829.1	757.7	665.0	548.8	419.3	285.4	150.8	48.6	0.7
80°	805.6	801.1	772.4	707.0	618.0	501.7	380.3	249.4	122.9	32.4	0.7
82.5°	741.6	735.7	708.4	654.0	570.1	462.0	339.9	213.3	97.1	19.9	0.7
85°	684.2	676.8	647.4	597.4	520.9	417.1	297.9	178.0	72.1	11.0	1.5
87.5°	634.9	629.7	597.4	545.9	470.8	375.2	261.2	144.2	50.8	5.1	2.2
90°	592.9	581.9	553.2	498.8	423.7	328.8	222.2	115.5	33.8	2.9	2.9
92.5°	551.7	542.2	510.6	454.6	381.8	289.1	184.7	88.3	21.3	1.5	3.7
95°	509.1	498.8	467.9	416.4	339.1	248.7	151.5	64.7	11.8	1.5	3.7
97.5°	467.1	457.6	425.2	373.7	300.9	213.3	119.9	45.6	5.9	1.5	2.9
100°	428.2	417.1	387.7	336.2	262.6	178.0	92.7	29.4	3.7	1.5	2.9
102.5°	387.0	378.1	348.0	297.9	222.9	144.9	69.2	18.4	1.5	1.5	2.2
105°	350.2	339.1	309.7	258.2	189.8	114.0	48.6	11.0	1.5	1.5	2.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	228.1	219.2	193.5	150.1	96.4	44.9	13.2	2.2	2.2	2.2	2.2
115°	190.5	177.3	154.5	116.2	71.4	29.4	6.6	2.2	2.2	2.2	2.2
117.5°	152.3	141.2	125.1	88.3	47.1	19.1	3.7	2.2	2.2	2.2	2.2
120°	119.2	108.9	90.5	61.1	31.6	11.0	1.5	2.2	2.2	2.2	2.2
122.5°	85.3	77.2	61.1	39.7	19.1	5.1	2.2	2.2	2.9	2.9	2.2
125°	56.6	52.2	40.5	24.3	11.8	2.2	2.2	2.2	2.9	2.9	2.2
127.5°	36.8	33.1	23.5	14.0	5.1	2.2	2.2	2.9	2.9	2.9	2.2
130°	20.6	18.4	14.0	8.1	2.2	2.2	2.2	2.9	2.9	2.9	2.2
132.5°	11.8	11.0	7.4	1.5	2.2	2.2	2.2	2.9	2.9	2.9	2.9
135°	2.9	1.5	1.5	1.5	2.2	2.2	2.9	2.9	3.7	3.7	2.9
137.5°	0.7	0.7	1.5	1.5	2.2	2.2	2.9	3.7	3.7	3.7	2.9
140°	0.7	0.7	1.5	2.2	2.2	2.2	2.9	3.7	3.7	3.7	2.9
142.5°	0.7	1.5	1.5	2.2	2.2	2.9	2.9	3.7	3.7	2.9	2.9
145°	0.7	1.5	1.5	2.2	2.2	2.9	2.9	3.7	2.9	2.9	2.9
147.5°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	3.7	3.7	2.9	2.9
150°	0.7	1.5	1.5	2.2	2.9	2.9	2.9	3.7	2.9	2.9	2.9
152.5°	0.7	1.5	1.5	2.2	2.9	2.9	2.9	3.7	2.9	2.9	2.9
155°	1.5	1.5	1.5	2.2	2.9	2.9	2.9	3.7	2.9	2.9	3.7
157.5°	1.5	1.5	1.5	2.2	2.9	2.9	2.9	3.7	2.9	2.9	3.7
160°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	2.9	2.9	2.9	2.9
162.5°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	2.9	2.9	2.9	2.9
165°	1.5	1.5	1.5	1.5	2.2	2.2	2.9	2.9	2.9	2.9	2.9
167.5°	1.5	1.5	1.5	2.2	2.2	2.2	2.9	2.9	2.9	2.9	2.9
170°	1.5	1.5	1.5	2.2	2.2	2.2	2.9	3.7	3.7	3.7	3.7
172.5°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	3.7	3.7	3.7	3.7
175°	1.5	1.5	1.5	2.2	2.2	2.9	2.9	3.7	3.7	3.7	3.7
177.5°	0.7	1.5	1.5	2.2	2.2	2.9	2.9	3.7	3.7	3.7	2.9
180°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	577.5	577.5	577.5
2.5°	549.5	539.2	536.3
5°	520.1	503.2	493.6
7.5°	490.7	467.9	456.8
10°	463.5	431.1	419.3
12.5°	431.1	393.6	375.2
15°	400.2	351.6	334.0
17.5°	365.6	311.2	290.6
20°	333.3	270.7	249.4
22.5°	296.5	231.0	207.5
25°	263.4	191.3	164.8
27.5°	226.6	150.8	128.0
30°	192.0	115.5	92.7
32.5°	158.9	84.6	64.0
35°	128.0	57.4	40.5
37.5°	98.6	35.3	20.6
40°	71.4	18.4	9.6
42.5°	47.8	8.8	5.1
45°	29.4	4.4	0.0
47.5°	16.9	0.0	0.0
50°	8.8	0.0	0.0
52.5°	3.7	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°	0.7	0.7	0.7
77.5°	0.7	1.5	2.2
80°	1.5	2.9	3.7
82.5°	2.9	3.7	3.7
85°	2.9	3.7	4.4
87.5°	3.7	4.4	5.1
90°	4.4	5.1	5.1
92.5°	4.4	5.9	5.9
95°	5.1	5.9	6.6
97.5°	5.9	6.6	6.6
100°	5.1	6.6	7.4
102.5°	4.4	6.6	6.6
105°	3.7	5.1	5.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.9	3.7	3.7
115°	2.2	2.9	3.7
117.5°	2.2	2.9	2.9
120°	2.2	2.2	2.9
122.5°	2.2	2.2	2.9
125°	2.2	2.2	2.9
127.5°	2.9	2.2	2.2
130°	2.2	2.2	2.2
132.5°	2.9	2.2	2.2
135°	2.9	2.2	2.2
137.5°	2.9	2.2	2.2
140°	2.9	2.2	2.2
142.5°	2.9	2.2	2.2
145°	2.2	2.2	2.2
147.5°	2.2	2.2	2.2
150°	2.2	2.2	1.5
152.5°	2.2	1.5	1.5
155°	2.2	1.5	0.7
157.5°	2.9	1.5	0.7
160°	2.2	1.5	0.7
162.5°	2.2	1.5	0.7
165°	2.2	1.5	0.0
167.5°	2.2	1.5	0.7
170°	2.2	1.5	0.7
172.5°	2.2	1.5	0.7
175°	2.2	0.7	0.7
177.5°	2.2	0.7	0.7
180°	2.2	2.2	2.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	309.0	300.2	270.7	222.2	155.2	86.8	32.4	5.9	1.5	2.2	2.2
110°	269.3	261.9	231.7	184.7	125.1	64.7	21.3	3.7	2.2	2.2	2.2





107.5°	2.9	4.4	5.1
110°	2.9	3.7	4.4



(END OF REPORT)