

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: P551216

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-88-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: P551216
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-81-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

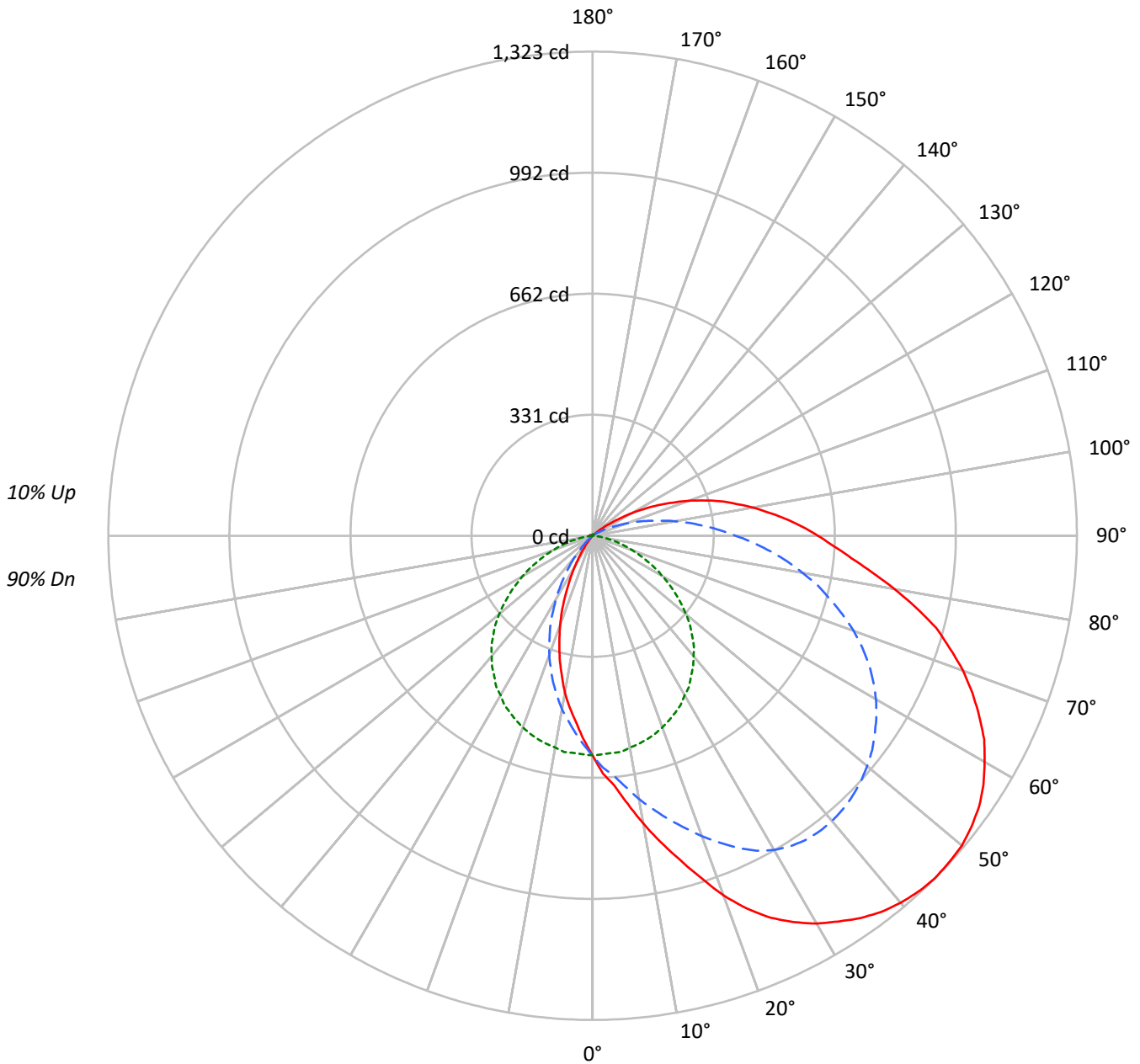
Lumens per Lamp: N/A
Luminaire Lumens: 2966.0 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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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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°	6458	6458	6458
5°	7089	6364	5309
10°	8022	6285	4375
15°	8990	6205	3410
20°	10140	6105	2511
25°	11093	5987	1649
30°	11801	5830	929
35°	12415	5661	409
40°	12959	5453	98
45°	13425	5192	0
50°	13817	4846	0
55°	14116	4406	0
60°	14266	3895	0
65°	14325	3316	0
70°	14278	2703	0
75°	14096	1994	12
80°	13525	1219	61
85°	13073	585	85



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	1.9
10°-20°	172.1	5.8
20°-30°	278.6	9.4
30°-40°	357.9	12.1
40°-50°	405.2	13.7
50°-60°	419.8	14.2
60°-70°	395.9	13.3
70°-80°	331.8	11.2
80°-90°	240.5	8.1
90°-100°	158.1	5.3
100°-110°	91.3	3.1
110°-120°	40.3	1.4
120°-130°	10.9	0.4
130°-140°	2.5	0.1
140°-150°	1.6	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	508.2	17.1
0°-40°	866.1	29.2
0°-60°	1691.1	57.0
0°-90°	2659.3	89.7
90°-120°	289.6	9.8
90°-150°	304.7	10.3
90°-180°	307.0	10.4
0°-180°	2966.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	600	600	600	600	600	
5°	685	658	595	540	513	69
15°	915	802	576	416	347	264
25°	1152	941	534	274	171	532
35°	1276	1015	468	133	42	800
45°	1323	1005	384	31	0	1021
55°	1289	941	277	0	0	1151
65°	1166	833	165	0	0	1153
75°	971	672	70	1	1	1019
85°	711	487	12	3	5	607
90°	616	391	3	5	5	338
95°	529	305	2	5	7	415
105°	364	158	2	4	6	384
115°	198	52	2	2	4	198
125°	59	7	3	2	3	59
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°	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
2.5°	650.4	649.6	647.3	643.5	638.2	629.0	621.4	614.5	605.3	597.7	583.1
5°	684.8	681.0	677.9	674.1	661.9	653.4	639.7	624.4	609.9	595.4	566.3
7.5°	739.8	733.7	729.1	718.4	701.6	682.5	661.1	646.6	636.6	596.1	546.5
10°	798.7	793.3	784.1	765.0	744.4	716.9	686.3	651.9	621.4	587.7	528.9
12.5°	856.7	849.1	836.1	811.7	782.6	748.2	706.2	665.7	622.1	582.4	508.2
15°	914.8	906.4	892.7	862.9	824.6	779.6	728.3	677.1	625.9	575.5	486.8
17.5°	978.3	966.8	946.2	912.5	864.4	808.6	748.2	686.3	624.4	567.1	463.9
20°	1046.3	1030.2	1008.1	963.0	906.4	840.7	768.1	695.5	623.6	557.2	437.9
22.5°	1102.8	1086.8	1062.3	1015.7	947.7	867.4	784.9	701.6	620.6	545.7	413.5
25°	1151.8	1138.8	1112.0	1058.5	986.7	895.7	801.0	706.2	616.0	533.5	387.5
27.5°	1190.0	1177.7	1147.9	1092.9	1019.5	920.9	813.2	708.5	609.9	521.2	360.7
30°	1223.6	1211.4	1175.4	1118.9	1041.7	940.8	825.4	709.2	602.2	502.9	331.7
32.5°	1249.6	1238.1	1201.4	1141.1	1057.0	954.6	832.3	708.5	592.3	489.9	300.4
35°	1275.6	1264.1	1221.3	1157.1	1068.4	960.7	837.6	704.7	580.1	468.5	270.6
37.5°	1295.4	1282.4	1238.9	1167.8	1073.8	962.2	836.9	699.3	567.1	450.9	240.7
40°	1309.2	1295.4	1248.8	1173.9	1075.3	959.9	830.8	690.1	551.8	428.8	209.4
42.5°	1318.4	1303.1	1253.4	1183.1	1072.3	953.8	821.6	678.7	535.0	409.6	179.6
45°	1322.9	1306.9	1254.2	1175.4	1066.9	942.3	807.8	664.1	516.6	383.7	149.8
47.5°	1320.7	1303.1	1250.3	1167.0	1057.0	930.1	792.5	646.6	494.5	360.7	121.5
50°	1316.8	1298.5	1241.9	1156.3	1043.2	914.8	775.7	625.2	471.6	332.5	96.3
52.5°	1304.6	1286.3	1232.8	1141.1	1027.2	897.3	752.8	603.0	447.1	304.9	73.4
55°	1289.3	1272.5	1216.7	1127.3	1006.5	875.9	731.4	579.3	423.4	276.7	52.7
57.5°	1265.6	1250.3	1196.8	1105.1	985.9	852.2	707.7	553.3	393.6	248.4	36.7
60°	1236.6	1221.3	1169.3	1079.9	962.2	825.4	681.7	526.6	366.8	220.1	22.9
62.5°	1206.0	1191.5	1137.2	1048.6	932.4	797.1	653.4	499.8	338.6	194.1	13.8
65°	1165.5	1151.8	1102.8	1011.1	899.5	766.6	622.1	467.7	309.5	165.1	7.6
67.5°	1122.7	1110.5	1060.8	976.7	861.3	732.9	590.0	436.4	279.0	139.9	3.8
70°	1076.9	1061.6	1015.7	930.1	822.4	694.7	554.9	404.3	249.9	115.4	0.0
72.5°	1023.4	1011.9	967.6	886.6	777.3	654.2	518.9	369.1	217.8	91.7	0.8
75°	971.4	956.9	916.4	839.9	732.9	611.4	479.2	336.3	186.5	70.3	0.8
77.5°	904.1	899.5	861.3	787.2	690.9	570.1	435.6	296.5	156.7	50.4	0.8
80°	836.9	832.3	802.5	734.5	642.0	521.2	395.1	259.1	127.6	33.6	0.8
82.5°	770.4	764.3	736.0	679.4	592.3	480.0	353.1	221.6	100.9	20.6	0.8
85°	710.8	703.1	672.6	620.6	541.1	433.3	309.5	185.0	74.9	11.5	1.5
87.5°	659.6	654.2	620.6	567.1	489.1	389.8	271.3	149.8	52.7	5.3	2.3
90°	616.0	604.5	574.7	518.2	440.2	341.6	230.8	120.0	35.2	3.1	3.1
92.5°	573.2	563.3	530.4	472.3	396.7	300.4	191.8	91.7	22.2	1.5	3.8
95°	528.9	518.2	486.1	432.6	352.3	258.3	157.4	67.3	12.2	1.5	3.8
97.5°	485.3	475.4	441.7	388.2	312.6	221.6	124.6	47.4	6.1	1.5	3.1
100°	444.8	433.3	402.8	349.3	272.8	185.0	96.3	30.6	3.8	1.5	3.1
102.5°	402.0	392.8	361.5	309.5	231.6	150.6	71.8	19.1	1.5	1.5	2.3
105°	363.8	352.3	321.8	268.3	197.2	118.5	50.4	11.5	1.5	1.5	2.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	236.9	227.8	201.0	155.9	100.1	46.6	13.8	2.3	2.3	2.3	2.3
115°	197.9	184.2	160.5	120.8	74.1	30.6	6.9	2.3	2.3	2.3	2.3
117.5°	158.2	146.7	129.9	91.7	48.9	19.9	3.8	2.3	2.3	2.3	2.3
120°	123.8	113.1	94.0	63.4	32.9	11.5	1.5	2.3	2.3	2.3	2.3
122.5°	88.7	80.2	63.4	41.3	19.9	5.3	2.3	2.3	3.1	3.1	2.3
125°	58.8	54.3	42.0	25.2	12.2	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.2	34.4	24.5	14.5	5.3	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.4	19.1	14.5	8.4	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.2	11.5	7.6	1.5	2.3	2.3	2.3	3.1	3.1	3.1	3.1
135°	3.1	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1
137.5°	0.8	0.8	1.5	1.5	2.3	2.3	3.1	3.8	3.8	3.8	3.1
140°	0.8	0.8	1.5	2.3	2.3	2.3	3.1	3.8	3.8	3.8	3.1
142.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1	3.1
145°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.1	3.1	3.1
147.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1	3.1
150°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.1
152.5°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.1
155°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.8
157.5°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.8
160°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
162.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
165°	1.5	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1
167.5°	1.5	1.5	1.5	2.3	2.3	2.3	3.1	3.1	3.1	3.1	3.1
170°	1.5	1.5	1.5	2.3	2.3	2.3	3.1	3.8	3.8	3.8	3.8
172.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.8
175°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.8
177.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.1
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	600.0	600.0	600.0
2.5°	570.9	560.2	557.2
5°	540.3	522.8	512.8
7.5°	509.8	486.1	474.6
10°	481.5	447.9	435.6
12.5°	447.9	408.9	389.8
15°	415.8	365.3	347.0
17.5°	379.8	323.3	301.9
20°	346.2	281.3	259.1
22.5°	308.0	240.0	215.5
25°	273.6	198.7	171.2
27.5°	235.4	156.7	133.0
30°	199.5	120.0	96.3
32.5°	165.1	87.9	66.5
35°	133.0	59.6	42.0
37.5°	102.4	36.7	21.4
40°	74.1	19.1	9.9
42.5°	49.7	9.2	5.3
45°	30.6	4.6	0.0
47.5°	17.6	0.0	0.0
50°	9.2	0.0	0.0
52.5°	3.8	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°	0.8	0.8	0.8
77.5°	0.8	1.5	2.3
80°	1.5	3.1	3.8
82.5°	3.1	3.8	3.8
85°	3.1	3.8	4.6
87.5°	3.8	4.6	5.3
90°	4.6	5.3	5.3
92.5°	4.6	6.1	6.1
95°	5.3	6.1	6.9
97.5°	6.1	6.9	6.9
100°	5.3	6.9	7.6
102.5°	4.6	6.9	6.9
105°	3.8	5.3	6.1



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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.1	3.8	3.8
115°	2.3	3.1	3.8
117.5°	2.3	3.1	3.1
120°	2.3	2.3	3.1
122.5°	2.3	2.3	3.1
125°	2.3	2.3	3.1
127.5°	3.1	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.1	2.3	2.3
135°	3.1	2.3	2.3
137.5°	3.1	2.3	2.3
140°	3.1	2.3	2.3
142.5°	3.1	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.5
152.5°	2.3	1.5	1.5
155°	2.3	1.5	0.8
157.5°	3.1	1.5	0.8
160°	2.3	1.5	0.8
162.5°	2.3	1.5	0.8
165°	2.3	1.5	0.0
167.5°	2.3	1.5	0.8
170°	2.3	1.5	0.8
172.5°	2.3	1.5	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	321.0	311.8	281.3	230.8	161.3	90.2	33.6	6.1	1.5	2.3	2.3
110°	279.7	272.1	240.7	191.8	129.9	67.3	22.2	3.8	2.3	2.3	2.3





107.5°	3.1	4.6	5.3
110°	3.1	3.8	4.6



(END OF REPORT)