

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: P551406

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-81-87-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: P551406
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-50-UNV-81-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

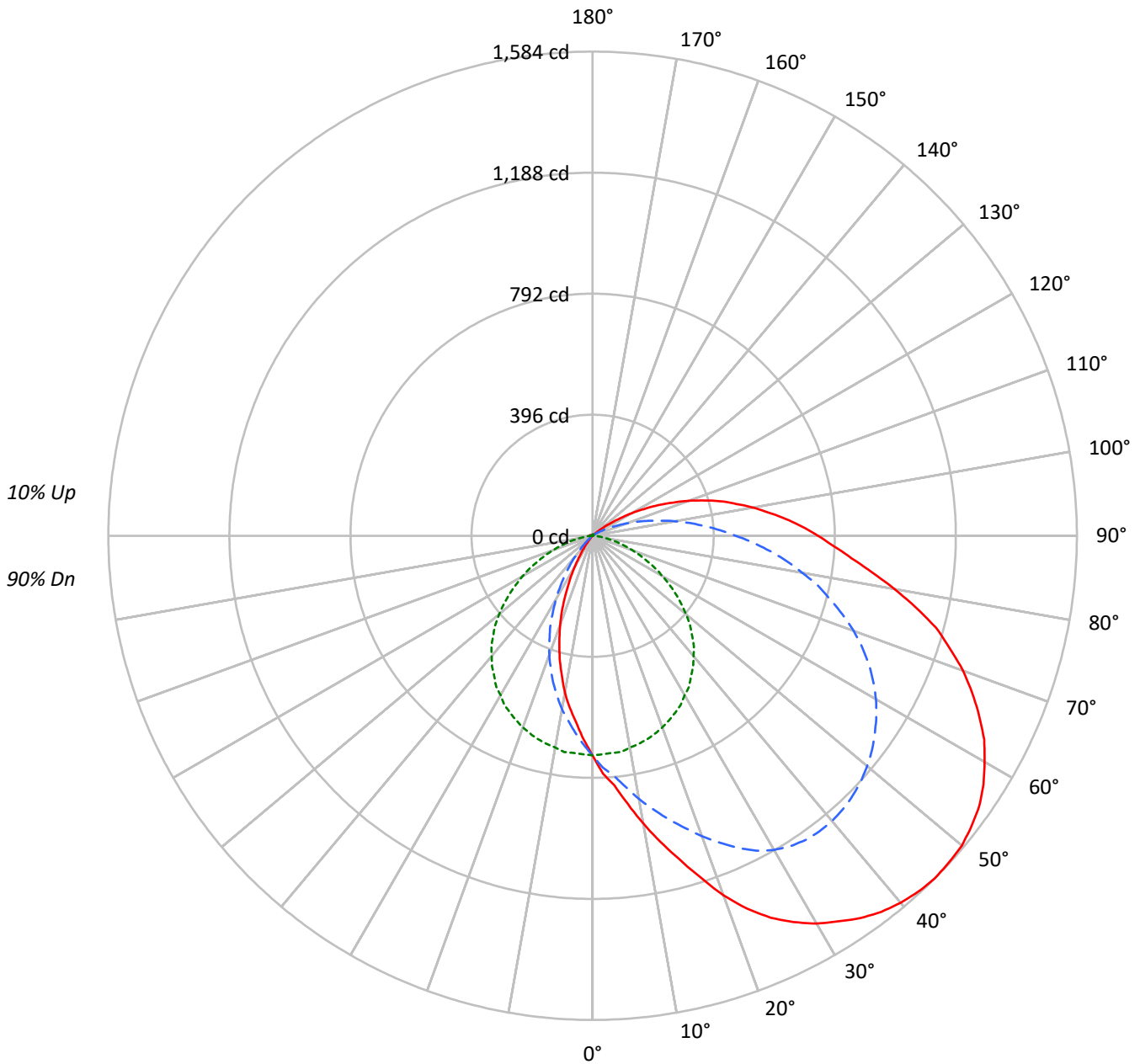
Lumens per Lamp: N/A
Luminaire Lumens: 3551.0 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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°	7732	7732	7732
5°	8487	7619	6356
10°	9604	7524	5239
15°	10764	7429	4082
20°	12139	7308	3006
25°	13280	7168	1974
30°	14129	6980	1112
35°	14863	6777	490
40°	15515	6528	118
45°	16074	6215	0
50°	16543	5801	0
55°	16900	5274	0
60°	17080	4663	0
65°	17151	3969	0
70°	17093	3238	0
75°	16876	2388	13
80°	16191	1462	74
85°	15652	697	101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	1.9
10°-20°	206.0	5.8
20°-30°	333.6	9.4
30°-40°	428.5	12.1
40°-50°	485.1	13.7
50°-60°	502.6	14.2
60°-70°	474.0	13.3
70°-80°	397.2	11.2
80°-90°	287.9	8.1
90°-100°	189.2	5.3
100°-110°	109.3	3.1
110°-120°	48.2	1.4
120°-130°	13.0	0.4
130°-140°	3.0	0.1
140°-150°	2.0	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	608.4	17.1
0°-40°	1037.0	29.2
0°-60°	2024.7	57.0
0°-90°	3183.8	89.7
90°-120°	346.7	9.8
90°-150°	364.7	10.3
90°-180°	367.0	10.3
0°-180°	3551.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	718	718	718	718	718	
5°	820	787	713	647	614	83
15°	1095	960	689	498	415	316
25°	1379	1127	639	328	205	637
35°	1527	1215	561	159	50	958
45°	1584	1203	459	37	0	1223
55°	1544	1127	331	0	0	1378
65°	1395	997	198	0	0	1381
75°	1163	805	84	1	1	1220
85°	851	583	14	4	6	727
90°	738	468	4	6	6	404
95°	633	366	2	6	8	497
105°	436	189	2	5	7	460
115°	237	63	3	3	5	237
125°	70	9	4	3	4	70
135°	4	3	5	4	3	7
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	5	3	1	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3
2.5°	778.7	777.8	775.0	770.4	764.0	753.1	743.9	735.7	724.7	715.5	698.2
5°	819.8	815.3	811.6	807.0	792.4	782.3	765.9	747.6	730.2	712.8	678.0
7.5°	885.7	878.4	872.9	860.1	840.0	817.1	791.5	774.1	762.2	713.7	654.2
10°	956.2	949.8	938.8	915.9	891.2	858.3	821.7	780.5	743.9	703.6	633.2
12.5°	1025.7	1016.6	1001.0	971.7	937.0	895.8	845.5	797.0	744.8	697.2	608.5
15°	1095.3	1085.2	1068.7	1033.0	987.3	933.3	872.0	810.7	749.4	689.0	582.9
17.5°	1171.2	1157.5	1132.8	1092.5	1034.9	968.1	895.8	821.7	747.6	678.9	555.4
20°	1252.6	1233.4	1206.9	1152.9	1085.2	1006.5	919.6	832.7	746.6	667.0	524.3
22.5°	1320.4	1301.1	1271.9	1216.0	1134.6	1038.5	939.7	840.0	743.0	653.3	495.0
25°	1378.9	1363.4	1331.3	1267.3	1181.3	1072.4	958.9	845.5	737.5	638.7	463.9
27.5°	1424.7	1410.0	1374.3	1308.5	1220.6	1102.6	973.6	848.2	730.2	624.0	431.9
30°	1464.9	1450.3	1407.3	1339.6	1247.2	1126.4	988.2	849.1	721.0	602.1	397.1
32.5°	1496.0	1482.3	1438.4	1366.1	1265.5	1142.8	996.4	848.2	709.1	586.5	359.6
35°	1527.1	1513.4	1462.2	1385.3	1279.2	1150.2	1002.8	843.6	694.5	560.9	323.9
37.5°	1550.9	1535.4	1483.2	1398.1	1285.6	1152.0	1001.9	837.2	678.9	539.9	288.2
40°	1567.4	1550.9	1495.1	1405.5	1287.4	1149.3	994.6	826.3	660.6	513.3	250.7
42.5°	1578.4	1560.1	1500.6	1416.4	1283.8	1141.9	983.6	812.5	640.5	490.4	215.0
45°	1583.9	1564.7	1501.5	1407.3	1277.4	1128.2	967.2	795.1	618.5	459.3	179.3
47.5°	1581.1	1560.1	1497.0	1397.2	1265.5	1113.6	948.9	774.1	592.0	431.9	145.5
50°	1576.6	1554.6	1486.9	1384.4	1249.0	1095.3	928.7	748.5	564.6	398.0	115.3
52.5°	1561.9	1540.0	1475.9	1366.1	1229.8	1074.2	901.3	721.9	535.3	365.1	87.8
55°	1543.6	1523.5	1456.7	1349.6	1205.1	1048.6	875.7	693.6	506.9	331.2	63.1
57.5°	1515.3	1497.0	1432.9	1323.1	1180.4	1020.2	847.3	662.5	471.2	297.4	43.9
60°	1480.5	1462.2	1400.0	1292.9	1152.0	988.2	816.2	630.4	439.2	263.5	27.5
62.5°	1443.9	1426.5	1361.5	1255.4	1116.3	954.4	782.3	598.4	405.3	232.4	16.5
65°	1395.4	1378.9	1320.4	1210.6	1077.0	917.8	744.8	560.0	370.6	197.6	9.2
67.5°	1344.1	1329.5	1270.0	1169.4	1031.2	877.5	706.4	522.5	334.0	167.4	4.6
70°	1289.2	1270.9	1216.0	1113.6	984.5	831.7	664.3	484.0	299.2	138.2	0.0
72.5°	1225.2	1211.5	1158.4	1061.4	930.6	783.2	621.3	441.9	260.8	109.8	0.9
75°	1163.0	1145.6	1097.1	1005.6	877.5	732.0	573.7	402.6	223.3	84.2	0.9
77.5°	1082.5	1077.0	1031.2	942.5	827.2	682.6	521.6	355.0	187.6	60.4	0.9
80°	1001.9	996.4	960.8	879.3	768.6	624.0	473.1	310.2	152.8	40.3	0.9
82.5°	922.3	915.0	881.2	813.4	709.1	574.6	422.7	265.4	120.8	24.7	0.9
85°	851.0	841.8	805.2	743.0	647.8	518.8	370.6	221.4	89.7	13.7	1.8
87.5°	789.7	783.2	743.0	678.9	585.6	466.7	324.8	179.3	63.1	6.4	2.7
90°	737.5	723.8	688.1	620.4	527.0	409.0	276.3	143.7	42.1	3.7	3.7
92.5°	686.3	674.4	635.0	565.5	474.9	359.6	229.7	109.8	26.5	1.8	4.6
95°	633.2	620.4	581.9	517.9	421.8	309.3	188.5	80.5	14.6	1.8	4.6
97.5°	581.0	569.1	528.9	464.8	374.2	265.4	149.1	56.7	7.3	1.8	3.7
100°	532.5	518.8	482.2	418.2	326.7	221.4	115.3	36.6	4.6	1.8	3.7
102.5°	481.3	470.3	432.8	370.6	277.2	180.3	86.0	22.9	1.8	1.8	2.7
105°	435.5	421.8	385.2	321.2	236.1	141.8	60.4	13.7	1.8	1.8	2.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	283.7	272.7	240.6	186.7	119.9	55.8	16.5	2.7	2.7	2.7	2.7
115°	237.0	220.5	192.2	144.6	88.8	36.6	8.2	2.7	2.7	2.7	2.7
117.5°	189.4	175.7	155.6	109.8	58.6	23.8	4.6	2.7	2.7	2.7	2.7
120°	148.2	135.4	112.5	75.9	39.3	13.7	1.8	2.7	2.7	2.7	2.7
122.5°	106.1	96.1	75.9	49.4	23.8	6.4	2.7	2.7	3.7	3.7	2.7
125°	70.5	65.0	50.3	30.2	14.6	2.7	2.7	2.7	3.7	3.7	2.7
127.5°	45.8	41.2	29.3	17.4	6.4	2.7	2.7	3.7	3.7	3.7	2.7
130°	25.6	22.9	17.4	10.1	2.7	2.7	2.7	3.7	3.7	3.7	2.7
132.5°	14.6	13.7	9.2	1.8	2.7	2.7	2.7	3.7	3.7	3.7	3.7
135°	3.7	1.8	1.8	1.8	2.7	2.7	3.7	3.7	4.6	4.6	3.7
137.5°	0.9	0.9	1.8	1.8	2.7	2.7	3.7	4.6	4.6	4.6	3.7
140°	0.9	0.9	1.8	2.7	2.7	2.7	3.7	4.6	4.6	4.6	3.7
142.5°	0.9	1.8	1.8	2.7	2.7	3.7	3.7	4.6	4.6	3.7	3.7
145°	0.9	1.8	1.8	2.7	2.7	3.7	3.7	4.6	3.7	3.7	3.7
147.5°	1.8	1.8	1.8	2.7	2.7	3.7	3.7	4.6	4.6	3.7	3.7
150°	0.9	1.8	1.8	2.7	3.7	3.7	3.7	4.6	3.7	3.7	3.7
152.5°	0.9	1.8	1.8	2.7	3.7	3.7	3.7	4.6	3.7	3.7	3.7
155°	1.8	1.8	1.8	2.7	3.7	3.7	3.7	4.6	3.7	3.7	4.6
157.5°	1.8	1.8	1.8	2.7	3.7	3.7	3.7	4.6	3.7	3.7	4.6
160°	1.8	1.8	1.8	2.7	2.7	3.7	3.7	3.7	3.7	3.7	3.7
162.5°	1.8	1.8	1.8	2.7	2.7	3.7	3.7	3.7	3.7	3.7	3.7
165°	1.8	1.8	1.8	1.8	2.7	2.7	3.7	3.7	3.7	3.7	3.7
167.5°	1.8	1.8	1.8	2.7	2.7	2.7	3.7	3.7	3.7	3.7	3.7
170°	1.8	1.8	1.8	2.7	2.7	2.7	3.7	4.6	4.6	4.6	4.6
172.5°	1.8	1.8	1.8	2.7	2.7	3.7	3.7	4.6	4.6	4.6	4.6
175°	1.8	1.8	1.8	2.7	2.7	3.7	3.7	4.6	4.6	4.6	4.6
177.5°	0.9	1.8	1.8	2.7	2.7	3.7	3.7	4.6	4.6	4.6	3.7
180°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	718.3	718.3	718.3
2.5°	683.5	670.7	667.0
5°	646.9	625.9	614.0
7.5°	610.3	581.9	568.2
10°	576.5	536.2	521.6
12.5°	536.2	489.5	466.7
15°	497.8	437.4	415.4
17.5°	454.8	387.0	361.4
20°	414.5	336.7	310.2
22.5°	368.7	287.3	258.0
25°	327.6	237.9	205.0
27.5°	281.8	187.6	159.2
30°	238.8	143.7	115.3
32.5°	197.6	105.2	79.6
35°	159.2	71.4	50.3
37.5°	122.6	43.9	25.6
40°	88.8	22.9	11.9
42.5°	59.5	11.0	6.4
45°	36.6	5.5	0.0
47.5°	21.0	0.0	0.0
50°	11.0	0.0	0.0
52.5°	4.6	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°	0.9	0.9	0.9
77.5°	0.9	1.8	2.7
80°	1.8	3.7	4.6
82.5°	3.7	4.6	4.6
85°	3.7	4.6	5.5
87.5°	4.6	5.5	6.4
90°	5.5	6.4	6.4
92.5°	5.5	7.3	7.3
95°	6.4	7.3	8.2
97.5°	7.3	8.2	8.2
100°	6.4	8.2	9.2
102.5°	5.5	8.2	8.2
105°	4.6	6.4	7.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.7	4.6	4.6
115°	2.7	3.7	4.6
117.5°	2.7	3.7	3.7
120°	2.7	2.7	3.7
122.5°	2.7	2.7	3.7
125°	2.7	2.7	3.7
127.5°	3.7	2.7	2.7
130°	2.7	2.7	2.7
132.5°	3.7	2.7	2.7
135°	3.7	2.7	2.7
137.5°	3.7	2.7	2.7
140°	3.7	2.7	2.7
142.5°	3.7	2.7	2.7
145°	2.7	2.7	2.7
147.5°	2.7	2.7	2.7
150°	2.7	2.7	1.8
152.5°	2.7	1.8	1.8
155°	2.7	1.8	0.9
157.5°	3.7	1.8	0.9
160°	2.7	1.8	0.9
162.5°	2.7	1.8	0.9
165°	2.7	1.8	0.0
167.5°	2.7	1.8	0.9
170°	2.7	1.8	0.9
172.5°	2.7	1.8	0.9
175°	2.7	0.9	0.9
177.5°	2.7	0.9	0.9
180°	2.7	2.7	2.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	384.3	373.3	336.7	276.3	193.1	108.0	40.3	7.3	1.8	2.7	2.7
110°	334.9	325.7	288.2	229.7	155.6	80.5	26.5	4.6	2.7	2.7	2.7





107.5°	3.7	5.5	6.4
110°	3.7	4.6	5.5



(END OF REPORT)