

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: P520477

Luminaire Tested: **4WSLA-100-L940-UNV-U**

Issue Date: 5/3/2021

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: P520477  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-689-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/3/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4WSLA-100-L940-UNV-U  
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 90 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

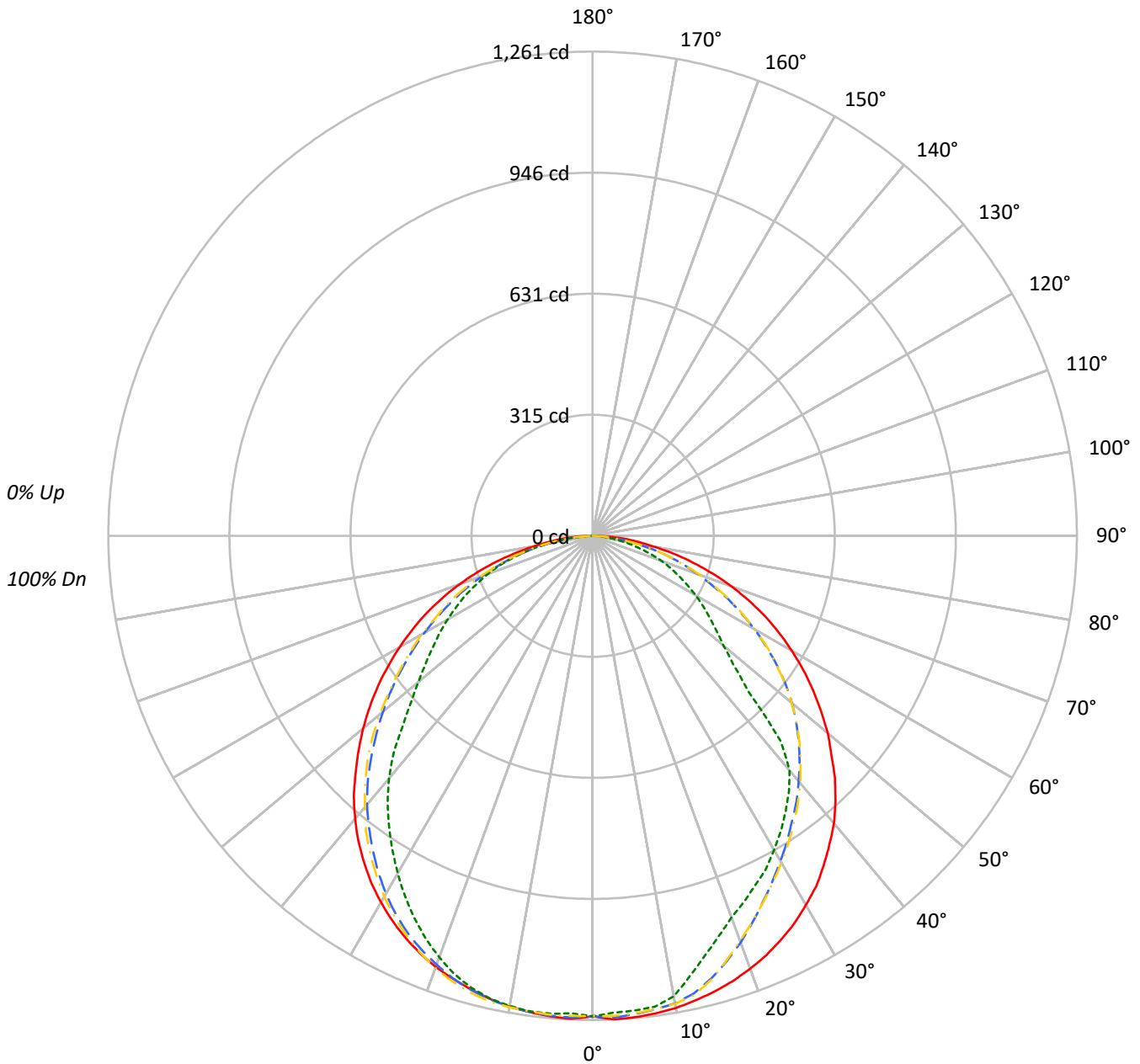
Lumens per Lamp: N/A  
Luminaire Lumens: 3357.0 lumens  
Efficiency: N/A  
Efficacy: 106.2 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.6  
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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### 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70																			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51																			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44																			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39																			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34																			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31																			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28																			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	6735	6735	6735	6735
5°	6801	6706	6789	6750
10°	6824	6655	6806	6795
15°	6846	6303	6815	6793
20°	6871	6056	6844	6690
25°	6893	5956	6857	6522
30°	6901	5870	6850	6308
35°	6889	5756	6819	6073
40°	6868	5604	6759	5792
45°	6791	4354	6638	5314
50°	6689	3727	6526	4958
55°	6570	3490	6400	4769
60°	6445	3331	6251	4690
65°	6292	3154	6078	4634
70°	6043	3001	5789	4563
75°	5627	2639	5361	4342
80°	4993	2207	4683	3682
85°	4724	1575	4143	2112



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.9	3.5
10°-20°	339.1	10.1
20°-30°	506.8	15.1
30°-40°	603.2	18.0
40°-50°	603.0	18.0
50°-60°	518.8	15.5
60°-70°	390.5	11.6
70°-80°	222.5	6.6
80°-90°	54.2	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	964.8	28.7
0°-40°	1568.0	46.7
0°-60°	2689.8	80.1
0°-90°	3357.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3357.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1251	1251	1251	1251	1251	
5°	1259	1241	1257	1249	1259	120
15°	1229	1131	1223	1219	1229	347
25°	1161	1003	1155	1098	1161	535
35°	1049	876	1038	924	1049	656
45°	892	572	872	698	892	687
55°	700	372	682	508	700	626
65°	494	248	477	364	494	488
75°	271	127	258	209	271	286
85°	76	26	67	34	76	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1251.4	1251.4	1251.4	1251.4	1251.4	1251.4	1251.4	1251.4	1251.4	1251.4	1251.4
2.5°	1260.8	1249.4	1256.1	1254.1	1243.3	1247.4	1251.4	1247.4	1259.4	1248.7	1256.1
5°	1258.8	1246.7	1250.7	1246.7	1241.3	1242.7	1248.7	1244.7	1256.7	1245.3	1254.7
7.5°	1254.7	1240.0	1244.0	1242.0	1237.3	1238.0	1244.0	1240.6	1251.4	1240.6	1251.4
10°	1248.7	1233.3	1236.6	1227.9	1217.8	1225.2	1237.3	1233.9	1245.3	1233.3	1245.3
12.5°	1239.3	1223.9	1220.5	1191.6	1173.5	1187.6	1224.5	1224.5	1235.3	1223.9	1236.6
15°	1228.6	1211.8	1193.6	1150.0	1131.2	1145.3	1196.3	1213.8	1223.2	1211.8	1224.5
17.5°	1215.8	1196.3	1161.4	1110.4	1092.9	1107.0	1159.4	1197.7	1209.8	1197.7	1209.1
20°	1199.7	1176.9	1127.2	1068.8	1057.4	1070.1	1122.5	1178.2	1195.0	1180.2	1188.3
22.5°	1182.2	1154.7	1088.9	1036.5	1031.2	1039.2	1086.9	1154.0	1176.2	1160.7	1166.1
25°	1160.7	1128.5	1050.6	1007.0	1003.0	1007.7	1052.0	1125.8	1154.7	1138.6	1140.6
27.5°	1137.9	1103.0	1014.4	982.2	978.1	980.2	1017.1	1094.3	1129.9	1113.8	1110.4
30°	1110.4	1072.8	978.1	948.6	944.6	952.0	983.5	1062.1	1102.3	1086.2	1076.2
32.5°	1082.9	1039.9	942.6	919.7	911.7	918.4	948.6	1028.5	1072.1	1055.3	1038.6
35°	1048.6	1005.0	905.6	882.8	876.1	883.5	913.7	993.6	1037.9	1021.1	998.3
37.5°	1013.1	968.1	872.1	851.3	839.2	847.9	878.1	957.3	1002.3	984.9	956.7
40°	977.5	929.1	834.5	813.0	797.6	810.3	841.2	919.1	962.0	945.9	913.7
42.5°	935.8	890.2	797.6	767.3	723.7	764.7	801.6	880.8	920.4	905.0	866.0
45°	892.2	848.6	758.6	685.4	572.0	692.2	761.3	840.5	872.1	857.3	815.0
47.5°	842.5	805.6	719.0	607.6	497.5	614.3	720.3	802.3	826.4	810.3	763.3
50°	798.9	762.6	677.4	541.8	445.1	549.2	676.7	759.3	779.4	764.7	712.3
52.5°	749.2	717.7	632.4	483.4	406.2	490.7	631.1	715.0	731.1	713.6	661.3
55°	700.2	672.0	584.7	431.7	371.9	438.4	583.4	669.3	682.1	661.9	607.6
57.5°	650.5	625.0	535.7	385.3	340.4	392.7	539.1	622.3	631.1	605.5	555.9
60°	598.8	577.4	486.1	344.4	309.5	350.4	484.7	575.3	580.7	553.2	505.5
62.5°	547.1	527.7	436.4	306.8	277.9	310.8	439.7	525.7	529.0	502.8	453.8
65°	494.1	476.0	388.0	267.2	247.7	273.9	391.4	474.0	477.3	447.8	403.5
67.5°	439.1	424.3	336.3	237.0	218.9	239.0	343.1	421.6	423.6	394.7	354.5
70°	384.0	371.3	290.7	204.1	190.7	204.8	295.4	363.9	367.9	337.0	304.8
72.5°	327.6	317.5	246.4	169.8	157.8	169.8	249.1	310.8	313.5	288.0	256.5
75°	270.6	263.2	201.4	136.3	126.9	135.6	202.7	257.8	257.8	233.6	208.8
77.5°	215.5	210.1	154.4	104.7	98.0	103.4	155.1	204.1	202.7	183.9	164.5
80°	161.1	157.1	110.8	75.9	71.2	73.8	110.8	151.1	151.1	137.6	114.1
82.5°	115.5	110.8	73.2	49.7	47.0	48.3	71.8	105.4	107.4	97.3	77.2
85°	76.5	65.8	39.6	27.5	25.5	26.2	37.6	61.1	67.1	56.4	40.3
87.5°	33.6	22.2	10.1	4.0	2.0	2.7	8.1	19.5	25.5	16.8	5.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1251.4	1251.4	1251.4	1251.4	1251.4	1251.4
2.5°	1255.4	1244.7	1248.7	1251.4	1248.7	1260.8
5°	1254.1	1249.4	1248.7	1252.1	1246.7	1258.8
7.5°	1252.1	1249.4	1248.7	1250.0	1243.3	1254.7
10°	1247.4	1243.3	1244.7	1246.7	1238.0	1248.7
12.5°	1238.6	1234.6	1235.3	1242.0	1229.9	1239.3
15°	1223.9	1219.2	1223.9	1231.2	1220.5	1228.6
17.5°	1204.4	1197.0	1205.1	1216.5	1208.4	1215.8
20°	1179.5	1168.1	1176.9	1197.7	1190.3	1199.7
22.5°	1149.3	1135.2	1144.0	1174.2	1172.2	1182.2
25°	1115.1	1098.3	1110.4	1147.3	1151.3	1160.7
27.5°	1076.8	1058.0	1074.1	1117.8	1127.2	1137.9
30°	1035.2	1015.1	1033.9	1084.9	1099.0	1110.4
32.5°	992.2	970.1	991.6	1048.0	1068.1	1082.9
35°	947.3	924.4	948.6	1009.7	1033.9	1048.6
37.5°	898.9	876.8	903.0	969.4	998.3	1013.1
40°	849.2	824.4	853.9	921.8	960.0	977.5
42.5°	798.2	767.3	803.6	876.8	918.4	935.8
45°	741.2	698.2	747.2	829.1	872.7	892.2
47.5°	684.1	641.1	690.8	778.1	825.1	842.5
50°	629.0	592.1	631.7	722.4	776.7	798.9
52.5°	578.7	548.5	582.1	668.0	727.1	749.2
55°	531.7	508.2	535.7	614.3	674.7	700.2
57.5°	487.4	472.6	491.4	563.3	626.4	650.5
60°	445.8	435.7	449.1	512.9	569.3	598.8
62.5°	404.8	399.4	409.5	459.9	516.3	547.1
65°	365.2	363.9	369.2	413.5	460.5	494.1
67.5°	325.6	324.9	328.3	364.5	406.2	439.1
70°	286.0	290.0	288.0	311.5	351.8	384.0
72.5°	245.7	251.8	248.4	263.2	302.1	327.6
75°	200.7	208.8	202.1	218.9	243.0	270.6
77.5°	154.4	163.1	155.1	169.8	196.0	215.5
80°	110.8	118.8	112.1	123.5	146.4	161.1
82.5°	69.8	75.9	70.5	81.9	104.7	115.5
85°	30.9	34.2	35.6	44.3	64.4	76.5
87.5°	1.3	0.7	1.3	8.7	22.8	33.6
90°	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°









(END OF REPORT)