

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: P520480

Luminaire Tested: **4WSLA-100-L950-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: P520480  
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-L950-UNV-U  
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 90 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

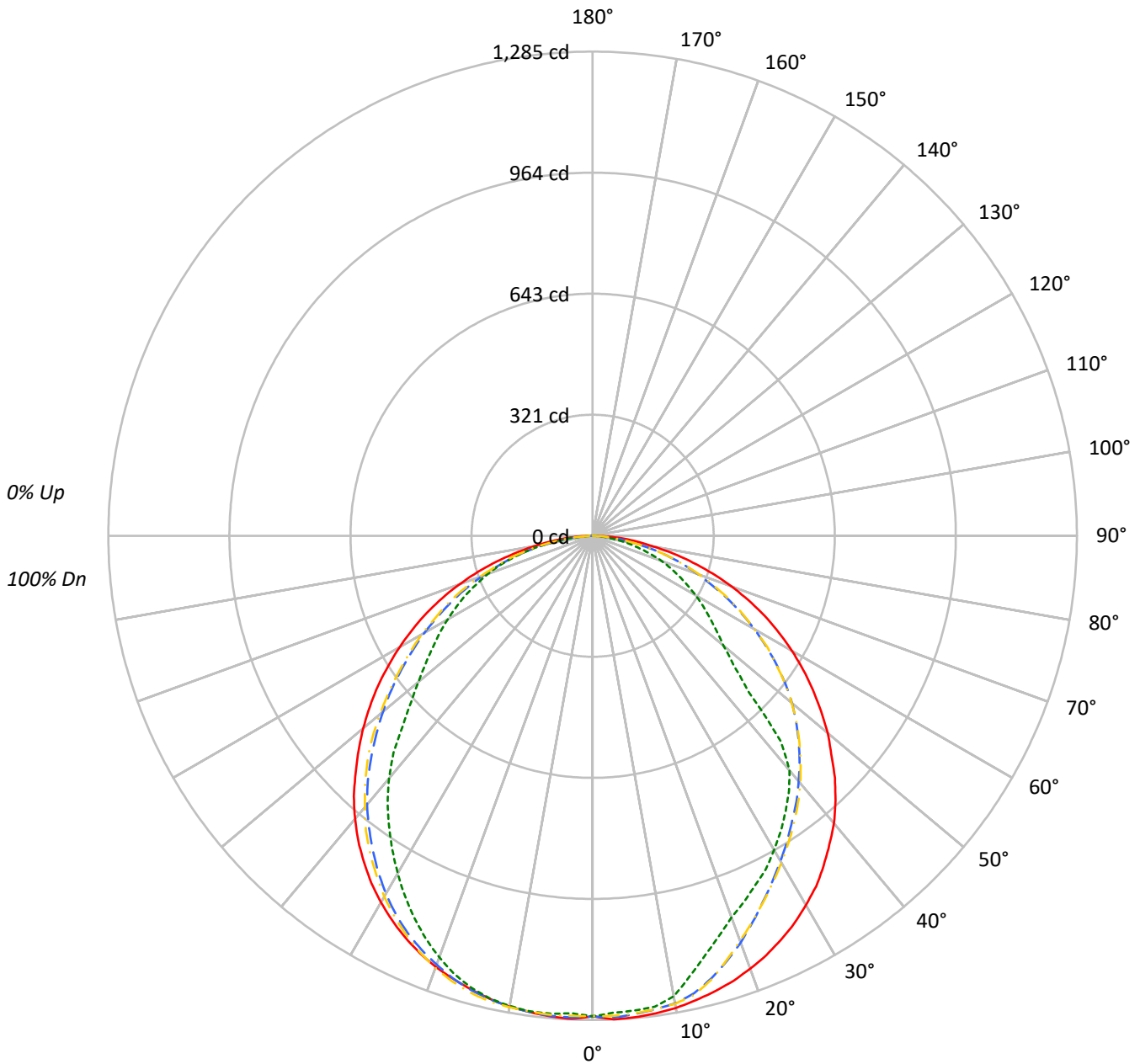
Lumens per Lamp: N/A  
Luminaire Lumens: 3421.0 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P520480

CATALOG NUMBER: 4WSLA-100-L950-UNV-U

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	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°	6863	6863	6863	6863
5°	6930	6834	6919	6878
10°	6954	6782	6936	6924
15°	6976	6423	6945	6922
20°	7002	6171	6975	6818
25°	7024	6070	6988	6647
30°	7032	5982	6981	6428
35°	7021	5866	6949	6190
40°	6998	5710	6888	5902
45°	6920	4437	6764	5415
50°	6816	3798	6651	5052
55°	6696	3556	6522	4860
60°	6569	3395	6370	4779
65°	6412	3214	6194	4722
70°	6157	3057	5899	4650
75°	5733	2689	5463	4425
80°	5089	2247	4770	3753
85°	4817	1606	4224	2155



TEST NUMBER: P520480

CATALOG NUMBER: 4WSLA-100-L950-UNV-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.2	3.5
10°-20°	345.6	10.1
20°-30°	516.4	15.1
30°-40°	614.7	18.0
40°-50°	614.5	18.0
50°-60°	528.7	15.5
60°-70°	397.9	11.6
70°-80°	226.8	6.6
80°-90°	55.2	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°	983.2	28.7
0°-40°	1597.9	46.7
0°-60°	2741.1	80.1
0°-90°	3421.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3421.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1275	1275	1275	1275	1275	
5°	1283	1265	1281	1273	1283	122
15°	1252	1153	1246	1242	1252	354
25°	1183	1022	1177	1119	1183	545
35°	1069	893	1058	942	1069	669
45°	909	583	889	712	909	700
55°	714	379	695	518	714	638
65°	504	252	486	371	504	497
75°	276	129	263	213	276	292
85°	78	26	68	35	78	85
90°	0	0	0	0	0	



TEST NUMBER: P520480

CATALOG NUMBER: 4WSLA-100-L950-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1275.2	1275.2	1275.2	1275.2	1275.2	1275.2	1275.2	1275.2	1275.2	1275.2	1275.2
2.5°	1284.8	1273.2	1280.0	1278.0	1267.0	1271.1	1275.2	1271.1	1283.4	1272.5	1280.0
5°	1282.8	1270.4	1274.6	1270.4	1265.0	1266.3	1272.5	1268.4	1280.7	1269.1	1278.7
7.5°	1278.7	1263.6	1267.7	1265.7	1260.9	1261.6	1267.7	1264.3	1275.2	1264.3	1275.2
10°	1272.5	1256.8	1260.2	1251.3	1241.0	1248.6	1260.9	1257.4	1269.1	1256.8	1269.1
12.5°	1262.9	1247.2	1243.8	1214.3	1195.9	1210.2	1247.9	1247.9	1258.8	1247.2	1260.2
15°	1252.0	1234.9	1216.4	1171.9	1152.8	1167.1	1219.1	1236.9	1246.5	1234.9	1247.9
17.5°	1239.0	1219.1	1183.6	1131.6	1113.8	1128.1	1181.5	1220.5	1232.8	1220.5	1232.1
20°	1222.6	1199.3	1148.7	1089.1	1077.5	1090.5	1143.9	1200.7	1217.8	1202.7	1210.9
22.5°	1204.8	1176.7	1109.7	1056.3	1050.8	1059.0	1107.6	1176.0	1198.6	1182.9	1188.4
25°	1182.9	1150.0	1070.7	1026.2	1022.1	1026.9	1072.0	1147.3	1176.7	1160.3	1162.4
27.5°	1159.6	1124.0	1033.7	1000.9	996.8	998.8	1036.5	1115.1	1151.4	1135.0	1131.6
30°	1131.6	1093.3	996.8	966.7	962.6	970.1	1002.3	1082.3	1123.4	1106.9	1096.7
32.5°	1103.5	1059.7	960.5	937.3	929.1	935.9	966.7	1048.1	1092.6	1075.5	1058.4
35°	1068.6	1024.2	922.9	899.6	892.8	900.3	931.1	1012.5	1057.7	1040.6	1017.3
37.5°	1032.4	986.5	888.7	867.5	855.2	864.1	894.9	975.6	1021.4	1003.6	974.9
40°	996.1	946.8	850.4	828.5	812.8	825.8	857.2	936.6	980.4	964.0	931.1
42.5°	953.7	907.2	812.8	782.0	737.5	779.2	816.9	897.6	938.0	922.2	882.5
45°	909.2	864.8	773.1	698.5	582.9	705.3	775.8	856.5	888.7	873.6	830.5
47.5°	858.6	821.0	732.7	619.1	506.9	626.0	734.1	817.5	842.2	825.8	777.9
50°	814.1	777.2	690.3	552.1	453.6	559.6	689.6	773.8	794.3	779.2	725.9
52.5°	763.5	731.3	644.5	492.6	413.9	500.1	643.1	728.6	745.0	727.2	673.9
55°	713.6	684.8	595.9	439.9	379.0	446.7	594.5	682.1	695.1	674.6	619.1
57.5°	662.9	636.9	545.9	392.7	346.9	400.2	549.4	634.2	643.1	617.1	566.5
60°	610.3	588.4	495.3	351.0	315.4	357.1	493.9	586.3	591.8	563.7	515.2
62.5°	557.6	537.7	444.7	312.7	283.2	316.8	448.1	535.7	539.1	512.4	462.5
65°	503.5	485.1	395.4	272.3	252.4	279.1	398.9	483.0	486.4	456.3	411.2
67.5°	447.4	432.4	342.8	241.5	223.0	243.6	349.6	429.6	431.7	402.3	361.2
70°	391.3	378.3	296.2	208.0	194.3	208.7	301.0	370.8	374.9	343.4	310.6
72.5°	333.9	323.6	251.1	173.1	160.8	173.1	253.8	316.8	319.5	293.5	261.3
75°	275.7	268.2	205.2	138.9	129.3	138.2	206.6	262.7	262.7	238.1	212.8
77.5°	219.6	214.1	157.4	106.7	99.9	105.4	158.0	208.0	206.6	187.5	167.6
80°	164.2	160.1	112.9	77.3	72.5	75.3	112.9	153.9	153.9	140.2	116.3
82.5°	117.7	112.9	74.6	50.6	47.9	49.3	73.2	107.4	109.5	99.2	78.7
85°	78.0	67.0	40.4	28.0	26.0	26.7	38.3	62.3	68.4	57.5	41.0
87.5°	34.2	22.6	10.3	4.1	2.1	2.7	8.2	19.8	26.0	17.1	5.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P520480

CATALOG NUMBER: 4WSLA-100-L950-UNV-U

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1275.2	1275.2	1275.2	1275.2	1275.2	1275.2
2.5°	1279.3	1268.4	1272.5	1275.2	1272.5	1284.8
5°	1278.0	1273.2	1272.5	1275.9	1270.4	1282.8
7.5°	1275.9	1273.2	1272.5	1273.9	1267.0	1278.7
10°	1271.1	1267.0	1268.4	1270.4	1261.6	1272.5
12.5°	1262.2	1258.1	1258.8	1265.7	1253.3	1262.9
15°	1247.2	1242.4	1247.2	1254.7	1243.8	1252.0
17.5°	1227.3	1219.8	1228.0	1239.7	1231.5	1239.0
20°	1202.0	1190.4	1199.3	1220.5	1213.0	1222.6
22.5°	1171.2	1156.9	1165.8	1196.6	1194.5	1204.8
25°	1136.4	1119.3	1131.6	1169.2	1173.3	1182.9
27.5°	1097.4	1078.2	1094.6	1139.1	1148.7	1159.6
30°	1054.9	1034.4	1053.6	1105.6	1119.9	1131.6
32.5°	1011.2	988.6	1010.5	1067.9	1088.5	1103.5
35°	965.3	942.1	966.7	1028.9	1053.6	1068.6
37.5°	916.1	893.5	920.2	987.9	1017.3	1032.4
40°	865.4	840.1	870.2	939.3	978.3	996.1
42.5°	813.4	782.0	818.9	893.5	935.9	953.7
45°	755.3	711.5	761.4	844.9	889.4	909.2
47.5°	697.1	653.4	704.0	792.9	840.8	858.6
50°	641.0	603.4	643.8	736.1	791.5	814.1
52.5°	589.7	558.9	593.1	680.7	740.9	763.5
55°	541.8	517.9	545.9	626.0	687.6	713.6
57.5°	496.7	481.6	500.8	574.0	638.3	662.9
60°	454.3	444.0	457.7	522.7	580.2	610.3
62.5°	412.5	407.1	417.3	468.6	526.1	557.6
65°	372.2	370.8	376.3	421.4	469.3	503.5
67.5°	331.8	331.1	334.5	371.5	413.9	447.4
70°	291.4	295.5	293.5	317.4	358.5	391.3
72.5°	250.4	256.6	253.1	268.2	307.9	333.9
75°	204.6	212.8	205.9	223.0	247.7	275.7
77.5°	157.4	166.2	158.0	173.1	199.8	219.6
80°	112.9	121.1	114.3	125.9	149.1	164.2
82.5°	71.2	77.3	71.8	83.5	106.7	117.7
85°	31.5	34.9	36.3	45.2	65.7	78.0
87.5°	1.4	0.7	1.4	8.9	23.3	34.2
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)