

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: P520471

Luminaire Tested: **4WSLA-100-L930-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: P520471
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-L930-UNV-U
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 90 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

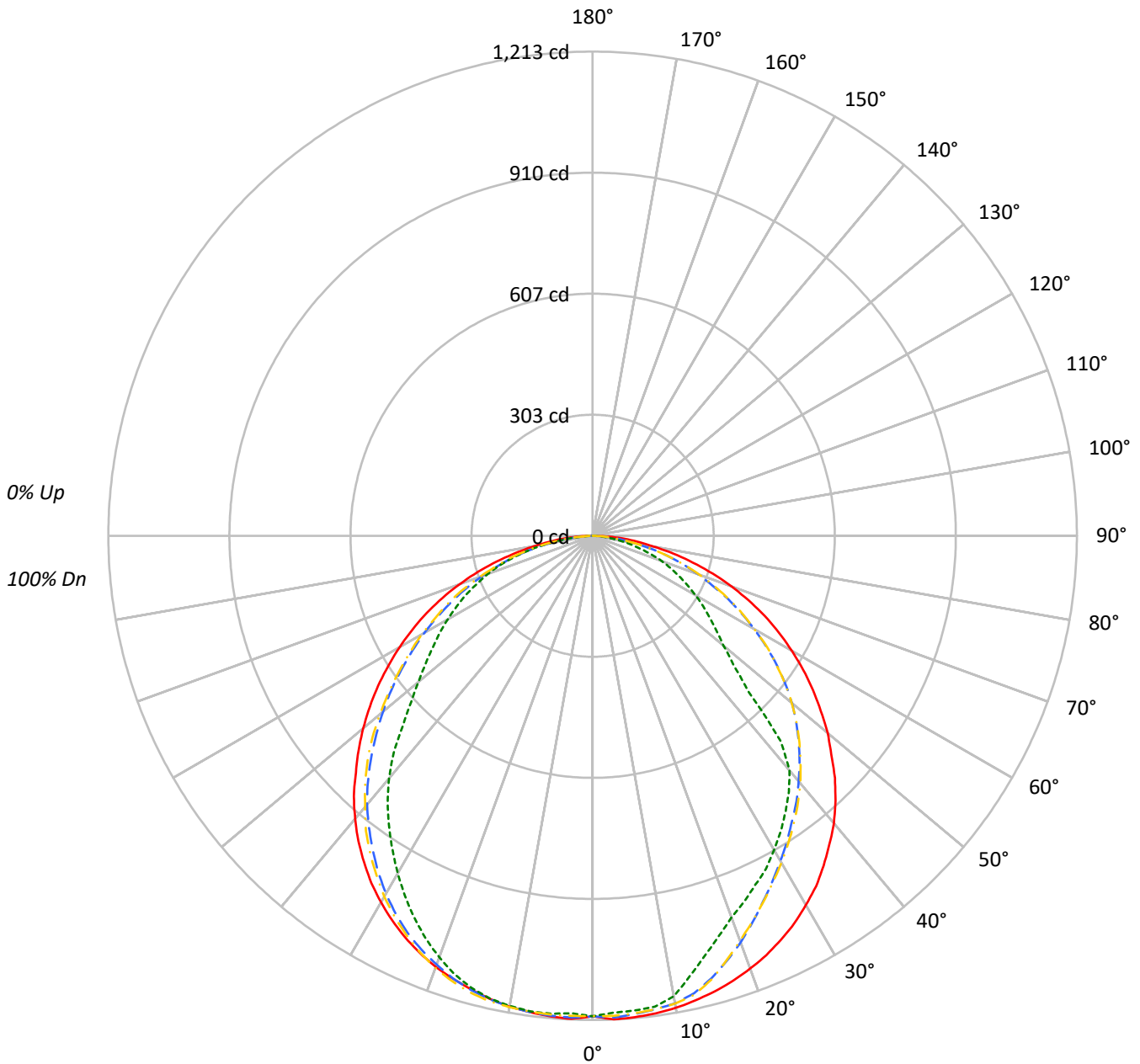
Lumens per Lamp: N/A
Luminaire Lumens: 3229.0 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P520471

CATALOG NUMBER: 4WSLA-100-L930-UNV-U

Luminous Intensity Polar Plot





TEST NUMBER: P520471

CATALOG NUMBER: 4WSLA-100-L930-UNV-U

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°	6478	6478	6478	6478
5°	6541	6451	6531	6492
10°	6564	6402	6547	6536
15°	6584	6063	6555	6534
20°	6609	5825	6583	6435
25°	6630	5729	6596	6273
30°	6638	5647	6589	6068
35°	6627	5537	6559	5842
40°	6606	5389	6501	5571
45°	6532	4188	6384	5112
50°	6434	3584	6277	4768
55°	6320	3356	6156	4586
60°	6200	3204	6013	4511
65°	6053	3035	5847	4457
70°	5813	2886	5569	4390
75°	5411	2537	5157	4175
80°	4804	2120	4503	3543
85°	4545	1513	3989	2032



TEST NUMBER: P520471

CATALOG NUMBER: 4WSLA-100-L930-UNV-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	3.5
10°-20°	326.2	10.1
20°-30°	487.4	15.1
30°-40°	580.2	18.0
40°-50°	580.0	18.0
50°-60°	499.1	15.5
60°-70°	375.6	11.6
70°-80°	214.0	6.6
80°-90°	52.1	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°	928.0	28.7
0°-40°	1508.2	46.7
0°-60°	2587.3	80.1
0°-90°	3229.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3229.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1204	1204	1204	1204	1204	
5°	1211	1194	1209	1202	1211	115
15°	1182	1088	1176	1173	1182	334
25°	1116	965	1111	1056	1116	515
35°	1009	843	998	889	1009	631
45°	858	550	839	672	858	661
55°	674	358	656	489	674	602
65°	475	238	459	350	475	469
75°	260	122	248	201	260	275
85°	74	24	65	33	74	80
90°	0	0	0	0	0	



TEST NUMBER: P520471

CATALOG NUMBER: 4WSLA-100-L930-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1203.7	1203.7	1203.7	1203.7	1203.7	1203.7	1203.7	1203.7	1203.7	1203.7	1203.7
2.5°	1212.7	1201.7	1208.2	1206.2	1195.9	1199.8	1203.7	1199.8	1211.4	1201.1	1208.2
5°	1210.8	1199.1	1203.0	1199.1	1194.0	1195.3	1201.1	1197.2	1208.8	1197.9	1206.9
7.5°	1206.9	1192.7	1196.6	1194.6	1190.1	1190.7	1196.6	1193.3	1203.7	1193.3	1203.7
10°	1201.1	1186.2	1189.5	1181.1	1171.4	1178.5	1190.1	1186.9	1197.9	1186.2	1197.9
12.5°	1192.0	1177.2	1174.0	1146.2	1128.8	1142.3	1177.8	1177.8	1188.2	1177.2	1189.5
15°	1181.7	1165.6	1148.1	1106.2	1088.1	1101.6	1150.7	1167.5	1176.5	1165.6	1177.8
17.5°	1169.4	1150.7	1117.1	1068.1	1051.3	1064.8	1115.2	1152.0	1163.6	1152.0	1163.0
20°	1153.9	1132.0	1084.2	1028.0	1017.0	1029.3	1079.7	1133.3	1149.4	1135.2	1143.0
22.5°	1137.2	1110.7	1047.4	997.0	991.9	999.6	1045.5	1110.0	1131.3	1116.5	1121.7
25°	1116.5	1085.5	1010.6	968.6	964.7	969.3	1011.9	1082.9	1110.7	1095.2	1097.1
27.5°	1094.5	1061.0	975.7	944.7	940.8	942.8	978.3	1052.6	1086.8	1071.3	1068.1
30°	1068.1	1031.9	940.8	912.4	908.6	915.7	946.0	1021.6	1060.3	1044.8	1035.1
32.5°	1041.6	1000.3	906.6	884.7	876.9	883.4	912.4	989.3	1031.3	1015.1	999.0
35°	1008.7	966.7	871.1	849.2	842.7	849.8	878.9	955.7	998.3	982.2	960.2
37.5°	974.4	931.2	838.8	818.8	807.2	815.6	844.6	920.8	964.1	947.3	920.2
40°	940.2	893.7	802.7	782.0	767.1	779.4	809.1	884.0	925.3	909.9	878.9
42.5°	900.2	856.3	767.1	738.1	696.1	735.5	771.0	847.2	885.3	870.5	833.0
45°	858.2	816.2	729.7	659.3	550.2	665.8	732.3	808.5	838.8	824.6	783.9
47.5°	810.4	774.9	691.6	584.4	478.5	590.9	692.9	771.7	794.9	779.4	734.2
50°	768.4	733.6	651.6	521.1	428.1	528.2	650.9	730.3	749.7	735.5	685.1
52.5°	720.6	690.3	608.3	464.9	390.7	472.0	607.0	687.7	703.2	686.4	636.1
55°	673.5	646.4	562.4	415.2	357.7	421.7	561.2	643.8	656.1	636.7	584.4
57.5°	625.7	601.2	515.3	370.7	327.4	377.8	518.5	598.6	607.0	582.5	534.7
60°	576.0	555.3	467.5	331.3	297.7	337.1	466.2	553.4	558.6	532.1	486.2
62.5°	526.3	507.6	419.7	295.1	267.3	299.0	423.0	505.6	508.8	483.7	436.5
65°	475.3	457.8	373.2	257.0	238.3	263.5	376.5	455.9	459.1	430.7	388.1
67.5°	422.3	408.1	323.5	227.9	210.5	229.9	330.0	405.5	407.5	379.7	341.0
70°	369.4	357.1	279.6	196.3	183.4	197.0	284.1	350.0	353.9	324.2	293.2
72.5°	315.1	305.4	237.0	163.4	151.7	163.4	239.6	299.0	301.6	277.0	246.7
75°	260.2	253.1	193.7	131.1	122.0	130.4	195.0	248.0	248.0	224.7	200.8
77.5°	207.3	202.1	148.5	100.7	94.3	99.4	149.2	196.3	195.0	176.9	158.2
80°	155.0	151.1	106.5	73.0	68.4	71.0	106.5	145.3	145.3	132.4	109.8
82.5°	111.1	106.5	70.4	47.8	45.2	46.5	69.1	101.4	103.3	93.6	74.3
85°	73.6	63.3	38.1	26.5	24.5	25.2	36.2	58.8	64.6	54.2	38.7
87.5°	32.3	21.3	9.7	3.9	1.9	2.6	7.7	18.7	24.5	16.1	5.2
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: P520471

CATALOG NUMBER: 4WSLA-100-L930-UNV-U

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1203.7	1203.7	1203.7	1203.7	1203.7	1203.7
2.5°	1207.5	1197.2	1201.1	1203.7	1201.1	1212.7
5°	1206.2	1201.7	1201.1	1204.3	1199.1	1210.8
7.5°	1204.3	1201.7	1201.1	1202.4	1195.9	1206.9
10°	1199.8	1195.9	1197.2	1199.1	1190.7	1201.1
12.5°	1191.4	1187.5	1188.2	1194.6	1183.0	1192.0
15°	1177.2	1172.7	1177.2	1184.3	1174.0	1181.7
17.5°	1158.5	1151.4	1159.1	1170.1	1162.3	1169.4
20°	1134.6	1123.6	1132.0	1152.0	1144.9	1153.9
22.5°	1105.5	1092.0	1100.3	1129.4	1127.5	1137.2
25°	1072.6	1056.4	1068.1	1103.6	1107.4	1116.5
27.5°	1035.8	1017.7	1033.2	1075.2	1084.2	1094.5
30°	995.7	976.4	994.4	1043.5	1057.1	1068.1
32.5°	954.4	933.1	953.8	1008.0	1027.4	1041.6
35°	911.1	889.2	912.4	971.2	994.4	1008.7
37.5°	864.6	843.3	868.5	932.5	960.2	974.4
40°	816.9	793.0	821.4	886.6	923.4	940.2
42.5°	767.8	738.1	773.0	843.3	883.4	900.2
45°	712.9	671.6	718.7	797.5	839.5	858.2
47.5°	658.0	616.7	664.5	748.4	793.6	810.4
50°	605.1	569.5	607.6	694.8	747.1	768.4
52.5°	556.6	527.6	559.9	642.5	699.3	720.6
55°	511.4	488.8	515.3	590.9	649.0	673.5
57.5°	468.8	454.6	472.7	541.8	602.5	625.7
60°	428.8	419.1	432.0	493.3	547.6	576.0
62.5°	389.4	384.2	393.9	442.3	496.6	526.3
65°	351.3	350.0	355.2	397.8	443.0	475.3
67.5°	313.2	312.5	315.8	350.6	390.7	422.3
70°	275.1	279.0	277.0	299.6	338.4	369.4
72.5°	236.3	242.2	238.9	253.1	290.6	315.1
75°	193.1	200.8	194.4	210.5	233.8	260.2
77.5°	148.5	156.9	149.2	163.4	188.6	207.3
80°	106.5	114.3	107.8	118.8	140.8	155.0
82.5°	67.2	73.0	67.8	78.8	100.7	111.1
85°	29.7	32.9	34.2	42.6	62.0	73.6
87.5°	1.3	0.6	1.3	8.4	22.0	32.3
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)