

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: P520575

Luminaire Tested: **4WSLA-200-L940-UPL8-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: P520575
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-174-3)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-200-L940-UPL8-UNV-U
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 90 CRI
LEDS WITH 8% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

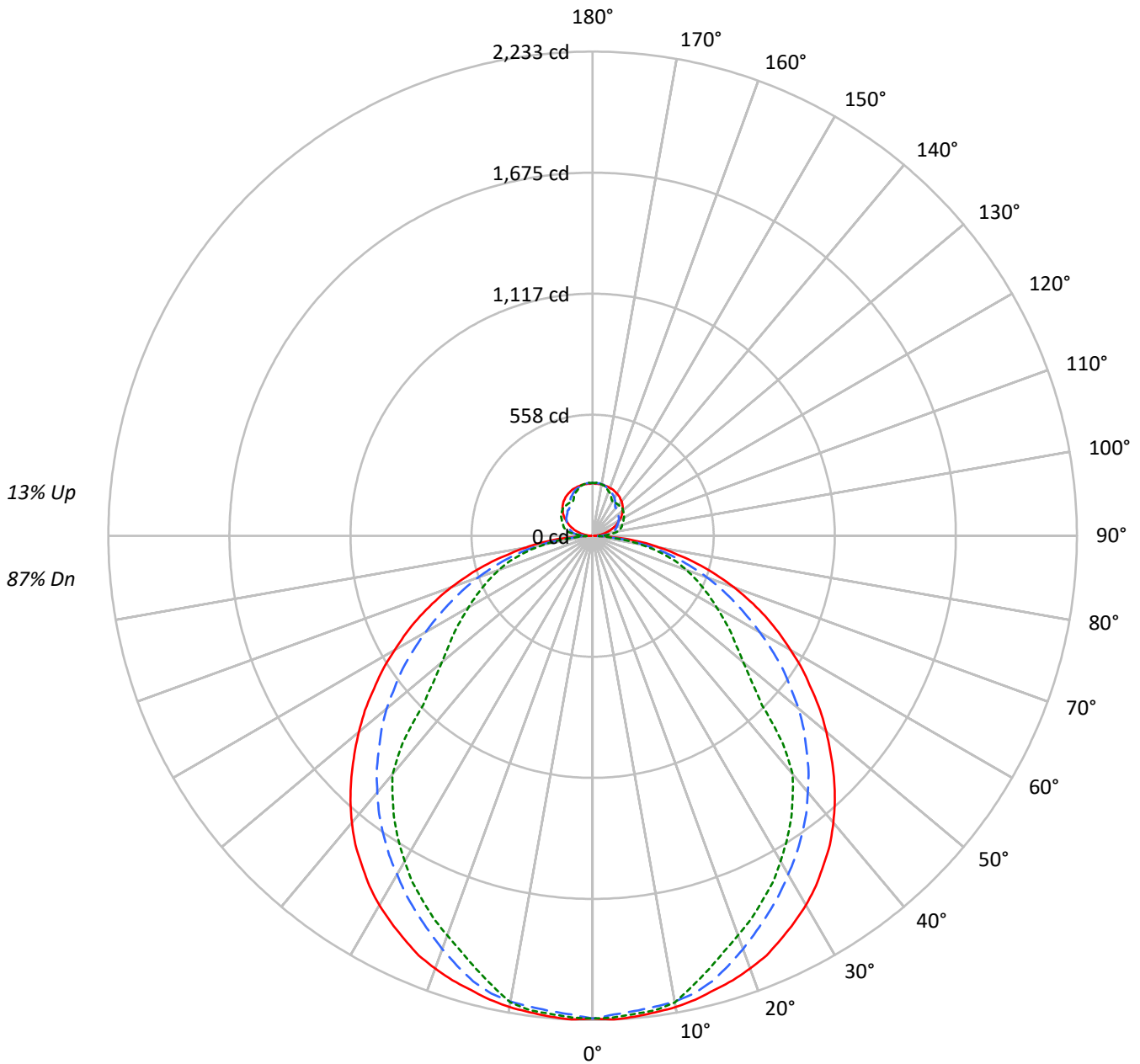
Lumens per Lamp: N/A
Luminaire Lumens: 6929.0 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 76.3
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									
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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87																			
1	106	101	97	93	102	98	94	90	91	88	85	85	83	80	79	78	76	73																			
2	96	88	82	76	92	85	79	74	80	75	70	74	70	67	70	66	64	61																			
3	88	78	70	63	84	75	68	62	70	64	59	66	61	56	62	58	54	51																			
4	80	69	60	54	77	67	59	53	62	56	50	59	53	48	55	50	46	44																			
5	74	61	53	46	71	60	51	45	56	49	44	53	47	42	50	45	40	38																			
6	68	55	47	40	66	54	46	40	51	44	38	48	42	37	45	40	36	33																			
7	63	50	42	36	61	49	41	35	46	39	34	43	37	33	41	36	32	30																			
8	59	46	37	32	57	44	37	31	42	35	30	40	34	29	38	32	28	26																			
9	55	42	34	28	53	41	33	28	39	32	27	37	31	26	35	30	26	24																			
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	32	27	23	22																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11983	11983	11983
5°	12029	11890	11959
10°	12062	11922	11940
15°	12084	11852	11531
20°	12164	11614	11229
25°	12194	11395	11014
30°	12224	11209	10770
35°	12186	11050	10482
40°	12131	10848	10083
45°	11972	10606	8412
50°	11775	10381	7591
55°	11543	10040	7305
60°	11345	9586	7103
65°	11179	9179	7098
70°	10889	8821	7209
75°	10393	8393	7261
80°	9729	7547	6750
85°	8904	5341	4551



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.8	3.0
10°-20°	599.2	8.6
20°-30°	895.4	12.9
30°-40°	1068.8	15.4
40°-50°	1068.9	15.4
50°-60°	925.1	13.4
60°-70°	710.1	10.2
70°-80°	435.1	6.3
80°-90°	122.5	1.8
90°-100°	69.2	1.0
100°-110°	109.9	1.6
110°-120°	128.5	1.9
120°-130°	138.7	2.0
130°-140°	136.7	2.0
140°-150°	120.9	1.7
150°-160°	99.5	1.4
160°-170°	66.6	1.0
170°-180°	23.2	0.3
0°-30°	1705.4	24.6
0°-40°	2774.2	40.0
0°-60°	4768.3	68.8
0°-90°	6035.9	87.1
90°-120°	307.6	4.4
90°-150°	703.8	10.2
90°-180°	893.0	12.9
0°-180°	6929.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2226	2226	2226	2226	2226	
5°	2226	2220	2201	2217	2214	212
15°	2169	2166	2127	2089	2070	614
25°	2054	2028	1919	1868	1855	947
35°	1855	1807	1682	1621	1595	1162
45°	1573	1528	1394	1269	1105	1213
55°	1230	1201	1070	855	778	1103
65°	878	846	721	580	557	867
75°	500	474	404	349	349	527
85°	144	118	86	74	74	151
90°	6	22	35	45	48	10
95°	26	54	74	77	77	25
105°	74	77	109	128	134	77
115°	122	102	128	147	157	119
125°	163	131	147	170	176	146
135°	195	176	163	179	189	151
145°	218	208	183	179	186	136
155°	231	228	215	205	202	106
165°	237	240	234	234	234	67
175°	240	244	244	247	247	23
180°	244	244	244	244	244	



TEST NUMBER: P520575

CATALOG NUMBER: 4WSLA-200-L940-UPL8-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2226.5	2226.5	2226.5	2226.5	2226.5
2.5°	2232.9	2226.5	2210.4	2226.5	2223.2
5°	2226.5	2220.0	2200.8	2216.8	2213.6
7.5°	2216.8	2210.4	2191.2	2210.4	2207.2
10°	2207.2	2200.8	2181.6	2194.4	2184.8
12.5°	2191.2	2184.8	2162.4	2146.4	2127.1
15°	2168.8	2165.6	2127.1	2088.7	2069.5
17.5°	2149.6	2140.0	2079.1	2034.2	2011.8
20°	2123.9	2107.9	2027.8	1976.6	1960.6
22.5°	2095.1	2069.5	1973.4	1925.3	1912.5
25°	2053.5	2027.8	1918.9	1867.7	1854.8
27.5°	2011.8	1979.8	1864.5	1813.2	1800.4
30°	1967.0	1922.1	1803.6	1755.5	1733.1
32.5°	1915.7	1870.9	1745.9	1691.5	1665.8
35°	1854.8	1806.8	1681.9	1621.0	1595.4
37.5°	1797.2	1745.9	1617.8	1550.5	1515.3
40°	1726.7	1675.4	1544.1	1470.4	1435.2
42.5°	1653.0	1605.0	1473.6	1383.9	1297.4
45°	1572.9	1528.1	1393.5	1268.6	1105.2
47.5°	1489.6	1451.2	1319.9	1150.1	993.1
50°	1406.3	1367.9	1239.8	1037.9	906.6
52.5°	1323.1	1291.0	1150.1	945.0	836.1
55°	1230.2	1201.3	1070.0	855.3	778.5
57.5°	1146.9	1118.0	977.1	781.7	717.6
60°	1054.0	1028.3	890.6	708.0	659.9
62.5°	967.5	938.6	804.1	643.9	608.7
65°	877.8	845.7	720.8	579.8	557.4
67.5°	784.9	752.8	640.7	522.2	509.4
70°	692.0	666.3	560.6	464.5	458.1
72.5°	595.9	567.0	480.5	410.1	410.1
75°	499.8	474.1	403.6	349.2	349.2
77.5°	400.4	387.6	323.6	285.1	288.3
80°	313.9	297.9	243.5	217.8	217.8
82.5°	230.7	211.4	163.4	144.2	150.6
85°	144.2	118.5	86.5	73.7	73.7
87.5°	44.8	35.2	25.6	28.8	28.8
90°	6.4	22.4	35.2	44.8	48.1
92.5°	16.0	41.6	51.3	60.9	64.1
95°	25.6	54.5	73.7	76.9	76.9
97.5°	35.2	60.9	89.7	102.5	102.5
100°	48.1	64.1	96.1	115.3	118.5
102.5°	60.9	70.5	102.5	121.7	128.1
105°	73.7	76.9	108.9	128.1	134.5



TEST NUMBER: P520575

CATALOG NUMBER: 4WSLA-200-L940-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.9	96.1	121.7	144.2	150.6
115°	121.7	102.5	128.1	147.4	157.0
117.5°	131.3	112.1	134.5	153.8	160.2
120°	141.0	118.5	137.8	160.2	166.6
122.5°	153.8	124.9	144.2	163.4	173.0
125°	163.4	131.3	147.4	169.8	176.2
127.5°	173.0	144.2	150.6	173.0	179.4
130°	179.4	157.0	153.8	176.2	182.6
132.5°	189.0	166.6	157.0	179.4	185.8
135°	195.4	176.2	163.4	179.4	189.0
137.5°	201.8	185.8	163.4	179.4	185.8
140°	208.2	195.4	166.6	179.4	185.8
142.5°	211.4	201.8	169.8	179.4	185.8
145°	217.8	208.2	182.6	179.4	185.8
147.5°	221.0	214.6	192.2	179.4	185.8
150°	224.2	221.0	201.8	182.6	182.6
152.5°	227.5	224.2	208.2	195.4	189.0
155°	230.7	227.5	214.6	205.0	201.8
157.5°	233.9	233.9	221.0	214.6	211.4
160°	233.9	237.1	227.5	221.0	217.8
162.5°	237.1	240.3	230.7	227.5	224.2
165°	237.1	240.3	233.9	233.9	233.9
167.5°	240.3	243.5	240.3	237.1	237.1
170°	240.3	243.5	240.3	240.3	240.3
172.5°	240.3	243.5	243.5	243.5	243.5
175°	240.3	243.5	243.5	246.7	246.7
177.5°	240.3	243.5	243.5	243.5	243.5
180°	243.5	243.5	243.5	243.5	243.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	86.5	83.3	112.1	134.5	141.0
110°	96.1	89.7	118.5	137.8	144.2



(END OF REPORT)