

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: P520514

Luminaire Tested: **4WSLA-150-L840-UPL15-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: P520514
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-174-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-150-L840-UPL15-UNV-U
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

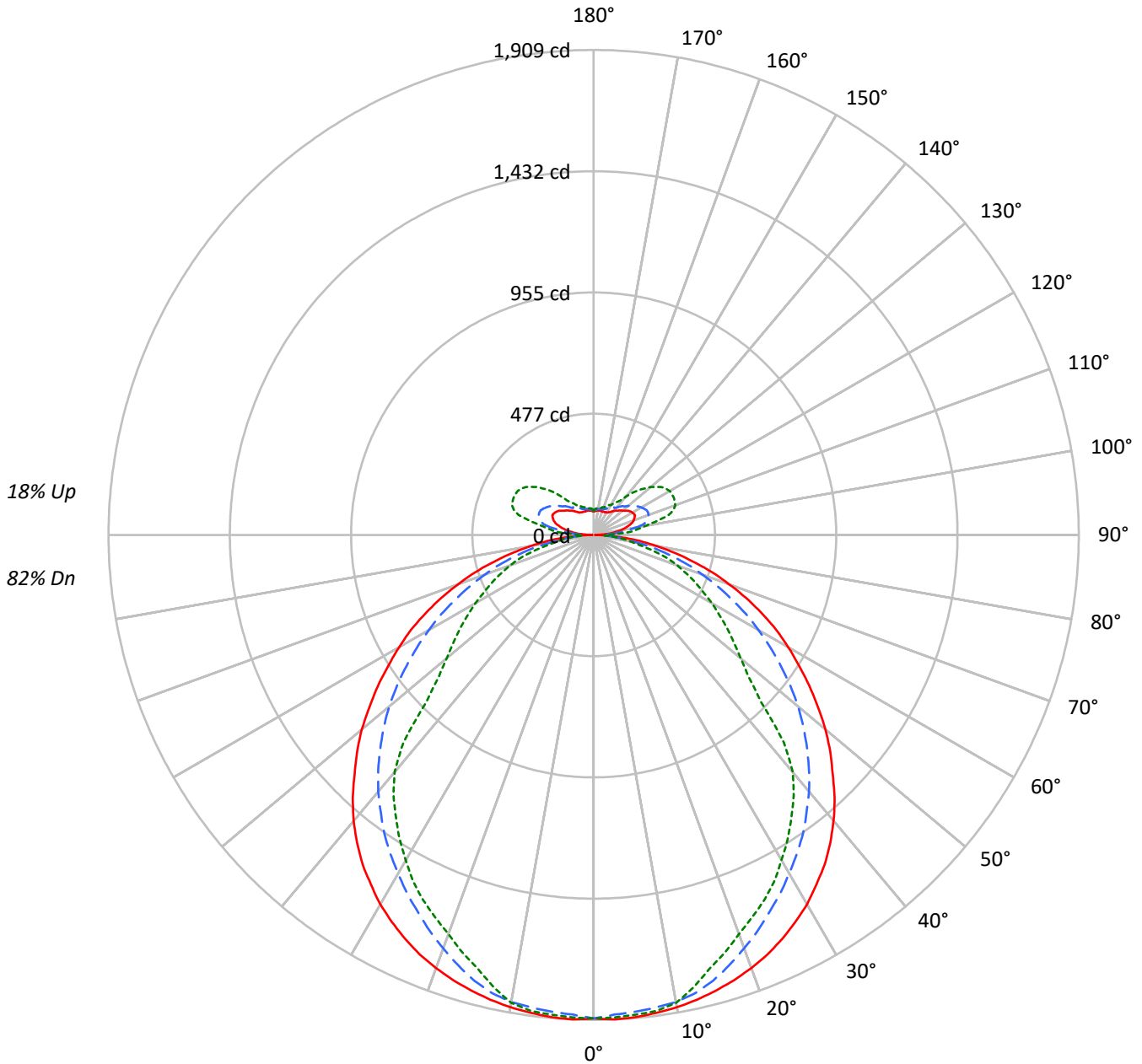
Lumens per Lamp: N/A
Luminaire Lumens: 6164.0 lumens
Efficiency: N/A
Efficacy: 129.2 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 47.7
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82																			
1	105	100	96	92	100	96	93	89	89	86	83	82	80	78	76	74	72	69																			
2	96	88	81	76	91	84	78	73	78	73	69	72	68	65	67	64	61	58																			
3	87	77	69	63	83	74	67	61	69	63	58	64	59	55	59	55	52	49																			
4	80	68	60	53	76	66	58	52	61	55	50	57	51	47	53	48	45	42																			
5	73	61	52	46	70	59	51	45	55	48	43	51	45	41	48	43	39	36																			
6	68	55	46	40	65	53	45	39	50	43	38	46	40	36	43	38	34	32																			
7	63	50	41	35	60	48	40	35	45	38	33	42	36	32	39	34	30	28																			
8	58	45	37	32	56	44	36	31	41	35	30	39	33	29	36	31	27	25																			
9	55	42	34	28	52	40	33	28	38	31	27	36	30	26	33	28	25	23																			
10	51	38	31	26	49	37	30	25	35	29	24	33	27	23	31	26	23	21																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10243	10243	10243
5°	10293	10178	10241
10°	10317	10201	10222
15°	10346	10121	9841
20°	10392	9917	9574
25°	10419	9720	9422
30°	10437	9560	9189
35°	10412	9435	8916
40°	10321	9263	8557
45°	10123	9035	7096
50°	9972	8792	6319
55°	9727	8440	6014
60°	9516	8062	5776
65°	9293	7621	5605
70°	8930	7138	5498
75°	8430	6542	5057
80°	7717	5504	4488
85°	6916	4767	4533



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.4	2.9
10°-20°	512.4	8.3
20°-30°	764.7	12.4
30°-40°	911.2	14.8
40°-50°	906.3	14.7
50°-60°	776.7	12.6
60°-70°	585.0	9.5
70°-80°	338.8	5.5
80°-90°	101.8	1.7
90°-100°	109.3	1.8
100°-110°	224.5	3.6
110°-120°	237.4	3.9
120°-130°	198.0	3.2
130°-140°	138.3	2.2
140°-150°	86.1	1.4
150°-160°	53.4	0.9
160°-170°	30.1	0.5
170°-180°	9.7	0.2
0°-30°	1457.5	23.6
0°-40°	2368.6	38.4
0°-60°	4051.7	65.7
0°-90°	5077.3	82.4
90°-120°	571.2	9.3
90°-150°	993.6	16.1
90°-180°	1087.0	17.6
0°-180°	6164.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1903	1903	1903	1903	1903	
5°	1905	1899	1884	1898	1896	181
15°	1857	1855	1816	1786	1766	525
25°	1755	1730	1637	1596	1587	809
35°	1585	1542	1436	1380	1357	990
45°	1330	1297	1187	1069	932	1028
55°	1037	1021	900	714	641	927
65°	730	712	598	465	440	721
75°	405	392	315	251	243	429
85°	112	98	77	73	73	119
90°	6	27	46	58	62	11
95°	62	83	95	139	151	59
105°	145	151	216	290	307	150
115°	180	152	230	317	348	175
125°	166	147	199	292	328	147
135°	135	147	160	216	249	105
145°	110	127	139	149	158	70
155°	100	106	114	124	126	46
165°	98	102	106	110	110	28
175°	96	98	100	102	104	9
180°	95	95	95	95	95	



TEST NUMBER: P520514

CATALOG NUMBER: 4WSLA-150-L840-UPL15-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1903.3	1903.3	1903.3	1903.3	1903.3
2.5°	1909.1	1905.2	1889.8	1905.2	1901.3
5°	1905.2	1899.4	1884.0	1897.5	1895.6
7.5°	1897.5	1893.6	1876.2	1891.7	1889.8
10°	1887.8	1882.0	1866.6	1878.2	1870.5
12.5°	1874.3	1870.5	1847.3	1837.6	1822.2
15°	1856.9	1855.0	1816.4	1785.5	1766.2
17.5°	1837.6	1829.9	1775.9	1739.2	1721.8
20°	1814.5	1802.9	1731.5	1689.0	1671.6
22.5°	1787.5	1770.1	1687.1	1646.5	1629.2
25°	1754.6	1729.5	1636.9	1596.4	1586.7
27.5°	1718.0	1689.0	1590.6	1550.0	1538.4
30°	1679.4	1642.7	1538.4	1499.8	1478.6
32.5°	1631.1	1596.4	1488.3	1443.9	1420.7
35°	1584.8	1542.3	1436.1	1380.2	1357.0
37.5°	1528.8	1486.3	1376.3	1320.3	1293.3
40°	1469.0	1426.5	1318.4	1252.8	1218.0
42.5°	1403.3	1364.7	1254.7	1175.6	1108.0
45°	1330.0	1297.2	1187.1	1069.4	932.3
47.5°	1262.4	1231.5	1119.6	967.1	826.2
50°	1191.0	1162.0	1050.1	870.6	754.7
52.5°	1111.9	1090.6	974.8	787.6	694.9
55°	1036.6	1021.1	899.5	714.2	640.9
57.5°	957.4	942.0	824.2	644.7	586.8
60°	884.1	868.6	749.0	582.9	536.6
62.5°	810.7	789.5	675.6	523.1	484.5
65°	729.7	712.3	598.4	465.2	440.1
67.5°	648.6	633.1	527.0	411.2	393.8
70°	567.5	554.0	453.6	359.0	349.4
72.5°	488.4	471.0	388.0	306.9	303.1
75°	405.4	391.9	314.6	250.9	243.2
77.5°	326.2	314.6	247.1	191.1	185.3
80°	249.0	237.4	177.6	139.0	144.8
82.5°	183.4	167.9	119.7	108.1	113.9
85°	112.0	98.4	77.2	73.4	73.4
87.5°	38.6	36.7	34.7	40.5	42.5
90°	5.8	27.0	46.3	57.9	61.8
92.5°	32.8	48.3	63.7	75.3	79.1
95°	61.8	83.0	94.6	139.0	150.6
97.5°	84.9	110.0	123.5	164.1	175.7
100°	108.1	131.3	173.7	195.0	208.5
102.5°	127.4	144.8	204.6	247.1	254.8
105°	144.8	150.6	216.2	289.5	306.9



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CATALOG NUMBER: 4WSLA-150-L840-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	173.7	154.4	231.6	314.6	345.5
115°	179.5	152.5	229.7	316.6	347.5
117.5°	179.5	152.5	223.9	316.6	347.5
120°	175.7	154.4	216.2	312.7	345.5
122.5°	171.8	150.6	208.5	305.0	337.8
125°	166.0	146.7	198.8	291.5	328.2
127.5°	156.4	150.6	189.2	274.1	310.8
130°	148.6	152.5	177.6	256.7	293.4
132.5°	142.8	148.6	166.0	237.4	270.2
135°	135.1	146.7	160.2	216.2	249.0
137.5°	129.3	140.9	150.6	196.9	223.9
140°	123.5	137.1	140.9	171.8	195.0
142.5°	115.8	131.3	133.2	160.2	169.9
145°	110.0	127.4	139.0	148.6	158.3
147.5°	104.2	119.7	135.1	137.1	146.7
150°	102.3	112.0	129.3	131.3	135.1
152.5°	100.4	108.1	119.7	131.3	133.2
155°	100.4	106.2	113.9	123.5	125.5
157.5°	98.4	106.2	110.0	117.7	119.7
160°	98.4	104.2	108.1	113.9	115.8
162.5°	98.4	104.2	106.2	112.0	113.9
165°	98.4	102.3	106.2	110.0	110.0
167.5°	98.4	102.3	104.2	108.1	108.1
170°	98.4	100.4	104.2	106.2	106.2
172.5°	96.5	100.4	102.3	106.2	106.2
175°	96.5	98.4	100.4	102.3	104.2
177.5°	92.7	98.4	100.4	102.3	100.4
180°	94.6	94.6	94.6	94.6	94.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	158.3	152.5	223.9	305.0	330.1
110°	167.9	154.4	229.7	310.8	341.7



(END OF REPORT)