

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: P520729

Luminaire Tested: **8WSLA-200-L840-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: P520729  
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: 8WSLA-200-L840-UNV-U  
Description: 8 FOOT, 4000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 80 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

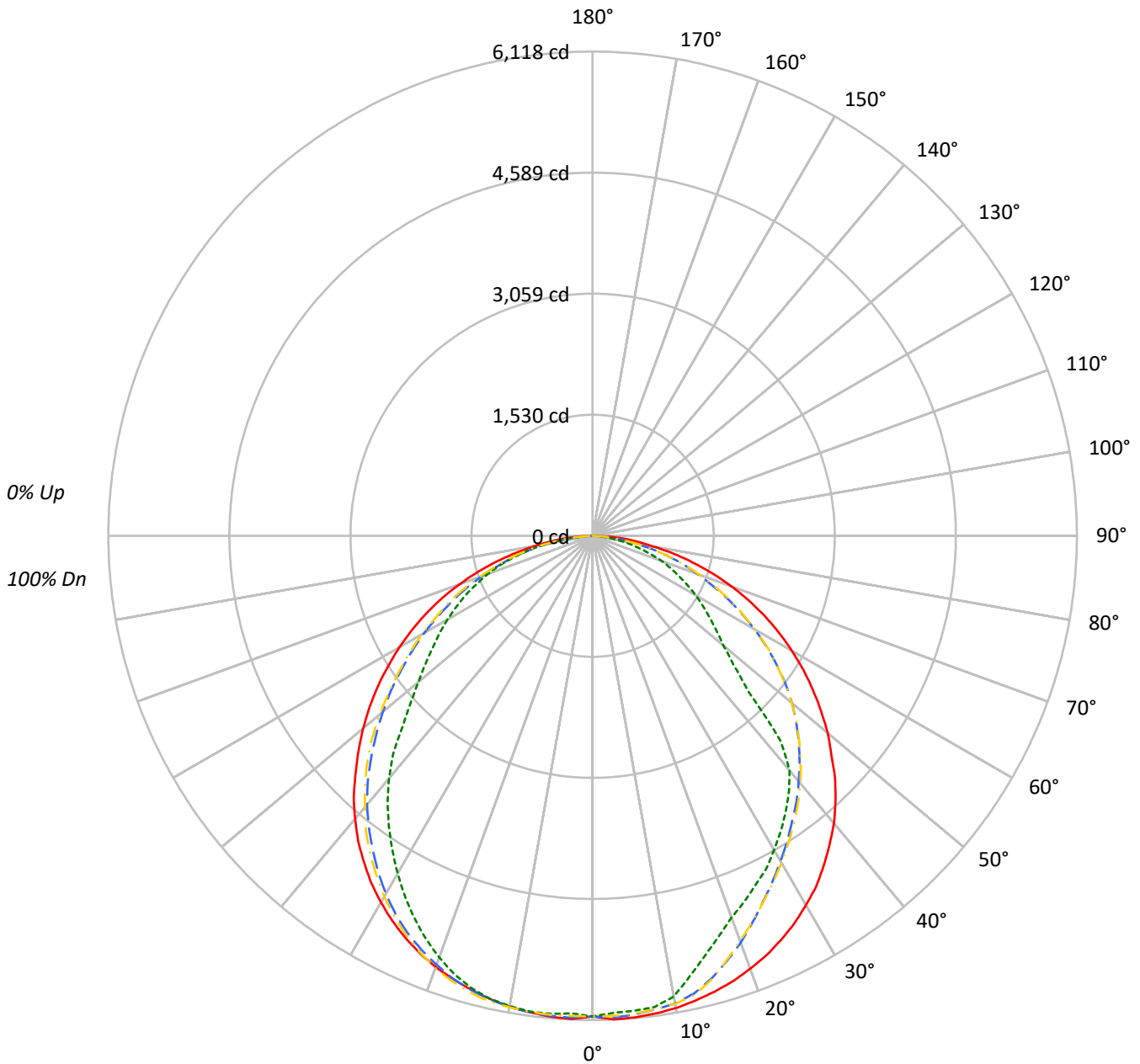
Lumens per Lamp: N/A  
Luminaire Lumens: 16291.0 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 8' x H: 0')  
CIE Type: Direct

Input Watts (W): 152.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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				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			100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70			70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51			51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44			44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39			39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34			34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31			31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28			28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25			25

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

	0°	90°	180°	270°
0°	16342	16342	16342	16342
5°	16501	16272	16474	16378
10°	16558	16149	16514	16487
15°	16610	15294	16537	16483
20°	16672	14694	16607	16234
25°	16725	14452	16638	15825
30°	16744	14243	16622	15306
35°	16717	13967	16546	14737
40°	16663	13596	16400	14054
45°	16478	10563	16105	12894
50°	16230	9043	15835	12030
55°	15942	8468	15529	11570
60°	15641	8083	15167	11380
65°	15268	7655	14749	11244
70°	14662	7279	14047	11073
75°	13650	6402	13007	10534
80°	12117	5351	11359	8937
85°	11467	3822	10059	5132



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	577.0	3.5
10°-20°	1645.8	10.1
20°-30°	2459.2	15.1
30°-40°	2927.3	18.0
40°-50°	2926.1	18.0
50°-60°	2517.8	15.5
60°-70°	1895.0	11.6
70°-80°	1079.9	6.6
80°-90°	262.9	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°	4682.0	28.7
0°-40°	7609.3	46.7
0°-60°	13053.2	80.1
0°-90°	16291.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16291.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	6073	6073	6073	6073	6073	
5°	6109	6024	6099	6063	6109	581
15°	5962	5490	5936	5916	5962	1684
25°	5633	4867	5604	5330	5633	2597
35°	5089	4252	5037	4486	5089	3184
45°	4330	2776	4232	3388	4330	3334
55°	3398	1805	3310	2466	3398	3038
65°	2398	1202	2316	1766	2398	2368
75°	1313	616	1251	1013	1313	1390
85°	371	124	326	166	371	404
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°	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7
2.5°	6118.4	6063.0	6095.6	6085.8	6033.7	6053.2	6072.7	6053.2	6111.8	6059.7	6095.6
5°	6108.6	6049.9	6069.5	6049.9	6023.9	6030.4	6059.7	6040.2	6098.8	6043.4	6089.0
7.5°	6089.0	6017.4	6036.9	6027.1	6004.3	6007.6	6036.9	6020.6	6072.7	6020.6	6072.7
10°	6059.7	5984.8	6001.1	5958.7	5909.9	5945.7	6004.3	5988.0	6043.4	5984.8	6043.4
12.5°	6014.1	5939.2	5922.9	5782.8	5694.8	5763.2	5942.4	5942.4	5994.6	5939.2	6001.1
15°	5962.0	5880.5	5792.6	5580.8	5489.6	5558.0	5805.6	5890.3	5935.9	5880.5	5942.4
17.5°	5900.1	5805.6	5636.2	5388.6	5303.9	5372.3	5626.4	5812.1	5870.8	5812.1	5867.5
20°	5821.9	5711.1	5470.0	5186.6	5131.2	5193.1	5447.2	5717.6	5799.1	5727.4	5766.5
22.5°	5737.2	5603.6	5284.3	5030.2	5004.2	5043.2	5274.6	5600.3	5707.9	5632.9	5659.0
25°	5632.9	5476.5	5098.6	4886.9	4867.3	4890.1	5105.1	5463.5	5603.6	5525.4	5535.2
27.5°	5522.2	5352.7	4922.7	4766.3	4746.8	4756.6	4935.7	5310.4	5483.1	5404.9	5388.6
30°	5388.6	5206.1	4746.8	4603.4	4583.9	4619.7	4772.8	5154.0	5349.5	5271.3	5222.4
32.5°	5255.0	5046.5	4574.1	4463.3	4424.2	4456.8	4603.4	4991.1	5202.9	5121.4	5040.0
35°	5088.9	4877.1	4394.9	4284.2	4251.6	4287.4	4434.0	4821.7	5036.7	4955.3	4844.5
37.5°	4916.2	4697.9	4232.0	4131.0	4072.4	4114.7	4261.3	4645.8	4864.1	4779.4	4642.5
40°	4743.5	4508.9	4049.6	3945.3	3870.4	3932.3	4082.2	4460.1	4668.6	4590.4	4434.0
42.5°	4541.5	4320.0	3870.4	3723.8	3512.0	3710.8	3889.9	4274.4	4466.6	4391.7	4202.7
45°	4329.8	4118.0	3681.4	3326.3	2775.7	3358.9	3694.5	4078.9	4232.0	4160.4	3955.1
47.5°	4088.7	3909.5	3489.2	2948.4	2414.1	2981.0	3495.7	3893.2	4010.5	3932.3	3704.2
50°	3876.9	3701.0	3287.2	2629.1	2160.0	2665.0	3284.0	3684.7	3782.4	3710.8	3456.6
52.5°	3635.8	3482.7	3069.0	2345.7	1971.0	2381.5	3062.4	3469.7	3547.9	3463.2	3209.0
55°	3398.0	3261.2	2837.6	2094.8	1804.9	2127.4	2831.1	3248.1	3310.0	3212.3	2948.4
57.5°	3156.9	3033.1	2599.8	1870.0	1651.8	1905.9	2616.1	3020.1	3062.4	2938.6	2697.6
60°	2906.1	2801.8	2358.7	1671.3	1501.9	1700.6	2352.2	2792.0	2818.1	2684.5	2453.2
62.5°	2655.2	2560.7	2117.6	1488.9	1348.8	1508.4	2133.9	2550.9	2567.2	2440.2	2202.3
65°	2397.8	2309.9	1883.1	1296.6	1202.2	1329.2	1899.4	2300.1	2316.4	2173.0	1958.0
67.5°	2130.7	2059.0	1632.2	1150.0	1062.1	1159.8	1664.8	2046.0	2055.7	1915.7	1720.2
70°	1863.5	1801.6	1410.7	990.4	925.2	993.7	1433.5	1765.8	1785.3	1635.5	1479.1
72.5°	1589.9	1541.0	1195.7	824.3	765.6	824.3	1208.7	1508.4	1521.4	1397.6	1244.5
75°	1312.9	1277.1	977.4	661.4	615.7	658.1	983.9	1251.0	1251.0	1133.8	1013.2
77.5°	1045.8	1019.7	749.3	508.2	475.7	501.7	752.6	990.4	983.9	892.7	798.2
80°	781.9	762.4	537.6	368.1	345.3	358.4	537.6	733.0	733.0	667.9	553.8
82.5°	560.4	537.6	355.1	241.1	228.1	234.6	348.6	511.5	521.3	472.4	374.7
85°	371.4	319.3	192.2	133.6	123.8	127.1	182.4	296.5	325.8	273.7	195.5
87.5°	162.9	107.5	48.9	19.5	9.8	13.0	39.1	94.5	123.8	81.4	26.1
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°	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7
2.5°	6092.3	6040.2	6059.7	6072.7	6059.7	6118.4
5°	6085.8	6063.0	6059.7	6076.0	6049.9	6108.6
7.5°	6076.0	6063.0	6059.7	6066.2	6033.7	6089.0
10°	6053.2	6033.7	6040.2	6049.9	6007.6	6059.7
12.5°	6010.8	5991.3	5994.6	6027.1	5968.5	6014.1
15°	5939.2	5916.4	5939.2	5975.0	5922.9	5962.0
17.5°	5844.7	5808.9	5848.0	5903.3	5864.2	5900.1
20°	5724.2	5668.8	5711.1	5812.1	5776.3	5821.9
22.5°	5577.5	5509.1	5551.5	5698.1	5688.3	5737.2
25°	5411.4	5329.9	5388.6	5567.8	5587.3	5632.9
27.5°	5225.7	5134.5	5212.7	5424.4	5470.0	5522.2
30°	5023.7	4926.0	5017.2	5264.8	5333.2	5388.6
32.5°	4815.2	4707.7	4811.9	5085.6	5183.3	5255.0
35°	4596.9	4486.1	4603.4	4899.9	5017.2	5088.9
37.5°	4362.3	4254.8	4381.9	4704.4	4844.5	4916.2
40°	4121.3	4000.7	4144.1	4473.1	4658.8	4743.5
42.5°	3873.7	3723.8	3899.7	4254.8	4456.8	4541.5
45°	3596.7	3388.2	3626.1	4023.5	4235.3	4329.8
47.5°	3319.8	3111.3	3352.4	3775.9	4004.0	4088.7
50°	3052.7	2873.5	3065.7	3505.5	3769.4	3876.9
52.5°	2808.3	2661.7	2824.6	3241.6	3528.3	3635.8
55°	2580.3	2466.2	2599.8	2981.0	3274.2	3398.0
57.5°	2365.2	2293.6	2384.8	2733.4	3039.6	3156.9
60°	2163.3	2114.4	2179.5	2489.0	2762.7	2906.1
62.5°	1964.5	1938.5	1987.3	2231.7	2505.3	2655.2
65°	1772.3	1765.8	1791.9	2006.9	2234.9	2397.8
67.5°	1580.1	1576.8	1593.1	1769.0	1971.0	2130.7
70°	1387.9	1407.4	1397.6	1511.7	1707.1	1863.5
72.5°	1192.4	1221.7	1205.4	1277.1	1466.1	1589.9
75°	974.1	1013.2	980.6	1062.1	1179.4	1312.9
77.5°	749.3	791.7	752.6	824.3	951.3	1045.8
80°	537.6	576.7	544.1	599.5	710.2	781.9
82.5°	338.8	368.1	342.1	397.5	508.2	560.4
85°	149.9	166.2	172.7	215.0	312.8	371.4
87.5°	6.5	3.3	6.5	42.4	110.8	162.9
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)