

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: P520723

Luminaire Tested: **8WSLA-200-L830-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: P520723
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-L830-UNV-U
Description: 8 FOOT, 4000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

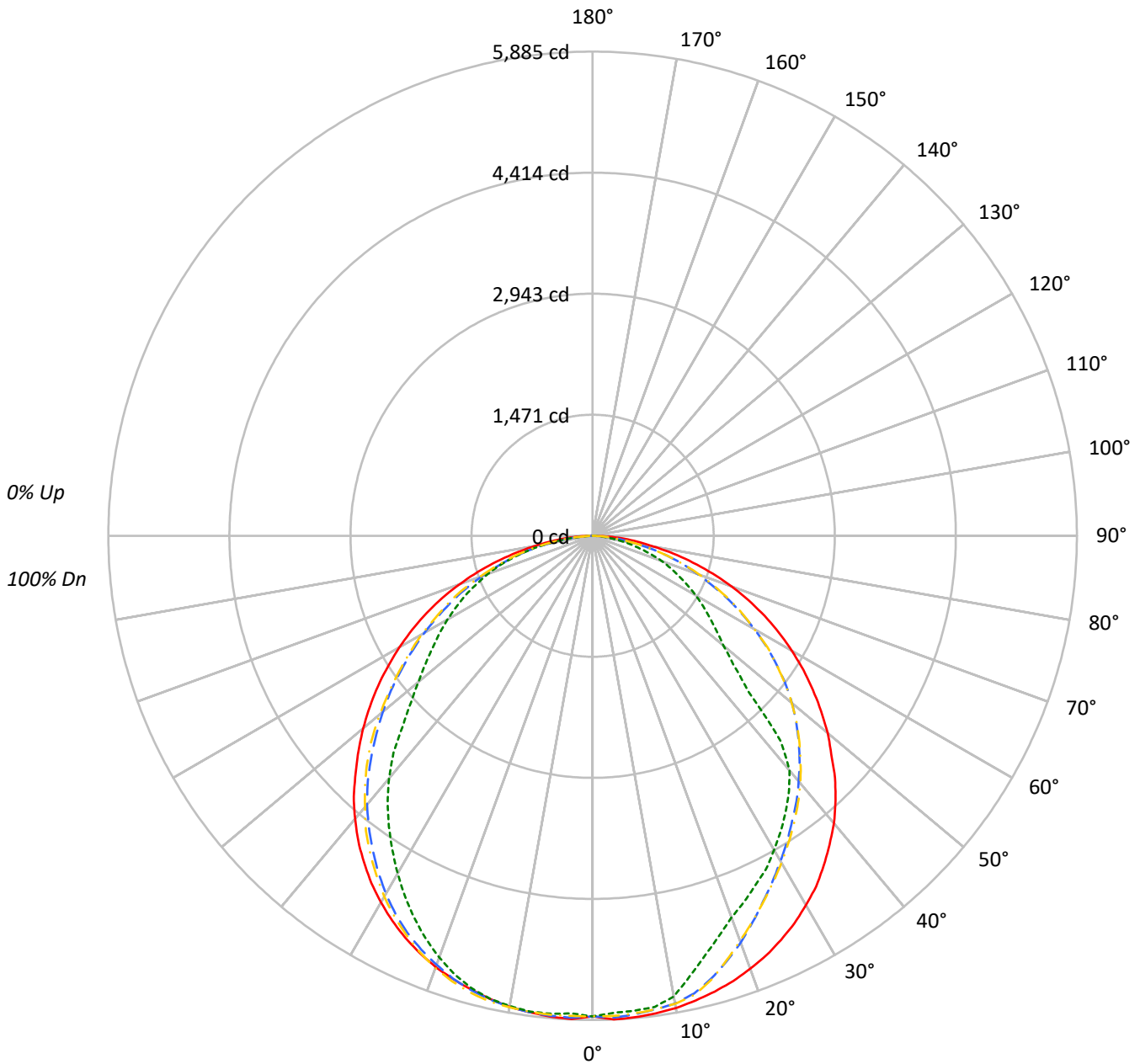
Lumens per Lamp: N/A
Luminaire Lumens: 15670.0 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 152.3
Input Voltage (V): NR
Input Current (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

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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	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°	15719	15719	15719	15719
5°	15872	15652	15846	15753
10°	15927	15533	15884	15859
15°	15976	14710	15906	15854
20°	16037	14134	15974	15615
25°	16088	13901	16004	15222
30°	16106	13700	15989	14723
35°	16080	13434	15915	14175
40°	16028	13078	15775	13518
45°	15849	10161	15492	12403
50°	15612	8698	15231	11571
55°	15334	8145	14938	11129
60°	15044	7775	14589	10946
65°	14686	7363	14187	10815
70°	14103	7002	13512	10652
75°	13131	6158	12511	10133
80°	11655	5148	10927	8596
85°	11029	3677	9676	4934



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	555.0	3.5
10°-20°	1583.0	10.1
20°-30°	2365.5	15.1
30°-40°	2815.8	18.0
40°-50°	2814.5	18.0
50°-60°	2421.8	15.5
60°-70°	1822.8	11.6
70°-80°	1038.7	6.6
80°-90°	252.8	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°	4503.5	28.7
0°-40°	7319.3	46.7
0°-60°	12555.6	80.1
0°-90°	15670.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15670.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	5841	5841	5841	5841	5841	
5°	5876	5794	5866	5832	5876	559
15°	5735	5280	5710	5691	5735	1620
25°	5418	4682	5390	5127	5418	2498
35°	4895	4090	4845	4315	4895	3063
45°	4165	2670	4071	3259	4165	3207
55°	3268	1736	3184	2372	3268	2922
65°	2306	1156	2228	1698	2306	2278
75°	1263	592	1203	975	1263	1337
85°	357	119	313	160	357	389
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°	5841.3	5841.3	5841.3	5841.3	5841.3	5841.3	5841.3	5841.3	5841.3	5841.3	5841.3
2.5°	5885.1	5831.9	5863.2	5853.8	5803.7	5822.5	5841.3	5822.5	5878.9	5828.7	5863.2
5°	5875.7	5819.3	5838.1	5819.3	5794.3	5800.5	5828.7	5809.9	5866.3	5813.1	5856.9
7.5°	5856.9	5788.0	5806.8	5797.4	5775.5	5778.6	5806.8	5791.1	5841.3	5791.1	5841.3
10°	5828.7	5756.6	5772.3	5731.6	5684.6	5719.0	5775.5	5759.8	5813.1	5756.6	5813.1
12.5°	5784.9	5712.8	5697.1	5562.4	5477.7	5543.6	5715.9	5715.9	5766.0	5712.8	5772.3
15°	5734.7	5656.4	5571.8	5368.1	5280.3	5346.1	5584.3	5665.8	5709.6	5656.4	5715.9
17.5°	5675.2	5584.3	5421.3	5183.2	5101.7	5167.5	5411.9	5590.6	5647.0	5590.6	5643.8
20°	5600.0	5493.4	5261.5	4988.9	4935.6	4995.2	5239.6	5499.7	5578.0	5509.1	5546.7
22.5°	5518.5	5390.0	5082.9	4838.5	4813.4	4851.0	5073.5	5386.9	5490.3	5418.2	5443.3
25°	5418.2	5267.8	4904.3	4700.6	4681.8	4703.7	4910.5	5255.3	5390.0	5314.8	5324.2
27.5°	5311.7	5148.7	4735.1	4584.6	4565.8	4575.2	4747.6	5108.0	5274.1	5198.8	5183.2
30°	5183.2	5007.7	4565.8	4427.9	4409.1	4443.6	4590.9	4957.5	5145.6	5070.4	5023.4
32.5°	5054.7	4854.1	4399.7	4293.2	4255.6	4286.9	4427.9	4800.9	5004.6	4926.2	4847.9
35°	4894.9	4691.2	4227.4	4120.8	4089.5	4124.0	4265.0	4637.9	4844.7	4766.4	4659.8
37.5°	4728.8	4518.8	4070.7	3973.6	3917.2	3957.9	4098.9	4468.7	4678.6	4597.2	4465.6
40°	4562.7	4337.1	3895.2	3794.9	3722.9	3782.4	3926.6	4290.1	4490.6	4415.4	4265.0
42.5°	4368.4	4155.3	3722.9	3581.8	3378.2	3569.3	3741.7	4111.4	4296.3	4224.3	4042.5
45°	4164.7	3961.0	3541.1	3199.5	2669.9	3230.9	3553.6	3923.4	4070.7	4001.8	3804.3
47.5°	3932.8	3760.5	3356.2	2836.0	2322.1	2867.4	3362.5	3744.8	3857.6	3782.4	3563.0
50°	3729.1	3559.9	3161.9	2528.9	2077.7	2563.4	3158.8	3544.2	3638.3	3569.3	3324.9
52.5°	3497.2	3349.9	2952.0	2256.3	1895.9	2290.8	2945.7	3337.4	3412.6	3331.1	3086.7
55°	3268.5	3136.9	2729.5	2015.0	1736.1	2046.3	2723.2	3124.3	3183.9	3089.9	2836.0
57.5°	3036.6	2917.5	2500.7	1798.8	1588.8	1833.2	2516.4	2905.0	2945.7	2826.6	2594.7
60°	2795.3	2695.0	2268.8	1607.6	1444.6	1635.8	2262.5	2685.6	2710.7	2582.2	2359.7
62.5°	2554.0	2463.1	2036.9	1432.1	1297.4	1450.9	2052.6	2453.7	2469.4	2347.2	2118.4
65°	2306.4	2221.8	1811.3	1247.2	1156.3	1278.6	1827.0	2212.4	2228.1	2090.2	1883.4
67.5°	2049.5	1980.5	1570.0	1106.2	1021.6	1115.6	1601.3	1968.0	1977.4	1842.6	1654.6
70°	1792.5	1732.9	1356.9	952.7	890.0	955.8	1378.8	1698.5	1717.3	1573.1	1422.7
72.5°	1529.3	1482.3	1150.1	792.8	736.4	792.8	1162.6	1450.9	1463.4	1344.4	1197.1
75°	1262.9	1228.4	940.1	636.1	592.3	633.0	946.4	1203.3	1203.3	1090.5	974.6
77.5°	1005.9	980.9	720.8	488.9	457.5	482.6	723.9	952.7	946.4	858.6	767.8
80°	752.1	733.3	517.1	354.1	332.2	344.7	517.1	705.1	705.1	642.4	532.7
82.5°	539.0	517.1	341.6	231.9	219.4	225.6	335.3	492.0	501.4	454.4	360.4
85°	357.2	307.1	184.9	128.5	119.1	122.2	175.5	285.2	313.4	263.2	188.0
87.5°	156.7	103.4	47.0	18.8	9.4	12.5	37.6	90.9	119.1	78.3	25.1
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°	5841.3	5841.3	5841.3	5841.3	5841.3	5841.3
2.5°	5860.1	5809.9	5828.7	5841.3	5828.7	5885.1
5°	5853.8	5831.9	5828.7	5844.4	5819.3	5875.7
7.5°	5844.4	5831.9	5828.7	5835.0	5803.7	5856.9
10°	5822.5	5803.7	5809.9	5819.3	5778.6	5828.7
12.5°	5781.7	5762.9	5766.0	5797.4	5741.0	5784.9
15°	5712.8	5690.8	5712.8	5747.2	5697.1	5734.7
17.5°	5621.9	5587.4	5625.0	5678.3	5640.7	5675.2
20°	5505.9	5452.7	5493.4	5590.6	5556.1	5600.0
22.5°	5364.9	5299.1	5339.9	5480.9	5471.5	5518.5
25°	5205.1	5126.8	5183.2	5355.5	5374.3	5418.2
27.5°	5026.5	4938.7	5014.0	5217.6	5261.5	5311.7
30°	4832.2	4738.2	4825.9	5064.1	5129.9	5183.2
32.5°	4631.6	4528.2	4628.5	4891.7	4985.8	5054.7
35°	4421.7	4315.1	4427.9	4713.1	4825.9	4894.9
37.5°	4196.1	4092.6	4214.9	4525.1	4659.8	4728.8
40°	3964.2	3848.2	3986.1	4302.6	4481.2	4562.7
42.5°	3726.0	3581.8	3751.1	4092.6	4286.9	4368.4
45°	3459.6	3259.1	3487.8	3870.1	4073.8	4164.7
47.5°	3193.3	2992.7	3224.6	3632.0	3851.3	3932.8
50°	2936.3	2763.9	2948.8	3371.9	3625.7	3729.1
52.5°	2701.3	2560.3	2716.9	3118.1	3393.8	3497.2
55°	2481.9	2372.2	2500.7	2867.4	3149.4	3268.5
57.5°	2275.1	2206.1	2293.9	2629.2	2923.8	3036.6
60°	2080.8	2033.8	2096.5	2394.2	2657.4	2795.3
62.5°	1889.6	1864.6	1911.6	2146.6	2409.8	2554.0
65°	1704.7	1698.5	1723.5	1930.4	2149.7	2306.4
67.5°	1519.9	1516.7	1532.4	1701.6	1895.9	2049.5
70°	1335.0	1353.8	1344.4	1454.0	1642.1	1792.5
72.5°	1146.9	1175.1	1159.5	1228.4	1410.2	1529.3
75°	937.0	974.6	943.3	1021.6	1134.4	1262.9
77.5°	720.8	761.5	723.9	792.8	915.0	1005.9
80°	517.1	554.7	523.3	576.6	683.2	752.1
82.5°	325.9	354.1	329.0	382.3	488.9	539.0
85°	144.2	159.8	166.1	206.8	300.8	357.2
87.5°	6.3	3.1	6.3	40.7	106.5	156.7
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)