

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P563130

Luminaire Tested: FSR-24-4-LD4-3HI-40-UNV-80-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563130
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-3HI-40-UNV-80-94-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12214.0 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

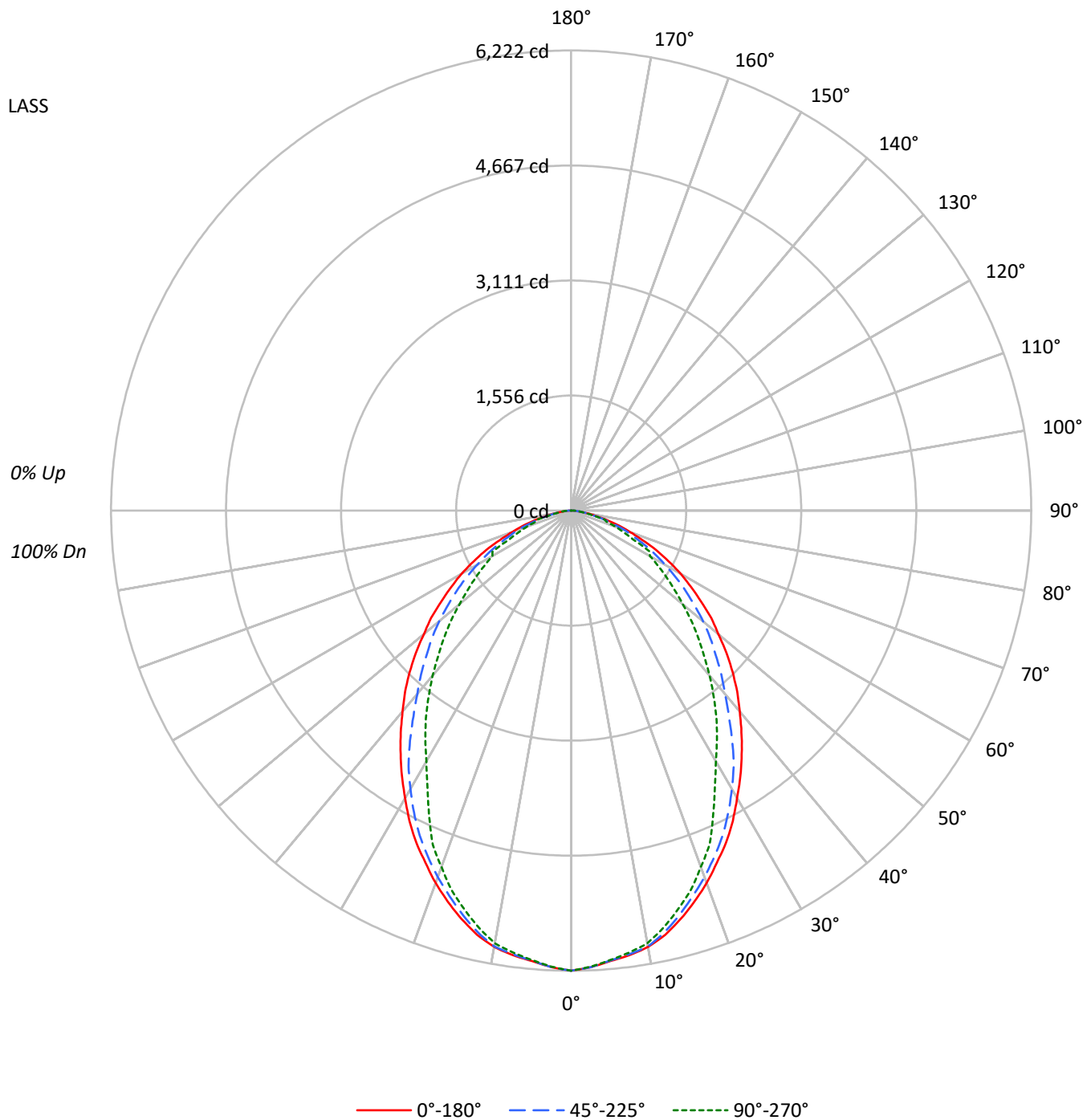
Input Watts (W): 129.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87												87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75												75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65												65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56												56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50												50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44												44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40												40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36												36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33												33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30												30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8371	8371	8371
5°	8257	8248	8238
10°	8186	8176	8117
15°	7965	7885	7775
20°	7673	7549	7343
25°	7357	7197	6749
30°	6973	6750	6079
35°	6604	6238	5624
40°	6228	5685	5116
45°	5871	5256	4626
50°	5435	4878	4125
55°	5028	4421	3695
60°	4607	3948	3310
65°	4053	3458	2931
70°	3339	3028	2490
75°	2655	2318	2430
80°	1784	1672	1561
85°	1110	1332	1555

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5871 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	579.2	4.7
10°-20°	1589.4	13.0
20°-30°	2200.5	18.0
30°-40°	2346.3	19.2
40°-50°	2140.5	17.5
50°-60°	1676.9	13.7
60°-70°	1093.0	8.9
70°-80°	484.2	4.0
80°-90°	104.0	0.9
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°	4369.0	35.8
0°-40°	6715.4	55.0
0°-60°	10532.9	86.2
0°-90°	12214.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12214.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6222	6222	6222	6222	6222	
5°	6114	6107	6107	6099	6099	580
15°	5718	5718	5661	5603	5582	1608
25°	4956	4927	4848	4675	4546	2275
35°	4021	3992	3798	3510	3424	2514
45°	3086	3021	2762	2532	2431	2377
55°	2143	2079	1884	1662	1575	1922
65°	1273	1201	1086	1108	921	1255
75°	511	475	446	424	468	547
85°	72	79	86	94	101	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6221.6	6221.6	6221.6	6221.6	6221.6
2.5°	6178.5	6178.5	6178.5	6171.3	6171.3
5°	6113.8	6106.6	6106.6	6099.4	6099.4
7.5°	6063.4	6056.2	6049.0	6041.8	6027.4
10°	5991.5	5991.5	5984.3	5948.3	5941.1
12.5°	5876.4	5869.2	5840.4	5790.1	5775.7
15°	5718.2	5718.2	5660.6	5603.1	5581.5
17.5°	5545.5	5538.3	5466.4	5408.9	5380.1
20°	5358.5	5344.1	5272.2	5178.7	5128.4
22.5°	5149.9	5149.9	5063.6	4941.4	4891.0
25°	4955.7	4927.0	4847.9	4675.2	4545.8
27.5°	4732.8	4689.6	4603.3	4358.8	4207.7
30°	4488.2	4466.6	4344.4	4027.9	3912.8
32.5°	4258.1	4222.1	4092.6	3761.8	3668.3
35°	4020.7	3991.9	3797.7	3510.0	3423.7
37.5°	3783.3	3747.4	3502.8	3272.7	3164.8
40°	3546.0	3502.8	3236.7	3028.1	2913.0
42.5°	3323.0	3265.5	3006.5	2783.6	2654.1
45°	3085.6	3020.9	2762.0	2531.8	2431.1
47.5°	2848.3	2790.8	2553.4	2316.0	2201.0
50°	2596.5	2546.2	2330.4	2093.1	1970.8
52.5°	2388.0	2308.8	2100.3	1862.9	1762.2
55°	2143.4	2078.7	1884.5	1661.5	1575.2
57.5°	1920.4	1855.7	1675.9	1467.3	1395.4
60°	1711.9	1618.3	1467.3	1287.5	1229.9
62.5°	1481.7	1409.8	1280.3	1129.2	1201.2
65°	1273.1	1201.2	1086.1	1107.7	920.7
67.5°	1042.9	1007.0	906.3	805.6	776.8
70°	848.7	805.6	769.6	661.7	633.0
72.5°	676.1	633.0	582.6	525.1	503.5
75°	510.7	474.7	445.9	424.4	467.5
77.5°	352.4	338.1	316.5	294.9	287.7
80°	230.2	223.0	215.8	208.6	201.4
82.5°	136.7	136.7	136.7	136.7	136.7
85°	71.9	79.1	86.3	93.5	100.7
87.5°	43.2	43.2	50.3	57.5	64.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)