

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: P560346

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-82-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560346
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-12-2-LD4-2HI-50-UNV-82-94-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3117.0 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

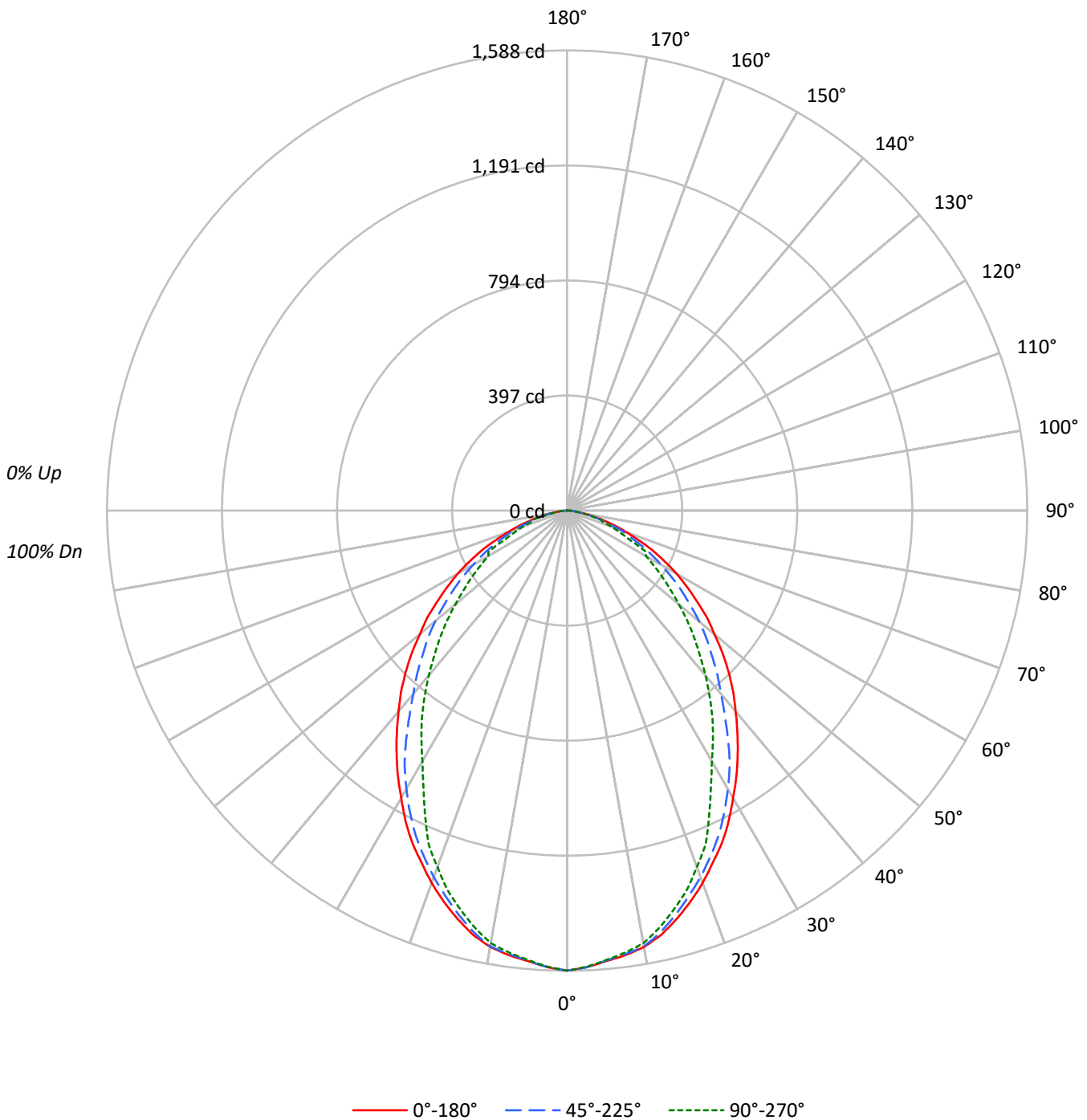
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8545	8545	8545
5°	8429	8419	8410
10°	8356	8346	8286
15°	8131	8049	7936
20°	7832	7706	7496
25°	7510	7347	6889
30°	7118	6890	6205
35°	6742	6368	5740
40°	6358	5803	5223
45°	5994	5365	4722
50°	5548	4979	4211
55°	5133	4512	3772
60°	4703	4031	3379
65°	4138	3530	2993
70°	3408	3091	2541
75°	2709	2366	2481
80°	1819	1708	1593
85°	1136	1359	1587

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5994 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.8	4.7
10°-20°	405.6	13.0
20°-30°	561.6	18.0
30°-40°	598.8	19.2
40°-50°	546.3	17.5
50°-60°	428.0	13.7
60°-70°	278.9	8.9
70°-80°	123.6	4.0
80°-90°	26.5	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°	1115.0	35.8
0°-40°	1713.8	55.0
0°-60°	2688.0	86.2
0°-90°	3117.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3117.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1588	1588	1588	1588	1588	
5°	1560	1558	1558	1557	1557	148
15°	1459	1459	1445	1430	1424	410
25°	1265	1257	1237	1193	1160	581
35°	1026	1019	969	896	874	641
45°	788	771	705	646	620	607
55°	547	530	481	424	402	491
65°	325	306	277	283	235	320
75°	130	121	114	108	119	140
85°	18	20	22	24	26	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1587.8	1587.8	1587.8	1587.8	1587.8
2.5°	1576.7	1576.7	1576.7	1574.9	1574.9
5°	1560.2	1558.4	1558.4	1556.6	1556.6
7.5°	1547.4	1545.5	1543.7	1541.9	1538.2
10°	1529.0	1529.0	1527.2	1518.0	1516.2
12.5°	1499.7	1497.8	1490.5	1477.6	1474.0
15°	1459.3	1459.3	1444.6	1429.9	1424.4
17.5°	1415.2	1413.4	1395.0	1380.3	1373.0
20°	1367.5	1363.8	1345.5	1321.6	1308.8
22.5°	1314.3	1314.3	1292.2	1261.0	1248.2
25°	1264.7	1257.4	1237.2	1193.1	1160.1
27.5°	1207.8	1196.8	1174.8	1112.3	1073.8
30°	1145.4	1139.9	1108.7	1027.9	998.5
32.5°	1086.7	1077.5	1044.4	960.0	936.1
35°	1026.1	1018.7	969.2	895.8	873.7
37.5°	965.5	956.3	893.9	835.2	807.6
40°	904.9	893.9	826.0	772.8	743.4
42.5°	848.0	833.3	767.3	710.4	677.3
45°	787.5	770.9	704.9	646.1	620.4
47.5°	726.9	712.2	651.6	591.0	561.7
50°	662.6	649.8	594.7	534.1	502.9
52.5°	609.4	589.2	536.0	475.4	449.7
55°	547.0	530.5	480.9	424.0	402.0
57.5°	490.1	473.6	427.7	374.5	356.1
60°	436.9	413.0	374.5	328.6	313.9
62.5°	378.1	359.8	326.7	288.2	306.5
65°	324.9	306.5	277.2	282.7	235.0
67.5°	266.2	257.0	231.3	205.6	198.2
70°	216.6	205.6	196.4	168.9	161.5
72.5°	172.5	161.5	148.7	134.0	128.5
75°	130.3	121.1	113.8	108.3	119.3
77.5°	89.9	86.3	80.8	75.3	73.4
80°	58.7	56.9	55.1	53.2	51.4
82.5°	34.9	34.9	34.9	34.9	34.9
85°	18.4	20.2	22.0	23.9	25.7
87.5°	11.0	11.0	12.8	14.7	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)