

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: P560340

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-82-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560340
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-82-86-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3014.0 lumens
Efficiency: N/A
Efficacy: 69.8 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

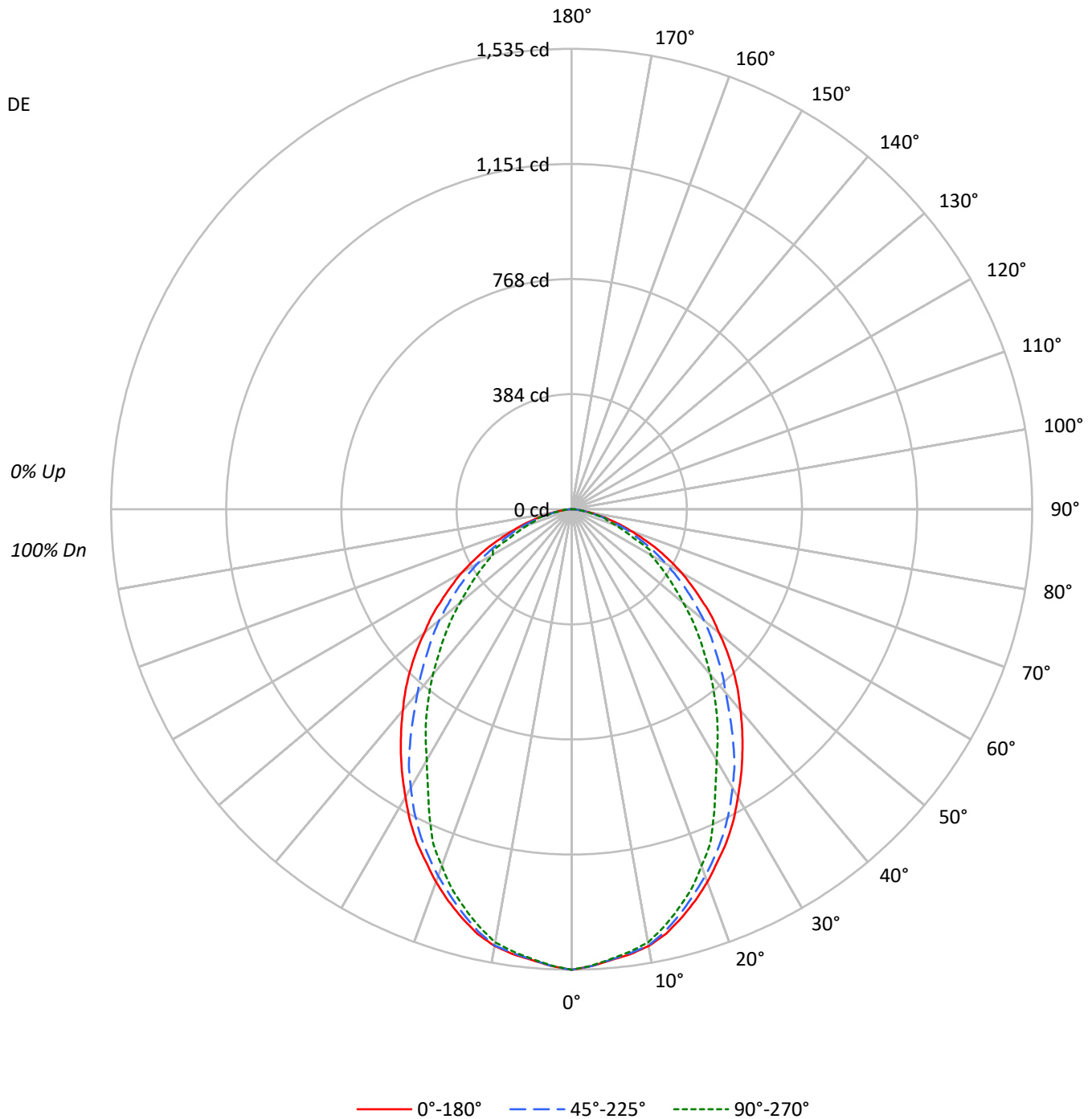
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560340

CATALOG NUMBER: FSR-12-2-LD4-2HI-50-UNV-82-86-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P560340

CATALOG NUMBER: FSR-12-2-LD4-2HI-50-UNV-82-86-EDD-90

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°	8263	8263	8263
5°	8151	8141	8131
10°	8080	8070	8012
15°	7862	7783	7674
20°	7573	7451	7248
25°	7262	7104	6661
30°	6883	6662	6000
35°	6519	6157	5551
40°	6147	5611	5050
45°	5795	5188	4566
50°	5364	4815	4072
55°	4963	4363	3647
60°	4547	3898	3267
65°	4001	3413	2893
70°	3295	2988	2458
75°	2620	2287	2400
80°	1760	1649	1540
85°	1093	1315	1531

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5795 cd/sqm

TEST NUMBER: P560340

CATALOG NUMBER: FSR-12-2-LD4-2HI-50-UNV-82-86-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.9	4.7
10°-20°	392.2	13.0
20°-30°	543.0	18.0
30°-40°	579.0	19.2
40°-50°	528.2	17.5
50°-60°	413.8	13.7
60°-70°	269.7	8.9
70°-80°	119.5	4.0
80°-90°	25.6	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°	1078.1	35.8
0°-40°	1657.1	55.0
0°-60°	2599.1	86.2
0°-90°	3014.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3014.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1535	1535	1535	1535	1535	
5°	1509	1507	1507	1505	1505	143
15°	1411	1411	1397	1383	1377	397
25°	1223	1216	1196	1154	1122	561
35°	992	985	937	866	845	620
45°	761	746	682	625	600	587
55°	529	513	465	410	389	474
65°	314	296	268	273	227	310
75°	126	117	110	105	115	135
85°	18	20	21	23	25	25
90°	0	0	0	0	0	



TEST NUMBER: P560340

CATALOG NUMBER: FSR-12-2-LD4-2HI-50-UNV-82-86-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1535.3	1535.3	1535.3	1535.3	1535.3
2.5°	1524.6	1524.6	1524.6	1522.9	1522.9
5°	1508.7	1506.9	1506.9	1505.1	1505.1
7.5°	1496.2	1494.5	1492.7	1490.9	1487.4
10°	1478.5	1478.5	1476.7	1467.8	1466.1
12.5°	1450.1	1448.3	1441.2	1428.8	1425.2
15°	1411.0	1411.0	1396.8	1382.6	1377.3
17.5°	1368.5	1366.7	1348.9	1334.7	1327.6
20°	1322.3	1318.8	1301.0	1277.9	1265.5
22.5°	1270.8	1270.8	1249.5	1219.4	1206.9
25°	1222.9	1215.8	1196.3	1153.7	1121.7
27.5°	1167.9	1157.2	1135.9	1075.6	1038.3
30°	1107.5	1102.2	1072.0	993.9	965.5
32.5°	1050.7	1041.9	1009.9	928.3	905.2
35°	992.2	985.1	937.1	866.2	844.9
37.5°	933.6	924.7	864.4	807.6	781.0
40°	875.0	864.4	798.7	747.2	718.8
42.5°	820.0	805.8	741.9	686.9	654.9
45°	761.4	745.5	681.6	624.8	599.9
47.5°	702.9	688.7	630.1	571.5	543.1
50°	640.7	628.3	575.1	516.5	486.3
52.5°	589.3	569.7	518.3	459.7	434.9
55°	528.9	512.9	465.0	410.0	388.7
57.5°	473.9	457.9	413.6	362.1	344.3
60°	422.4	399.4	362.1	317.7	303.5
62.5°	365.6	347.9	315.9	278.7	296.4
65°	314.2	296.4	268.0	273.3	227.2
67.5°	257.4	248.5	223.6	198.8	191.7
70°	209.4	198.8	189.9	163.3	156.2
72.5°	166.8	156.2	143.8	129.6	124.2
75°	126.0	117.1	110.0	104.7	115.4
77.5°	87.0	83.4	78.1	72.8	71.0
80°	56.8	55.0	53.2	51.5	49.7
82.5°	33.7	33.7	33.7	33.7	33.7
85°	17.7	19.5	21.3	23.1	24.8
87.5°	10.6	10.6	12.4	14.2	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)