

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: P560344

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560344
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-82-88-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2626.0 lumens
Efficiency: N/A
Efficacy: 60.8 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

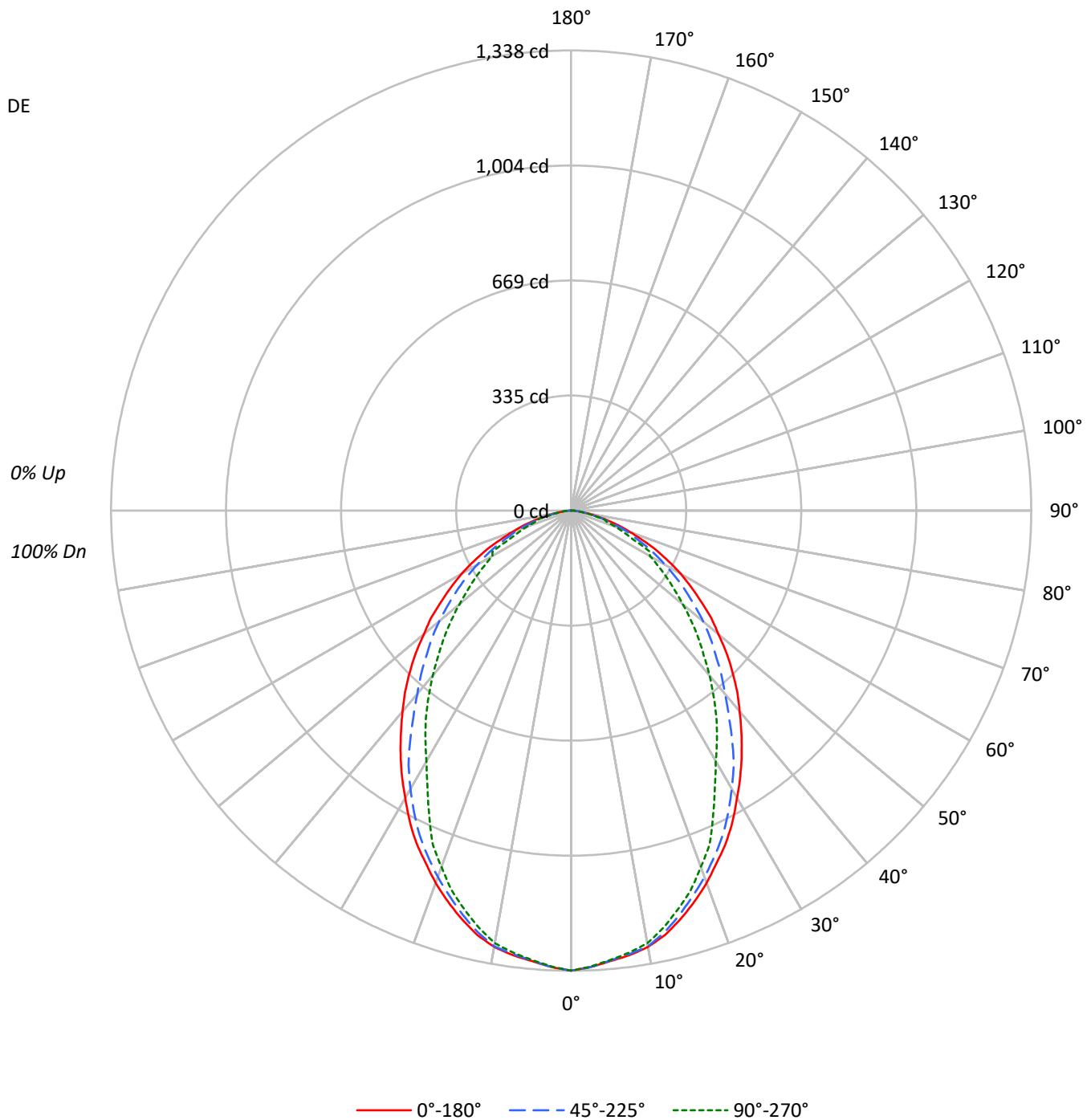
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7199	7199	7199
5°	7102	7093	7085
10°	7040	7031	6980
15°	6850	6781	6686
20°	6598	6492	6315
25°	6327	6190	5804
30°	5997	5804	5228
35°	5679	5365	4836
40°	5356	4889	4400
45°	5049	4520	3978
50°	4675	4195	3548
55°	4324	3802	3178
60°	3961	3396	2846
65°	3486	2974	2520
70°	2872	2604	2142
75°	2283	1994	2090
80°	1534	1438	1342
85°	957	1149	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5049 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.5	4.7
10°-20°	341.7	13.0
20°-30°	473.1	18.0
30°-40°	504.5	19.2
40°-50°	460.2	17.5
50°-60°	360.5	13.7
60°-70°	235.0	8.9
70°-80°	104.1	4.0
80°-90°	22.4	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°	939.3	35.8
0°-40°	1443.8	55.0
0°-60°	2264.6	86.2
0°-90°	2626.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2626.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1338	1338	1338	1338	1338	
5°	1314	1313	1313	1311	1311	125
15°	1229	1229	1217	1205	1200	346
25°	1066	1059	1042	1005	977	489
35°	864	858	816	755	736	540
45°	663	650	594	544	523	511
55°	461	447	405	357	339	413
65°	274	258	234	238	198	270
75°	110	102	96	91	100	118
85°	16	17	19	20	22	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1337.6	1337.6	1337.6	1337.6	1337.6
2.5°	1328.4	1328.4	1328.4	1326.8	1326.8
5°	1314.5	1312.9	1312.9	1311.4	1311.4
7.5°	1303.6	1302.1	1300.5	1299.0	1295.9
10°	1288.2	1288.2	1286.6	1278.9	1277.3
12.5°	1263.4	1261.9	1255.7	1244.9	1241.8
15°	1229.4	1229.4	1217.0	1204.7	1200.0
17.5°	1192.3	1190.7	1175.3	1162.9	1156.7
20°	1152.1	1149.0	1133.5	1113.4	1102.6
22.5°	1107.2	1107.2	1088.7	1062.4	1051.6
25°	1065.5	1059.3	1042.3	1005.2	977.3
27.5°	1017.5	1008.3	989.7	937.1	904.7
30°	965.0	960.3	934.0	866.0	841.2
32.5°	915.5	907.7	879.9	808.8	788.7
35°	864.4	858.3	816.5	754.7	736.1
37.5°	813.4	805.7	753.1	703.6	680.4
40°	762.4	753.1	695.9	651.0	626.3
42.5°	714.4	702.1	646.4	598.5	570.6
45°	663.4	649.5	593.8	544.3	522.7
47.5°	612.4	600.0	549.0	497.9	473.2
50°	558.3	547.4	501.0	450.0	423.7
52.5°	513.4	496.4	451.6	400.5	378.9
55°	460.8	446.9	405.2	357.2	338.7
57.5°	412.9	399.0	360.3	315.5	300.0
60°	368.0	347.9	315.5	276.8	264.4
62.5°	318.6	303.1	275.3	242.8	258.3
65°	273.7	258.3	233.5	238.1	197.9
67.5°	224.2	216.5	194.8	173.2	167.0
70°	182.5	173.2	165.5	142.3	136.1
72.5°	145.4	136.1	125.3	112.9	108.2
75°	109.8	102.1	95.9	91.2	100.5
77.5°	75.8	72.7	68.0	63.4	61.9
80°	49.5	47.9	46.4	44.8	43.3
82.5°	29.4	29.4	29.4	29.4	29.4
85°	15.5	17.0	18.6	20.1	21.6
87.5°	9.3	9.3	10.8	12.4	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)