

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: P560345

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560345
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
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3018.0 lumens
Efficiency: N/A
Efficacy: 69.9 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

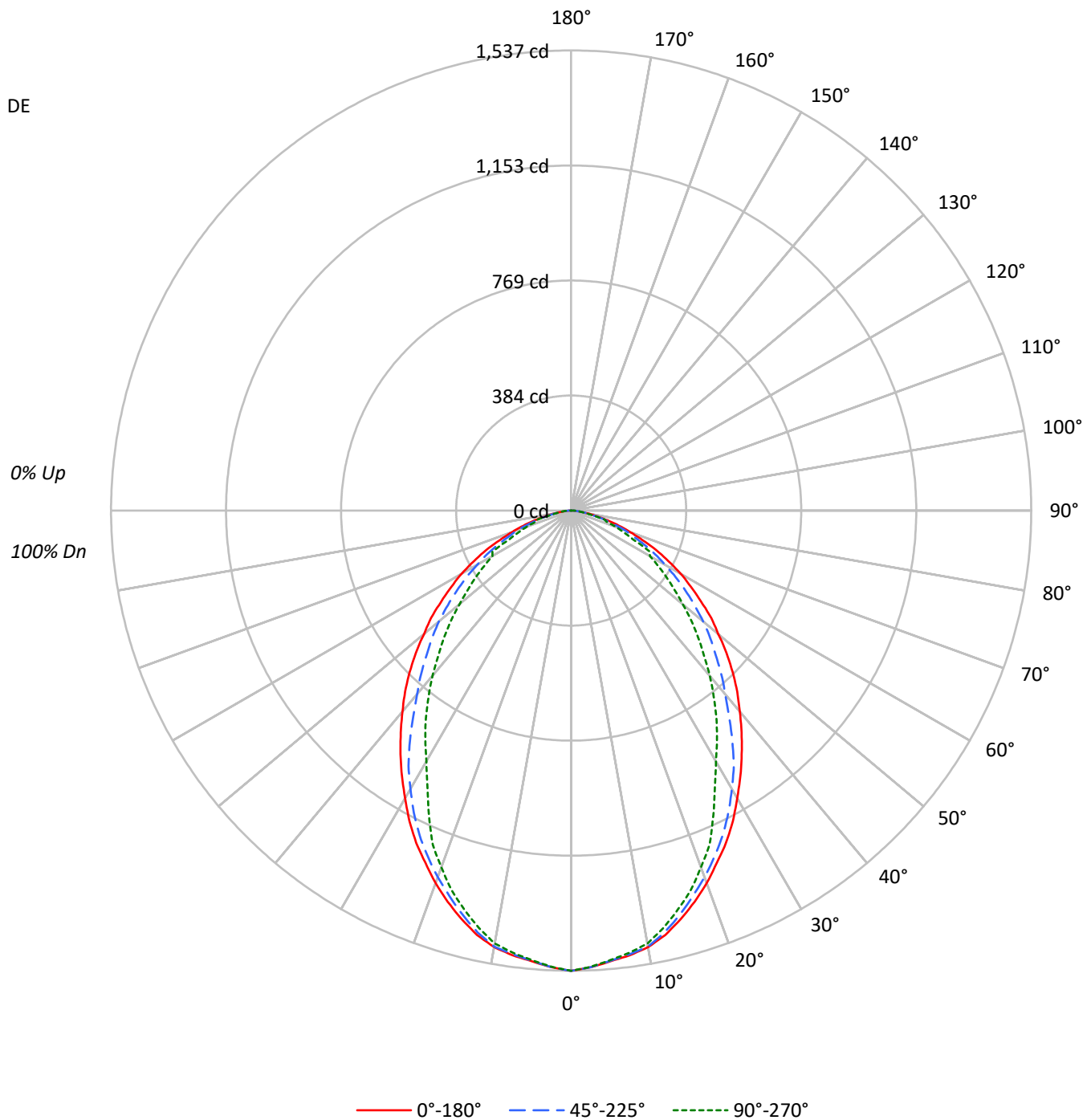
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8274	8274	8274
5°	8162	8152	8142
10°	8091	8081	8023
15°	7872	7793	7685
20°	7584	7461	7258
25°	7271	7114	6670
30°	6892	6671	6008
35°	6527	6165	5558
40°	6156	5619	5057
45°	5803	5195	4572
50°	5372	4821	4078
55°	4969	4369	3652
60°	4553	3903	3271
65°	4006	3418	2897
70°	3300	2993	2461
75°	2624	2292	2402
80°	1764	1652	1543
85°	1099	1315	1538

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5803 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.1	4.7
10°-20°	392.7	13.0
20°-30°	543.7	18.0
30°-40°	579.8	19.2
40°-50°	528.9	17.5
50°-60°	414.4	13.7
60°-70°	270.1	8.9
70°-80°	119.7	4.0
80°-90°	25.7	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°	1079.6	35.8
0°-40°	1659.3	55.0
0°-60°	2602.6	86.2
0°-90°	3018.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3018.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1511	1509	1509	1507	1507	143
15°	1413	1413	1399	1384	1379	397
25°	1224	1217	1198	1155	1123	562
35°	994	986	938	867	846	621
45°	762	746	682	626	601	587
55°	530	514	466	410	389	475
65°	315	297	268	274	228	310
75°	126	117	110	105	116	135
85°	18	20	21	23	25	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1537.3	1537.3	1537.3	1537.3	1537.3
2.5°	1526.7	1526.7	1526.7	1524.9	1524.9
5°	1510.7	1508.9	1508.9	1507.1	1507.1
7.5°	1498.2	1496.5	1494.7	1492.9	1489.3
10°	1480.5	1480.5	1478.7	1469.8	1468.0
12.5°	1452.0	1450.2	1443.1	1430.7	1427.1
15°	1412.9	1412.9	1398.7	1384.5	1379.2
17.5°	1370.3	1368.5	1350.7	1336.5	1329.4
20°	1324.1	1320.5	1302.7	1279.6	1267.2
22.5°	1272.5	1272.5	1251.2	1221.0	1208.5
25°	1224.5	1217.4	1197.9	1155.2	1123.2
27.5°	1169.4	1158.8	1137.4	1077.0	1039.7
30°	1109.0	1103.7	1073.5	995.3	966.8
32.5°	1052.1	1043.3	1011.3	929.5	906.4
35°	993.5	986.4	938.4	867.3	846.0
37.5°	934.8	926.0	865.5	808.7	782.0
40°	876.2	865.5	799.8	748.2	719.8
42.5°	821.1	806.9	742.9	687.8	655.8
45°	762.4	746.4	682.5	625.6	600.7
47.5°	703.8	689.6	630.9	572.3	543.8
50°	641.6	629.1	575.8	517.2	487.0
52.5°	590.0	570.5	519.0	460.3	435.4
55°	529.6	513.6	465.6	410.5	389.2
57.5°	474.5	458.5	414.1	362.6	344.8
60°	423.0	399.9	362.6	318.1	303.9
62.5°	366.1	348.3	316.4	279.0	296.8
65°	314.6	296.8	268.4	273.7	227.5
67.5°	257.7	248.8	223.9	199.1	191.9
70°	209.7	199.1	190.2	163.5	156.4
72.5°	167.1	156.4	144.0	129.7	124.4
75°	126.2	117.3	110.2	104.9	115.5
77.5°	87.1	83.5	78.2	72.9	71.1
80°	56.9	55.1	53.3	51.5	49.8
82.5°	33.8	33.8	33.8	33.8	33.8
85°	17.8	19.5	21.3	23.1	24.9
87.5°	10.7	10.7	12.4	14.2	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)