

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: P558547

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-82-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558547
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-12-1-LD4-1HI-40-UNV-82-85-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 889.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

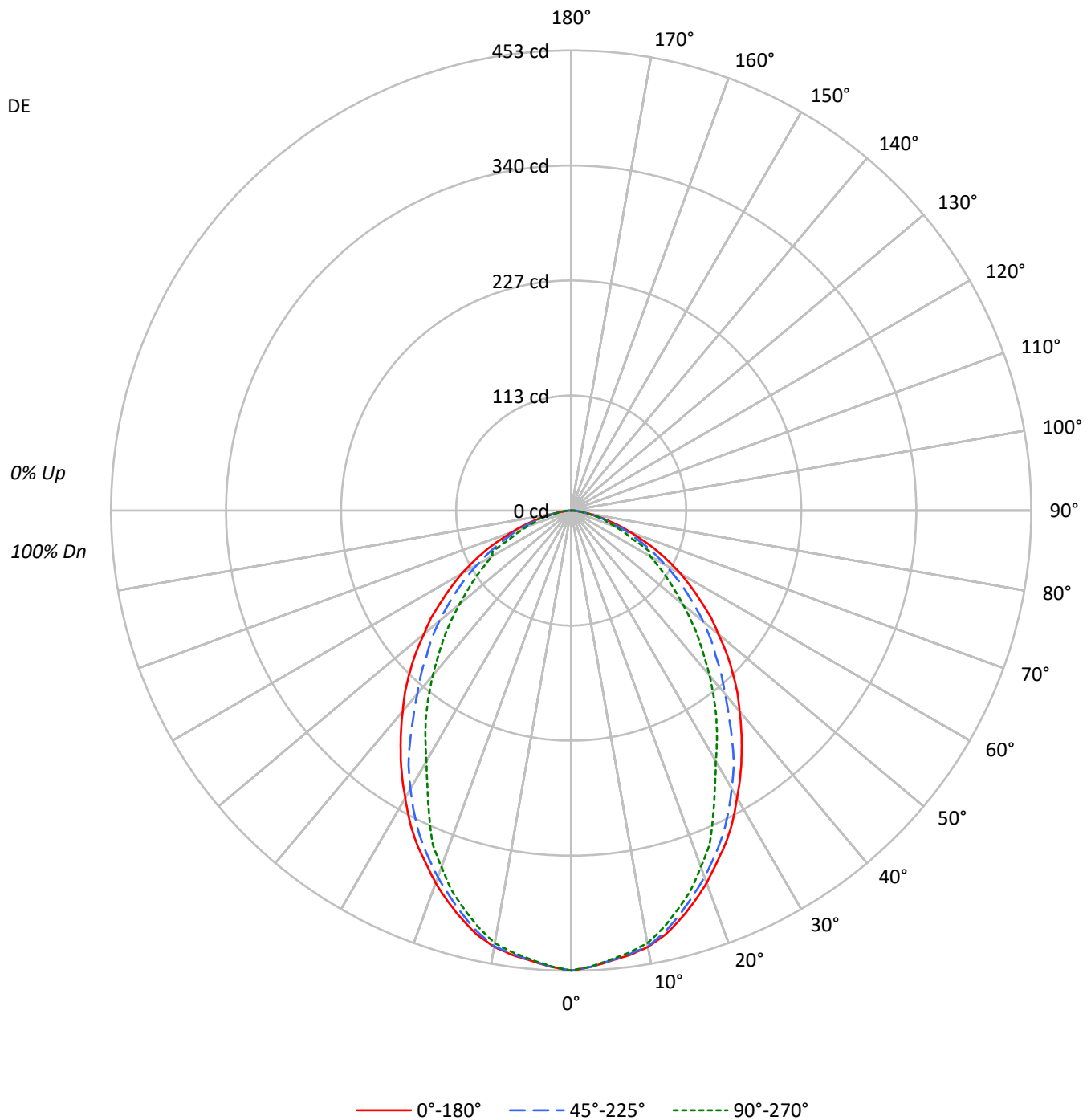
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4874	4874	4874
5°	4808	4803	4796
10°	4767	4761	4726
15°	4638	4591	4528
20°	4467	4395	4276
25°	4284	4191	3930
30°	4061	3930	3540
35°	3845	3632	3275
40°	3627	3310	2979
45°	3419	3060	2693
50°	3165	2840	2401
55°	2928	2575	2152
60°	2682	2299	1927
65°	2361	2015	1706
70°	1945	1762	1451
75°	1547	1352	1414
80°	1041	973	911
85°	642	778	902

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3419 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.2	4.7
10°-20°	115.7	13.0
20°-30°	160.2	18.0
30°-40°	170.8	19.2
40°-50°	155.8	17.5
50°-60°	122.1	13.7
60°-70°	79.5	8.9
70°-80°	35.3	4.0
80°-90°	7.6	0.8
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°	318.0	35.8
0°-40°	488.8	55.0
0°-60°	766.6	86.2
0°-90°	889.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	889.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	453	453	453	453	453	
5°	445	444	444	444	444	42
15°	416	416	412	408	406	117
25°	361	359	353	340	331	166
35°	293	291	276	256	249	183
45°	225	220	201	184	177	173
55°	156	151	137	121	115	140
65°	93	87	79	81	67	91
75°	37	35	32	31	34	40
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	452.8	452.8	452.8	452.8	452.8
2.5°	449.7	449.7	449.7	449.2	449.2
5°	445.0	444.5	444.5	443.9	443.9
7.5°	441.3	440.8	440.3	439.8	438.7
10°	436.1	436.1	435.6	433.0	432.4
12.5°	427.7	427.2	425.1	421.4	420.4
15°	416.2	416.2	412.0	407.8	406.3
17.5°	403.6	403.1	397.9	393.7	391.6
20°	390.0	389.0	383.7	376.9	373.3
22.5°	374.8	374.8	368.6	359.7	356.0
25°	360.7	358.6	352.9	340.3	330.9
27.5°	344.5	341.3	335.1	317.3	306.3
30°	326.7	325.1	316.2	293.2	284.8
32.5°	309.9	307.3	297.9	273.8	267.0
35°	292.6	290.6	276.4	255.5	249.2
37.5°	275.4	272.8	255.0	238.2	230.3
40°	258.1	255.0	235.6	220.4	212.0
42.5°	241.9	237.7	218.8	202.6	193.2
45°	224.6	219.9	201.0	184.3	176.9
47.5°	207.3	203.1	185.8	168.6	160.2
50°	189.0	185.3	169.6	152.3	143.4
52.5°	173.8	168.0	152.9	135.6	128.3
55°	156.0	151.3	137.2	120.9	114.7
57.5°	139.8	135.1	122.0	106.8	101.6
60°	124.6	117.8	106.8	93.7	89.5
62.5°	107.8	102.6	93.2	82.2	87.4
65°	92.7	87.4	79.1	80.6	67.0
67.5°	75.9	73.3	66.0	58.6	56.5
70°	61.8	58.6	56.0	48.2	46.1
72.5°	49.2	46.1	42.4	38.2	36.6
75°	37.2	34.6	32.5	30.9	34.0
77.5°	25.7	24.6	23.0	21.5	20.9
80°	16.8	16.2	15.7	15.2	14.7
82.5°	9.9	9.9	9.9	9.9	9.9
85°	5.2	5.8	6.3	6.8	7.3
87.5°	3.1	3.1	3.7	4.2	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)