

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: P558599

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558599
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-50-UNV-81-87-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 883.0 lumens
Efficiency: N/A
Efficacy: 81.8 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

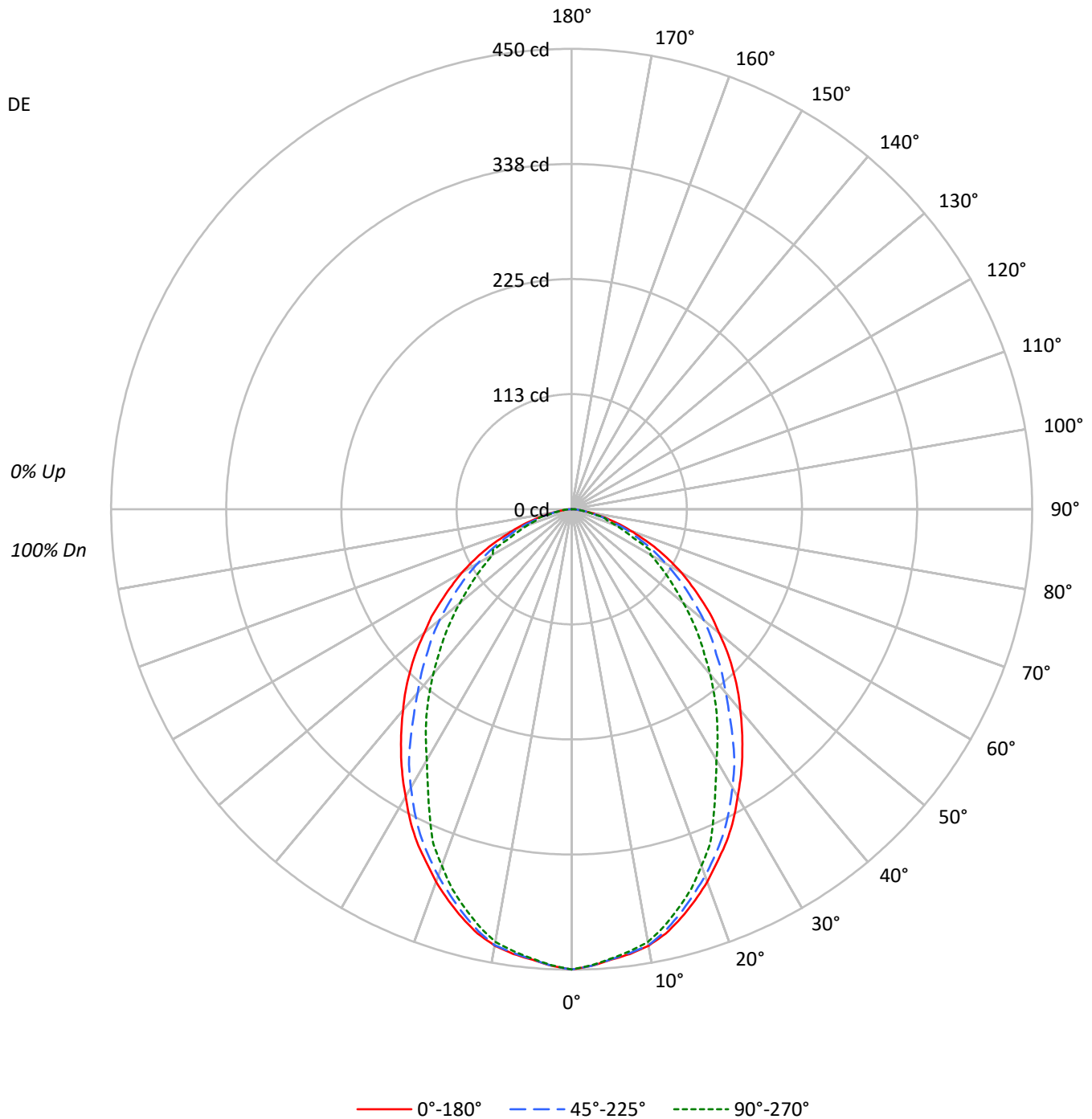
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4842	4842	4842
5°	4776	4770	4764
10°	4734	4728	4694
15°	4607	4560	4496
20°	4438	4367	4247
25°	4255	4163	3903
30°	4033	3904	3516
35°	3820	3608	3252
40°	3603	3288	2959
45°	3396	3040	2676
50°	3143	2822	2386
55°	2909	2556	2137
60°	2665	2284	1914
65°	2343	1999	1696
70°	1932	1750	1441
75°	1535	1339	1406
80°	1029	967	905
85°	642	766	902

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3396 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.9	4.7
10°-20°	114.9	13.0
20°-30°	159.1	18.0
30°-40°	169.6	19.2
40°-50°	154.8	17.5
50°-60°	121.2	13.7
60°-70°	79.0	8.9
70°-80°	35.0	4.0
80°-90°	7.5	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°	315.9	35.8
0°-40°	485.5	55.0
0°-60°	761.5	86.2
0°-90°	883.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	883.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	442	442	442	441	441	42
15°	413	413	409	405	404	116
25°	358	356	350	338	329	164
35°	291	289	275	254	248	182
45°	223	218	200	183	176	172
55°	155	150	136	120	114	139
65°	92	87	78	80	67	91
75°	37	34	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°	449.8	449.8	449.8	449.8	449.8
2.5°	446.7	446.7	446.7	446.1	446.1
5°	442.0	441.5	441.5	440.9	440.9
7.5°	438.3	437.8	437.3	436.8	435.7
10°	433.1	433.1	432.6	430.0	429.5
12.5°	424.8	424.3	422.2	418.6	417.5
15°	413.4	413.4	409.2	405.1	403.5
17.5°	400.9	400.4	395.2	391.0	388.9
20°	387.4	386.4	381.2	374.4	370.8
22.5°	372.3	372.3	366.1	357.2	353.6
25°	358.3	356.2	350.5	338.0	328.6
27.5°	342.2	339.0	332.8	315.1	304.2
30°	324.5	322.9	314.1	291.2	282.9
32.5°	307.8	305.2	295.9	272.0	265.2
35°	290.7	288.6	274.6	253.8	247.5
37.5°	273.5	270.9	253.2	236.6	228.8
40°	256.4	253.2	234.0	218.9	210.6
42.5°	240.2	236.1	217.4	201.2	191.9
45°	223.1	218.4	199.7	183.0	175.8
47.5°	205.9	201.8	184.6	167.4	159.1
50°	187.7	184.1	168.5	151.3	142.5
52.5°	172.6	166.9	151.8	134.7	127.4
55°	155.0	150.3	136.2	120.1	113.9
57.5°	138.8	134.2	121.2	106.1	100.9
60°	123.8	117.0	106.1	93.1	88.9
62.5°	107.1	101.9	92.6	81.6	86.8
65°	92.0	86.8	78.5	80.1	66.6
67.5°	75.4	72.8	65.5	58.2	56.2
70°	61.4	58.2	55.6	47.8	45.8
72.5°	48.9	45.8	42.1	38.0	36.4
75°	36.9	34.3	32.2	30.7	33.8
77.5°	25.5	24.4	22.9	21.3	20.8
80°	16.6	16.1	15.6	15.1	14.6
82.5°	9.9	9.9	9.9	9.9	9.9
85°	5.2	5.7	6.2	6.8	7.3
87.5°	3.1	3.1	3.6	4.2	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)